

Arizona

Arizona's Instrument to Measure Standards Alternate

AIMS A

2010

Technical Report

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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).

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Part 1: Executive Summary

This document provides information regarding processes and procedures implemented in the 2010 Spring Arizona's Instrument to Measure Standards Alternate (AIMS A) assessments for the development of tests, analysis of data, scoring, and scaling. This document also describes the results of the 2010 Spring AIMS A 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). Each part of this technical report addresses different standards. The standards addressed by each part are listed at the beginning of each part. Part 1 of the Technical Report addresses standards 2.7, 3.2, 3.3, 6.3, 6.4, 6.15, and 13.6.

Arizona includes all students with disabilities in state-wide assessments with or without accommodations, however, a small percentage of students are unable to participate in these assessments even with accommodations. Arizona's Instrument to Measure Standards Alternate (AIMS A) is an alternate assessment based on alternate achievement standards that was specifically developed to assess students with significant cognitive disabilities (SCDs) as prescribed by Title I of the Elementary and Secondary Education Act (ESEA) and the Individuals with Disabilities in Education Act (IDEA). AIMS A measures student ability on grade-level alternate academic standards; these standards are based on the Arizona Academic Standards, however, the breadth, depth, and complexity has been reduced as delineated in federal laws covering this population (NCLB, 2001 and IDEA, 2004).

Arizona has established eligibility criteria for students to qualify for an Alternate Assessment. Individualized Education Program (IEP) teams have been trained to utilize the AIMS A eligibility form and flow chart (www.ade.az.gov/ess/AltAssessment/AIMSA/AIMSEligibilityForm.pdf) to identify students with significant cognitive disabilities who would be eligible to take AIMS A. (A copy of the eligibility form can be found in Appendix A.) Students who are tested with AIMS A are students who function at developmental and instructional levels significantly below those students who are assessed with the general standardized state assessment, AIMS. Students who are eligible for AIMS A are students with significant cognitive disabilities (SCDs) meeting the three eligibility requirements: students function like students with various levels of mental retardation, and their skills and abilities are commensurate to their level of cognitive functioning based on empirical evidence preventing the acquisition of grade-level Arizona Academic Content Standards; they require intensive instruction, as it is extremely difficult for students with significant cognitive disabilities to acquire, maintain, generalize, and apply academic skills across environments even with extensive/intensive, pervasive, frequent, and individualized instruction in multiple settings; and the curricular outcomes for students with significant cognitive disabilities are based on the goals and objectives in the student IEPs and instruction is aligned to the enrolled grade level Arizona Alternate Academic Standards (www.ade.az.gov/ess/AltAssessment/AIMSA/Teachers.asp).

Children with SCDs are a unique population of students with extremely diverse abilities as well as limitations. Kleinert, Browder, and Towles-Reeves (2005) characterized students with SCDs as students who have:

- varied levels of symbolic communication
- issues attending to salient features of stimuli
- difficulty with memory
- limited motor response repertoire
- difficulty generalizing learned information or skills
- difficulty with meta-cognition
- difficulty with skill synthesis
- sensory deficits and
- special health care needs.

IDEA 2004 mandates that students in special education participate in the regular state assessments. If students in special education need accommodations, accommodations are provided as long as they still produce valid scores for individuals. Using non-standard accommodations, like a calculator or reading the reading passages, would invalidate the assessment and would not produce valid scores that in turn cannot be aggregated with other scores that are valid. However, alternate assessments based on alternate achievement standards are designed specifically for students with SCDs and these students require specialized instruction (Flowers, C. & Browder, D., 2004). Substantial modifications and adaptations are made to the curriculum so that students with SCDs can access the information and demonstrate what they know (Lehr, C., & Thurlow, M., 2003). Instructional adaptation strategies, like accommodations, should be implemented during daily instruction. Only those adaptations and instructional strategies used consistently during instructional activities should be made available to the students with SCDs being assessed with AIMS A. When administering AIMS A, test administrators are trained to utilize best practice strategies, adaptations, and assistive technology to ensure students have access to and are able to demonstrate what they know. Implementing adaptations specifically to meet a student's individual needs promotes participation and progress in the general curriculum (Kleinert, H. and Kearns Farmer, J. 2001).

Items on the multiple choice, performance tasks, and rater items sections of AIMS A represent the essential fundamentals taught to students with significant cognitive disabilities. The Kentucky Statewide Alternate Assessment Project (1999) suggests that states create alternate assessments that mirror the elements of daily classroom instruction. Arizona's teachers receive regular training on implementing the use of instructional adaptations as long as they allow the student to demonstrate their knowledge or responds to AIMS A items presented during the assessment administration. Teachers are trained not to influence the students' response. While this is not an exhaustive list of adaptations, teachers are encouraged to support students' access by utilizing any of the following (Kleinert, H. and Kearns Farmer, J. 2001; Denham, A, 2006):

- Visual/verbal cueing;
- Varied level of independence;
- Hand-over-hand assistance;
- Re-reading questions/passages;
- Manipulatives such as number line, calculator, clocks, or counters;
- Communication devices;
- Use symbols, pictures, or tactile objects that represent concepts.

AIMS A test administration procedures support the inclusion of assistive technology, prompting, and scaffolding to help students with SCDs demonstrate what they know. The state regional trainings conducted by ADE staff for district representatives emphasize these strategies to support student achievement and success.

Assistive technology (AT) as defined by IDEA is “any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability.” AT has become a necessary component in ensuring academic success for some students with disabilities. Effective use of AT in daily instruction allows students to access the curriculum, facilitates testing accommodations, and helps improve the performance of students who are struggling (Satterfield, B. and Satterfield, P., 2009). AIMS A allows for the use of AT as an adaptation to support student access to the online assessment and to demonstrate their knowledge.

AIMS A assesses mathematics and reading in Grades 3 – 8 and High School, and science in Grades 4, 8, and 10. AIMS A consists of three item types for each of the content areas: Multiple Choice items (presented to the student online), Performance Tasks, and Rater Items. The Multiple Choice items include a stem and three possible answer choices. The Performance Tasks are standardized, constructed response items which are scored on standardized data sheets. A 0-2 point scoring rubric has been established to assign specific score points to specific student responses. This 0-2 point scoring rubric is modified to a 0, 2, 4 point rubric to allow for equal weighting of Performance Tasks with Multiple Choice items which are translated to a 0, 4 point score. The Rater Items are constructed response items specific to the student’s environment which are scored using a similar 1-4 point rubric. This rubric is translated to a 0, 1, 2, 4 scoring rubric to allow for equal weighting of Performance Tasks with Multiple Choice items. Based on the input of Arizona educators and the results of Arizona’s Instrument to Measure Standards Alternate, 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.

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).

Several committees met throughout the year in preparation for the 2010 AIMS A Mathematics, Reading, and Science assessments. These committees included special education teachers, general education teachers, curriculum specialists, and speech pathologists. In addition to teachers and specialists, school psychologists and administrators also participated in various committees. The committee participants were selected from across the state and were an integral part of the AIMS A test development processes and AIMS A results interpretation. In addition to these committees, internal review teams consisting of various Arizona Department of Education specialists and administrators were conducted as well to support quality assurance.

The test development committee and internal review team meetings included:

- Standards Alignment and Blueprint Review, conducted July 2009, in which Arizona educators reviewed the Alternate Academic Standards and made edits or revisions as necessary to each of the content areas for all grade levels assessed. The committee members also confirmed that an alignment existed between the alternate standards and the blueprint as to which concepts were most important to assess;
- Multiple Choice Item Review, conducted in November 2009, in which the internal team reviewed each item that was administered in 2009. The team members made notations related to the overall appearance of the items; size and clarity of font and graphics; punctuation; grammar; and clarity of items and content;
- Blueprint Review, conducted November 2009, in which the internal team reviewed the current academic standards and recommendations made by the Standard Alignment and Blueprint review committee. Adjustments were made to the blueprint to ensure the most important concepts for assessment were identified;
- Gap Analysis, conducted November 2009, in which internal members reviewed items from the 2009 item bank and blueprint. From this analysis a gap was identified and a plan developed for the Item Writing committees. The plan identified which standards and concepts needed items to be developed and field tested during the 2010 administration;
- Item Writing, conducted in December 2009, in which educators wrote Multiple Choice items, Performance Tasks, and Rater Items aligned to the alternate content standards for possible use in the spring of 2010 as field test items;
- Content and Bias Review, conducted in October 2009, in which educators reviewed Multiple Choice items, Performance Tasks, and Rater Items from all content areas for content, bias, and sensitivity. Items that survived these committees were eligible for inclusion on the spring 2010 AIMS A assessment;
- Internal Team Review of Performance Tasks and Rater Items (Mathematics and Science), conducted in December 2009, in which team members reviewed the items written and reviewed by committee members to ensure content was appropriate to the standards being assessed;

