Arizona

Arizona's Instrument to Measure Standards

2014
Technical Report

Submitted to the
Arizona Department of Education
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ALWAYS LEARNING PEARSON

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FOREWORD

The technical information herein is intended for use by those who evaluate tests, interpret scores, or use test results in making educational decisions. It is assumed that the reader has technical knowledge of test construction and measurement procedures, as stated in *Standards for Educational and Psychological Testing* (American Educational Research Association, American Psychological Association, National Council on Measurement in Education, 1999, 2014).

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PART 1: EXECUTIVE SUMMARY

This document provides information regarding processes and procedures implemented in the Fall 2013 and Spring 2014 Arizona's Instrument to Measure Standards (AIMS) assessments for the development of tests, analysis of data, calibration, scoring, and scaling. This document also describes the results of the Fall 2013 and Spring 2014 AIMS assessments. The technical information in this report is intended for those who evaluate tests, interpret scores, or use test results in making educational decisions.

This document also provides information relevant to the *Standards for Educational and Psychological Testing* (American Education Research Association, American Psychological Association, National Council on Measurement in Education, 1999). The *Standards* were revised in 2014, *Standards for Educational and Psychological Testing* (American Education Research Association, American Psychological Association, National Council on Measurement in Education, 2014). The beginning of each part of this technical report will list the different standards addressed in each edition. Part 1 of the technical report addresses 1999 standards 2.7, 3.2, 3.3, 6.3, 6.4, 6.15, and 13.6, and 2014 standards 4.1, 4.2, 7.0, 7.2, 7.4, and 12.9.

The Fall 2013 AIMS assessments were administered in reading, writing, and mathematics to students in high school who were in Grades 11 and 12 and had not yet obtained a passing score in all three of the content areas. Additionally, students wishing to improve their scores, in any content area, and attain the exceeding category were eligible for this assessment.

The Spring 2014 AIMS tests were designed and developed to provide fair and accurate ability scores that support appropriate, meaningful, and useful educational decisions. In addition to the evidence provided in Part 2 (Involvement of Arizona Educators), additional validity evidence may be found in the following parts as described: Part 3 (Test Design), Part 4 (Test Development), Part 5 (Test Administration), Part 6 (Classical Item Analysis), Part 7 (Calibration, Scaling and Equating), Part 8 (Reliability), and Part 10 (Classification). As the technical report progresses chapter by chapter, it moves through the phases of the testing cycle. Each part of the technical report details the procedures and processes applied in the creation of AIMS, as well as their results. Each part also highlights the meaning and significance of the procedures, processes, and results in terms of content and construct validity and the relationship to the *Standards.*

The Spring 2014 AIMS assessments were administered in reading, writing, and mathematics to students in Grades 3-8 and high school. This was the nineth year that all Grades 3 through 8 and high school were administered AIMS. Students in Grades 3, 5, and 8 have been taking AIMS assessments since the 1999-2000 school year, and students in high school began taking AIMS (Form A) in reading, writing, and mathematics in 1999. The AIMS assessments are designed to measure Arizona students' performance on the Arizona content standards. The AIMS Reading tests are written to Arizona content standards adopted in March 2003. The AIMS writing tests are written to content standards adopted in June 2004. The writing tests in Grades 5, 6, 7 and high school were revised to include multiple-choice items along with a written essay in the Spring 2011 AIMS. New performance standards were set for these writing tests in spring 2011. The AIMS Mathematics tests assess content standards adopted in June 2008. Performance standards were set for the mathematics tests in spring 2010.

The AIMS high school tests in reading, writing, and mathematics are criterion-reference competency tests. Students' test scores on the AIMS high school tests are one component of the high school graduation requirements, and passing scores are required to earn a diploma for students who

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graduated beginning in spring 2006. Students in Grade 10 have five opportunities to pass the test prior to their regularly scheduled graduation date. The AIMS high school tests in reading and mathematics consist of multiple-choice items. The AIMS high school test in writing consists of a set of multiple choice items and a single prompt essay, which is scored using a holistic six-point rubric (see Appendix D).

The AIMS Reading/Language and Mathematics tests for Grades 3-8 are dual purpose assessments—both criterion and norm-referenced scores are given based on performance on the tests. The AIMS Writing tests for Grades 5, 6, and 7 consist of a set of multiple-choice items and a single prompt essay, which is scored using a holistic six-point rubric (Appendix D). Criterion-referenced scores are reported in reading, writing, and mathematics. Norm-referenced scores are reported in reading, language, and mathematics. Each reading, writing, and mathematics test consists of items written by Arizona teachers and items from Pearson's norm-referenced test, the *Stanford Achievement Test* Series, Tenth Edition (Standardization edition copyright © 2002. Final edition copyright © 2003).

Some of the Stanford 10 items contribute to both criterion-referenced and norm-referenced scores. These items all match the Arizona content standards. This design eliminated the need for students to take two separate tests and was first implemented for the 2004-2005 school year. All reading, language, and mathematics tests consist of multiple-choice items only.

The Spring 2014 AIMS assessments were also administered in science to students in Grades 4, 8, and high school. This was the sixth year that Grades 4, 8, and high school were administered science. The AIMS Science tests are criterion-reference competency tests, which consist of multiple-choice items. The science test consists of items written entirely by Arizona teachers.

The AIMS assessments are designed to measure Arizona students' performance on the Arizona content standards. All AIMS Science tests are written to Arizona content standards approved by the State Board on May 24, 2004, and updated on March 10, 2005.

Based on the input of Arizona educators and Arizona's Instrument to Measurement Standards, a design was derived, developed, administered, and scored. The present technical report documents all aspects of the testing cycle in the subsequent chapters. The structure of the present technical report mirrors the testing cycle. A brief content summary of the report is provided below.

Involvement of Arizona Educators

- Part 2 of this report describes the involvement of Arizona educators in test development.
- Several committees met throughout the year in preparation for the 2014 AIMS assessments.

Test Design and Development

- Part 3 of this report describes the test design and the item development process. It provides the content frameworks and the blueprints upon which all of the AIMS tests are based. This section also includes descriptions and the structure of each AIMS test administered in the 2013-2014 academic year.
- Part 4 of this report provides a chronological description of the passage, stimulus, and item development process including modification of specifications, committee passage/stimulus reviews, item content and sensitivity reviews, data analysis and item

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selection committees, and customer and contractor reviews to guarantee a quality, error-free product.

Administration

- Part 5 briefly describes test administration, accommodations, security, and the written procedures available to all test administrations and school personnel.
- The accommodations were available to eligible students while testing on AIMS.
- The same accommodations were available for both Fall 2013 and Spring 2014 AIMS.
- Personnel involved in testing administration were asked to sign a security agreement form certifying that all AIMS tests were administered under secure testing conditions.
- In order to ensure standardized testing administration for all students, a *Test Coordinator Manual* was made available to all test coordinators. Also, *Test Administration Directions* were made available to all test administrators.

Data for Operational Analysis

- Part 6 describes the data used for calibration and scaling of the Spring 2014 AIMS and also presents classical test statistics and item analysis statistics.
- In order to ensure valid calibration and scaling, several data cleaning steps occurred.
- The values for Cronbach's alpha were provided as a measure of internal consistency.

Calibration, Scaling, and Equating

- Part 7 reviews calibration, equating, scoring methods, and calibration results. Evaluation of the calibration results includes model-to-item fit.
- Displacement values and other item characteristics were considered for evaluating anchor items.
- Part 7 also shows the relationships between raw scores and scale score through scoring tables.
- Scaling results including the standard error of measurement are also presented.
- For all content areas, scoring tables were established using students' responses to the Spring 2014 administration.

Test Results

- Part 8 summarizes information about the results of the Spring 2014 administration of AIMS 3-8 and AIMS high school. The test results for different ethnic backgrounds and special program membership status are provided.
- Results for AIMS high school assessments are reported by graduating cohort, viz., for students graduating in years from 2014 to 2016. Students in cohort 2017 are included in the high school science results.
- Scale score frequency distributions with three cut scores are also presented.

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Validity Evidence

- Part 9 reviews the main validity issues discussed in all prior chapters and provides additional validity evidence supporting the AIMS tests.
- For reading, mathematics, and science, Cronbach's alpha was estimated and is provided as a measure of internal consistency, where for writing, inter-rater position consistency and stratified alpha were estimated and are provided.
- An analysis of differential item functioning is presented.
- Correlations among assessments are presented in the context of construct validity.

Classification

- Part 10 provides information regarding classification consistency and accuracy when students were classified into proficiency categories.
- The cut scores used for classifying proficiency categories were determined during standard setting and adopted by the State Board of Education.

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PART 2: INVOLVEMENT OF ARIZONA EDUCATORS AT ALL LEVELS

Part 2 of the technical report addresses the involvement of Arizona educators in test development. This part of the technical report addresses standard 3.5 of the *Standards for Educational and Psychological Testing* (AERA, APA, NCME, 1999), and standard 4.6 in the 2014 edition.

Several committees met throughout the year in preparation for the 2014 AIMS writing, reading, math, and science assessments. These committees included teachers, curriculum specialists, and administrators from across the state and were an integral part of both the AIMS test development processes and AIMS results interpretation.

The 2014 AIMS called for administering one operational test per grade per content area. In order to build the AIMS item bank, multiple field test forms were administered per grade in Science. Committee meetings focused on the selection of all items to be used in Spring 2014.

The test development committee meetings included:

- Data Analysis, conducted in July 2013, in which educators examined the item data generated during the Spring 2013 field test and assigned each item a status code to be included with the item information in the item bank; and
- Item Selection, conducted in July 2013, in which educators chose items matching the test blueprints from the item bank and the pool of approved field tested items administered in Spring 2013 for inclusion in the 2014 assessments.

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PART 3: TEST DESIGN

Part 3 of the technical report provides information regarding test design. The following AERA/APA/NCME standards from the 1999 edition are addressed: 1.2, 1.6, 3.1, 3.2, 3.3, 3.11, 6.4, 6.15, 13.3, and 13.5. The 2014 AERA/APA/NCME standards (AERA, APA, NCME, 2014) addressed by this part of the technical report are 1.1, 1.11, 4.0, 4.1, 4.2, 4.12, 7.0, 7.2, 12.4, and 12.8.

3.1 Content Standards

The AIMS assessments are designed to measure performance on the Arizona content standards adopted in March 2003 for reading, June 2008 for mathematics, June 2004 for writing, and March 2005 for science. These standards are organized by strand, concept, and performance objective. The AIMS Reading and Mathematics test blueprints are based on the concepts and strands of the Arizona content standards, presented in figures 3.1.1-3.1.2. The AIMS writing tests were revised in spring 2011 to include multiple-choice items and a writing prompt. The writing tests address the six concepts that are incorporated in Strand 2 of the Writing Standard. Figure 3.1.3 presents the statement of the six concepts in Strand 2.The AIMS Science test blueprints are based on the concepts and strands of the Arizona content standards, presented in figures 3.1.4 through 3.1.6.

Figure 3.1.1
Arizona Reading Concepts and Strands

Strand 1: Reading Process

- **Concept 1: Print Concepts**
- **Concept 3: Phonics**
- **Concept 4: Vocabulary**
- **Concept 6: Comprehension Strategies**

Strand 2: Comprehending Literary Text

- **Concept 1: Elements of Literature**
- **Concept 2: Historical and Cultural Aspects**

Strand 3: Comprehending Informational Text

- **Concept 1: Expository Text**
- **Concept 2: Functional Text**
- **Concept 3: Persuasive Text**

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Figure 3.1.2
Arizona Mathematics Concepts and Strands

Strand 1: Number and Operations

- **Concept 1: Number Sense**
- **Concept 2: Numerical Operations**
- **Concept 3: Estimation**

Strand 2: Data Analysis, Probability and Discrete Math

- **Concept 1: Data Analysis (Statistics)**
- **Concept 2: Probability**
- **Concept 3: Systematic Listing and Counting**
- **Concept 4: Vertex-Edge Graphs**

Strand 3: Patterns, Algebra and Functions

- **Concept 1: Patterns**
- **Concept 2: Functions and Relationships**
- **Concept 3: Algebraic Representations**
- **Concept 4: Analysis of Change**

Strand 4: Geometry and Measurement

- **Concept 1: Geometric Properties**
- **Concept 2: Transformation of Shapes**
- **Concept 3: Coordinate Geometry**
- **Concept 4: Measurement**

Strand 5: Structure and Logic

- **Concept 1: Algorithms and Algorithmic Thinking**
- **Concept 2: Logic, Reasoning, Problem Solving and Proof**

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Figure 3.1.3
Arizona Writing Concepts in Strand 2

Trait 1: Ideas and Content
Trait 2: Organization
Trait 3: Voice
Trait 4: Word Choice
Trait 5: Sentence Fluency
Trait 6: Conventions

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Figure 3.1.4
Arizona Science Concepts and Strands – Grade 4

Strand 1: Inquiry Process
- **Concept 1: Observations, Questions, and Hypotheses**
- **Concept 2: Scientific Testing (Investigating and Modeling)**
- **Concept 3: Analysis and Conclusions**
- **Concept 4: Communication**

Strand 2: History and Nature of Science
- **Concept 1: History of Science as a Human Endeavor**
- **Concept 2: Nature of Scientific Knowledge**

Strand 3: Science in Personal and Social Perspectives
- **Concept 1: Changes in Environments**
- **Concept 2: Science and Technology in Society**

Strand 4: Life Science
- **Concept 1: Characteristics of Organisms**
- **Concept 2: Life Cycles**
- **Concept 3: Organisms and Environments**
- **Concept 4: Diversity, Adaptation, and Behavior**

Strand 5: Physical Science
- **Concept 1: Properties of Objects and Materials**
- **Concept 2: Position and Motion of Objects**
- **Concept 3: Energy and Magnetism**

Strand 6: Earth and Space Science
- **Concept 1: Properties of Earth Materials**
- **Concept 2: Earth's Processes and Systems**
- **Concept 3: Changes in the Earth and Sky**

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Figure 3.1.5
Arizona Science Concepts and Strands – Grade 8

Strand 1: Inquiry Process
- **Concept 1: Observations, Questions, and Hypotheses**
- **Concept 2: Scientific Testing (Investigating and Modeling)**
- **Concept 3: Analysis and Conclusions**
- **Concept 4: Communication**

Strand 2: History and Nature of Science
- **Concept 1: History of Science as a Human Endeavor**
- **Concept 2: Nature of Scientific Knowledge**

Strand 3: Science in Personal and Social Perspectives
- **Concept 1: Changes in Environments**
- **Concept 2: Science and Technology in Society**

Strand 4: Life Science
- **Concept 1: Structure and Function in Living Systems**
- **Concept 2: Reproduction and Heredity**
- **Concept 3: Populations of Organisms in an Ecosystem**
- **Concept 4: Diversity, Adaptation, and Behavior**

Strand 5: Physical Science
- **Concept 1: Properties and Changes of Properties in Matter**
- **Concept 2: Motion and Forces**
- **Concept 3: Transfer of Energy**

Strand 6: Earth and Space Science
- **Concept 1: Structure of the Earth**
- **Concept 2: Earth's Processes and Systems**
- **Concept 3: Earth in the Solar System**

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Figure 3.1.6
Arizona Science Concepts and Strands – High School

Strand 1: Inquiry Process

- **Concept 1: Observations, Questions, and Hypotheses**
- **Concept 2: Scientific Testing (Investigating and Modeling)**
- **Concept 3: Analysis, Conclusions, and Refinements**
- **Concept 4: Communication**

Strand 2: History and Nature of Science

- **Concept 1: History of Science as a Human Endeavor**
- **Concept 2: Nature of Scientific Knowledge**

Strand 3: Science in Personal and Social Perspectives

- **Concept 1: Changes in Environments**
- **Concept 2: Science and Technology in Society**
- **Concept 3: Human Population Characteristics**

Strand 4: Life Science

- **Concept 1: The Cell**
- **Concept 2: Molecular Basis of Heredity**
- **Concept 3: Interdependence of Organisms**
- **Concept 4: Biological Evolution**
- **Concept 5: Matter, Energy, and Organization in Living Systems (Including Human Systems)**

Strand 5: Physical Science

- **Concept 1: Structure and Properties of Matter**
- **Concept 2: Motions and Forces**
- **Concept 3: Conservation of Energy and Increase in Disorder**
- **Concept 4: Chemical Reactions**
- **Concept 5: Interactions of Energy and Matter**

Strand 6: Earth and Space Science

- **Concept 1: Geochemical Cycles**
- **Concept 2: Energy in the Earth System (Both Internal and External)**
- **Concept 3: Origin and Evolution of the Earth System**
- **Concept 4: Origin and Evolution of the Universe**

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3.2 Test Blueprints

A test blueprint designates the percentage of items that should measure each strand and concept. All AIMS assessments were designed in accordance with the following blueprints. Further discussion of item selection to match the blueprints is included in Part 4 of this report.

Table 3.2.1
AIMS Blueprint for Reading

AIMS Reading Blueprint (beginning Spring 2005)

Grade	3	Strand 1						Strand 2		Strand 3		
		Concept 1	Concept 2	Concept 3	Concept 4	Concept 5	Concept 6	Concept 1	Concept 2	Concept 1	Concept 2	Concept 3
	% of test	7%	0%	9%	11%	0%	17%	22%	0%	11%	11%	11%
	% of strand on test	44%						22%		33%		

Grade	4	Strand 1						Strand 2		Strand 3		
		Concept 1	Concept 2	Concept 3	Concept 4	Concept 5	Concept 6	Concept 1	Concept 2	Concept 1	Concept 2	Concept 3
	% of test	0%	0%	0%	7%	0%	15%	31%	0%	24%	11%	11%
	% of strand on test	22%						31%		46%		

Grade	5	Strand 1						Strand 2		Strand 3		
		Concept 1	Concept 2	Concept 3	Concept 4	Concept 5	Concept 6	Concept 1	Concept 2	Concept 1	Concept 2	Concept 3
	% of test	0%	0%	0%	11%	0%	11%	31%	0%	24%	11%	11%
	% of strand on test	22%						31%		46%		

Grade	6	Strand 1						Strand 2		Strand 3		
		Concept 1	Concept 2	Concept 3	Concept 4	Concept 5	Concept 6	Concept 1	Concept 2	Concept 1	Concept 2	Concept 3
	% of test	0%	0%	0%	11%	0%	11%	31%	0%	24%	11%	11%
	% of strand on test	23%						31%		46%		

Grade	7	Strand 1						Strand 2		Strand 3		
		Concept 1	Concept 2	Concept 3	Concept 4	Concept 5	Concept 6	Concept 1	Concept 2	Concept 1	Concept 2	Concept 3
	% of test	0%	0%	0%	11%	0%	11%	24%	7%	22%	13%	11%
	% of strand on test	22%						31%		46%		

Grade	8	Strand 1						Strand 2		Strand 3		
		Concept 1	Concept 2	Concept 3	Concept 4	Concept 5	Concept 6	Concept 1	Concept 2	Concept 1	Concept 2	Concept 3
	% of test	0%	0%	0%	7%	0%	9%	26%	7%	24%	15%	11%
	% of strand on test	17%						33%		50%		

Grade	HS	Strand 1						Strand 2		Strand 3		
		Concept 1	Concept 2	Concept 3	Concept 4	Concept 5	Concept 6	Concept 1	Concept 2	Concept 1	Concept 2	Concept 3
	% of test	0%	0%	0%	7%	0%	7%	26%	7%	22%	15%	15%
	% of strand on test	15%						33%		52%		

Source: http://www.azed.gov/assessment/files/2014/06/reading-blueprint-1-10-06.pdf

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Table 3.2.2
AIMS Blueprint for Mathematics

AIMS Mathematics Blueprints (beginning with the 2010 Assessments)

Strand/Concept	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	HS
1. Number and Operations	**42%**	**40%**	**37%**	**34%**	**25%**	**18%**	**6%**
1.1 Number Sense	17%	16%	16%	13%	7%	6%	6%
1.2 Numerical Operations	20%	18%	15%	15%	12%	6%	
1.3 Estimation	6%	6%	6%	6%	6%	6%	
2. Data Analysis/Prob/Discrete	**12%**	**12%**	**18%**	**18%**	**19%**	**18%**	**14%**
2.1 Data Analysis (Statistics)	6%	6%	6%	6%	6%	6%	5%
2.2 Probability	0%	5%	6%	6%	7%	6%	5%
2.3 Systematic Listing and Counting	6%		6%	6%	6%	5%	5%
2.4 Vertex-Edge Graphs							
3. Patterns/Algebra/Functions	**17%**	**18%**	**16%**	**16%**	**19%**	**26%**	**33%**
3.1 Patterns	6%	7%	6%	6%	6%	9%	5%
3.2 Functions and Relationships	11%	0%	0%				7%
3.3 Algebraic Representations		10%	10%	10%	13%	12%	16%
3.4 Analysis of Change	0%					6%	5%
4. Geometry and Measurement	**18%**	**19%**	**15%**	**19%**	**22%**	**24%**	**33%**
4.1 Geometric Properties	9%	7%	7%	6%	13%	6%	13%
4.2 Transformation of Shapes		0%	0%			6%	5%
4.3 Coordinate Geometry	0%	6%	0%	6%	0%	6%	8%
4.4 Measurement	9%	6%	7%	7%	9%	6%	7%
5. Structure and Logic	**11%**	**12%**	**13%**	**13%**	**15%**	**15%**	**14%**
5.1 Algorithms and Algorithmic Thinking 5.2 Logic, Reasoning, Prob Solving, & Proof	11%	12%	13%	13%	15%	15%	14%

The **0%** indicates the lack of the Concept and Performance Objectives in the Mathematics Standard for the specified grade level. 11-21-2008

Source: http://www.azed.gov/assessment/files/2014/06/aims-mathematics-blueprint-beginning-2010-updated-5-5-11.pdf

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Table 3.2.3
AIMS Blueprint for Science Grade 4

AIMS Science
Grade 4 Test Blueprint

Strand/Concept	% of Test	# of Items
Strand 1: Inquiry Process	**33.3%**	
Concept 1: Observations, Questions, and Hypotheses	11.1%	6
Concept 2: Scientific Testing (Investigating and Modeling)	11.1%	6
Concept 3: Analysis and Conclusions	11.1%	6
Concept 4: Communications		
Strand 2: History and Nature of Science	**11.1%**	
Concept 1: History of Science as a Human Endeavor	11.1%	6
Concept 2: Nature of Scientific Knowledge		
Strand 3: Science in Personal and Social Perspectives	**11.1%**	
Concept 1: Changes in Environments	11.1%	6
Concept 2: Science and Technology in Society		
Strand 4: Life Science	**11.1%**	
Concept 1: Characteristics of Organisms	11.1%	6
Concept 3: Organisms and Environments		
Concept 4: Diversity, Adaptations, and Behavior		
Strand 5: Physical Science	**11.1%**	
Concept 3: Energy and Magnetism	11.1%	6
Strand 6: Earth and Space Science	**22.2%**	
Concept 2: Earth's Processes and Systems	11.1%	6
Concept 3: Changes in the Earth and Sky	11.1%	6
According to the Science Standard, the following Strands and Concepts do not have Performance Objectives for Grade 4: **Strand 4: Life Science, Concept 2** (Life Cycles); **Strand 5: Physical Science, Concept 1** (Properties of Objects and Materials) and **Concept 2** (Position and Motion of Objects); **Strand 6: Earth and Space Science, Concept 1** (Properties of Earth Materials).		54

Source: http://www.azed.gov/assessment/files/2014/06/science-blueprint-with-item-counts-11-10-09.pdf

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Table 3.2.4
AIMS Blueprint for Science Grade 8

AIMS Science
Grade 8 Test Blueprint

Strand/Concept	% of Test	# of Items
Strand 1: Inquiry Process	**34.5%**	
Concept 1: Observations, Questions, and Hypotheses	10.3%	6
Concept 2: Scientific Testing (Investigating and Modeling)	6.9%	4
Concept 3: Analysis and Conclusions	10.3%	6
Concept 4: Communications	6.9%	4
Strand 2: History and Nature of Science	**10.3%**	
Concept 1: History of Science as a Human Endeavor	10.3%	6
Concept 2: Nature of Scientific Knowledge		
Strand 3: Science in Personal and Social Perspectives	**10.3%**	
Concept 1: Changes in Environments	10.3%	6
Concept 2: Science and Technology in Society		
Strand 4: Life Science	**13.8%**	
Concept 2: Reproduction and Heredity	13.8%	8
Concept 4: Diversity, Adaptations, and Behavior		
Strand 5: Physical Science	**31.0%**	
Concept 1: Properties and Changes of Properties in Matter	17.2%	10
Concept 2: Motion and Forces	13.8%	8
According to the Science Standard, the following Strands and Concepts do not have Performance Objectives for Grade 8: **Strand 4: Life Science, Concept 1** (Structure and Function in Living Organisms) and **Concept 3** (Populations of Organisms in an Ecosystem); **Strand 5: Physical Science, Concept 3** (Transfer of Energy).		58

Source: http://www.azed.gov/assessment/files/2014/06/science-blueprint-with-item-counts-11-10-09.pdf

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Table 3.2.5
AIMS Blueprint for Science High School

AIMS Science
High School Test Blueprint

Strand/Concept	% of Test	# of Items
Strand 1: Inquiry Process	**33.8%**	
Concept 1: Observations, Questions, and Hypotheses	9.2%	6
Concept 2: Scientific Testing (Investigating and Modeling)	9.2%	6
Concept 3: Analysis, Conclusions, and Refinements	9.2%	6
Concept 4: Communications	6.2%	4
Strand 2: History and Nature of Science	**9.2%**	
Concept 1: History of Science as a Human Endeavor	9.2%	6
Concept 2: Nature of Scientific Knowledge		
Strand 3: Science in Personal and Social Perspectives	**10.8%**	
Concept 1: Changes in Environments	10.8%	7
Concept 2: Science and Technology in Society		
Concept 3: Human Population Characteristics		
Strand 4: Life Science	**46.2%**	
Concept 1: The Cell	9.2%	6
Concept 2: Molecular Basis of Heredity	9.2%	6
Concept 3: Interdependence of Organisms	9.2%	6
Concept 4: Biological Evolution	9.2%	6
Concept 5: Matter, Energy, and Organization in Living Systems (Including Human Systems)	9.2%	6
		65

Source: http://www.azed.gov/assessment/files/2014/06/science-blueprint-with-item-counts-11-10-09.pdf

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Table 3.2.6
AIMS Blueprint for Writing

AIMS Writing Blueprint May 2010

Strand 2, Concepts 1-6

Grade	3		4		5		6		7		8		10	
Concepts	% MC Items	% of Score	% MC Items	% of Score	% MC Items	% of Score	% MC Items	% of Score	% MC Items	% of Score	% MC Items	% of Score	% MC Items	% of Score
1. Ideas and Content 2. Organization	33%	13%	33%	13%	33%	13%	41%	16%	41%	16%	44%	18%	44%	18%
3. Voice 4. Word Choice 5. Sentence Fluency	22%	9%	22%	9%	22%	9%	26%	10%	26%	10%	33%	13%	33%	13%
6. Conventions	44%	18%	44%	18%	44%	18%	33%	13%	33%	13%	22%	9%	22%	9%
Total Multiple Choice	100%	40%	100%	40%	100%	40%	100%	40%	100%	40%	100%	40%	100%	40%
Extended Response		60%		60%		60%		60%		60%		60%		60%
Totals		100%		100%		100%		100%		100%		100%		100%

AIMS Writing in Grades 3, 4, and 8 has been temporarily suspended.

The Blueprint was proposed on May 29, 2009 and revised on May 19, 2010.

Source: http://www.azed.gov/assessment/files/2014/06/writing-blueprint-5-19-10.pdf

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3.3 Description of 2014 AIMS Tests

The test blueprints were used with the processes described in detail in Part 4 to develop all AIMS tests administered in 2014. The resulting test configurations are as follows.

3.3.1 High School Reading (Criterion-referenced only)

The AIMS Criterion-Referenced Test (CRT) of high school reading test consisted of 54 multiple-choice items developed by Arizona teachers. The raw scores ranged from 0-54, and scale scores were designed to range from 500 to 900. All items on the high school reading test reported to a criterion-referenced score. No norm-referenced items were included on the high school reading test. Ten reading field test items were embedded with the operational items to form a total of 64 reading test items.

3.3.2 High School Writing (Criterion-referenced only)

The AIMS CRT high school writing test form consisted of one extended response writing prompt and 27 multiple-choice items. The multiple-choice component is weighted 40% and the essay response is weighted 60% in the total score. Responses to the prompt were scored on the holistic six-point rubric (see appendix D). Each essay response received two ratings. Final scores for responses with adjacent ratings were derived by averaging the two ratings. Final scores for responses with discrepant ratings (difference of 2 points) were resolved by a third rater. The raw scores ranged from 0-138, and scale scores were designed to range from 300-700. There were two forms of the high school writing test, A and T. Form T was used as a make-up form administered one week after the administration of Form A. No norm-referenced items were included on the high school writing tests. Five field test items were embedded with the operational items to form a total of 32 multiple-choice items and one prompt.

3.3.3 High School Mathematics (Criterion-referenced only)

The AIMS CRT high school mathematics test form consisted of 85 multiple-choice items developed by Arizona teachers. The raw scores ranged from 0-85, and scale scores were designed to range from 300 to 700. All items on the high school mathematics test reported to a criterion-referenced score. New performance standards were set in spring 2010. No norm-referenced items were included in the high school mathematics test. Fifteen field test items were embedded with the operational items to form a total of 100 test items.

3.3.4 Grades 3, 4, and 8 Reading and Language (Dual Purpose Assessment)

The AIMS reading tests for Grades 3, 4, and 8 consisted of both a criterion-referenced and a norm-referenced component. Some items contributed to the CRT component only, some items contributed to the NRT component only, and some items contributed to both CRT and NRT components. NRT language items were embedded in the reading tests. The language items contributed only to the NRT component. No NRT items were used as anchor items for AIMS.

The AIMS CRT reading tests for Grades 3 and 4 consisted of 39 items developed by Arizona teachers and 15 Stanford 10 items that map to the Arizona content standards, for a total of 54 items. The AIMS CRT reading test for Grade 8 consisted of 40 items developed by Arizona teachers and 14 Stanford 10 items that map to the Arizona content standards, for a total of 54 items. The raw scores on all tests ranged from 0-54. Ten reading field test items written to the Arizona standards were embedded with the operational items. Detailed test structure information can be found in Table 3.3.4.1. Scale score ranges are presented in Table 3.3.4.2. Scaling of AIMS CRT reading is discussed in Part 7 of this technical report.

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The left hand side of Table 3.3.4.1 presents the number of items that contributed to the AIMS reading CRT component, the AIMS reading NRT component, and the AIMS language NRT component for each grade. The number of Stanford 10 reading items that contributed to both AIMS reading CRT and AIMS reading NRT component is also reported. The total number of test items on the test is the composite of the number of field test items, CRT items, NRT reading, and NRT language items. The right hand side of Table 3.3.4.1 presents the number of anchor items used in the annual equating for each grade.

The AIMS NRT reading tests for Grades 3-8 consisted of 25 Stanford 10 reading items from Stanford 10 Form B. The AIMS NRT reading tests closely approximated the test blueprint and statistical criteria of Stanford 10. The Stanford 10 reading items were embedded within the AIMS 3-8 reading test. Scale scores are reported on the Stanford 10 reading NRT scale. Norms are reported using the 2007 Stanford 10 spring norms.

The AIMS NRT language tests for Grades 3-8 consisted of 20 Stanford 10 language items from Stanford 10 Form B. The AIMS NRT language tests closely approximated the test blueprint and statistical criteria of Stanford 10. The Stanford 10 language items were embedded within the AIMS 3-8 reading test. Scale scores are reported on the Stanford 10 language NRT scale. Norms are reported using the 2007 Stanford 10 spring norms.

Table 3.3.4.1
Spring 2014 AIMS Test Structure Reading and Language

Grade	RD FT	RD CRT only	RD NRT /CRT	RD NRT only	RD CRT TOTAL (CRT + NRT/CRT)	LA FT	LA CRT only	LA NRT /CRT	LA NRT only	LA CRT TOTAL (CRT + NRT/CRT)	TOTAL ITEMS ON TEST	RD Anchor (Common CRT: Spring 2013 -2014)	**LA Anchor (Common CRT: Spring 2013 -2014)
3	10	39	15	10	54	N/A	N/A	N/A	20	N/A	94	13	N/A
4	10	39	15	10	54	N/A	N/A	N/A	20	N/A	94	14	N/A
5	5	39	15	10	54	5	18	9	11	27	112	13	8
6	5	39	15	10	54	5	18	9	11	27	112	14	9
7	5	40	14	11	54	5	18	9	11	27	113	12	8
8	10	40	14	11	54	N/A	N/A	N/A	20	N/A	95	12	N/A
HS	10	54	N/A	N/A	54	5	27	N/A	N/A	27	*	13	9

*The high school reading and writing tests are administered separately. The writing test contains 32 multiple-choice items and 1 prompt for 33 total items.

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Table 3.3.4.2
Raw Score and Scale Score ranges of 2014 AIMS CRT Assessments

Content	Grade	Raw Score Range	Scale Score range
Reading	3	0-54	200-640
	4	0-54	220-660
	5	0-54	240-675
	6	0-54	250-690
	7	0-54	260-720
	8	0-54	270-800
	HS*	0-54	500-900
Writing	5	0-69	300-700
	6	0-69	300-700
	7	0-69	300-700
	HS*	0-138	300-700
Mathematics	3	0-66	100-540
	4	0-68	120-560
	5	0-67	140-580
	6	0-68	160-600
	7	0-68	180-620
	8	0-68	200-640
	HS*	0-85	300-700
Science	4	0-54	200-800
	8	0-58	200-800
	HS	0-65	200-800

*HS tests are not on the same scale as G3-8 tests. Scale scores are therefore not comparable between the HS and G3-8 tests. See Part 7 for information regarding the scaling of the AIMS assessment.

3.3.5 Grades 5, 6, and 7 Reading and Writing (Dual Purpose Assessment)

The AIMS reading and writing tests for Grades 5, 6, and 7 are combined into a single test administered over three sessions. They consisted of both a criterion-referenced and a norm-referenced component. Some items contributed to the CRT component only, some items contributed to the NRT component only, and some items contributed to both CRT and NRT components. No NRT items were used as anchor items for AIMS.

The AIMS CRT reading tests for Grades 5 and 6 consisted of 39 items developed by Arizona teachers and 15 Stanford 10 that map to the Arizona content standards, for a total of 54 items. The AIMS CRT reading test for Grade 7 consisted of 40 items developed by Arizona teachers and 14 Stanford 10 items that map to the Arizona content standards, for a total of 54 items. The raw scores on all tests ranged from 0-54. Five reading field test items written to the Arizona standards were embedded with the operational items. Detailed test structure information can be found in Table 3.3.4.1. Scale score ranges are presented in Table 3.3.4.2. Scaling of AIMS CRT reading is discussed in Part 7 of this technical report.

The AIMS CRT writing tests for Grades 5, 6, and 7 consisted of 18 items developed by Arizona teachers and 9 Stanford 10 that map to the Arizona content standards, for a total of 27 items. Five writing field test items written to the Arizona standards were embedded with the operational items. Detailed test structure information can be found in Table 3.3.4.1.

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The writing tests also contain one extended response writing prompt. Responses to the prompt were scored on the six-point holistic rubric. Each response received one rating with a 10% read behind as a check for consistency. The multiple-choice component was weighted 40% and the extended response component was weighted 60%. The raw scores ranged from 0-69. Scale score ranges are presented in Table 3.3.4.2. Scaling of AIMS CRT writing is discussed in Part 7 of this technical report.

3.3.6 Grades 3-8 Mathematics (Dual Purpose Assessment)

The AIMS Mathematics tests for Grades 3-8 consisted of both a criterion-referenced and norm-referenced component to allow for both criterion-referenced and norm-referenced scores. Some items contributed to CRT scores only, some items contributed to NRT scores only, and some items contributed to both CRT and NRT scores. No NRT items were used as anchor items for AIMS.

The AIMS CRT mathematics tests for Grade 3 consisted of 51 items developed by Arizona teachers and 15 Stanford 10 items that map to the Arizona content standards, for a total of 66 items. The AIMS CRT mathematics tests for Grade 5 consisted of 52 items developed by Arizona teachers and 15 Stanford 10 items that map to the Arizona content standards, for a total of 67 items. The AIMS CRT mathematics tests for Grades 4 and 6 through 8 consisted of 53 items developed by Arizona teachers and 15 Stanford 10 items that map to the Arizona content standards, for a total of 68 items. Ten field test items written to the Arizona standards were embedded with the operational items. Detailed test structure information can be found in Table 3.3.6.1. The raw score and scale score ranges are presented in Table 3.3.4.2. New performance standards were set for the tests in 2010. Scaling of AIMS CRT mathematics is discussed in Part 7 of this technical report.

The left hand side of Table 3.3.6.1 presents the break down of the number of items that contributed to the AIMS mathematics CRT and the AIMS mathematics NRT component for each grade. The number of Stanford 10 mathematics items that contributed to both components is also reported. The total number of test items on the test is the composite of the number of field test items, the number of CRT items, and the number of NRT items. The right hand side of Table 3.3.6.1 presents the number of anchor items used in the annual equating for each grade.

The AIMS NRT mathematics tests for Grades 3-8 consisted of 25 Stanford 10 mathematics items from Stanford 10 Form B. The AIMS NRT mathematics tests closely approximated the test blueprint and statistical criteria of Stanford 10. Scale scores are reported on the Stanford 10 mathematics NRT scale. Norms are reported using the 2007 Stanford 10 spring norms.

Items on the AIMS 3-8 reading, writing, and mathematics tests that reported to a criterion-referenced score were either developed by Arizona teachers or were Stanford 10 items that matched the Arizona content standards. No norm-referenced only reading, writing, or mathematics items reported to the AIMS 3-8 criterion-referenced scores.

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Table 3.3.6.1
Spring 2014 AIMS Test Structure Mathematics

Grade	MA FT	MA CRT only	MA NRT /CRT	MA NRT only	MA CRT TOTAL (CRT + NRT/CRT)	MA NRT TOTAL	TOTAL ITEMS ON TEST	Anchor (Common CRT: Spring 2013 - 2014)
3	10	51	15	10	66	25	86	14
4	10	53	15	10	68	25	88	15
5	10	52	15	10	67	25	87	15
6	10	53	15	10	68	25	88	15
7	10	53	15	10	68	25	88	16
8	10	53	15	10	68	25	88	16
HS	15	85	N/A	N/A	85	N/A	100	22

*High School mathematics had a total of 60 field test items; Grades 3-8 math each had 40.

3.3.7 Grades 4, 8, and High School Science (Criterion-referenced only)

The 2014 AIMS CRT science tests consisted of one operational form with 54 multiple-choice items on the Grade 4 test, 58 multiple-choice items on the Grade 8 test, and 65 multiple-choice items on the high school test. All multiple-choice items were developed by Arizona teachers. Ten field test items written to the Arizona standards were embedded with the operational items at each grade level. The scale scores for each test range from 200 to 800 and all items on each test reported to a criterion-referenced score. No norm-referenced items were included on any of the science tests. Table 3.3.10.1 displays the structure of the science tests.

Table 3.3.10.1
Spring 2014 AIMS Test Structure Science

Grade	SC FT	SC CRT only	SC NRT /CRT	SC NRT only	SC CRT TOTAL (CRT + NRT/CRT)	SC NRT TOTAL	TOTAL ITEMS ON TEST	Anchor (Common CRT: Spring 2013 - 2014)
4	10	54	N/A	N/A	54	N/A	64	19
8	10	58	N/A	N/A	58	N/A	68	24
HS	10	65	N/A	N/A	65	N/A	75	20

*Grades 4, 8, and HS science each had a total of 20 field test items.

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PART 4: TEST DEVELOPMENT

Part 4 of the technical report provides a summary of the test development activities that occurred during the 2013-2014 contract year. Information is provided relating to the following topics as they pertain to AIMS:

- a discussion of the AIMS test development and editing process;
- a description of the use of previously created AIMS item specifications;
- a description of the AIMS item editing procedures;
- a description of content and bias/sensitivity review procedures for AIMS items;
- a description of the data analysis committee procedures;
- a description of the AIMS item selection committee meetings; and
- a description of the NRT alignment committee.

A comprehensive, multi-segment development process guides the development of assessment materials. The following section outlines this process in general terms. The remainder of Part 4 provides details of how these processes were implemented in Arizona. This section of the technical report addresses the following AERA/APA/NCME standards from the 1999 edition: 1.6, 3.1, 3.5, 3.6, 3.7, 3.9, 3.11, 3.16, 6.4, 6.15, 7.3, 7.4, 7.7, 13.3, and 13.5, and Standards 1.11, 3.2, 3.6, 4.0, 4.6, 4.7, 4.8, 4.10, 4.12, 7.0, 7.2, 12.4, 12.8 in the new edition of *Standards for Educational and Psychological Testing* (AERA, APA, NCME, 2014).

4.1 AIMS Test Development and Editing Process

4.1.1 Test Development Process

Test development for the 2014 test administration began with the Planning Meeting held in Phoenix January16-18, 2013. During this meeting, the project deliverables were defined, such as number of forms, answer documents, test administration manuals, test coordinator manuals, test interpretation guides, and materials to support special accommodations, including Braille and large print books. The actual test form design was unchanged from the previous year. The ancillary materials were modified and all modifications were discussed and shared among all team members to ensure understanding.

4.1.2 Documents and Materials Development

Following definition of project deliverables, Pearson's entire test development team reviewed the blueprints, item specifications, and the *ADE Style Guide* to ensure that the 2014 assessment would meet all of the required, previously-developed criteria.

4.1.3 Item Writing for Science

The development of AIMS Science assessments for 2014 involved Pearson and ADE collaborating in an effort to ensure that the revised items closely matched the Arizona Content Standards and the item specifications. Test items from the item bank were revised by ADE and were reviewed and edited Pearson content specialists. Once the items were approved by ADE, they were reviewed by copy editors and art specialists. Items were then prepared for review by a committee of

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Arizona teachers at the Content and Bias Review meetings held on on July 9, 2013. After passing these committees, the items were prepared for incorporation into the field test portion of the operational 2014 AIMS assessments.

4.1.4 Quality Reviews

ADE and Pearson personnel implemented a series of quality review checks at various stages of production to ensure all AIMS materials were error free.

ADE first reviewed each component at a relatively early stage of forms production. Items were compared to the way they were presented to the content/bias review committee to be sure no unauthorized changes had been introduced. Answer keys were checked. All changes were approved in writing by ADE.

A smooth AIMS test administration requires that all test materials, including test books, answer documents, and directions to students and test coordinators align with each other. Therefore, Pearson and ADE conducted a review of all materials as the second quality check. A side benefit of this review was the detection of possible revisions required on any unclear field test items.

Prior to creation of proofs (blueline stage), Pearson performed a Final Forms review. The purpose of the Final Forms review was to ensure that all publishable products met ADE's high quality standards and expectations.

After Pearson conducted their Final Forms review, all test forms were again submitted to ADE for review. All final forms and documents were reviewed and approved by ADE content specialists.

4.2 Pool of Items Used for Test Construction

4.2.1 Item Specifications

The item specifications were developed by Pearson and ADE in May 2009. The item specifications provide a definition of what is tested by each Performance Objective (PO) and, where needed, provide clarification of the PO statements, the content limits, and the stimulus and response attribute descriptions. Taken together, these help to inform instruction by explaining in detail what each PO means at each grade level and by describing how each PO is to be tested.

4.2.2 Item Content and Bias Review

Content and Bias Reviews for revised science items were conducted by Arizona educators and facilitated by contractor staff in July 2013.

The purposes of the Content Review were to verify the accuracy, difficulty range, depth of knowledge, and grade-appropriateness of potential test items and to verify their alignment to the intended Performance Objective (PO). The purposes of the Bias Review were to verify the items were free of stereotypes or other sources of bias and to confirm that they reflected community standards. Content and Bias Reviews were conducted separately for each item; however, each item earned just one combined rating: *Accept as Is*, *Accept with Revisions*, or *Reject*. Participants were selected on the basis of their ability to represent their grade level and to assure ethnic, racial, and gender representation. At the conclusion of the reviews, participants selected the passages and items that would be field tested in Spring 2014.

During general sessions, participants received training in what to check during their Content Review, which included ensuring that the content of each item:

- was targeted to assess only one PO (unless specifications indicate otherwise);
- dealt with material that was important in testing the targeted PO;

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- used grade-appropriate content;
- used appropriate thinking skills (application, analysis, conclusions, extending);
- was presented at a reading level suitable for the grade level being tested;
- was accurate and documented against reliable, up-to-date sources;
- had a stem that facilitated answering the question or completing the statement without looking at the answer choices;
- had a stem that did not present clues to the correct answer choice;
- had answer choices that were plausible and attractive to the student who had not mastered the objective or skill;
- was conceptually, grammatically, and syntactically consistent—between the stem and answer choices, and among the answer choices;
- had mutually exclusive distractors; and
- had one and only one correct answer choice.

During the general session, participants received training in what to check during their Bias Review, which included ensuring that each item:

- was free of offensive, disturbing, or inappropriate language or content;
- was free of stereotyping based on gender, race, ethnicity, religion, socioeconomic status, age, regional or geographic area, disability, and occupation;
- demonstrated sensitivity to historical representation of groups; and
- was free of differential familiarity for any group based on language, socioeconomic status, regional or geographic area, and prior knowledge or experiences unrelated to the subject matter being tested.

Participants were also asked to ensure that the content of each item was free of explicit references to or descriptions of events involving extreme sadness or adversity, acts of physical or psychological violence, alcohol or drug abuse, vulgar language, or sex.

Throughout the Bias Review, participants were asked to ensure that more than one point of view was expressed when any religious, political, social, or philosophical issues were addressed; beliefs or biases did not interfere with factual accuracy; contemporary issues that had already been proven to be controversial were absent; and stereotypic descriptions of beliefs or customs were absent.

During the reviews, participants were frequently encouraged to discuss each item and to make revisions that would bring the item into compliance with the above conditions. As they worked, participants were asked to consider the items two separate ways – once for content and once for bias. Considering the results of both reviews, participants were asked to place the items into the following categories: *Accept as Is*, *Accept with Revisions*, or *Reject*.

Overall, the acceptance rates were quite high. Across all grade levels, 80% of the items reviewed were accepted either as is or with revisions. Table 4.2.4.1 shows the number and portion of items classified into each category during Content and Bias Reviews by grade level and content area.

Any item that was rejected either for content or for bias issues was removed from consideration for field testing. In order to ultimately contribute to an item bank of items that measure and support the curriculum and state content standards, selection of the field test items was guided by the test blueprints. Field test item selection was performed by Content and Bias Review participants.

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Selections were subject to approval by ADE staff. Table 4.2.4.2 shows the number of field test items that were selected for inclusion in field test books.

Table 4.2.4.1
Content and Bias Review Results

Content Area	Grade	Items Reviewed	Accepted		Rejected	
Science	4	51	43	84%	8	16%
	8	50	36	72%	14	28%
	HS	51	42	80%	9	20%
Science Total		**152**	**121**	**80%**	**31**	**20%**

Table 4.2.4.2
Number of Field Test Items Selected

Content Area	Number of Grades	Number of Forms	Number of Items Selected
Science	3 (Gr 4, 8, and HS)	4	40

4.2.3 Data Analysis

AIMS CRT Data Analysis was conducted in July 2013. Primary responsibility for conducting this workshop rested with ADE. However, a team of experienced test developers from Pearson facilitated the data analysis activities. The primary purpose of the Data Analysis meeting was to have Arizona educators examine the item data generated during the Spring 2013 field test, assign each item a status code to be included with the item information in the item bank, and determine each item's eligibility for possible selection as an operational item starting in Spring 2014.

Participants were given instruction by ADE staff on how to interpret basic statistical concepts related to item data including *p*-values, Rasch values, infit/outfit, point biserial correlations, response distributions and ethnic and gender differential item functioning (DIF) flags, omit rates, and population counts.

Items that measured the content they were intended to measure and whose statistics were within acceptable limits were assigned Item Available (IA) status. These items were eligible for selection as operational items. Throughout the meeting, content was stressed as the deciding factor over statistics for items to attain IA status. Across all grades/content areas, approximately 78% of the items received IA status.

Items whose statistics indicated a fixable problem and that defined where the items could be improved were assigned Re-Field Test (RFT) status. These items would be revised during future item writing workshops and would be re-field tested in future assessments. Of all the items reviewed, a total of 11% were coded RFT.

Items whose statistics indicated they would not function fairly and reliably were rejected and assigned Do Not Use (DNU) status. These items were removed from consideration as operational items. Across the content and grade levels, about 11% of the items were assigned DNU status.

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Table 4.2.5.1 shows the number and portion of items classified into each category during Data Analysis by grade level.

Table 4.2.5.1
Items Given Special Codes

Content Area	Grade	Items Reviewed	Items Assigned IA * Status		Items Assigned RFT* Status		Items Assigned DNU* Status	
Reading	3	40	36	90%	0	0%	4	10%
	4	40	34	85%	0	0%	6	15%
	5	40	35	88%	0	0%	5	12%
	6	40	36	90%	0	0%	4	10%
	7	40	29	73%	0	0%	11	27%
	8	40	29	73%	0	0%	11	27%
	HS	40	33	83%	0	0%	7	17%
Reading Total		**280**	**232**	**83%**	**0**	**0%**	**48**	**17%**
Math	3	40	24	60%	10	25%	6	15%
	4	40	25	63%	10	25%	5	12%
	5	40	28	70%	10	25%	2	5%
	6	40	27	68%	10	25%	3	7%
	7	40	30	75%	10	25%	0	0%
	8	40	30	75%	10	25%	0	0%
	HS	30	17	57%	10	33%	3	10%
Math Total		**270**	**181**	**67%**	**70**	**26%**	**19**	**7%**
Science	4	40	37	93%	1	2%	2	5%
	8	40	28	70%	4	10%	8	20%
	HS	40	33	83%	5	12%	2	5%
Science Total		**120**	**98**	**82%**	**10**	**8%**	**12**	**10%**
Writing	5	20	16	80%	3	15%	1	5%
	6	20	18	90%	2	10%	0	0%
	7	20	18	90%	0	0%	2	10%
	HS	40	34	85%	3	7.5%	3	7.5%
Writing Total		**100**	**86**	**86%**	**8**	**8%**	**6**	**6%**
Grand Total		**770**	**597**	**78%**	**88**	**11%**	**85**	**11%**

Note:* Item Available (IA) - Re-field Test (RFT) - Do Not Use (DNU) ** For Reading, since going forward, no further item development was expected, no items were marked as RFT where for Mathematics, the RFT items were identified for use in field-test slots in Spring 2014.

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4.2.4 AIMS CRT Item Selection

AIMS CRT Item Selection was conducted in July 2013. A team of experienced test developers from Pearson facilitated the item selection meeting. For reading and math, Arizona participants included teachers for each content area and grade level band (Grades 3-4, 5-6, 7-8, and HS. For Writing and Science, each grade had a dedicated group of Arizona teachers. The primary purpose of the Item Selection meeting was to have Arizona educators select items to place on test forms for the Spring 2014 operational test that would produce valid and reliable scores using the items from the 2013 field test administration that had been designated as IA as well as using items from previous test administrations. Two sets of criteria primarily guided the selection of AIMS items: content representation and statistical requirements. In addition, the committee members were encouraged to select items with high level DOKs in order to help prepare students for assessments based on the Arizona College and Career Ready Standards which will be implemented in Spring 2015.

All of the items in the item bank that were available and eligible for selection as operational items in Spring 2014 were displayed in grade level and content area item pool tables. With minor exceptions, the pool consisted of items field tested in 2002 through 2013. The items field tested in Spring 2013 were also available in the data analysis materials. The item pool tables for the math, writing, and science committees were arranged by Performance Objective. The item pool tables for the reading committees were arranged by passage. All tables could also be sorted according to any of the columns, making them extremely useful tools for searching for items with specific characteristics. These items formed the pool for item selection. Item images could be viewed electronically via the item bank. Each meeting room was equipped with a laptop with access to the item bank and a projection screen so that the entire group could view items at the same time.

Each entry on the table contained identification numbers, content alignment information (Strand, Concept, Performance Objective), the most recent test administration, and the most current statistical information about that item (*p*-value, Rasch values, point biserial, differential item functioning summary flags, Rasch model fit statistics, and the percent of students who omitted the item). Participants were given training to interpret these statistics and statistical guidelines for test selection. These guidelines included a target difficulty level for each test. Specifically, a target mean and range of selected item *p*-values, as well as a suggested distribution for the item *p*-values was provided for each grade/subject combination. Careful adherence to the specified distribution of *p*-values guaranteed students a reasonable opportunity to do well on a test that would be neither too easy nor too hard.

In addition to selecting items within specific *p*-values ranges, committee members were also asked to select items with item discriminations that indicate that getting the item correct is reasonably correlated with performance on the entire test (i.e., preferably item correlations greater than 0.3) and do not exhibit the potential for item bias (i.e., the items should not be flagged using various differential item functioning statistics).

Content considerations were addressed by the test blueprints. Careful adherence to the blueprints guaranteed the tests would validly measure the construct of math and reading as represented in the Arizona state content standards, maintain consistency, link to instruction, and allow for selection of items from different performance objectives within each concept. Substantial variance from the test blueprint could alter the test alignment and thus the validity of the scores being reported. Items were selected to represent the significant content categories specified in the test blueprint in the same proportion as the content categories represented in the test blueprint.

Prior to the Item Selection Committee meeting, ADE selected an anchor set of items upon which the operational forms would be constructed. The anchor set consisted of items that had been

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operational at least the previous year (during the Spring 2013 test administration). Regardless of content area or grade, each anchor set was carefully selected to meet statistical criteria and to proportionally represent the blueprint. Anchor sets were finalized by ADE prior to the item selection workshop.

To facilitate the selection process and to guarantee that the proper number and proportion of items would be selected, participants were provided with item pool tables and item replacement tables. Table 4.2.6.1 shows a sample of an item pool table and the available data considered by the Item Selection Committee in its selection of replacement items. An analysis of differential item functioning is performed for every administration. The latest values are included in the item pool tables for each grade/content area and provided to participants in the Item Selection Committee. Table 4.2.6.2 is a sample portion of the Item Replacement Table used by the participants to note their replacement requirements for Grade 3 mathematics and to capture proposed items to be used on the Spring 2014 assessment. This sample table shows the portion relevant to Strand 1 Concept 1 only. The entire table included all strands and concepts. This sample table shows the portion of columns relevant to Spring 2013 and Spring 2014. The information in the first column shows the blueprint requirements for Strand 1, Concept 1 – eleven of the 66 Operational items that should be covered by items from Strand 1, Concept 1 in the Grade 3 mathematics test. The next two columns show that two of those 11 items are covered by Stanford 10 NRT/CRT items, leaving nine slots to be filled with AZ items. Similar columns were provided for each element of the blueprint, guaranteeing exact adherence to the blueprint.

The set of columns labeled Spring 2014 New Operational Items include all of the AZ items covering Strand 1 Concept 1 that were in the Spring 2013 test. The set of columns labeled Spring 2014 New Operational Items show the items that were retained from the Spring 2013 or prior administrations (highlighted in blue). These retained items were designated as anchor items. During item selection for Spring 2014, the participants' tasks were to retain anchor items, if possible, and select items to fill in any gaps in blueprint coverage. As the participants considered each option based on content and difficulty, they could refer to the Item Pool Table to determine if the statistical considerations were being met and to the item bank to see the actual items.

As selections were made, they were recorded on item replacement tables. These tables were loaded onto computers and projected for group discussion. These tables provided a running record of the selections and further helped to guarantee blueprint coverage. Table 4.2.6.3 shows a sample of the *p*-value target distribution table and graph used by the committees. Note that this table and graph are displayed as if items were in the process of being selected. These tables were completed for all selections and were subject to approval by both ADE and Pearson's Research department.

Table 4.2.6.4 shows the numbers of AIMS reading, writing, mathematics, and science items that were selected for each grade. All selections were approved by Pearson research staff and ADE staff.

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Table 4.2.6.1
Sample Grade 3 Mathematics Item Pool Table

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Row	AZID	Subject	Grade	Status	Passage Code	Strand	Concept	Perf. Obj.	DOK	2010 Standard Alignment	Year 2002	Year 2003	Year 2004	Year 2005	Year 2006	Year 2007	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012	Year 2013	Recent Year	Item No.
1	41133180	Mathematics	3	New		1	1	5	2	Y												FT	2013	35
2	41133131	Mathematics	3	New		1	1	5	3	Y												FT	2013	23
3	41133120	Mathematics	3	New		1	1	6	2	Y												FT	2013	23
4	41133136	Mathematics	3	New		1	1	6	3	Y												FT	2013	63
5	41133129	Mathematics	3	New		1	1	6	3	Y												FT	2013	5
6	41133122	Mathematics	3	New		1	1	6	3	Y												FT	2013	5
7	41133242	Mathematics	3	New		1	2	1	3	Y												FT	2013	51
8	41133241	Mathematics	3	New		1	2	1	3	Y												FT	2013	76
9	41133124	Mathematics	3	New		1	2	2	3	Y												FT	2013	43
10	41133111	Mathematics	3	New		1	2	2	3	Y												FT	2013	79

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Row	N Count	Rasch	PVal	Flag PVal	PT Bis.	Flag PTBIS	Male vs Female Bias Flag	Non-Hispanic vs Hispanic Bias Flag	White vs Black Bias Flag	White vs Hispanic Bias Flag	White vs AmIn Bias Flag	White vs Asian Bias Flag	White vs Hawi/PaclsIr Bias Flag	White vs Multiracial Bias Flag	Dist A	Dist B	Dist C	Dist D	Omit
1	20715	1.108	0.38		0.42		A	A	A		A	A	A	A	45.7	3.0	13.3	37.6	0.4
2	20942	0.988	0.38		0.08	*	A	A	A		A	A	A	A	4.5	37.6	37.7	19.8	0.4
3	20715	2.795	0.13	*	0.10	*	A	A	A		A	A	A	A	54.1	19.1	13.4	13.1	0.4
4	20822	1.255	0.35		0.38		A	A	A		A	A	A	A	29.6	20.1	34.6	15.5	0.2
5	20719	1.520	0.30		0.22	*	A	A	A		A	A	A	A	30.4	18.1	35.2	16.0	0.3
6	20822	1.177	0.36		0.25	*	A	A	A		A	A	A	A	23.4	17.4	22.9	36.0	0.3
7	20942	1.412	0.30		0.15	*	A	A	A		A	A	A	A	21.0	18.9	30.1	29.7	0.3
8	20719	0.451	0.50		0.26	*	A	A	A		A	A	A	A	8.8	10.7	50.4	29.7	0.3
9	20822	0.862	0.42		0.12	*	A	A	A		A	A	A	A	42.0	26.7	17.2	13.8	0.4
10	20942	1.083	0.36		0.29	*	A	A	A		A	A	A	A	23.0	18.5	35.9	22.4	0.2

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Table 4.2.6.2
Sample Grade 3 Mathematics Item Replacement Table

AZ AIMS Grade 3 Spring 14 Operational Item Replacement Plan for MATH

# of Items Required per Blueprint	Strand	Concept	Spring 13 - Operational Items									Spring 14 - New Operational Items								
			Selections									Selections								
			Actual # of Items	# of NRT Items in Tes	PO	AZID	PEID/CID	P-VALUE	Rasch	PtBis	DOK	Actual # of Items	# of NRT Items in Test	PO	AZID	AZ CCS	P-VALUE	Rasch	PtBis	DOK
	1	1			1.1.4	41093163	N	0.665	-0.5532	0.449	2			1.1.4	41093163	N	0.686	-0.5532	0.452	2
	1	1			1.1.3	41093039	N	0.630	-0.2582	0.541	2			1.1.3	41093039	N	0.620	-0.2582	0.541	2
	1	1			1.1.1	3523037	N	0.543	0.4479	0.378	2			1.1.1	3523037	N	0.539	0.4479	0.381	2
	1	1			1.1.3	3260720	N	0.75	-1.329343	0.52	2			1.1.2	3258431	N	0.713	-0.7225	0.397	2
	1	1			1.1.5	41123446	Y	0.335	1.2453	0.329	3			1.1.3	3260720	N	0.793	-1.2589	0.515	2
11	1	1	9	2	1.1.4	41123971	Y	0.659	-0.3546	0.51	2	9	2	1.1.4	41123971	Y	0.646	-0.333	0.531	2
	1	1			1.1.2	3258431	N	0.75	-1.348343	0.35	2			1.1.5	41123446	Y	0.307	1.5155	0.309	3
	1	1			1.1.6	41113426	Y	0.455	0.698	0.412	2			1.1.6	41113426	Y	0.469	0.6173	0.435	2
	1	1			1.1.6	41093066	Y	0.3	1.215957	0.16	3			1.1.6	41093066	Y	0.511	0.3927	0.451	3
	1	1			1.1.5	2109734		0.890	-2.268	0.234	1			1.1.5	2109734		0.890	-2.268	0.234	1
	1	1			1.1.1	2109729		0.600	-0.094	0.396	1			1.1.1	2109729		0.600	-0.094	0.396	1

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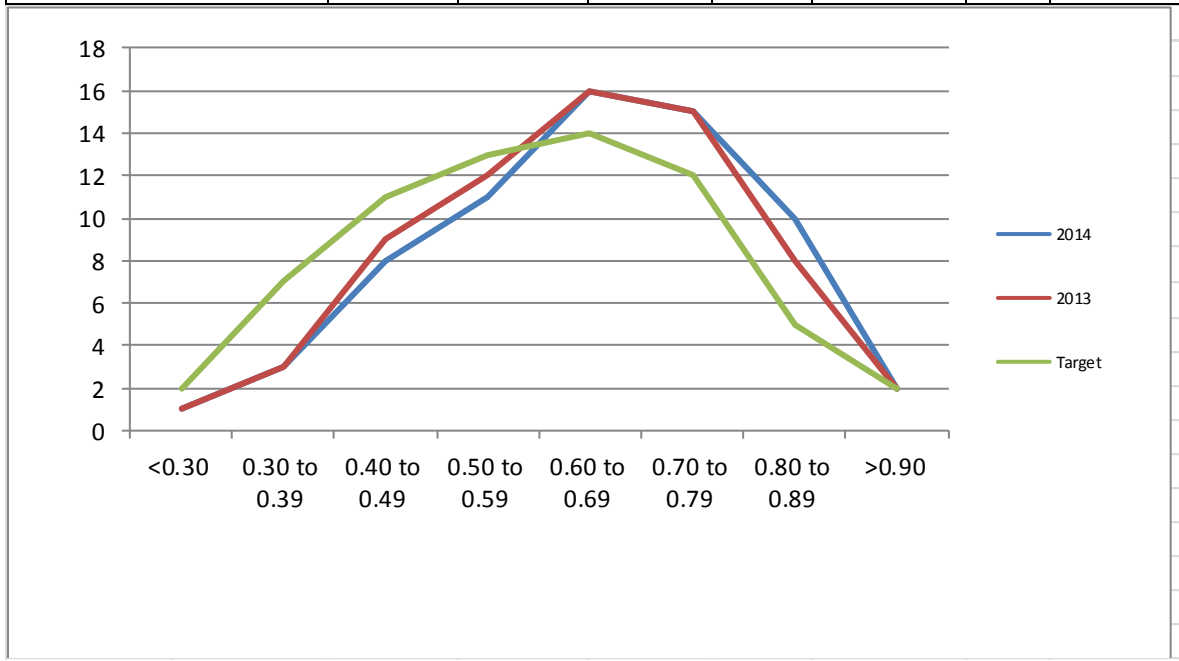
Table 4.2.6.3
Sample *P*-Value Target Table and Graph

	<0.30	0.30 to 0.39	0.40 to 0.49	0.50 to 0.59	0.60 to 0.69	0.70 to 0.79	0.80 to 0.89	>0.90	**Total Number of Items**
Pct of items for target	3%	11%	17%	20%	21%	18%	8%	3%	
Target Totals	**2**	**7**	**11**	**13**	**14**	**12**	**5**	**2**	**66**
Actual - Anchors	0	1	1	4	6	1	3	0	**16**
Actual - new selections	1	2	6	5	6	12	3	0	**35**
NRT/Dual Purpose	0	0	1	2	4	2	4	2	**15**
TOTAL 2014	**1**	**3**	**8**	**11**	**16**	**15**	**10**	**2**	66
Actual 2013	1	3	9	12	16	15	8	2	**66**



DOK Level	Target N	Actual N
1	8	10
2	42	42
3	16	14
4	0	0
Total	66	66

DOK	2013
1	9
2	43
3	14
4	0
Total	66

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Table 4.2.6.4
Number of Reading, Writing, Math, and Science Items Selected by Committee

Content Area	Grade	CRT Items Only	Anchor Items		Total Selected	
Reading	3	39	13	33%	26	67%
	4	39	13	33%	26	67%
	5	39	13	33%	26	67%
	6	39	14	36%	25	64%
	7	40	13	33%	27	68%
	8	40	13	33%	27	68%
	HS	54	13	24%	41	76%
Reading Total		**290**	**92**	**32%**	**198**	**68%**
Math	3	51	16	31%	35	69%
	4	53	17	32%	36	68%
	5	52	17	33%	35	67%
	6	53	17	32%	36	68%
	7	53	17	32%	36	68%
	8	53	17	32%	36	68%
	HS	85	24	28%	61	72%
Math Total		**400**	**125**	**31%**	**275**	**69%**
Science	4	54	17	31%	37	69%
	8	58	24	41%	34	59%
	HS	65	20	31%	45	69%
Science Total		**177**	**61**	**34%**	**116**	**66%**
Writing	5	18	9	50%	9	50%
	6	18	9	50%	9	50%
	7	18	9	50%	9	50%
	HS	27	9	33%	18	67%
Writing Total		**81**	**36**	**44%**	**45**	**56%**
Grand Total		948	319	33.5%	629	66.5%

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4.2.5 AIMS NRT Alignment Committee

In order to effectively and validly incorporate Stanford 10 items as a component of AIMS, the ADE formed alignment committees consisting of Arizona educators to compare each reading, writing, and mathematics Stanford 10 items to the Arizona Content Standards in Grades 3 through 8. These committees established a pool of Stanford 10 items that could be used on AIMS as dual purpose items to address specific POs. The committee met in June 2009 and reviewed all the items on the Stanford 10, Form B for alignment. Tables 4.2.7.1 and 4.2.7.2 show the number of items reviewed and the number that were deemed to match the Arizona content strands and concepts for Reading and Mathematics.

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Table 4.2.7.1 Stanford 10 Item Alignment for Reading

Grade Level	Numberof Passages	Number of Items Reviewed	Number of Items for Strand - Concept						Total Items Aligned
			1-4	1-6	2-1	3-1	3-2	3-3	
3	9	54	1	11	9	6	11		38
4	10	54	4	10	7	13	9	2	45
5	8	54		14	8	9	10		41
6	8	54	2	9	6	16	8		41
7	9	54	4	8	7	27	3		49
8	8	54	4	6	4	24		3	41

Table 4.2.7.2 Stanford 10 Item Alignment for Mathematics

Grade Level	Number of Items Reviewed	Number of Items for Strands - Concepts																Total Items Aligned
		1-1	1-2	1-3	2-1	2-2	2-3	3-1	3-2	3-3	3-4	4-1	4-2	4-3	4-4	5-1	5-2	
3	46	5	7	2	5			1	1	1		1	1		1		1	26
4	48	3	1	4	4			2		1		1		1	2		12	31
5	48	6	3	2	1	2	1				1	2			1	1	5	25
6	48	4	2	3	1	2								1	3		8	24
7	48	4	4	3	2			3		2		1			1		4	24
8	48	1	2	4	1		1	1	1	4	2	2					6	25

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4.2.6 AIMS NRT Item Selection

Based on the results of the AIMS NRT Alignment Committee meetings, Pearson content specialists and psychometricians selected Stanford 10 items to serve as dual purpose or NRT only items on the reading, writing, and mathematics tests. The set of NRT items selected for use on the AIMS assessments is refreshed every two years. This is done to avoid over exposure of the NRT items which could lead to skewed statistics for those items. These items were selected prior to the item selection committee meetings in which Arizona educators selected the new AIMS items for the tests. The Stanford 10 items embedded in the AIMS 3-8 assessment were selected to match the test blueprint and statistical criteria of Stanford 10. Approximately twenty-five Stanford 10 items were selected for each grade and subject, and approximately 15 items served as dual purpose and the remainder served as NRT only items. Nine of the twenty items from the language Stanford 10 were chosen as dual purpose items for Grades 5 through 7 writing test. The differences in blueprint representation between the Stanford 10 component embedded in the AIMS 3-8 assessment and the Stanford 10 Form B Abbreviated and Full forms are summarized in the tables below. Stanford 10 is available in two formats, a full form and an abbreviated form. The tables show the number and percent of items in each Stanford 10 cluster on the NRT component of the Arizona tests (NRT), the Stanford 10 Abbreviated Form (B ABr), and the full form B (FormB). The rightmost three columns show the average Rasch difficulty of the NRT item sets on the AIMS tests and the Stanford 10 forms.

Table 4.2.8.1
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 3 Reading

	Test			Test			Test		
	NRT	B Abr	FormB	NRT	B Abr	FormB	NRT Rasch	B Abr Rasch	FormB Rasch
Cluster	**N**	**N**	**N**	**Percent**	**Percent**	**Percent**	**Mean**	**Mean**	**Mean**
Critical Analysis	5	7	12	20.0	23.3	22.2	-0.69	0.01	-0.18
Initial Understanding	7	7	12	28.0	23.3	22.2	-0.20	-0.34	-0.48
Interpretation	9	11	20	36.0	36.7	37.0	0.18	0.46	0.14
Strategies	4	5	10	16.0	16.7	18.5	-0.45	0.26	-0.14
All	25	30	54	100.0	100.0	100.0	-0.20	0.13	-0.12

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Table 4.2.8.2
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 4 Reading

	Test			Test			Test		
	NRT	B Abr	FormB	NRT	B Abr	FormB	NRT Rasch	B Abr Rasch	FormB Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Critical Analysis	6	7	12	24.0	23.3	22.2	0.02	0.37	0.16
Initial Understanding	6	7	12	24.0	23.3	22.2	0.38	0.54	0.40
Interpretation	10	11	20	40.0	36.7	37.0	0.20	0.54	0.47
Strategies	3	5	10	12.0	16.7	18.5	0.55	0.21	0.52
All	25	30	54	100.0	100.0	100.0	0.24	0.45	0.39

Table 4.2.8.3
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 5 Reading

	Test			Test			Test		
	NRT	B Abr	FormB	NRT	B Abr	FormB	NRT Rasch	B Abr Rasch	FormB Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Critical Analysis	6	7	12	24.0	23.3	22.2	1.10	1.12	1.07
Initial Understanding	6	7	12	24.0	23.3	22.2	0.35	0.25	0.55
Interpretation	9	11	20	36.0	36.7	37.0	0.48	0.39	0.32
Strategies	4	5	10	16.0	16.7	18.5	1.15	1.41	0.98
All	25	30	54	100.0	100.0	100.0	0.71	0.70	0.66

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Table 4.2.8.4
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster - Grade 6 Reading

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Critical Analysis	5	7	12	19.2	23.3	22.2	1.33	1.62	1.29
Initial Understanding	6	7	12	23.1	23.3	22.2	0.85	0.51	0.49
Interpretation	10	11	20	38.5	36.7	37.0	1.46	1.47	1.14
Strategies	5	5	10	19.2	16.7	18.5	0.36	0.88	0.90
All	26	30	54	100.0	100.0	100.0	1.08	1.18	0.98

Table 4.2.8.5
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster - Grade 7 Reading

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Critical Analysis	6	7	12	24.0	23.3	22.2	1.64	1.56	1.33
Initial Understanding	6	7	12	24.0	23.3	22.2	1.00	1.11	1.31
Interpretation	9	11	20	36.0	36.7	37.0	1.38	1.42	1.06
Strategies	4	5	10	16.0	16.7	18.5	0.67	1.22	1.14
All	25	30	54	100.0	100.0	100.0	1.24	1.35	1.19

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Table 4.2.8.6
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 8 Reading

	Test			Test			Test		
	NRT	B Abr	FormB	NRT	B Abr	FormB	NRT Rasch	B Abr Rasch	FormB Rasch
Cluster	**N**	**N**	**N**	**Percent**	**Percent**	**Percent**	**Mean**	**Mean**	**Mean**
Critical Analysis	6	9	14	24.0	30.0	25.9	1.09	1.27	1.40
Initial Understanding	5	5	10	20.0	16.7	18.5	1.42	1.11	1.14
Interpretation	9	11	20	36.0	36.7	37.0	1.73	1.51	1.69
Strategies	5	5	10	20.0	16.7	18.5	1.79	2.02	1.72
All	25	30	54	100.0	100.0	100.0	1.53	1.46	1.52

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Table 4.2.8.7
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 3 Language

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Capitalization	4	6	8	20.0	20.0	16.7	-0.56	-0.62	-0.61
Content and Organization	5	7	12	25.0	23.3	25.0	-0.02	-0.06	-0.02
Prewriting	2	4	5	10.0	13.3	10.4	-0.08	-0.08	-0.17
Punctuation	3	5	8	15.0	16.7	16.7	-0.45	-0.19	0.14
Sentence Structure	3	4	7	15.0	13.3	14.6	-0.82	-0.41	-0.46
Usage	3	4	8	15.0	13.3	16.7	-0.48	-0.07	-0.63
All	20	30	48	100.0	100.0	100.0	-0.39	-0.25	-0.27

Table 4.2.8.8
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 4 Language

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Expression									
Content and Organization	5	8	11	50.0	53.3	45.8	-0.16	-0.18	-0.11
Prewriting	2	2	5	20.0	13.3	20.8	-0.08	0.23	0.03
Sentence Structure	3	5	8	30.0	33.3	33.3	0.23	0.21	0.15
All Expression	10	15	24	100.0	100.0	100.0	-0.03	0.01	0.01
Mechanics									
Capitalization	4	5	8	40.0	33.3	33.3	-0.36	-0.39	-0.33
Punctuation	3	5	8	30.0	33.3	33.3	0.50	0.37	0.39
Usage	3	5	8	30.0	33.3	33.3	-0.46	-0.09	-0.28
All Mechanics	10	15	24	100.0	100.0	100.0	-0.13	-0.04	-0.07

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Table 4.2.8.9
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 5 Language

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Expression									
Content and Organization	4	7	10	40.0	46.7	41.7	0.59	0.68	0.59
Prewriting	2	4	5	20.0	26.7	20.8	0.16	0.28	0.34
Sentence Structure	4	4	9	40.0	26.7	37.5	0.40	0.66	0.47
All Expression	10	15	24	100.0	100.0	100.0	0.43	0.57	0.50
Mechanics									
Capitalization	3	5	8	30.0	33.3	33.3	0.46	0.07	0.06
Punctuation	3	5	8	30.0	33.3	33.3	0.84	0.82	0.83
Usage	4	5	8	40.0	33.3	33.3	-0.25	-0.42	-0.26
All Mechanics	10	15	24	100.0	100.0	100.0	0.29	0.15	0.21

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Table 4.2.8.10
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 6 Language

	Test			Test			Test		
	NRT	B Abr	FormB	NRT	B Abr	FormB	NRT Rasch	B Abr Rasch	FormB Rasch
Cluster	**N**	**N**	**N**	**Percent**	**Percent**	**Percent**	**Mean**	**Mean**	**Mean**
Expression									
Content and Organization	4	5	9	40.0	33.3	37.5	0.69	0.39	0.55
Prewriting	2	3	5	20.0	20.0	20.8	0.39	0.47	0.44
Sentence Structure	4	7	10	40.0	46.7	41.7	0.60	0.65	0.55
All Expression	10	15	24	100.0	100.0	100.0	0.59	0.53	0.52
Mechanics									
Capitalization	3	5	8	30.0	33.3	33.3	0.45	0.31	0.46
Punctuation	4	5	8	40.0	33.3	33.3	1.01	1.06	0.94
Usage	3	5	8	30.0	33.3	33.3	-0.25	0.21	-0.00
All Mechanics	10	15	24	100.0	100.0	100.0	0.47	0.53	0.47

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Table 4.2.8.11
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 7 Language

	Test			Test			Test		
	NRT	B Abr	FormB	NRT	B Abr	FormB	NRT Rasch	B Abr Rasch	FormB Rasch
Cluster	**N**	**N**	**N**	**Percent**	**Percent**	**Percent**	**Mean**	**Mean**	**Mean**
Expression									
Content and Organization	3	5	9	30.0	33.3	37.5	0.90	1.00	1.05
Prewriting	3	4	5	30.0	26.7	20.8	1.05	1.04	0.87
Sentence Structure	4	6	10	40.0	40.0	41.7	1.19	1.16	1.17
All Expression	10	15	24	100.0	100.0	100.0	1.06	1.07	1.06
Mechanics									
Capitalization	3	5	8	30.0	33.3	33.3	1.11	1.04	0.86
Punctuation	3	5	8	30.0	33.3	33.3	1.38	1.35	1.08
Usage	4	5	8	40.0	33.3	33.3	0.97	0.72	0.76
All Mechanics	10	15	24	100.0	100.0	100.0	1.13	1.04	0.90

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Table 4.2.8.12
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 8 Language

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Expression									
Content and Organization	4	5	9	40.0	33.3	37.5	1.27	1.26	1.35
Prewriting	3	5	5	30.0	33.3	20.8	0.83	0.78	0.78
Sentence Structure	3	5	10	30.0	33.3	41.7	1.19	1.54	1.22
All Expression	10	15	24	100.0	100.0	100.0	1.11	1.19	1.18
Mechanics									
Capitalization	3	5	8	30.0	33.3	33.3	0.84	1.08	0.99
Punctuation	3	5	8	30.0	33.3	33.3	1.29	1.46	1.42
Usage	4	5	8	40.0	33.3	33.3	0.63	0.62	0.92
All Mechanics	10	15	24	100.0	100.0	100.0	0.89	1.05	1.11

Table 4.2.8.13
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 3 Mathematics

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Data, Statistics, & Probability	3	4	6	12.0	13.3	13.0	-0.28	-0.35	-0.51
Geometry and Measurement	5	7	10	20.0	23.3	21.7	-0.91	-0.26	-0.42
Number Sense and Operations	14	16	25	56.0	53.3	54.3	-0.78	-0.86	-0.96
Patterns, Relationships, & Algebra	3	3	5	12.0	10.0	10.9	-1.14	-1.28	-1.15
All	25	30	46	100.0	100.0	100.0	-0.79	-0.69	-0.80

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Table 4.2.8.14
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 4 Mathematics

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Data, Statistics, & Probability	4	5	8	16.0	16.7	16.7	-0.08	-0.09	-0.03
Geometry and Measurement	5	7	10	20.0	23.3	20.8	0.99	0.59	0.57
Number Sense and Operations	12	14	24	48.0	46.7	50.0	-0.39	-0.25	-0.36
Patterns, Relationships, & Algebra	4	4	6	16.0	13.3	12.5	-0.23	-0.10	0.02
All	25	30	48	100.0	100.0	100.0	-0.04	-0.01	-0.06

Table 4.2.8.15
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 5 Mathematics

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Data, Statistics, & Probability	4	5	8	16.0	16.7	16.7	1.02	0.62	0.61
Geometry and Measurement	5	7	10	20.0	23.3	20.8	1.43	1.26	1.21
Number Sense and Operations	12	14	24	48.0	46.7	50.0	0.94	0.83	0.95
Patterns, Relationships, & Algebra	4	4	6	16.0	13.3	12.5	0.76	0.60	0.76
All	25	30	48	100.0	100.0	100.0	1.02	0.86	0.93

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Table 4.2.8.16
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 6 Mathematics

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Data, Statistics, & Probability	4	5	8	16.0	16.7	16.7	2.07	1.71	1.82
Geometry and Measurement	6	7	11	24.0	23.3	22.9	1.47	1.20	1.25
Number Sense and Operations	12	14	22	48.0	46.7	45.8	1.36	1.29	1.32
Patterns, Relationships, & Algebra	3	4	7	12.0	13.3	14.6	1.54	1.57	1.69
All	25	30	48	100.0	100.0	100.0	1.52	1.38	1.44

Table 4.2.8.17
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 7 Mathematics

	Test			Test			Test		
							NRT	B Abr	FormB
	NRT	B Abr	FormB	NRT	B Abr	FormB	Rasch	Rasch	Rasch
Cluster	N	N	N	Percent	Percent	Percent	Mean	Mean	Mean
Data, Statistics, & Probability	4	5	9	16.0	16.7	18.8	2.09	2.13	2.14
Geometry and Measurement	6	8	12	24.0	26.7	25.0	1.82	1.97	1.86
Number Sense and Operations	10	11	18	40.0	36.7	37.5	1.83	1.68	1.57
Patterns, Relationships, & Algebra	5	6	9	20.0	20.0	18.8	1.27	1.63	1.70
All	25	30	48	100.0	100.0	100.0	1.76	1.82	1.78

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Table 4.2.8.18
Number and percent of Stanford 10 items on the AIMS, Stanford 10 Form B, and Stanford 10 Form B Abbreviated by Stanford 10 Cluster – Grade 8 Mathematics

	Test			Test			Test		
	NRT	B Abr	FormB	NRT	B Abr	FormB	NRT Rasch	B Abr Rasch	FormB Rasch
Cluster	**N**	**N**	**N**	**Percent**	**Percent**	**Percent**	**Mean**	**Mean**	**Mean**
Data, Statistics, & Probability	4	5	9	16.0	16.7	18.8	2.51	2.34	2.48
Geometry and Measurement	7	8	12	28.0	26.7	25.0	2.82	2.73	2.76
Number Sense and Operations	9	11	18	36.0	36.7	37.5	2.62	2.44	2.28
Patterns, Relationships, & Algebra	5	6	9	20.0	20.0	18.8	2.28	2.02	2.17
All	25	30	48	100.0	100.0	100.0	2.59	2.42	2.42

4.3 Customer Approvals

Approvals from ADE staff were obtained during several phases of development: during selection of the CRT items, after forms were created, at the completion of the QA reviews, and when pre-press test books were available. Each is described below.

4.3.1 Item Selection Approval

Since the item selection was conducted in Arizona, item selection approvals were obtained on site at the end of each day. ADE staff members were given the item replacement tables. Approval was verbal. The item selection tables were then reviewed by Pearson's research scientist. Psychometric evaluation of the test selection was the main focus of this review. Recommended changes were discussed with and approved by ADE.

4.3.2 Test Book Approvals

At the test book phase of development, items had been arranged into test book format. That is, they were no longer treated as individual items, but appeared in page layouts as they would appear in the final, printed test books. By this point, all content issues were resolved. The focus of this approval was on format and presentation issues, rather than on content issues. Formal approval was given. Desired changes were communicated via PDF markup and the Development Tracking Form, which included a description of the change, a justification, and space for the customer to grant or deny approval. Formal sign-off of test books by ADE was achieved via the use of signed electronic Final Proof Approval Forms.

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4.3.3 FTP Site

A secure FTP site had been established by ADE for transfer of electronic documents (annotated test books, test book reviews, etc.) that need to be reviewed by ADE staff. After careful review by ADE staff, corrections and edits were transmitted to Pearson for inclusion/revision of the test documents.

4.3.4 Final Forms Review (Pearson)

The Final Forms review provided an opportunity for Pearson staff members who had not previously seen the test materials to review them. This review helped assure that test books, answer documents, and test administration directions all work in concert. In addition, this review helped in detecting errors, inconsistencies, cosmetic errors, and key verifications. Items with problems identified during the Final Forms review were annotated. Pearson staff resolved all comments and made necessary corrections prior to releasing the materials.

4.3.5 ADE Quality Review

After Pearson reviewed and edited test documents, ADE staff conducted a final review of forms to determine if all edits had been accomplished properly.

4.3.6 Final Sign-off

A final, formal approval (blueline stage) was given as test books became available for printing. A copy of the test book was sent for ADE to review and to provide formal approval.

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PART 5: TEST ADMINISTRATION

Part 5 of the technical report describes administration procedures, including accommodations, security, and written procedures available to test administrators and school personnel for all AIMS and Stanford 10 testing for the 2013-2014 school year. The following 1999 AERA/APA/NCME standards (AERA, APA, NCME, 1999) are addressed: 1.13, 3.3, 3.19, 3.20, 3.21, 3.24, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 6.11, 6.15, 9.1, 10.1, and 10.2. The 2014 AERA/APA/NCME standards (AERA, APA, NCME, 2014) addressed by this part of the technical report are 1.10, 3.1, 3.9, 4.2, 4.5, 4.15, 4.16, 4.21, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 7.0, 7.8.

5.1 Accommodations

The same accommodations were made available for all of the Fall 2013 and Spring 2014 AIMS tests, including AIMS HS, AIMS 3-8, AIMS HS Writing field test, and AIMS 5, 6, 7 Writing field test. In addition, in Grades 2 and 9, students were assessed in reading, language, and mathematics using Stanford 10, a norm-referenced assessment published by Pearson. Stanford 10 was normed in 2007. The norming group included students with disabilities who received accommodations and students identified as English Learners. Therefore, all of the AIMS HS, AIMS 3-8, AIMS HS Writing field test, AIMS 5, 6, 7 Writing field test, and Stanford 10 assessments allow the same accommodations and include students who have received accommodations.

Arizona statutes (A.R.S. §15-741 and §15-755), the Individuals with Disabilities Education Act (IDEA) (300.160), and the Elementary and Secondary Education Act (ESEA) (§1111) mandate that all students who are educated with public funds must participate in state assessment, including all students with disabilities and all students identified as English Language Learners.

For the purposes of assessment, a Special Education student is eligible to receive services under the Individuals with Disabilities Education Act and has an Individualized Education Program (IEP); and a 504 student is eligible under Section 504 of the Rehabilitation Act of 1973 and has a 504 Accommodation Plan.

Students with disabilities who have an IEP, or who have a 504 plan, may be considered for both universal test administration conditions and standard accommodations (described in section 5.1.1). Also, students identified as English Language Learner (ELL) and students who have been identified as Fluent English Proficient (FEP) for no more than two years may be considered for universal test administration conditions and standard accommodations.

Students with significant cognitive disabilities and whose current Individualized Education Program (IEP) designates them as eligible for an alternate assessment, AIMS A, are excluded from AIMS or Stanford 10 testing.

The Arizona English Language Learner Assessment (AZELLA), a language proficiency assessment, is given to determine a student's proficiency in English and respective instructional placement. An English Language Learner (ELL) is a student whose native language is other than English, who scores below the proficient level on the AZELLA, and is placed into a language program. Fluent English Proficient (FEP) is a term that is used to refer to a former ELL student who has scored at the proficient level of the AZELLA.

For detailed information on testing accommodations, please see *AIMS Testing Accommodations: Guidelines for School Year 2014-2016* on the Arizona Department of Education website at the following location: http://www.azed.gov/assessment/files/2014/08/testing-accommodations-2014-2016.pdf .

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5.1.1 Overview of Accommodations

Accommodations are specific practices and procedures that provide students with equitable access during instruction and assessment. Accommodations are made in order to provide a student equal access to learning and equal opportunity to demonstrate what is known. They are intended to reduce or even eliminate the effects of a student's disability.

Accommodations can be changes in the presentation, response, setting, and timing/scheduling of educational activities. There should be a direct connection between a student's disability, special education need or language need and the accommodation(s) provided to the student during educational activities, including assessment.

Students should receive the same accommodations for classroom instruction, classroom assessments, district assessment, and state assessments. No accommodations should be provided during assessments that are not also provided during instruction. However, not all accommodations appropriate for instruction are appropriate for use during a standardized state assessment. **The accommodations available to students while testing on Stanford 10, AIMS 3-8, or AIMS HS are limited to those listed in later sections of this document.**

Accommodations may not provide verbal or other clues or suggestions that hint at or give away the correct response to the student. Therefore, it is not permissible to simplify, paraphrase, explain, or eliminate any test item, prompt, or multiple-choice option. Additionally, accommodations provided for one student may not impede or impact other students in the testing room. It is the responsibility of the testing administrator to see that each student, who qualifies for testing accommodations, receives appropriate accommodations while also ensuring that other students, who do not receive accommodations, are not affected.

5.1.2 Descriptions of Universal and Standard Accommodations

Arizona offers two levels of accommodations to students participating in state assessments: universal test administration conditions and standard accommodations.

Universal Test Administration Conditions are specific testing situations and conditions that may be offered to **any** student in order to provide him/her a comfortable and distraction-free testing environment. Universal test administration conditions may be included in a student's IEP or 504 plan as a required "accommodation"; however, for Arizona state testing purposes, these are not considered testing accommodations and are not limited to only students with IEPs or 504 plans.

Standard Accommodations are provisions made in how a student accesses and demonstrates learning that do not substantially change the instructional level, the content, or the performance criteria. For students with disabilities, standard accommodations are intended to reduce or even eliminate the effects of a student's disability. For English Language Learners and FEP Year 1 and Year 2 students, standard accommodations are intended to allow students the opportunity to demonstrate their content knowledge even though the student is not functioning at grade level in English.

During the assessment, all accommodations for assessment identified in a student's IEP or 504 plan must be made available. However, students may choose not to use the accommodation(s).

5.1.3 Determining if a Student Needs a Testing Accommodation

When students need accommodations in how they learn or demonstrate learning, they are likely to need accommodations in how they are assessed. Conversely, if students do not need accommodations in how they learn or demonstrate learning, they will not need accommodations in

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how they are assessed. Therefore, no accommodation can be put in place for an assessment that is not already used regularly in the classroom.

To determine if a student will need testing accommodations to participate in state assessments, the following questions were asked:

- Does the student use accommodations during daily instruction?
- If the student uses accommodations during daily instruction, does the student need accommodations in order to participate in the state assessment?
- If so, which testing accommodations are necessary and appropriate for the student?

It is important to annually re-consider the types of accommodations used for students, particularly as they gain more skills. The following is a list of the specific testing accommodations available to students while participating in a state assessment.

Universal Test Administration Conditions

- Testing in a small group, testing one-on-one, testing in a separate location or in a study carrel
- Being seated in a specific location within the testing room or being seated at special furniture
- Having the test administered by a familiar test administrator
- Using a special pencil or pencil grip
- Using devices that allow the student to see the test: glasses, contacts, magnification, special lighting, and color overlays
- Using devices that allow the student to hear the test directions: hearing aids and amplification
- Wearing noise buffers after the scripted directions have been read
- Having the scripted directions included in the *Test Administration Directions* repeated (at student request) and having questions about the scripted directions or the directions that students read on their own answered.

Standard Accommodations

Injury

For students who were eligible to receive a standard accommodation due to an injury.

1 = Have answers transferred from a test book into an answer document
2 = Record or dictate multiple-choice responses to a scribe (not available for writing)
3 = Use assistive technology with spell check, grammar check, and predict ahead functions turned off (not available for reading, mathematics, or science)

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ELL/FEP

For students who were eligible to receive a standard accommodation due to their classification as an English Language Learner student or as a Fluent English Proficient (Year 1 or Year 2) student.

4 = More breaks and/or several shorter sessions
5 = Simplified language for the scripted directions in English
6 = Read aloud in English the writing prompt, mathematics test items, or science test items, as needed upon student request
7 = Provide a word-for-word published, paper translation dictionary
8 = Exact oral translation of the scripted directions or the directions that students read on their own as needed upon student request

IEP/504

For students who were eligible to receive a standard accommodation due to their IEP or 504 plan.

9 = Place marker used
10 = More breaks and/or several shorter sessions
11 = Test at a different time of day
12 = Simplify language for the scripted directions in English
13 = Read aloud or sign the directions that students read on their own
14 = Read aloud in English or sign the writing prompt, mathematics test items, or science test items
15 = Large print edition of test
16 = For a student who is blind, use of an abacus for mathematics test items
17 = For a student who is blind, use of an electronic dictionary and thesaurus with grammar check, spell check, encyclopedia, and internet access turned off (not available for reading, mathematics, or science)
18 = For student who is blind, Braille writers
19 = Have answers transferred from the test book into an answer document
20 = Record or dictate multiple-choice responses to a scribe (not available for writing)
21 = Use assistive technology with spell check, grammar check, and predict ahead functions turned off (not available for reading, mathematics, or science)
22 = For the mathematics sections, use of a personal whiteboard which can be seen by only the student and is erased after every problem (not available for reading, writing, or science)
Braille = use of a Braille edition of the test

5.1.4 Reporting Results of Assessments Taken with Accommodations

The use of standard accommodations results in scores that are considered valid for comparison and accountability purposes. Students who received standard accommodations on AIMS 3-8 and AIMS HS will count as having tested for federal accountability (AYP) purposes. Their AIMS results will be included in aggregate results at the school, district, and state level on the paper reports provided by the testing contractor.

Students who receive standard testing accommodations while participating in Stanford 10, AIMS 3-8, or AIMS HS must have their accommodations appropriately identified on their answer

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document as directed in the corresponding *Test Administration Directions*. It is not necessary to identify students who received universal test administration conditions while participating in the Stanford 10, AIMS 3-8, or AIMS HS assessments.

5.2 Test Security

All AIMS tests were administered under secure testing conditions. Figure 5.2.1 includes the security agreement signed by the superintendent/charter representative and district test coordinator involved with the testing administration. Figure 5.2.2 includes the security agreement signed by personnel involved with the testing administration.

District test coordinators are responsible for establishing and enforcing test security procedures that comply with the Test Security Agreement, the State Board of Education Rule regarding test security, and Test Security guidance provided in the Pre-Test Workshop package and included in the *AIMS Test Administration Directions.*

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Figure 5.2.1
Spring 2014 AIMS Test security agreement for Superintendents/Charter Representatives and District Test Coordinators

AIMS/Stanford 10 Spring 2014 Test Security Agreement
For Superintendents/Charter Representatives and AIMS District Test Coordinators

As Superintendent/Charter Representative or AIMS District Test Coordinator, I acknowledge that AIMS and Stanford 10 are secure tests and agree to the following conditions of use to ensure the security of the tests.

1. Superintendents/Charter Representatives are responsible for all testing activities within their district/charter. Superintendents/Charter Representatives are allowed to designate an AIMS District Test Coordinator to act on their behalf.
   a. An accurate Test Coordinator Information Sheet for school year 2013-2014 must be on file with the Assessment Section of the Arizona Department of Education (ADE).
   b. If the designated AIMS District Test Coordinator is unable to attend a Spring 2014 Pre-Test Workshop in January, the Superintendent/Charter Representative is the only substitute permitted to attend in his/her place.
2. All necessary security precautions shall be in place to safeguard test materials.
   a. Access to test books and answer documents shall be restricted.
   b. The names of all persons having access to the test books and answer documents shall be kept on file by the designated AIMS District Test Coordinator.
   c. All persons having access to the Spring 2014 AIMS and/or Stanford 10 test materials, other than students to whom the tests are administered, shall sign a Spring 2014 Test Security Agreement. Signed Test Security Agreements shall be kept on file for 6 years.
      i. Building administrators shall maintain the agreements signed by building staff.
      ii. Superintendents/Charter Representatives shall maintain the agreements signed by building administrators.
      iii. The Assessment Section of ADE shall maintain the agreements signed by Superintendents/Charter Representatives.
   d. All test books and answer documents shall be kept under lock and key except during actual test times.
      i. Test books and answer documents shall be delivered to test administrators no sooner than the date of testing and returned at the end of each day of testing.
      ii. Test books and answer documents shall be kept secure until they are distributed to students.
      iii. Students shall not be permitted to remove test material from the testing room except under supervision of staff.
   e. The AIMS and Stanford 10 tests shall not be examined, read, or reviewed.
      i. No content of the test shall be disclosed nor allowed to be disclosed.
      ii. No test item shall be discussed at any time.
      iii. No student responses shall be examined, read, or reviewed.
   f. Upon completion of testing, all AIMS and Stanford 10 test materials shall be returned to the designated AIMS District Test Coordinator.
3. The Superintendent/Charter Representative shall develop, distribute, and enforce disciplinary procedures for the violation of test security by staff.
4. *Test Preparation and Administration Practices,* guidelines approved by the State Board of Education in January 2003 and updated December 2007, shall be followed.
5. **All instructions in the *Test Coordinator's Manual, AIMS Test Administration Directions*, and *Stanford 10 Directions for Administering,* which include reading the directions to students, shall be followed**.

By signing my name to this document, I am assuring the Arizona Department of Education that I will abide by the above conditions and that anyone I supervise, who will have access to the Spring 2014 AIMS and/or Stanford 10 tests will also sign a Test Security Agreement.

Superintendent/Charter Representative Signature: _____ Date: _____

Printed Name: _____ Title: _____

AIMS District Test Coordinator Signature: _____ Date: _____

Printed Name: _____

District/Charter: _____ Entity #: _____

Address: _____

City, State, Zip: _____

Fax with Superintendent/Charter Representative signature to 602-542-5467 **Due: January 31, 2014**

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Figure 5.2.2
Spring 2014 AIMS Test security agreement for all school/district/charter personnel

AIMS/Stanford 10
Spring 2014 Test Security Agreement

I acknowledge that AIMS and Stanford 10 tests are secure tests and agree to the following conditions of use to ensure the security of the test.

1. I shall take necessary precautions to safeguard test materials.
   a. I shall sign a Spring 2014 test security agreement.
   b. Access to test books and answer documents is restricted. I shall not attempt to gain access to test materials beyond that which is granted to me by my school/district AIMS Test Coordinator, Superintendent, or Charter Representative.
   c. If test books and answer documents are distributed to me, I shall keep them under lock and key except during actual test times.
   d. I shall not permit students to remove test material from the testing room except under the supervision of staff.
   e. I shall not examine, read, or review the AIMS and Stanford 10 tests.
      i. I shall not disclose, nor allow to be disclosed, the content of the test.
      ii. I shall not discuss any test item at any time.
      iii. I shall not examine, read, or review any student responses.
   f. If test books and answer documents are distributed to me, I shall return all AIMS and Stanford 10 test materials to the school/district AIMS Test Coordinator immediately upon the completion of testing.
2. I understand that the Superintendent/Charter Representative will develop, distribute, and enforce disciplinary procedures for the violation of test security by staff.

Individuals who will administer or proctor AIMS or Stanford 10 tests for the Spring 2014 must also agree to the following conditions to ensure the correct administration of the tests.

3. I shall participate in training activities prior to administering the tests.
4. I shall follow *Test Preparation and Administration Practices*, the guidelines approved by the State Board of Education in January 2003 and updated in December 2007.
5. I shall review the Spring 2014 *Test Administration Directions* and/or *Stanford 10 Directions for Administering*, as appropriate prior to administering the test.
6. I shall follow all instructions in the Spring 2014 *Test Administration Directions* and/or *Stanford 10 Directions for Administering* including **reading the directions to students exactly as scripted**.

By signing my name to this document, I am assuring my district/charter and the Arizona Department of Education that I will abide by the above conditions and that anyone I supervise, who will have access to the Spring 2014 AIMS and/or Stanford 10 tests will also sign a Test Security Agreement.

Signed By: _____ Date: _____

Printed Name: _____

Title: _____ School: _____

Please return signed copy as per instructions from your school/district AIMS Test Coordinator.
Signed copies will be maintained by school/district administrators for 6 years.
Do not send this copy to ADE.

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5.3 Test Administration

In order to ensure a standardized testing administration for all students, a *Test Coordinator's Manual* was made available to all test coordinators for the Fall 2013 and Spring 2014 administrations. The manual included the following topics:

- Responsibilities of the District Test Coordinator
  - Before Testing
  - During Testing
  - After Testing
- Procedures for Test Administration
  - Students to Be Tested
  - Test Administration Schedules
  - Required Test Materials
  - Test Security
  - Student Identification Information
  - Arrangements Prior to Test Administration
- Procedures for Handling Test Materials (before, during, and after testing)
  - Receiving Test Materials
  - Inventorying Test Materials
  - Precautions
  - Inspecting and Organizing Test Materials
  - Assembling Scorable Test Materials
  - Assembling Nonscorable Test Materials
  - Materials Retrieval
- State Board of Education Rule
- Important Dates for Spring 2014 Testing

Test Administration Directions were made available to all test administrators for the Fall 2013 and Spring 2014 assessments. The *Test Administration Directions* included the following topics:

- Overview for the Administration of AIMS
  - Test Administrator Responsibilities
  - Students to Be Tested
  - Test Administration Schedule
  - Test Materials
  - Precautions
- Before Testing Guidelines
  - Training and Test Security
  - Preparing the Room for Testing
- During Testing Guidelines
  - Reading the Scripted Directions

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    - Student Identification Information
    - Monitoring Testing
    - Use of Resources
    - Use of Unacceptable Resources
    - Disruptive Students and Students Who Leave During Testing
    - Detailed Scripts for Administration of Each Part of Each Test
- After Testing
    - Inspecting Test Materials
    - Completing Student Identification Information
    - Transferring Student Responses
    - Returning Test Materials to the Test Coordinator

For specific information related to test administration, refer to the *Test Coordinator's Manual* and/or the *Test Administration Directions*.

Pre-Test Workshops were conducted online prior for each test administration, fall and spring. Every district test coordinator is required to view a 3-session online Pre-Test Workshop. The Pre-Test Workshop encompasses training related to test administration which includes test security, accommodations, test coordinator responsibility, and test schedule. Materials handling is included in these online workshops, covering ordering, receiving, preparing for retrieval, and the retrieval of test materials.

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PART 6: CLASSICAL ITEM ANALYSIS

Part 6 presents classical test statistics and item analysis statistics for each content area and grade level (CRT and NRT) computed from the data used for calibration and scaling. Addressed in this part of the technical report are the following 1999 AERA/APA/NCME standards: 1.5, 1.13, 2.4, 2.8, 3.18, 6.5, and 7.1. The 2014 AERA/APA/NCME standards (AERA, APA, NCME, 2014) addressed by this chapter are: 1.8, 1.10, 2.19, 3.6, 4.14, and 7.4. (See Appendix A for this information for the Fall 2013 AIMS administration.)

6.1 Data

Arizona had two test windows for operational testing in Spring 2014. The Writing and Reading tests for high school were administered on February 24 and 25, respectively, with make-up testing days on March 3 and 4. The AIMS Mathematics tests for high school were administered on April 8 with a make-up testing day on April 15. High School Science was administered on April 9 (no makeup). The AIMS Reading, Writing, Mathematics, and Science tests for Grades 3-8 were administered between April 7 and April 25.

6.2 Descriptive Statistics by Test

Table 6.2.1 presents descriptive statistics by test (content area and grade level) which are computed with the calibration samples in reading, mathematics, science, and writing. Statistics are provided for both the CRT and NRT portions of the tests. The table shows the number of students (N), the maximum obtained raw score (Max RS), the raw score mean (RS M), the raw score standard deviation (RS SD), the average *p*-value (P-Value M), the average item-to-total correlation (rpb M) and the estimate of internal consistency. Cronbach's alpha is the measure of internal consistency used for the AIMS Reading, Mathematics and Science tests. Stratified alpha is used to estimate the internal consistence reliability of the AIMS Writing tests. The item-to-total correlation is computed as a point biserial correlation for dichotomous items and as a Pearson product-moment correlation for polytomous items. The point biserial correlation reported is the correlation of the item scores and the total test score. The Pearson product-moment correlation reported is the correlation of the polytomous item and the total test score.

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Table 6.2.1
Spring 2014 AIMS Classical Test Analysis Statistics

	Content	Grade	Prompt	N	Max RS Obtained	RS M	RS SD	P-value M	rpb M	Internal Consistency
CRT										
	Math									
		3		84180	66	43.40	13.23	0.66	0.42	0.94
		4		83410	68	43.12	13.64	0.63	0.41	0.94
		5		83575	67	42.06	12.95	0.63	0.39	0.93
		6		82586	68	41.30	13.36	0.61	0.39	0.93
		7		83105	68	40.72	13.36	0.60	0.39	0.93
		8		82369	68	39.52	13.59	0.58	0.40	0.93
		HS		105085	85	45.73	15.12	0.58	0.35	0.93
	Reading									
		3		84212	54	34.80	10.16	0.64	0.39	0.91
		4		83418	54	34.06	10.71	0.63	0.39	0.92
		5		83599	54	33.89	10.00	0.63	0.37	0.90
		6		82597	54	33.66	9.90	0.62	0.37	0.90
		7		83127	54	34.09	9.41	0.63	0.34	0.89
		8		82384	54	34.93	9.55	0.65	0.35	0.89
		HS		89667	54	31.13	10.61	0.60	0.38	0.91
	Writing									
		5		82340	69	499.29	44.18	0.73	0.37	0.84
		6		82014	69	501.60	46.66	0.75	0.36	0.83
		7		82117	69	497.17	41.82	0.74	0.36	0.85
		HS	A	94242	138	500.14	45.83	0.84	0.33	0.85
		HS	T	3234	134	480.50	41.94	0.73	0.31	0.86
	Science									
		4		83408	54	30.26	9.50	0.56	0.33	0.89
		8		82470	58	34.57	9.87	0.60	0.33	0.89
		HS		76350	65	38.31	12.81	0.59	0.39	0.92

Note: CRT = Criterion-referenced test, NRT = Norm-referenced test, HS-A = High School Prompt A, HS-T = High School Prompt T. High school writing tests have a maximum raw score of 138 because the essay is weighted 60% and the multiple-choice are weighted 40%.

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Table 6.2.1 (continued)
Spring 2014 AIMS Classical Test Analysis Statistics

	Content	Grade	Form	N	Max RS Obtained	RS M	RS SD	P-value M	rpb M	Internal Consistency
NRT										
	Math									
		3		84180	25	18.85	4.86	0.75	0.41	0.86
		4		83410	25	17.10	5.03	0.68	0.39	0.85
		5		83575	25	15.59	5.24	0.62	0.38	0.84
		6		82586	25	15.78	5.61	0.63	0.42	0.86
		7		83105	25	15.64	5.82	0.63	0.44	0.88
		8		82369	25	14.96	5.86	0.60	0.43	0.87
	Reading									
		3		84212	25	17.13	4.94	0.69	0.39	0.84
		4		83418	25	16.40	5.02	0.66	0.38	0.83
		5		83599	25	16.52	5.01	0.66	0.36	0.82
		6		82597	25	16.15	4.46	0.65	0.32	0.78
		7		83127	25	16.42	4.49	0.66	0.32	0.78
		8		82384	25	17.43	4.30	0.70	0.32	0.78
	Writing									
		3		84212	20	12.39	4.10	0.62	0.35	0.79
		4		83418	20	13.61	4.22	0.68	0.39	0.81
		5		83599	20	13.84	4.09	0.69	0.37	0.80
		6		82597	20	14.54	3.68	0.73	0.34	0.78
		7		83127	20	13.65	3.89	0.68	0.35	0.78
		8		82384	20	14.53	3.61	0.73	0.31	0.75

Note: CRT = Criterion-referenced test, NRT = Norm-referenced test
.

6.3 Classical Item Analysis

Classical item analysis was conducted for all grades and content areas. Tables 6.3.1—6.3.22 present item statistics for the CRT tests. Note that operational CRT items are reported in sequence without embedded field test and non-dual purpose NRT/CRT items. Tables 6.3.23—6.3.40 present item statistics for the NRT tests. The tables show the number of students (N), the item difficulty (P-Value), point biserial correlation (rpb) and biserial correlation (rbi) for dichotomous items, item-to-total Pearson product-moment correlation (r) for polytomous items, percentage of students who omitted the item (% Omit), and the percentage of students responding to and point biserial for each response option. The keyed response has a percent responding that matches the *p*-value and a positive point biserial correlation while the incorrect response options have a negative point biserial correlation. The item-to-total Pearson product-moment correlation reported is the Pearson product moment correlation of the item and total score on the test. The point biserial correlation (rpb) reported is the correlation between student performance on an item and the total score on a test. The biserial correlation (rbi) is an adjusted point-biserial correlation intended to estimate the value of a Pearson correlation between the item and total score as if the item scores were normally distributed rather than binary.

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Table 6.3.1
Spring 2014 AIMS Classical Item Analysis
Mathematics CRT Grade 3

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	84182	0.78	0.35	0.48	0.19	78.31	0.35	6.81	-0.17	9.75	-0.17	4.94	-0.22
2	84182	0.83	0.46	0.67	0.16	5.44	-0.20	83.09	0.46	5.21	-0.25	6.11	-0.29
3	84182	0.76	0.45	0.60	0.86	12.00	-0.37	5.80	-0.23	75.90	0.45	5.44	-0.07
4	84182	0.63	0.45	0.56	1.02	18.00	-0.25	14.39	-0.23	63.38	0.45	3.20	-0.21
5	84182	0.79	0.52	0.71	0.14	78.67	0.52	2.69	-0.15	3.96	-0.21	14.53	-0.41
6	84182	0.71	0.60	0.77	0.39	17.74	-0.46	8.12	-0.27	3.15	-0.13	70.60	0.60
7	84182	0.63	0.46	0.58	1.06	11.70	-0.34	19.21	-0.15	5.23	-0.25	62.80	0.46
8	84182	0.61	0.45	0.57	0.23	9.56	-0.25	61.33	0.45	13.57	-0.22	15.30	-0.20
9	84182	0.41	0.49	0.61	0.19	24.86	-0.31	41.33	0.49	30.06	-0.20	3.56	-0.10
10	84182	0.49	0.33	0.41	0.22	6.71	-0.14	28.62	-0.18	48.65	0.33	15.80	-0.13
11	84182	0.70	0.43	0.55	0.26	12.35	-0.26	8.36	-0.22	69.66	0.43	9.36	-0.17
12	84182	0.46	0.36	0.45	0.53	16.32	-0.08	23.15	-0.38	14.34	0.03	45.66	0.36
13	84182	0.91	0.19	0.31	1.44	0.67	-0.10	90.84	0.19	6.70	-0.15	0.35	-0.09
14	84182	0.55	0.48	0.59	0.23	25.22	-0.26	10.45	-0.17	9.14	-0.26	54.96	0.48
15	84182	0.46	0.35	0.43	0.34	6.48	-0.17	30.05	-0.16	17.07	-0.15	46.07	0.35
16	84182	0.64	0.46	0.57	0.36	13.36	-0.20	64.10	0.46	10.18	-0.16	12.00	-0.32
17	84182	0.67	0.57	0.73	0.31	11.47	-0.42	12.35	-0.26	67.22	0.57	8.65	-0.17
18	84182	0.54	0.46	0.57	0.22	27.83	-0.42	53.69	0.46	6.32	-0.11	11.93	-0.05
19	84182	0.27	0.41	0.54	0.32	26.43	-0.31	6.97	-0.17	26.67	0.41	39.62	0.00
20	84182	0.61	0.51	0.64	0.28	7.12	-0.19	21.39	-0.35	60.67	0.51	10.53	-0.19
21	84182	0.75	0.42	0.56	0.44	7.11	-0.24	11.62	-0.23	74.80	0.42	6.03	-0.20
22	84182	0.47	0.34	0.43	0.21	46.61	0.34	10.59	-0.08	35.00	-0.20	7.59	-0.19
23	84182	0.60	0.36	0.45	0.31	13.58	-0.17	59.55	0.36	11.60	-0.26	14.95	-0.10
24	84182	0.54	0.35	0.44	0.17	40.57	-0.27	54.45	0.35	2.98	-0.14	1.83	-0.14
25	84182	0.74	0.27	0.37	0.21	74.49	0.27	2.89	-0.17	11.02	-0.16	11.39	-0.12
26	84182	0.60	0.48	0.59	0.56	12.67	-0.32	15.23	-0.16	11.86	-0.22	59.68	0.48
27	84182	0.87	0.31	0.49	0.35	1.38	-0.17	1.26	-0.14	10.01	-0.23	87.00	0.31
28	84182	0.60	0.58	0.72	0.56	4.71	-0.18	60.41	0.58	3.44	-0.18	30.88	-0.47
29	84182	0.69	0.51	0.66	0.44	15.18	-0.32	7.98	-0.21	69.22	0.51	7.18	-0.25
30	84182	0.73	0.53	0.69	0.52	16.30	-0.42	3.09	-0.22	6.96	-0.16	73.13	0.53
31	84182	0.77	0.45	0.62	0.17	9.47	-0.26	9.12	-0.27	77.40	0.45	3.84	-0.19
32	84182	0.71	0.48	0.63	0.19	9.18	-0.22	7.33	-0.30	12.63	-0.23	70.67	0.48
33	84182	0.73	0.35	0.46	0.17	6.06	-0.23	9.42	-0.26	73.36	0.35	10.99	-0.08
34	84182	0.78	0.50	0.68	0.26	8.64	-0.25	6.08	-0.17	77.86	0.50	7.17	-0.37
35	84182	0.48	0.42	0.52	0.36	48.27	0.42	23.92	-0.27	15.46	-0.18	11.99	-0.09
36	84182	0.86	0.46	0.70	0.16	85.56	0.46	8.29	-0.30	3.09	-0.22	2.90	-0.25
37	84182	0.70	0.42	0.55	0.23	7.84	-0.21	10.72	-0.20	70.11	0.42	11.10	-0.23
38	84182	0.41	0.40	0.50	0.24	27.18	-0.16	14.59	-0.16	17.00	-0.18	41.00	0.40
39	84182	0.80	0.44	0.62	0.18	3.30	-0.24	7.11	-0.22	80.44	0.44	8.96	-0.26
40	84182	0.43	0.45	0.55	0.36	29.53	-0.38	12.99	-0.10	42.77	0.45	14.35	-0.04

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.1 (continued)
Spring 2014 AIMS Classical Item Analysis
Mathematics CRT Grade 3

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	84182	0.68	0.48	0.62	0.22	17.72	-0.27	68.12	0.48	10.19	-0.23	3.74	-0.26
42	84182	0.89	0.41	0.66	0.33	88.52	0.41	3.64	-0.23	3.41	-0.22	4.10	-0.24
43	84182	0.76	0.32	0.43	0.12	8.11	-0.27	6.15	-0.14	9.50	-0.10	76.12	0.32
44	84182	0.78	0.39	0.54	0.20	2.25	-0.21	3.50	-0.23	77.63	0.39	16.43	-0.24
45	84182	0.86	0.44	0.69	0.19	5.91	-0.29	3.43	-0.25	4.15	-0.19	86.32	0.44
46	84182	0.65	0.56	0.70	0.14	9.38	-0.24	23.27	-0.42	65.04	0.56	2.16	-0.12
47	84182	0.53	0.44	0.55	0.17	30.89	-0.29	6.80	-0.13	9.03	-0.19	53.10	0.44
48	84182	0.68	0.38	0.49	0.41	68.33	0.38	16.84	-0.21	12.06	-0.20	2.35	-0.23
49	84182	0.94	0.21	0.42	0.28	94.17	0.21	2.43	-0.13	2.57	-0.13	0.55	-0.12
50	84182	0.80	0.47	0.66	0.25	8.35	-0.33	6.93	-0.23	4.12	-0.18	80.35	0.47
51	84182	0.40	0.34	0.42	0.13	3.25	-0.10	39.54	0.34	32.90	-0.09	24.19	-0.24
52	84182	0.70	0.49	0.63	0.40	10.96	-0.26	69.89	0.49	12.29	-0.30	6.46	-0.17
53	84182	0.81	0.49	0.69	0.81	80.93	0.49	3.79	-0.13	2.50	-0.18	11.98	-0.42
54	84182	0.61	0.46	0.57	0.26	60.92	0.46	16.26	-0.18	11.15	-0.23	11.40	-0.27
55	84182	0.64	0.50	0.63	0.16	8.61	-0.30	8.44	-0.29	64.36	0.50	18.44	-0.20
56	84182	0.55	0.47	0.58	0.29	18.56	-0.26	13.69	-0.22	12.71	-0.18	54.75	0.47
57	84182	0.85	0.28	0.44	1.26	3.26	-0.11	85.16	0.28	3.37	-0.16	6.94	-0.18
58	84182	0.73	0.40	0.54	0.42	11.28	-0.24	3.76	-0.24	11.21	-0.18	73.33	0.40
59	84182	0.63	0.47	0.59	0.46	12.32	-0.27	10.60	-0.23	63.42	0.47	13.20	-0.19
60	84182	0.84	0.36	0.54	0.30	3.91	-0.19	84.06	0.36	8.32	-0.22	3.41	-0.17
61	84182	0.78	0.38	0.52	0.14	6.43	-0.19	8.88	-0.26	6.38	-0.14	78.17	0.38
62	84182	0.51	0.38	0.47	0.49	22.05	-0.16	50.98	0.38	16.04	-0.20	10.44	-0.16
63	84182	0.31	0.29	0.38	0.25	29.14	-0.01	17.47	-0.21	31.12	0.29	22.01	-0.14
64	84182	0.45	0.43	0.53	0.28	22.23	-0.16	18.21	-0.18	14.38	-0.23	44.90	0.43
65	84182	0.40	0.20	0.25	0.70	16.13	-0.09	22.61	-0.18	40.32	0.20	20.25	0.03
66	84182	0.90	0.42	0.71	0.30	3.91	-0.28	2.84	-0.21	2.75	-0.21	90.19	0.42

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.2
Spring 2014 AIMS Classical Item Analysis
Mathematics CRT Grade 4

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83430	0.83	0.37	0.54	0.02	83.39	0.37	6.03	-0.20	7.06	-0.23	3.50	-0.17
2	83430	0.70	0.48	0.62	0.04	70.41	0.48	26.05	-0.40	2.18	-0.19	1.32	-0.14
3	83430	0.57	0.45	0.55	0.06	39.64	-0.39	56.74	0.45	1.61	-0.14	1.95	-0.10
4	83430	0.70	0.45	0.59	0.07	4.83	-0.18	8.03	-0.25	16.83	-0.27	70.24	0.45
5	83430	0.36	0.44	0.56	0.04	28.38	-0.23	35.68	0.44	13.15	-0.16	22.74	-0.13
6	83430	0.72	0.51	0.68	0.08	2.98	-0.22	17.36	-0.41	7.25	-0.15	72.34	0.51
7	83430	0.80	0.47	0.67	0.08	4.63	-0.17	79.89	0.47	5.48	-0.19	9.92	-0.36
8	83430	0.65	0.48	0.61	0.08	11.64	-0.28	13.71	-0.24	65.00	0.48	9.58	-0.18
9	83430	0.64	0.41	0.52	0.13	7.94	-0.26	16.07	-0.24	64.22	0.41	11.64	-0.11
10	83430	0.47	0.32	0.40	0.09	28.16	-0.01	46.99	0.32	14.30	-0.26	10.46	-0.22
11	83430	0.62	0.52	0.65	0.14	12.20	-0.29	14.70	-0.23	62.44	0.52	10.53	-0.24
12	83430	0.75	0.41	0.55	0.07	74.79	0.41	7.62	-0.24	11.49	-0.19	6.03	-0.22
13	83430	0.32	0.24	0.32	0.12	16.39	-0.09	36.52	0.01	32.38	0.24	14.60	-0.24
14	83430	0.46	0.33	0.41	0.08	19.74	-0.13	45.91	0.33	17.01	-0.17	17.26	-0.13
15	83430	0.45	0.49	0.61	0.06	42.92	-0.46	44.73	0.49	4.77	-0.08	7.52	-0.01
16	83430	0.58	0.39	0.48	0.07	20.31	-0.12	13.76	-0.25	58.50	0.39	7.37	-0.21
17	83430	0.63	0.46	0.58	0.06	18.84	-0.29	63.38	0.46	9.57	-0.19	8.15	-0.19
18	83430	0.62	0.35	0.45	0.12	10.68	-0.19	61.90	0.35	14.40	-0.18	12.89	-0.15
19	83430	0.85	0.37	0.56	0.09	85.09	0.37	6.40	-0.20	5.57	-0.24	2.86	-0.16
20	83430	0.70	0.53	0.68	0.10	10.80	-0.26	69.59	0.53	13.57	-0.29	5.94	-0.27
21	83430	0.75	0.45	0.60	0.09	8.92	-0.22	8.76	-0.23	74.91	0.45	7.32	-0.25
22	83430	0.52	0.39	0.48	0.18	19.94	-0.20	52.08	0.39	10.39	-0.16	17.40	-0.17
23	83430	0.73	0.49	0.64	0.16	9.51	-0.26	9.28	-0.30	72.53	0.49	8.52	-0.20
24	83430	0.72	0.54	0.69	0.74	7.75	-0.24	71.52	0.54	8.47	-0.26	11.52	-0.32
25	83430	0.48	0.44	0.54	0.06	25.32	-0.22	48.48	0.44	15.09	-0.18	11.05	-0.20
26	83430	0.76	0.47	0.64	0.04	6.08	-0.23	76.14	0.47	9.18	-0.17	8.55	-0.34
27	83430	0.83	0.42	0.62	0.08	83.39	0.42	2.96	-0.22	3.39	-0.23	10.19	-0.25
28	83430	0.65	0.39	0.49	0.11	4.43	-0.19	4.25	-0.18	26.23	-0.25	64.97	0.39
29	83430	0.65	0.50	0.63	0.05	16.52	-0.42	8.08	-0.20	10.30	-0.09	65.04	0.50
30	83430	0.87	0.41	0.64	0.05	87.24	0.41	4.23	-0.20	3.02	-0.22	5.45	-0.25
31	83430	0.49	0.41	0.51	0.03	12.73	-0.29	7.64	-0.18	30.84	-0.13	48.76	0.41
32	83430	0.49	0.30	0.37	0.06	18.13	-0.17	49.46	0.30	13.05	-0.22	19.31	-0.03
33	83430	0.45	0.39	0.48	0.07	44.92	0.39	16.39	-0.19	21.93	-0.16	16.69	-0.15
34	83430	0.35	0.37	0.47	0.09	30.56	-0.06	35.46	0.37	25.92	-0.19	7.97	-0.24
35	83430	0.84	0.40	0.59	0.03	6.27	-0.24	84.15	0.40	5.64	-0.19	3.91	-0.22
36	83430	0.72	0.37	0.48	0.04	7.53	-0.18	10.56	-0.31	71.81	0.37	10.06	-0.07
37	83430	0.79	0.43	0.60	0.06	78.92	0.43	3.58	-0.24	6.29	-0.24	11.14	-0.23
38	83430	0.50	0.41	0.50	0.10	21.08	-0.18	14.31	-0.21	14.46	-0.16	50.05	0.41
39	83430	0.78	0.41	0.57	0.05	77.81	0.41	4.32	-0.19	10.52	-0.22	7.30	-0.25
40	83430	0.68	0.49	0.63	0.06	68.02	0.49	13.45	-0.31	5.99	-0.23	12.48	-0.22

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.2 (continued)
Spring 2014 AIMS Classical Item Analysis
Mathematics CRT Grade 4

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	83430	0.84	0.43	0.65	0.08	4.69	-0.23	4.69	-0.23	6.56	-0.25	83.98	0.43
42	83430	0.53	0.55	0.67	0.06	26.79	-0.40	13.29	-0.17	53.10	0.55	6.76	-0.16
43	83430	0.82	0.46	0.66	0.03	82.07	0.46	6.73	-0.27	8.73	-0.27	2.43	-0.19
44	83430	0.47	0.37	0.45	0.26	23.07	-0.19	20.07	-0.11	9.89	-0.19	46.71	0.37
45	83430	0.70	0.14	0.18	0.05	9.30	-0.06	7.22	0.04	70.06	0.14	13.39	-0.16
46	83430	0.69	0.37	0.47	0.07	12.33	-0.21	68.64	0.37	8.86	-0.18	10.11	-0.16
47	83430	0.46	0.42	0.52	0.07	12.15	-0.18	28.35	-0.20	13.37	-0.18	46.07	0.42
48	83430	0.75	0.42	0.57	0.04	74.87	0.42	6.87	-0.23	9.68	-0.23	8.54	-0.21
49	83430	0.57	0.39	0.49	0.03	7.03	-0.24	56.83	0.39	22.93	-0.09	13.18	-0.28
50	83430	0.86	0.33	0.51	0.05	4.48	-0.19	5.05	-0.18	4.56	-0.18	85.85	0.33
51	83430	0.78	0.37	0.51	0.06	9.39	-0.20	77.58	0.37	7.56	-0.21	5.40	-0.17
52	83430	0.68	0.50	0.64	0.07	68.13	0.50	16.91	-0.28	7.35	-0.23	7.54	-0.25
53	83430	0.45	0.31	0.39	0.05	12.40	-0.12	10.70	-0.22	45.44	0.31	31.40	-0.11
54	83430	0.69	0.42	0.54	0.05	12.82	-0.22	9.03	-0.15	9.38	-0.26	68.72	0.42
55	83430	0.52	0.43	0.53	0.13	18.51	-0.22	52.35	0.43	12.93	-0.16	16.09	-0.20
56	83430	0.74	0.54	0.72	0.03	5.30	-0.26	16.34	-0.36	4.39	-0.22	73.94	0.54
57	83430	0.61	0.33	0.42	0.05	23.25	-0.24	13.48	-0.10	2.25	-0.19	60.97	0.33
58	83430	0.43	0.34	0.43	0.09	18.86	-0.09	42.56	0.34	11.71	-0.17	26.78	-0.18
59	83430	0.56	0.38	0.47	0.07	17.59	-0.30	8.98	-0.18	16.99	-0.06	56.37	0.38
60	83430	0.79	0.36	0.51	0.03	5.19	-0.29	11.96	-0.15	3.47	-0.18	79.34	0.36
61	83430	0.72	0.45	0.59	0.06	15.46	-0.25	4.11	-0.23	8.13	-0.24	72.24	0.45
62	83430	0.57	0.34	0.42	0.09	57.28	0.34	18.73	-0.13	15.54	-0.19	8.36	-0.16
63	83430	0.32	0.26	0.34	0.09	31.66	0.26	8.36	-0.11	21.79	-0.09	38.10	-0.11
64	83430	0.62	0.48	0.60	0.05	13.06	-0.26	10.58	-0.22	61.98	0.48	14.32	-0.21
65	83430	0.73	0.46	0.61	0.06	12.99	-0.26	72.91	0.46	7.11	-0.26	6.93	-0.20
66	83430	0.70	0.38	0.50	0.11	5.10	-0.23	17.22	-0.15	70.17	0.38	7.41	-0.25
67	83430	0.45	0.35	0.43	0.12	11.23	-0.25	30.00	-0.10	45.11	0.35	13.54	-0.14
68	83430	0.58	0.43	0.53	0.30	20.44	-0.22	8.69	-0.18	12.63	-0.21	57.93	0.43

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.3
Spring 2014 AIMS Classical Item Analysis
Mathematics CRT Grade 5

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83573	0.91	0.28	0.49	0.02	1.33	-0.15	1.38	-0.17	6.39	-0.18	90.88	0.28
2	83573	0.31	0.21	0.28	0.20	17.03	-0.05	30.68	0.21	37.20	0.05	14.89	-0.29
3	83573	0.49	0.39	0.48	0.08	9.50	-0.24	19.83	-0.05	21.87	-0.26	48.72	0.39
4	83573	0.26	0.35	0.46	0.05	53.92	-0.28	11.25	-0.04	8.38	-0.02	26.41	0.35
5	83573	0.74	0.52	0.70	0.07	12.57	-0.32	5.17	-0.17	8.11	-0.31	74.08	0.52
6	83573	0.35	0.26	0.33	0.08	19.41	-0.14	34.86	0.26	18.96	-0.11	26.68	-0.05
7	83573	0.46	0.46	0.56	0.06	38.34	-0.25	45.53	0.46	10.57	-0.27	5.51	-0.10
8	83573	0.68	0.52	0.66	0.08	68.01	0.52	12.51	-0.17	12.21	-0.32	7.20	-0.32
9	83573	0.45	0.43	0.53	0.06	10.14	-0.10	45.01	0.43	21.33	-0.16	23.47	-0.28
10	83573	0.67	0.40	0.52	0.03	67.34	0.40	6.43	-0.23	16.17	-0.20	10.03	-0.19
11	83573	0.67	0.43	0.55	0.05	14.71	-0.27	66.55	0.43	10.21	-0.15	8.48	-0.22
12	83573	0.68	0.40	0.51	0.05	68.17	0.40	6.84	-0.22	15.47	-0.20	9.47	-0.19
13	83573	0.69	0.42	0.54	0.09	11.72	-0.22	6.56	-0.23	68.83	0.42	12.80	-0.20
14	83573	0.76	0.44	0.59	0.04	7.66	-0.23	75.56	0.44	11.50	-0.24	5.24	-0.24
15	83573	0.76	0.43	0.59	0.06	8.38	-0.25	8.44	-0.28	76.14	0.43	6.98	-0.15
16	83573	0.44	0.25	0.31	0.13	20.35	-0.04	43.94	0.25	14.69	-0.23	20.88	-0.07
17	83573	0.41	0.23	0.29	0.09	35.44	-0.02	13.16	-0.12	10.36	-0.20	40.95	0.23
18	83573	0.65	0.43	0.54	0.15	65.21	0.43	24.09	-0.27	7.52	-0.22	3.04	-0.18
19	83573	0.55	0.35	0.44	0.06	54.78	0.35	30.74	-0.10	8.91	-0.28	5.51	-0.23
20	83573	0.82	0.32	0.47	0.08	10.83	-0.16	3.19	-0.18	4.23	-0.22	81.66	0.32
21	83573	0.63	0.47	0.59	0.11	62.79	0.47	12.90	-0.25	17.33	-0.24	6.87	-0.21
22	83573	0.56	0.38	0.48	0.07	17.05	-0.34	56.02	0.38	18.61	0.00	8.26	-0.23
23	83573	0.60	0.35	0.44	0.28	8.48	-0.29	59.77	0.35	25.02	-0.11	6.46	-0.19
24	83573	0.89	0.34	0.57	0.02	3.38	-0.22	4.51	-0.17	3.15	-0.20	88.94	0.34
25	83573	0.68	0.49	0.62	0.03	12.63	-0.36	12.33	-0.21	67.72	0.49	7.29	-0.15
26	83573	0.75	0.38	0.51	0.06	74.99	0.38	10.22	-0.21	10.39	-0.22	4.35	-0.16
27	83573	0.67	0.43	0.55	0.02	67.41	0.43	18.80	-0.29	8.69	-0.19	5.08	-0.15
28	83573	0.88	0.39	0.61	0.02	87.55	0.39	4.93	-0.19	3.54	-0.21	3.96	-0.24
29	83573	0.54	0.26	0.32	0.08	25.65	0.01	10.38	-0.21	54.32	0.26	9.56	-0.24
30	83573	0.66	0.59	0.75	0.02	22.61	-0.49	65.79	0.59	2.14	-0.17	9.44	-0.18
31	83573	0.80	0.49	0.69	0.03	79.93	0.49	5.94	-0.27	8.78	-0.32	5.32	-0.19
32	83573	0.44	0.45	0.55	0.05	37.93	-0.30	11.75	-0.13	6.66	-0.13	43.61	0.45
33	83573	0.67	0.28	0.36	0.03	3.55	-0.19	8.12	-0.14	21.06	-0.14	67.24	0.28
34	83573	0.65	0.44	0.56	0.08	23.73	-0.28	6.73	-0.19	64.98	0.44	4.48	-0.22
35	83573	0.75	0.46	0.62	0.02	75.40	0.46	5.34	-0.27	11.86	-0.23	7.38	-0.24
36	83573	0.71	0.52	0.67	0.06	70.52	0.52	9.69	-0.30	7.25	-0.25	12.47	-0.25
37	83573	0.68	0.30	0.39	0.04	67.73	0.30	8.83	-0.20	18.47	-0.10	4.94	-0.22
38	83573	0.72	0.46	0.61	0.02	13.26	-0.18	72.22	0.46	5.26	-0.27	9.23	-0.30
39	83573	0.67	0.37	0.47	0.09	11.33	-0.34	67.34	0.37	14.62	-0.02	6.61	-0.24
40	83573	0.73	0.41	0.54	0.03	9.01	-0.27	6.07	-0.26	72.60	0.41	12.29	-0.13

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.3 (continued)
Spring 2014 AIMS Classical Item Analysis
Mathematics CRT Grade 5

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	83573	0.46	0.39	0.49	0.03	15.50	-0.15	12.21	-0.11	45.95	0.39	26.30	-0.24
42	83573	0.54	0.36	0.45	0.06	25.76	-0.17	54.46	0.36	10.05	-0.15	9.68	-0.21
43	83573	0.40	0.18	0.22	0.10	12.36	-0.11	15.47	-0.15	32.13	0.01	39.94	0.18
44	83573	0.53	0.33	0.41	0.07	17.45	-0.18	53.33	0.33	18.30	-0.12	10.85	-0.16
45	83573	0.71	0.41	0.53	0.31	71.26	0.41	5.61	-0.21	18.37	-0.25	4.45	-0.20
46	83573	0.76	0.49	0.66	0.03	10.55	-0.23	75.81	0.49	7.84	-0.29	5.77	-0.27
47	83573	0.74	0.53	0.70	0.03	11.85	-0.36	3.20	-0.19	73.73	0.53	11.18	-0.26
48	83573	0.60	0.50	0.62	0.07	60.09	0.50	7.98	-0.28	21.72	-0.24	10.15	-0.22
49	83573	0.72	0.54	0.70	0.05	12.26	-0.33	72.25	0.54	11.62	-0.27	3.82	-0.22
50	83573	0.77	0.45	0.62	0.02	77.33	0.45	6.75	-0.16	6.70	-0.27	9.20	-0.28
51	83573	0.52	0.46	0.57	0.06	52.34	0.46	23.93	-0.28	11.14	-0.17	12.53	-0.17
52	83573	0.59	0.39	0.48	0.07	58.81	0.39	14.19	-0.25	14.61	-0.18	12.31	-0.12
53	83573	0.37	0.21	0.27	0.03	26.19	-0.07	37.06	0.21	21.24	-0.16	15.48	-0.01
54	83573	0.84	0.35	0.52	0.03	3.88	-0.23	2.28	-0.18	9.41	-0.19	84.40	0.35
55	83573	0.60	0.40	0.50	0.04	11.91	-0.24	16.33	-0.09	11.45	-0.26	60.28	0.40
56	83573	0.74	0.36	0.49	0.02	10.30	-0.22	74.40	0.36	5.69	-0.24	9.59	-0.12
57	83573	0.71	0.42	0.55	0.05	70.60	0.42	22.64	-0.30	3.58	-0.16	3.13	-0.22
58	83573	0.36	0.05	0.07	0.05	11.32	-0.10	25.90	-0.02	27.16	0.04	35.57	0.05
59	83573	0.89	0.40	0.66	0.07	3.86	-0.25	3.97	-0.23	88.94	0.40	3.17	-0.20
60	83573	0.45	0.30	0.37	0.06	20.47	-0.14	45.15	0.30	18.80	-0.12	15.51	-0.12
61	83573	0.62	0.38	0.47	0.14	13.59	-0.17	10.93	-0.19	62.02	0.38	13.32	-0.19
62	83573	0.76	0.34	0.47	0.05	2.67	-0.15	76.22	0.34	15.25	-0.29	5.81	-0.08
63	83573	0.46	0.41	0.51	0.06	38.64	-0.29	8.37	-0.14	45.66	0.41	7.27	-0.09
64	83573	0.78	0.43	0.60	0.04	9.04	-0.29	77.90	0.43	4.99	-0.22	8.04	-0.19
65	83573	0.64	0.53	0.66	0.05	11.65	-0.14	63.76	0.53	15.71	-0.28	8.82	-0.37
66	83573	0.42	0.43	0.54	0.07	21.32	-0.33	24.46	-0.08	42.28	0.43	11.87	-0.14
67	83573	0.67	0.54	0.69	0.10	3.97	-0.21	66.52	0.54	17.35	-0.24	12.05	-0.38