- Passage Review conducted in December 2009, in which educators reviewed passages for bias and sensitivity to ensure that topics were appropriate and would not favor or offend a particular gender or ethnic group, and were sufficiently rich enough to be able to write items based on the content.
- External Consultant Final Document Review, conducted in December 2009, external consultants (special education and general education teachers, school psychologists, and special education directors) were hired to review all final test documents that were assembled and placed on the ADE development site prior to the administration of AIMS A. After they logged on to the AIMS A training system they were instructed to critique the screens utilizing a checklist to evaluate the items and online system. Consultants had a two week block of time to review the assigned grades in mathematics, reading, and science. The printed copies of all test items (multiple choice, rater items, and performance tasks) matched the test items that would be reviewed online. The consultants were informed that they could use the hard copies of the actual test to document suggested changes, but they must also document all of their comments on the provided review form;
- ADE Internal Review Team, December 2009, the internal team (AIMS A coordinator, specialist, project specialist, director, and deputy associate superintendent) reviewed the documents returned by the external consultants. Decisions were made based on the feedback to make edits and revisions. A final internal review of every item was conducted prior to the test administration; and
- Internal Data Analysis Review Team, conducted June, 2010. The team reviewed the data after the 2010 administration and conducted a comparison to the 2009 data. Anchor items were selected from the 2010 operational assessment that were common items administered for both years. This was done in preparation for the 2011 AIMS A item selection process. The anchor items selected represent the content covered by the full AIMS A assessment. These items represented a distribution of item difficulties for the full 2010 assessment.

Part 3: Test Design

3.1 Content Standards

Part 3 of the Technical Report provides information regarding test design. The following AERA/APA/NCME standards are addressed: 1.2, 1.6, 3.1, 3.2, 3.3, 3.11, 6.4, 6.15, 13.3, and 13.5.

AIMS A assessment is designed to measure performance on the Arizona Alternate Content Standards adopted in May 2006 for Mathematics and Reading in Grades 3–8 and HS and Grades 4, 8, and 10 for Science. These standards are organized by strand, concept, and performance objective. Performance Objectives are specific tasks and skills that the student is expected to know and is able to perform. Only the strand and concept level are described below, and scores are only reported at the strand level. The AIMS A Mathematics, Reading and Science test blueprints are based on the concepts and strands of the Arizona Alternate Content Standards.

Figure 3.1.1
Arizona Alternate Reading Strands and Concepts

Reading Grade 3	Reading Grade 4 – 8 and HS
Strand 1: Reading Process Concept 1: Print Concepts Concept 3: Phonics Concept 4: Vocabulary Concept 5: Fluency Concept 6: Comprehension Strategies	Strand 1: Reading Process Concept 4: Vocabulary Concept 5: Fluency Concept 6: Comprehension Strategies
Strand 2: Comprehending Literary Text Concept 1: Elements of Literature	Strand 2: Comprehending Literary Text Concept 1: Elements of Literature
Strand 3: Comprehending Informational Text Concept 1: Expository Text Concept 2: Functional Text	Strand 3: Comprehending Informational Text Concept 1: Expository Text Concept 2: Functional Text

Figure 3.1.2
Arizona Alternate Mathematics Strands and Concepts

Mathematics Grade 3	Mathematics Grades 4, 5	Mathematics Grades 6, 7
<p>Strand 1: Number Sense and Operations</p> <p>Concept 1: Number Sense</p> <p>Concept 2: Numerical Operations</p> <p>Concept 3: Estimation</p> <p>Strand 2: Data Analysis, Probability, and Discrete Mathematics</p> <p>Concept 1: Data Analysis (Statistics)</p> <p>Strand 3: Patterns, Algebra, and Functions</p> <p>Concept 1: Patterns</p> <p>Concept 3: Algebraic Representations</p> <p>Strand 4: Geometry and Measurement</p> <p>Concept 1: Geometric Properties</p> <p>Concept 4: Measurement</p>	<p>Strand 1: Number Sense and Operations</p> <p>Concept 1: Number Sense</p> <p>Concept 2: Numerical Operations</p> <p>Concept 3: Estimation</p> <p>Strand 2: Data Analysis, Probability, and Discrete Mathematics</p> <p>Concept 1: Data Analysis (Statistics)</p> <p>Concept 2: Probability</p> <p>Strand 3: Patterns, Algebra, and Functions</p> <p>Concept 1: Patterns</p> <p>Concept 3: Algebraic Representations</p> <p>Strand 4: Geometry and Measurement</p> <p>Concept 1: Geometric Properties</p> <p>Concept 4: Measurement</p> <p>Strand 5: Structure and Logic</p> <p>Concept 2: Logic and Reasoning</p>	<p>Strand 1: Number Sense and Operations</p> <p>Concept 1: Number Sense</p> <p>Concept 2: Numerical Operations</p> <p>Concept 3: Estimation</p> <p>Strand 2: Data Analysis, Probability, and Discrete Mathematics</p> <p>Concept 1: Data Analysis (Statistics)</p> <p>Concept 2: Probability</p> <p>Concept 4: Vertex-Edge Graphs</p> <p>Strand 3: Patterns, Algebra, and Functions</p> <p>Concept 1: Patterns</p> <p>Concept 3: Algebraic Representations</p> <p>Strand 4: Geometry and Measurement</p> <p>Concept 1: Geometric Properties</p> <p>Concept 3: Coordinate Geometry</p> <p>Concept 4: Measurement</p> <p>Strand 5: Structure and Logic</p> <p>Concept 2: Logic and Reasoning</p>

Mathematics Grade 8	Mathematics Grade High School
<p>Strand 1: Number Sense and Operations</p> <ul style="list-style-type: none"> Concept 1: Number Sense Concept 2: Numerical Operations Concept 3: Estimation <p>Strand 2: Data Analysis, Probability, and Discrete Mathematics</p> <ul style="list-style-type: none"> Concept 1: Data Analysis (Statistics) Concept 2: Probability Concept 4: Vertex-Edge Graphs <p>Strand 3: Patterns, Algebra, and Functions</p> <ul style="list-style-type: none"> Concept 1: Patterns Concept 3: Algebraic Representations <p>Strand 4: Geometry and Measurement</p> <ul style="list-style-type: none"> Concept 1: Geometric Properties Concept 3: Coordinate Geometry Concept 4: Measurement <p>Strand 5: Structure and Logic</p> <ul style="list-style-type: none"> Concept 2: Logic and Reasoning 	<p>Strand 1: Number Sense and Operations</p> <ul style="list-style-type: none"> Concept 1: Number Sense Concept 2: Numerical Operations Concept 3: Estimation <p>Strand 2: Data Analysis, Probability, and Discrete Mathematics</p> <ul style="list-style-type: none"> Concept 1: Data Analysis (Statistics) Concept 2: Probability <p>Strand 3: Patterns, Algebra, and Functions</p> <ul style="list-style-type: none"> Concept 1: Patterns Concept 2: Functions and Relationships Concept 3: Algebraic Representations <p>Strand 4: Geometry and Measurement</p> <ul style="list-style-type: none"> Concept 1: Geometric Properties Concept 2: Transformation of Shapes Concept 3: Coordinate Geometry Concept 4: Measurement <p>Strand 5: Structure and Logic</p> <ul style="list-style-type: none"> Concept 1: Algorithms and Algorithmic Thinking Concept 2: Logic and Reasoning

Figure 3.1.3
Arizona Alternate Science Strands and Concepts – Grades 4, 8, and 10