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.4
Spring 2014 AIMS Classical Item Analysis
Mathematics CRT Grade 6

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82584	0.81	0.29	0.42	0.03	80.56	0.29	5.24	-0.09	12.73	-0.24	1.44	-0.13
2	82584	0.72	0.43	0.56	0.03	10.19	-0.15	9.95	-0.27	7.88	-0.25	71.96	0.43
3	82584	0.39	0.32	0.40	0.10	21.95	-0.11	15.01	-0.12	38.80	0.32	24.14	-0.16
4	82584	0.39	0.29	0.37	0.15	11.57	-0.10	26.48	-0.07	23.20	-0.19	38.59	0.29
5	82584	0.50	0.36	0.45	0.07	16.50	-0.18	11.08	-0.22	50.32	0.36	22.03	-0.10
6	82584	0.74	0.46	0.62	0.05	8.91	-0.27	3.53	-0.15	13.06	-0.29	74.44	0.46
7	82584	0.76	0.49	0.66	0.06	11.97	-0.32	76.35	0.49	6.14	-0.20	5.47	-0.24
8	82584	0.54	0.39	0.48	0.14	30.17	-0.22	54.00	0.39	6.82	-0.16	8.87	-0.18
9	82584	0.82	0.37	0.54	0.03	82.46	0.37	4.90	-0.19	8.17	-0.23	4.43	-0.17
10	82584	0.85	0.40	0.61	0.04	4.69	-0.20	85.31	0.40	6.89	-0.27	3.07	-0.19
11	82584	0.39	0.50	0.63	0.08	24.90	-0.28	9.19	-0.18	27.22	-0.16	38.61	0.50
12	82584	0.55	0.40	0.50	0.06	21.57	-0.17	54.93	0.40	16.79	-0.20	6.65	-0.22
13	82584	0.59	0.37	0.46	0.08	16.56	-0.15	58.86	0.37	11.75	-0.19	12.75	-0.18
14	82584	0.61	0.37	0.46	0.06	60.70	0.37	18.77	-0.25	10.86	-0.14	9.61	-0.13
15	82584	0.86	0.38	0.59	0.07	2.17	-0.17	86.18	0.38	10.06	-0.28	1.51	-0.16
16	82584	0.54	0.45	0.56	0.05	11.49	-0.17	15.55	-0.10	54.33	0.45	18.58	-0.35
17	82584	0.50	0.44	0.54	0.07	11.83	-0.28	22.46	-0.19	15.81	-0.14	49.83	0.44
18	82584	0.48	0.34	0.42	0.07	32.33	-0.10	14.43	-0.23	47.55	0.34	5.63	-0.18
19	82584	0.59	0.36	0.44	0.06	9.59	-0.15	17.10	-0.20	58.62	0.36	14.63	-0.16
20	82584	0.70	0.39	0.51	0.07	6.90	-0.30	10.92	-0.20	12.39	-0.12	69.72	0.39
21	82584	0.60	0.40	0.50	0.12	20.37	-0.18	11.16	-0.25	59.96	0.40	8.39	-0.15
22	82584	0.51	0.35	0.44	0.04	31.69	-0.13	51.12	0.35	8.63	-0.24	8.52	-0.18
23	82584	0.35	0.32	0.41	0.11	16.37	-0.09	35.37	0.32	26.35	-0.14	21.80	-0.15
24	82584	0.82	0.34	0.49	0.01	11.73	-0.30	3.55	-0.08	82.17	0.34	2.54	-0.11
25	82584	0.55	0.30	0.37	0.08	12.98	-0.16	9.09	-0.20	54.52	0.30	23.33	-0.09
26	82584	0.58	0.41	0.51	0.07	9.43	-0.28	22.51	-0.12	9.65	-0.23	58.33	0.41
27	82584	0.87	0.38	0.59	0.06	3.12	-0.10	7.04	-0.32	3.26	-0.17	86.52	0.38
28	82584	0.65	0.18	0.23	0.02	14.44	-0.22	65.08	0.18	17.24	0.03	3.22	-0.11
29	82584	0.82	0.45	0.64	0.04	81.76	0.45	6.59	-0.26	7.26	-0.26	4.35	-0.20
30	82584	0.72	0.55	0.73	0.04	11.85	-0.28	8.27	-0.29	7.65	-0.30	72.19	0.55
31	82584	0.73	0.27	0.36	0.02	11.42	-0.16	2.85	-0.14	73.36	0.27	12.35	-0.14
32	82584	0.70	0.53	0.69	0.08	13.47	-0.29	7.53	-0.26	8.90	-0.27	70.03	0.53
33	82584	0.47	0.27	0.33	0.02	24.17	-0.05	47.09	0.27	13.76	-0.17	14.96	-0.15
34	82584	0.76	0.36	0.49	0.04	5.28	-0.23	11.27	-0.25	76.48	0.36	6.93	-0.09
35	82584	0.44	0.44	0.55	0.06	43.52	0.44	32.61	-0.27	15.77	-0.12	8.04	-0.19
36	82584	0.45	0.31	0.39	0.03	13.15	-0.27	25.17	-0.06	17.00	-0.10	44.64	0.31
37	82584	0.76	0.55	0.74	0.05	8.59	-0.28	75.88	0.55	8.43	-0.31	7.06	-0.28
38	82584	0.64	0.35	0.45	0.04	64.17	0.35	11.22	-0.19	18.46	-0.18	6.11	-0.15
39	82584	0.79	0.43	0.60	0.02	15.06	-0.34	3.61	-0.15	79.39	0.43	1.92	-0.16
40	82584	0.59	0.45	0.56	0.05	11.31	-0.26	59.42	0.45	20.02	-0.19	9.20	-0.23

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.4 (continued)
Spring 2014 AIMS Classical Item Analysis
Mathematics CRT Grade 6

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	82584	0.56	0.48	0.60	0.04	25.60	-0.21	11.95	-0.30	6.09	-0.22	56.31	0.48
42	82584	0.48	0.29	0.36	0.05	32.76	-0.11	48.17	0.29	11.15	-0.17	7.86	-0.14
43	82584	0.51	0.35	0.43	0.03	9.64	-0.27	51.02	0.35	8.33	-0.23	30.98	-0.07
44	82584	0.46	0.23	0.29	0.07	27.74	-0.10	16.13	-0.07	45.65	0.23	10.42	-0.14
45	82584	0.60	0.32	0.40	0.09	12.73	-0.26	60.34	0.32	16.70	-0.09	10.14	-0.12
46	82584	0.66	0.44	0.56	0.15	18.37	-0.24	10.24	-0.24	65.68	0.44	5.55	-0.20
47	82584	0.72	0.50	0.66	0.06	12.36	-0.29	72.21	0.50	10.89	-0.30	4.48	-0.18
48	82584	0.75	0.55	0.73	0.05	6.87	-0.26	11.97	-0.33	6.41	-0.26	74.70	0.55
49	82584	0.76	0.44	0.60	0.05	76.13	0.44	9.39	-0.22	5.26	-0.24	9.18	-0.24
50	82584	0.47	0.39	0.48	0.06	14.16	-0.26	13.95	-0.21	25.08	-0.07	46.75	0.39
51	82584	0.52	0.38	0.47	0.08	17.29	-0.22	16.94	-0.12	13.24	-0.18	52.45	0.38
52	82584	0.50	0.48	0.59	0.04	32.60	-0.43	7.82	-0.17	9.26	0.03	50.28	0.48
53	82584	0.68	0.53	0.68	0.05	11.66	-0.30	68.50	0.53	15.32	-0.31	4.47	-0.19
54	82584	0.66	0.54	0.68	0.06	15.48	-0.30	9.72	-0.29	8.66	-0.21	66.08	0.54
55	82584	0.78	0.55	0.75	0.02	6.32	-0.22	77.52	0.55	14.00	-0.43	2.14	-0.17
56	82584	0.57	0.36	0.45	0.05	15.92	-0.09	11.75	-0.19	56.53	0.36	15.74	-0.23
57	82584	0.82	0.47	0.68	0.05	81.68	0.47	7.59	-0.27	4.60	-0.25	6.08	-0.24
58	82584	0.38	0.22	0.27	0.03	21.13	-0.21	29.63	-0.02	37.89	0.22	11.32	-0.03
59	82584	0.43	0.31	0.39	0.05	24.19	-0.18	29.00	-0.10	43.09	0.31	3.67	-0.16
60	82584	0.42	0.27	0.34	0.06	31.60	-0.09	41.94	0.27	15.75	-0.13	10.64	-0.15
61	82584	0.48	0.41	0.50	0.08	8.24	-0.23	21.49	-0.19	47.71	0.41	22.49	-0.14
62	82584	0.43	0.27	0.34	0.07	42.51	0.27	24.14	-0.11	14.88	-0.17	18.40	-0.06
63	82584	0.55	0.33	0.41	0.09	55.28	0.33	17.97	-0.16	11.87	-0.20	14.79	-0.10
64	82584	0.55	0.51	0.63	0.08	11.72	-0.31	19.49	-0.25	55.35	0.51	13.36	-0.17
65	82584	0.67	0.45	0.58	0.07	11.29	-0.23	12.27	-0.20	9.12	-0.25	67.24	0.45
66	82584	0.65	0.51	0.65	0.05	11.45	-0.27	7.97	-0.27	15.17	-0.23	65.36	0.51
67	82584	0.54	0.38	0.47	0.09	17.57	-0.29	18.21	-0.13	53.87	0.38	10.27	-0.09
68	82584	0.57	0.38	0.47	0.18	16.93	-0.21	5.80	-0.22	56.57	0.38	20.51	-0.14

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.5
Spring 2014 AIMS Classical Item Analysis
Mathematics CRT Grade 7

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83109	0.41	0.12	0.15	0.24	24.34	0.05	22.45	-0.11	41.40	0.12	11.56	-0.11
2	83109	0.82	0.32	0.47	0.03	82.06	0.32	11.65	-0.21	1.86	-0.15	4.40	-0.17
3	83109	0.60	0.36	0.46	0.07	10.87	-0.15	11.75	-0.18	16.82	-0.20	60.49	0.36
4	83109	0.46	0.36	0.45	0.29	22.96	-0.25	45.83	0.36	24.00	-0.06	6.92	-0.19
5	83109	0.52	0.37	0.45	0.06	9.81	-0.18	19.74	-0.21	51.60	0.37	18.80	-0.12
6	83109	0.50	0.25	0.31	0.06	21.13	-0.16	49.68	0.25	17.59	-0.09	11.54	-0.08
7	83109	0.40	0.25	0.32	0.27	39.55	0.25	21.53	-0.13	21.98	-0.12	16.68	-0.05
8	83109	0.60	0.40	0.50	0.03	23.96	-0.16	59.53	0.40	11.97	-0.26	4.51	-0.20
9	83109	0.79	0.35	0.50	0.11	78.92	0.35	2.77	-0.18	3.69	-0.19	14.51	-0.22
10	83109	0.72	0.43	0.56	0.04	10.40	-0.25	10.07	-0.21	72.08	0.43	7.42	-0.20
11	83109	0.73	0.36	0.48	0.09	72.92	0.36	12.27	-0.22	9.13	-0.20	5.60	-0.15
12	83109	0.62	0.43	0.54	0.02	6.79	-0.26	25.43	-0.21	62.23	0.43	5.53	-0.23
13	83109	0.38	0.35	0.44	0.11	21.58	-0.13	20.34	-0.16	20.27	-0.13	37.70	0.35
14	83109	0.82	0.42	0.60	0.03	6.52	-0.24	81.55	0.42	5.29	-0.21	6.61	-0.22
15	83109	0.60	0.51	0.63	0.06	59.94	0.51	7.18	-0.22	11.70	-0.25	21.12	-0.27
16	83109	0.34	0.21	0.27	0.10	33.92	0.21	25.56	-0.06	23.86	-0.09	16.56	-0.10
17	83109	0.71	0.46	0.59	0.06	9.90	-0.26	70.57	0.46	10.08	-0.23	9.38	-0.21
18	83109	0.63	0.40	0.50	0.04	20.63	-0.09	7.44	-0.25	62.56	0.40	9.32	-0.31
19	83109	0.52	0.49	0.60	0.07	8.70	-0.25	31.84	-0.30	52.23	0.49	7.16	-0.15
20	83109	0.55	0.52	0.64	0.09	17.08	-0.24	13.41	-0.17	14.60	-0.32	54.83	0.52
21	83109	0.52	0.40	0.49	0.17	15.97	-0.23	20.85	-0.19	52.31	0.40	10.70	-0.12
22	83109	0.25	0.26	0.36	0.18	27.40	-0.05	16.50	-0.07	30.86	-0.14	25.06	0.26
23	83109	0.78	0.44	0.61	0.02	78.22	0.44	9.27	-0.18	9.33	-0.32	3.16	-0.20
24	83109	0.73	0.44	0.58	0.09	9.30	-0.25	73.12	0.44	10.68	-0.23	6.81	-0.21
25	83109	0.66	0.47	0.60	0.04	8.13	-0.26	10.80	-0.22	14.68	-0.23	66.35	0.47
26	83109	0.76	0.44	0.59	0.03	10.23	-0.24	75.56	0.44	7.39	-0.24	6.79	-0.21
27	83109	0.65	0.14	0.18	0.04	64.95	0.14	5.43	-0.22	4.22	-0.20	25.37	0.05
28	83109	0.57	0.38	0.47	0.05	7.37	-0.09	57.32	0.38	23.81	-0.26	11.45	-0.17
29	83109	0.70	0.53	0.68	0.05	4.86	-0.17	70.31	0.53	11.91	-0.33	12.88	-0.29
30	83109	0.42	0.33	0.41	0.05	20.55	-0.19	19.50	-0.14	42.29	0.33	17.60	-0.08
31	83109	0.62	0.37	0.46	0.10	12.24	-0.13	61.84	0.37	10.26	-0.26	15.56	-0.15
32	83109	0.58	0.45	0.56	0.05	19.01	-0.25	12.29	-0.15	57.73	0.45	10.91	-0.25
33	83109	0.56	0.36	0.45	0.08	10.74	-0.01	55.87	0.36	27.33	-0.32	5.98	-0.15
34	83109	0.85	0.49	0.74	0.03	5.10	-0.28	5.28	-0.28	5.04	-0.24	84.54	0.49
35	83109	0.77	0.46	0.63	0.03	77.23	0.46	6.18	-0.23	8.38	-0.20	8.18	-0.30
36	83109	0.43	0.15	0.18	0.03	12.80	-0.29	18.66	0.06	42.98	0.15	25.53	0.00
37	83109	0.47	0.44	0.54	0.02	20.05	-0.31	16.25	-0.16	46.97	0.44	16.72	-0.09
38	83109	0.35	0.22	0.28	0.04	18.80	-0.03	18.46	-0.17	27.79	-0.06	34.91	0.22
39	83109	0.68	0.29	0.37	0.02	6.99	-0.20	16.49	-0.09	8.87	-0.18	67.63	0.29
40	83109	0.67	0.43	0.55	0.08	10.86	-0.20	13.60	-0.23	66.81	0.43	8.66	-0.22

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.5 (continued)
Spring 2014 AIMS Classical Item Analysis
Mathematics CRT Grade 7

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	83109	0.79	0.42	0.58	0.03	5.47	-0.25	79.15	0.42	8.73	-0.23	6.62	-0.19
42	83109	0.62	0.47	0.58	0.03	62.37	0.47	12.06	-0.25	9.03	-0.19	16.50	-0.24
43	83109	0.37	0.40	0.50	0.04	28.57	-0.20	27.47	-0.16	37.22	0.40	6.70	-0.12
44	83109	0.42	0.17	0.22	0.10	20.48	-0.19	42.44	0.17	22.36	-0.02	14.62	0.00
45	83109	0.68	0.51	0.65	0.07	67.84	0.51	5.82	-0.26	8.49	-0.25	17.78	-0.28
46	83109	0.54	0.38	0.47	0.21	19.45	-0.18	15.00	-0.23	53.67	0.38	11.68	-0.12
47	83109	0.54	0.36	0.44	0.08	27.78	-0.29	10.39	-0.17	53.77	0.36	7.97	0.02
48	83109	0.81	0.35	0.50	0.01	5.06	-0.23	6.85	-0.20	7.54	-0.14	80.54	0.35
49	83109	0.58	0.36	0.44	0.03	9.66	-0.16	24.29	-0.19	57.51	0.36	8.50	-0.17
50	83109	0.70	0.51	0.65	0.10	12.13	-0.21	69.65	0.51	5.90	-0.23	12.22	-0.33
51	83109	0.65	0.53	0.67	0.01	23.69	-0.34	4.45	-0.23	64.65	0.53	7.20	-0.24
52	83109	0.72	0.48	0.63	0.05	7.17	-0.28	72.32	0.48	8.27	-0.20	12.19	-0.26
53	83109	0.43	0.34	0.43	0.12	15.45	-0.09	42.79	0.34	22.10	-0.15	19.53	-0.19
54	83109	0.37	0.34	0.43	0.07	35.90	-0.14	24.35	-0.19	37.06	0.34	2.62	-0.10
55	83109	0.58	0.53	0.65	0.02	13.98	-0.25	12.30	-0.26	16.16	-0.24	57.54	0.53
56	83109	0.69	0.44	0.56	0.02	12.12	-0.24	68.95	0.44	15.17	-0.23	3.74	-0.23
57	83109	0.66	0.50	0.64	0.03	4.83	-0.29	11.48	-0.15	66.49	0.50	17.18	-0.34
58	83109	0.85	0.50	0.75	0.02	8.00	-0.36	84.51	0.50	4.43	-0.24	3.04	-0.21
59	83109	0.72	0.51	0.67	0.03	7.40	-0.32	10.71	-0.28	10.32	-0.20	71.54	0.51
60	83109	0.57	0.41	0.51	0.06	7.26	-0.25	14.86	-0.36	57.35	0.41	20.47	-0.03
61	83109	0.35	0.32	0.41	0.08	17.29	-0.10	34.95	0.32	22.84	-0.23	24.83	-0.04
62	83109	0.35	0.25	0.32	0.04	25.73	-0.02	31.88	-0.13	34.51	0.25	7.85	-0.20
63	83109	0.74	0.50	0.66	0.03	74.29	0.50	3.89	-0.23	10.31	-0.28	11.48	-0.28
64	83109	0.61	0.56	0.69	0.06	16.92	-0.31	14.50	-0.25	7.87	-0.25	60.65	0.56
65	83109	0.79	0.44	0.61	0.07	5.32	-0.22	9.06	-0.27	78.58	0.44	6.96	-0.22
66	83109	0.67	0.43	0.55	0.04	6.29	-0.22	66.64	0.43	15.07	-0.21	11.95	-0.23
67	83109	0.60	0.40	0.51	0.04	19.20	-0.27	60.23	0.40	14.58	-0.14	5.94	-0.17
68	83109	0.63	0.46	0.58	0.04	12.05	-0.16	62.81	0.46	13.56	-0.24	11.54	-0.29

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.6
Spring 2014 AIMS Classical Item Analysis
Mathematics CRT Grade 8

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82364	0.90	0.31	0.54	0.01	90.46	0.31	0.85	-0.12	1.71	-0.20	6.97	-0.21
2	82364	0.61	0.41	0.52	0.14	7.25	-0.16	18.71	-0.24	60.56	0.41	13.33	-0.19
3	82364	0.90	0.34	0.59	0.03	2.70	-0.17	90.14	0.34	4.74	-0.21	2.40	-0.19
4	82364	0.50	0.25	0.31	0.12	7.97	-0.14	28.16	-0.07	13.72	-0.16	50.03	0.25
5	82364	0.73	0.45	0.60	0.04	72.90	0.45	7.82	-0.26	6.93	-0.23	12.31	-0.22
6	82364	0.75	0.50	0.67	0.05	6.78	-0.27	10.14	-0.30	8.09	-0.21	74.95	0.50
7	82364	0.41	0.39	0.48	0.10	20.60	-0.14	18.16	-0.19	19.84	-0.15	41.31	0.39
8	82364	0.46	0.40	0.49	0.05	21.19	-0.15	24.43	-0.17	46.33	0.40	7.99	-0.23
9	82364	0.51	0.43	0.53	0.13	15.32	-0.14	15.92	-0.29	51.48	0.43	17.14	-0.16
10	82364	0.42	0.32	0.40	0.04	3.15	-0.20	41.94	0.32	18.06	-0.09	36.81	-0.19
11	82364	0.58	0.36	0.45	0.03	15.71	-0.15	9.46	-0.23	57.66	0.36	17.14	-0.15
12	82364	0.71	0.56	0.73	0.06	70.68	0.56	11.70	-0.33	10.74	-0.29	6.83	-0.23
13	82364	0.57	0.46	0.57	0.04	21.45	-0.16	12.38	-0.28	9.54	-0.23	56.59	0.46
14	82364	0.72	0.45	0.59	0.06	9.98	-0.22	72.09	0.45	12.61	-0.26	5.27	-0.21
15	82364	0.74	0.40	0.53	0.04	6.16	-0.20	5.95	-0.24	74.31	0.40	13.53	-0.20
16	82364	0.50	0.34	0.42	0.12	49.88	0.34	14.71	-0.20	16.34	-0.19	18.95	-0.07
17	82364	0.55	0.52	0.64	0.07	21.83	-0.36	13.88	-0.17	9.61	-0.17	54.61	0.52
18	82364	0.71	0.44	0.58	0.04	7.74	-0.13	71.28	0.44	9.55	-0.28	11.40	-0.26
19	82364	0.34	0.39	0.50	0.11	23.22	-0.20	20.31	-0.18	22.51	-0.07	33.84	0.39
20	82364	0.54	0.45	0.55	0.11	15.93	-0.22	19.10	-0.22	53.72	0.45	11.14	-0.18
21	82364	0.56	0.28	0.35	0.07	24.41	-0.05	8.85	-0.23	10.85	-0.17	55.83	0.28
22	82364	0.66	0.49	0.63	0.08	65.75	0.49	12.25	-0.23	12.62	-0.29	9.30	-0.21
23	82364	0.47	0.25	0.31	0.04	14.17	-0.14	25.68	-0.04	46.60	0.25	13.51	-0.16
24	82364	0.48	0.36	0.45	0.08	16.36	-0.23	16.55	-0.19	47.64	0.36	19.37	-0.07
25	82364	0.76	0.41	0.55	0.04	2.72	-0.20	7.34	-0.23	75.76	0.41	14.13	-0.24
26	82364	0.45	0.40	0.50	0.02	7.16	-0.22	4.26	-0.20	43.13	-0.21	45.42	0.40
27	82364	0.78	0.44	0.60	0.05	8.09	-0.29	8.87	-0.24	78.02	0.44	4.98	-0.14
28	82364	0.49	0.28	0.35	0.06	49.28	0.28	21.66	-0.07	25.01	-0.19	4.00	-0.14
29	82364	0.66	0.46	0.58	0.04	7.51	-0.13	65.76	0.46	14.70	-0.20	12.00	-0.34
30	82364	0.68	0.53	0.69	0.09	6.48	-0.23	13.76	-0.29	11.39	-0.29	68.28	0.53
31	82364	0.43	0.28	0.35	0.06	23.11	-0.07	16.34	-0.22	43.44	0.28	17.05	-0.07
32	82364	0.36	0.34	0.43	0.08	37.19	-0.13	9.86	-0.18	16.39	-0.12	36.48	0.34
33	82364	0.44	0.39	0.48	0.05	26.90	-0.08	18.72	-0.19	44.11	0.39	10.22	-0.28
34	82364	0.87	0.40	0.63	0.05	4.43	-0.20	86.82	0.40	5.28	-0.25	3.43	-0.21
35	82364	0.69	0.34	0.45	0.01	6.27	-0.21	69.41	0.34	18.22	-0.18	6.09	-0.15
36	82364	0.56	0.50	0.61	0.04	17.72	-0.27	7.84	-0.21	55.54	0.50	18.85	-0.22
37	82364	0.59	0.42	0.53	0.04	10.63	-0.17	15.52	-0.16	58.58	0.42	15.23	-0.27
38	82364	0.39	0.25	0.32	0.05	14.80	-0.18	38.61	0.25	32.27	0.03	14.27	-0.20
39	82364	0.56	0.47	0.59	0.06	56.41	0.47	19.04	-0.28	14.21	-0.21	10.28	-0.16
40	82364	0.35	0.40	0.51	0.05	41.46	-0.28	11.15	-0.23	35.50	0.40	11.84	0.05

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.6 (continued)
Spring 2014 AIMS Classical Item Analysis
Mathematics CRT Grade 8

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	82364	0.43	0.37	0.46	0.05	20.00	-0.22	43.17	0.37	19.67	-0.16	17.10	-0.09
42	82364	0.75	0.45	0.61	0.05	9.77	-0.27	10.83	-0.25	74.93	0.45	4.41	-0.19
43	82364	0.64	0.33	0.41	0.02	63.72	0.33	7.50	-0.19	8.90	-0.19	19.86	-0.13
44	82364	0.82	0.38	0.55	0.03	9.97	-0.23	81.83	0.38	5.48	-0.24	2.70	-0.14
45	82364	0.76	0.43	0.59	0.04	10.43	-0.23	6.63	-0.24	76.36	0.43	6.54	-0.22
46	82364	0.50	0.47	0.58	0.05	50.42	0.47	20.11	-0.25	16.03	-0.20	13.39	-0.18
47	82364	0.59	0.40	0.50	0.11	9.98	-0.18	19.91	-0.25	59.28	0.40	10.72	-0.14
48	82364	0.41	0.40	0.50	0.03	29.33	-0.05	41.28	0.40	20.04	-0.36	9.32	-0.09
49	82364	0.54	0.47	0.58	0.07	53.68	0.47	25.82	-0.27	11.74	-0.17	8.69	-0.22
50	82364	0.67	0.28	0.36	0.03	8.53	-0.16	67.31	0.28	15.10	-0.14	9.03	-0.13
51	82364	0.45	0.40	0.50	0.05	44.55	0.40	16.01	-0.04	27.18	-0.28	12.21	-0.18
52	82364	0.33	0.29	0.37	0.07	26.00	-0.10	14.75	-0.22	26.09	-0.03	33.09	0.29
53	82364	0.68	0.41	0.53	0.04	5.51	-0.23	8.06	-0.24	68.29	0.41	18.10	-0.20
54	82364	0.64	0.39	0.50	0.02	10.14	-0.23	13.76	-0.14	64.39	0.39	11.69	-0.21
55	82364	0.43	0.32	0.39	0.12	15.58	-0.06	42.96	0.32	22.12	-0.19	19.21	-0.14
56	82364	0.54	0.38	0.47	0.02	15.06	-0.22	53.65	0.38	14.31	-0.21	16.96	-0.10
57	82364	0.70	0.49	0.63	0.03	69.85	0.49	9.65	-0.18	5.77	-0.20	14.70	-0.35
58	82364	0.43	0.44	0.55	0.03	15.64	-0.19	23.47	-0.30	42.82	0.44	18.04	-0.06
59	82364	0.49	0.47	0.58	0.08	10.55	-0.11	49.12	0.47	17.95	-0.30	22.30	-0.21
60	82364	0.61	0.41	0.51	0.06	11.94	-0.14	13.21	-0.20	61.29	0.41	13.50	-0.26
61	82364	0.63	0.34	0.43	0.04	8.92	-0.21	9.01	-0.22	18.75	-0.10	63.28	0.34
62	82364	0.76	0.50	0.68	0.03	5.04	-0.20	76.14	0.50	11.14	-0.31	7.65	-0.27
63	82364	0.56	0.37	0.46	0.05	55.84	0.37	5.11	-0.25	35.07	-0.19	3.93	-0.20
64	82364	0.66	0.25	0.32	0.04	18.27	-0.25	66.50	0.25	7.69	-0.07	7.50	-0.01
65	82364	0.60	0.43	0.54	0.06	14.59	-0.21	17.48	-0.22	60.14	0.43	7.72	-0.21
66	82364	0.42	0.38	0.47	0.05	35.99	-0.20	41.75	0.38	13.39	-0.15	8.82	-0.15
67	82364	0.47	0.33	0.41	0.06	16.10	-0.18	47.32	0.33	16.74	-0.20	19.77	-0.06
68	82364	0.61	0.42	0.53	0.09	61.15	0.42	20.47	-0.15	10.80	-0.26	7.49	-0.25

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.7
Spring 2014 AIMS Classical Item Analysis
Mathematics CRT High School

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	75575	0.72	0.41	0.53	0.07	12.27	-0.25	7.97	-0.27	72.13	0.41	7.56	-0.10
2	75575	0.78	0.41	0.54	0.05	8.14	-0.17	78.20	0.41	9.01	-0.26	4.59	-0.21
3	75575	0.70	0.39	0.49	0.13	70.38	0.39	18.98	-0.23	6.77	-0.18	3.73	-0.21
4	75575	0.69	0.32	0.41	0.23	6.54	-0.08	9.72	-0.14	14.83	-0.24	68.68	0.32
5	75575	0.71	0.32	0.41	0.11	70.78	0.32	16.80	-0.18	8.30	-0.18	4.01	-0.13
6	75575	0.78	0.35	0.45	0.03	4.02	-0.16	8.28	-0.25	78.30	0.35	9.37	-0.13
7	75575	0.58	0.34	0.42	0.07	22.10	-0.28	17.26	-0.08	57.61	0.34	2.96	-0.09
8	75575	0.38	0.36	0.46	0.07	6.23	-0.17	45.67	-0.15	38.30	0.36	9.73	-0.16
9	75575	0.58	0.40	0.49	0.11	24.37	-0.27	9.88	-0.16	57.81	0.40	7.82	-0.11
10	75575	0.50	0.33	0.40	0.08	49.55	0.33	41.43	-0.24	4.92	-0.17	4.03	-0.02
11	75575	0.77	0.46	0.59	0.15	9.87	-0.32	5.55	-0.20	6.92	-0.19	77.50	0.46
12	75575	0.89	0.40	0.59	0.08	88.73	0.40	4.79	-0.23	3.50	-0.23	2.90	-0.19
13	75575	0.55	0.25	0.31	0.05	26.06	-0.01	9.26	-0.18	9.68	-0.20	54.96	0.25
14	75575	0.63	0.47	0.58	0.17	12.11	-0.25	62.54	0.47	13.27	-0.17	11.92	-0.24
15	75575	0.78	0.32	0.43	0.07	6.73	-0.12	10.90	-0.21	3.80	-0.18	78.50	0.32
16	75575	0.83	0.37	0.51	0.05	6.21	-0.21	7.18	-0.19	82.64	0.37	3.92	-0.18
17	75575	0.46	0.48	0.61	0.10	18.89	-0.21	19.26	-0.20	15.57	-0.18	46.18	0.48
18	75575	0.46	0.25	0.31	0.10	24.94	0.03	12.41	-0.18	45.52	0.25	17.03	-0.19
19	75575	0.40	0.33	0.42	0.13	39.87	0.33	23.10	-0.14	20.60	-0.09	16.30	-0.16
20	75575	0.78	0.41	0.54	0.07	78.02	0.41	6.17	-0.18	4.81	-0.23	10.92	-0.23
21	75575	0.53	0.35	0.44	0.07	53.47	0.35	13.35	-0.24	14.08	-0.14	19.04	-0.10
22	75575	0.24	0.26	0.36	0.11	33.05	-0.20	20.05	-0.08	23.71	0.26	23.08	0.07
23	75575	0.32	0.16	0.21	0.15	16.52	-0.16	32.33	0.16	39.05	-0.03	11.95	0.01
24	75575	0.85	0.42	0.59	0.06	7.58	-0.24	3.84	-0.23	85.25	0.42	3.27	-0.22
25	75575	0.56	0.35	0.43	0.24	16.73	-0.21	56.34	0.35	17.31	-0.17	9.37	-0.09
26	75575	0.71	0.42	0.53	0.08	13.27	-0.16	70.53	0.42	10.73	-0.26	5.38	-0.23
27	75575	0.44	0.36	0.45	0.13	22.08	-0.11	43.87	0.36	18.67	-0.24	15.26	-0.08
28	75575	0.78	0.33	0.43	0.10	2.42	-0.19	13.90	-0.25	77.70	0.33	5.88	-0.07
29	75575	0.85	0.34	0.48	0.10	3.58	-0.20	3.45	-0.16	8.14	-0.20	84.73	0.34
30	75575	0.66	0.47	0.58	0.08	9.71	-0.18	18.14	-0.28	65.86	0.47	6.20	-0.22
31	75575	0.46	0.23	0.28	0.14	32.28	0.03	45.52	0.23	11.96	-0.23	10.09	-0.15
32	75575	0.72	0.43	0.54	0.10	15.39	-0.24	7.73	-0.25	72.36	0.43	4.43	-0.16
33	75575	0.38	0.15	0.19	0.30	24.15	-0.05	22.71	-0.08	38.02	0.15	14.83	-0.04
34	75575	0.34	0.23	0.31	0.11	17.40	-0.09	25.24	-0.03	23.39	-0.15	33.86	0.23
35	75575	0.51	0.39	0.48	0.05	18.14	-0.13	20.85	-0.24	50.54	0.39	10.42	-0.13
36	75575	0.32	0.20	0.26	0.11	14.00	-0.13	32.29	0.20	20.44	-0.17	33.16	0.06
37	75575	0.37	0.26	0.33	0.23	23.74	0.03	23.31	-0.20	36.78	0.26	15.94	-0.12
38	75575	0.81	0.28	0.39	0.09	3.38	-0.19	7.19	-0.15	8.13	-0.12	81.20	0.28
39	75575	0.75	0.42	0.53	0.10	3.67	-0.24	15.44	-0.24	75.13	0.42	5.66	-0.20
40	75575	0.66	0.39	0.48	0.14	66.43	0.39	21.89	-0.16	6.74	-0.26	4.80	-0.19

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.7 (continued)
Spring 2014 AIMS Classical Item Analysis
Mathematics CRT High School

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	75575	0.59	0.39	0.48	0.09	11.93	-0.24	58.99	0.39	20.91	-0.16	8.07	-0.15
42	75575	0.58	0.27	0.34	0.10	5.88	-0.25	31.08	-0.07	58.40	0.27	4.54	-0.19
43	75575	0.38	0.26	0.33	0.10	19.41	-0.17	38.08	0.26	17.43	-0.18	24.98	0.04
44	75575	0.13	0.26	0.45	0.21	18.51	-0.16	4.86	-0.20	63.78	0.06	12.64	0.26
45	75575	0.70	0.49	0.61	0.19	8.18	-0.27	19.35	-0.31	69.78	0.49	2.50	-0.14
46	75575	0.77	0.48	0.63	0.11	4.74	-0.30	11.43	-0.28	6.51	-0.18	77.21	0.48
47	75575	0.70	0.52	0.63	0.15	18.57	-0.37	8.77	-0.20	69.54	0.52	2.98	-0.16
48	75575	0.53	0.39	0.48	0.34	16.67	-0.09	52.65	0.39	17.47	-0.25	12.86	-0.18
49	75575	0.47	0.36	0.45	0.15	28.42	-0.16	15.53	-0.18	47.49	0.36	8.41	-0.12
50	75575	0.66	0.36	0.45	0.05	4.62	-0.21	12.49	-0.23	66.17	0.36	16.67	-0.12
51	75575	0.57	0.31	0.39	0.15	56.88	0.31	20.71	-0.17	8.26	-0.23	14.00	-0.05
52	75575	0.84	0.38	0.52	0.06	4.89	-0.17	5.73	-0.24	4.86	-0.19	84.46	0.38
53	75575	0.37	0.23	0.29	0.34	16.88	-0.13	36.87	0.23	35.22	-0.09	10.69	-0.05
54	75575	0.51	0.44	0.54	0.14	14.60	-0.18	15.74	-0.23	18.28	-0.16	51.24	0.44
55	75575	0.43	0.30	0.38	0.24	24.20	-0.10	22.98	-0.14	42.89	0.30	9.69	-0.14
56	75575	0.70	0.49	0.61	0.04	70.28	0.49	12.92	-0.23	10.06	-0.29	6.70	-0.21
57	75575	0.62	0.32	0.40	0.10	6.90	-0.21	18.16	-0.19	61.95	0.32	12.90	-0.07
58	75575	0.46	0.22	0.28	0.08	19.76	-0.17	8.26	-0.17	45.64	0.22	26.26	0.02
59	75575	0.46	0.28	0.36	0.08	46.29	0.28	39.30	-0.12	11.36	-0.16	2.98	-0.16
60	75575	0.77	0.43	0.56	0.10	5.29	-0.16	10.44	-0.27	6.80	-0.24	77.37	0.43
61	75575	0.52	0.27	0.34	0.05	11.88	-0.16	17.21	-0.14	51.94	0.27	18.92	-0.08
62	75575	0.80	0.52	0.67	0.08	8.11	-0.24	7.24	-0.30	4.78	-0.28	79.79	0.52
63	75575	0.60	0.43	0.53	0.17	13.52	-0.14	17.94	-0.27	59.56	0.43	8.81	-0.19
64	75575	0.48	0.34	0.42	0.24	13.20	-0.18	27.01	-0.12	47.82	0.34	11.73	-0.14
65	75575	0.53	0.42	0.51	0.09	5.89	-0.22	7.66	-0.22	33.76	-0.18	52.59	0.42
66	75575	0.41	0.21	0.26	0.25	21.66	-0.05	19.82	-0.20	41.17	0.21	17.10	0.01
67	75575	0.63	0.41	0.50	0.19	62.88	0.41	16.01	-0.18	13.22	-0.22	7.70	-0.19
68	75575	0.42	0.41	0.52	0.19	13.89	-0.17	11.16	-0.20	33.05	-0.15	41.71	0.41
69	75575	0.50	0.36	0.45	0.11	49.87	0.36	23.12	-0.11	12.83	-0.22	14.06	-0.15
70	75575	0.49	0.41	0.51	0.11	27.74	-0.22	49.38	0.41	12.46	-0.19	10.31	-0.11
71	75575	0.52	0.36	0.45	0.12	51.93	0.36	21.49	-0.16	18.93	-0.17	7.53	-0.16
72	75575	0.67	0.49	0.60	0.20	9.32	-0.24	11.41	-0.24	12.00	-0.22	67.06	0.49
73	75575	0.35	0.17	0.22	0.13	42.30	0.11	35.23	0.17	10.04	-0.25	12.31	-0.15
74	75575	0.32	0.27	0.36	0.37	14.43	-0.11	16.85	-0.17	36.25	-0.03	32.10	0.27
75	75575	0.72	0.51	0.63	0.15	9.20	-0.23	72.35	0.51	12.49	-0.31	5.80	-0.21
76	75575	0.64	0.39	0.49	0.14	64.37	0.39	19.32	-0.17	11.18	-0.22	4.99	-0.22
77	75575	0.73	0.38	0.48	0.06	9.29	-0.23	72.85	0.38	14.45	-0.18	3.35	-0.18
78	75575	0.66	0.45	0.56	0.15	65.73	0.45	9.84	-0.23	15.10	-0.25	9.17	-0.17
79	75575	0.47	0.25	0.31	0.35	15.85	-0.18	47.07	0.25	25.49	-0.05	11.25	-0.11
80	75575	0.32	0.18	0.24	0.09	26.03	0.03	32.30	0.18	23.89	-0.08	17.69	-0.16
81	75575	0.60	0.42	0.52	0.15	15.65	-0.16	10.51	-0.21	13.95	-0.22	59.73	0.42
82	75575	0.35	0.10	0.13	0.15	23.16	0.05	35.38	0.10	26.31	-0.05	15.00	-0.13
83	75575	0.44	0.32	0.40	0.13	25.79	-0.08	21.04	-0.14	43.58	0.32	9.46	-0.19
84	75575	0.71	0.52	0.64	0.14	10.98	-0.26	9.69	-0.26	7.73	-0.25	71.46	0.52
85	75575	0.89	0.31	0.49	0.10	3.42	-0.18	4.81	-0.17	2.57	-0.18	89.10	0.31

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.8
Spring 2014 AIMS Classical Item Analysis
Reading CRT Grade 3

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	84208	0.80	0.44	0.62	0.06	5.79	-0.24	9.34	-0.24	4.86	-0.24	79.95	0.44
2	84208	0.90	0.42	0.69	0.13	4.78	-0.27	89.59	0.42	4.42	-0.25	1.09	-0.18
3	84208	0.74	0.49	0.65	0.17	13.63	-0.35	6.68	-0.21	73.88	0.49	5.63	-0.19
4	84208	0.91	0.36	0.63	0.09	90.93	0.36	3.79	-0.25	3.96	-0.18	1.22	-0.19
5	84208	0.75	0.44	0.59	0.24	8.68	-0.24	9.12	-0.28	6.86	-0.16	75.09	0.44
6	84208	0.47	0.34	0.42	0.24	26.21	-0.09	17.99	-0.18	8.39	-0.22	47.17	0.34
7	84208	0.90	0.46	0.79	0.33	90.28	0.46	1.98	-0.19	1.69	-0.23	5.72	-0.34
8	84208	0.72	0.30	0.40	0.12	2.92	-0.21	71.53	0.30	3.17	-0.22	22.26	-0.15
9	84208	0.86	0.54	0.83	0.25	8.23	-0.37	85.83	0.54	3.17	-0.29	2.52	-0.22
10	84208	0.60	0.46	0.57	0.22	10.03	-0.17	15.56	-0.21	60.39	0.46	13.80	-0.28
11	84208	0.82	0.33	0.47	0.18	81.54	0.33	1.05	-0.17	10.57	-0.17	6.66	-0.22
12	84208	0.59	0.34	0.43	0.62	29.14	-0.11	6.67	-0.29	58.55	0.34	5.02	-0.21
13	84208	0.77	0.48	0.66	0.07	15.53	-0.38	2.74	-0.19	4.47	-0.15	77.19	0.48
14	84208	0.65	0.49	0.61	0.10	17.17	-0.34	11.17	-0.19	6.49	-0.18	65.07	0.49
15	84208	0.35	0.29	0.37	0.22	20.97	-0.21	5.22	-0.27	38.94	0.01	34.65	0.29
16	84208	0.85	0.43	0.66	0.15	3.14	-0.28	85.33	0.43	2.19	-0.21	9.19	-0.25
17	84208	0.76	0.50	0.67	0.24	76.21	0.50	9.23	-0.33	6.85	-0.21	7.47	-0.25
18	84208	0.55	0.29	0.36	0.17	21.51	0.09	14.16	-0.39	54.91	0.29	9.25	-0.14
19	84208	0.48	0.20	0.25	0.43	42.41	0.00	5.35	-0.25	47.91	0.20	3.90	-0.23
20	84208	0.85	0.46	0.69	0.29	4.39	-0.24	7.32	-0.30	85.02	0.46	2.98	-0.21
21	84208	0.74	0.37	0.49	0.25	15.44	-0.22	5.18	-0.17	4.90	-0.20	74.24	0.37
22	84208	0.77	0.39	0.53	0.27	5.46	-0.21	11.39	-0.13	77.31	0.39	5.57	-0.31
23	84208	0.64	0.53	0.66	0.33	11.92	-0.29	7.07	-0.27	64.49	0.53	16.18	-0.24
24	84208	0.51	0.32	0.39	0.11	37.47	-0.11	50.88	0.32	4.01	-0.19	7.53	-0.27
25	84208	0.80	0.47	0.67	0.25	7.63	-0.30	7.48	-0.26	80.14	0.47	4.50	-0.19
26	84208	0.65	0.43	0.54	0.41	13.13	-0.19	11.32	-0.18	64.81	0.43	10.33	-0.28
27	84208	0.57	0.43	0.53	0.19	32.91	-0.28	7.72	-0.18	57.04	0.43	2.15	-0.23
28	84208	0.63	0.50	0.63	0.15	14.33	-0.31	9.49	-0.29	12.76	-0.14	63.26	0.50
29	84208	0.62	0.36	0.45	1.18	12.20	-0.19	61.65	0.36	16.16	-0.22	8.81	-0.11
30	84208	0.43	0.25	0.31	0.19	20.35	-0.24	43.13	0.25	22.98	-0.02	13.34	-0.05
31	84208	0.60	0.46	0.57	0.21	59.73	0.46	12.64	-0.22	10.00	-0.19	17.41	-0.25
32	84208	0.83	0.47	0.69	0.06	6.88	-0.31	8.09	-0.26	1.63	-0.21	83.34	0.47
33	84208	0.90	0.38	0.65	0.12	90.37	0.38	1.81	-0.20	5.65	-0.24	2.05	-0.20
34	84208	0.51	0.40	0.49	0.54	15.65	-0.35	17.14	-0.09	15.78	-0.10	50.88	0.40
35	84208	0.59	0.14	0.18	0.17	59.37	0.14	21.12	0.01	8.34	-0.11	11.01	-0.13
36	84208	0.51	0.19	0.24	0.15	50.55	0.19	10.85	-0.28	9.82	-0.21	28.63	0.11
37	84208	0.40	0.33	0.41	0.19	40.28	0.33	8.57	-0.13	7.13	-0.13	43.83	-0.19
38	84208	0.75	0.39	0.53	0.23	15.76	-0.19	4.72	-0.26	75.18	0.39	4.11	-0.24
39	84208	0.74	0.34	0.45	0.31	8.95	-0.24	6.65	-0.17	73.69	0.34	10.40	-0.13
40	84208	0.57	0.32	0.40	0.12	56.80	0.32	7.36	-0.20	10.95	-0.28	24.77	-0.04

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.8 (continued)
Spring 2014 AIMS Classical Item Analysis
Reading CRT Grade 3

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	84208	0.72	0.42	0.55	0.25	9.00	-0.25	71.64	0.42	3.18	-0.23	15.93	-0.21
42	84208	0.43	0.30	0.38	0.54	25.29	-0.10	16.43	-0.16	15.11	-0.14	42.62	0.30
43	84208	0.70	0.41	0.53	0.31	12.97	-0.28	69.53	0.41	6.45	-0.21	10.74	-0.14
44	84208	0.78	0.39	0.53	0.59	77.64	0.39	8.89	-0.22	3.05	-0.21	9.84	-0.20
45	84208	0.42	0.41	0.50	0.16	18.30	-0.20	21.22	-0.27	42.42	0.41	17.89	-0.04
46	84208	0.44	0.29	0.36	0.27	27.05	-0.12	17.87	-0.09	10.89	-0.19	43.92	0.29
47	84208	0.53	0.33	0.40	0.40	20.46	-0.07	7.15	-0.26	53.27	0.33	18.70	-0.17
48	84208	0.55	0.54	0.66	0.08	14.39	-0.39	13.99	-0.16	16.90	-0.21	54.64	0.54
49	84208	0.61	0.43	0.53	0.34	61.14	0.43	14.24	-0.13	13.47	-0.27	10.80	-0.22
50	84208	0.39	0.25	0.31	0.32	4.71	-0.22	4.34	-0.20	39.36	0.25	51.28	-0.06
51	84208	0.52	0.38	0.46	0.14	19.09	-0.19	19.36	-0.19	52.29	0.38	9.12	-0.14
52	84208	0.32	0.11	0.14	0.27	27.55	-0.20	32.18	0.11	6.18	-0.24	33.82	0.21
53	84208	0.64	0.51	0.64	0.28	64.44	0.51	11.31	-0.24	10.51	-0.28	13.46	-0.23
54	84208	0.67	0.52	0.65	0.26	5.49	-0.31	21.57	-0.26	66.82	0.52	5.87	-0.27

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.9
Spring 2014 AIMS Classical Item Analysis
Reading CRT Grade 4

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83438	0.85	0.28	0.42	0.02	85.26	0.28	1.34	-0.18	6.19	-0.19	7.18	-0.12
2	83438	0.60	0.36	0.45	0.03	60.16	0.36	2.32	-0.20	32.50	-0.24	5.00	-0.17
3	83438	0.69	0.41	0.53	0.04	20.38	-0.28	69.08	0.41	6.66	-0.17	3.84	-0.18
4	83438	0.75	0.34	0.46	0.02	20.98	-0.25	2.23	-0.16	74.87	0.34	1.90	-0.16
5	83438	0.57	0.48	0.59	0.03	56.67	0.48	14.55	-0.38	9.60	-0.15	19.15	-0.15
6	83438	0.53	0.32	0.39	0.04	28.61	-0.09	53.09	0.32	8.55	-0.16	9.71	-0.26
7	83438	0.87	0.40	0.64	0.05	2.18	-0.19	6.85	-0.25	87.43	0.40	3.48	-0.23
8	83438	0.77	0.51	0.69	0.06	7.02	-0.26	11.44	-0.31	4.70	-0.23	76.78	0.51
9	83438	0.40	0.30	0.37	0.03	20.97	-0.18	32.11	-0.09	39.55	0.30	7.34	-0.12
10	83438	0.69	0.24	0.31	0.04	3.51	-0.24	68.56	0.24	3.46	-0.23	24.42	-0.06
11	83438	0.69	0.49	0.64	0.08	11.55	-0.24	10.34	-0.28	8.62	-0.23	69.42	0.49
12	83438	0.66	0.36	0.46	0.08	66.42	0.36	14.18	-0.21	12.74	-0.13	6.57	-0.22
13	83438	0.61	0.35	0.44	0.05	3.73	-0.23	29.49	-0.16	5.46	-0.24	61.26	0.35
14	83438	0.90	0.42	0.72	0.15	2.93	-0.25	3.26	-0.25	3.26	-0.21	90.39	0.42
15	83438	0.81	0.49	0.70	0.04	5.11	-0.26	8.01	-0.28	81.06	0.49	5.79	-0.26
16	83438	0.69	0.25	0.33	0.06	5.68	-0.18	69.12	0.25	19.51	-0.09	5.63	-0.17
17	83438	0.51	-0.02	-0.02	0.09	2.79	-0.20	41.21	0.20	5.17	-0.25	50.74	-0.02
18	83438	0.62	0.35	0.44	0.07	12.96	-0.26	4.16	-0.23	61.84	0.35	20.98	-0.09
19	83438	0.43	0.45	0.55	0.09	25.48	-0.18	9.69	-0.22	22.18	-0.18	42.56	0.45
20	83438	0.63	0.50	0.63	0.09	11.08	-0.38	8.60	-0.25	63.32	0.50	16.91	-0.14
21	83438	0.74	0.46	0.61	0.07	73.97	0.46	12.77	-0.26	4.15	-0.25	9.05	-0.23
22	83438	0.60	0.35	0.43	0.04	2.94	-0.23	4.31	-0.23	32.68	-0.18	60.03	0.35
23	83438	0.65	0.49	0.62	0.04	14.40	-0.34	14.34	-0.16	5.79	-0.26	65.43	0.49
24	83438	0.76	0.53	0.71	0.06	76.35	0.53	9.03	-0.25	7.43	-0.29	7.13	-0.30
25	83438	0.70	0.47	0.61	0.06	16.37	-0.19	5.91	-0.31	7.27	-0.28	70.39	0.47
26	83438	0.28	0.25	0.32	0.08	53.37	-0.06	11.64	-0.08	27.95	0.25	6.96	-0.21
27	83438	0.55	0.49	0.60	0.07	15.17	-0.24	23.22	-0.24	7.01	-0.22	54.53	0.49
28	83438	0.54	0.34	0.42	0.09	8.97	-0.12	32.62	-0.18	53.66	0.34	4.65	-0.25
29	83438	0.74	0.44	0.58	0.04	14.36	-0.21	74.34	0.44	6.43	-0.27	4.83	-0.24
30	83438	0.75	0.33	0.44	0.03	74.53	0.33	7.01	-0.26	10.32	-0.17	8.11	-0.09
31	83438	0.75	0.51	0.68	0.03	5.44	-0.25	9.03	-0.25	74.98	0.51	10.51	-0.30
32	83438	0.73	0.30	0.39	0.05	2.55	-0.15	72.78	0.30	12.89	-0.14	11.73	-0.19
33	83438	0.48	0.29	0.36	0.09	48.46	0.29	9.93	-0.15	13.12	-0.29	28.39	-0.01
34	83438	0.71	0.54	0.69	0.11	14.95	-0.38	6.84	-0.23	7.53	-0.19	70.56	0.54
35	83438	0.47	0.27	0.34	0.01	37.61	-0.13	46.81	0.27	10.83	-0.11	4.74	-0.19
36	83438	0.64	0.45	0.57	0.06	26.49	-0.30	5.93	-0.19	3.48	-0.22	64.04	0.45
37	83438	0.48	0.46	0.56	0.05	24.60	-0.10	19.46	-0.29	47.89	0.46	7.99	-0.27
38	83438	0.66	0.37	0.47	0.06	6.83	-0.24	10.66	-0.18	65.74	0.37	16.71	-0.16
39	83438	0.69	0.31	0.40	0.02	15.13	-0.18	69.36	0.31	8.70	-0.16	6.79	-0.13
40	83438	0.73	0.44	0.58	0.06	11.00	-0.24	5.51	-0.26	10.18	-0.21	73.24	0.44

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.9 (continued)
Spring 2014 AIMS Classical Item Analysis
Reading CRT Grade 4

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	83438	0.60	0.50	0.62	0.07	10.76	-0.25	23.18	-0.25	6.25	-0.25	59.75	0.50
42	83438	0.38	0.27	0.34	0.07	38.13	0.27	9.73	-0.32	36.39	0.06	15.68	-0.18
43	83438	0.44	0.38	0.47	0.09	25.11	-0.13	18.71	-0.13	12.36	-0.26	43.73	0.38
44	83438	0.50	0.23	0.28	0.06	49.80	0.23	13.24	-0.20	18.15	-0.01	18.74	-0.11
45	83438	0.66	0.45	0.57	0.04	20.44	-0.26	4.32	-0.22	9.04	-0.22	66.17	0.45
46	83438	0.69	0.48	0.62	0.06	13.52	-0.26	69.10	0.48	8.71	-0.24	8.62	-0.24
47	83438	0.50	0.40	0.49	0.12	10.90	-0.33	25.12	-0.03	14.31	-0.24	49.55	0.40
48	83438	0.54	0.34	0.42	0.15	12.77	-0.20	12.50	-0.17	53.69	0.34	20.88	-0.12
49	83438	0.80	0.46	0.65	0.07	80.05	0.46	3.80	-0.24	7.27	-0.27	8.81	-0.25
50	83438	0.66	0.45	0.57	0.18	66.19	0.45	13.37	-0.28	10.50	-0.22	9.76	-0.17
51	83438	0.56	0.39	0.49	0.05	14.87	-0.12	56.12	0.39	15.20	-0.22	13.77	-0.21
52	83438	0.49	0.46	0.56	0.07	18.29	-0.24	26.76	-0.15	48.56	0.46	6.32	-0.28
53	83438	0.70	0.55	0.70	0.09	70.20	0.55	6.62	-0.28	11.14	-0.24	11.95	-0.32
54	83438	0.62	0.54	0.66	0.23	15.45	-0.24	8.34	-0.31	14.07	-0.25	61.91	0.54

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.10
Spring 2014 AIMS Classical Item Analysis
Reading CRT Grade 5

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83596	0.85	0.42	0.63	0.03	3.22	-0.24	6.12	-0.24	5.95	-0.22	84.68	0.42
2	83596	0.80	0.40	0.57	0.05	3.87	-0.26	12.23	-0.22	3.53	-0.20	80.33	0.40
3	83596	0.86	0.44	0.67	0.04	85.95	0.44	3.74	-0.24	6.00	-0.23	4.26	-0.25
4	83596	0.68	0.24	0.31	0.03	8.79	-0.23	9.32	-0.18	68.07	0.24	13.79	0.01
5	83596	0.67	0.44	0.56	0.09	14.59	-0.21	12.96	-0.28	67.24	0.44	5.13	-0.17
6	83596	0.72	0.38	0.49	0.02	13.94	-0.15	7.75	-0.23	71.70	0.38	6.58	-0.23
7	83596	0.40	0.18	0.23	0.03	21.46	-0.05	22.08	0.00	40.14	0.18	16.29	-0.19
8	83596	0.35	0.23	0.29	0.05	36.72	0.02	20.72	-0.20	7.40	-0.15	35.11	0.23
9	83596	0.75	0.34	0.46	0.04	15.35	-0.20	3.18	-0.22	74.60	0.34	6.83	-0.15
10	83596	0.63	0.36	0.45	0.08	10.65	-0.29	63.20	0.36	17.54	-0.09	8.53	-0.18
11	83596	0.63	0.46	0.58	0.10	62.81	0.46	11.01	-0.26	11.04	-0.24	15.04	-0.18
12	83596	0.69	0.54	0.69	0.05	13.58	-0.29	7.28	-0.28	10.02	-0.25	69.07	0.54
13	83596	0.68	0.49	0.62	0.06	11.38	-0.30	10.10	-0.24	10.60	-0.20	67.87	0.49
14	83596	0.66	0.42	0.53	0.07	9.52	-0.32	66.05	0.42	7.55	-0.23	16.82	-0.12
15	83596	0.43	0.32	0.40	0.10	23.99	-0.26	10.10	-0.25	43.19	0.32	22.61	0.06
16	83596	0.67	0.37	0.48	0.08	66.69	0.37	13.94	-0.19	7.06	-0.27	12.22	-0.12
17	83596	0.61	0.37	0.46	0.06	8.21	-0.33	4.28	-0.26	25.95	-0.08	61.50	0.37
18	83596	0.82	0.45	0.64	0.01	11.72	-0.30	81.51	0.45	3.06	-0.17	3.69	-0.25
19	83596	0.47	0.27	0.33	0.04	47.37	0.27	4.25	-0.22	43.73	-0.08	4.62	-0.23
20	83596	0.75	0.44	0.59	0.05	11.37	-0.18	5.06	-0.27	74.85	0.44	8.68	-0.27
21	83596	0.56	0.39	0.48	0.05	31.87	-0.17	55.87	0.39	7.01	-0.22	5.20	-0.27
22	83596	0.65	0.32	0.41	0.06	65.10	0.32	10.40	-0.27	6.23	-0.27	18.22	-0.02
23	83596	0.88	0.49	0.79	0.05	4.83	-0.29	3.76	-0.26	88.05	0.49	3.31	-0.26
24	83596	0.75	0.50	0.67	0.05	75.49	0.50	10.24	-0.24	5.68	-0.28	8.54	-0.27
25	83596	0.40	0.31	0.39	0.04	30.45	-0.09	19.54	-0.11	40.16	0.31	9.82	-0.23
26	83596	0.50	0.48	0.59	0.07	28.24	-0.18	7.80	-0.26	13.48	-0.26	50.42	0.48
27	83596	0.33	0.23	0.29	0.09	27.51	-0.11	28.13	0.08	11.59	-0.30	32.68	0.23
28	83596	0.35	0.11	0.14	0.10	34.88	0.11	28.78	0.00	19.61	-0.08	16.63	-0.05
29	83596	0.75	0.46	0.61	0.09	74.55	0.46	7.70	-0.29	10.77	-0.30	6.89	-0.12
30	83596	0.71	0.52	0.68	0.08	5.49	-0.29	19.51	-0.33	71.23	0.52	3.68	-0.20
31	83596	0.53	0.38	0.47	0.08	52.83	0.38	15.94	-0.17	13.03	-0.25	18.12	-0.11
32	83596	0.76	0.50	0.67	0.01	7.29	-0.31	7.95	-0.22	8.78	-0.26	75.97	0.50
33	83596	0.63	0.36	0.45	0.02	26.39	-0.16	4.71	-0.23	63.03	0.36	5.85	-0.24
34	83596	0.62	0.16	0.21	0.04	20.46	0.05	62.17	0.16	14.04	-0.21	3.29	-0.15
35	83596	0.75	0.39	0.53	0.03	74.89	0.39	4.90	-0.27	13.29	-0.20	6.89	-0.17
36	83596	0.84	0.39	0.59	0.05	10.02	-0.21	84.41	0.39	2.44	-0.21	3.09	-0.27
37	83596	0.56	0.29	0.36	0.07	10.87	-0.18	10.03	-0.19	56.07	0.29	22.97	-0.07
38	83596	0.54	0.18	0.22	0.03	9.39	-0.13	8.41	-0.09	53.66	0.18	28.51	-0.06
39	83596	0.90	0.36	0.62	0.02	5.41	-0.23	1.94	-0.21	90.46	0.36	2.17	-0.17
40	83596	0.85	0.45	0.67	0.03	8.30	-0.25	2.92	-0.25	3.89	-0.25	84.86	0.45

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.10 (continued)
Spring 2014 AIMS Classical Item Analysis
Reading CRT Grade 5

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	83596	0.41	0.31	0.38	0.07	20.64	-0.15	41.30	0.31	12.82	-0.23	25.17	-0.04
42	83596	0.75	0.38	0.51	0.05	74.53	0.38	15.04	-0.17	3.97	-0.24	6.41	-0.24
43	83596	0.47	0.30	0.38	0.04	11.56	-0.24	47.13	0.30	31.55	-0.05	9.72	-0.18
44	83596	0.65	0.41	0.52	0.11	8.98	-0.27	16.93	-0.13	64.66	0.41	9.32	-0.25
45	83596	0.61	0.40	0.50	0.02	7.90	-0.33	60.75	0.40	18.87	-0.10	12.45	-0.22
46	83596	0.42	0.16	0.20	0.03	28.69	-0.06	22.00	0.00	7.10	-0.20	42.18	0.16
47	83596	0.53	0.47	0.58	0.02	14.10	-0.28	7.39	-0.28	25.86	-0.14	52.63	0.47
48	83596	0.67	0.45	0.57	0.04	66.58	0.45	7.81	-0.24	6.28	-0.29	19.29	-0.20
49	83596	0.46	0.23	0.29	0.08	45.59	0.23	22.51	-0.06	22.61	-0.06	9.21	-0.22
50	83596	0.76	0.55	0.74	0.06	6.41	-0.26	76.00	0.55	8.34	-0.28	9.19	-0.32
51	83596	0.74	0.48	0.63	0.08	7.46	-0.30	8.74	-0.24	73.57	0.48	10.16	-0.21
52	83596	0.61	0.44	0.55	0.06	13.53	-0.28	8.98	-0.23	16.41	-0.15	61.01	0.44
53	83596	0.44	0.40	0.49	0.07	24.86	-0.12	5.62	-0.28	44.28	0.40	25.17	-0.18
54	83596	0.40	0.21	0.26	0.22	37.72	0.07	40.06	0.21	9.71	-0.24	12.29	-0.20

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.11
Spring 2014 AIMS Classical Item Analysis
Reading CRT Grade 6

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82597	0.88	0.39	0.62	0.02	4.49	-0.18	3.35	-0.24	88.18	0.39	3.96	-0.22
2	82597	0.58	0.31	0.39	0.06	27.01	-0.10	57.52	0.31	4.46	-0.23	10.95	-0.20
3	82597	0.97	0.26	0.60	0.04	1.48	-0.17	0.64	-0.11	96.54	0.26	1.30	-0.15
4	82597	0.78	0.39	0.53	0.03	6.79	-0.17	77.51	0.39	11.86	-0.25	3.81	-0.21
5	82597	0.38	0.20	0.26	0.03	27.40	-0.02	19.48	-0.16	15.23	-0.07	37.87	0.20
6	82597	0.66	0.41	0.52	0.04	3.73	-0.26	4.68	-0.20	65.86	0.41	25.69	-0.23
7	82597	0.41	0.31	0.39	0.03	43.97	-0.09	40.67	0.31	6.16	-0.27	9.19	-0.15
8	82597	0.56	0.28	0.35	0.08	55.52	0.28	16.54	-0.10	15.32	-0.14	12.55	-0.16
9	82597	0.87	0.46	0.72	0.02	4.42	-0.26	4.11	-0.27	86.65	0.46	4.80	-0.24
10	82597	0.90	0.47	0.80	0.03	3.30	-0.27	4.23	-0.28	90.06	0.47	2.39	-0.24
11	82597	0.91	0.44	0.77	0.04	91.18	0.44	3.79	-0.25	2.82	-0.27	2.17	-0.21
12	82597	0.36	0.19	0.24	0.04	19.37	-0.20	18.79	-0.18	36.41	0.19	25.39	0.14
13	82597	0.44	0.32	0.39	0.04	16.71	-0.12	44.46	0.32	25.72	-0.18	13.07	-0.10
14	82597	0.46	0.34	0.42	0.06	10.55	-0.22	19.36	-0.20	24.18	-0.06	45.86	0.34
15	82597	0.62	0.36	0.45	0.06	13.14	-0.11	17.71	-0.24	62.28	0.36	6.80	-0.18
16	82597	0.55	0.35	0.43	0.05	24.38	-0.14	12.89	-0.23	54.92	0.35	7.75	-0.14
17	82597	0.67	0.38	0.48	0.04	23.94	-0.21	5.74	-0.23	67.48	0.38	2.80	-0.20
18	82597	0.67	0.50	0.63	0.05	10.30	-0.22	9.11	-0.25	13.75	-0.27	66.79	0.50
19	82597	0.60	0.43	0.53	0.10	12.91	-0.29	11.27	-0.22	60.30	0.43	15.42	-0.11
20	82597	0.52	0.29	0.35	0.02	40.34	-0.12	4.24	-0.24	3.35	-0.20	52.06	0.29
21	82597	0.55	0.31	0.38	0.04	18.12	-0.18	5.88	-0.26	55.14	0.31	20.82	-0.05
22	82597	0.31	0.22	0.29	0.05	23.15	-0.10	30.63	0.22	25.44	-0.05	20.73	-0.10
23	82597	0.73	0.48	0.63	0.02	10.76	-0.27	73.19	0.48	6.55	-0.26	9.48	-0.23
24	82597	0.73	0.50	0.66	0.04	9.76	-0.22	14.26	-0.36	3.35	-0.18	72.59	0.50
25	82597	0.81	0.46	0.65	0.03	4.17	-0.28	4.16	-0.28	10.73	-0.23	80.91	0.46
26	82597	0.75	0.45	0.60	0.03	5.74	-0.22	75.42	0.45	14.53	-0.26	4.28	-0.23
27	82597	0.50	0.33	0.40	0.05	19.10	-0.25	50.08	0.33	7.35	-0.23	23.42	-0.01
28	82597	0.69	0.40	0.51	0.03	16.22	-0.25	68.88	0.40	8.56	-0.17	6.30	-0.17
29	82597	0.59	0.21	0.26	0.06	58.60	0.21	10.17	-0.19	10.74	-0.14	20.44	0.00
30	82597	0.71	0.23	0.30	0.04	16.59	-0.06	6.86	-0.22	5.96	-0.12	70.54	0.23
31	82597	0.89	0.45	0.74	0.31	3.53	-0.25	3.74	-0.26	89.19	0.45	3.23	-0.23
32	82597	0.68	0.33	0.43	0.35	8.43	-0.26	15.01	-0.13	68.03	0.33	8.18	-0.13
33	82597	0.61	0.49	0.61	0.31	23.66	-0.28	5.56	-0.28	9.21	-0.20	61.25	0.49
34	82597	0.60	0.52	0.64	0.32	13.09	-0.18	16.15	-0.29	10.84	-0.27	59.60	0.52
35	82597	0.36	0.32	0.41	0.33	35.97	0.32	36.25	-0.11	11.72	-0.20	15.73	-0.10
36	82597	0.58	0.44	0.54	0.31	58.35	0.44	12.26	-0.25	18.27	-0.15	10.80	-0.23
37	82597	0.54	0.47	0.58	0.35	12.00	-0.27	26.25	-0.19	7.57	-0.25	53.83	0.47
38	82597	0.60	0.38	0.47	0.12	12.72	-0.18	15.72	-0.18	59.66	0.38	11.78	-0.18
39	82597	0.78	0.50	0.69	0.02	8.84	-0.27	77.53	0.50	6.66	-0.24	6.96	-0.29
40	82597	0.71	0.43	0.56	0.03	10.62	-0.26	70.63	0.43	11.94	-0.17	6.78	-0.25

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.11 (continued)
Spring 2014 AIMS Classical Item Analysis
Reading CRT Grade 6

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	82597	0.73	0.39	0.52	0.04	10.33	-0.27	9.64	-0.14	6.84	-0.19	73.16	0.39
42	82597	0.63	0.33	0.41	0.04	12.67	-0.16	18.05	-0.12	62.53	0.33	6.71	-0.23
43	82597	0.46	0.37	0.45	0.04	5.89	-0.24	35.53	-0.17	12.71	-0.13	45.84	0.37
44	82597	0.63	0.49	0.61	0.05	14.63	-0.26	11.10	-0.21	11.28	-0.24	62.94	0.49
45	82597	0.51	0.47	0.58	0.03	15.98	-0.27	51.21	0.47	14.39	-0.21	18.38	-0.16
46	82597	0.85	0.44	0.66	0.07	85.02	0.44	5.79	-0.25	4.81	-0.26	4.31	-0.21
47	82597	0.49	0.21	0.27	0.08	49.02	0.21	8.02	-0.23	23.63	-0.12	19.25	0.02
48	82597	0.25	0.14	0.19	0.06	8.88	-0.25	51.32	0.03	14.69	-0.01	25.05	0.14
49	82597	0.76	0.38	0.51	0.06	9.30	-0.25	6.92	-0.19	76.23	0.38	7.49	-0.15
50	82597	0.67	0.35	0.44	0.07	66.80	0.35	9.96	-0.19	10.13	-0.19	13.04	-0.14
51	82597	0.69	0.35	0.45	0.07	15.33	-0.17	4.90	-0.27	69.34	0.35	10.36	-0.14
52	82597	0.50	0.39	0.48	0.10	27.27	-0.21	50.32	0.39	8.41	-0.19	13.90	-0.15
53	82597	0.60	0.42	0.52	0.07	15.74	-0.28	14.36	-0.21	59.66	0.42	10.18	-0.10
54	82597	0.40	0.19	0.24	0.10	40.25	0.19	38.46	-0.05	17.53	-0.07	3.65	-0.24

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.12
Spring 2014 AIMS Classical Item Analysis
Reading CRT Grade 7

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83126	0.89	0.39	0.65	0.01	7.36	-0.30	2.22	-0.20	89.32	0.39	1.09	-0.13
2	83126	0.75	0.36	0.48	0.14	75.05	0.36	9.76	-0.24	8.80	-0.15	6.23	-0.18
3	83126	0.90	0.36	0.61	0.02	3.33	-0.16	90.18	0.36	4.20	-0.19	2.27	-0.25
4	83126	0.72	0.14	0.19	0.05	71.82	0.14	15.70	0.01	5.42	-0.17	7.01	-0.12
5	83126	0.76	0.41	0.56	0.07	10.21	-0.21	76.04	0.41	7.55	-0.23	6.13	-0.22
6	83126	0.85	0.36	0.54	0.01	6.77	-0.20	3.56	-0.21	84.93	0.36	4.72	-0.18
7	83126	0.75	0.28	0.37	0.04	4.96	-0.22	2.33	-0.21	74.74	0.28	17.94	-0.10
8	83126	0.55	0.45	0.55	0.03	4.21	-0.22	35.74	-0.30	4.68	-0.18	55.34	0.45
9	83126	0.44	0.16	0.20	0.08	22.67	-0.04	15.89	-0.04	43.98	0.16	17.37	-0.13
10	83126	0.34	0.20	0.25	0.06	24.38	-0.01	14.58	-0.13	33.92	0.20	27.05	-0.10
11	83126	0.56	0.29	0.36	0.04	56.24	0.29	6.77	-0.24	23.95	-0.10	13.00	-0.12
12	83126	0.71	0.43	0.56	0.08	8.90	-0.22	5.72	-0.21	70.88	0.43	14.42	-0.23
13	83126	0.59	0.48	0.59	0.03	11.80	-0.18	12.95	-0.30	16.48	-0.20	58.74	0.48
14	83126	0.67	0.44	0.56	0.04	9.88	-0.27	8.31	-0.29	67.40	0.44	14.37	-0.13
15	83126	0.61	0.26	0.32	0.04	12.10	-0.10	4.89	-0.18	21.48	-0.13	61.48	0.26
16	83126	0.65	0.51	0.63	0.03	9.95	-0.27	19.47	-0.30	64.74	0.51	5.81	-0.18
17	83126	0.71	0.36	0.46	0.04	14.59	-0.24	71.09	0.36	3.09	-0.21	11.19	-0.13
18	83126	0.68	0.38	0.48	0.03	9.82	-0.20	14.59	-0.21	68.13	0.38	7.42	-0.16
19	83126	0.62	0.21	0.26	0.03	20.45	0.00	61.85	0.21	8.19	-0.18	9.48	-0.17
20	83126	0.56	0.21	0.26	0.03	5.48	-0.20	18.02	-0.21	20.24	0.05	56.24	0.21
21	83126	0.48	0.28	0.35	0.16	15.73	-0.26	48.20	0.28	21.54	-0.06	14.37	-0.06
22	83126	0.32	0.18	0.23	0.04	31.32	-0.02	32.26	0.18	16.56	-0.24	19.82	0.04
23	83126	0.49	0.37	0.45	0.06	18.19	-0.15	49.47	0.37	21.59	-0.15	10.68	-0.22
24	83126	0.41	0.10	0.13	0.08	13.40	-0.16	40.69	0.10	35.10	0.07	10.73	-0.11
25	83126	0.83	0.33	0.47	0.03	82.51	0.33	1.98	-0.20	4.09	-0.23	11.38	-0.16
26	83126	0.62	0.44	0.55	0.02	29.19	-0.32	2.17	-0.22	62.49	0.44	6.13	-0.16
27	83126	0.82	0.44	0.63	0.02	81.78	0.44	4.01	-0.20	5.58	-0.28	8.62	-0.23
28	83126	0.54	0.25	0.30	0.03	11.92	-0.18	54.22	0.25	5.69	-0.20	28.15	-0.04
29	83126	0.77	0.32	0.44	0.02	76.98	0.32	7.20	-0.20	10.15	-0.13	5.64	-0.19
30	83126	0.50	0.35	0.43	0.10	21.00	-0.23	17.42	-0.09	11.67	-0.14	49.81	0.35
31	83126	0.80	0.43	0.61	0.04	80.42	0.43	10.02	-0.26	4.60	-0.22	4.92	-0.21
32	83126	0.75	0.45	0.60	0.02	6.90	-0.16	15.77	-0.33	2.76	-0.21	74.55	0.45
33	83126	0.61	0.48	0.59	0.03	12.74	-0.20	14.87	-0.26	61.39	0.48	10.96	-0.23
34	83126	0.68	0.28	0.36	0.04	22.73	-0.10	3.56	-0.23	5.63	-0.21	68.04	0.28
35	83126	0.57	0.33	0.41	0.04	57.32	0.33	12.44	-0.17	3.45	-0.26	26.75	-0.13
36	83126	0.58	0.42	0.52	0.03	17.24	-0.19	5.59	-0.19	18.73	-0.23	58.41	0.42
37	83126	0.60	0.44	0.54	0.03	24.88	-0.26	13.47	-0.21	59.75	0.44	1.88	-0.22
38	83126	0.77	0.20	0.28	0.04	15.30	-0.05	3.29	-0.17	77.25	0.20	4.11	-0.18
39	83126	0.65	0.24	0.31	0.06	64.61	0.24	10.59	-0.11	3.59	-0.20	21.14	-0.11
40	83126	0.47	0.30	0.37	0.06	47.13	0.30	35.46	-0.08	6.73	-0.26	10.62	-0.15

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.12 (continued)
Spring 2014 AIMS Classical Item Analysis
Reading CRT Grade 7

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	83126	0.35	0.32	0.41	0.03	53.63	-0.09	6.27	-0.30	5.24	-0.18	34.82	0.32
42	83126	0.61	0.32	0.40	0.03	6.61	-0.20	22.90	-0.18	60.67	0.32	9.78	-0.10
43	83126	0.53	0.20	0.25	0.05	10.28	-0.15	53.32	0.20	22.89	-0.05	13.45	-0.10
44	83126	0.69	0.38	0.49	0.13	68.54	0.38	8.29	-0.22	10.42	-0.22	12.62	-0.15
45	83126	0.58	0.25	0.31	0.02	57.83	0.25	15.89	-0.14	18.29	-0.04	7.97	-0.22
46	83126	0.57	0.45	0.55	0.03	8.17	-0.23	23.11	-0.19	12.10	-0.25	56.59	0.45
47	83126	0.45	0.32	0.40	0.05	44.85	0.32	31.33	-0.04	11.47	-0.18	12.31	-0.25
48	83126	0.54	0.35	0.44	0.03	26.77	-0.14	12.44	-0.18	53.60	0.35	7.16	-0.21
49	83126	0.82	0.48	0.70	0.04	9.13	-0.29	82.23	0.48	5.31	-0.26	3.29	-0.24
50	83126	0.70	0.42	0.54	0.04	9.35	-0.23	15.81	-0.20	4.57	-0.25	70.23	0.42
51	83126	0.82	0.43	0.62	0.06	4.67	-0.27	9.44	-0.19	4.00	-0.27	81.83	0.43
52	83126	0.82	0.47	0.68	0.01	7.86	-0.30	82.48	0.47	3.62	-0.24	6.03	-0.22
53	83126	0.65	0.39	0.49	0.03	18.39	-0.15	9.10	-0.21	7.04	-0.25	65.45	0.39
54	83126	0.38	0.31	0.39	0.06	48.66	-0.09	6.09	-0.21	37.61	0.31	7.59	-0.22

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.13
Spring 2014 AIMS Classical Item Analysis
Reading CRT Grade 8

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82378	0.53	0.27	0.33	0.04	20.70	-0.07	22.17	-0.16	3.92	-0.18	53.17	0.27
2	82378	0.73	0.42	0.55	0.02	3.98	-0.20	19.80	-0.30	72.87	0.42	3.33	-0.15
3	82378	0.85	0.31	0.48	0.05	2.99	-0.18	9.58	-0.19	2.21	-0.17	85.16	0.31
4	82378	0.86	0.28	0.45	0.04	5.50	-0.12	86.48	0.28	2.51	-0.18	5.46	-0.18
5	82378	0.92	0.22	0.40	0.01	4.12	-0.13	91.65	0.22	2.84	-0.10	1.38	-0.18
6	82378	0.52	0.24	0.30	0.04	7.94	-0.14	12.21	0.03	27.80	-0.21	52.01	0.24
7	82378	0.77	0.39	0.53	0.04	7.90	-0.22	11.42	-0.20	77.24	0.39	3.39	-0.22
8	82378	0.63	0.37	0.46	0.03	7.22	-0.21	63.29	0.37	24.18	-0.21	5.29	-0.15
9	82378	0.34	0.18	0.23	0.05	31.10	-0.03	14.06	-0.14	20.62	-0.05	34.18	0.18
10	82378	0.64	0.28	0.35	0.05	14.91	-0.12	5.65	-0.24	14.98	-0.09	64.41	0.28
11	82378	0.93	0.37	0.68	0.02	92.68	0.37	3.78	-0.25	2.14	-0.19	1.37	-0.17
12	82378	0.36	0.32	0.40	0.06	27.79	-0.04	18.04	-0.12	18.37	-0.24	35.75	0.32
13	82378	0.38	0.12	0.15	0.04	10.71	-0.21	38.29	0.12	21.48	-0.04	29.48	0.05
14	82378	0.29	0.22	0.30	0.07	28.51	0.22	16.14	-0.16	22.42	-0.11	32.87	0.00
15	82378	0.38	0.30	0.38	0.04	21.42	-0.17	7.79	-0.24	37.82	0.30	32.92	-0.03
16	82378	0.70	0.47	0.60	0.03	10.02	-0.25	11.13	-0.22	69.59	0.47	9.24	-0.24
17	82378	0.80	0.35	0.49	0.03	12.51	-0.21	5.52	-0.21	80.33	0.35	1.61	-0.15
18	82378	0.50	0.27	0.33	0.06	49.95	0.27	29.25	-0.12	15.92	-0.12	4.82	-0.17
19	82378	0.78	0.37	0.51	0.04	5.42	-0.19	78.39	0.37	7.25	-0.14	8.91	-0.26
20	82378	0.89	0.40	0.64	0.04	3.80	-0.18	5.20	-0.28	88.80	0.40	2.16	-0.20
21	82378	0.70	0.49	0.63	0.05	12.11	-0.24	11.82	-0.28	5.76	-0.23	70.26	0.49
22	82378	0.63	0.37	0.46	0.05	21.65	-0.14	8.11	-0.19	63.29	0.37	6.90	-0.26
23	82378	0.69	0.43	0.55	0.03	5.61	-0.28	18.64	-0.26	68.69	0.43	7.04	-0.13
24	82378	0.76	0.38	0.51	0.05	4.24	-0.21	76.30	0.38	8.95	-0.21	10.47	-0.18
25	82378	0.69	0.32	0.42	0.02	24.34	-0.20	69.43	0.32	4.33	-0.18	1.88	-0.21
26	82378	0.69	0.24	0.31	0.01	69.06	0.24	26.82	-0.11	2.16	-0.22	1.96	-0.23
27	82378	0.68	0.48	0.61	0.03	23.32	-0.32	68.02	0.48	6.41	-0.22	2.22	-0.23
28	82378	0.57	0.30	0.37	0.06	57.30	0.30	11.76	-0.08	11.56	-0.19	19.32	-0.15
29	82378	0.65	0.16	0.20	0.02	65.23	0.16	6.20	-0.28	15.95	0.05	12.60	-0.08
30	82378	0.82	0.41	0.58	0.02	3.49	-0.25	7.97	-0.20	81.62	0.41	6.91	-0.23
31	82378	0.57	0.34	0.42	0.04	8.22	-0.26	27.83	-0.09	57.03	0.34	6.88	-0.21
32	82378	0.49	0.21	0.26	0.03	6.64	-0.29	37.34	0.02	6.49	-0.17	49.49	0.21
33	82378	0.68	0.39	0.50	0.02	5.18	-0.28	15.13	-0.20	67.68	0.39	11.98	-0.15
34	82378	0.65	0.45	0.57	0.02	10.09	-0.24	64.90	0.45	5.23	-0.30	19.75	-0.19
35	82378	0.57	0.26	0.32	0.02	16.56	-0.15	22.25	-0.07	56.94	0.26	4.23	-0.22
36	82378	0.66	0.46	0.58	0.03	11.92	-0.28	66.08	0.46	10.68	-0.20	11.28	-0.21
37	82378	0.49	0.39	0.48	0.04	3.35	-0.23	23.99	-0.15	23.54	-0.21	49.08	0.39
38	82378	0.45	0.34	0.42	0.04	44.58	0.34	42.34	-0.18	8.08	-0.10	4.97	-0.24
39	82378	0.61	0.43	0.53	0.05	6.45	-0.22	23.24	-0.23	61.14	0.43	9.13	-0.20
40	82378	0.80	0.50	0.70	0.03	79.96	0.50	10.31	-0.30	6.20	-0.30	3.50	-0.22

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.13 (continued)
Spring 2014 AIMS Classical Item Analysis
Reading CRT Grade 8

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	82378	0.75	0.48	0.65	0.04	6.70	-0.26	7.98	-0.25	75.47	0.48	9.81	-0.25
42	82378	0.72	0.41	0.53	0.05	8.90	-0.25	12.62	-0.14	71.54	0.41	6.90	-0.27
43	82378	0.54	0.41	0.51	0.06	8.67	-0.27	25.50	-0.16	12.14	-0.18	53.62	0.41
44	82378	0.67	0.36	0.46	0.03	10.65	-0.24	67.05	0.36	19.57	-0.15	2.71	-0.22
45	82378	0.80	0.45	0.63	0.03	3.75	-0.27	4.18	-0.25	79.60	0.45	12.44	-0.24
46	82378	0.74	0.36	0.48	0.04	15.52	-0.22	73.87	0.36	6.28	-0.19	4.28	-0.16
47	82378	0.87	0.41	0.64	0.03	3.91	-0.27	5.08	-0.24	86.71	0.41	4.27	-0.18
48	82378	0.52	0.43	0.53	0.04	29.45	-0.15	51.85	0.43	7.36	-0.24	11.29	-0.27
49	82378	0.71	0.44	0.58	0.03	14.86	-0.31	10.38	-0.16	71.23	0.44	3.50	-0.23
50	82378	0.47	0.34	0.42	0.03	5.85	-0.24	27.89	-0.08	19.38	-0.20	46.86	0.34
51	82378	0.70	0.37	0.47	0.02	5.63	-0.24	14.89	-0.19	69.77	0.37	9.69	-0.15
52	82378	0.56	0.35	0.44	0.03	16.90	-0.23	55.89	0.35	10.40	-0.21	16.78	-0.06
53	82378	0.68	0.42	0.53	0.03	17.03	-0.18	8.11	-0.24	67.54	0.42	7.30	-0.24
54	82378	0.56	0.31	0.38	0.05	26.98	-0.04	55.67	0.31	11.94	-0.27	5.36	-0.22

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.14
Spring 2014 AIMS Classical Item Analysis
Reading CRT High School

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	77369	0.43	0.38	0.47	0.20	10.10	-0.23	26.13	-0.21	20.56	-0.05	43.00	0.38
2	77369	0.55	0.46	0.57	0.10	55.28	0.46	6.81	-0.18	22.92	-0.24	14.90	-0.21
3	77369	0.55	0.41	0.50	0.15	10.03	-0.21	54.66	0.41	21.66	-0.16	13.51	-0.20
4	77369	0.49	0.39	0.48	0.11	10.16	-0.15	16.04	-0.19	24.55	-0.17	49.14	0.39
5	77369	0.44	0.44	0.55	0.10	24.72	-0.10	21.23	-0.27	10.18	-0.19	43.78	0.44
6	77369	0.58	0.30	0.38	0.06	12.56	-0.21	9.81	-0.22	57.74	0.30	19.83	-0.03
7	77369	0.35	0.27	0.34	0.22	35.34	0.27	23.06	-0.17	24.27	-0.06	17.11	-0.08
8	77369	0.63	0.39	0.48	0.09	62.92	0.39	18.16	-0.21	9.76	-0.20	9.07	-0.15
9	77369	0.65	0.51	0.63	0.15	10.56	-0.25	14.02	-0.29	64.67	0.51	10.60	-0.21
10	77369	0.87	0.39	0.57	0.08	2.02	-0.20	86.88	0.39	8.91	-0.26	2.12	-0.19
11	77369	0.76	0.38	0.50	0.09	7.89	-0.23	6.78	-0.18	8.78	-0.18	76.46	0.38
12	77369	0.58	0.49	0.60	0.08	13.31	-0.34	8.60	-0.18	19.83	-0.18	58.18	0.49
13	77369	0.54	0.37	0.45	0.13	8.02	-0.26	54.04	0.37	35.93	-0.16	1.88	-0.19
14	77369	0.52	0.40	0.50	0.15	9.58	-0.26	52.49	0.40	24.75	-0.23	13.02	-0.06
15	77369	0.82	0.46	0.61	0.10	81.95	0.46	8.70	-0.29	6.82	-0.22	2.44	-0.21
16	77369	0.69	0.50	0.63	0.09	11.98	-0.25	9.96	-0.25	69.03	0.50	8.94	-0.26
17	77369	0.72	0.54	0.67	0.11	5.82	-0.26	6.96	-0.28	15.40	-0.28	71.71	0.54
18	77369	0.88	0.50	0.72	0.09	3.40	-0.25	4.39	-0.29	4.37	-0.27	87.75	0.50
19	77369	0.56	0.39	0.48	0.10	7.16	-0.28	56.41	0.39	18.05	-0.18	18.29	-0.12
20	77369	0.89	0.46	0.67	0.09	2.69	-0.25	4.56	-0.29	88.62	0.46	4.05	-0.21
21	77369	0.28	0.18	0.24	0.23	13.54	-0.14	41.99	0.09	28.02	0.18	16.22	-0.21
22	77369	0.24	0.04	0.06	0.29	25.63	0.00	23.63	0.04	28.82	0.00	21.64	-0.05
23	77369	0.59	0.45	0.55	0.21	13.44	-0.20	59.35	0.45	8.68	-0.28	18.33	-0.17
24	77369	0.54	0.40	0.49	0.16	7.79	-0.12	19.18	-0.18	18.56	-0.23	54.30	0.40
25	77369	0.48	0.30	0.38	0.16	24.37	-0.08	9.34	-0.21	47.97	0.30	18.15	-0.14
26	77369	0.38	0.23	0.29	0.10	24.70	-0.10	38.04	0.23	18.57	-0.11	18.59	-0.07
27	77369	0.47	0.26	0.32	0.13	14.99	-0.20	25.45	0.03	12.34	-0.21	47.09	0.26
28	77369	0.67	0.48	0.60	0.12	8.81	-0.20	9.85	-0.26	13.79	-0.25	67.44	0.48
29	77369	0.71	0.51	0.64	0.10	13.42	-0.25	71.02	0.51	7.33	-0.24	8.14	-0.29
30	77369	0.72	0.44	0.56	0.11	4.88	-0.24	12.95	-0.22	10.16	-0.22	71.90	0.44
31	77369	0.83	0.43	0.58	0.09	82.60	0.43	4.18	-0.26	2.28	-0.23	10.86	-0.23
32	77369	0.70	0.49	0.62	0.14	70.22	0.49	7.21	-0.25	15.91	-0.27	6.51	-0.24
33	77369	0.37	0.24	0.31	0.13	46.08	0.03	6.65	-0.19	36.98	0.24	10.17	-0.25
34	77369	0.55	0.38	0.47	0.17	9.24	-0.26	17.89	-0.10	17.94	-0.18	54.77	0.38
35	77369	0.63	0.37	0.46	0.13	62.91	0.37	3.84	-0.27	21.13	-0.16	11.99	-0.17
36	77369	0.64	0.35	0.44	0.14	13.07	-0.13	12.63	-0.19	9.80	-0.20	64.36	0.35
37	77369	0.76	0.45	0.59	0.16	10.80	-0.28	4.36	-0.26	76.39	0.45	8.28	-0.16
38	77369	0.37	0.21	0.27	0.14	23.29	-0.18	8.32	-0.28	37.22	0.21	31.03	0.12
39	77369	0.77	0.30	0.40	0.08	76.65	0.30	11.69	-0.17	8.48	-0.14	3.10	-0.18
40	77369	0.60	0.35	0.44	0.12	8.68	-0.22	19.35	-0.08	11.47	-0.24	60.39	0.35

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.14 (continued)
Spring 2014 AIMS Classical Item Analysis
Reading CRT High School

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	77369	0.71	0.29	0.37	0.13	11.91	-0.14	71.26	0.29	11.29	-0.17	5.42	-0.14
42	77369	0.55	0.48	0.59	0.11	4.31	-0.21	30.86	-0.25	55.37	0.48	9.34	-0.25
43	77369	0.78	0.52	0.67	0.11	6.43	-0.28	12.21	-0.27	3.60	-0.29	77.65	0.52
44	77369	0.56	0.43	0.52	0.14	18.77	-0.25	13.40	-0.13	56.29	0.43	11.40	-0.21
45	77369	0.55	0.35	0.43	0.12	10.55	-0.21	7.72	-0.27	55.31	0.35	26.30	-0.06
46	77369	0.47	0.36	0.45	0.18	47.32	0.36	17.70	-0.14	14.97	-0.22	19.83	-0.11
47	77369	0.39	0.33	0.42	0.18	39.21	0.33	20.34	-0.12	26.56	-0.14	13.71	-0.15
48	77369	0.78	0.26	0.35	0.13	3.57	-0.24	77.71	0.26	16.32	-0.07	2.28	-0.21
49	77369	0.87	0.45	0.65	0.12	2.91	-0.25	87.29	0.45	5.04	-0.28	4.65	-0.20
50	77369	0.60	0.37	0.46	0.17	11.74	-0.20	24.03	-0.14	60.08	0.37	3.98	-0.25
51	77369	0.74	0.49	0.62	0.29	6.97	-0.26	74.25	0.49	13.80	-0.28	4.68	-0.22
52	77369	0.31	0.21	0.27	0.11	11.82	-0.18	31.14	0.21	27.96	-0.03	28.97	-0.04
53	77369	0.74	0.42	0.54	0.10	12.50	-0.18	9.15	-0.26	74.12	0.42	4.13	-0.23
54	77369	0.63	0.36	0.45	0.12	3.23	-0.19	63.24	0.36	25.03	-0.11	8.38	-0.30

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.15
Spring 2014 AIMS Classical Item Analysis
Science CRT Grade 4

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83407	0.86	0.31	0.48	0.03	5.39	-0.16	2.38	-0.14	86.32	0.31	5.89	-0.21
2	83407	0.77	0.24	0.33	0.04	4.72	-0.14	9.48	-0.17	9.13	-0.07	76.64	0.24
3	83407	0.72	0.30	0.40	0.06	71.96	0.30	11.37	-0.17	6.20	-0.21	10.41	-0.11
4	83407	0.84	0.20	0.30	0.04	84.02	0.20	4.70	-0.17	6.90	-0.05	4.33	-0.11
5	83407	0.24	0.21	0.29	0.06	28.15	0.04	23.71	0.21	20.27	-0.20	27.81	-0.07
6	83407	0.50	0.31	0.38	0.05	16.87	-0.07	50.39	0.31	24.92	-0.13	7.77	-0.26
7	83407	0.62	0.36	0.45	0.04	13.43	-0.21	11.16	-0.08	61.96	0.36	13.41	-0.23
8	83407	0.55	0.40	0.49	0.05	23.63	-0.16	8.42	-0.26	55.11	0.40	12.78	-0.17
9	83407	0.97	0.18	0.46	0.05	0.91	-0.11	0.71	-0.11	1.39	-0.09	96.93	0.18
10	83407	0.93	0.15	0.29	0.02	4.90	-0.07	1.48	-0.14	92.58	0.15	1.02	-0.10
11	83407	0.73	0.36	0.47	0.03	6.79	-0.21	73.19	0.36	8.25	-0.24	11.75	-0.12
12	83407	0.60	0.44	0.55	0.05	23.55	-0.20	7.36	-0.25	8.82	-0.22	60.22	0.44
13	83407	0.44	0.28	0.34	0.05	24.55	-0.06	23.41	-0.13	7.79	-0.22	44.20	0.28
14	83407	0.79	0.41	0.57	0.05	4.50	-0.20	7.91	-0.21	8.39	-0.25	79.16	0.41
15	83407	0.37	0.35	0.44	0.05	19.94	-0.17	37.22	0.35	27.98	-0.12	14.81	-0.14
16	83407	0.55	0.49	0.60	0.02	7.38	-0.24	5.79	-0.24	54.87	0.49	31.94	-0.26
17	83407	0.60	0.44	0.55	0.05	16.08	-0.23	60.49	0.44	15.53	-0.23	7.85	-0.19
18	83407	0.60	0.28	0.35	0.06	9.38	-0.21	60.16	0.28	9.12	-0.22	21.27	-0.03
19	83407	0.30	0.23	0.30	0.06	58.15	-0.09	30.47	0.23	7.78	-0.12	3.53	-0.15
20	83407	0.31	0.18	0.24	0.06	13.34	-0.18	31.03	0.18	4.28	-0.14	51.28	0.01
21	83407	0.45	0.30	0.37	0.07	16.91	-0.16	15.19	-0.15	22.66	-0.08	45.18	0.30
22	83407	0.48	0.44	0.54	0.03	8.32	-0.19	33.83	-0.23	48.09	0.44	9.73	-0.20
23	83407	0.52	0.31	0.38	0.07	11.82	-0.14	18.96	-0.10	17.30	-0.18	51.86	0.31
24	83407	0.45	0.29	0.36	0.23	16.61	-0.14	21.02	-0.09	45.30	0.29	16.84	-0.15
25	83407	0.67	0.49	0.63	0.20	11.06	-0.30	14.13	-0.21	7.24	-0.25	67.36	0.49
26	83407	0.56	0.31	0.39	0.23	3.24	-0.21	6.39	-0.24	33.73	-0.13	56.41	0.31
27	83407	0.53	0.30	0.37	0.35	6.14	-0.21	52.55	0.30	8.63	-0.20	32.33	-0.09
28	83407	0.39	0.38	0.47	0.03	27.40	-0.11	39.48	0.38	19.60	-0.05	13.48	-0.35
29	83407	0.29	0.19	0.25	0.05	28.66	0.19	54.39	-0.06	4.60	-0.18	12.30	-0.05
30	83407	0.45	0.31	0.39	0.06	7.83	-0.22	6.69	-0.18	40.71	-0.10	44.72	0.31
31	83407	0.57	0.37	0.45	0.09	14.65	-0.20	13.54	-0.14	15.10	-0.17	56.61	0.37
32	83407	0.65	0.45	0.57	0.07	10.41	-0.26	7.62	-0.27	65.21	0.45	16.68	-0.17
33	83407	0.42	0.44	0.54	0.03	8.86	-0.15	42.21	0.44	43.75	-0.26	5.15	-0.21
34	83407	0.61	0.44	0.55	0.06	60.80	0.44	10.56	-0.26	21.22	-0.19	7.35	-0.22
35	83407	0.62	0.41	0.51	0.08	8.16	-0.29	8.02	-0.24	22.00	-0.14	61.74	0.41
36	83407	0.63	0.23	0.29	0.07	15.99	-0.02	63.44	0.23	4.93	-0.17	15.57	-0.18
37	83407	0.54	0.35	0.43	0.10	19.87	-0.20	19.37	-0.09	6.37	-0.23	54.30	0.35
38	83407	0.40	0.21	0.26	0.10	33.06	0.01	9.07	-0.21	40.10	0.21	17.65	-0.12
39	83407	0.85	0.43	0.65	0.07	85.10	0.43	5.80	-0.24	4.92	-0.23	4.11	-0.23
40	83407	0.40	0.33	0.41	0.08	39.92	0.33	20.96	-0.11	15.65	-0.15	23.39	-0.14

Note. Item number is not the item number in test booklet as some items might have been suppressed. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.15 (continued)
Spring 2014 AIMS Classical Item Analysis
Science CRT Grade 4

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	83407	0.39	0.34	0.42	0.13	14.95	-0.19	19.26	-0.12	39.18	0.34	26.48	-0.12
42	83407	0.65	0.37	0.47	0.05	8.82	-0.23	8.45	-0.20	17.29	-0.15	65.40	0.37
43	83407	0.49	0.34	0.42	0.07	22.12	-0.20	49.43	0.34	14.97	-0.15	13.40	-0.09
44	83407	0.55	0.39	0.48	0.08	10.07	-0.27	7.08	-0.19	27.88	-0.14	54.89	0.39
45	83407	0.48	0.35	0.43	0.12	17.67	-0.15	14.91	-0.22	19.58	-0.10	47.72	0.35
46	83407	0.79	0.43	0.60	0.08	7.62	-0.24	79.47	0.43	7.71	-0.24	5.12	-0.20
47	83407	0.51	0.32	0.39	0.09	20.36	-0.10	11.22	-0.19	50.55	0.32	17.77	-0.15
48	83407	0.54	0.39	0.48	0.06	17.62	-0.10	54.48	0.39	16.21	-0.23	11.63	-0.22
49	83407	0.40	0.24	0.30	0.09	14.24	-0.16	21.13	-0.11	39.58	0.24	24.96	-0.04
50	83407	0.55	0.41	0.50	0.12	21.08	-0.14	13.89	-0.21	10.25	-0.24	54.65	0.41
51	83407	0.38	0.20	0.25	0.15	12.02	-0.21	11.38	-0.25	38.10	0.20	38.35	0.11
52	83407	0.62	0.26	0.33	0.10	8.43	-0.13	61.50	0.26	9.57	-0.16	20.39	-0.11
53	83407	0.46	0.32	0.39	0.15	46.07	0.32	8.61	-0.20	30.70	-0.11	14.46	-0.15
54	83407	0.66	0.42	0.53	0.33	65.71	0.42	10.84	-0.24	9.67	-0.21	13.44	-0.19

Note. Item number is not the item number in test booklet as some items might have been suppressed. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.16
Spring 2014 AIMS Classical Item Analysis
Science CRT Grade 8

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82465	0.66	0.37	0.47	0.03	2.58	-0.17	8.48	-0.18	65.86	0.37	23.05	-0.23
2	82465	0.78	0.27	0.38	0.02	6.63	-0.16	8.47	-0.09	6.49	-0.19	78.39	0.27
3	82465	0.79	0.34	0.47	0.03	5.64	-0.19	78.78	0.34	5.71	-0.18	9.84	-0.17
4	82465	0.27	0.24	0.32	0.01	1.69	-0.10	57.28	-0.10	26.88	0.24	14.14	-0.13
5	82465	0.88	0.23	0.37	0.02	6.60	-0.16	2.89	-0.11	88.04	0.23	2.46	-0.09
6	82465	0.90	0.35	0.60	0.00	0.44	-0.11	0.99	-0.15	8.26	-0.30	90.31	0.35
7	82465	0.81	0.35	0.51	0.02	3.86	-0.22	4.81	-0.16	10.14	-0.20	81.16	0.35
8	82465	0.89	0.37	0.60	0.02	2.16	-0.16	6.48	-0.27	88.89	0.37	2.45	-0.18
9	82465	0.68	0.26	0.34	0.02	13.63	-0.07	11.99	-0.23	67.70	0.26	6.66	-0.10
10	82465	0.66	0.34	0.43	0.03	14.15	-0.12	8.58	-0.20	65.95	0.34	11.28	-0.20
11	82465	0.77	0.24	0.33	0.01	2.98	-0.18	77.18	0.24	4.41	-0.20	15.42	-0.08
12	82465	0.82	0.30	0.43	0.02	3.09	-0.21	2.84	-0.21	11.78	-0.13	82.27	0.30
13	82465	0.74	0.42	0.56	0.02	74.31	0.42	3.57	-0.17	18.80	-0.30	3.31	-0.18
14	82465	0.47	0.30	0.37	0.03	30.69	-0.09	14.15	-0.14	7.77	-0.22	47.37	0.30
15	82465	0.64	0.41	0.52	0.02	10.30	-0.19	63.56	0.41	9.26	-0.26	16.86	-0.18
16	82465	0.68	0.37	0.47	0.04	10.00	-0.19	7.46	-0.18	67.89	0.37	14.61	-0.19
17	82465	0.64	0.41	0.52	0.03	15.75	-0.13	5.25	-0.24	14.89	-0.26	64.09	0.41
18	82465	0.50	0.33	0.41	0.06	14.67	-0.06	13.26	-0.18	50.02	0.33	22.00	-0.19
19	82465	0.75	0.41	0.54	0.04	8.57	-0.20	6.99	-0.25	75.25	0.41	9.16	-0.19
20	82465	0.29	0.34	0.44	0.05	28.97	0.34	16.26	-0.08	26.99	-0.21	27.72	-0.07
21	82465	0.33	0.23	0.29	0.03	15.74	-0.15	33.04	0.23	21.66	-0.08	29.53	-0.04
22	82465	0.65	0.36	0.45	0.03	21.67	-0.16	4.39	-0.19	8.92	-0.23	64.98	0.36
23	82465	0.54	0.46	0.56	0.03	17.51	-0.22	54.48	0.46	23.79	-0.24	4.19	-0.22
24	82465	0.35	0.37	0.47	0.05	3.88	-0.15	28.42	-0.03	32.20	-0.29	35.45	0.37
25	82465	0.67	0.37	0.47	0.04	9.92	-0.23	14.53	-0.14	8.56	-0.20	66.96	0.37
26	82465	0.46	0.34	0.42	0.06	28.55	-0.11	45.71	0.34	11.13	-0.19	14.54	-0.18
27	82465	0.31	0.16	0.21	0.04	17.35	-0.08	23.00	-0.16	31.15	0.16	28.46	0.05
28	82465	0.45	0.34	0.41	0.04	18.55	-0.14	44.85	0.34	18.61	-0.19	17.95	-0.09
29	82465	0.49	0.40	0.49	0.06	13.79	-0.19	48.71	0.40	15.32	-0.20	22.13	-0.15
30	82465	0.60	0.20	0.25	0.04	22.66	-0.03	60.41	0.20	8.54	-0.14	8.35	-0.15
31	82465	0.70	0.46	0.60	0.04	11.45	-0.26	6.00	-0.23	12.34	-0.23	70.17	0.46
32	82465	0.50	0.34	0.42	0.06	19.19	-0.26	50.25	0.34	18.73	-0.08	11.76	-0.12
33	82465	0.85	0.43	0.64	0.02	3.55	-0.23	84.74	0.43	7.99	-0.26	3.69	-0.21
34	82465	0.69	0.43	0.56	0.05	69.01	0.43	14.74	-0.20	7.75	-0.22	8.45	-0.25
35	82465	0.60	0.30	0.37	0.04	20.51	-0.11	14.23	-0.16	59.94	0.30	5.30	-0.21
36	82465	0.37	0.31	0.39	0.05	20.05	-0.22	36.95	0.31	26.79	0.07	16.16	-0.25
37	82465	0.70	0.23	0.30	0.04	12.08	0.01	69.83	0.23	15.01	-0.20	3.04	-0.21
38	82465	0.60	0.30	0.38	0.04	8.83	-0.26	5.47	-0.26	25.58	-0.04	60.08	0.30
39	82465	0.87	0.43	0.68	0.08	3.48	-0.25	5.07	-0.25	87.47	0.43	3.89	-0.21
40	82465	0.58	0.44	0.54	0.03	13.74	-0.21	25.58	-0.27	57.64	0.44	3.01	-0.16

Note. Item number is not the item number in test booklet as some items might have been suppressed. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.16 (continued)
Spring 2014 AIMS Classical Item Analysis
Science CRT Grade 8

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	82465	0.60	0.45	0.55	0.03	23.08	-0.22	59.98	0.45	6.23	-0.27	10.67	-0.19
42	82465	0.54	0.38	0.47	0.06	12.09	-0.25	9.21	-0.28	53.81	0.38	24.83	-0.07
43	82465	0.45	0.28	0.35	0.03	6.74	-0.22	38.23	-0.03	10.35	-0.24	44.65	0.28
44	82465	0.83	0.49	0.71	0.04	5.90	-0.27	6.15	-0.27	5.27	-0.26	82.64	0.49
45	82465	0.50	0.24	0.29	0.05	38.15	-0.03	5.53	-0.21	49.65	0.24	6.62	-0.22
46	82465	0.75	0.28	0.38	0.02	4.71	-0.23	74.71	0.28	5.17	-0.25	15.39	-0.05
47	82465	0.61	0.34	0.43	0.05	20.32	-0.06	9.37	-0.27	61.35	0.34	8.92	-0.22
48	82465	0.60	0.48	0.59	0.04	19.53	-0.31	7.53	-0.17	13.35	-0.19	59.55	0.48
49	82465	0.50	0.10	0.13	0.04	28.97	0.03	10.03	-0.09	10.62	-0.13	50.34	0.10
50	82465	0.79	0.49	0.68	0.05	5.21	-0.24	5.81	-0.31	9.82	-0.25	79.11	0.49
51	82465	0.59	0.46	0.57	0.04	58.99	0.46	14.85	-0.21	7.02	-0.20	19.11	-0.26
52	82465	0.60	0.39	0.49	0.06	8.79	-0.24	10.40	-0.30	59.64	0.39	21.11	-0.08
53	82465	0.19	0.12	0.17	0.07	18.84	0.06	34.27	-0.04	28.17	-0.11	18.65	0.12
54	82465	0.49	0.41	0.50	0.04	11.09	-0.29	15.89	-0.26	24.11	-0.05	48.86	0.41
55	82465	0.43	0.27	0.34	0.05	25.03	-0.14	24.83	-0.02	6.61	-0.26	43.49	0.27
56	82465	0.43	0.20	0.25	0.04	32.94	0.02	43.16	0.20	19.05	-0.14	4.81	-0.24
57	82465	0.30	0.16	0.21	0.07	20.83	-0.05	20.85	-0.09	28.37	-0.03	29.88	0.16
58	82465	0.43	0.23	0.28	0.09	12.38	-0.22	19.07	-0.02	43.48	0.23	24.98	-0.08

Note. Item number is not the item number in test booklet as some items might have been suppressed. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.17
Spring 2014 AIMS Classical Item Analysis
Science CRT High School

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	73993	0.58	0.32	0.40	0.16	24.84	-0.11	8.74	-0.21	7.95	-0.19	58.31	0.32
2	73993	0.58	0.51	0.63	0.03	5.92	-0.06	26.38	-0.41	9.23	-0.19	58.44	0.51
3	73993	0.47	0.31	0.39	0.09	46.97	0.31	10.34	-0.18	33.32	-0.13	9.28	-0.15
4	73993	0.86	0.27	0.42	0.03	1.64	-0.16	85.65	0.27	8.84	-0.16	3.85	-0.15
5	73993	0.75	0.31	0.42	0.05	7.53	-0.13	6.66	-0.17	75.35	0.31	10.41	-0.18
6	73993	0.84	0.40	0.60	0.07	6.55	-0.22	83.84	0.40	6.19	-0.24	3.36	-0.21
7	73993	0.53	0.31	0.39	0.10	15.04	-0.17	9.23	-0.17	52.99	0.31	22.64	-0.11
8	73993	0.52	0.42	0.52	0.17	7.79	-0.22	9.87	-0.12	29.79	-0.26	52.38	0.42
9	73993	0.66	0.38	0.48	0.12	11.48	-0.17	65.68	0.38	11.67	-0.20	11.05	-0.19
10	73993	0.54	0.47	0.57	0.04	5.94	-0.25	31.12	-0.24	8.75	-0.22	54.16	0.47
11	73993	0.50	0.33	0.41	0.10	17.47	-0.11	50.20	0.33	10.65	-0.26	21.58	-0.11
12	73993	0.66	0.40	0.51	0.05	18.04	-0.17	5.48	-0.25	65.73	0.40	10.70	-0.22
13	73993	0.75	0.44	0.59	0.04	13.04	-0.25	75.34	0.44	2.94	-0.21	8.64	-0.25
14	73993	0.58	0.16	0.21	0.06	7.33	-0.19	28.72	0.04	5.43	-0.22	58.47	0.16
15	73993	0.75	0.44	0.59	0.06	7.43	-0.20	13.47	-0.26	74.54	0.44	4.50	-0.25
16	73993	0.85	0.49	0.74	0.04	4.70	-0.27	4.08	-0.26	6.17	-0.27	85.00	0.49
17	73993	0.41	0.34	0.42	0.11	13.10	-0.18	17.73	-0.18	28.16	-0.08	40.90	0.34
18	73993	0.40	0.22	0.27	0.14	13.99	-0.08	23.72	0.00	40.19	0.22	21.96	-0.19
19	73993	0.43	0.21	0.26	0.11	20.01	-0.18	18.22	-0.06	42.92	0.21	18.73	-0.03
20	73993	0.66	0.45	0.58	0.04	10.50	-0.22	9.31	-0.24	13.68	-0.22	66.47	0.45
21	73993	0.64	0.37	0.46	0.06	15.22	-0.17	63.70	0.37	12.54	-0.24	8.49	-0.13
22	73993	0.53	0.30	0.38	0.13	19.24	-0.11	18.65	-0.21	53.42	0.30	8.57	-0.09
23	73993	0.71	0.49	0.65	0.07	13.98	-0.27	6.60	-0.29	71.35	0.49	8.01	-0.21
24	73993	0.58	0.36	0.44	0.10	11.46	-0.17	9.90	-0.26	20.83	-0.11	57.71	0.36
25	73993	0.56	0.34	0.42	0.06	18.19	-0.18	16.07	-0.12	55.87	0.34	9.80	-0.18
26	73993	0.56	0.41	0.51	0.11	56.34	0.41	14.59	-0.24	14.85	-0.24	14.11	-0.09
27	73993	0.77	0.43	0.59	0.07	4.50	-0.25	77.02	0.43	6.32	-0.29	12.09	-0.19
28	73993	0.57	0.32	0.40	0.07	5.80	-0.23	9.58	-0.24	27.97	-0.08	56.57	0.32
29	73993	0.50	0.49	0.60	0.14	19.52	-0.20	16.45	-0.23	13.42	-0.23	50.47	0.49
30	73993	0.45	0.17	0.22	0.17	32.64	0.08	44.79	0.17	14.77	-0.19	7.63	-0.21
31	73993	0.62	0.42	0.53	0.11	61.61	0.42	21.85	-0.19	10.35	-0.26	6.08	-0.20
32	73993	0.53	0.33	0.41	0.13	29.23	-0.09	10.22	-0.21	52.67	0.33	7.74	-0.22
33	73993	0.45	0.38	0.48	0.18	45.18	0.38	22.70	-0.15	19.01	-0.19	12.94	-0.16
34	73993	0.49	0.27	0.34	0.06	16.54	-0.18	10.70	-0.27	48.57	0.27	24.13	0.04
35	73993	0.70	0.51	0.65	0.08	5.97	-0.27	7.68	-0.29	69.64	0.51	16.62	-0.24
36	73993	0.75	0.47	0.63	0.06	14.90	-0.30	75.31	0.47	4.51	-0.25	5.22	-0.19
37	73993	0.41	0.39	0.49	0.18	14.10	-0.22	14.90	-0.20	30.22	-0.09	40.59	0.39
38	73993	0.69	0.42	0.54	0.07	13.22	-0.20	11.44	-0.23	69.01	0.42	6.25	-0.23
39	73993	0.51	0.40	0.50	0.12	17.72	-0.16	14.94	-0.23	51.20	0.40	16.02	-0.16
40	73993	0.68	0.38	0.49	0.11	10.90	-0.19	12.20	-0.21	68.36	0.38	8.42	-0.18

Note. Item number is not the item number in test booklet as some items might have been suppressed. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

(table continues)

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Table 6.3.17 (continued)
Spring 2014 AIMS Classical Item Analysis
Science CRT High School

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
41	73993	0.71	0.31	0.40	0.09	9.51	-0.16	70.55	0.31	9.05	-0.20	10.79	-0.12
42	73993	0.65	0.49	0.61	0.10	8.97	-0.26	14.53	-0.25	11.78	-0.22	64.62	0.49
43	73993	0.81	0.46	0.66	0.12	8.91	-0.26	5.50	-0.26	81.49	0.46	3.97	-0.21
44	73993	0.66	0.37	0.48	0.10	18.34	-0.11	7.75	-0.25	7.36	-0.27	66.46	0.37
45	73993	0.74	0.38	0.51	0.05	74.09	0.38	12.57	-0.20	9.53	-0.21	3.77	-0.20
46	73993	0.56	0.38	0.47	0.08	22.12	-0.14	16.00	-0.21	56.20	0.38	5.61	-0.21
47	73993	0.50	0.47	0.57	0.12	50.13	0.47	8.97	-0.19	19.61	-0.27	21.17	-0.17
48	73993	0.57	0.37	0.46	0.10	10.92	-0.22	56.61	0.37	12.48	-0.23	19.88	-0.10
49	73993	0.68	0.47	0.60	0.11	6.39	-0.25	12.26	-0.24	13.35	-0.23	67.89	0.47
50	73993	0.67	0.50	0.64	0.12	66.75	0.50	8.95	-0.26	16.71	-0.29	7.46	-0.20
51	73993	0.44	0.43	0.53	0.15	11.90	-0.26	20.01	-0.15	24.29	-0.15	43.65	0.43
52	73993	0.52	0.41	0.51	0.11	52.31	0.41	19.22	-0.22	19.94	-0.09	8.41	-0.29
53	73993	0.71	0.50	0.65	0.12	9.10	-0.26	9.93	-0.28	71.34	0.50	9.50	-0.22
54	73993	0.45	0.36	0.45	0.12	15.74	-0.16	44.92	0.36	27.18	-0.14	12.03	-0.18
55	73993	0.56	0.53	0.66	0.13	56.46	0.53	8.68	-0.28	27.92	-0.32	6.82	-0.18
56	73993	0.33	0.39	0.50	0.14	26.48	-0.09	21.47	-0.22	18.52	-0.14	33.38	0.39
57	73993	0.47	0.27	0.33	0.08	46.71	0.27	27.45	-0.06	18.83	-0.14	6.93	-0.20
58	73993	0.41	0.38	0.48	0.11	40.56	0.38	11.84	-0.23	20.48	-0.17	27.01	-0.10
59	73993	0.48	0.35	0.44	0.17	47.70	0.35	14.86	-0.24	11.60	-0.27	25.67	-0.01
60	73993	0.57	0.29	0.36	0.20	56.70	0.29	24.83	-0.04	10.08	-0.24	8.19	-0.18
61	73993	0.70	0.45	0.59	0.14	9.70	-0.25	70.23	0.45	14.60	-0.24	5.34	-0.20
62	73993	0.50	0.29	0.36	0.15	49.93	0.29	22.74	-0.10	9.56	-0.22	17.61	-0.10
63	73993	0.47	0.42	0.52	0.12	29.51	-0.10	14.24	-0.28	9.23	-0.23	46.90	0.42
64	73993	0.65	0.52	0.65	0.12	64.66	0.52	18.19	-0.26	10.83	-0.30	6.20	-0.22
65	73993	0.53	0.35	0.43	0.10	17.37	-0.10	53.22	0.35	16.98	-0.21	12.33	-0.17

Note. Item number is not the item number in test booklet as some items might have been suppressed. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.18
Spring 2014 AIMS Classical Item Analysis
Writing CRT Grade 5

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83750	0.92	0.35	0.63	0.23	5.22	-0.25	1.01	-0.15	1.95	-0.19	91.60	0.35
2	83750	0.65	0.32	0.40	0.22	2.93	-0.18	64.82	0.32	21.95	-0.22	10.08	-0.11
3	83750	0.60	0.41	0.50	0.24	6.03	-0.26	9.11	-0.23	60.12	0.41	24.50	-0.17
4	83750	0.44	0.32	0.39	0.24	8.94	-0.25	41.78	-0.09	44.02	0.32	5.02	-0.21
5	83750	0.62	0.37	0.45	0.25	9.51	-0.24	62.35	0.37	20.84	-0.17	7.04	-0.16
6	83750	0.48	0.37	0.44	0.31	22.07	-0.22	9.55	-0.20	20.31	-0.08	47.77	0.37
7	83750	0.66	0.45	0.56	0.33	17.97	-0.26	4.77	-0.22	65.93	0.45	11.00	-0.21
8	83750	0.65	0.33	0.41	0.22	7.59	-0.16	15.40	-0.13	64.72	0.33	12.08	-0.21
9	83750	0.69	0.27	0.34	0.22	69.24	0.27	9.55	-0.08	5.30	-0.26	15.69	-0.11
10	83750	0.43	0.15	0.19	0.22	41.11	0.07	5.38	-0.25	10.59	-0.18	42.71	0.15
11	83750	0.81	0.46	0.65	0.22	7.12	-0.25	3.58	-0.26	8.06	-0.25	81.02	0.46
12	83750	0.84	0.42	0.62	0.23	83.86	0.42	4.47	-0.25	4.34	-0.23	7.09	-0.22
13	83750	0.58	0.39	0.48	0.22	57.89	0.39	11.57	-0.28	24.12	-0.11	6.20	-0.24
14	83750	0.74	0.42	0.55	0.20	73.98	0.42	8.99	-0.26	8.81	-0.23	8.02	-0.18
15	83750	0.71	0.44	0.57	0.22	7.80	-0.27	13.45	-0.25	71.49	0.44	7.03	-0.16
16	83750	0.57	0.48	0.57	0.24	10.28	-0.31	7.95	-0.25	24.69	-0.17	56.85	0.48
17	83750	0.65	0.37	0.46	0.25	65.23	0.37	21.27	-0.12	7.39	-0.24	5.88	-0.28
18	83750	0.82	0.37	0.54	0.25	82.46	0.37	5.12	-0.22	6.15	-0.15	6.02	-0.24
19	83750	0.29	0.24	0.31	0.22	19.00	-0.15	29.31	0.24	30.25	-0.11	21.22	0.00
20	83750	0.25	0.11	0.15	0.25	36.73	0.03	25.13	0.11	27.10	-0.04	10.79	-0.14
21	83750	0.38	0.19	0.23	0.26	39.99	0.12	38.05	0.19	12.19	-0.26	9.51	-0.23
22	83750	0.60	0.42	0.51	0.23	59.86	0.42	11.59	-0.22	8.59	-0.20	19.74	-0.20
23	83750	0.69	0.35	0.45	0.31	68.67	0.35	4.29	-0.25	5.34	-0.24	21.39	-0.15
24	83750	0.80	0.39	0.55	0.22	3.81	-0.22	80.47	0.39	4.00	-0.21	11.50	-0.22
25	83750	0.75	0.44	0.58	0.24	13.19	-0.23	6.72	-0.24	75.42	0.44	4.43	-0.24
26	83750	0.58	0.41	0.50	0.27	12.40	-0.20	16.53	-0.19	57.90	0.41	12.90	-0.20
27	83750	0.62	0.41	0.50	0.24	61.53	0.41	7.57	-0.24	13.64	-0.22	17.01	-0.16

Note. This test included a writing prompt scored on the holistic six-point rubric (see Appendix D). Summary data for the prompt can be found in Table 6.3.22.1. Blank responses were treated as omit. Illegible responses, non-English responses, and off-topic responses were treated as 0. Note that the N count in this table is higher than that in the test statistics table, due to the inclusion of students omitting a response in computations. The statistics presented in this table are based on census data.

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Table 6.3.19
Spring 2014 AIMS Classical Item Analysis
Writing CRT Grade 6

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82756	0.79	0.35	0.48	0.25	2.99	-0.14	9.65	-0.20	79.26	0.35	7.84	-0.22
2	82756	0.94	0.28	0.59	0.22	0.95	-0.12	94.42	0.28	1.36	-0.13	3.05	-0.21
3	82756	0.82	0.33	0.47	0.23	82.45	0.33	6.52	-0.15	6.30	-0.14	4.50	-0.25
4	82756	0.78	0.44	0.60	0.22	78.36	0.44	8.66	-0.29	3.08	-0.17	9.69	-0.24
5	82756	0.67	0.40	0.51	0.24	2.48	-0.17	67.27	0.40	23.81	-0.30	6.20	-0.15
6	82756	0.48	0.37	0.45	0.25	16.05	-0.28	15.28	-0.12	20.39	-0.10	48.03	0.37
7	82756	0.48	0.36	0.43	0.24	39.72	-0.20	5.20	-0.20	47.69	0.36	7.15	-0.15
8	82756	0.41	0.26	0.32	0.26	15.16	-0.17	24.11	-0.22	40.64	0.26	19.83	0.07
9	82756	0.45	0.21	0.25	0.25	45.39	0.21	36.51	0.07	10.06	-0.26	7.78	-0.23
10	82756	0.83	0.36	0.52	0.21	3.43	-0.22	82.53	0.36	2.70	-0.21	11.13	-0.20
11	82756	0.68	0.34	0.43	0.23	4.33	-0.16	24.40	-0.21	2.69	-0.21	68.34	0.34
12	82756	0.57	0.32	0.39	0.23	4.15	-0.26	56.84	0.32	8.63	-0.11	30.14	-0.17
13	82756	0.60	0.30	0.37	0.24	59.72	0.30	20.54	-0.21	4.05	-0.23	15.45	-0.05
14	82756	0.67	0.37	0.47	0.22	4.97	-0.22	13.79	-0.15	67.23	0.37	13.79	-0.21
15	82756	0.77	0.39	0.52	0.22	4.24	-0.27	14.81	-0.17	4.18	-0.24	76.56	0.39
16	82756	0.61	0.38	0.46	0.24	12.20	-0.21	15.33	-0.24	61.23	0.38	11.00	-0.09
17	82756	0.71	0.46	0.59	0.25	6.85	-0.29	15.94	-0.20	5.49	-0.27	71.47	0.46
18	82756	0.59	0.42	0.51	0.24	11.44	-0.22	18.60	-0.14	11.05	-0.27	58.67	0.42
19	82756	0.69	0.31	0.39	0.21	68.56	0.31	3.28	-0.17	7.06	-0.20	20.90	-0.15
20	82756	0.72	0.34	0.44	0.24	5.23	-0.25	11.55	-0.19	72.29	0.34	10.69	-0.12
21	82756	0.53	0.24	0.29	0.22	53.02	0.24	4.93	-0.19	18.36	-0.17	23.46	-0.02
22	82756	0.56	0.32	0.38	0.25	30.22	-0.13	56.04	0.32	6.04	-0.21	7.45	-0.18
23	82756	0.62	0.34	0.42	0.24	22.02	-0.15	8.33	-0.19	7.51	-0.19	61.90	0.34
24	82756	0.83	0.45	0.66	0.27	3.62	-0.24	6.91	-0.26	5.85	-0.23	83.34	0.45
25	82756	0.63	0.48	0.59	0.25	15.06	-0.28	63.22	0.48	7.70	-0.29	13.77	-0.16
26	82756	0.53	0.31	0.38	0.28	13.70	-0.20	53.16	0.31	15.22	-0.17	17.65	-0.07
27	82756	0.68	0.42	0.53	0.27	16.41	-0.20	9.01	-0.23	67.79	0.42	6.52	-0.22

Note. This test included a writing prompt scored on the holistic six-point rubric (see Appendix D). Summary data for the prompt can be found in Table 6.3.22.1. Blank responses were treated as omit. Illegible responses, non-English responses, and off-topic responses were treated as 0. Note that the N count in this table is higher than that in the test statistics table, due to the inclusion of students omitting a response in computations. The statistics presented in this table are based on census data.

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Table 6.3.20
Spring 2014 AIMS Classical Item Analysis
Writing CRT Grade 7

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83358	0.65	0.32	0.40	0.35	19.68	-0.11	5.81	-0.18	9.49	-0.23	64.67	0.32
2	83358	0.52	0.23	0.28	0.31	1.95	-0.18	42.92	-0.14	2.42	-0.16	52.39	0.23
3	83358	0.50	0.19	0.23	0.32	38.20	-0.01	4.40	-0.21	6.86	-0.20	50.22	0.19
4	83358	0.35	0.20	0.25	0.34	34.72	0.20	21.83	-0.06	13.16	-0.16	29.96	-0.04
5	83358	0.78	0.41	0.56	0.34	6.12	-0.20	77.69	0.41	4.90	-0.21	10.95	-0.25
6	83358	0.66	0.41	0.51	0.36	66.41	0.41	10.15	-0.25	2.92	-0.20	20.15	-0.21
7	83358	0.78	0.35	0.48	0.37	11.06	-0.19	3.82	-0.20	78.22	0.35	6.52	-0.19
8	83358	0.84	0.32	0.47	0.29	10.88	-0.24	2.08	-0.14	84.25	0.32	2.50	-0.12
9	83358	0.81	0.42	0.59	0.31	2.61	-0.18	3.85	-0.25	11.78	-0.26	81.45	0.42
10	83358	0.73	0.44	0.57	0.30	10.34	-0.28	7.75	-0.21	8.31	-0.19	73.30	0.44
11	83358	0.83	0.33	0.49	0.30	83.19	0.33	3.86	-0.17	3.27	-0.18	9.38	-0.21
12	83358	0.83	0.40	0.58	0.30	6.17	-0.26	8.29	-0.22	82.91	0.40	2.33	-0.18
13	83358	0.63	0.37	0.45	0.30	6.90	-0.25	6.85	-0.20	23.43	-0.15	62.51	0.37
14	83358	0.42	0.34	0.42	0.32	18.83	-0.19	16.45	-0.25	42.02	0.34	22.39	-0.01
15	83358	0.59	0.39	0.47	0.32	58.51	0.39	12.34	-0.13	13.27	-0.21	15.56	-0.21
16	83358	0.76	0.40	0.52	0.30	14.56	-0.19	75.51	0.40	4.58	-0.26	5.06	-0.21
17	83358	0.86	0.46	0.69	0.31	4.66	-0.23	3.83	-0.27	5.66	-0.26	85.54	0.46
18	83358	0.59	0.36	0.44	0.37	59.09	0.36	9.12	-0.28	12.41	-0.17	19.01	-0.11
19	83358	0.29	0.23	0.30	0.31	4.09	-0.26	61.25	-0.07	28.66	0.23	5.69	-0.08
20	83358	0.44	0.34	0.41	0.31	32.14	-0.12	44.02	0.34	11.47	-0.16	12.06	-0.18
21	83358	0.68	0.43	0.53	0.31	67.90	0.43	8.48	-0.24	8.25	-0.26	15.05	-0.17
22	83358	0.54	0.37	0.45	0.32	53.65	0.37	4.58	-0.24	7.08	-0.24	34.37	-0.15
23	83358	0.46	0.33	0.40	0.35	5.25	-0.19	43.60	-0.16	4.43	-0.20	46.36	0.33
24	83358	0.71	0.44	0.57	0.30	10.54	-0.21	71.17	0.44	13.18	-0.25	4.81	-0.23
25	83358	0.24	0.16	0.22	0.32	42.93	0.03	23.22	-0.06	9.17	-0.21	24.35	0.16
26	83358	0.75	0.41	0.54	0.31	10.45	-0.21	74.79	0.41	6.92	-0.24	7.52	-0.19
27	83358	0.79	0.46	0.64	0.33	79.15	0.46	6.81	-0.24	6.41	-0.24	7.30	-0.26

Note. This test included a writing prompt scored on the holistic six-point rubric (see Appendix D). Summary data for the prompt can be found in Table 6.3.22.1. Blank responses were treated as omit. Illegible responses, non-English responses, and off-topic responses were treated as 0. Note that the N count in this table is higher than that in the test statistics table, due to the inclusion of students omitting a response in computations. The statistics presented in this table are based on census data.

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Table 6.3.21
Spring 2014 AIMS Classical Item Analysis
Writing CRT High School Prompt A

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	77559	0.84	0.27	0.38	0.02	1.96	-0.15	1.72	-0.14	84.21	0.27	12.09	-0.18
2	77559	0.87	0.39	0.55	0.04	2.15	-0.17	2.84	-0.15	87.28	0.39	7.70	-0.29
3	77559	0.88	0.31	0.45	0.07	2.43	-0.14	87.76	0.31	4.57	-0.19	5.16	-0.17
4	77559	0.63	0.25	0.30	0.04	62.63	0.25	23.29	-0.11	11.02	-0.22	3.01	0.00
5	77559	0.34	0.12	0.15	0.05	34.09	0.12	14.79	-0.12	38.05	0.06	13.02	-0.12
6	77559	0.22	0.19	0.26	0.09	5.67	-0.20	52.34	-0.01	19.62	-0.04	22.28	0.19
7	77559	0.80	0.38	0.49	0.05	3.75	-0.17	3.04	-0.15	13.21	-0.27	79.95	0.38
8	77559	0.60	0.39	0.46	0.05	28.59	-0.30	60.18	0.39	6.60	-0.07	4.57	-0.16
9	77559	0.51	0.38	0.46	0.05	50.61	0.38	35.54	-0.13	11.87	-0.29	1.94	-0.17
10	77559	0.57	0.36	0.43	0.06	10.77	-0.19	57.24	0.36	23.61	-0.17	8.32	-0.16
11	77559	0.51	0.31	0.37	0.03	5.14	-0.12	40.35	-0.20	50.69	0.31	3.79	-0.14
12	77559	0.76	0.40	0.50	0.08	10.69	-0.23	6.88	-0.21	6.24	-0.18	76.12	0.40
13	77559	0.53	0.34	0.41	0.05	3.02	-0.21	29.61	-0.05	53.09	0.34	14.22	-0.28
14	77559	0.78	0.21	0.28	0.06	77.67	0.21	2.50	-0.16	1.17	-0.18	18.60	-0.10
15	77559	0.33	0.19	0.25	0.05	24.23	-0.24	5.52	-0.18	32.60	0.19	37.59	0.13
16	77559	0.58	0.21	0.26	0.06	57.74	0.21	9.48	-0.15	30.76	-0.10	1.96	-0.09
17	77559	0.50	0.26	0.31	0.03	1.33	-0.16	3.96	-0.25	49.85	0.26	44.83	-0.10
18	77559	0.79	0.38	0.50	0.04	79.19	0.38	7.00	-0.18	4.62	-0.19	9.16	-0.24
19	77559	0.82	0.41	0.54	0.04	9.09	-0.19	82.23	0.41	5.74	-0.28	2.90	-0.18
20	77559	0.41	0.21	0.26	0.09	40.87	0.21	20.71	-0.21	32.32	-0.04	6.01	0.02
21	77559	0.73	0.30	0.38	0.07	6.16	-0.15	72.66	0.30	3.97	-0.22	17.14	-0.14
22	77559	0.50	0.37	0.45	0.19	49.55	0.37	11.72	-0.14	11.61	-0.26	26.93	-0.11
23	77559	0.76	0.31	0.39	0.18	6.32	-0.13	12.59	-0.17	75.80	0.31	5.11	-0.18
24	77559	0.70	0.36	0.44	0.17	12.63	-0.25	1.79	-0.17	15.45	-0.14	69.97	0.36
25	77559	0.60	0.43	0.52	0.23	6.26	-0.26	26.62	-0.24	59.85	0.43	7.03	-0.14
26	77559	0.69	0.47	0.57	0.26	9.97	-0.26	68.80	0.47	12.61	-0.22	8.36	-0.22
27	77559	0.56	0.28	0.35	0.59	6.15	-0.10	15.09	-0.12	56.28	0.28	21.89	-0.17

Note. This test included a writing prompt scored on the holistic six-point rubric (see Appendix D). Summary data for the prompt can be found in Table 6.3.22.2. Blank responses were treated as omit. Illegible responses, non-English responses, and off-topic responses were treated as 0. Note that the N count in this table is higher than that in the test statistics table, due to the inclusion of students omitting a response in computations. The statistics presented in this table are based on census data.

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Table 6.3.22.1
Spring 2014 AIMS Classical Item Analysis
Writing Prompts Grade 5-7

					Percentages							
Grade	N	P-value	Pbs	Omit	0	1	2	3	4	5	6	Invalid
5	83634	0.58	0.58	0.22	1.33	1.05	7.30	38.33	44.56	6.55	0.65	0.00
6	82608	0.54	0.54	0.24	0.48	1.61	13.84	47.68	30.57	4.92	0.66	0.00
7	83127	0.59	0.59	0.25	0.95	2.24	9.35	31.12	45.75	9.30	1.04	0.00

Note. Blank responses were treated as omit. Illegible responses, non-English responses, and off-topic responses were treated as 0. Note that the N count in this table is higher than that in the test statistics table, due to the inclusion of students omitting a response in computations. The statistics presented in this table are based on census data.
P-value = Sum of all students' scores /(N*6).

Table 6.3.22.2
Spring 2014 AIMS Classical Item Analysis
Writing Prompts High School

					Percentages												
Grade	N	P-value	Pbs	Omit	0	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6	Invalid
A	94897	0.61	0.65	0.41	0.28	0.70	0.77	3.83	5.16	18.75	17.85	33.58	10.26	5.54	2.10	0.77	0.00
T	3277	0.57	0.61	0.85	0.46	0.73	1.01	7.78	7.02	25.33	14.92	30.88	5.83	3.91	0.98	0.31	0.00

Note. Blank responses were treated as omit. Illegible responses, non-English responses, and off-topic responses were treated as 0. Note that the N count in this table is higher than that in the test statistics table, due to the inclusion of students omitting a response in computations. The statistics presented in this table are based on census data.
P-value = Sum of all students' scores /(N*6). Prompt A is the regular assessment prompt and prompt T is the make-up prompt.

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Table 6.3.23
Spring 2014 AIMS Classical Item Analysis
Mathematics NRT Grade 3

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	84180	0.63	0.42	0.51	1.02	18.00	-0.22	14.39	-0.21	63.38	0.42	3.21	-0.23
2	84180	0.86	0.48	0.71	0.17	85.84	0.48	3.37	-0.25	5.95	-0.23	4.67	-0.30
3	84180	0.91	0.21	0.33	1.44	0.67	-0.11	90.84	0.21	6.70	-0.16	0.35	-0.11
4	84180	0.88	0.32	0.49	0.34	87.75	0.32	2.61	-0.25	1.80	-0.22	7.50	-0.12
5	84180	0.54	0.42	0.50	0.22	27.84	-0.39	53.69	0.42	6.32	-0.10	11.93	-0.04
6	84180	0.68	0.44	0.55	0.22	12.32	-0.25	8.77	-0.21	68.34	0.44	10.35	-0.21
7	84180	0.75	0.41	0.53	0.44	7.11	-0.24	11.63	-0.21	74.79	0.41	6.03	-0.21
8	84180	0.47	0.31	0.37	0.21	46.61	0.31	10.59	-0.08	35.00	-0.16	7.59	-0.19
9	84180	0.87	0.52	0.78	0.14	86.66	0.52	3.20	-0.22	9.63	-0.44	0.37	-0.11
10	84180	0.86	0.39	0.60	0.47	3.18	-0.22	86.33	0.39	5.67	-0.19	4.35	-0.24
11	84180	0.60	0.54	0.65	0.56	4.70	-0.18	60.41	0.54	3.44	-0.18	30.89	-0.42
12	84180	0.69	0.49	0.61	0.44	15.17	-0.29	7.98	-0.20	69.23	0.49	7.18	-0.26
13	84180	0.73	0.50	0.64	0.52	16.30	-0.39	3.09	-0.24	6.96	-0.15	73.13	0.50
14	84180	0.79	0.47	0.63	0.24	5.08	-0.26	9.11	-0.28	78.90	0.47	6.67	-0.21
15	84180	0.86	0.48	0.71	0.16	85.56	0.48	8.29	-0.30	3.09	-0.23	2.89	-0.28
16	84180	0.68	0.45	0.56	0.22	17.72	-0.25	68.12	0.45	10.19	-0.21	3.74	-0.28
17	84180	0.89	0.43	0.67	0.33	88.52	0.43	3.64	-0.23	3.41	-0.23	4.10	-0.25
18	84180	0.86	0.45	0.69	0.19	5.91	-0.29	3.44	-0.27	4.16	-0.19	86.32	0.45
19	84180	0.94	0.23	0.45	0.28	94.17	0.23	2.43	-0.14	2.57	-0.13	0.55	-0.14
20	84180	0.54	0.34	0.41	0.19	10.98	-0.17	24.37	-0.14	10.92	-0.18	53.54	0.34
21	84180	0.81	0.50	0.68	0.81	80.93	0.50	3.79	-0.12	2.50	-0.18	11.98	-0.43
22	84180	0.76	0.32	0.43	0.14	10.40	-0.20	76.37	0.32	7.96	-0.19	5.13	-0.11
23	84180	0.85	0.26	0.42	1.26	3.27	-0.11	85.15	0.26	3.37	-0.16	6.94	-0.17
24	84180	0.81	0.45	0.63	0.13	5.65	-0.32	6.82	-0.16	80.64	0.45	6.77	-0.25
25	84180	0.60	0.36	0.44	0.10	11.24	-0.14	9.60	-0.12	59.92	0.36	19.14	-0.24

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.24
Spring 2014 AIMS Classical Item Analysis
Mathematics NRT Grade 4

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83410	0.36	0.40	0.49	0.04	28.38	-0.20	35.68	0.40	13.15	-0.15	22.74	-0.11
2	83410	0.64	0.45	0.56	0.09	8.27	-0.32	10.38	-0.23	16.89	-0.16	64.37	0.45
3	83410	0.90	0.35	0.58	0.06	6.61	-0.29	90.03	0.35	1.14	-0.12	2.17	-0.13
4	83410	0.75	0.40	0.53	0.07	74.79	0.40	7.62	-0.24	11.48	-0.18	6.03	-0.22
5	83410	0.45	0.44	0.52	0.06	42.92	-0.40	44.73	0.44	4.78	-0.08	7.52	-0.01
6	83410	0.76	0.46	0.61	0.08	4.57	-0.19	5.80	-0.18	75.89	0.46	13.66	-0.33
7	83410	0.73	0.47	0.60	0.16	9.51	-0.24	9.28	-0.29	72.52	0.47	8.52	-0.19
8	83410	0.76	0.47	0.62	0.04	6.08	-0.23	76.15	0.47	9.18	-0.17	8.55	-0.34
9	83410	0.91	0.36	0.62	0.01	90.95	0.36	2.61	-0.18	4.53	-0.25	1.89	-0.16
10	83410	0.65	0.49	0.60	0.05	16.52	-0.41	8.08	-0.19	10.30	-0.09	65.04	0.49
11	83410	0.87	0.41	0.64	0.05	87.25	0.41	4.22	-0.20	3.02	-0.23	5.45	-0.25
12	83410	0.64	0.39	0.48	0.06	26.84	-0.34	3.66	-0.08	63.99	0.39	5.45	-0.09
13	83410	0.63	0.44	0.53	0.06	7.54	-0.33	62.54	0.44	9.47	-0.24	20.39	-0.14
14	83410	0.45	0.35	0.42	0.07	44.91	0.35	16.39	-0.18	21.93	-0.13	16.69	-0.13
15	83410	0.79	0.43	0.58	0.06	78.92	0.43	3.58	-0.25	6.30	-0.24	11.14	-0.23
16	83410	0.84	0.42	0.61	0.08	4.69	-0.22	4.69	-0.22	6.56	-0.24	83.98	0.42
17	83410	0.64	0.38	0.47	0.08	63.75	0.38	6.08	-0.22	20.02	-0.15	10.07	-0.24
18	83410	0.82	0.45	0.64	0.03	82.06	0.45	6.74	-0.27	8.73	-0.27	2.43	-0.19
19	83410	0.63	0.44	0.54	0.17	13.53	-0.27	12.71	-0.18	62.55	0.44	11.04	-0.20
20	83410	0.86	0.32	0.49	0.05	4.48	-0.18	5.06	-0.17	4.56	-0.18	85.85	0.32
21	83410	0.55	0.38	0.46	0.11	10.18	-0.12	16.00	-0.07	18.51	-0.33	55.20	0.38
22	83410	0.86	0.26	0.39	0.05	7.67	-0.18	86.39	0.26	3.86	-0.11	2.03	-0.13
23	83410	0.61	0.29	0.36	0.05	23.25	-0.19	13.48	-0.09	2.25	-0.20	60.97	0.29
24	83410	0.32	0.21	0.27	0.09	31.66	0.21	8.36	-0.11	21.79	-0.07	38.10	-0.08
25	83410	0.70	0.36	0.46	0.11	5.10	-0.22	17.21	-0.14	70.17	0.36	7.41	-0.25

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.25
Spring 2014 AIMS Classical Item Analysis
Mathematics NRT Grade 5

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83575	0.77	0.33	0.44	0.10	76.67	0.33	11.93	-0.20	4.41	-0.22	6.90	-0.12
2	83575	0.26	0.33	0.43	0.05	53.92	-0.27	11.24	-0.03	8.38	-0.02	26.41	0.33
3	83575	0.59	0.37	0.45	0.06	30.73	-0.22	59.18	0.37	4.61	-0.17	5.42	-0.20
4	83575	0.45	0.41	0.49	0.06	10.14	-0.10	45.01	0.41	21.33	-0.15	23.47	-0.27
5	83575	0.67	0.38	0.47	0.03	67.34	0.38	6.43	-0.22	16.17	-0.19	10.03	-0.18
6	83575	0.65	0.40	0.50	0.15	65.20	0.40	24.09	-0.26	7.52	-0.20	3.04	-0.16
7	83575	0.56	0.37	0.45	0.07	17.05	-0.32	56.02	0.37	18.61	0.00	8.26	-0.22
8	83575	0.60	0.45	0.55	0.19	16.70	-0.25	13.55	-0.20	60.29	0.45	9.27	-0.20
9	83575	0.39	0.22	0.27	0.10	13.17	-0.13	38.69	0.22	16.77	-0.09	31.28	-0.06
10	83575	0.67	0.41	0.51	0.02	67.41	0.41	18.80	-0.28	8.69	-0.18	5.08	-0.14
11	83575	0.59	0.50	0.61	0.03	24.41	-0.35	10.85	-0.18	59.29	0.50	5.42	-0.18
12	83575	0.80	0.46	0.63	0.03	79.93	0.46	5.94	-0.26	8.78	-0.30	5.32	-0.18
13	83575	0.65	0.40	0.50	0.08	23.73	-0.25	6.73	-0.18	64.98	0.40	4.48	-0.19
14	83575	0.75	0.45	0.59	0.02	75.40	0.45	5.34	-0.26	11.86	-0.23	7.38	-0.23
15	83575	0.87	0.38	0.58	0.04	4.78	-0.24	4.40	-0.22	86.60	0.38	4.19	-0.16
16	83575	0.50	0.37	0.45	0.04	31.81	-0.19	6.22	-0.22	11.94	-0.13	49.99	0.37
17	83575	0.40	0.16	0.20	0.10	12.36	-0.10	15.47	-0.14	32.13	0.01	39.94	0.16
18	83575	0.77	0.43	0.58	0.02	77.33	0.43	6.75	-0.15	6.70	-0.25	9.20	-0.27
19	83575	0.71	0.47	0.59	0.05	5.29	-0.19	9.88	-0.26	14.09	-0.27	70.69	0.47
20	83575	0.60	0.38	0.46	0.04	11.91	-0.23	16.33	-0.09	11.44	-0.25	60.28	0.38
21	83575	0.63	0.52	0.63	0.04	20.24	-0.28	6.71	-0.27	10.07	-0.24	62.94	0.52
22	83575	0.74	0.33	0.43	0.02	10.30	-0.20	74.39	0.33	5.69	-0.22	9.59	-0.11
23	83575	0.76	0.33	0.44	0.05	2.67	-0.14	76.22	0.33	15.25	-0.27	5.81	-0.07
24	83575	0.46	0.40	0.48	0.06	38.64	-0.28	8.37	-0.14	45.66	0.40	7.27	-0.09
25	83575	0.73	0.28	0.37	0.40	4.68	-0.09	1.64	-0.13	73.44	0.28	19.85	-0.22

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.26
Spring 2014 AIMS Classical Item Analysis
Mathematics NRT Grade 6

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82586	0.65	0.39	0.48	0.08	65.50	0.39	11.58	-0.25	6.29	-0.21	16.56	-0.15
2	82586	0.73	0.51	0.65	0.08	12.53	-0.33	7.86	-0.25	6.05	-0.19	73.49	0.51
3	82586	0.55	0.25	0.30	0.04	55.05	0.25	6.12	-0.15	30.26	-0.10	8.52	-0.14
4	82586	0.39	0.49	0.59	0.08	24.90	-0.28	9.19	-0.18	27.22	-0.14	38.60	0.49
5	82586	0.73	0.39	0.50	0.10	9.88	-0.11	9.44	-0.25	7.63	-0.24	72.95	0.39
6	82586	0.86	0.35	0.54	0.07	2.17	-0.16	86.18	0.35	10.06	-0.26	1.51	-0.15
7	82586	0.54	0.42	0.51	0.05	11.49	-0.15	15.54	-0.08	54.33	0.42	18.58	-0.34
8	82586	0.59	0.34	0.42	0.06	9.59	-0.15	17.10	-0.19	58.62	0.34	14.63	-0.15
9	82586	0.70	0.38	0.49	0.07	6.90	-0.29	10.92	-0.20	12.39	-0.12	69.72	0.38
10	82586	0.70	0.52	0.65	0.08	13.47	-0.28	7.53	-0.25	8.90	-0.27	70.03	0.52
11	82586	0.47	0.25	0.31	0.02	24.17	-0.04	47.09	0.25	13.76	-0.16	14.96	-0.15
12	82586	0.59	0.59	0.70	0.06	11.28	-0.26	15.18	-0.31	14.26	-0.26	59.23	0.59
13	82586	0.68	0.44	0.55	0.04	4.22	-0.22	5.43	-0.20	67.85	0.44	22.47	-0.28
14	82586	0.45	0.30	0.37	0.03	13.15	-0.27	25.17	-0.06	17.00	-0.10	44.64	0.30
15	82586	0.76	0.52	0.68	0.05	8.59	-0.26	75.88	0.52	8.43	-0.29	7.06	-0.27
16	82586	0.65	0.48	0.59	0.10	64.86	0.48	13.19	-0.25	14.81	-0.22	7.04	-0.26
17	82586	0.59	0.44	0.54	0.05	11.31	-0.26	59.42	0.44	20.02	-0.18	9.20	-0.22
18	82586	0.75	0.54	0.70	0.05	6.87	-0.25	11.97	-0.33	6.41	-0.26	74.70	0.54
19	82586	0.50	0.48	0.57	0.04	32.60	-0.43	7.82	-0.17	9.26	0.03	50.27	0.48
20	82586	0.68	0.51	0.64	0.05	11.66	-0.28	68.50	0.51	15.32	-0.30	4.47	-0.18
21	82586	0.78	0.54	0.72	0.02	6.32	-0.22	77.52	0.54	14.00	-0.43	2.14	-0.16
22	82586	0.43	0.30	0.37	0.05	24.19	-0.17	29.00	-0.10	43.09	0.30	3.67	-0.16
23	82586	0.67	0.43	0.54	0.03	9.80	-0.24	14.99	-0.28	67.04	0.43	8.14	-0.12
24	82586	0.85	0.25	0.37	0.06	85.16	0.25	5.31	-0.17	5.16	-0.11	4.31	-0.12
25	82586	0.48	0.33	0.40	0.12	10.91	-0.18	48.10	0.33	26.79	-0.16	14.08	-0.11

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.27
Spring 2014 AIMS Classical Item Analysis
Mathematics NRT Grade 7

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83105	0.82	0.31	0.45	0.03	82.06	0.31	11.65	-0.21	1.86	-0.14	4.40	-0.17
2	83105	0.44	0.41	0.49	0.10	8.29	-0.14	44.31	0.41	19.75	-0.07	27.55	-0.30
3	83105	0.79	0.34	0.46	0.11	78.92	0.34	2.77	-0.17	3.69	-0.18	14.51	-0.21
4	83105	0.60	0.49	0.59	0.06	59.94	0.49	7.18	-0.21	11.70	-0.24	21.12	-0.27
5	83105	0.62	0.54	0.65	0.08	15.72	-0.37	13.26	-0.22	62.21	0.54	8.73	-0.18
6	83105	0.59	0.46	0.56	0.10	14.94	-0.27	7.78	-0.17	58.99	0.46	18.20	-0.22
7	83105	0.55	0.50	0.60	0.09	17.08	-0.23	13.41	-0.16	14.60	-0.31	54.83	0.50
8	83105	0.62	0.55	0.67	0.04	16.90	-0.30	14.71	-0.30	61.61	0.55	6.74	-0.21
9	83105	0.75	0.39	0.51	0.05	9.23	-0.24	74.81	0.39	12.03	-0.21	3.88	-0.16
10	83105	0.57	0.38	0.46	0.05	7.37	-0.08	57.32	0.38	23.81	-0.26	11.45	-0.17
11	83105	0.70	0.52	0.66	0.05	4.86	-0.15	70.31	0.52	11.91	-0.33	12.88	-0.30
12	83105	0.85	0.47	0.69	0.03	5.10	-0.27	5.28	-0.27	5.04	-0.23	84.54	0.47
13	83105	0.76	0.54	0.71	0.01	15.96	-0.43	75.94	0.54	5.00	-0.22	3.08	-0.16
14	83105	0.67	0.41	0.52	0.08	10.86	-0.19	13.60	-0.23	66.81	0.41	8.66	-0.21
15	83105	0.79	0.39	0.54	0.03	5.47	-0.23	79.15	0.39	8.73	-0.22	6.62	-0.18
16	83105	0.37	0.39	0.49	0.04	28.57	-0.20	27.46	-0.16	37.22	0.39	6.70	-0.12
17	83105	0.49	0.36	0.43	0.05	49.23	0.36	20.74	-0.19	11.86	-0.13	18.13	-0.15
18	83105	0.36	0.44	0.54	0.03	46.43	-0.19	7.52	-0.28	10.41	-0.14	35.61	0.44
19	83105	0.66	0.48	0.60	0.03	4.83	-0.26	11.48	-0.15	66.49	0.48	17.17	-0.33
20	83105	0.85	0.48	0.71	0.02	8.00	-0.35	84.51	0.48	4.43	-0.23	3.04	-0.19
21	83105	0.57	0.40	0.48	0.06	7.26	-0.24	14.85	-0.35	57.35	0.40	20.47	-0.02
22	83105	0.57	0.38	0.47	0.04	56.83	0.38	24.59	-0.21	13.52	-0.17	5.02	-0.18
23	83105	0.61	0.55	0.67	0.06	16.92	-0.31	14.50	-0.26	7.87	-0.23	60.65	0.55
24	83105	0.60	0.38	0.47	0.04	19.20	-0.26	60.23	0.38	14.58	-0.13	5.94	-0.16
25	83105	0.44	0.42	0.50	0.15	44.45	0.42	6.89	-0.25	20.79	-0.27	27.72	-0.07

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Table 6.3.28
Spring 2014 AIMS Classical Item Analysis
Mathematics NRT Grade 8

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82369	0.73	0.44	0.57	0.04	72.90	0.44	7.82	-0.26	6.93	-0.22	12.31	-0.21
2	82369	0.75	0.46	0.60	0.05	4.44	-0.19	9.06	-0.20	74.51	0.46	11.95	-0.32
3	82369	0.56	0.43	0.52	0.04	21.07	-0.28	56.27	0.43	15.44	-0.13	7.18	-0.21
4	82369	0.57	0.44	0.54	0.04	21.45	-0.16	12.38	-0.27	9.54	-0.22	56.59	0.44
5	82369	0.71	0.43	0.56	0.04	7.74	-0.12	71.28	0.43	9.55	-0.27	11.40	-0.26
6	82369	0.36	0.32	0.40	0.05	11.55	-0.01	41.48	-0.14	11.42	-0.25	35.50	0.32
7	82369	0.76	0.40	0.53	0.04	2.72	-0.20	7.34	-0.23	75.76	0.40	14.14	-0.24
8	82369	0.64	0.45	0.56	0.08	16.72	-0.27	63.97	0.45	7.86	-0.20	11.38	-0.20
9	82369	0.66	0.45	0.56	0.04	7.51	-0.13	65.76	0.45	14.70	-0.20	12.00	-0.34
10	82369	0.68	0.53	0.66	0.09	6.48	-0.23	13.76	-0.29	11.39	-0.28	68.28	0.53
11	82369	0.55	0.38	0.46	0.05	55.32	0.38	27.58	-0.20	8.96	-0.16	8.09	-0.19
12	82369	0.36	0.32	0.40	0.08	37.19	-0.12	9.86	-0.18	16.39	-0.11	36.48	0.32
13	82369	0.59	0.40	0.48	0.04	10.63	-0.16	15.52	-0.14	58.58	0.40	15.23	-0.26
14	82369	0.79	0.42	0.58	0.03	6.15	-0.25	9.33	-0.21	78.57	0.42	5.93	-0.23
15	82369	0.35	0.38	0.48	0.05	41.46	-0.26	11.15	-0.22	35.50	0.38	11.84	0.04
16	82369	0.75	0.45	0.59	0.05	9.77	-0.27	10.84	-0.24	74.93	0.45	4.41	-0.18
17	82369	0.59	0.38	0.46	0.11	9.98	-0.17	19.91	-0.23	59.28	0.38	10.72	-0.13
18	82369	0.49	0.53	0.63	0.05	37.85	-0.39	49.47	0.53	8.39	-0.18	4.24	-0.12
19	82369	0.70	0.48	0.61	0.03	69.85	0.48	9.65	-0.17	5.77	-0.20	14.70	-0.35
20	82369	0.61	0.40	0.49	0.06	11.94	-0.14	13.21	-0.19	61.29	0.40	13.51	-0.25
21	82369	0.57	0.54	0.65	0.05	56.53	0.54	7.18	-0.27	12.23	-0.23	24.01	-0.29
22	82369	0.60	0.50	0.61	0.06	17.99	-0.35	10.41	-0.16	11.36	-0.19	60.18	0.50
23	82369	0.76	0.49	0.65	0.03	5.04	-0.19	76.13	0.49	11.14	-0.31	7.65	-0.26
24	82369	0.41	0.44	0.54	0.10	10.98	-0.23	15.75	-0.34	31.91	-0.05	41.27	0.44
25	82369	0.42	0.36	0.44	0.05	35.99	-0.19	41.75	0.36	13.39	-0.14	8.82	-0.14

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.29
Spring 2014 AIMS Classical Item Analysis
Reading NRT Grade 3

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	84212	0.80	0.43	0.60	0.06	5.79	-0.24	9.35	-0.23	4.86	-0.23	79.94	0.43
2	84212	0.90	0.42	0.68	0.14	4.77	-0.27	89.58	0.42	4.42	-0.24	1.09	-0.19
3	84212	0.74	0.48	0.62	0.17	13.63	-0.34	6.69	-0.20	73.88	0.48	5.63	-0.18
4	84212	0.83	0.30	0.44	0.14	2.77	-0.17	82.99	0.30	9.60	-0.17	4.50	-0.17
5	84212	0.70	0.34	0.43	0.23	69.65	0.34	9.04	-0.23	2.18	-0.24	18.90	-0.13
6	84212	0.91	0.36	0.62	0.09	90.93	0.36	3.79	-0.25	3.96	-0.18	1.22	-0.19
7	84212	0.84	0.48	0.69	0.18	4.92	-0.28	83.56	0.48	5.52	-0.24	5.82	-0.27
8	84212	0.75	0.44	0.57	0.24	8.69	-0.23	9.13	-0.28	6.86	-0.16	75.09	0.44
9	84212	0.47	0.32	0.39	0.24	26.21	-0.08	17.99	-0.17	8.39	-0.21	47.17	0.32
10	84212	0.90	0.47	0.79	0.33	90.28	0.47	1.98	-0.19	1.69	-0.24	5.73	-0.34
11	84212	0.63	0.48	0.59	0.15	14.34	-0.30	9.49	-0.28	12.76	-0.14	63.26	0.48
12	84212	0.83	0.45	0.65	0.22	83.05	0.45	4.81	-0.28	8.17	-0.23	3.75	-0.25
13	84212	0.80	0.41	0.56	0.30	9.37	-0.14	5.73	-0.28	4.56	-0.27	80.03	0.41
14	84212	0.62	0.24	0.30	1.57	62.39	0.24	12.05	-0.16	18.38	-0.03	5.60	-0.23
15	84212	0.64	0.39	0.48	1.93	11.99	-0.23	12.15	-0.15	64.10	0.39	9.83	-0.21
16	84212	0.41	0.33	0.40	0.19	21.22	-0.08	19.96	-0.16	18.02	-0.17	40.61	0.33
17	84212	0.72	0.41	0.53	0.25	9.00	-0.25	71.64	0.41	3.19	-0.22	15.93	-0.21
18	84212	0.43	0.29	0.35	0.54	25.29	-0.08	16.43	-0.16	15.11	-0.13	42.62	0.29
19	84212	0.70	0.39	0.49	0.31	12.98	-0.27	69.53	0.39	6.45	-0.20	10.74	-0.13
20	84212	0.78	0.38	0.50	0.59	77.63	0.38	8.89	-0.22	3.05	-0.21	9.83	-0.19
21	84212	0.42	0.38	0.46	0.16	18.31	-0.18	21.22	-0.26	42.42	0.38	17.89	-0.03
22	84212	0.44	0.28	0.34	0.27	27.06	-0.11	17.87	-0.09	10.89	-0.18	43.92	0.28
23	84212	0.53	0.31	0.38	0.40	20.46	-0.06	7.16	-0.26	53.27	0.31	18.70	-0.16
24	84212	0.53	0.43	0.51	0.38	17.50	-0.14	52.97	0.43	10.17	-0.31	18.98	-0.17
25	84212	0.83	0.51	0.70	0.95	4.90	-0.28	82.64	0.51	7.08	-0.29	4.43	-0.26

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.30
Spring 2014 AIMS Classical Item Analysis
Reading NRT Grade 4

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83418	0.85	0.27	0.40	0.02	85.27	0.27	1.34	-0.18	6.19	-0.19	7.18	-0.11
2	83418	0.60	0.34	0.41	0.03	60.16	0.34	2.31	-0.19	32.50	-0.22	5.00	-0.15
3	83418	0.69	0.39	0.50	0.04	20.38	-0.26	69.09	0.39	6.66	-0.17	3.84	-0.18
4	83418	0.75	0.34	0.44	0.02	20.98	-0.25	2.23	-0.16	74.87	0.34	1.90	-0.16
5	83418	0.57	0.45	0.54	0.03	56.67	0.45	14.55	-0.37	9.60	-0.14	19.15	-0.13
6	83418	0.53	0.31	0.37	0.04	28.62	-0.08	53.09	0.31	8.55	-0.15	9.71	-0.25
7	83418	0.60	0.19	0.24	0.08	18.44	-0.13	9.59	-0.14	59.68	0.19	12.20	0.00
8	83418	0.90	0.38	0.63	0.06	89.72	0.38	4.43	-0.28	3.33	-0.18	2.46	-0.16
9	83418	0.87	0.40	0.63	0.05	2.18	-0.19	6.86	-0.25	87.43	0.40	3.48	-0.23
10	83418	0.77	0.49	0.64	0.06	7.02	-0.25	11.44	-0.29	4.70	-0.23	76.78	0.49
11	83418	0.70	0.43	0.55	0.06	16.37	-0.16	5.91	-0.29	7.27	-0.26	70.38	0.43
12	83418	0.28	0.22	0.29	0.08	53.37	-0.05	11.64	-0.07	27.95	0.22	6.96	-0.21
13	83418	0.55	0.45	0.54	0.07	15.17	-0.22	23.21	-0.22	7.01	-0.22	54.53	0.45
14	83418	0.54	0.33	0.39	0.09	8.97	-0.12	32.62	-0.17	53.66	0.33	4.65	-0.25
15	83418	0.74	0.42	0.54	0.04	14.35	-0.20	74.34	0.42	6.43	-0.26	4.84	-0.23
16	83418	0.71	0.51	0.65	0.11	14.95	-0.36	6.84	-0.22	7.54	-0.18	70.56	0.51
17	83418	0.47	0.25	0.31	0.01	37.61	-0.11	46.81	0.25	10.83	-0.10	4.74	-0.19
18	83418	0.59	0.26	0.32	0.06	4.39	-0.28	34.41	-0.07	2.40	-0.22	58.74	0.26
19	83418	0.69	0.46	0.58	0.06	11.46	-0.25	69.13	0.46	14.66	-0.25	4.69	-0.23
20	83418	0.86	0.50	0.75	0.06	5.24	-0.31	3.98	-0.24	5.06	-0.27	85.66	0.50
21	83418	0.68	0.51	0.63	0.05	8.21	-0.33	68.18	0.51	16.13	-0.27	7.42	-0.19
22	83418	0.81	0.37	0.51	0.06	7.45	-0.25	5.02	-0.22	80.67	0.37	6.81	-0.13
23	83418	0.40	0.27	0.33	0.03	8.18	-0.28	29.74	-0.05	22.55	-0.08	39.50	0.27
24	83418	0.54	0.33	0.40	0.06	22.37	-0.10	54.49	0.33	14.72	-0.16	8.36	-0.23
25	83418	0.72	0.53	0.67	0.09	5.41	-0.25	72.29	0.53	6.37	-0.27	15.84	-0.31

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.31
Spring 2014 AIMS Classical Item Analysis
Reading NRT Grade 5

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83599	0.66	0.41	0.51	0.07	9.52	-0.31	66.05	0.41	7.55	-0.23	16.82	-0.11
2	83599	0.43	0.30	0.36	0.10	23.99	-0.24	10.10	-0.24	43.19	0.30	22.62	0.06
3	83599	0.67	0.36	0.45	0.08	66.70	0.36	13.94	-0.18	7.06	-0.27	12.22	-0.12
4	83599	0.51	0.19	0.23	0.07	3.52	-0.28	17.14	-0.19	28.60	0.06	50.67	0.19
5	83599	0.82	0.42	0.59	0.08	5.17	-0.21	8.06	-0.22	81.64	0.42	5.04	-0.26
6	83599	0.61	0.35	0.43	0.06	8.21	-0.33	4.28	-0.27	25.95	-0.07	61.50	0.35
7	83599	0.74	0.43	0.56	0.03	11.09	-0.32	73.66	0.43	6.68	-0.15	8.53	-0.19
8	83599	0.82	0.45	0.62	0.01	11.71	-0.30	81.51	0.45	3.06	-0.18	3.69	-0.25
9	83599	0.47	0.25	0.31	0.04	47.37	0.25	4.25	-0.23	43.73	-0.06	4.62	-0.23
10	83599	0.75	0.44	0.57	0.05	11.37	-0.17	5.06	-0.27	74.85	0.44	8.68	-0.27
11	83599	0.43	0.16	0.20	0.06	10.65	-0.12	30.62	0.08	42.80	0.16	15.87	-0.22
12	83599	0.72	0.56	0.70	0.06	9.28	-0.26	12.88	-0.31	5.60	-0.31	72.18	0.56
13	83599	0.66	0.41	0.50	0.04	18.03	-0.27	14.56	-0.19	65.80	0.41	1.56	-0.17
14	83599	0.63	0.27	0.34	0.07	10.86	-0.17	13.63	-0.10	63.01	0.27	12.43	-0.13
15	83599	0.63	0.19	0.24	0.03	6.46	-0.17	10.52	-0.18	62.69	0.19	20.30	0.01
16	83599	0.75	0.45	0.58	0.09	74.55	0.45	7.70	-0.29	10.77	-0.29	6.89	-0.12
17	83599	0.63	0.40	0.49	0.08	6.51	-0.29	10.57	-0.23	19.73	-0.13	63.10	0.40
18	83599	0.71	0.51	0.64	0.08	5.49	-0.29	19.51	-0.32	71.24	0.51	3.68	-0.21
19	83599	0.53	0.36	0.43	0.08	52.83	0.36	15.94	-0.16	13.03	-0.24	18.12	-0.10
20	83599	0.77	0.48	0.62	0.14	11.76	-0.30	76.51	0.48	7.14	-0.24	4.45	-0.21
21	83599	0.76	0.47	0.62	0.01	7.29	-0.30	7.95	-0.20	8.78	-0.24	75.97	0.47
22	83599	0.63	0.34	0.42	0.02	26.39	-0.14	4.71	-0.22	63.04	0.34	5.85	-0.24
23	83599	0.62	0.16	0.20	0.04	20.46	0.04	62.17	0.16	14.04	-0.20	3.29	-0.15
24	83599	0.75	0.38	0.50	0.03	74.89	0.38	4.90	-0.27	13.29	-0.19	6.89	-0.16
25	83599	0.84	0.38	0.57	0.05	10.01	-0.21	84.41	0.38	2.44	-0.20	3.09	-0.27

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.32
Spring 2014 AIMS Classical Item Analysis
Reading NRT Grade 6

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82597	0.88	0.37	0.59	0.02	4.49	-0.18	3.35	-0.24	88.18	0.37	3.96	-0.21
2	82597	0.76	0.34	0.46	0.03	9.49	-0.15	5.37	-0.25	8.82	-0.16	76.29	0.34
3	82597	0.58	0.28	0.34	0.06	27.01	-0.09	57.52	0.28	4.46	-0.21	10.95	-0.18
4	82597	0.97	0.26	0.61	0.04	1.48	-0.18	0.64	-0.12	96.54	0.26	1.30	-0.15
5	82597	0.52	0.33	0.39	0.16	4.32	-0.25	6.49	-0.16	51.81	0.33	37.22	-0.15
6	82597	0.67	0.34	0.43	0.04	23.94	-0.18	5.74	-0.23	67.48	0.34	2.80	-0.20
7	82597	0.75	0.37	0.49	0.06	7.62	-0.20	75.21	0.37	5.15	-0.22	11.96	-0.18
8	82597	0.25	0.08	0.11	0.07	56.60	0.13	11.47	-0.12	6.98	-0.24	24.89	0.08
9	82597	0.67	0.45	0.55	0.05	10.30	-0.20	9.11	-0.23	13.75	-0.24	66.79	0.45
10	82597	0.60	0.39	0.48	0.10	12.91	-0.26	11.27	-0.21	60.31	0.39	15.42	-0.11
11	82597	0.64	0.29	0.36	0.02	9.57	-0.21	11.19	-0.26	64.35	0.29	14.88	0.01
12	82597	0.52	0.26	0.32	0.06	51.52	0.26	4.49	-0.27	32.25	-0.04	11.68	-0.18
13	82597	0.76	0.46	0.60	0.06	75.75	0.46	3.69	-0.23	10.20	-0.22	10.29	-0.29
14	82597	0.51	0.32	0.39	0.04	23.91	-0.08	17.95	-0.18	7.46	-0.22	50.63	0.32
15	82597	0.82	0.52	0.72	0.03	6.00	-0.29	5.69	-0.29	82.21	0.52	6.07	-0.26
16	82597	0.50	0.29	0.35	0.05	19.10	-0.22	50.08	0.29	7.35	-0.22	23.42	0.00
17	82597	0.69	0.37	0.46	0.03	16.22	-0.23	68.88	0.37	8.56	-0.16	6.30	-0.17
18	82597	0.59	0.20	0.25	0.06	58.60	0.20	10.17	-0.20	10.74	-0.13	20.44	0.00
19	82597	0.71	0.23	0.30	0.04	16.59	-0.06	6.86	-0.22	5.96	-0.12	70.54	0.23
20	82597	0.75	0.32	0.43	0.04	13.33	-0.16	75.26	0.32	3.29	-0.23	8.08	-0.16
21	82597	0.85	0.42	0.62	0.07	85.02	0.42	5.79	-0.24	4.81	-0.24	4.31	-0.20
22	82597	0.49	0.20	0.24	0.08	49.02	0.20	8.02	-0.23	23.63	-0.10	19.25	0.01
23	82597	0.25	0.13	0.17	0.06	8.88	-0.25	51.32	0.05	14.69	-0.03	25.05	0.13
24	82597	0.76	0.36	0.48	0.06	9.30	-0.24	6.92	-0.18	76.23	0.36	7.49	-0.15
25	82597	0.67	0.33	0.41	0.07	66.80	0.33	9.96	-0.18	10.13	-0.19	13.04	-0.13

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.33
Spring 2014 AIMS Classical Item Analysis
Reading NRT Grade 7

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83127	0.89	0.37	0.60	0.01	7.36	-0.28	2.22	-0.19	89.32	0.37	1.09	-0.13
2	83127	0.75	0.33	0.43	0.14	75.05	0.33	9.76	-0.21	8.80	-0.14	6.23	-0.16
3	83127	0.90	0.34	0.57	0.02	3.33	-0.16	90.18	0.34	4.20	-0.18	2.27	-0.24
4	83127	0.72	0.14	0.18	0.05	71.82	0.14	15.70	0.01	5.42	-0.16	7.01	-0.11
5	83127	0.71	0.32	0.41	0.04	14.59	-0.21	71.09	0.32	3.09	-0.20	11.19	-0.11
6	83127	0.68	0.35	0.43	0.03	9.82	-0.19	14.59	-0.19	68.14	0.35	7.42	-0.15
7	83127	0.64	0.27	0.33	0.03	22.15	-0.09	5.23	-0.18	8.18	-0.19	64.42	0.27
8	83127	0.62	0.20	0.25	0.03	20.45	0.00	61.85	0.20	8.20	-0.17	9.48	-0.16
9	83127	0.56	0.20	0.24	0.03	5.48	-0.19	18.02	-0.18	20.24	0.04	56.24	0.20
10	83127	0.65	0.24	0.30	0.06	64.61	0.24	10.59	-0.11	3.59	-0.19	21.14	-0.11
11	83127	0.47	0.27	0.33	0.06	47.13	0.27	35.46	-0.06	6.73	-0.26	10.62	-0.14
12	83127	0.35	0.30	0.38	0.03	53.63	-0.07	6.27	-0.29	5.24	-0.17	34.82	0.30
13	83127	0.61	0.30	0.37	0.03	6.61	-0.20	22.90	-0.16	60.67	0.30	9.78	-0.11
14	83127	0.53	0.18	0.23	0.05	10.28	-0.14	53.32	0.18	22.89	-0.04	13.46	-0.09
15	83127	0.88	0.44	0.70	0.02	4.67	-0.26	88.42	0.44	4.51	-0.25	2.38	-0.22
16	83127	0.69	0.36	0.46	0.05	10.82	-0.24	14.56	-0.10	5.36	-0.26	69.21	0.36
17	83127	0.38	0.28	0.35	0.06	48.66	-0.06	6.09	-0.22	37.61	0.28	7.59	-0.22
18	83127	0.42	0.30	0.37	0.04	34.99	-0.11	41.98	0.30	11.16	-0.11	11.83	-0.20
19	83127	0.80	0.38	0.53	0.05	4.88	-0.25	6.42	-0.22	8.74	-0.16	79.91	0.38
20	83127	0.57	0.35	0.42	0.04	6.92	-0.29	30.70	-0.10	5.38	-0.23	56.97	0.35
21	83127	0.75	0.42	0.55	0.17	75.14	0.42	3.33	-0.24	6.70	-0.26	14.66	-0.21
22	83127	0.83	0.50	0.71	0.02	4.64	-0.26	3.10	-0.25	9.21	-0.31	83.04	0.50
23	83127	0.81	0.49	0.66	0.04	10.02	-0.30	5.69	-0.25	80.60	0.49	3.65	-0.24
24	83127	0.74	0.37	0.48	0.06	3.26	-0.23	73.66	0.37	12.17	-0.22	10.86	-0.15
25	83127	0.47	0.35	0.42	0.05	9.36	-0.24	22.69	-0.23	46.76	0.35	21.14	-0.03

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.34
Spring 2014 AIMS Classical Item Analysis
Reading NRT Grade 8

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82384	0.53	0.24	0.30	0.04	20.70	-0.07	22.17	-0.15	3.92	-0.17	53.17	0.24
2	82384	0.73	0.38	0.49	0.02	3.98	-0.19	19.80	-0.27	72.87	0.38	3.33	-0.14
3	82384	0.85	0.30	0.45	0.05	2.99	-0.18	9.58	-0.17	2.21	-0.17	85.16	0.30
4	82384	0.86	0.28	0.43	0.04	5.50	-0.12	86.48	0.28	2.51	-0.18	5.46	-0.18
5	82384	0.92	0.23	0.40	0.01	4.12	-0.13	91.65	0.23	2.84	-0.11	1.38	-0.18
6	82384	0.52	0.21	0.26	0.04	7.94	-0.13	12.21	0.02	27.81	-0.17	52.01	0.21
7	82384	0.80	0.34	0.47	0.03	12.51	-0.21	5.52	-0.21	80.33	0.34	1.61	-0.15
8	82384	0.50	0.25	0.30	0.06	49.95	0.25	29.25	-0.10	15.92	-0.12	4.82	-0.16
9	82384	0.78	0.35	0.48	0.04	5.42	-0.19	78.38	0.35	7.25	-0.14	8.91	-0.24
10	82384	0.89	0.39	0.62	0.04	3.81	-0.18	5.20	-0.26	88.80	0.39	2.16	-0.20
11	82384	0.75	0.32	0.41	0.03	11.15	-0.05	6.12	-0.19	8.19	-0.28	74.51	0.32
12	82384	0.57	0.25	0.30	0.02	16.56	-0.14	22.25	-0.06	56.94	0.25	4.23	-0.22
13	82384	0.54	0.27	0.33	0.04	53.72	0.27	4.14	-0.28	39.24	-0.09	2.86	-0.21
14	82384	0.76	0.37	0.49	0.03	4.41	-0.22	5.68	-0.23	76.05	0.37	13.83	-0.18
15	82384	0.44	0.20	0.25	0.05	16.48	0.06	16.68	-0.12	22.89	-0.18	43.90	0.20
16	82384	0.44	0.26	0.32	0.08	44.38	0.26	14.64	-0.21	16.94	-0.10	23.95	-0.05
17	82384	0.94	0.34	0.67	0.01	1.59	-0.18	1.15	-0.18	3.06	-0.21	94.19	0.34
18	82384	0.78	0.43	0.58	0.03	11.07	-0.22	5.90	-0.24	77.91	0.43	5.08	-0.24
19	82384	0.43	0.23	0.28	0.04	22.72	-0.09	43.23	0.23	5.76	-0.13	28.24	-0.10
20	82384	0.56	0.29	0.35	0.02	28.84	-0.08	9.61	-0.22	5.06	-0.20	56.47	0.29
21	82384	0.67	0.34	0.42	0.03	10.65	-0.22	67.05	0.34	19.57	-0.14	2.71	-0.22
22	82384	0.80	0.44	0.59	0.03	3.75	-0.27	4.18	-0.26	79.59	0.44	12.44	-0.22
23	82384	0.74	0.35	0.45	0.04	15.53	-0.20	73.87	0.35	6.28	-0.19	4.28	-0.16
24	82384	0.77	0.50	0.66	0.04	77.16	0.50	9.62	-0.24	8.07	-0.28	5.11	-0.29
25	82384	0.85	0.45	0.67	0.02	5.38	-0.26	5.36	-0.24	3.83	-0.23	85.41	0.45

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.35
Spring 2014 AIMS Classical Item Analysis
Language NRT Grade 3

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	84212	0.91	0.28	0.51	0.33	2.88	-0.23	91.17	0.28	2.12	-0.16	3.49	-0.09
2	84212	0.76	0.29	0.39	0.40	3.68	-0.24	2.82	-0.24	76.33	0.29	16.77	-0.09
3	84212	0.77	0.34	0.47	0.76	77.24	0.34	4.12	-0.23	6.81	-0.27	11.08	-0.09
4	84212	0.46	0.34	0.41	0.97	11.29	-0.36	36.02	-0.01	5.36	-0.24	46.35	0.34
5	84212	0.50	0.31	0.37	0.41	17.62	-0.21	7.79	-0.30	49.78	0.31	24.39	0.02
6	84212	0.73	0.38	0.49	0.67	3.82	-0.26	72.53	0.38	14.03	-0.22	8.94	-0.14
7	84212	0.67	0.46	0.57	0.79	14.46	-0.23	9.71	-0.26	8.18	-0.22	66.85	0.46
8	84212	0.86	0.45	0.69	0.49	86.37	0.45	3.21	-0.24	5.24	-0.28	4.69	-0.21
9	84212	0.63	0.46	0.56	0.59	17.62	-0.15	12.11	-0.33	7.06	-0.22	62.62	0.46
10	84212	0.36	0.22	0.27	0.52	21.45	-0.22	36.39	0.22	10.92	-0.17	30.71	0.09
11	84212	0.52	0.40	0.48	0.12	6.49	-0.17	12.89	-0.18	28.30	-0.22	52.20	0.40
12	84212	0.59	0.39	0.46	0.16	15.39	-0.14	9.13	-0.24	16.22	-0.19	59.10	0.39
13	84212	0.60	0.36	0.43	0.21	6.11	-0.27	23.07	-0.13	10.31	-0.19	60.29	0.36
14	84212	0.77	0.48	0.63	0.21	6.62	-0.28	8.85	-0.27	77.09	0.48	7.24	-0.21
15	84212	0.39	0.26	0.32	0.28	12.62	-0.30	27.87	-0.01	20.36	-0.05	38.87	0.26
16	84212	0.71	0.38	0.48	0.17	71.46	0.38	8.72	-0.26	14.29	-0.15	5.36	-0.20
17	84212	0.54	0.33	0.39	0.64	11.62	-0.20	53.92	0.33	15.71	-0.16	18.11	-0.10
18	84212	0.67	0.28	0.35	0.65	6.65	-0.20	20.43	-0.07	67.22	0.28	5.04	-0.24
19	84212	0.49	0.31	0.37	0.32	37.14	-0.13	8.94	-0.18	48.98	0.31	4.62	-0.21
20	84212	0.45	0.28	0.34	0.70	13.50	-0.19	17.94	-0.07	44.59	0.28	23.27	-0.11

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.36
Spring 2014 AIMS Classical Item Analysis
Language NRT Grade 4

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83418	0.87	0.46	0.70	0.20	6.63	-0.31	3.40	-0.22	2.54	-0.22	87.23	0.46
2	83418	0.48	0.30	0.36	0.03	10.86	-0.26	14.66	-0.11	47.69	0.30	26.76	-0.06
3	83418	0.80	0.40	0.55	0.08	12.16	-0.17	3.86	-0.27	4.09	-0.26	79.81	0.40
4	83418	0.47	0.30	0.37	0.10	16.06	-0.04	46.82	0.30	20.53	-0.11	16.49	-0.25
5	83418	0.67	0.35	0.43	0.12	66.62	0.35	4.55	-0.29	5.38	-0.19	23.34	-0.14
6	83418	0.46	0.31	0.38	0.07	5.34	-0.28	46.39	0.31	10.12	-0.26	38.07	-0.03
7	83418	0.76	0.45	0.58	0.12	76.18	0.45	3.81	-0.26	9.19	-0.25	10.70	-0.22
8	83418	0.69	0.47	0.58	0.05	6.68	-0.27	69.34	0.47	7.25	-0.24	16.68	-0.24
9	83418	0.68	0.38	0.47	0.08	15.01	-0.23	4.69	-0.26	12.69	-0.12	67.54	0.38
10	83418	0.65	0.26	0.33	0.16	64.79	0.26	6.46	-0.17	3.11	-0.25	25.47	-0.09
11	83418	0.78	0.47	0.62	0.04	9.87	-0.24	6.52	-0.24	5.91	-0.26	77.67	0.47
12	83418	0.67	0.39	0.49	0.06	14.11	-0.17	67.09	0.39	6.25	-0.26	12.49	-0.19
13	83418	0.69	0.43	0.53	0.04	15.13	-0.22	69.22	0.43	5.07	-0.21	10.54	-0.24
14	83418	0.53	0.27	0.33	0.07	14.38	-0.24	6.44	-0.27	26.23	0.03	52.88	0.27
15	83418	0.78	0.46	0.61	0.06	77.80	0.46	4.66	-0.27	7.68	-0.23	9.79	-0.24
16	83418	0.88	0.46	0.71	0.09	87.73	0.46	5.14	-0.27	4.19	-0.26	2.86	-0.23
17	83418	0.61	0.32	0.39	0.07	8.22	-0.23	23.11	-0.07	60.88	0.32	7.72	-0.24
18	83418	0.81	0.52	0.72	0.12	8.40	-0.31	81.37	0.52	5.62	-0.27	4.49	-0.27
19	83418	0.79	0.45	0.61	0.05	78.78	0.45	6.41	-0.26	6.42	-0.27	8.33	-0.20
20	83418	0.55	0.35	0.42	0.14	13.31	-0.27	25.14	-0.06	54.75	0.35	6.66	-0.22

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.37
Spring 2014 AIMS Classical Item Analysis
Language NRT Grade 5

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83599	0.92	0.39	0.68	0.04	5.23	-0.27	1.01	-0.17	1.95	-0.21	91.77	0.39
2	83599	0.77	0.33	0.44	0.04	77.34	0.33	10.43	-0.17	2.03	-0.22	10.16	-0.18
3	83599	0.67	0.34	0.42	0.04	66.97	0.34	19.86	-0.09	3.32	-0.24	9.81	-0.26
4	83599	0.81	0.38	0.52	0.02	4.17	-0.17	12.07	-0.22	3.16	-0.25	80.59	0.38
5	83599	0.54	0.21	0.26	0.04	36.39	-0.03	4.37	-0.22	5.19	-0.21	54.00	0.21
6	83599	0.68	0.24	0.30	0.04	11.19	-0.19	11.61	0.00	67.97	0.24	9.18	-0.17
7	83599	0.55	0.33	0.40	0.03	6.36	-0.23	55.15	0.33	8.52	-0.24	29.93	-0.09
8	83599	0.68	0.35	0.44	0.03	7.07	-0.25	67.84	0.35	6.46	-0.16	18.60	-0.15
9	83599	0.65	0.32	0.39	0.03	2.94	-0.20	64.94	0.32	21.99	-0.20	10.10	-0.12
10	83599	0.60	0.40	0.48	0.06	6.04	-0.26	9.13	-0.23	60.23	0.40	24.55	-0.16
11	83599	0.76	0.36	0.48	0.01	15.22	-0.20	76.22	0.36	2.47	-0.17	6.08	-0.23
12	83599	0.59	0.40	0.48	0.03	14.31	-0.21	58.51	0.40	6.06	-0.22	21.10	-0.18
13	83599	0.65	0.33	0.41	0.04	7.60	-0.16	15.43	-0.14	64.84	0.33	12.10	-0.20
14	83599	0.81	0.48	0.66	0.04	7.13	-0.26	3.59	-0.28	8.07	-0.26	81.17	0.48
15	83599	0.84	0.43	0.62	0.05	84.02	0.43	4.48	-0.26	4.35	-0.24	7.11	-0.22
16	83599	0.70	0.43	0.54	0.04	6.19	-0.23	16.94	-0.22	70.44	0.43	6.39	-0.25
17	83599	0.58	0.38	0.45	0.03	58.00	0.38	11.59	-0.27	24.16	-0.10	6.21	-0.25
18	83599	0.74	0.42	0.54	0.02	74.12	0.42	9.01	-0.26	8.83	-0.22	8.03	-0.17
19	83599	0.72	0.44	0.55	0.04	7.81	-0.27	13.48	-0.25	71.63	0.44	7.04	-0.15
20	83599	0.58	0.37	0.44	0.06	17.92	-0.19	58.11	0.37	17.67	-0.13	6.23	-0.25

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.38
Spring 2014 AIMS Classical Item Analysis
Language NRT Grade 6

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82597	0.79	0.36	0.49	0.05	3.00	-0.16	9.67	-0.20	79.42	0.36	7.86	-0.22
2	82597	0.68	0.11	0.15	0.02	67.73	0.11	12.41	-0.08	3.00	-0.16	16.85	0.00
3	82597	0.84	0.35	0.50	0.02	6.07	-0.15	3.33	-0.20	83.76	0.35	6.83	-0.22
4	82597	0.55	0.30	0.36	0.05	54.93	0.30	2.17	-0.21	15.38	-0.18	27.47	-0.12
5	82597	0.92	0.32	0.56	0.02	0.95	-0.17	0.93	-0.17	91.67	0.32	6.42	-0.22
6	82597	0.30	0.29	0.37	0.04	60.90	-0.10	6.14	-0.29	3.12	-0.11	29.80	0.29
7	82597	0.95	0.32	0.64	0.03	0.95	-0.15	94.61	0.32	1.36	-0.16	3.05	-0.23
8	82597	0.83	0.35	0.50	0.03	82.61	0.35	6.53	-0.16	6.31	-0.16	4.52	-0.27
9	82597	0.69	0.18	0.23	0.01	3.41	-0.22	1.42	-0.19	69.40	0.18	25.76	-0.05
10	82597	0.79	0.44	0.59	0.02	78.51	0.44	8.67	-0.29	3.09	-0.18	9.70	-0.23
11	82597	0.73	0.38	0.49	0.01	6.19	-0.24	7.48	-0.21	73.43	0.38	12.89	-0.17
12	82597	0.83	0.38	0.53	0.01	3.43	-0.24	82.69	0.38	2.71	-0.23	11.16	-0.20
13	82597	0.64	0.31	0.38	0.06	64.15	0.31	9.37	-0.19	13.71	-0.18	12.71	-0.10
14	82597	0.68	0.33	0.41	0.04	4.34	-0.17	24.45	-0.19	2.70	-0.22	68.47	0.33
15	82597	0.80	0.38	0.51	0.03	79.61	0.38	5.09	-0.18	4.59	-0.21	10.69	-0.22
16	82597	0.79	0.46	0.61	0.02	7.76	-0.26	79.49	0.46	4.78	-0.22	7.94	-0.25
17	82597	0.61	0.35	0.43	0.04	12.22	-0.19	15.36	-0.23	61.35	0.35	11.02	-0.09
18	82597	0.72	0.43	0.54	0.05	6.87	-0.27	15.97	-0.18	5.50	-0.26	71.61	0.43
19	82597	0.82	0.42	0.58	0.04	4.31	-0.26	81.77	0.42	4.96	-0.24	8.92	-0.20
20	82597	0.59	0.39	0.47	0.05	11.46	-0.20	18.64	-0.13	11.07	-0.25	58.79	0.39

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Table 6.3.39
Spring 2014 AIMS Classical Item Analysis
Language NRT Grade 7

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	83127	0.77	0.36	0.48	0.06	77.41	0.36	3.23	-0.22	6.18	-0.24	13.12	-0.15
2	83127	0.66	0.49	0.60	0.05	5.63	-0.23	18.96	-0.30	9.33	-0.21	66.03	0.49
3	83127	0.78	0.43	0.57	0.06	6.14	-0.20	77.91	0.43	4.91	-0.22	10.98	-0.26
4	83127	0.82	0.40	0.57	0.08	2.85	-0.23	2.32	-0.22	82.43	0.40	12.32	-0.25
5	83127	0.56	0.20	0.25	0.06	10.95	-0.22	6.90	-0.08	56.43	0.20	25.66	-0.03
6	83127	0.67	0.41	0.50	0.08	66.60	0.41	10.18	-0.25	2.93	-0.22	20.21	-0.20
7	83127	0.78	0.36	0.48	0.09	11.10	-0.18	3.83	-0.21	78.44	0.36	6.54	-0.19
8	83127	0.33	0.18	0.22	0.07	33.39	0.18	13.82	-0.18	3.77	-0.23	48.95	0.05
9	83127	0.76	0.36	0.48	0.06	15.77	-0.16	3.50	-0.26	75.70	0.36	4.96	-0.23
10	83127	0.32	0.32	0.40	0.07	56.57	-0.04	31.76	0.32	3.95	-0.28	7.65	-0.29
11	83127	0.84	0.34	0.49	0.01	10.91	-0.26	2.08	-0.15	84.49	0.34	2.51	-0.12
12	83127	0.57	0.24	0.29	0.01	56.70	0.24	6.10	-0.14	4.74	-0.23	32.45	-0.08
13	83127	0.66	0.28	0.34	0.03	65.73	0.28	10.17	-0.11	9.57	-0.18	14.50	-0.13
14	83127	0.59	0.33	0.40	0.02	20.86	-0.31	16.85	-0.01	3.32	-0.19	58.95	0.33
15	83127	0.82	0.42	0.58	0.03	2.62	-0.20	3.86	-0.25	11.82	-0.26	81.68	0.42
16	83127	0.74	0.43	0.54	0.02	10.37	-0.28	7.78	-0.19	8.34	-0.19	73.50	0.43
17	83127	0.83	0.34	0.49	0.02	83.42	0.34	3.87	-0.17	3.28	-0.18	9.41	-0.21
18	83127	0.83	0.41	0.58	0.01	6.19	-0.26	8.32	-0.22	83.14	0.41	2.34	-0.19
19	83127	0.69	0.32	0.40	0.02	15.34	-0.20	13.25	-0.15	68.63	0.32	2.76	-0.16
20	83127	0.63	0.36	0.43	0.02	6.92	-0.26	6.87	-0.20	23.50	-0.14	62.68	0.36

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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Table 6.3.40
Spring 2014 AIMS Classical Item Analysis
Language NRT Grade 8

Item	N	P-Value	rpb	rbi	% Omit	Option A		Option B		Option C		Option D	
						%	rpb	%	rpb	%	rpb	%	rpb
1	82384	0.91	0.31	0.53	0.03	2.14	-0.22	1.49	-0.20	90.73	0.31	5.61	-0.15
2	82384	0.70	0.32	0.40	0.04	26.76	-0.22	1.11	-0.17	69.99	0.32	2.10	-0.21
3	82384	0.87	0.33	0.51	0.04	86.93	0.33	2.09	-0.20	3.44	-0.22	7.51	-0.16
4	82384	0.69	0.29	0.36	0.02	4.01	-0.21	2.13	-0.22	68.81	0.29	25.03	-0.14
5	82384	0.82	0.23	0.32	0.04	3.09	-0.23	81.77	0.23	2.02	-0.16	13.09	-0.07
6	82384	0.76	0.39	0.52	0.04	6.40	-0.28	76.22	0.39	4.54	-0.20	12.81	-0.17
7	82384	0.75	0.39	0.50	0.05	16.93	-0.24	4.43	-0.21	3.87	-0.19	74.72	0.39
8	82384	0.62	0.20	0.24	0.05	4.49	-0.15	61.60	0.20	10.78	-0.15	23.08	-0.05
9	82384	0.47	0.33	0.40	0.05	23.79	-0.20	12.62	-0.12	46.58	0.33	16.97	-0.10
10	82384	0.76	0.20	0.26	0.05	18.89	-0.08	2.55	-0.20	2.92	-0.14	75.59	0.20
11	82384	0.62	0.21	0.26	0.03	2.92	-0.12	17.69	-0.13	62.14	0.21	17.22	-0.09
12	82384	0.63	0.31	0.38	0.02	62.59	0.31	10.76	-0.17	12.31	-0.16	14.32	-0.13
13	82384	0.83	0.40	0.56	0.02	6.90	-0.21	5.34	-0.22	82.93	0.40	4.81	-0.22
14	82384	0.75	0.29	0.38	0.03	74.91	0.29	3.52	-0.16	7.06	-0.20	14.48	-0.12
15	82384	0.72	0.39	0.49	0.07	13.80	-0.23	71.94	0.39	3.40	-0.15	10.78	-0.23
16	82384	0.79	0.23	0.32	0.01	3.45	-0.24	78.78	0.23	1.26	-0.19	16.50	-0.08
17	82384	0.62	0.35	0.42	0.02	3.53	-0.15	30.86	-0.21	4.03	-0.25	61.57	0.35
18	82384	0.84	0.39	0.55	0.02	7.29	-0.23	4.13	-0.20	83.62	0.39	4.93	-0.19
19	82384	0.62	0.30	0.37	0.04	61.89	0.30	7.45	-0.20	17.66	-0.05	12.96	-0.22
20	82384	0.80	0.43	0.58	0.03	7.35	-0.26	6.57	-0.18	6.40	-0.25	79.65	0.43

Note. Item number is not the item number in test booklet due to the nature of the dual purpose assessment and embedded field test items. This test included multiple-choice items only. The statistics presented in this table are based on a calibration sample, which was near census for this administration.

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PART 7: CALIBRATION, SCALING AND EQUATING

Part 7 of the technical report describes calibration and scaling procedures and results for the Spring 2014 AIMS assessments. All grade levels and content areas were calibrated and scaled with calibration samples that typically consisted of the entire student population. Part 7 of this report addresses the following AERA/APA/NCME standards from the 1999 edition: 1.13, 2.1, 2.2, 2.14, 4.1, 4.2, 4.3, 6.4, 6.5, and 13.6. The 2014 AERA/APA/NCME standards (AERA, APA, NCME, 2014) addressed by this chapter are: 1.10, 2.3, 2.13, 2.14, 5.1, 5.2, 5.3, 7.2, 7.4, and 12.9. Also note that the Fall 2013 AIMS assessment is described in Appendix A.

7.1 Ensuring Valid Records in Calibration Sample

In order to ensure valid calibration results, several data cleaning steps occurred upon receipt of raw data from the scanning and scoring processes. These steps allowed for calibration to be conducted on valid student responses at the targeted grade level. Records for students taking all field test forms of the tests were included.

The cleaning process removed the following records from the calibration datasets for each content area and grade level:

- records with invalid tests noted by a special invalidation code obtained from ADE and marked on the answer document;
- records with non-valid attempts noted by less than one response in any of the test sessions;
- records for Bureau of Indian Affairs schools, juvenile corrections centers, state hospital schools, private schools, and home schooled students;
- records for students in cohorts other than 2015(high school tests only);
- records which indicated the student took a test other than their grade level test; and
- duplicate records (score sheets were double scanned or students indicated as taking the test more than one time).

7.2 Calibration Methods

Item Response Theory (IRT) models were used in the item calibration for all AIMS Reading, Writing, Mathematics, and Science tests. All tests were calibrated separately by grade and content area. All calibration activities were replicated by ADE staff as an added quality control check.

7.2.1 Calibration Model

The AIMS mathematics, reading, and science criterion-reference components are composed of multiple-choice items. All Arizona items and selected Stanford 10 items that served dual purposes in reading and mathematics contributed to the AIMS CRT scores and were calibrated using the Rasch model to create the CRT scale. Historically, the AIMS mathematics, reading, and science CRT components have been developed and calibrated using the Rasch Model. The Rasch model (Rasch, 1960; Wright, 1977) can be conceptualized as a one-parameter IRT (1PL) model in which item difficulty and student ability are estimated on the same scale. The Rasch model defines a multiple-choice item in terms of one parameter: item difficulty. In the Rasch model, the probability that a student with an ability estimate (θ) responds correctly to item i is:

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$$P_i(\theta) = \frac{\exp(\theta - b_i)}{1 + \exp(\theta - b_i)},$$

where b_i is the item difficulty.

The criterion-reference components of the AIMS Writing tests in Grades 5, 6, 7 and high school are composed of multiple-choice items (both Arizona items and NRT dual purpose items at the elementary level) and one extended response essay scored on a six-point scale. The Rasch model is not applicable in this case, so the Partial Credit Model (Masters, 1982; Wright & Stone, 1979) is used to create the CRT scale. The Partial Credit Model is an extension of the Rasch model designed for use with items that have multiple response categories. The PCM reduces to the Rasch model for items with only two response categories, such as multiple-choice items. For an item involving m_i score categories, the general expression for the probability of scoring x on item i is given by:

$$P_{xi} = \exp \sum_{j=0}^{x} (\theta - D_{ij}) / \sum_{k=0}^{m_i} \left[\exp \sum_{j=0}^{k} (\theta - D_{ij}) \right] \qquad (6.1)$$

where $x = 0, 1, ..., m_i$, and by definition, $\sum_{j=0}^{0} (\theta - D_{ij}) = 0$.

The above equation gives the probability of scoring x on the i-th test item as a function of ability (θ) and the difficulty (D_{ij}) of the m_i steps of the task. According to this model, the probability of an examinee scoring in a particular category is the sum of the logit (log-odds) differences between θ and D_{ij} of all the completed steps, divided by the sum of the differences of all the steps of a task.

Norm-reference scores are reported based on the students' performance on the NRT component, and items contributing to the AIMS norm-referenced component were calibrated with the Rasch model. Norm-referenced items were calibrated during the national standardization of the Stanford 10 using the Rasch model, and the parameters used for scoring the AIMS NRT were those obtained during this standardization.

7.2.2 Calibration Software

Parameter estimation for items on the criterion-referenced tests was implemented using Winsteps 3.71 (Linacre, 2011). Winsteps uses joint maximum likelihood estimation (JMLE) as described by Wright and Masters (1982). Item parameters for the NRT assessment were obtained from the Stanford 10 standardization.

7.3 Calibration Results

7.3.1 IRT Item Statistics

Item statistics resulting from calibration of the AIMS CRT tests for all subjects are presented in Tables 7.3.1.1 through 7.3.1.22. All items for all AIMS tests converged during calibration using typical procedures for Winsteps software. Standard error of estimates for the Rasch difficulty measures indicated that the parameters were well estimated. Model-to-item data fit was monitored using weighted mean-square (MNSQ) and unweighted MNSQ statistics, which indicate the degree of accuracy and predictability with which the data fits the model (Linacre, 2002). In Winsteps and

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Rasch literature, weighted mean-square is also referred to as infit MNSQ and unweighted mean-square is referred to as outfit MNSQ. The infit MNSQ is sensitive to unexpected responses at or near the item's calibrated level; whereas, outfit MNSQ is sensitive to unexpected responses away from the item's calibrated level. Typically, values less than 0.6 and greater than 1.4 for infit MNSQ indicate misfit, and values greater than 1.4 for outfit MNSQ indicate misfit (Wright & Linacre, 1994). One item was flagged as having misfit as indicated by weighted MNSQ, and 43 items were flagged as having misfit as indicated by unweighted MNSQ. Items on 19 of the 21 CRT tests, with between one and four items flagged per test, had misfit as indicated by unweighted MNSQ.

The items that were flagged for unweighted and/or weighted MNSQ include:

1. MATH Grade 03 Item 13 unweighted mean-square 1.80
2. MATH Grade 03 Item 25 unweighted mean-square 1.44
3. MATH Grade 03 Item 49 unweighted mean-square 1.41
4. MATH Grade 03 Item 63 unweighted mean-square 1.41
5. MATH Grade 03 Item 65 unweighted mean-square 1.54
6. MATH Grade 04 Item 45 unweighted mean-square 1.45
7. MATH Grade 04 Item 63 unweighted mean-square 1.41
8. MATH Grade 05 Item 2 unweighted mean-square 1.41
9. MATH Grade 05 Item 58 unweighted mean-square 1.67
10. MATH Grade 07 Item 1 unweighted mean-square 1.47
11. MATH Grade 07 Item 27 unweighted mean-square 1.49
12. MATH Grade 07 Item 36 unweighted mean-square 1.45
13. MATH Grade HS Item 82 unweighted mean-square 1.47
14. READ Grade 03 Item 35 unweighted mean-square 1.42
15. READ Grade 03 Item 52 unweighted mean-square 1.60
16. READ Grade 04 Item 17 unweighted mean-square 1.68
17. READ Grade 05 Item 28 unweighted mean-square 1.44
18. READ Grade 06 Item 48 unweighted mean-square 1.49
19. READ Grade HS Item 22 unweighted mean-square 1.75
20. READ Grade HS Item 48 unweighted mean-square 1.41
21. WRIT Grade 05 Item 20 unweighted mean-square 1.75
22. WRIT Grade 07 Item 25 unweighted mean-square 1.51
23. SCIE Grade 04 Item 10 unweighted mean-square 1.68
24. SCIE Grade 08 Item 37 unweighted mean-square 1.41
25. SCIE Grade 08 Item 53 unweighted mean-square 1.48

None of the misfits were so extreme as to warrant corrective action during operational analysis.

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Table 7.3.1.1
Spring 2014 AIMS IRT Item Statistics
Mathematics Grade 3

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-1.33	0.01	1.14	1.36	34	-1.11	0.01	0.88	0.83
2	-1.47	0.01	0.87	0.78	35	0.60	0.01	1.03	1.06
3	-0.98	0.01	0.95	1.02	36	-1.74	0.01	0.87	0.71
4	-0.21	0.01	1.01	1.01	37	-0.49	0.01	0.99	0.93
5	-1.17	0.01	0.86	0.71	38	1.10	0.01	1.05	1.18
6	-0.58	0.01	0.79	0.69	39	-1.30	0.01	0.94	0.84
7	-0.25	0.01	1.00	0.98	40	0.89	0.01	0.99	1.02
8	-0.10	0.01	1.00	0.97	41	-0.49	0.01	0.95	0.92
9	0.97	0.01	0.93	0.93	42	-2.04	0.01	0.90	0.72
10	0.58	0.01	1.16	1.24	43	-0.99	0.01	1.10	1.25
11	-0.55	0.01	1.01	0.96	44	-1.09	0.01	1.01	1.01
12	0.74	0.01	1.12	1.18	45	-1.81	0.01	0.88	0.75
13	-2.33	0.01	1.08	1.80	46	-0.31	0.01	0.87	0.78
14	0.24	0.01	0.97	0.95	47	0.34	0.01	1.01	1.02
15	0.59	0.01	1.14	1.18	48	-0.50	0.01	1.06	1.17
16	-0.19	0.01	0.98	0.99	49	-2.86	0.02	1.00	1.41
17	-0.43	0.01	0.85	0.76	50	-1.30	0.01	0.90	0.83
18	0.31	0.01	0.99	0.99	51	1.07	0.01	1.15	1.22
19	1.84	0.01	0.94	1.10	52	-0.59	0.01	0.93	0.88
20	-0.26	0.01	0.96	0.95	53	-1.34	0.01	0.88	0.77
21	-0.90	0.01	0.99	1.03	54	-0.08	0.01	0.99	0.95
22	0.69	0.01	1.12	1.22	55	-0.27	0.01	0.93	0.87
23	0.00	0.01	1.12	1.14	56	0.21	0.01	0.97	0.94
24	0.45	0.01	1.13	1.20	57	-1.70	0.01	1.05	1.18
25	-0.88	0.01	1.16	1.44	58	-0.81	0.01	1.02	0.98
26	-0.01	0.01	0.97	0.96	59	-0.22	0.01	0.98	0.94
27	-1.88	0.01	1.02	1.11	60	-1.45	0.01	0.92	1.02
28	-0.05	0.01	0.84	0.79	61	-1.14	0.01	1.02	1.06
29	-0.55	0.01	0.91	0.87	62	0.43	0.01	1.09	1.12
30	-0.79	0.01	0.88	0.78	63	1.55	0.01	1.11	1.41
31	-1.08	0.01	0.95	0.86	64	0.78	0.01	1.00	1.06
32	-0.64	0.01	0.94	0.89	65	1.03	0.01	1.34	1.54
33	-0.81	0.01	1.08	1.30	66	-2.24	0.01	0.88	0.61

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Table 7.3.1.2
Spring 2014 AIMS IRT Item Statistics
Mathematics Grade 4

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-1.22	0.01	0.92	0.86	35	-1.35	0.01	0.91	0.87
2	-0.50	0.01	0.94	0.93	36	-0.51	0.01	1.03	1.15
3	0.32	0.01	0.99	0.97	37	-0.98	0.01	0.93	0.86
4	-0.42	0.01	0.95	0.88	38	0.67	0.01	1.02	1.03
5	1.43	0.01	0.95	1.00	39	-0.90	0.01	0.96	0.91
6	-0.54	0.01	0.87	0.80	40	-0.29	0.01	0.91	0.87
7	-1.05	0.01	0.88	0.75	41	-1.37	0.01	0.90	0.74
8	-0.12	0.01	0.94	0.89	42	0.62	0.01	0.87	0.84
9	-0.08	0.01	1.02	1.02	43	-1.22	0.01	0.89	0.73
10	0.83	0.01	1.14	1.20	44	0.77	0.01	1.08	1.11
11	0.02	0.01	0.90	0.83	45	-0.41	0.01	1.30	1.45
12	-0.70	0.01	0.97	1.02	46	-0.33	0.01	1.05	1.04
13	1.62	0.01	1.18	1.40	47	0.87	0.01	1.01	1.04
14	0.77	0.01	1.12	1.16	48	-0.70	0.01	0.96	0.91
15	0.94	0.01	0.92	0.92	49	0.57	0.01	1.06	1.09
16	0.23	0.01	1.06	1.12	50	-1.54	0.01	0.97	1.00
17	-0.03	0.01	0.96	0.93	51	-0.88	0.01	0.99	1.16
18	0.05	0.01	1.09	1.13	52	-0.30	0.01	0.91	0.85
19	-1.33	0.01	0.89	0.81	53	0.91	0.01	1.15	1.21
20	-0.34	0.01	0.86	0.77	54	-0.33	0.01	0.99	0.99
21	-0.71	0.01	0.94	0.87	55	0.55	0.01	1.00	1.00
22	0.56	0.01	1.05	1.06	56	-0.64	0.01	0.84	0.72
23	-0.56	0.01	0.90	0.83	57	0.10	0.01	1.11	1.17
24	-0.70	0.01	0.93	0.87	58	0.80	0.01	1.11	1.15
25	0.85	0.01	1.00	1.01	59	0.34	0.01	1.07	1.13
26	-0.79	0.01	0.90	0.91	60	-1.01	0.01	0.99	1.04
27	-1.32	0.01	0.91	0.82	61	-0.52	0.01	0.94	0.92
28	-0.12	0.01	1.04	1.03	62	0.29	0.01	1.11	1.15
29	-0.12	0.01	0.91	0.95	63	1.66	0.01	1.15	1.41
30	-1.68	0.01	0.89	0.79	64	0.05	0.01	0.95	0.92
31	0.73	0.01	1.02	1.04	65	-0.81	0.01	1.02	1.00
32	0.70	0.01	1.16	1.23	66	-0.41	0.01	1.03	1.07

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Table 7.3.1.3
Spring 2014 AIMS IRT Item Statistics
Mathematics Grade 5

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-1.72	0.01	0.96	1.13	35	-0.37	0.01	0.92	0.81
2	2.04	0.01	1.15	1.41	36	-0.07	0.01	0.87	0.79
3	1.08	0.01	1.03	1.05	37	0.01	0.01	1.12	1.24
4	2.30	0.01	0.98	1.13	38	-0.09	0.01	0.90	0.86
5	-0.22	0.01	0.84	0.71	39	0.15	0.01	1.02	1.17
6	1.81	0.01	1.14	1.29	40	-0.19	0.01	0.97	0.96
7	1.25	0.01	0.94	0.96	41	1.22	0.01	1.02	1.04
8	0.08	0.01	0.88	0.81	42	0.79	0.01	1.06	1.09
9	1.27	0.01	0.97	0.99	43	1.53	0.01	1.26	1.40
10	0.12	0.01	1.00	1.00	44	0.85	0.01	1.10	1.12
11	0.16	0.01	0.97	0.97	45	-0.11	0.01	0.98	0.96
12	0.07	0.01	1.00	1.00	46	-0.39	0.01	0.88	0.77
13	-0.06	0.01	1.00	0.98	47	-0.26	0.01	0.85	0.76
14	-0.42	0.01	0.95	0.92	48	0.68	0.01	0.90	0.85
15	-0.36	0.01	0.92	0.86	49	-0.38	0.01	0.93	0.81
16	1.33	0.01	1.18	1.25	50	-0.50	0.01	0.92	0.82
17	1.48	0.01	1.20	1.31	51	0.90	0.01	0.95	0.92
18	0.23	0.01	0.98	0.97	52	0.64	0.01	1.02	1.02
19	0.78	0.01	1.07	1.10	53	1.69	0.01	1.21	1.35
20	-0.81	0.01	1.02	0.94	54	-1.03	0.01	0.96	1.05
21	0.46	0.01	0.92	0.86	55	0.50	0.01	1.02	1.04
22	0.72	0.01	1.04	1.05	56	-0.30	0.01	1.01	1.11
23	0.35	0.01	1.10	1.11	57	-0.07	0.01	0.97	0.94
24	-1.48	0.01	0.93	0.89	58	1.77	0.01	1.37	1.67
25	0.09	0.01	0.91	0.87	59	-1.48	0.01	0.89	0.69
26	-0.34	0.01	1.00	0.99	60	1.27	0.01	1.11	1.17
27	0.11	0.01	0.98	0.90	61	0.40	0.01	1.04	1.02
28	-1.42	0.01	0.98	0.79	62	-0.42	0.01	1.03	1.03
29	0.80	0.01	1.17	1.22	63	1.24	0.01	0.99	1.01
30	0.20	0.01	0.80	0.71	64	-0.53	0.01	0.93	0.84
31	-0.68	0.01	0.86	0.71	65	0.31	0.01	0.88	0.83
32	1.34	0.01	0.94	0.96	66	1.41	0.01	0.94	0.99
33	0.12	0.01	1.13	1.23	67	0.16	0.01	0.85	0.78
34	0.25	0.01	0.96	0.96					

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Table 7.3.1.4
Spring 2014 AIMS IRT Item Statistics
Mathematics Grade 6

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-0.33	0.01	1.03	1.05	35	1.72	0.01	0.94	0.97
2	0.23	0.01	0.94	0.89	36	1.66	0.01	1.12	1.18
3	1.77	0.01	1.07	1.11	37	-0.01	0.01	0.82	0.67
4	1.98	0.01	1.12	1.20	38	0.67	0.01	1.05	1.05
5	1.38	0.01	1.06	1.08	39	-0.24	0.01	0.91	0.83
6	0.08	0.01	0.90	0.81	40	0.92	0.01	0.95	0.90
7	-0.05	0.01	0.87	0.76	41	1.08	0.01	0.92	0.90
8	1.35	0.01	1.03	1.02	42	1.49	0.01	1.13	1.17
9	-0.47	0.01	0.94	0.92	43	1.34	0.01	1.07	1.08
10	-0.72	0.01	0.90	0.75	44	1.74	0.01	1.21	1.30
11	1.98	0.01	0.87	0.89	45	0.87	0.01	1.09	1.19
12	1.24	0.01	1.01	1.01	46	0.59	0.01	0.95	0.93
13	0.95	0.01	1.05	1.06	47	0.22	0.01	0.87	0.77
14	0.89	0.01	1.04	1.03	48	0.07	0.01	0.82	0.67
15	-0.79	0.01	0.92	0.80	49	0.05	0.01	0.89	0.79
16	1.18	0.01	0.96	0.94	50	1.56	0.01	1.03	1.04
17	1.21	0.01	0.98	0.96	51	1.26	0.01	1.04	1.07
18	1.52	0.01	1.08	1.12	52	1.38	0.01	0.94	0.94
19	0.96	0.01	1.06	1.12	53	0.43	0.01	0.86	0.76
20	0.37	0.01	0.99	1.04	54	0.57	0.01	0.85	0.78
21	0.89	0.01	1.01	1.00	55	-0.11	0.01	0.80	0.64
22	1.34	0.01	1.06	1.07	56	1.07	0.01	1.05	1.04
23	2.15	0.01	1.06	1.18	57	-0.37	0.01	0.84	0.69
24	-0.45	0.01	0.98	1.01	58	2.01	0.01	1.20	1.32
25	1.17	0.01	1.12	1.13	59	1.74	0.01	1.11	1.17
26	0.97	0.01	1.00	1.00	60	1.80	0.01	1.15	1.21
27	-0.79	0.01	0.88	0.84	61	1.51	0.01	1.00	1.00
28	0.62	0.01	1.22	1.40	62	1.77	0.01	1.14	1.23
29	-0.42	0.01	0.88	0.74	63	1.13	0.01	1.09	1.10
30	0.22	0.01	0.82	0.70	64	1.13	0.01	0.89	0.85
31	0.13	0.01	1.10	1.21	65	0.60	0.01	0.92	0.87
32	0.35	0.01	0.85	0.76	66	0.61	0.01	0.88	0.81
33	1.54	0.01	1.16	1.23	67	1.19	0.01	1.03	1.05
34	-0.13	0.01	1.02	1.11	68	1.06	0.01	1.04	1.03

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Table 7.3.1.5
Spring 2014 AIMS IRT Item Statistics
Mathematics Grade 7

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	2.23	0.01	1.32	1.47	35	0.30	0.01	0.89	0.78
2	-0.04	0.01	1.00	0.98	36	2.15	0.01	1.31	1.45
3	1.27	0.01	1.05	1.07	37	2.09	0.01	0.98	1.00
4	2.01	0.01	1.05	1.07	38	2.58	0.01	1.19	1.34
5	1.72	0.01	1.05	1.06	39	0.88	0.01	1.10	1.26
6	1.95	0.01	1.19	1.24	40	0.93	0.01	0.96	0.95
7	2.33	0.01	1.16	1.27	41	0.17	0.01	0.93	0.84
8	1.31	0.01	1.01	1.00	42	1.17	0.01	0.93	0.94
9	0.19	0.01	0.98	0.97	43	2.45	0.01	0.98	1.05
10	0.63	0.01	0.95	0.87	44	2.18	0.01	1.27	1.36
11	0.58	0.01	1.00	1.05	45	0.85	0.01	0.88	0.80
12	1.17	0.01	0.97	0.95	46	1.61	0.01	1.03	1.03
13	2.43	0.01	1.05	1.11	47	1.82	0.01	1.07	1.08
14	-0.01	0.01	0.91	0.82	48	-0.20	0.01	1.12	1.26
15	1.29	0.01	0.89	0.86	49	1.42	0.01	1.06	1.09
16	2.63	0.01	1.20	1.37	50	0.77	0.01	0.88	0.77
17	0.67	0.01	0.94	0.90	51	0.86	0.01	0.91	0.84
18	1.16	0.01	1.00	1.00	52	0.45	0.01	0.96	0.86
19	1.69	0.01	0.91	0.89	53	2.16	0.01	1.07	1.11
20	1.55	0.01	0.89	0.84	54	2.46	0.01	1.08	1.11
21	1.68	0.01	1.02	1.04	55	1.45	0.01	0.87	0.83
22	3.17	0.01	1.08	1.34	56	0.67	0.01	0.99	0.97
23	0.24	0.01	0.90	0.80	57	0.95	0.01	0.89	0.82
24	0.56	0.01	0.93	0.88	58	-0.24	0.01	0.81	0.57
25	0.85	0.01	0.95	0.90	59	0.62	0.01	0.87	0.79
26	0.41	0.01	0.92	0.83	60	1.43	0.01	1.00	0.98
27	1.03	0.01	1.26	1.49	61	2.58	0.01	1.06	1.18
28	1.43	0.01	1.04	1.04	62	2.60	0.01	1.13	1.32
29	0.73	0.01	0.85	0.75	63	0.49	0.01	0.87	0.75
30	2.19	0.01	1.07	1.13	64	1.26	0.01	0.84	0.77
31	1.20	0.01	1.04	1.04	65	0.21	0.01	0.90	0.83
32	1.41	0.01	0.96	0.94	66	0.99	0.01	0.95	0.90
33	1.64	0.01	1.06	1.06	67	1.28	0.01	1.00	0.99
34	-0.25	0.01	0.82	0.59	68	1.11	0.01	0.94	0.91

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Table 7.3.1.6
Spring 2014 AIMS IRT Item Statistics
Mathematics Grade 8

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-0.62	0.01	0.92	0.83	35	0.90	0.01	1.07	1.08
2	1.49	0.01	0.99	0.97	36	1.74	0.01	0.91	0.87
3	-0.58	0.01	0.91	0.72	37	1.59	0.01	0.98	0.94
4	2.02	0.01	1.19	1.27	38	2.60	0.01	1.19	1.29
5	0.81	0.01	0.91	0.82	39	1.70	0.01	0.93	0.90
6	0.68	0.01	0.85	0.76	40	2.77	0.01	1.01	1.06
7	2.46	0.01	1.03	1.06	41	2.36	0.01	1.04	1.08
8	2.20	0.01	1.02	1.04	42	0.68	0.01	0.89	0.82
9	1.83	0.01	0.99	0.97	43	1.32	0.01	1.07	1.13
10	2.43	0.01	1.10	1.15	44	0.21	0.01	0.93	0.85
11	1.50	0.01	1.07	1.14	45	0.73	0.01	0.87	0.77
12	0.67	0.01	0.92	0.76	46	2.00	0.01	0.94	0.93
13	1.69	0.01	0.95	0.96	47	1.55	0.01	1.01	0.96
14	0.82	0.01	0.92	0.90	48	2.46	0.01	1.01	1.03
15	0.72	0.01	0.96	0.91	49	1.83	0.01	0.94	0.91
16	2.02	0.01	1.09	1.12	50	1.13	0.01	1.10	1.17
17	1.91	0.01	0.89	0.85	51	2.29	0.01	1.02	1.04
18	0.90	0.01	0.92	0.90	52	2.91	0.01	1.12	1.24
19	2.87	0.01	1.00	1.06	53	1.08	0.01	0.96	0.95
20	1.81	0.01	0.97	0.94	54	1.28	0.01	1.00	1.03
21	1.67	0.01	1.14	1.22	55	2.38	0.01	1.11	1.15
22	1.21	0.01	0.89	0.82	56	1.84	0.01	1.04	1.08
23	2.19	0.01	1.19	1.26	57	0.98	0.01	0.88	0.84
24	2.14	0.01	1.06	1.06	58	2.59	0.01	1.00	1.04
25	0.63	0.01	0.94	0.88	59	2.06	0.01	0.94	0.92
26	2.25	0.01	1.02	1.02	60	1.45	0.01	0.99	1.02
27	0.48	0.01	0.90	0.80	61	1.28	0.01	1.07	1.09
28	2.06	0.01	1.15	1.18	62	0.61	0.01	0.85	0.74
29	1.21	0.01	0.93	0.94	63	1.73	0.01	1.04	1.07
30	1.07	0.01	0.85	0.73	64	1.17	0.01	1.13	1.38
31	2.35	0.01	1.15	1.22	65	1.68	0.01	0.96	0.91
32	2.72	0.01	1.07	1.16	66	2.44	0.01	1.03	1.06
33	2.39	0.01	1.04	1.07	67	2.15	0.01	1.10	1.14
34	-0.25	0.01	0.89	0.71	68	1.39	0.01	0.99	0.98

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Table 7.3.1.7
Spring 2014 AIMS IRT Item Statistics
Mathematics High School

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-0.06	0.01	0.87	0.82	44	3.16	0.01	0.95	1.20
2	-0.63	0.01	0.91	0.84	45	-0.12	0.01	0.86	0.77
3	-0.15	0.01	0.95	0.89	46	-0.56	0.01	0.84	0.80
4	0.05	0.01	1.00	1.00	47	-0.10	0.01	0.85	0.80
5	-0.17	0.01	1.02	1.20	48	0.75	0.01	0.97	0.95
6	-0.63	0.01	0.97	0.91	49	1.09	0.01	1.02	1.03
7	0.51	0.01	1.04	1.06	50	0.08	0.01	0.98	0.98
8	1.46	0.01	0.99	1.04	51	0.45	0.01	1.08	1.19
9	0.64	0.01	0.96	0.94	52	-1.10	0.01	0.91	0.90
10	0.91	0.01	1.03	1.03	53	1.54	0.01	1.12	1.21
11	-0.58	0.01	0.86	0.78	54	0.82	0.01	0.95	0.95
12	-1.50	0.01	0.87	0.63	55	1.23	0.01	1.07	1.13
13	0.64	0.01	1.12	1.15	56	-0.15	0.01	0.86	0.77
14	0.27	0.01	0.89	0.85	57	0.30	0.01	1.05	1.13
15	-0.86	0.01	1.09	1.20	58	0.91	0.01	1.15	1.22
16	-0.95	0.01	0.91	0.88	59	0.88	0.01	1.08	1.09
17	1.07	0.01	0.91	0.89	60	-0.57	0.01	0.88	0.86
18	1.10	0.01	1.12	1.17	61	0.79	0.01	1.10	1.12
19	1.38	0.01	1.02	1.06	62	-0.74	0.01	0.80	0.63
20	-0.57	0.01	0.88	0.81	63	0.42	0.01	0.93	0.89
21	0.71	0.01	1.04	1.07	64	0.99	0.01	1.02	1.02
22	2.27	0.01	1.00	1.25	65	0.76	0.01	0.95	0.92
23	1.78	0.01	1.18	1.36	66	1.32	0.01	1.15	1.22
24	-1.14	0.01	0.85	0.68	67	0.36	0.01	0.94	0.91
25	0.76	0.01	1.01	1.01	68	1.29	0.01	0.95	0.97
26	-0.43	0.01	1.03	1.03	69	0.89	0.01	1.01	1.01
27	1.23	0.01	1.00	1.02	70	0.91	0.01	0.93	0.92
28	-0.59	0.01	0.98	1.02	71	0.80	0.01	1.01	1.02
29	-1.12	0.01	0.93	0.98	72	0.03	0.01	0.88	0.84
30	0.09	0.01	0.88	0.80	73	1.62	0.01	1.19	1.32
31	1.10	0.01	1.16	1.21	74	1.79	0.01	1.05	1.16
32	-0.11	0.01	0.87	0.77	75	-0.26	0.01	0.84	0.73
33	1.48	0.01	1.21	1.32	76	0.05	0.01	0.99	0.97
34	1.70	0.01	1.12	1.22	77	-0.29	0.01	0.96	1.01
35	0.86	0.01	0.98	0.97	78	0.10	0.01	0.90	0.84
36	1.78	0.01	1.10	1.28	79	1.03	0.01	1.11	1.14
37	1.54	0.01	1.09	1.19	80	1.78	0.01	1.16	1.32
38	-0.84	0.01	1.00	1.07	81	0.41	0.01	0.95	0.96
39	-0.43	0.01	0.91	0.83	82	1.74	0.01	1.28	1.47
40	0.06	0.01	0.97	0.95	83	1.20	0.01	1.03	1.06
41	0.45	0.01	0.99	1.02	84	-0.21	0.01	0.83	0.74
42	0.35	0.01	1.13	1.26	85	-1.54	0.01	0.93	0.80
43	1.47	0.01	1.09	1.17					

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Table 7.3.1.8
Spring 2014 AIMS IRT Item Statistics
Reading Grade 3

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-0.32	0.01	0.91	0.83	28	0.70	0.01	0.89	0.86
2	-1.21	0.01	0.87	0.65	29	0.79	0.01	1.05	1.10
3	0.09	0.01	0.89	0.79	30	1.73	0.01	1.14	1.26
4	-1.38	0.01	0.90	0.79	31	0.89	0.01	0.94	0.90
5	0.02	0.01	0.94	0.89	32	-0.54	0.01	0.84	0.68
6	1.52	0.01	1.04	1.09	33	-1.22	0.01	0.85	0.71
7	-1.29	0.01	0.82	0.52	34	1.24	0.01	1.00	1.01
8	0.25	0.01	1.09	1.12	35	0.91	0.01	1.29	1.42
9	-0.68	0.01	0.71	0.51	36	1.36	0.01	1.22	1.29
10	0.92	0.01	0.93	0.91	37	1.87	0.01	1.02	1.16
11	-0.44	0.01	1.03	0.97	38	0.01	0.01	0.98	0.97
12	0.95	0.01	1.06	1.08	39	0.11	0.01	1.03	1.15
13	-0.12	0.01	0.89	0.79	40	1.04	0.01	1.09	1.13
14	0.61	0.01	0.91	0.84	41	0.23	0.01	0.96	0.91
15	2.17	0.01	1.07	1.17	42	1.75	0.01	1.07	1.16
16	-0.76	0.01	0.89	0.73	43	0.36	0.01	0.98	0.94
17	-0.06	0.01	0.88	0.74	44	-0.15	0.01	0.98	0.93
18	1.14	0.01	1.13	1.20	45	1.76	0.01	0.97	1.00
19	1.49	0.01	1.22	1.31	46	1.69	0.01	1.10	1.15
20	-0.73	0.01	0.86	0.74	47	1.22	0.01	1.08	1.13
21	0.07	0.01	1.01	1.01	48	1.15	0.01	0.84	0.80
22	-0.13	0.01	0.97	1.00	49	0.82	0.01	0.98	0.95
23	0.64	0.01	0.87	0.80	50	1.62	0.01	1.13	1.20
24	1.34	0.01	1.08	1.11	51	1.27	0.01	1.02	1.02
25	-0.57	0.01	1.00	0.91	52	2.30	0.01	1.24	1.60
26	0.57	0.01	0.98	0.95	53	0.55	0.01	0.91	0.84
27	1.17	0.01	0.96	0.95	54	0.79	0.01	0.84	0.78

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Table 7.3.1.9
Spring 2014 AIMS IRT Item Statistics
Reading Grade 4

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-0.62	0.01	1.02	1.18	28	1.34	0.01	1.07	1.08
2	1.00	0.01	1.05	1.04	29	0.20	0.01	0.94	0.92
3	0.52	0.01	0.98	1.02	30	0.19	0.01	1.04	1.13
4	0.16	0.01	1.03	1.07	31	0.06	0.01	0.90	0.78
5	1.18	0.01	0.92	0.91	32	0.25	0.01	1.10	1.13
6	1.36	0.01	1.10	1.14	33	1.70	0.01	1.13	1.19
7	-0.82	0.01	0.90	0.69	34	0.43	0.01	0.85	0.75
8	0.04	0.01	0.86	0.72	35	1.68	0.01	1.12	1.20
9	2.06	0.01	1.10	1.18	36	0.78	0.01	0.95	0.91
10	0.55	0.01	1.15	1.32	37	1.63	0.01	0.94	0.94
11	0.50	0.01	0.89	0.82	38	0.64	0.01	1.05	1.06
12	0.67	0.01	1.04	1.03	39	0.44	0.01	1.11	1.12
13	0.94	0.01	1.06	1.10	40	0.27	0.01	0.94	0.89
14	-1.22	0.01	0.89	0.63	41	1.02	0.01	0.90	0.85
15	-0.20	0.01	0.82	0.67	42	2.13	0.01	1.12	1.25
16	0.51	0.01	1.14	1.31	43	1.84	0.01	1.00	1.05
17	1.48	0.01	1.50	1.68	44	1.53	0.01	1.21	1.30
18	0.91	0.01	1.06	1.06	45	0.68	0.01	0.95	0.91
19	1.90	0.01	0.93	0.96	46	0.51	0.01	0.91	0.86
20	0.84	0.01	0.90	0.87	47	1.54	0.01	1.01	1.05
21	0.46	0.01	0.86	0.78	48	1.33	0.01	1.08	1.10
22	1.00	0.01	1.07	1.13	49	-0.19	0.01	0.89	0.78
23	0.72	0.01	0.90	0.84	50	0.68	0.01	0.95	0.90
24	-0.21	0.01	0.98	0.84	51	1.21	0.01	1.02	1.02
25	0.44	0.01	0.91	0.91	52	1.74	0.01	0.94	0.95
26	2.70	0.01	1.07	1.38	53	0.58	0.01	0.81	0.72
27	1.29	0.01	0.91	0.88	54	0.87	0.01	0.87	0.83

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Table 7.3.1.10
Spring 2014 AIMS IRT Item Statistics
Reading Grade 5

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-0.64	0.01	0.90	0.76	28	2.18	0.01	1.23	1.44
2	-0.28	0.01	0.94	0.88	29	0.11	0.01	0.91	0.82
3	-0.75	0.01	0.88	0.72	30	0.31	0.01	0.85	0.78
4	0.49	0.01	1.14	1.21	31	1.28	0.01	1.00	1.00
5	0.54	0.01	0.94	0.91	32	0.02	0.01	0.86	0.77
6	0.28	0.01	1.00	0.96	33	0.76	0.01	1.03	1.02
7	1.90	0.01	1.19	1.30	34	0.81	0.01	1.23	1.34
8	2.16	0.01	1.10	1.27	35	0.09	0.01	0.97	0.95
9	0.11	0.01	1.02	1.03	36	-0.61	0.01	0.92	0.90
10	0.50	0.01	1.10	1.13	37	1.39	0.01	1.09	1.13
11	0.53	0.01	1.00	0.95	38	1.21	0.01	1.22	1.27
12	0.26	0.01	0.91	0.81	39	-1.18	0.01	0.87	0.72
13	0.50	0.01	0.89	0.83	40	-0.65	0.01	0.88	0.72
14	0.60	0.01	0.96	0.95	41	1.85	0.01	1.03	1.13
15	1.75	0.01	1.04	1.08	42	0.11	0.01	0.98	0.96
16	0.57	0.01	1.01	1.03	43	1.56	0.01	1.07	1.11
17	0.84	0.01	1.02	1.01	44	0.68	0.01	0.97	0.95
18	-0.38	0.01	0.89	0.79	45	0.88	0.01	0.98	0.97
19	1.55	0.01	1.12	1.16	46	1.80	0.01	1.21	1.30
20	0.09	0.01	0.92	0.88	47	1.29	0.01	0.91	0.89
21	1.05	0.01	1.00	1.00	48	0.84	0.01	0.89	0.85
22	0.52	0.01	1.10	1.16	49	1.82	0.01	1.17	1.27
23	-1.01	0.01	0.85	0.56	50	0.18	0.01	0.77	0.66
24	0.18	0.01	0.83	0.73	51	0.17	0.01	0.89	0.83
25	1.90	0.01	1.03	1.13	52	0.87	0.01	0.94	0.91
26	1.40	0.01	0.89	0.88	53	1.70	0.01	0.96	0.99
27	2.29	0.01	1.09	1.27	54	1.91	0.01	1.15	1.26

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Table 7.3.1.11
Spring 2014 AIMS IRT Item Statistics
Reading Grade 6

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-0.94	0.01	0.90	0.74	28	0.48	0.01	0.98	0.96
2	1.08	0.01	1.08	1.11	29	1.02	0.01	1.18	1.25
3	-2.36	0.02	0.93	0.67	30	0.38	0.01	1.14	1.24
4	-0.05	0.01	0.96	0.90	31	-1.05	0.01	0.84	0.57
5	2.06	0.01	1.16	1.28	32	0.53	0.01	1.03	1.12
6	0.65	0.01	0.97	0.94	33	0.89	0.01	0.89	0.85
7	1.91	0.01	1.05	1.11	34	0.97	0.01	0.86	0.82
8	1.12	0.01	1.12	1.15	35	2.15	0.01	0.99	1.16
9	-0.52	0.01	0.72	0.55	36	1.04	0.01	0.95	0.92
10	-1.10	0.01	0.78	0.48	37	1.26	0.01	0.90	0.88
11	-1.16	0.01	0.74	0.48	38	0.97	0.01	1.01	0.99
12	2.13	0.01	1.17	1.32	39	-0.05	0.01	0.84	0.75
13	1.72	0.01	1.05	1.10	40	0.35	0.01	0.94	0.93
14	1.65	0.01	1.03	1.06	41	0.29	0.01	0.95	0.94
15	0.84	0.01	1.02	1.03	42	0.85	0.01	1.05	1.07
16	1.21	0.01	1.04	1.04	43	1.66	0.01	1.01	1.04
17	0.56	0.01	1.00	0.98	44	0.80	0.01	0.89	0.84
18	0.60	0.01	0.88	0.82	45	1.39	0.01	0.90	0.90
19	0.94	0.01	0.96	0.94	46	-0.63	0.01	0.88	0.74
20	1.35	0.01	1.10	1.14	47	1.50	0.01	1.18	1.24
21	1.20	0.01	1.08	1.09	48	2.78	0.01	1.16	1.49
22	2.44	0.01	1.10	1.29	49	0.04	0.01	0.97	0.99
23	0.23	0.01	0.89	0.80	50	0.60	0.01	1.03	1.03
24	0.07	0.01	0.94	0.85	51	0.50	0.01	1.01	1.05
25	-0.20	0.01	0.83	0.74	52	1.36	0.01	0.98	0.98
26	0.10	0.01	0.91	0.81	53	0.94	0.01	0.97	0.95
27	1.45	0.01	1.05	1.09	54	1.79	0.01	1.16	1.26

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Table 7.3.1.12
Spring 2014 AIMS IRT Item Statistics
Reading Grade 7

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-0.91	0.01	0.89	0.66	28	1.36	0.01	1.10	1.13
2	0.25	0.01	0.97	0.93	29	0.12	0.01	1.00	1.01
3	-1.01	0.01	0.90	0.79	30	1.56	0.01	1.00	1.01
4	0.44	0.01	1.17	1.29	31	-0.11	0.01	0.89	0.80
5	0.18	0.01	0.92	0.86	32	0.28	0.01	0.89	0.82
6	-0.47	0.01	0.93	0.88	33	1.02	0.01	0.88	0.84
7	0.26	0.01	1.04	1.13	34	0.65	0.01	1.05	1.09
8	1.29	0.01	0.91	0.89	35	1.20	0.01	1.03	1.02
9	1.84	0.01	1.18	1.25	36	1.14	0.01	0.94	0.92
10	2.34	0.01	1.10	1.24	37	1.08	0.01	0.92	0.89
11	1.25	0.01	1.06	1.07	38	0.11	0.01	1.08	1.27
12	0.38	0.01	0.96	0.92	39	0.83	0.01	1.10	1.16
13	1.27	0.01	0.88	0.85	40	1.69	0.01	1.04	1.07
14	0.71	0.01	0.91	0.88	41	2.30	0.01	1.00	1.04
15	1.26	0.01	1.07	1.08	42	1.03	0.01	1.03	1.02
16	0.82	0.01	0.86	0.79	43	1.39	0.01	1.15	1.19
17	0.48	0.01	0.99	0.96	44	0.62	0.01	0.97	0.93
18	0.64	0.01	0.97	0.99	45	1.17	0.01	1.10	1.12
19	0.97	0.01	1.14	1.19	46	1.23	0.01	0.91	0.89
20	1.25	0.01	1.14	1.16	47	1.80	0.01	1.01	1.05
21	1.64	0.01	1.06	1.10	48	1.38	0.01	1.00	1.00
22	2.43	0.01	1.10	1.29	49	-0.48	0.01	0.99	0.79
23	1.57	0.01	0.98	1.00	50	0.53	0.01	0.93	0.89
24	2.00	0.01	1.24	1.33	51	-0.31	0.01	0.93	0.84
25	-0.35	0.01	1.02	0.99	52	-0.27	0.01	0.85	0.71
26	0.88	0.01	0.93	0.89	53	0.77	0.01	0.97	0.96
27	-0.17	0.01	0.86	0.75	54	2.15	0.01	1.02	1.07

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Table 7.3.1.13
Spring 2014 AIMS IRT Item Statistics
Reading Grade 8

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	0.81	0.01	1.10	1.13	28	0.61	0.01	1.07	1.11
2	-0.23	0.01	0.94	0.90	29	0.20	0.01	1.20	1.35
3	-1.11	0.01	0.99	0.95	30	-0.82	0.01	0.92	0.84
4	-1.23	0.01	0.99	1.05	31	0.44	0.01	1.07	1.08
5	-1.83	0.01	0.99	1.15	32	1.06	0.01	1.17	1.22
6	0.86	0.01	1.12	1.16	33	0.02	0.01	0.99	1.00
7	-0.50	0.01	0.95	0.91	34	0.14	0.01	0.94	0.89
8	0.30	0.01	1.00	0.98	35	0.62	0.01	1.11	1.12
9	1.75	0.01	1.14	1.30	36	0.16	0.01	0.91	0.86
10	0.24	0.01	1.09	1.11	37	1.01	0.01	0.97	0.97
11	-1.99	0.01	0.89	0.61	38	1.22	0.01	1.01	1.04
12	1.67	0.01	1.00	1.06	39	0.41	0.01	0.94	0.91
13	1.54	0.01	1.22	1.35	40	-0.69	0.01	0.85	0.69
14	2.06	0.01	1.04	1.27	41	-0.49	0.01	0.92	0.82
15	1.56	0.01	1.02	1.11	42	-0.13	0.01	0.94	0.93
16	-0.04	0.01	0.90	0.84	43	0.77	0.01	0.95	0.95
17	-0.72	0.01	0.98	0.96	44	0.10	0.01	1.00	1.00
18	0.96	0.01	1.09	1.13	45	-0.67	0.01	0.89	0.77
19	-0.58	0.01	0.97	0.96	46	-0.29	0.01	0.99	0.96
20	-1.47	0.01	0.89	0.73	47	-1.26	0.01	0.89	0.75
21	-0.08	0.01	0.88	0.81	48	0.87	0.01	0.93	0.92
22	0.17	0.01	1.04	1.03	49	-0.13	0.01	0.92	0.86
23	0.13	0.01	0.91	0.87	50	1.11	0.01	1.01	1.03
24	-0.21	0.01	0.90	0.86	51	-0.05	0.01	0.99	1.01
25	0.09	0.01	1.01	1.01	52	0.68	0.01	1.01	1.02
26	0.05	0.01	1.09	1.20	53	0.08	0.01	0.95	0.92
27	0.05	0.01	0.89	0.83	54	0.69	0.01	1.07	1.11

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Table 7.3.1.14
Spring 2014 AIMS IRT Item Statistics
Reading High School

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	1.85	0.01	1.01	1.03	28	0.62	0.01	0.92	0.85
2	1.25	0.01	0.93	0.90	29	0.69	0.01	0.82	0.76
3	1.28	0.01	0.99	0.98	30	0.07	0.01	1.07	1.06
4	1.55	0.01	0.98	1.00	31	-0.28	0.01	0.87	0.84
5	1.82	0.01	0.92	0.93	32	0.46	0.01	0.89	0.82
6	1.12	0.01	1.08	1.11	33	2.16	0.01	1.12	1.24
7	2.25	0.01	1.07	1.21	34	1.27	0.01	1.02	1.04
8	0.86	0.01	1.02	1.02	35	0.86	0.01	1.02	1.04
9	0.77	0.01	0.88	0.79	36	0.79	0.01	1.05	1.09
10	-0.73	0.01	0.93	0.80	37	0.09	0.01	0.91	0.87
11	0.08	0.01	0.99	1.00	38	2.15	0.01	1.16	1.27
12	1.10	0.01	0.91	0.88	39	0.05	0.01	1.06	1.25
13	1.31	0.01	1.03	1.03	40	1.01	0.01	1.05	1.11
14	1.39	0.01	0.99	1.00	41	0.42	0.01	1.08	1.16
15	-0.31	0.01	0.89	0.77	42	1.24	0.01	0.92	0.90
16	0.77	0.01	0.84	0.79	43	0.00	0.01	0.85	0.72
17	0.12	0.01	0.96	0.90	44	1.20	0.01	0.96	0.94
18	-0.82	0.01	0.81	0.57	45	1.25	0.01	1.06	1.09
19	1.19	0.01	1.01	1.01	46	1.64	0.01	1.03	1.05
20	-0.92	0.01	0.84	0.62	47	1.98	0.01	1.03	1.09
21	2.66	0.01	1.13	1.39	48	0.00	0.01	1.07	1.41
22	2.94	0.01	1.25	1.75	49	-0.80	0.01	0.87	0.69
23	1.04	0.01	0.95	0.92	50	1.01	0.01	1.03	1.03
24	1.30	0.01	1.01	1.02	51	0.22	0.01	0.89	0.79
25	1.61	0.01	1.10	1.15	52	2.44	0.01	1.06	1.32
26	2.11	0.01	1.12	1.25	53	0.01	0.01	1.05	1.01
27	1.65	0.01	1.14	1.19	54	0.95	0.01	1.02	1.01

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Table 7.3.1.15
Spring 2014 AIMS IRT Item Statistics
Science Grade 4

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-1.21	0.01	0.95	0.85	28	1.42	0.01	0.97	0.97
2	-0.48	0.01	1.04	1.14	29	1.99	0.01	1.14	1.23
3	-0.20	0.01	1.01	1.03	30	1.16	0.01	1.04	1.06
4	-1.01	0.01	1.03	1.16	31	0.59	0.01	0.99	0.97
5	2.29	0.01	1.06	1.31	32	0.04	0.01	0.93	0.88
6	0.89	0.01	1.05	1.07	33	1.28	0.01	0.92	0.91
7	0.52	0.01	0.97	0.96	34	0.38	0.01	0.91	0.88
8	0.85	0.01	0.96	0.95	35	0.34	0.01	0.94	0.92
9	-2.76	0.02	0.84	0.69	36	0.25	0.01	1.10	1.16
10	-2.23	0.02	1.25	1.68	37	0.46	0.01	1.04	1.06
11	-0.23	0.01	0.93	0.94	38	1.39	0.01	1.14	1.19
12	0.41	0.01	0.91	0.88	39	-1.10	0.01	0.85	0.65
13	1.18	0.01	1.08	1.11	40	1.39	0.01	1.01	1.05
14	-0.91	0.01	1.05	0.91	41	1.43	0.01	1.01	1.04
15	1.53	0.01	0.99	1.03	42	0.15	0.01	0.96	0.95
16	0.60	0.01	0.88	0.84	43	0.93	0.01	1.02	1.02
17	0.31	0.01	0.93	0.88	44	0.67	0.01	0.97	0.95
18	0.42	0.01	1.05	1.11	45	1.08	0.01	1.01	1.01
19	1.89	0.01	1.09	1.21	46	-0.83	0.01	0.96	0.82
20	1.86	0.01	1.13	1.26	47	0.88	0.01	1.04	1.05
21	1.37	0.01	1.10	1.13	48	0.69	0.01	0.96	0.94
22	1.06	0.01	0.93	0.92	49	1.41	0.01	1.11	1.15
23	0.82	0.01	1.05	1.05	50	0.68	0.01	0.95	0.93
24	1.13	0.01	1.06	1.08	51	1.76	0.01	1.22	1.34
25	0.11	0.01	0.84	0.77	52	0.48	0.01	1.06	1.06
26	0.42	0.01	1.06	1.07	53	1.09	0.01	1.04	1.05
27	0.70	0.01	1.06	1.06	54	0.13	0.01	0.92	0.88

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Table 7.3.1.16
Spring 2014 AIMS IRT Item Statistics
Science Grade 8

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	0.14	0.01	0.98	0.94	30	0.42	0.01	1.14	1.22
2	-0.59	0.01	1.02	1.08	31	-0.09	0.01	0.88	0.81
3	-0.81	0.01	1.07	1.10	32	0.91	0.01	1.01	1.01
4	2.11	0.01	1.06	1.18	33	-1.06	0.01	0.87	0.70
5	-1.45	0.01	1.06	1.06	34	-0.06	0.01	0.92	0.86
6	-1.48	0.01	0.81	0.61	35	0.28	0.01	1.08	1.12
7	-0.78	0.01	0.94	0.90	36	1.56	0.01	1.02	1.08
8	-1.29	0.01	0.80	0.63	37	-0.30	0.01	1.17	1.41
9	0.21	0.01	1.03	1.07	38	0.37	0.01	1.05	1.10
10	0.29	0.01	0.97	0.96	39	-1.23	0.01	0.81	0.59
11	-0.43	0.01	1.02	1.06	40	0.57	0.01	0.92	0.89
12	-0.66	0.01	0.88	0.95	41	0.51	0.01	0.90	0.87
13	-0.33	0.01	0.91	0.85	42	0.67	0.01	0.98	0.97
14	1.05	0.01	1.05	1.06	43	1.18	0.01	1.06	1.09
15	0.26	0.01	0.94	0.91	44	-0.97	0.01	0.87	0.65
16	0.04	0.01	0.97	0.96	45	0.94	0.01	1.11	1.14
17	0.23	0.01	0.94	0.91	46	-0.35	0.01	1.01	1.17
18	0.92	0.01	1.02	1.04	47	0.53	0.01	0.99	1.00
19	-0.38	0.01	0.92	0.86	48	0.37	0.01	0.90	0.87
20	1.99	0.01	0.98	1.01	49	0.85	0.01	1.24	1.31
21	1.76	0.01	1.08	1.22	50	-0.65	0.01	0.84	0.72
22	0.10	0.01	1.01	1.01	51	0.49	0.01	0.90	0.86
23	0.71	0.01	0.90	0.88	52	0.46	0.01	0.96	0.94
24	1.64	0.01	0.96	0.99	53	2.65	0.01	1.14	1.48
25	0.07	0.01	0.97	0.97	54	0.98	0.01	0.95	0.93
26	1.13	0.01	1.00	1.02	55	1.23	0.01	1.07	1.10
27	1.86	0.01	1.12	1.31	56	1.25	0.01	1.13	1.18
28	1.17	0.01	1.01	1.04	57	1.94	0.01	1.14	1.30
29	0.98	0.01	0.96	0.96	58	1.23	0.01	1.12	1.15

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Table 7.3.1.17
Spring 2014 AIMS IRT Item Statistics
Science Grade HS

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	0.20	0.01	1.07	1.13	34	0.73	0.01	1.13	1.16
2	0.20	0.01	0.89	0.85	35	-0.40	0.01	0.87	0.78
3	0.77	0.01	1.09	1.12	36	-0.73	0.01	0.89	0.79
4	-1.35	0.01	0.93	0.97	37	1.05	0.01	0.98	1.01
5	-0.62	0.01	0.99	1.08	38	-0.36	0.01	0.95	0.92
6	-1.12	0.01	0.80	0.70	39	0.56	0.01	0.99	0.99
7	0.47	0.01	1.09	1.10	40	-0.44	0.01	1.02	1.06
8	0.50	0.01	0.97	0.97	41	-0.58	0.01	1.09	1.21
9	-0.10	0.01	0.99	1.00	42	-0.15	0.01	0.90	0.88
10	0.41	0.01	0.93	0.90	43	-1.33	0.01	0.97	0.81
11	0.61	0.01	1.07	1.09	44	-0.22	0.01	1.00	1.08
12	-0.18	0.01	0.98	1.00	45	-0.66	0.01	0.97	1.00
13	-0.74	0.01	0.91	0.86	46	0.31	0.01	1.02	1.02
14	0.20	0.01	1.24	1.34	47	0.61	0.01	0.92	0.90
15	-0.69	0.01	0.92	0.80	48	0.29	0.01	1.03	1.04
16	-1.40	0.01	0.79	0.58	49	-0.30	0.01	0.90	0.87
17	0.91	0.01	1.04	1.06	50	-0.24	0.01	0.88	0.81
18	1.11	0.01	1.18	1.27	51	0.93	0.01	0.96	0.97
19	0.97	0.01	1.20	1.27	52	0.50	0.01	0.98	0.97
20	-0.33	0.01	0.95	0.96	53	-0.49	0.01	0.88	0.77
21	-0.26	0.01	1.06	1.18	54	1.00	0.01	1.04	1.09
22	0.45	0.01	1.10	1.17	55	0.30	0.01	0.86	0.81
23	-0.49	0.01	0.87	0.79	56	1.76	0.01	1.05	1.21
24	0.23	0.01	1.04	1.05	57	0.78	0.01	1.13	1.18
25	0.13	0.01	1.09	1.14	58	1.09	0.01	0.99	1.05
26	0.37	0.01	0.98	0.98	59	0.73	0.01	1.04	1.06
27	-0.84	0.01	0.91	0.86	60	0.28	0.01	1.12	1.15
28	0.29	0.01	1.08	1.14	61	-0.43	0.01	0.92	0.85
29	0.59	0.01	0.90	0.88	62	0.62	0.01	1.11	1.14
30	0.88	0.01	1.25	1.35	63	0.77	0.01	0.97	0.97
31	0.04	0.01	0.97	0.94	64	0.09	0.01	0.84	0.79
32	0.48	0.01	1.07	1.08	65	0.46	0.01	1.05	1.09
33	0.86	0.01	1.00	1.02					

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Table 7.3.1.18
Spring 2014 AIMS IRT Item Statistics
Writing Grade 5

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-1.78	0.01	0.88	0.64	15	-0.05	0.01	0.91	0.83
2	0.34	0.01	1.05	1.06	16	0.66	0.01	0.91	0.86
3	0.59	0.01	0.97	0.94	17	0.31	0.01	1.00	1.00
4	1.42	0.01	1.05	1.11	18	-0.77	0.01	0.90	0.86
5	0.47	0.01	1.00	1.01	19	2.24	0.01	1.08	1.35
6	1.45	0.01	1.03	1.07	20	2.50	0.01	1.21	1.75
7	0.28	0.01	0.92	0.86	21	1.74	0.01	1.20	1.35
8	0.34	0.01	1.04	1.04	22	0.61	0.01	0.95	0.92
9	0.09	0.01	1.10	1.16	23	-0.04	0.01	1.07	1.06
10	1.49	0.01	1.26	1.39	24	-0.62	0.01	0.91	0.85
11	-0.70	0.01	0.85	0.70	25	-0.28	0.01	0.89	0.80
12	-0.93	0.01	0.88	0.70	26	0.62	0.01	0.97	0.93
13	0.71	0.01	0.98	0.98	27	0.52	0.01	0.96	0.94
14	-0.20	0.01	0.92	0.86					

Table 7.3.1.19
Spring 2014 AIMS IRT Item Statistics
Writing Grade 6

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-0.53	0.01	0.99	0.92	15	-0.39	0.01	0.96	0.97
2	-2.25	0.01	0.92	0.72	16	0.56	0.01	1.00	1.00
3	-0.78	0.01	0.98	0.98	17	-0.01	0.01	0.89	0.86
4	-0.46	0.01	0.90	0.77	18	0.70	0.01	0.94	0.91
5	0.27	0.01	0.95	0.92	19	0.16	0.01	1.06	1.05
6	1.24	0.01	0.99	1.00	20	-0.06	0.01	1.01	1.04
7	1.26	0.01	1.00	1.03	21	0.99	0.01	1.14	1.20
8	1.62	0.01	1.10	1.20	22	0.83	0.01	1.06	1.08
9	1.37	0.01	1.17	1.26	23	0.53	0.01	1.03	1.04
10	-0.79	0.01	0.95	0.89	24	-1.07	0.01	0.99	0.81
11	0.17	0.01	1.03	1.02	25	0.37	0.01	0.90	0.84
12	0.83	0.01	1.06	1.07	26	1.16	0.01	1.06	1.10
13	0.77	0.01	1.06	1.08	27	0.19	0.01	0.94	0.93
14	0.14	0.01	1.02	1.03					

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Table 7.3.1.20
Spring 2014 AIMS IRT Item Statistics
Writing Grade 7

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	0.55	0.01	1.03	1.04	15	0.78	0.01	0.98	1.00
2	1.10	0.01	1.16	1.22	16	-0.05	0.01	0.90	0.86
3	1.21	0.01	1.20	1.29	17	-1.23	0.01	0.99	0.73
4	2.02	0.01	1.15	1.37	18	0.77	0.01	1.01	1.01
5	-0.35	0.01	0.93	0.83	19	2.37	0.01	1.08	1.35
6	0.35	0.01	0.96	0.93	20	1.52	0.01	1.01	1.07
7	-0.39	0.01	0.98	0.95	21	0.36	0.01	0.92	0.86
8	-0.87	0.01	0.98	0.95	22	0.96	0.01	1.01	1.01
9	-0.64	0.01	0.90	0.77	23	1.40	0.01	1.04	1.09
10	-0.06	0.01	0.91	0.83	24	-0.06	0.01	0.96	0.90
11	-0.78	0.01	0.97	0.99	25	2.65	0.01	1.14	1.51
12	-0.75	0.01	0.90	0.79	26	-0.15	0.01	0.93	0.86
13	0.57	0.01	1.01	1.01	27	-0.54	0.01	0.91	0.74
14	1.63	0.01	1.00	1.07					

Table 7.3.1.21
Spring 2014 AIMS IRT Item Statistics
Writing Grade HS

Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Item	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit
1	-0.64	0.01	1.00	1.04	15	2.22	0.01	1.07	1.19
2	-0.92	0.01	0.90	0.73	16	0.96	0.01	1.10	1.14
3	-0.97	0.01	0.95	0.92	17	1.35	0.01	1.06	1.08
4	0.72	0.01	1.07	1.09	18	-0.25	0.01	0.92	0.82
5	2.14	0.01	1.17	1.31	19	-0.48	0.01	0.90	0.78
6	2.84	0.01	1.07	1.24	20	1.79	0.01	1.11	1.18
7	-0.30	0.01	0.92	0.83	21	0.17	0.01	1.01	1.07
8	0.77	0.01	0.97	0.94	22	1.27	0.01	0.97	0.96
9	1.25	0.01	0.94	0.92	23	-0.04	0.01	1.00	0.97
10	0.78	0.01	1.00	0.99	24	0.32	0.01	0.97	0.94
11	1.43	0.01	1.03	1.04	25	0.86	0.01	0.90	0.87
12	-0.05	0.01	0.93	0.90	26	0.67	0.01	0.81	0.76
13	1.19	0.01	0.98	0.97	27	1.12	0.01	1.04	1.05
14	-0.15	0.01	1.07	1.24					

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Table 7.3.1.22
Spring 2014 AIMS IRT Item Statistics
Writing Prompt

Grade	Rasch Difficulty	SE	MNSQ Infit	MNSQ Outfit	Step1	Step2	Step3	Step4	Step5	Step6	Step7	Step8	Step9	Step10
5	1.5832	0.01	0.44	0.43	-3.0577	-1.5915	0.9935	4.3688	7.2030					
6	2.0117	0.01	0.44	0.44	-2.8642	-0.8172	1.8891	4.6068	7.2443					
7	1.6368	0.01	0.41	0.40	-2.2215	-0.9821	0.8205	3.9576	6.6094					
HS A	1.1138	0.00	0.41	0.40	-1.1402	-2.2793	-0.5156	-1.1158	0.6918	0.5198	2.9722	3.0389	4.069	4.8973
HS T	1.053	0.02	0.40	0.40	-1.3381	-2.7231	-0.2019	-1.1835	0.9810	0.0355	3.0708	2.4899	4.3244	5.0746

The Steps in the table are the step difficulty estimates from the Partial Credit IRT model for the writing prompt at each grade level. There is one less step parameter than there are score categories. For Grades 5, 6, and 7, there are six score categories (1 through 6) resulting in five-step parameters. For the high school prompts, there are eleven score categories (2 through 12) resulting in ten-step parameters. Prompt A is the regular assessment prompt and prompt T is the make-up prompt.

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7.4 Scaling Methods

7.4.1 Reading

In 2005, a scale of measurement was determined for each of the AIMS CRT reading tests. The AIMS CRT reading in Grades 3-8 were placed on a vertical scale through the use of external anchor items composed of *TerraNova* NRT items for which item parameters had been obtained during national standardization. The desired AIMS scales for Grades 3-8 reading ranged from 200 to 800. The high school reading test was placed on a separate scale that ranged from 500 to 900 with an approximate mean of 700. The standard deviation was set to 50 for high school reading. The AIMS high school assessment was not placed on the Grades 3-8 vertical scale. A detailed description concerning the development of the scale of measurement for the AIMS Reading tests can be found in section 7.2.1 of the *2005 AIMS Technical Report* which can be obtained by contacting the Arizona Department of Education. A report detailing the procedures used to set performance standards on the reading tests is available at http://www.azed.gov/assessment/files/2014/05/az-aims-reading-math-ss-report-2005.pdf.

7.4.2 Science

A scale of measurement was determined for science using Spring 2008 operational test results and cut scores were determined during standard setting meetings. A detailed description concerning the development of the scale of measurement can be found in Appendix B of the *2008 AIMS Technical Report* which can be obtained from the Arizona Department of Education. A report detailing the procedures used to set performance standards on the science tests is available at http://www.azed.gov/assessment/files/2014/05/aims2008sciencerevisedstandardsettingtechnicalreport.pdf. The AIMS CRT science scales for Grades 4, 8, and high school ranged from 200 to 800. The science scales are not on a vertical scale. Each grade has its own unique scale so that the scale scores for different grades can NOT be compared.

7.4.3 Mathematics

A new scale was created for the mathematics tests in 2010 using the operational test results. The tests were built to the 2008 content standards using a new test blueprint. Performance standards were also set on the new tests in spring 2010. The procedures used to set performance standards are described in a report available from the Arizona Department of Education, and on the ADE website at http://www.azed.gov/assessment/files/2014/05/azaimsmathssreport2010.pdf.

The high school test was scaled to have a mean of 500 and a standard deviation of 50. The scale scores range from 300 to 700. A vertical scale was created for the tests in Grades 3 through 8. The tests were scaled across the grades to have a mean of 400 and a standard deviation of 55. The scale scores range from 100 to 640.

7.4.4 Writing

New writing tests were implemented for Grades 5, 6, 7, and high school in spring 2011. The tests consist of multiple-choice items and an extended response essay. Performance standards were

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also set on the new tests in spring 2011.The test for each grade was scaled such that scores range from 300 to 700 and have a mean of 500 and a standard deviation of 50. A detailed description concerning the development of the scale of measurement can be found in Section 7.5.2 of this *Technical Report* and in the writing standard setting report available at http://www.azed.gov/assessment/files/2014/05/az-aims-writing-ss-report-final.pdf. Each grade has its own unique scale so that the scale scores for different grades can NOT be compared.

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7.5 Equating

7.5.1 Reading, Mathematics, and Science

The 2014 AIMS Reading, Mathematics, and Science tests were equated and placed on the operational AIMS scale using a common-item, non-equivalent groups design. A set of anchor items was selected from the 2013 and previous operational assessments before the item selection workshop. The anchor items were selected with two principles in mind. First, the subset of anchor items should represent the content covered by the full AIMS assessment. Second, the subset of anchor items should be representative of the distribution of item difficulties for the full assessment. The only items eligible to be considered for anchor items were AIMS items. No dual purpose or NRT items served as anchors.

Table 7.5.1.1 presents the number of anchor/common items for each grade/subject area. Tables 7.5.1.2 through 7.5.1.5 show the content representation for the 2014 anchor items compared to the 2014 operational form. Tables 7.5.1.6 through 7.5.1.9 present descriptive statistics for the 2014 anchor/common item difficulties and the 2014 operational form.

Table 7.5.1.1
Spring 2014 AIMS Anchor Items

Content	Grade	CRT Total	Anchor
Mathematics	3	66	14
	4	68	15
	5	67	15
	6	68	15
	7	68	16
	8	68	16
	HS	85	22
Reading	3	54	13
	4	54	14
	5	54	13
	6	54	14
	7	54	12
	8	54	12
	HS	54	13
Science	4	54	19
	8	58	24
	HS	65	20
Writing (MC)	5	27	8
	6	27	9
	7	27	8
	HS	27	9

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Table 7.5.1.2
Representation of Content by 2014 Anchor Sets, Mathematics

		Strand																	
		1			2				3				4				5		
		Concept			Concept				Concept				Concept				Concept		Total
		1	2	3	1	2	3	4	1	2	3	4	1	2	3	4	1	2	
MA03	N	11	13	4	4	0	2	2	4	3	4		4	2	0	6	0	7	66
All	Pct	16.67	19.70	6.06	6.06	0	3.03	3.03	6.06	4.55	6.06		6.06	3.03	0	9.09	0	10.61	100
Anchor	N	3	3	1	1				2	0	1		0	0	0	1	0	2	14
	Pct	21.43	21.43	7.14	7.14				14.29	0	7.14		0	0	0	7.14	0	14.29	100
MA04	N	11	12	4	4	0	3	1	5	0	5	2	5	0	4	4	0	8	68
All	Pct	16.18	17.65	5.88	5.88	0	4.41	1.47	7.35	0	7.35	2.94	7.35	0	5.88	5.88	0	11.76	100
Anchor	N	2	1	1	1	0	1	1	2	0	1	1	0	0	1	2	0	1	15
	Pct	13.33	6.67	6.67	6.67	0	6.67	6.67	13.33	0	6.67	6.67	0	0	6.67	13.33	0	6.67	100
MA05	N	11	10	4	4	4	4		4	0	0	7	5	0	0	5	3	6	67
All	Pct	16.42	14.93	5.97	5.97	5.97	5.97		5.97	0	0	10.45	7.46	0	0	7.46	4.48	8.96	100
Anchor	N	3	2	1	2	1			1	0	0	2	1				1	1	15
	Pct	20.00	13.33	6.67	13.33	6.67			6.67	0	0	13.33	6.67				6.67	6.67	100
MA06	N	9	10	4	4	4	2	2	0	4	7		2	2	4	5	1	8	68
All	Pct	13.24	14.71	5.88	5.88	5.88	2.94	2.94	0	5.88	10.29		2.94	2.94	5.88	7.35	1.47	11.76	100
Anchor	N	1	2	1	1	1	1	1	0	2	2		1	0	0	1	0	1	15
	Pct	6.67	13.33	6.67	6.67	6.67	6.67	6.67	0	13.33	13.33		6.67	0	0	6.67	0	6.67	100
MA07	N	5	8	4	4	5	4		4	0	8	1	7	2	0	6	1	9	68
All	Pct	7.35	11.76	5.88	5.88	7.35	5.88		5.88	0	11.76	1.47	10.29	2.94	0	8.82	1.47	13.24	100
Anchor	N	1	2	1	1	1	1		1	0	1	1	0	1	0	3	0	2	16
	Pct	6.25	12.50	6.25	6.25	6.25	6.25		6.25	0	6.25	6.25	0.00	6.25	0	18.75	0	12.50	100
MA08	N	4	4	4	4	4	4		1	5	8	4	4	4	4	4	1	9	68
All	Pct	5.88	5.88	5.88	5.88	5.88	5.88		1.47	7.35	11.76	5.88	5.88	5.88	5.88	5.88	1.47	13.24	100
Anchor	N	1	1	1	1	1			0	1	3		2	1	1	1	1	1	16
	Pct	6.25	6.25	6.25	6.25	6.25			0	6.25	18.75		12.50	6.25	6.25	6.25	6.25	6.25	100
MAHS	N	1	2	2	4	4	3	1	4	6	14	4	11	4	7	6	2	10	85
All	Pct	1.18	2.35	2.35	4.71	4.71	3.53	1.18	4.71	7.06	16.47	4.71	12.94	4.71	8.24	7.06	2.35	11.76	100
Anchor	N	0	1	1	2	1	1		1	2	4	1	1	1	2	1	1	2	22
	Pct	0	4.55	4.55	9.09	4.55	4.55		4.55	9.09	18.18	4.55	4.55	4.55	9.09	4.55	4.55	9.09	100

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Table 7.5.1.3
Representation of Content by 2014 Anchor Sets, Reading

		Strand									
		1 Concept				2 Concept		3 Concept			Total
		1	3	4	6	1	2	1	2	3	
RD03	N	4	5	6	9	12		6	6	6	54
All	Pct	7.41	9.26	11.11	16.67	22.22		11.11	11.11	11.11	100
Anchor	N	1	2	2	2	2		1	1	2	13
	Pct	7.69	15.38	15.38	15.38	15.38		7.69	7.69	15.38	100
RD04	N	0	0	4	8	17		13	6	6	54
All	Pct	0	0	7.41	14.81	31.48		24.07	11.11	11.11	100
Anchor	N	0	0	1	2	4		2	2	3	14
	Pct	0	0	7.14	14.29	28.57		14.29	14.29	21.43	100
RD05	N	0	0	6	6	17		13	6	6	54
All	Pct	0	0	11.11	11.11	31.48		24.07	11.11	11.11	100
Anchor	N	0	0	2	1	3		3	2	2	13
	Pct	0	0	15.38	7.69	23.08		23.08	15.38	15.38	100
RD06	N	0	0	6	6	17		13	6	6	54
All	Pct	0	0	11.11	11.11	31.48		24.07	11.11	11.11	100
Anchor	N	0	0	2	2	3		4	2	1	14
	Pct	0	0	14.29	14.29	21.43		28.57	14.29	7.14	100
RD07	N	0	0	6	6	13	4	12	7	6	54
All	Pct	0	0	11.11	11.11	24.07	7.41	22.22	12.96	11.11	100
Anchor	N	0	0	1	1	3	1	3	2	1	12
	Pct	0	0	8.33	8.33	25	8.33	25	16.67	8.33	100
RD08	N	0	0	4	5	14	4	13	8	6	54
All	Pct	0	0	7.41	9.26	25.93	7.41	24.07	14.81	11.11	100
Anchor	N	0	0	2	1	3	2	2	1	1	12
	Pct	0	0	16.67	8.33	25	16.67	16.67	8.33	8.33	100
RDHS	N	0	0	4	4	15	3	12	8	8	54
All	Pct	0	0	7.41	7.41	27.78	5.56	22.22	14.81	14.81	100
Anchor	N	0	0	1		4	1	4	3		13
	Pct	0	0	7.69		30.77	7.69	30.77	28.03		100

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Table 7.5.1.4
Representation of Content by 2014 Anchor Sets, Science

		Strand																			
		1 Concept				2 Concept		3 Concept			4 Concept					5 Concept			6 Concept		Total
		1	2	3	4	1	2	1	2	3	1	2	3	4	5	1	2	3	2	3	
SC04	N	6	6	6		1	5	5	1		4	0	2			0	0	6	6	6	54
All	Pct	11.11	11.11	11.11		1.85	9.26	9.26	1.85		7.41	0	3.70			0	0	11.11	11.11	11.11	100
Anchor	N	3	2	1		0	3	3			2					0	0	3	2		19
	Pct	15.79	10.53	5.26		0	15.79	15.79			10.53					0	0	15.79	10.53		100
SC08	N	6	4	6	4	3	3	2	4		0	3	0	5		10	8				58
All	Pct	10.34	6.90	10.34	6.90	5.17	5.17	3.45	6.9		0	5.17	0	8.62		17.24	13.79				100
Anchor	N	2	2	2	1	2	1	0	3		0	0	0	3		4	4				24
	Pct	8.33	8.33	8.33	4.17	8.33	4.17	0	12.50		0	0	0	12.50		16.67	16.67				100
SCHS	N	6	6	6	4	3	3	6	1		6	6	6	6	6						65
All	Pct	9.23	9.23	9.23	6.15	4.62	4.62	9.23	1.54		9.23	9.23	9.23	9.23	9.23						100
Anchor	N	3	2	1	1	1	1	2	1		2	2	1	2	1						20
	Pct	15	10	5	5	5	5	10	5		10	10	5	10	5						100

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Table 7.5.1.5
Representation of Content by 2014 Anchor Sets, Writing MC

		Strand						
		2 Concept						Total
		1	2	3	4	5	6	
WR05	N	2	7	0	2	4	12	27
All	Pct	7.41	25.93	0	7.41	14.81	44.44	100
Anchor	N	1	1	0	0	2	4	8
	Pct	12.50	12.50	0	0	25	50	100
WR06	N	6	5	1	2	4	9	27
All	Pct	22.22	18.52	3.7	7.41	14.81	33.33	100
Anchor	N	3	1	1	1	1	2	9
	Pct	33.33	11.11	11.11	11.11	11.11	22.22	100
WR07	N	5	6	3	1	3	9	27
All	Pct	18.52	22.22	11.11	3.7	11.11	33.33	100
Anchor	N	1	2	2	0	0	3	8
	Pct	12.5	25	25	0	0	37.5	100
WRHS	N	8	4	4	3	2	6	27
All	Pct	29.63	14.81	14.81	11.11	7.41	22.22	100
Anchor	N	2	2	1	1	1	2	9
	Pct	22.22	22.22	11.11	11.11	11.11	22.22	100

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Table 7.5.1.6 Representation of Difficulty by 2014 Anchor Sets, Mathematics

			Difficulty Parameter		P-Value	
Content	**Grade**	**Statistic**	**Entire 2013 Test**	**All Anchor Items**	**Entire 2013 Test**	**All Anchor Items**
MA	3	N	66	14	66	14
		Mean	-0.4400	-0.2700	0.6600	0.6400
		Std Dev	0.9900	0.7900	0.1600	0.1300
		Min	-2.8600	-1.4700	0.2700	0.4100
		Max	1.8400	1.1000	0.9400	0.8400
MA	4	N	68	15	68	15
		Mean	-0.0900	-0.1400	0.6300	0.6400
		Std Dev	0.8300	0.8400	0.1400	0.1500
		Min	-1.6800	-1.3500	0.3200	0.4300
		Max	1.6600	0.8500	0.8700	0.8500
MA	5	N	67	15	67	15
		Mean	0.3000	0.0400	0.6300	0.6800
		Std Dev	0.8800	0.6900	0.1500	0.1100
		Min	-1.7200	-1.4200	0.2600	0.3700
		Max	2.3000	1.6900	0.9100	0.8800
MA	6	N	68	15	68	15
		Mean	0.8100	0.6700	0.6100	0.6300
		Std Dev	0.7800	0.8100	0.1400	0.1500
		Min	-0.7900	-0.7900	0.3500	0.3900
		Max	2.1500	1.7700	0.8700	0.8700
MA	7	N	68	16	68	16
		Mean	1.2600	1.0700	0.6000	0.6400
		Std Dev	0.8200	0.6100	0.1500	0.0900
		Min	-0.2500	-0.2000	0.2500	0.4700
		Max	3.1700	2.0900	0.8500	0.8100
MA	8	N	68	16	68	16
		Mean	1.5700	1.3800	0.5800	0.6200
		Std Dev	0.8000	0.7100	0.1400	0.1200
		Min	-0.6200	-0.2500	0.3300	0.4300
		Max	2.9100	2.5900	0.9000	0.8700
MA	HS	N	85	22	85	22
		Mean	0.4600	0.5500	0.5800	0.5700
		Std Dev	0.9300	0.9900	0.1700	0.1800
		Min	-1.5400	-1.1400	0.1300	0.1300
		Max	3.1600	3.1600	0.8900	0.8500

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Table 7.5.1.7
Representation of Difficulty by 2014 Anchor Sets, Reading

			Difficulty Parameter		P-Value	
Content	**Grade**	**Statistic**	**Entire 2013 Test**	**All Anchor Items**	**Entire 2013 Test**	**All Anchor Items**
RD	3	N	54	13	54	13
		Mean	0.5500	0.4100	0.6400	0.6700
		Std Dev	0.9400	0.9000	0.1600	0.1500
		Min	-1.3800	-1.2200	0.3200	0.3900
		Max	2.3000	1.6200	0.9100	0.9000
RD	4	N	54	14	54	14
		Mean	0.8000	0.4900	0.6300	0.6800
		Std Dev	0.7700	0.7700	0.1300	0.1200
		Min	-1.2200	-1.2200	0.2800	0.4800
		Max	2.7000	1.7400	0.9000	0.9000
RD	5	N	54	13	54	13
		Mean	0.7100	0.4800	0.6300	0.6700
		Std Dev	0.8800	0.8600	0.1500	0.1300
		Min	-1.1800	-1.1800	0.3300	0.4600
		Max	2.2900	1.8200	0.9000	0.9000
RD	6	N	54	14	54	14
		Mean	0.7400	0.3100	0.6200	0.7000
		Std Dev	0.9900	0.8700	0.1600	0.1500
		Min	-2.3600	-1.1600	0.2500	0.4000
		Max	2.7800	1.7900	0.9700	0.9100
RD	7	N	54	12	54	12
		Mean	0.8400	0.5300	0.6300	0.6900
		Std Dev	0.8200	0.6900	0.1500	0.1000
		Min	-1.0100	-0.4800	0.3200	0.5400
		Max	2.4300	1.3600	0.9000	0.8300
RD	8	N	54	12	54	12
		Mean	0.1500	0.1700	0.6500	0.6600
		Std Dev	0.8900	0.4200	0.1500	0.0800
		Min	-1.9900	-0.4900	0.2900	0.4900
		Max	2.0600	1.0600	0.9300	0.7600
RD	HS	N	54	13	54	13
		Mean	0.9400	0.5700	0.6000	0.6700
		Std Dev	0.9100	0.8900	0.1600	0.1600
		Min	-0.9200	-0.8000	0.2400	0.3100
		Max	2.9400	2.4400	0.8900	0.8700

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Table 7.5.1.8
Representation of Difficulty by 2014 Anchor Sets, Science

			Difficulty Parameter		P-Value	
Content	**Grade**	**Statistic**	**Entire 2013 Test**	**All Anchor Items**	**Entire 2013 Test**	**All Anchor Items**
SC	4	N	54	19	54	19
		Mean	0.5500	0.1500	0.5600	0.6300
		Std Dev	1.0000	1.1400	0.1600	0.1600
		Min	-2.7600	-2.7600	0.2400	0.3800
		Max	2.2900	1.7600	0.9700	0.9700
SC	8	N	58	24	58	24
		Mean	0.4000	-0.1500	0.6000	0.7000
		Std Dev	0.9600	0.7600	0.1800	0.1300
		Min	-1.4800	-1.4800	0.1900	0.4900
		Max	2.6500	0.9800	0.9000	0.9000
SC	HS	N	65	20	65	20
		Mean	0.1400	-0.0400	0.5900	0.6200
		Std Dev	0.6800	0.9000	0.1200	0.1600
		Min	-1.4000	-1.4000	0.3300	0.3300
		Max	1.7600	1.7600	0.8600	0.8600

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Table 7.5.1.9
Representation of Difficulty by 2014 Anchor Sets, Writing MC

			Difficulty Parameter		P-Value	
Content	**Grade**	**Statistic**	**Entire 2013 Test**	**All Anchor Items**	**Entire 2013 Test**	**All Anchor Items**
WR	5	N	27	8	27	8
		Mean	0.4100	0.2000	0.6200	0.6600
		Std Dev	0.9700	0.7600	0.1600	0.1300
		Min	-1.7800	-0.7700	0.2500	0.4800
		Max	2.5000	1.4500	0.9200	0.8200
WR	6	N	27	9	27	9
		Mean	0.2500	0.2500	0.6500	0.6600
		Std Dev	0.8700	0.6700	0.1300	0.0900
		Min	-2.2500	-1.0700	0.4100	0.5300
		Max	1.6200	1.1600	0.9400	0.8300
WR	7	N	27	8	27	8
		Mean	0.4600	0.0900	0.6300	0.7000
		Std Dev	1.0400	0.7300	0.1800	0.1100
		Min	-1.2300	-1.2300	0.2400	0.5400
		Max	2.6500	0.9600	0.8600	0.8600
WR	HS	N	27	9	27	9
		Mean	0.6700	0.8400	0.6200	0.6000
		Std Dev	0.9800	0.4800	0.1800	0.1000
		Min	-0.9700	-0.0400	0.2200	0.5000
		Max	2.8400	1.4300	0.8800	0.7600

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A fixed-parameter equating was implemented within WINSTEPS in order to link the 2014 reading, mathematics, and science tests to the operational reporting scale. This is implemented by constraining the 2014 parameter estimates for the common anchor items to equal the final parameter estimates obtained in the original AIMS calibration analyses. The displacement statistic, which estimates the difference between the fixed parameter and the estimate had the item parameter not been constrained, was evaluated for each anchor item. Displacement statistic greater than 0.5 or less than -0.5 are considered significant in the Rasch literature and caused the anchor item to be removed from the anchor set. The following procedure was used to examine anchor item performance and determine whether to remove anchor items that exhibited significant displacement statistics from the annual equating:

1. All anchor items with displacement statistics greater than 0.3 or less than -0.3 were flagged. Any anchor item with displacement statistic greater than 0.5 or less than -0.5 was dropped from the anchor item set. If more than one item was observed with a displacement statistic greater than 0.5 or less than -0.5, then only the first item with the largest displacement value was dropped from the anchor set. The displacement values of the remaining anchor items were re-estimated by equating the test again using the remaining anchor items. This process of equating and dropping the anchor item with the largest displacement greater than 0.5 or less than -0.5 was repeated until all displacements were acceptable. All items with displacement values greater than 0.5 or less than -0.5 were noted to be carried over for removal from the anchor set for next year.
2. Anchor items with displacement statistics greater than 0.3 and less than 0.5 or less than -0.3 and greater than -0.5 were investigated using infit MNSQ, outfit MNSQ, item difficulty, and point-biserial correlation. If either infit MNSQ or outfit MNSQ was flagged for the anchor item, the removal of this item was considered. Also, if any item showed point-biserial correlation less than 0.3, the removal of this item was considered.
3. Whenever an anchor item was removed, content and difficulty representativeness of the remaining anchor set was examined. In instances where more than one anchor item was considered for removal for a given content and grade, the content strand and difficulty level of the item was considered to prevent removal of more than one item from the same content strand and difficulty level.
4. If more than one item was removed from the same content strand, a note was made to address the problem in the setup of anchors for the succeeding year's assessment.