Grade 4 Science	Grade 8 Science
<p>Strand 1: Inquiry Process</p> <ul style="list-style-type: none"> Concept 1: Observations, Questions, and Hypotheses Concept 2: Scientific Testing (Investigating and Modeling) Concept 3: Analysis and Conclusions Concept 4: Communication <p>Strand 2: History and Nature of Science</p> <ul style="list-style-type: none"> Concept 1: History of Science as a Human Endeavor <p>Strand 3: Science in Personal and Social Perspectives</p> <ul style="list-style-type: none"> Concept 1: Changes in Environments Concept 2: Science and Technology in Society <p>Strand 4: Life Science</p> <ul style="list-style-type: none"> Concept 1: Characteristics of Organisms Concept 3: Organisms and Environments Concept 4: Diversity, Adaptation, and Behavior <p>Strand 5: Physical Science</p> <ul style="list-style-type: none"> Concept 3: Energy and Magnetism <p>Strand 6: Earth and Space Science</p> <ul style="list-style-type: none"> Concept 2: Earth’s Processes and Systems Concept 3: Changes in the Earth and Sky 	<p>Strand 1: Inquiry Process</p> <ul style="list-style-type: none"> Concept 1: Observations, Questions, and Hypotheses Concept 2: Scientific Testing (Investigating and Modeling) Concept 3: Analysis and Conclusions Concept 4: Communication <p>Strand 2: History and Nature of Science</p> <ul style="list-style-type: none"> Concept 1: History of Science as a Human Endeavor <p>Strand 3: Science in Personal and Social Perspectives</p> <ul style="list-style-type: none"> Concept 1: Changes in Environments Concept 2: Science and Technology in Society <p>Strand 4: Life Science</p> <ul style="list-style-type: none"> Concept 2: Reproduction and Heredity Concept 4: Diversity, Adaptation, and Behavior <p>Strand 5: Physical Science</p> <ul style="list-style-type: none"> Concept 1: Properties and Changes of Properties in Matter Concept 2: Motion and Forces

Grade 10 Science

<p>Strand 1: Inquiry Process</p> <ul style="list-style-type: none"> Concept 1: Observations, Questions, and Hypotheses Concept 2: Scientific Testing (Investigating and Modeling) Concept 3: Analysis, Conclusions, and Refinements Concept 4: Communication <p>Strand 2: History and Nature of Science</p> <ul style="list-style-type: none"> Concept 1: History of Science as a Human Endeavor <p>Strand 3: Science in Personal and Social Perspectives</p> <ul style="list-style-type: none"> Concept 1: Changes in Environments Concept 2: Science and Technology in Society Concept 3: Human Population Characteristics <p>Strand 4: Life Science</p> <ul style="list-style-type: none"> 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) 	<p>Strand 5: Physical Science</p> <ul style="list-style-type: none"> 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 <p>Strand 6: Earth and Space Science</p> <ul style="list-style-type: none"> 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 A 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 A Blueprint for Reading

RDG	GRADE 3		GRADE 4		GRADE 5		GRADE 6	
	POs	%age of test	POs	%age of test	POs	%age of test	POs	%age of test
Strand 1	10	56%	6	36%	6	40%	8	36%
Strand 2	3	16%	5	16%	4	28%	3	16%
Strand 3	8	28%	6	48%	6	32%	7	48%
TOTAL	21	100%	17	100%	16	100%	18	100%

RDG	GRADE 7		GRADE 8		GRADE HS	
	POs	%age of test	POs	%age of test	POs	%age of test
Strand 1	10	50%	10	52%	7	40%
Strand 2	3	20%	4	16%	2	28%
Strand 3	6	30%	8	32%	5	32%
TOTAL	19	100%	22	100%	14	100%

Table 3.2.2
AIMS A Blueprint for Mathematics

	GRADE 3		GRADE 4		GRADE 5		GRADE 6	
MATH	POs	%age of test	POs	%age of test	POs	%age of test	POs	%age of test
Strand 1	15	36%	12	48%	11	40%	12	24%
Strand 2	2	20%	3	20%	4	24%	7	36%
Strand 3	2	28%	3	12%	3	20%	2	20%
Strand 4								
Strand 5	5	16%	7	20%	4	16%	8	20%
TOTAL	24	100%	25	100%	22	100%	29	100%

	GRADE 7		GRADE 8		GRADE HS	
MATH	POs	%age of test	POs	%age of test	POs	%age of test
Strand 1	8	28%	5	20%	6	24%
Strand 2	8	36%	7	36%	8	28%
Strand 3	4	12%	4	12%	5	24%
Strand 4						
Strand 5	7	24%	7	32%	10	24%
TOTAL	27	100%	23	100%	29	100%

Table 3.2.3
AIMS A Blueprint for Science Grades 4, 8, and 10

	GRADE 4		GRADE 8		GRADE 10	
SCIENCE	POs	%age of test	POs	%age of test	POs	%age of test
Strand 1	10	28%	16	32%	12	32%
Strand 2						
Strand 3	4	16%	5	24%	5	16%
Strand 4						
Strand 5	12	56%	6	44%	20	52%
Strand 6						
TOTAL	26	100%	27	100%	37	100%

3.3 Description of AIMS A 2010 Tests

The test blueprints were used with the processes described in Part 4 to develop all AIMS A tests administered in 2010. The resulting test configurations are as follows.

3.3.1 Reading

The AIMS A CRT Reading tests consisted of 15 multiple-choice items, 5 performance tasks, and 5 rater items developed by Arizona teachers. All items were scored on a basis of 4 raw score points per item. The raw scores ranged from 0-100 and scale scores were designed to range from 1000 to 1500. All items on the Reading tests reported to a criterion-referenced score. All Reading tests included 15 embedded field test items.

3.3.2 Mathematics

The AIMS A CRT Mathematics tests consisted of 15 multiple-choice items, 5 performance tasks, and 5 rater items developed by Arizona teachers. All items were scored on a basis of 4 raw score points per item. The raw scores ranged from 0-100 and scale scores were designed to range from 1000 to 1500. All items on the Mathematics tests reported to a criterion-referenced score. All Mathematics tests included 5 embedded field test items.

3.3.3 Science

The AIMS A CRT Science consisted of 15 multiple-choice items, 5 performance tasks, and 5 rater items developed by Arizona teachers. All items were scored on a basis of 4 raw score points per item. The raw scores ranged from 0-100 and scale scores were designed to range from 1000 to 1500. All items on the Science tests reported to a criterion-referenced score. All Science tests included 5 embedded field test items.

Table 3.3.1
2010 AIMS A Test Structure Reading

Test items and item types address all strands. Strands not represented on the 2010 AIMS A assessments will be represented on future assessments.

	Number of Items	Multiple Choice	Performance Tasks	Rater Items
Grade 3				
Strand 1 - Reading Process	14	6	4	4
Strand 2 - Comprehending Literary	4	3	1	0
Strand 3 - Comprehending	7	6	0	1
Total	25	15	5	5
Grade 4				
Strand 1 - Reading Process	9	7	0	2
Strand 2 - Comprehending Literary	4	4	0	0
Strand 3 - Comprehending	12	4	5	3
Total	25	15	5	5
Grade 5				
Strand 1 - Reading Process	10	7	0	3
Strand 2 - Comprehending Literary	7	2	5	0
Strand 3 - Comprehending	8	6	0	2
Total	25	15	5	5
Grade 6				
Strand 1 - Reading Process	9	6	3	0
Strand 2 - Comprehending Literary	4	3	1	0
Strand 3 - Comprehending	12	6	1	5
Total	25	15	5	5
Grade 7				
Strand 1 - Reading Process	12	8	0	3
Strand 2 - Comprehending Literary	5	1	4	0
Strand 3 - Comprehending	8	6	1	2
Total	25	15	5	5
Grade 8				
Strand 1 - Reading Process	13	7	0	3
Strand 2 - Comprehending Literary	4	2	2	0
Strand 3 - Comprehending	8	6	3	2
Total	25	15	5	5
High School				
Strand 1 - Reading Process	10	6	1	3
Strand 2 - Comprehending Literary	7	3	4	0
Strand 3 - Comprehending	8	6	0	2
Total	25	15	5	5

Table 3.3.2
2010 AIMS A Test Structure Mathematics

	Number of Items	Multiple Choice	Performance Tasks	Rater Items
Grade 3				
Strand 1- Number Sense and Operations	9	4	4	1
Strand 2- Data Analysis, Probability, and Discrete	5	4	0	1
Strand 3- Patterns, Algebra, and Functions	7	5	1	1
Strands 4 & 5- Geometry, Measurement, Structure & Logic	4	2	0	2
Total	25	15	5	5
Grade 4				
Strand 1- Number Sense and Operations	12	5	5	2
Strand 2- Data Analysis, Probability, and Discrete	5	3	0	2
Strand 3- Patterns, Algebra, and Functions	3	3	0	0
Strands 4 & 5- Geometry, Measurement, Structure & Logic	5	4	0	1
Total	25	15	5	5
Grade 5				
Strand 1- Number Sense and Operations	10	4	4	2
Strand 2- Data Analysis, Probability, and Discrete	6	3	1	2
Strand 3- Patterns, Algebra, and Functions	5	4	0	1
Strands 4 & 5- Geometry, Measurement, Structure & Logic	4	4	0	0
Total	25	15	5	5
Grade 6				
Strand 1- Number Sense and Operations	6	4	0	2
Strand 2- Data Analysis, Probability, and Discrete	9	2	5	2
Strand 3- Patterns, Algebra, and Functions	5	4	0	1
Strands 4 & 5- Geometry, Measurement, Structure & Logic	5	5	0	0
Total	25	15	5	5
Grade 7				
Strand 1- Number Sense and Operations	7	5	0	2
Strand 2- Data Analysis, Probability, and Discrete	9	2	5	2
Strand 3- Patterns, Algebra, and Functions	3	3	0	0
Strands 4 & 5- Geometry, Measurement, Structure & Logic	6	5	0	1
Total	25	15	5	5
Grade 8				
Strand 1- Number Sense and Operations	5	3	0	2
Strand 2- Data Analysis, Probability, and Discrete	9	3	5	1
Strand 3- Patterns, Algebra, and Functions	3	3	0	0
Strands 4 & 5- Geometry, Measurement, Structure & Logic	8	6	0	2
Total	25	15	5	5
High School				
Strand 1- Number Sense and Operations	6	5	0	1
Strand 2- Data Analysis, Probability, and Discrete	7	3	2	2
Strand 3- Patterns, Algebra, and Functions	6	3	3	0
Strands 4 & 5- Geometry, Measurement, Structure & Logic	6	4	0	2
Total	25	15	5	5