This procedure resulted in removing from the anchor sets for Grades 3 through 8 a total of seven items in the reading tests and a total of nine items in the mathematics tests. No items were removed from the Grade 4 and Grade 8 science tests. Two items were removed from the anchor sets for high school mathematics and and no items were removed for the science test. One item was removed from the linking set for the high school reading test and two items were removed for the high school writing test.

7.5.2 Writing

New writing assessments were implemented in Grades 5, 6, 7, and high school in spring 2011. The assessments are composed of multiple-choice items and an essay prompt. There are 27 multiple-choice items and a single essay prompt contributing to a student's AIMS score at each grade. The test blueprint is shown in Table 3.2.6. In Grades 5, 6, and 7, eighteen of the multiple-choice items are AIMS items, nine are dual purpose AIMS and NRT items, and there are an additional eleven NRT items to allow for the creation of a Stanford 10 norm-referenced score. The high school test contains 27 AIMS multiple-choice items. The essay prompt is scored holistically using a 6-point scoring rubric. In Grades 5, 6, and 7, the essay prompt is scored by one reader, while at the high

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school level, the essay prompt is scored by two readers with identical or adjacent scores being summed to produce a final essay score. Non-adjacent scores are reviewed and scored by a supervisor whose score becomes the final score. The AIMS test scores are constructed such that the 27 multiple-choice items account for approximately 40% of the total test score and the score on the essay response counts for approximately 60% of the total test score. The high school writing multiple-choice items are embedded in a single test along with the prompt, while the elementary tests combine the writing multiple-choice along with the reading multiple-choice items. These items are administered in three sessions with the prompt administered during a separate session.
The writing tests in Grades 5, 6, and 7 contain 27 multiple-choice items and one essay prompt, which is scored holistically on a six-point scale. Combining the two components without weighting results in 33 total score points. In this case, the multiple-choice items account for 27/33 of the total score, or 82 percent, and the essay accounts for the remaining 18 percent. In order to implement a weighting scheme such that the multiple-choice items account for approximately 40 percent and the essay approximately 60 percent of the total score, the essay score is weighted by a factor of 7. In this way, the test score is composed of 27 points for the multiple-choice items and 42 points for the essay item for a total of 69 points. This results in the multiple-choice component accounting for 27/69 of the total score, or 39 percent, and the essay component accounting for 42/69 of the total score, or 61 percent.

7.5.2.1 **Weighting the Multiple-Choice and Essay Components**

The writing test at the high school level consists of 27 multiple-choice items and an essay prompt. The essay is scored by two raters with exact or adjacent scores being summed for a final essay score ranging from 2 to 12 points. In order to achieve the desired weighting of the multiple-choice and essay components, the multiple-choice score is multiplied by 2 and the essay score is multiplied by 7. In this way, there are 2*27 + 7*12, or 138 total points for the test with the multiple-choice items accounting for 54/138, or 39 percent of the total score, and the essay accounting for 84/138, or 61 percent of the total score.

7.5.2.2 **Calibration**

Calibration of the writing tests is performed using Winsteps, version 3.71. A two-step process is used in which the multiple-choice items are calibrated first without including the essay score. Then the multiple-choice item parameters from the initial calibration are held fixed and the essay is calibrated. During this second step, the IWEIGHT command is used with a weight of 7 for the essay response for Grades 5, 6, and 7, and for the high school test, the IWEIGHT command is used with a weight of 2 for the multiple-choice items and a weight of 7 for the essay response.

7.5.2.3 **Standard Setting**

Performance standards were determined separately for the multiple-choice and essay components of the writing tests. The Item Mapping method of standard setting was used to identify the standard on the theta scale for each performance level for the multiple-choice component. The performance standards were set for the essay component such that the theta value for each performance level corresponded approximately to a specific raw score on the essay. For Grades 5, 6, and 7, the value of theta corresponding raw scores of 3, 4, and 5.5 were used as the cut points for Approaches, Meets, and Exceeds, respectively. For the high school test, the value of theta corresponding raw scores of 5, 7, and 11 were used as the cut points for Approaches, Meets, and Exceeds, respectively. The final theta cut points were determined by weighting the multiple-choice theta at each cut point by 40%

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and the essay theta at each cut by 60% and combining them into a final theta cut point for each performance level.

7.5.3 Scoring and Standard Error of Measurement

Item response theory makes available two types of scoring: number-correct and item-pattern. With number-correct scoring, the value of theta corresponding to each number-correct score (or raw score) is converted to a scale score. Item-pattern scoring produces a scale score, taking into account not only how many items were answered correctly but also which items and the characteristics of those items. For groups of 25 or more students, the two methods produce tau-equivalent results (Yen, 1984.) Tau-equivalent means that examinees are expected to receive the same score on average between the two methods. Number-correct scoring was used to derive scales scores for both the AIMS CRT tests and the AIMS NRT tests.

Typically, a test score is obtained from a single observation of performance and represents an estimate of the trait being measured. As an estimate, an observed test score contains some measurement error and does not perfectly reflect an individual's true score. The degree of measurement error in a test score can be estimated using a statistic called the standard error of measurement (SEM).

A student's exact true score cannot be known. The true score is defined as the average test score that would result if the test could be administered repeatedly without the effects of practice or fatigue. The standard error of measurement is an estimate of the standard deviation of an individual's observed scores from these repeated administrations. For practical purposes, this statistic can be used to obtain a range within which a student's true score is likely to fall. Using item response theory, the standard error of measurement can be calculated for every possible scale score.

Tables 7.5.3.1 through 7.5.3.22 present raw score to scale score conversion tables and IRT conditional standard errors of measurement for all AIMS CRT tests. The values in bold represent the scale score with the smallest value greater than or equal to the established cut score for each grade level and content area. The "greater than" rule is evoked when the actual scale score is not observed in any given table. Note that the scores for writing in Grades 5, 6, and 7 (Tables 7.5.3.15 – 7.5.3.17) range from 0 to 69, and the scores for writing in high school (Tables 7.5.3.18 and 7.5.3.19) range from 0 to 138. This is because of the differential weighting of the multiple-choice items and the essay described above. Tables 7.5.3.23 through 7.5.3.28 present IRT conditional standard errors of measurement for all AIMS NRT tests.

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Table 7.5.3.1
Spring 2014 AIMS Raw Score to Scale Score Table
Mathematics CRT Grade 3

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	100	60	34	337	11
1	138	43	35	340	11
2	169	31	36	344	12
3	188	26	**37**	**347**	**12**
4	201	23	38	350	12
5	212	20	39	353	12
6	221	19	40	356	12
7	229	18	41	359	12
8	236	17	42	363	12
9	242	16	43	366	12
10	248	15	44	370	12
11	254	15	45	373	12
12	259	14	46	377	12
13	264	14	47	380	13
14	268	14	48	384	13
15	272	13	49	388	13
16	277	13	50	392	13
17	281	13	51	396	13
18	284	13	52	400	14
19	288	13	53	405	14
20	292	12	**54**	**410**	**14**
21	295	12	55	415	15
22	299	12	56	420	15
23	302	12	57	426	16
24	**306**	**12**	58	432	17
25	309	12	59	439	18
26	312	12	60	447	19
27	315	12	61	456	20
28	319	12	62	467	23
29	322	12	63	481	26
30	325	12	64	499	31
31	328	11	65	530	43
32	331	11	66	540	60
33	334	11			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.2
Spring 2014 AIMS Raw Score to Scale Score Table
Mathematics CRT Grade 4

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	120	60	35	352	11
1	158	43	36	355	11
2	188	31	37	358	11
3	207	25	38	360	11
4	220	22	39	363	11
5	230	20	**40**	**366**	**11**
6	239	19	41	369	11
7	247	17	42	372	11
8	253	16	43	375	11
9	260	16	44	379	12
10	265	15	45	382	12
11	270	15	46	385	12
12	275	14	47	388	12
13	280	14	48	392	12
14	284	13	49	395	12
15	288	13	50	399	12
16	292	13	51	402	13
17	296	13	52	406	13
18	299	12	53	410	13
19	303	12	54	414	13
20	306	12	**55**	**419**	**14**
21	310	12	56	423	14
22	313	12	57	428	15
23	316	12	58	433	15
24	319	11	59	439	16
25	322	11	60	445	17
26	325	11	61	452	17
27	328	11	62	460	19
28	**331**	**11**	63	468	20
29	334	11	64	479	22
30	337	11	65	492	25
31	340	11	66	511	31
32	343	11	67	541	43
33	346	11	68	560	60
34	349	11			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.3
Spring 2014 AIMS Raw Score to Scale Score Table
Mathematics CRT Grade 5

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	140	60	34	367	11
1	173	43	35	370	11
2	203	31	36	373	11
3	222	26	37	376	11
4	235	22	38	379	11
5	246	20	**39**	**382**	**11**
6	255	19	40	385	11
7	263	18	41	388	11
8	270	17	42	391	12
9	276	16	43	394	12
10	281	15	44	398	12
11	287	15	45	401	12
12	292	14	46	404	12
13	296	14	47	408	12
14	301	13	48	411	12
15	305	13	49	415	12
16	309	13	50	419	13
17	313	13	51	422	13
18	316	12	52	426	13
19	320	12	53	431	14
20	324	12	54	435	14
21	327	12	**55**	**440**	**14**
22	330	12	56	445	15
23	334	12	57	450	15
24	337	12	58	456	16
25	340	12	59	462	17
26	343	11	60	469	18
27	346	11	61	477	19
28	**349**	**11**	62	485	20
29	352	11	63	496	22
30	355	11	64	510	25
31	358	11	65	528	31
32	361	11	66	559	43
33	364	11	67	580	60

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.4
Spring 2014 AIMS Raw Score to Scale Score Table
Mathematics CRT Grade 6

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	160	60	35	390	11
1	196	43	36	393	11
2	227	31	37	396	11
3	245	25	**38**	**399**	**11**
4	258	22	39	402	11
5	269	20	40	405	11
6	277	19	41	408	11
7	285	17	42	411	11
8	292	17	43	413	11
9	298	16	44	417	11
10	304	15	45	420	11
11	309	15	46	423	12
12	314	14	47	426	12
13	318	14	48	429	12
14	323	13	49	433	12
15	327	13	50	436	12
16	331	13	51	440	12
17	334	13	52	443	13
18	338	12	**53**	**447**	**13**
19	342	12	54	451	13
20	345	12	55	455	14
21	348	12	56	460	14
22	352	12	57	465	14
23	355	12	58	470	15
24	358	11	59	475	16
25	361	11	60	481	16
26	364	11	61	488	17
27	**367**	**11**	62	495	18
28	370	11	63	504	20
29	373	11	64	515	22
30	376	11	65	528	25
31	379	11	66	546	31
32	382	11	67	576	43
33	385	11	68	600	60
34	387	11			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.5
Spring 2014 AIMS Raw Score to Scale Score Table
Mathematics CRT Grade 7

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	180	60	35	409	11
1	215	43	**36**	**412**	**11**
2	246	31	37	415	11
3	264	25	38	417	11
4	277	22	39	420	11
5	288	20	40	423	11
6	296	19	41	426	11
7	304	17	42	429	11
8	311	16	43	432	11
9	317	16	44	435	12
10	322	15	45	439	12
11	328	15	46	442	12
12	332	14	47	445	12
13	337	14	48	448	12
14	341	13	49	452	12
15	345	13	50	455	12
16	349	13	51	459	13
17	353	13	**52**	**463**	**13**
18	357	12	53	467	13
19	360	12	54	471	13
20	364	12	55	475	14
21	367	12	56	480	14
22	370	12	57	485	15
23	373	12	58	490	15
24	376	11	59	496	16
25	379	11	60	502	17
26	**383**	**11**	61	509	17
27	386	11	62	516	19
28	388	11	63	525	20
29	391	11	64	536	22
30	394	11	65	549	25
31	397	11	66	567	31
32	400	11	67	598	43
33	403	11	68	620	60
34	406	11			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.6
Spring 2014 AIMS Raw Score to Scale Score Table
Mathematics CRT Grade 8

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	200	60	35	423	11
1	226	43	**36**	**426**	**11**
2	257	31	37	429	11
3	276	26	38	431	11
4	289	22	39	434	11
5	300	20	40	437	11
6	309	19	41	440	11
7	317	18	42	443	11
8	324	17	43	446	11
9	330	16	44	449	11
10	336	15	45	452	11
11	341	15	46	455	12
12	346	14	47	458	12
13	350	14	48	462	12
14	355	13	49	465	12
15	359	13	50	469	12
16	363	13	51	472	12
17	367	13	**52**	**476**	**13**
18	371	12	53	480	13
19	374	12	54	484	13
20	378	12	55	488	14
21	381	12	56	492	14
22	384	12	57	497	14
23	387	12	58	502	15
24	391	11	59	508	16
25	394	11	60	514	16
26	397	11	61	520	17
27	400	11	62	528	18
28	403	11	63	537	20
29	406	11	64	547	22
30	**409**	**11**	65	560	25
31	411	11	66	578	31
32	414	11	67	609	43
33	417	11	68	640	60
34	420	11			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.7
Spring 2014 AIMS Raw Score to Scale Score Table
Mathematics CRT High School

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	300	59	43	486	10
1	300	42	**44**	**488**	**10**
2	315	30	45	490	10
3	332	25	46	493	10
4	345	22	47	495	10
5	355	20	48	497	10
6	364	18	49	500	10
7	371	17	50	502	10
8	378	16	51	504	10
9	384	15	52	507	10
10	389	15	53	509	10
11	394	14	54	512	10
12	398	14	55	514	10
13	403	13	56	517	10
14	407	13	57	519	10
15	410	12	58	522	10
16	414	12	59	524	10
17	418	12	60	527	11
18	421	12	61	530	11
19	424	11	62	533	11
20	427	11	63	536	11
21	430	11	**64**	**539**	**11**
22	433	11	65	542	11
23	436	11	66	545	11
24	439	11	67	548	12
25	442	11	68	551	12
26	445	11	69	555	12
27	447	10	70	558	12
28	450	10	71	562	13
29	452	10	72	566	13
30	455	10	73	571	14
31	457	10	74	575	14
32	460	10	75	580	15
33	462	10	76	586	15
34	465	10	77	591	16
35	467	10	78	598	17
36	469	10	79	605	18
37	**472**	**10**	80	614	20
38	474	10	81	624	22
39	476	10	82	637	25
40	479	10	83	655	30
41	481	10	84	685	42
42	483	10	85	700	59

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.8
Spring 2014 AIMS Raw Score to Scale Score Table
Reading CRT Grade 3

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	200	59	28	435	12
1	251	42	29	439	12
2	281	30	30	442	12
3	299	25	31	446	12
4	312	22	32	450	12
5	323	20	33	454	12
6	332	19	34	457	13
7	340	18	35	461	13
8	347	17	36	465	13
9	354	16	37	469	13
10	360	15	38	473	13
11	365	15	39	478	13
12	371	14	40	482	14
13	375	14	41	487	14
14	**380**	**14**	42	491	14
15	385	14	43	496	15
16	389	13	44	502	15
17	393	13	45	508	16
18	397	13	46	514	16
19	402	13	**47**	**521**	**17**
20	405	13	48	529	18
21	409	13	49	537	20
22	413	12	50	548	22
23	417	12	51	561	25
24	421	12	52	579	30
25	424	12	53	609	42
26	428	12	54	640	58
27	**432**	**12**			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.9
Spring 2014 AIMS Raw Score to Scale Score Table
Reading CRT Grade 4

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	220	54	28	458	11
1	295	38	29	461	11
2	322	28	30	464	11
3	339	23	31	468	11
4	351	20	32	471	11
5	361	18	33	474	11
6	369	17	34	478	11
7	376	16	35	481	11
8	382	15	36	484	11
9	388	14	37	488	12
10	393	14	38	492	12
11	398	13	39	495	12
12	**402**	**13**	40	499	12
13	407	13	41	503	13
14	411	12	42	508	13
15	415	12	43	512	13
16	418	12	44	517	14
17	422	12	45	522	14
18	426	11	46	528	15
19	429	11	47	534	16
20	433	11	**48**	**541**	**17**
21	436	11	49	549	18
22	439	11	50	559	20
23	442	11	51	571	23
24	446	11	52	587	27
25	449	11	53	615	38
26	**452**	**11**	54	660	54
27	455	11			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.10
Spring 2014 AIMS Raw Score to Scale Score Table
Reading CRT Grade 5

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	240	57	28	479	12
1	302	41	29	483	12
2	331	29	30	486	12
3	349	24	31	490	12
4	362	21	32	493	12
5	372	19	33	497	12
6	381	18	34	501	12
7	389	17	35	504	12
8	395	16	36	508	12
9	402	15	37	512	13
10	407	15	38	516	13
11	413	14	39	520	13
12	418	14	40	524	13
13	422	14	41	529	14
14	**427**	**13**	42	534	14
15	431	13	43	539	14
16	435	13	44	544	15
17	439	13	45	549	15
18	443	12	**46**	**556**	**16**
19	447	12	47	562	17
20	451	12	48	570	18
21	454	12	49	579	19
22	458	12	50	589	21
23	462	12	51	602	24
24	465	12	52	619	29
25	**469**	**12**	53	648	41
26	472	12	54	675	57
27	476	12			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.11
Spring 2014 AIMS Raw Score to Scale Score Table
Reading CRT Grade 6

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	250	58	28	491	12
1	303	42	29	494	12
2	333	30	30	498	12
3	352	25	31	501	12
4	366	22	32	505	12
5	377	20	33	509	12
6	387	19	34	512	12
7	395	18	35	516	12
8	402	17	36	520	13
9	409	16	37	524	13
10	415	15	38	528	13
11	421	15	39	532	13
12	426	15	40	537	13
13	431	14	41	541	14
14	**436**	**14**	42	546	14
15	441	14	43	551	15
16	445	13	44	557	15
17	449	13	45	562	16
18	453	13	46	569	16
19	457	13	**47**	**575**	**17**
20	461	13	48	583	18
21	465	12	49	592	20
22	469	12	50	602	22
23	473	12	51	615	25
24	476	12	52	633	30
25	**480**	**12**	53	663	41
26	483	12	54	690	58
27	487	12			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.12
Spring 2014 AIMS Raw Score to Scale Score Table
Reading CRT Grade 7

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	260	62	28	509	13
1	318	44	29	513	13
2	350	32	30	516	13
3	369	26	31	520	13
4	383	23	32	524	13
5	394	21	33	528	13
6	404	20	34	532	13
7	412	18	35	536	13
8	419	17	36	540	13
9	426	17	37	544	14
10	432	16	38	548	14
11	438	16	39	553	14
12	**443**	**15**	40	557	14
13	448	15	41	562	15
14	453	14	42	567	15
15	458	14	43	572	15
16	462	14	44	578	16
17	467	14	45	584	17
18	471	13	**46**	**590**	**17**
19	475	13	47	598	18
20	479	13	48	606	19
21	483	13	49	615	21
22	487	13	50	626	23
23	**490**	**13**	51	640	26
24	494	13	52	659	32
25	498	13	53	691	44
26	502	13	54	720	62
27	505	13			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.13
Spring 2014 AIMS Raw Score to Scale Score Table
Reading CRT Grade 8

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	270	71	28	489	15
1	270	50	29	494	15
2	306	36	30	498	15
3	328	30	**31**	**502**	**15**
4	344	27	32	507	15
5	357	24	33	511	15
6	368	22	34	516	15
7	377	21	35	520	15
8	386	20	36	525	15
9	394	19	37	530	15
10	401	18	38	534	16
11	407	18	39	540	16
12	413	17	40	545	16
13	419	17	41	550	17
14	425	16	42	556	17
15	430	16	43	562	18
16	435	16	44	569	18
17	440	16	45	576	19
18	445	15	46	583	20
19	450	15	47	592	21
20	**455**	**15**	48	601	22
21	459	15	**49**	**612**	**24**
22	464	15	50	624	26
23	468	15	51	640	30
24	472	15	52	662	36
25	477	15	53	698	50
26	481	15	54	800	70
27	485	15			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.14
Spring 2014 AIMS Raw Score to Scale Score Table
Reading CRT High School

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	500	61	28	700	13
1	509	44	29	704	13
2	541	31	30	708	13
3	560	26	31	712	13
4	574	23	32	716	13
5	585	21	33	719	13
6	594	19	34	723	13
7	602	18	35	727	13
8	610	17	36	732	13
9	616	17	37	736	14
10	623	16	38	740	14
11	**628**	**15**	39	745	14
12	634	15	40	749	14
13	639	15	41	754	15
14	644	14	42	759	15
15	648	14	43	764	15
16	653	14	44	770	16
17	657	14	**45**	**776**	**17**
18	662	13	46	783	17
19	666	13	47	790	18
20	670	13	48	798	19
21	**674**	**13**	49	808	21
22	678	13	50	819	23
23	682	13	51	833	26
24	685	13	52	852	31
25	689	13	53	883	44
26	693	13	54	900	61
27	697	13			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.15
Spring 2014 AIMS Raw Score to Scale Score Table
Writing CRT Grade 5

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	300	42	35	471	10
1	300	42	36	474	10
2	300	42	37	478	10
3	300	42	38	482	10
4	300	42	39	485	10
5	300	42	40	489	10
6	300	42	41	492	10
7	300	42	**42**	**496**	**11**
8	315	30	43	500	11
9	337	22	44	504	11
10	350	18	45	508	11
11	360	16	46	512	11
12	369	15	47	517	12
13	376	14	48	522	12
14	383	13	49	527	12
15	388	13	50	532	13
16	394	12	51	538	13
17	399	12	52	544	14
18	404	12	53	551	14
19	409	12	54	558	15
20	413	11	55	566	15
21	418	11	56	574	16
22	422	11	57	583	16
23	426	11	58	592	17
24	430	11	**59**	**602**	**17**
25	434	11	60	612	18
26	438	11	61	623	18
27	**442**	**11**	62	635	18
28	446	10	63	647	19
29	450	10	64	659	19
30	453	10	65	672	20
31	457	10	66	685	21
32	460	10	67	700	24
33	464	10	68	700	31
34	467	10	69	700	43

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.16
Spring 2014 AIMS Raw Score to Scale Score Table
Writing CRT Grade 6

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	300	45	35	476	11
1	300	45	36	479	11
2	300	45	37	483	11
3	300	45	38	487	11
4	300	45	39	491	11
5	300	45	**40**	**495**	**11**
6	300	45	41	498	11
7	300	45	42	502	11
8	308	32	43	507	11
9	332	24	44	511	12
10	347	20	45	515	12
11	358	18	46	520	12
12	367	16	47	525	12
13	375	15	48	530	13
14	383	15	49	535	13
15	389	14	50	541	14
16	395	14	51	547	14
17	401	13	52	554	15
18	407	13	53	561	15
19	412	12	54	569	16
20	416	12	55	577	16
21	421	12	**56**	**586**	**17**
22	426	12	57	595	17
23	430	12	58	605	18
24	434	11	59	615	18
25	438	11	60	626	18
26	442	11	61	637	19
27	446	11	62	649	19
28	**450**	**11**	63	661	20
29	454	11	64	673	20
30	457	11	65	687	21
31	461	11	66	700	22
32	465	11	67	700	25
33	468	11	68	700	33
34	472	11	69	700	45

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.17
Spring 2014 AIMS Raw Score to Scale Score Table
Writing CRT Grade 7

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	300	39	35	469	9
1	300	39	36	472	9
2	300	39	37	475	9
3	300	39	38	479	9
4	300	39	39	482	9
5	300	39	40	485	10
6	300	39	41	488	10
7	300	39	42	492	10
8	337	28	**43**	**495**	**10**
9	357	20	44	499	10
10	369	17	45	503	10
11	378	15	46	507	11
12	386	14	47	511	11
13	392	13	48	515	11
14	397	12	49	520	11
15	402	11	50	524	12
16	407	11	51	529	12
17	411	11	52	535	12
18	415	10	53	541	13
19	419	10	54	547	13
20	422	10	55	553	14
21	426	10	56	560	14
22	429	10	57	567	14
23	432	9	58	575	15
24	436	9	59	583	15
25	439	9	60	592	16
26	442	9	**61**	**601**	**16**
27	445	9	62	611	17
28	448	9	63	621	17
29	**451**	**9**	64	631	17
30	454	9	65	643	18
31	457	9	66	656	20
32	460	9	67	671	22
33	463	9	68	694	29
34	466	9	69	700	40

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.18
Spring 2014 AIMS Raw Score to Scale Score Table
Writing CRT High School Prompt A

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	300	55	35	398	9	70	467	9	105	551	11
1	300	55	36	400	9	71	469	9	106	554	11
2	300	55	37	402	9	72	471	9	107	557	11
3	300	55	38	405	9	73	473	9	108	560	11
4	300	55	39	407	9	74	475	9	109	563	11
5	300	55	40	409	9	75	478	9	110	565	11
6	300	55	41	411	9	**76**	**480**	**9**	111	568	11
7	300	55	42	413	9	77	482	9	112	571	11
8	300	55	43	415	9	78	484	9	113	574	11
9	300	55	44	417	9	79	486	9	114	577	11
10	300	55	45	419	9	80	488	9	115	580	11
11	300	55	46	420	9	81	490	9	116	583	11
12	300	55	47	422	9	82	492	9	117	586	11
13	300	55	48	424	9	83	494	9	**118**	**590**	**11**
14	300	55	49	426	9	84	497	9	119	593	11
15	300	38	50	428	9	85	499	9	120	596	12
16	313	26	51	430	9	86	501	9	121	600	12
17	327	21	52	432	9	87	504	10	122	603	12
18	337	18	**53**	**434**	**9**	88	506	10	123	607	12
19	345	16	54	436	9	89	508	10	124	611	12
20	351	15	55	438	9	90	511	10	125	615	13
21	356	14	56	440	9	91	513	10	126	619	13
22	361	13	57	442	9	92	516	10	127	624	14
23	365	12	58	444	9	93	518	10	128	629	14
24	369	12	59	446	9	94	521	10	129	634	15
25	372	11	60	448	9	95	523	10	130	639	15
26	375	11	61	450	9	96	526	10	131	646	16
27	378	11	62	452	9	97	529	10	132	653	17
28	381	10	63	454	9	98	531	10	133	661	19
29	384	10	64	456	9	99	534	10	134	671	20
30	387	10	65	458	9	100	537	10	135	683	23
31	389	10	66	459	9	101	540	10	136	699	28
32	391	10	67	461	9	102	542	11	137	700	40
33	394	9	68	463	9	103	545	11	138	700	56
34	396	9	69	465	9	104	548	11			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.19
Spring 2014 AIMS Raw Score to Scale Score Table
Writing CRT High School Prompt T

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	300	54	35	396	10	70	467	9	105	548	10
1	300	54	36	398	10	71	469	9	106	550	10
2	300	54	37	401	10	72	471	9	107	553	10
3	300	54	38	403	10	73	473	9	108	556	11
4	300	54	39	405	10	74	475	9	109	559	11
5	300	54	40	408	9	75	477	9	110	562	11
6	300	54	41	410	9	76	478	9	111	565	11
7	300	54	42	412	9	**77**	**480**	**9**	112	568	11
8	300	54	43	414	9	78	482	9	113	571	11
9	300	54	44	417	9	79	484	9	114	574	11
10	300	54	45	419	9	80	486	9	115	577	11
11	300	54	46	421	9	81	489	9	116	580	11
12	300	54	47	423	9	82	491	9	117	583	12
13	300	54	48	425	9	83	493	9	**118**	**587**	**12**
14	300	54	49	427	9	84	495	9	119	591	12
15	300	37	50	429	9	85	497	9	120	594	12
16	307	26	51	431	9	86	499	9	121	598	13
17	321	21	**52**	**433**	**9**	87	502	9	122	602	13
18	331	18	53	435	9	88	504	10	123	607	13
19	338	16	54	437	9	89	506	10	124	611	13
20	344	15	55	439	9	90	509	10	125	616	14
21	350	14	56	441	9	91	511	10	126	621	14
22	355	13	57	443	9	92	513	10	127	626	15
23	359	13	58	444	9	93	516	10	128	631	15
24	363	12	59	446	9	94	518	10	129	637	15
25	367	12	60	448	9	95	521	10	130	644	16
26	370	11	61	450	9	96	524	10	131	650	17
27	373	11	62	452	9	97	526	10	132	658	18
28	376	11	63	454	9	98	529	10	133	667	19
29	379	11	64	456	9	99	531	10	134	676	21
30	382	11	65	458	9	100	534	10	135	689	23
31	385	10	66	459	9	101	537	10	136	700	28
32	388	10	67	461	9	102	539	10	137	700	39
33	391	10	68	463	9	103	542	10	138	700	56
34	393	10	69	465	9	104	545	10			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.20
Spring 2014 AIMS Raw Score to Scale Score Table
Science CRT Grade 4

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	200	71	**28**	**502**	**14**
1	269	51	29	506	14
2	308	37	30	510	14
3	331	31	31	515	15
4	349	28	32	519	15
5	363	25	33	523	15
6	375	23	34	528	15
7	385	22	35	532	15
8	394	21	36	537	15
9	402	20	37	542	15
10	410	19	38	546	16
11	417	18	**39**	**551**	**16**
12	424	18	40	557	16
13	430	17	41	562	16
14	436	17	42	568	17
15	441	16	43	574	17
16	447	16	44	580	18
17	452	16	45	587	19
18	457	16	46	594	19
19	**462**	**15**	47	602	21
20	467	15	48	611	22
21	471	15	49	622	24
22	476	15	50	634	26
23	480	15	51	650	30
24	485	15	52	671	36
25	489	15	53	707	50
26	493	15	54	800	70
27	497	14			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.21
Spring 2014 AIMS Raw Score to Scale Score Table
Science CRT Grade 8

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	200	69	30	495	14
1	277	49	31	499	14
2	312	35	**32**	**503**	**14**
3	333	29	33	507	14
4	349	26	34	511	14
5	361	23	35	516	14
6	371	22	36	520	14
7	381	20	37	524	14
8	389	19	38	528	14
9	396	18	**39**	**533**	**15**
10	403	18	40	537	15
11	409	17	41	542	15
12	415	17	42	546	15
13	421	16	43	551	16
14	426	16	44	556	16
15	431	16	45	562	16
16	436	15	46	567	17
17	441	15	47	573	17
18	446	15	48	580	18
19	450	15	49	586	18
20	455	14	50	594	19
21	459	14	51	602	20
22	463	14	52	611	22
23	467	14	53	622	23
24	471	14	54	634	26
25	**475**	**14**	55	650	29
26	479	14	56	671	35
27	483	14	57	706	49
28	487	14	58	800	69
29	491	14			

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.22
Spring 2014 AIMS Raw Score to Scale Score Table
Science CRT High School

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	200	74	33	473	14
1	243	53	**34**	**477**	**14**
2	280	38	35	480	14
3	303	31	36	484	14
4	319	27	37	488	14
5	332	25	38	491	14
6	343	23	39	495	14
7	352	21	40	498	14
8	360	20	**41**	**502**	**14**
9	368	19	42	506	14
10	375	18	43	510	14
11	381	18	44	514	14
12	387	17	45	518	15
13	392	17	46	522	15
14	398	16	47	526	15
15	403	16	48	531	15
16	407	16	49	535	16
17	412	15	**50**	**540**	**16**
18	416	15	51	545	16
19	421	15	52	550	17
20	425	15	53	555	17
21	429	14	54	561	18
22	433	14	55	567	18
23	437	14	56	574	19
24	441	14	57	582	20
25	445	14	58	590	21
26	448	14	59	599	23
27	452	14	60	610	25
28	456	14	61	622	27
29	459	14	62	639	31
30	463	14	63	661	38
31	466	14	64	698	53
32	470	14	65	800	74

Note. SEM is the standard error of measurement for the scale score.
Note. Cut scores for Approaches the Standard, Meets the Standard, and Exceeds the Standard are in boldface.

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Table 7.5.3.23
Spring 2014 AIMS NRT SEM Table
Grade 3

	Reading		Language		Mathematics	
Raw Score	Scale Score	IRT SEM	Scale Score	IRT SEM	Scale Score	IRT SEM
0	446	49	449	49	430	49
1	469	36	473	36	453	36
2	496	26	500	27	480	26
3	513	22	517	23	496	22
4	526	20	531	21	509	20
5	536	18	542	19	519	18
6	545	17	552	18	528	17
7	554	17	561	18	536	16
8	561	16	569	17	543	16
9	569	16	578	17	550	15
10	576	16	586	17	557	15
11	582	15	594	17	563	15
12	589	15	602	17	569	15
13	596	15	611	18	576	15
14	603	15	621	18	582	15
15	610	16	631	19	588	15
16	617	16	642	21	595	15
17	624	16	656	23	602	16
18	632	17	674	27	609	16
19	641	18	702	37	617	17
20	650	19	725	49	626	18
21	661	20			636	20
22	674	23			649	22
23	691	27			665	26
24	718	36			692	36
25	741	49			715	49

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Table 7.5.3.24
Spring 2014 AIMS NRT SEM Table
Grade 4

	Reading		Language		Mathematics	
Raw Score	Scale Score	IRT SEM	Scale Score	IRT SEM	Scale Score	IRT SEM
0	464	49	460	49	452	49
1	488	36	484	37	475	36
2	514	26	512	27	502	26
3	531	22	530	23	519	22
4	543	20	543	21	531	20
5	554	18	554	19	542	18
6	563	17	564	18	551	17
7	571	17	573	17	559	17
8	579	16	582	17	567	16
9	586	16	590	17	574	16
10	592	15	598	17	582	16
11	599	15	606	17	589	16
12	605	15	614	17	595	16
13	612	15	622	17	602	16
14	618	15	631	18	609	16
15	625	15	641	19	617	16
16	632	16	651	20	624	16
17	639	16	664	23	632	17
18	646	16	681	27	640	17
19	654	17	708	36	649	18
20	663	18	732	49	659	19
21	674	20			670	21
22	686	22			684	23
23	703	26			702	27
24	730	36			729	37
25	753	49			753	49

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Table 7.5.3.25
Spring 2014 AIMS NRT SEM Table
Grade 5

	Reading		Language		Mathematics	
Raw Score	Scale Score	IRT SEM	Scale Score	IRT SEM	Scale Score	IRT SEM
0	484	49	477	50	496	49
1	507	36	502	37	519	36
2	534	26	530	27	546	26
3	550	22	548	23	562	22
4	562	20	561	21	574	20
5	572	18	572	19	584	18
6	581	17	582	18	593	17
7	589	16	591	17	601	16
8	596	16	599	17	608	16
9	603	15	607	16	615	15
10	609	15	614	16	621	15
11	616	15	622	16	627	15
12	622	15	629	16	634	15
13	628	15	637	17	640	15
14	634	15	646	17	646	15
15	640	15	655	18	652	15
16	647	15	665	20	659	15
17	653	16	678	22	665	16
18	660	16	694	26	673	16
19	668	17	721	36	680	17
20	677	18	744	49	689	18
21	687	20			699	20
22	699	22			711	22
23	715	26			728	26
24	742	36			754	36
25	765	49			777	49

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Table 7.5.3.26
Spring 2014 AIMS NRT SEM Table
Grade 6

	Reading		Language		Mathematics	
Raw Score	Scale Score	IRT SEM	Scale Score	IRT SEM	Scale Score	IRT SEM
0	493	49	487	49	516	49
1	516	36	510	36	539	36
2	544	27	537	26	565	26
3	561	23	553	22	581	22
4	574	20	566	20	593	19
5	584	19	577	19	602	18
6	594	18	586	18	611	17
7	602	17	595	17	619	16
8	610	16	603	17	626	15
9	617	16	611	16	632	15
10	624	15	618	16	638	15
11	630	15	626	16	644	14
12	637	15	634	17	650	14
13	644	15	642	17	656	14
14	650	15	650	18	662	14
15	657	15	660	19	668	15
16	663	16	671	20	675	15
17	671	16	684	23	681	15
18	678	17	701	27	688	16
19	686	17	728	36	696	17
20	695	18	752	49	704	18
21	706	20			714	19
22	718	22			726	22
23	735	26			742	26
24	762	36			768	36
25	785	49			791	49

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Table 7.5.3.27
Spring 2014 AIMS NRT SEM Table
Grade 7

	Reading		Language		Mathematics	
Raw Score	Scale Score	IRT SEM	Scale Score	IRT SEM	Scale Score	IRT SEM
0	497	49	507	49	521	49
1	521	36	530	36	544	36
2	547	26	557	26	570	26
3	564	22	574	22	587	22
4	577	20	586	20	599	20
5	587	18	597	19	609	18
6	597	17	606	18	617	17
7	605	17	615	17	625	16
8	612	16	623	17	632	16
9	620	16	630	16	639	15
10	627	15	638	16	646	15
11	633	15	645	16	652	15
12	640	15	653	17	658	15
13	646	15	661	17	664	15
14	653	15	670	18	671	15
15	660	15	680	19	677	15
16	667	16	691	20	683	15
17	674	16	704	23	690	16
18	682	17	721	27	698	16
19	690	17	748	37	705	17
20	699	19	772	49	714	18
21	710	20			724	20
22	722	22			737	22
23	739	27			753	26
24	766	36			780	36
25	790	49			803	49

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Table 7.5.3.28
Spring 2014 AIMS NRT SEM Table
Grade 8

	Reading		Language		Mathematics	
Raw Score	Scale Score	IRT SEM	Scale Score	IRT SEM	Scale Score	IRT SEM
0	511	49	504	49	547	49
1	534	36	527	36	571	36
2	561	26	554	26	597	26
3	577	22	570	22	614	22
4	590	20	583	20	626	20
5	600	18	594	19	636	18
6	609	17	603	18	645	17
7	617	16	612	17	653	16
8	624	16	620	17	660	16
9	631	15	627	16	667	15
10	638	15	635	16	673	15
11	644	15	642	16	679	15
12	650	15	650	17	685	15
13	657	15	658	17	692	15
14	663	15	667	18	698	15
15	669	15	676	19	704	15
16	676	15	687	20	710	15
17	683	16	700	22	717	16
18	690	16	717	27	724	16
19	698	17	744	36	732	17
20	707	18	767	49	740	18
21	717	20			750	19
22	730	22			762	22
23	746	26			779	26
24	773	36			805	36
25	796	49			828	49

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PART 8: TEST RESULTS

8.1 Data

Part 8 of this technical report contains information about the results of the Spring 2014 administration of AIMS 3-8 and AIMS High School. The first section provides information on the CRT scores from the AIMS assessments. The second section provides information on the NRT scores from AIMS 3-8. The 1999 AERA/APA/NCME standards addressed in Part 8 include: 1.5, 4.3, 4.5, 4.6, 4.7, 6.5, 7.1, 7.10, 13.15, and 13.19. The 2014 AERA/APA/NCME standards (AERA, APA, NCME, 2014) addressed by this chapter are: 1.10, 5.1, 5.2, 5.3, 5.8, 5.9, 7.2, 7.4, and 12.9. Please note that the corresponding information for the Fall 2013 AIMS administration can be found in Appendix A.

Results presented below are based on population data contained within the final electronic data files. The results presented in this part of the technical report may differ slightly from final testing results presented on the Arizona Department of Education website due to slight differences in the application of exclusion rules. Official final results typically use more detailed school-level information than is used to conduct research analyses. The results in the following tables are presented as evidence of reliability and validity of the AIMS assessments and should not be used for state accountability purposes.

8.1.1 AIMS CRT State Test Results

The AIMS CRT test results for mathematics and reading are each on a vertical scale for Grades 3-8. The AIMS CRT Grades 3-8 vertical scales each have a lowest obtainable scale score (LOSS) and a highest obtainable scale score (HOSS) that varies by subject. The AIMS test results for science for Grades 4, 8, and high school and writing for Grades 5, 6, 7, and high school are not on a vertical scale and therefore the scale scores across grades can not be compared. For each grade, the lowest obtainable scale score (LOSS) on the science tests is 200, and the highest obtainable scale score (HOSS) is 800.The LOSS on the writing tests is 300 and the HOSS is 700. The AIMS high school assessments for mathematics, reading, science, and writing are each on a separate scale and each has different LOSS and HOSS. The LOSS and HOSS values for each grade/subject can be found in Table 8.1.1.1.

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Table 8.1.1.1
Spring 2014 AIMS LOSS and HOSS Table

Content	Grade	Loss	Hoss
Reading	3	200	640
	4	220	660
	5	240	675
	6	250	690
	7	260	720
	8	270	800
	HS	500	900
Mathematics	3	100	540
	4	120	560
	5	140	580
	6	160	600
	7	180	620
	8	200	640
	HS	300	700
Writing	5	300	700
	6	300	700
	7	300	700
	HS	300	700
Science	4	200	800
	8	200	800
	HS	200	800

Test results for each grade level and content area CRT test follow in Tables 8.1.1.2 through 8.1.1.9. For each grade, scale score means and standard deviations as well as the percentages of students in each performance level are presented for the state as a whole and disaggregated into various demographic groups.

In addition to the descriptive statistics presented in Tables 8.1.1.2 through 8.1.1.9, scale score frequency distributions are also presented in Tables 8.1.1.10 through 8.1.1.40. Each grade and content area is presented in a separate table. These tables show the scale score, frequency (Freq), cumulative frequency (Cum Freq), percentage (%), and cumulative percentage (Cum %).

Results for AIMS high school assessments are reported by graduating cohort. Cohort 17 is defined as the group of students that expect to graduate in 2017 and typically includes 9th grade students. The results for Cohort 17 are reported only for science because Grade 9 science scores are used in the state accountability system. Cohort 16 is defined as the group of students that expect to graduate in 2016 and typically includes 10th grade students. Cohort 15 is defined as the group of students that expect to graduate in 2015 and typically includes 11th grade students. Cohort 14 is defined as the group of students that expect to graduate in 2014 and is typically composed of 12th grade students.

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Table 8.1.1.2
Spring 2014 AIMS State Test Results
Mathematics CRT Grades 3-8

		Scale Score		% at Performance Level			
	N	M	SD	FFBS	AS	MS	ES
Grade 3							
Total	83975	375.29	54.00	10	21	42	27
Hispanic	37328	361.28	49.04	13	26	44	17
Non Hispanic	46138	386.84	55.08	7	16	41	35
Ethnic Background							
White	66825	377.66	53.64	9	20	43	29
Black or African American	4757	357.46	49.03	16	26	43	16
Asian	2485	411.03	56.07	3	9	34	54
American Indian or Alaskan Native	6105	350.20	46.19	17	31	40	12
Native Hawaiian or Other Pacific Islander	322	376.86	53.46	9	19	45	27
Multiple Indication	2694	379.65	53.94	8	19	43	30
Special Program Membership							
English Learner Program	9192	329.09	38.13	28	40	28	3
Special Education	10796	335.39	50.59	31	32	27	10
Low SES	48515	360.98	49.18	13	26	43	17
Migrant	397	352.66	45.80	15	31	42	11
Grade 4							
Total	83245	382.35	51.05	17	22	37	25
Hispanic	36762	370.06	46.41	21	27	36	16
Non Hispanic	46080	392.34	52.42	13	18	38	31
Ethnic Background							
White	66212	384.31	50.50	15	22	38	26
Black or African American	4836	364.48	45.87	26	27	34	14
Asian	2570	417.88	58.24	7	10	33	50
American Indian or Alaskan Native	6070	361.49	44.73	27	29	32	12
Native Hawaiian or Other Pacific Islander	308	382.67	50.57	19	19	38	25
Multiple Indication	2507	385.59	50.72	14	21	37	27
Special Program Membership							
English Learner Program	8875	340.38	35.13	43	34	20	3
Special Education	10269	342.56	45.15	48	26	18	7
Low SES	47536	368.81	46.49	22	27	35	16
Migrant	361	356.85	41.58	30	32	29	9

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, and students attending state hospital schools are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes.

(table continues)

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Table 8.1.1.2 (continued)
Spring 2014 AIMS State Test Results
Mathematics CRT Grades 3-8

		Scale Score		% at Performance Level			
	N	M	SD	FFBS	AS	MS	ES
Grade 5							
Total	83442	396.64	47.51	17	21	43	20
Hispanic	36460	385.26	43.99	22	25	41	12
Non Hispanic	46604	405.70	48.21	13	17	44	25
Ethnic Background							
White	66864	398.74	46.87	15	20	44	20
Black or African American	4813	379.36	43.65	27	24	39	10
Asian	2545	427.48	52.23	7	11	40	42
American Indian or Alaskan Native	5883	374.97	42.30	29	28	35	8
Native Hawaiian or Other Pacific Islander	291	393.99	48.22	16	26	39	18
Multiple Indication	2359	399.65	47.65	15	19	45	21
Special Program Membership							
English Learner Program	6418	349.96	32.08	53	30	16	1
Special Education	10332	354.64	41.93	53	23	19	5
Low SES	47110	383.74	43.64	23	25	41	11
Migrant	378	375.73	41.49	29	27	36	8
Grade 6							
Total	82429	413.13	47.29	17	22	37	24
Hispanic	36117	402.76	42.88	21	26	37	16
Non Hispanic	46001	421.44	48.92	14	19	37	30
Ethnic Background							
White	66212	415.01	46.87	16	22	38	25
Black or African American	4848	396.55	41.98	26	27	34	13
Asian	2444	448.36	53.09	6	11	31	52
American Indian or Alaskan Native	5803	393.16	40.50	28	30	32	10
Native Hawaiian or Other Pacific Islander	248	415.41	47.87	19	17	37	27
Multiple Indication	2219	413.38	47.36	16	23	36	24
Special Program Membership							
English Learner Program	4395	366.84	30.98	55	30	14	2
Special Education	9625	369.24	37.91	56	25	15	5
Low SES	45833	400.56	42.74	23	27	35	15
Migrant	397	404.86	45.98	22	22	37	19

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, and students attending state hospital schools are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes.

(table continues)

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Table 8.1.1.2 (continued)
Spring 2014 AIMS State Test Results
Mathematics CRT Grades 3-8

		Scale Score		% at Performance Level			
	N	M	SD	FFBS	AS	MS	ES
Grade 7							
Total	82968	429.89	47.38	16	20	39	25
Hispanic	36316	418.39	42.57	21	24	39	16
Non Hispanic	46378	438.99	48.96	13	16	39	32
Ethnic Background							
White	66888	431.73	46.81	15	19	40	26
Black or African American	4744	412.04	41.88	26	26	36	12
Asian	2490	466.50	55.19	6	9	33	53
American Indian or Alaskan Native	5763	408.92	40.05	27	28	34	11
Native Hawaiian or Other Pacific Islander	312	431.55	44.44	16	15	46	23
Multiple Indication	2134	432.77	47.72	15	18	41	26
Special Program Membership							
English Learner Program	3789	379.62	28.81	58	28	12	1
Special Education	9147	383.03	35.70	57	24	15	4
Low SES	45541	416.65	42.18	22	25	39	15
Migrant	404	416.10	45.65	25	27	31	17
Grade 8							
Total	82246	439.84	47.63	27	14	36	23
Hispanic	35414	428.37	42.21	34	16	36	14
Non Hispanic	46554	448.66	49.56	22	12	37	29
Ethnic Background							
White	66279	441.72	47.04	25	14	37	24
Black or African American	4905	424.06	43.19	40	15	32	14
Asian	2425	477.35	56.99	12	7	29	52
American Indian or Alaskan Native	5750	418.63	39.24	44	16	31	9
Native Hawaiian or Other Pacific Islander	252	439.59	50.51	29	11	40	20
Multiple Indication	2055	441.01	47.37	26	14	38	22
Special Program Membership							
English Learner Program	2239	388.97	28.20	80	10	9	1
Special Education	8854	393.27	32.83	75	11	11	3
Low SES	43951	426.40	41.97	36	16	34	13
Migrant	380	420.34	44.13	46	12	29	12

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, and students attending state hospital schools are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes.

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Table 8.1.1.3
Spring 2014 AIMS State Test Results
Mathematics CRT High School

		Scale Score		% at Performance Level			
Group	N	M	SD	FFBS	AS	MS	ES
Cohort 16							
Total	75677	503.51	42.17	22	14	44	20
Hispanic	31953	492.59	36.48	29	17	43	11
Non Hispanic	43486	511.65	44.20	18	11	45	26
Ethnic Background							
White	61038	505.15	41.27	21	13	46	21
Black or African American	4581	488.58	37.34	33	17	40	10
Asian	2321	539.44	53.77	9	7	33	50
American Indian or Alaskan Native	4369	483.42	35.22	39	18	36	7
Native Hawaiian or Other Pacific Islander	277	497.05	40.82	28	17	42	13
Multiple Indication	2155	502.76	40.83	21	15	46	18
Special Program Membership							
English Learner Program	1359	460.33	26.92	70	15	15	1
Special Education	7206	458.49	29.13	73	12	13	2
Low SES	35947	490.36	36.72	31	17	41	10
Migrant	463	480.35	35.08	43	16	35	6
Cohort 15							
Total	17924	470.91	24.69	49	26	23	1
Hispanic	9955	469.56	23.55	51	26	22	1
Non Hispanic	7824	472.44	25.74	47	26	25	2
Ethnic Background							
White	13266	471.64	24.54	48	27	24	1
Black or African American	1489	467.71	23.46	53	26	20	1
Asian	284	480.96	33.37	37	28	28	7
American Indian or Alaskan Native	1752	466.54	23.06	57	25	18	0
Native Hawaiian or Other Pacific Islander	72	468.40	22.93	50	28	21	1
Multiple Indication	467	472.82	23.30	47	27	25	1
Special Program Membership							
English Learner Program	779	460.27	25.05	70	16	13	1
Special Education	3140	453.85	21.42	79	14	7	0
Low SES	11437	468.89	23.56	52	26	21	1
Migrant	211	465.40	24.36	59	23	17	1

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes. High school results are not on the same scale as Grade 3-8 results.

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Table 8.1.1.3 (continued)
Spring 2014 AIMS State Test Results
Mathematics CRT High School

		Scale Score		% at Performance Level			
Group	N	M	SD	FFBS	AS	MS	ES
Cohort 13 & 14							
Total	10987	467.59	23.49	54	26	18	1
Hispanic	6339	467.29	22.45	54	27	18	0
Non Hispanic	4554	468.09	24.77	54	25	19	1
Ethnic Background							
White	7675	468.32	23.66	53	27	19	1
Black or African American	1039	464.97	23.19	59	23	18	0
Asian	173	473.51	29.25	48	25	25	2
American Indian or Alaskan Native	1281	464.62	21.33	60	26	14	0
Native Hawaiian or Other Pacific Islander	47	468.51	23.66	55	28	17	0
Multiple Indication	247	468.94	23.38	53	30	16	1
Special Program Membership							
English Learner Program	588	458.64	23.28	72	16	12	0
Special Education	1991	450.19	19.46	85	12	4	0
Low SES	6908	467.07	22.64	55	27	18	0
Migrant	128	461.79	19.89	70	19	11	0

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes. High school results are not on the same scale as Grade 3-8 results.

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Table 8.1.1.4
Spring 2014 AIMS State Test Results
Reading CRT Grades 3-8

		Scale Score		% at Performance Level			
Group	N	M	SD	FFBS	AS	MS	ES
Grade 3							
Total	84007	464.91	44.73	3	20	66	11
Hispanic	37338	452.48	41.73	4	26	65	6
Non Hispanic	46160	475.12	44.49	2	14	68	16
Ethnic Background							
White	66852	466.88	44.55	2	18	67	12
Black or African American	4761	454.54	42.39	4	24	66	6
Asian	2484	487.80	43.83	1	9	64	25
American Indian or Alaskan Native	6104	442.73	38.73	4	33	60	3
Native Hawaiian or Other Pacific Islander	323	464.70	41.54	2	19	70	9
Multiple Indication	2694	469.69	43.87	2	17	69	12
Special Program Membership							
English Learner Program	9192	419.69	32.24	9	54	37	0
Special Education	10802	423.59	44.26	13	47	36	3
Low SES	48540	452.50	41.88	4	26	65	6
Migrant	397	437.71	40.31	6	36	56	3
Grade 4							
Total	83253	482.37	41.76	1	23	66	9
Hispanic	36767	469.86	37.71	2	31	63	4
Non Hispanic	46083	492.46	42.11	1	17	69	14
Ethnic Background							
White	66220	484.51	41.70	1	22	67	10
Black or African American	4834	470.27	38.61	2	30	63	4
Asian	2570	500.60	41.41	1	11	69	18
American Indian or Alaskan Native	6071	460.97	35.55	2	39	56	2
Native Hawaiian or Other Pacific Islander	308	480.72	41.87	1	22	68	9
Multiple Indication	2508	487.32	40.12	1	19	70	10
Special Program Membership							
English Learner Program	8879	441.01	26.46	4	62	34	0
Special Education	10267	446.73	38.79	6	56	35	3
Low SES	47544	469.32	37.79	2	32	63	4
Migrant	361	452.54	33.88	5	46	48	1

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, and students attending state hospital schools are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes.

(table continues)

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Table 8.1.1.4 (continued)
Spring 2014 AIMS State Test Results
Reading CRT Grades 3-8

		Scale Score		% at Performance Level			
Group	N	M	SD	FFBS	AS	MS	ES
Grade 5							
Total	83466	503.64	41.01	3	17	69	11
Hispanic	36468	492.64	39.05	4	23	68	5
Non Hispanic	46620	512.37	40.39	2	13	70	15
Ethnic Background							
White	66879	505.52	40.59	3	16	70	11
Black or African American	4815	493.80	39.73	4	23	67	6
Asian	2546	523.27	41.46	2	9	66	24
American Indian or Alaskan Native	5890	482.51	37.08	5	31	61	3
Native Hawaiian or Other Pacific Islander	291	500.81	39.77	3	18	69	9
Multiple Indication	2359	507.87	40.05	2	14	71	12
Special Program Membership							
English Learner Program	6420	455.35	28.79	14	54	32	0
Special Education	10342	463.56	39.22	14	46	37	2
Low SES	47125	491.73	38.83	4	23	67	5
Migrant	378	478.34	39.38	9	31	57	3
Grade 6							
Total	82440	514.59	42.18	3	17	72	8
Hispanic	36120	502.95	38.91	4	23	70	4
Non Hispanic	46008	523.84	42.35	2	13	73	12
Ethnic Background							
White	66221	516.66	41.78	2	16	73	9
Black or African American	4848	502.81	39.56	4	23	69	3
Asian	2444	537.53	43.19	2	8	69	21
American Indian or Alaskan Native	5801	492.19	37.68	5	31	62	2
Native Hawaiian or Other Pacific Islander	248	513.00	41.81	2	18	71	9
Multiple Indication	2222	517.85	41.11	2	14	74	9
Special Program Membership							
English Learner Program	4393	459.72	26.99	17	58	25	0
Special Education	9626	472.12	38.62	14	47	37	1
Low SES	45843	501.56	38.76	4	24	69	3
Migrant	397	492.52	39.71	7	31	60	2

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, and students attending state hospital schools are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes.

(table continues)

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Table 8.1.1.4 (continued)
Spring 2014 AIMS State Test Results
Reading CRT Grades 3-8

		Scale Score		% at Performance Level			
	N	M	SD	FFBS	AS	MS	ES
Grade 7							
Total	82990	535.85	41.39	1	13	76	10
Hispanic	36322	525.65	39.02	1	17	76	6
Non Hispanic	46392	543.91	41.40	1	10	76	14
Ethnic Background							
White	66904	537.60	41.06	1	12	77	11
Black or African American	4744	524.17	39.76	1	18	75	6
Asian	2490	557.15	42.01	0	7	71	22
American Indian or Alaskan Native	5765	516.27	37.37	1	23	73	3
Native Hawaiian or Other Pacific Islander	312	537.29	38.79	0	12	79	9
Multiple Indication	2135	540.15	40.03	1	9	79	11
Special Program Membership							
English Learner Program	3790	482.15	26.00	4	58	38	0
Special Education	9153	492.35	36.59	4	48	47	1
Low SES	45556	524.27	38.86	1	18	76	5
Migrant	405	515.31	40.91	1	28	66	5
Grade 8							
Total	82261	524.63	48.77	8	22	66	4
Hispanic	35422	512.29	45.68	11	28	60	2
Non Hispanic	46561	534.12	48.89	6	17	71	5
Ethnic Background							
White	66289	526.97	48.22	7	21	68	4
Black or African American	4906	511.00	48.00	13	28	58	2
Asian	2425	548.18	50.49	5	11	74	10
American Indian or Alaskan Native	5753	501.26	44.56	14	36	50	1
Native Hawaiian or Other Pacific Islander	252	521.63	47.31	10	20	68	3
Multiple Indication	2056	528.17	46.90	7	20	69	4
Special Program Membership							
English Learner Program	2241	452.09	30.66	54	39	7	0
Special Education	8861	470.81	42.46	37	40	23	0
Low SES	43959	510.25	46.03	12	29	58	1
Migrant	380	496.88	45.24	19	34	46	1

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, and students attending state hospital schools are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes.

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Table 8.1.1.5
Spring 2014 AIMS State Test Results
Reading CRT High School

		Scale Score		% at Performance Level			
	N	M	SD	FFBS	AS	MS	ES
Cohort 16							
Total	77205	721.14	45.02	1	13	73	13
Hispanic	32397	708.64	40.29	1	18	75	6
Non Hispanic	44466	730.38	46.03	1	10	71	18
Ethnic Background							
White	61968	723.55	44.60	1	12	74	13
Black or African American	4628	706.38	41.53	1	20	73	6
Asian	2361	743.09	49.39	1	8	64	28
American Indian or Alaskan Native	4543	697.68	37.83	1	24	71	3
Native Hawaiian or Other Pacific Islander	277	711.84	41.77	1	15	75	9
Multiple Indication	2148	724.06	45.15	1	11	75	13
Special Program Membership							
English Learner Program	1405	661.33	25.90	5	66	29	0
Special Education	7472	672.87	36.04	5	51	43	1
Low SES	36590	706.12	40.53	1	20	74	6
Migrant	433	689.71	40.56	3	33	62	2
Cohort 15							
Total	8119	682.90	44.46	4	45	45	6
Hispanic	4380	674.99	36.67	4	50	43	2
Non Hispanic	3611	691.38	50.33	3	41	46	10
Ethnic Background							
White	5612	684.14	45.55	4	45	45	7
Black or African American	706	675.07	39.20	4	52	41	3
Asian	261	700.18	54.77	2	38	44	16
American Indian or Alaskan Native	822	669.02	28.78	4	54	42	1
Native Hawaiian or Other Pacific Islander	32	685.00	41.65	6	44	44	6
Multiple Indication	176	683.63	40.53	3	42	50	5
Special Program Membership							
English Learner Program	774	659.12	21.82	6	66	27	0
Special Education	2136	657.91	24.08	7	68	25	0
Low SES	5349	674.78	36.58	4	50	43	2
Migrant	178	671.56	31.65	6	48	45	1

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes. High school results are not on the same scale as Grades 3-8 results.

(table continues)

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Table 8.1.1.5 (continued)
Spring 2014 AIMS State Test Results
Reading CRT High School

		Scale Score		% at Performance Level			
	N	M	SD	FFBS	AS	MS	ES
Cohort 13 & 14							
Total	3857	669.77	34.29	4	57	37	2
Hispanic	2146	667.53	30.30	4	58	37	1
Non Hispanic	1670	672.64	38.70	5	55	37	3
Ethnic Background							
White	2494	669.64	34.92	4	57	36	2
Black or African American	421	666.06	29.64	5	59	35	1
Asian	125	679.08	39.94	0	56	38	6
American Indian or Alaskan Native	475	665.61	29.40	4	59	35	1
Native Hawaiian or Other Pacific Islander	30	682.03	39.58	0	50	47	3
Multiple Indication	50	675.78	30.41	0	52	48	0
Special Program Membership							
English Learner Program	569	659.55	21.79	4	72	25	0
Special Education	1257	653.72	22.48	8	74	18	0
Low SES	2470	665.63	30.24	5	61	34	1
Migrant	83	659.67	18.87	4	73	23	0

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes. High school results are not on the same scale as Grades 3-8 results.

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Table 8.1.1.6
Spring 2014 AIMS State Test Results
Writing CRT Grades 5-7

		Scale Score		% at Performance Level			
Group	N	M	SD	FFBS	AS	MS	ES
Grade 5							
Total	82222	499.31	44.18	7	40	50	3
Hispanic	35781	488.57	39.65	9	48	41	1
Non Hispanic	46078	507.78	45.64	5	34	57	4
Ethnic Background							
White	65967	500.72	43.94	7	39	51	3
Black or African American	4715	489.24	41.24	9	47	41	2
Asian	2518	525.26	51.70	3	23	65	10
American Indian or Alaskan Native	5744	480.63	36.47	11	55	33	1
Native Hawaiian or Other Pacific Islander	287	499.74	42.74	5	40	53	1
Multiple Indication	2329	503.18	42.36	5	38	54	3
Special Program Membership							
English Learner Program	6066	455.21	30.47	27	65	9	0
Special Education	10058	457.56	39.77	32	53	15	0
Low SES	46197	486.53	38.67	10	50	40	1
Migrant	362	478.23	40.63	15	55	29	1
Grade 6							
Total	81864	501.63	46.65	10	33	52	5
Hispanic	35856	490.39	41.10	13	41	44	2
Non Hispanic	45705	510.56	48.78	8	27	58	7
Ethnic Background							
White	65808	503.24	46.39	10	32	53	5
Black or African American	4805	491.42	44.00	14	38	44	3
Asian	2429	528.93	52.72	4	17	66	12
American Indian or Alaskan Native	5734	481.16	39.45	18	46	35	1
Native Hawaiian or Other Pacific Islander	246	499.71	44.32	11	31	54	3
Multiple Indication	2208	504.48	46.71	8	33	54	5
Special Program Membership							
English Learner Program	4254	449.50	31.41	45	48	6	0
Special Education	9469	456.73	40.61	42	41	16	1
Low SES	45440	488.09	40.82	15	42	42	2
Migrant	388	479.52	42.16	22	42	36	1

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, and students attending state hospital schools are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes.

(table continues)

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Table 8.1.1.6 (continued)
Spring 2014 AIMS State Test Results
Writing CRT Grades 5-7

		Scale Score		% at Performance Level			
Group	N	M	SD	FFBS	AS	MS	ES
Grade 7							
Total	81989	497.19	41.82	11	37	51	2
Hispanic	35841	487.55	37.60	14	43	42	1
Non Hispanic	45878	504.83	43.35	8	31	58	3
Ethnic Background							
White	66180	498.40	41.42	10	36	52	2
Black or African American	4659	487.07	38.94	15	42	42	1
Asian	2467	524.00	49.95	5	21	67	7
American Indian or Alaskan Native	5644	479.95	35.70	17	48	34	0
Native Hawaiian or Other Pacific Islander	304	499.97	41.88	11	32	56	2
Multiple Indication	2116	501.54	40.95	8	35	55	2
Special Program Membership							
English Learner Program	3583	446.19	28.55	52	43	5	0
Special Education	8785	454.12	34.55	46	42	12	0
Low SES	44849	485.27	37.01	15	44	40	1
Migrant	399	477.86	44.80	25	39	34	1

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, and students attending state hospital schools are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes.

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Table 8.1.1.7
Spring 2014 AIMS State Test Results
Writing CRT High School

		Scale Score		% at Performance Level			
Group	N	M	SD	FFBS	AS	MS	ES
Prompt A, Cohort 16							
Total	75105	507.61	44.38	4	21	71	4
Hispanic	31611	496.83	40.64	5	27	66	2
Non Hispanic	43195	515.65	45.28	3	16	75	6
Ethnic Background							
White	60587	509.11	43.46	4	19	73	4
Black or African American	4452	496.92	42.30	6	27	65	2
Asian	2315	535.32	55.64	3	12	69	16
American Indian or Alaskan Native	4308	486.55	39.35	8	34	56	1
Native Hawaiian or Other Pacific Islander	268	503.18	42.34	5	23	69	3
Multiple Indication	2091	510.01	44.21	3	19	72	5
Special Program Membership							
English Learner Program	1250	437.07	32.90	45	45	10	0
Special Education	7052	457.04	36.69	26	48	26	0
Low SES	35572	493.75	40.54	6	29	63	2
Migrant	458	477.90	40.58	13	38	48	1
Prompt A, Cohort 15							
Total	12244	474.53	40.71	12	48	38	2
Hispanic	6631	468.27	35.03	13	52	34	1
Non Hispanic	5436	481.19	44.80	11	43	43	3
Ethnic Background							
White	8840	475.54	40.78	12	47	39	2
Black or African American	955	468.87	36.63	15	49	36	1
Asian	305	485.71	54.05	12	42	40	5
American Indian or Alaskan Native	1226	462.45	30.61	16	57	27	0
Native Hawaiian or Other Pacific Islander	38	473.66	43.62	13	47	37	3
Multiple Indication	274	477.63	33.41	7	47	45	1
Special Program Membership							
English Learner Program	829	440.59	31.62	39	50	11	0
Special Education	2609	448.81	29.93	29	56	14	0
Low SES	7861	467.18	35.22	15	52	33	1
Migrant	168	453.89	31.33	21	57	22	0

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes. High school results are not on the same scale as Grades 3-8 results.

(table continues)

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Table 8.1.1.7 (continued)
Spring 2014 AIMS State Test Results
Writing CRT High School

		Scale Score		% at Performance Level			
Group	N	M	SD	FFBS	AS	MS	ES
Prompt A, Cohort 13 & 14							
Total	6348	462.36	33.59	17	56	27	0
Hispanic	3684	461.56	31.36	16	58	26	0
Non Hispanic	2619	463.34	36.26	18	52	29	1
Ethnic Background							
White	4268	462.82	33.46	16	56	27	0
Black or African American	563	460.42	33.42	20	55	25	0
Asian	204	468.08	37.32	17	49	34	0
American Indian or Alaskan Native	816	456.97	29.37	19	59	22	0
Native Hawaiian or Other Pacific Islander	39	458.31	35.47	26	49	26	0
Multiple Indication	107	468.30	36.60	15	49	36	1
Special Program Membership							
English Learner Program	701	444.83	31.90	34	53	13	0
Special Education	1641	443.93	28.31	34	56	10	0
Low SES	4260	459.98	30.85	17	58	25	0
Migrant	113	453.94	28.57	19	65	17	0
Prompt T, Cohort 16							
Total	1809	489.41	45.16	10	33	55	3
Hispanic	764	481.28	40.34	12	37	51	1
Non Hispanic	1014	496.38	47.40	9	29	59	4
Ethnic Background							
White	1343	493.59	45.61	8	30	59	3
Black or African American	118	479.27	41.23	15	36	48	1
Asian	24	512.54	63.06	8	29	50	13
American Indian or Alaskan Native	176	470.30	39.50	19	42	39	0
Native Hawaiian or Other Pacific Islander	11	482.27	37.84	9	45	45	0
Multiple Indication	48	494.65	36.13	6	33	58	2
Special Program Membership							
English Learner Program	38	427.11	28.18	58	39	3	0
Special Education	272	447.40	35.00	36	48	16	0
Low SES	1005	477.39	39.90	13	39	47	1
Migrant	18	465.83	40.68	17	39	44	0

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes. High school results are not on the same scale as Grades 3-8 results. To comply with FERPA regulations, results for subgroups of less than 11 are redacted and marked instead with an *.

(table continues)

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Table 8.1.1.7 (continued)
Spring 2014 AIMS State Test Results
Writing CRT High School

		Scale Score		% at Performance Level			
Group	N	M	SD	FFBS	AS	MS	ES
Prompt T, Cohort 15							
Total	895	472.78	34.98	10	51	39	1
Hispanic	431	468.57	29.68	10	56	34	0
Non Hispanic	451	476.37	38.93	10	46	42	2
Ethnic Background							
White	641	474.77	35.38	8	51	40	1
Black or African American	88	465.40	32.07	16	52	32	0
Asian	12	483.33	59.07	17	50	25	8
American Indian or Alaskan Native	87	464.99	30.78	15	51	34	0
Native Hawaiian or Other Pacific Islander	8	*	*	*	*	*	*
Multiple Indication	18	481.00	27.17	6	44	50	0
Special Program Membership							
English Learner Program	34	428.50	27.42	56	44	0	0
Special Education	216	450.48	27.65	25	59	16	0
Low SES	534	467.65	30.25	10	56	34	0
Migrant	8	*	*	*	*	*	*
Prompt T, Cohort 13 & 14							
Total	465	461.12	30.61	17	58	25	0
Hispanic	261	458.58	28.47	20	57	23	0
Non Hispanic	202	464.56	33.04	13	59	28	0
Ethnic Background							
White	296	462.22	31.44	16	56	28	0
Black or African American	47	460.83	28.02	15	66	19	0
Asian	3	*	*	*	*	*	*
American Indian or Alaskan Native	67	455.87	29.42	18	64	18	0
Native Hawaiian or Other Pacific Islander	7	*	*	*	*	*	*
Multiple Indication	7	*	*	*	*	*	*
Special Program Membership							
English Learner Program	31	437.68	24.32	42	58	0	0
Special Education	137	442.83	25.81	33	62	5	0
Low SES	287	461.04	29.82	17	58	25	0
Migrant	15	459.67	22.26	7	80	13	0

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes. High school results are not on the same scale as Grades 3-8 results. To comply with FERPA regulations, results for subgroups of less than 11 are redacted and marked instead with an *.

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Table 8.1.1.8
Spring 2014 AIMS State Test Results
Science CRT Grades 4 and 8

		Scale Score		% at Performance Level			
	N	M	SD	FFBS	AS	MS	ES
Grade 4							
Total	83244	513.52	46.63	12	29	36	23
Hispanic	36759	497.62	40.08	17	38	34	11
Non Hispanic	46087	526.33	47.56	8	22	38	32
Ethnic Background							
White	66224	516.00	46.43	11	28	37	24
Black or African American	4833	497.62	41.39	18	37	34	11
Asian	2570	539.33	52.07	7	15	36	43
American Indian or Alaskan Native	6067	488.81	37.20	22	43	29	6
Native Hawaiian or Other Pacific Islander	307	512.37	43.60	10	32	39	19
Multiple Indication	2510	517.83	45.37	9	27	39	24
Special Program Membership							
English Learner Program	8881	469.18	28.51	39	48	13	1
Special Education	10271	483.96	42.31	31	39	22	9
Low SES	47551	497.83	40.41	17	38	34	11
Migrant	362	477.35	34.34	35	42	20	4
Grade 8							
Total	82345	516.77	45.70	18	20	24	38
Hispanic	35458	502.43	40.31	24	26	26	24
Non Hispanic	46612	527.77	46.48	13	16	23	48
Ethnic Background							
White	66348	519.21	45.16	16	19	25	40
Black or African American	4915	501.74	42.07	27	23	26	24
Asian	2425	544.90	51.68	9	11	18	62
American Indian or Alaskan Native	5764	491.88	37.93	33	29	22	16
Native Hawaiian or Other Pacific Islander	252	514.00	45.79	19	19	26	36
Multiple Indication	2058	519.71	45.42	15	20	26	39
Special Program Membership							
English Learner Program	2252	455.39	26.04	77	18	4	1
Special Education	8883	474.28	38.87	55	23	12	9
Low SES	44020	501.91	40.77	25	26	25	24
Migrant	382	489.51	39.22	35	30	20	15

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes. High school results are not on the same scale as Grades 3-8 results.

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Table 8.1.1.9
Spring 2014 AIMS State Test Results
Science CRT High School

		Scale Score		% at Performance Level			
	N	M	SD	FFBS	AS	MS	ES
Cohort 17							
Total	26132	514.55	53.06	24	16	27	33
Hispanic	8589	495.81	48.18	34	20	27	19
Non Hispanic	16901	524.60	52.84	18	14	27	41
Ethnic Background							
White	21146	516.12	52.26	22	16	27	34
Black or African American	1182	494.10	48.55	36	19	26	19
Asian	1138	547.83	55.04	10	9	22	59
American Indian or Alaskan Native	602	489.95	46.17	39	21	24	15
Native Hawaiian or Other Pacific Islander	110	503.40	49.92	30	20	23	27
Multiple Indication	602	516.41	50.61	21	18	28	33
Special Program Membership							
English Learner Program	184	429.11	28.94	92	5	2	1
Special Education	1452	454.15	46.74	73	11	9	6
Low SES	9283	493.78	48.80	36	20	25	19
Migrant	20	466.45	48.86	60	5	25	10
Cohort 16							
Total	49947	487.29	52.86	44	17	21	18
Hispanic	22972	472.78	46.39	55	18	18	9
Non Hispanic	26757	499.81	54.81	34	16	24	25
Ethnic Background							
White	39376	490.07	52.88	41	18	22	19
Black or African American	3295	472.76	48.17	55	17	18	10
Asian	1214	514.93	62.03	27	12	24	37
American Indian or Alaskan Native	3622	465.44	43.22	62	18	14	6
Native Hawaiian or Other Pacific Islander	183	482.01	48.39	49	14	25	13
Multiple Indication	1447	492.06	52.48	39	19	22	20
Special Program Membership							
English Learner Program	1034	425.30	26.88	95	4	1	0
Special Education	5468	444.05	41.33	81	9	7	4
Low SES	26387	471.76	46.93	56	18	17	9
Migrant	429	447.69	38.46	75	15	9	1

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. These results should not be used for accountability purposes. High school results are not on the same scale as Grades 3-8 results.

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Table 8.1.1.10
Spring 2014 AIMS Frequency Distribution
Mathematics CRT Grade 3

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	100	0	0.00	0	0.00	34	337	1543	1.83	22374	26.58
1	138	3	0.00	3	0.00	35	340	1657	1.97	24031	28.55
2	169	0	0.00	3	0.00	36	344	1629	1.94	25660	30.48
3	188	0	0.00	3	0.00	**37**	**347**	**1706**	**2.03**	**27366**	**32.51**
4	201	0	0.00	3	0.00	38	350	1767	2.10	29133	34.61
5	212	0	0.00	3	0.00	39	353	1736	2.06	30869	36.67
6	221	2	0.00	5	0.01	40	356	1782	2.12	32651	38.79
7	229	2	0.00	7	0.01	41	359	1839	2.18	34490	40.97
8	236	15	0.02	22	0.03	42	363	1944	2.31	36434	43.28
9	242	25	0.03	47	0.06	43	366	2102	2.50	38536	45.78
10	248	68	0.08	115	0.14	44	370	2109	2.51	40645	48.28
11	254	106	0.13	221	0.26	45	373	2115	2.51	42760	50.80
12	259	141	0.17	362	0.43	46	377	2129	2.53	44889	53.33
13	264	241	0.29	603	0.72	47	380	2223	2.64	47112	55.97
14	268	316	0.38	919	1.09	48	384	2251	2.67	49363	58.64
15	272	439	0.52	1358	1.61	49	388	2369	2.81	51732	61.45
16	277	538	0.64	1896	2.25	50	392	2310	2.74	54042	64.20
17	281	667	0.79	2563	3.04	51	396	2348	2.79	56390	66.99
18	284	754	0.90	3317	3.94	52	400	2383	2.83	58773	69.82
19	288	848	1.01	4165	4.95	53	405	2465	2.93	61238	72.75
20	292	898	1.07	5063	6.01	**54**	**410**	**2375**	**2.82**	**63613**	**75.57**
21	295	985	1.17	6048	7.18	55	415	2410	2.86	66023	78.43
22	299	1059	1.26	7107	8.44	56	420	2404	2.86	68427	81.29
23	302	1037	1.23	8144	9.67	57	426	2350	2.79	70777	84.08
24	**306**	**1101**	**1.31**	**9245**	**10.98**	58	432	2266	2.69	73043	86.77
25	309	1183	1.41	10428	12.39	59	439	2190	2.60	75233	89.37
26	312	1151	1.37	11579	13.76	60	447	2037	2.42	77270	91.79
27	315	1181	1.40	12760	15.16	61	456	1815	2.16	79085	93.95
28	319	1253	1.49	14013	16.65	62	467	1712	2.03	80797	95.98
29	322	1347	1.60	15360	18.25	63	481	1441	1.71	82238	97.69
30	325	1303	1.55	16663	19.79	64	499	1018	1.21	83256	98.90
31	328	1353	1.61	18016	21.40	65	530	668	0.79	83924	99.70
32	331	1331	1.58	19347	22.98	66	540	256	0.30	84180	100.00
33	334	1484	1.76	20831	24.75						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.11
Spring 2014 AIMS Frequency Distribution
Mathematics CRT Grade 4

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	120	0	0.00	0	0.00	35	352	1599	1.92	25440	30.50
1	158	0	0.00	0	0.00	36	355	1638	1.96	27078	32.46
2	188	0	0.00	0	0.00	37	358	1716	2.06	28794	34.52
3	207	1	0.00	1	0.00	38	360	1726	2.07	30520	36.59
4	220	1	0.00	2	0.00	39	363	1733	2.08	32253	38.67
5	230	0	0.00	2	0.00	**40**	**366**	**1782**	**2.14**	**34035**	**40.80**
6	239	0	0.00	2	0.00	41	369	1818	2.18	35853	42.98
7	247	3	0.00	5	0.01	42	372	1956	2.35	37809	45.33
8	253	11	0.01	16	0.02	43	375	2007	2.41	39816	47.74
9	260	10	0.01	26	0.03	44	379	1915	2.30	41731	50.03
10	265	30	0.04	56	0.07	45	382	1959	2.35	43690	52.38
11	270	63	0.08	119	0.14	46	385	2052	2.46	45742	54.84
12	275	128	0.15	247	0.30	47	388	2027	2.43	47769	57.27
13	280	173	0.21	420	0.50	48	392	2208	2.65	49977	59.92
14	284	312	0.37	732	0.88	49	395	2098	2.52	52075	62.43
15	288	459	0.55	1191	1.43	50	399	2189	2.62	54264	65.06
16	292	516	0.62	1707	2.05	51	402	2153	2.58	56417	67.64
17	296	641	0.77	2348	2.82	52	406	2187	2.62	58604	70.26
18	299	803	0.96	3151	3.78	53	410	2099	2.52	60703	72.78
19	303	949	1.14	4100	4.92	54	414	2210	2.65	62913	75.43
20	306	1065	1.28	5165	6.19	**55**	**419**	**2176**	**2.61**	**65089**	**78.04**
21	310	1103	1.32	6268	7.51	56	423	2119	2.54	67208	80.58
22	313	1173	1.41	7441	8.92	57	428	2071	2.48	69279	83.06
23	316	1220	1.46	8661	10.38	58	433	1996	2.39	71275	85.45
24	319	1217	1.46	9878	11.84	59	439	1998	2.40	73273	87.85
25	322	1270	1.52	11148	13.37	60	445	1794	2.15	75067	90.00
26	325	1336	1.60	12484	14.97	61	452	1693	2.03	76760	92.03
27	328	1328	1.59	13812	16.56	62	460	1582	1.90	78342	93.92
28	**331**	**1306**	**1.57**	**15118**	**18.12**	63	468	1428	1.71	79770	95.64
29	334	1382	1.66	16500	19.78	64	479	1193	1.43	80963	97.07
30	337	1398	1.68	17898	21.46	65	492	984	1.18	81947	98.25
31	340	1477	1.77	19375	23.23	66	511	742	0.89	82689	99.14
32	343	1454	1.74	20829	24.97	67	541	497	0.60	83186	99.73
33	346	1503	1.80	22332	26.77	68	560	224	0.27	83410	100.00
34	349	1509	1.81	23841	28.58						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.12
Spring 2014 AIMS Frequency Distribution
Mathematics CRT Grade 5

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	140	0	0.00	0	0.00	34	367	1624	1.94	24361	29.15
1	173	0	0.00	0	0.00	35	370	1677	2.01	26038	31.16
2	203	0	0.00	0	0.00	36	373	1666	1.99	27704	33.15
3	222	0	0.00	0	0.00	37	376	1806	2.16	29510	35.31
4	235	0	0.00	0	0.00	38	379	1870	2.24	31380	37.55
5	246	0	0.00	0	0.00	**39**	**382**	**1831**	**2.19**	**33211**	**39.74**
6	255	4	0.00	4	0.00	40	385	1990	2.38	35201	42.12
7	263	4	0.00	8	0.01	41	388	2090	2.50	37291	44.62
8	270	8	0.01	16	0.02	42	391	2078	2.49	39369	47.11
9	276	25	0.03	41	0.05	43	394	2182	2.61	41551	49.72
10	281	35	0.04	76	0.09	44	398	2279	2.73	43830	52.44
11	287	97	0.12	173	0.21	45	401	2263	2.71	46093	55.15
12	292	132	0.16	305	0.36	46	404	2330	2.79	48423	57.94
13	296	211	0.25	516	0.62	47	408	2356	2.82	50779	60.76
14	301	318	0.38	834	1.00	48	411	2350	2.81	53129	63.57
15	305	470	0.56	1304	1.56	49	415	2374	2.84	55503	66.41
16	309	579	0.69	1883	2.25	50	419	2416	2.89	57919	69.30
17	313	710	0.85	2593	3.10	51	422	2302	2.75	60221	72.06
18	316	868	1.04	3461	4.14	52	426	2354	2.82	62575	74.87
19	320	973	1.16	4434	5.31	53	431	2367	2.83	64942	77.71
20	324	1050	1.26	5484	6.56	54	435	2298	2.75	67240	80.45
21	327	1155	1.38	6639	7.94	**55**	**440**	**2237**	**2.68**	**69477**	**83.13**
22	330	1173	1.40	7812	9.35	56	445	2192	2.62	71669	85.75
23	334	1203	1.44	9015	10.79	57	450	2068	2.47	73737	88.23
24	337	1260	1.51	10275	12.29	58	456	1912	2.29	75649	90.52
25	340	1197	1.43	11472	13.73	59	462	1744	2.09	77393	92.60
26	343	1264	1.51	12736	15.24	60	469	1536	1.84	78929	94.44
27	346	1402	1.68	14138	16.92	61	477	1320	1.58	80249	96.02
28	**349**	**1373**	**1.64**	**15511**	**18.56**	62	485	1153	1.38	81402	97.40
29	352	1309	1.57	16820	20.13	63	496	863	1.03	82265	98.43
30	355	1423	1.70	18243	21.83	64	510	643	0.77	82908	99.20
31	358	1456	1.74	19699	23.57	65	528	393	0.47	83301	99.67
32	361	1480	1.77	21179	25.34	66	559	203	0.24	83504	99.92
33	364	1558	1.86	22737	27.21	67	580	71	0.08	83575	100.00

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.13
Spring 2014 AIMS Frequency Distribution
Mathematics CRT Grade 6

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	160	0	0.00	0	0.00	35	390	1752	2.12	28512	34.52
1	196	0	0.00	0	0.00	36	393	1872	2.27	30384	36.79
2	227	0	0.00	0	0.00	37	396	1986	2.40	32370	39.20
3	245	0	0.00	0	0.00	**38**	**399**	**1879**	**2.28**	**34249**	**41.47**
4	258	0	0.00	0	0.00	39	402	1958	2.37	36207	43.84
5	269	0	0.00	0	0.00	40	405	1985	2.40	38192	46.25
6	277	2	0.00	2	0.00	41	408	2046	2.48	40238	48.72
7	285	8	0.01	10	0.01	42	411	2044	2.47	42282	51.20
8	292	12	0.01	22	0.03	43	413	2018	2.44	44300	53.64
9	298	28	0.03	50	0.06	44	417	2088	2.53	46388	56.17
10	304	44	0.05	94	0.11	45	420	2113	2.56	48501	58.73
11	309	78	0.09	172	0.21	46	423	2130	2.58	50631	61.31
12	314	156	0.19	328	0.40	47	426	2068	2.50	52699	63.81
13	318	243	0.29	571	0.69	48	429	2038	2.47	54737	66.28
14	323	358	0.43	929	1.12	49	433	2105	2.55	56842	68.83
15	327	460	0.56	1389	1.68	50	436	2003	2.43	58845	71.25
16	331	624	0.76	2013	2.44	51	440	1976	2.39	60821	73.65
17	334	815	0.99	2828	3.42	52	443	1995	2.42	62816	76.06
18	338	873	1.06	3701	4.48	**53**	**447**	**1965**	**2.38**	**64781**	**78.44**
19	342	1043	1.26	4744	5.74	54	451	1872	2.27	66653	80.71
20	345	1134	1.37	5878	7.12	55	455	1864	2.26	68517	82.96
21	348	1260	1.53	7138	8.64	56	460	1867	2.26	70384	85.23
22	352	1267	1.53	8405	10.18	57	465	1693	2.05	72077	87.28
23	355	1322	1.60	9727	11.78	58	470	1610	1.95	73687	89.22
24	358	1333	1.61	11060	13.39	59	475	1564	1.89	75251	91.12
25	361	1460	1.77	12520	15.16	60	481	1443	1.75	76694	92.87
26	364	1432	1.73	13952	16.89	61	488	1301	1.58	77995	94.44
27	367	1402	1.70	15354	18.59	62	495	1155	1.40	79150	95.84
28	**370**	**1606**	**1.94**	**16960**	**20.54**	63	504	1063	1.29	80213	97.13
29	373	1508	1.83	18468	22.36	64	515	874	1.06	81087	98.18
30	376	1614	1.95	20082	24.32	65	528	633	0.77	81720	98.95
31	379	1612	1.95	21694	26.27	66	546	470	0.57	82190	99.52
32	382	1673	2.03	23367	28.29	67	576	271	0.33	82461	99.85
33	385	1629	1.97	24996	30.27	68	600	125	0.15	82586	100.00
34	387	1764	2.14	26760	32.40						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.14
Spring 2014 AIMS Frequency Distribution
Mathematics CRT Grade 7

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	180	0	0.00	0	0.00	35	409	1884	2.27	29975	36.07
1	215	0	0.00	0	0.00	**36**	**412**	**1885**	**2.27**	**31860**	**38.34**
2	246	0	0.00	0	0.00	37	415	1853	2.23	33713	40.57
3	264	0	0.00	0	0.00	38	417	1995	2.40	35708	42.97
4	277	1	0.00	1	0.00	39	420	1953	2.35	37661	45.32
5	288	2	0.00	3	0.00	40	423	2077	2.50	39738	47.82
6	296	2	0.00	5	0.01	41	426	2013	2.42	41751	50.24
7	304	6	0.01	11	0.01	42	429	2038	2.45	43789	52.69
8	311	21	0.03	32	0.04	43	432	2107	2.54	45896	55.23
9	317	35	0.04	67	0.08	44	435	2006	2.41	47902	57.64
10	322	62	0.07	129	0.16	45	439	2087	2.51	49989	60.15
11	328	105	0.13	234	0.28	46	442	2083	2.51	52072	62.66
12	332	181	0.22	415	0.50	47	445	2107	2.54	54179	65.19
13	337	302	0.36	717	0.86	48	448	2085	2.51	56264	67.70
14	341	410	0.49	1127	1.36	49	452	2118	2.55	58382	70.25
15	345	575	0.69	1702	2.05	50	455	2028	2.44	60410	72.69
16	349	725	0.87	2427	2.92	51	459	2052	2.47	62462	75.16
17	353	843	1.01	3270	3.93	**52**	**463**	**1965**	**2.36**	**64427**	**77.52**
18	357	1006	1.21	4276	5.15	53	467	1937	2.33	66364	79.86
19	360	1106	1.33	5382	6.48	54	471	1873	2.25	68237	82.11
20	364	1165	1.40	6547	7.88	55	475	1861	2.24	70098	84.35
21	367	1239	1.49	7786	9.37	56	480	1776	2.14	71874	86.49
22	370	1338	1.61	9124	10.98	57	485	1678	2.02	73552	88.50
23	373	1388	1.67	10512	12.65	58	490	1587	1.91	75139	90.41
24	376	1407	1.69	11919	14.34	59	496	1490	1.79	76629	92.21
25	379	1493	1.80	13412	16.14	60	502	1381	1.66	78010	93.87
26	**383**	**1508**	**1.81**	**14920**	**17.95**	61	509	1169	1.41	79179	95.28
27	386	1429	1.72	16349	19.67	62	516	1020	1.23	80199	96.50
28	388	1538	1.85	17887	21.52	63	525	922	1.11	81121	97.61
29	391	1609	1.94	19496	23.46	64	536	692	0.83	81813	98.45
30	394	1712	2.06	21208	25.52	65	549	557	0.67	82370	99.12
31	397	1673	2.01	22881	27.53	66	567	409	0.49	82779	99.61
32	400	1714	2.06	24595	29.60	67	598	243	0.29	83022	99.90
33	403	1735	2.09	26330	31.68	68	620	83	0.10	83105	100.00
34	406	1761	2.12	28091	33.80						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.15
Spring 2014 AIMS Frequency Distribution
Mathematics CRT Grade 8

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	200	0	0.00	0	0.00	35	423	1874	2.28	33738	40.96
1	226	0	0.00	0	0.00	**36**	**426**	**1937**	**2.35**	**35675**	**43.31**
2	257	1	0.00	1	0.00	37	429	1821	2.21	37496	45.52
3	276	0	0.00	1	0.00	38	431	1912	2.32	39408	47.84
4	289	0	0.00	1	0.00	39	434	1977	2.40	41385	50.24
5	300	0	0.00	1	0.00	40	437	1941	2.36	43326	52.60
6	309	3	0.00	4	0.00	41	440	1918	2.33	45244	54.93
7	317	4	0.00	8	0.01	42	443	1911	2.32	47155	57.25
8	324	9	0.01	17	0.02	43	446	1878	2.28	49033	59.53
9	330	26	0.03	43	0.05	44	449	1840	2.23	50873	61.76
10	336	61	0.07	104	0.13	45	452	1883	2.29	52756	64.05
11	341	121	0.15	225	0.27	46	455	1882	2.28	54638	66.33
12	346	200	0.24	425	0.52	47	458	1834	2.23	56472	68.56
13	350	297	0.36	722	0.88	48	462	1703	2.07	58175	70.63
14	355	424	0.51	1146	1.39	49	465	1883	2.29	60058	72.91
15	359	586	0.71	1732	2.10	50	469	1753	2.13	61811	75.04
16	363	781	0.95	2513	3.05	51	472	1769	2.15	63580	77.19
17	367	931	1.13	3444	4.18	**52**	**476**	**1703**	**2.07**	**65283**	**79.26**
18	371	1089	1.32	4533	5.50	53	480	1709	2.07	66992	81.33
19	374	1211	1.47	5744	6.97	54	484	1618	1.96	68610	83.30
20	378	1406	1.71	7150	8.68	55	488	1525	1.85	70135	85.15
21	381	1474	1.79	8624	10.47	56	492	1523	1.85	71658	87.00
22	384	1658	2.01	10282	12.48	57	497	1427	1.73	73085	88.73
23	387	1665	2.02	11947	14.50	58	502	1403	1.70	74488	90.43
24	391	1658	2.01	13605	16.52	59	508	1336	1.62	75824	92.05
25	394	1756	2.13	15361	18.65	60	514	1228	1.49	77052	93.54
26	397	1782	2.16	17143	20.81	61	520	1171	1.42	78223	94.97
27	400	1772	2.15	18915	22.96	62	528	1046	1.27	79269	96.24
28	403	1796	2.18	20711	25.14	63	537	925	1.12	80194	97.36
29	406	1818	2.21	22529	27.35	64	547	770	0.93	80964	98.29
30	**409**	**1819**	**2.21**	**24348**	**29.56**	65	560	636	0.77	81600	99.07
31	411	1879	2.28	26227	31.84	66	578	418	0.51	82018	99.57
32	414	1837	2.23	28064	34.07	67	609	255	0.31	82273	99.88
33	417	1842	2.24	29906	36.31	68	640	96	0.12	82369	100.00
34	420	1958	2.38	31864	38.68						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.16
Spring 2014 AIMS Frequency Distribution
Mathematics CRT High School Cohort 16

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	43	486	1566	2.07	27493	36.26
1	300	0	0.00	0	0.00	**44**	**488**	**1683**	**2.22**	**29176**	**38.48**
2	315	0	0.00	0	0.00	45	490	1703	2.25	30879	40.73
3	332	0	0.00	0	0.00	46	493	1710	2.26	32589	42.98
4	345	0	0.00	0	0.00	47	495	1766	2.33	34355	45.31
5	355	0	0.00	0	0.00	48	497	1734	2.29	36089	47.60
6	364	0	0.00	0	0.00	49	500	1748	2.31	37837	49.90
7	371	0	0.00	0	0.00	50	502	1812	2.39	39649	52.29
8	378	0	0.00	0	0.00	51	504	1740	2.29	41389	54.59
9	384	0	0.00	0	0.00	52	507	1760	2.32	43149	56.91
10	389	1	0.00	1	0.00	53	509	1721	2.27	44870	59.18
11	394	8	0.01	9	0.01	54	512	1797	2.37	46667	61.55
12	398	10	0.01	19	0.03	55	514	1708	2.25	48375	63.80
13	403	21	0.03	40	0.05	56	517	1633	2.15	50008	65.96
14	407	52	0.07	92	0.12	57	519	1699	2.24	51707	68.20
15	410	72	0.09	164	0.22	58	522	1693	2.23	53400	70.43
16	414	110	0.15	274	0.36	59	524	1560	2.06	54960	72.49
17	418	169	0.22	443	0.58	60	527	1554	2.05	56514	74.54
18	421	243	0.32	686	0.90	61	530	1539	2.03	58053	76.57
19	424	311	0.41	997	1.31	62	533	1387	1.83	59440	78.40
20	427	438	0.58	1435	1.89	63	536	1384	1.83	60824	80.22
21	430	511	0.67	1946	2.57	**64**	**539**	**1296**	**1.71**	**62120**	**81.93**
22	433	612	0.81	2558	3.37	65	542	1297	1.71	63417	83.64
23	436	705	0.93	3263	4.30	66	545	1155	1.52	64572	85.16
24	439	804	1.06	4067	5.36	67	548	1206	1.59	65778	86.76
25	442	887	1.17	4954	6.53	68	551	1086	1.43	66864	88.19
26	445	1000	1.32	5954	7.85	69	555	1056	1.39	67920	89.58
27	447	918	1.21	6872	9.06	70	558	972	1.28	68892	90.86
28	450	982	1.30	7854	10.36	71	562	895	1.18	69787	92.04
29	452	976	1.29	8830	11.65	72	566	826	1.09	70613	93.13
30	455	1060	1.40	9890	13.04	73	571	796	1.05	71409	94.18
31	457	1100	1.45	10990	14.49	74	575	725	0.96	72134	95.14
32	460	1113	1.47	12103	15.96	75	580	641	0.85	72775	95.98
33	462	1155	1.52	13258	17.49	76	586	599	0.79	73374	96.77
34	465	1237	1.63	14495	19.12	77	591	520	0.69	73894	97.46
35	467	1295	1.71	15790	20.83	78	598	452	0.60	74346	98.06
36	469	1288	1.70	17078	22.52	79	605	395	0.52	74741	98.58
37	**472**	**1310**	**1.73**	**18388**	**24.25**	80	614	341	0.45	75082	99.03
38	474	1448	1.91	19836	26.16	81	624	249	0.33	75331	99.36
39	476	1462	1.93	21298	28.09	82	637	226	0.30	75557	99.65
40	479	1449	1.91	22747	30.00	83	655	134	0.18	75691	99.83
41	481	1604	2.12	24351	32.12	84	685	91	0.12	75782	99.95
42	483	1576	2.08	25927	34.20	85	700	38	0.05	75820	100.00

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.17
Spring 2014 AIMS Frequency Distribution
Mathematics CRT High School Cohort 15

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0	0	0	43	486	638	3.53	13632	75.52
1	300	0	0	0	0	**44**	**488**	**566**	**3.14**	**14198**	**78.65**
2	315	0	0	0	0	45	490	517	2.86	14715	81.51
3	332	0	0	0	0	46	493	465	2.58	15180	84.09
4	345	0	0	0	0	47	495	442	2.45	15622	86.54
5	355	0	0	0	0	48	497	391	2.17	16013	88.7
6	364	0	0	0	0	49	500	313	1.73	16326	90.44
7	371	0	0	0	0	50	502	289	1.6	16615	92.04
8	378	0	0	0	0	51	504	219	1.21	16834	93.25
9	384	1	0.01	1	0.01	52	507	197	1.09	17031	94.34
10	389	0	0	1	0.01	53	509	141	0.78	17172	95.13
11	394	3	0.02	4	0.02	54	512	136	0.75	17308	95.88
12	398	10	0.06	14	0.08	55	514	94	0.52	17402	96.4
13	403	13	0.07	27	0.15	56	517	88	0.49	17490	96.89
14	407	13	0.07	40	0.22	57	519	72	0.4	17562	97.29
15	410	43	0.24	83	0.46	58	522	69	0.38	17631	97.67
16	414	54	0.3	137	0.76	59	524	54	0.3	17685	97.97
17	418	80	0.44	217	1.2	60	527	45	0.25	17730	98.22
18	421	98	0.54	315	1.74	61	530	48	0.27	17778	98.48
19	424	139	0.77	454	2.51	62	533	29	0.16	17807	98.64
20	427	189	1.05	643	3.56	63	536	32	0.18	17839	98.82
21	430	249	1.38	892	4.94	**64**	**539**	**37**	**0.2**	**17876**	**99.03**
22	433	320	1.77	1212	6.71	65	542	27	0.15	17903	99.17
23	436	350	1.94	1562	8.65	66	545	26	0.14	17929	99.32
24	439	387	2.14	1949	10.8	67	548	22	0.12	17951	99.44
25	442	424	2.35	2373	13.15	68	551	12	0.07	17963	99.51
26	445	469	2.6	2842	15.74	69	555	16	0.09	17979	99.6
27	447	490	2.71	3332	18.46	70	558	13	0.07	17992	99.67
28	450	513	2.84	3845	21.3	71	562	11	0.06	18003	99.73
29	452	566	3.14	4411	24.43	72	566	14	0.08	18017	99.81
30	455	569	3.15	4980	27.59	73	571	11	0.06	18028	99.87
31	457	556	3.08	5536	30.67	74	575	8	0.04	18036	99.91
32	460	654	3.62	6190	34.29	75	580	4	0.02	18040	99.93
33	462	699	3.87	6889	38.16	76	586	3	0.02	18043	99.95
34	465	696	3.86	7585	42.02	77	591	2	0.01	18045	99.96
35	467	659	3.65	8244	45.67	78	598	3	0.02	18048	99.98
36	469	675	3.74	8919	49.41	79	605	1	0.01	18049	99.98
37	**472**	**661**	**3.66**	**9580**	**53.07**	80	614	1	0.01	18050	99.99
38	474	689	3.82	10269	56.89	81	624	1	0.01	18051	99.99
39	476	706	3.91	10975	60.8	82	637	1	0.01	18052	100
40	479	718	3.98	11693	64.77	83	655	0	0	18052	100
41	481	634	3.51	12327	68.29	84	685	0	0	18052	100
42	483	667	3.69	12994	71.98	85	700	0	0	18052	100

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.18
Spring 2014 AIMS Frequency Distribution
Mathematics CRT High School Cohort 14

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0	0	0	43	486	334	2.98	9070	80.89
1	300	0	0	0	0	**44**	**488**	**307**	**2.74**	**9377**	**83.63**
2	315	0	0	0	0	45	490	301	2.68	9678	86.31
3	332	0	0	0	0	46	493	216	1.93	9894	88.24
4	345	0	0	0	0	47	495	217	1.94	10111	90.17
5	355	0	0	0	0	48	497	184	1.64	10295	91.81
6	364	0	0	0	0	49	500	141	1.26	10436	93.07
7	371	0	0	0	0	50	502	145	1.29	10581	94.36
8	378	0	0	0	0	51	504	108	0.96	10689	95.33
9	384	1	0.01	1	0.01	52	507	72	0.64	10761	95.97
10	389	0	0	1	0.01	53	509	79	0.7	10840	96.67
11	394	0	0	1	0.01	54	512	47	0.42	10887	97.09
12	398	6	0.05	7	0.06	55	514	53	0.47	10940	97.57
13	403	6	0.05	13	0.12	56	517	41	0.37	10981	97.93
14	407	15	0.13	28	0.25	57	519	43	0.38	11024	98.31
15	410	19	0.17	47	0.42	58	522	24	0.21	11048	98.53
16	414	28	0.25	75	0.67	59	524	19	0.17	11067	98.7
17	418	68	0.61	143	1.28	60	527	28	0.25	11095	98.95
18	421	92	0.82	235	2.1	61	530	12	0.11	11107	99.05
19	424	127	1.13	362	3.23	62	533	18	0.16	11125	99.22
20	427	150	1.34	512	4.57	63	536	8	0.07	11133	99.29
21	430	177	1.58	689	6.14	**64**	**539**	**12**	**0.11**	**11145**	**99.39**
22	433	222	1.98	911	8.12	65	542	11	0.1	11156	99.49
23	436	238	2.12	1149	10.25	66	545	8	0.07	11164	99.56
24	439	267	2.38	1416	12.63	67	548	8	0.07	11172	99.63
25	442	330	2.94	1746	15.57	68	551	8	0.07	11180	99.71
26	445	320	2.85	2066	18.43	69	555	4	0.04	11184	99.74
27	447	316	2.82	2382	21.24	70	558	6	0.05	11190	99.79
28	450	340	3.03	2722	24.28	71	562	6	0.05	11196	99.85
29	452	400	3.57	3122	27.84	72	566	8	0.07	11204	99.92
30	455	413	3.68	3535	31.53	73	571	4	0.04	11208	99.96
31	457	395	3.52	3930	35.05	74	575	1	0.01	11209	99.96
32	460	420	3.75	4350	38.79	75	580	1	0.01	11210	99.97
33	462	421	3.75	4771	42.55	76	586	0	0	11210	99.97
34	465	470	4.19	5241	46.74	77	591	1	0.01	11211	99.98
35	467	433	3.86	5674	50.6	78	598	2	0.02	11213	100
36	469	443	3.95	6117	54.55	79	605	0	0	11213	100
37	**472**	**477**	**4.25**	**6594**	**58.81**	80	614	0	0	11213	100
38	474	461	4.11	7055	62.92	81	624	0	0	11213	100
39	476	461	4.11	7516	67.03	82	637	0	0	11213	100
40	479	439	3.92	7955	70.94	83	655	0	0	11213	100
41	481	396	3.53	8351	74.48	84	685	0	0	11213	100
42	483	385	3.43	8736	77.91	85	700	0	0	11213	100

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.19
Spring 2014 AIMS Frequency Distribution
Reading CRT Grade 3

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	200	1	0.00	1	0.00	28	435	1907	2.26	22578	26.81
1	251	2	0.00	3	0.00	29	439	1968	2.34	24546	29.15
2	281	1	0.00	4	0.00	30	442	2177	2.59	26723	31.73
3	299	0	0.00	4	0.00	31	446	2229	2.65	28952	34.38
4	312	1	0.00	5	0.01	32	450	2407	2.86	31359	37.24
5	323	5	0.01	10	0.01	33	454	2558	3.04	33917	40.28
6	332	27	0.03	37	0.04	34	457	2649	3.15	36566	43.42
7	340	42	0.05	79	0.09	35	461	2726	3.24	39292	46.66
8	347	97	0.12	176	0.21	36	465	2884	3.42	42176	50.08
9	354	180	0.21	356	0.42	37	469	2991	3.55	45167	53.63
10	360	285	0.34	641	0.76	38	473	3150	3.74	48317	57.38
11	365	386	0.46	1027	1.22	39	478	3288	3.90	51605	61.28
12	371	528	0.63	1555	1.85	40	482	3405	4.04	55010	65.32
13	375	673	0.80	2228	2.65	41	487	3407	4.05	58417	69.37
14	**380**	**850**	**1.01**	**3078**	**3.66**	42	491	3387	4.02	61804	73.39
15	385	862	1.02	3940	4.68	43	496	3426	4.07	65230	77.46
16	389	1026	1.22	4966	5.90	44	502	3278	3.89	68508	81.35
17	393	1051	1.25	6017	7.15	45	508	3133	3.72	71641	85.07
18	397	1168	1.39	7185	8.53	46	514	2933	3.48	74574	88.56
19	402	1183	1.40	8368	9.94	**47**	**521**	**2747**	**3.26**	**77321**	**91.82**
20	405	1218	1.45	9586	11.38	48	529	2160	2.56	79481	94.38
21	409	1323	1.57	10909	12.95	49	537	1801	2.14	81282	96.52
22	413	1422	1.69	12331	14.64	50	548	1390	1.65	82672	98.17
23	417	1463	1.74	13794	16.38	51	561	888	1.05	83560	99.23
24	421	1527	1.81	15321	18.19	52	579	445	0.53	84005	99.75
25	424	1681	2.00	17002	20.19	53	609	172	0.20	84177	99.96
26	428	1753	2.08	18755	22.27	54	640	35	0.04	84212	100.00
27	**432**	**1916**	**2.28**	**20671**	**24.55**						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.20
Spring 2014 AIMS Frequency Distribution
Reading CRT Grade 4

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	220	0	0.00	0	0.00	28	458	1971	2.36	26034	31.21
1	295	0	0.00	0	0.00	29	461	2049	2.46	28083	33.67
2	322	1	0.00	1	0.00	30	464	2129	2.55	30212	36.22
3	339	0	0.00	1	0.00	31	468	2090	2.51	32302	38.72
4	351	5	0.01	6	0.01	32	471	2233	2.68	34535	41.40
5	361	5	0.01	11	0.01	33	474	2346	2.81	36881	44.21
6	369	22	0.03	33	0.04	34	478	2337	2.80	39218	47.01
7	376	46	0.06	79	0.09	35	481	2427	2.91	41645	49.92
8	382	81	0.10	160	0.19	36	484	2540	3.04	44185	52.97
9	388	186	0.22	346	0.41	37	488	2681	3.21	46866	56.18
10	393	302	0.36	648	0.78	38	492	2771	3.32	49637	59.50
11	398	445	0.53	1093	1.31	39	495	2822	3.38	52459	62.89
12	**402**	**623**	**0.75**	**1716**	**2.06**	40	499	2819	3.38	55278	66.27
13	407	756	0.91	2472	2.96	41	503	2993	3.59	58271	69.85
14	411	977	1.17	3449	4.13	42	508	3056	3.66	61327	73.52
15	415	1101	1.32	4550	5.45	43	512	2896	3.47	64223	76.99
16	418	1232	1.48	5782	6.93	44	517	2962	3.55	67185	80.54
17	422	1386	1.66	7168	8.59	45	522	2851	3.42	70036	83.96
18	426	1398	1.68	8566	10.27	46	528	2921	3.50	72957	87.46
19	429	1528	1.83	10094	12.10	47	534	2673	3.20	75630	90.66
20	433	1585	1.90	11679	14.00	**48**	**541**	**2366**	**2.84**	**77996**	**93.50**
21	436	1644	1.97	13323	15.97	49	549	2031	2.43	80027	95.93
22	439	1676	2.01	14999	17.98	50	559	1510	1.81	81537	97.75
23	442	1800	2.16	16799	20.14	51	571	1064	1.28	82601	99.02
24	446	1715	2.06	18514	22.19	52	587	534	0.64	83135	99.66
25	449	1872	2.24	20386	24.44	53	615	233	0.28	83368	99.94
26	**452**	**1776**	**2.13**	**22162**	**26.57**	54	660	50	0.06	83418	100.00
27	455	1901	2.28	24063	28.85						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.21
Spring 2014 AIMS Frequency Distribution
Reading CRT Grade 5

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	240	0	0.00	0	0.00	28	479	1967	2.35	24217	28.97
1	302	0	0.00	0	0.00	29	483	2016	2.41	26233	31.38
2	331	0	0.00	0	0.00	30	486	2179	2.61	28412	33.99
3	349	0	0.00	0	0.00	31	490	2339	2.80	30751	36.78
4	362	2	0.00	2	0.00	32	493	2530	3.03	33281	39.81
5	372	12	0.01	14	0.02	33	497	2545	3.04	35826	42.85
6	381	25	0.03	39	0.05	34	501	2652	3.17	38478	46.03
7	389	47	0.06	86	0.10	35	504	2869	3.43	41347	49.46
8	395	100	0.12	186	0.22	36	508	3018	3.61	44365	53.07
9	402	183	0.22	369	0.44	37	512	3229	3.86	47594	56.93
10	407	316	0.38	685	0.82	38	516	3268	3.91	50862	60.84
11	413	442	0.53	1127	1.35	39	520	3378	4.04	54240	64.88
12	418	593	0.71	1720	2.06	40	524	3469	4.15	57709	69.03
13	422	741	0.89	2461	2.94	41	529	3573	4.27	61282	73.30
14	**427**	**897**	**1.07**	**3358**	**4.02**	42	534	3485	4.17	64767	77.47
15	431	1022	1.22	4380	5.24	43	539	3496	4.18	68263	81.66
16	435	1132	1.35	5512	6.59	44	544	3377	4.04	71640	85.69
17	439	1217	1.46	6729	8.05	45	549	3039	3.64	74679	89.33
18	443	1293	1.55	8022	9.60	**46**	**556**	**2557**	**3.06**	**77236**	**92.39**
19	447	1365	1.63	9387	11.23	47	562	2189	2.62	79425	95.01
20	451	1364	1.63	10751	12.86	48	570	1686	2.02	81111	97.02
21	454	1350	1.61	12101	14.48	49	579	1099	1.31	82210	98.34
22	458	1518	1.82	13619	16.29	50	589	774	0.93	82984	99.26
23	462	1577	1.89	15196	18.18	51	602	377	0.45	83361	99.72
24	465	1628	1.95	16824	20.12	52	619	178	0.21	83539	99.93
25	**469**	**1765**	**2.11**	**18589**	**22.24**	53	648	49	0.06	83588	99.99
26	472	1781	2.13	20370	24.37	54	675	11	0.01	83599	100.00
27	476	1880	2.25	22250	26.62						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.22
Spring 2014 AIMS Frequency Distribution
Reading CRT Grade 6

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	250	0	0.00	0	0.00	28	491	2267	2.74	24557	29.73
1	303	0	0.00	0	0.00	29	494	2390	2.89	26947	32.62
2	333	0	0.00	0	0.00	30	498	2451	2.97	29398	35.59
3	352	2	0.00	2	0.00	31	501	2636	3.19	32034	38.78
4	366	0	0.00	2	0.00	32	505	2711	3.28	34745	42.07
5	377	3	0.00	5	0.01	33	509	2739	3.32	37484	45.38
6	387	20	0.02	25	0.03	34	512	2784	3.37	40268	48.75
7	395	57	0.07	82	0.10	35	516	3034	3.67	43302	52.43
8	402	75	0.09	157	0.19	36	520	3074	3.72	46376	56.15
9	409	163	0.20	320	0.39	37	524	3077	3.73	49453	59.87
10	415	277	0.34	597	0.72	38	528	3109	3.76	52562	63.64
11	421	429	0.52	1026	1.24	39	532	3089	3.74	55651	67.38
12	426	573	0.69	1599	1.94	40	537	3087	3.74	58738	71.11
13	431	685	0.83	2284	2.77	41	541	3168	3.84	61906	74.95
14	**436**	**853**	**1.03**	**3137**	**3.80**	42	546	3095	3.75	65001	78.70
15	441	981	1.19	4118	4.99	43	551	3026	3.66	68027	82.36
16	445	1008	1.22	5126	6.21	44	557	2802	3.39	70829	85.75
17	449	1093	1.32	6219	7.53	45	562	2602	3.15	73431	88.90
18	453	1187	1.44	7406	8.97	46	569	2387	2.89	75818	91.79
19	457	1270	1.54	8676	10.50	**47**	**575**	**1972**	**2.39**	**77790**	**94.18**
20	461	1369	1.66	10045	12.16	48	583	1736	2.10	79526	96.28
21	465	1430	1.73	11475	13.89	49	592	1243	1.50	80769	97.79
22	469	1536	1.86	13011	15.75	50	602	867	1.05	81636	98.84
23	473	1634	1.98	14645	17.73	51	615	535	0.65	82171	99.48
24	476	1735	2.10	16380	19.83	52	633	286	0.35	82457	99.83
25	**480**	**1829**	**2.21**	**18209**	**22.05**	53	663	114	0.14	82571	99.97
26	483	1934	2.34	20143	24.39	54	690	26	0.03	82597	100.00
27	487	2147	2.60	22290	26.99						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.23
Spring 2014 AIMS Frequency Distribution
Reading CRT Grade 7

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	260	0	0.00	0	0.00	28	509	2250	2.71	23066	27.75
1	318	0	0.00	0	0.00	29	513	2423	2.91	25489	30.66
2	350	0	0.00	0	0.00	30	516	2494	3.00	27983	33.66
3	369	0	0.00	0	0.00	31	520	2541	3.06	30524	36.72
4	383	1	0.00	1	0.00	32	524	2807	3.38	33331	40.10
5	394	3	0.00	4	0.00	33	528	2870	3.45	36201	43.55
6	404	4	0.00	8	0.01	34	532	2941	3.54	39142	47.09
7	412	16	0.02	24	0.03	35	536	3109	3.74	42251	50.83
8	419	45	0.05	69	0.08	36	540	3158	3.80	45409	54.63
9	426	103	0.12	172	0.21	37	544	3251	3.91	48660	58.54
10	432	164	0.20	336	0.40	38	548	3365	4.05	52025	62.58
11	438	262	0.32	598	0.72	39	553	3370	4.05	55395	66.64
12	**443**	**390**	**0.47**	**988**	**1.19**	40	557	3382	4.07	58777	70.71
13	448	527	0.63	1515	1.82	41	562	3466	4.17	62243	74.88
14	453	636	0.77	2151	2.59	42	567	3281	3.95	65524	78.82
15	458	780	0.94	2931	3.53	43	572	3290	3.96	68814	82.78
16	462	887	1.07	3818	4.59	44	578	3010	3.62	71824	86.40
17	467	1058	1.27	4876	5.87	45	584	2750	3.31	74574	89.71
18	471	1062	1.28	5938	7.14	**46**	**590**	**2361**	**2.84**	**76935**	**92.55**
19	475	1204	1.45	7142	8.59	47	598	1987	2.39	78922	94.94
20	479	1295	1.56	8437	10.15	48	606	1598	1.92	80520	96.86
21	483	1369	1.65	9806	11.80	49	615	1147	1.38	81667	98.24
22	487	1544	1.86	11350	13.65	50	626	780	0.94	82447	99.18
23	**490**	**1611**	**1.94**	**12961**	**15.59**	51	640	402	0.48	82849	99.67
24	494	1779	2.14	14740	17.73	52	659	197	0.24	83046	99.90
25	498	1877	2.26	16617	19.99	53	691	72	0.09	83118	99.99
26	502	2024	2.43	18641	22.42	54	720	9	0.01	83127	100.00
27	505	2175	2.62	20816	25.04						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.24
Spring 2014 AIMS Frequency Distribution
Reading CRT Grade 8

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	270	0	0.00	0	0.00	28	489	1930	2.34	20625	25.04
1	270	1	0.00	1	0.00	29	494	2013	2.44	22638	27.48
2	306	0	0.00	1	0.00	30	498	2222	2.70	24860	30.18
3	328	0	0.00	1	0.00	**31**	**502**	**2372**	**2.88**	**27232**	**33.05**
4	344	0	0.00	1	0.00	32	507	2589	3.14	29821	36.20
5	357	5	0.01	6	0.01	33	511	2685	3.26	32506	39.46
6	368	14	0.02	20	0.02	34	516	2773	3.37	35279	42.82
7	377	31	0.04	51	0.06	35	520	2873	3.49	38152	46.31
8	386	55	0.07	106	0.13	36	525	2948	3.58	41100	49.89
9	394	110	0.13	216	0.26	37	530	3217	3.90	44317	53.79
10	401	178	0.22	394	0.48	38	534	3379	4.10	47696	57.89
11	407	264	0.32	658	0.80	39	540	3468	4.21	51164	62.10
12	413	394	0.48	1052	1.28	40	545	3538	4.29	54702	66.40
13	419	478	0.58	1530	1.86	41	550	3460	4.20	58162	70.60
14	425	633	0.77	2163	2.63	42	556	3652	4.43	61814	75.03
15	430	730	0.89	2893	3.51	43	562	3494	4.24	65308	79.27
16	435	852	1.03	3745	4.55	44	569	3458	4.20	68766	83.47
17	440	942	1.14	4687	5.69	45	576	3150	3.82	71916	87.29
18	445	1015	1.23	5702	6.92	46	583	2873	3.49	74789	90.78
19	450	1087	1.32	6789	8.24	47	592	2492	3.02	77281	93.81
20	**455**	**1233**	**1.50**	**8022**	**9.74**	48	601	2000	2.43	79281	96.23
21	459	1219	1.48	9241	11.22	**49**	**612**	**1476**	**1.79**	**80757**	**98.03**
22	464	1318	1.60	10559	12.82	50	624	936	1.14	81693	99.16
23	468	1474	1.79	12033	14.61	51	640	469	0.57	82162	99.73
24	472	1529	1.86	13562	16.46	52	662	175	0.21	82337	99.94
25	477	1602	1.94	15164	18.41	53	698	43	0.05	82380	100.00
26	481	1695	2.06	16859	20.46	54	800	4	0.00	82384	100.00
27	485	1836	2.23	18695	22.69						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.25
Spring 2014 AIMS Frequency Distribution
Reading CRT High School Cohort 16

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	500	10	0.01	10	0.01	28	700	2372	3.06	26833	34.67
1	509	4	0.01	14	0.02	29	704	2358	3.05	29191	37.71
2	541	5	0.01	19	0.02	30	708	2503	3.23	31694	40.95
3	560	3	0.00	22	0.03	31	712	2538	3.28	34232	44.23
4	574	7	0.01	29	0.04	32	716	2548	3.29	36780	47.52
5	585	11	0.01	40	0.05	33	719	2675	3.46	39455	50.98
6	594	23	0.03	63	0.08	34	723	2734	3.53	42189	54.51
7	602	51	0.07	114	0.15	35	727	2690	3.48	44879	57.98
8	610	103	0.13	217	0.28	36	732	2709	3.50	47588	61.48
9	616	167	0.22	384	0.50	37	736	2609	3.37	50197	64.85
10	623	276	0.36	660	0.85	38	740	2661	3.44	52858	68.29
11	**628**	**423**	**0.55**	**1083**	**1.40**	39	745	2607	3.37	55465	71.66
12	634	606	0.78	1689	2.18	40	749	2592	3.35	58057	75.01
13	639	798	1.03	2487	3.21	41	754	2533	3.27	60590	78.28
14	644	917	1.18	3404	4.40	42	759	2459	3.18	63049	81.46
15	648	1023	1.32	4427	5.72	43	764	2344	3.03	65393	84.49
16	653	1159	1.50	5586	7.22	44	770	2201	2.84	67594	87.33
17	657	1282	1.66	6868	8.87	**45**	**776**	**2063**	**2.67**	**69657**	**90.00**
18	662	1329	1.72	8197	10.59	46	783	1842	2.38	71499	92.38
19	666	1384	1.79	9581	12.38	47	790	1594	2.06	73093	94.44
20	670	1535	1.98	11116	14.36	48	798	1424	1.84	74517	96.28
21	**674**	**1596**	**2.06**	**12712**	**16.42**	49	808	1119	1.45	75636	97.72
22	678	1728	2.23	14440	18.66	50	819	884	1.14	76520	98.86
23	682	1766	2.28	16206	20.94	51	833	501	0.65	77021	99.51
24	685	1891	2.44	18097	23.38	52	852	260	0.34	77281	99.85
25	689	2003	2.59	20100	25.97	53	883	105	0.14	77386	99.98
26	693	2130	2.75	22230	28.72	54	900	14	0.02	77400	100.00
27	697	2231	2.88	24461	31.60						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.26
Spring 2014 AIMS Frequency Distribution
Reading CRT High School Cohort 15

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	500	2	0.02	2	0.02	28	700	168	2.03	6271	75.90
1	509	0	0.00	2	0.02	29	704	130	1.57	6401	77.48
2	541	4	0.05	6	0.07	30	708	123	1.49	6524	78.96
3	560	1	0.01	7	0.08	31	712	118	1.43	6642	80.39
4	574	0	0.00	7	0.08	32	716	101	1.22	6743	81.61
5	585	3	0.04	10	0.12	33	719	81	0.98	6824	82.60
6	594	9	0.11	19	0.23	34	723	81	0.98	6905	83.58
7	602	19	0.23	38	0.46	35	727	80	0.97	6985	84.54
8	610	36	0.44	74	0.90	36	732	79	0.96	7064	85.50
9	616	72	0.87	146	1.77	37	736	82	0.99	7146	86.49
10	623	168	2.03	314	3.80	38	740	79	0.96	7225	87.45
11	**628**	**161**	**1.95**	**475**	**5.75**	39	745	84	1.02	7309	88.47
12	634	260	3.15	735	8.90	40	749	98	1.19	7407	89.65
13	639	333	4.03	1068	12.93	41	754	75	0.91	7482	90.56
14	644	378	4.58	1446	17.50	42	759	77	0.93	7559	91.49
15	648	408	4.94	1854	22.44	43	764	93	1.13	7652	92.62
16	653	428	5.18	2282	27.62	44	770	98	1.19	7750	93.80
17	657	463	5.60	2745	33.22	**45**	**776**	**103**	**1.25**	**7853**	**95.05**
18	662	454	5.50	3199	38.72	46	783	106	1.28	7959	96.33
19	666	448	5.42	3647	44.14	47	790	86	1.04	8045	97.37
20	670	404	4.89	4051	49.03	48	798	67	0.81	8112	98.18
21	**674**	**424**	**5.13**	**4475**	**54.16**	49	808	70	0.85	8182	99.03
22	678	357	4.32	4832	58.48	50	819	47	0.57	8229	99.60
23	682	309	3.74	5141	62.22	51	833	25	0.30	8254	99.90
24	685	281	3.40	5422	65.63	52	852	7	0.08	8261	99.99
25	689	253	3.06	5675	68.69	53	883	1	0.01	8262	100.00
26	693	230	2.78	5905	71.47	54	900	0	0.00	8262	100.00
27	697	198	2.40	6103	73.87						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.27
Spring 2014 AIMS Frequency Distribution
Reading CRT High School Cohort 14

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	500	1	0.02	1	0.02	28	700	79	1.97	3477	86.82
1	509	0	0.00	1	0.02	29	704	55	1.37	3532	88.19
2	541	0	0.00	1	0.02	30	708	44	1.10	3576	89.29
3	560	1	0.02	2	0.05	31	712	37	0.92	3613	90.21
4	574	0	0.00	2	0.05	32	716	31	0.77	3644	90.99
5	585	1	0.02	3	0.07	33	719	40	1.00	3684	91.99
6	594	12	0.30	15	0.37	34	723	31	0.77	3715	92.76
7	602	10	0.25	25	0.62	35	727	29	0.72	3744	93.48
8	610	22	0.55	47	1.17	36	732	24	0.60	3768	94.08
9	616	43	1.07	90	2.25	37	736	23	0.57	3791	94.66
10	623	78	1.95	168	4.19	38	740	20	0.50	3811	95.16
11	**628**	**115**	**2.87**	**283**	**7.07**	39	745	16	0.40	3827	95.56
12	634	181	4.52	464	11.59	40	749	20	0.50	3847	96.05
13	639	207	5.17	671	16.75	41	754	13	0.32	3860	96.38
14	644	225	5.62	896	22.37	42	759	22	0.55	3882	96.93
15	648	286	7.14	1182	29.51	43	764	19	0.47	3901	97.40
16	653	272	6.79	1454	36.30	44	770	17	0.42	3918	97.83
17	657	248	6.19	1702	42.50	**45**	**776**	**17**	**0.42**	**3935**	**98.25**
18	662	276	6.89	1978	49.39	46	783	27	0.67	3962	98.93
19	666	243	6.07	2221	55.46	47	790	11	0.27	3973	99.20
20	670	206	5.14	2427	60.60	48	798	14	0.35	3987	99.55
21	**674**	**214**	**5.34**	**2641**	**65.94**	49	808	9	0.22	3996	99.78
22	678	182	4.54	2823	70.49	50	819	4	0.10	4000	99.88
23	682	154	3.85	2977	74.33	51	833	5	0.12	4005	100.00
24	685	135	3.37	3112	77.70	52	852	0	0.00	4005	100.00
25	689	123	3.07	3235	80.77	53	883	0	0.00	4005	100.00
26	693	88	2.20	3323	82.97	54	900	0	0.00	4005	100.00
27	697	75	1.87	3398	84.84						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.28
Spring 2014 AIMS Frequency Distribution
Writing CRT Grade 5

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	35	471	2635	3.20	21797	26.47
1	300	0	0.00	0	0.00	36	474	2667	3.24	24464	29.71
2	300	0	0.00	0	0.00	37	478	2746	3.33	27210	33.05
3	300	0	0.00	0	0.00	38	482	2850	3.46	30060	36.51
4	300	0	0.00	0	0.00	39	485	2927	3.55	32987	40.06
5	300	0	0.00	0	0.00	40	489	2863	3.48	35850	43.54
6	300	0	0.00	0	0.00	41	492	2920	3.55	38770	47.09
7	300	1	0.00	1	0.00	**42**	**496**	**2855**	**3.47**	**41625**	**50.55**
8	315	2	0.00	3	0.00	43	500	3019	3.67	44644	54.22
9	337	6	0.01	9	0.01	44	504	3047	3.70	47691	57.92
10	350	37	0.04	46	0.06	45	508	3203	3.89	50894	61.81
11	360	62	0.08	108	0.13	46	512	3222	3.91	54116	65.72
12	369	92	0.11	200	0.24	47	517	3496	4.25	57612	69.97
13	376	137	0.17	337	0.41	48	522	3539	4.30	61151	74.27
14	383	143	0.17	480	0.58	49	527	3761	4.57	64912	78.83
15	388	123	0.15	603	0.73	50	532	3573	4.34	68485	83.17
16	394	116	0.14	719	0.87	51	538	3157	3.83	71642	87.01
17	399	126	0.15	845	1.03	52	544	2556	3.10	74198	90.11
18	404	191	0.23	1036	1.26	53	551	1862	2.26	76060	92.37
19	409	340	0.41	1376	1.67	54	558	1084	1.32	77144	93.69
20	413	440	0.53	1816	2.21	55	566	656	0.80	77800	94.49
21	418	627	0.76	2443	2.97	56	574	551	0.67	78351	95.16
22	422	651	0.79	3094	3.76	57	583	728	0.88	79079	96.04
23	426	664	0.81	3758	4.56	58	592	742	0.90	79821	96.94
24	430	605	0.73	4363	5.30	**59**	**602**	**789**	**0.96**	**80610**	**97.90**
25	434	642	0.78	5005	6.08	60	612	623	0.76	81233	98.66
26	438	743	0.90	5748	6.98	61	623	431	0.52	81664	99.18
27	**442**	**926**	**1.12**	**6674**	**8.11**	62	635	196	0.24	81860	99.42
28	446	1080	1.31	7754	9.42	63	647	35	0.04	81895	99.46
29	450	1368	1.66	9122	11.08	64	659	59	0.07	81954	99.53
30	453	1556	1.89	10678	12.97	65	672	73	0.09	82027	99.62
31	457	1791	2.18	12469	15.14	66	685	79	0.10	82106	99.72
32	460	2029	2.46	14498	17.61	67	700	98	0.12	82204	99.83
33	464	2138	2.60	16636	20.20	68	700	97	0.12	82301	99.95
34	467	2526	3.07	19162	23.27	69	700	39	0.05	82340	100.00

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.29
Spring 2014 AIMS Frequency Distribution
Writing CRT Grade 6

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	35	476	2607	3.18	23347	28.47
1	300	0	0.00	0	0.00	36	479	2773	3.38	26120	31.85
2	300	0	0.00	0	0.00	37	483	3133	3.82	29253	35.67
3	300	0	0.00	0	0.00	38	487	3253	3.97	32506	39.63
4	300	0	0.00	0	0.00	39	491	3428	4.18	35934	43.81
5	300	0	0.00	0	0.00	**40**	**495**	**3631**	**4.43**	**39565**	**48.24**
6	300	0	0.00	0	0.00	41	498	3468	4.23	43033	52.47
7	300	0	0.00	0	0.00	42	502	3582	4.37	46615	56.84
8	308	3	0.00	3	0.00	43	507	3453	4.21	50068	61.05
9	332	8	0.01	11	0.01	44	511	3085	3.76	53153	64.81
10	347	30	0.04	41	0.05	45	515	2890	3.52	56043	68.33
11	358	56	0.07	97	0.12	46	520	2475	3.02	58518	71.35
12	367	118	0.14	215	0.26	47	525	2457	3.00	60975	74.35
13	375	169	0.21	384	0.47	48	530	2512	3.06	63487	77.41
14	383	167	0.20	551	0.67	49	535	2703	3.30	66190	80.71
15	389	201	0.25	752	0.92	50	541	2893	3.53	69083	84.23
16	395	159	0.19	911	1.11	51	547	2944	3.59	72027	87.82
17	401	166	0.20	1077	1.31	52	554	2538	3.09	74565	90.92
18	407	243	0.30	1320	1.61	53	561	1905	2.32	76470	93.24
19	412	351	0.43	1671	2.04	54	569	1192	1.45	77662	94.69
20	416	478	0.58	2149	2.62	55	577	601	0.73	78263	95.43
21	421	692	0.84	2841	3.46	**56**	**586**	**351**	**0.43**	**78614**	**95.85**
22	426	803	0.98	3644	4.44	57	595	487	0.59	79101	96.45
23	430	868	1.06	4512	5.50	58	605	597	0.73	79698	97.18
24	434	923	1.13	5435	6.63	59	615	643	0.78	80341	97.96
25	438	987	1.20	6422	7.83	60	626	607	0.74	80948	98.70
26	442	989	1.21	7411	9.04	61	637	402	0.49	81350	99.19
27	446	1119	1.36	8530	10.40	62	649	167	0.20	81517	99.39
28	**450**	**1170**	**1.43**	**9700**	**11.83**	63	661	40	0.05	81557	99.44
29	454	1353	1.65	11053	13.48	64	673	40	0.05	81597	99.49
30	457	1563	1.91	12616	15.38	65	687	65	0.08	81662	99.57
31	461	1678	2.05	14294	17.43	66	700	87	0.11	81749	99.68
32	465	1944	2.37	16238	19.80	67	700	117	0.14	81866	99.82
33	468	2089	2.55	18327	22.35	68	700	102	0.12	81968	99.94
34	472	2413	2.94	20740	25.29	69	700	46	0.06	82014	100.00

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.30
Spring 2014 AIMS Frequency Distribution
Writing CRT Grade 7

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	35	469	2239	2.73	20601	25.09
1	300	0	0.00	0	0.00	36	472	2426	2.95	23027	28.04
2	300	0	0.00	0	0.00	37	475	2518	3.07	25545	31.11
3	300	0	0.00	0	0.00	38	479	2496	3.04	28041	34.15
4	300	0	0.00	0	0.00	39	482	2472	3.01	30513	37.16
5	300	0	0.00	0	0.00	40	485	2663	3.24	33176	40.40
6	300	0	0.00	0	0.00	41	488	2777	3.38	35953	43.78
7	300	3	0.00	3	0.00	42	492	2822	3.44	38775	47.22
8	337	3	0.00	6	0.01	**43**	**495**	**2868**	**3.49**	**41643**	**50.71**
9	357	19	0.02	25	0.03	44	499	3118	3.80	44761	54.51
10	369	44	0.05	69	0.08	45	503	3171	3.86	47932	58.37
11	378	81	0.10	150	0.18	46	507	3558	4.33	51490	62.70
12	386	145	0.18	295	0.36	47	511	3686	4.49	55176	67.19
13	392	204	0.25	499	0.61	48	515	3973	4.84	59149	72.03
14	397	248	0.30	747	0.91	49	520	3942	4.80	63091	76.83
15	402	206	0.25	953	1.16	50	524	3768	4.59	66859	81.42
16	407	224	0.27	1177	1.43	51	529	3033	3.69	69892	85.11
17	411	231	0.28	1408	1.71	52	535	2324	2.83	72216	87.94
18	415	308	0.38	1716	2.09	53	541	1752	2.13	73968	90.08
19	419	396	0.48	2112	2.57	54	547	1172	1.43	75140	91.50
20	422	448	0.55	2560	3.12	55	553	827	1.01	75967	92.51
21	426	568	0.69	3128	3.81	56	560	864	1.05	76831	93.56
22	429	658	0.80	3786	4.61	57	567	990	1.21	77821	94.77
23	432	767	0.93	4553	5.54	58	575	1068	1.30	78889	96.07
24	436	740	0.90	5293	6.45	59	583	973	1.18	79862	97.25
25	439	760	0.93	6053	7.37	60	592	762	0.93	80624	98.18
26	442	824	1.00	6877	8.37	**61**	**601**	**516**	**0.63**	**81140**	**98.81**
27	445	925	1.13	7802	9.50	62	611	244	0.30	81384	99.11
28	448	982	1.20	8784	10.70	63	621	66	0.08	81450	99.19
29	**451**	**1181**	**1.44**	**9965**	**12.14**	64	631	88	0.11	81538	99.29
30	454	1375	1.67	11340	13.81	65	643	120	0.15	81658	99.44
31	457	1472	1.79	12812	15.60	66	656	145	0.18	81803	99.62
32	460	1694	2.06	14506	17.67	67	671	149	0.18	81952	99.80
33	463	1825	2.22	16331	19.89	68	694	113	0.14	82065	99.94
34	466	2031	2.47	18362	22.36	69	700	52	0.06	82117	100.00

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.31
Spring 2014 AIMS Frequency Distribution
Writing CRT High School Cohort 16 Prompt A

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	37	402	43	0.06	612	0.81
1	300	0	0.00	0	0.00	38	405	114	0.15	726	0.96
2	300	0	0.00	0	0.00	39	407	48	0.06	774	1.03
3	300	0	0.00	0	0.00	40	409	162	0.22	936	1.24
4	300	0	0.00	0	0.00	41	411	67	0.09	1003	1.33
5	300	0	0.00	0	0.00	42	413	194	0.26	1197	1.59
6	300	0	0.00	0	0.00	43	415	63	0.08	1260	1.67
7	300	0	0.00	0	0.00	44	417	247	0.33	1507	2.00
8	300	0	0.00	0	0.00	45	419	106	0.14	1613	2.14
9	300	0	0.00	0	0.00	46	420	265	0.35	1878	2.49
10	300	0	0.00	0	0.00	47	422	118	0.16	1996	2.65
11	300	0	0.00	0	0.00	48	424	255	0.34	2251	2.99
12	300	0	0.00	0	0.00	49	426	175	0.23	2426	3.22
13	300	0	0.00	0	0.00	50	428	250	0.33	2676	3.55
14	300	1	0.00	1	0.00	51	430	241	0.32	2917	3.87
15	300	0	0.00	1	0.00	52	432	258	0.34	3175	4.22
16	313	1	0.00	2	0.00	**53**	**434**	**252**	**0.33**	**3427**	**4.55**
17	327	0	0.00	2	0.00	54	436	345	0.46	3772	5.01
18	337	7	0.01	9	0.01	55	438	296	0.39	4068	5.40
19	345	0	0.00	9	0.01	56	440	416	0.55	4484	5.95
20	351	9	0.01	18	0.02	57	442	296	0.39	4780	6.35
21	356	0	0.00	18	0.02	58	444	568	0.75	5348	7.10
22	361	18	0.02	36	0.05	59	446	310	0.41	5658	7.51
23	365	0	0.00	36	0.05	60	448	733	0.97	6391	8.49
24	369	46	0.06	82	0.11	61	450	340	0.45	6731	8.94
25	372	3	0.00	85	0.11	62	452	856	1.14	7587	10.08
26	375	36	0.05	121	0.16	63	454	309	0.41	7896	10.49
27	378	9	0.01	130	0.17	64	456	956	1.27	8852	11.76
28	381	56	0.07	186	0.25	65	458	417	0.55	9269	12.31
29	384	20	0.03	206	0.27	66	459	1093	1.45	10362	13.76
30	387	46	0.06	252	0.33	67	461	503	0.67	10865	14.43
31	389	36	0.05	288	0.38	68	463	1123	1.49	11988	15.92
32	391	46	0.06	334	0.44	69	465	558	0.74	12546	16.66
33	394	38	0.05	372	0.49	70	467	1222	1.62	13768	18.28
34	396	55	0.07	427	0.57	71	469	728	0.97	14496	19.25
35	398	55	0.07	482	0.64	72	471	1173	1.56	15669	20.81
36	400	87	0.12	569	0.76	73	473	899	1.19	16568	22.00

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

(table continued)

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Table 8.1.1.31 (Continued)
Spring 2014 AIMS Frequency Distribution
Writing CRT High School Cohort 16 Prompt A

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
74	475	1181	1.57	17749	23.57	107	557	1115	1.48	66505	88.32
75	478	1045	1.39	18794	24.96	108	560	583	0.77	67088	89.09
76	**480**	**1144**	**1.52**	**19938**	**26.48**	109	563	876	1.16	67964	90.26
77	482	1140	1.51	21078	27.99	110	565	538	0.71	68502	90.97
78	484	1260	1.67	22338	29.67	111	568	688	0.91	69190	91.89
79	486	1271	1.69	23609	31.35	112	571	625	0.83	69815	92.72
80	488	1459	1.94	25068	33.29	113	574	441	0.59	70256	93.30
81	490	1314	1.75	26382	35.04	114	577	695	0.92	70951	94.22
82	492	1617	2.15	27999	37.18	115	580	278	0.37	71229	94.59
83	494	1364	1.81	29363	38.99	116	583	698	0.93	71927	95.52
84	497	1828	2.43	31191	41.42	117	586	185	0.25	72112	95.77
85	499	1227	1.63	32418	43.05	**118**	**590**	**583**	**0.77**	**72695**	**96.54**
86	501	2147	2.85	34565	45.90	119	593	226	0.30	72921	96.84
87	504	1092	1.45	35657	47.35	120	596	378	0.50	73299	97.34
88	506	2602	3.46	38259	50.81	121	600	250	0.33	73549	97.67
89	508	874	1.16	39133	51.97	122	603	180	0.24	73729	97.91
90	511	2833	3.76	41966	55.73	123	607	267	0.35	73996	98.27
91	513	739	0.98	42705	56.71	124	611	65	0.09	74061	98.35
92	516	3074	4.08	45779	60.80	125	615	269	0.36	74330	98.71
93	518	707	0.94	46486	61.73	126	619	78	0.10	74408	98.82
94	521	2932	3.89	49418	65.63	127	624	228	0.30	74636	99.12
95	523	662	0.88	50080	66.51	128	629	97	0.13	74733	99.25
96	526	2913	3.87	52993	70.38	129	634	118	0.16	74851	99.40
97	529	713	0.95	53706	71.32	130	639	103	0.14	74954	99.54
98	531	2508	3.33	56214	74.65	131	646	29	0.04	74983	99.58
99	534	908	1.21	57122	75.86	132	653	121	0.16	75104	99.74
100	537	1985	2.64	59107	78.50	133	661	0	0.00	75104	99.74
101	540	1003	1.33	60110	79.83	134	671	112	0.15	75216	99.89
102	542	1440	1.91	61550	81.74	135	683	0	0.00	75216	99.89
103	545	1095	1.45	62645	83.19	136	699	66	0.09	75282	99.98
104	548	970	1.29	63615	84.48	137	700	0	0.00	75282	99.98
105	551	1127	1.50	64742	85.98	138	700	18	0.02	75300	100.00
106	554	648	0.86	65390	86.84						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.32
Spring 2014 AIMS Frequency Distribution
Writing CRT High School Cohort 16 Prompt T

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	37	401	2	0.11	36	1.97
1	300	0	0.00	0	0.00	38	403	6	0.33	42	2.30
2	300	0	0.00	0	0.00	39	405	0	0.00	42	2.30
3	300	0	0.00	0	0.00	40	408	12	0.66	54	2.95
4	300	0	0.00	0	0.00	41	410	3	0.16	57	3.11
5	300	0	0.00	0	0.00	42	412	11	0.60	68	3.72
6	300	0	0.00	0	0.00	43	414	4	0.22	72	3.93
7	300	0	0.00	0	0.00	44	417	13	0.71	85	4.64
8	300	0	0.00	0	0.00	45	419	5	0.27	90	4.92
9	300	0	0.00	0	0.00	46	421	19	1.04	109	5.96
10	300	0	0.00	0	0.00	47	423	6	0.33	115	6.28
11	300	0	0.00	0	0.00	48	425	20	1.09	135	7.38
12	300	0	0.00	0	0.00	49	427	12	0.66	147	8.03
13	300	0	0.00	0	0.00	50	429	25	1.37	172	9.40
14	300	0	0.00	0	0.00	51	431	11	0.60	183	10.00
15	300	0	0.00	0	0.00	**52**	**433**	**13**	**0.71**	**196**	**10.71**
16	307	0	0.00	0	0.00	53	435	11	0.60	207	11.31
17	321	0	0.00	0	0.00	54	437	25	1.37	232	12.68
18	331	0	0.00	0	0.00	55	439	6	0.33	238	13.01
19	338	0	0.00	0	0.00	56	441	19	1.04	257	14.04
20	344	0	0.00	0	0.00	57	443	12	0.66	269	14.70
21	350	0	0.00	0	0.00	58	444	28	1.53	297	16.23
22	355	0	0.00	0	0.00	59	446	14	0.77	311	16.99
23	359	0	0.00	0	0.00	60	448	29	1.58	340	18.58
24	363	0	0.00	0	0.00	61	450	10	0.55	350	19.13
25	367	1	0.05	1	0.05	62	452	41	2.24	391	21.37
26	370	4	0.22	5	0.27	63	454	12	0.66	403	22.02
27	373	0	0.00	5	0.27	64	456	38	2.08	441	24.10
28	376	4	0.22	9	0.49	65	458	12	0.66	453	24.75
29	379	0	0.00	9	0.49	66	459	34	1.86	487	26.61
30	382	4	0.22	13	0.71	67	461	15	0.82	502	27.43
31	385	0	0.00	13	0.71	68	463	39	2.13	541	29.56
32	388	2	0.11	15	0.82	69	465	17	0.93	558	30.49
33	391	4	0.22	19	1.04	70	467	32	1.75	590	32.24
34	393	4	0.22	23	1.26	71	469	27	1.48	617	33.72
35	396	4	0.22	27	1.48	72	471	42	2.30	659	36.01
36	398	7	0.38	34	1.86	73	473	21	1.15	680	37.16

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

(table continued)

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Table 8.1.1.32 (Continued)
Spring 2014 AIMS Frequency Distribution
Writing CRT High School Cohort 16 Prompt T

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
74	475	43	2.35	723	39.51	107	553	14	0.77	1698	92.79
75	477	21	1.15	744	40.66	108	556	15	0.82	1713	93.61
76	478	35	1.91	779	42.57	109	559	9	0.49	1722	94.10
77	**480**	**21**	**1.15**	**800**	**43.72**	110	562	13	0.71	1735	94.81
78	482	44	2.40	844	46.12	111	565	3	0.16	1738	94.97
79	484	18	0.98	862	47.10	112	568	17	0.93	1755	95.90
80	486	25	1.37	887	48.47	113	571	3	0.16	1758	96.07
81	489	22	1.20	909	49.67	114	574	10	0.55	1768	96.61
82	491	47	2.57	956	52.24	115	577	1	0.05	1769	96.67
83	493	23	1.26	979	53.50	116	580	12	0.66	1781	97.32
84	495	59	3.22	1038	56.72	117	583	2	0.11	1783	97.43
85	497	17	0.93	1055	57.65	**118**	**587**	**7**	**0.38**	**1790**	**97.81**
86	499	59	3.22	1114	60.87	119	591	4	0.22	1794	98.03
87	502	20	1.09	1134	61.97	120	594	2	0.11	1796	98.14
88	504	65	3.55	1199	65.52	121	598	6	0.33	1802	98.47
89	506	9	0.49	1208	66.01	122	602	6	0.33	1808	98.80
90	509	49	2.68	1257	68.69	123	607	4	0.22	1812	99.02
91	511	11	0.60	1268	69.29	124	611	1	0.05	1813	99.07
92	513	63	3.44	1331	72.73	125	616	6	0.33	1819	99.40
93	516	17	0.93	1348	73.66	126	621	0	0.00	1819	99.40
94	518	63	3.44	1411	77.10	127	626	1	0.05	1820	99.45
95	521	13	0.71	1424	77.81	128	631	1	0.05	1821	99.51
96	524	50	2.73	1474	80.55	129	637	1	0.05	1822	99.56
97	526	17	0.93	1491	81.48	130	644	4	0.22	1826	99.78
98	529	45	2.46	1536	83.93	131	650	1	0.05	1827	99.84
99	531	19	1.04	1555	84.97	132	658	1	0.05	1828	99.89
100	534	26	1.42	1581	86.39	133	667	0	0.00	1828	99.89
101	537	17	0.93	1598	87.32	134	676	2	0.11	1830	100.00
102	539	24	1.31	1622	88.63	135	689	0	0.00	1830	100.00
103	542	21	1.15	1643	89.78	136	700	0	0.00	1830	100.00
104	545	15	0.82	1658	90.60	137	700	0	0.00	1830	100.00
105	548	10	0.55	1668	91.15	138	700	0	0.00	1830	100.00
106	550	16	0.87	1684	92.02						

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.33
Spring 2014 AIMS Frequency Distribution
Writing CRT High School Cohort 15 Prompt A

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	37	402	31	0.25	307	2.47
1	300	0	0.00	0	0.00	38	405	54	0.43	361	2.91
2	300	0	0.00	0	0.00	39	407	19	0.15	380	3.06
3	300	0	0.00	0	0.00	40	409	67	0.54	447	3.60
4	300	0	0.00	0	0.00	41	411	22	0.18	469	3.78
5	300	0	0.00	0	0.00	42	413	81	0.65	550	4.43
6	300	0	0.00	0	0.00	43	415	39	0.31	589	4.74
7	300	0	0.00	0	0.00	44	417	99	0.80	688	5.54
8	300	0	0.00	0	0.00	45	419	39	0.31	727	5.86
9	300	0	0.00	0	0.00	46	420	109	0.88	836	6.73
10	300	0	0.00	0	0.00	47	422	79	0.64	915	7.37
11	300	0	0.00	0	0.00	48	424	130	1.05	1045	8.42
12	300	0	0.00	0	0.00	49	426	101	0.81	1146	9.23
13	300	0	0.00	0	0.00	50	428	130	1.05	1276	10.28
14	300	0	0.00	0	0.00	51	430	129	1.04	1405	11.32
15	300	0	0.00	0	0.00	52	432	131	1.06	1536	12.37
16	313	1	0.01	1	0.01	**53**	**434**	**116**	**0.93**	**1652**	**13.31**
17	327	0	0.00	1	0.01	54	436	148	1.19	1800	14.50
18	337	0	0.00	1	0.01	55	438	134	1.08	1934	15.58
19	345	0	0.00	1	0.01	56	440	203	1.64	2137	17.21
20	351	1	0.01	2	0.02	57	442	145	1.17	2282	18.38
21	356	0	0.00	2	0.02	58	444	267	2.15	2549	20.53
22	361	12	0.10	14	0.11	59	446	143	1.15	2692	21.68
23	365	0	0.00	14	0.11	60	448	325	2.62	3017	24.30
24	369	20	0.16	34	0.27	61	450	159	1.28	3176	25.58
25	372	1	0.01	35	0.28	62	452	378	3.04	3554	28.63
26	375	23	0.19	58	0.47	63	454	175	1.41	3729	30.04
27	378	3	0.02	61	0.49	64	456	413	3.33	4142	33.36
28	381	31	0.25	92	0.74	65	458	180	1.45	4322	34.81
29	384	9	0.07	101	0.81	66	459	440	3.54	4762	38.36
30	387	19	0.15	120	0.97	67	461	171	1.38	4933	39.73
31	389	19	0.15	139	1.12	68	463	423	3.41	5356	43.14
32	391	19	0.15	158	1.27	69	465	208	1.68	5564	44.82
33	394	25	0.20	183	1.47	70	467	373	3.00	5937	47.82
34	396	29	0.23	212	1.71	71	469	246	1.98	6183	49.80
35	398	25	0.20	237	1.91	72	471	373	3.00	6556	52.81
36	400	39	0.31	276	2.22	73	473	292	2.35	6848	55.16

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

(table continued)

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Table 8.1.1.33 (Continued)
Spring 2014 AIMS Frequency Distribution
Writing CRT High School Cohort 15 Prompt A

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
74	475	304	2.45	7152	57.61	107	557	57	0.46	11869	95.60
75	478	274	2.21	7426	59.81	108	560	28	0.23	11897	95.83
76	**480**	**271**	**2.18**	**7697**	**62.00**	109	563	53	0.43	11950	96.25
77	482	307	2.47	8004	64.47	110	565	16	0.13	11966	96.38
78	484	251	2.02	8255	66.49	111	568	50	0.40	12016	96.79
79	486	255	2.05	8510	68.55	112	571	43	0.35	12059	97.13
80	488	250	2.01	8760	70.56	113	574	29	0.23	12088	97.37
81	490	226	1.82	8986	72.38	114	577	44	0.35	12132	97.72
82	492	275	2.22	9261	74.60	115	580	14	0.11	12146	97.83
83	494	163	1.31	9424	75.91	116	583	39	0.31	12185	98.15
84	497	247	1.99	9671	77.90	117	586	15	0.12	12200	98.27
85	499	128	1.03	9799	78.93	**118**	**590**	**37**	**0.30**	**12237**	**98.57**
86	501	245	1.97	10044	80.90	119	593	15	0.12	12252	98.69
87	504	108	0.87	10152	81.77	120	596	29	0.23	12281	98.92
88	506	229	1.84	10381	83.62	121	600	22	0.18	12303	99.10
89	508	74	0.60	10455	84.21	122	603	15	0.12	12318	99.22
90	511	195	1.57	10650	85.78	123	607	28	0.23	12346	99.44
91	513	61	0.49	10711	86.27	124	611	5	0.04	12351	99.48
92	516	157	1.26	10868	87.54	125	615	8	0.06	12359	99.55
93	518	43	0.35	10911	87.89	126	619	8	0.06	12367	99.61
94	521	149	1.20	11060	89.09	127	624	15	0.12	12382	99.73
95	523	40	0.32	11100	89.41	128	629	5	0.04	12387	99.77
96	526	129	1.04	11229	90.45	129	634	6	0.05	12393	99.82
97	529	38	0.31	11267	90.75	130	639	6	0.05	12399	99.87
98	531	109	0.88	11376	91.63	131	646	2	0.02	12401	99.89
99	534	43	0.35	11419	91.98	132	653	5	0.04	12406	99.93
100	537	99	0.80	11518	92.77	133	661	0	0.00	12406	99.93
101	540	32	0.26	11550	93.03	134	671	6	0.05	12412	99.98
102	542	84	0.68	11634	93.71	135	683	0	0.00	12412	99.98
103	545	45	0.36	11679	94.07	136	699	3	0.02	12415	100.00
104	548	47	0.38	11726	94.45	137	700	0	0.00	12415	100.00
105	551	57	0.46	11783	94.91	138	700	0	0.00	12415	100.00
106	554	29	0.23	11812	95.14						

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.34
Spring 2014 AIMS Frequency Distribution
Writing CRT High School Cohort 15 Prompt T

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	37	401	1	0.11	10	1.10
1	300	0	0.00	0	0.00	38	403	4	0.44	14	1.54
2	300	0	0.00	0	0.00	39	405	2	0.22	16	1.75
3	300	0	0.00	0	0.00	40	408	10	1.10	26	2.85
4	300	0	0.00	0	0.00	41	410	1	0.11	27	2.96
5	300	0	0.00	0	0.00	42	412	10	1.10	37	4.06
6	300	0	0.00	0	0.00	43	414	2	0.22	39	4.28
7	300	0	0.00	0	0.00	44	417	8	0.88	47	5.15
8	300	0	0.00	0	0.00	45	419	2	0.22	49	5.37
9	300	0	0.00	0	0.00	46	421	9	0.99	58	6.36
10	300	0	0.00	0	0.00	47	423	5	0.55	63	6.91
11	300	0	0.00	0	0.00	48	425	9	0.99	72	7.89
12	300	0	0.00	0	0.00	49	427	6	0.66	78	8.55
13	300	0	0.00	0	0.00	50	429	7	0.77	85	9.32
14	300	0	0.00	0	0.00	51	431	4	0.44	89	9.76
15	300	0	0.00	0	0.00	**52**	**433**	**14**	**1.54**	**103**	**11.29**
16	307	0	0.00	0	0.00	53	435	6	0.66	109	11.95
17	321	0	0.00	0	0.00	54	437	14	1.54	123	13.49
18	331	0	0.00	0	0.00	55	439	6	0.66	129	14.14
19	338	0	0.00	0	0.00	56	441	20	2.19	149	16.34
20	344	0	0.00	0	0.00	57	443	10	1.10	159	17.43
21	350	0	0.00	0	0.00	58	444	21	2.30	180	19.74
22	355	0	0.00	0	0.00	59	446	12	1.32	192	21.05
23	359	0	0.00	0	0.00	60	448	20	2.19	212	23.25
24	363	0	0.00	0	0.00	61	450	9	0.99	221	24.23
25	367	0	0.00	0	0.00	62	452	31	3.40	252	27.63
26	370	1	0.11	1	0.11	63	454	8	0.88	260	28.51
27	373	0	0.00	1	0.11	64	456	33	3.62	293	32.13
28	376	1	0.11	2	0.22	65	458	16	1.75	309	33.88
29	379	2	0.22	4	0.44	66	459	29	3.18	338	37.06
30	382	1	0.11	5	0.55	67	461	6	0.66	344	37.72
31	385	1	0.11	6	0.66	68	463	29	3.18	373	40.90
32	388	0	0.00	6	0.66	69	465	13	1.43	386	42.32
33	391	1	0.11	7	0.77	70	467	33	3.62	419	45.94
34	393	2	0.22	9	0.99	71	469	18	1.97	437	47.92
35	396	0	0.00	9	0.99	72	471	29	3.18	466	51.10
36	398	0	0.00	9	0.99	73	473	14	1.54	480	52.63

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

(table continued)

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Table 8.1.1.34 (Continued)
Spring 2014 AIMS Frequency Distribution
Writing CRT High School Cohort 15 Prompt T

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
74	475	27	2.96	507	55.59	107	553	1	0.11	889	97.48
75	477	19	2.08	526	57.68	108	556	4	0.44	893	97.92
76	478	23	2.52	549	60.20	109	559	2	0.22	895	98.14
77	**480**	**25**	**2.74**	**574**	**62.94**	110	562	1	0.11	896	98.25
78	482	19	2.08	593	65.02	111	565	2	0.22	898	98.46
79	484	19	2.08	612	67.11	112	568	1	0.11	899	98.57
80	486	32	3.51	644	70.61	113	571	1	0.11	900	98.68
81	489	12	1.32	656	71.93	114	574	0	0.00	900	98.68
82	491	29	3.18	685	75.11	115	577	2	0.22	902	98.90
83	493	12	1.32	697	76.43	116	580	2	0.22	904	99.12
84	495	20	2.19	717	78.62	117	583	0	0.00	904	99.12
85	497	5	0.55	722	79.17	**118**	**587**	**2**	**0.22**	**906**	**99.34**
86	499	31	3.40	753	82.57	119	591	0	0.00	906	99.34
87	502	8	0.88	761	83.44	120	594	1	0.11	907	99.45
88	504	29	3.18	790	86.62	121	598	1	0.11	908	99.56
89	506	5	0.55	795	87.17	122	602	0	0.00	908	99.56
90	509	21	2.30	816	89.47	123	607	1	0.11	909	99.67
91	511	2	0.22	818	89.69	124	611	0	0.00	909	99.67
92	513	10	1.10	828	90.79	125	616	0	0.00	909	99.67
93	516	4	0.44	832	91.23	126	621	0	0.00	909	99.67
94	518	13	1.43	845	92.65	127	626	0	0.00	909	99.67
95	521	2	0.22	847	92.87	128	631	2	0.22	911	99.89
96	524	9	0.99	856	93.86	129	637	1	0.11	912	100.00
97	526	5	0.55	861	94.41	130	644	0	0.00	912	100.00
98	529	6	0.66	867	95.07	131	650	0	0.00	912	100.00
99	531	3	0.33	870	95.39	132	658	0	0.00	912	100.00
100	534	5	0.55	875	95.94	133	667	0	0.00	912	100.00
101	537	1	0.11	876	96.05	134	676	0	0.00	912	100.00
102	539	1	0.11	877	96.16	135	689	0	0.00	912	100.00
103	542	2	0.22	879	96.38	136	700	0	0.00	912	100.00
104	545	5	0.55	884	96.93	137	700	0	0.00	912	100.00
105	548	3	0.33	887	97.26	138	700	0	0.00	912	100.00
106	550	1	0.11	888	97.37						

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.35
Spring 2014 AIMS Frequency Distribution
Writing CRT High School Cohort 14 Prompt A

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	37	402	26	0.40	223	3.42
1	300	0	0.00	0	0.00	38	405	44	0.67	267	4.09
2	300	0	0.00	0	0.00	39	407	20	0.31	287	4.40
3	300	0	0.00	0	0.00	40	409	53	0.81	340	5.21
4	300	0	0.00	0	0.00	41	411	27	0.41	367	5.62
5	300	0	0.00	0	0.00	42	413	83	1.27	450	6.89
6	300	0	0.00	0	0.00	43	415	19	0.29	469	7.19
7	300	0	0.00	0	0.00	44	417	75	1.15	544	8.33
8	300	0	0.00	0	0.00	45	419	39	0.60	583	8.93
9	300	0	0.00	0	0.00	46	420	97	1.49	680	10.42
10	300	0	0.00	0	0.00	47	422	45	0.69	725	11.11
11	300	0	0.00	0	0.00	48	424	86	1.32	811	12.43
12	300	0	0.00	0	0.00	49	426	62	0.95	873	13.38
13	300	0	0.00	0	0.00	50	428	62	0.95	935	14.33
14	300	0	0.00	0	0.00	51	430	65	1.00	1000	15.32
15	300	0	0.00	0	0.00	52	432	86	1.32	1086	16.64
16	313	0	0.00	0	0.00	**53**	**434**	**84**	**1.29**	**1170**	**17.93**
17	327	0	0.00	0	0.00	54	436	132	2.02	1302	19.95
18	337	1	0.02	1	0.02	55	438	80	1.23	1382	21.17
19	345	0	0.00	1	0.02	56	440	133	2.04	1515	23.21
20	351	1	0.02	2	0.03	57	442	99	1.52	1614	24.73
21	356	0	0.00	2	0.03	58	444	188	2.88	1802	27.61
22	361	5	0.08	7	0.11	59	446	85	1.30	1887	28.91
23	365	0	0.00	7	0.11	60	448	212	3.25	2099	32.16
24	369	12	0.18	19	0.29	61	450	92	1.41	2191	33.57
25	372	0	0.00	19	0.29	62	452	254	3.89	2445	37.46
26	375	21	0.32	40	0.61	63	454	91	1.39	2536	38.85
27	378	4	0.06	44	0.67	64	456	251	3.85	2787	42.70
28	381	18	0.28	62	0.95	65	458	116	1.78	2903	44.48
29	384	5	0.08	67	1.03	66	459	267	4.09	3170	48.57
30	387	23	0.35	90	1.38	67	461	136	2.08	3306	50.65
31	389	7	0.11	97	1.49	68	463	214	3.28	3520	53.93
32	391	16	0.25	113	1.73	69	465	134	2.05	3654	55.98
33	394	13	0.20	126	1.93	70	467	223	3.42	3877	59.40
34	396	21	0.32	147	2.25	71	469	150	2.30	4027	61.70
35	398	22	0.34	169	2.59	72	471	200	3.06	4227	64.76
36	400	28	0.43	197	3.02	73	473	160	2.45	4387	67.21

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

(table continued)

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Table 8.1.1.35 (Continued)
Spring 2014 AIMS Frequency Distribution
Writing CRT High School Cohort 14 Prompt A

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
74	475	165	2.53	4552	69.74	107	557	12	0.18	6435	98.59
75	478	153	2.34	4705	72.09	108	560	7	0.11	6442	98.70
76	**480**	**162**	**2.48**	**4867**	**74.57**	109	563	14	0.21	6456	98.91
77	482	117	1.79	4984	76.36	110	565	4	0.06	6460	98.97
78	484	123	1.88	5107	78.24	111	568	3	0.05	6463	99.02
79	486	109	1.67	5216	79.91	112	571	11	0.17	6474	99.19
80	488	129	1.98	5345	81.89	113	574	5	0.08	6479	99.26
81	490	101	1.55	5446	83.44	114	577	6	0.09	6485	99.36
82	492	117	1.79	5563	85.23	115	580	3	0.05	6488	99.40
83	494	75	1.15	5638	86.38	116	583	6	0.09	6494	99.49
84	497	106	1.62	5744	88.00	117	586	2	0.03	6496	99.53
85	499	51	0.78	5795	88.79	**118**	**590**	**7**	**0.11**	**6503**	**99.63**
86	501	93	1.42	5888	90.21	119	593	2	0.03	6505	99.66
87	504	32	0.49	5920	90.70	120	596	1	0.02	6506	99.68
88	506	89	1.36	6009	92.06	121	600	4	0.06	6510	99.74
89	508	30	0.46	6039	92.52	122	603	2	0.03	6512	99.77
90	511	67	1.03	6106	93.55	123	607	2	0.03	6514	99.80
91	513	21	0.32	6127	93.87	124	611	1	0.02	6515	99.82
92	516	55	0.84	6182	94.71	125	615	3	0.05	6518	99.86
93	518	12	0.18	6194	94.90	126	619	0	0.00	6518	99.86
94	521	54	0.83	6248	95.73	127	624	4	0.06	6522	99.92
95	523	12	0.18	6260	95.91	128	629	3	0.05	6525	99.97
96	526	39	0.60	6299	96.51	129	634	0	0.00	6525	99.97
97	529	10	0.15	6309	96.66	130	639	1	0.02	6526	99.98
98	531	31	0.47	6340	97.13	131	646	0	0.00	6526	99.98
99	534	9	0.14	6349	97.27	132	653	1	0.02	6527	100.00
100	537	19	0.29	6368	97.56	133	661	0	0.00	6527	100.00
101	540	10	0.15	6378	97.72	134	671	0	0.00	6527	100.00
102	542	12	0.18	6390	97.90	135	683	0	0.00	6527	100.00
103	545	9	0.14	6399	98.04	136	699	0	0.00	6527	100.00
104	548	12	0.18	6411	98.22	137	700	0	0.00	6527	100.00
105	551	10	0.15	6421	98.38	138	700	0	0.00	6527	100.00
106	554	2	0.03	6423	98.41						

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.36
Spring 2014 AIMS Frequency Distribution
Writing CRT High School Cohort 14 Prompt T

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	300	0	0.00	0	0.00	37	401	0	0.00	8	1.63
1	300	0	0.00	0	0.00	38	403	4	0.81	12	2.44
2	300	0	0.00	0	0.00	39	405	1	0.20	13	2.64
3	300	0	0.00	0	0.00	40	408	4	0.81	17	3.46
4	300	0	0.00	0	0.00	41	410	2	0.41	19	3.86
5	300	0	0.00	0	0.00	42	412	7	1.42	26	5.28
6	300	0	0.00	0	0.00	43	414	2	0.41	28	5.69
7	300	0	0.00	0	0.00	44	417	12	2.44	40	8.13
8	300	0	0.00	0	0.00	45	419	4	0.81	44	8.94
9	300	0	0.00	0	0.00	46	421	4	0.81	48	9.76
10	300	0	0.00	0	0.00	47	423	7	1.42	55	11.18
11	300	0	0.00	0	0.00	48	425	9	1.83	64	13.01
12	300	0	0.00	0	0.00	49	427	6	1.22	70	14.23
13	300	0	0.00	0	0.00	50	429	10	2.03	80	16.26
14	300	0	0.00	0	0.00	51	431	4	0.81	84	17.07
15	300	0	0.00	0	0.00	**52**	**433**	**13**	**2.64**	**97**	**19.72**
16	307	0	0.00	0	0.00	53	435	7	1.42	104	21.14
17	321	0	0.00	0	0.00	54	437	9	1.83	113	22.97
18	331	0	0.00	0	0.00	55	439	4	0.81	117	23.78
19	338	0	0.00	0	0.00	56	441	12	2.44	129	26.22
20	344	0	0.00	0	0.00	57	443	6	1.22	135	27.44
21	350	0	0.00	0	0.00	58	444	20	4.07	155	31.50
22	355	0	0.00	0	0.00	59	446	1	0.20	156	31.71
23	359	0	0.00	0	0.00	60	448	13	2.64	169	34.35
24	363	1	0.20	1	0.20	61	450	6	1.22	175	35.57
25	367	0	0.00	1	0.20	62	452	15	3.05	190	38.62
26	370	0	0.00	1	0.20	63	454	5	1.02	195	39.63
27	373	0	0.00	1	0.20	64	456	15	3.05	210	42.68
28	376	1	0.20	2	0.41	65	458	10	2.03	220	44.72
29	379	1	0.20	3	0.61	66	459	20	4.07	240	48.78
30	382	0	0.00	3	0.61	67	461	5	1.02	245	49.80
31	385	1	0.20	4	0.81	68	463	23	4.67	268	54.47
32	388	3	0.61	7	1.42	69	465	10	2.03	278	56.50
33	391	1	0.20	8	1.63	70	467	12	2.44	290	58.94
34	393	0	0.00	8	1.63	71	469	9	1.83	299	60.77
35	396	0	0.00	8	1.63	72	471	13	2.64	312	63.41
36	398	0	0.00	8	1.63	73	473	10	2.03	322	65.45

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

(table continued)

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Table 8.1.1.36 (Continued)
Spring 2014 AIMS Frequency Distribution
Writing CRT High School Cohort 14 Prompt T

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
74	475	20	4.07	342	69.51	107	553	0	0.00	489	99.39
75	477	12	2.44	354	71.95	108	556	1	0.20	490	99.59
76	478	12	2.44	366	74.39	109	559	0	0.00	490	99.59
77	**480**	**10**	**2.03**	**376**	**76.42**	110	562	0	0.00	490	99.59
78	482	13	2.64	389	79.07	111	565	0	0.00	490	99.59
79	484	5	1.02	394	80.08	112	568	1	0.20	491	99.80
80	486	14	2.85	408	82.93	113	571	0	0.00	491	99.80
81	489	6	1.22	414	84.15	114	574	0	0.00	491	99.80
82	491	12	2.44	426	86.59	115	577	0	0.00	491	99.80
83	493	4	0.81	430	87.40	116	580	0	0.00	491	99.80
84	495	10	2.03	440	89.43	117	583	1	0.20	492	100.00
85	497	1	0.20	441	89.63	**118**	**587**	**0**	**0.00**	**492**	**100.00**
86	499	6	1.22	447	90.85	119	591	0	0.00	492	100.00
87	502	2	0.41	449	91.26	120	594	0	0.00	492	100.00
88	504	7	1.42	456	92.68	121	598	0	0.00	492	100.00
89	506	3	0.61	459	93.29	122	602	0	0.00	492	100.00
90	509	9	1.83	468	95.12	123	607	0	0.00	492	100.00
91	511	0	0.00	468	95.12	124	611	0	0.00	492	100.00
92	513	3	0.61	471	95.73	125	616	0	0.00	492	100.00
93	516	1	0.20	472	95.93	126	621	0	0.00	492	100.00
94	518	4	0.81	476	96.75	127	626	0	0.00	492	100.00
95	521	2	0.41	478	97.15	128	631	0	0.00	492	100.00
96	524	3	0.61	481	97.76	129	637	0	0.00	492	100.00
97	526	1	0.20	482	97.97	130	644	0	0.00	492	100.00
98	529	1	0.20	483	98.17	131	650	0	0.00	492	100.00
99	531	1	0.20	484	98.37	132	658	0	0.00	492	100.00
100	534	1	0.20	485	98.58	133	667	0	0.00	492	100.00
101	537	1	0.20	486	98.78	134	676	0	0.00	492	100.00
102	539	1	0.20	487	98.98	135	689	0	0.00	492	100.00
103	542	0	0.00	487	98.98	136	700	0	0.00	492	100.00
104	545	1	0.20	488	99.19	137	700	0	0.00	492	100.00
105	548	0	0.00	488	99.19	138	700	0	0.00	492	100.00
106	550	1	0.20	489	99.39						

Note: Freq. = Frequency; Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.37
Spring 2014 AIMS Frequency Distribution
Science CRT Grade 4

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	200	1	0.00	1	0.00	**28**	**502**	**2899**	**3.48**	**37323**	**44.75**
1	269	0	0.00	1	0.00	29	506	2852	3.42	40175	48.17
2	308	1	0.00	2	0.00	30	510	2797	3.35	42972	51.52
3	331	1	0.00	3	0.00	31	515	2860	3.43	45832	54.95
4	349	1	0.00	4	0.00	32	519	2778	3.33	48610	58.28
5	363	3	0.00	7	0.01	33	523	2851	3.42	51461	61.70
6	375	7	0.01	14	0.02	34	528	2815	3.37	54276	65.07
7	385	15	0.02	29	0.03	35	532	2684	3.22	56960	68.29
8	394	41	0.05	70	0.08	36	537	2593	3.11	59553	71.40
9	402	94	0.11	164	0.20	37	542	2574	3.09	62127	74.49
10	410	187	0.22	351	0.42	38	546	2527	3.03	64654	77.52
11	417	346	0.41	697	0.84	**39**	**551**	**2440**	**2.93**	**67094**	**80.44**
12	424	509	0.61	1206	1.45	40	557	2259	2.71	69353	83.15
13	430	741	0.89	1947	2.33	41	562	2222	2.66	71575	85.81
14	436	1008	1.21	2955	3.54	42	568	2016	2.42	73591	88.23
15	441	1383	1.66	4338	5.20	43	574	1880	2.25	75471	90.48
16	447	1666	2.00	6004	7.20	44	580	1706	2.05	77177	92.53
17	452	1901	2.28	7905	9.48	45	587	1519	1.82	78696	94.35
18	457	2217	2.66	10122	12.14	46	594	1286	1.54	79982	95.89
19	**462**	**2340**	**2.81**	**12462**	**14.94**	47	602	1095	1.31	81077	97.21
20	467	2480	2.97	14942	17.91	48	611	788	0.94	81865	98.15
21	471	2568	3.08	17510	20.99	49	622	657	0.79	82522	98.94
22	476	2689	3.22	20199	24.22	50	634	421	0.50	82943	99.44
23	480	2890	3.46	23089	27.68	51	650	241	0.29	83184	99.73
24	485	2701	3.24	25790	30.92	52	671	148	0.18	83332	99.91
25	489	2946	3.53	28736	34.45	53	707	56	0.07	83388	99.98
26	493	2848	3.41	31584	37.87	54	800	20	0.02	83408	100.00
27	497	2840	3.40	34424	41.27						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.38
Spring 2014 AIMS Frequency Distribution
Science CRT Grade 8

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	200	0	0.00	0	0.00	30	495	2636	3.20	28595	34.67
1	277	0	0.00	0	0.00	31	499	2628	3.19	31223	37.86
2	312	1	0.00	1	0.00	**32**	**503**	**2716**	**3.29**	**33939**	**41.15**
3	333	0	0.00	1	0.00	33	507	2680	3.25	36619	44.40
4	349	0	0.00	1	0.00	34	511	2949	3.58	39568	47.98
5	361	1	0.00	2	0.00	35	516	2926	3.55	42494	51.53
6	371	5	0.01	7	0.01	36	520	2868	3.48	45362	55.00
7	381	7	0.01	14	0.02	37	524	2938	3.56	48300	58.57
8	389	31	0.04	45	0.05	38	528	2998	3.64	51298	62.20
9	396	46	0.06	91	0.11	**39**	**533**	**2936**	**3.56**	**54234**	**65.76**
10	403	108	0.13	199	0.24	40	537	2908	3.53	57142	69.29
11	409	158	0.19	357	0.43	41	542	2918	3.54	60060	72.83
12	415	233	0.28	590	0.72	42	546	2723	3.30	62783	76.13
13	421	381	0.46	971	1.18	43	551	2587	3.14	65370	79.27
14	426	513	0.62	1484	1.80	44	556	2535	3.07	67905	82.34
15	431	664	0.81	2148	2.60	45	562	2354	2.85	70259	85.19
16	436	797	0.97	2945	3.57	46	567	2275	2.76	72534	87.95
17	441	969	1.17	3914	4.75	47	573	2022	2.45	74556	90.40
18	446	1095	1.33	5009	6.07	48	580	1739	2.11	76295	92.51
19	450	1273	1.54	6282	7.62	49	586	1502	1.82	77797	94.33
20	455	1415	1.72	7697	9.33	50	594	1278	1.55	79075	95.88
21	459	1490	1.81	9187	11.14	51	602	1068	1.30	80143	97.18
22	463	1695	2.06	10882	13.20	52	611	822	1.00	80965	98.18
23	467	1820	2.21	12702	15.40	53	622	621	0.75	81586	98.93
24	471	1970	2.39	14672	17.79	54	634	408	0.49	81994	99.42
25	**475**	**2085**	**2.53**	**16757**	**20.32**	55	650	269	0.33	82263	99.75
26	479	2140	2.59	18897	22.91	56	671	155	0.19	82418	99.94
27	483	2180	2.64	21077	25.56	57	706	39	0.05	82457	99.98
28	487	2416	2.93	23493	28.49	58	800	13	0.02	82470	100.00
29	491	2466	2.99	25959	31.48						

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.39
Spring 2014 AIMS Frequency Distribution
Science CRT High School Cohort 17

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	200	0	0.00	0	0.00	33	473	502	1.91	6202	23.62
1	243	1	0.00	1	0.00	**34**	**477**	**509**	**1.94**	**6711**	**25.56**
2	280	0	0.00	1	0.00	35	480	521	1.98	7232	27.55
3	303	0	0.00	1	0.00	36	484	581	2.21	7813	29.76
4	319	1	0.00	2	0.01	37	488	588	2.24	8401	32.00
5	332	0	0.00	2	0.01	38	491	628	2.39	9029	34.39
6	343	1	0.00	3	0.01	39	495	698	2.66	9727	37.05
7	352	3	0.01	6	0.02	40	498	692	2.64	10419	39.69
8	360	2	0.01	8	0.03	**41**	**502**	**728**	**2.77**	**11147**	**42.46**
9	368	8	0.03	16	0.06	42	506	720	2.74	11867	45.20
10	375	10	0.04	26	0.10	43	510	750	2.86	12617	48.06
11	381	23	0.09	49	0.19	44	514	809	3.08	13426	51.14
12	387	45	0.17	94	0.36	45	518	734	2.80	14160	53.93
13	392	55	0.21	149	0.57	46	522	813	3.10	14973	57.03
14	398	81	0.31	230	0.88	47	526	807	3.07	15780	60.11
15	403	123	0.47	353	1.34	48	531	836	3.18	16616	63.29
16	407	140	0.53	493	1.88	49	535	857	3.26	17473	66.55
17	412	165	0.63	658	2.51	**50**	**540**	**876**	**3.34**	**18349**	**69.89**
18	416	175	0.67	833	3.17	51	545	817	3.11	19166	73.00
19	421	225	0.86	1058	4.03	52	550	842	3.21	20008	76.21
20	425	260	0.99	1318	5.02	53	555	865	3.29	20873	79.50
21	429	254	0.97	1572	5.99	54	561	836	3.18	21709	82.69
22	433	272	1.04	1844	7.02	55	567	802	3.05	22511	85.74
23	437	293	1.12	2137	8.14	56	574	767	2.92	23278	88.66
24	441	327	1.25	2464	9.39	57	582	710	2.70	23988	91.37
25	445	350	1.33	2814	10.72	58	590	583	2.22	24571	93.59
26	448	339	1.29	3153	12.01	59	599	502	1.91	25073	95.50
27	452	324	1.23	3477	13.24	60	610	447	1.70	25520	97.20
28	456	369	1.41	3846	14.65	61	622	324	1.23	25844	98.44
29	459	445	1.69	4291	16.34	62	639	224	0.85	26068	99.29
30	463	430	1.64	4721	17.98	63	661	118	0.45	26186	99.74
31	466	456	1.74	5177	19.72	64	698	62	0.24	26248	99.98
32	470	523	1.99	5700	21.71	65	800	6	0.02	26254	100.00

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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Table 8.1.1.40
Spring 2014 AIMS Frequency Distribution
Science CRT High School Cohort 16

Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %	Raw Score	Scale Score	Freq	%	Cum. Freq.	Cum. %
0	200	0	0.00	0	0.00	33	473	1176	2.35	21887	43.69
1	243	1	0.00	1	0.00	**34**	**477**	**1170**	**2.34**	**23057**	**46.03**
2	280	2	0.00	3	0.01	35	480	1190	2.38	24247	48.40
3	303	3	0.01	6	0.01	36	484	1241	2.48	25488	50.88
4	319	1	0.00	7	0.01	37	488	1229	2.45	26717	53.33
5	332	1	0.00	8	0.02	38	491	1322	2.64	28039	55.97
6	343	3	0.01	11	0.02	39	495	1308	2.61	29347	58.58
7	352	5	0.01	16	0.03	40	498	1251	2.50	30598	61.08
8	360	19	0.04	35	0.07	**41**	**502**	**1247**	**2.49**	**31845**	**63.57**
9	368	38	0.08	73	0.15	42	506	1208	2.41	33053	65.98
10	375	72	0.14	145	0.29	43	510	1218	2.43	34271	68.41
11	381	138	0.28	283	0.56	44	514	1244	2.48	35515	70.89
12	387	276	0.55	559	1.12	45	518	1131	2.26	36646	73.15
13	392	359	0.72	918	1.83	46	522	1191	2.38	37837	75.53
14	398	462	0.92	1380	2.75	47	526	1158	2.31	38995	77.84
15	403	562	1.12	1942	3.88	48	531	1141	2.28	40136	80.12
16	407	774	1.55	2716	5.42	49	535	1050	2.10	41186	82.21
17	412	936	1.87	3652	7.29	**50**	**540**	**1001**	**2.00**	**42187**	**84.21**
18	416	1014	2.02	4666	9.31	51	545	1028	2.05	43215	86.26
19	421	1032	2.06	5698	11.37	52	550	979	1.95	44194	88.22
20	425	1131	2.26	6829	13.63	53	555	909	1.81	45103	90.03
21	429	1074	2.14	7903	15.78	54	561	917	1.83	46020	91.86
22	433	1094	2.18	8997	17.96	55	567	803	1.60	46823	93.47
23	437	1175	2.35	10172	20.31	56	574	704	1.41	47527	94.87
24	441	1095	2.19	11267	22.49	57	582	638	1.27	48165	96.15
25	445	1134	2.26	12401	24.75	58	590	583	1.16	48748	97.31
26	448	1157	2.31	13558	27.06	59	599	467	0.93	49215	98.24
27	452	1099	2.19	14657	29.26	60	610	344	0.69	49559	98.93
28	456	1167	2.33	15824	31.59	61	622	244	0.49	49803	99.42
29	459	1198	2.39	17022	33.98	62	639	167	0.33	49970	99.75
30	463	1214	2.42	18236	36.40	63	661	90	0.18	50060	99.93
31	466	1198	2.39	19434	38.79	64	698	31	0.06	50091	99.99
32	470	1277	2.55	20711	41.34	65	800	5	0.01	50096	100.00

Note: Freq. = Frequency, Cum = Cumulative. Students with no valid attempt, invalidation or off-grade are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections facilities, and students attending hospital schools are not included in this summary.

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8.1.2 AIMS 3-8 NRT State Results

This section of the technical report provides information on the results of the norm-referenced component of the reading, writing, and mathematics tests in Grades 3-8. Students in Grades 3-8 were administered a number of Stanford 10 items embedded within the AIMS 3-8 tests to provide norm-referenced scores. Please see chapters 3 and 4 of this report for more details on the design of the AIMS 3-8 tests. In addition to AIMS scale scores, Arizona students were also assigned norm-referenced scores based on their performance on the NRT items and the 2007 Stanford 10 norms. For more information regarding the development of the Stanford 10 norms please see *Stanford Achievement Test* Series, Tenth Edition: Supplemental Technical Data Report (NCS Pearson, Inc., 2008) and *Stanford Achievement Test* Series, Tenth Edition: 2007 Spring Supplemental Multilevel Norms Book (NCS Pearson, Inc., 2007).

Table 8.1.2.1 presents norm-referenced results from the Spring 2014 administration of AIMS 3-8. Included in the table for each grade and content are the mean (M), standard deviation (SD), and scales scores at the 25th, 50th, and 75th percentiles for both the Arizona students (AZ) and the Stanford 10 national standardization data (SS). The Stanford 10 national standardization data was taken from the documents cited above.

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Table 8.1.2.1
Spring 2014 AIMS NRT State Test Results

				Percentile		
Test	N	M	SD	25	50	75
Mathematics						
3	84180	627.6	47.0	595	626	665
4	83410	640.8	47.9	609	640	670
5	83575	661.0	41.6	634	659	689
6	82586	679.6	44.7	644	675	714
7	83105	688.8	49.9	652	683	724
8	82369	709.0	47.1	673	704	740
Reading						
3	84212	632.2	44.5	603	632	661
4	83418	640.0	41.9	612	639	663
5	83599	654.9	39.1	628	660	677
6	82597	667.8	35.2	644	671	695
7	83127	674.0	37.2	646	674	699
8	82384	691.2	35.8	669	690	717
Writing						
3	84212	610.4	42.9	586	611	642
4	83418	634.1	44.5	606	631	664
5	83599	651.8	43.1	622	655	678
6	82597	663.8	41.1	634	660	684
7	83127	673.7	40.7	645	670	704
8	82384	679.4	39.8	650	676	700

Note: AZ=Arizona NRT; SS=Stanford 10 National Standardization Sample. Students with no valid attempt, invalidation, or off-grade are not included in the AZ NRT summary data. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile correction centers, and students attending state hospital schools are not included in the AZ NRT summary. The AZ NRT results are not final results and are presented here for purposes of addressing reliability and validity. AZ NRT results should not be used for accountability purposes.

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8.2 Longitudinal Data

The Spring 2010 administration of the AIMS Mathematics assessment represents the baseline year for those assessments. During the 2010 standard setting, a new vertical scale was established for Grades 3-8 assesments, new scales were established for the high school assessment, and new cut scores were assigned for each grade. In this section, the Spring 2014 results are presented along with results back to 2010 to provide longitudinal information. Tables 8.2.1 and 8.2.2 include scale score descriptive statistics and performance level distributions for the AIMS Mathematics administrations.

The Spring 2005 administration of the AIMS Reading assessment represents the baseline year for those assessments. During the 2005 administration, a new vertical scale was established for the Grades 3-8 assessments, new scales were established for the high school assessment, and new cut scores were assigned for each grade. In this section, the Spring 2014 results are presented along with results back to 2005 to provide longitudinal information. Tables 8.2.3 and 8.2.4 include scale score descriptive statistics and performance level distributions for the AIMS Reading administrations.

New writing assessments were created and administered in 2011 and a new scale was created. The 2011 administration serves as the base year for future comparisons. The results for the Spring 2011, 2012, 2013 and 2014 AIMS Writing assessments are provided in Tables 8.2.5 and 8.2.6.

The Spring 2008 administration represents the baseline year for the AIMS Science assessment. In this section, the Spring 2014 results are presented along with results back to 2008 to provide longitudinal information. Tables 8.2.7 and 8.2.8 include scale score descriptive statistics and performance level distributions for the AIMS Science administrations.

In this section, the Spring 2014 results are presented along with the longitudinal results going back to the base administration for each subject. Tables 8.2.1 - 8.2.8 include scale score descriptive statistics and performance level distributions for the AIMS administration from each year. Caution should be taken when interpreting year-to-year or grade-to-grade comparisons, as slight differences in exclusion rules, changes in the manner in which accommodations were identified, and changes in the manner in which high school results were separated may result in different student population characteristics reported in Tables 8.2.1-8.2.8. High school results are reported by grade in 2005 and changed to cohorts for 2006 and all subsequent years.

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Table 8.2.1
Longitudinal Comparison of Scale Scores Mathematics CRT

			Scale Score		Percentiles				
Grade	Year	N	M	SD	P10	P25	P50	P75	P90
3	2010	83106	365.2	50.7	300	331	365	400	427
	2011	81633	368.3	50.1	300	334	368	400	427
	2012	82905	373.1	50.3	307	338	372	406	438
	2013	83196	372.9	52.9	303	335	373	410	439
	2014	84180	375.2	54.0	306	337	373	410	447
4	2010	81688	379.3	46.2	316	348	382	411	440
	2011	82040	387.3	51.0	319	351	386	421	448
	2012	81924	387.7	49.7	322	352	387	418	452
	2013	83048	385.1	49.2	320	350	384	415	449
	2014	83410	382.3	51.0	316	346	379	414	452
5	2010	81089	392.3	49.7	327	357	390	426	455
	2011	81829	394.0	50.0	327	357	394	426	455
	2012	82386	398.4	48.3	337	364	398	432	459
	2013	82223	397.5	47.3	333	364	399	429	455
	2014	83575	396.6	47.5	334	361	398	431	456
6	2010	79893	407.9	50.2	345	372	405	442	475
	2011	81277	417.3	53.3	348	377	415	451	483
	2012	81982	414.4	49.1	351	377	411	446	477
	2013	82587	414.3	46.5	354	381	413	444	476
	2014	82586	413.1	47.3	352	379	411	443	475
7	2010	79804	422.5	53.2	355	384	421	455	491
	2011	80266	416.2	49.6	355	382	414	446	484
	2012	81501	430.5	53.0	362	392	429	465	502
	2013	82491	431.8	49.9	369	395	429	464	494
	2014	83105	429.9	47.4	370	394	426	459	490
8	2010	79919	434.9	46.6	377	403	432	462	495
	2011	79384	435.7	47.9	377	403	432	466	501
	2012	79958	438.5	50.3	375	402	435	470	501
	2013	81432	439.4	49.3	378	405	434	468	508
	2014	82369	439.8	47.6	381	403	434	469	502
HS	2010(Cohort 12)	75858	499.0	51.2	437	462	496	530	563
	2011(Cohort 13)	73400	501.5	47.3	441	467	501	532	565
	2012(Cohort 14)	75052	501.8	45.8	444	468	500	529	561
	2013(Cohort 15)	74999	501.5	42.6	448	472	499	529	559
	2014(Cohort 16)	75820	503.5	42.2	450	474	502	530	558
HS	2010(Cohort 11)	17631	461.9	37.6	425	439	458	478	512
	2011(Cohort 12)	22574	470.6	31.2	431	449	469	491	508
	2012(Cohort 13)	18972	467.4	26.9	434	449	468	483	500
	2013(Cohort 14)	19133	469.4	25.6	438	451	470	485	499
	2014(Cohort 15)	18052	470.9	24.8	439	455	472	486	500
HS	2010(Cohort 9 & 10)	3126	445.6	30.9	417	430	446	462	478
	2011(Cohort 11)	13288	461.8	27.5	426	441	463	479	495
	2012(Cohort 12)	12627	463.7	24.6	431	446	463	479	493
	2013(Cohort 13)	11625	464.6	23.3	435	448	465	481	494
	2014(Cohort 14)	11213	467.6	23.5	436	452	467	483	495

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Table 8.2.2
Longitudinal Comparison of Performance Level DistributionMathematics CRT

			% at Performance Level			
Grade	Year	N	FFBS	AS	MS	ES
3	2010	83106	11	25	43	22
	2011	81633	10	22	43	24
	2012	82905	8	23	42	27
	2013	83196	9	23	42	26
	2014	84180	10	21	42	27
4	2010	81688	15	21	40	23
	2011	82040	14	19	37	30
	2012	81924	13	21	39	28
	2013	83048	14	21	40	25
	2014	83410	17	22	37	25
5	2010	81089	19	22	38	20
	2011	81829	19	21	39	21
	2012	82386	16	21	40	23
	2013	82223	16	21	43	21
	2014	83575	17	21	43	20
6	2010	79893	21	23	34	23
	2011	81277	17	20	33	30
	2012	81982	17	23	34	27
	2013	82587	15	22	38	25
	2014	82586	17	22	37	24
7	2010	79804	22	20	33	24
	2011	80266	25	22	34	19
	2012	81501	19	19	33	29
	2013	82491	17	18	36	29
	2014	83105	16	20	39	25
8	2010	79919	29	14	37	20
	2011	79384	29	14	36	21
	2012	79958	30	13	33	24
	2013	81432	29	14	35	23
	2014	82369	27	14	36	23
HS	2010(Cohort 12)	75858	30	12	35	23
	2011(Cohort 13)	73400	27	12	39	21
	2012(Cohort 14)	75052	27	13	40	21
	2013(Cohort 15)	74999	25	13	43	19
	2014(Cohort 16)	75820	23	14	44	20
HS	2010(Cohort 11)	17631	67	14	14	5
	2011(Cohort 12)	22574	51	21	26	3
	2012(Cohort 13)	18972	56	23	20	1
	2013(Cohort 14)	19133	52	24	23	1
	2014(Cohort 15)	18052	49	26	23	1
HS	2010(Cohort 9 & 10)	3126	85	9	6	1
	2011(Cohort 11)	13288	63	19	16	1
	2012(Cohort 12)	12627	62	22	16	1
	2013(Cohort 13)	11625	59	24	17	0
	2014(Cohort 14)	11213	55	26	18	1

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Table 8.2.3
Longitudinal Comparison of Scale Scores Reading CRT

			Scale Score		Percentiles				
Grade	Year	N	M	SD	P10	P25	P50	P75	P90
3	2005	77047	448.3	51.0	379	413	451	486	516
	2006	78487	451.5	50.8	380	418	454	486	516
	2007	79774	455.2	50.9	387	420	455	489	520
	2008	83305	456.4	53.1	384	421	455	490	520
	2009	83003	459.5	52.4	387	424	459	496	520
	2010	83105	460.5	50.1	391	428	464	496	520
	2011	81629	457.5	46.7	395	428	460	490	511
	2012	82909	463.1	48.1	399	431	462	496	526
	2013	83187	463.7	46.8	399	432	463	494	519
	2014	84212	464.9	44.8	405	435	465	496	521
4	2005	75685	468.7	53.6	398	431	469	506	531
	2006	78924	469.7	49.7	401	436	472	504	529
	2007	79270	470.7	52.1	397	433	472	504	529
	2008	81589	474.5	51.0	405	440	478	506	531
	2009	82366	477.5	51.2	408	444	478	511	541
	2010	81673	480.3	49.8	416	446	479	515	540
	2011	82025	479.5	50.1	412	446	479	509	540
	2012	81933	482.4	45.3	420	452	484	511	538
	2013	83045	484.0	44.1	426	452	484	514	539
	2014	83418	482.3	41.8	426	452	484	512	534
5	2005	76379	486.7	48.2	421	451	489	517	545
	2006	78157	489.3	47.7	426	456	491	519	547
	2007	79821	489.8	45.4	428	459	490	522	550
	2008	81330	491.4	47.3	427	457	493	527	549
	2009	81068	496.3	48.6	430	465	499	532	558
	2010	81101	496.4	46.2	433	464	501	532	554
	2011	81832	497.2	44.5	436	467	501	526	554
	2012	82383	503.1	44.4	442	473	507	536	557
	2013	82223	505.0	44.1	441	477	511	536	555
	2014	83599	503.6	41.0	447	476	508	534	556
6	2005	75940	494.2	49.3	427	460	493	526	561
	2006	78631	496.8	48.2	430	463	500	530	559
	2007	78842	499.0	48.4	433	466	499	533	562
	2008	81604	499.5	48.8	435	467	502	531	561
	2009	80840	501.4	48.3	436	469	504	535	559
	2010	79912	508.9	42.8	450	483	510	540	562
	2011	81282	513.2	42.9	454	486	519	540	562
	2012	82027	515.7	44.8	453	486	520	545	572
	2013	82598	515.4	43.1	456	488	518	547	566
	2014	82597	514.6	42.2	457	487	516	546	569

Note. Students without a valid attempt, invalidation, off-grade, a non-standard accommodation (not in 2008), home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers (not in 2005), attending state hospital schools (not in 2005), and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

(table continues)

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Table 8.2.3 (continued)
Longitudinal Comparison of Scale Scores Reading CRT

			Scale Score		Percentiles				
Grade	Year	N	M	SD	P10	P25	P50	P75	P90
7	2005	77541	509.1	51.4	439	472	510	545	576
	2006	77917	512.1	51.8	444	474	511	551	582
	2007	79246	514.2	53.2	444	477	514	549	580
	2008	80827	515.8	51.1	446	479	518	549	580
	2009	81186	517.3	49.6	449	482	517	548	580
	2010	79818	525.1	48.1	460	493	526	557	589
	2011	80281	523.2	46.0	460	493	526	557	580
	2012	81527	536.0	45.7	477	506	539	564	593
	2013	82502	538.3	46.8	474	507	538	571	599
	2014	83127	535.8	41.4	479	505	536	567	590
8	2005	76356	515.6	52.8	448	478	517	553	582
	2006	78067	518.7	53.2	448	482	520	558	590
	2007	77849	520.7	56.9	448	481	520	558	589
	2008	80537	523.0	56.4	449	482	521	559	590
	2009	79667	527.4	57.2	451	488	528	562	597
	2010	79940	529.5	55.1	457	495	534	568	600
	2011	79448	521.1	53.5	449	486	523	560	588
	2012	79961	526.5	50.9	456	494	531	561	586
	2013	81433	526.3	50.3	458	492	527	561	593
	2014	82384	524.6	48.8	459	489	530	556	583
HS	2005 (Grade 10)	68788	699.8	50.4	631	667	701	731	762
	2006 (Cohort 08)	72191	703.2	48.1	635	669	703	737	765
	2007 (Cohort 09)	74071	703.2	50.3	634	668	703	739	770
	2008 (Cohort 10)	75491	703.8	48.4	636	671	706	740	768
	2009 (Cohort 11)	75524	706.5	50.5	639	672	708	739	769
	2010(Cohort 12)	76493	710.4	49.6	643	676	712	743	774
	2011(Cohort 13)	75618	711.5	50.3	645	678	711	742	774
	2012(Cohort 14)	77283	714.3	45.9	653	684	717	747	773
	2013(Cohort 15)	76889	715.1	40.7	662	688	715	743	766
	2014(Cohort 16)	77400	721.1	45.0	662	689	719	749	783
HS	2005 (Grade 11)	18204	669.2	43.6	615	638	667	693	720
	2006 (Cohort 07)	12232	661.2	36.0	619	635	658	680	708
	2007 (Cohort 08)	12096	657.9	36.2	613	634	657	679	699
	2008 (Cohort 09)	11779	657.4	34.7	614	632	656	678	698
	2009 (Cohort 10)	16789	683.0	55.6	619	643	672	722	769
	2010(Cohort 11)	15295	680.7	51.8	622	643	673	708	757
	2011(Cohort 12)	14452	682.7	53.7	620	641	671	720	764
	2012(Cohort 13)	11229	675.2	44.0	626	644	669	692	741
	2013(Cohort 14)	9760	679.0	41.4	633	650	673	699	743
	2014(Cohort 15)	8262	683.2	44.7	639	653	674	700	754

Note. Students without a valid attempt, invalidation, off-grade, a non-standard accommodation (not in 2008), home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers (not in 2005), attending state hospital schools (not in 2005), and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

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Table 8.2.3 (continued)
Longitudinal Comparison of Scale Scores Reading CRT

			Scale Score		Percentiles				
Grade	Year	N	M	SD	P10	P25	P50	P75	P90
HS	2005 (Grade 12)	8882	651.9	40.7	606	623	649	677	706
	2006 (Cohort 06)	6261	663.6	43.1	619	635	658	684	721
	2007 (Cohort 07)	5505	654.0	35.8	609	630	653	675	695
	2008 (Cohort 08)	5248	653.1	33.4	614	632	652	675	694
	2009 (Cohort 09)	5948	655.1	38.4	610	629	654	676	699
	2010(Cohort 9 & 10)	7820	658.8	37.9	613	631	658	680	704
	2011(Cohort 11)	6792	657.8	37.4	616	633	656	678	702
	2012(Cohort 12)	6181	662.0	35.9	621	640	657	681	704
	2013(Cohort 13)	5096	665.3	32.8	628	641	662	684	703
	2014(Cohort 14)	4005	670.2	34.8	634	648	666	685	712

Note. Students without a valid attempt, invalidation, off-grade, a non-standard accommodation (not in 2008), home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers (not in 2005), attending state hospital schools (not in 2005), and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

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Table 8.2.4
Longitudinal Comparison of Performance Level Distribution Reading CRT

			% at Performance Level			
Grade	Year	N	FFBS	AS	MS	ES
3	2005	77047	10	26	55	10
	2006	78487	9	24	56	11
	2007	79774	7	24	57	12
	2008	83305	8	24	56	13
	2009	83003	6	22	58	14
	2010	83105	6	21	60	13
	2011	81629	5	21	64	10
	2012	82909	4	21	61	15
	2013	83187	4	21	62	13
	2014	84212	3	20	66	11
4	2005	75685	12	24	54	9
	2006	78924	11	24	57	8
	2007	79270	11	24	55	10
	2008	81589	9	21	60	9
	2009	82366	8	20	60	12
	2010	81673	5	23	59	13
	2011	82025	5	24	59	13
	2012	81933	4	20	63	12
	2013	83045	2	21	65	12
	2014	83418	1	23	66	9
5	2005	76379	10	24	58	9
	2006	78157	9	24	58	9
	2007	79821	8	23	63	7
	2008	81330	10	22	60	8
	2009	81068	8	18	63	11
	2010	81101	8	20	66	7
	2011	81832	7	19	68	6
	2012	82383	5	17	66	12
	2013	82223	5	16	70	9
	2014	83599	3	17	69	11
6	2005	75940	12	25	57	7
	2006	78631	10	25	60	4
	2007	78842	9	24	59	7
	2008	81604	10	22	61	8
	2009	80840	9	21	65	5
	2010	79912	6	17	70	7
	2011	81282	5	14	72	9
	2012	82027	4	16	69	11
	2013	82598	4	17	71	9
	2014	82597	3	17	72	8

Note. Students without a valid attempt, invalidation, off-grade, a non-standard accommodation (not in 2008), home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers (not in 2005), attending state hospital schools (not in 2005), and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

(table continues)

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Table 8.2.4 (continued)
Longitudinal Comparison of Performance Level Distribution Reading CRT

			% at Performance Level			
Grade	Year	N	FFBS	AS	MS	ES
7	2005	77541	10	25	58	7
	2006	77917	10	25	58	7
	2007	79246	9	24	58	9
	2008	80827	9	21	62	8
	2009	81186	8	20	65	8
	2010	79818	5	17	67	10
	2011	80281	5	18	69	8
	2012	81527	2	14	72	12
	2013	82502	1	14	71	14
	2014	83127	1	13	76	10
8	2005	76356	11	26	57	6
	2006	78067	11	27	58	5
	2007	77849	11	26	56	7
	2008	80537	11	22	60	7
	2009	79667	10	21	60	9
	2010	79940	9	17	68	6
	2011	79448	10	21	64	5
	2012	79961	9	19	66	6
	2013	81433	8	20	65	7
	2014	82384	8	22	66	4
HS	2005 (Grade 10)	68788	8	21	63	8
	2006 (Cohort 08)	72191	6	23	64	8
	2007 (Cohort 09)	74071	8	20	65	7
	2008 (Cohort 10)	75491	6	21	66	7
	2009 (Cohort 11)	75524	6	20	66	8
	2010(Cohort 12)	76493	5	18	66	11
	2011(Cohort 13)	75618	5	17	66	12
	2012(Cohort 14)	77283	3	17	69	11
	2013(Cohort 15)	76889	2	15	76	8
	2014(Cohort 16)	77400	1	14	73	13
HS	2005 (Grade 11)	18204	15	39	43	3
	2006 (Cohort 07)	12232	15	53	31	1
	2007 (Cohort 08)	12096	21	48	31	1
	2008 (Cohort 09)	11779	17	52	30	1
	2009 (Cohort 10)	16789	13	38	41	7
	2010(Cohort 11)	15295	12	39	41	7
	2011(Cohort 12)	14452	13	37	41	8
	2012(Cohort 13)	11229	11	46	38	4
	2013(Cohort 14)	9760	7	44	46	3
	2014(Cohort 15)	8262	4	45	45	6

Note. Students without a valid attempt, invalidation, off-grade, a non-standard accommodation (not in 2008), home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers (not in 2005), attending state hospital schools (not in 2005), and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

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Table 8.2.4 (continued)
Longitudinal Comparison of Performance Level Distribution Reading CRT

			% at Performance Level			
Grade	Year	N	FFBS	AS	MS	ES
HS	2005 (Grade 12)	8882	28	44	28	1
	2006 (Cohort 06)	6261	17	50	30	3
	2007 (Cohort 07)	5505	24	49	26	1
	2008 (Cohort 08)	5248	20	55	25	0
	2009 (Cohort 09)	5948	21	53	25	1
	2010(Cohort 9 & 10)	7820	18	52	29	1
	2011(Cohort 11)	6792	19	52	28	1
	2012(Cohort 12)	6181	15	55	29	1
	2013(Cohort 13)	5096	9	56	34	1
	2014(Cohort 14)	4005	4	56	37	2

Note. Students without a valid attempt, invalidation, off-grade, a non-standard accommodation (not in 2008), home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers (not in 2005), attending state hospital schools (not in 2005), and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

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Table 8.2.5
Base Year Scale Scores Writing CRT

			Scale Score		Percentiles				
Grade	Year	N	M	SD	P10	P25	P50	P75	P90
5	2011	81258	499.9	49.5	442	467	498	524	554
	2012	81235	503.1	51.8	447	470	498	525	572
	2013	81573	501.9	45.6	451	474	499	525	550
	2014	82340	499.3	44.2	450	471	496	527	544
6	2011	80698	500.0	49.9	442	467	501	526	565
	2012	81377	502.0	50.9	444	472	498	527	567
	2013	81711	500.3	46.6	446	472	500	527	551
	2014	82014	501.6	46.7	446	472	498	530	554
7	2011	79778	499.8	49.4	444	470	495	520	565
	2012	80937	500.6	48.5	446	471	496	524	552
	2013	81525	497.3	42.7	447	472	495	520	547
	2014	82117	497.2	41.8	448	469	495	520	541
HS	2011(Cohort 13)	75788	499.5	49.9	439	469	499	528	562
HS(A)	2012(Cohort 14)	74849	501.7	46.7	445	471	501	529	561
HS(T)	2012(Cohort 14)	1610	483.6	45.1	427	454	483	512	540
HS(A)	2013(Cohort 15)	74635	504.4	46.9	450	474	501	532	564
HS(T)	2013(Cohort 15)	1686	488.5	46.7	431	458	486	517	548
HS(A)	2014(Cohort 16)	75300	507.6	44.4	452	480	506	534	563
HS(T)	2014(Cohort 16)	1830	489.5	45.1	432	459	491	518	545
HS	2011(Cohort 12)	13551	470.6	51.9	410	435	464	505	543
HS(A)	2012(Cohort 13)	16003	476.4	49.4	421	445	469	498	548
HS(T)	2012(Cohort 13)	1072	467.1	41.8	417	442	465	489	515
HS(A)	2013(Cohort 14)	13193	475.4	49.0	423	445	468	497	547
HS(T)	2013(Cohort 14)	840	471.9	40.6	428	449	469	490	518.5
HS(A)	2014(Cohort 15)	12415	474.7	40.9	428	450	471	494	526
HS(T)	2014(Cohort 15)	912	472.9	35.0	433	452	471	491	513
HS	2011(Cohort 11)	6169	444.3	39.9	397	418	443	469	494
HS(A)	2012(Cohort 12)	6626	453.8	37.0	409	431	453	473	498
HS(T)	2012(Cohort 12)	410	453.5	38.1	409	425	454	479	501
HS(A)	2013(Cohort 13)	6620	456.0	35.5	413	435	456	474	497
HS(T)	2013(Cohort 13)	427	456.5	34.7	413	436	456	475	495
HS(A)	2014(Cohort 14)	6527	462.9	34.1	420	444	461	482	501
HS(T)	2014(Cohort 14)	492	461.2	30.9	423	441	463	480	499

Note. Students without a valid attempt, invalidation, off-grade, a non-standard accommodation, home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers, attending state hospital, and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

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Table 8.2.6
Base Year Performance Level Distribution Writing CRT

			% at Performance Level			
Grade	Year	N	FFBS	AS	MS	ES
5	2011	81258	8	37	51	5
	2012	81235	7	36	53	3
	2013	81573	7	37	53	4
	2014	82340	7	40	50	3
6	2011	80698	12	31	49	7
	2012	81377	12	31	49	8
	2013	81711	11	35	48	6
	2014	82014	10	33	52	5
7	2011	79778	12	35	48	6
	2012	80937	12	36	47	5
	2013	81525	10	37	51	2
	2014	82117	11	37	51	2
HS	2011(Cohort 13)	75788	8	25	63	5
HS(A)	2012(Cohort 14)	74849	6	24	66	4
HS(T)	2012(Cohort 14)	1610	12	35	52	2
HS(A)	2013(Cohort 15)	74635	5	25	66	5
HS(T)	2013(Cohort 15)	1686	10	33	54	2
HS(A)	2014(Cohort 16)	75300	4	21	71	4
HS(T)	2014(Cohort 16)	1830	10	33	55	3
HS	2011(Cohort 12)	13551	22	39	37	2
HS(A)	2012(Cohort 13)	16003	16	44	37	3
HS(T)	2012(Cohort 13)	1072	17	49	32	1
HS(A)	2013(Cohort 14)	13193	15	48	34	4
HS(T)	2013(Cohort 14)	840	13	50	37	1
HS(A)	2014(Cohort 15)	12415	12	47	38	2
HS(T)	2014(Cohort 15)	912	10	50	39	1
HS	2011(Cohort 11)	6169	37	45	18	0
HS(A)	2012(Cohort 12)	6626	26	53	21	0
HS(T)	2012(Cohort 12)	410	31	46	23	0
HS(A)	2013(Cohort 13)	6620	23	57	20	0
HS(T)	2013(Cohort 13)	427	19	61	19	1
HS(A)	2014(Cohort 14)	6527	17	55	27	0
HS(T)	2014(Cohort 14)	492	17	57	26	0

Note. FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students without a valid attempt, invalidation, off-grade, a non-standard accommodation, home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers, attending state hospital schools, and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

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Table 8.2.7
Longitudinal Comparison of Scale Scores
Science CRT

			Scale Score		Percentiles				
Grade	Year	N	M	SD	P10	P25	P50	P75	P90
4	2008	80296	501.8	50.2	436	466	503	536	567
	2009	81724	508.2	50.5	443	475	508	540	567
	2010	80982	513.8	52.7	446	478	515	547	583
	2011	81934	534.8	61.7	455	492	536	575	615
	2012	81892	518.9	57.6	448	478	514	554	589
	2013	83028	513.4	51.9	445	477	511	549	581
	2014	83408	513.5	46.6	457	480	510	546	574
8	2008	79482	500.6	50.0	435	463	498	534	568
	2009	78703	506.4	50.0	439	471	506	539	571
	2010	79293	510.4	51.5	446	473	508	545	578
	2011	79409	517.7	47.6	454	484	521	551	578
	2012	80019	519.3	47.9	456	487	521	553	581
	2013	81485	516.7	43.1	459	486	518	544	571
	2014	82470	516.7	45.7	459	483	516	546	573
HS	2008 (Cohort 10)	45286	477.3	50.1	414	440	475	510	543
	2009 (Cohort 11)	51195	475.8	49.7	410	439	477	508	541
	2010(Cohort 12)	53671	479.1	51.8	414	442	474	512	545
	2011(Cohort 13)	54610	484.6	58.3	407	443	484	524	559
	2011(Cohort 14)	19392	523.7	58.8	446	488	524	559	596
	2012(Cohort 14)	53344	487.0	62.6	403	441	487	528	569
	2012(Cohort 15)	21142	526.3	65.4	441	487	528	569	603
	2013(Cohort 15)	52650	485.7	56.0	414	442	482	521	562
	2013(Cohort 16)	24094	517.3	59.0	438	475	517	556	591
	2014(Cohort 16)	50096	487.2	52.9	421	448	484	522	555
	2014(Cohort 17)	26254	514.5	53.0	445	477	514	550	582

Note: Students without a valid attempt, invalidation, off-grade, a non-standard accommodation (not in 2008), home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers (not in 2005), attending state hospital schools (not in 2005), and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

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Table 8.2.8
Longitudinal Comparison of Performance Level Distribution
Science CRT

			% at Performance Level			
Grade	Year	N	FFBS	AS	MS	ES
4	2008	80296	22	25	35	18
	2009	81724	17	26	36	21
	2010	80982	17	22	33	28
	2011	81934	12	17	29	43
	2012	81892	16	21	31	32
	2013	83028	17	25	32	26
	2014	83408	12	29	36	22
8	2008	79482	31	20	22	28
	2009	78703	26	19	23	32
	2010	79293	23	18	25	34
	2011	79409	17	17	27	39
	2012	80019	18	15	28	40
	2013	81485	16	18	29	37
	2014	82470	18	20	24	38
HS	2008 (Cohort 10)	45286	49	19	20	12
	2009 (Cohort 11)	51195	50	18	22	11
	2010 (Cohort 12)	53671	50	16	21	14
	2011 (Cohort 13)	54610	43	15	23	18
	2011 (Cohort 14)	19392	19	12	27	41
	2012(Cohort 14)	53344	41	17	21	21
	2012(Cohort 15)	21142	20	14	23	43
	2013(Cohort 15)	52650	44	17	21	18
	2013(Cohort 16)	24094	23	15	25	36
	2014(Cohort 16)	50096	44	17	21	18
	2014(Cohort 17)	26254	24	16	27	33

Note: Students without a valid attempt, invalidation, off-grade, a non-standard accommodation (not in 2008), home-schooled students, attending Bureau of Indian Affairs schools, attending juvenile corrections centers (not in 2005), attending state hospital schools (not in 2005), and who already met expectations in a previous test administration are not included in this summary. These results are not final results and are presented here for purposes of addressing reliability and validity. Caution should be used when interpreting results across years, as exclusion rules differ slightly and high school identification of grade versus cohort may result in different student population characteristics.

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PART 9: VALIDITY EVIDENCE

Part 9 of the technical report provides evidence supporting the reliability and validity of the 2014 AIMS 3-8 and high school assessments. All data presented in this section were computed using population test data available in the final electronic data files. The following AERA/APA/NCME standards from the 1999 edition are addressed: 1.5, 1.7, 2.1, 2.4, 2.10, 2.13, 3.16, 4.15, 6.5, 7.1, 7.3, and 7.10. The 2014 AERA/APA/NCME standards (AERA, APA, NCME, 2014) addressed by this chapter are: 1.8, 1.9, 2.3, 2.7, 2.8, 2.19, 3.3, 3.6, 4.4, 5.19 and 7.4.

9.1 Reliability

AERA/APA/NCME *Standards for Educational and Psychological Testing* (AERA, APA, NCME, 1999) refer to reliability as the "consistency of [a measure] when the testing procedure is repeated on a population of individuals or groups." The 2014 edition of AERA/APA/NCME *Standards for Educational and Psychological Testing* (AERA, APA, NCME, 2014) indicates that "The term *reliability* has been used in two ways in the measurement literature. First, the term has been used to refer to the reliability coefficients of classical test theory, refined as the correlation between scores on two equivalent forms of the test, presuming that taking one form has no effect on performance on the second form. Second, the term has been used in a more general sense, to refer to the consistency of scores across relications of a testing procedure, regardless of how this consistency is estimated or reported (e.g., in terms of standard errors, reliability coefficients per se, generalizability coefficient, error/tolerance ratios, item response theory (IRT) information functions, or various indices of classification consistency)".

A reliable test produces stable scores; that is, very similar score distributions would result if the test were administered repeatedly under similar conditions to the same students without memory or fatigue affecting the scores. Reliability of the Spring 2014 AIMS assessments was estimated in two ways: internal consistency for all multiple-choice tests and reliability of hand scoring for all writing tests.

9.1.1 Measures of Internal Consistency

For tests consisting of only constructed response or multiple-choice items, Cronbach's alpha is a frequently used measure of internal consistency. Cronbach's alpha is computed as (Crocker & Algina, 1986)

$$\hat{\alpha} = \frac{k}{k-1}\left(1 - \frac{\sum \sigma_i^2}{\sigma_X^2}\right),$$

where k = number of items, σ_X^2 = the total score variance, and σ_i^2 = the variance of item i.

For tests consisting of a mixture of item types with differing numbers of maximum points, it is more appropriate to use stratified alpha (Feldt and Brennan, 1989). The stratified alpha is a weighted average of Cronbach's alpha for the different components of the test. This is the measure of internal consistency reported for the writing tests. The formula for calculating stratified alpha is

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$$stratified\ \hat{\alpha} = 1 - \frac{\sum \sigma^2_{x_j}\left(1-\alpha_j\right)}{\sigma^2_x}$$

where $\sigma^2_{x_j}$ is the variance of component *j*, α_j is the reliability of component *j*, and σ^2_x is the variance of the total test.

Reliability estimates for the multiple-choice tests administered as part of the Spring 2014 AIMS assessment are presented in Table 9.1.1.1 and Table 9.1.1.2. Note that a high degree of internal consistency is evident for all CRT tests. The reliability for the NRT assessment tends to be slightly lower than the corresponding CRT assessment due to the fewer number of items on each test. The reliability estimates for the AIMS writing tests are shown in Table 9.1.1.3.

In addition to the total test score, raw scores are reported at the Arizona strand and concept level. Internal consistency reliability estimates at the strand and concept level are reported in Tables 9.1.1.4 through 9.1.1.24.

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Table 9.1.1.1
Spring 2014 AIMS Internal Consistency

		CRT				NRT					
		Reading		**Math**		**Reading**		**Language**		**Math**	
Subgroup	Value	N	Alpha	N	Alpha	N	Alpha	N	Alpha	N	Alpha
Grade 3											
	Hispanic	37338	0.90	37328	0.93	37338	0.82	37338	0.76	37328	0.84
	Non-Hisp	46160	0.91	46138	0.94	46160	0.83	46160	0.79	46138	0.85
Ethnicity	White	66852	0.91	66825	0.94	66852	0.84	66852	0.78	66825	0.85
Ethnicity	Black	4761	0.90	4757	0.93	4761	0.83	4761	0.77	4757	0.85
Ethnicity	Asian	2484	0.90	2485	0.94	2484	0.83	2484	0.78	2485	0.84
Ethnicity	Am Indian	6104	0.88	6105	0.92	6104	0.81	6104	0.74	6105	0.83
Ethnicity	Hawaii	323	0.90	322	0.94	323	0.82	323	0.76	322	0.84
Ethnicity	Multiple	2694	0.91	2694	0.94	2694	0.83	2694	0.78	2694	0.85
Gender	Female	41292	0.90	41277	0.93	41292	0.83	41292	0.78	41277	0.85
Gender	Male	42657	0.91	42641	0.94	42657	0.84	42657	0.78	42641	0.86
ELL	Yes	9192	0.83	9192	0.90	9192	0.73	9192	0.66	9192	0.79
SPED	Yes	10802	0.91	10796	0.93	10802	0.84	10802	0.78	10796	0.86
Low SES	Yes	48540	0.90	48515	0.93	48540	0.82	48540	0.76	48515	0.84
Migrant	Yes	397	0.89	397	0.92	397	0.79	397	0.74	397	0.83
TOTAL		84007	0.91	83975	0.94	84007	0.84	84007	0.79	83975	0.86
Grade 4											
	Hispanic	36767	0.90	36762	0.93	36767	0.81	36767	0.79	36762	0.83
	Non-Hisp	46083	0.92	46080	0.94	46083	0.83	46083	0.82	46080	0.85
Ethnicity	White	66220	0.91	66212	0.94	66220	0.83	66220	0.81	66212	0.84
Ethnicity	Black	4834	0.90	4836	0.93	4834	0.81	4834	0.81	4836	0.84
Ethnicity	Asian	2570	0.91	2570	0.94	2570	0.83	2570	0.81	2570	0.85
Ethnicity	Am Indian	6071	0.89	6070	0.92	6071	0.80	6071	0.79	6070	0.83
Ethnicity	Hawaii	308	0.91	308	0.94	308	0.83	308	0.83	308	0.85
Ethnicity	Multiple	2508	0.91	2507	0.94	2508	0.82	2508	0.80	2507	0.84
Gender	Female	40484	0.91	40482	0.93	40484	0.82	40484	0.80	40482	0.84
Gender	Male	42745	0.92	42739	0.94	42745	0.84	42745	0.82	42739	0.85
ELL	Yes	8879	0.81	8875	0.88	8879	0.70	8879	0.72	8875	0.76
SPED	Yes	10267	0.90	10269	0.92	10267	0.82	10267	0.80	10269	0.83
Low SES	Yes	47544	0.90	47536	0.93	47544	0.81	47544	0.80	47536	0.83
Migrant	Yes	361	0.88	361	0.91	361	0.80	361	0.79	361	0.80
TOTAL		83253	0.92	83245	0.94	83253	0.83	83253	0.81	83245	0.85
Grade 5											
	Hispanic	36468	0.89	36460	0.92	36468	0.81	36468	0.77	36460	0.82
	Non-Hisp	46620	0.90	46604	0.93	46620	0.81	46620	0.80	46604	0.84
Ethnicity	White	66879	0.90	66864	0.93	66879	0.82	66879	0.80	66864	0.84
Ethnicity	Black	4815	0.90	4813	0.92	4815	0.82	4815	0.78	4813	0.82
Ethnicity	Asian	2546	0.90	2545	0.93	2546	0.81	2546	0.79	2545	0.85
Ethnicity	Am Indian	5890	0.88	5883	0.92	5890	0.80	5890	0.76	5883	0.81
Ethnicity	Hawaii	291	0.90	291	0.93	291	0.83	291	0.78	291	0.85
Ethnicity	Multiple	2359	0.90	2359	0.93	2359	0.81	2359	0.79	2359	0.83
Gender	Female	40991	0.90	40981	0.92	40991	0.81	40991	0.78	40981	0.82
Gender	Male	42440	0.91	42426	0.93	42440	0.83	42440	0.80	42426	0.85
ELL	Yes	6420	0.80	6418	0.86	6420	0.71	6420	0.62	6418	0.69
SPED	Yes	10342	0.89	10332	0.91	10342	0.82	10342	0.77	10332	0.80
Low SES	Yes	47125	0.89	47110	0.92	47125	0.81	47125	0.77	47110	0.82
Migrant	Yes	378	0.89	378	0.92	378	0.83	378	0.79	378	0.79
TOTAL		83466	0.90	83442	0.93	83466	0.82	83466	0.80	83442	0.84

(table continues)

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Table 9.1.1.1 (continued)
Spring 2014 AIMS Internal Consistency

		CRT				NRT					
		Reading		**Math**		**Reading**		**Language**		**Math**	
Subgroup	Value	N	Alpha	N	Alpha	N	Alpha	N	Alpha	N	Alpha
Grade 6											
	Hispanic	36120	0.89	36117	0.92	36120	0.76	36120	0.75	36117	0.84
	Non-Hisp	46008	0.90	46001	0.93	46008	0.77	46008	0.78	46001	0.87
Ethnicity	White	66221	0.90	66212	0.93	66221	0.78	66221	0.77	66212	0.86
Ethnicity	Black	4848	0.89	4848	0.92	4848	0.77	4848	0.77	4848	0.85
Ethnicity	Asian	2444	0.90	2444	0.94	2444	0.77	2444	0.79	2444	0.86
Ethnicity	Am Indian	5801	0.88	5803	0.91	5801	0.77	5801	0.74	5803	0.83
Ethnicity	Hawaii	248	0.90	248	0.94	248	0.79	248	0.78	248	0.87
Ethnicity	Multiple	2222	0.90	2219	0.93	2222	0.76	2222	0.77	2219	0.86
Gender	Female	40512	0.90	40506	0.93	40512	0.76	40512	0.75	40506	0.85
Gender	Male	41900	0.90	41895	0.93	41900	0.79	41900	0.78	41895	0.87
ELL	Yes	4393	0.76	4395	0.85	4393	0.62	4393	0.62	4395	0.72
SPED	Yes	9626	0.88	9625	0.90	9626	0.77	9626	0.76	9625	0.80
Low SES	Yes	45843	0.89	45833	0.92	45843	0.77	45843	0.76	45833	0.84
Migrant	Yes	397	0.89	397	0.93	397	0.76	397	0.79	397	0.86
TOTAL		82440	0.9	82429	0.93	82440	0.78	82440	0.78	82429	0.86
Grade 7											
	Hispanic	36322	0.88	36316	0.92	36322	0.77	36322	0.75	36316	0.85
	Non-Hisp	46392	0.89	46378	0.93	46392	0.78	46392	0.79	46378	0.88
Ethnicity	White	66904	0.89	66888	0.93	66904	0.78	66904	0.78	66888	0.87
Ethnicity	Black	4744	0.88	4744	0.92	4744	0.78	4744	0.78	4744	0.85
Ethnicity	Asian	2490	0.88	2490	0.94	2490	0.77	2490	0.78	2490	0.89
Ethnicity	Am Indian	5765	0.87	5763	0.91	5765	0.75	5765	0.74	5763	0.84
Ethnicity	Hawaii	312	0.87	312	0.92	312	0.77	312	0.76	312	0.87
Ethnicity	Multiple	2135	0.88	2134	0.93	2135	0.77	2135	0.76	2134	0.88
Gender	Female	40692	0.88	40683	0.92	40692	0.76	40692	0.76	40683	0.87
Gender	Male	42270	0.89	42257	0.93	42270	0.79	42270	0.79	42257	0.88
ELL	Yes	3790	0.72	3789	0.83	3790	0.57	3790	0.58	3789	0.68
SPED	Yes	9153	0.86	9147	0.88	9153	0.74	9153	0.74	9147	0.78
Low SES	Yes	45556	0.88	45541	0.92	45556	0.77	45556	0.76	45541	0.85
Migrant	Yes	405	0.89	404	0.93	405	0.79	405	0.78	404	0.86
TOTAL		82990	0.89	82968	0.93	82990	0.78	82990	0.78	82968	0.88
Grade 8											
	Hispanic	35422	0.88	35414	0.92	35422	0.76	35422	0.72	35414	0.85
	Non-Hisp	46561	0.89	46554	0.94	46561	0.78	46561	0.75	46554	0.88
Ethnicity	White	66289	0.89	66279	0.93	66289	0.77	66289	0.74	66279	0.87
Ethnicity	Black	4906	0.89	4905	0.92	4906	0.78	4906	0.75	4905	0.86
Ethnicity	Asian	2425	0.90	2425	0.95	2425	0.79	2425	0.78	2425	0.89
Ethnicity	Am Indian	5753	0.88	5750	0.91	5753	0.76	5753	0.71	5750	0.84
Ethnicity	Hawaii	252	0.89	252	0.93	252	0.78	252	0.75	252	0.87
Ethnicity	Multiple	2056	0.89	2055	0.93	2056	0.77	2056	0.72	2055	0.87
Gender	Female	40500	0.88	40501	0.93	40500	0.75	40500	0.73	40501	0.87
Gender	Male	41750	0.90	41734	0.93	41750	0.80	41750	0.75	41734	0.88
ELL	Yes	2241	0.73	2239	0.82	2241	0.63	2241	0.57	2239	0.71
SPED	Yes	8861	0.86	8854	0.86	8861	0.76	8861	0.73	8854	0.77
Low SES	Yes	43959	0.88	43951	0.92	43959	0.77	43959	0.73	43951	0.85
Migrant	Yes	380	0.88	380	0.92	380	0.77	380	0.75	380	0.87
TOTAL		82261	0.89	82246	0.93	82261	0.78	82261	0.75	82246	0.87

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Table 9.1.1.1 (continued)
Spring 2014 AIMS Internal Consistency

		CRT			
		Reading		**Math**	
Subgroup	Value	N	Alpha	N	Alpha
HS					
	Hispanic	38923	0.89	48247	0.91
	Non-Hisp	49747	0.92	55864	0.94
Ethnicity	White	70074	0.91	81979	0.93
Ethnicity	Black	5755	0.89	7109	0.91
Ethnicity	Asian	2747	0.93	2778	0.95
Ethnicity	Am Indian	5840	0.87	7402	0.89
Ethnicity	Hawaii	339	0.90	396	0.92
Ethnicity	Multiple	2374	0.91	2869	0.92
Gender	Female	43224	0.91	51685	0.92
Gender	Male	45839	0.91	52790	0.93
ELL	Yes	2748	0.64	2726	0.83
SPED	Yes	10865	0.82	12337	0.83
Low SES	Yes	44409	0.89	54292	0.9
Migrant	Yes	694	0.86	802	0.89
TOTAL		89181	0.91	104588	0.93

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Table 9.1.1.2
Spring 2013 AIMS Internal Consistency for Science

Subgroup	Value	N	Alpha
Grade 4			
	Hispanic	36759	0.85
	Non-Hisp	46087	0.89
Ethnicity	White	66224	0.88
Ethnicity	Black	4833	0.86
Ethnicity	Asian	2570	0.90
Ethnicity	Am Indian	6067	0.83
Ethnicity	Hawaii	307	0.87
Ethnicity	Multiple	2510	0.88
Gender	Female	40480	0.88
Gender	Male	42741	0.89
ELL	Yes	8881	0.70
SPED	Yes	10271	0.86
Low SES	Yes	47551	0.85
Migrant	Yes	362	0.80
TOTAL		83244	0.89
Grade 8			
	Hispanic	35458	0.86
	Non-Hisp	46612	0.89
Ethnicity	White	66348	0.89
Ethnicity	Black	4915	0.87
Ethnicity	Asian	2425	0.90
Ethnicity	Am Indian	5764	0.85
Ethnicity	Hawaii	252	0.89
Ethnicity	Multiple	2058	0.88
Gender	Female	40537	0.88
Gender	Male	41797	0.90
ELL	Yes	2252	0.66
SPED	Yes	8883	0.85
Low SES	Yes	44020	0.87
Migrant	Yes	382	0.86
TOTAL		82345	0.89
HS			
	Hispanic	31561	0.91
	Non-Hisp	43658	0.93
Ethnicity	White	60522	0.92
Ethnicity	Black	4477	0.91
Ethnicity	Asian	2352	0.93
Ethnicity	Am Indian	4224	0.89
Ethnicity	Hawaii	293	0.92
Ethnicity	Multiple	2049	0.92
Gender	Female	37741	0.92
Gender	Male	38198	0.93
ELL	Yes	1218	0.71
SPED	Yes	6920	0.88
Low SES	Yes	35670	0.91
Migrant	Yes	449	0.87
TOTAL		76079	0.92

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Table 9.1.1.3
Spring 2013 AIMS Internal Consistency for Writing

Subgroup	Value	N	Alpha
Grade 5			
	Hispanic	35781	0.82
	Non-Hisp	46078	0.84
Ethnicity	White	65967	0.84
Ethnicity	Black	4715	0.83
Ethnicity	Asian	2518	0.84
Ethnicity	Am Indian	5744	0.80
Ethnicity	Hawaii	287	0.83
Ethnicity	Multiple	2329	0.84
Gender	Female	40556	0.83
Gender	Male	41632	0.84
ELL	Yes	6066	0.65
SPED	Yes	10058	0.80
Low SES	Yes	46197	0.81
Migrant	Yes	362	0.81
TOTAL		82222	0.84
Grade 6			
	Hispanic	35856	0.82
	Non-Hisp	45705	0.84
Ethnicity	White	65808	0.83
Ethnicity	Black	4805	0.83
Ethnicity	Asian	2429	0.82
Ethnicity	Am Indian	5734	0.80
Ethnicity	Hawaii	246	0.84
Ethnicity	Multiple	2208	0.83
Gender	Female	40318	0.83
Gender	Male	41518	0.84
ELL	Yes	4254	0.64
SPED	Yes	9469	0.80
Low SES	Yes	45440	0.82
Migrant	Yes	388	0.83
TOTAL		81864	0.84
Grade 7			
	Hispanic	35841	0.82
	Non-Hisp	45878	0.84
Ethnicity	White	66180	0.83
Ethnicity	Black	4659	0.83
Ethnicity	Asian	2467	0.84
Ethnicity	Am Indian	5644	0.80
Ethnicity	Hawaii	304	0.82
Ethnicity	Multiple	2116	0.83
Gender	Female	40397	0.83
Gender	Male	41565	0.84
ELL	Yes	3583	0.63
SPED	Yes	8785	0.78
Low SES	Yes	44849	0.81
Migrant	Yes	399	0.85
TOTAL		81989	0.84

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Table 9.1.1.3
Spring 2013 AIMS Internal Consistency for Writing (Continued)

Subgroup	Value	N	Alpha
HS(Prompt A)			
	Hispanic	41926	0.78
	Non-Hisp	51250	0.80
Ethnicity	White	73695	0.80
Ethnicity	Black	5970	0.78
Ethnicity	Asian	2824	0.84
Ethnicity	Am Indian	6350	0.75
Ethnicity	Hawaii	345	0.79
Ethnicity	Multiple	2472	0.78
Gender	Female	44687	0.81
Gender	Male	48889	0.79
ELL	Yes	2780	0.59
SPED	Yes	11302	0.69
Low SES	Yes	47693	0.78
Migrant	Yes	739	0.75
TOTAL		93697	0.8
HS(Prompt T)			
	Hispanic	1456	0.74
	Non-Hisp	1667	0.8
Ethnicity	White	2280	0.79
Ethnicity	Black	253	0.73
Ethnicity	Asian	39	0.86
Ethnicity	Am Indian	330	0.72
Ethnicity	Hawaii	26	0.72
Ethnicity	Multiple	73	0.74
Gender	Female	1396	0.79
Gender	Male	1765	0.76
ELL	Yes	103	0.46
SPED	Yes	625	0.63
Low SES	Yes	1826	0.73
Migrant	Yes	41	0.62
TOTAL		3169	0.78

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Table 9.1.1.4
Spring 2014 AIMS Strand/Concept Internal Consistency
Mathematics Grade 3

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Number and Operations		28	84180	17.53	6.24	0.88
	Concept 1: Number Sense	11	84180	6.90	2.53	0.70
	Concept 2: Numerical Operations	13	84180	8.28	3.23	0.79
	Concept 3: Estimation	4	84180	2.35	1.23	0.53
2. Data Analysis, Probability, and Discrete Mathematics		8	84180	5.14	1.92	0.65
	Concept 1: Data Analysis (Statistics)	4	84180	2.94	1.05	0.51
	Concept 3/4: Systematic Listing and Counting/Vertex-Edge Graphs	4	84180	2.21	1.21	0.51
3. Patterns, Algebra, and Functions		11	84180	7.83	2.70	0.79
	Concept 1: Patterns	4	84180	2.96	1.13	0.58
	Concept 2/3: Functions and Relationships/Algebraic Representations	7	84180	4.87	1.82	0.71
4. Geometry and Measurement		12	84180	8.75	2.31	0.67
	Concept 4: Measurement	6	84180	3.80	1.54	0.59
	Concept 1/2: Geometric Properties/Transformation of Shapes	6	84180	4.95	1.15	0.45
5. Structure and Logic		7	84180	4.15	1.73	0.58
	Concept 1/2: Algorithms and Algorithmic Thinking/ Logic, Reasoning, Problem Solving, and Proof	7	84180	4.15	1.73	0.58

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Table 9.1.1.5
Spring 2014 AIMS Strand/Concept Internal Consistency
Mathematics Grade 4

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Number and Operations		27	83410	16.80	5.56	0.85
	Concept 1: Number Sense	11	83410	6.67	2.53	0.70
	Concept 2: Numerical Operations	12	83410	7.18	2.80	0.72
	Concept 3: Estimation	4	83410	2.95	1.02	0.37
2. Data Analysis, Probability, and Discrete Mathematics		8	83410	5.17	1.99	0.65
	Concept 1: Data Analysis (Statistics)	4	83410	2.69	1.09	0.44
	Concept 2/3/4: Probability/Systematic Listing and Counting/Vertex-Edge Graphs	4	83410	2.48	1.22	0.53
3. Patterns, Algebra, and Functions		12	83410	8.11	2.80	0.75
	Concept 1: Patterns	5	83410	3.56	1.33	0.57
	Concept 3/4: Algebraic Representations/Analysis of Change	7	83410	4.55	1.79	0.64
4. Geometry and Measurement		13	83410	8.10	3.02	0.75
	Concept 1: Geometric Properties	5	83410	3.10	1.45	0.63
	Concept 3: Coordinate Geometry	4	83410	2.40	1.27	0.56
	Concept 4: Measurement	4	83410	2.59	1.16	0.48
5. Structure and Logic		8	83410	4.95	2.04	0.68
	Concept 1/2: Algorithms and Algorithmic Thinking/ Logic, Reasoning, Problem Solving, and Proof	8	83410	4.95	2.04	0.68

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Table 9.1.1.6
Spring 2014 AIMS Strand/Concept Internal Consistency
Mathematics Grade 5

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Number and Operations		25	83575	14.92	5.26	0.84
	Concept 1: Number Sense	11	83575	7.20	2.74	0.76
	Concept 2: Numerical Operations	10	83575	5.44	2.20	0.60
	Concept 3: Estimation	4	83575	2.28	1.15	0.41
2. Data Analysis, Probability, and Discrete Mathematics		12	83575	8.44	2.75	0.75
	Concept 1: Data Analysis (Statistics)	4	83575	2.74	1.10	0.47
	Concept 2: Probability	4	83575	2.85	1.12	0.51
	Concept 3/4: Systematic Listing and Counting/Vertex-Edge Graphs	4	83575	2.85	1.20	0.58
3. Patterns, Algebra, and Functions		11	83575	7.46	2.40	0.69
	Concept 1: Patterns	4	83575	2.72	1.13	0.50
	Concept 3/4: Algebraic Representations/Analysis of Change	7	83575	4.74	1.60	0.56
4. Geometry and Measurement		10	83575	6.17	2.19	0.60
	Concept 1: Geometric Properties	5	83575	3.22	1.26	0.43
	Concept 4: Measurement	5	83575	2.95	1.32	0.43
5. Structure and Logic		9	83575	5.08	2.12	0.63
	Concept 1/2: Algorithms and Algorithmic Thinking/ Logic, Reasoning, Problem Solving, and Proof	9	83575	5.08	2.12	0.63

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Table 9.1.1.7
Spring 2014 AIMS Strand/Concept Internal Consistency
Mathematics Grade 6

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Number and Operations		23	82586	12.86	4.85	0.81
	Concept 1: Number Sense	9	82586	5.32	2.24	0.66
	Concept 2: Numerical Operations	10	82586	5.27	2.35	0.64
	Concept 3: Estimation	4	82586	2.27	1.09	0.34
2. Data Analysis, Probability, and Discrete Mathematics		12	82586	7.48	2.79	0.73
	Concept 1: Data Analysis (Statistics)	4	82586	2.44	1.17	0.50
	Concept 2: Probability	4	82586	2.17	1.25	0.49
	Concept 3/4: Systematic Listing and Counting/Vertex-Edge Graphs	4	82586	2.87	1.08	0.49
3. Patterns, Algebra, and Functions		11	82586	7.47	2.69	0.76
	Concept 1/2: Patterns/Functions and Relationships	4	82586	3.06	1.23	0.71
	Concept 3/4: Algebraic Representations/Analysis of Change	7	82586	4.41	1.77	0.61
4. Geometry and Measurement		13	82586	8.04	2.71	0.68
	Concept 3: Coordinate Geometry	4	82586	3.07	1.07	0.56
	Concept 4: Measurement	5	82586	3.01	1.36	0.49
	Concept 1/2: Geometric Properties/Transformation of Shapes	4	82586	1.96	1.12	0.33
5. Structure and Logic		9	82586	5.45	2.18	0.63
	Concept 1/2: Algorithms and Algorithmic Thinking/ Logic, Reasoning, Problem Solving, and Proof	9	82586	5.45	2.18	0.63

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Table 9.1.1.8
Spring 2014 AIMS Strand/Concept Internal Consistency
Mathematics Grade 7

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Number and Operations		17	83105	9.80	4.06	0.81
	Concept 1: Number Sense	5	83105	2.85	1.47	0.56
	Concept 2: Numerical Operations	8	83105	4.55	2.04	0.64
	Concept 3: Estimation	4	83105	2.39	1.24	0.52
2. Data Analysis, Probability, and Discrete Mathematics		13	83105	7.17	2.79	0.67
	Concept 1: Data Analysis (Statistics)	4	83105	2.50	1.22	0.52
	Concept 2: Probability	5	83105	2.57	1.27	0.34
	Concept 3/4: Systematic Listing and Counting/Vertex-Edge Graphs	4	83105	2.10	1.09	0.35
3. Patterns, Algebra, and Functions		13	83105	7.81	2.89	0.74
	Concept 1/2: Patterns/Functions and Relationships	4	83105	2.41	1.16	0.47
	Concept 3/4: Algebraic Representations/Analysis of Change	9	83105	5.40	2.08	0.66
4. Geometry and Measurement		15	83105	8.85	3.16	0.71
	Concept 4: Measurement	6	83105	3.23	1.57	0.51
	Concept 1/2: Geometric Properties/Transformation of Shapes	9	83105	5.62	2.03	0.59
5. Structure and Logic		10	83105	7.09	2.29	0.70
	Concept 1/2: Algorithms and Algorithmic Thinking/ Logic, Reasoning, Problem Solving, and Proof	10	83105	7.09	2.29	0.70

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Table 9.1.1.9
Spring 2014 AIMS Strand/Concept Internal Consistency
Mathematics Grade 8

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Number and Operations		12	82369	6.08	2.81	0.70
	Concept 1: Number Sense	4	82369	1.83	1.22	0.47
	Concept 2: Numerical Operations	4	82369	2.24	1.11	0.38
	Concept 3: Estimation	4	82369	2.01	1.23	0.48
2. Data Analysis, Probability, and Discrete Mathematics		12	82369	6.56	2.73	0.69
	Concept 1: Data Analysis (Statistics)	4	82369	2.37	1.14	0.41
	Concept 2: Probability	4	82369	2.14	1.20	0.48
	Concept 3/4: Systematic Listing and Counting/Vertex-Edge Graphs	4	82369	2.05	1.16	0.39
3. Patterns, Algebra, and Functions		18	82369	10.76	4.08	0.81
	Concept 3: Algebraic Representations	8	82369	4.44	2.07	0.65
	Concept 4: Analysis of Change	4	82369	2.47	1.10	0.43
	Concept 1/2: Patterns/Functions and Relationships	6	82369	3.86	1.63	0.60
4. Geometry and Measurement		16	82369	9.87	3.49	0.76
	Concept 1: Geometric Properties	4	82369	2.41	1.18	0.43
	Concept 2: Transformation of Shapes	4	82369	2.25	1.18	0.40
	Concept 3: Coordinate Geometry	4	82369	2.45	1.11	0.48
	Concept 4: Measurement	4	82369	2.76	1.14	0.54
5. Structure and Logic		10	82369	6.24	2.34	0.67
	Concept 1/2: Algorithms and Algorithmic Thinking/ Logic, Reasoning, Problem Solving, and Proof	10	82369	6.24	2.34	0.67

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Table 9.1.1.10
Spring 2014 AIMS Strand/Concept Internal Consistency
Mathematics Grade 10

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Number and Operations		5	105085	2.00	1.32	0.48
	Concept 1/2/3: Number Sense/Numerical Operations/Estimation	5	105085	2.00	1.32	0.48
2. Data Analysis, Probability, and Discrete Mathematics		12	105085	6.85	2.35	0.59
	Concept 1: Data Analysis (Statistics)	4	105085	2.83	1.07	0.42
	Concept 2: Probability	4	105085	1.87	1.04	0.31
	Concept 3/4: Systematic Listing and Counting/Vertex-Edge Graphs	4	105085	2.15	1.08	0.30
3. Patterns, Algebra, and Functions		28	105085	15.66	5.56	0.83
	Concept 1: Patterns	4	105085	2.47	1.12	0.44
	Concept 2: Functions and Relationships	6	105085	3.40	1.39	0.44
	Concept 3: Algebraic Representations	14	105085	7.70	3.20	0.74
	Concept 4: Analysis of Change	4	105085	2.09	1.10	0.33
4. Geometry and Measurement		28	105085	14.93	5.39	0.81
	Concept 1: Geometric Properties	11	105085	6.11	2.31	0.62
	Concept 2: Transformation of Shapes	4	105085	2.48	1.12	0.40
	Concept 3: Coordinate Geometry	7	105085	3.27	1.55	0.40
	Concept 4: Measurement	6	105085	3.07	1.73	0.62
5. Structure and Logic		12	105085	6.27	2.52	0.61
	Concept 1/2: Algorithms and Algorithmic Thinking/ Logic, Reasoning, Problem Solving, and Proof	12	105085	6.27	2.52	0.61

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Table 9.1.1.11
Spring 2014 AIMS Strand/Concept Internal Consistency
Reading Grade 3

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Reading Process		24	84212	15.53	4.52	0.80
	Concept 1: Print Concepts	4	84212	2.66	1.10	0.45
	Concept 3: Phonics	5	84212	3.62	1.14	0.40
	Concept 4: Vocabulary	6	84212	3.95	1.55	0.60
	Concept 6: Comprehension	9	84212	5.30	1.98	0.57
2. Comprehending Literary Text		12	84212	7.81	2.58	0.70
	Concept 1: Elements of Literature	12	84212	7.81	2.58	0.70
3. Comprehending Informational Text		18	84212	11.46	3.95	0.80
	Concept 1: Expository Text	6	84212	4.21	1.45	0.57
	Concept 2: Functional Text	6	84212	3.79	1.54	0.53
	Concept 3: Persuasive Text	6	84212	3.46	1.77	0.65

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Table 9.1.1.12
Spring 2014 AIMS Strand/Concept Internal Consistency
Reading Grade 4

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Reading Process		12	83418	8.45	2.58	0.72
	Concept 4: Vocabulary	4	83418	3.04	0.97	0.45
	Concept 6: Comprehension	8	83418	5.41	1.94	0.64
2. Comprehending Literary Text		17	83418	10.43	3.59	0.75
	Concept 1: Elements of Literature	17	83418	10.43	3.59	0.75
3. Comprehending Informational Text		25	83418	15.18	5.42	0.84
	Concept 1: Expository Text	13	83418	8.05	2.99	0.73
	Concept 2: Functional Text	6	83418	3.73	1.65	0.61
	Concept 3: Persuasive Text	6	83418	3.40	1.56	0.52

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Table 9.1.1.13
Spring 2014 AIMS Strand/Concept Internal Consistency
Reading Grade 5

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Reading Process		12	83599	7.38	2.38	0.61
	Concept 4: Vocabulary	6	83599	3.52	1.36	0.42
	Concept 6: Comprehension	6	83599	3.86	1.45	0.46
2. Comprehending Literary Text		17	83599	10.30	3.39	0.73
	Concept 1: Elements of Literature	17	83599	10.30	3.39	0.73
3. Comprehending Informational Text		25	83599	16.20	5.21	0.84
	Concept 1: Expository Text	13	83599	8.65	2.75	0.70
	Concept 2: Functional Text	6	83599	3.92	1.70	0.65
	Concept 3: Persuasive Text	6	83599	3.63	1.54	0.56

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Table 9.1.1.14
Spring 2014 AIMS Strand/Concept Internal Consistency
Reading Grade 6

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Reading Process		12	82597	7.39	2.59	0.68
	Concept 4: Vocabulary	6	82597	3.93	1.43	0.53
	Concept 6: Comprehension	6	82597	3.45	1.53	0.49
2. Comprehending Literary Text		17	82597	10.69	3.05	0.67
	Concept 1: Elements of Literature	17	82597	10.69	3.05	0.67
3. Comprehending Informational Text		25	82597	15.58	5.26	0.84
	Concept 1: Expository Text	13	82597	7.82	2.82	0.71
	Concept 2: Functional Text	6	82597	4.05	1.61	0.60
	Concept 3: Persuasive Text	6	82597	3.72	1.60	0.61

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Table 9.1.1.15
Spring 2014 AIMS Strand/Concept Internal Consistency
Reading Grade 7

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Reading Process		12	83127	7.81	2.57	0.67
	Concept 4: Vocabulary	6	83127	4.47	1.49	0.61
	Concept 6: Comprehension	6	83127	3.34	1.49	0.43
2. Comprehending Literary Text		17	83127	9.60	3.29	0.69
	Concept 1: Elements of Literature	13	83127	7.04	2.48	0.57
	Concept 2: Historical and Cultural Aspects of Literature	4	83127	2.56	1.20	0.51
3. Comprehending Informational Text		25	83127	16.69	4.58	0.79
	Concept 1: Expository Text	12	83127	7.91	2.45	0.62
	Concept 2: Functional Text	7	83127	4.80	1.57	0.56
	Concept 3: Persuasive Text	6	83127	3.98	1.48	0.49

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Table 9.1.1.16
Spring 2014 AIMS Strand/Concept Internal Consistency
Reading Grade 8

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Reading Process		9	82384	5.64	2.08	0.62
	Concept 4: Vocabulary	4	82384	2.17	1.16	0.43
	Concept 6: Comprehension	5	82384	3.47	1.28	0.47
2. Comprehending Literary Text		18	82384	12.39	3.50	0.75
	Concept 1: Elements of Literature	14	82384	9.36	2.92	0.71
	Concept 2: Historical and Cultural Aspects of Literature	4	82384	3.03	0.97	0.35
3. Comprehending Informational Text		27	82384	16.90	4.96	0.80
	Concept 1: Expository Text	13	82384	7.52	2.55	0.63
	Concept 2: Functional Text	8	82384	5.17	1.95	0.63
	Concept 3: Persuasive Text	6	82384	4.21	1.34	0.45

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Table 9.1.1.17
Spring 2014 AIMS Strand/Concept Internal Consistency
Reading Grade 10

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Reading Process		8	89667	4.69	1.86	0.58
	Concept 4: Vocabulary	4	89667	2.41	1.10	0.43
	Concept 6: Comprehension	4	89667	2.28	1.11	0.38
2. Comprehending Literary Text		18	89667	10.34	4.01	0.79
	Concept 1: Elements of Literature	15	89667	8.32	3.42	0.75
	Concept 2: Historical and Cultural Aspects of Literature	3	89667	2.02	0.94	0.39
3. Comprehending Informational Text		28	89667	16.10	5.64	0.84
	Concept 1: Expository Text	12	89667	6.32	2.85	0.72
	Concept 2: Functional Text	8	89667	5.73	1.88	0.65
	Concept 3: Persuasive Text	8	89667	4.05	1.89	0.56

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Table 9.1.1.18
Spring 2014 AIMS Strand/Concept Internal Consistency
Science Grade 4

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Scientific Inquiry		18	83408	10.29	3.59	0.73
	Concept 1: Observations, Questions, and Hypotheses	6	83408	3.25	1.60	0.52
	Concept 2: Scientific Testing (Investigating and Modeling)	6	83408	3.41	1.39	0.38
	Concept 3/4: Analysis and Conclusions/Communication	6	83408	3.63	1.47	0.52
2. History and Nature of Science		6	83408	4.34	1.29	0.47
	Concept 1/2: History of Science as a Human Endeavor/Nature of Scientific Knowledge	6	83408	4.34	1.29	0.47
3. Science in Personal and Social Perspectives		6	83408	3.72	1.63	0.58
	Concept 1/2: Changes in Environments/Science and Technology in Society	6	83408	3.72	1.63	0.58
4. Life Science		6	83408	2.96	1.53	0.50
	Concept 1/3/4: Characteristics of Organisms/Organisms and Environments/Diversity, Adaptation, and Behavior	6	83408	2.96	1.53	0.50
5. Physical Science		6	83408	3.07	1.60	0.52
	Concept 3: Energy and Magnetism	6	83408	3.07	1.60	0.52
6. Earth and Space Science		12	83408	5.88	2.43	0.59
	Concept 2: Earth's Processes and Systems	6	83408	3.03	1.68	0.57
	Concept 3: Changes in the Earth and Sky	6	83408	2.85	1.26	0.27

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Table 9.1.1.19
Spring 2014 AIMS Strand/Concept Internal Consistency
Science Grade 8

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Scientific Inquiry		20	82470	12.15	3.79	0.75
	Concept 1: Observations, Questions, and Hypotheses	6	82470	3.70	1.48	0.50
	Concept 2: Scientific Testing (Investigating and Modeling)	4	82470	2.25	1.03	0.29
	Concept 3: Analysis, Conclusions, and Refinements	6	82470	3.78	1.60	0.57
	Concept 4: Communication	4	82470	2.43	0.94	0.31
2. History and Nature of Science		6	82470	3.52	1.53	0.50
	Concept 1/2: History of Science as a Human Endeavor/Nature of Scientific Knowledge	6	82470	3.52	1.53	0.50
3. Science in Personal and Social Perspectives		6	82470	3.33	1.49	0.51
	Concept 1/2: Changes in Environments/Science and Technology in Society	6	82470	3.33	1.49	0.51
4. Life Science		8	82470	5.22	1.86	0.58
	Concept 2/4: Reproduction and Heredity/Diversity, Adaptation, and Behavior	8	82470	5.22	1.86	0.58
5. Physical Science		18	82470	10.34	3.15	0.66
	Concept 1: Properties and Changes of Properties in Matter	10	82470	6.08	1.96	0.53
	Concept 2: Motion and Forces	8	82470	4.26	1.70	0.48

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Table 9.1.1.20
Spring 2014 AIMS Strand/Concept Internal Consistency
Science Grade 10

Strand	Concept	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
1. Scientific Inquiry		22	76350	13.45	4.60	0.81
	Concept 1: Observations, Questions, and Hypotheses	6	76350	3.73	1.46	0.49
	Concept 2: Scientific Testing (Investigating and Modeling)	6	76350	3.39	1.57	0.52
	Concept 3: Analysis, Conclusions, and Refinements	6	76350	3.78	1.57	0.57
	Concept 4: Communication	4	76350	2.55	1.20	0.50
2. History and Nature of Science		6	76350	3.65	1.60	0.56
	Concept 1/2: History of Science as a Human Endeavor/Nature of Scientific Knowledge	6	76350	3.65	1.60	0.56
3. Science in Personal and Social Perspectives		7	76350	4.34	1.71	0.59
	Concept 1/2/3: Changes in Environments/Science and Technology in Society/Human Population Characteristics	7	76350	4.34	1.71	0.59
4. Life Science		30	76350	16.87	6.31	0.85
	Concept 1: The Cell	6	76350	3.08	1.60	0.54
	Concept 2: Molecular Basis of Heredity	6	76350	3.30	1.80	0.67
	Concept 3: Interdependence of Organisms	6	76350	3.05	1.61	0.52
	Concept 4: Biological Evolution	6	76350	3.85	1.45	0.44
	Concept 5: Matter, Energy, and Organization in Living Systems (Including Human Systems)	6	76350	3.59	1.64	0.58

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Table 9.1.1.21
Spring 2014 AIMS Strand/Concept Internal Consistency
Writing Grade 5

Strand	Concepts	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
2		27	82340	16.94	5.26	0.83
2	1 & 2	9	82340	6.43	2.08	0.68
2	3, 4, & 5	6	82340	3.56	1.53	0.50
2	6	12	82340	6.96	2.56	0.67

Table 9.1.1.22
Spring 2014 AIMS Strand/Concept Internal Consistency
Writing Grade 6

Strand	Concepts	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
2		27	82014	17.73	5.23	0.83
2	1 & 2	11	82014	7.01	2.58	0.70
2	3, 4, & 5	7	82014	4.63	1.69	0.57
2	6	9	82014	6.09	1.88	0.58

Table 9.1.1.23
Spring 2014 AIMS Strand/Concept Internal Consistency
Writing Grade 7

Strand	Concepts	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
2		27	82117	17.15	5.11	0.82
2	1 & 2	11	82117	6.78	2.43	0.66
2	3, 4, & 5	7	82117	5.05	1.56	0.58
2	6	9	82117	5.32	1.97	0.60

Table 9.1.1.24
Spring 2014 AIMS Strand/Concept Internal Consistency
Writing Grade 10

Strand	Concepts	Number of Items	N	Raw Score Mean	Raw Score STD	Alpha
2		27	97476	15.98	4.93	0.79
2	1 & 2	12	97476	7.86	2.54	0.68
2	3, 4, & 5	9	97476	5.43	1.88	0.53
2	6	6	97476	2.70	1.60	0.52

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9.1.2 Reliability of Constructed-Response Scoring

For constructed response items, the consistency with which two raters assign scores to student responses is typically determined by inter-rater agreement. In scoring the essay, each student essay is randomly assigned to a rater. All essays are scored by two raters at the high school level, and 10 percent of the essays are scored by a second rater for the Grades 5, 6, and 7 essay. Since different raters scored different essays, the inter-rater statistics computed here do not measure the degrees of agreement or disagreements between the same two raters across the entire set of essay responses. Therefore, it is more accurate to describe the inter-rater agreement reported in this section as inter-rater position reliability.

For the Grades 5-7 writing tests, ten percent of the student responses were randomly selected and scored by a second rater to reduce rater drift and allow measures of rater agreement to be estimated. The statistics provided in Table 9.1.2.1 were calculated using the scores from both raters for the ten percent of the responses that were scored twice. For the high school writing prompts, each student paper was scored by two independent raters for all students. The statistics for Prompt A and Prompt T are presented in Table 9.1.2.2 and were calculated using the scores from both raters. The two scores for each essay were used in the analyses to calculate rater agreement.

The raw score means, raw score standard deviations, and percentage of agreement between the first and second rater were computed. Perfect agreement is defined as trait scores that are exactly the same between the first and second rating. Adjacent agreement is defined as trait scores differing by one point between the first and second rating. Discrepant cases include records in which scores from the first and the second rating differed by more than one point. In addition, Cohen's kappa and intraclass correlation are provided as indices of agreement between the first and second rating.

Cohen's kappa (Cohen, 1960) is commonly used to summarize the agreement between raters and is computed as (Brennan & Prediger, 1981):

$$\kappa = \frac{\sum P_{ii} - \sum P_{i\cdot} P_{\cdot i}}{1 - \sum P_{i\cdot} P_{\cdot i}},$$

where $\sum P_{ii}$ is the observed proportion of agreement and $\sum P_{i\cdot} P_{\cdot i}$ is the chance proportion of agreement.

Intraclass correlation is defined by Shrout and Fleiss (1979) as "the correlation between one measurement on a target and another measurement obtained on that target." In the context of the Spring 2014 AIMS Writing tests, the "target" is the student response, and each measurement was obtained by a randomly assigned rater to that response. Therefore, ICC(1,1) was used to estimate intraclass correlation. ICC(1,1) is estimated as (Shrout & Fleiss, 1979):

$$ICC(1,1) = \frac{BMS - WMS}{BMS + (k-1)WMS},$$

where *BMS* is between-targets mean square, *WMS* is within-targets mean square, and *k* is the number of raters rating each target.

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Table 9.1.2.1
Spring 2014 AIMS Inter-Rater Position Consistency
Grades 5-7

	N	MAX Points	Rater 1 M	Rater 1 SD	Rater 2 M	Rater 2 SD	% Agreement Perfect	% Agreement Adjacent	% Agreement Discrepant	Wgt Kappa	Interclass Correlation
Grade 5	8289	6	3.52	0.80	3.52	0.79	63.76	35.22	1.03	0.43	0.69
Grade 6	8231	6	3.25	0.84	3.26	0.83	59.87	37.84	2.28	0.38	0.66
Grade 7	8303	6	3.53	0.92	3.53	0.91	61.19	36.55	2.25	0.42	0.73

Note: All student responses were rated by the two raters. Only students receiving a valid score or a condition code of Blank, Illegible, or Off Topic are included in this analysis.

Table 9.1.2.2
Spring 2014 AIMS Inter-Rater Position Consistency
High School

	N	MAX Points	Rater 1 M	Rater 1 SD	Rater 2 M	Rater 2 SD	% Agreement Perfect	% Agreement Adjacent	% Agreement Discrepant	Wgt Kappa	Interclass Correlation
Form A	94236	12	7.36	1.77	7.37	1.77	61.97	36.39	1.64	0.42	0.73
Form T	3232	12	6.87	1.76	6.91	1.73	68.97	30.17	0.87	0.54	0.78

Note: All student responses were rated by the two raters. Only students receiving a valid score or a condition codes of Blank, Illegible, or off Topic are included in this analysis.

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9.2 Validity

"Validity refers to the degree to which evidence and theory support the interpretations of test scores entailed by proposed users of tests. Validity is, therefore, the most fundamental consideration in developing and evaluating tests" (AERA/APA/NCME, 1999, 2014). The purpose of test score validation is not to validate the test itself but to validate interpretations of the test scores for particular purposes or uses. Test score validation is not a quantifiable property but an ongoing process, beginning at initial conceptualization and continuing throughout the entire assessment process.

The Spring 2014 AIMS tests were designed and developed to provide fair and accurate ability scores that support appropriate, meaningful, and useful educational decisions. In addition to the evidence provided in Part 2 (Involvement of Arizona Educators), additional validity evidence may be found in the following parts as described: Part 3 (Test Design), Part 4 (Test Development), Part 5 (Test Administration), Part 6 (Classical Item Analysis), Part 7 (Calibration, Scaling and Equating), Part 9.1 (Reliability), and Part 10 (Classification). As the technical report has progressed, chapter by chapter, it has moved through the phases of the testing cycle. Each part of the technical report detailed the procedures and processes applied in the creation of AIMS, as well as their results. Each part also highlights the meaning and significance of the procedures, processes, and results in terms of content and construct validity and the relationship to the Standards. Part 9.2 addresses two final issues in validity: the issues of bias and construct validity. The analyses presented here add to the perspectives provided in Chapters 2 through 10. Below is a brief review.

Part 2 of the technical report described the involvement of Arizona educators, ADE, and Pearson in the test development process. As indicated in Part 2, the test development process and the involvement of Arizona educators in that process formed an important part of the validity of the entire AIMS. The knowledge, expertise, and professional judgment offered by Arizona educators ultimately ensured that the content of AIMS formed an adequate and representative sample of appropriate content and that the content formed a legitimate basis upon which to validly derive conclusions about student achievement.

Parts 3 and 4 of the technical report addressed the issue of test form development. Part 3 provided a general discussion of test book creation and editing process, the process of selecting operational test items, the content distribution of embedded field test items, and the process of obtaining ADE approvals. The test design process and the participation of Arizona educators in the process of test selection, including item content and bias review, provide a solid rationale for having confidence in the content and design of AIMS as a tool from which to derive valid inferences about Arizona student performance.

Part 5 of the technical report described the process, procedures, and policies that guided the administration of the AIMS, including accommodations, security, and the written procedures provided to test administrators and school personnel.

Part 6 described classical data analysis of the Spring 2014 AIMS.

Part 7 of the technical report described the calibration, scaling and equating methods, as well as processes and procedures for deriving scale scores from students' raw scores and the data cleaning steps which ensure valid calibration and scaling. Some references to introductory and advanced discussions of IRT are provided.

Part 8 of the technical report dealt with the test results, longitudinal comparisons, score distributions and performance levels.

Part 9 above dealt with inter-rater position consistency, interclass correlation, rater agreement, and alpha reliabilities and internal consistency. It described Cronbach's alpha as a measure for

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internal consistency for Reading, Mathematics, Science, and inter-rater position consistency for Writing.

Part 9 below presents an analysis of DIF (Differential Item Functioning) complete with tables of gender and ethnic functioning of all operational items for the 2014 AIMS assessments.

Part 10 of the technical report will describe a detailed analysis of classification consistency and classification accuracy.

Additional evidence to support the validity of the 2014 AIMS assessments is provided by the following:

- Any items that displayed differential item functioning for subgroups of ethnicity and gender were identified.
- Correlations between scores on the 2014 AIMS tests for each grade level as construct validity were presented.

Also note that further evidence in support of the AIMS assessment has been documented in previous AIMS technical reports and standard setting technical reports.

9.2.1 Differential Item Functioning

Because test scores can have many sources of variation, the test publishers' task is to develop assessments that measure the intended abilities and skills without introducing extraneous elements or construct irrelevant variance. When tests measure something other than what they are intended to measure, test scores will reflect these unintended skills and knowledge, as well as what is purportedly assessed by the test. If this occurs, these tests can be called biased (Angoff, 1993; Camilli & Shepard, 1994; Green, 1975). One of the factors that may render test scores to be biased is differing cultural and socioeconomic experiences.

The Spring 2014 AIMS tests were developed using procedures to minimize item and test bias and included reviews such as the Content and Sensitivity Reviews described in Part 4, Test Development. Expertise in this area is not, however, a substitute for statistical analyses of the items. Thus, an empirical differential item functioning (DIF) approach was used to examine potential item bias. DIF studies include systematic item analyses to determine if examinees with the same underlying level of ability have the same probability of correctly responding to the item. Items identified with DIF are further examined to determine if item performance differences between identifiable subgroups of the population are due to extraneous or construct irrelevant information which makes the items unfairly difficult for one of the subgroups.

DIF analyses of the Spring 2014 AIMS tests were conducted for ethnic subgroups and gender. In order to compute DIF, students must be matched on ability level using a conditioning variable. For these analyses, raw score on the CRT test in the content area of interest was used as the conditioning variable. Note that DIF analyses were conducted on all multiple-choice reading, writing, mathematics, and science items

The Mantel-Haenszel chi-square statistic was used to identify DIF in multiple-choice items. The Mantel-Haenszel statistic was first recommended by Holland and Thayer (1988), is frequently used, and is efficient in terms of statistical power (Clauser & Mazor, 1998). The Mantel-Haenszel statistic is computed as (Zwick, Donoghue, & Grima, 1993):

$$\text{Mantel } \chi^2 = \frac{\left(\sum_k F_k - \sum_k E(F_k)\right)^2}{\sum_k \text{Var}(F_k)},$$

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where F_k is the sum of scores for the focal group at the kth level of the matching variable. Note that the Mantel-Haenszel statistic is sensitive to N such that larger sample sizes increase the value of chi square.

In addition to the Mantel-Haenszel chi-square statistic, the delta statistic (MH-D DIF) was computed for all items. Educational Testing Service (ETS) first developed the MH-D DIF statistic. To compute delta, alpha (the odds ratio) is first computed as:

$$\alpha_{MH} = \frac{\sum_{k=1}^{K} N_{r1k} N_{f0k} / N_k}{\sum_{k=1}^{K} N_{f1k} N_{r0k} / N_k},$$

where N_{r1k} is the number of correct responses in the reference group at ability level k, N_{f0k} is the number of incorrect responses in the focal group at ability level k, N_k is the total number of responses, N_{f1k} is the number of correct responses in the focal group at ability level k, and N_{r0k} is the number of incorrect responses in the reference group at ability level k. MH-D DIF is then computed as:

$$\text{MH-D DIF} = -2.35 \ln(\alpha_{MH}).$$

Positive values of MH-D DIF indicate items that favor the focal group, whereas negative values of MH-D DIF indicate items that favor the reference group.

The Mantel-Haenszel chi-square statistic and the delta statistic were used in combination to identify the Spring 2014 AIMS items that exhibit strong, weak, or no DIF (Zieky, 1993). Table 9.2.1.1 indicates the criteria for each category used for the 2014 AIMS DIF analysis. An alpha level of .01 was used for all Mantel-Haenszel statistics. Note that the criteria are very lenient given very large sample sizes and the number of DIF statistics computed. In other words, a large number of items will be placed in categories B and C given the critical value. For reference, the critical value for the chi-square statistic to be significant at $p<0.01$ is 6.635, at $p<0.001$ the critical value is 10.827, and at $p<0.0005$ the critical value is 12.116.

Table 9.2.1.1
Differential Item Functioning Flag Categories

Category	Description	Criterion
A	No DIF	Mantel-Haenzel chi-square not significantly different than zero
B	Weak DIF	Significant Mantel-Haenzel chi-square ($p<0.01$) and |MH D-DIF| < 1.5
C	Strong DIF	Significant Mantel-Haenzel chi-square ($p<0.01$) and |MH D-DIF| $\geq$ 1.5

Another measure of DIF, also presented here for the Spring 2014 AIMS operational items, is the standardized mean difference (SMD; Zwick et al., 1993). The SMD is an effect size index of DIF, which is relatively easy to interpret. The SMD compares the means of the reference and focus groups, adjusting for the distribution of reference and focal group members on the conditioning variable, which for these analyses is the CRT raw score. SMD is computed as (Zwick et al., 1993):

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$$SMD = \sum_k p_{Fk}\left(m_{Fk} - m_{Rk}\right),$$

where p_{Fk} is the proportion of the focal group members at the kth level of the matching variable, m_{Fk} is the mean item response of the focal group at the kth level and m_{Rk} is the mean item response of the reference group at the kth level . A negative SMD value indicates an item on which the focal group has a lower mean than the reference group. A positive SMD value indicates an item on which the reference group has a lower mean than the focal group.