Table 3.3.3
2010 AIMS A Test Structure Science

	Number of Items	Multiple Choice	Performance Tasks	Rater Items
Grade 4				
Strand 1- Inquiry Process	7	5	2	0
Strands 2 & 3- History, Nature, Personal and	4	3	1	0
Strands 4, 5 & 6 - Science Content	14	7	2	5
Total	25	15	5	5
Grade 8				
Strand 1- Inquiry Process	8	2	1	5
Strands 2 & 3- History, Nature, Personal and Social	6	4	2	0
Strands 4, 5 & 6 - Science Content	11	9	2	0
Total	25	15	5	5
Grade 10				
Strand 1- Inquiry Process	8	4	1	3
Strands 2 & 3- History, Nature, Personal and	4	2	2	0
Strands 4, 5 & 6- Science Content	13	9	2	2
Total	25	15	5	5

Table 3.3.4
Raw Score and Scale Score Ranges of AIMS A 2010 Assessments

Grade Performance Level		AIMS A Scale Scores 2010					
		Reading		Mathematics		Science	
		Scale Score 2010	Raw Score 2010	Scale Score 2010	Raw Score 2010	Scale Score 2010	Raw Score 2010
3rd	Falls Far Below	1000 - 1221	0 - 18	1000 - 1221	0 - 17		
	Approaches	1213 - 1249	19 - 40	1222 - 1249	18 - 38		
	Meets	1250 - 1301	41 - 77	1250 - 1294	39 - 77		
	Exceeds	1302 - 1500	78 - 100	1295 - 1500	78 - 100		
4th	Falls Far Below	1000 - 1187	0 - 12	1000 - 1221	0 - 18	1000 - 1188	0 - 12
	Approaches	1188 - 1249	13 - 40	1222 - 1249	19 - 38	1189 - 1249	13 - 46
	Meets	1250 - 1332	41 - 86	1250 - 1301	39 - 79	1250 - 1330	47 - 89
	Exceeds	1333 - 1500	87 - 100	1302 - 1500	80 - 100	1331 - 1500	90 - 100
5th	Falls Far Below	1000 - 1164	0 - 12	1000 - 1222	0 - 16		
	Approaches	1165 - 1250	13 - 48	1223 - 1249	17 - 35		
	Meets	1251 - 1332	49 - 85	1250 - 1302	36 - 80		
	Exceeds	1333 - 1500	86 - 100	1303 - 1500	81 - 100		
6th	Falls Far Below	1000 - 1167	0 - 14	1000 - 1188	0 - 18		
	Approaches	1168 - 1249	15 - 49	1189 - 1250	19 - 49		
	Meets	1250 - 1340	50 - 85	1251 - 1315	50 - 82		
	Exceeds	1341 - 1500	86 - 100	1316 - 1500	83 - 100		
7th	Falls Far Below	1000 - 1183	0 - 16	1000 - 1183	0 - 12		
	Approaches	1184 - 1250	17 - 45	1184 - 1250	13 - 42		
	Meets	1251 - 1340	46 - 84	1251 - 1315	43 - 82		
	Exceeds	1341 - 1500	85 - 100	1316 - 1500	83 - 100		
8th	Falls Far Below	1000 - 1197	0 - 16	1000 - 1200	0 - 16	1000 - 1198	0 - 13
	Approaches	1198 - 1249	17 - 43	1201 - 1249	17 - 41	1199 - 1250	14 - 44
	Meets	1250 - 1330	44 - 87	1250 - 1301	42 - 76	1251 - 1316	45 - 89
	Exceeds	1331 - 1500	88 - 100	1302 - 1500	77 - 100	1317 - 1500	90 - 100
HS	Falls Far Below	1000 - 1188	0 - 12	1000 - 1200	0 - 17	1000 - 1197	0 - 10
	Approaches	1189 - 1249	13 - 45	1201 - 1249	18 - 42	1198 - 1249	11 - 42
	Meets	1250 - 1347	46 - 92	1250 - 1328	43 - 86	1250 - 1309	43 - 87
	Exceeds	1348 - 1500	93 - 100	1329 - 1500	87 - 100	1310 - 1500	88 - 100

Part 4: Test Development

Part 4 of the Technical Report provides a summary of the test development activities that occurred in preparation for the spring 2010 AIMS A.

A comprehensive, multi-segment development process guides the development of assessment materials. The following section outlines this process in general terms and addresses the following AERA/APA/NCME standards: 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.

4.1 AIMS A Test Development and Editing Process

4.1.1 Blueprint Development

The development of the 2010 AIMS A assessment blueprint was derived from the 2009 blueprint and input received from the field and the Technical Advisory Committee (TAC) about the length and structure of the assessment. The length of the test was increased slightly.

4.1.2 Item Writing and Editing

The development of the 2010 AIMS A assessments involved many educators, content specialists, and professionals from across Arizona and ADE collaborating in an effort to ensure that all newly developed items closely match the Arizona Alternate Content Standards and the item specifications. The Arizona teachers and education professionals selected to serve on item writing committees all possessed content and assessment expertise, many of whom had special education expertise. These committee members were selected for their ability to be creative while adhering to the test blueprint, detailed item specifications, and content limits. The participants received a considerable amount of professional development prior to writing items. Items from the previous administration were reviewed and clarified. The appearance of the items were modified to match the new format and new test items were developed by Arizona teachers using a template to capture all requirements and supporting information such as strand, concept, performance objective, and content reference documentation. New Performance Tasks and Rater Items were constructed and reviewed by committees of special educators and content specialists. These new items were constructed in response to an internal review of the test map and a thorough gap analysis. After the item writing workshops were concluded, test items were edited and revised by in-house content specialists, assessment specialists, and research scientists for content appropriateness and standards match.

4.1.3 Item Specifications and Review Procedures

Prior to item writing, ADE reviewed the item specifications. The Item Specifications are living documents and need to be constantly reviewed. The purpose of the review and revision was to provide further clarity for how AIMS A will measure students' understanding of the alternate content standards. This is based on feedback from previous item writing workshops and best practices utilized in the development of AIMS items. ADE staff reviewed the definition of what is being tested by each Performance Objective (PO) and where needed, clarified the PO statements, the content limits, and the stimulus and response attribute descriptions. Taken together, these revisions further 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.

The resulting documents were used during item writing. Refinements and inputs were implemented. During item writing, it became clear that the item specifications would continue to require clarification and refinement in order to assure varied PO coverage within the test blueprint each year. More and varied illustrative samples for each PO need to be created each year and adapted from prior assessment items that truly reflect the item specification components and clearly test the PO. These item specifications will continue to be refined continuously where needed.

4.1.4 Test Construction Process

Test construction for the 2010 test administration began with an internal review of the items developed at the item writing workshops. Items matching the content standards were chosen to match blueprint specifications. Although in 2009, the TAC suggested that fewer items be administered, after further analysis it was determined to slightly increase the number of items to be tested and without impacting the reliabilities so that student frustration levels would not be impacted. A maximum of 25 items were chosen to be administered for 2010. Each grade and content area was administered the same number of items. Each test form contained 15 Multiple Choice items, 5 Performance Tasks, and 5 Rater Items. This may be adjusted after final analysis of the results and a review of the reliabilities of each assessment. After the assessments were constructed they went to a quality and content review.