Mantel-Haenszel chi-square statistic, MH-D DIF, SMD, and flag category results for all items in the Spring 2014 AIMS CRT tests are presented in Tables 9.2.1.2 through 9.2.1.22. It is important to note that DIF analyses are also conducted on field test items prior to form construction. Very few AIMS items are identified as exhibiting strong DIF in field testing. All items exhibiting strong DIF are investigated for possible sources of differential functioning by Pearson and ADE staff and such items are avoided in form construction. Not surprisingly, the vast majority of items on the operational AIMS exhibit no DIF or weak DIF. Items that were flagged for exhibiting strong DIF are summarized in Table 9.2.1.23. There were a total of 8 such items.

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Table 9.2.1.2
Spring 2014 AIMS Differential Item Functioning
Mathematics CRT Grade 3

	Reference: Male N= 42721 Focal: Female N= 41351				Reference: Hispanic N= 46802 Focal: Non Hispanic N= 37380				Reference: White N= 66912 Focal: Africa American N= 4772				Reference: White N= 66912 Focal: Native American N= 6113				Reference: White N= 66912 Focal: Asian N= 2490				Reference: White N= 66912 Focal: Hawaii N= 323				Reference: White N= 66912 Focal: Multiple Indicator N= 26			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	358.76	0.80	0.05	A	123.10	0.48	0.03	A	14.40	-0.32	-0.02	A	0.59	0.06	0.00	A	12.08	0.54	0.02	A	2.28	0.56	0.03	A	0.81	-0.11	-0.01	A
2	22.74	0.23	0.01	A	13.75	0.18	0.01	A	1.18	-0.10	-0.01	A	0.05	0.02	0.00	A	0.15	0.07	0.00	A	0.00	0.01	0.00	A	0.06	0.04	0.00	A
3	3.13	-0.08	0.00	A	27.09	-0.22	-0.02	A	41.75	-0.55	-0.04	A	2.40	-0.12	-0.01	A	8.69	-0.42	-0.02	A	3.13	-0.59	-0.04	A	3.62	-0.23	-0.01	A
4	450.02	-0.81	-0.06	A	142.10	-0.46	-0.04	A	0.79	-0.07	-0.01	A	11.70	-0.24	-0.02	A	0.02	0.02	0.00	A	0.28	0.17	0.01	A	7.01	0.29	0.02	A
5	38.26	0.29	0.02	A	54.38	-0.34	-0.02	A	0.17	-0.04	0.00	A	4.09	-0.16	-0.01	A	0.47	0.13	0.00	A	0.00	-0.01	0.00	A	0.98	0.14	0.01	A
6	54.09	0.33	0.02	A	20.74	-0.21	-0.01	A	0.49	-0.06	0.00	A	19.35	-0.35	-0.02	A	2.31	-0.24	-0.01	A	1.51	-0.45	-0.02	A	1.45	0.16	0.01	A
7	217.57	0.56	0.04	A	110.84	-0.41	-0.03	A	0.01	0.01	0.00	A	98.62	-0.69	-0.06	A	15.46	-0.49	-0.03	A	0.33	-0.17	-0.01	A	0.02	-0.02	0.00	A
8	13.39	0.14	0.01	A	143.80	0.46	0.04	A	33.07	-0.45	-0.04	A	116.94	0.78	0.07	A	0.00	0.00	0.00	A	0.40	-0.19	-0.02	A	0.35	-0.07	0.00	A
9	30.00	-0.21	-0.02	A	11.86	-0.14	-0.01	A	6.88	-0.23	-0.02	A	41.94	-0.53	-0.03	A	4.25	0.23	0.02	A	0.02	-0.04	0.00	A	0.01	0.01	0.00	A
10	38.04	-0.21	-0.02	A	89.80	-0.34	-0.03	A	19.75	-0.34	-0.03	A	27.63	-0.36	-0.03	A	0.21	0.05	0.00	A	0.66	0.22	0.02	A	0.03	-0.02	0.00	A
11	23.24	-0.19	-0.01	A	73.47	-0.34	-0.03	A	12.05	0.28	0.02	A	7.90	-0.20	-0.02	A	20.19	0.65	0.03	A	1.32	0.37	0.03	A	0.19	-0.05	0.00	A
12	60.52	0.27	0.02	A	1.23	-0.04	0.00	A	23.50	0.37	0.03	A	5.06	0.16	0.01	A	5.32	0.25	0.02	A	1.73	0.37	0.03	A	1.22	0.11	0.01	A
13	108.25	0.60	0.02	A	8.64	0.17	0.01	A	9.31	-0.34	-0.01	A	0.12	-0.04	0.00	A	12.09	-0.62	-0.02	A	0.85	-0.40	-0.01	A	1.45	-0.20	-0.01	A
14	162.71	0.48	0.04	A	26.55	-0.20	-0.02	A	13.01	-0.29	-0.02	A	78.40	-0.64	-0.05	A	0.21	0.06	0.00	A	0.16	0.12	0.01	A	0.75	-0.09	-0.01	A
15	188.53	0.48	0.04	A	123.69	0.40	0.04	A	4.64	-0.17	-0.01	A	11.46	0.23	0.02	A	2.88	0.18	0.02	A	7.00	0.74	0.07	A	0.35	0.06	0.01	A
16	10.96	-0.13	-0.01	A	6.20	-0.10	-0.01	A	11.76	-0.27	-0.02	A	7.28	-0.19	-0.02	A	0.88	-0.12	-0.01	A	4.92	-0.66	-0.05	A	0.05	-0.02	0.00	A
17	200.05	-0.60	-0.04	A	123.02	-0.47	-0.03	A	0.32	0.05	0.00	A	6.65	-0.20	-0.01	A	6.54	0.39	0.02	A	1.41	-0.40	-0.03	A	0.59	0.10	0.01	A
18	0.28	-0.02	0.00	A	85.11	-0.35	-0.03	A	7.71	0.22	0.02	A	25.49	-0.36	-0.03	A	32.44	0.70	0.05	A	0.11	-0.10	-0.01	A	0.00	0.00	0.00	A
19	366.62	-0.81	-0.05	A	292.30	-0.75	-0.04	A	17.91	-0.42	-0.02	A	3.49	-0.17	-0.01	A	7.46	0.31	0.02	A	1.55	-0.43	-0.03	A	0.20	-0.05	0.00	A
20	546.96	-0.92	-0.07	A	24.93	0.20	0.01	A	7.28	-0.22	-0.02	A	58.66	0.57	0.04	A	16.36	-0.50	-0.03	A	1.97	0.45	0.03	A	0.01	0.01	0.00	A
21	53.12	0.30	0.02	A	6.07	0.10	0.01	A	13.13	-0.30	-0.02	A	0.05	0.02	0.00	A	0.29	-0.08	0.00	A	1.24	0.38	0.02	A	1.47	-0.14	-0.01	A
22	0.69	-0.03	0.00	A	240.79	-0.56	-0.05	A	2.27	0.11	0.01	A	72.62	-0.60	-0.05	A	0.58	0.08	0.01	A	1.65	-0.36	-0.03	A	3.11	0.18	0.02	A
23	0.69	-0.03	0.00	A	6.15	0.09	0.01	A	12.56	0.27	0.02	A	2.17	0.10	0.01	A	4.33	0.24	0.02	A	0.02	-0.04	0.00	A	2.01	0.15	0.01	A
24	453.46	-0.75	-0.07	A	40.85	-0.23	-0.02	A	49.27	-0.53	-0.05	A	4.38	-0.14	-0.01	A	4.63	-0.23	-0.02	A	2.63	-0.46	-0.04	A	0.00	0.00	0.00	A
25	19.19	0.17	0.01	A	0.11	-0.01	0.00	A	32.07	-0.45	-0.04	A	112.59	-0.73	-0.06	A	0.59	-0.10	-0.01	A	0.06	0.08	0.01	A	2.82	-0.19	-0.01	A
26	71.94	0.32	0.03	A	23.29	0.19	0.01	A	45.34	0.55	0.04	A	23.86	0.35	0.03	A	54.91	1.00	0.06	B>	3.48	0.60	0.04	A	0.16	-0.04	0.00	A
27	1.87	0.07	0.00	A	27.86	-0.27	-0.01	A	0.17	-0.04	0.00	A	14.28	0.34	0.02	A	1.56	0.24	0.01	A	0.00	0.02	0.00	A	1.56	0.19	0.01	A
28	255.02	-0.66	-0.04	A	141.49	-0.50	-0.04	A	4.63	-0.18	-0.01	A	118.29	-0.84	-0.06	A	0.15	-0.06	0.00	A	0.01	-0.03	0.00	A	0.29	-0.06	0.00	A
29	171.74	0.54	0.04	A	6.41	0.11	0.01	A	0.89	0.08	0.01	A	1.93	0.10	0.01	A	18.91	0.67	0.03	A	0.57	0.25	0.02	A	0.01	0.01	0.00	A
30	16.00	-0.17	-0.01	A	5.63	-0.10	-0.01	A	3.64	0.16	0.01	A	1.18	-0.08	-0.01	A	0.27	-0.08	0.00	A	0.22	0.17	0.01	A	0.05	-0.03	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.2 (continued)
Spring 2014 AIMS Differential Item Functioning
Mathematics CRT Grade 3

	Reference: Male N= 42721 Focal: Female N= 41351				Reference: Hispanic N= 46802 Focal: Non Hispanic N= 37380				Reference: White N= 66912 Focal: Africa American N= 4772				Reference: White N= 66912 Focal: Native American N= 6113				Reference: White N= 66912 Focal: Asian N= 2490				Reference: White N= 66912 Focal: Hawaii N= 323				Reference: White N= 66912 Focal: Multiple Indicator N= 26			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	545.11	1.03	0.06	B>	4.00	0.09	0.01	A	0.39	-0.05	0.00	A	0.81	-0.07	-0.01	A	2.16	-0.23	-0.01	A	0.25	-0.19	-0.01	A	1.39	0.15	0.01	A
32	66.67	0.33	0.02	A	33.17	-0.24	-0.02	A	0.33	-0.05	0.00	A	39.98	-0.45	-0.04	A	2.00	-0.21	-0.01	A	6.94	-0.84	-0.06	A	0.22	-0.06	0.00	A
33	104.96	0.40	0.03	A	81.06	0.36	0.03	A	2.87	-0.14	-0.01	A	4.12	0.15	0.01	A	9.12	0.41	0.02	A	2.90	-0.53	-0.04	A	1.24	-0.13	-0.01	A
34	6.25	0.11	0.01	A	38.84	0.29	0.02	A	0.79	-0.08	-0.01	A	0.79	-0.07	-0.01	A	9.91	0.56	0.02	A	0.01	0.04	0.00	A	1.07	-0.13	-0.01	A
35	31.93	-0.21	-0.02	A	16.41	-0.15	-0.01	A	0.80	-0.07	-0.01	A	1.58	-0.09	-0.01	A	9.85	0.36	0.03	A	0.92	0.28	0.02	A	2.64	0.17	0.01	A
36	102.85	-0.53	-0.02	A	3.01	-0.09	0.00	A	16.28	-0.41	-0.02	A	0.38	-0.05	0.00	A	3.47	0.41	0.01	A	0.86	-0.40	-0.02	A	1.52	0.20	0.01	A
37	208.11	-0.57	-0.04	A	15.35	-0.16	-0.01	A	5.41	-0.18	-0.02	A	5.08	0.16	0.01	A	2.08	0.21	0.01	A	0.01	-0.04	0.00	A	0.25	-0.06	0.00	A
38	28.46	0.20	0.02	A	1.75	-0.05	0.00	A	0.10	0.03	0.00	A	0.01	0.01	0.00	A	4.29	0.23	0.02	A	0.52	0.21	0.02	A	0.01	0.01	0.00	A
39	345.37	0.85	0.05	A	37.00	-0.28	-0.02	A	0.61	0.07	0.00	A	2.13	-0.11	-0.01	A	0.06	-0.04	0.00	A	4.85	-0.74	-0.04	A	0.56	0.10	0.01	A
40	178.64	-0.50	-0.04	A	56.47	-0.29	-0.02	A	19.33	-0.36	-0.03	A	2.07	-0.11	-0.01	A	1.18	0.12	0.01	A	2.07	-0.45	-0.04	A	0.67	-0.09	-0.01	A
41	111.16	-0.42	-0.03	A	5.68	0.10	0.01	A	5.54	-0.19	-0.02	A	15.14	0.28	0.02	A	4.45	0.29	0.01	A	7.61	0.97	0.06	A	0.16	0.05	0.00	A
42	59.68	-0.43	-0.02	A	29.88	0.31	0.01	A	2.98	-0.18	-0.01	A	7.52	0.26	0.01	A	3.73	0.47	0.01	A	0.01	0.04	0.00	A	0.01	-0.02	0.00	A
43	523.38	-0.93	-0.06	A	0.00	0.00	0.00	A	55.04	-0.60	-0.05	A	0.03	0.01	0.00	A	0.96	0.14	0.01	A	0.00	0.00	0.00	A	1.04	-0.12	-0.01	A
44	61.33	0.33	0.02	A	164.18	0.55	0.04	A	45.16	-0.56	-0.04	A	86.36	0.73	0.05	A	4.39	0.33	0.01	A	0.09	0.11	0.01	A	3.45	-0.22	-0.01	A
45	180.60	0.71	0.03	A	4.84	0.12	0.01	A	6.13	-0.25	-0.01	A	9.23	0.27	0.02	A	0.77	-0.18	0.00	A	1.66	0.61	0.02	A	0.88	-0.15	-0.01	A
46	0.27	-0.02	0.00	A	44.11	-0.28	-0.02	A	1.29	0.10	0.01	A	51.31	-0.53	-0.04	A	3.76	0.29	0.01	A	1.13	-0.36	-0.02	A	1.08	-0.12	-0.01	A
47	17.65	-0.16	-0.01	A	35.14	-0.22	-0.02	A	0.32	-0.04	0.00	A	5.46	-0.16	-0.01	A	1.98	0.17	0.01	A	0.72	-0.26	-0.02	A	0.02	0.01	0.00	A
48	155.89	-0.47	-0.04	A	171.71	-0.50	-0.04	A	58.50	-0.59	-0.05	A	46.65	-0.47	-0.04	A	32.90	-0.69	-0.04	A	1.40	-0.36	-0.03	A	1.74	-0.14	-0.01	A
49	120.15	0.78	0.02	A	0.07	-0.02	0.00	A	2.50	0.23	0.01	A	8.13	0.36	0.01	A	0.83	-0.23	0.00	A	1.26	-0.58	-0.01	A	0.00	0.01	0.00	A
50	424.86	-0.97	-0.05	A	4.19	-0.10	-0.01	A	14.13	-0.34	-0.02	A	8.48	-0.23	-0.02	A	15.95	-0.66	-0.02	A	0.96	-0.37	-0.02	A	0.70	-0.11	-0.01	A
51	88.37	0.33	0.03	A	127.98	-0.41	-0.03	A	1.61	-0.10	-0.01	A	25.82	-0.37	-0.03	A	20.61	-0.46	-0.04	A	0.69	-0.25	-0.02	A	0.18	0.04	0.00	A
52	251.05	0.65	0.04	A	0.18	-0.02	0.00	A	6.49	-0.21	-0.02	A	6.83	-0.19	-0.02	A	31.45	0.86	0.04	A	0.82	0.30	0.02	A	1.17	-0.13	-0.01	A
53	70.38	0.40	0.02	A	15.43	-0.19	-0.01	A	1.19	-0.10	-0.01	A	27.06	-0.41	-0.03	A	0.03	0.03	0.00	A	0.77	0.34	0.02	A	1.04	0.14	0.01	A
54	69.93	0.32	0.03	A	0.00	0.00	0.00	A	11.49	0.27	0.02	A	0.18	-0.03	0.00	A	19.32	0.60	0.03	A	0.00	0.02	0.00	A	0.49	-0.08	-0.01	A
55	6.27	-0.10	-0.01	A	10.13	-0.13	-0.01	A	0.01	-0.01	0.00	A	0.51	-0.05	0.00	A	14.27	0.55	0.03	A	0.58	-0.25	-0.02	A	2.13	0.17	0.01	A
56	179.01	0.51	0.04	A	39.30	-0.24	-0.02	A	11.89	0.27	0.02	A	34.44	-0.42	-0.03	A	12.71	0.46	0.03	A	0.03	0.05	0.00	A	1.24	0.12	0.01	A
57	110.86	0.50	0.02	A	8.55	-0.14	-0.01	A	0.20	0.04	0.00	A	10.67	-0.27	-0.02	A	0.35	0.11	0.00	A	0.06	0.10	0.00	A	0.35	0.08	0.00	A
58	201.03	0.57	0.04	A	19.85	-0.18	-0.01	A	1.40	0.10	0.01	A	23.77	-0.34	-0.03	A	2.67	0.24	0.01	A	0.69	-0.26	-0.02	A	0.14	-0.04	0.00	A
59	37.15	0.23	0.02	A	14.58	0.15	0.01	A	6.36	0.20	0.02	A	21.30	0.33	0.03	A	19.50	0.59	0.03	A	9.82	1.04	0.07	B>	2.00	0.16	0.01	A
60	692.98	1.27	0.06	B>	28.14	0.26	0.01	A	15.58	-0.37	-0.02	A	0.08	-0.02	0.00	A	5.38	-0.38	-0.01	A	0.26	0.20	0.01	A	1.89	-0.18	-0.01	A
61	36.94	0.26	0.02	A	19.27	-0.19	-0.01	A	8.17	-0.24	-0.02	A	1.27	-0.08	-0.01	A	2.46	0.24	0.01	A	0.13	-0.13	-0.01	A	0.84	0.11	0.01	A
62	325.88	-0.65	-0.06	A	88.73	-0.34	-0.03	A	0.31	-0.04	0.00	A	11.44	-0.23	-0.02	A	1.05	0.12	0.01	A	1.59	0.35	0.03	A	1.45	-0.12	-0.01	A
63	48.20	-0.26	-0.02	A	3.61	-0.07	0.00	A	1.10	0.09	0.01	A	1.09	0.08	0.01	A	73.88	0.94	0.08	A	0.91	0.29	0.02	A	0.45	0.07	0.01	A
64	18.16	0.16	0.01	A	17.72	-0.16	-0.01	A	9.45	0.25	0.02	A	0.05	-0.02	0.00	A	78.55	1.08	0.08	B>	0.58	0.24	0.02	A	0.63	-0.08	-0.01	A
65	15.50	-0.13	-0.01	A	12.52	0.12	0.01	A	14.20	0.28	0.03	A	15.48	0.26	0.02	A	11.54	0.34	0.03	A	0.03	0.05	0.00	A	0.01	-0.01	0.00	A
66	0.63	0.05	0.00	A	60.27	0.47	0.02	A	13.90	-0.42	-0.02	A	10.67	0.33	0.01	A	8.94	0.84	0.01	A	1.53	0.67	0.02	A	5.17	-0.39	-0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.3
Spring 2014 AIMS Differential Item Functioning
Mathematics CRT Grade 4

	Reference: Male N= 42807				Reference: Hispanic N= 46620				Reference: White N= 66296				Reference: White N= 66296				Reference: White N= 66296				Reference: White N= 66296				Reference: White N= 66296			
	Focal: Female N= 40555				Focal: Non Hispanic N= 36810				Focal: Africa American N= 4855				Focal: Native American N= 6072				Focal: Asian N= 2572				Focal: Hawaii N= 310				Focal: Multiple Indicator N= 25			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	34.63	0.28	0.01	A	17.90	-0.20	-0.01	A	0.67	-0.08	0.00	A	3.19	-0.15	-0.01	A	0.49	0.12	0.00	A	0.21	0.19	0.01	A	1.51	-0.17	-0.01	A
2	150.87	-0.51	-0.03	A	5.18	-0.09	-0.01	A	23.04	-0.39	-0.03	A	96.37	-0.73	-0.06	A	10.97	-0.45	-0.02	A	7.36	-0.90	-0.06	A	1.81	-0.16	-0.01	A
3	176.76	-0.50	-0.04	A	34.19	-0.22	-0.02	A	3.47	-0.14	-0.01	A	9.01	-0.21	-0.02	A	7.21	0.33	0.02	A	0.16	0.13	0.01	A	0.02	-0.02	0.00	A
4	17.35	0.17	0.01	A	13.31	0.15	0.01	A	13.36	0.31	0.02	A	0.01	-0.01	0.00	A	25.63	0.75	0.03	A	0.12	-0.12	-0.01	A	1.58	0.15	0.01	A
5	120.63	-0.43	-0.03	A	531.35	-0.92	-0.06	A	30.91	-0.49	-0.03	A	80.24	-0.72	-0.05	A	1.06	-0.11	-0.01	A	8.01	-0.98	-0.07	A	0.09	-0.03	0.00	A
6	398.93	-0.87	-0.05	A	224.16	-0.64	-0.04	A	12.64	-0.30	-0.02	A	350.11	-1.41	-0.11	B<	0.07	-0.04	0.00	A	0.04	-0.08	0.00	A	0.30	0.07	0.00	A
7	154.08	-0.58	-0.03	A	0.03	0.01	0.00	A	17.98	-0.38	-0.02	A	6.09	-0.20	-0.01	A	1.51	0.22	0.01	A	4.71	-0.87	-0.04	A	0.23	0.07	0.00	A
8	4.37	-0.08	-0.01	A	0.30	0.02	0.00	A	5.36	0.19	0.01	A	13.81	0.27	0.02	A	56.59	1.07	0.06	B>	0.01	-0.03	0.00	A	1.85	0.16	0.01	A
9	75.15	-0.33	-0.03	A	8.95	-0.11	-0.01	A	23.83	-0.37	-0.03	A	26.98	-0.36	-0.03	A	0.47	-0.08	-0.01	A	0.36	-0.18	-0.01	A	0.90	-0.10	-0.01	A
10	0.09	0.01	0.00	A	0.12	0.01	0.00	A	13.25	0.27	0.03	A	3.59	-0.13	-0.01	A	5.00	0.24	0.02	A	0.74	0.24	0.02	A	0.00	0.00	0.00	A
11	13.32	-0.15	-0.01	A	40.48	-0.26	-0.02	A	2.30	0.13	0.01	A	9.46	-0.22	-0.02	A	16.05	0.56	0.03	A	2.96	0.60	0.04	A	3.20	0.21	0.01	A
12	26.32	-0.21	-0.01	A	8.31	0.12	0.01	A	2.31	-0.13	-0.01	A	0.27	-0.04	0.00	A	1.18	0.16	0.01	A	0.03	0.06	0.00	A	0.87	-0.11	-0.01	A
13	103.21	-0.37	-0.03	A	44.84	-0.25	-0.02	A	5.11	0.18	0.01	A	1.36	-0.08	-0.01	A	46.81	0.70	0.07	A	2.50	-0.51	-0.04	A	2.61	0.17	0.01	A
14	37.94	0.22	0.02	A	49.16	0.25	0.02	A	0.65	-0.06	-0.01	A	15.90	0.27	0.02	A	0.79	0.09	0.01	A	0.66	-0.23	-0.02	A	1.64	-0.13	-0.01	A
15	27.85	-0.20	-0.02	A	213.44	-0.57	-0.04	A	6.43	0.21	0.02	A	0.97	0.07	0.01	A	90.37	1.14	0.08	B>	2.84	0.56	0.04	A	1.19	0.12	0.01	A
16	5.41	0.08	0.01	A	93.05	-0.35	-0.03	A	0.43	0.05	0.00	A	25.34	-0.34	-0.03	A	0.78	0.10	0.01	A	0.81	-0.26	-0.02	A	1.78	0.15	0.01	A
17	0.37	-0.02	0.00	A	46.08	-0.26	-0.02	A	11.82	-0.27	-0.02	A	5.75	0.17	0.01	A	0.00	0.01	0.00	A	0.26	0.16	0.01	A	0.20	0.05	0.00	A
18	22.27	0.17	0.02	A	12.81	-0.13	-0.01	A	3.43	-0.14	-0.01	A	49.18	-0.47	-0.04	A	1.03	-0.12	-0.01	A	1.10	-0.31	-0.03	A	1.78	-0.14	-0.01	A
19	217.95	0.73	0.03	A	0.08	-0.01	0.00	A	14.11	-0.35	-0.02	A	2.86	-0.14	-0.01	A	4.23	0.40	0.01	A	0.37	0.25	0.01	A	0.03	-0.03	0.00	A
20	3.14	-0.07	0.00	A	14.87	-0.16	-0.01	A	1.16	-0.09	-0.01	A	0.13	0.03	0.00	A	17.67	0.66	0.03	A	4.69	0.76	0.05	A	1.38	0.15	0.01	A
21	374.78	0.82	0.05	A	7.71	0.12	0.01	A	5.47	-0.20	-0.01	A	4.76	-0.16	-0.01	A	0.42	-0.10	0.00	A	0.40	-0.23	-0.01	A	9.99	-0.39	-0.02	A
22	5.22	-0.08	-0.01	A	2.44	0.06	0.01	A	1.46	-0.09	-0.01	A	4.19	0.14	0.01	A	4.88	0.25	0.02	A	1.49	0.34	0.03	A	0.72	0.09	0.01	A
23	63.26	0.34	0.02	A	213.58	-0.62	-0.04	A	9.50	-0.26	-0.02	A	56.93	-0.55	-0.04	A	3.30	-0.26	-0.01	A	4.17	-0.71	-0.04	A	2.58	0.20	0.01	A
24	0.03	0.01	0.00	A	2.81	0.07	0.00	A	3.04	-0.15	-0.01	A	0.24	0.04	0.00	A	2.60	0.25	0.01	A	0.04	-0.07	0.00	A	0.70	-0.11	-0.01	A
25	65.74	0.30	0.03	A	188.36	-0.51	-0.04	A	2.72	-0.13	-0.01	A	115.89	-0.78	-0.06	A	6.75	-0.29	-0.02	A	2.73	-0.48	-0.04	A	0.73	0.09	0.01	A
26	3.85	0.09	0.01	A	2.76	-0.07	-0.01	A	4.87	-0.19	-0.01	A	12.70	-0.28	-0.02	A	0.70	0.13	0.01	A	1.31	-0.41	-0.02	A	1.98	0.19	0.01	A
27	24.46	0.24	0.01	A	1.62	-0.06	0.00	A	6.76	-0.24	-0.01	A	1.75	-0.11	-0.01	A	4.68	0.41	0.01	A	0.41	0.26	0.01	A	0.79	-0.13	-0.01	A
28	28.29	0.20	0.02	A	30.45	0.21	0.02	A	3.20	-0.14	-0.01	A	0.47	0.05	0.00	A	0.14	0.05	0.00	A	5.30	-0.69	-0.06	A	0.78	-0.10	-0.01	A
29	3.34	-0.07	-0.01	A	44.33	-0.27	-0.02	A	0.81	-0.07	-0.01	A	26.95	-0.39	-0.03	A	0.00	0.00	0.00	A	0.21	0.17	0.01	A	4.31	0.25	0.02	A
30	195.48	0.76	0.03	A	5.13	0.12	0.01	A	10.03	0.34	0.02	A	2.49	0.15	0.01	A	6.73	0.56	0.01	A	3.62	0.96	0.03	A	0.00	-0.01	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.3 (continued)
Spring 2014 AIMS Differential Item Functioning
Mathematics CRT Grade 4

	Reference: Male N= 42807				Reference: Hispanic N= 46620				Reference: White N= 66296				Reference: White N= 66296				Reference: White N= 66296				Reference: White N= 66296				Reference: White N= 66296			
	Focal: Female N= 40555				Focal: Non Hispanic N= 36810				Focal: Africa American N= 4855				Focal: Native American N= 6072				Focal: Asian N= 2572				Focal: Hawaii N= 310				Focal: Multiple Indicator N= 25			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	89.00	-0.34	-0.03	A	57.83	-0.28	-0.02	A	24.22	0.38	0.03	A	46.56	-0.48	-0.04	A	1.84	0.15	0.01	A	0.03	0.05	0.00	A	5.74	0.26	0.02	A
32	20.03	0.15	0.01	A	174.17	0.47	0.04	A	27.66	0.39	0.04	A	19.80	0.30	0.03	A	21.75	0.49	0.04	A	0.36	0.17	0.02	A	1.31	0.12	0.01	A
33	100.73	0.37	0.03	A	21.22	-0.17	-0.01	A	0.88	-0.07	-0.01	A	18.79	-0.31	-0.03	A	7.75	0.31	0.03	A	0.07	0.08	0.01	A	0.05	-0.02	0.00	A
34	89.19	-0.36	-0.03	A	2.85	-0.07	0.00	A	7.87	-0.24	-0.02	A	0.13	0.03	0.00	A	58.83	0.85	0.07	A	0.09	-0.10	-0.01	A	3.34	0.20	0.02	A
35	84.30	-0.45	-0.02	A	5.17	-0.11	-0.01	A	10.23	-0.30	-0.02	A	0.82	-0.08	0.00	A	0.49	0.13	0.00	A	1.69	0.56	0.02	A	1.89	-0.20	-0.01	A
36	85.59	0.36	0.03	A	0.00	0.00	0.00	A	12.74	0.29	0.02	A	1.21	0.08	0.01	A	3.04	0.23	0.01	A	0.83	0.30	0.02	A	0.22	0.06	0.00	A
37	114.25	-0.48	-0.03	A	40.37	-0.28	-0.02	A	32.46	-0.49	-0.03	A	27.74	-0.40	-0.03	A	4.94	-0.35	-0.01	A	3.12	0.69	0.04	A	0.56	-0.10	-0.01	A
38	17.83	0.15	0.01	A	47.78	0.26	0.02	A	1.75	-0.10	-0.01	A	0.02	0.01	0.00	A	14.62	0.44	0.03	A	1.18	0.31	0.03	A	0.10	-0.03	0.00	A
39	17.56	0.18	0.01	A	0.00	0.00	0.00	A	0.27	-0.04	0.00	A	17.78	0.33	0.02	A	0.02	-0.02	0.00	A	0.69	0.30	0.02	A	0.13	-0.05	0.00	A
40	308.26	0.71	0.05	A	103.97	-0.42	-0.03	A	9.65	-0.25	-0.02	A	34.32	-0.43	-0.03	A	9.93	-0.43	-0.02	A	1.99	-0.45	-0.03	A	0.11	-0.04	0.00	A
41	7.14	0.13	0.00	A	49.85	0.35	0.02	A	4.46	-0.20	-0.01	A	11.27	0.29	0.02	A	9.30	0.63	0.02	A	2.74	0.73	0.03	A	0.29	-0.08	0.00	A
42	529.01	-0.92	-0.07	A	161.68	-0.51	-0.04	A	85.90	-0.77	-0.06	A	10.98	-0.25	-0.02	A	1.69	0.17	0.01	A	2.63	-0.53	-0.04	A	0.88	0.11	0.01	A
43	6.70	0.13	0.01	A	14.94	-0.19	-0.01	A	0.31	-0.05	0.00	A	8.88	-0.25	-0.02	A	0.88	-0.17	0.00	A	0.01	0.03	0.00	A	0.04	-0.03	0.00	A
44	12.55	0.13	0.01	A	89.42	-0.34	-0.03	A	32.43	-0.44	-0.04	A	11.17	-0.23	-0.02	A	5.07	-0.24	-0.02	A	5.89	-0.69	-0.06	A	4.50	-0.22	-0.02	A
45	14.97	0.14	0.01	A	43.54	0.24	0.03	A	0.20	-0.03	0.00	A	22.43	0.33	0.03	A	1.13	0.12	0.01	A	0.62	-0.23	-0.02	A	2.67	-0.17	-0.01	A
46	22.76	0.18	0.01	A	8.37	0.11	0.01	A	41.30	-0.49	-0.04	A	8.38	0.20	0.02	A	2.11	0.18	0.01	A	0.02	-0.04	0.00	A	2.51	-0.18	-0.01	A
47	7.40	-0.10	-0.01	A	0.01	0.00	0.00	A	0.05	-0.02	0.00	A	0.30	0.04	0.00	A	6.59	0.29	0.02	A	0.07	-0.08	-0.01	A	0.01	-0.01	0.00	A
48	2.77	-0.07	0.00	A	74.02	-0.36	-0.02	A	3.90	-0.16	-0.01	A	6.40	0.19	0.01	A	1.27	0.17	0.01	A	4.88	-0.69	-0.05	A	0.01	-0.01	0.00	A
49	315.33	-0.64	-0.06	A	8.45	-0.11	-0.01	A	14.13	-0.29	-0.03	A	1.51	0.08	0.01	A	0.04	-0.02	0.00	A	2.55	-0.46	-0.04	A	0.89	0.10	0.01	A
50	60.00	0.39	0.02	A	0.12	0.02	0.00	A	28.83	-0.50	-0.03	A	6.33	-0.22	-0.01	A	5.82	-0.42	-0.01	A	8.02	-1.02	-0.05	B<	0.00	0.00	0.00	A
51	116.65	0.46	0.03	A	0.14	-0.02	0.00	A	3.75	0.17	0.01	A	0.36	0.05	0.00	A	0.00	0.00	0.00	A	4.80	0.83	0.05	A	10.78	0.43	0.03	A
52	107.60	-0.42	-0.03	A	33.78	-0.24	-0.02	A	14.00	-0.31	-0.02	A	0.69	-0.06	0.00	A	2.09	0.21	0.01	A	6.13	-0.83	-0.06	A	3.58	0.23	0.02	A
53	86.47	0.32	0.03	A	1.31	0.04	0.00	A	34.51	0.44	0.04	A	23.09	-0.33	-0.03	A	0.61	0.08	0.01	A	0.50	0.20	0.02	A	5.57	0.24	0.02	A
54	20.16	0.17	0.01	A	59.08	-0.30	-0.02	A	26.23	-0.40	-0.03	A	24.89	-0.35	-0.03	A	1.73	-0.17	-0.01	A	1.33	-0.34	-0.03	A	0.55	0.09	0.01	A
55	5.85	-0.09	-0.01	A	14.94	-0.14	-0.01	A	6.62	-0.20	-0.02	A	4.05	-0.14	-0.01	A	11.20	0.40	0.03	A	0.01	0.03	0.00	A	0.03	-0.02	0.00	A
56	0.11	-0.01	0.00	A	40.30	-0.29	-0.02	A	1.89	-0.12	-0.01	A	37.86	-0.47	-0.03	A	8.47	-0.45	-0.02	A	5.66	-0.83	-0.05	A	0.67	0.11	0.01	A
57	43.77	0.24	0.02	A	52.64	0.26	0.02	A	0.23	-0.04	0.00	A	1.41	-0.08	-0.01	A	1.06	-0.11	-0.01	A	1.49	0.37	0.03	A	3.98	-0.21	-0.02	A
58	157.92	-0.45	-0.04	A	4.84	-0.08	0.00	A	2.71	0.13	0.01	A	0.00	0.00	0.00	A	57.85	0.80	0.07	A	1.58	0.36	0.03	A	0.04	0.02	0.00	A
59	160.62	0.45	0.04	A	92.45	-0.35	-0.03	A	6.50	0.19	0.02	A	37.43	-0.42	-0.04	A	2.45	-0.17	-0.01	A	0.08	0.08	0.01	A	0.12	-0.04	0.00	A
60	146.51	0.53	0.03	A	152.33	0.55	0.04	A	3.52	-0.16	-0.01	A	25.83	0.41	0.03	A	0.08	-0.04	0.00	A	0.64	0.30	0.02	A	0.02	0.02	0.00	A
61	2.74	-0.07	-0.01	A	44.02	0.28	0.02	A	6.55	0.21	0.02	A	0.29	0.04	0.00	A	0.16	0.06	0.00	A	0.42	-0.21	-0.01	A	1.53	0.15	0.01	A
62	33.42	0.20	0.02	A	1.01	0.04	0.00	A	0.00	0.00	0.00	A	0.38	-0.04	0.00	A	32.85	0.66	0.05	A	0.07	0.07	0.01	A	0.70	-0.09	-0.01	A
63	1.10	-0.04	0.00	A	6.98	0.10	0.01	A	4.33	0.17	0.01	A	29.86	0.40	0.03	A	52.33	0.74	0.07	A	1.10	0.31	0.03	A	0.01	0.01	0.00	A
64	15.59	0.15	0.01	A	47.23	-0.27	-0.02	A	2.48	-0.12	-0.01	A	12.99	0.26	0.02	A	5.38	0.30	0.02	A	0.54	-0.23	-0.02	A	0.21	-0.05	0.00	A
65	199.42	0.59	0.04	A	148.46	0.52	0.04	A	5.57	-0.20	-0.01	A	55.60	0.58	0.04	A	1.21	0.16	0.01	A	0.69	0.28	0.02	A	2.42	-0.20	-0.01	A
66	0.02	0.01	0.00	A	39.48	0.25	0.02	A	9.10	-0.24	-0.02	A	28.06	0.38	0.03	A	0.30	0.07	0.00	A	0.92	0.32	0.02	A	0.75	-0.10	-0.01	A
67	2.31	0.05	0.00	A	3.32	-0.07	0.00	A	0.02	-0.01	0.00	A	4.44	0.14	0.01	A	10.67	0.35	0.03	A	0.53	0.22	0.02	A	0.93	0.10	0.01	A
68	294.97	0.63	0.05	A	49.68	0.27	0.02	A	7.83	-0.21	-0.02	A	5.38	0.16	0.01	A	1.31	-0.13	-0.01	A	2.96	-0.52	-0.04	A	3.41	-0.20	-0.02	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.4
Spring 2014 AIMS Differential Item Functioning
Mathematics CRT Grade 5

	Reference: Male N= 42477 Focal: Female N= 41033				Reference: Hispanic N= 47070 Focal: Non Hispanic N= 36503				Reference: White N= 66919 Focal: Africa American N= 4822				Reference: White N= 66919 Focal: Native American N= 5892				Reference: White N= 66919 Focal: Asian N= 2545				Reference: White N= 66919 Focal: Hawaii N= 291				Reference: White N= 66919 Focal: Multiple Indicator N= 23			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	44.25	0.39	0.01	A	0.00	0.00	0.00	A	5.61	-0.26	-0.01	A	0.28	-0.05	0.00	A	0.85	-0.19	0.00	A	0.79	-0.42	-0.01	A	17.76	0.87	0.02	A
2	71.91	-0.31	-0.03	A	40.32	-0.24	-0.02	A	10.33	-0.27	-0.02	A	6.65	-0.20	-0.02	A	34.26	0.61	0.06	A	3.61	-0.62	-0.05	A	0.95	0.11	0.01	A
3	6.71	-0.09	-0.01	A	251.74	-0.58	-0.05	A	22.81	-0.37	-0.03	A	42.95	-0.47	-0.04	A	42.08	-0.67	-0.06	A	4.83	-0.68	-0.06	A	0.53	-0.08	-0.01	A
4	293.20	-0.70	-0.05	A	149.19	-0.52	-0.03	A	9.33	-0.29	-0.02	A	27.17	-0.47	-0.03	A	0.10	-0.04	0.00	A	0.03	0.06	0.00	A	1.36	-0.14	-0.01	A
5	311.59	-0.79	-0.05	A	26.30	-0.23	-0.02	A	6.59	-0.22	-0.02	A	3.06	-0.14	-0.01	A	0.72	0.14	0.01	A	0.31	0.21	0.01	A	2.19	-0.20	-0.01	A
6	1.76	-0.05	0.00	A	42.51	-0.24	-0.02	A	9.37	-0.25	-0.02	A	15.10	-0.29	-0.02	A	15.82	0.40	0.04	A	1.32	0.34	0.03	A	6.50	0.27	0.02	A
7	28.97	-0.20	-0.02	A	1.47	-0.05	0.00	A	33.58	0.47	0.04	A	0.96	-0.07	-0.01	A	14.27	0.42	0.03	A	0.04	-0.06	-0.01	A	3.74	0.22	0.02	A
8	21.31	-0.19	-0.01	A	0.09	-0.01	0.00	A	0.00	-0.01	0.00	A	2.49	0.12	0.01	A	14.54	0.54	0.03	A	0.06	-0.09	-0.01	A	1.40	-0.15	-0.01	A
9	519.43	-0.85	-0.07	A	181.27	-0.51	-0.04	A	41.00	-0.52	-0.04	A	8.54	-0.22	-0.02	A	6.50	0.29	0.02	A	0.02	0.04	0.00	A	0.13	0.04	0.00	A
10	0.90	0.04	0.00	A	123.20	-0.43	-0.03	A	2.78	0.13	0.01	A	30.71	-0.39	-0.03	A	0.08	0.04	0.00	A	0.35	-0.20	-0.01	A	4.35	0.24	0.02	A
11	52.15	-0.28	-0.02	A	5.83	-0.09	-0.01	A	7.19	-0.21	-0.02	A	1.74	0.10	0.01	A	2.39	0.20	0.01	A	0.59	-0.25	-0.02	A	0.19	0.05	0.00	A
12	332.52	0.70	0.05	A	49.85	0.28	0.02	A	0.25	-0.04	0.00	A	8.65	0.21	0.02	A	1.79	-0.17	-0.01	A	0.43	0.22	0.02	A	0.83	0.11	0.01	A
13	83.43	0.36	0.03	A	69.46	0.33	0.03	A	9.32	-0.24	-0.02	A	9.09	0.22	0.02	A	5.86	0.33	0.02	A	1.31	-0.37	-0.03	A	3.71	-0.23	-0.02	A
14	136.04	0.50	0.03	A	0.51	0.03	0.00	A	0.52	-0.06	0.00	A	7.05	-0.20	-0.02	A	0.43	0.10	0.00	A	1.94	-0.47	-0.03	A	0.88	-0.12	-0.01	A
15	12.50	0.15	0.01	A	5.31	-0.10	-0.01	A	1.78	0.11	0.01	A	2.32	0.12	0.01	A	3.62	0.29	0.01	A	1.40	0.43	0.03	A	1.60	0.17	0.01	A
16	24.00	0.17	0.02	A	18.53	-0.15	-0.01	A	0.06	0.02	0.00	A	3.33	-0.12	-0.01	A	25.13	0.52	0.05	A	3.37	-0.54	-0.05	A	2.26	0.16	0.02	A
17	18.77	0.15	0.01	A	2.74	-0.06	-0.01	A	11.34	0.25	0.02	A	0.51	0.05	0.00	A	9.33	0.30	0.03	A	0.00	-0.02	0.00	A	3.69	0.20	0.02	A
18	275.85	0.64	0.05	A	44.39	-0.26	-0.02	A	27.69	0.42	0.04	A	28.54	-0.39	-0.03	A	0.27	0.07	0.00	A	0.10	0.10	0.01	A	0.80	0.11	0.01	A
19	139.75	-0.42	-0.04	A	143.02	-0.43	-0.04	A	18.82	-0.33	-0.03	A	10.27	-0.22	-0.02	A	0.84	0.10	0.01	A	0.22	-0.14	-0.01	A	1.33	-0.12	-0.01	A
20	18.00	-0.19	-0.01	A	5.25	-0.10	0.00	A	6.39	-0.22	-0.02	A	3.06	0.14	0.01	A	2.87	0.28	0.01	A	2.40	-0.58	-0.03	A	0.32	-0.08	0.00	A
21	34.97	0.23	0.02	A	27.41	0.21	0.02	A	11.28	0.27	0.02	A	2.92	-0.12	-0.01	A	28.68	0.72	0.04	A	0.28	-0.17	-0.01	A	5.19	0.27	0.02	A
22	484.75	-0.79	-0.07	A	71.92	-0.31	-0.03	A	8.81	-0.23	-0.02	A	20.68	-0.32	-0.03	A	1.47	0.14	0.01	A	0.13	-0.11	-0.01	A	1.16	0.12	0.01	A
23	52.57	0.26	0.02	A	5.20	-0.08	0.00	A	2.34	0.11	0.01	A	6.95	-0.18	-0.02	A	79.37	1.09	0.08	B>	0.00	0.01	0.00	A	1.96	0.15	0.01	A
24	371.26	1.08	0.04	B>	29.28	0.30	0.01	A	1.08	0.11	0.01	A	0.49	0.07	0.00	A	1.68	-0.25	-0.01	A	3.11	0.91	0.03	A	0.01	-0.01	0.00	A
25	15.60	0.16	0.01	A	35.49	0.24	0.02	A	0.84	0.08	0.01	A	1.91	0.10	0.01	A	1.97	0.19	0.01	A	0.02	0.04	0.00	A	0.18	-0.05	0.00	A
26	27.05	0.21	0.01	A	18.99	-0.18	-0.01	A	0.16	0.03	0.00	A	6.48	-0.19	-0.02	A	0.11	0.05	0.00	A	1.33	-0.37	-0.03	A	0.05	-0.03	0.00	A
27	176.54	-0.52	-0.04	A	3.63	0.08	0.01	A	0.06	0.02	0.00	A	3.71	-0.14	-0.01	A	6.65	0.35	0.02	A	0.27	0.18	0.01	A	0.04	-0.02	0.00	A
28	65.54	0.44	0.02	A	42.90	-0.35	-0.02	A	0.08	0.03	0.00	A	11.19	-0.29	-0.02	A	0.07	-0.05	0.00	A	2.24	-0.61	-0.03	A	1.09	0.18	0.01	A
29	0.07	-0.01	0.00	A	12.01	0.12	0.01	A	18.90	0.32	0.03	A	1.17	0.07	0.01	A	18.96	0.47	0.04	A	0.12	0.10	0.01	A	0.44	0.07	0.01	A
30	231.87	-0.66	-0.04	A	4.57	0.09	0.01	A	9.98	0.28	0.02	A	2.13	-0.12	-0.01	A	17.49	0.65	0.03	A	1.65	0.46	0.03	A	0.29	0.07	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.4 (continued)
Spring 2014 AIMS Differential Item Functioning
Mathematics CRT Grade 5

	Reference: Male N= 42477 Focal: Female N= 41033				Reference: Hispanic N= 47070 Focal: Non Hispanic N= 36503				Reference: White N= 66919 Focal: Africa American N= 4822				Reference: White N= 66919 Focal: Native American N= 5892				Reference: White N= 66919 Focal: Asian N= 2545				Reference: White N= 66919 Focal: Hawaii N= 291				Reference: White N= 66919 Focal: Multiple Indicator N= 23			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	324.00	0.85	0.04	A	10.46	-0.15	-0.01	A	1.19	0.10	0.01	A	21.61	-0.37	-0.03	A	5.22	0.41	0.01	A	0.00	0.02	0.00	A	0.39	0.09	0.00	A
32	144.67	-0.45	-0.04	A	386.38	-0.75	-0.05	A	244.76	-1.32	-0.10	B<	140.86	-0.92	-0.07	A	4.68	-0.25	-0.02	A	19.51	-1.45	-0.11	B<	13.17	-0.42	-0.03	A
33	26.07	-0.19	-0.02	A	1.18	0.04	0.00	A	16.61	-0.30	-0.03	A	6.80	0.18	0.02	A	4.65	-0.24	-0.02	A	0.58	0.24	0.02	A	3.49	-0.20	-0.02	A
34	688.95	1.01	0.08	B>	80.92	0.35	0.03	A	3.98	-0.16	-0.01	A	3.55	0.14	0.01	A	11.48	0.44	0.03	A	0.04	-0.07	-0.01	A	1.32	-0.13	-0.01	A
35	0.34	0.03	0.00	A	21.82	-0.20	-0.01	A	7.10	0.23	0.02	A	5.59	-0.18	-0.01	A	19.19	0.71	0.03	A	0.03	-0.07	0.00	A	0.69	-0.11	-0.01	A
36	129.91	0.48	0.03	A	0.81	-0.04	0.00	A	0.45	0.06	0.00	A	30.07	-0.42	-0.03	A	0.13	-0.05	0.00	A	0.10	-0.11	-0.01	A	0.03	-0.02	0.00	A
37	9.72	0.11	0.01	A	9.28	0.11	0.01	A	0.59	0.06	0.01	A	2.10	-0.10	-0.01	A	1.41	0.14	0.01	A	9.05	-0.86	-0.08	A	0.01	-0.01	0.00	A
38	8.41	0.12	0.01	A	74.57	-0.36	-0.02	A	13.55	-0.31	-0.02	A	31.61	-0.41	-0.03	A	0.73	0.12	0.01	A	3.73	0.67	0.05	A	2.91	0.22	0.01	A
39	106.60	0.39	0.03	A	38.53	0.24	0.02	A	0.06	0.02	0.00	A	7.15	0.19	0.02	A	2.12	0.17	0.01	A	0.37	0.19	0.02	A	0.05	0.03	0.00	A
40	44.74	-0.27	-0.02	A	243.04	-0.63	-0.05	A	5.41	-0.19	-0.01	A	107.42	-0.73	-0.06	A	7.28	-0.35	-0.02	A	0.50	-0.23	-0.02	A	4.60	0.27	0.02	A
41	266.08	0.59	0.05	A	14.54	0.14	0.01	A	1.55	-0.10	-0.01	A	1.48	-0.09	-0.01	A	3.60	0.20	0.02	A	1.12	-0.34	-0.03	A	0.06	-0.03	0.00	A
42	237.58	0.55	0.05	A	42.91	0.24	0.02	A	4.20	-0.16	-0.01	A	11.40	0.24	0.02	A	0.02	-0.02	0.00	A	0.95	-0.30	-0.03	A	1.18	-0.12	-0.01	A
43	13.10	0.12	0.01	A	5.85	-0.08	-0.01	A	4.28	0.15	0.01	A	0.01	0.01	0.00	A	2.53	-0.16	-0.01	A	0.21	-0.13	-0.01	A	0.35	0.06	0.01	A
44	5.01	-0.08	-0.01	A	1.39	0.04	0.01	A	1.08	-0.08	-0.01	A	0.09	-0.02	0.00	A	4.36	0.23	0.02	A	0.37	-0.19	-0.02	A	0.27	0.06	0.01	A
45	274.00	0.66	0.05	A	26.05	0.21	0.02	A	8.39	-0.23	-0.02	A	3.17	0.13	0.01	A	1.39	0.16	0.01	A	3.71	-0.61	-0.05	A	0.87	-0.11	-0.01	A
46	109.95	-0.46	-0.03	A	41.18	-0.28	-0.02	A	0.20	0.04	0.00	A	5.02	-0.17	-0.01	A	0.00	0.00	0.00	A	0.01	0.03	0.00	A	0.92	0.13	0.01	A
47	19.49	-0.20	-0.01	A	240.68	-0.69	-0.05	A	3.33	0.16	0.01	A	104.27	-0.78	-0.06	A	1.16	-0.17	-0.01	A	0.84	-0.32	-0.02	A	1.84	0.19	0.01	A
48	8.57	-0.11	-0.01	A	7.18	0.11	0.01	A	0.53	-0.06	-0.01	A	0.02	0.01	0.00	A	28.82	0.73	0.04	A	2.78	0.55	0.04	A	0.54	0.09	0.01	A
49	16.59	0.18	0.01	A	115.97	-0.47	-0.03	A	4.62	0.19	0.01	A	17.66	-0.32	-0.02	A	6.59	0.42	0.02	A	0.01	0.04	0.00	A	4.66	0.30	0.02	A
50	21.12	0.20	0.01	A	34.44	0.26	0.02	A	17.65	0.37	0.03	A	4.38	-0.16	-0.01	A	3.94	0.33	0.01	A	0.19	-0.16	-0.01	A	0.69	-0.11	-0.01	A
51	45.95	-0.25	-0.02	A	5.75	-0.09	-0.01	A	9.29	0.24	0.02	A	8.36	-0.21	-0.02	A	25.95	0.65	0.04	A	4.17	0.70	0.05	A	0.31	0.06	0.01	A
52	156.73	-0.45	-0.04	A	286.23	-0.62	-0.05	A	3.41	-0.14	-0.01	A	166.17	-0.89	-0.08	A	0.39	0.07	0.01	A	3.45	-0.55	-0.05	A	0.00	0.00	0.00	A
53	222.23	-0.52	-0.05	A	0.00	0.00	0.00	A	34.65	-0.46	-0.04	A	0.76	-0.06	-0.01	A	10.09	-0.32	-0.03	A	0.09	0.09	0.01	A	2.44	-0.16	-0.02	A
54	694.68	1.28	0.06	B>	181.74	0.66	0.04	A	6.04	-0.23	-0.01	A	34.10	0.52	0.03	A	1.48	-0.20	-0.01	A	0.92	0.39	0.02	A	6.26	-0.35	-0.02	A
55	38.17	-0.23	-0.02	A	78.90	-0.33	-0.03	A	0.35	-0.05	0.00	A	4.73	-0.15	-0.01	A	0.01	0.01	0.00	A	0.87	0.27	0.02	A	1.96	-0.15	-0.01	A
56	132.67	0.46	0.03	A	95.62	0.40	0.03	A	1.52	0.10	0.01	A	3.25	0.14	0.01	A	0.95	-0.13	-0.01	A	1.79	0.47	0.03	A	0.38	-0.07	-0.01	A
57	20.25	0.18	0.01	A	0.63	0.03	0.00	A	0.00	0.00	0.00	A	0.61	-0.06	-0.01	A	0.08	0.04	0.00	A	6.05	0.86	0.06	A	1.03	0.12	0.01	A
58	0.04	-0.01	0.00	A	4.64	0.08	0.01	A	0.23	0.04	0.00	A	0.07	0.02	0.00	A	0.70	-0.08	-0.01	A	2.14	0.41	0.04	A	0.59	-0.08	-0.01	A
59	303.24	1.01	0.03	B>	13.57	0.21	0.01	A	0.46	-0.07	0.00	A	1.46	0.12	0.01	A	1.73	-0.29	-0.01	A	2.09	0.75	0.02	A	2.24	-0.26	-0.01	A
60	2.42	-0.05	-0.01	A	12.23	0.13	0.01	A	4.37	-0.16	-0.01	A	18.71	0.30	0.03	A	45.50	0.73	0.06	A	5.38	0.68	0.06	A	0.82	0.10	0.01	A
61	0.69	0.03	0.00	A	3.62	0.07	0.01	A	1.09	-0.08	-0.01	A	2.63	0.11	0.01	A	0.11	0.04	0.00	A	1.50	0.38	0.03	A	0.24	-0.05	0.00	A
62	259.36	-0.66	-0.04	A	2.60	0.07	0.01	A	275.25	-1.27	-0.11	B<	85.79	0.72	0.06	A	2.35	0.22	0.01	A	3.23	-0.59	-0.04	A	4.57	-0.26	-0.02	A
63	42.36	0.24	0.02	A	26.79	-0.19	-0.01	A	7.28	0.21	0.02	A	2.79	-0.12	-0.01	A	78.89	1.03	0.08	B>	4.26	0.64	0.05	A	0.24	0.05	0.00	A
64	310.77	0.77	0.05	A	18.98	0.19	0.01	A	1.33	-0.10	-0.01	A	0.03	-0.01	0.00	A	0.06	0.04	0.00	A	1.92	-0.51	-0.03	A	0.77	-0.12	-0.01	A
65	57.50	-0.31	-0.02	A	6.82	0.11	0.01	A	0.00	0.00	0.00	A	0.77	0.07	0.00	A	18.83	0.58	0.03	A	1.30	0.38	0.03	A	0.51	0.09	0.01	A
66	472.19	-0.83	-0.07	A	86.44	-0.36	-0.03	A	1.39	-0.10	-0.01	A	1.00	-0.08	-0.01	A	17.03	0.48	0.04	A	1.75	0.42	0.03	A	0.03	-0.02	0.00	A
67	141.82	0.50	0.03	A	4.02	-0.08	-0.01	A	34.93	0.50	0.04	A	0.17	-0.03	0.00	A	33.47	0.89	0.04	A	0.00	-0.02	0.00	A	7.39	0.34	0.02	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.5
Spring 2014 AIMS Differential Item Functioning
Mathematics CRT Grade 6

	Reference: Male N= 41943 Focal: Female N= 40566				Reference: Hispanic N= 46433 Focal: Non Hispanic N= 36151				Reference: White N= 66268 Focal: Africa American N= 4862				Reference: White N= 66268 Focal: Native American N= 5813				Reference: White N= 66268 Focal: Asian N= 2446				Reference: White N= 66268 Focal: Hawaii N= 250				Reference: White N= 66268 Focal: Multiple Indicator N= 22			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	2.81	-0.07	0.00	A	110.11	-0.46	-0.03	A	1.70	-0.11	-0.01	A	64.95	-0.61	-0.05	A	3.91	0.32	0.01	A	0.42	-0.25	-0.02	A	0.00	-0.01	0.00	A
2	74.68	-0.35	-0.03	A	19.87	-0.18	-0.01	A	2.73	0.14	0.01	A	26.53	-0.38	-0.03	A	8.60	0.44	0.02	A	0.98	0.38	0.02	A	2.00	0.18	0.01	A
3	10.10	-0.11	-0.01	A	0.26	-0.02	0.00	A	13.28	0.28	0.02	A	1.23	-0.08	-0.01	A	24.07	0.52	0.05	A	1.06	0.33	0.03	A	5.89	0.27	0.02	A
4	136.60	0.42	0.04	A	11.54	0.12	0.01	A	0.40	-0.05	0.00	A	8.42	0.21	0.02	A	2.95	0.18	0.02	A	8.92	0.93	0.09	A	0.74	-0.09	-0.01	A
5	242.33	0.55	0.05	A	11.07	0.12	0.01	A	5.24	-0.17	-0.02	A	3.94	0.14	0.01	A	11.55	0.38	0.03	A	0.53	-0.23	-0.02	A	1.16	-0.12	-0.01	A
6	47.63	0.30	0.02	A	9.96	-0.14	-0.01	A	21.94	0.40	0.03	A	6.95	-0.20	-0.02	A	18.10	0.72	0.03	A	0.36	0.25	0.01	A	2.12	0.19	0.01	A
7	3.46	0.08	0.00	A	0.04	-0.01	0.00	A	1.63	0.11	0.01	A	2.04	-0.11	-0.01	A	0.87	0.16	0.01	A	0.01	-0.04	0.00	A	0.08	0.04	0.00	A
8	378.99	-0.70	-0.06	A	0.12	-0.01	0.00	A	8.60	-0.22	-0.02	A	5.88	-0.17	-0.02	A	0.45	0.08	0.01	A	1.69	-0.43	-0.04	A	0.11	0.04	0.00	A
9	359.16	0.89	0.04	A	15.52	0.19	0.01	A	16.17	-0.36	-0.02	A	0.39	-0.05	0.00	A	6.37	-0.42	-0.01	A	0.58	-0.31	-0.02	A	0.21	0.07	0.00	A
10	112.00	0.54	0.02	A	6.30	-0.13	-0.01	A	48.74	-0.64	-0.04	A	0.28	-0.05	0.00	A	0.23	-0.10	0.00	A	1.63	-0.58	-0.03	A	0.05	-0.03	0.00	A
11	1785.48	-1.74	-0.12	C<	463.46	-0.89	-0.06	A	15.82	-0.35	-0.02	A	33.71	-0.49	-0.03	A	17.49	0.52	0.04	A	0.82	-0.33	-0.02	A	0.77	-0.11	-0.01	A
12	451.36	-0.78	-0.07	A	151.58	-0.45	-0.04	A	5.13	-0.17	-0.02	A	19.49	-0.31	-0.03	A	0.57	-0.09	-0.01	A	0.98	-0.34	-0.03	A	1.35	0.13	0.01	A
13	18.61	0.16	0.01	A	4.62	0.08	0.01	A	5.64	-0.18	-0.02	A	17.22	0.29	0.03	A	6.17	0.30	0.02	A	0.26	0.17	0.01	A	0.03	-0.02	0.00	A
14	115.94	0.39	0.03	A	9.03	0.11	0.01	A	3.65	0.14	0.01	A	11.36	-0.23	-0.02	A	14.37	0.48	0.03	A	0.16	0.13	0.01	A	3.58	-0.21	-0.02	A
15	165.60	0.67	0.03	A	9.52	0.16	0.01	A	42.85	-0.62	-0.04	A	2.20	0.14	0.01	A	1.07	0.22	0.01	A	4.18	-0.92	-0.04	A	0.14	-0.06	0.00	A
16	159.02	0.47	0.04	A	6.35	0.10	0.01	A	8.80	0.23	0.02	A	0.04	-0.01	0.00	A	35.26	0.75	0.05	A	0.00	-0.02	0.00	A	0.00	0.01	0.00	A
17	447.50	-0.79	-0.07	A	460.42	-0.80	-0.07	A	44.51	-0.52	-0.04	A	98.75	-0.72	-0.06	A	1.03	-0.12	-0.01	A	1.72	-0.43	-0.04	A	2.14	-0.17	-0.01	A
18	64.85	0.28	0.03	A	13.89	0.13	0.01	A	7.04	0.20	0.02	A	0.02	0.01	0.00	A	7.43	0.30	0.03	A	0.15	-0.12	-0.01	A	0.46	0.07	0.01	A
19	16.46	0.15	0.01	A	40.84	-0.23	-0.02	A	0.00	0.00	0.00	A	9.68	-0.22	-0.02	A	4.60	0.25	0.02	A	0.05	-0.07	-0.01	A	0.14	-0.04	0.00	A
20	0.56	-0.03	0.00	A	8.34	-0.11	-0.01	A	48.26	-0.56	-0.05	A	0.42	-0.05	0.00	A	0.70	-0.11	-0.01	A	0.49	0.25	0.02	A	0.00	-0.01	0.00	A
21	29.04	0.20	0.02	A	0.02	0.01	0.00	A	0.85	-0.07	-0.01	A	0.13	0.03	0.00	A	4.77	0.27	0.02	A	3.32	-0.60	-0.05	A	0.13	-0.04	0.00	A
22	1.08	0.04	0.00	A	18.03	-0.15	-0.01	A	4.03	0.15	0.01	A	9.25	-0.21	-0.02	A	3.28	0.21	0.02	A	4.49	0.69	0.06	A	0.35	-0.06	-0.01	A
23	128.00	-0.42	-0.04	A	0.18	0.02	0.00	A	0.00	0.00	0.00	A	0.03	0.01	0.00	A	16.35	0.43	0.04	A	0.01	-0.03	0.00	A	0.32	-0.07	-0.01	A
24	2.18	0.07	0.00	A	3.83	0.09	0.01	A	25.62	-0.44	-0.03	A	0.74	0.07	0.00	A	0.81	0.15	0.01	A	0.00	-0.02	0.00	A	0.00	0.01	0.00	A
25	72.75	-0.30	-0.03	A	151.72	-0.43	-0.04	A	42.50	-0.48	-0.05	A	46.85	-0.46	-0.05	A	6.08	-0.27	-0.02	A	0.87	-0.31	-0.03	A	3.00	0.19	0.02	A
26	120.29	0.40	0.03	A	61.21	0.29	0.03	A	0.02	-0.01	0.00	A	9.13	-0.21	-0.02	A	40.31	0.80	0.05	A	0.27	0.18	0.01	A	2.26	-0.17	-0.01	A
27	18.93	0.23	0.01	A	4.40	0.11	0.00	A	4.66	-0.22	-0.01	A	14.03	-0.34	-0.02	A	0.89	-0.18	0.00	A	0.30	-0.26	-0.01	A	0.34	-0.09	0.00	A
28	9.71	0.11	0.01	A	59.03	0.28	0.03	A	9.72	-0.23	-0.02	A	19.66	0.30	0.03	A	1.15	-0.12	-0.01	A	0.03	0.06	0.01	A	1.63	-0.14	-0.01	A
29	98.19	0.48	0.02	A	14.96	0.19	0.01	A	0.46	-0.06	0.00	A	12.34	-0.29	-0.02	A	0.43	0.12	0.00	A	0.09	-0.13	-0.01	A	0.07	0.04	0.00	A
30	18.88	0.20	0.01	A	21.28	0.21	0.01	A	16.50	0.36	0.02	A	3.61	-0.15	-0.01	A	0.01	0.02	0.00	A	1.63	0.54	0.03	A	0.87	0.13	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.5 (continued)
Spring 2014 AIMS Differential Item Functioning
Mathematics CRT Grade 6

	Reference: Male N= 41943 Focal: Female N= 40566				Reference: Hispanic N= 46433 Focal: Non Hispanic N= 36151				Reference: White N= 66268 Focal: Africa American N= 4862				Reference: White N= 66268 Focal: Native American N= 5813				Reference: White N= 66268 Focal: Asian N= 2446				Reference: White N= 66268 Focal: Hawaii N= 250				Reference: White N= 66268 Focal: Multiple Indicator N= 22			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	134.25	-0.45	-0.04	A	7.21	0.11	0.01	A	23.24	-0.37	-0.03	A	3.80	-0.14	-0.01	A	0.73	0.11	0.01	A	0.16	-0.14	-0.01	A	0.90	-0.11	-0.01	A
32	102.05	0.43	0.03	A	5.36	0.10	0.01	A	24.19	0.42	0.03	A	1.45	-0.09	-0.01	A	13.05	0.61	0.02	A	0.14	-0.15	-0.01	A	4.76	0.29	0.02	A
33	0.38	0.02	0.00	A	11.69	-0.12	-0.01	A	0.38	-0.05	0.00	A	7.02	0.18	0.02	A	0.96	-0.10	-0.01	A	0.05	0.07	0.01	A	1.90	-0.15	-0.01	A
34	8.46	0.12	0.01	A	10.37	0.14	0.01	A	18.49	-0.35	-0.03	A	0.23	0.04	0.00	A	3.97	0.30	0.01	A	0.98	-0.37	-0.02	A	0.24	-0.06	0.00	A
35	4.19	0.08	0.01	A	74.12	-0.33	-0.02	A	0.87	-0.08	-0.01	A	15.33	-0.30	-0.02	A	0.07	0.03	0.00	A	1.72	-0.46	-0.04	A	0.51	-0.08	-0.01	A
36	270.72	0.58	0.05	A	23.32	0.17	0.02	A	0.30	-0.04	0.00	A	0.20	0.03	0.00	A	0.61	0.08	0.01	A	0.00	0.02	0.00	A	0.06	-0.03	0.00	A
37	18.48	0.20	0.01	A	7.05	0.13	0.01	A	9.91	0.30	0.02	A	0.01	0.01	0.00	A	5.18	0.45	0.01	A	0.01	-0.03	0.00	A	0.65	0.12	0.01	A
38	0.93	0.04	0.00	A	9.68	-0.12	-0.01	A	5.26	-0.17	-0.02	A	0.49	-0.05	0.00	A	0.11	0.04	0.00	A	0.11	0.12	0.01	A	0.00	0.00	0.00	A
39	2.75	-0.08	0.00	A	0.53	0.03	0.00	A	23.15	-0.42	-0.03	A	9.93	0.26	0.02	A	12.67	0.66	0.02	A	1.36	-0.48	-0.03	A	0.33	0.08	0.00	A
40	151.81	-0.47	-0.04	A	184.09	-0.52	-0.04	A	9.81	-0.25	-0.02	A	1.40	-0.08	-0.01	A	15.99	0.55	0.03	A	0.68	-0.29	-0.02	A	0.56	-0.09	-0.01	A
41	93.85	-0.37	-0.03	A	211.14	-0.56	-0.05	A	0.40	0.05	0.00	A	69.20	-0.62	-0.05	A	0.53	-0.09	-0.01	A	0.36	-0.21	-0.02	A	0.68	0.10	0.01	A
42	12.24	-0.12	-0.01	A	0.03	-0.01	0.00	A	5.86	-0.18	-0.02	A	13.35	0.25	0.02	A	0.60	0.08	0.01	A	0.28	0.17	0.02	A	0.27	0.06	0.01	A
43	34.24	0.21	0.02	A	52.67	-0.26	-0.02	A	1.17	-0.08	-0.01	A	1.82	-0.09	-0.01	A	1.07	-0.11	-0.01	A	0.12	-0.12	-0.01	A	0.09	0.03	0.00	A
44	13.94	0.13	0.01	A	25.98	0.18	0.02	A	2.34	0.11	0.01	A	21.26	0.31	0.03	A	9.14	0.31	0.03	A	2.33	0.47	0.05	A	0.23	0.05	0.00	A
45	85.39	0.33	0.03	A	104.94	0.37	0.03	A	2.25	0.11	0.01	A	20.64	0.32	0.03	A	11.07	0.38	0.03	A	0.27	0.17	0.02	A	0.03	-0.02	0.00	A
46	370.79	0.75	0.06	A	5.56	0.09	0.01	A	11.02	-0.26	-0.02	A	0.00	0.00	0.00	A	4.06	0.27	0.02	A	0.00	0.01	0.00	A	0.20	0.05	0.00	A
47	15.33	0.17	0.01	A	32.94	0.25	0.02	A	19.70	0.39	0.03	A	0.00	0.00	0.00	A	2.26	0.25	0.01	A	0.85	-0.35	-0.02	A	2.28	0.20	0.01	A
48	30.11	-0.25	-0.01	A	3.26	-0.08	-0.01	A	0.00	0.01	0.00	A	3.93	-0.16	-0.01	A	18.58	0.83	0.02	A	0.56	0.32	0.02	A	0.00	0.00	0.00	A
49	120.98	0.48	0.03	A	9.71	-0.13	-0.01	A	1.65	-0.11	-0.01	A	7.91	-0.21	-0.02	A	0.07	0.04	0.00	A	1.98	-0.56	-0.03	A	2.61	0.22	0.01	A
50	67.87	0.30	0.03	A	1.07	0.04	0.00	A	1.64	0.10	0.01	A	22.24	-0.34	-0.03	A	13.87	0.41	0.03	A	1.60	0.40	0.04	A	1.55	-0.14	-0.01	A
51	546.12	0.84	0.08	A	66.41	0.30	0.03	A	16.74	-0.31	-0.03	A	29.22	0.38	0.03	A	2.08	0.16	0.01	A	0.36	-0.20	-0.02	A	0.78	-0.10	-0.01	A
52	1225.80	-1.34	-0.11	B<	207.87	-0.55	-0.05	A	34.90	-0.48	-0.04	A	31.88	-0.43	-0.03	A	0.12	0.04	0.00	A	1.26	0.40	0.03	A	0.84	0.11	0.01	A
53	26.26	0.22	0.01	A	19.77	-0.19	-0.01	A	1.90	-0.11	-0.01	A	0.07	-0.02	0.00	A	9.78	0.51	0.02	A	0.01	0.05	0.00	A	0.38	0.08	0.01	A
54	232.46	0.63	0.04	A	20.80	-0.19	-0.01	A	22.87	0.40	0.03	A	2.38	-0.12	-0.01	A	21.65	0.73	0.03	A	0.11	-0.12	-0.01	A	1.66	-0.16	-0.01	A
55	115.66	-0.52	-0.03	A	1.32	-0.06	0.00	A	2.17	0.14	0.01	A	0.81	-0.08	0.00	A	6.34	0.52	0.01	A	0.35	-0.27	-0.01	A	0.58	0.11	0.01	A
56	18.31	-0.15	-0.01	A	92.54	-0.35	-0.03	A	10.69	-0.24	-0.02	A	9.42	-0.21	-0.02	A	0.77	-0.10	-0.01	A	0.39	-0.21	-0.02	A	0.64	0.09	0.01	A
57	43.24	0.32	0.01	A	44.73	0.33	0.02	A	0.14	0.04	0.00	A	4.14	-0.17	-0.01	A	0.37	0.12	0.00	A	0.64	-0.34	-0.02	A	1.85	0.21	0.01	A
58	126.73	-0.39	-0.04	A	41.59	-0.23	-0.02	A	3.69	-0.15	-0.01	A	0.92	0.07	0.01	A	1.46	0.12	0.01	A	0.05	-0.07	-0.01	A	9.80	0.33	0.03	A
59	158.37	-0.44	-0.04	A	1.21	0.04	0.00	A	1.52	-0.09	-0.01	A	20.29	0.32	0.03	A	1.83	0.14	0.01	A	0.28	0.17	0.02	A	3.98	0.22	0.02	A
60	31.75	0.20	0.02	A	10.22	0.11	0.01	A	0.07	-0.02	0.00	A	4.41	0.15	0.01	A	2.39	0.16	0.02	A	0.08	-0.09	-0.01	A	0.68	0.09	0.01	A
61	0.72	-0.03	0.00	A	0.03	0.01	0.00	A	0.12	-0.03	0.00	A	2.78	0.12	0.01	A	56.20	0.91	0.07	A	0.02	0.04	0.00	A	0.12	0.04	0.00	A
62	76.39	-0.31	-0.03	A	12.30	-0.13	-0.01	A	19.24	-0.33	-0.03	A	5.87	-0.17	-0.02	A	0.55	0.08	0.01	A	2.26	-0.48	-0.04	A	0.05	0.02	0.00	A
63	2.67	-0.06	-0.01	A	20.82	-0.16	-0.01	A	1.03	-0.07	-0.01	A	5.21	-0.15	-0.01	A	1.45	0.14	0.01	A	1.11	-0.34	-0.03	A	2.14	-0.16	-0.01	A
64	49.47	0.28	0.02	A	0.16	-0.02	0.00	A	9.64	-0.25	-0.02	A	0.06	0.02	0.00	A	11.22	0.46	0.03	A	0.23	-0.18	-0.01	A	0.67	-0.10	-0.01	A
65	0.15	0.02	0.00	A	166.20	-0.51	-0.04	A	3.07	-0.14	-0.01	A	58.55	-0.54	-0.05	A	0.65	0.12	0.01	A	3.89	-0.70	-0.05	A	0.53	0.09	0.01	A
66	267.02	0.66	0.05	A	13.12	-0.15	-0.01	A	6.51	0.21	0.02	A	3.47	-0.14	-0.01	A	2.41	0.23	0.01	A	0.05	0.09	0.01	A	0.04	-0.02	0.00	A
67	2.18	0.05	0.01	A	8.38	-0.11	-0.01	A	2.41	0.12	0.01	A	0.28	0.04	0.00	A	9.28	0.34	0.03	A	6.51	0.88	0.07	A	1.27	0.13	0.01	A
68	56.65	0.27	0.02	A	6.48	0.09	0.01	A	3.49	-0.14	-0.01	A	8.28	-0.20	-0.02	A	0.03	0.02	0.00	A	0.04	-0.07	-0.01	A	0.31	-0.06	-0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.6
Spring 2014 AIMS Differential Item Functioning
Mathematics CRT Grade 7

	Reference: Male N= 42310 Focal: Female N= 40739				Reference: Hispanic N= 46760 Focal: Non Hispanic N= 36349				Reference: White N= 66947 Focal: Africa American N= 4759				Reference: White N= 66947 Focal: Native American N= 5773				Reference: White N= 66947 Focal: Asian N= 2492				Reference: White N= 66947 Focal: Hawaii N= 312				Reference: White N= 66947 Focal: Multiple Indicator N= 21			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	45.32	-0.23	-0.02	A	13.16	0.13	0.01	A	0.19	-0.03	0.00	A	11.29	0.22	0.02	A	12.65	0.36	0.04	A	1.78	0.36	0.04	A	1.43	-0.13	-0.01	A
2	157.83	-0.57	-0.03	A	136.28	-0.53	-0.03	A	69.39	-0.71	-0.05	A	8.01	0.23	0.02	A	0.04	-0.03	0.00	A	0.01	-0.04	0.00	A	0.07	0.04	0.00	A
3	2.45	-0.06	-0.01	A	7.29	-0.10	-0.01	A	1.47	0.09	0.01	A	18.08	-0.29	-0.03	A	1.96	0.17	0.01	A	0.15	-0.11	-0.01	A	0.57	0.09	0.01	A
4	5.90	0.09	0.01	A	3.59	0.07	0.01	A	1.45	-0.09	-0.01	A	3.24	0.13	0.01	A	15.20	0.43	0.04	A	0.39	0.18	0.02	A	0.31	-0.06	-0.01	A
5	100.51	0.36	0.03	A	20.12	-0.16	-0.01	A	5.16	0.17	0.02	A	6.79	-0.18	-0.02	A	0.33	-0.06	-0.01	A	0.09	-0.09	-0.01	A	0.09	-0.03	0.00	A
6	124.69	0.38	0.04	A	1.42	0.04	0.00	A	6.81	0.19	0.02	A	1.18	0.07	0.01	A	37.30	0.65	0.06	A	0.96	0.27	0.03	A	1.50	0.13	0.01	A
7	18.28	0.15	0.01	A	12.53	0.13	0.01	A	2.13	0.11	0.01	A	4.33	-0.15	-0.01	A	126.72	1.19	0.11	B>	0.12	0.10	0.01	A	2.06	0.16	0.01	A
8	49.30	-0.26	-0.02	A	1.49	-0.05	0.00	A	5.18	-0.18	-0.02	A	14.51	0.27	0.02	A	9.30	0.37	0.03	A	0.33	-0.17	-0.01	A	0.01	0.01	0.00	A
9	89.83	0.41	0.02	A	0.22	-0.02	0.00	A	11.15	-0.28	-0.02	A	2.03	-0.11	-0.01	A	0.93	0.15	0.01	A	1.82	0.52	0.03	A	1.17	0.15	0.01	A
10	45.24	0.27	0.02	A	17.46	0.17	0.01	A	9.43	0.25	0.02	A	0.64	-0.06	0.00	A	10.40	0.50	0.02	A	0.22	-0.15	-0.01	A	0.30	-0.07	0.00	A
11	8.76	0.12	0.01	A	2.44	-0.06	0.00	A	5.37	-0.19	-0.02	A	11.56	-0.25	-0.02	A	3.13	-0.23	-0.01	A	0.30	0.19	0.01	A	0.11	0.04	0.00	A
12	1286.05	-1.37	-0.11	B<	352.08	-0.71	-0.06	A	0.82	-0.07	-0.01	A	3.27	-0.13	-0.01	A	0.15	-0.05	0.00	A	4.20	0.66	0.05	A	1.58	0.15	0.01	A
13	10.25	-0.12	-0.01	A	5.56	-0.09	-0.01	A	0.89	-0.08	-0.01	A	1.84	0.10	0.01	A	86.40	1.02	0.09	B>	0.03	0.05	0.00	A	4.28	0.24	0.02	A
14	93.33	0.45	0.02	A	0.25	-0.02	0.00	A	17.03	-0.37	-0.02	A	43.14	-0.52	-0.04	A	11.64	-0.56	-0.02	A	1.44	-0.46	-0.02	A	0.13	-0.05	0.00	A
15	159.61	0.50	0.04	A	2.36	0.06	0.00	A	0.81	-0.07	-0.01	A	0.08	-0.02	0.00	A	2.32	0.20	0.01	A	7.71	-0.86	-0.07	A	0.31	0.07	0.01	A
16	26.81	-0.18	-0.02	A	91.81	-0.35	-0.03	A	0.02	0.01	0.00	A	17.38	-0.31	-0.02	A	10.17	0.32	0.03	A	0.36	-0.18	-0.02	A	0.00	0.00	0.00	A
17	183.79	-0.55	-0.04	A	20.10	-0.18	-0.01	A	90.12	-0.77	-0.06	A	0.00	0.00	0.00	A	13.98	0.57	0.03	A	1.18	-0.35	-0.02	A	2.41	-0.20	-0.01	A
18	196.73	-0.52	-0.04	A	45.56	-0.25	-0.02	A	131.49	-0.88	-0.08	A	172.60	-0.91	-0.08	A	2.45	-0.19	-0.01	A	1.70	-0.40	-0.03	A	0.07	-0.03	0.00	A
19	67.00	-0.31	-0.02	A	129.05	-0.44	-0.03	A	11.72	-0.28	-0.02	A	57.43	-0.57	-0.05	A	0.53	0.09	0.01	A	0.53	-0.22	-0.02	A	1.10	-0.13	-0.01	A
20	213.98	0.57	0.04	A	16.27	-0.16	-0.01	A	14.03	0.31	0.02	A	0.47	-0.05	0.00	A	51.57	0.98	0.06	A	1.75	0.43	0.03	A	4.40	0.26	0.02	A
21	1.62	-0.05	0.00	A	48.18	0.26	0.02	A	6.54	-0.20	-0.02	A	10.19	0.23	0.02	A	53.31	0.85	0.07	A	0.21	-0.13	-0.01	A	0.00	0.00	0.00	A
22	16.57	0.16	0.01	A	7.53	-0.11	-0.01	A	0.02	-0.01	0.00	A	0.28	0.04	0.00	A	30.17	0.59	0.05	A	0.75	0.27	0.02	A	0.07	0.03	0.00	A
23	143.29	0.54	0.03	A	42.92	0.30	0.02	A	0.84	-0.08	-0.01	A	8.35	-0.23	-0.02	A	8.92	0.53	0.02	A	3.09	0.68	0.04	A	0.89	0.14	0.01	A
24	243.97	0.65	0.04	A	1.82	-0.06	0.00	A	3.71	0.16	0.01	A	4.36	-0.15	-0.01	A	7.49	0.43	0.02	A	0.28	0.18	0.01	A	0.56	0.10	0.01	A
25	383.99	-0.78	-0.06	A	3.03	-0.07	-0.01	A	24.75	-0.40	-0.03	A	5.82	0.18	0.01	A	0.78	-0.12	-0.01	A	4.99	0.79	0.05	A	0.07	0.03	0.00	A
26	423.96	0.88	0.05	A	59.15	0.33	0.02	A	2.79	0.14	0.01	A	6.41	0.19	0.02	A	5.26	0.38	0.01	A	0.26	-0.18	-0.01	A	0.03	-0.02	0.00	A
27	6.39	-0.09	-0.01	A	217.46	0.53	0.05	A	4.02	-0.15	-0.01	A	15.12	0.27	0.03	A	0.73	0.09	0.01	A	0.00	0.00	0.00	A	7.24	-0.29	-0.03	A
28	210.56	-0.52	-0.05	A	14.30	-0.14	-0.01	A	2.75	0.13	0.01	A	20.98	-0.32	-0.03	A	6.09	-0.28	-0.02	A	0.18	-0.13	-0.01	A	1.41	-0.13	-0.01	A
29	292.29	-0.73	-0.05	A	117.62	-0.46	-0.03	A	0.07	-0.02	0.00	A	39.65	-0.48	-0.04	A	16.34	0.68	0.03	A	1.05	0.35	0.02	A	0.77	0.12	0.01	A
30	27.36	0.19	0.02	A	12.50	-0.13	-0.01	A	22.06	0.36	0.03	A	11.76	0.24	0.02	A	83.78	1.02	0.09	B>	3.04	0.48	0.05	A	0.77	0.10	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.6 (continued)
Spring 2014 AIMS Differential Item Functioning
Mathematics CRT Grade 7

	Reference: Male N= 42310 Focal: Female N= 40739				Reference: Hispanic N= 46760 Focal: Non Hispanic N= 36349				Reference: White N= 66947 Focal: Africa American N= 4759				Reference: White N= 66947 Focal: Native American N= 5773				Reference: White N= 66947 Focal: Asian N= 2492				Reference: White N= 66947 Focal: Hawaii N= 312				Reference: White N= 66947 Focal: Multiple Indicator N= 21			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	9.71	0.11	0.01	A	0.65	0.03	0.00	A	16.83	0.31	0.03	A	1.40	-0.08	-0.01	A	0.94	-0.11	-0.01	A	0.00	-0.01	0.00	A	4.09	0.24	0.02	A
32	25.55	0.19	0.02	A	3.06	0.07	0.00	A	4.05	0.16	0.01	A	11.03	0.24	0.02	A	8.65	0.37	0.02	A	6.19	0.79	0.06	A	1.98	0.17	0.01	A
33	347.32	-0.66	-0.06	A	27.79	-0.19	-0.02	A	6.40	-0.19	-0.02	A	12.94	-0.25	-0.02	A	4.35	0.24	0.02	A	2.75	-0.48	-0.04	A	0.02	0.02	0.00	A
34	212.39	0.79	0.03	A	1.45	0.06	0.00	A	1.32	0.12	0.01	A	3.96	-0.18	-0.01	A	7.87	0.67	0.01	A	0.32	-0.25	-0.01	A	0.28	0.09	0.00	A
35	3.63	0.08	0.00	A	4.28	-0.09	-0.01	A	55.33	-0.63	-0.05	A	0.39	0.05	0.00	A	6.11	-0.39	-0.01	A	0.15	0.14	0.01	A	0.16	-0.06	0.00	A
36	6.73	0.09	0.01	A	26.37	-0.18	-0.02	A	0.03	-0.01	0.00	A	0.51	-0.05	0.00	A	5.64	-0.23	-0.02	A	0.02	0.04	0.00	A	0.77	0.09	0.01	A
37	16.11	-0.15	-0.01	A	0.33	-0.02	0.00	A	5.27	-0.18	-0.01	A	11.19	0.24	0.02	A	22.78	0.56	0.04	A	1.06	-0.32	-0.03	A	4.73	-0.26	-0.02	A
38	2.86	0.06	0.01	A	0.00	0.00	0.00	A	0.86	-0.07	-0.01	A	1.72	-0.10	-0.01	A	3.24	0.18	0.02	A	0.05	-0.06	-0.01	A	1.11	0.12	0.01	A
39	126.40	0.41	0.03	A	32.23	0.21	0.02	A	1.07	0.08	0.01	A	1.62	0.09	0.01	A	1.79	0.16	0.01	A	1.90	-0.40	-0.03	A	0.25	-0.06	0.00	A
40	312.28	0.69	0.05	A	12.10	0.14	0.01	A	0.37	0.05	0.00	A	0.06	-0.02	0.00	A	16.17	0.55	0.03	A	0.43	0.21	0.02	A	2.54	0.20	0.01	A
41	69.80	0.37	0.02	A	34.24	0.26	0.02	A	6.38	0.23	0.02	A	3.28	0.14	0.01	A	19.38	0.79	0.03	A	1.84	0.53	0.03	A	0.03	-0.02	0.00	A
42	51.33	0.28	0.02	A	43.21	-0.26	-0.02	A	14.52	-0.31	-0.03	A	0.16	0.03	0.00	A	0.37	0.08	0.01	A	0.79	0.27	0.02	A	4.81	0.27	0.02	A
43	160.33	-0.48	-0.04	A	80.66	-0.35	-0.02	A	8.19	0.24	0.02	A	0.24	0.04	0.00	A	54.12	0.84	0.07	A	0.04	0.06	0.00	A	0.09	-0.04	0.00	A
44	0.03	0.01	0.00	A	0.70	0.03	0.01	A	1.28	-0.08	-0.01	A	0.87	0.06	0.01	A	3.74	0.19	0.02	A	1.05	0.28	0.03	A	1.97	0.15	0.01	A
45	12.73	0.15	0.01	A	0.06	-0.01	0.00	A	10.29	-0.26	-0.02	A	31.71	-0.42	-0.03	A	3.67	0.29	0.01	A	2.68	0.58	0.04	A	0.85	0.12	0.01	A
46	41.21	0.23	0.02	A	3.60	0.07	0.01	A	0.10	-0.02	0.00	A	6.83	0.18	0.02	A	40.46	0.75	0.06	A	4.98	0.67	0.06	A	0.34	-0.07	-0.01	A
47	173.22	0.47	0.04	A	5.87	0.09	0.01	A	29.22	0.40	0.04	A	2.89	0.12	0.01	A	87.67	1.14	0.08	B>	1.47	0.35	0.03	A	1.14	0.12	0.01	A
48	490.55	0.99	0.06	A	172.38	-0.59	-0.04	A	58.44	0.72	0.05	A	13.60	-0.29	-0.02	A	33.58	-0.83	-0.04	A	4.06	-0.73	-0.04	A	6.20	0.37	0.02	A
49	169.37	-0.46	-0.04	A	24.21	-0.18	-0.02	A	7.23	-0.20	-0.02	A	3.72	-0.13	-0.01	A	29.14	-0.59	-0.05	A	1.61	-0.36	-0.03	A	1.05	0.12	0.01	A
50	111.75	0.44	0.03	A	9.39	0.13	0.01	A	4.16	0.17	0.01	A	0.01	-0.01	0.00	A	34.04	0.97	0.04	A	0.64	0.28	0.02	A	0.83	0.12	0.01	A
51	128.67	0.46	0.03	A	0.61	-0.03	0.00	A	3.21	0.15	0.01	A	0.37	-0.05	0.00	A	0.20	-0.06	0.00	A	0.86	0.30	0.02	A	2.05	0.18	0.01	A
52	289.23	0.71	0.05	A	89.23	0.40	0.03	A	0.00	0.00	0.00	A	20.52	0.35	0.03	A	18.48	0.71	0.03	A	7.32	1.06	0.06	B>	0.31	0.07	0.00	A
53	92.97	-0.34	-0.03	A	0.35	-0.02	0.00	A	0.00	0.01	0.00	A	0.47	0.05	0.00	A	26.49	0.56	0.05	A	0.25	-0.14	-0.01	A	1.64	-0.15	-0.01	A
54	437.69	-0.76	-0.07	A	63.44	-0.30	-0.02	A	0.00	0.00	0.00	A	0.02	-0.01	0.00	A	25.54	0.52	0.05	A	0.05	0.06	0.01	A	1.67	0.15	0.01	A
55	0.13	0.01	0.00	A	9.43	-0.12	-0.01	A	4.11	-0.17	-0.01	A	0.03	-0.01	0.00	A	0.36	0.08	0.00	A	0.32	-0.18	-0.01	A	0.39	-0.08	-0.01	A
56	171.26	-0.52	-0.04	A	4.83	-0.09	-0.01	A	2.47	-0.13	-0.01	A	21.74	-0.34	-0.03	A	0.06	0.03	0.00	A	3.32	-0.57	-0.04	A	0.43	-0.08	-0.01	A
57	0.00	0.00	0.00	A	277.99	-0.67	-0.05	A	12.31	-0.29	-0.02	A	59.52	-0.57	-0.05	A	8.17	-0.40	-0.02	A	0.35	0.20	0.01	A	1.60	0.16	0.01	A
58	143.04	0.65	0.02	A	0.52	-0.04	0.00	A	1.60	-0.13	-0.01	A	7.51	-0.24	-0.01	A	2.37	0.36	0.01	A	0.11	0.15	0.01	A	3.10	0.31	0.01	A
59	0.10	-0.01	0.00	A	52.39	-0.31	-0.02	A	13.58	0.32	0.02	A	67.52	-0.62	-0.05	A	0.38	0.10	0.00	A	1.79	-0.46	-0.03	A	3.66	0.26	0.02	A
60	23.36	-0.18	-0.02	A	28.00	-0.20	-0.01	A	6.04	-0.19	-0.02	A	14.48	-0.27	-0.02	A	1.14	-0.13	-0.01	A	0.81	-0.26	-0.02	A	1.18	-0.12	-0.01	A
61	125.75	-0.42	-0.03	A	56.31	-0.29	-0.02	A	1.06	-0.09	-0.01	A	0.16	-0.03	0.00	A	57.61	0.83	0.07	A	0.43	0.20	0.02	A	0.02	-0.02	0.00	A
62	56.52	0.27	0.02	A	50.65	-0.27	-0.02	A	5.60	-0.19	-0.01	A	5.09	-0.17	-0.01	A	0.26	0.05	0.01	A	0.37	0.18	0.02	A	1.43	-0.14	-0.01	A
63	0.94	0.04	0.00	A	193.23	-0.61	-0.04	A	2.84	-0.14	-0.01	A	63.00	-0.59	-0.05	A	27.53	-0.81	-0.03	A	0.05	-0.08	0.00	A	1.21	0.16	0.01	A
64	544.06	-0.96	-0.07	A	137.87	-0.48	-0.04	A	15.41	-0.33	-0.02	A	4.51	-0.16	-0.01	A	0.02	-0.02	0.00	A	0.28	-0.17	-0.01	A	0.17	-0.05	0.00	A
65	609.78	1.12	0.06	B>	7.88	0.13	0.01	A	0.16	-0.04	0.00	A	3.71	-0.15	-0.01	A	1.33	0.19	0.01	A	0.03	-0.06	0.00	A	1.48	0.18	0.01	A
66	63.43	-0.31	-0.02	A	71.96	-0.33	-0.03	A	17.42	-0.33	-0.03	A	3.92	-0.14	-0.01	A	4.41	-0.28	-0.01	A	0.05	-0.07	-0.01	A	0.99	-0.12	-0.01	A
67	9.69	0.11	0.01	A	30.65	0.21	0.02	A	0.40	0.05	0.00	A	12.98	0.25	0.02	A	11.46	0.42	0.03	A	0.05	0.07	0.01	A	0.50	0.08	0.01	A
68	165.94	0.50	0.04	A	58.15	-0.30	-0.02	A	49.56	-0.55	-0.05	A	9.31	-0.22	-0.02	A	23.85	-0.62	-0.04	A	3.27	-0.56	-0.04	A	0.00	0.00	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.7
Spring 2014 AIMS Differential Item Functioning
Mathematics CRT Grade 8

	Reference: Male N= 41778 Focal: Female N= 40539				Reference: Hispanic N= 46913 Focal: Non Hispanic N= 35451				Reference: White N= 66318 Focal: Africa American N= 4918				Reference: White N= 66318 Focal: Native American N= 5752				Reference: White N= 66318 Focal: Asian N= 2428				Reference: White N= 66318 Focal: Hawaii N= 254				Reference: White N= 66318 Focal: Multiple Indicator N= 20			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	320.02	-1.07	-0.03	B<	12.97	-0.21	-0.01	A	61.60	-0.83	-0.04	A	80.29	-0.85	-0.04	A	19.54	-0.92	-0.02	A	1.22	-0.56	-0.02	A	0.38	0.13	0.00	A
2	10.03	0.12	0.01	A	84.28	-0.34	-0.03	A	0.00	0.00	0.00	A	35.44	-0.42	-0.04	A	1.93	-0.17	-0.01	A	0.17	-0.14	-0.01	A	0.17	0.05	0.00	A
3	570.05	-1.44	-0.04	B<	9.95	-0.19	-0.01	A	100.66	-1.03	-0.05	B<	26.72	-0.50	-0.02	A	4.46	-0.48	-0.01	A	3.23	-0.93	-0.03	A	0.30	0.11	0.00	A
4	10.01	-0.11	-0.01	A	56.67	-0.26	-0.02	A	0.00	0.00	0.00	A	32.26	-0.38	-0.04	A	0.70	-0.09	-0.01	A	0.71	-0.25	-0.03	A	0.13	-0.04	0.00	A
5	10.20	-0.13	-0.01	A	108.03	-0.44	-0.03	A	7.76	-0.23	-0.02	A	62.19	-0.59	-0.05	A	0.11	0.05	0.00	A	0.88	0.35	0.02	A	0.01	-0.01	0.00	A
6	352.61	0.84	0.05	A	14.84	0.17	0.01	A	5.48	0.21	0.01	A	3.52	0.15	0.01	A	16.56	0.73	0.02	A	0.04	0.08	0.00	A	1.05	-0.15	-0.01	A
7	0.00	0.00	0.00	A	40.56	-0.24	-0.02	A	16.18	0.31	0.03	A	3.31	-0.13	-0.01	A	54.02	0.82	0.07	A	0.38	0.20	0.02	A	1.15	0.12	0.01	A
8	8.09	-0.10	-0.01	A	21.99	-0.17	-0.01	A	17.76	-0.33	-0.03	A	6.49	-0.18	-0.02	A	1.06	0.12	0.01	A	0.06	0.08	0.01	A	0.21	0.05	0.00	A
9	12.22	-0.13	-0.01	A	0.62	-0.03	0.00	A	16.58	-0.32	-0.03	A	52.26	0.51	0.05	A	15.51	0.49	0.04	A	2.35	0.52	0.04	A	0.02	-0.01	0.00	A
10	73.02	0.30	0.03	A	7.17	0.10	0.01	A	6.29	0.19	0.02	A	1.77	0.09	0.01	A	3.32	0.20	0.02	A	2.01	0.44	0.04	A	0.07	-0.03	0.00	A
11	250.14	-0.57	-0.05	A	4.20	-0.08	-0.01	A	8.90	-0.22	-0.02	A	0.28	0.04	0.00	A	7.30	0.31	0.02	A	0.11	-0.11	-0.01	A	0.46	0.08	0.01	A
12	3.05	0.08	0.00	A	3.46	0.08	0.01	A	22.64	0.42	0.03	A	0.57	0.06	0.00	A	0.84	0.16	0.01	A	0.21	-0.18	-0.01	A	1.12	0.15	0.01	A
13	115.01	0.40	0.03	A	5.99	0.09	0.01	A	0.32	0.04	0.00	A	7.04	0.20	0.02	A	29.16	0.69	0.05	A	0.11	-0.12	-0.01	A	0.47	-0.08	-0.01	A
14	60.05	0.32	0.02	A	46.49	0.29	0.02	A	2.38	0.13	0.01	A	0.38	-0.05	0.00	A	6.25	0.38	0.02	A	1.75	0.50	0.03	A	1.38	0.16	0.01	A
15	68.73	0.34	0.02	A	0.41	-0.03	0.00	A	0.38	-0.05	0.00	A	0.69	-0.06	-0.01	A	0.01	-0.01	0.00	A	3.54	-0.70	-0.05	A	4.90	-0.29	-0.02	A
16	220.74	0.52	0.05	A	4.56	-0.08	0.00	A	0.27	0.04	0.00	A	36.76	-0.42	-0.04	A	17.70	0.47	0.04	A	0.66	0.25	0.02	A	0.02	0.02	0.00	A
17	0.07	0.01	0.00	A	183.34	-0.53	-0.04	A	12.08	-0.28	-0.02	A	37.86	-0.46	-0.04	A	10.42	0.43	0.03	A	2.15	-0.49	-0.04	A	1.07	0.13	0.01	A
18	0.00	0.00	0.00	A	7.10	0.11	0.01	A	2.04	-0.12	-0.01	A	1.95	-0.11	-0.01	A	0.23	0.07	0.00	A	0.12	-0.13	-0.01	A	3.34	0.25	0.02	A
19	0.01	0.00	0.00	A	12.78	0.14	0.01	A	5.40	0.19	0.01	A	0.06	-0.02	0.00	A	64.20	0.90	0.08	A	1.87	0.46	0.04	A	0.42	-0.08	-0.01	A
20	129.99	-0.42	-0.04	A	4.45	0.08	0.01	A	1.54	-0.10	-0.01	A	0.56	0.05	0.00	A	4.66	0.27	0.02	A	2.66	-0.60	-0.05	A	0.43	-0.08	-0.01	A
21	54.56	0.26	0.02	A	5.34	0.08	0.01	A	2.66	0.12	0.01	A	0.91	-0.06	-0.01	A	3.04	0.19	0.02	A	1.18	-0.34	-0.03	A	0.09	0.03	0.00	A
22	0.06	-0.01	0.00	A	2.53	-0.06	0.00	A	3.06	0.14	0.01	A	2.81	-0.12	-0.01	A	3.95	-0.28	-0.01	A	3.13	0.64	0.05	A	1.91	0.18	0.01	A
23	0.65	0.03	0.00	A	31.28	-0.20	-0.02	A	7.48	-0.20	-0.02	A	14.21	-0.26	-0.02	A	8.87	0.31	0.03	A	0.72	-0.27	-0.03	A	0.11	-0.04	0.00	A
24	16.59	-0.15	-0.01	A	97.78	-0.36	-0.03	A	7.15	-0.20	-0.02	A	8.50	-0.20	-0.02	A	6.55	0.29	0.02	A	1.23	0.36	0.03	A	1.46	0.14	0.01	A
25	52.01	0.31	0.02	A	3.11	-0.07	0.00	A	0.39	-0.05	0.00	A	0.45	-0.05	0.00	A	7.68	0.45	0.02	A	1.93	0.55	0.03	A	1.18	0.15	0.01	A
26	70.16	0.30	0.03	A	79.95	-0.33	-0.03	A	1.92	0.11	0.01	A	55.88	-0.56	-0.05	A	14.62	0.43	0.04	A	0.01	0.03	0.00	A	0.03	-0.02	0.00	A
27	118.09	-0.49	-0.03	A	36.86	-0.27	-0.02	A	8.37	-0.25	-0.02	A	7.27	0.22	0.02	A	0.98	0.17	0.01	A	0.46	-0.28	-0.02	A	1.24	-0.16	-0.01	A
28	5.23	0.08	0.01	A	13.67	0.13	0.01	A	0.02	-0.01	0.00	A	1.34	0.08	0.01	A	16.52	0.44	0.04	A	0.63	-0.24	-0.02	A	1.89	0.15	0.01	A
29	84.75	0.36	0.03	A	0.20	-0.02	0.00	A	1.70	-0.10	-0.01	A	0.57	-0.06	-0.01	A	0.71	0.11	0.01	A	0.00	-0.02	0.00	A	0.00	0.00	0.00	A
30	0.56	-0.03	0.00	A	4.11	0.09	0.01	A	5.36	0.20	0.01	A	9.01	0.23	0.02	A	17.52	0.70	0.03	A	0.51	-0.28	-0.02	A	0.51	0.10	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.7 (continued)
Spring 2014 AIMS Differential Item Functioning
Mathematics CRT Grade 8

	Reference: Male N= 41778				Reference: Hispanic N= 46913				Reference: White N= 66318				Reference: White N= 66318				Reference: White N= 66318				Reference: White N= 66318				Reference: White N= 66318			
	Focal: Female N= 40539				Focal: Non Hispanic N= 35451				Focal: Africa American N= 4918				Focal: Native American N= 5752				Focal: Asian N= 2428				Focal: Hawaii N= 254				Focal: Multiple Indicator N= 20			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	25.68	0.18	0.02	A	0.01	0.00	0.00	A	0.12	0.03	0.00	A	0.02	-0.01	0.00	A	6.47	0.27	0.03	A	3.57	0.58	0.06	A	0.93	-0.11	-0.01	A
32	0.09	0.01	0.00	A	24.93	0.19	0.02	A	4.03	-0.16	-0.01	A	0.11	-0.02	0.00	A	80.75	0.98	0.09	A	0.15	-0.13	-0.01	A	0.69	0.10	0.01	A
33	209.94	-0.53	-0.05	A	8.41	0.11	0.01	A	7.73	-0.22	-0.02	A	14.75	0.28	0.02	A	0.13	0.04	0.00	A	0.51	0.24	0.02	A	11.71	-0.40	-0.03	A
34	639.75	1.40	0.05	B>	1.11	0.06	0.00	A	4.55	-0.21	-0.01	A	11.12	0.32	0.02	A	0.71	-0.18	0.00	A	1.52	0.66	0.02	A	0.03	-0.03	0.00	A
35	0.53	-0.03	0.00	A	13.00	0.14	0.01	A	0.20	0.03	0.00	A	12.56	0.25	0.02	A	20.59	0.63	0.04	A	3.18	-0.60	-0.05	A	0.02	-0.02	0.00	A
36	26.08	-0.20	-0.01	A	1.93	-0.05	0.00	A	2.92	-0.14	-0.01	A	28.41	-0.40	-0.03	A	0.25	-0.06	0.00	A	0.47	-0.24	-0.02	A	0.56	-0.09	-0.01	A
37	37.30	0.23	0.02	A	20.90	0.17	0.01	A	0.89	0.07	0.01	A	7.73	0.20	0.02	A	20.91	0.61	0.04	A	0.10	0.10	0.01	A	0.13	-0.04	0.00	A
38	70.72	-0.29	-0.03	A	108.94	-0.38	-0.03	A	2.23	-0.11	-0.01	A	42.49	-0.47	-0.04	A	37.14	-0.62	-0.06	A	5.27	-0.74	-0.07	A	1.41	-0.13	-0.01	A
39	88.94	-0.36	-0.03	A	32.18	-0.22	-0.02	A	12.80	-0.28	-0.02	A	4.41	-0.15	-0.01	A	0.08	-0.04	0.00	A	0.59	-0.27	-0.02	A	0.01	-0.01	0.00	A
40	23.44	-0.18	-0.02	A	180.15	-0.53	-0.04	A	0.55	-0.06	0.00	A	7.69	-0.22	-0.02	A	59.87	0.86	0.07	A	8.59	1.03	0.08	B>	1.66	0.16	0.01	A
41	499.92	-0.81	-0.07	A	17.60	-0.16	-0.01	A	6.58	-0.20	-0.02	A	0.99	0.07	0.01	A	3.93	0.22	0.02	A	0.19	-0.15	-0.01	A	0.18	0.05	0.00	A
42	27.61	0.23	0.01	A	0.38	-0.03	0.00	A	18.79	-0.37	-0.03	A	7.84	0.22	0.02	A	0.56	0.12	0.01	A	1.45	-0.46	-0.03	A	0.85	-0.13	-0.01	A
43	18.69	-0.16	-0.01	A	2.76	-0.06	-0.01	A	1.02	-0.08	-0.01	A	8.15	-0.20	-0.02	A	1.91	0.17	0.01	A	1.62	-0.41	-0.04	A	0.38	-0.07	-0.01	A
44	30.72	-0.26	-0.01	A	28.31	-0.25	-0.01	A	146.51	-1.03	-0.07	B<	13.21	0.30	0.02	A	5.92	-0.41	-0.01	A	1.68	-0.55	-0.03	A	1.26	-0.17	-0.01	A
45	73.20	0.37	0.02	A	7.73	-0.12	-0.01	A	5.50	-0.20	-0.01	A	2.69	-0.12	-0.01	A	1.63	-0.20	-0.01	A	0.57	-0.29	-0.02	A	0.17	-0.06	0.00	A
46	131.97	0.43	0.04	A	0.82	0.03	0.00	A	3.15	0.14	0.01	A	0.49	-0.05	0.00	A	28.84	0.69	0.05	A	1.68	-0.43	-0.04	A	0.03	-0.02	0.00	A
47	21.05	0.17	0.01	A	0.01	0.00	0.00	A	3.48	0.14	0.01	A	7.92	0.19	0.02	A	31.17	0.75	0.05	A	1.14	0.37	0.03	A	0.03	0.02	0.00	A
48	9.40	-0.11	-0.01	A	12.30	-0.13	-0.01	A	0.30	-0.04	0.00	A	3.73	-0.14	-0.01	A	12.90	0.42	0.03	A	0.51	-0.25	-0.02	A	0.02	0.02	0.00	A
49	70.34	-0.32	-0.03	A	0.01	0.00	0.00	A	11.18	-0.26	-0.02	A	12.27	-0.26	-0.02	A	11.83	0.44	0.03	A	0.01	0.04	0.00	A	1.86	-0.16	-0.01	A
50	2.48	0.06	0.00	A	4.84	-0.08	-0.01	A	0.99	0.08	0.01	A	9.88	-0.22	-0.02	A	3.87	-0.23	-0.02	A	0.01	0.04	0.00	A	0.04	0.02	0.00	A
51	24.74	-0.18	-0.02	A	5.54	-0.09	0.00	A	1.70	-0.10	-0.01	A	12.03	-0.26	-0.02	A	0.93	0.11	0.01	A	0.40	-0.20	-0.02	A	0.31	-0.06	-0.01	A
52	1.70	-0.05	0.00	A	19.09	-0.17	-0.01	A	0.75	0.07	0.01	A	0.74	-0.06	0.00	A	54.37	0.79	0.07	A	0.11	0.11	0.01	A	3.49	0.22	0.02	A
53	15.41	-0.15	-0.01	A	0.06	0.01	0.00	A	20.09	-0.35	-0.03	A	0.67	0.06	0.01	A	0.03	-0.02	0.00	A	2.69	-0.56	-0.04	A	4.39	-0.26	-0.02	A
54	314.44	0.67	0.05	A	0.99	0.04	0.00	A	4.46	0.16	0.01	A	1.84	-0.10	-0.01	A	2.84	-0.21	-0.01	A	0.01	-0.03	0.00	A	2.44	-0.18	-0.02	A
55	2.97	0.06	0.01	A	0.11	0.01	0.00	A	1.55	-0.09	-0.01	A	7.36	0.19	0.02	A	41.39	0.71	0.06	A	2.41	-0.51	-0.05	A	7.09	0.30	0.03	A
56	84.40	-0.33	-0.03	A	2.14	-0.05	-0.01	A	0.10	-0.02	0.00	A	16.73	0.29	0.03	A	11.03	0.38	0.03	A	0.05	-0.07	-0.01	A	2.41	0.18	0.02	A
57	771.68	1.17	0.08	B>	20.22	-0.19	-0.01	A	21.88	-0.39	-0.03	A	1.14	0.08	0.01	A	0.05	-0.03	0.00	A	1.72	0.50	0.03	A	0.03	-0.02	0.00	A
58	2.11	-0.05	0.00	A	21.40	-0.18	-0.01	A	4.73	-0.18	-0.01	A	3.96	-0.15	-0.01	A	5.44	0.27	0.02	A	0.14	-0.13	-0.01	A	1.36	0.14	0.01	A
59	0.24	-0.02	0.00	A	3.51	-0.07	-0.01	A	4.92	-0.18	-0.01	A	4.59	-0.16	-0.01	A	2.00	0.18	0.01	A	0.32	0.20	0.02	A	3.10	0.21	0.02	A
60	13.46	-0.14	-0.01	A	10.02	-0.12	-0.01	A	9.30	-0.23	-0.02	A	6.21	-0.18	-0.02	A	1.00	0.12	0.01	A	1.66	-0.42	-0.04	A	0.00	0.01	0.00	A
61	0.61	-0.03	0.00	A	26.89	0.19	0.02	A	14.91	-0.29	-0.03	A	10.68	0.23	0.02	A	6.76	0.32	0.02	A	0.32	0.18	0.02	A	1.20	-0.13	-0.01	A
62	82.28	0.41	0.02	A	26.92	-0.24	-0.01	A	2.86	-0.15	-0.01	A	1.63	0.10	0.01	A	1.38	0.21	0.01	A	1.38	0.51	0.03	A	0.98	0.15	0.01	A
63	0.75	-0.03	0.00	A	179.64	-0.49	-0.04	A	1.37	-0.09	-0.01	A	153.23	-0.86	-0.08	A	0.00	-0.01	0.00	A	0.02	0.04	0.00	A	5.02	0.26	0.02	A
64	34.06	0.21	0.02	A	48.35	-0.26	-0.02	A	8.23	-0.21	-0.02	A	1.36	-0.08	-0.01	A	31.74	-0.61	-0.05	A	3.59	-0.60	-0.05	A	0.50	0.08	0.01	A
65	0.95	0.04	0.00	A	0.14	-0.01	0.00	A	0.52	-0.06	-0.01	A	1.11	0.07	0.01	A	31.42	0.78	0.04	A	0.12	-0.12	-0.01	A	0.34	0.07	0.01	A
66	930.99	-1.12	-0.10	B<	26.94	-0.19	-0.01	A	22.23	-0.37	-0.03	A	1.91	0.10	0.01	A	33.62	0.65	0.05	A	1.69	-0.44	-0.04	A	0.35	-0.07	-0.01	A
67	387.97	0.69	0.07	A	5.14	0.08	0.01	A	37.59	0.46	0.04	A	1.33	-0.08	-0.01	A	16.14	0.45	0.04	A	0.06	0.08	0.01	A	0.50	0.08	0.01	A
68	9.57	-0.12	-0.01	A	19.51	-0.17	-0.01	A	1.38	-0.09	-0.01	A	46.82	-0.49	-0.04	A	10.76	0.44	0.03	A	1.98	0.49	0.04	A	0.15	0.05	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.8
Spring 2014 AIMS Differential Item Functioning
Mathematics CRT High School

	Reference: Male N= 38153 Focal: Female N= 37361				Reference: Hispanic N= 44152 Focal: Non Hispanic N= 31423				Reference: White N= 60764 Focal: Africa American N= 4512				Reference: White N= 60764 Focal: Native American N= 4497				Reference: White N= 60764 Focal: Asian N= 2328				Reference: White N= 60764 Focal: Hawaii N= 274				Reference: White N= 60764 Focal: Multiple Indicator N= 21			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	2.35	-0.07	0.00	A	8.33	0.13	0.01	A	0.04	0.02	0.00	A	16.60	-0.34	-0.03	A	38.25	1.03	0.04	B>	0.54	0.25	0.02	A	1.17	0.14	0.01	A
2	30.79	0.26	0.02	A	38.89	0.29	0.02	A	27.46	-0.46	-0.03	A	38.84	0.57	0.04	A	0.01	-0.02	0.00	A	0.03	0.06	0.00	A	7.12	-0.36	-0.02	A
3	18.61	0.18	0.01	A	39.74	-0.26	-0.02	A	8.84	-0.25	-0.02	A	0.06	0.02	0.00	A	1.06	0.15	0.01	A	0.00	0.00	0.00	A	1.11	-0.13	-0.01	A
4	6.35	-0.10	-0.01	A	3.85	0.08	0.01	A	0.73	0.07	0.01	A	8.31	0.23	0.02	A	12.05	0.47	0.03	A	0.53	0.24	0.02	A	0.89	-0.11	-0.01	A
5	98.49	0.40	0.03	A	6.37	-0.10	-0.01	A	5.21	-0.19	-0.02	A	5.88	-0.20	-0.02	A	0.19	0.06	0.00	A	0.16	-0.13	-0.01	A	3.59	-0.22	-0.02	A
6	14.98	0.17	0.01	A	15.27	-0.18	-0.01	A	6.17	-0.22	-0.02	A	11.79	-0.29	-0.02	A	0.27	-0.08	0.00	A	1.33	-0.39	-0.03	A	0.04	-0.03	0.00	A
7	106.14	-0.38	-0.03	A	53.85	-0.28	-0.03	A	40.64	-0.49	-0.05	A	7.03	0.20	0.02	A	1.39	0.14	0.01	A	0.01	0.03	0.00	A	0.05	0.02	0.00	A
8	199.14	-0.55	-0.05	A	660.33	-1.03	-0.08	B<	10.98	-0.27	-0.02	A	142.25	-1.06	-0.08	B<	0.08	0.03	0.00	A	15.35	-1.43	-0.10	B<	1.96	-0.16	-0.01	A
9	18.19	-0.16	-0.01	A	36.62	-0.24	-0.02	A	23.35	-0.38	-0.03	A	0.07	0.02	0.00	A	0.43	-0.08	0.00	A	0.77	-0.27	-0.02	A	6.69	-0.29	-0.03	A
10	0.19	0.02	0.00	A	1.51	-0.05	0.00	A	9.05	-0.23	-0.02	A	14.67	0.30	0.03	A	18.23	0.53	0.04	A	3.44	-0.58	-0.05	A	0.15	-0.04	0.00	A
11	1.23	0.05	0.00	A	0.40	-0.03	0.00	A	21.90	-0.42	-0.03	A	46.35	-0.60	-0.04	A	4.88	-0.38	-0.01	A	0.97	-0.38	-0.02	A	0.83	0.13	0.01	A
12	203.30	0.87	0.03	A	0.56	-0.05	0.00	A	6.27	-0.28	-0.01	A	20.86	-0.47	-0.02	A	0.06	0.06	0.00	A	0.01	-0.05	0.00	A	0.23	-0.09	0.00	A
13	31.68	0.20	0.02	A	0.20	0.02	0.01	A	11.62	-0.26	-0.03	A	3.60	-0.14	-0.01	A	5.41	-0.25	-0.02	A	0.70	0.25	0.02	A	2.79	-0.18	-0.02	A
14	2.52	0.07	0.01	A	7.19	-0.11	-0.01	A	2.47	0.13	0.01	A	5.07	-0.19	-0.02	A	37.18	0.90	0.05	A	0.20	0.15	0.01	A	0.85	0.11	0.01	A
15	117.54	-0.48	-0.03	A	211.36	-0.65	-0.04	A	57.85	-0.64	-0.05	A	9.72	-0.27	-0.02	A	40.97	-0.89	-0.04	A	0.53	-0.26	-0.02	A	0.03	0.02	0.00	A
16	59.56	0.38	0.02	A	19.15	0.22	0.01	A	0.05	-0.02	0.00	A	1.67	-0.12	-0.01	A	6.58	0.49	0.01	A	0.67	0.33	0.02	A	0.02	-0.02	0.00	A
17	680.68	-1.04	-0.08	B<	161.92	-0.52	-0.04	A	40.44	-0.55	-0.04	A	41.43	-0.57	-0.04	A	6.58	-0.31	-0.02	A	0.41	0.21	0.02	A	2.73	-0.19	-0.02	A
18	11.18	-0.12	-0.01	A	35.43	-0.22	-0.02	A	2.31	0.12	0.01	A	7.28	-0.21	-0.02	A	3.34	0.20	0.02	A	2.84	0.49	0.05	A	0.99	0.11	0.01	A
19	0.00	0.00	0.00	A	19.14	-0.17	-0.01	A	2.39	0.13	0.01	A	12.44	-0.30	-0.02	A	60.56	0.90	0.08	A	1.39	0.36	0.03	A	0.08	-0.03	0.00	A
20	75.01	0.40	0.02	A	12.64	-0.17	-0.01	A	1.90	-0.12	-0.01	A	33.85	-0.49	-0.04	A	23.65	-0.75	-0.03	A	2.14	0.56	0.03	A	1.94	-0.19	-0.01	A
21	6.86	-0.10	-0.01	A	43.21	-0.25	-0.02	A	0.73	0.07	0.01	A	40.87	-0.51	-0.05	A	0.39	0.07	0.01	A	7.02	-0.78	-0.07	A	0.29	-0.06	-0.01	A
22	177.54	-0.58	-0.04	A	52.00	-0.33	-0.02	A	1.02	-0.10	-0.01	A	7.88	-0.28	-0.02	A	57.61	0.87	0.07	A	1.06	-0.39	-0.02	A	2.33	0.20	0.01	A
23	14.42	0.14	0.01	A	0.73	-0.03	0.00	A	17.11	0.33	0.03	A	3.03	0.14	0.01	A	58.80	0.81	0.08	A	0.18	-0.14	-0.01	A	0.50	0.08	0.01	A
24	0.45	0.04	0.00	A	3.04	0.10	0.01	A	0.00	0.00	0.00	A	3.58	-0.19	-0.01	A	0.81	0.20	0.00	A	0.05	0.09	0.00	A	0.00	-0.01	0.00	A
25	16.96	-0.15	-0.01	A	0.91	-0.04	0.00	A	0.03	-0.01	0.00	A	7.38	0.21	0.02	A	4.36	0.26	0.02	A	4.49	0.66	0.06	A	0.22	-0.05	0.00	A
26	121.67	0.47	0.03	A	0.58	-0.03	0.00	A	3.15	-0.15	-0.01	A	15.76	-0.33	-0.03	A	0.05	-0.03	0.00	A	1.37	-0.38	-0.03	A	0.16	0.05	0.00	A
27	60.83	-0.30	-0.03	A	24.12	-0.19	-0.01	A	1.09	-0.08	-0.01	A	0.03	0.01	0.00	A	20.41	0.54	0.04	A	0.67	0.26	0.02	A	3.92	0.22	0.02	A
28	0.02	0.01	0.00	A	15.84	-0.18	-0.01	A	0.07	0.02	0.00	A	9.36	-0.26	-0.02	A	0.26	-0.08	0.00	A	0.03	-0.06	0.00	A	0.69	0.11	0.01	A
29	18.41	-0.22	-0.01	A	9.14	0.16	0.01	A	28.11	-0.52	-0.03	A	0.44	-0.07	0.00	A	13.02	-0.62	-0.02	A	3.45	-0.70	-0.04	A	3.41	-0.28	-0.01	A
30	89.11	0.40	0.03	A	54.35	-0.31	-0.02	A	1.09	0.09	0.01	A	1.33	0.09	0.01	A	19.28	0.70	0.03	A	3.56	0.65	0.05	A	0.84	0.12	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.8 (continued)
Spring 2014 AIMS Differential Item Functioning
Mathematics CRT High School

	Reference: Male N= 38153 Focal: Female N= 37361				Reference: Hispanic N= 44152 Focal: Non Hispanic N= 31423				Reference: White N= 60764 Focal: Africa American N= 4512				Reference: White N= 60764 Focal: Native American N= 4497				Reference: White N= 60764 Focal: Asian N= 2328				Reference: White N= 60764 Focal: Hawaii N= 274				Reference: White N= 60764 Focal: Multiple Indicator N= 21			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	0.04	0.01	0.00	A	19.85	-0.16	-0.01	A	16.41	0.30	0.03	A	3.13	-0.14	-0.01	A	0.06	-0.03	0.00	A	0.00	0.00	0.00	A	0.17	0.04	0.00	A
32	73.92	0.37	0.02	A	6.75	0.11	0.01	A	1.55	0.11	0.01	A	16.57	-0.34	-0.03	A	14.26	0.63	0.02	A	0.07	0.09	0.01	A	0.20	-0.06	0.00	A
33	39.57	-0.23	-0.02	A	0.83	-0.03	0.00	A	1.06	0.08	0.01	A	2.04	0.11	0.01	A	16.69	0.42	0.04	A	1.84	-0.41	-0.04	A	0.45	0.07	0.01	A
34	145.39	0.45	0.04	A	43.15	0.26	0.02	A	1.71	0.11	0.01	A	0.44	0.05	0.00	A	137.33	1.25	0.12	B>	1.47	0.37	0.03	A	2.16	0.17	0.01	A
35	275.60	-0.63	-0.06	A	145.48	-0.47	-0.04	A	15.23	-0.31	-0.03	A	4.87	-0.18	-0.02	A	12.94	0.44	0.03	A	3.47	-0.59	-0.05	A	4.74	-0.24	-0.02	A
36	70.95	-0.32	-0.03	A	2.51	-0.06	0.00	A	0.14	0.03	0.00	A	0.76	0.07	0.01	A	34.49	0.64	0.06	A	0.39	0.19	0.02	A	3.03	0.20	0.02	A
37	2.09	-0.05	0.00	A	7.68	-0.11	-0.01	A	0.00	0.00	0.00	A	3.52	0.15	0.01	A	12.88	0.39	0.04	A	0.00	-0.02	0.00	A	7.18	0.30	0.03	A
38	264.47	0.75	0.04	A	33.01	0.27	0.02	A	2.85	-0.15	-0.01	A	3.02	-0.15	-0.01	A	0.84	0.15	0.01	A	0.47	-0.25	-0.02	A	6.08	-0.33	-0.02	A
39	44.46	-0.30	-0.02	A	0.18	-0.02	0.00	A	48.81	-0.59	-0.05	A	7.39	-0.23	-0.02	A	1.13	0.18	0.01	A	1.30	-0.39	-0.03	A	0.03	-0.02	0.00	A
40	75.22	0.34	0.03	A	5.26	0.09	0.01	A	0.82	0.07	0.01	A	8.56	-0.23	-0.02	A	11.62	0.47	0.03	A	0.00	-0.01	0.00	A	0.00	0.01	0.00	A
41	58.48	0.29	0.03	A	1.01	0.04	0.00	A	0.03	0.01	0.00	A	0.04	-0.02	0.00	A	2.71	0.20	0.02	A	1.81	-0.40	-0.04	A	0.07	0.03	0.00	A
42	208.26	0.52	0.05	A	10.78	0.12	0.01	A	8.60	0.23	0.02	A	0.13	-0.03	0.00	A	0.01	0.01	0.00	A	0.02	-0.04	0.00	A	2.57	0.18	0.02	A
43	65.90	0.30	0.03	A	5.90	0.09	0.01	A	24.16	0.39	0.03	A	1.98	0.11	0.01	A	36.57	0.65	0.06	A	1.01	0.31	0.03	A	2.64	-0.18	-0.02	A
44	26.11	-0.28	-0.01	A	12.73	-0.21	-0.01	A	1.67	-0.17	-0.01	A	0.05	0.03	0.00	A	102.19	1.23	0.08	B>	1.18	0.48	0.02	A	3.23	-0.32	-0.01	A
45	129.73	0.50	0.03	A	0.91	-0.04	0.00	A	1.29	0.10	0.01	A	12.90	-0.31	-0.02	A	29.89	0.95	0.04	A	0.06	0.09	0.01	A	2.21	0.19	0.01	A
46	134.26	0.56	0.03	A	57.54	0.37	0.02	A	15.66	-0.37	-0.02	A	11.60	-0.31	-0.02	A	1.27	-0.19	-0.01	A	0.04	-0.08	0.00	A	0.93	-0.14	-0.01	A
47	504.47	1.00	0.06	B>	45.05	0.30	0.02	A	0.22	-0.04	0.00	A	2.43	0.14	0.01	A	7.49	0.45	0.02	A	0.01	-0.04	0.00	A	0.08	0.04	0.00	A
48	36.33	0.23	0.02	A	0.11	0.01	0.00	A	0.32	-0.04	0.00	A	7.95	-0.22	-0.02	A	32.62	0.74	0.05	A	0.69	-0.26	-0.02	A	2.02	-0.16	-0.01	A
49	0.88	0.03	0.00	A	89.04	0.36	0.03	A	2.24	0.12	0.01	A	18.06	0.34	0.03	A	23.71	0.57	0.05	A	0.24	-0.15	-0.01	A	0.01	-0.01	0.00	A
50	49.44	0.28	0.02	A	3.64	0.08	0.01	A	0.03	-0.01	0.00	A	8.77	-0.23	-0.02	A	0.35	-0.08	0.00	A	0.02	-0.04	0.00	A	1.15	0.12	0.01	A
51	244.25	0.57	0.05	A	66.99	0.31	0.03	A	0.03	0.01	0.00	A	12.88	0.28	0.03	A	0.47	0.08	0.01	A	0.01	-0.04	0.00	A	0.18	0.05	0.00	A
52	209.27	0.75	0.03	A	0.35	0.03	0.00	A	1.27	-0.11	-0.01	A	32.08	-0.53	-0.03	A	0.85	-0.17	0.00	A	0.01	-0.05	0.00	A	0.06	0.04	0.00	A
53	11.08	-0.12	-0.01	A	2.42	-0.06	0.00	A	2.60	-0.13	-0.01	A	0.84	-0.07	-0.01	A	108.24	1.13	0.11	B>	2.74	0.49	0.05	A	6.19	0.27	0.03	A
54	226.50	-0.58	-0.05	A	59.00	-0.30	-0.02	A	3.83	-0.16	-0.01	A	1.99	-0.12	-0.01	A	6.15	0.30	0.02	A	0.00	0.02	0.00	A	0.08	0.03	0.00	A
55	105.52	-0.38	-0.04	A	3.41	0.07	0.01	A	16.31	-0.32	-0.03	A	1.33	0.09	0.01	A	4.02	0.22	0.02	A	0.45	-0.21	-0.02	A	0.92	-0.11	-0.01	A
56	1.74	0.06	0.00	A	14.31	-0.17	-0.01	A	51.12	-0.60	-0.05	A	19.89	-0.38	-0.03	A	5.59	-0.37	-0.02	A	1.18	-0.36	-0.03	A	4.14	-0.26	-0.02	A
57	27.85	-0.20	-0.02	A	19.25	0.17	0.01	A	2.90	-0.13	-0.01	A	5.41	0.18	0.02	A	1.59	-0.15	-0.01	A	0.22	0.14	0.01	A	0.03	-0.02	0.00	A
58	108.93	-0.37	-0.04	A	71.61	-0.31	-0.03	A	11.12	-0.26	-0.02	A	15.66	0.30	0.03	A	0.04	-0.02	0.00	A	0.16	-0.12	-0.01	A	4.31	0.22	0.02	A
59	166.53	-0.47	-0.05	A	56.56	-0.28	-0.02	A	3.49	-0.14	-0.01	A	1.45	-0.09	-0.01	A	8.25	0.32	0.03	A	0.48	-0.21	-0.02	A	0.01	0.01	0.00	A
60	0.37	0.03	0.00	A	5.36	-0.11	-0.01	A	0.75	-0.08	-0.01	A	1.67	-0.12	-0.01	A	0.67	0.14	0.01	A	0.16	0.15	0.01	A	1.21	-0.15	-0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.8 (continued)
Spring 2014 AIMS Differential Item Functioning
Mathematics CRT High School

	Reference: Male N= 38153				Reference: Hispanic N= 44152				Reference: White N= 60764				Reference: White N= 60764				Reference: White N= 60764				Reference: White N= 60764				Reference: White N= 60764			
	Focal: Female N= 37361				Focal: Non Hispanic N= 31423				Focal: Africa American N= 4512				Focal: Native American N= 4497				Focal: Asian N= 2328				Focal: Hawaii N= 274				Focal: Multiple Indicator N= 21			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
61	77.77	0.32	0.03	A	9.27	-0.11	-0.01	A	1.80	0.10	0.01	A	1.43	-0.09	-0.01	A	16.96	0.46	0.04	A	1.01	0.30	0.03	A	0.18	0.05	0.00	A
62	159.89	0.66	0.03	A	0.37	0.03	0.00	A	0.37	-0.06	0.00	A	10.29	-0.30	-0.02	A	8.35	0.63	0.01	A	0.23	-0.18	-0.01	A	1.89	0.21	0.01	A
63	21.57	0.18	0.01	A	0.07	-0.01	0.00	A	3.67	0.15	0.01	A	0.00	-0.01	0.00	A	14.01	0.52	0.03	A	2.41	0.49	0.04	A	1.04	0.12	0.01	A
64	6.28	-0.09	-0.01	A	2.72	-0.06	0.00	A	0.10	0.03	0.00	A	1.26	-0.09	-0.01	A	20.64	0.54	0.04	A	0.75	0.27	0.02	A	0.00	0.00	0.00	A
65	1309.41	-1.41	-0.12	B<	253.14	-0.62	-0.05	A	136.78	-0.93	-0.08	A	17.49	-0.33	-0.03	A	13.41	-0.45	-0.03	A	2.31	-0.48	-0.04	A	15.40	-0.45	-0.04	A
66	14.38	0.14	0.01	A	2.14	-0.05	0.00	A	2.87	0.13	0.01	A	4.99	-0.18	-0.02	A	19.44	0.47	0.05	A	0.78	-0.27	-0.03	A	0.01	0.01	0.00	A
67	0.70	0.03	0.00	A	4.16	-0.08	-0.01	A	0.01	-0.01	0.00	A	8.36	-0.23	-0.02	A	28.12	0.75	0.04	A	0.41	0.21	0.02	A	3.78	0.23	0.02	A
68	6.81	0.10	0.01	A	20.35	-0.18	-0.01	A	1.70	0.11	0.01	A	7.35	-0.23	-0.02	A	19.65	0.53	0.04	A	0.69	-0.27	-0.02	A	1.60	0.15	0.01	A
69	41.28	0.24	0.02	A	0.24	0.02	0.00	A	9.03	0.24	0.02	A	10.62	-0.26	-0.02	A	63.71	0.97	0.07	A	2.15	0.47	0.04	A	0.08	0.03	0.00	A
70	84.01	-0.36	-0.03	A	12.73	-0.14	-0.01	A	1.92	0.11	0.01	A	0.06	-0.02	0.00	A	12.46	0.47	0.03	A	6.94	0.85	0.07	A	0.66	-0.10	-0.01	A
71	203.52	0.53	0.05	A	5.10	0.09	0.01	A	1.74	0.10	0.01	A	4.20	-0.16	-0.02	A	49.73	0.84	0.07	A	0.73	0.27	0.02	A	0.65	-0.09	-0.01	A
72	162.42	0.54	0.04	A	114.74	0.46	0.04	A	42.16	-0.55	-0.04	A	0.41	-0.05	0.00	A	0.66	0.12	0.01	A	0.03	0.06	0.00	A	2.34	-0.19	-0.01	A
73	3.88	-0.07	-0.01	A	1.95	0.05	0.01	A	0.67	0.06	0.01	A	4.50	0.17	0.01	A	32.10	0.59	0.06	A	1.75	0.41	0.04	A	0.25	0.05	0.01	A
74	96.01	0.38	0.03	A	1.54	-0.05	0.00	A	1.93	0.12	0.01	A	2.83	-0.15	-0.01	A	99.79	1.11	0.10	B>	2.53	-0.56	-0.04	A	1.22	-0.13	-0.01	A
75	1.32	0.05	0.00	A	3.23	0.08	0.01	A	0.09	-0.03	0.00	A	10.09	0.28	0.02	A	17.95	0.77	0.03	A	0.78	0.30	0.02	A	0.08	-0.04	0.00	A
76	45.03	0.26	0.02	A	6.20	-0.10	-0.01	A	19.68	0.37	0.03	A	4.22	-0.17	-0.02	A	44.61	0.92	0.05	A	1.74	0.43	0.04	A	0.10	-0.04	0.00	A
77	0.01	0.00	0.00	A	3.01	0.07	0.01	A	9.78	-0.26	-0.02	A	3.76	0.16	0.01	A	5.57	-0.32	-0.02	A	0.57	0.27	0.02	A	0.03	-0.02	0.00	A
78	195.30	0.58	0.04	A	2.60	0.07	0.01	A	18.48	0.36	0.03	A	2.31	-0.12	-0.01	A	53.46	1.16	0.05	B>	3.98	0.68	0.05	A	2.04	0.18	0.01	A
79	62.57	0.28	0.03	A	2.13	0.05	0.01	A	4.23	0.16	0.02	A	3.23	-0.14	-0.01	A	30.71	0.61	0.06	A	1.46	0.36	0.03	A	0.13	-0.04	0.00	A
80	38.10	-0.23	-0.02	A	21.75	-0.18	-0.01	A	0.17	-0.03	0.00	A	0.00	0.00	0.00	A	4.56	0.23	0.02	A	0.04	0.06	0.01	A	0.20	0.05	0.00	A
81	11.13	-0.13	-0.01	A	614.52	-0.97	-0.08	A	16.59	-0.32	-0.03	A	146.31	-0.97	-0.09	A	22.05	-0.56	-0.04	A	0.12	0.11	0.01	A	0.00	-0.01	0.00	A
82	110.82	-0.38	-0.04	A	0.22	0.02	0.00	A	9.22	-0.24	-0.02	A	28.58	0.41	0.04	A	25.05	0.52	0.05	A	1.59	0.38	0.04	A	0.13	-0.04	0.00	A
83	5.69	0.09	0.01	A	126.97	-0.43	-0.03	A	1.08	-0.08	-0.01	A	2.94	-0.14	-0.01	A	1.18	0.13	0.01	A	1.46	-0.37	-0.03	A	1.41	0.13	0.01	A
84	208.73	-0.66	-0.04	A	284.78	-0.77	-0.05	A	106.65	-0.89	-0.07	A	8.60	-0.25	-0.02	A	13.68	-0.59	-0.02	A	0.10	-0.11	-0.01	A	1.18	-0.15	-0.01	A
85	121.88	0.65	0.02	A	38.39	0.37	0.02	A	69.25	-0.86	-0.04	A	22.57	0.55	0.03	A	8.21	-0.60	-0.01	A	0.42	0.32	0.01	A	0.00	0.00	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.9
Spring 2014 AIMS Differential Item Functioning
Reading CRT Grade 3