4.1.5 Quality Reviews

ADE personnel implemented a series of quality review checks at various stages of production to assure all AIMS A materials were as error free as possible. ADE first reviewed each component at a relatively early stage of screen production. Items were compared to the way they were presented to the content/bias review committee to be sure no unauthorized changes have been introduced. In addition to the ADE personnel conducting the quality review checks, external consultants were acquired to conduct a thorough review of all items. During this review period, they provided comments for any suggested changes or improvement to items, instructions, materials, and online system usability. A smooth AIMS A test administration requires that all test materials, including online test, Data Sheets, Performance Task Materials, and directions to test administrators are in alignment. A final quality review of all forms and documents were reviewed and approved by ADE personnel.

Table 4.1.1
Number of Field Test Items Selected

Content Area	Number of Grades	Number of Forms	Number of Items Selected
Reading	7 (grades 3-8 & HS)	7	15
Math	7 (grades 3-8 & HS)	7	15
Science	3 (grades 4, 8, & 10)	3	15
TOTAL			45

Table 4.1.2
CRT Item Selection

Grade	Content	Multiple Choice	Performance Tasks	Rater Items
3	Mathematics	15	5	5
4	Mathematics	15	5	5
5	Mathematics	15	5	5
6	Mathematics	15	5	5
7	Mathematics	15	5	5
8	Mathematics	15	5	5
HS	Mathematics	15	5	5
3	Reading	15	5	5
4	Reading	15	5	5
5	Reading	15	5	5
6	Reading	15	5	5
7	Reading	15	5	5
8	Reading	15	5	5
HS	Reading	15	5	5
4	Science	15	5	5
8	Science	15	5	5
10	Science	15	5	5

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. The following AERA/APA/NCME standards are addressed: 1.13, 3.3, 3.19, 3.20, 3.21, 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.

5.1 Adaptations

5.1.1 Overview of Adaptations

Some students taking the general assessment (AIMS) are allowed accommodations. Accommodations are specific practices and procedures that provide students with equitable access during instruction and assessment. Students with Significant Cognitive Disabilities (SCDs) require much more intensive instructional support which is provided through instructional adaptations. Significant adaptations and best practice strategies are necessary to develop an instructional environment to meet the unique abilities of students with SCDs. Instructional adaptation strategies, like accommodations, should be implemented during daily instruction. Only those adaptations and instructional strategies used consistently during instructional activities should be made available to the students with SCDs being assessed on AIMS A. Table 5.1.1 illustrates the adaptations (accommodations) actually provided to students during the 2010 administration.

Students identified as having a SCD are dismissed from ELL programs based on the IEP team decisions. This is in accordance with Federal and State mandates that the IEP team decisions need to be documented in the student's IEP. This documentation drives the educational program and all services for the student and supersedes Arizona Revised Statutes and Arizona Administrative Code (<http://www.ade.az.gov/oelas/downloads/SPEDPowerPoint-HandlingIssueswithDualLabels.pdf>).

Multiple Choice Items, Performance Tasks, and Rater Items include text with reduced cognitive loads and are supported with graphics as appropriate. Test administrators adhere to the accommodation and adaptation guidance when administering the test. To further encourage appropriate access to AIMS A so that all students with SCDs can demonstrate their knowledge, guidance is also provided in the test instructions to utilize verbal and non-verbal support, objects, pictures, symbol systems, and manipulatives.

Table 5.1.1
2010 AIMS A Adaptations Provided

Any instructional adaptations or strategies can be used to support students with SCDs as long as the students indicate the response choices. The following are adaptations actually provided to students on the 2010 AIMS A assessments; however, this is not an exhaustive list of adaptations that could be utilized.

Adaptation	Number of Students Using Adaptation									
	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 10	Grade 11	Grade 12	
Adaptive calculators	77	90	152	180	188	166	218	38	92	
Alphabet line	472	399	424	358	291	292	234	39	89	
Graph paper	77	102	106	115	106	91	112	21	25	
Highlight or mark key phrases, words, or letters	335	300	347	350	343	343	382	75	118	
Line drawings	217	176	225	204	149	161	187	25	55	
Magnifier	35	34	41	41	32	43	46	5	18	
Manipulatives	729	676	688	627	565	573	538	110	162	
Number line	587	523	546	492	433	420	396	78	119	
Other	161	162	164	166	168	182	185	42	44	
Picture/Object system	386	321	342	317	276	301	293	55	102	
Read passages or any test item/describe graphics	700	667	670	656	600	641	584	118	164	
Sign language	146	112	130	107	81	93	69	18	36	
Switch	99	76	92	87	72	78	45	9	32	
Symbolic/Picture system	346	293	309	297	261	295	252	55	98	
Use of objects	491	436	468	406	345	383	347	66	123	
Total Used	4880	4402	4704	4403	3910	4062	3888	754	1277	

5.2 Test Security

All AIMS A tests were administered under secure testing conditions. Figure 5.2.1 includes the security agreement signed by personnel involved with testing administration.

5.3 Test Administration

In order to ensure standardized testing administration for all students, a Special Education Director's Manual was made available to all special education directors for the spring 2010 administration. The manual included the following topics:

- Schedule of Important Dates
- Special Education Director's Responsibilities
- Scheduling Test Administration
- Students to be Tested
- Student Identification Information
- Test Materials
- Procedures During Test Administration
- Procedures Following Test Administration
- Test Security

A separate document called the Test Administration Directions was made available to all test administrators for the spring 2010 assessments. It included the following:

- Test Administrator Responsibilities
- Arrangements Prior to Test Administration
- Test Materials and Testing Schedule
- Test Administration Guidelines
- Student Identification Information
- Detailed Scripts for Administration of Each Part of Each Test
- Procedures Following Test Administration

For specific information related to test administration, refer to the Special Education Director's Manual and/or the Test Administration Directions. These documents can be found online at www.ade.az.gov/ess/AltAssessment/AIMSA/SpedDirectors.asp.

Pre-test workshops were presented to special education directors across the state. All district special education directors were given the opportunity to attend a pre-test workshop. These workshops can be found under the title "AIMS A 2010 Fall Regional Training" at the link above. All districts were required to send a representative responsible for AIMS A coordination to attend one of the workshops for the 2010 AIMS A.

Figure 5.2.1

2010 AIMS A Test Security Agreement

**Arizona's Instrument to Measure Standards
AIMS A Test Security / Testing Ethics Agreement 2010**

I acknowledge that AIMS A is a secure test, and I agree to the following conditions of use to ensure the security of the test:

1. I will take necessary precautions to safeguard test materials.
 - a. Limit access to persons with a responsible, professional interest in the test's security.
 - b. Names of all persons having access to the materials will be kept on file by the special education director.
 - c. All persons having access to the AIMS A test materials (other than students to whom the test is administered) will sign the test security agreement.
 - i. Building administrators will maintain signed agreements of building staff.
 - ii. Special Education Directors will maintain signed agreements of building administrators.
2. I will keep all test materials secure, limiting access to Test Administrators.
 - a. Test materials will be kept secure until they are actually distributed to students.
 - b. In no case will students be permitted to remove test materials from the room where testing takes place except under supervision of staff.
3. I will not report students' answer choices based on previous experience outside the testing window.
4. I will attend training and properly administer all sections of AIMS A.
5. I will not examine the AIMS A to determine the content beyond the requirements to administer the test.
 - a. No content of the test will be disclosed or allowed to be disclosed.
 - b. No test item will be discussed at any time.
6. After completing the test administration, I will store all testing materials, including student data sheets, in a secure area.
7. I will not use any test materials for instruction before or after test administration.
8. I understand the district superintendent or charter operator will develop, distribute, and enforce disciplinary procedures for the violation of test security by district or agency staff.

Individuals that will be administering the AIMS A for 2010 must also:

- participate in training activities prior to administering the AIMS A;
- review *AIMS A Test Administration Directions* for 2010 prior to test date;
- follow *AIMS A Test Administration Directions*; and
- secure all AIMS A test materials upon completion of testing, including all student data sheets.

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 2010 AIMS A test will also sign a Test Security Agreement.

Signed By: _____

Printed Name: _____

Title: _____

School: _____

Part 6: Data for Operational Analysis

Part 6 of the Technical Report describes the data that were used for calibrating and scaling of the 2010 Spring AIMS A. This part also presents classical test statistics and item analysis statistics for each content area and grade level. Addressed in this part of the technical report are the following AERA/APA/NCME standards: 1.5, 1.13, 2.4, 2.8, 3.18, 6.5, and 7.1.

6.1 Data

AIMS A has one test window spanning six weeks. The 2010 assessments were administered between February 15th and March 31st. Live calibration with census data was used for operational analysis of Reading, Mathematics, and Science tests. In order to ensure valid calibration results, several data cleaning steps occurred upon receipt of raw data from the ADE Information Technology (IT) department which hosts the online test and publishes the results. These steps allowed for calibration to be conducted on valid student responses at the targeted grade level. Records for students taking each content area test were included.

The cleaning process employed after the data were received from IT was applied to the calibration data sets for each content area and grade level:

- Multiple files were received from IT with scored multiple choice results, performance tasks scores, and rater item scores, multiple choice items were also sent with distractors identified for analysis purposes. These files and records were merged and sorted into administered sequence as a first step.
- Records of non-responsive students and partially non-responsive students (those answering at least one item) were identified.
- Totally non-responsive students (those students who did not respond to any items) were coded blank and excluded from the calibration data set.
- Students who did respond to at least one item of any item type had their non response coded as omit and were included in the calibration data set.
- Records of total non responders were removed from the calibration analysis but not removed from the final scale and reports.
- No other records were excluded.

More details on calibration are included in Part 7: Calibration, Scaling, and Scoring.

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 population data in Reading, Mathematics, Science. The table identifies the test, grade, number of students (N), the maximum obtainable raw score (Max Score), the raw score mean (RS M), the raw score standard deviation (RS SD), and Cronbach's alpha as a measure of internal consistency by item type, Multiple Choice (MC), Performance Task (PT), and Rater Item (RI). It should be noted though that the accuracy of the reliability coefficient is questionable due to the large number of non-responders in the sample and the low number of test items in the rater and performance tasks subtests.

Table 6.2.1
2010 AIMS A Classical Test Analysis Statistics

Test	N	MAX Score		RS M		RS SD		Reliability (alpha)		MAX Score PT		RS M PT		RS SD PT		Reliability (alpha) PT		MAX Score RI		RS M RI		RS SD RI		Reliability (alpha) RI	
		MC	MC	MC	MC	MC	MC	MC	MC	PT	PT	PT	PT	PT	PT	PT	PT	RI	RI	RI	RI	RI	RI	RI	RI
Math																									
03	866	60	32.00	3.87	0.83	20	9.42	6.31	0.86	20	10.80	6.31	0.86	20	10.80	6.31	0.86	20	10.80	6.31	0.86	20	10.80	6.31	0.86
04	851	60	35.00	4.33	0.87	20	11.29	6.70	0.88	20	7.95	5.49	0.88	20	7.95	5.49	0.88	20	7.95	5.49	0.88	20	7.95	5.49	0.88
05	903	60	29.52	3.87	0.82	20	8.03	5.84	0.81	20	9.17	6.27	0.81	20	9.17	6.27	0.81	20	9.17	6.27	0.81	20	9.17	6.27	0.81
06	876	60	32.28	3.67	0.79	20	13.42	6.54	0.89	20	8.59	6.07	0.89	20	8.59	6.07	0.89	20	8.59	6.07	0.89	20	8.59	6.07	0.89
07	801	60	32.36	3.89	0.82	20	13.09	6.54	0.89	20	10.48	6.40	0.89	20	10.48	6.40	0.89	20	10.48	6.40	0.89	20	10.48	6.40	0.89
08	856	60	30.32	3.77	0.80	20	13.66	6.49	0.90	20	9.27	6.09	0.90	20	9.27	6.09	0.90	20	9.27	6.09	0.90	20	9.27	6.09	0.90
HS	1301	60	31.04	3.75	0.80	20	13.68	6.87	0.92	20	9.89	6.82	0.92	20	9.89	6.82	0.92	20	9.89	6.82	0.92	20	9.89	6.82	0.92
Reading																									
03	866	60	30.36	3.88	0.82	20	11.09	6.19	0.84	20	9.98	6.40	0.84	20	9.98	6.40	0.84	20	9.98	6.40	0.84	20	9.98	6.40	0.84
04	851	60	35.00	4.28	0.87	20	12.92	6.58	0.90	20	9.38	6.46	0.90	20	9.38	6.46	0.90	20	9.38	6.46	0.90	20	9.38	6.46	0.90
05	903	60	33.84	4.32	0.87	20	13.38	6.96	0.92	20	8.61	6.45	0.92	20	8.61	6.45	0.92	20	8.61	6.45	0.92	20	8.61	6.45	0.92
06	876	60	37.36	4.43	0.88	20	12.26	6.47	0.89	20	9.00	6.54	0.89	20	9.00	6.54	0.89	20	9.00	6.54	0.89	20	9.00	6.54	0.89
07	801	60	36.08	4.26	0.87	20	13.03	6.94	0.92	20	9.77	6.66	0.92	20	9.77	6.66	0.92	20	9.77	6.66	0.92	20	9.77	6.66	0.92
08	856	60	37.68	4.24	0.88	20	13.68	6.51	0.90	20	10.34	6.57	0.90	20	10.34	6.57	0.90	20	10.34	6.57	0.90	20	10.34	6.57	0.90
HS	1301	60	41.64	4.38	0.90	20	14.65	6.82	0.94	20	10.37	6.94	0.94	20	10.37	6.94	0.94	20	10.37	6.94	0.94	20	10.37	6.94	0.94
Science																									
04	851	60	38.76	413.00	0.87	20	11.87	6.83	0.89	20	10.68	6.67	0.89	20	10.68	6.67	0.89	20	10.68	6.67	0.89	20	10.68	6.67	0.89
08	856	60	37.20	4.54	0.89	20	14.70	6.39	0.91	20	12.43	6.82	0.91	20	12.43	6.82	0.91	20	12.43	6.82	0.91	20	12.43	6.82	0.91
10	883	60	37.28	4.10	0.86	20	13.97	6.45	0.90	20	9.72	6.80	0.90	20	9.72	6.80	0.90	20	9.72	6.80	0.90	20	9.72	6.80	0.90

Tables 6.2.2, 6.2.3, and 6.2.4 present the Lertap analysis of the 2010 AIMS A assessment standard statistics for each grade and content area tested.

Table 6.2.2
2010 AIMS A Mathematics Test Analysis

	Math3	Math4	Math5	Math6	Math7	Math8	MathHS
n	866	851	903	876	801	856	1,301
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Median	56.00	60.00	49.00	58.00	60.00	57.00	59.00
Mean	52.23	54.23	46.74	54.28	55.91	53.27	54.62
Max	100.00	100.00	98.00	100.00	100.00	100.00	100.00
s.d.	25.92	27.31	24.94	24.73	25.86	24.97	25.71
var.	671.89	746.06	621.80	611.60	668.85	623.29	661.17
Range	100.00	100.00	98.00	100.00	100.00	100.00	100.00
IQRRange	36.00	41.00	35.00	34.00	38.00	34.00	38.00
Skewness	-0.50	-0.51	-0.38	-0.55	-0.58	-0.58	-0.50
Kurtosis	-0.64	-0.79	-0.73	-0.38	-0.46	-0.39	-0.56
MinPos	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MaxPos	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No Response	53	50	69	50	50	49	69
%No Response	6.1%	5.9%	7.6%	5.7%	6.2%	5.7%	5.3%

Table 6.2.3
2010 AIMS A Reading Test Analysis

	Read3	Read4	Read5	Read6	Read7	Read8	ReadHS
n	866	851	903	876	801	856	1,301
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Median	54.00	62.00	60.00	62.00	65.00	68.00	75.00
Mean	51.43	57.29	55.82	58.61	58.88	61.71	66.65
Max	100.00	100.00	100.00	100.00	100.00	100.00	100.00
s.d.	25.62	27.92	28.05	27.96	28.16	27.75	28.84
var.	656.22	779.44	787.05	781.49	793.19	769.87	831.57
Range	100.00	100.00	100.00	100.00	100.00	100.00	100.00
IQRRange	36.00	40.00	39.50	44.00	44.00	39.00	42.00
Skewness	-0.36	-0.57	-0.59	-0.51	-0.59	-0.76	-0.89
Kurtosis	-0.63	-0.62	-0.65	-0.72	-0.71	-0.36	-0.21
MinPos	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MaxPos	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No Response	43	49	67	51	47	45	63
%No Response	5.0%	5.8%	7.4%	5.8%	5.9%	5.3%	4.8%

Table 6.2.4
2010 AIMS A Science Test Analysis

	Sci3	Sci4	Sci5	Sci6	Sci7	Sci8	SciHS
n		851				856	883
Min		0.00				0.00	0.00
Median		70.00				73.00	67.00
Mean		61.31				64.31	60.97
Max		100.00				100.00	100.00
s.d.		27.77				29.21	27.21
var.		770.92				853.28	740.48
Range		100.00				100.00	100.00
IQRRange		39.00				46.00	39.50
Skewness		-0.77				-0.72	-0.71
Kurtosis		-0.41				-0.54	-0.46
MinPos		0.00				0.00	0.00
MaxPos		100.00				100.00	100.00
No Response		43				40	36
%No Response		5.1%				4.7%	4.1%