	Reference: Male N= 42733 Focal: Female N= 41366				Reference: Hispanic N= 46823 Focal: Non Hispanic N= 37385				Reference: White N= 66936 Focal: Africa American N= 4776				Reference: White N= 66936 Focal: Native American N= 6112				Reference: White N= 66936 Focal: Asian N= 2489				Reference: White N= 66936 Focal: Hawaii N= 323				Reference: White N= 66936 Focal: Multiple Indicator N= 26			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	36.45	0.28	0.01	A	14.29	-0.17	-0.01	A	5.72	-0.22	-0.01	A	11.60	-0.26	-0.02	A	1.04	-0.17	-0.01	A	0.10	-0.12	-0.01	A	0.13	0.05	0.00	A
2	26.31	0.30	0.01	A	17.94	-0.25	-0.01	A	1.61	0.15	0.01	A	2.00	0.14	0.01	A	0.95	0.23	0.00	A	0.00	0.01	0.00	A	0.08	0.05	0.00	A
3	397.31	-0.87	-0.05	A	110.86	-0.46	-0.03	A	13.57	-0.32	-0.02	A	29.93	-0.40	-0.03	A	15.47	-0.57	-0.03	A	3.89	-0.64	-0.04	A	0.66	0.10	0.01	A
4	3.77	-0.12	0.00	A	31.35	-0.34	-0.01	A	1.69	-0.15	-0.01	A	12.26	0.36	0.02	A	5.49	-0.49	-0.01	A	0.37	0.31	0.01	A	0.81	0.17	0.00	A
5	37.60	-0.26	-0.02	A	73.15	-0.36	-0.03	A	7.47	-0.23	-0.02	A	20.96	0.34	0.03	A	3.76	0.29	0.01	A	2.20	0.50	0.03	A	0.00	0.00	0.00	A
6	526.58	-0.82	-0.07	A	239.97	-0.56	-0.05	A	6.89	0.20	0.02	A	0.55	-0.05	0.00	A	20.51	0.49	0.04	A	1.11	-0.30	-0.03	A	0.05	0.02	0.00	A
7	14.61	-0.24	-0.01	A	26.21	-0.32	-0.01	A	9.06	-0.36	-0.01	A	6.20	0.25	0.01	A	1.44	0.30	0.00	A	0.01	0.05	0.00	A	0.06	0.05	0.00	A
8	6.00	-0.09	-0.01	A	1.32	-0.04	0.00	A	1.89	0.11	0.01	A	0.08	0.02	0.00	A	0.39	0.08	0.01	A	3.14	0.55	0.04	A	0.10	0.03	0.00	A
9	29.44	0.31	0.01	A	22.06	-0.27	-0.01	A	7.24	0.30	0.01	A	1.96	-0.13	-0.01	A	0.70	-0.18	0.00	A	0.22	0.22	0.01	A	1.15	0.18	0.01	A
10	25.89	-0.19	-0.01	A	29.90	-0.21	-0.02	A	0.25	-0.04	0.00	A	0.65	0.06	0.01	A	2.15	0.18	0.01	A	3.39	0.58	0.04	A	0.79	0.10	0.01	A
11	16.51	0.18	0.01	A	3.44	-0.08	0.00	A	0.06	0.02	0.00	A	0.36	0.05	0.00	A	49.75	1.29	0.04	B>	3.90	0.76	0.04	A	0.34	0.08	0.00	A
12	30.41	0.20	0.02	A	131.44	-0.42	-0.04	A	5.42	-0.18	-0.02	A	9.15	-0.20	-0.02	A	5.31	-0.25	-0.02	A	0.63	0.23	0.02	A	1.71	0.13	0.01	A
13	65.66	0.36	0.02	A	0.12	-0.02	0.00	A	3.77	0.18	0.01	A	0.10	-0.02	0.00	A	0.25	0.08	0.00	A	1.51	-0.42	-0.03	A	0.00	0.01	0.00	A
14	4.63	-0.09	-0.01	A	747.36	-1.09	-0.08	B<	20.81	0.39	0.03	A	53.75	-0.52	-0.04	A	16.99	-0.52	-0.03	A	0.11	0.11	0.01	A	7.14	0.31	0.02	A
15	160.85	0.46	0.04	A	34.81	-0.22	-0.02	A	0.83	0.07	0.01	A	2.74	-0.12	-0.01	A	19.98	-0.47	-0.04	A	0.00	0.00	0.00	A	0.08	-0.03	0.00	A
16	84.75	0.47	0.02	A	3.64	0.10	0.01	A	0.82	0.09	0.00	A	0.37	-0.05	0.00	A	0.19	-0.08	0.00	A	8.70	1.38	0.05	B>	1.99	-0.21	-0.01	A
17	350.30	0.84	0.05	A	2.73	0.07	0.01	A	0.59	-0.07	0.00	A	11.71	0.26	0.02	A	0.52	0.12	0.00	A	1.02	0.37	0.02	A	0.48	-0.09	0.00	A
18	596.12	0.84	0.08	A	4.43	0.08	0.01	A	16.51	0.31	0.03	A	0.03	0.01	0.00	A	63.01	-0.79	-0.08	A	0.12	0.10	0.01	A	1.30	0.11	0.01	A
19	41.66	0.22	0.02	A	34.15	0.20	0.02	A	0.02	0.01	0.00	A	5.98	0.16	0.02	A	0.91	0.09	0.01	A	3.41	0.49	0.05	A	0.00	0.00	0.00	A
20	2.25	0.08	0.00	A	0.05	0.01	0.00	A	1.38	0.12	0.01	A	2.36	0.13	0.01	A	12.67	0.72	0.02	A	2.04	0.66	0.03	A	1.22	0.17	0.01	A
21	25.43	0.20	0.01	A	2.47	0.06	0.01	A	9.90	-0.26	-0.02	A	0.09	0.02	0.00	A	13.10	0.51	0.03	A	0.96	-0.30	-0.02	A	0.10	0.04	0.00	A
22	23.37	0.20	0.01	A	72.33	0.37	0.03	A	40.92	-0.54	-0.04	A	7.94	0.22	0.02	A	3.12	0.26	0.01	A	0.01	0.03	0.00	A	19.08	-0.51	-0.03	A
23	1.17	-0.04	0.00	A	14.82	-0.16	-0.01	A	0.89	-0.08	-0.01	A	88.26	-0.68	-0.05	A	0.91	-0.13	-0.01	A	0.66	-0.26	-0.02	A	1.30	-0.14	-0.01	A
24	196.16	-0.49	-0.05	A	42.46	0.23	0.02	A	1.48	0.09	0.01	A	20.70	0.31	0.03	A	128.51	1.28	0.11	B>	3.44	0.52	0.05	A	0.00	-0.01	0.00	A
25	0.06	-0.01	0.00	A	64.97	-0.38	-0.02	A	7.13	0.26	0.02	A	0.19	0.03	0.00	A	12.89	0.64	0.02	A	5.88	0.98	0.05	A	1.54	0.18	0.01	A
26	49.65	0.27	0.02	A	17.56	-0.16	-0.01	A	4.32	-0.17	-0.01	A	8.42	0.20	0.02	A	0.17	-0.05	0.00	A	0.04	-0.06	0.00	A	0.11	-0.04	0.00	A
27	149.24	0.45	0.04	A	13.12	0.14	0.01	A	0.90	-0.07	-0.01	A	3.39	0.13	0.01	A	10.64	0.39	0.03	A	4.64	0.61	0.05	A	3.10	-0.19	-0.02	A
28	4.30	0.08	0.00	A	4.74	-0.09	-0.01	A	24.12	-0.40	-0.03	A	3.79	-0.14	-0.01	A	0.22	0.06	0.00	A	0.08	0.09	0.01	A	0.17	0.05	0.00	A
29	1.02	0.04	0.00	A	4.06	0.08	0.00	A	0.11	0.03	0.00	A	19.91	0.31	0.03	A	0.03	-0.02	0.00	A	0.10	0.09	0.01	A	0.07	-0.03	0.00	A
30	2.18	-0.05	0.00	A	18.44	0.15	0.01	A	1.20	0.08	0.01	A	9.07	0.21	0.02	A	2.92	0.17	0.02	A	2.30	-0.43	-0.04	A	2.32	-0.15	-0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.9 (continued)
Spring 2014 AIMS Differential Item Functioning
Reading CRT Grade 3

	Reference: Male N= 42733 Focal: Female N= 41366				Reference: Hispanic N= 46823 Focal: Non Hispanic N= 37385				Reference: White N= 66936 Focal: Africa American N= 4776				Reference: White N= 66936 Focal: Native American N= 6112				Reference: White N= 66936 Focal: Asian N= 2489				Reference: White N= 66936 Focal: Hawaii N= 323				Reference: White N= 66936 Focal: Multiple Indicator N= 26			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	23.87	0.19	0.01	A	21.56	-0.18	-0.01	A	5.84	0.19	0.02	A	20.76	-0.32	-0.03	A	1.52	0.15	0.01	A	0.54	0.22	0.02	A	0.03	0.02	0.00	A
32	31.01	0.28	0.01	A	65.93	-0.41	-0.02	A	0.01	0.01	0.00	A	5.18	-0.18	-0.01	A	0.04	-0.04	0.00	A	1.32	-0.43	-0.02	A	6.51	0.39	0.02	A
33	11.87	0.21	0.01	A	6.30	0.15	0.01	A	2.32	-0.18	-0.01	A	7.28	-0.26	-0.01	A	3.56	0.46	0.01	A	6.27	1.46	0.04	A	0.17	0.07	0.00	A
34	56.89	0.27	0.03	A	42.93	-0.24	-0.02	A	3.09	-0.14	-0.01	A	40.39	-0.44	-0.04	A	23.28	-0.52	-0.04	A	0.11	-0.10	-0.01	A	0.01	0.01	0.00	A
35	3.35	-0.06	-0.01	A	52.45	0.25	0.02	A	4.23	0.15	0.02	A	4.28	0.13	0.01	A	23.87	0.51	0.05	A	0.22	0.13	0.01	A	0.03	0.02	0.00	A
36	22.30	-0.16	-0.02	A	0.03	-0.01	0.00	A	17.69	-0.30	-0.03	A	6.18	-0.16	-0.02	A	7.78	-0.28	-0.03	A	0.03	0.05	0.00	A	0.82	-0.09	-0.01	A
37	120.28	-0.40	-0.03	A	8.24	-0.11	-0.01	A	0.65	0.06	0.01	A	6.45	-0.19	-0.02	A	70.46	0.90	0.08	A	0.01	-0.02	0.00	A	0.08	-0.03	0.00	A
38	86.53	0.38	0.02	A	67.80	0.35	0.03	A	13.02	-0.31	-0.02	A	2.36	0.11	0.01	A	12.86	0.53	0.03	A	1.10	0.36	0.02	A	2.61	-0.19	-0.01	A
39	365.01	0.76	0.05	A	61.07	0.32	0.02	A	2.37	0.13	0.01	A	15.07	0.29	0.02	A	1.55	0.16	0.01	A	0.43	0.21	0.02	A	0.35	0.07	0.00	A
40	3.30	0.06	0.01	A	0.74	0.03	0.00	A	3.20	0.13	0.01	A	5.99	-0.16	-0.02	A	1.14	-0.11	-0.01	A	1.41	0.34	0.03	A	0.03	-0.02	0.00	A
41	60.62	0.31	0.02	A	4.10	-0.08	-0.01	A	4.84	-0.18	-0.01	A	0.00	0.00	0.00	A	0.61	0.11	0.01	A	0.00	-0.02	0.00	A	0.23	-0.06	0.00	A
42	44.62	0.24	0.02	A	48.23	-0.25	-0.02	A	7.91	-0.22	-0.02	A	0.86	-0.06	-0.01	A	0.69	0.09	0.01	A	2.38	-0.43	-0.04	A	0.46	-0.07	-0.01	A
43	78.18	-0.35	-0.03	A	20.57	-0.18	-0.01	A	86.46	-0.73	-0.06	A	0.28	-0.04	0.00	A	1.04	-0.13	-0.01	A	0.78	0.29	0.02	A	0.00	0.00	0.00	A
44	42.74	0.28	0.02	A	0.03	0.01	0.00	A	2.99	-0.15	-0.01	A	0.31	-0.04	0.00	A	56.47	-1.01	-0.05	B<	2.86	-0.54	-0.04	A	0.21	0.06	0.00	A
45	51.23	-0.27	-0.02	A	353.22	-0.71	-0.06	A	1.23	0.09	0.01	A	25.38	-0.38	-0.03	A	0.43	-0.07	-0.01	A	0.06	0.07	0.01	A	12.82	0.37	0.03	A
46	3.31	0.06	0.01	A	137.57	-0.42	-0.04	A	1.88	-0.10	-0.01	A	0.13	0.02	0.00	A	8.38	0.30	0.03	A	0.17	-0.11	-0.01	A	0.44	0.06	0.01	A
47	235.09	0.54	0.05	A	58.77	0.28	0.03	A	1.39	-0.09	-0.01	A	0.86	0.06	0.01	A	10.86	0.35	0.03	A	3.60	-0.52	-0.05	A	1.05	-0.10	-0.01	A
48	9.73	-0.13	-0.01	A	9.36	0.12	0.01	A	5.22	-0.19	-0.01	A	32.84	-0.43	-0.03	A	0.00	0.00	0.00	A	0.24	-0.16	-0.01	A	0.22	-0.06	0.00	A
49	6.01	-0.09	-0.01	A	0.83	-0.03	0.00	A	1.23	0.09	0.01	A	23.15	-0.33	-0.03	A	0.36	0.07	0.01	A	0.12	0.10	0.01	A	0.01	-0.01	0.00	A
50	0.05	0.01	0.00	A	7.48	0.10	0.01	A	13.95	-0.29	-0.03	A	0.43	-0.05	0.00	A	5.50	0.24	0.02	A	0.82	-0.26	-0.02	A	3.15	-0.17	-0.02	A
51	86.40	-0.33	-0.03	A	48.26	-0.25	-0.02	A	0.00	0.00	0.00	A	22.23	-0.32	-0.03	A	9.77	0.35	0.03	A	2.50	0.46	0.04	A	2.21	0.15	0.01	A
52	32.94	0.20	0.02	A	0.03	0.01	0.00	A	9.74	-0.24	-0.02	A	0.79	-0.06	-0.01	A	4.83	-0.23	-0.02	A	0.00	0.00	0.00	A	6.24	-0.25	-0.02	A
53	1.87	0.05	0.00	A	11.97	-0.14	-0.01	A	0.07	0.02	0.00	A	60.46	-0.55	-0.05	A	3.80	-0.25	-0.01	A	0.14	0.12	0.01	A	0.00	0.00	0.00	A
54	45.72	-0.28	-0.02	A	11.59	0.14	0.01	A	4.87	-0.19	-0.01	A	4.76	0.16	0.01	A	28.23	0.80	0.04	A	0.29	-0.18	-0.01	A	3.82	-0.24	-0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.10
Spring 2014 AIMS Differential Item Functioning
Reading CRT Grade 4

	Reference: Male N= 42814 Focal: Female N= 40556				Reference: Hispanic N= 46624 Focal: Non Hispanic N= 36814				Reference: White N= 66303 Focal: Africa American N= 4853				Reference: White N= 66303 Focal: Native American N= 6074				Reference: White N= 66303 Focal: Asian N= 2572				Reference: White N= 66303 Focal: Hawaii N= 310				Reference: White N= 66303 Focal: Multiple Indicator N= 25			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	32.55	-0.28	-0.01	A	9.71	0.15	0.01	A	23.08	-0.45	-0.03	A	3.35	0.16	0.01	A	29.41	-0.77	-0.03	A	1.34	-0.43	-0.02	A	0.17	-0.06	0.00	A
2	23.50	0.18	0.01	A	329.20	-0.67	-0.06	A	0.54	0.06	0.01	A	95.14	-0.66	-0.06	A	42.65	-0.70	-0.06	A	17.19	-1.21	-0.11	B<	4.29	0.22	0.02	A
3	229.95	-0.60	-0.04	A	164.36	-0.51	-0.05	A	0.01	-0.01	0.00	A	5.27	0.17	0.01	A	4.55	-0.26	-0.02	A	0.00	0.01	0.00	A	1.28	0.13	0.01	A
4	17.85	0.17	0.01	A	0.00	0.00	0.00	A	2.16	-0.12	-0.01	A	0.19	0.03	0.00	A	0.64	0.10	0.01	A	0.07	-0.09	-0.01	A	3.32	0.22	0.01	A
5	33.05	0.22	0.02	A	6.49	0.10	0.00	A	15.42	0.31	0.03	A	43.80	-0.49	-0.04	A	27.54	-0.59	-0.04	A	0.62	0.26	0.02	A	0.78	0.10	0.01	A
6	38.83	-0.22	-0.02	A	75.33	-0.31	-0.03	A	2.92	-0.13	-0.01	A	0.56	0.05	0.01	A	1.04	0.11	0.01	A	0.44	-0.19	-0.02	A	0.41	-0.07	-0.01	A
7	32.16	0.31	0.01	A	11.09	-0.18	-0.01	A	4.61	-0.22	-0.01	A	0.06	0.02	0.00	A	0.11	-0.07	0.00	A	1.24	0.53	0.02	A	0.17	0.07	0.00	A
8	4.66	0.10	0.01	A	438.16	-0.96	-0.06	A	30.75	0.52	0.03	A	2.43	0.12	0.01	A	0.58	0.12	0.00	A	0.06	-0.09	-0.01	A	30.13	0.78	0.04	A
9	0.01	0.00	0.00	A	1.94	0.05	0.00	A	1.39	0.09	0.01	A	29.88	-0.40	-0.03	A	0.01	0.01	0.00	A	1.19	0.32	0.03	A	1.22	0.11	0.01	A
10	1.62	-0.05	0.00	A	1.86	-0.05	0.00	A	0.23	-0.04	0.00	A	46.61	-0.46	-0.04	A	58.54	-0.78	-0.07	A	0.44	-0.19	-0.02	A	2.55	-0.17	-0.01	A
11	18.67	0.18	0.01	A	1.93	-0.06	0.00	A	3.32	0.15	0.01	A	80.11	-0.64	-0.05	A	0.03	0.02	0.00	A	3.66	-0.59	-0.04	A	2.91	-0.21	-0.01	A
12	32.57	0.21	0.02	A	7.14	0.10	0.01	A	3.30	0.14	0.01	A	27.62	-0.35	-0.03	A	18.97	0.54	0.04	A	1.97	0.45	0.04	A	0.00	0.00	0.00	A
13	34.51	0.21	0.02	A	15.88	-0.15	-0.01	A	2.22	0.11	0.01	A	18.05	-0.29	-0.03	A	11.21	0.38	0.03	A	0.41	-0.19	-0.02	A	1.36	0.12	0.01	A
14	28.03	0.33	0.01	A	0.98	0.06	0.00	A	5.69	-0.28	-0.01	A	0.07	-0.03	0.00	A	0.00	0.01	0.00	A	0.35	0.31	0.01	A	0.23	0.09	0.00	A
15	46.02	0.33	0.01	A	66.20	-0.40	-0.02	A	12.39	-0.33	-0.02	A	1.01	0.08	0.01	A	0.15	-0.06	0.00	A	1.36	-0.44	-0.02	A	1.01	0.15	0.01	A
16	51.85	-0.27	-0.02	A	11.43	-0.13	-0.01	A	3.54	-0.14	-0.01	A	0.01	0.01	0.00	A	4.20	0.23	0.02	A	0.14	-0.11	-0.01	A	0.64	-0.08	-0.01	A
17	54.42	0.24	0.02	A	5.17	0.08	0.01	A	4.45	-0.15	-0.02	A	2.47	-0.10	-0.01	A	0.17	-0.04	0.00	A	0.02	0.03	0.00	A	0.58	0.07	0.01	A
18	196.71	0.51	0.04	A	0.04	-0.01	0.00	A	4.16	0.16	0.01	A	19.65	0.30	0.03	A	30.80	0.64	0.05	A	0.60	0.23	0.02	A	0.34	-0.06	-0.01	A
19	45.28	-0.26	-0.02	A	857.58	-1.15	-0.08	B<	12.93	-0.29	-0.02	A	261.57	-1.30	-0.09	B<	91.90	-1.06	-0.08	B<	0.57	-0.23	-0.02	A	0.64	0.09	0.01	A
20	91.63	0.38	0.03	A	14.16	-0.15	-0.01	A	0.30	-0.05	0.00	A	21.56	0.34	0.03	A	0.07	0.03	0.00	A	1.88	0.43	0.03	A	1.16	0.13	0.01	A
21	14.41	0.16	0.01	A	2.89	-0.07	-0.01	A	1.14	-0.09	-0.01	A	31.63	-0.41	-0.03	A	2.34	0.22	0.01	A	0.54	-0.25	-0.02	A	1.95	-0.18	-0.01	A
22	64.80	-0.29	-0.03	A	18.74	-0.16	-0.01	A	0.68	-0.06	-0.01	A	4.11	-0.14	-0.01	A	9.62	-0.32	-0.03	A	0.10	0.09	0.01	A	1.21	0.12	0.01	A
23	21.33	0.18	0.01	A	103.75	-0.41	-0.03	A	4.69	0.18	0.01	A	1.54	-0.09	-0.01	A	0.01	0.01	0.00	A	2.50	-0.50	-0.04	A	5.46	0.28	0.02	A
24	161.48	0.59	0.03	A	22.88	0.22	0.01	A	3.58	-0.17	-0.01	A	0.40	-0.05	0.00	A	1.25	0.18	0.01	A	0.13	-0.13	-0.01	A	1.16	-0.15	-0.01	A
25	4.70	0.09	0.00	A	6.03	-0.10	-0.01	A	0.45	-0.06	0.00	A	4.34	-0.15	-0.01	A	11.52	0.47	0.02	A	0.33	-0.20	-0.01	A	0.19	0.05	0.00	A
26	11.94	0.13	0.01	A	220.91	-0.61	-0.04	A	14.09	-0.33	-0.02	A	2.59	-0.13	-0.01	A	27.88	0.56	0.05	A	0.89	0.29	0.02	A	0.02	-0.02	0.00	A
27	26.55	0.20	0.02	A	0.91	0.04	0.00	A	2.37	-0.12	-0.01	A	1.93	-0.10	-0.01	A	7.15	0.31	0.02	A	0.76	-0.28	-0.02	A	4.24	-0.23	-0.02	A
28	220.09	0.53	0.05	A	1.67	0.05	0.01	A	0.69	-0.06	-0.01	A	17.57	0.28	0.03	A	0.04	0.02	0.00	A	0.24	0.14	0.01	A	1.34	0.12	0.01	A
29	95.38	0.41	0.03	A	234.90	0.67	0.05	A	13.14	-0.31	-0.02	A	7.50	-0.20	-0.02	A	2.36	0.22	0.01	A	1.84	-0.45	-0.03	A	2.48	-0.19	-0.01	A
30	5.98	0.10	0.01	A	21.18	0.19	0.01	A	0.06	0.02	0.00	A	0.00	0.00	0.00	A	0.40	0.08	0.01	A	0.15	0.13	0.01	A	2.09	0.17	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.10 (continued)
Spring 2014 AIMS Differential Item Functioning
Reading CRT Grade 4

	Reference: Male N= 42814 Focal: Female N= 40556				Reference: Hispanic N= 46624 Focal: Non Hispanic N= 36814				Reference: White N= 66303 Focal: Africa American N= 4853				Reference: White N= 66303 Focal: Native American N= 6074				Reference: White N= 66303 Focal: Asian N= 2572				Reference: White N= 66303 Focal: Hawaii N= 310				Reference: White N= 66303 Focal: Multiple Indicator N= 25			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	102.34	0.45	0.03	A	4.96	0.10	0.01	A	0.17	0.04	0.00	A	9.91	0.24	0.02	A	0.07	0.04	0.00	A	2.56	0.57	0.03	A	1.08	-0.14	-0.01	A
32	0.73	-0.03	0.00	A	0.04	0.01	0.01	A	10.62	-0.25	-0.02	A	2.45	-0.11	-0.01	A	4.96	0.28	0.02	A	0.03	-0.06	0.00	A	0.01	0.01	0.00	A
33	55.07	-0.26	-0.03	A	6.14	-0.09	-0.01	A	0.00	0.00	0.00	A	12.91	-0.24	-0.02	A	3.80	-0.20	-0.02	A	1.17	-0.30	-0.03	A	0.69	0.08	0.01	A
34	62.43	0.34	0.02	A	30.13	-0.24	-0.02	A	8.91	-0.26	-0.02	A	4.96	0.17	0.01	A	5.60	0.35	0.02	A	0.00	-0.01	0.00	A	0.80	0.12	0.01	A
35	8.34	-0.10	-0.01	A	21.74	-0.17	-0.01	A	45.72	-0.50	-0.05	A	8.32	-0.20	-0.02	A	15.08	0.41	0.04	A	1.96	-0.41	-0.04	A	0.61	-0.08	-0.01	A
36	4.58	0.08	0.01	A	1.74	-0.05	0.00	A	3.24	-0.14	-0.01	A	4.70	0.15	0.01	A	9.33	0.38	0.02	A	0.08	-0.08	-0.01	A	3.02	-0.20	-0.01	A
37	4.97	-0.08	-0.01	A	0.02	0.00	0.00	A	4.07	-0.16	-0.01	A	10.16	0.23	0.02	A	8.02	0.31	0.02	A	0.50	-0.22	-0.02	A	0.05	-0.02	0.00	A
38	0.24	0.02	0.00	A	115.56	0.41	0.03	A	6.05	-0.19	-0.02	A	16.19	0.28	0.03	A	26.53	0.64	0.04	A	0.32	0.17	0.01	A	1.41	-0.13	-0.01	A
39	11.93	-0.13	-0.01	A	0.18	0.02	0.01	A	7.10	-0.20	-0.02	A	13.26	-0.25	-0.02	A	0.28	-0.06	0.00	A	2.15	-0.43	-0.04	A	2.66	-0.18	-0.01	A
40	0.17	0.02	0.00	A	7.08	-0.11	0.00	A	2.50	-0.13	-0.01	A	0.17	-0.03	0.00	A	5.67	0.32	0.02	A	0.28	-0.18	-0.01	A	0.66	0.10	0.01	A
41	35.55	-0.23	-0.02	A	44.49	-0.26	-0.02	A	12.14	-0.28	-0.02	A	0.30	0.04	0.00	A	0.28	-0.06	0.00	A	0.01	0.02	0.00	A	3.86	-0.23	-0.02	A
42	63.18	-0.28	-0.03	A	11.14	-0.12	-0.01	A	0.03	0.01	0.00	A	14.07	-0.27	-0.02	A	9.11	-0.31	-0.03	A	3.38	0.52	0.05	A	1.86	0.14	0.01	A
43	4.18	0.08	0.01	A	20.09	0.17	0.01	A	0.19	-0.03	0.00	A	23.23	0.34	0.03	A	15.39	0.43	0.04	A	0.32	0.17	0.01	A	0.09	-0.03	0.00	A
44	0.33	-0.02	0.00	A	3.17	0.06	0.01	A	0.76	-0.06	-0.01	A	0.60	0.05	0.01	A	0.29	-0.05	-0.01	A	0.01	-0.03	0.00	A	0.75	0.09	0.01	A
45	0.29	0.02	0.00	A	0.68	0.03	0.00	A	4.64	0.18	0.01	A	2.46	0.11	0.01	A	2.89	-0.21	-0.01	A	1.67	0.42	0.03	A	4.06	-0.23	-0.02	A
46	126.61	0.46	0.03	A	10.58	-0.13	-0.01	A	0.12	0.03	0.00	A	6.13	0.18	0.01	A	18.81	0.59	0.03	A	0.66	-0.27	-0.02	A	0.84	0.11	0.01	A
47	147.88	0.44	0.04	A	5.34	0.09	0.01	A	4.36	-0.16	-0.01	A	1.62	-0.09	-0.01	A	1.28	-0.12	-0.01	A	1.10	-0.31	-0.03	A	1.23	-0.12	-0.01	A
48	13.41	0.13	0.01	A	19.31	-0.16	-0.01	A	0.33	-0.04	0.00	A	6.00	-0.17	-0.02	A	9.29	0.32	0.03	A	3.84	0.59	0.05	A	0.63	-0.08	-0.01	A
49	109.30	0.49	0.02	A	8.70	0.14	0.01	A	0.60	-0.07	0.00	A	0.50	-0.06	0.00	A	1.03	0.17	0.01	A	0.59	-0.28	-0.02	A	1.40	0.17	0.01	A
50	11.16	0.13	0.01	A	19.88	0.18	0.01	A	0.03	0.01	0.00	A	6.63	-0.18	-0.02	A	1.20	-0.13	-0.01	A	1.37	-0.37	-0.03	A	0.81	-0.10	-0.01	A
51	88.31	0.34	0.03	A	25.63	-0.19	-0.02	A	0.67	0.06	0.01	A	5.15	-0.16	-0.01	A	9.36	0.33	0.03	A	1.54	0.36	0.03	A	0.33	-0.06	-0.01	A
52	81.92	-0.34	-0.03	A	34.78	-0.23	-0.02	A	0.71	-0.07	-0.01	A	0.01	-0.01	0.00	A	31.85	0.65	0.05	A	4.41	0.63	0.05	A	0.04	0.02	0.00	A
53	34.48	-0.26	-0.01	A	0.76	-0.04	0.00	A	1.62	-0.11	-0.01	A	0.60	-0.06	0.00	A	16.46	0.61	0.03	A	0.05	0.07	0.00	A	3.73	0.25	0.01	A
54	44.65	-0.27	-0.02	A	3.69	0.08	0.00	A	2.21	0.12	0.01	A	0.50	0.05	0.00	A	13.00	0.49	0.03	A	1.46	-0.40	-0.03	A	2.64	0.20	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.11
Spring 2014 AIMS Differential Item Functioning
Reading CRT Grade 5

	Reference: Male N= 42492 Focal: Female N= 41041				Reference: Hispanic N= 47086 Focal: Non Hispanic N= 36510				Reference: White N= 66933 Focal: Africa American N= 4824				Reference: White N= 66933 Focal: Native American N= 5899				Reference: White N= 66933 Focal: Asian N= 2546				Reference: White N= 66933 Focal: Hawaii N= 291				Reference: White N= 66933 Focal: Multiple Indicator N= 23			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	65.74	-0.41	-0.02	A	76.07	-0.44	-0.02	A	0.00	0.00	0.00	A	15.88	-0.33	-0.02	A	2.19	-0.25	-0.01	A	1.00	-0.40	-0.02	A	11.70	0.57	0.02	A
2	161.79	0.58	0.03	A	218.26	-0.67	-0.04	A	0.38	0.06	0.00	A	43.37	-0.50	-0.04	A	11.16	-0.49	-0.02	A	0.22	-0.16	-0.01	A	14.14	0.55	0.03	A
3	35.13	0.31	0.01	A	16.90	-0.22	-0.01	A	0.00	0.01	0.00	A	15.88	0.36	0.02	A	2.07	-0.26	-0.01	A	0.68	0.36	0.02	A	5.76	0.41	0.02	A
4	17.70	-0.15	-0.01	A	67.54	-0.31	-0.03	A	9.01	-0.23	-0.02	A	6.10	0.17	0.02	A	4.03	0.23	0.02	A	0.03	0.05	0.00	A	0.02	0.02	0.00	A
5	41.33	0.25	0.02	A	6.70	0.10	0.01	A	1.26	0.09	0.01	A	20.42	-0.33	-0.03	A	1.26	0.14	0.01	A	0.01	0.02	0.00	A	0.00	0.00	0.00	A
6	3.17	0.07	0.00	A	9.05	-0.12	-0.01	A	11.38	-0.27	-0.02	A	3.27	0.13	0.01	A	0.22	-0.06	0.00	A	1.38	0.40	0.03	A	0.12	0.04	0.00	A
7	1.06	-0.04	0.00	A	254.84	0.57	0.06	A	13.03	0.27	0.03	A	0.35	0.04	0.00	A	4.87	0.22	0.02	A	0.01	0.03	0.00	A	8.29	-0.30	-0.03	A
8	20.92	-0.16	-0.01	A	56.22	-0.28	-0.02	A	0.04	0.02	0.00	A	27.80	-0.40	-0.03	A	46.55	0.69	0.07	A	0.14	-0.12	-0.01	A	3.63	0.20	0.02	A
9	6.24	-0.10	-0.01	A	11.27	0.14	0.01	A	0.08	-0.02	0.00	A	4.47	0.16	0.01	A	13.95	0.51	0.03	A	0.31	0.19	0.01	A	0.00	-0.01	0.00	A
10	1.13	0.04	0.00	A	167.57	0.49	0.04	A	0.26	0.04	0.00	A	33.98	0.42	0.04	A	1.13	-0.12	-0.01	A	3.91	0.64	0.05	A	0.17	-0.05	0.00	A
11	133.66	0.45	0.03	A	42.33	-0.26	-0.02	A	1.62	0.10	0.01	A	16.55	-0.29	-0.03	A	1.77	0.17	0.01	A	0.50	0.24	0.02	A	0.05	-0.03	0.00	A
12	35.68	0.25	0.02	A	111.91	-0.45	-0.03	A	8.35	-0.25	-0.02	A	29.36	-0.40	-0.03	A	1.60	0.19	0.01	A	0.61	0.27	0.02	A	0.01	-0.01	0.00	A
13	435.87	0.85	0.06	A	24.29	0.20	0.02	A	1.31	0.10	0.01	A	4.43	0.16	0.01	A	0.01	-0.01	0.00	A	0.07	0.10	0.01	A	0.97	0.13	0.01	A
14	16.32	0.16	0.01	A	88.51	-0.37	-0.03	A	1.53	-0.10	-0.01	A	0.03	-0.01	0.00	A	4.60	0.26	0.02	A	1.65	0.42	0.03	A	0.07	0.03	0.00	A
15	146.86	0.43	0.04	A	10.49	-0.12	-0.01	A	18.75	0.33	0.03	A	0.09	-0.02	0.00	A	26.77	0.54	0.05	A	0.18	-0.12	-0.01	A	0.01	0.01	0.00	A
16	48.09	-0.26	-0.02	A	14.42	-0.15	-0.01	A	3.82	-0.15	-0.01	A	0.12	-0.02	0.00	A	0.11	0.04	0.00	A	0.02	0.04	0.00	A	0.00	0.01	0.00	A
17	1.60	0.05	0.00	A	43.53	-0.24	-0.02	A	3.27	0.14	0.01	A	0.05	0.02	0.00	A	7.67	0.32	0.02	A	0.45	0.21	0.02	A	2.26	0.17	0.01	A
18	141.89	0.57	0.03	A	2.87	-0.08	-0.01	A	0.59	-0.07	0.00	A	12.16	-0.28	-0.02	A	19.43	-0.65	-0.03	A	0.82	-0.35	-0.02	A	1.00	-0.15	-0.01	A
19	0.27	0.02	0.00	A	112.13	-0.37	-0.04	A	12.95	-0.27	-0.03	A	55.98	-0.52	-0.05	A	29.78	-0.54	-0.05	A	0.11	-0.10	-0.01	A	1.52	0.13	0.01	A
20	0.21	-0.02	0.00	A	217.88	-0.63	-0.04	A	15.22	-0.33	-0.02	A	12.89	-0.27	-0.02	A	4.35	-0.28	-0.01	A	0.01	-0.03	0.00	A	2.16	0.19	0.01	A
21	0.52	-0.03	0.00	A	41.40	-0.24	-0.02	A	2.65	-0.13	-0.01	A	28.91	-0.38	-0.03	A	1.67	0.14	0.01	A	0.20	-0.13	-0.01	A	0.00	0.00	0.00	A
22	12.49	0.13	0.01	A	3.23	-0.07	-0.01	A	2.38	0.12	0.01	A	9.71	-0.22	-0.02	A	0.00	-0.01	0.00	A	2.02	-0.43	-0.04	A	0.02	-0.01	0.00	A
23	88.18	0.56	0.02	A	8.60	0.17	0.01	A	13.46	-0.41	-0.02	A	17.47	0.40	0.02	A	3.23	0.40	0.01	A	2.11	-0.66	-0.02	A	5.84	-0.43	-0.01	A
24	6.41	-0.11	-0.01	A	5.39	-0.10	-0.01	A	0.56	-0.07	0.00	A	10.63	0.25	0.02	A	0.82	0.14	0.01	A	0.09	0.12	0.01	A	0.99	-0.14	-0.01	A
25	1096.53	-1.20	-0.11	B<	0.95	-0.04	0.00	A	3.10	-0.14	-0.01	A	3.67	0.14	0.01	A	15.64	0.41	0.04	A	0.12	0.11	0.01	A	8.70	0.32	0.03	A
26	27.13	-0.20	-0.01	A	296.88	-0.67	-0.05	A	2.23	-0.12	-0.01	A	1.88	-0.10	-0.01	A	4.63	0.25	0.02	A	1.06	-0.32	-0.03	A	0.77	0.10	0.01	A
27	0.30	0.02	0.00	A	47.72	-0.26	-0.02	A	21.27	-0.37	-0.03	A	2.04	-0.11	-0.01	A	2.61	0.16	0.02	A	0.22	-0.15	-0.01	A	0.91	0.10	0.01	A
28	0.55	-0.03	0.00	A	2.96	-0.06	0.00	A	1.15	0.08	0.01	A	3.43	-0.13	-0.01	A	1.14	0.11	0.01	A	1.22	-0.33	-0.03	A	0.17	0.04	0.00	A
29	27.60	0.23	0.01	A	141.96	0.52	0.04	A	4.41	-0.18	-0.01	A	11.52	0.26	0.02	A	0.43	0.10	0.00	A	0.01	0.03	0.00	A	0.00	-0.01	0.00	A
30	103.11	-0.44	-0.02	A	139.53	-0.51	-0.04	A	0.73	-0.08	-0.01	A	2.20	-0.11	-0.01	A	0.17	-0.06	0.00	A	0.00	0.01	0.00	A	2.30	0.20	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.11 (continued)
Spring 2014 AIMS Differential Item Functioning
Reading CRT Grade 5

	Reference: Male N= 42492 Focal: Female N= 41041				Reference: Hispanic N= 47086 Focal: Non Hispanic N= 36510				Reference: White N= 66933 Focal: Africa American N= 4824				Reference: White N= 66933 Focal: Native American N= 5899				Reference: White N= 66933 Focal: Asian N= 2546				Reference: White N= 66933 Focal: Hawaii N= 291				Reference: White N= 66933 Focal: Multiple Indicator N= 23			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	3.90	-0.07	-0.01	A	4.57	0.08	0.01	A	18.76	-0.33	-0.03	A	0.01	0.01	0.00	A	0.23	0.05	0.00	A	4.74	-0.65	-0.06	A	0.08	0.03	0.00	A
32	170.86	0.58	0.03	A	36.60	-0.27	-0.02	A	0.35	0.05	0.00	A	96.79	-0.74	-0.06	A	0.00	0.00	0.00	A	0.39	-0.22	-0.01	A	0.35	0.08	0.00	A
33	22.40	-0.17	-0.02	A	0.01	0.00	0.00	A	6.41	-0.19	-0.02	A	0.08	0.02	0.00	A	4.72	0.25	0.02	A	2.04	0.45	0.04	A	0.52	0.08	0.01	A
34	134.70	0.40	0.04	A	99.99	0.36	0.03	A	6.10	0.18	0.02	A	27.28	0.35	0.03	A	8.95	0.31	0.03	A	7.85	0.87	0.08	A	1.09	-0.11	-0.01	A
35	6.74	-0.11	-0.01	A	0.08	-0.01	0.00	A	0.79	0.08	0.01	A	0.13	-0.03	0.00	A	0.16	-0.05	0.00	A	0.32	-0.19	-0.01	A	0.07	0.03	0.00	A
36	118.98	0.54	0.02	A	61.80	0.40	0.02	A	0.68	0.08	0.00	A	2.55	0.14	0.01	A	9.18	0.54	0.02	A	0.10	0.13	0.01	A	0.28	0.08	0.00	A
37	6.80	0.09	0.01	A	105.40	-0.36	-0.03	A	0.94	-0.07	-0.01	A	0.08	-0.02	0.00	A	3.17	-0.18	-0.02	A	3.50	-0.53	-0.05	A	0.26	0.05	0.00	A
38	46.81	0.23	0.02	A	1.48	-0.04	0.00	A	51.87	0.52	0.05	A	0.31	0.04	0.00	A	9.04	0.30	0.03	A	0.18	0.12	0.01	A	2.79	0.17	0.02	A
39	15.92	0.24	0.01	A	4.84	-0.13	-0.01	A	0.86	-0.11	0.00	A	1.91	0.14	0.01	A	1.51	-0.25	-0.01	A	1.15	0.56	0.02	A	0.04	-0.04	0.00	A
40	373.09	1.00	0.04	B>	0.36	-0.03	0.00	A	0.00	0.01	0.00	A	0.07	-0.02	0.00	A	1.69	0.24	0.01	A	0.01	0.03	0.00	A	2.64	0.26	0.01	A
41	622.32	-0.91	-0.08	A	506.47	-0.83	-0.06	A	9.27	-0.24	-0.02	A	71.81	-0.62	-0.05	A	3.71	0.21	0.02	A	0.28	-0.16	-0.01	A	0.48	-0.07	-0.01	A
42	16.25	-0.17	-0.01	A	0.11	0.01	0.00	A	15.21	-0.32	-0.02	A	23.29	-0.35	-0.03	A	1.19	0.15	0.01	A	0.09	-0.10	-0.01	A	0.16	-0.05	0.00	A
43	21.08	0.16	0.02	A	249.39	0.57	0.05	A	0.00	0.01	0.00	A	40.57	0.44	0.04	A	35.11	0.62	0.06	A	0.04	0.05	0.01	A	1.53	-0.13	-0.01	A
44	19.13	-0.17	-0.01	A	69.81	-0.32	-0.03	A	0.05	0.02	0.00	A	4.46	-0.15	-0.01	A	17.04	0.51	0.03	A	2.03	0.47	0.04	A	0.10	0.04	0.00	A
45	60.28	0.29	0.02	A	54.25	-0.28	-0.02	A	0.16	0.03	0.00	A	39.34	-0.44	-0.04	A	0.72	-0.10	-0.01	A	0.26	-0.16	-0.01	A	1.26	-0.13	-0.01	A
46	151.92	0.42	0.04	A	83.39	0.32	0.03	A	4.08	0.15	0.01	A	9.97	0.21	0.02	A	21.63	0.45	0.05	A	0.04	-0.06	-0.01	A	2.75	-0.17	-0.02	A
47	18.16	0.16	0.01	A	79.06	-0.34	-0.03	A	2.40	-0.12	-0.01	A	68.05	-0.61	-0.05	A	7.85	-0.32	-0.02	A	5.14	-0.72	-0.06	A	3.58	-0.22	-0.02	A
48	19.52	0.17	0.01	A	147.94	0.49	0.04	A	0.44	-0.05	0.00	A	0.00	0.00	0.00	A	1.77	0.17	0.01	A	0.71	0.28	0.02	A	0.74	0.10	0.01	A
49	3.76	-0.07	-0.01	A	24.84	0.18	0.01	A	0.22	-0.03	0.00	A	0.21	0.03	0.00	A	1.71	-0.13	-0.01	A	0.00	0.00	0.00	A	0.15	0.04	0.00	A
50	1.76	0.06	0.00	A	1.12	0.05	0.00	A	0.48	0.06	0.00	A	13.50	-0.29	-0.02	A	0.05	0.04	0.00	A	0.09	0.11	0.01	A	6.99	-0.37	-0.02	A
51	94.16	0.41	0.02	A	2.42	-0.07	0.00	A	16.52	-0.35	-0.02	A	0.38	0.05	0.00	A	0.02	0.02	0.00	A	0.52	0.25	0.02	A	8.65	-0.37	-0.02	A
52	133.49	0.44	0.03	A	1.10	-0.04	0.00	A	50.34	-0.56	-0.05	A	5.30	0.16	0.01	A	5.68	0.29	0.02	A	0.06	-0.07	-0.01	A	1.19	-0.13	-0.01	A
53	7.11	0.10	0.01	A	40.76	-0.24	-0.02	A	0.16	-0.03	0.00	A	35.74	-0.45	-0.03	A	2.75	0.18	0.01	A	2.06	-0.45	-0.04	A	0.21	-0.05	0.00	A
54	130.79	0.39	0.04	A	14.81	0.14	0.02	A	10.80	-0.25	-0.02	A	3.02	-0.12	-0.01	A	3.80	-0.19	-0.02	A	0.36	-0.18	-0.02	A	16.13	-0.42	-0.04	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.12
Spring 2014 AIMS Differential Item Functioning
Reading CRT Grade 6

	Reference: Male N= 41948 Focal: Female N= 40574				Reference: Hispanic N= 46442 Focal: Non Hispanic N= 36155				Reference: White N= 66279 Focal: Africa American N= 4862				Reference: White N= 66279 Focal: Native American N= 5811				Reference: White N= 66279 Focal: Asian N= 2446				Reference: White N= 66279 Focal: Hawaii N= 250				Reference: White N= 66279 Focal: Multiple Indicator N= 22			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	1.99	-0.08	0.00	A	71.33	-0.47	-0.02	A	1.51	-0.13	-0.01	A	0.13	0.03	0.00	A	1.78	-0.27	-0.01	A	0.10	-0.15	-0.01	A	4.14	0.38	0.01	A
2	10.37	-0.11	-0.01	A	4.41	-0.08	-0.01	A	2.30	-0.11	-0.01	A	2.52	-0.11	-0.01	A	99.69	1.17	0.09	B>	0.52	0.23	0.02	A	0.02	0.02	0.00	A
3	34.59	0.56	0.01	A	0.87	0.09	0.00	A	2.28	-0.26	0.00	A	0.23	-0.07	0.00	A	0.98	-0.34	0.00	A	0.16	0.34	0.00	A	1.49	0.40	0.00	A
4	22.42	0.20	0.01	A	39.66	-0.27	-0.02	A	2.22	0.13	0.01	A	1.92	-0.10	-0.01	A	0.01	0.01	0.00	A	0.95	-0.36	-0.02	A	0.16	0.05	0.00	A
5	35.41	-0.21	-0.02	A	63.42	-0.29	-0.02	A	29.55	-0.41	-0.04	A	70.81	-0.62	-0.05	A	29.07	-0.55	-0.05	A	3.22	-0.58	-0.05	A	1.93	-0.15	-0.01	A
6	6.12	-0.10	-0.01	A	223.82	-0.58	-0.05	A	27.05	-0.40	-0.03	A	80.89	-0.63	-0.06	A	6.37	-0.32	-0.02	A	3.45	-0.65	-0.05	A	4.33	0.25	0.02	A
7	0.06	0.01	0.00	A	505.05	-0.83	-0.07	A	16.38	-0.31	-0.03	A	81.16	-0.68	-0.05	A	2.57	-0.17	-0.02	A	4.83	-0.74	-0.06	A	0.54	0.08	0.01	A
8	71.39	0.29	0.03	A	4.16	-0.07	-0.01	A	5.59	-0.17	-0.02	A	0.06	-0.02	0.00	A	15.94	0.44	0.04	A	2.50	0.51	0.05	A	4.96	-0.24	-0.02	A
9	215.28	-0.82	-0.03	A	526.99	-1.29	-0.06	B<	33.17	0.65	0.03	A	32.10	-0.49	-0.03	A	0.04	-0.04	0.00	A	1.40	0.63	0.02	A	14.16	0.71	0.02	A
10	240.32	1.00	0.02	B>	1.57	-0.08	0.00	A	13.40	-0.42	-0.02	A	1.88	0.14	0.01	A	4.59	0.59	0.01	A	0.18	0.24	0.01	A	0.36	0.12	0.00	A
11	151.68	0.82	0.02	A	0.56	0.05	0.00	A	10.66	-0.39	-0.01	A	3.53	-0.19	-0.01	A	0.04	-0.05	0.00	A	0.02	-0.07	0.00	A	0.69	0.18	0.00	A
12	29.64	-0.19	-0.02	A	36.59	0.22	0.02	A	0.64	-0.06	-0.01	A	2.25	0.11	0.01	A	0.93	0.10	0.01	A	0.61	-0.26	-0.02	A	0.23	0.05	0.00	A
13	121.22	0.39	0.04	A	86.72	-0.34	-0.03	A	10.63	0.25	0.02	A	1.62	0.09	0.01	A	10.92	0.35	0.03	A	0.90	-0.31	-0.03	A	2.49	0.17	0.02	A
14	12.10	0.12	0.01	A	113.11	-0.39	-0.03	A	3.47	-0.14	-0.01	A	29.50	-0.40	-0.03	A	0.04	0.02	0.00	A	0.01	-0.04	0.00	A	0.81	-0.10	-0.01	A
15	154.46	0.46	0.04	A	47.99	0.26	0.02	A	1.01	0.08	0.01	A	4.54	-0.15	-0.01	A	25.10	0.60	0.04	A	1.14	0.36	0.03	A	0.29	-0.06	-0.01	A
16	4.89	0.08	0.01	A	1.69	0.05	0.01	A	13.15	0.27	0.03	A	2.19	-0.10	-0.01	A	10.95	0.38	0.03	A	3.44	0.60	0.05	A	1.31	-0.12	-0.01	A
17	124.16	0.43	0.03	A	52.18	-0.28	-0.02	A	14.96	-0.30	-0.03	A	0.30	-0.04	0.00	A	0.48	-0.08	-0.01	A	0.18	-0.15	-0.01	A	0.22	0.06	0.00	A
18	2.97	0.07	0.00	A	35.19	-0.25	-0.02	A	10.20	-0.26	-0.02	A	3.82	-0.15	-0.01	A	10.35	0.46	0.02	A	3.35	0.68	0.05	A	0.08	-0.04	0.00	A
19	7.36	0.10	0.01	A	56.38	-0.29	-0.03	A	1.92	-0.11	-0.01	A	4.45	0.15	0.01	A	6.45	-0.29	-0.02	A	5.92	0.85	0.07	A	0.19	-0.05	0.00	A
20	2.68	0.06	0.01	A	35.47	-0.21	-0.02	A	0.32	-0.04	0.00	A	15.20	-0.27	-0.03	A	19.75	0.47	0.04	A	0.38	0.19	0.02	A	3.88	0.21	0.02	A
21	0.70	-0.03	0.00	A	12.35	-0.13	-0.01	A	6.29	0.18	0.02	A	0.30	-0.04	0.00	A	6.12	0.27	0.02	A	0.94	-0.31	-0.03	A	2.22	0.16	0.01	A
22	930.82	-1.15	-0.10	B<	24.53	-0.19	-0.01	A	0.03	0.01	0.00	A	6.14	-0.19	-0.01	A	0.03	0.02	0.00	A	0.38	-0.21	-0.02	A	1.12	-0.12	-0.01	A
23	16.13	0.17	0.01	A	50.56	0.31	0.02	A	4.00	0.17	0.01	A	7.75	0.21	0.02	A	13.72	0.59	0.02	A	0.01	-0.03	0.00	A	2.02	0.19	0.01	A
24	7.23	-0.12	-0.01	A	3.62	-0.08	0.00	A	13.91	-0.31	-0.02	A	4.26	-0.16	-0.01	A	0.52	0.11	0.00	A	2.87	-0.59	-0.04	A	3.87	-0.26	-0.02	A
25	194.85	0.67	0.03	A	16.97	0.20	0.01	A	6.06	-0.23	-0.01	A	110.83	-0.83	-0.06	A	12.71	-0.57	-0.02	A	0.51	-0.29	-0.02	A	2.62	-0.24	-0.01	A
26	1.11	0.05	0.00	A	1.11	-0.05	0.00	A	0.80	-0.08	-0.01	A	28.22	-0.39	-0.03	A	3.64	-0.28	-0.01	A	1.72	-0.50	-0.03	A	0.60	0.11	0.01	A
27	4.87	0.08	0.01	A	81.34	-0.33	-0.03	A	4.17	0.15	0.01	A	0.21	-0.03	0.00	A	10.56	0.35	0.03	A	0.10	-0.11	-0.01	A	5.15	0.25	0.02	A
28	363.43	0.75	0.05	A	0.40	-0.03	0.00	A	2.15	0.12	0.01	A	2.43	-0.11	-0.01	A	5.15	0.30	0.02	A	2.77	0.61	0.04	A	0.00	-0.01	0.00	A
29	161.89	0.44	0.04	A	12.22	0.12	0.01	A	15.80	0.29	0.03	A	13.97	0.25	0.03	A	8.59	0.31	0.03	A	1.70	0.41	0.04	A	0.20	0.05	0.00	A
30	194.51	0.52	0.04	A	10.18	0.12	0.01	A	11.60	-0.26	-0.02	A	1.49	0.09	0.01	A	0.00	0.00	0.00	A	0.40	0.22	0.02	A	0.01	-0.01	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.12 (continued)
Spring 2014 AIMS Differential Item Functioning
Reading CRT Grade 6

	Reference: Male N= 41948 Focal: Female N= 40574				Reference: Hispanic N= 46442 Focal: Non Hispanic N= 36155				Reference: White N= 66279 Focal: Africa American N= 4862				Reference: White N= 66279 Focal: Native American N= 5811				Reference: White N= 66279 Focal: Asian N= 2446				Reference: White N= 66279 Focal: Hawaii N= 250				Reference: White N= 66279 Focal: Multiple Indicator N= 22			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	290.00	1.05	0.03	B>	36.49	0.36	0.01	A	6.33	-0.28	-0.01	A	5.49	0.23	0.01	A	7.96	0.71	0.01	A	0.41	-0.32	-0.01	A	1.39	-0.22	-0.01	A
32	62.10	0.30	0.02	A	238.74	0.60	0.05	A	7.80	-0.22	-0.02	A	0.11	-0.02	0.00	A	1.39	0.14	0.01	A	0.02	0.06	0.00	A	14.77	-0.45	-0.04	A
33	61.72	0.31	0.02	A	16.87	0.17	0.01	A	7.34	-0.22	-0.02	A	1.97	0.10	0.01	A	3.35	0.24	0.01	A	0.02	-0.05	0.00	A	0.02	-0.02	0.00	A
34	0.73	0.03	0.00	A	0.15	-0.02	0.00	A	8.65	-0.24	-0.02	A	130.66	-0.86	-0.07	A	1.78	0.17	0.01	A	0.03	0.06	0.00	A	0.43	-0.08	-0.01	A
35	38.68	-0.24	-0.02	A	183.52	-0.53	-0.04	A	0.36	0.05	0.00	A	31.02	-0.44	-0.03	A	0.31	-0.06	0.00	A	0.92	0.32	0.03	A	0.00	-0.01	0.00	A
36	0.05	0.01	0.00	A	19.39	0.17	0.02	A	0.94	-0.08	-0.01	A	2.46	-0.11	-0.01	A	28.36	0.67	0.04	A	1.40	0.41	0.03	A	0.41	0.08	0.01	A
37	12.45	0.14	0.01	A	21.34	0.18	0.01	A	10.69	-0.26	-0.02	A	2.74	0.12	0.01	A	0.76	-0.11	-0.01	A	0.14	0.12	0.01	A	11.45	-0.40	-0.03	A
38	85.00	0.34	0.03	A	121.22	-0.41	-0.04	A	5.11	-0.17	-0.02	A	0.01	-0.01	0.00	A	0.38	0.07	0.01	A	5.22	0.78	0.07	A	1.01	0.11	0.01	A
39	0.01	0.01	0.00	A	131.66	-0.54	-0.03	A	27.99	-0.47	-0.03	A	12.09	-0.28	-0.02	A	11.53	-0.52	-0.02	A	2.69	-0.62	-0.04	A	2.55	0.24	0.01	A
40	13.20	0.15	0.01	A	22.67	0.20	0.01	A	3.64	-0.16	-0.01	A	0.37	-0.05	0.00	A	3.34	0.25	0.01	A	2.68	0.63	0.04	A	0.16	0.05	0.00	A
41	163.28	0.52	0.03	A	0.79	-0.04	0.00	A	0.48	-0.06	0.00	A	0.06	-0.02	0.00	A	5.16	0.31	0.02	A	2.47	0.59	0.04	A	1.23	0.14	0.01	A
42	14.95	0.14	0.01	A	3.68	-0.07	-0.01	A	0.01	0.01	0.00	A	0.05	0.02	0.00	A	1.36	0.14	0.01	A	0.15	0.13	0.01	A	1.36	0.13	0.01	A
43	5.19	0.08	0.01	A	135.81	-0.43	-0.04	A	32.91	-0.44	-0.04	A	31.45	-0.41	-0.03	A	0.89	-0.10	-0.01	A	0.46	0.22	0.02	A	1.31	0.13	0.01	A
44	9.22	-0.12	-0.01	A	13.17	-0.15	-0.01	A	0.26	0.04	0.00	A	60.53	-0.57	-0.05	A	0.98	0.13	0.01	A	0.11	0.12	0.01	A	4.87	0.27	0.02	A
45	375.89	-0.75	-0.06	A	157.39	-0.49	-0.04	A	15.27	0.31	0.03	A	29.85	-0.42	-0.03	A	7.14	0.33	0.02	A	0.63	-0.27	-0.02	A	5.46	0.27	0.02	A
46	88.32	0.49	0.02	A	15.79	-0.21	-0.01	A	2.40	0.16	0.01	A	15.00	0.34	0.02	A	5.73	0.49	0.01	A	0.24	0.22	0.01	A	5.29	0.39	0.02	A
47	14.50	-0.13	-0.01	A	66.37	0.29	0.03	A	0.09	-0.02	0.00	A	0.00	0.00	0.00	A	5.92	0.25	0.02	A	0.05	0.07	0.01	A	3.97	-0.21	-0.02	A
48	5.45	-0.09	-0.01	A	21.17	-0.19	-0.01	A	5.99	0.20	0.02	A	13.34	0.29	0.02	A	4.13	-0.23	-0.02	A	0.15	0.14	0.01	A	0.03	-0.02	0.00	A
49	117.29	0.46	0.03	A	81.18	0.39	0.03	A	2.26	0.13	0.01	A	53.67	0.58	0.04	A	4.43	0.30	0.02	A	0.26	0.19	0.01	A	4.43	0.28	0.02	A
50	41.16	0.24	0.02	A	11.12	0.13	0.01	A	2.00	0.11	0.01	A	22.21	0.33	0.03	A	2.37	0.19	0.01	A	1.72	-0.43	-0.04	A	0.37	0.07	0.01	A
51	11.96	0.13	0.01	A	93.15	0.38	0.03	A	0.01	-0.01	0.00	A	78.96	-0.63	-0.06	A	0.00	0.01	0.00	A	0.69	-0.29	-0.02	A	0.42	-0.08	-0.01	A
52	181.31	-0.50	-0.04	A	0.07	-0.01	0.00	A	2.61	-0.12	-0.01	A	26.58	0.36	0.03	A	5.96	0.28	0.02	A	0.64	0.26	0.02	A	1.12	-0.12	-0.01	A
53	33.57	-0.22	-0.02	A	0.43	0.02	0.00	A	17.69	-0.32	-0.03	A	1.33	0.08	0.01	A	19.58	0.55	0.04	A	0.61	-0.27	-0.02	A	0.83	-0.10	-0.01	A
54	2.79	-0.06	-0.01	A	64.59	0.29	0.03	A	2.46	-0.12	-0.01	A	0.70	0.06	0.00	A	3.48	0.19	0.02	A	0.49	-0.23	-0.02	A	0.22	0.05	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.13
Spring 2014 AIMS Differential Item Functioning
Reading CRT Grade 7

	Reference: Male N= 42321 Focal: Female N= 40745				Reference: Hispanic N= 46775 Focal: Non Hispanic N= 36351				Reference: White N= 66962 Focal: Africa American N= 4757				Reference: White N= 66962 Focal: Native American N= 5774				Reference: White N= 66962 Focal: Asian N= 2492				Reference: White N= 66962 Focal: Hawaii N= 312				Reference: White N= 66962 Focal: Multiple Indicator N= 21			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	91.40	0.56	0.02	A	122.85	-0.65	-0.03	A	11.36	0.40	0.02	A	12.88	-0.34	-0.02	A	1.34	-0.25	-0.01	A	0.01	0.05	0.00	A	1.03	0.20	0.01	A
2	53.96	0.30	0.02	A	0.44	0.03	0.00	A	26.03	-0.42	-0.03	A	4.97	0.17	0.01	A	0.07	-0.04	0.00	A	0.06	-0.08	-0.01	A	0.40	-0.08	-0.01	A
3	43.25	0.39	0.01	A	10.15	-0.19	-0.01	A	3.98	-0.22	-0.01	A	4.77	-0.21	-0.01	A	7.77	-0.57	-0.01	A	0.26	-0.24	-0.01	A	3.91	0.41	0.01	A
4	13.09	0.13	0.01	A	59.28	0.29	0.02	A	0.20	-0.04	0.00	A	8.98	-0.21	-0.02	A	35.54	-0.64	-0.05	A	0.11	0.10	0.01	A	0.18	0.05	0.00	A
5	55.94	0.32	0.02	A	10.97	0.14	0.01	A	0.00	0.00	0.00	A	11.43	0.26	0.02	A	4.14	0.30	0.01	A	0.46	0.25	0.01	A	0.05	-0.03	0.00	A
6	73.61	0.43	0.02	A	42.19	0.32	0.02	A	0.65	-0.08	0.00	A	0.24	0.04	0.00	A	4.08	0.37	0.01	A	0.65	-0.33	-0.02	A	0.18	-0.07	0.00	A
7	65.14	-0.32	-0.03	A	18.47	-0.17	-0.01	A	10.74	-0.27	-0.02	A	51.16	-0.52	-0.04	A	47.24	-0.80	-0.05	A	0.80	0.29	0.02	A	0.15	-0.05	0.00	A
8	112.56	0.40	0.03	A	4.93	0.09	0.01	A	12.08	-0.28	-0.02	A	0.48	0.05	0.00	A	12.72	0.43	0.03	A	0.68	0.25	0.02	A	2.03	-0.17	-0.01	A
9	13.43	-0.12	-0.01	A	15.01	-0.13	-0.01	A	36.92	-0.45	-0.04	A	8.66	-0.20	-0.02	A	1.23	-0.11	-0.01	A	0.01	0.03	0.00	A	6.61	-0.27	-0.03	A
10	66.01	-0.29	-0.03	A	164.75	0.48	0.04	A	6.43	-0.20	-0.02	A	15.50	-0.29	-0.02	A	0.35	-0.06	-0.01	A	0.01	0.03	0.00	A	4.31	-0.24	-0.02	A
11	4.71	-0.08	-0.01	A	5.78	-0.09	-0.01	A	0.10	-0.02	0.00	A	0.02	-0.01	0.00	A	0.68	0.09	0.01	A	0.55	0.20	0.02	A	0.29	0.06	0.01	A
12	10.31	0.13	0.01	A	5.23	0.09	0.01	A	8.00	-0.23	-0.02	A	4.33	0.16	0.01	A	24.15	0.71	0.04	A	3.02	0.59	0.04	A	0.00	0.00	0.00	A
13	1.86	-0.05	-0.01	A	7.04	0.10	0.01	A	1.01	-0.08	-0.01	A	0.11	0.02	0.00	A	31.17	0.70	0.05	A	2.95	0.53	0.04	A	0.79	0.11	0.01	A
14	547.11	-0.94	-0.07	A	62.83	-0.32	-0.03	A	0.69	-0.07	-0.01	A	0.41	0.05	0.00	A	27.01	0.71	0.04	A	0.20	0.15	0.01	A	0.27	0.07	0.00	A
15	6.16	0.09	0.01	A	65.32	0.29	0.03	A	1.89	-0.10	-0.01	A	6.32	-0.17	-0.02	A	1.79	-0.14	-0.01	A	0.12	0.10	0.01	A	0.03	-0.02	0.00	A
16	286.22	-0.70	-0.05	A	859.01	-1.19	-0.09	B<	31.55	-0.46	-0.04	A	0.02	0.01	0.00	A	2.81	0.23	0.01	A	0.23	0.17	0.01	A	0.54	0.10	0.01	A
17	493.12	-0.88	-0.06	A	0.37	0.02	0.00	A	2.51	0.13	0.01	A	1.78	0.10	0.01	A	5.34	0.31	0.02	A	0.32	-0.18	-0.01	A	0.08	0.03	0.00	A
18	0.00	0.00	0.00	A	7.97	0.11	0.01	A	7.77	-0.22	-0.02	A	0.02	0.01	0.00	A	9.24	0.38	0.02	A	1.82	-0.41	-0.03	A	1.19	0.14	0.01	A
19	90.73	0.33	0.03	A	11.35	-0.12	-0.01	A	3.30	-0.13	-0.01	A	29.89	-0.37	-0.04	A	0.82	0.10	0.01	A	0.89	-0.27	-0.03	A	4.92	-0.24	-0.02	A
20	47.89	0.24	0.02	A	0.03	-0.01	0.00	A	0.03	0.01	0.00	A	0.01	0.01	0.00	A	27.99	0.57	0.05	A	1.61	-0.35	-0.03	A	0.03	0.02	0.00	A
21	25.13	0.17	0.02	A	28.73	-0.19	-0.02	A	5.71	0.18	0.02	A	8.84	-0.21	-0.02	A	10.55	0.34	0.03	A	1.82	0.37	0.04	A	3.40	0.20	0.02	A
22	20.85	0.17	0.02	A	105.75	-0.39	-0.03	A	4.01	0.16	0.01	A	5.76	-0.18	-0.01	A	53.12	0.74	0.07	A	0.05	-0.07	-0.01	A	4.65	0.24	0.02	A
23	85.78	0.33	0.03	A	54.76	-0.27	-0.02	A	4.44	-0.16	-0.01	A	6.32	-0.18	-0.02	A	0.06	0.03	0.00	A	0.54	-0.22	-0.02	A	0.01	0.01	0.00	A
24	83.90	0.31	0.03	A	68.95	0.29	0.03	A	1.84	0.10	0.01	A	13.21	0.25	0.02	A	3.88	0.19	0.02	A	0.38	0.17	0.02	A	2.33	-0.16	-0.02	A
25	35.16	0.27	0.01	A	243.34	-0.71	-0.04	A	37.35	0.60	0.04	A	2.44	0.13	0.01	A	1.17	0.17	0.01	A	1.33	0.44	0.02	A	1.10	0.16	0.01	A
26	8.70	0.11	0.01	A	74.60	-0.33	-0.03	A	0.03	0.01	0.00	A	28.24	-0.38	-0.03	A	1.55	0.15	0.01	A	0.03	0.05	0.00	A	0.42	0.08	0.01	A
27	195.88	0.67	0.03	A	98.39	0.48	0.03	A	0.18	-0.04	0.00	A	1.56	-0.10	-0.01	A	11.89	0.64	0.02	A	0.01	-0.03	0.00	A	0.62	-0.12	-0.01	A
28	81.48	-0.31	-0.03	A	7.47	0.10	0.01	A	2.04	-0.10	-0.01	A	5.14	0.15	0.01	A	8.36	0.30	0.03	A	0.23	-0.13	-0.01	A	0.64	0.09	0.01	A
29	0.26	0.02	0.00	A	105.46	-0.43	-0.03	A	12.00	0.30	0.02	A	66.41	-0.59	-0.05	A	16.98	-0.53	-0.03	A	0.28	0.18	0.01	A	2.96	0.24	0.01	A
30	224.97	-0.53	-0.05	A	20.48	-0.16	-0.01	A	1.72	0.10	0.01	A	3.39	-0.13	-0.01	A	0.49	-0.07	-0.01	A	0.55	0.21	0.02	A	3.09	0.20	0.02	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.13 (continued)
Spring 2014 AIMS Differential Item Functioning
Reading CRT Grade 7

	Reference: Male N= 42321 Focal: Female N= 40745				Reference: Hispanic N= 46775 Focal: Non Hispanic N= 36351				Reference: White N= 66962 Focal: Africa American N= 4757				Reference: White N= 66962 Focal: Native American N= 5774				Reference: White N= 66962 Focal: Asian N= 2492				Reference: White N= 66962 Focal: Hawaii N= 312				Reference: White N= 66962 Focal: Multiple Indicator N= 21			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	0.24	-0.02	0.00	A	48.14	-0.32	-0.02	A	20.97	0.43	0.03	A	15.55	-0.31	-0.02	A	16.26	-0.62	-0.02	A	0.21	0.17	0.01	A	0.09	0.05	0.00	A
32	252.40	0.68	0.04	A	12.02	0.15	0.01	A	0.11	-0.03	0.00	A	4.73	0.17	0.01	A	11.88	0.52	0.02	A	6.06	0.94	0.05	A	0.76	-0.12	-0.01	A
33	0.81	0.04	0.00	A	6.17	0.10	0.01	A	4.59	-0.17	-0.01	A	12.67	-0.26	-0.02	A	2.90	0.23	0.01	A	0.16	0.13	0.01	A	0.02	-0.02	0.00	A
34	163.08	0.47	0.04	A	108.84	0.39	0.03	A	6.55	0.20	0.02	A	7.18	0.19	0.02	A	0.01	-0.01	0.00	A	1.88	-0.39	-0.03	A	0.25	0.06	0.00	A
35	0.17	0.01	0.00	A	33.32	-0.21	-0.02	A	42.88	0.50	0.05	A	23.04	-0.33	-0.03	A	3.92	0.22	0.02	A	0.38	-0.18	-0.02	A	0.09	0.03	0.00	A
36	130.83	-0.43	-0.04	A	1.93	-0.05	0.00	A	24.59	-0.39	-0.03	A	72.31	-0.60	-0.05	A	6.09	0.30	0.02	A	0.00	0.02	0.00	A	2.10	-0.17	-0.01	A
37	445.33	0.80	0.06	A	85.59	0.36	0.03	A	0.75	0.07	0.01	A	0.03	-0.01	0.00	A	8.79	0.37	0.02	A	1.45	0.36	0.03	A	4.46	-0.25	-0.02	A
38	122.56	0.45	0.03	A	27.39	0.21	0.02	A	43.88	-0.53	-0.04	A	5.29	0.18	0.01	A	8.37	0.38	0.02	A	3.46	0.64	0.04	A	0.01	0.02	0.00	A
39	246.16	0.56	0.05	A	47.25	0.25	0.02	A	1.71	0.10	0.01	A	6.51	0.18	0.02	A	0.02	0.02	0.00	A	1.51	0.37	0.03	A	0.03	0.02	0.00	A
40	0.33	-0.02	0.00	A	90.65	-0.34	-0.03	A	1.16	0.08	0.01	A	3.66	-0.13	-0.01	A	49.35	-0.72	-0.07	A	3.58	-0.54	-0.05	A	0.15	-0.04	0.00	A
41	75.00	0.32	0.03	A	16.47	-0.16	-0.01	A	5.53	0.19	0.01	A	0.46	0.05	0.00	A	0.25	0.05	0.00	A	0.02	0.04	0.00	A	0.02	0.02	0.00	A
42	219.76	0.53	0.05	A	4.05	-0.07	-0.01	A	1.13	-0.08	-0.01	A	0.88	0.06	0.01	A	2.29	0.17	0.01	A	0.04	0.06	0.01	A	1.75	-0.15	-0.01	A
43	0.74	0.03	0.00	A	113.22	-0.37	-0.04	A	25.22	-0.37	-0.04	A	1.98	-0.09	-0.01	A	17.70	-0.42	-0.04	A	0.05	-0.06	-0.01	A	0.02	-0.02	0.00	A
44	2.23	-0.06	-0.01	A	0.54	-0.03	0.00	A	2.99	0.14	0.01	A	0.00	0.00	0.00	A	2.51	0.20	0.01	A	0.54	0.23	0.02	A	1.09	0.13	0.01	A
45	0.96	-0.03	0.00	A	14.52	-0.13	-0.01	A	0.57	-0.06	-0.01	A	15.18	-0.26	-0.03	A	0.49	-0.07	-0.01	A	2.38	-0.43	-0.04	A	0.58	-0.08	-0.01	A
46	59.95	0.29	0.02	A	49.47	-0.27	-0.02	A	0.58	0.06	0.01	A	0.00	0.00	0.00	A	1.05	0.12	0.01	A	3.03	0.53	0.04	A	3.05	0.21	0.02	A
47	56.94	-0.27	-0.03	A	5.80	-0.09	-0.01	A	0.24	0.04	0.00	A	20.41	0.32	0.03	A	4.16	0.22	0.02	A	4.68	0.63	0.06	A	0.98	0.11	0.01	A
48	2.29	-0.05	0.00	A	21.23	-0.17	-0.01	A	16.01	-0.30	-0.03	A	0.93	0.07	0.01	A	22.33	-0.49	-0.04	A	0.62	-0.22	-0.02	A	1.15	0.12	0.01	A
49	79.94	0.45	0.02	A	53.40	-0.36	-0.02	A	1.55	-0.12	-0.01	A	0.00	0.00	0.00	A	4.52	0.41	0.01	A	0.04	-0.08	0.00	A	0.22	0.08	0.00	A
50	45.59	0.27	0.02	A	12.13	-0.14	-0.01	A	2.80	-0.14	-0.01	A	6.14	-0.18	-0.01	A	4.02	0.26	0.01	A	0.28	0.17	0.01	A	0.95	-0.12	-0.01	A
51	317.33	0.86	0.04	A	1.18	0.05	0.00	A	0.19	-0.04	0.00	A	3.98	-0.16	-0.01	A	3.67	0.34	0.01	A	0.94	-0.37	-0.02	A	0.54	0.12	0.01	A
52	141.84	0.60	0.02	A	35.64	-0.30	-0.02	A	0.08	-0.03	0.00	A	2.65	-0.14	-0.01	A	2.01	0.25	0.01	A	0.45	0.29	0.01	A	1.32	0.20	0.01	A
53	40.43	-0.24	-0.02	A	44.41	-0.25	-0.02	A	3.24	-0.14	-0.01	A	2.96	0.12	0.01	A	4.44	0.26	0.02	A	0.13	-0.11	-0.01	A	0.45	-0.08	-0.01	A
54	49.98	0.26	0.02	A	1.62	-0.05	0.00	A	1.19	0.09	0.01	A	0.00	0.00	0.00	A	0.01	0.01	0.00	A	0.01	-0.03	0.00	A	2.07	0.16	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.14
Spring 2014 AIMS Differential Item Functioning
Reading CRT Grade 8

	Reference: Male N= 41794 Focal: Female N= 40537				Reference: Hispanic N= 46920 Focal: Non Hispanic N= 35458				Reference: White N= 66327 Focal: Africa American N= 4919				Reference: White N= 66327 Focal: Native American N= 5755				Reference: White N= 66327 Focal: Asian N= 2428				Reference: White N= 66327 Focal: Hawaii N= 254				Reference: White N= 66327 Focal: Multiple Indicator N= 20			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	1475.08	-1.36	-0.13	B<	42.74	-0.23	-0.02	A	129.05	-0.82	-0.08	A	152.06	-0.85	-0.08	A	71.39	-0.87	-0.08	A	5.38	-0.71	-0.07	A	4.49	-0.23	-0.02	A
2	48.54	0.29	0.02	A	5.64	0.10	0.01	A	10.17	0.27	0.02	A	5.18	0.17	0.01	A	4.07	0.28	0.02	A	1.42	-0.42	-0.03	A	1.11	0.14	0.01	A
3	0.00	0.00	0.00	A	9.12	0.15	0.01	A	2.46	0.15	0.01	A	10.50	0.29	0.02	A	3.37	0.33	0.01	A	1.50	-0.50	-0.03	A	4.40	0.35	0.02	A
4	23.02	0.24	0.01	A	0.62	-0.04	0.00	A	6.44	-0.25	-0.01	A	13.59	-0.32	-0.02	A	24.92	-0.78	-0.03	A	1.12	-0.44	-0.02	A	0.41	0.11	0.00	A
5	80.52	0.56	0.02	A	37.67	0.38	0.01	A	0.44	0.08	0.00	A	4.27	-0.22	-0.01	A	22.44	-0.85	-0.02	A	0.02	-0.07	0.00	A	0.71	-0.16	0.00	A
6	31.64	-0.19	-0.02	A	82.99	-0.32	-0.03	A	1.87	-0.10	-0.01	A	0.55	-0.05	0.00	A	5.27	-0.24	-0.02	A	2.26	-0.46	-0.05	A	0.74	0.09	0.01	A
7	1.14	-0.05	0.00	A	21.36	0.20	0.01	A	0.37	0.05	0.00	A	22.68	0.38	0.03	A	32.05	0.93	0.04	A	2.63	0.63	0.04	A	0.00	0.00	0.00	A
8	42.66	0.24	0.02	A	0.25	0.02	0.00	A	0.00	0.00	0.00	A	1.35	-0.08	-0.01	A	1.50	-0.15	-0.01	A	2.91	0.58	0.05	A	0.03	-0.02	0.00	A
9	141.34	-0.43	-0.04	A	577.96	-0.89	-0.07	A	0.36	-0.05	0.00	A	31.27	-0.42	-0.03	A	17.62	-0.43	-0.04	A	0.02	-0.05	0.00	A	0.47	0.08	0.01	A
10	7.94	-0.10	-0.01	A	41.95	0.24	0.02	A	1.15	0.08	0.01	A	3.25	0.12	0.01	A	15.42	0.47	0.04	A	1.40	0.38	0.03	A	0.58	0.09	0.01	A
11	44.65	0.47	0.01	A	3.20	-0.12	0.00	A	4.26	-0.26	-0.01	A	10.91	0.38	0.01	A	0.11	0.09	0.00	A	0.18	-0.26	-0.01	A	0.14	-0.08	0.00	A
12	24.88	0.19	0.02	A	12.59	-0.14	-0.01	A	0.24	0.04	0.00	A	2.31	-0.12	-0.01	A	8.97	0.32	0.03	A	0.00	0.00	0.00	A	1.02	-0.12	-0.01	A
13	9.71	-0.11	-0.01	A	42.61	-0.23	-0.02	A	13.16	0.26	0.03	A	1.41	0.08	0.01	A	16.74	-0.41	-0.04	A	0.13	-0.11	-0.01	A	0.15	0.04	0.00	A
14	223.99	-0.58	-0.05	A	18.95	-0.17	-0.01	A	6.57	0.21	0.02	A	1.44	-0.10	-0.01	A	14.97	0.42	0.04	A	0.56	-0.27	-0.02	A	0.01	-0.01	0.00	A
15	100.89	-0.37	-0.03	A	22.08	-0.18	-0.01	A	0.55	0.06	0.00	A	1.95	-0.10	-0.01	A	1.80	0.14	0.01	A	0.66	0.27	0.02	A	0.59	-0.09	-0.01	A
16	108.58	0.43	0.03	A	12.16	-0.14	-0.01	A	7.14	-0.22	-0.02	A	71.61	-0.62	-0.05	A	4.90	0.32	0.02	A	0.45	-0.24	-0.02	A	0.77	-0.11	-0.01	A
17	122.38	0.49	0.03	A	150.68	0.55	0.04	A	53.48	-0.62	-0.04	A	1.79	-0.11	-0.01	A	0.96	-0.15	-0.01	A	6.95	-0.97	-0.06	A	1.12	-0.15	-0.01	A
18	279.52	0.58	0.06	A	5.20	-0.08	-0.01	A	6.39	0.19	0.02	A	3.25	-0.12	-0.01	A	3.07	-0.18	-0.02	A	7.83	-0.86	-0.08	A	2.94	-0.19	-0.02	A
19	122.75	0.48	0.03	A	14.05	-0.16	-0.01	A	15.32	0.35	0.02	A	2.65	-0.12	-0.01	A	2.47	0.24	0.01	A	0.51	-0.26	-0.02	A	5.22	0.33	0.02	A
20	191.65	0.81	0.02	A	18.99	-0.25	-0.01	A	3.29	-0.19	-0.01	A	0.55	0.07	0.00	A	0.02	-0.03	0.00	A	1.28	0.63	0.02	A	2.54	0.31	0.01	A
21	358.89	0.79	0.05	A	30.95	0.23	0.02	A	0.34	-0.05	0.00	A	4.75	0.17	0.01	A	13.72	0.56	0.03	A	0.80	0.38	0.02	A	3.46	-0.25	-0.02	A
22	119.10	0.41	0.03	A	0.07	-0.01	0.00	A	6.28	0.19	0.02	A	1.59	0.09	0.01	A	21.91	0.58	0.04	A	1.55	-0.42	-0.04	A	1.16	0.13	0.01	A
23	136.66	0.46	0.03	A	16.56	-0.16	-0.01	A	2.50	-0.13	-0.01	A	3.27	-0.13	-0.01	A	29.64	0.76	0.04	A	1.02	-0.38	-0.03	A	1.19	-0.14	-0.01	A
24	14.71	-0.16	-0.01	A	8.38	0.12	0.01	A	14.07	-0.31	-0.02	A	1.34	-0.09	-0.01	A	1.53	0.18	0.01	A	0.08	-0.10	-0.01	A	2.86	0.24	0.01	A
25	36.41	0.23	0.02	A	90.60	-0.37	-0.03	A	0.46	-0.05	0.00	A	38.54	-0.43	-0.04	A	0.37	0.07	0.01	A	3.13	-0.57	-0.05	A	2.09	0.18	0.01	A
26	0.66	0.03	0.00	A	112.26	0.41	0.03	A	34.78	0.47	0.04	A	3.63	-0.14	-0.01	A	20.49	0.54	0.04	A	0.84	0.31	0.03	A	1.42	0.14	0.01	A
27	561.04	-0.99	-0.06	A	263.20	-0.66	-0.05	A	5.31	-0.19	-0.01	A	109.08	-0.78	-0.06	A	15.33	-0.52	-0.03	A	1.29	-0.43	-0.03	A	5.91	0.32	0.02	A
28	116.52	0.38	0.03	A	6.90	0.10	0.01	A	27.58	-0.38	-0.04	A	0.64	0.06	0.01	A	0.81	0.10	0.01	A	2.39	0.51	0.05	A	0.65	0.09	0.01	A
29	58.06	0.27	0.02	A	23.69	0.18	0.02	A	0.63	0.06	0.01	A	2.03	0.10	0.01	A	2.25	0.16	0.01	A	0.77	0.28	0.03	A	0.64	0.09	0.01	A
30	179.24	0.63	0.03	A	14.17	0.18	0.01	A	15.37	-0.35	-0.02	A	2.71	0.14	0.01	A	2.76	0.28	0.01	A	6.80	1.23	0.06	B>	0.20	-0.07	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.14 (continued)
Spring 2014 AIMS Differential Item Functioning
Reading CRT Grade 8

	Reference: Male N= 41794				Reference: Hispanic N= 46920				Reference: White N= 66327				Reference: White N= 66327				Reference: White N= 66327				Reference: White N= 66327				Reference: White N= 66327			
	Focal: Female N= 40537				Focal: Non Hispanic N= 35458				Focal: Africa American N= 4919				Focal: Native American N= 5755				Focal: Asian N= 2428				Focal: Hawaii N= 254				Focal: Multiple Indicator N= 20			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	58.41	0.27	0.03	A	100.76	-0.36	-0.03	A	17.96	-0.31	-0.03	A	16.41	-0.28	-0.03	A	5.64	-0.26	-0.02	A	1.15	-0.35	-0.03	A	0.06	-0.03	0.00	A
32	556.95	0.80	0.08	A	73.64	0.30	0.03	A	8.62	0.21	0.02	A	10.02	0.22	0.02	A	0.87	-0.09	-0.01	A	0.55	0.23	0.02	A	1.09	-0.11	-0.01	A
33	312.22	0.68	0.05	A	1.07	0.04	0.00	A	13.39	0.29	0.02	A	11.40	0.25	0.02	A	3.41	0.24	0.02	A	0.01	-0.02	0.00	A	0.04	0.02	0.00	A
34	0.28	0.02	0.00	A	54.49	-0.29	-0.02	A	0.16	-0.03	0.00	A	92.71	-0.69	-0.06	A	0.25	0.07	0.00	A	0.00	0.00	0.00	A	1.08	-0.13	-0.01	A
35	19.10	0.15	0.01	A	129.42	0.41	0.04	A	9.29	-0.22	-0.02	A	17.86	0.29	0.03	A	5.33	0.25	0.02	A	0.07	0.08	0.01	A	0.77	-0.10	-0.01	A
36	316.43	-0.72	-0.05	A	177.65	-0.53	-0.04	A	29.88	-0.44	-0.03	A	3.46	-0.14	-0.01	A	9.69	0.42	0.02	A	0.47	-0.24	-0.02	A	1.49	0.16	0.01	A
37	1800.60	1.55	0.14	C>	984.75	-1.16	-0.10	B<	13.79	0.28	0.03	A	6.06	-0.17	-0.01	A	2.70	0.19	0.02	A	6.44	0.82	0.07	A	0.74	0.10	0.01	A
38	12.00	0.12	0.01	A	6.73	0.10	0.01	A	7.52	-0.21	-0.02	A	0.05	0.02	0.00	A	4.31	-0.22	-0.02	A	0.00	0.01	0.00	A	0.23	-0.06	0.00	A
39	75.56	0.33	0.03	A	0.28	-0.02	0.00	A	18.46	-0.34	-0.03	A	21.86	0.33	0.03	A	11.91	-0.41	-0.03	A	0.42	-0.22	-0.02	A	0.01	-0.01	0.00	A
40	138.79	0.57	0.03	A	322.79	0.88	0.05	A	19.34	-0.41	-0.02	A	9.36	0.26	0.02	A	0.15	0.07	0.00	A	1.60	-0.53	-0.03	A	4.58	-0.33	-0.02	A
41	9.67	0.14	0.01	A	16.11	-0.18	-0.01	A	12.99	0.33	0.02	A	4.66	-0.17	-0.01	A	0.48	-0.11	0.00	A	0.11	-0.13	-0.01	A	1.60	0.18	0.01	A
42	76.19	0.35	0.02	A	13.54	-0.15	-0.01	A	2.21	0.12	0.01	A	3.18	-0.13	-0.01	A	2.51	0.22	0.01	A	0.10	-0.11	-0.01	A	0.86	0.12	0.01	A
43	40.59	0.24	0.02	A	64.19	0.31	0.03	A	1.16	-0.08	-0.01	A	0.67	0.06	0.00	A	5.21	0.27	0.02	A	0.03	0.05	0.00	A	1.46	0.14	0.01	A
44	11.96	0.13	0.01	A	5.60	0.09	0.01	A	1.09	0.08	0.01	A	0.14	0.03	0.00	A	13.06	0.46	0.03	A	0.76	0.29	0.02	A	4.61	0.26	0.02	A
45	97.80	0.46	0.02	A	31.84	-0.26	-0.01	A	5.63	-0.21	-0.01	A	19.60	-0.35	-0.03	A	5.02	0.38	0.01	A	0.05	-0.09	0.00	A	1.87	0.21	0.01	A
46	1.31	-0.05	-0.01	A	18.30	-0.17	-0.01	A	56.90	-0.59	-0.05	A	6.37	0.19	0.02	A	13.39	0.52	0.03	A	0.47	-0.25	-0.02	A	1.59	-0.16	-0.01	A
47	107.19	0.56	0.02	A	36.06	0.32	0.02	A	0.12	-0.04	0.00	A	1.36	0.11	0.01	A	0.05	0.04	0.00	A	0.19	-0.20	-0.01	A	0.06	0.04	0.00	A
48	288.00	-0.65	-0.05	A	109.82	-0.40	-0.03	A	4.69	-0.17	-0.01	A	43.80	-0.49	-0.04	A	8.06	0.34	0.02	A	0.03	0.05	0.00	A	0.12	-0.04	0.00	A
49	234.28	-0.64	-0.04	A	236.26	-0.63	-0.05	A	34.47	-0.46	-0.04	A	42.22	-0.47	-0.04	A	0.10	-0.04	0.00	A	0.14	-0.14	-0.01	A	1.91	0.19	0.01	A
50	717.45	-0.97	-0.09	A	6.60	0.09	0.01	A	11.85	-0.26	-0.02	A	12.21	0.25	0.02	A	0.83	-0.10	-0.01	A	1.03	-0.31	-0.03	A	2.09	-0.17	-0.01	A
51	0.00	0.00	0.00	A	10.47	0.13	0.01	A	0.37	0.05	0.00	A	11.96	0.25	0.02	A	3.56	-0.23	-0.02	A	1.34	0.40	0.03	A	3.86	0.25	0.02	A
52	593.30	-0.89	-0.08	A	8.18	-0.11	-0.01	A	2.19	0.11	0.01	A	5.01	-0.16	-0.01	A	23.07	0.56	0.04	A	1.07	0.33	0.03	A	1.74	0.15	0.01	A
53	64.44	0.32	0.02	A	9.88	0.13	0.01	A	7.48	-0.21	-0.02	A	0.01	-0.01	0.00	A	4.12	0.27	0.02	A	0.57	0.27	0.02	A	0.01	-0.01	0.00	A
54	6.30	-0.09	-0.01	A	74.27	0.31	0.03	A	10.43	-0.24	-0.02	A	3.52	0.13	0.01	A	0.00	-0.01	0.00	A	0.61	0.25	0.02	A	0.29	0.06	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.15
Spring 2014 AIMS Differential Item Functioning
Reading CRT High School

	Reference: Male N= 39139 Focal: Female N= 38146				Reference: Hispanic N= 44911 Focal: Non Hispanic N= 32458				Reference: White N= 62036 Focal: Africa American N= 4644				Reference: White N= 62036 Focal: Native American N= 4557				Reference: White N= 62036 Focal: Asian N= 2361				Reference: White N= 62036 Focal: Hawaii N= 279				Reference: White N= 62036 Focal: Multiple Indicator N= 21			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	40.39	-0.24	-0.02	A	3.95	-0.08	-0.01	A	0.51	-0.06	-0.01	A	0.44	0.05	0.00	A	10.93	0.36	0.03	A	0.00	0.02	0.00	A	1.06	-0.12	-0.01	A
2	505.02	-0.89	-0.07	A	208.40	-0.57	-0.05	A	37.44	-0.49	-0.04	A	31.81	-0.46	-0.04	A	2.20	-0.18	-0.01	A	1.78	-0.41	-0.04	A	1.09	-0.12	-0.01	A
3	96.04	0.37	0.03	A	2.16	0.06	0.01	A	3.05	-0.14	-0.01	A	1.04	0.08	0.01	A	0.46	-0.08	-0.01	A	1.60	-0.40	-0.03	A	0.03	0.02	0.00	A
4	306.05	-0.67	-0.06	A	36.44	-0.23	-0.02	A	7.57	-0.22	-0.02	A	0.80	-0.07	-0.01	A	0.83	0.11	0.01	A	0.81	0.27	0.02	A	1.35	-0.13	-0.01	A
5	225.23	-0.60	-0.05	A	0.04	-0.01	0.00	A	33.07	-0.48	-0.04	A	36.47	-0.52	-0.04	A	3.54	0.22	0.02	A	0.70	-0.28	-0.02	A	13.02	-0.44	-0.03	A
6	57.01	-0.28	-0.03	A	6.39	0.10	0.01	A	6.70	0.20	0.02	A	1.99	0.11	0.01	A	0.16	0.04	0.00	A	0.28	0.16	0.02	A	0.61	0.09	0.01	A
7	258.72	-0.61	-0.05	A	67.19	-0.32	-0.02	A	3.16	-0.14	-0.01	A	5.99	-0.21	-0.02	A	3.14	0.19	0.02	A	0.00	-0.01	0.00	A	4.34	0.24	0.02	A
8	131.44	0.44	0.04	A	24.64	0.19	0.02	A	2.04	0.11	0.01	A	0.69	0.07	0.01	A	6.19	0.31	0.02	A	1.03	0.33	0.03	A	0.06	-0.03	0.00	A
9	21.24	-0.19	-0.01	A	52.95	-0.31	-0.02	A	27.65	0.45	0.03	A	3.03	-0.14	-0.01	A	9.84	0.45	0.02	A	5.34	0.80	0.06	A	5.47	0.31	0.02	A
10	20.20	0.24	0.01	A	0.31	-0.03	0.00	A	0.10	0.03	0.00	A	10.15	-0.31	-0.02	A	1.67	-0.24	-0.01	A	0.39	-0.26	-0.01	A	0.97	-0.16	-0.01	A
11	70.98	0.36	0.02	A	2.25	0.07	0.01	A	2.37	-0.13	-0.01	A	1.79	0.11	0.01	A	2.47	0.23	0.01	A	0.09	0.10	0.01	A	1.17	0.14	0.01	A
12	4.51	-0.08	-0.01	A	11.61	-0.14	-0.01	A	2.36	-0.12	-0.01	A	0.01	0.01	0.00	A	1.62	0.16	0.01	A	0.13	-0.12	-0.01	A	2.95	0.21	0.02	A
13	16.00	0.15	0.01	A	96.11	0.37	0.03	A	14.84	-0.29	-0.03	A	1.01	-0.08	-0.01	A	11.14	0.39	0.03	A	1.27	0.33	0.03	A	8.21	-0.32	-0.03	A
14	41.83	0.24	0.02	A	2.04	0.06	0.00	A	6.85	0.21	0.02	A	7.56	-0.22	-0.02	A	40.60	0.77	0.06	A	0.01	-0.03	0.00	A	0.99	0.11	0.01	A
15	0.31	0.03	0.00	A	41.32	-0.32	-0.02	A	2.59	-0.15	-0.01	A	0.01	0.01	0.00	A	6.76	-0.42	-0.02	A	0.50	-0.26	-0.02	A	0.18	0.07	0.00	A
16	108.89	-0.45	-0.03	A	2.14	0.06	0.01	A	7.11	-0.22	-0.02	A	1.15	-0.09	-0.01	A	2.98	0.25	0.01	A	0.07	0.09	0.01	A	0.06	0.03	0.00	A
17	0.15	0.02	0.00	A	2.20	0.07	0.00	A	2.41	-0.14	-0.01	A	14.00	-0.32	-0.03	A	1.39	-0.18	-0.01	A	2.52	-0.53	-0.04	A	0.05	-0.03	0.00	A
18	74.91	0.52	0.02	A	26.73	0.31	0.01	A	10.95	-0.36	-0.02	A	1.62	-0.13	-0.01	A	1.88	0.30	0.01	A	2.03	0.68	0.03	A	7.12	-0.49	-0.02	A
19	224.23	-0.56	-0.05	A	50.62	0.28	0.02	A	6.21	0.19	0.02	A	3.24	0.14	0.01	A	0.24	-0.06	0.00	A	0.48	0.22	0.02	A	0.03	-0.02	0.00	A
20	21.06	0.28	0.01	A	6.42	0.15	0.01	A	7.67	-0.30	-0.01	A	0.00	0.01	0.00	A	0.46	0.15	0.00	A	0.51	0.35	0.01	A	1.85	-0.25	-0.01	A
21	0.36	-0.02	0.00	A	45.54	-0.28	-0.02	A	25.92	0.42	0.03	A	8.52	0.25	0.02	A	17.37	0.45	0.04	A	0.04	-0.07	-0.01	A	12.29	0.40	0.03	A
22	3.38	-0.07	-0.01	A	2.15	-0.06	0.00	A	2.31	0.13	0.01	A	0.00	0.00	0.00	A	0.11	0.04	0.00	A	0.54	-0.25	-0.02	A	0.23	0.06	0.00	A
23	4.77	0.09	0.01	A	24.70	-0.20	-0.02	A	0.18	0.03	0.00	A	0.00	0.01	0.00	A	2.20	0.19	0.01	A	0.85	-0.29	-0.02	A	0.07	-0.03	0.00	A
24	105.76	0.38	0.03	A	0.72	0.03	0.00	A	3.51	0.15	0.01	A	3.38	-0.15	-0.01	A	6.69	-0.28	-0.02	A	0.00	0.01	0.00	A	0.00	0.00	0.00	A
25	1.15	0.04	0.00	A	27.87	-0.20	-0.02	A	11.52	-0.26	-0.02	A	19.60	-0.35	-0.03	A	20.47	-0.47	-0.04	A	0.02	0.04	0.00	A	0.17	-0.04	0.00	A
26	5.35	0.08	0.01	A	0.00	0.00	0.00	A	8.40	0.23	0.02	A	0.84	0.07	0.01	A	22.89	0.50	0.05	A	0.46	0.20	0.02	A	2.22	0.17	0.02	A
27	35.30	0.21	0.02	A	27.78	-0.19	-0.02	A	1.08	-0.08	-0.01	A	0.92	0.07	0.01	A	1.08	-0.11	-0.01	A	5.40	-0.67	-0.07	A	4.22	-0.22	-0.02	A
28	88.75	-0.39	-0.03	A	168.76	-0.54	-0.04	A	1.00	-0.08	-0.01	A	34.08	-0.47	-0.04	A	5.15	-0.30	-0.02	A	0.23	0.16	0.01	A	0.77	-0.11	-0.01	A
29	115.13	-0.47	-0.03	A	228.23	-0.66	-0.05	A	5.08	-0.19	-0.01	A	1.62	-0.11	-0.01	A	0.07	-0.04	0.00	A	4.78	0.79	0.05	A	0.65	0.11	0.01	A
30	8.76	-0.12	-0.01	A	16.29	0.17	0.01	A	48.19	-0.57	-0.05	A	13.09	0.30	0.03	A	0.08	-0.04	0.00	A	0.00	0.02	0.00	A	2.53	-0.20	-0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.15 (continued)
Spring 2014 AIMS Differential Item Functioning
Reading CRT High School

	Reference: Male N= 39139 Focal: Female N= 38146				Reference: Hispanic N= 44911 Focal: Non Hispanic N= 32458				Reference: White N= 62036 Focal: Africa American N= 4644				Reference: White N= 62036 Focal: Native American N= 4557				Reference: White N= 62036 Focal: Asian N= 2361				Reference: White N= 62036 Focal: Hawaii N= 279				Reference: White N= 62036 Focal: Multiple Indicator N= 21			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	103.82	0.50	0.02	A	5.95	0.12	0.01	A	3.45	-0.18	-0.01	A	5.24	-0.21	-0.01	A	0.08	0.05	0.00	A	10.23	-1.14	-0.07	B<	0.05	0.04	0.00	A
32	7.10	0.11	0.01	A	11.75	0.15	0.01	A	0.01	0.01	0.00	A	18.32	0.36	0.03	A	46.47	1.04	0.05	B>	0.00	0.02	0.00	A	1.12	0.14	0.01	A
33	18.83	0.16	0.02	A	6.87	-0.10	0.00	A	1.66	0.10	0.01	A	12.74	-0.30	-0.02	A	6.09	0.26	0.02	A	0.39	-0.19	-0.02	A	7.06	0.30	0.03	A
34	20.19	-0.17	-0.02	A	26.28	-0.20	-0.02	A	8.88	-0.23	-0.02	A	34.13	0.45	0.04	A	12.72	0.40	0.03	A	0.04	-0.06	-0.01	A	0.05	-0.02	0.00	A
35	36.59	0.23	0.02	A	26.99	-0.20	-0.02	A	7.66	0.22	0.02	A	4.90	-0.17	-0.02	A	23.75	0.59	0.04	A	1.56	0.38	0.03	A	0.02	0.02	0.00	A
36	803.33	1.07	0.09	B>	37.91	0.24	0.02	A	4.95	0.17	0.02	A	5.29	-0.18	-0.02	A	6.72	0.31	0.02	A	0.47	-0.21	-0.02	A	0.06	0.03	0.00	A
37	386.60	0.88	0.05	A	0.02	-0.01	0.00	A	1.77	0.12	0.01	A	2.29	0.13	0.01	A	4.70	0.34	0.02	A	0.00	0.00	0.00	A	0.02	-0.02	0.00	A
38	75.71	0.31	0.03	A	135.16	0.44	0.04	A	19.01	-0.35	-0.03	A	0.39	0.05	0.00	A	9.31	0.32	0.03	A	0.04	-0.06	-0.01	A	1.99	-0.16	-0.01	A
39	352.85	0.79	0.05	A	39.60	0.27	0.02	A	2.28	-0.13	-0.01	A	9.49	0.26	0.02	A	5.03	0.30	0.02	A	4.32	0.78	0.05	A	0.07	0.03	0.00	A
40	36.37	0.22	0.02	A	21.57	-0.18	-0.02	A	0.51	-0.06	-0.01	A	0.12	-0.03	0.00	A	33.90	-0.62	-0.05	A	0.04	-0.06	-0.01	A	1.10	-0.12	-0.01	A
41	55.76	0.29	0.02	A	3.50	0.07	0.01	A	26.25	-0.40	-0.04	A	2.38	0.12	0.01	A	3.88	0.25	0.02	A	0.06	-0.07	-0.01	A	1.93	-0.16	-0.01	A
42	133.16	-0.46	-0.04	A	334.85	-0.73	-0.06	A	1.76	0.11	0.01	A	51.69	-0.61	-0.05	A	12.26	0.42	0.03	A	0.07	0.08	0.01	A	2.07	0.17	0.01	A
43	400.18	0.95	0.05	A	32.84	0.27	0.02	A	2.91	-0.15	-0.01	A	6.35	0.22	0.02	A	8.22	0.47	0.02	A	1.47	-0.42	-0.03	A	2.11	-0.21	-0.01	A
44	129.73	-0.44	-0.04	A	38.90	-0.24	-0.02	A	0.30	0.04	0.00	A	8.46	-0.23	-0.02	A	9.13	0.37	0.03	A	0.28	0.17	0.01	A	0.33	-0.07	-0.01	A
45	9.39	0.11	0.01	A	0.88	0.04	0.00	A	9.64	0.24	0.02	A	0.07	0.02	0.00	A	2.95	0.19	0.02	A	0.59	-0.24	-0.02	A	0.67	0.09	0.01	A
46	26.40	-0.19	-0.02	A	195.84	-0.53	-0.04	A	4.51	-0.16	-0.01	A	37.94	-0.49	-0.04	A	6.38	-0.27	-0.02	A	1.14	-0.33	-0.03	A	2.09	0.16	0.01	A
47	64.65	0.30	0.03	A	19.14	-0.17	-0.01	A	4.85	0.18	0.02	A	0.06	0.02	0.00	A	3.07	0.19	0.02	A	0.09	0.09	0.01	A	0.01	-0.01	0.00	A
48	1.18	0.05	0.00	A	22.23	0.21	0.02	A	18.01	-0.36	-0.03	A	0.02	0.01	0.00	A	21.51	-0.56	-0.04	A	0.95	-0.32	-0.02	A	2.82	-0.21	-0.01	A
49	356.76	1.09	0.04	B>	1.66	0.07	0.00	A	1.28	-0.12	-0.01	A	1.62	0.13	0.01	A	0.14	-0.08	0.00	A	2.21	0.70	0.03	A	0.14	-0.07	0.00	A
50	65.81	0.30	0.03	A	20.13	-0.17	-0.02	A	0.01	-0.01	0.00	A	9.92	-0.24	-0.02	A	4.95	0.26	0.02	A	0.00	0.00	0.00	A	0.29	-0.06	-0.01	A
51	322.32	0.80	0.05	A	8.76	0.13	0.01	A	13.33	-0.31	-0.02	A	12.65	-0.30	-0.02	A	10.92	0.52	0.02	A	5.24	-0.76	-0.06	A	1.32	-0.16	-0.01	A
52	89.76	-0.37	-0.03	A	44.70	-0.27	-0.02	A	0.28	0.04	0.00	A	27.64	-0.48	-0.03	A	3.19	0.20	0.02	A	1.90	-0.48	-0.04	A	0.53	-0.09	-0.01	A
53	3.05	0.07	0.00	A	70.06	0.36	0.03	A	37.44	-0.51	-0.04	A	29.49	-0.44	-0.04	A	1.58	-0.17	-0.01	A	0.40	-0.21	-0.02	A	4.84	-0.29	-0.02	A
54	1186.69	1.31	0.11	B>	88.66	-0.36	-0.03	A	0.98	-0.08	-0.01	A	3.51	-0.14	-0.01	A	2.81	-0.20	-0.01	A	2.90	-0.52	-0.05	A	1.73	0.15	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.16
Spring 2014 AIMS Differential Item Functioning
Science CRT Grade 4

	Reference: Male N= 42796				Reference: Hispanic N= 46613				Reference: White N= 66289				Reference: White N= 66289				Reference: White N= 66289				Reference: White N= 66289				Reference: White N= 66289			
	Focal: Female N= 40543				Focal: Non Hispanic N= 36794				Focal: Africa American N= 4850				Focal: Native American N= 6070				Focal: Asian N= 2572				Focal: Hawaii N= 309				Focal: Multiple Indicator N= 25			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	11.86	-0.17	-0.01	A	263.56	-0.84	-0.04	A	1.88	0.14	0.01	A	0.02	0.01	0.00	A	0.00	-0.01	0.00	A	1.16	0.47	0.02	A	24.76	0.84	0.03	A
2	145.93	0.48	0.03	A	119.00	0.45	0.04	A	14.67	-0.31	-0.02	A	3.35	0.14	0.01	A	0.11	0.04	0.00	A	1.34	-0.36	-0.03	A	0.08	0.03	0.00	A
3	154.44	0.48	0.04	A	0.13	-0.01	0.00	A	9.72	-0.24	-0.02	A	5.84	-0.17	-0.02	A	0.05	-0.03	0.00	A	0.00	-0.02	0.00	A	0.28	-0.06	0.00	A
4	32.56	0.26	0.01	A	0.53	-0.03	0.00	A	0.58	0.07	0.00	A	0.77	-0.07	0.00	A	5.97	0.38	0.02	A	0.00	0.02	0.00	A	0.08	0.04	0.00	A
5	29.98	-0.22	-0.02	A	40.49	-0.28	-0.01	A	3.11	-0.16	-0.01	A	2.69	-0.14	-0.01	A	14.88	0.42	0.03	A	0.03	-0.05	0.00	A	5.32	-0.28	-0.02	A
6	7.50	0.09	0.01	A	25.04	-0.18	-0.02	A	6.22	-0.19	-0.02	A	4.37	-0.14	-0.01	A	2.72	-0.17	-0.02	A	5.52	-0.67	-0.06	A	1.66	0.13	0.01	A
7	155.10	0.45	0.04	A	6.38	0.10	0.01	A	2.46	0.12	0.01	A	16.75	-0.28	-0.03	A	8.70	0.35	0.03	A	0.53	-0.21	-0.02	A	0.94	0.10	0.01	A
8	122.37	-0.40	-0.04	A	45.33	-0.25	-0.02	A	19.30	-0.33	-0.03	A	2.99	-0.12	-0.01	A	1.31	-0.13	-0.01	A	0.06	-0.07	-0.01	A	1.99	-0.15	-0.01	A
9	75.21	0.85	0.01	A	8.42	0.29	0.00	A	4.36	-0.37	-0.01	A	2.04	0.23	0.00	A	4.78	-0.68	-0.01	A	0.43	0.60	0.01	A	0.95	0.31	0.00	A
10	29.24	0.34	0.01	A	67.69	0.55	0.02	A	2.26	0.20	0.01	A	3.04	0.20	0.01	A	108.76	-1.64	-0.05	C<	0.19	-0.22	-0.01	A	0.89	0.18	0.00	A
11	35.26	-0.24	-0.02	A	2.54	0.07	0.00	A	0.07	-0.02	0.00	A	21.40	0.34	0.03	A	47.04	-0.85	-0.05	A	2.12	0.49	0.03	A	0.32	0.07	0.00	A
12	124.95	0.42	0.03	A	23.41	0.19	0.02	A	7.00	-0.21	-0.02	A	4.34	-0.14	-0.01	A	4.51	0.26	0.02	A	7.36	-0.79	-0.07	A	0.91	-0.11	-0.01	A
13	211.21	0.50	0.05	A	20.25	0.16	0.01	A	3.21	0.14	0.01	A	4.82	-0.15	-0.01	A	2.40	0.16	0.02	A	0.36	0.17	0.02	A	2.05	0.14	0.01	A
14	8.35	0.13	0.01	A	140.03	-0.54	-0.04	A	0.01	-0.01	0.00	A	24.08	0.38	0.03	A	0.79	0.14	0.01	A	1.73	0.49	0.03	A	9.63	0.43	0.02	A
15	149.81	-0.45	-0.04	A	163.58	-0.49	-0.03	A	0.00	0.00	0.00	A	0.03	-0.01	0.00	A	0.24	0.05	0.00	A	0.29	-0.16	-0.01	A	0.46	0.07	0.01	A
16	451.16	-0.82	-0.06	A	208.46	-0.56	-0.04	A	4.95	-0.18	-0.01	A	20.70	-0.33	-0.03	A	2.53	0.20	0.01	A	1.03	-0.31	-0.02	A	5.37	0.26	0.02	A
17	29.36	0.21	0.02	A	0.39	0.02	0.00	A	0.26	0.04	0.00	A	24.38	-0.34	-0.03	A	2.54	-0.19	-0.01	A	0.01	-0.02	0.00	A	2.71	-0.19	-0.01	A
18	0.40	0.02	0.00	A	9.39	-0.11	-0.01	A	0.17	-0.03	0.00	A	15.39	-0.26	-0.03	A	10.81	-0.34	-0.03	A	2.06	-0.40	-0.04	A	0.06	-0.03	0.00	A
19	93.67	-0.36	-0.03	A	49.70	-0.28	-0.02	A	40.43	-0.54	-0.04	A	1.04	-0.08	-0.01	A	0.18	0.04	0.00	A	2.31	-0.48	-0.04	A	8.16	-0.31	-0.03	A
20	52.76	0.26	0.02	A	22.31	-0.18	-0.01	A	1.44	-0.09	-0.01	A	4.51	-0.16	-0.01	A	0.59	-0.08	-0.01	A	2.33	0.44	0.04	A	0.09	-0.03	0.00	A
21	9.97	0.11	0.01	A	14.05	-0.14	-0.01	A	14.30	0.28	0.03	A	1.16	-0.07	-0.01	A	0.03	0.02	0.00	A	0.07	0.08	0.01	A	1.14	-0.11	-0.01	A
22	2.14	-0.05	0.00	A	22.42	-0.18	-0.01	A	0.79	-0.07	-0.01	A	9.93	-0.23	-0.02	A	0.08	-0.03	0.00	A	0.58	-0.23	-0.02	A	0.45	0.07	0.01	A
23	69.16	0.29	0.03	A	2.74	0.06	0.00	A	0.34	0.04	0.00	A	0.04	0.01	0.00	A	0.24	0.05	0.00	A	0.00	0.01	0.00	A	2.26	-0.15	-0.01	A
24	3.69	0.07	0.01	A	23.97	-0.18	-0.01	A	0.12	0.03	0.00	A	18.60	0.29	0.03	A	3.97	0.21	0.02	A	0.67	-0.23	-0.02	A	0.15	0.04	0.00	A
25	47.81	0.28	0.02	A	31.09	0.23	0.02	A	24.35	-0.40	-0.03	A	10.13	-0.23	-0.02	A	3.30	0.25	0.01	A	1.16	0.36	0.02	A	0.02	0.01	0.00	A
26	12.25	0.12	0.01	A	3.80	0.07	0.01	A	1.84	-0.10	-0.01	A	0.49	-0.05	0.00	A	6.16	0.27	0.02	A	0.32	0.16	0.02	A	2.16	-0.15	-0.01	A
27	446.64	-0.73	-0.07	A	55.13	-0.27	-0.02	A	4.67	-0.16	-0.02	A	0.06	0.02	0.00	A	2.20	0.15	0.01	A	0.01	-0.03	0.00	A	0.97	0.10	0.01	A
28	145.01	-0.44	-0.04	A	129.72	-0.44	-0.03	A	0.01	-0.01	0.00	A	20.96	-0.35	-0.03	A	4.21	0.22	0.02	A	0.84	-0.29	-0.02	A	2.67	0.17	0.01	A
29	26.62	-0.19	-0.02	A	21.45	0.18	0.01	A	0.96	0.08	0.01	A	0.06	-0.02	0.00	A	0.72	0.09	0.01	A	1.02	0.30	0.03	A	0.11	-0.04	0.00	A
30	0.56	-0.03	0.00	A	20.11	-0.16	-0.01	A	10.03	-0.24	-0.02	A	9.61	-0.22	-0.02	A	0.21	-0.05	0.00	A	0.04	0.06	0.01	A	3.47	-0.19	-0.02	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.16 (continued)
Spring 2014 AIMS Differential Item Functioning
Science CRT Grade 4

	Reference: Male N= 42796 Focal: Female N= 40543				Reference: Hispanic N= 46613 Focal: Non Hispanic N= 36794				Reference: White N= 66289 Focal: Africa American N= 4850				Reference: White N= 66289 Focal: Native American N= 6070				Reference: White N= 66289 Focal: Asian N= 2572				Reference: White N= 66289 Focal: Hawaii N= 309				Reference: White N= 66289 Focal: Multiple Indicator N= 25			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	171.04	-0.47	-0.04	A	149.80	-0.45	-0.04	A	17.29	-0.31	-0.03	A	3.89	0.13	0.01	A	1.02	-0.11	-0.01	A	2.33	-0.44	-0.04	A	0.07	-0.03	0.00	A
32	0.03	0.01	0.00	A	22.33	-0.19	-0.01	A	1.76	-0.11	-0.01	A	4.78	-0.16	-0.01	A	0.60	0.10	0.01	A	1.00	-0.33	-0.02	A	0.82	-0.11	-0.01	A
33	1238.91	-1.33	-0.11	B<	67.61	-0.32	-0.03	A	10.82	0.27	0.02	A	2.67	-0.12	-0.01	A	54.87	0.80	0.07	A	2.92	0.51	0.04	A	10.11	0.34	0.03	A
34	18.23	0.16	0.01	A	41.44	-0.25	-0.02	A	18.85	0.34	0.03	A	58.60	-0.54	-0.05	A	19.18	0.55	0.04	A	0.18	0.13	0.01	A	0.01	-0.01	0.00	A
35	0.91	0.04	0.00	A	10.34	-0.12	-0.01	A	26.60	-0.40	-0.03	A	16.93	-0.29	-0.03	A	0.20	0.05	0.00	A	2.48	-0.48	-0.04	A	2.28	0.17	0.01	A
36	42.15	0.23	0.02	A	10.29	-0.12	-0.01	A	2.14	-0.11	-0.01	A	6.44	0.17	0.02	A	7.56	-0.28	-0.03	A	4.50	0.63	0.06	A	0.00	0.00	0.00	A
37	48.08	0.25	0.02	A	3.81	0.07	0.01	A	5.45	-0.17	-0.02	A	1.31	0.08	0.01	A	7.04	0.29	0.02	A	0.21	0.13	0.01	A	0.22	-0.05	0.00	A
38	0.04	0.01	0.00	A	0.36	0.02	0.00	A	25.86	-0.39	-0.04	A	79.36	0.59	0.06	A	1.28	0.11	0.01	A	5.12	0.61	0.06	A	0.16	-0.04	0.00	A
39	97.87	0.52	0.02	A	17.53	0.23	0.01	A	1.85	-0.14	-0.01	A	39.44	-0.52	-0.03	A	0.01	-0.02	0.00	A	0.19	0.21	0.01	A	1.05	0.17	0.01	A
40	118.96	0.39	0.03	A	10.52	0.12	0.01	A	0.75	0.07	0.01	A	20.75	-0.33	-0.03	A	4.45	0.22	0.02	A	0.16	0.11	0.01	A	0.19	-0.05	0.00	A
41	294.92	0.62	0.05	A	0.82	0.03	0.00	A	0.41	-0.05	0.00	A	0.56	0.05	0.00	A	2.25	0.15	0.01	A	0.03	0.05	0.00	A	0.16	-0.04	0.00	A
42	0.86	-0.03	0.00	A	25.31	-0.19	-0.01	A	5.23	-0.18	-0.02	A	14.33	-0.26	-0.02	A	1.92	0.17	0.01	A	0.30	-0.17	-0.01	A	0.81	0.10	0.01	A
43	24.03	0.17	0.02	A	8.62	0.11	0.01	A	1.87	-0.10	-0.01	A	4.88	-0.15	-0.01	A	0.06	-0.03	0.00	A	0.10	-0.09	-0.01	A	0.40	-0.06	-0.01	A
44	380.54	-0.70	-0.06	A	113.80	-0.40	-0.03	A	21.03	-0.35	-0.03	A	23.70	-0.33	-0.03	A	9.33	0.34	0.03	A	6.53	-0.78	-0.07	A	1.45	0.13	0.01	A
45	73.68	-0.30	-0.03	A	49.74	-0.26	-0.02	A	0.18	0.03	0.00	A	6.51	-0.18	-0.02	A	22.47	0.50	0.04	A	2.16	0.42	0.04	A	1.12	0.11	0.01	A
46	80.60	-0.41	-0.02	A	82.48	-0.42	-0.03	A	0.45	0.06	0.00	A	2.34	-0.12	-0.01	A	0.28	-0.09	0.00	A	0.30	0.20	0.01	A	18.21	0.61	0.03	A
47	0.34	-0.02	0.00	A	56.90	-0.27	-0.02	A	10.44	-0.24	-0.02	A	1.22	0.08	0.01	A	37.89	0.65	0.06	A	7.34	0.78	0.07	A	0.97	0.10	0.01	A
48	115.50	-0.39	-0.03	A	64.61	-0.30	-0.03	A	0.28	0.04	0.00	A	1.34	-0.08	-0.01	A	1.81	0.15	0.01	A	3.45	-0.55	-0.05	A	0.01	-0.01	0.00	A
49	9.21	0.11	0.01	A	0.54	0.03	0.00	A	2.43	0.12	0.01	A	1.76	-0.09	-0.01	A	9.74	0.31	0.03	A	0.56	0.21	0.02	A	0.00	0.01	0.00	A
50	0.43	0.02	0.00	A	6.81	-0.10	-0.01	A	0.12	-0.03	0.00	A	1.98	0.10	0.01	A	12.02	0.40	0.03	A	0.05	-0.06	-0.01	A	0.01	-0.01	0.00	A
51	0.19	-0.01	0.00	A	6.51	-0.09	-0.01	A	2.57	0.12	0.01	A	0.49	-0.05	0.00	A	47.22	0.68	0.07	A	0.03	0.05	0.00	A	0.06	-0.02	0.00	A
52	278.40	0.59	0.05	A	0.73	0.03	0.01	A	10.30	-0.24	-0.02	A	6.37	-0.17	-0.02	A	0.05	0.02	0.00	A	1.38	-0.33	-0.03	A	0.00	0.00	0.00	A
53	58.74	0.27	0.03	A	24.08	0.18	0.02	A	1.61	0.09	0.01	A	2.42	-0.11	-0.01	A	2.77	0.17	0.02	A	1.80	0.38	0.04	A	0.22	-0.05	0.00	A
54	70.27	0.32	0.02	A	55.00	0.30	0.03	A	1.91	-0.11	-0.01	A	0.02	-0.01	0.00	A	20.47	0.59	0.03	A	0.02	0.05	0.00	A	0.06	0.03	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.17
Spring 2014 AIMS Differential Item Functioning
Science CRT Grade 8

	Reference: Male N= 41843 Focal: Female N= 40575				Reference: Hispanic N= 46969 Focal: Non Hispanic N= 35496				Reference: White N= 66387 Focal: Africa American N= 4928				Reference: White N= 66387 Focal: Native American N= 5766				Reference: White N= 66387 Focal: Asian N= 2428				Reference: White N= 66387 Focal: Hawaii N= 254				Reference: White N= 66387 Focal: Multiple Indicator N= 20			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	0.27	-0.02	0.00	A	76.04	-0.33	-0.03	A	0.59	0.06	0.00	A	24.70	-0.35	-0.03	A	1.35	0.15	0.01	A	0.04	-0.07	-0.01	A	1.29	0.14	0.01	A
2	97.60	0.41	0.03	A	0.44	-0.03	0.00	A	8.59	-0.24	-0.02	A	48.79	-0.52	-0.04	A	3.26	0.26	0.01	A	1.32	-0.41	-0.03	A	3.02	-0.23	-0.02	A
3	10.50	-0.14	-0.01	A	2.61	0.07	0.00	A	8.24	-0.24	-0.02	A	97.61	-0.74	-0.06	A	30.13	-0.75	-0.04	A	6.74	-0.98	-0.06	A	0.39	0.09	0.01	A
4	46.36	-0.26	-0.02	A	8.72	-0.12	-0.01	A	0.61	-0.07	0.00	A	0.01	-0.01	0.00	A	10.93	0.35	0.03	A	0.66	-0.29	-0.02	A	0.45	0.08	0.01	A
5	24.99	-0.26	-0.01	A	25.88	0.27	0.01	A	341.07	-1.60	-0.09	C<	0.71	-0.08	0.00	A	57.85	-1.20	-0.04	B<	6.48	-1.06	-0.05	A	5.92	-0.40	-0.02	A
6	922.94	-1.86	-0.06	C<	481.42	-1.37	-0.05	B<	18.88	0.52	0.02	A	0.16	0.04	0.00	A	17.18	-0.84	-0.02	A	1.44	-0.64	-0.02	A	19.33	0.98	0.03	A
7	52.49	-0.33	-0.02	A	3.26	-0.08	-0.01	A	1.38	-0.11	-0.01	A	19.58	-0.35	-0.03	A	0.93	-0.15	-0.01	A	5.28	1.10	0.05	A	2.61	0.24	0.01	A
8	311.48	-1.01	-0.03	B<	33.67	-0.34	-0.02	A	44.41	-0.68	-0.03	A	80.14	-0.79	-0.04	A	13.89	-0.75	-0.02	A	6.27	-1.18	-0.04	A	1.51	0.24	0.01	A
9	485.85	0.81	0.07	A	1.45	-0.05	0.00	A	12.34	-0.26	-0.02	A	3.70	-0.13	-0.01	A	0.66	0.10	0.01	A	0.34	-0.20	-0.02	A	1.87	-0.16	-0.01	A
10	219.14	-0.55	-0.05	A	44.22	-0.25	-0.02	A	18.98	-0.33	-0.03	A	31.71	-0.39	-0.04	A	22.15	-0.54	-0.04	A	0.26	-0.17	-0.01	A	0.01	-0.01	0.00	A
11	50.16	-0.29	-0.02	A	0.06	-0.01	0.00	A	2.53	0.13	0.01	A	5.85	-0.18	-0.02	A	0.98	0.14	0.01	A	0.43	0.25	0.02	A	0.00	0.00	0.00	A
12	18.55	0.20	0.01	A	34.72	0.28	0.02	A	3.36	-0.17	-0.01	A	25.21	0.42	0.03	A	1.28	-0.17	-0.01	A	2.77	-0.63	-0.04	A	0.07	-0.04	0.00	A
13	298.89	-0.73	-0.05	A	35.23	-0.25	-0.02	A	10.20	-0.26	-0.02	A	37.73	-0.45	-0.04	A	0.33	0.09	0.00	A	0.04	0.07	0.00	A	1.82	0.19	0.01	A
14	74.07	-0.30	-0.03	A	5.83	0.09	0.01	A	2.65	0.12	0.01	A	13.69	0.26	0.02	A	28.56	0.58	0.05	A	1.14	-0.34	-0.03	A	0.36	0.07	0.01	A
15	110.60	-0.40	-0.03	A	0.88	0.04	0.00	A	0.33	-0.04	0.00	A	0.20	0.03	0.00	A	7.21	0.35	0.02	A	1.33	0.39	0.03	A	0.03	0.02	0.00	A
16	14.05	0.14	0.01	A	1.57	0.05	0.00	A	25.85	-0.39	-0.03	A	0.10	0.02	0.00	A	0.24	0.06	0.00	A	2.87	-0.57	-0.05	A	0.13	-0.04	0.00	A
17	39.94	0.24	0.02	A	7.52	-0.11	-0.01	A	0.37	0.05	0.00	A	0.14	-0.03	0.00	A	20.95	0.59	0.04	A	0.29	-0.19	-0.01	A	6.80	0.32	0.03	A
18	229.43	0.54	0.05	A	16.38	-0.15	-0.01	A	0.06	-0.02	0.00	A	2.74	-0.12	-0.01	A	3.99	0.22	0.02	A	0.05	0.07	0.01	A	0.44	0.08	0.01	A
19	270.35	0.69	0.04	A	27.59	0.23	0.02	A	0.55	0.06	0.00	A	14.22	0.29	0.02	A	14.97	0.62	0.03	A	0.00	-0.02	0.00	A	0.55	0.10	0.01	A
20	166.16	-0.50	-0.04	A	66.95	-0.34	-0.02	A	14.06	-0.33	-0.02	A	43.54	-0.59	-0.03	A	14.02	0.41	0.04	A	6.11	-0.93	-0.07	A	0.21	-0.06	0.00	A
21	107.90	-0.38	-0.03	A	4.08	-0.08	-0.01	A	12.57	0.27	0.02	A	0.16	-0.03	0.00	A	17.87	0.45	0.04	A	0.35	-0.21	-0.02	A	7.88	0.33	0.03	A
22	102.56	0.38	0.03	A	4.16	-0.08	0.00	A	1.71	0.10	0.01	A	0.01	-0.01	0.00	A	1.84	0.17	0.01	A	0.04	-0.06	-0.01	A	3.65	0.23	0.02	A
23	96.27	-0.37	-0.03	A	92.41	-0.37	-0.03	A	15.47	-0.31	-0.03	A	15.42	-0.29	-0.02	A	19.64	-0.53	-0.04	A	2.97	-0.58	-0.05	A	0.01	0.01	0.00	A
24	1.77	-0.05	0.00	A	26.14	-0.20	-0.01	A	0.08	-0.02	0.00	A	28.99	-0.43	-0.03	A	7.11	0.29	0.03	A	0.12	0.11	0.01	A	0.26	0.06	0.00	A
25	575.41	0.91	0.07	A	16.49	0.16	0.02	A	8.26	-0.22	-0.02	A	8.06	0.20	0.02	A	12.42	0.46	0.03	A	0.40	0.22	0.02	A	2.72	-0.20	-0.02	A
26	18.02	-0.15	-0.01	A	53.72	-0.27	-0.02	A	4.40	0.16	0.01	A	1.05	-0.07	-0.01	A	0.16	0.04	0.00	A	0.12	-0.11	-0.01	A	3.77	0.22	0.02	A
27	1.18	-0.04	0.00	A	15.06	-0.15	-0.01	A	2.67	-0.13	-0.01	A	1.32	0.08	0.01	A	1.09	0.11	0.01	A	4.51	0.65	0.06	A	6.45	-0.31	-0.03	A
28	43.71	-0.24	-0.02	A	27.74	-0.20	-0.02	A	1.13	-0.08	-0.01	A	18.70	-0.31	-0.03	A	5.16	0.24	0.02	A	0.10	-0.10	-0.01	A	0.67	-0.09	-0.01	A
29	517.83	-0.83	-0.07	A	187.23	-0.51	-0.04	A	20.46	-0.35	-0.03	A	24.08	-0.36	-0.03	A	18.55	-0.47	-0.04	A	2.36	-0.51	-0.04	A	2.58	-0.19	-0.02	A
30	86.31	0.32	0.03	A	0.02	-0.01	0.00	A	12.59	-0.26	-0.03	A	1.41	0.08	0.01	A	0.69	0.09	0.01	A	1.18	-0.33	-0.03	A	0.07	-0.03	0.00	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.17 (continued)
Spring 2014 AIMS Differential Item Functioning
Science CRT Grade 8

	Reference: Male N= 41843 Focal: Female N= 40575				Reference: Hispanic N= 46969 Focal: Non Hispanic N= 35496				Reference: White N= 66387 Focal: Africa American N= 4928				Reference: White N= 66387 Focal: Native American N= 5766				Reference: White N= 66387 Focal: Asian N= 2428				Reference: White N= 66387 Focal: Hawaii N= 254				Reference: White N= 66387 Focal: Multiple Indicator N= 20			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	228.83	0.62	0.04	A	26.11	0.21	0.02	A	8.13	-0.24	-0.02	A	15.09	0.29	0.02	A	7.80	0.41	0.02	A	0.23	-0.19	-0.01	A	13.26	-0.47	-0.03	A
32	141.98	-0.42	-0.04	A	1.65	-0.05	0.00	A	0.27	0.04	0.00	A	1.25	-0.08	-0.01	A	0.54	0.08	0.01	A	0.56	0.24	0.02	A	4.32	0.24	0.02	A
33	457.02	1.11	0.05	B>	5.54	0.12	0.01	A	6.05	-0.24	-0.01	A	3.13	-0.15	-0.01	A	1.18	-0.21	-0.01	A	0.14	-0.17	-0.01	A	0.01	0.01	0.00	A
34	6.86	-0.10	-0.01	A	2.08	-0.06	0.00	A	11.86	-0.27	-0.02	A	5.43	-0.17	-0.01	A	0.77	0.12	0.01	A	1.04	-0.34	-0.03	A	0.10	-0.04	0.00	A
35	67.37	-0.29	-0.03	A	76.45	-0.32	-0.03	A	0.06	-0.02	0.00	A	5.13	-0.15	-0.01	A	17.45	0.48	0.04	A	0.84	-0.29	-0.03	A	0.89	0.11	0.01	A
36	12.46	-0.13	-0.01	A	1.42	-0.05	0.00	A	0.01	-0.01	0.00	A	4.19	-0.16	-0.01	A	12.57	-0.37	-0.03	A	2.82	-0.56	-0.05	A	0.00	-0.01	0.00	A
37	64.33	0.30	0.02	A	18.67	0.17	0.01	A	0.07	0.02	0.00	A	0.00	0.00	0.00	A	0.42	0.08	0.01	A	0.27	0.18	0.01	A	1.07	0.12	0.01	A
38	178.29	0.47	0.04	A	24.90	0.18	0.02	A	2.49	-0.12	-0.01	A	0.37	0.04	0.00	A	15.97	0.46	0.04	A	3.12	-0.56	-0.05	A	0.06	-0.03	0.00	A
39	243.94	0.88	0.03	A	1.36	0.07	0.00	A	2.70	-0.17	-0.01	A	0.13	-0.03	0.00	A	0.13	0.08	0.00	A	0.29	0.29	0.01	A	4.74	0.42	0.01	A
40	79.34	-0.34	-0.03	A	6.44	-0.10	-0.01	A	5.00	-0.18	-0.02	A	6.40	-0.18	-0.02	A	108.84	1.41	0.09	B>	0.01	-0.04	0.00	A	0.83	-0.11	-0.01	A
41	4.41	-0.08	-0.01	A	6.50	-0.10	-0.01	A	8.79	0.23	0.02	A	14.01	-0.27	-0.02	A	17.35	0.55	0.03	A	1.74	0.44	0.04	A	0.04	-0.02	0.00	A
42	26.73	-0.19	-0.02	A	41.34	-0.24	-0.02	A	11.40	-0.25	-0.02	A	11.85	-0.24	-0.02	A	0.09	-0.04	0.00	A	0.56	-0.24	-0.02	A	2.12	0.17	0.01	A
43	5.53	0.08	0.01	A	286.04	-0.61	-0.05	A	0.04	0.01	0.00	A	0.76	-0.06	0.00	A	0.09	0.03	0.00	A	3.01	0.54	0.05	A	0.10	0.03	0.00	A
44	136.38	0.60	0.03	A	16.20	0.21	0.01	A	2.38	-0.15	-0.01	A	0.00	0.00	0.00	A	0.37	-0.12	0.00	A	0.10	0.15	0.01	A	1.18	0.18	0.01	A
45	113.13	-0.36	-0.04	A	14.01	-0.13	-0.01	A	4.52	-0.15	-0.01	A	0.43	-0.04	0.00	A	0.33	0.06	0.01	A	0.13	0.11	0.01	A	0.30	0.06	0.01	A
46	27.80	0.21	0.01	A	0.27	0.02	0.00	A	0.33	0.05	0.00	A	4.64	0.16	0.01	A	6.80	-0.33	-0.02	A	0.04	0.07	0.00	A	0.23	0.06	0.00	A
47	222.84	0.54	0.05	A	123.14	0.42	0.04	A	6.57	0.20	0.02	A	0.02	0.01	0.00	A	9.47	0.36	0.03	A	0.31	0.19	0.02	A	0.24	0.06	0.00	A
48	5.65	-0.09	-0.01	A	112.21	-0.42	-0.03	A	2.36	0.12	0.01	A	12.37	-0.26	-0.02	A	6.54	0.33	0.02	A	1.69	0.45	0.03	A	2.01	0.18	0.01	A
49	0.17	-0.01	0.00	A	7.16	0.09	0.01	A	56.27	-0.53	-0.05	A	14.19	0.25	0.03	A	11.13	-0.33	-0.03	A	0.53	-0.22	-0.02	A	0.52	0.08	0.01	A
50	809.36	1.36	0.07	B>	0.07	-0.01	0.00	A	0.00	0.00	0.00	A	2.55	-0.13	-0.01	A	0.76	0.16	0.01	A	0.18	-0.19	-0.01	A	2.57	0.25	0.01	A
51	62.06	-0.30	-0.02	A	73.60	-0.34	-0.03	A	2.59	0.13	0.01	A	16.78	-0.30	-0.03	A	6.86	0.35	0.02	A	0.22	0.16	0.01	A	0.01	-0.01	0.00	A
52	12.20	-0.13	-0.01	A	71.50	-0.32	-0.03	A	2.47	0.12	0.01	A	0.07	0.02	0.00	A	0.69	-0.10	-0.01	A	2.09	0.51	0.04	A	2.73	0.20	0.02	A
53	7.23	0.11	0.01	A	2.81	0.08	0.00	A	9.06	0.27	0.02	A	0.13	0.03	0.00	A	0.73	0.10	0.01	A	0.46	-0.27	-0.02	A	0.60	0.11	0.01	A
54	57.82	-0.28	-0.02	A	2.58	-0.06	0.00	A	10.98	-0.26	-0.02	A	9.63	-0.23	-0.02	A	19.62	0.51	0.04	A	0.06	0.08	0.01	A	0.01	0.01	0.00	A
55	258.78	0.56	0.05	A	6.53	-0.09	0.00	A	1.23	0.08	0.01	A	0.18	-0.03	0.00	A	2.35	0.16	0.01	A	0.25	-0.16	-0.01	A	2.12	-0.17	-0.02	A
56	279.91	0.57	0.06	A	13.08	0.13	0.02	A	0.36	-0.04	0.00	A	5.67	0.16	0.02	A	4.11	0.21	0.02	A	0.66	-0.25	-0.02	A	3.09	-0.19	-0.02	A
57	83.58	0.33	0.03	A	13.92	0.14	0.01	A	3.44	0.15	0.01	A	22.35	0.35	0.03	A	23.54	0.50	0.05	A	1.17	0.35	0.03	A	0.41	-0.08	-0.01	A
58	142.51	0.41	0.04	A	8.27	0.10	0.01	A	19.64	0.32	0.03	A	6.90	0.18	0.02	A	27.53	0.54	0.05	A	0.00	-0.01	0.00	A	0.30	0.06	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.18
Spring 2014 AIMS Differential Item Functioning
Science CRT High School