6.3 Classical Item Analysis

Classical item analyses were conducted for all grades and content areas. Tables 6.3.1-6.3.17 present item statistics for the tests. Note that operational items are reported in sequence without embedded field test items. The tables show the number of students (N), the item difficulty (P-Value), point biserial correlation (r_{pb}) and biserial correlation (r_{bi}) for dichotomous items, percentage of students responding to, and point biserial for the key and each distractor, and the percentage of students who omitted a multiple choice item (% Omit). The point biserial correlation (r_{pb}) reported is the correlation of the item and the total scores of the other items on the test. The biserial correlation (r_{bi}) is a statistical measure indicating the strength of the relationship between the right answer for each item relative to the total number of correct answers for all other items on the test. It is arrived at by comparing how well students did answering one item, relative to how well they did answering all the items. These coefficients answer this question: How did the people who selected an item option do on the criterion measure? If they did well on the criterion, both (r_{pb}) and (r_{bi}) will be “high,” where “high” may be taken as anything over 0.30 for (r_{pb}), and anything over 0.40 for (r_{bi}). A low point-biserial implies that students who get the item correct tend to do poorly on the overall test, and students who get the item wrong tend to do well on the test, each of which indicates an anomaly.

Table 6.3.1
2010 AIMS A Classical Item Analysis
Mathematics Grade 3

Multiple Choice

Item	Item ID	N	P-Value	Correct			Distractor 1		Distractor 2		%Omit
				%	<i>rpb</i>	<i>rbi</i>	%	<i>rpb</i>	%	<i>rpb</i>	
1	61093022-C	866	0.67	67%	0.35	0.45	8%	-0.31	22%	-0.31	3%
2	61093033-B	866	0.65	65%	0.36	0.48	9%	-0.30	21%	-0.34	4%
3	61093034-C	866	0.65	65%	0.37	0.48	12%	-0.29	20%	-0.34	3%
4	61093025-B	866	0.80	80%	0.31	0.45	9%	-0.30	9%	-0.26	3%
5	61093006-C	866	0.20	20%	-0.07	-0.10	17%	-0.24	59%	0.14	5%
6	61093010-C	866	0.57	57%	0.39	0.49	17%	-0.27	23%	-0.36	4%
7	61093032-B	866	0.80	80%	0.43	0.65	6%	-0.37	9%	-0.35	4%
8	61093016-B	866	0.67	67%	0.48	0.64	10%	-0.41	17%	-0.37	5%
9	61093019-B	866	0.61	61%	0.34	0.43	18%	-0.35	17%	-0.24	4%
10	61103013-B	866	0.53	53%	0.35	0.44	23%	-0.24	18%	-0.35	5%
11	61093028-B	866	0.42	42%	0.28	0.35	17%	-0.30	35%	-0.20	6%
12	61093008-A	866	0.44	44%	0.14	0.18	25%	-0.18	26%	-0.16	5%
13	61093007-B	866	0.37	37%	0.17	0.21	32%	-0.16	25%	-0.18	5%
14	61093013-B	866	0.61	61%	0.40	0.51	20%	-0.32	14%	-0.35	5%
15	61093024-C	866	0.54	54%	0.18	0.22	15%	-0.23	26%	-0.19	6%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0		No Response	
			%	<i>rpb</i>	%	<i>rpb</i>	%	<i>rpb</i>	%	
16	61093101-PT	866	70.9%	0.73	11.3%	-0.25	11.7%	-0.66	6.1%	
17	61103106-PT	866	10.4%	0.45	37.3%	0.46	46.2%	-0.72	6.1%	
18	61093103-PT	866	29.8%	0.62	30.9%	0.20	33.1%	-0.77	6.1%	
19	61093104-PT	866	33.3%	0.72	24.9%	0.12	35.7%	-0.80	6.1%	
20	61093105-PT	866	24.7%	0.65	28.5%	0.26	40.6%	-0.80	6.1%	

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0		No Response	
			%	<i>rpb</i>	%	<i>rpb</i>	%	<i>rpb</i>	%	<i>rpb</i>	%	
21	61093201-RI	866	43.8%	0.74	13.3%	0.10	14.1%	-0.13	22.7%	-0.78	6.1%	
22	61093202-RI	866	40.9%	0.70	16.7%	0.09	16.6%	-0.15	19.6%	-0.74	6.1%	
23	61093203-RI	866	72.3%	0.75	6.8%	-0.15	7.5%	-0.32	7.3%	-0.64	6.1%	
24	61093204-RI	866	8.8%	0.36	17.9%	0.38	27.7%	0.17	39.5%	-0.66	6.1%	
25	61093205-RI	866	51.7%	0.77	11.0%	0.01	12.9%	-0.20	18.2%	-0.74	6.1%	

Table 6.3.2
2010 AIMS A Classical Item Analysis
Mathematics Grade 4

Multiple Choice

Item	Item ID	N	Correct			Distractor 1		Distractor 2		%Omit	
			P-Value	%	rpb	rbi	%	rpb	%		rpb
1	61094029-A	851	0.67	67%	0.53	0.70	14%	-0.39	15%	-0.40	3%
2	61104020-B	851	0.54	54%	0.36	0.45	15%	-0.22	26%	-0.35	4%
3	61094025-A	851	0.80	80%	0.52	0.76	10%	-0.42	8%	-0.37	3%
4	61094019-A	851	0.52	52%	0.37	0.47	26%	-0.36	19%	-0.21	3%
5	61094042-B	851	0.52	52%	0.27	0.34	14%	-0.16	29%	-0.31	3%
6	61094035-C	851	0.73	73%	0.39	0.53	15%	-0.27	10%	-0.38	2%
7	61094022-A	851	0.65	65%	0.34	0.44	26%	-0.29	6%	-0.34	4%
8	61094040-A	851	0.65	65%	0.52	0.68	15%	-0.34	15%	-0.44	4%
9	61094039-C	851	0.54	54%	0.34	0.42	22%	-0.15	20%	-0.40	3%
10	61094012-C	851	0.71	71%	0.38	0.52	8%	-0.30	16%	-0.34	5%
11	61094007-B	851	0.60	60%	0.42	0.54	11%	-0.27	24%	-0.39	4%
12	61094003-B	851	0.81	81%	0.49	0.74	8%	-0.34	8%	-0.43	3%
13	61094018-B	851	0.44	44%	0.29	0.37	16%	-0.22	36%	-0.26	4%
14	61094043-B	851	0.64	64%	0.50	0.64	13%	-0.29	19%	-0.46	5%
15	61094044-B	851	0.48	48%	0.27	0.34	14%	-0.24	33%	-0.24	5%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb
16	61094101-PT	851	71.3%	0.81	13.4%	-0.36	9.4%	-0.68	5.9%	
17	61104106-PT	851	66.4%	0.77	16.7%	-0.28	11.0%	-0.69	5.9%	
18	61094103-PT	851	37.1%	0.68	27.7%	0.12	29.3%	-0.80	5.9%	
19	61094104-PT	851	30.4%	0.70	22.7%	0.19	41.0%	-0.81	5.9%	
20	61094105-PT	851	25.1%	0.65	22.9%	0.28	46.1%	-0.80	5.9%	

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb	%	rpb
21	61094201-RI	851	61.8%	0.75	8.8%	-0.11	10.5%	-0.28	13.0%	-0.64	5.9%	
22	61104206-RI	851	10.2%	0.49	9.9%	0.33	18.1%	0.23	55.9%	-0.69	5.9%	
23	61094203-RI	851	46.9%	0.70	14.3%	0.04	16.8%	-0.24	16.1%	-0.65	5.9%	
24	61104207-RI	851	6.6%	0.42	6.8%	0.30	17.0%	0.34	63.7%	-0.67	5.9%	
25	61094205-RI	851	26.8%	0.62	13.5%	0.24	16.3%	0.04	37.5%	-0.75	5.9%	

Table 6.3.3
2010 AIMS A Classical Item Analysis
Mathematics Grade 5
Multiple Choice