	Reference: Male N= 37153 Focal: Female N= 36668				Reference: Hispanic N= 43701 Focal: Non Hispanic N= 30292				Reference: White N= 58939 Focal: Africa American N= 4283				Reference: White N= 58939 Focal: Native American N= 4210				Reference: White N= 58939 Focal: Asian N= 2316				Reference: White N= 58939 Focal: Hawaii N= 286				Reference: White N= 58939 Focal: Multiple Indicator N= 19			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	35.78	0.22	0.02	A	34.72	0.23	0.02	A	35.34	-0.47	-0.04	A	15.35	-0.31	-0.03	A	0.00	-0.01	0.00	A	0.11	-0.09	-0.01	A	0.46	-0.08	-0.01	A
2	27.13	0.22	0.02	A	4.29	0.09	0.01	A	1.07	0.09	0.01	A	11.99	-0.30	-0.02	A	6.97	0.35	0.02	A	1.11	-0.34	-0.03	A	0.34	-0.07	-0.01	A
3	341.83	-0.68	-0.06	A	86.67	-0.36	-0.03	A	73.43	-0.69	-0.06	A	9.30	-0.25	-0.02	A	2.19	-0.16	-0.01	A	1.39	-0.36	-0.03	A	4.41	-0.24	-0.02	A
4	66.22	0.42	0.02	A	9.73	-0.16	-0.01	A	37.89	-0.60	-0.04	A	6.23	-0.24	-0.01	A	30.27	-0.86	-0.03	A	0.00	0.00	0.00	A	0.01	-0.02	0.00	A
5	3.53	0.08	0.01	A	8.30	-0.13	-0.01	A	3.23	-0.16	-0.01	A	1.39	-0.10	-0.01	A	0.42	-0.09	-0.01	A	2.38	0.55	0.04	A	2.03	0.19	0.01	A
6	296.00	-0.90	-0.04	A	0.00	0.00	0.00	A	21.63	-0.46	-0.03	A	2.53	-0.15	-0.01	A	17.08	-0.72	-0.02	A	0.02	0.05	0.00	A	4.59	0.37	0.02	A
7	60.50	0.29	0.03	A	6.91	0.10	0.01	A	5.89	0.19	0.02	A	1.08	0.08	0.01	A	39.00	0.73	0.06	A	0.01	-0.03	0.00	A	0.14	0.04	0.00	A
8	142.53	-0.46	-0.04	A	146.66	-0.49	-0.04	A	2.93	-0.14	-0.01	A	4.01	-0.17	-0.02	A	8.34	0.35	0.03	A	0.97	0.30	0.03	A	0.44	-0.08	-0.01	A
9	0.02	0.00	0.00	A	5.61	0.10	0.01	A	0.54	0.06	0.01	A	2.72	0.14	0.01	A	2.30	-0.19	-0.01	A	0.96	0.30	0.03	A	2.65	-0.20	-0.02	A
10	414.32	-0.81	-0.07	A	106.86	-0.42	-0.04	A	0.06	0.02	0.00	A	5.92	-0.21	-0.02	A	9.14	0.38	0.03	A	0.22	0.15	0.01	A	1.52	0.15	0.01	A
11	4.54	-0.08	-0.01	A	6.58	-0.10	-0.01	A	7.64	-0.22	-0.02	A	29.48	-0.44	-0.04	A	0.02	-0.02	0.00	A	0.02	-0.04	0.00	A	2.31	0.17	0.02	A
12	7.98	-0.11	-0.01	A	10.30	-0.13	-0.01	A	15.69	-0.32	-0.03	A	16.39	-0.33	-0.03	A	1.67	0.17	0.01	A	0.10	0.10	0.01	A	6.04	-0.30	-0.02	A
13	7.45	-0.12	-0.01	A	15.04	-0.18	-0.01	A	9.56	-0.28	-0.02	A	81.23	-0.79	-0.06	A	7.90	-0.44	-0.02	A	1.02	-0.36	-0.02	A	0.76	0.12	0.01	A
14	17.50	-0.15	-0.02	A	13.90	0.14	0.01	A	5.44	0.18	0.02	A	4.91	0.17	0.02	A	2.08	0.15	0.01	A	0.20	0.13	0.01	A	0.10	0.04	0.00	A
15	64.13	-0.36	-0.02	A	25.08	-0.23	-0.02	A	1.06	0.09	0.01	A	5.95	-0.21	-0.02	A	12.23	0.60	0.02	A	1.90	0.49	0.03	A	4.91	0.32	0.02	A
16	31.02	0.32	0.01	A	3.26	0.10	0.01	A	41.66	-0.68	-0.04	A	23.23	-0.49	-0.03	A	35.64	-1.23	-0.03	B<	0.06	-0.11	0.00	A	0.22	0.09	0.00	A
17	0.68	-0.03	0.00	A	37.09	-0.24	-0.02	A	0.31	-0.05	0.00	A	3.40	-0.16	-0.01	A	0.33	0.06	0.01	A	0.59	0.23	0.02	A	1.77	0.15	0.01	A
18	12.47	-0.13	-0.01	A	14.39	-0.15	-0.01	A	0.51	-0.06	-0.01	A	7.89	-0.23	-0.02	A	1.88	0.14	0.01	A	1.82	-0.41	-0.04	A	3.71	0.21	0.02	A
19	1.13	-0.04	0.00	A	24.53	0.19	0.02	A	6.86	0.20	0.02	A	0.48	-0.06	0.00	A	32.11	0.59	0.06	A	0.32	0.16	0.02	A	0.18	-0.05	0.00	A
20	57.54	0.31	0.02	A	2.63	0.07	0.01	A	0.88	-0.08	-0.01	A	2.44	0.13	0.01	A	5.43	-0.30	-0.02	A	1.51	-0.40	-0.03	A	0.89	0.12	0.01	A
21	137.69	0.46	0.04	A	57.38	0.31	0.03	A	0.34	0.05	0.00	A	2.84	-0.14	-0.01	A	4.45	0.26	0.02	A	0.44	-0.21	-0.02	A	0.00	0.00	0.00	A
22	1.24	0.04	0.00	A	18.65	0.17	0.01	A	0.08	0.02	0.00	A	11.55	0.27	0.03	A	0.67	-0.09	-0.01	A	2.24	0.44	0.04	A	0.84	-0.10	-0.01	A
23	264.94	-0.74	-0.05	A	0.76	0.04	0.00	A	4.56	-0.19	-0.01	A	13.68	-0.32	-0.03	A	0.02	-0.02	0.00	A	0.12	-0.12	-0.01	A	1.27	-0.15	-0.01	A
24	460.51	0.81	0.07	A	9.98	0.12	0.02	A	0.01	0.01	0.00	A	3.90	0.16	0.02	A	24.26	0.59	0.05	A	4.47	0.63	0.06	A	3.18	-0.21	-0.02	A
25	183.42	0.51	0.05	A	8.01	-0.11	-0.01	A	0.93	-0.08	-0.01	A	9.31	-0.24	-0.02	A	18.29	0.50	0.04	A	1.22	0.33	0.03	A	0.99	0.12	0.01	A
26	16.57	0.16	0.01	A	0.96	0.04	0.01	A	0.09	0.02	0.00	A	0.03	-0.01	0.00	A	28.16	0.65	0.05	A	0.14	-0.11	-0.01	A	0.30	0.07	0.01	A
27	429.04	0.97	0.06	A	27.39	0.25	0.02	A	8.56	-0.27	-0.02	A	4.80	0.20	0.01	A	5.28	0.38	0.02	A	1.86	-0.47	-0.03	A	1.18	-0.16	-0.01	A
28	560.17	0.89	0.08	A	2.43	-0.06	0.00	A	1.57	-0.10	-0.01	A	5.85	-0.19	-0.02	A	0.32	-0.06	-0.01	A	0.04	-0.06	-0.01	A	0.80	-0.10	-0.01	A
29	483.90	0.90	0.07	A	2.92	0.07	0.01	A	3.17	0.15	0.01	A	5.89	0.21	0.02	A	55.14	0.97	0.06	A	1.22	-0.34	-0.03	A	0.13	0.05	0.00	A
30	0.04	0.01	0.00	A	7.25	-0.10	-0.01	A	8.41	0.22	0.02	A	0.06	-0.02	0.00	A	1.03	-0.10	-0.01	A	0.65	0.23	0.02	A	1.49	0.13	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

(table continues)

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Table 9.2.1.18 (continued)
Spring 2014 AIMS Differential Item Functioning
Science CRT High School

	Reference: Male N= 37153				Reference: Hispanic N= 43701				Reference: White N= 58939				Reference: White N= 58939				Reference: White N= 58939				Reference: White N= 58939				Reference: White N= 58939			
	Focal: Female N= 36668				Focal: Non Hispanic N= 30292				Focal: Africa American N= 4283				Focal: Native American N= 4210				Focal: Asian N= 2316				Focal: Hawaii N= 286				Focal: Multiple Indicator N= 19			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
31	26.22	-0.20	-0.02	A	188.35	-0.56	-0.05	A	38.09	0.52	0.04	A	0.52	0.06	0.01	A	27.42	0.70	0.04	A	0.04	-0.06	0.00	A	6.39	0.32	0.03	A
32	18.71	0.16	0.02	A	0.02	-0.01	0.00	A	2.75	0.13	0.01	A	1.68	0.10	0.01	A	29.51	0.63	0.05	A	0.10	-0.09	-0.01	A	0.07	0.03	0.00	A
33	27.55	-0.20	-0.02	A	1.74	-0.05	0.00	A	4.36	-0.17	-0.01	A	6.73	-0.22	-0.02	A	8.56	0.33	0.03	A	1.02	-0.31	-0.03	A	0.34	0.07	0.01	A
34	175.34	0.48	0.05	A	13.92	-0.14	-0.01	A	6.65	0.20	0.02	A	10.36	0.25	0.03	A	51.09	0.80	0.07	A	0.95	0.28	0.03	A	0.01	-0.01	0.00	A
35	5.06	-0.10	-0.01	A	179.34	-0.60	-0.04	A	0.60	0.07	0.01	A	20.39	-0.38	-0.03	A	4.90	-0.33	-0.02	A	2.19	-0.51	-0.03	A	3.28	0.25	0.02	A
36	0.02	0.01	0.00	A	3.78	-0.09	-0.01	A	46.69	-0.61	-0.04	A	3.08	0.16	0.01	A	0.01	-0.02	0.00	A	0.25	-0.19	-0.01	A	1.93	-0.20	-0.01	A
37	0.53	-0.03	0.00	A	31.22	-0.23	-0.02	A	0.37	-0.05	0.00	A	0.14	-0.03	0.00	A	4.87	-0.25	-0.02	A	2.45	-0.50	-0.04	A	1.07	0.12	0.01	A
38	278.89	-0.70	-0.05	A	71.41	-0.36	-0.03	A	0.08	-0.02	0.00	A	2.20	-0.12	-0.01	A	0.17	-0.06	0.00	A	0.21	-0.16	-0.01	A	3.44	-0.24	-0.02	A
39	14.61	-0.15	-0.01	A	6.19	0.10	0.01	A	1.37	-0.10	-0.01	A	0.00	0.00	0.00	A	18.55	0.52	0.04	A	0.00	-0.01	0.00	A	1.00	-0.12	-0.01	A
40	10.07	-0.13	-0.01	A	4.55	0.09	0.01	A	34.20	-0.48	-0.04	A	8.67	-0.24	-0.02	A	21.58	-0.57	-0.04	A	3.07	-0.55	-0.04	A	1.08	-0.13	-0.01	A
41	17.63	0.17	0.01	A	71.84	0.36	0.03	A	0.27	0.04	0.00	A	38.82	0.53	0.05	A	5.32	0.30	0.02	A	0.12	0.11	0.01	A	2.59	0.21	0.02	A
42	37.26	-0.26	-0.02	A	13.63	-0.16	-0.01	A	49.52	-0.61	-0.05	A	1.26	-0.10	-0.01	A	0.43	0.09	0.01	A	0.09	0.10	0.01	A	0.04	0.03	0.00	A
43	33.81	0.30	0.01	A	3.70	0.10	0.01	A	7.51	-0.27	-0.02	A	0.02	0.01	0.00	A	4.11	0.40	0.01	A	0.12	-0.14	-0.01	A	3.28	-0.29	-0.01	A
44	215.26	-0.59	-0.05	A	1.59	-0.05	0.00	A	6.91	-0.22	-0.02	A	1.25	0.09	0.01	A	4.02	-0.24	-0.02	A	0.49	-0.22	-0.02	A	3.11	-0.22	-0.02	A
45	252.18	0.69	0.05	A	42.34	0.29	0.02	A	11.06	-0.29	-0.02	A	0.23	-0.04	0.00	A	1.61	0.18	0.01	A	1.49	-0.39	-0.03	A	0.21	-0.06	0.00	A
46	82.81	0.35	0.03	A	168.55	-0.51	-0.05	A	0.73	-0.07	-0.01	A	0.03	0.01	0.00	A	7.59	-0.31	-0.03	A	5.48	0.72	0.06	A	2.58	0.19	0.02	A
47	326.47	-0.73	-0.06	A	548.09	-0.96	-0.08	A	0.54	-0.06	0.00	A	4.85	-0.19	-0.02	A	0.15	-0.05	0.00	A	3.44	-0.57	-0.05	A	6.78	0.33	0.03	A
48	18.90	-0.17	-0.02	A	4.12	-0.08	-0.01	A	18.74	-0.34	-0.03	A	44.60	0.54	0.05	A	0.12	0.04	0.00	A	1.87	0.42	0.04	A	0.22	-0.05	0.00	A
49	225.98	0.64	0.04	A	9.35	-0.13	-0.01	A	1.83	-0.12	-0.01	A	0.55	-0.06	0.00	A	21.61	0.68	0.04	A	4.33	0.72	0.05	A	0.88	-0.12	-0.01	A
50	33.69	0.25	0.02	A	0.00	0.00	0.00	A	1.11	-0.09	-0.01	A	30.81	-0.47	-0.04	A	1.02	-0.15	-0.01	A	0.75	-0.28	-0.02	A	0.45	0.09	0.01	A
51	188.82	0.54	0.05	A	2.01	0.06	0.01	A	3.34	0.16	0.01	A	3.53	0.16	0.01	A	34.93	0.71	0.06	A	2.06	-0.48	-0.04	A	0.37	-0.07	-0.01	A
52	77.09	-0.34	-0.03	A	113.53	-0.42	-0.04	A	3.94	0.16	0.01	A	0.13	0.03	0.00	A	9.18	0.37	0.03	A	0.01	-0.03	0.00	A	2.10	0.17	0.01	A
53	14.09	0.17	0.01	A	2.64	0.07	0.01	A	0.18	-0.04	0.00	A	0.00	0.01	0.00	A	8.21	0.46	0.02	A	0.01	0.04	0.00	A	1.08	0.15	0.01	A
54	8.63	0.11	0.01	A	25.19	-0.20	-0.02	A	0.50	-0.06	0.00	A	2.55	-0.13	-0.01	A	14.60	0.45	0.04	A	0.14	0.11	0.01	A	0.23	-0.06	0.00	A
55	486.29	-0.93	-0.07	A	131.66	-0.49	-0.04	A	7.57	-0.24	-0.02	A	66.85	-0.72	-0.06	A	14.92	-0.53	-0.03	A	8.20	-0.94	-0.07	A	1.06	-0.13	-0.01	A
56	304.26	-0.72	-0.05	A	19.78	-0.19	-0.01	A	3.51	-0.17	-0.01	A	6.75	0.24	0.02	A	17.93	0.50	0.04	A	3.60	0.64	0.05	A	0.09	0.04	0.00	A
57	57.92	-0.28	-0.03	A	4.14	-0.08	-0.01	A	2.53	-0.12	-0.01	A	17.38	-0.34	-0.03	A	18.95	0.47	0.04	A	2.30	0.42	0.04	A	0.79	-0.10	-0.01	A
58	66.44	-0.32	-0.03	A	35.30	-0.24	-0.02	A	2.69	-0.14	-0.01	A	17.16	-0.37	-0.03	A	11.99	0.41	0.03	A	1.17	-0.34	-0.03	A	0.19	-0.05	0.00	A
59	63.03	0.30	0.03	A	0.83	-0.04	0.00	A	14.26	-0.30	-0.03	A	0.23	0.04	0.00	A	3.12	0.20	0.02	A	0.01	0.03	0.00	A	2.18	-0.17	-0.02	A
60	14.12	0.14	0.01	A	0.64	-0.03	0.00	A	6.54	0.20	0.02	A	0.05	-0.02	0.00	A	0.01	0.01	0.00	A	0.14	-0.11	-0.01	A	0.03	-0.02	0.00	A
61	155.83	0.54	0.04	A	0.00	0.00	0.00	A	10.63	0.29	0.02	A	5.61	-0.20	-0.02	A	33.57	0.90	0.04	A	3.51	0.65	0.05	A	0.02	0.02	0.00	A
62	50.48	-0.26	-0.03	A	0.01	0.00	0.00	A	1.35	-0.09	-0.01	A	0.09	-0.02	0.00	A	0.18	0.05	0.00	A	0.14	-0.11	-0.01	A	0.30	-0.06	-0.01	A
63	10.02	-0.12	-0.01	A	43.31	-0.27	-0.02	A	0.11	0.03	0.00	A	0.32	-0.05	0.00	A	9.74	0.37	0.03	A	0.12	-0.10	-0.01	A	0.04	-0.02	0.00	A
64	264.47	0.70	0.05	A	17.05	0.18	0.01	A	0.15	0.03	0.00	A	2.05	-0.12	-0.01	A	17.07	0.61	0.03	A	2.63	-0.54	-0.04	A	5.51	-0.31	-0.02	A
65	33.55	0.22	0.02	A	71.79	-0.33	-0.03	A	49.13	-0.56	-0.05	A	0.31	-0.05	0.00	A	34.55	-0.63	-0.06	A	1.99	-0.41	-0.04	A	0.42	-0.07	-0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.19
Spring 2014 AIMS Differential Item Functioning
Writing CRT Grade 5

	Reference: Male N= 42577				Reference: Hispanic N= 47158				Reference: White N= 67053				Reference: White N= 67053				Reference: White N= 67053				Reference: White N= 67053				Reference: White N= 67053			
	Focal: Female N= 41108				Focal: Non Hispanic N= 36592				Focal: Africa American N= 4833				Focal: Native American N= 5905				Focal: Asian N= 2547				Focal: Hawaii N= 292				Focal: Multiple Indicator N= 23			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	11.05	0.22	0.00	A	13.13	-0.24	-0.01	A	8.77	-0.36	-0.01	A	9.99	-0.33	-0.01	A	19.82	-1.00	-0.02	B<	1.68	-0.67	-0.02	A	1.08	0.22	0.01	A
2	149.75	0.46	0.04	A	5.20	0.09	0.01	A	5.61	0.19	0.02	A	4.10	-0.14	-0.01	A	27.20	0.64	0.04	A	2.36	0.49	0.04	A	1.36	-0.13	-0.01	A
3	2.03	0.05	0.00	A	169.35	0.51	0.04	A	55.18	-0.58	-0.05	A	40.33	-0.45	-0.04	A	223.47	-1.62	-0.12	C<	13.16	-1.06	-0.09	B<	6.81	-0.30	-0.02	A
4	0.13	-0.01	0.00	A	20.34	-0.17	-0.01	A	2.04	-0.11	-0.01	A	0.10	0.02	0.00	A	12.06	0.38	0.03	A	0.05	-0.07	-0.01	A	0.02	-0.02	0.00	A
5	3.01	-0.07	-0.01	A	55.97	-0.28	-0.02	A	0.07	0.02	0.00	A	10.89	-0.23	-0.02	A	4.89	0.26	0.02	A	1.16	0.35	0.03	A	7.87	0.32	0.03	A
6	27.49	0.19	0.02	A	206.70	-0.53	-0.04	A	3.33	-0.14	-0.01	A	13.25	-0.26	-0.02	A	10.73	0.36	0.03	A	0.15	-0.12	-0.01	A	0.23	0.05	0.00	A
7	8.97	-0.12	-0.01	A	40.69	-0.26	-0.02	A	11.50	0.28	0.02	A	31.13	-0.40	-0.03	A	30.18	0.78	0.04	A	2.23	0.50	0.04	A	5.90	0.30	0.02	A
8	29.07	-0.20	-0.02	A	18.23	-0.16	-0.01	A	3.66	0.15	0.01	A	4.21	0.14	0.01	A	6.83	0.32	0.02	A	0.96	-0.30	-0.03	A	0.22	-0.05	0.00	A
9	72.00	-0.32	-0.03	A	47.20	-0.26	-0.02	A	1.93	-0.11	-0.01	A	15.21	-0.27	-0.02	A	20.35	-0.51	-0.04	A	0.00	0.02	0.00	A	0.53	-0.08	-0.01	A
10	34.70	-0.20	-0.02	A	215.75	0.52	0.05	A	0.00	0.00	0.00	A	18.79	0.29	0.03	A	2.13	0.14	0.01	A	1.92	-0.40	-0.04	A	1.66	-0.13	-0.01	A
11	3.86	-0.10	-0.01	A	0.12	-0.02	0.00	A	11.67	-0.32	-0.02	A	4.01	0.17	0.01	A	2.58	0.30	0.01	A	0.00	0.00	0.00	A	0.01	0.01	0.00	A
12	34.31	-0.30	-0.01	A	7.40	-0.14	0.00	A	9.14	-0.30	-0.02	A	6.71	-0.22	-0.01	A	2.84	0.33	0.01	A	4.32	-0.86	-0.04	A	0.09	-0.05	0.00	A
13	0.00	0.00	0.00	A	154.25	-0.47	-0.04	A	6.95	0.21	0.02	A	9.63	-0.22	-0.02	A	12.68	-0.40	-0.03	A	6.80	-0.84	-0.07	A	18.44	0.50	0.04	A
14	99.17	-0.43	-0.03	A	1.98	-0.06	0.00	A	3.44	0.16	0.01	A	47.30	-0.51	-0.04	A	4.53	-0.30	-0.01	A	2.11	-0.50	-0.03	A	2.62	-0.21	-0.01	A
15	0.03	-0.01	0.00	A	20.34	-0.19	-0.01	A	4.04	0.17	0.01	A	2.20	-0.11	-0.01	A	0.02	-0.02	0.00	A	0.32	0.20	0.01	A	0.48	0.09	0.01	A
16	196.38	0.55	0.04	A	30.37	-0.22	-0.02	A	63.29	-0.65	-0.05	A	0.71	0.06	0.00	A	48.05	0.89	0.05	A	0.85	0.30	0.02	A	0.92	0.11	0.01	A
17	158.74	0.48	0.04	A	0.01	0.00	0.00	A	19.04	-0.35	-0.03	A	2.80	-0.12	-0.01	A	1.43	0.15	0.01	A	0.02	0.04	0.00	A	3.88	-0.23	-0.02	A
18	7.88	0.14	0.01	A	5.13	0.11	0.01	A	3.90	0.19	0.01	A	1.02	-0.08	-0.01	A	2.54	0.27	0.01	A	0.02	0.06	0.00	A	5.05	0.35	0.02	A
19	36.29	0.23	0.02	A	111.59	-0.42	-0.03	A	0.02	-0.01	0.00	A	0.03	-0.01	0.00	A	9.77	0.33	0.03	A	1.26	0.34	0.03	A	5.94	0.27	0.02	A
20	111.34	-0.41	-0.03	A	1.23	-0.04	0.00	A	3.19	-0.15	-0.01	A	0.06	0.02	0.00	A	2.85	-0.18	-0.02	A	2.12	-0.50	-0.04	A	1.07	-0.12	-0.01	A
21	10.84	0.12	0.01	A	28.53	0.19	0.02	A	2.78	0.13	0.01	A	53.30	0.50	0.05	A	15.57	0.39	0.04	A	6.45	0.74	0.07	A	4.90	-0.24	-0.02	A
22	0.20	-0.02	0.00	A	118.94	-0.42	-0.03	A	15.57	-0.31	-0.03	A	94.53	-0.69	-0.06	A	70.33	-0.97	-0.07	A	3.86	-0.59	-0.05	A	0.10	0.04	0.00	A
23	1.34	-0.05	0.00	A	30.83	-0.22	-0.02	A	10.26	-0.25	-0.02	A	15.13	-0.27	-0.02	A	1.33	0.15	0.01	A	2.73	-0.50	-0.04	A	0.15	-0.05	0.00	A
24	311.60	0.82	0.04	A	59.85	0.36	0.02	A	4.85	0.21	0.01	A	51.37	0.60	0.04	A	31.55	1.00	0.03	A	4.48	0.91	0.04	A	4.53	0.31	0.02	A
25	204.85	0.63	0.04	A	8.04	-0.12	-0.01	A	4.91	-0.19	-0.01	A	1.67	-0.10	-0.01	A	0.04	0.03	0.00	A	2.74	-0.60	-0.04	A	1.62	-0.17	-0.01	A
26	14.33	0.14	0.01	A	0.18	-0.02	0.00	A	7.79	0.22	0.02	A	6.12	0.17	0.02	A	71.97	1.09	0.07	B>	0.09	-0.10	-0.01	A	0.25	0.06	0.00	A
27	52.18	0.28	0.02	A	0.14	-0.01	0.00	A	1.30	0.09	0.01	A	5.62	-0.17	-0.02	A	30.05	0.71	0.04	A	5.55	0.77	0.06	A	2.04	0.17	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.20
Spring 2014 AIMS Differential Item Functioning
Writing CRT Grade 6

	Reference: Male N= 42037 Focal: Female N= 40644				Reference: Hispanic N= 46536 Focal: Non Hispanic N= 36220				Reference: White N= 66392 Focal: Africa American N= 4877				Reference: White N= 66392 Focal: Native American N= 5831				Reference: White N= 66392 Focal: Asian N= 2447				Reference: White N= 66392 Focal: Hawaii N= 254				Reference: White N= 66392 Focal: Multiple Indicator N= 22			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	385.42	0.88	0.05	A	0.83	0.04	0.01	A	34.23	-0.50	-0.03	A	39.93	0.50	0.04	A	24.55	0.87	0.03	A	1.67	0.54	0.03	A	0.05	-0.03	0.00	A
2	42.51	0.51	0.01	A	3.93	0.15	0.00	A	2.61	-0.23	-0.01	A	3.67	0.24	0.01	A	4.85	-0.60	-0.01	A	0.38	0.42	0.01	A	1.13	0.27	0.00	A
3	44.74	0.31	0.01	A	15.28	0.18	0.01	A	0.24	-0.05	0.00	A	0.35	-0.05	0.00	A	2.91	0.28	0.01	A	0.17	0.18	0.01	A	0.00	0.01	0.00	A
4	462.53	0.99	0.05	A	3.20	-0.08	-0.01	A	60.10	-0.68	-0.05	A	8.02	0.22	0.02	A	18.88	0.79	0.03	A	0.42	0.26	0.01	A	0.18	-0.06	0.00	A
5	118.50	0.43	0.03	A	105.78	-0.41	-0.03	A	11.34	0.27	0.02	A	6.41	0.18	0.02	A	1.49	0.16	0.01	A	0.36	0.21	0.02	A	7.80	0.35	0.02	A
6	13.39	0.14	0.01	A	17.00	-0.15	-0.01	A	18.54	-0.34	-0.03	A	0.02	-0.01	0.00	A	51.14	0.82	0.07	A	2.37	0.50	0.04	A	1.75	-0.15	-0.01	A
7	77.40	-0.33	-0.03	A	295.79	-0.64	-0.05	A	16.92	0.31	0.03	A	53.97	-0.55	-0.04	A	6.94	-0.29	-0.02	A	0.08	0.09	0.01	A	4.55	0.24	0.02	A
8	51.31	-0.26	-0.02	A	28.67	-0.20	-0.02	A	32.52	0.43	0.04	A	0.12	0.03	0.00	A	10.24	0.33	0.03	A	0.22	0.16	0.01	A	3.46	0.21	0.02	A
9	63.88	-0.28	-0.03	A	2.86	0.06	0.01	A	19.08	-0.32	-0.03	A	47.97	-0.48	-0.04	A	180.63	-1.37	-0.13	B<	4.02	-0.61	-0.06	A	11.69	-0.36	-0.04	A
10	7.99	0.13	0.01	A	2.39	-0.07	0.00	A	0.04	-0.02	0.00	A	5.26	-0.19	-0.01	A	3.86	0.35	0.01	A	0.00	0.02	0.00	A	0.36	0.09	0.00	A
11	103.95	-0.40	-0.03	A	0.75	-0.03	0.00	A	0.00	0.00	0.00	A	21.73	-0.33	-0.03	A	21.49	0.62	0.04	A	2.74	0.58	0.04	A	0.30	-0.06	0.00	A
12	1067.74	1.17	0.11	B>	3.02	0.06	0.01	A	0.00	0.00	0.00	A	5.31	0.16	0.01	A	19.36	0.50	0.04	A	2.14	-0.45	-0.04	A	0.13	0.04	0.00	A
13	230.80	-0.55	-0.05	A	1.41	-0.04	0.00	A	0.04	0.01	0.00	A	2.81	-0.11	-0.01	A	3.07	-0.20	-0.02	A	3.16	-0.58	-0.05	A	1.90	0.15	0.01	A
14	28.40	0.21	0.01	A	1.57	0.05	0.00	A	4.51	-0.17	-0.01	A	9.65	0.22	0.02	A	22.62	0.63	0.04	A	0.27	-0.19	-0.01	A	0.01	0.01	0.00	A
15	128.24	0.49	0.03	A	1.23	0.05	0.01	A	1.51	-0.11	-0.01	A	5.11	-0.17	-0.01	A	6.59	0.40	0.02	A	0.17	0.17	0.01	A	2.55	0.22	0.01	A
16	10.67	0.12	0.01	A	15.66	0.15	0.01	A	0.33	-0.04	0.00	A	8.78	-0.21	-0.02	A	0.79	0.11	0.01	A	0.05	0.08	0.01	A	8.40	-0.33	-0.03	A
17	63.66	-0.34	-0.02	A	18.56	-0.18	-0.01	A	3.35	-0.16	-0.01	A	0.53	-0.06	0.00	A	1.98	0.21	0.01	A	0.58	-0.27	-0.02	A	4.03	0.27	0.02	A
18	66.52	0.31	0.02	A	14.86	-0.15	-0.01	A	0.79	-0.07	-0.01	A	0.75	-0.06	0.00	A	0.07	-0.03	0.00	A	0.11	0.12	0.01	A	0.02	0.02	0.00	A
19	16.29	-0.16	-0.01	A	14.89	0.15	0.01	A	0.46	0.05	0.00	A	6.67	0.18	0.02	A	66.65	1.16	0.07	B>	1.42	0.43	0.03	A	0.17	-0.05	0.00	A
20	2.04	0.06	0.00	A	7.74	0.11	0.01	A	0.19	-0.04	0.00	A	1.46	0.09	0.01	A	3.67	0.26	0.01	A	0.08	-0.10	-0.01	A	0.00	-0.01	0.00	A
21	17.76	0.15	0.02	A	4.09	0.07	0.01	A	7.35	-0.20	-0.02	A	1.82	-0.09	-0.01	A	0.48	0.07	0.01	A	5.13	-0.67	-0.07	A	2.15	-0.16	-0.02	A
22	89.11	-0.34	-0.03	A	51.33	-0.26	-0.02	A	0.78	-0.07	-0.01	A	6.64	-0.18	-0.02	A	1.75	0.15	0.01	A	4.59	-0.70	-0.06	A	6.19	0.28	0.02	A
23	29.75	0.20	0.02	A	71.39	-0.31	-0.02	A	6.51	-0.20	-0.02	A	12.33	-0.24	-0.02	A	0.00	0.00	0.00	A	3.25	0.60	0.05	A	1.62	0.15	0.01	A
24	103.04	0.52	0.02	A	2.75	0.08	0.01	A	3.52	-0.19	-0.01	A	12.14	-0.29	-0.02	A	1.28	0.23	0.01	A	0.76	-0.39	-0.02	A	1.09	0.17	0.01	A
25	14.99	0.16	0.01	A	122.59	-0.45	-0.03	A	0.08	-0.02	0.00	A	60.28	-0.58	-0.05	A	0.00	0.00	0.00	A	7.83	-0.97	-0.07	A	1.74	0.17	0.01	A
26	0.89	0.03	0.01	A	19.02	0.16	0.01	A	1.43	-0.09	-0.01	A	0.65	-0.06	-0.01	A	24.69	-0.53	-0.05	A	4.24	-0.68	-0.06	A	0.49	-0.08	-0.01	A
27	9.04	0.12	0.01	A	0.68	-0.03	0.00	A	0.71	-0.07	-0.01	A	40.46	-0.47	-0.04	A	37.13	-0.76	-0.05	A	0.64	0.28	0.02	A	1.08	0.13	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.21
Spring 2014 AIMS Differential Item Functioning
Writing CRT Grade 7

	Reference: Male N= 42453 Focal: Female N= 40843				Reference: Hispanic N= 46898 Focal: Non Hispanic N= 36460				Reference: White N= 67139 Focal: Africa American N= 4771				Reference: White N= 67139 Focal: Native American N= 5796				Reference: White N= 67139 Focal: Asian N= 2493				Reference: White N= 67139 Focal: Hawaii N= 312				Reference: White N= 67139 Focal: Multiple Indicator N= 21			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	189.21	0.51	0.04	A	1.72	0.05	0.00	A	0.96	-0.08	-0.01	A	16.83	-0.29	-0.03	A	1.56	0.15	0.01	A	0.01	-0.03	0.00	A	1.87	0.16	0.01	A
2	6.35	0.09	0.01	A	10.01	0.11	0.01	A	18.11	-0.32	-0.03	A	22.19	0.32	0.03	A	3.24	0.19	0.02	A	0.95	-0.27	-0.03	A	0.37	-0.07	-0.01	A
3	1.99	0.05	0.00	A	49.42	0.25	0.02	A	1.14	0.08	0.01	A	43.86	0.44	0.04	A	4.66	0.22	0.02	A	0.01	0.02	0.00	A	6.95	-0.28	-0.03	A
4	6.42	0.09	0.01	A	6.06	0.09	0.01	A	5.00	0.18	0.01	A	10.06	-0.24	-0.02	A	16.57	-0.42	-0.04	A	0.70	-0.25	-0.02	A	0.10	0.04	0.00	A
5	20.37	-0.20	-0.01	A	27.89	-0.23	-0.01	A	6.77	-0.23	-0.02	A	16.94	-0.31	-0.02	A	5.98	-0.38	-0.01	A	2.47	-0.51	-0.03	A	3.17	-0.25	-0.01	A
6	9.95	0.12	0.01	A	0.35	0.02	0.00	A	0.15	-0.03	0.00	A	28.94	0.39	0.03	A	0.17	-0.05	0.00	A	0.13	0.12	0.01	A	0.00	0.00	0.00	A
7	21.35	0.20	0.01	A	6.94	-0.11	-0.01	A	43.47	-0.56	-0.04	A	33.37	0.46	0.03	A	6.57	0.41	0.02	A	2.08	0.56	0.03	A	0.02	-0.02	0.00	A
8	216.23	0.72	0.03	A	45.17	0.33	0.02	A	0.02	0.01	0.00	A	2.50	0.14	0.01	A	0.14	-0.06	0.00	A	0.36	-0.24	-0.01	A	0.01	0.01	0.00	A
9	46.12	0.33	0.01	A	11.09	-0.16	-0.01	A	4.25	-0.19	-0.01	A	13.26	-0.29	-0.02	A	12.40	-0.57	-0.02	A	0.05	-0.09	0.00	A	0.32	-0.09	0.00	A
10	194.75	0.60	0.03	A	14.55	0.16	0.01	A	0.19	0.04	0.00	A	10.22	-0.24	-0.02	A	3.55	-0.28	-0.01	A	0.01	0.04	0.00	A	0.01	0.01	0.00	A
11	29.39	-0.26	-0.01	A	20.72	-0.22	-0.01	A	5.08	0.22	0.01	A	63.14	-0.64	-0.04	A	0.89	-0.16	-0.01	A	0.01	-0.03	0.00	A	1.28	0.18	0.01	A
12	11.71	0.17	0.01	A	2.70	0.08	0.00	A	3.26	-0.17	-0.01	A	18.81	-0.36	-0.02	A	0.73	0.16	0.00	A	0.66	0.34	0.01	A	0.45	-0.11	0.00	A
13	14.53	-0.14	-0.01	A	110.61	-0.40	-0.03	A	0.45	-0.05	0.00	A	51.11	-0.51	-0.05	A	0.03	-0.02	0.00	A	2.16	-0.44	-0.04	A	0.27	0.06	0.00	A
14	16.79	-0.15	-0.01	A	136.48	-0.44	-0.03	A	33.41	-0.47	-0.04	A	9.13	-0.22	-0.02	A	55.74	0.85	0.07	A	0.02	-0.04	0.00	A	0.86	0.11	0.01	A
15	74.87	-0.33	-0.03	A	1.69	0.05	0.00	A	3.51	-0.15	-0.01	A	19.43	-0.32	-0.03	A	2.24	0.18	0.01	A	0.43	-0.20	-0.02	A	1.10	-0.12	-0.01	A
16	1.40	-0.05	0.00	A	20.33	-0.19	-0.01	A	0.20	0.04	0.00	A	1.42	0.09	0.01	A	6.73	-0.37	-0.02	A	0.10	-0.12	-0.01	A	0.58	0.11	0.01	A
17	255.22	0.89	0.03	A	9.22	0.16	0.01	A	6.03	-0.25	-0.01	A	2.66	0.15	0.01	A	2.74	0.37	0.01	A	2.24	-0.64	-0.02	A	1.83	-0.24	-0.01	A
18	330.73	-0.68	-0.05	A	40.01	-0.24	-0.02	A	3.33	-0.14	-0.01	A	54.18	-0.53	-0.05	A	0.04	-0.02	0.00	A	1.50	-0.38	-0.03	A	0.02	0.02	0.00	A
19	44.78	-0.26	-0.02	A	49.39	-0.28	-0.02	A	9.68	0.26	0.02	A	3.90	0.16	0.01	A	54.80	0.79	0.07	A	0.18	0.14	0.01	A	1.12	-0.13	-0.01	A
20	9.84	0.12	0.01	A	301.58	-0.65	-0.05	A	0.70	0.07	0.01	A	0.31	-0.04	0.00	A	8.74	0.33	0.03	A	0.54	0.22	0.02	A	9.34	0.35	0.03	A
21	3.21	0.07	0.00	A	34.22	-0.24	-0.02	A	3.06	-0.14	-0.01	A	20.49	-0.33	-0.03	A	8.47	0.41	0.02	A	1.12	0.37	0.02	A	0.04	-0.03	0.00	A
22	284.17	0.62	0.05	A	4.24	-0.08	-0.01	A	1.25	0.09	0.01	A	4.29	-0.15	-0.01	A	21.03	0.55	0.04	A	0.59	0.23	0.02	A	0.36	0.07	0.01	A
23	10.89	-0.12	-0.01	A	13.16	0.13	0.01	A	6.28	-0.19	-0.02	A	0.72	-0.06	-0.01	A	1.92	0.15	0.01	A	0.55	0.22	0.02	A	0.14	-0.04	0.00	A
24	102.46	0.43	0.03	A	10.25	0.14	0.01	A	0.81	0.08	0.01	A	5.72	0.18	0.01	A	4.62	0.32	0.01	A	0.52	-0.24	-0.02	A	0.74	-0.12	-0.01	A
25	1.52	0.05	0.00	A	162.51	-0.53	-0.03	A	0.05	-0.02	0.00	A	0.04	-0.02	0.00	A	63.33	0.85	0.07	A	2.14	0.44	0.03	A	0.41	0.08	0.01	A
26	283.93	0.73	0.04	A	19.36	0.19	0.01	A	1.56	0.11	0.01	A	1.60	0.10	0.01	A	0.73	-0.13	-0.01	A	0.02	-0.05	0.00	A	0.82	-0.13	-0.01	A
27	88.41	0.45	0.02	A	2.99	0.08	0.01	A	3.61	-0.17	-0.01	A	0.03	-0.01	0.00	A	20.85	0.89	0.02	A	1.72	0.54	0.03	A	0.95	-0.15	-0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.22
Spring 2014 AIMS Differential Item Functioning
Writing CRT High School

	Reference: Male N= 39257				Reference: Hispanic N= 44930				Reference: White N= 62312				Reference: White N= 62312				Reference: White N= 62312				Reference: White N= 62312				Reference: White N= 62312			
	Focal: Female N= 38201				Focal: Non Hispanic N= 32629				Focal: Africa American N= 4643				Focal: Native American N= 4541				Focal: Asian N= 2365				Focal: Hawaii N= 282				Focal: Multiple Indicator N= 21			
Item	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag	MH χ2	ΔMH	SMD	Flag
1	0.01	0.00	0.00	A	11.03	0.16	0.01	A	9.85	-0.29	-0.02	A	20.45	-0.41	-0.03	A	4.60	0.36	0.01	A	0.24	-0.19	-0.01	A	5.95	0.39	0.02	A
2	39.64	0.35	0.01	A	2.69	-0.09	0.00	A	12.79	-0.37	-0.02	A	0.20	-0.05	0.00	A	27.46	-0.95	-0.03	A	1.03	-0.41	-0.02	A	1.47	0.22	0.01	A
3	52.91	-0.40	-0.01	A	30.43	-0.30	-0.01	A	0.05	0.02	0.00	A	0.14	0.04	0.00	A	22.87	-0.80	-0.03	A	0.00	0.01	0.00	A	9.35	0.56	0.02	A
4	68.84	0.31	0.03	A	36.77	-0.23	-0.02	A	9.68	-0.24	-0.02	A	9.01	-0.23	-0.02	A	1.91	-0.16	-0.01	A	0.19	-0.12	-0.01	A	0.02	0.02	0.00	A
5	324.63	0.66	0.06	A	221.57	0.56	0.05	A	0.41	-0.05	0.00	A	2.89	0.14	0.01	A	1.02	-0.11	-0.01	A	3.63	0.57	0.05	A	0.17	0.05	0.00	A
6	20.95	-0.20	-0.01	A	141.29	-0.53	-0.03	A	0.74	0.08	0.01	A	20.73	-0.47	-0.03	A	3.05	0.20	0.02	A	0.43	-0.24	-0.02	A	0.02	0.02	0.00	A
7	0.07	0.01	0.00	A	6.45	-0.12	-0.01	A	2.50	-0.15	-0.01	A	3.01	0.15	0.01	A	22.32	-0.70	-0.03	A	0.22	-0.18	-0.01	A	1.04	-0.15	-0.01	A
8	84.10	-0.36	-0.03	A	253.68	-0.62	-0.05	A	10.43	-0.26	-0.02	A	26.67	-0.42	-0.04	A	16.17	0.51	0.03	A	0.33	-0.18	-0.02	A	1.55	-0.15	-0.01	A
9	5.60	0.09	0.01	A	0.14	0.01	0.00	A	11.80	0.28	0.02	A	78.87	0.71	0.06	A	83.38	1.14	0.08	B>	1.81	0.42	0.04	A	0.42	0.08	0.01	A
10	0.01	0.00	0.00	A	20.94	-0.18	-0.01	A	0.09	-0.02	0.00	A	37.07	-0.48	-0.04	A	2.34	0.19	0.01	A	2.71	-0.49	-0.04	A	0.31	-0.06	-0.01	A
11	7.86	-0.10	-0.01	A	2.22	0.06	0.01	A	0.80	0.07	0.01	A	5.26	-0.18	-0.02	A	14.53	0.43	0.04	A	0.97	0.30	0.03	A	0.78	0.10	0.01	A
12	11.98	0.15	0.01	A	70.57	-0.37	-0.03	A	0.07	-0.02	0.00	A	11.51	-0.29	-0.02	A	3.62	-0.27	-0.01	A	1.56	-0.43	-0.03	A	0.17	-0.06	0.00	A
13	8.74	-0.11	-0.01	A	6.66	0.10	0.01	A	0.21	0.04	0.00	A	94.31	0.76	0.07	A	49.07	0.86	0.06	A	1.17	0.33	0.03	A	2.12	-0.17	-0.01	A
14	28.46	0.23	0.02	A	12.82	0.15	0.01	A	0.13	-0.03	0.00	A	11.29	-0.28	-0.02	A	0.76	-0.12	-0.01	A	1.11	0.37	0.03	A	1.91	0.18	0.01	A
15	1.20	-0.04	0.00	A	38.63	0.24	0.02	A	0.07	-0.02	0.00	A	5.91	0.20	0.02	A	55.20	0.79	0.07	A	3.83	0.60	0.05	A	7.43	-0.32	-0.03	A
16	2.63	-0.06	-0.01	A	11.93	-0.13	-0.01	A	4.57	-0.16	-0.02	A	84.14	-0.69	-0.07	A	140.87	-1.23	-0.11	B<	2.36	-0.44	-0.04	A	2.28	-0.16	-0.02	A
17	335.89	0.66	0.06	A	1.66	0.05	0.00	A	7.12	-0.20	-0.02	A	37.05	0.46	0.04	A	20.30	0.49	0.04	A	0.26	0.16	0.01	A	3.01	-0.19	-0.02	A
18	86.88	-0.43	-0.02	A	14.80	0.18	0.01	A	6.89	-0.24	-0.02	A	90.99	-0.81	-0.06	A	5.20	-0.34	-0.01	A	1.99	-0.50	-0.03	A	5.57	-0.33	-0.02	A
19	143.45	-0.60	-0.03	A	86.88	-0.46	-0.03	A	1.18	0.11	0.01	A	21.47	-0.41	-0.03	A	0.90	-0.16	-0.01	A	2.71	-0.59	-0.04	A	4.96	0.36	0.02	A
20	257.26	0.58	0.06	A	0.00	0.00	0.00	A	1.24	0.09	0.01	A	13.25	0.29	0.02	A	0.32	0.06	0.01	A	1.98	0.41	0.04	A	0.44	0.07	0.01	A
21	3.74	0.08	0.01	A	27.63	-0.22	-0.02	A	1.90	0.12	0.01	A	1.12	0.09	0.01	A	0.23	-0.06	0.00	A	2.73	0.57	0.04	A	2.81	0.21	0.02	A
22	263.64	-0.62	-0.05	A	204.84	-0.55	-0.05	A	13.11	0.29	0.02	A	142.61	-1.00	-0.08	A	0.56	0.09	0.01	A	5.11	-0.76	-0.06	A	0.02	0.02	0.00	A
23	70.72	0.36	0.02	A	0.48	0.03	0.01	A	33.12	-0.48	-0.04	A	2.97	0.14	0.01	A	2.63	0.23	0.01	A	0.01	0.03	0.00	A	0.56	-0.10	-0.01	A
24	239.72	0.63	0.05	A	14.00	0.15	0.01	A	25.34	-0.40	-0.03	A	0.63	-0.06	-0.01	A	0.66	0.11	0.01	A	1.54	-0.39	-0.03	A	4.61	-0.26	-0.02	A
25	0.01	0.00	0.00	A	4.53	-0.09	-0.01	A	28.23	-0.43	-0.04	A	3.98	-0.16	-0.01	A	20.55	0.60	0.04	A	0.01	-0.03	0.00	A	0.14	-0.05	0.00	A
26	89.00	0.41	0.03	A	0.29	-0.02	0.00	A	15.19	0.35	0.02	A	52.80	-0.62	-0.05	A	0.31	0.08	0.00	A	0.02	0.05	0.00	A	1.08	0.14	0.01	A
27	14.84	-0.14	-0.01	A	47.51	-0.26	-0.02	A	6.92	-0.20	-0.02	A	11.39	-0.26	-0.02	A	4.35	0.23	0.02	A	0.38	0.19	0.02	A	1.79	0.15	0.01	A

Note: African Am. = African American, Native Am. = Native American, MH χ2 = Mantel-Haenszel Chi-Square, MH = Delta (MH-D DIF), SMD = Standardized Mean Difference, A=No DIF, B=Weak DIF, C=Strong DIF, < favors reference group, > favors focal group. Item number does not indicate test booklet location due to field test items and NRT items.

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Table 9.2.1.23
DIF Statistics for Items Exhibiting Strong DIF

Content	Grade	Item #	Item Type	In favor of / Against	Group	MH Delta	MH SMD
Mathematics	6	11	MC	Against	Female	1785.48	-1.74	-0.12
Reading	8	37	MC	In favor of	Female	1800.60	1.55	0.14
Science	4	10	MC	Against	Asian	108.76	-1.64	-0.05
Science	8	6	MC	Against	Female	922.94	-1.86	-0.06
Science	8	5	MC	Against	African	341.07	-1.60	-0.09
Writing	5	3	MC	Against	Asian	223.47	-1.62	-0.12

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9.2.2 Correlations among AIMS Assessments

Correlations were examined between scale scores on Spring 2014 AIMS tests by grade level. Note that data used for the calculation of correlation included records with valid scale scores in all content areas and tests in each grade level. Sample sizes are therefore slightly lower than presented in other parts of this technical report.

In addition, because students in high school had different testing windows for the reading, writing, mathematics, and science tests, data merging was necessary to match reading and writing records with mathematics and science records. Once valid records were selected for each of the high school content areas and records with duplicate student identification numbers were removed, data was merged based on student identification number. Table 9.2.2.1 presents the resulting reduction in N size for each grade level. Scale score means and distributions prior to and after the merge were compared to ensure that the match did not substantially alter the data. Only slight changes in mean and standard deviation occurred after the merge, and density plots illustrated that the shape of the distribution prior to and after merging matched reasonably well. Therefore, correlations presented for the high school reading, writing, and mathematics and science are based on the matched data, with a total N size of 48,092.

All correlations are presented in Tables 9.2.2.2 through 9.2.2.8. The patterns of correlation presented in the tables are consistent with expectations given the constructs measured. Correlations were consistently high between tests designed to measure the same or very similar constructs (i.e., CRT math and NRT math or CRT reading and NRT reading). Correlations were much lower between tests designed to measure dissimilar constructs such as math and writing.

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Table 9.2.2.1
Spring 2014 Matched N Counts for Correlations Calculations

Grade	N Count
3	84167
4	83274
5	82290
6	81987
7	82093
8	82259
HS	48092

Table 9.2.2.2
Spring 2014 AIMS Correlations among Assessments
Grade 3

Test	1	2	3	4	5
1.RD CRT	1.00	0.81	0.89	0.79	0.78
2.MA CRT	0.81	1.00	0.75	0.74	0.89
3.RD NRT	0.89	0.75	1.00	0.74	0.73
4.LA NRT	0.79	0.74	0.74	1.00	0.71
5.MA NRT	0.78	0.89	0.73	0.71	1.00

Note: N size will be less than presented in other parts of this Technical Report due to missing or invalid test records in some, but not all, content areas. The N count for this table is 84,167.

Table 9.2.2.3
Spring 2014 AIMS Correlations among Assessments
Grade 4

Test	1	2	3	4	5	6
1.RD CRT	1.00	0.78	0.89	0.78	0.76	0.82
2.MA CRT	0.78	1.00	0.74	0.73	0.91	0.77
3.RD NRT	0.89	0.74	1.00	0.73	0.72	0.77
4.LA NRT	0.78	0.73	0.73	1.00	0.71	0.70
5.MA NRT	0.76	0.91	0.72	0.71	1.00	0.74
6.SC	0.82	0.77	0.77	0.70	0.74	1.00

Note: N size will be less than presented in other parts of this Technical Report due to missing or invalid test records in some, but not all, content areas. The N count for this table is 83,274.

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Table 9.2.2.4
Spring 2014 AIMS Correlations among Assessments
Grade 5

Test	1	2	3	4	5	6
1.RD CRT	1.00	0.75	0.78	0.89	0.78	0.72
2.WR CRT	0.75	1.00	0.71	0.69	0.76	0.66
3.MA CRT	0.78	0.71	1.00	0.72	0.73	0.91
4.RD NRT	0.89	0.69	0.72	1.00	0.73	0.66
5.LA NRT	0.78	0.76	0.73	0.73	1.00	0.68
6.MA NRT	0.72	0.66	0.91	0.66	0.68	1.00

Note: N size will be less than presented in other parts of this Technical Report due to missing or invalid test records in some, but not all, content areas. The N count for this table is 82,290.

Table 9.2.2.5
Spring 2014 AIMS Correlations among Assessments
Grade 6

Test	1	2	3	4	5	6
1.RD CRT	1.00	0.74	0.78	0.87	0.77	0.74
2.WR CRT	0.74	1.00	0.68	0.67	0.73	0.65
3.MA CRT	0.78	0.68	1.00	0.68	0.72	0.91
4.RD NRT	0.87	0.67	0.68	1.00	0.70	0.65
5.LA NRT	0.77	0.73	0.72	0.70	1.00	0.69
6.MA NRT	0.74	0.65	0.91	0.65	0.69	1.00

Note: N size will be less than presented in other parts of this Technical Report due to missing or invalid test records in some, but not all, content areas. The N count for this table is 81,987.

Table 9.2.2.6
Spring 2014 AIMS Correlations among Assessments
Grade 7

Test	1	2	3	4	5	6
1.RD CRT	1.00	0.74	0.78	0.87	0.77	0.75
2.WR CRT	0.74	1.00	0.70	0.69	0.74	0.67
3.MA CRT	0.78	0.70	1.00	0.73	0.72	0.92
4.RD NRT	0.87	0.69	0.73	1.00	0.71	0.69
5.LA NRT	0.77	0.74	0.72	0.71	1.00	0.70
6.MA NRT	0.75	0.67	0.92	0.69	0.70	1.00

Note: N size will be less than presented in other parts of this Technical Report due to missing or invalid test records in some, but not all, content areas. The N count for this table is 82,093.

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Table 9.2.2.7
Spring 2014 AIMS Correlations among Assessments
Grade 8

Test	1	2	3	4	5	6
1.RD CRT	1.00	0.77	0.86	0.75	0.74	0.81
2.MA CRT	0.77	1.00	0.71	0.69	0.92	0.81
3.RD NRT	0.86	0.71	1.00	0.68	0.68	0.74
4.LA NRT	0.75	0.69	0.68	1.00	0.66	0.71
5.MA NRT	0.74	0.92	0.68	0.66	1.00	0.76
6.SC	0.81	0.81	0.74	0.71	0.76	1.00

Note: N size will be less than presented in other parts of this Technical Report due to missing or invalid test records in some, but not all, content areas. The N count for this table is 82,259.

Table 9.2.2.8
Spring 2014 AIMS Correlations among Assessments
High School

Test	1	2	3	4
1.RD CRT	1.00	0.74	0.72	0.77
2.WR CRT	0.74	1.00	0.68	0.69
3.MA CRT	0.72	0.68	1.00	0.75
4.SC	0.77	0.69	0.75	1.00

Note: N size will be less than presented in other parts of this Technical Report due to 1) missing or invalid test records in some, but not all, content areas and 2) matching Reading, Writing, Mathematics, and Science records according to student identification number. The N-count for this table is 48,092.

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PART 10: CLASSIFICATION

Part 10 of this technical report provides information regarding classifying students into proficiency categories. The following AERA/APA/NCME standards from the 1999 edition are covered in this part: 1.5, 1.7, 2.2, 2.14, 2.15, 4.9, 4.19, 4.20, 4.21, and 6.5. The 2014 AERA/APA/NCME standards (AERA, APA, NCME, 2014) addressed by this chapter are: 1.8, 1.9, 2.13, 2.14, 2.16, 5.5, 5.21, 5.22, 5.23, and 7.4.

Scores from the Spring 2014 AIMS assessments are used to classify students into one of four performance categories: *Falls Far Below the Standard*, *Approaches the Standard*, *Meets the Standard*, and *Exceeds the Standard*. This part of the technical report provides information regarding classifying students into these four performance categories. Arizona educators made recommendations for cut scores for each category in the standard setting workshops. Analyses were conducted to examine the consistency and accuracy with which students were assigned to performance categories.

10.1 Standard Setting Technical Documentation

Standard setting for the AIMS CRT Reading tests was conducted in early May 2005, using the bookmark standard setting procedure. All technical documentation regarding the standard setting is available in the bookmark standard setting technical report, available from the ADE at http://www.azed.gov/assessment/files/2014/05/az-aims-reading-math-ss-report-2005.pdf.

Standard setting for the AIMS Science tests was conducted in early June, 2008, using the bookmark standard setting procedure. All technical documentation regarding the standard setting is available in the bookmark standard setting technical report, available from the ADE at http://www.azed.gov/assessment/files/2014/05/aims2008sciencerevisedstandardsettingtechnicalreport.pdf.

Standard setting for the AIMS Mathematics tests was conducted in May and June, 2010, using the bookmark standard setting procedure. All technical documentation regarding the standard setting is available in the bookmark standard setting technical report, available on the ADE website at http://www.azed.gov/assessment/files/2014/05/azaimsmathssreport2010.pdf.

Standard setting for the AIMS Writing tests was conducted in May and June, 2011, using a modified bookmark standard setting procedure. All technical documentation regarding the standard setting is available in the bookmark standard setting technical report, available on the ADE website at http://www.azed.gov/assessment/files/2014/05/az-aims-writing-ss-report-final.pdf.

The scale score ranges for each of the four performance level categories for the AIMS CRT tests are presented below in Table 10.1.1.

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Table 10.1.1
Spring 2014 AIMS
Final Scale Score Ranges by Performance Level

Test	FFBS	AS	MS	ES
Mathematics				
3	138-302	306-344	347-405	410-540
4	207-328	331-363	366-414	419-560
5	255-346	349-379	382-435	440-580
6	277-364	367-396	399-443	447-600
7	277-379	383-409	412-459	463-620
8	257-406	409-423	426-472	476-640
HS	384-469	472-486	488-536	539-700
Reading				
3	200-375	380-428	432-514	521-640
4	322-398	402-449	452-534	541-660
5	362-422	427-465	469-549	556-675
6	352-431	436-476	480-569	575-690
7	383-438	443-487	490-584	590-720
8	270-450	455-498	502-601	612-800
HS	500-623	628-670	674-770	776-900
Writing				
5	300-438	442-492	496-592	602-700
6	308-446	450-491	495-577	586-700
7	300-448	451-492	495-592	601-700
HS	300-432	433-478	480-586	587-700
Science				
4	200-457	462-497	502-546	551-800
8	312-471	475-499	503-528	533-800
HS	243-473	477-498	502-535	540-800

10.2 Classification Consistency and Accuracy

This section describes the analyses conducted to estimate classification consistency and accuracy for the 2014 AIMS 3-8 and high school test administrations. Classification consistency can be defined as the agreement between examinees' performance category classification from two independent administrations of the same test (or two parallel forms of the test). Classification accuracy can be defined as the agreement between the actual classifications using observed cut scores and true classifications based on known true cut scores (Livingston & Lewis, 1995).

In conjunction with internal consistency, classification consistency is an important type of reliability and is particularly relevant to high-stakes pass/fail tests such as the AIMS high school tests. As a form of reliability, classification consistency represents how reliably students can be classified into performance categories. Please see Part 9 of this report for more information on the internal consistency of the AIMS assessments.

For tests such as the AIMS high school assessments, classification consistency is most important for students whose ability is near the pass/fail cut score. Students whose ability is far above or far below the value established for passing are unlikely to be misclassified because repeated administration of the test will nearly always result in the same classification. Examinees whose true

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scores are close to the cut score are a more serious concern. These students' true scores will likely lie within the standard error of measurement of the cut score. For this reason, the measurement error at the cut scores should be considered when evaluating the classification consistency of a test. For convenience, the cut scores and their associated standard errors are presented in Table 10.2.3.1. Furthermore, the number of students near the cut scores should also be considered when evaluating classification consistency; these numbers show the number of students who are most likely to be misclassified. The number of students near the cut scores for each grade and content area can be found in the state scale score frequency distributions presented in Part 8 of this report.

Classification consistency and accuracy were estimated using the IRT procedure suggested by Lee, Hanson, and Brennan (2002) and Wang, Kolen, and Harris (2000) for the AIMS assessments in reading, mathematics, and science. For the AIMS assessment for writing, procedures described by Livingston and Lewis (1995) were used to estimate classification consistency and accuracy. The following description of classification consistency and accuracy is based on the paper by Lee et al. (2002).

10.2.1 Classification Consistency

Assume that θ is a single latent trait measured by a test and denote Φ as a latent random variable. When a test X consists of K items and its maximum number-correct score is N, the marginal probability of the number-correct (NC) score *x* is:

$$P(X = x) = \int P(X = x \mid \Phi = \theta) g(\theta) d\theta, \qquad x = 0,1,..., N.,$$

where $g(\theta)$ is the density of θ.

In this report, the marginal distribution $P(X = x)$ is denoted as $f(x)$, and the conditional error distribution $P(X = x \mid \Phi = \theta)$ is denoted as $f(x \mid \theta)$. It is assumed that examinees are classified into one of H mutually exclusive categories on the basis of predetermined H-1 observed score cutoffs, $C_1, C_2, \ldots, C_{H-1}$. Let L_h represent the hth category into which examinees with $C_{h-1} \le X \le C_h$ are classified. $C_0 = 0$ and $C_H =$ the maximum number-correct score. Then, the conditional and marginal probabilities of each category classification are as follows:

$$P(X \in L_h \mid \theta) = \sum_{x=C_{h-1}}^{C_{h-1}} f(x \mid \theta), \quad h = 1, 2, \ldots, \text{H}.$$

$$P(X \in L_h) = \int \sum_{x=C_{h-1}}^{C_{h-1}} f(x \mid \theta) g(\theta) d\theta, \quad h = 1, 2, \ldots, \text{H}.$$

Because obtaining test scores from two independent administrations of AIMS was not feasible due to security, logistic, and cost constraints, a psychometric model was used to obtain the estimated classification consistency indices using test scores from a single administration. Based on the psychometric model, a symmetric H*H contingency table can be constructed. The elements of H*H contingency table consist of the joint probabilities of the row and column observed category classifications.

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That two administrations are independent implies that if X_1 and X_2 represent the raw score random variables on the two administrations, then, conditioned on θ, X_1 and X_2 are independent and identically distributed. Consequently, the conditional bivariate distribution of X_1 and X_2 is:

$$f(x_1,\ x_2 \mid \theta) = f(x_1 \mid \theta) f(x_2 \mid \theta).$$

The marginal bivariate distribution of X_1 and X_2 can be expressed as follows:

$$f(x_1,\ x_2) = \int f(x_1, x_2 \mid \theta) f(\theta) d\theta.$$

Consistent classification means that both X_1 and X_2 fall in the same category. The conditional probability of falling in the same category on the two administrations is:

$$P(X_1 \in L_h,\ X_2 \in L_h \mid \theta) = \left[\sum_{x_1 = C_{h-1}}^{C_{h-1}} f(x_1 \mid \theta) \right]^2,$$
$$h = 1, 2, \ldots, \mathrm{H}.$$

The agreement index P, conditional on theta, is obtained by:

$$P(\theta) = \sum_{h=1}^{H} P(X_1 \in L_h,\ X_2 \in L_h \mid \theta).$$

The agreement index (classification consistency) can be computed as:

$$P = \int P(\theta) g(\theta) d(\theta).$$

The probability of consistent classification by chance, P_C, is the sum of squared marginal probabilities of each category classification:

$$P_C = \sum_{h=1}^{H} P(X_1 \in L_h) P(X_2 \in L_h) = \sum_{h=1}^{H} \left[P(X_1 \in L_h) \right]^2.$$

Then, the coefficient kappa (Cohen, 1960) is:

$$k = \frac{P - P_C}{1 - P_C}$$

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10.2.2 Classification Accuracy

Let Γ_w denote true category. When an examinee has an observed score, $x \in L_h$ (h =1, 2,…, H), and a latent score , $\theta \in \Gamma_w$ (w=1, 2,…, H), an accurate classification is made when $h = w$. The conditional probability of accurate classification is

$$\gamma(\theta) = P(X \in L_w \mid \theta),$$

where w is the category such that $\theta \in \Gamma_w$.

10.2.3 Classification Consistency and Accuracy Results

For convenience, the cut scores and their associated standard errors are presented in Table 10.2.3.1. Table 10.2.3.2 presents results from the classification consistency and classification accuracy analyses. These results are for classifying students into four performance levels. Included in the table for each grade and content area are case counts (N), classification consistency (Agreement), classification inconsistency (Inconsistency), probability of consistent classification by chance (Chance), Cohen's Kappa (Kappa), and classification accuracy (Accuracy). Inconsistency is defined as 1-agreement.

The 2014 AIMS classification consistency and accuracy results are consistent with classification analyses from the previous AIMS administration. It is important to note that the classification results are dependent on the number of cut scores maintained in a testing program. Moreover, the acceptability of the classification results should be evaluated with respect to the associated stakes of the testing program. The results for the AIMS assessments are quite consistent with other testing programs with similar structure and purpose.

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Table 10.2.3.1
Spring 2014 AIMS
Standard Error of Measurement at Cut Scores

Test	AS		MS		ES	
	Cut Score	SEM	Cut Score	SEM	Cut Score	SEM
Mathematics						
3	303	12	347	12	406	14
4	331	11	366	11	416	14
5	348	11	381	11	436	14
6	366	11	398	11	446	13
7	382	11	411	11	460	13
8	409	11	426	11	475	13
HS	471	10	487	10	537	11
Reading						
3	379	14	431	12	516	16
4	402	13	450	11	536	16
5	424	14	468	12	556	16
6	433	14	478	12	571	16
7	443	15	489	13	587	17
8	452	15	499	15	602	22
HS	627	15	674	13	773	17
Writing						
5	439	11	494	11	601	17
6	449	11	493	11	581	16
7	450	9	495	10	595	16
HS	433	9	480	9	587	12
Science						
4	462	15	500	14	547	16
8	473	14	500	14	532	15
HS	475	14	500	14	537	16

Note: FFBS = Falls Far Below the Standard; AS = Approaches the Standard; MS = Meets the Standard; ES = Exceeds the Standard

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Table 10.2.3.2
Spring 2014 AIMS
Classification Consistency and Accuracy

Test	N	Agreement	Inconsistency	Chance	Kappa	Accuracy
Mathematics						
3	84180	0.77	0.23	0.30	0.68	0.84
4	83410	0.75	0.25	0.27	0.66	0.82
5	83575	0.75	0.25	0.29	0.65	0.82
6	82586	0.74	0.26	0.27	0.65	0.82
7	83105	0.74	0.26	0.28	0.65	0.81
8	82369	0.74	0.26	0.28	0.65	0.81
HS	105085	0.83	0.17	0.46	0.69	0.88
Reading						
3	84212	0.80	0.20	0.46	0.63	0.85
4	83418	0.81	0.19	0.48	0.64	0.87
5	83599	0.79	0.21	0.49	0.60	0.85
6	82597	0.81	0.19	0.52	0.61	0.86
7	83127	0.82	0.18	0.57	0.59	0.87
8	82384	0.79	0.21	0.46	0.61	0.85
HS	89667	0.81	0.19	0.51	0.62	0.86
Writing						
5	82340	0.79	0.21	0.42	0.64	0.85
6	82014	0.76	0.24	0.38	0.61	0.83
7	82117	0.79	0.21	0.40	0.64	0.85
HS-A	94242	0.80	0.20	0.48	0.62	0.86
HS-T	3234	0.78	0.22	0.40	0.63	0.84
Science						
4	83408	0.68	0.32	0.27	0.56	0.76
8	82470	0.68	0.32	0.28	0.55	0.76
HS	76350	0.69	0.31	0.26	0.58	0.77

Note: High school results include students in all cohorts. Results for Reading, Mathematics, and Science were computed with the IRT method suggested by Lee, Hanson and Brennan (2002) and Wang, Kolen and Harris (2000). Results for Writing were computed using the Livingston-Lewis procedure (1995), implemented with BB-CLASS (Brennan, 2004).

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PART 11: SCORING OF OPEN-ENDED ITEMS

Arizona's Instrument to Measure Standards (AIMS) assessment requires students to write an essay in response to a specific writing topic or prompt. Students are given two pages to write their response. Writing is administered to students in Grades 5, 6, 7, and High School only. Grades 5, 6 and 7 are administered in the spring. The High School Writing assessment is a graduation requirement and is administered in the spring and fall. The procedure for scoring these writing essays is described in this chapter. This part of the technical report addresses Standards 2.10, 3.22, 3.23, and 5.9 of the *Standards for Educational and Psychological Testing* (AERA, APA, NCME, 1999) and Standards 2.7, 4.18, 4.20, 6.8, and 6.9 in the new edition of *Standards for Educational and Psychological Testing* (AERA, APA, NCME, 2014).

11.1 Scoring Process

Outlined below is the scoring process that the AIMS testing contractor follows. The AIMS Writing essays are scored using the distributed model in which scorers are able to train and score at home. Only the PSC (Performance Scoring Center) supervisory staff which monitors the training and scoring is at a regional site. This procedure is used to score all written essays for the AIMS assessments.

11.1.1 Rangefinding and Rubric Review

No Rangefinding was conducted this year since the operational items selected were already reviewed by committees during the previous year's rangefinding.

11.1.2 Recruiting and Training Scorers

Highly qualified scorers are essential to achieving and maintaining a high degree of reliability in scoring students' responses. Thus, the careful selection of professional scorers to evaluate writing essay response items is critical in scoring the AIMS assessments. Scorers are recruited by our Human Resources department and must have extensive experience scoring this type of writing on previous projects. Scorers must also have performed well based on our internal quality metrics of Inter-rater reliability and validity to have achieved a high enough performance rating on previous multi-trait writing to be recruited for the AIMS assessment. Included in our scorer pool is a core group of veteran scorers with experience in working on other holistic writing projects whose insight, flexibility, and dedication have been demonstrated while working on a range of performance assessments.

Scoring supervisors are chosen from the pool of scorers based on demonstrated expertise in all facets of the scoring process, including strong organizational abilities and training skills. Individuals chosen to perform these assignments possess practical skills, leadership abilities, and sensitivity to interpersonal communication requirements. Supervisors also possess the essential capability of assimilating and helping scorers understand the particular scoring requirements of the AIMS.

Upon being hired, scorers sign a confidentiality agreement in which they pledge to keep all information and student responses confidential. Scorers and scoring supervisors are trained to thoroughly learn the rubric and score responses according to the scoring guidelines developed for the AIMS assessment.

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At the beginning of each scoring project, all scoring supervisors and scorers assigned to the project must complete project-specific training and qualification.

11.1.3 Training

Thorough training is vital to the successful completion of any scoring. PSC content specialists and scoring directors follow a series of prescribed steps to ensure training is consistent and of the highest quality. The PSC staff develops its training materials to facilitate learning through visual, auditory and kinesthetic channels. The training for AIMS is conducted using on-line modules designed to take scorers through the background of the assessment and through the rubric and anchor sets for each item. Scorers are then required to take two sets of practice papers and two sets of qualification papers once they complete the item specific modules. Once the scorer completes the practice and qualification sets for that item and qualifies, the scorer takes a calibration set and then is allowed to score live responses for that item. There is a single holistic writing rubric for scoring all grades for the AIMS. A scorer is only required to train and qualify on a particular item.

Prior to scorer training, the PSC subject leaders conduct scoring supervisor training. A primary goal of this session is to ensure scoring supervisors clearly understand the scoring protocols and the training materials. This ensures all responses are scored in a manner consistent with the scores assigned to the anchor papers and according to the intentions of ADE. Scoring supervisors read and discuss the assessment items along with the rubrics used to score them. Scoring supervisors are then required to complete the online training for the item they are assigned. They must qualify for that item in order to be on the project.

The online project training module includes an introduction to the assessment program whose tests are being scored. It is important for scorers to have an understanding of the history and goals of the assessments and the context within which students' responses are evaluated. This gives them a better understanding of what types of responses can be expected. The scorers receive a description of the scoring criteria applied to the responses. Next, the item specific training module presents the writing prompt to be scored and the scoring rubric itself for that item. These online training modules are listed as follows:

Module 1 – Scoring AIMS Writing (Project Specific)

Module 2 – Scoring Grade ____Writing. (Item Specific)

The primary goal of training is to convey to the scorers the decisions made during training paper selection about what type(s) of responses correspond to each score point and to help scorers internalize the scoring protocol so they may effectively apply those decisions. Scorers are better able to comprehend the scoring guidelines in context, so the rubric is presented in conjunction with the anchor papers. Anchor papers are the primary points of reference for scorers as they internalize the rubric. There are three to four anchor papers for each score point value represented in the rubric. The item specific training modules direct scorers' attention to the score point description from the scoring guide, as well as the illustrative anchor papers, thereby enabling scorers to immediately connect the language of the rubric with actual student performance.

After presentation and discussion of the anchor papers, each scorer is shown two practice sets. Practice papers represent each score point and are used during training to help scorers become familiar with applying the rubric. Some papers clearly represent the score point. Others are selected because they represent borderline responses. Use of these practice sets provides guidance to scorers in defining the line between score points. Training is a continuous process, and scorers are

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consistently given feedback as they score. Scorers must then pass one of two qualification sets to show a grasp of all the training they have received.

11.1.4 Quality Control

A variety of reports are produced throughout the scoring process to allow scoring supervisory staff to monitor the progress of the project, the reliability of scores assigned, and individual scorers' work. Those reports include:

- Daily and Cumulative Inter-Rater Reliability Reports by Item and Scorer. These reports provide information about how many times scorers were in exact agreement or assigned adjacent scores. The reliability is computed and is monitored daily and cumulatively for the project.
- Pre-scored Validity responses are channeled through the ePEN scoring system and delivered to scorers randomly. Scoring supervisors can get a sense of each reader's grasp of scoring by monitoring their validity agreement rates.
- Daily and Cumulative Frequency Distributions. These reports show how many times each score point has been assigned to the item being scored by readers. The frequency distributions are produced both on a daily basis and cumulatively for the entire scoring project. This report allows scoring supervisors and scoring directors to see whether scorers have a tendency to score consistently high or low.

The most immediate method of monitoring a scorer's performance is through backreading by scoring supervisors. If a scoring supervisor discovers that a scorer is consistently assigning scores other than those the scoring supervisor would assign, he or she can message that scorer using the backreading function and through the instant messaging system in the ePEN scoring system. The validity papers also have annotations that can be reviewed by that scorer after it is scored, using the original anchor papers and training materials. This immediate check and remedial correction also provide an effective guard against scorer drift.

With the help of the individual scorer reliability and validity reports, the scoring staff can closely monitor each scorer's performance. As a distributed project, scorers are monitored for quality using the scorer exception process. Criteria are entered into the ePEN scoring system for Inter-Rater Reliability, validity and scoring rate. A scorer must meet and maintain the quality metrics established for AIMS in these areas in order to continue scoring the project. If a scorer fails to meet validity, IRR or scoring rate for the first time, the scorer receives a warning and must contact the scoring staff for feedback. If a scorer fails to meet validity a second time, they must then take and pass a 10 paper calibration set in order to continue on the project. Scorers also receive daily calibration sets which they must pass or be targeted for exception. In addition, scorers that have been warned for low IRR or validity are continuously monitored through backreading.

If a scorer fails the targeted calibration for low validity, the scorer is automatically locked out of the system and can no longer score. The scorer receives an e-mail notification that he or she is dismissed from the project. Scorers who have low IRR or a lower or higher than desired scoring rate are closely monitored in backreading and through reports. If in the opinion of the Scoring Director and Content Specialist, these scorers are still performing below acceptable standard after receiving sufficient feedback and given every reasonable opportunity to improve; they will be manually locked out of the system and notified by email that they are dismissed from the project.

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11.1.5 Appeals

The ADE must approve all requests for appeals submitted by district test coordinators. Once PSC receives a request from ADE that a rescore is required for a student, the process outlined below will be followed.

A PSC Scoring Director will use the following procedure to score appeals for an AIMS Writing response:

- Review the scoring rubric, anchor papers, and training materials.
- Read the student's response.
- Score each response based on the scoring rubric and anchor papers.
- Compare rescored response scores to the original scores. For scores that are the same or adjacent, the original score will stand. For scores that are discrepant, the new score will override the original score.
- Determine if the student's response was written in No. 2 pencil.

Pearson will determine the performance level of the rescored response. If the student's rescored performance level (*Falls Far Below*, *Approaches*, *Meets*, or *Exceeds*) is the same as the student's original performance level, Pearson will submit an invoice to the district. No paper reports will be generated.

If the student's rescored performance level is different from the student's original performance level **and** the student's response **was not** in No. 2 pencil, Pearson will submit an invoice to the district. Pearson will provide the district with two copies of the revised Student Report.

If the student's rescored performance level is different from the student's original performance level **and** the student's response **was** in No. 2 pencil, Pearson will provide the district with two copies of the revised Student Report at no charge.

No appeals were received for the Fall 2013 or Spring 2014 administrations.

11.1.6 Security

To ensure security is never compromised, the following safeguards are employed:

- Scoring materials are accessed by scorers on a secure website that is managed by Pearson Scoring Support. Only scorers hired for AIMS are allowed access.
- No scorers are hired who reside in Arizona as per contract requirement.
- Scorers and scoring staff personnel must sign a non-disclosure and confidentiality form in which they agree not to use or divulge any information concerning the tests.
- Any contact with the press is handled through ADE

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APPENDIX A: FALL 2013 AIMS ADMINISTRATION

Overview:

The Fall 2013 AIMS assessments were administered in reading, writing, and mathematics to students in high school who were in Grades 11 and 12 and had not yet obtained a passing score on one or more of the content areas. These assessments were written to the Arizona content standards and were designed to measure student performance with respect to these standards. The Fall 2013 AIMS assessments in reading and mathematics were multiple-choice, criterion-referenced tests. The Fall 2013 AIMS Writing assessment consisted of multiple-choice items and a single extended response essay prompt.

Test Design, Development, and Administration:

The design and development of the Fall 2013 AIMS assessments reflect the same guiding principles that were followed for the Spring 2013 AIMS assessments. Arizona teachers, curriculum specialists, and administrators from across the state were an integral part of the AIMS test development process. More information regarding the committee meetings, the test blueprints, and the test development process is contained in Parts 3 and 4 of this technical report.

The test design and structure of the Fall 2013 AIMS assessment mirrored the structure of the AIMS assessments administered in spring. That is, the AIMS Reading test consisted of 54 multiple-choice items developed by Arizona teachers. Raw scores ranged from 0-54 and scale scores ranged from 500 to 900. Similarly, the AIMS Mathematics test consisted of 85 multiple-choice items developed by Arizona teachers. Raw scores ranged from 0-85 and scale scores ranged from 500 to 900. Finally, the AIMS Writing assessment consisted of one extended response writing prompt and 27 multiple-choice items. The multiple-choice component is weighted 40% and the essay response is weighted 60% in the total score. Responses to the prompt were scored on the holistic six-point rubric (see appendix D). Each essay response received two ratings. Final scores for responses with adjacent ratings were derived by averaging the two ratings. Final scores for responses with discrepant ratings (difference of 2 points) were resolved by a third rater. The raw scores ranged from 0-138, and scale scores were designed to range from 300-700. There are no norm-referenced items included in the high school AIMS assessments.

The test selection process for the Fall 2013 AIMS was designed such that resulting tests matched the Spring 2013 AIMS in overall test difficulty and content coverage. The test selection process is described in Part 4 of this report.

Test administration procedures for the Fall 2013 AIMS are described in Part 5 of this report.

Scaling and Equating:

The Fall 2013 AIMS administration was designed for students who were retaking the assessment because they had not obtained a passing score on one or more of the content areas. The population of students that retake the AIMS assessments varies from administration to administration in terms of its composition and achievement. Moreover, expediency in the reporting of results to the population of students who are retaking the AIMS assessments was

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considered to be a priority. For these reasons, a pre-equating model was adopted for the Fall AIMS administration.

Pre-equating takes advantage of an existing bank of previously calibrated and scaled items such that an equated form and an associated number correct to scale score conversion table can be constructed prior to operational administration. The Fall 2013 assessment was constructed from items that had been previously administered in the Spring 2013 AIMS administration and had been calibrated and linked to the operational scale of measurement using the Rasch measurement model. Using the existing item parameters for the items selected to be on the Fall 2013 AIMS assessment, the number correct to AIMS scale score conversion tables were created. The raw score to scale score conversions, including the standard error of measurement (SEM) for each scaled score, are presented in Tables A.1 through A.3.

Fall 2013 AIMS Test Results:

The results of the Fall 2013 AIMS are reported in Tables A.4 through A.6. Results presented below are based on population data contained within the final electronic data files. The results presented in this part of the technical report may differ slightly from final testing results presented on the Arizona Department of Education website due to slight differences in the application of exclusion rules. Official final results typically use more detailed school-level information than is used to conduct research analyses. The results in the following tables are presented as evidence of reliability and validity of the AIMS assessments and should not be used for state accountability purposes.

Results for AIMS high school assessments are reported by graduating cohort. Cohort 15 is defined as the group of students that will be graduating in 2015, and typically includes 11th grade students. Cohort 14 is defined as the group of students that will be graduating in 2014, and is typically comprised of seniors. Cohort 13 is defined as the group of students that were expected to have graduated in 2013or prior. For each cohort, scale score means and standard deviations as well as the percentages of students in each performance level are presented for the state as a whole and disaggregated into various demographic groups. Disaggregated results were produced for the various groups by using demographic data on student answer documents.

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Table A.1
Fall 2013 AIMS Raw Score to Scale Score Table
Mathematics CRT High School

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	300	59	43	483	10
1	300	42	44	485	10
2	315	30	**45**	**488**	**10**
3	333	25	46	490	10
4	345	22	47	492	10
5	355	19	48	494	10
6	364	18	49	497	10
7	371	17	50	499	10
8	378	16	51	501	10
9	383	15	52	504	10
10	389	14	53	506	10
11	393	14	54	508	10
12	398	13	55	511	10
13	402	13	56	513	10
14	406	13	57	516	10
15	410	12	58	518	10
16	413	12	59	521	10
17	417	12	60	524	11
18	420	12	61	526	11
19	423	11	62	529	11
20	426	11	63	532	11
21	429	11	64	535	11
22	432	11	**65**	**538**	**11**
23	435	11	66	541	11
24	438	11	67	544	12
25	440	10	68	548	12
26	443	10	69	551	12
27	446	10	70	555	12
28	448	10	71	559	13
29	451	10	72	563	13
30	453	10	73	567	14
31	456	10	74	572	14
32	458	10	75	576	15
33	460	10	76	582	15
34	463	10	77	588	16
35	465	10	78	594	17
36	467	10	79	602	18
37	470	10	80	610	20
38	**472**	**10**	81	621	22
39	474	10	82	634	25
40	476	10	83	652	30
41	479	10	84	681	42
42	481	10	85	700	59

Note: SEM is the standard error of measurement for the scale score. High school Mathematics scale scores are not on the same vertical scale as Grades 3-8**.**

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Table A.2
Fall 2013 AIMS Raw Score to Scale Score Table
Reading CRT High School

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	500	61	28	684	13
1	500	44	29	688	13
2	525	32	30	692	13
3	544	26	31	696	13
4	558	23	32	699	13
5	569	21	33	703	13
6	579	19	34	707	13
7	587	18	35	711	13
8	594	17	36	715	13
9	601	17	37	719	13
10	607	16	38	724	14
11	613	15	39	728	14
12	618	15	40	733	14
13	623	15	41	738	15
14	**628**	**14**	42	743	15
15	633	14	43	748	15
16	637	14	44	754	16
17	641	14	45	760	16
18	646	13	46	766	17
19	650	13	**47**	**773**	**18**
20	654	13	48	782	19
21	658	13	49	791	21
22	662	13	50	802	23
23	665	13	51	816	26
24	669	13	52	835	31
25	673	13	53	866	44
26	**677**	**13**	54	900	61
27	680	13			

Note: SEM is the standard error of measurement for the scale score. High school Reading scale scores are not on the same vertical scale as Grades 3-8.

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Table A.3
Fall 2013 AIMS Raw Score to Scale Score Table
Writing CRT High School

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	300	55	35	399	9	70	463	9	105	542	11
1	300	55	36	402	9	71	465	9	106	545	11
2	300	55	37	404	9	72	467	9	107	548	11
3	300	55	38	406	9	73	469	9	108	551	11
4	300	55	39	408	9	74	471	9	109	554	11
5	300	55	40	410	9	75	473	9	110	557	11
6	300	55	41	411	9	76	475	9	111	560	11
7	300	55	42	413	9	77	477	9	112	564	12
8	300	55	43	415	8	78	479	9	113	567	12
9	300	55	44	417	8	79	480	9	114	571	12
10	300	55	45	419	8	80	482	9	115	574	12
11	300	55	46	421	8	81	484	9	116	578	12
12	300	55	47	422	8	82	486	9	117	582	13
13	300	55	48	424	8	83	488	9	118	586	13
14	300	55	49	426	8	84	490	9	119	591	13
15	300	39	50	428	8	85	492	9	120	595	14
16	305	28	51	429	8	86	495	9	121	600	14
17	321	22	52	431	8	87	497	9	122	605	15
18	332	19	53	433	8	88	499	9	123	611	15
19	341	17	54	435	8	89	501	9	124	617	16
20	348	16	55	436	8	90	503	9	125	623	16
21	354	15	56	438	8	91	505	9	126	630	17
22	359	14	57	440	8	92	508	10	127	637	17
23	364	13	58	442	8	93	510	10	128	645	18
24	368	13	59	444	8	94	512	10	129	653	18
25	372	12	60	445	8	95	515	10	130	662	19
26	375	12	61	447	8	96	517	10	131	671	19
27	379	11	62	449	8	97	520	10	132	681	20
28	382	11	63	451	8	98	522	10	133	692	21
29	385	10	64	452	8	99	525	10	134	700	23
30	387	10	65	454	8	100	528	10	135	700	26
31	390	10	66	456	8	101	530	10	136	700	30
32	392	10	67	458	8	102	533	10	137	700	41
33	395	10	68	460	8	103	536	11	138	700	57
34	397	9	69	462	8	104	539	11			

Note: SEM is the standard error of measurement for the scale score. The writing scores range from 0 to 138 because the single essay response is scored by two raters on a scale of 1 to 6 on six traits. The trait scores are summed to produce the final score. Scores below 12 are artificial.

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Table A.4
Fall 2013 AIMS Results
Mathematics CRT High School

		Scale Score		% at Performance Level			
	N	M	SD	FFBS	AS	MS	ES
Cohort 15							
Total	27212	473.39	27.44	46	23	28	2
Ethnic Background							
Hispanic	14430	471.13	25.50	49	24	26	1
Non Hispanic	12449	475.75	28.93	43	23	31	3
White	20203	474.25	27.22	45	24	29	2
Black	2064	468.56	25.69	52	25	23	1
American Indian	2399	466.64	24.64	57	21	21	1
Asian	459	484.15	34.11	36	22	36	7
Secial Program Membership							
English Learner Program	908	453.29	23.74	78	13	8	0
Special Education	4105	450.64	22.26	82	11	7	0
SES	16521	470.14	25.49	51	24	25	1
Migrant	257	463.95	23.25	58	22	19	0
Cohort 14							
Total	14202	470.48	25.39	50	25	24	1
Ethnic Background							
Hispanic	7720	469.18	23.50	51	25	23	0
Non Hispanic	6323	471.96	27.36	48	25	26	2
White	10122	471.28	25.25	48	25	25	1
Black	1244	468.02	24.64	54	25	20	1
American Indian	1485	465.70	23.14	56	23	20	0
Asian	238	480.21	37.02	40	26	26	8
Secial Program Membership							
English Learner Program	560	455.52	23.84	76	13	11	0
Special Education	2484	450.19	20.57	84	11	5	0
SES	8787	468.77	23.83	52	25	22	1
Migrant	142	463.17	19.82	65	21	14	0
Cohort 13							
Total	4101	462.07	21.64	65	22	13	0
Ethnic Background							
Hispanic	2582	462.40	21.48	65	22	12	0
Non Hispanic	1461	461.51	21.94	65	21	14	0
White	2718	462.67	21.66	64	22	14	0
Black	339	458.05	21.98	71	18	10	0
American Indian	537	459.66	19.84	70	20	9	0
Asian	61	463.74	23.99	64	20	15	2
Secial Program Membership							
English Learner Program	283	454.35	21.85	78	13	8	0
Special Education	565	445.61	18.63	90	7	3	0
SES	2366	461.89	21.86	65	22	13	0
Migrant	53	458.47	19.38	72	15	13	0

Note: FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, off-grade, or a non-standard accommodation are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. The results are not final results and are presented here for purpose of addressing reliability and validity. These results should not be used for accountability purposes.

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Table A.5
Fall 2013 AIMS Results
Reading CRT High School

Group	N	Scale Score		% at Performance Level			
		M	SD	FFBS	AS	MS	ES
Cohort 15							
Total	14670	689.08	43.95	5	37	53	5
Ethnic Background							
Hispanic	7455	679.83	37.48	5	43	50	2
Non Hispanic	6826	696.77	47.26	5	32	56	8
White	10236	689.83	44.10	5	36	54	6
Black	1159	679.75	38.43	7	41	50	2
American Indian	1397	674.29	32.89	6	46	47	1
Asian	462	706.23	53.16	4	31	52	12
Secial Program Membership							
English Learner Program	888	651.01	23.91	13	72	15	0
Special Education	2970	655.68	28.62	13	63	23	0
SES	8867	678.61	37.14	6	43	49	2
Migrant	180	664.86	24.63	4	61	35	0
Cohort 14							
Total	5454	677.28	39.40	7	46	45	2
Ethnic Background							
Hispanic	2821	672.05	34.43	7	50	42	1
Non Hispanic	2545	682.61	43.47	7	41	48	4
White	3639	677.98	40.26	7	45	45	3
Black	527	672.76	37.24	7	50	42	1
American Indian	604	668.02	31.59	8	51	40	1
Asian	166	681.37	41.64	5	46	46	3
Secial Program Membership							
English Learner Program	543	655.61	24.75	8	73	19	0
Special Education	1545	652.91	28.39	15	63	22	0
SES	3487	671.56	35.07	7	50	42	1
Migrant	86	658.99	24.33	7	67	26	0
Cohort 13							
Total	1567	665.53	30.74	9	56	35	0
Ethnic Background							
Hispanic	982	665.37	29.14	9	56	35	0
Non Hispanic	557	665.26	33.23	10	54	35	1
White	1007	665.40	31.05	10	54	36	0
Black	153	657.23	29.49	14	61	25	0
American Indian	196	667.48	29.07	8	55	38	0
Asian	42	663.90	29.28	2	76	21	0
Secial Program Membership							
English Learner Program	254	653.57	25.21	12	72	16	0
Special Education	389	649.67	27.58	20	63	18	0
SES	983	664.18	30.43	9	57	33	0
Migrant	35	658.40	24.13	14	60	26	0

Note: FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, off-grade, or a non-standard accommodation are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. The results are not final results and are presented here for purpose of addressing reliability and validity. These results should not be used for accountability purposes.

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Table A.6
Fall 2013 AIMS Results
Writing CRT High School

Group	N	Scale Score M	Scale Score SD	% at Performance Level FFBS	AS	MS	ES
Cohort 15							
Total	22729	486.10	42.42	7	40	50	2
Ethnic Background							
Hispanic	11832	479.12	35.95	7	45	46	1
Non Hispanic	10529	492.75	46.63	6	36	54	4
White	16763	487.20	41.94	6	39	52	2
Black	1549	476.49	36.53	10	46	44	1
American Indian	2032	472.79	32.56	9	50	40	0
Asian	576	507.82	62.14	7	29	54	10
Secial Program Membership							
English Learner Program	810	437.05	28.39	41	52	6	0
Special Education	3552	454.75	30.91	24	57	19	0
SES	13752	477.29	35.20	8	46	45	1
Migrant	235	464.38	32.50	14	56	31	0
Cohort 14							
Total	8654	473.86	38.76	11	51	37	1
Ethnic Background							
Hispanic	4666	469.06	31.97	11	56	33	0
Non Hispanic	3864	479.01	44.24	11	45	41	3
White	6002	474.83	39.11	10	50	38	2
Black	722	468.05	37.05	16	51	33	1
American Indian	1005	466.61	29.83	11	58	31	0
Asian	223	475.26	53.26	15	51	29	5
Secial Program Membership							
English Learner Program	535	440.09	27.32	36	58	6	0
Special Education	1942	451.63	29.42	25	59	16	0
SES	5600	468.72	33.73	12	55	33	1
Migrant	124	454.91	26.82	18	65	18	0
Cohort 13							
Total	2438	463.51	34.95	14	60	24	1
Ethnic Background							
Hispanic	1510	460.92	28.61	13	65	22	0
Non Hispanic	881	468.08	43.49	16	53	29	2
White	1624	464.87	36.09	13	60	25	1
Black	196	453.62	35.82	24	56	19	1
American Indian	318	461.53	28.32	13	65	21	0
Asian	67	463.21	39.88	18	57	22	3
Secial Program Membership							
English Learner Program	295	440.53	28.69	36	58	6	0
Special Education	451	443.17	28.07	33	58	9	0
SES	1527	460.25	31.36	16	60	23	0
Migrant	47	451.40	32.88	15	70	15	0

Note: FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard. Students with no valid attempt, invalidation, off-grade, or a non-standard accommodation are not included in this summary. In addition, home-schooled students, students attending Bureau of Indian Affairs schools, students attending juvenile corrections centers, students attending state hospital schools, and students who already met expectations in a previous test administration are not included in this summary. The results are not final results and are presented here for purpose of addressing reliability and validity. These results should not be used for accountability purposes.

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APPENDIX B: COMMITTEE MEMBER SELECTION CRITERIA

AIMS Committee Participant Selection Criteria

ARIZONA DEPARTMENT OF EDUCATION

PROCEDURE FOR SELECTION OF EDUCATOR COMMITTEES
ARIZONA ASSESSMENT SECTION

The Assessment Section is always recruiting new teachers to serve on the committees, and have prevailed upon veteran teachers to become Ambassadors of the Assessment by encouraging their colleagues to apply.

Once Arizona educators are identified and entered into the database, the Assessment Section uses the following procedures for selecting membership for a committee:

- Identify the purpose/function of the committee
- Establish the date and time of the committee
- Determine the criteria for membership on the committee:
    - Content area of expertise
    - Grade level experience
    - Specific skill or knowledge expertise for committee function
    - Prior experience on ADE committees—a minimum 50% of each committee will have prior experience
    - Location of district/school
        - Rural/urban/suburban
        - Approximately 50% of committee members from Maricopa County when appropriate for purpose of committee
    - Ethnicity of school population or committee member
    - SES of school population
    - Number of committees served on recently—a committee member cannot serve on a series of committees used to develop items. Otherwise, they would be passing judgment on their own prior work.
- Review the database for educators that meet the criteria established
- Select committee members based on criteria for particular committee for primary and alternate list
- Invitations are sent to selected committee members
- After decline and accept emails are received by established deadline, additional invitations issued to members on alternate list
- Once the committee meeting is held, performance of participants is reviewed.

Recognition of existing AIMS committee participants is an important aspect of retaining our Ambassadors of the Assessment; therefore, after each committee meeting, each participant receives a letter recognizing their excellent contributions to the assessment program and to all Arizona students.

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APPENDIX C: DATA ANALYSIS/ ITEM SELECTION WORKSHOPS TO SUPPORT 2013 AIMS

Following are the PowerPoint slides used during the AIMS Data Analysis Workshop in July 2013.

Appendix C.1: 2013 AIMS Mathematics Data Analysis Training

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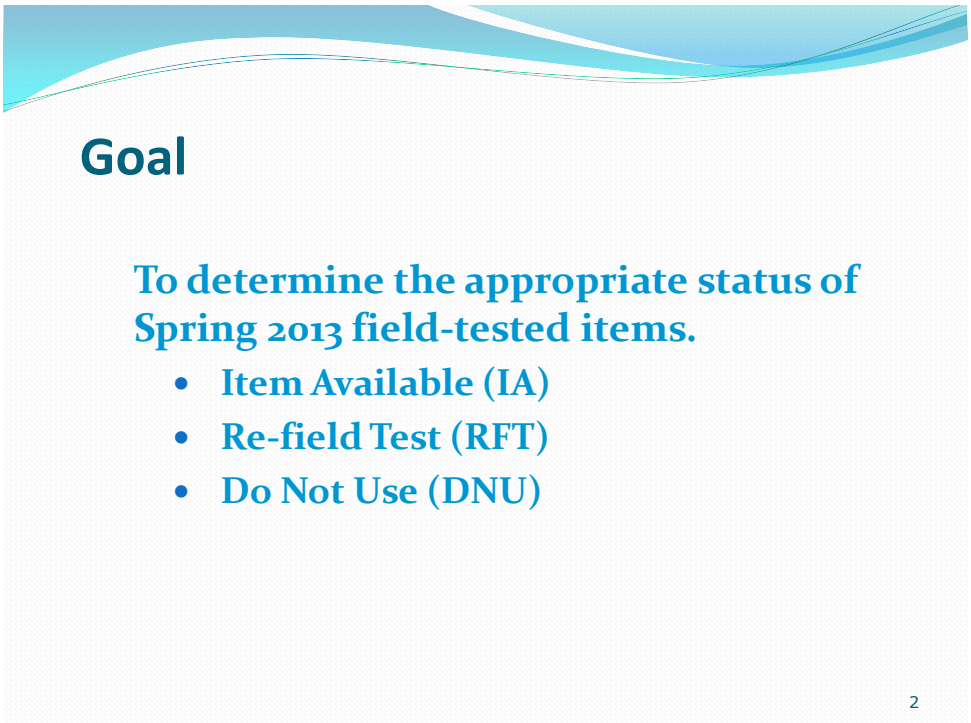
Slide 1

Slide 2



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Slide 3

Ratings and Status Codes

- **Accept – Assign code IA**
  - Item's statistics are within acceptable limits, noting exceptions based upon the increase in rigor.
  - Item measures what it is supposed to measure appropriately.
  - Item can be selected for operational use.
- **Revise and Re-field Test – Assign code RFT**
  - Item has a solvable problem.
  - Item's statistics may define where a choice could be improved.
- **Reject – Assign code DNU**
  - Item's statistics indicate serious problems.
  - Item will not function fairly and reliably.

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Slide 4

Recommended Status Codes

Items status codes of "IA" have been attached to items that show acceptable statistics.

- This was done to make better use of the allotted time while providing for a quality review.
- These proposed codes may be changed.
- Reasons for the change must be documented on the Judgment Forms.

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Slide 5

Procedures

- Review each item by performing the following steps:
  - Use the Statistical Criteria sheet to help in decisions.

1. If the item is coded "**IA**":
   - Accept or reject the recommendation.
   - If rejected, state the new code (DNU or RFT) and the reason for the change in status.
2. If the item does not have a recommended code:
   - Note the area(s) of concern on the Item Statistics page.
   - As a grade level group, discuss the item.
   - Accept (IA), reject (DNU), or code as RFT.
   - If rejected, state the reason for the rejection.

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Slide 6

Procedures (continued)

- Enter decisions and comments on both grade level Judgment Forms.
- Enter decisions and comments on both grade level Master Booklets.
- The final decisions of the grade level group will be used for Item Selection portion of the committee.

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Slide 7

Example Grade 4 Mathematics Item 123167_2

The following item is coded DOK= 2, Strand 4, Concept 4, PO 4: "Solve problems involving perimeter of 2-dimensional figures and area of rectangles."

123167_2

Mr. Thoron wants to paint a rectangular wall that covers an area of 32 square feet. The width of the wall is 4 feet. What is the perimeter of the wall he wants to paint?

A 16 ft

B 24 ft

C 28 ft

D 36 ft

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Slide 8

Example Grade 4 Mathematics Item 123167_2

Item Statistics

P-Value: 0.238* Rasch: 2.1833 PtBis: 0.287*

Fit Infit: 1.03 Outfit: 1.41*

	NCount	%A	%B	%C	%D	%Omit
Total	20562	22.6	23.8	15.8	37.7	0.1
High	4487	24.3	49.5	9.0	17.1	0.1
Medium	11389	24.1	16.7	18.0	41.2	0.0
Low	4686	17.2	16.4	17.2	48.9	0.3

Bias: MHzB-SMD-Delta

	M-F	H-NH	W-B	W-AI	W-A	W-HP	W-M
MHzB	15.520	25.315	0.423	9.285	10.384	0.766	0.120
Bias Catg Flag	A	A	A	A	A	A	A
SMD	-0.051	-0.061	-0.018	-0.073	0.138	0.042	0.006
Delta	-0.321	-0.424	-0.123	-0.525	0.708	0.539	0.090

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Slide 9

Example Grade 4 Mathematics Item 123167_2

- **Statistical Issues:**
  - **It appears to be difficult (it has a *p*-value).**
  - **It has a low Point Biserial.**
  - **It has a high Outfit.**
- **Things to consider:**
  - **It addresses the PO.**
  - **The *p*-value may be low because it requires multiple steps to solve. [Note the "High" group's score.]**
  - **The Point Biserial and Outfit are close to their cuts.**
- **Possible decision:**
  - **This item could have the status code of IA.**

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Slide 10

What do we do now?

- In your breakout rooms and assign **two** recorders:
  - One for the ADE Master Booklet and Judgment Form copy
  - One for the Pearson Master Booklet and Judgment Form copy
  - Recorders must enter status codes, comments, and suggestions in each Master Booklet and Judgment Form.
- Review all materials in breakout rooms.
- Use the provided procedures to review each item.
- Assign each item a status code.
- All facilitators will record the committee assigned status code for use during item selection.

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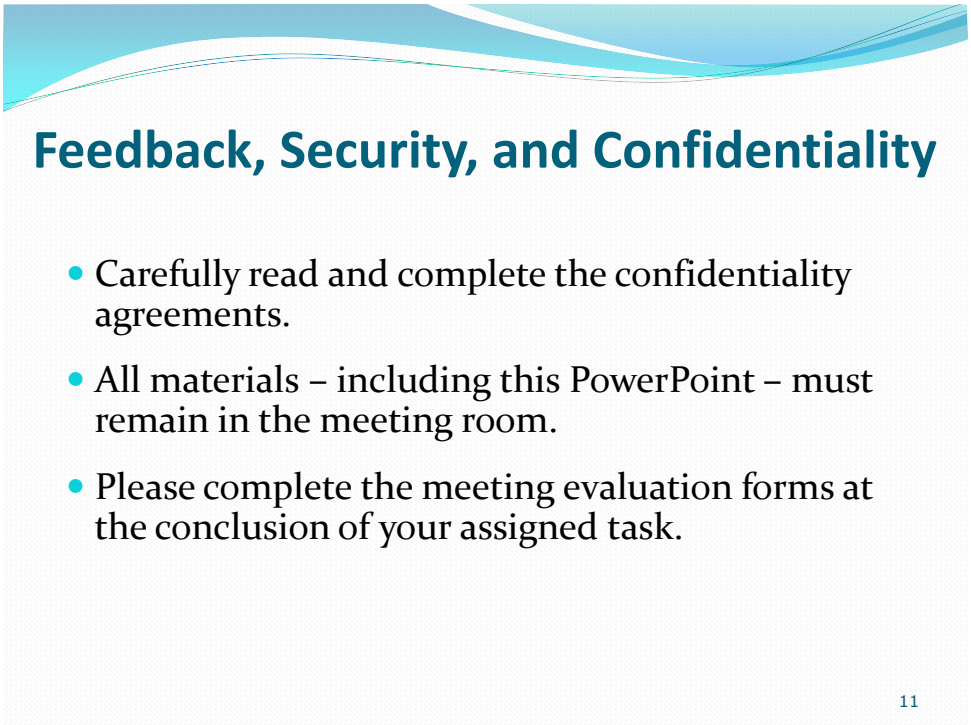
Slide 11



Slide 12

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Appendix C.2: 2013 AIMS Reading Data AnalysisWorkshop

Slide 1

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Slide 2

Goal

To determine the appropriate status of Spring 2013 field-tested items.

- Item Available (IA)
- Re-field Test (RFT)
- Do Not Use (DNU)

2

Slide 3

Ratings and Status Codes

- Accept – Assign code IA
  - Item's statistics are within acceptable limits, noting exceptions based upon the increase in rigor.
  - Item measures what it is supposed to measure appropriately.
  - Item can be selected for operational use.
- Revise and Re-field Test – Assign code RFT
  - Item has a solvable problem.
  - Item's statistics may define where a choice could be improved.
- Reject – Assign code DNU
  - Item's statistics indicate serious problems.
  - Item will not function fairly and reliably.

3

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Slide 4

Recommended Status Codes

Items status codes of "IA" have been attached to items that show acceptable statistics.

- This was done to make better use of the allotted time while providing for a quality review.
- These proposed codes may be changed.
- Reasons for the change must be documented on the Judgment Forms.

4

Slide 5

Procedures

- Review each item by performing the following steps:
  - Use the Statistical Criteria sheet to help in decisions.

1. If the item is coded "**IA**":
   - Accept or reject the recommendation.
   - If rejected, state the new code (DNU or RFT) and the reason for the change in status.
2. If the item does not have a recommended code:
   - Note the area(s) of concern on the Item Statistics page.
   - As a grade level group, discuss the item.
   - Accept (IA), reject (DNU), or code as RFT.
   - If rejected, state the reason for the rejection.

5

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Slide 6

Procedures (continued)

3. If the statistics are reasonable, an attempt should be made for the Public Domain passages and associated items to be coded as "IA." The facilitator will indicate which passages and items are Public Domain.

- Enter decisions and comments on the grade level Judgment Form.
- Enter decisions and comments on both grade level Master Booklets
- The final decisions of the grade level group will be used for Item Selection portion of the committee.

6

Slide 7

Example Grade 6 Reading Item 125412_2

The following item is associated with a Public Domain passage and coded DOK 2, **Strand 1, Concept 4, PO 2: "Use context to identify the meaning of unfamiliar words."**

125412_2

Which word has a similar meaning to deprived as it is used in the passage?

A deceived

B denied

C departed

D desired

7

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Slide 8

Example Grade 6 Reading Item 125412_2

The context clues from the passage are as follows:

"There was a difference, however, in that the team didn't consider the wagon, harness, and our lunch which was in the wagon. . . . However, the calamity for us children was the loss of the lunch. . . . In addition, mother had promised to buy each of us a bottle of red pop. Being <u>deprived</u> of the pop by the run-away was the crushing misfortune for us children, because red pop, those days, was the greatest treat children could receive."

8

Slide 9

Example Grade 6 Reading Item 125412_2

Item Statistics

P-Value: 0.286* Rasch: 2.6008 PtBis: 0.261*

Fit Infit: 1.07 Outfit: 1.32

	NCount	%A	%B	%C	%D	%Omit
Total	10246	22.7	28.6	27.5	21.1	0.1
High	2264	16.2	49.5	24.3	9.9	0.0
Medium	5780	22.3	24.2	28.3	25.1	0.1
Low	2202	30.4	18.8	28.5	22.2	0.2

Bias: MHzB-SMD-Delta

	M-F	H-NH	W-B	W-AI	W-A	W-HP	W-M
MHzB	96.115	31.885	0.432	0.926	0.000	0.091	0.826
Bias Catg Flag	B<	A	A	A	A	A	A
SMD	-0.194	-0.098	-0.027	-0.033	0.000	-0.023	0.025
Delta	-1.061	-0.629	-0.158	-0.216	-0.003	-0.288	0.304

9

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Slide 10

Example Grade 6 Reading Item 125412_2

- **Statistical Issues:**
  - **It appears to be difficult (it has a *p*-value).**
  - **It has a low Point Biserial.**
- **Things to consider:**
  - **It addresses the PO.**
  - **It has enough context clues.**
  - **The *p*-value is close to its cut. [Note the "High" group's score.]**
  - **The Point Biserial is close to is cut.**
- **Possible decision:**
  - **This item could have the status code of IA.**

10

Slide 11

What do we do now?

- In your breakout rooms and assign **two** recorders:
  - One for the ADE Master Booklet and Judgment Form copy
  - One for the Pearson Master Booklet and Judgment Form copy
  - Recorders must enter status codes, comments, and suggestions in each Master Booklet and Judgment Form.
- Review all materials in breakout rooms.
- Use the provided procedures to review each item.
- Assign each item a status code.
- All facilitators will record the committee assigned status code for use during item selection.

11

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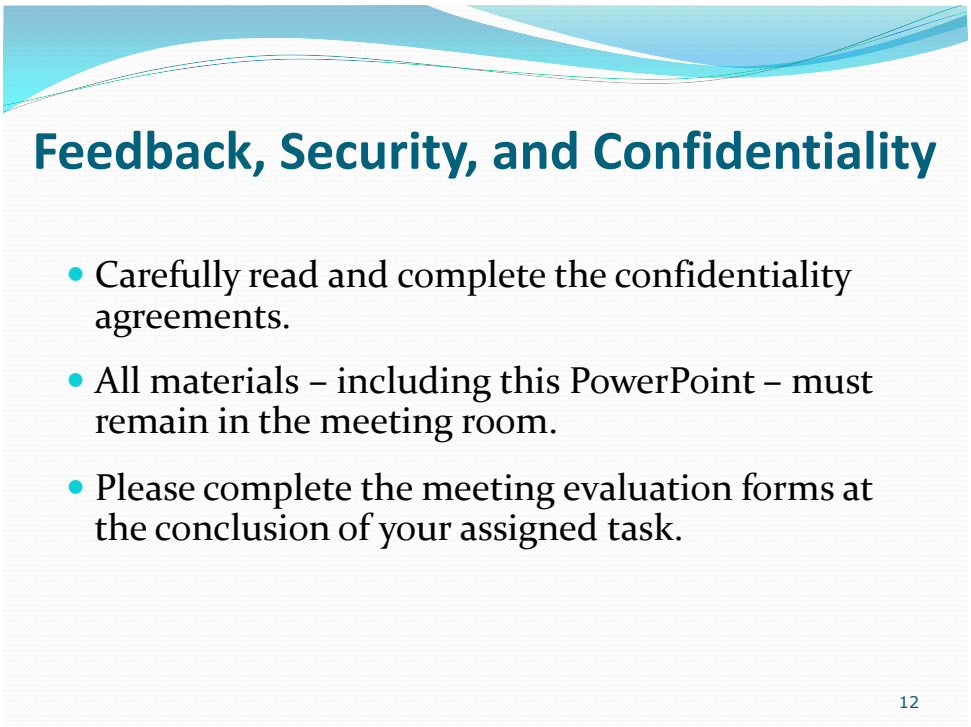
Slide 12



Slide 13

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Appendix C.3: 2013 Science Data Analysis Training

Slide 1

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Slide 2

Goal

To determine the appropriate status of Spring 2013 field-tested items.

- Item Available (IA)
- Re-field Test (RFT)
- Do Not Use (DNU)

2

Slide 3

Ratings and Status Codes

- Accept – Assign code IA
  - Item's statistics are within acceptable limits, noting exceptions based upon the increase in rigor.
  - Item measures what it is supposed to measure appropriately.
  - Item can be selected for operational use.
- Revise and Re-field Test – Assign code RFT
  - Item has a solvable problem.
  - Item's statistics may define where a choice could be improved.
- Reject – Assign code DNU
  - Item's statistics indicate serious problems.
  - Item will not function fairly and reliably.

3

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Slide 4

Recommended Status Codes

Items status codes of "IA" have been attached to items that show acceptable statistics.

- **This was done to make better use of the allotted time while providing for a quality review.**
- **These proposed codes may be changed.**
- **Reasons for the change must be documented on the Judgment Forms.**

4

Slide 5

Procedures

- **Review each item by performing the following steps:**
  - **Use the Statistical Criteria sheet to help in decisions.**

1. **If the item is coded "IA":**
   - **Accept or reject the recommendation.**
   - **If rejected, state the new code (DNU or RFT) and the reason for the change in status.**
2. **If the item does not have a recommended code:**
   - **Note the area(s) of concern on the Item Statistics page.**
   - **As a grade level group, discuss the item.**
   - **Accept (IA), reject (DNU), or code as RFT.**
   - **If rejected, state the reason for the rejection.**

5

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Slide 6

Procedures (continued)

- Enter decisions and comments on both grade level Judgment Forms.
- Enter decisions and comments on both grade level Master Booklets.
- The final decisions of the grade level group will be used for Item Selection portion of the committee.

6

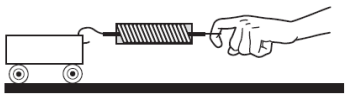
Slide 7

Examples Grade 8 Science Item 120125_2

The following item is coded DOK= 2 **Strand 5, Concept 2, PO 3: "Describe how the acceleration of a body is dependent on its mass and the net applied force."**

120125_2

A mass is placed on a cart that is pulled to the right.



Based on Newton's second law (F = ma), which statement is true?

A If mass is doubled, acceleration will double.

B If force is doubled, acceleration will double.

C If mass is doubled, acceleration will remain constant.

D If force is doubled, acceleration will remain constant.

7

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Slide 8

Examples Grade 8 Science Item 120125_2

Item Statistics

P-Value: 0.583 Rasch: 0.5580 PtBis: 0.251*

Fit Infit: 1.12 Outfit: 1.15

	NCount	%A	%B	%C	%D	%Omit
Total	20215	20.1	58.3	13.7	7.8	0.0
High	5129	15.6	70.2	11.1	3.0	0.0
Medium	10626	21.7	58.8	12.6	6.9	0.0
Low	4460	21.4	43.6	19.2	15.6	0.2

Bias: MHzB-SMD-Delta

	M-F	H-NH	W-B	W-AI	W-A	W-HP	W-M
MHzB	132.371	0.962	0.033	11.603	0.508	2.839	2.835
Bias Catg Flag	A	A	A	A	A	A	A
SMD	-0.160	-0.008	0.004	-0.099	0.028	0.101	0.037
Delta	-0.788	-0.070	0.026	-0.461	0.148	1.064	0.379

8

Slide 9

Examples Grade 8 Science Item 120125_2

- **Statistical Issues:**
  - **It has a low Point Biserial.**
- **Things to consider:**
  - **It addresses the PO.**
  - **The Point Biserial is close to its cut.**
  - **The other statistics are within their appropriate ranges.**
- **Possible decision:**
  - **This item could have the status code of IA.**

9

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Slide 10

Examples Grade 4 Science Item 121460_2

The following item is coded DOK= 3 Strand 6, Concept 3, PO 3: "Differentiate between weather and climate as they relate to the southwestern United States."

121460_2

How will the data in the graph need to be changed so that it describes climate rather than weather?

A The data will need to be collected hourly, not daily.

B The data will need to be collected over many years.

C The data will need to increase to more decimal places.

D The data will need to be in units of Celsius instead of Fahrenheit.

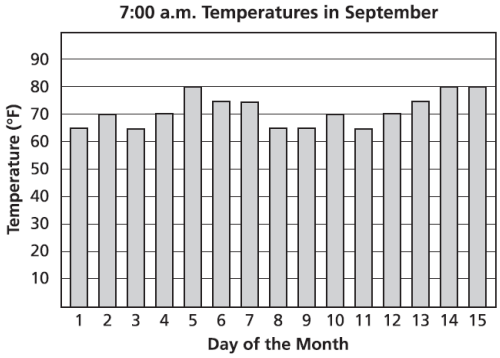
The stimulus for this item is on the next slide.

10

Slide 11

Examples Grade 4 Science Item 121460_2

Tom was asked by his teacher to record the temperature in his yard at 7:00 a.m. for the first 15 days of September. He recorded the information, then made the graph below.



He also kept an empty cup outside for measuring precipitation. He found water in the cup one day during this 15-day period.

11

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Slide 12

Examples Grade 4 Science Item 121460_2

- **Statistical Issues:**
  - **It appears to be difficult (it has a *p*-value).**
  - **It has a low Point Biserial.**
  - **It has a high Outfit.**
- **Things to consider:**
  - **It addresses the PO.**
  - **The *p*-value may be slightly below the cut because students don't understand the difference between climate and weather. [Note the "High" group's score.]**
  - **The Outfit is close to its cut.**
  - **The Point Biserial is low, but not extreme.**
- **Possible decision:**
  - **This item could have the status code of IA.**

12

Slide 13

What do we do now?

- In your breakout rooms and assign **two** recorders:
  - One for the ADE Master Booklet and Judgment Form copy
  - One for the Pearson Master Booklet and Judgment Form copy
  - Recorders must enter status codes, comments, and suggestions in each Master Booklet and Judgment Form.
- Review all materials in breakout rooms.
- Use the provided procedures to review each item.
- Assign each item a status code.
- All facilitators will record the committee assigned status code for use during item selection.

13

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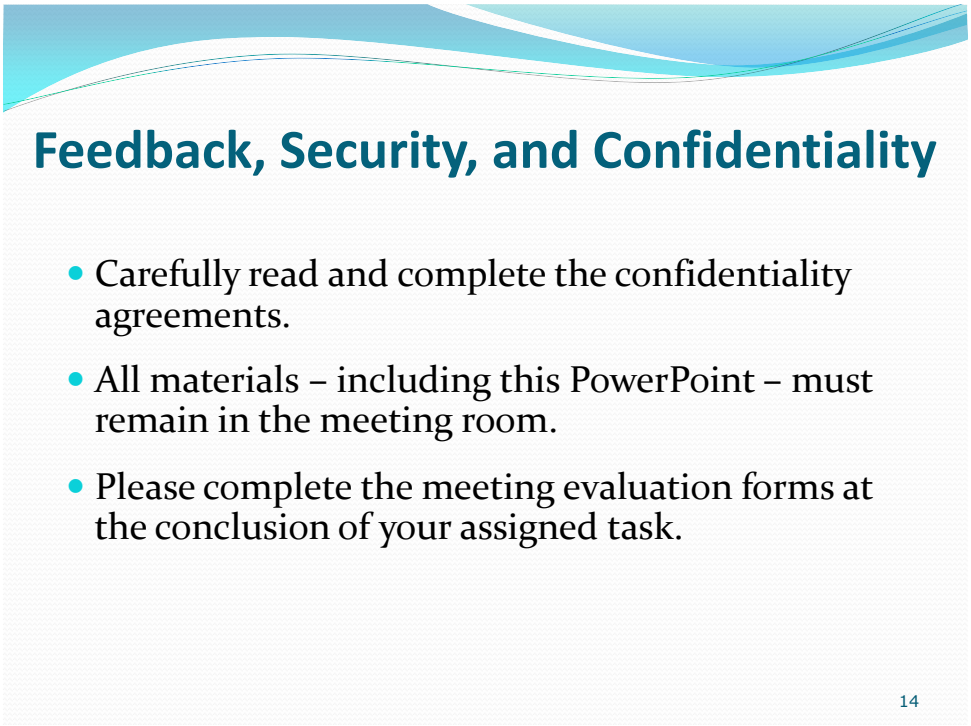
Slide 14



Slide 15

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Appendix C.4: 2013 AIMS Writing Data Analysis Workshop

Slide 1

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Slide 2

Goal

To determine the appropriate status of Spring 2013 field-tested items.

- Item Available (IA)
- Re-field Test (RFT)
- Do Not Use (DNU)

2

Slide 3

Ratings and Status Codes

- Accept – Assign code IA
  - Item's statistics are within acceptable limits, noting exceptions based upon the increase in rigor.
  - Item measures what it is supposed to measure appropriately.
  - Item can be selected for operational use.
- Revise and Re-field Test – Assign code RFT
  - Item has a solvable problem.
  - Item's statistics may define where a choice could be improved.
- Reject – Assign code DNU
  - Item's statistics indicate serious problems.
  - Item will not function fairly and reliably.

3

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Slide 4

Recommended Status Codes

Items status codes of "IA" have been attached to items that show acceptable statistics.

- **This was done to make better use of the allotted time while providing for a quality review.**
- **These proposed codes may be changed.**
- **Reasons for the change must be documented on the Judgment Forms.**

4

Slide 5

Procedures

- **Review each item by performing the following steps:**
  - **Use the Statistical Criteria sheet to help in decisions.**

1. **If the item is coded "IA":**
   - **Accept or reject the recommendation.**
   - **If rejected, state the new code (DNU or RFT) and the reason for the change in status.**
2. **If the item does not have a recommended code:**
   - **Note the area(s) of concern on the Item Statistics page.**
   - **As a grade level group, discuss the item.**
   - **Accept (IA), reject (DNU), or code as RFT.**
   - **If rejected, state the reason for the rejection.**

5

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Slide 6

Procedures (continued)

- Enter decisions and comments on both grade level Judgment Forms.
- Enter decisions and comments on both grade level Master Booklets.
- The final decisions of the grade level group will be used for Item Selection portion of the committee.

6

Slide 7

Example High School Writing Item 126052_3

The following item is coded DOK = 2, **Strand 2, Concept 3, PO 4: "Use engaging and expressive language that shows a commitment to the topic."**

126052_3

Which sentence **best** evokes a vivid image?

A I felt like a spinning top and didn't know where to turn.

B I felt like being by myself and didn't know where to turn.

C I felt like a ship lost at sea and didn't know where to turn.

D I felt like I was an open book and didn't know where to turn.

7

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Slide 8

Example High School Writing Item 126052_3

Item Statistics

P-Value: 0.746 Rasch: -0.0326 PtBis: 0.280*

Fit Infit: 1.06 Outfit: 1.19

	NCount	%A	%B	%C	%D	%Omit
Total	9334	17.2	4.0	74.6	4.1	0.1
High	2260	17.3	0.8	80.7	1.2	0.0
Medium	4881	16.6	2.3	78.2	2.9	0.0
Low	2193	18.4	10.9	60.5	10.0	0.2

Bias: MHzB-SMD-Delta

	M-F	H-NH	W-B	W-AI	W-A	W-HP	W-M
MHzB	0.194	9.054	1.370	0.000	0.254	0.134	0.043
Bias Catg Flag	A	A	A	A	A	A	A
SMD	-0.015	0.075	-0.051	-0.002	0.029	0.028	-0.006
Delta	-0.051	0.357	-0.265	-0.002	0.180	0.371	-0.071

8

Slide 9

Example High School Writing Item 126052_2

- **Statistical Issues:**
  - **It has a low Point Biserial.**
- **Things to consider:**
  - **It addresses the PO.**
  - **The Point Biserial is close to its cut.**
  - **All groups found this item to be relatively easy.**
  - **The other statistics are within acceptable ranges.**
- **Possible decision:**
  - **This item could have the status code of IA.**

9

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Slide 10

What do we do now?

- In your breakout rooms and assign **two** recorders:
  - One for the ADE Master Booklet and Judgment Form copy
  - One for the Pearson Master Booklet and Judgment Form copy
  - Recorders must enter status codes, comments, and suggestions in each Master Booklet and Judgment Form.
- Review all materials in breakout rooms.
- Use the provided procedures to review each item.
- Assign each item a status code.
- All facilitators will record the committee assigned status code for use during item selection.

10

Slide 11

Feedback, Security, and Confidentiality

- Carefully read and complete the confidentiality agreements.
- All materials – including this PowerPoint – must remain in the meeting room.
- Please complete the meeting evaluation forms at the conclusion of your assigned task.

11

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Slide 12

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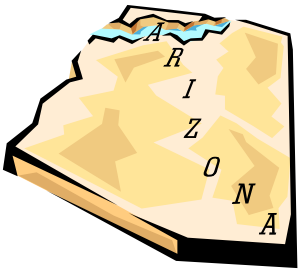
Appendix C.1: AIMS Item Selection Committee, July 9-10, 2013

Slide 1



AIMS Item Selection Committee

July 9-10, 2013

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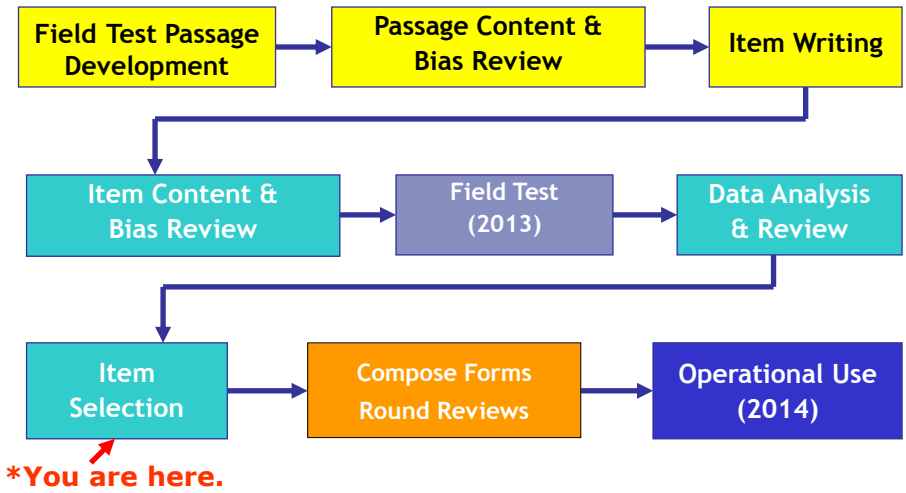
Slide 2

2014 AIMS Development Process



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Slide 3

Goal

To select new items to replace the outgoing items for AIMS operational Form 2014.

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Slide 4

Item Selection Criteria

- Decide which items will be appropriate based on the following **Content Criteria**:
  - Blueprint and *p*-value target match
  - Wide, varied coverage of the POs
  - Common Core Standards match
  - Depth of Knowledge (DOK) – **Level 3 preferred**
  - Item interest and relevance
  - Previously unused items selection
  - Passage efficiency
  - For Reading – Public Domain passages/items

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Slide 5

Procedures

1. Identify item needs.

- Note coding for blank white cells.
- Note target table at the bottom.

2. Consider all the "IA" items.

- Identify items –
  - With needed coding.
  - That match the target range.
  - That have high DOK levels.
  - With alignment to old and new standards.
- Consider 2012 and 2013 items first.

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Slide 6

Procedures (continued)

1. Identify item needs.

- Need 2 items with coding Strand 1, Concept 1
- Need 1 item with coding Strand 1, Concept 2
- Need 2 items with coding Strand 1, Concept 3

Spring 13 – New Operational Items **Grade 8** **Spring 14 – New Operational Items**

P-VALUE	Rasch	PtBis	DOK	Actual # of Items	# of NRT Items in Test	PO	AZID	AZ CCS	P-VALUE	Rasch	PtBis	DOK
0.55	1.669	0.326	1	3	1	1.1.3	41098138	Y	0.548	1.6694	0.326	1
0.77	0.327	0.400	1									
0.60	1.459	0.370	1									
0.29	3.051	0.366	1			1.1.1	2111850		0.286	3.0506	0.366	1
0.68	1.081	0.419	2	2	2	1.2.1	3139552	Y	0.675	1.0808	0.419	2
0.46	2.123166	0.35	2									
0.65	1.455	0.466	1			1.2.4	2111854		0.65	1.455	0.466	1
0.40	2.438	0.368	2			1.2.5	2111864		0.395	2.4379	0.368	2
0.42	2.391	0.400	2	3	1	1.3.2	41108944	Y	0.423	2.3913	0.4	2
0.69	-0.443	0.585	2									
0.82	-0.04793	0.43	1									
0.63	1.255	0.469	1			1.3.1	2111895		0.626	1.2549	0.469	1

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Slide 7

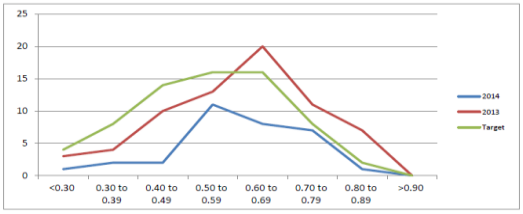
Procedures (continued)

1. Identify item needs.

- Note the target items on the *p*-value wall chart and the spreadsheet's chart at the bottom.

target mean < 0.59

	<0.30	0.30 to 0.39	0.40 to 0.49	0.50 to 0.59	0.60 to 0.69	0.70 to 0.79	0.80 to 0.89	>0.90	Total Number of Items
Pct of items for target	6%	12%	21%	24%	24%	12%	3%	0%	
Target Totals	**4**	**8**	**14**	**16**	**16**	**8**	**2**	**0**	**68**
Actual - Anchors	0	0	2	7	3	4	1	0	**17**
Actual - new selections	0	0	0	0	0	0	0	0	**0**
NRT/Dual Purpose	1	2	0	4	5	3	0	0	**15**
TOTAL 2014	**1**	**2**	**2**	**11**	**8**	**7**	**1**	**0**	32
Actual 2013	3	4	10	13	20	11	7	0	**68**



DOK Level	Target N	Actual N
1	26	15
2	35	16
3	7	1
4	0	0
Total	68	32

DOK	2013
1	28
2	35
3	5
4	0
Total	68

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Slide 8

Procedures (continued)

2. Consider all the "IA" items

- Use Item Tracker.
- Identify items based on content criteria.

(840)			Total (840)
01 Number and Operations (29)	01.01 Number Sense (7)	01.01.01 (1)	1
		01.01.02 (4)	4
		01.01.03 (0)	0
		01.01.04 (2)	2
		01.01.05 (0)	0
		01.01.06 (0)	0
	01.02 Numerical operations (16)	01.02.01 (2)	2
		01.02.02 (5)	5
		01.02.03 (3)	3
		01.02.04 (4)	4
		01.02.05 (0)	0
		01.02.06 (2)	2
		01.02.07 (0)	0
	01.03 Estimation (6)	01.03.01 (0)	0
		01.03.02 (6)	6

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Slide 9

Procedures (continued)

3. Select the new replacement items.

- Input item's AZID # into the spreadsheet.
- Target chart & DOK # will update automatically.
- Place a tally mark on the *p*-value wall chart.
- Move the item into Test Builder.

4. Continue item selection until:

- **All slots are filled.**
- **The items meet the content criteria.**
- **The overall *p*-value target is met.**

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Slide 10

Procedures (continued)

5. Select items to fill field test slots:

- **Select for Math –**
  - **10 items per grade level for Grades 3-8.**
  - **15 items for HS.**
- **Select for Reading –**
  - **2 passages and 5 items per passage for Grades 3, 4, 8, and HS.**
  - **1 passage and 5 items for Grades 5, 6, 7.**
- **Select for Writing –**
  - **5 items for Grades 5, 6, 7, and HS.**

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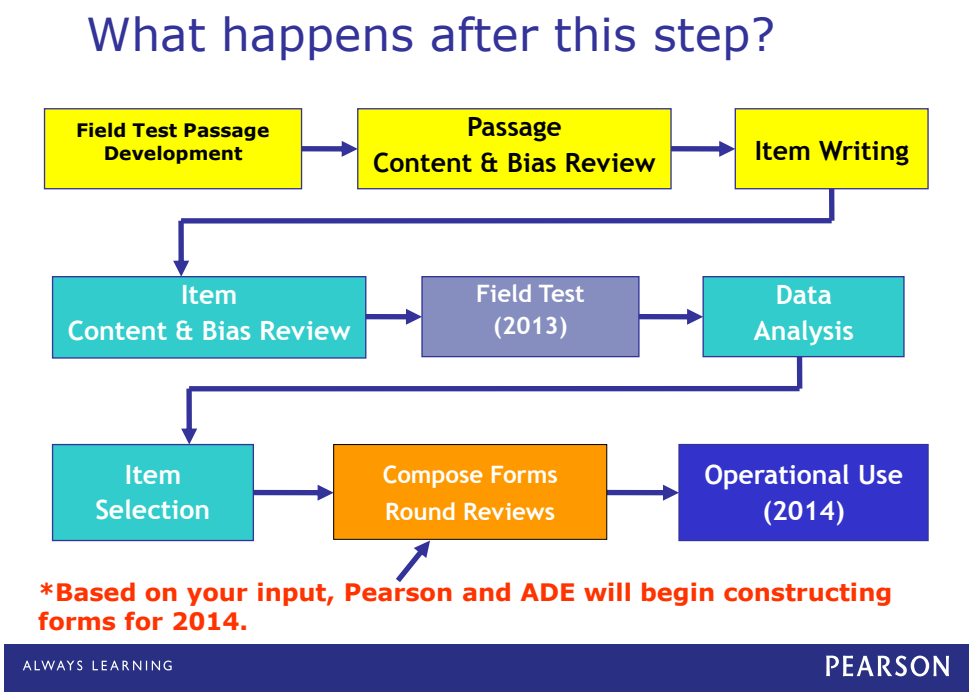
Slide 11



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APPENDIX D: AIMS HOLISTIC RUBRIC BASED ON 6 TRAITS OF WRITING

HOLISTIC RUBRIC BASED ON 6 TRAITS OF WRITING

SCORE POINT 6	SCORE POINT 5	SCORE POINT 4
Response is sophisticated and skillful in written communication, demonstrated by • exceptional clarity, focus, and control in topic development and organization that often show insight. • in-depth and/or creative exploration of the topic using rich, relevant, and credible details. • a strong, perhaps creative, beginning and a satisfying conclusion. • specifically and carefully chosen words that are skillfully crafted into phrases and sentences that enhance meaning. • intentional and committed interaction between the writer and the reader. • effective and/or creative use of a wide range of conventions with few errors.	Response is excellent and skillful in written communication, demonstrated by • clarity, focus, and control in topic development and organization. • a balanced and thorough exploration of the topic using relevant details. • an inviting beginning and a satisfying sense of closure. • a broad range of carefully chosen words crafted into phrases and varied sentences that sound natural. • awareness of the reader and commitment to the audience and topic. • effective use of a wide range of conventions with few errors.	Response is appropriate and acceptable in written communication, demonstrated by • ideas adequately developed with a clear and coherent presentation of ideas with order and structure that can be formulaic. • relevant details that are sometimes general or limited; organization that is clear, but sometimes predictable. • a recognizable beginning and ending, although one or both may be somewhat weak. • effective word choice that is functional and, at times, shows interaction between writer and audience. • somewhat varied sentence structure with good control of simple constructions; a natural sound. • control of standard conventions although a wide range is not used; errors that do not impede readability.

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SCORE POINT 3	SCORE POINT 2	SCORE POINT 1
Response is inadequate in written communication, demonstrated by • broad or simplistic ideas that are understood but often ineffective. • attempts at organizing that are inconsistent or ineffective; beginnings and endings that are underdeveloped; repetitive transitional devices. • developmental details that are uneven, somewhat predictable, or leave information gaps; details not always placed effectively in the writing. • reliance on clichés and overused words that do not connect with the reader; limited audience awareness. • monotonous and sometimes misused words; sentences may sound mechanical, although simple constructions are usually correct. • limited control of standard conventions with significant errors.	Response is poor in written communication, demonstrated by • overly simplistic and sometimes unclear ideas that have insufficiently developed details. • sequencing of ideas that is often just a list; missing or ineffective details that require reader inference to comprehend and follow. • missing beginning and/or ending. • repetitive, monotonous, and often misused words awkwardly strung into sentences that are difficult to read because they are either choppy or rambling; many sentences that begin with repetitive noun + verb pattern. • lack of audience awareness. • little control of basic conventions resulting in errors impeding readability.	Response is inferior in written communication, demonstrated by • lack of purpose or ideas and sequencing. • organization that obscures the main point. • an attempt that is too short to offer coherent development of an idea, if it is stated. • extremely limited vocabulary that shows no commitment to communicating a message. • sentences with confusing word order that may not permit oral reading. • severe and frequent errors in conventions.

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HOLISTIC RUBRIC BASED ON SIX TRAITS OF WRITING

Score Point 1: The writing skill in a Score Point 1 response is inferior. A paper receiving a SP 1 can be long or short. Length alone is not sufficient reason to score the response a SP 1. One or more bullets in the SP 1 rubric will describe this paper. It may also satisfy a bullet from a higher SP, but the majority of the response attributes are SP 1.

Score Point 2: The writing skill in a Score Point 2 response is poor. Ideas are presented but are not clear or organized. The reader must often reread and infer meaning because of the poor quality of writing. As with the SP 1, this paper may satisfy a bullet from a higher SP, but it fits into the SP 2 rubric more clearly than another.

Score Point 3: The writing in a Score Point 3 response is less than adequate. Ideas are simple; organization is inconsistent; development is uneven. While this paper may meet one or two bullets in a higher score, the majority of the attributes fall in the SP 3 rubric.

Score Point 4: The writing skill in a Score Point 4 response is appropriate and acceptable, demonstrating competent written communication. Clear ideas are organized coherently, although the paper is often formulaic. The message is presented so that most readers can easily understand it. The attributes from higher score points may emerge in some papers, but unless the paper satisfies a majority of bullets above the SP 4, it will earn a SP 4.

Score Point 5: The writing skill in a Score Point 5 response is excellent and shows skill above acceptable. This paper presents ideas clearly, organizes them with care, and uses vocabulary and sentences that demonstrate thoughtful choice and craftsmanship. A SP 5 paper may satisfy a bullet or two in SP 6, but it still does not meet a majority of the criteria in the SP 6. The majority of the SP 5 bullets will be represented.

Score Point 6: The writing skill in a Score Point 6 response is exemplary. The exceptional and sophisticated craftsmanship shows a thoughtful and exacting writer who strives to communicate clearly and creatively. While the paper may not fit every bullet in the SP 6 rubric, it will meet the majority of them. A SP 6 paper is not perfect. Errors may be noticed, but they do not detract from the message.

Condition codes for non-scored papers: BL = Blank; IL = illegible; NE = non-English; and OT = off-topic.

Always score papers by recognizing what the student has done well before looking for errors. Remember that the student is writing to a cold prompt with no assistance from a teacher. Score for the skills demonstrated. An error that is repeated still only counts as one error. For instance, if a student misspells “beautiful” four times, it is evident that he/she cannot spell “beautiful;” it is one error. Or if a student doesn’t put a comma after introductory clauses throughout the paper, it is evident that he/she does not apply this comma rule; it is one error. If a student misuses the word “except” for “accept,” the same applies whether it is done one time or five times. Strive to assign the score that is best represented by the bullets in a score point.

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