Item	Item ID	N	P-Value	Correct			Distractor 1		Distractor 2		
				%	rpb	rbi	%	rpb	%	rpb	%Omit
1	61105009-A	903	0.33	33%	0.20	0.25	37%	-0.13	18%	-0.25	4%
2	61095044-A	903	0.72	72%	0.36	0.52	10%	-0.39	7%	-0.23	3%
3	61095010-C	903	0.59	59%	0.41	0.53	17%	-0.26	13%	-0.42	3%
4	61095033-B	903	0.60	60%	0.21	0.27	18%	-0.17	13%	-0.28	2%
5	61095015-A	903	0.36	36%	0.35	0.44	27%	-0.32	25%	-0.20	4%
6	61095043-C	903	0.46	46%	0.34	0.42	18%	-0.25	24%	-0.30	4%
7	61095042-C	903	0.40	40%	0.32	0.41	24%	-0.20	24%	-0.32	5%
8	61095032-B	903	0.65	65%	0.35	0.47	8%	-0.27	15%	-0.34	4%
9	61095041-C	903	0.34	34%	0.23	0.29	28%	-0.27	25%	-0.13	5%
10	61105010-C	903	0.35	35%	0.08	0.10	26%	-0.08	26%	-0.17	5%
11	61095045-C	903	0.35	35%	0.19	0.24	16%	-0.25	37%	-0.14	4%
12	61095035-A	903	0.67	67%	0.33	0.45	13%	-0.35	10%	-0.24	3%
13	61095046-A	903	0.51	51%	0.42	0.53	15%	-0.40	22%	-0.28	4%
14	61105019-A	903	0.42	42%	0.33	0.41	21%	-0.29	24%	-0.25	5%
15	61105020-C	903	0.62	62%	0.29	0.38	12%	-0.20	15%	-0.33	4%

Performance Task

Item	Item ID	N	Score 4		Score 2		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb
16	61095101-PT	903	37.8%	0.63	30.1%	0.07	24.5%	-0.73	7.6%	
17	61105106-PT	903	29.6%	0.59	32.7%	0.19	30.1%	-0.74	7.6%	
18	61105107-PT	903	22.3%	0.52	35.9%	0.34	34.2%	-0.77	7.6%	
19	61095104-PT	903	15.1%	0.43	34.3%	0.44	43.0%	-0.73	7.6%	
20	61095105-PT	903	13.1%	0.46	33.0%	0.47	46.3%	-0.75	7.6%	

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb	%	rpb
21	61095201-RI	903	49.7%	0.71	13.7%	0.03	13.1%	-0.20	15.8%	-0.70	7.6%	
22	61095202-RI	903	32.8%	0.66	17.3%	0.16	21.4%	-0.12	20.9%	-0.71	7.6%	
23	61095203-RI	903	42.1%	0.69	16.3%	0.05	17.4%	-0.20	16.6%	-0.67	7.6%	
24	61095204-RI	903	14.4%	0.53	14.8%	0.30	21.3%	0.14	41.9%	-0.70	7.6%	
25	61095205-RI	903	28.3%	0.63	15.2%	0.17	20.4%	-0.03	28.5%	-0.70	7.6%	

Table 6.3.4
2010 AIMS A Classical Item Analysis
Mathematics Grade 6

Multiple Choice

Item	Item ID	N	P-Value	Correct			Distractor 1			Distractor 2	
				%	rpb	rbi	%	rpb	%	rpb	%Omit
1	61096010-A	876	0.41	41%	0.15	0.19	19%	-0.22	37%	-0.14	3%
2	61096009-C	876	0.67	67%	0.35	0.45	13%	-0.25	17%	-0.36	2%
3	61096007-B	876	0.66	66%	0.35	0.46	19%	-0.26	13%	-0.36	2%
4	61106011-A	876	0.37	37%	0.17	0.22	30%	-0.07	29%	-0.28	4%
5	61096003-A	876	0.62	62%	0.39	0.49	21%	-0.32	14%	-0.34	3%
6	61096027-C	876	0.74	74%	0.34	0.46	8%	-0.23	16%	-0.37	3%
7	61096038-A	876	0.53	53%	0.37	0.47	24%	-0.25	21%	-0.36	3%
8	61096008-B	876	0.58	58%	0.19	0.24	19%	-0.12	20%	-0.30	3%
9	61096023-A	876	0.69	69%	0.46	0.61	15%	-0.33	14%	-0.42	2%
10	61096015-B	876	0.51	51%	0.29	0.37	20%	-0.16	27%	-0.35	3%
11	61096040-A	876	0.74	74%	0.36	0.49	10%	-0.30	13%	-0.33	2%
12	61096022-A	876	0.44	44%	0.24	0.30	23%	-0.24	30%	-0.20	3%
13	61096020-B	876	0.41	41%	0.17	0.21	36%	-0.12	20%	-0.26	4%
14	61096035-B	876	0.40	40%	0.01	0.01	42%	0.07	16%	-0.33	2%
15	61096033-C	876	0.79	79%	0.29	0.42	9%	-0.25	10%	-0.29	2%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb
16	61096101-PT	876	65.7%	0.72	24.3%	-0.21	9.9%	-0.73	5.7%	
17	61096102-PT	876	54.6%	0.68	31.4%	-0.11	14.0%	-0.74	5.7%	
18	61096103-PT	876	54.2%	0.70	27.7%	-0.05	18.0%	-0.78	5.7%	
19	61096104-PT	876	55.2%	0.71	29.9%	-0.10	14.9%	-0.77	5.7%	
20	61096105-PT	876	55.8%	0.72	27.2%	-0.08	16.9%	-0.80	5.7%	

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0		No Response
			%	rpb	%	rpb	%	rpb	%	rpb	%
21	61096201-RI	876	39.8%	0.59	19.4%	0.13	20.0%	-0.20	20.8%	-0.60	5.7%
22	61096202-RI	876	20.6%	0.60	18.8%	0.27	24.8%	-0.01	35.8%	-0.69	5.7%
23	61096203-RI	876	49.3%	0.73	15.3%	-0.02	20.3%	-0.32	15.1%	-0.57	5.7%
24	61096204-RI	876	18.9%	0.61	15.1%	0.29	23.8%	0.06	42.1%	-0.72	5.7%
25	61096205-RI	876	27.1%	0.65	20.8%	0.21	20.2%	-0.11	31.8%	-0.68	5.7%

Table 6.3.5
2010 AIMS A Classical Item Analysis
Mathematics Grade 7

Multiple Choice

Item	Item ID	N	P-Value	Correct			Distractor 1		Distractor 2		
				%	rpb	rbi	%	rpb	%	rpb	%Omit
1	61097012-C	801	0.58	58%	0.28	0.35	28%	-0.20	12%	-0.34	2%
2	61097015-B	801	0.44	44%	0.19	0.24	16%	-0.24	39%	-0.16	2%
3	61097034-A	801	0.51	51%	0.33	0.41	28%	-0.28	19%	-0.26	2%
4	61097007-B	801	0.57	57%	0.30	0.38	23%	-0.17	19%	-0.37	1%
5	61097035-B	801	0.48	48%	0.33	0.42	14%	-0.27	36%	-0.29	2%
6	61107008-C	801	0.61	61%	0.37	0.47	13%	-0.34	24%	-0.29	2%
7	61097037-C	801	0.61	61%	0.39	0.50	18%	-0.26	19%	-0.38	2%
8	61097023-A	801	0.75	75%	0.44	0.61	13%	-0.40	10%	-0.32	2%
9	61097039-C	801	0.48	48%	0.29	0.37	26%	-0.25	23%	-0.25	3%
10	61097040-B	801	0.52	52%	0.26	0.33	25%	-0.20	20%	-0.29	3%
11	61097041-C	801	0.86	86%	0.29	0.47	6%	-0.28	6%	-0.25	1%
12	61097010-A	801	0.62	62%	0.42	0.53	16%	-0.31	19%	-0.35	3%
13	61097042-B	801	0.48	48%	0.21	0.26	24%	-0.18	24%	-0.23	3%
14	61097043-C	801	0.51	51%	0.30	0.38	19%	-0.28	27%	-0.24	4%
15	61097044-A	801	0.59	59%	0.39	0.50	15%	-0.32	24%	-0.31	2%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb
16	61097101-PT	801	60.8%	0.72	23.7%	-0.18	9.2%	-0.76	6.2%	
17	61097102-PT	801	50.4%	0.67	29.1%	-0.05	14.2%	-0.78	6.2%	
18	61097103-PT	801	46.2%	0.65	30.6%	0.02	17.0%	-0.80	6.2%	
19	61097104-PT	801	43.1%	0.65	32.6%	0.01	18.1%	-0.76	6.2%	
20	61097105-PT	801	56.8%	0.73	23.8%	-0.10	13.1%	-0.81	6.2%	

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb	%	rpb
21	61097201-RI	801	47.7%	0.65	20.1%	0.05	11.6%	-0.21	14.4%	-0.69	6.2%	
22	61097202-RI	801	31.1%	0.62	19.5%	0.17	23.3%	-0.13	19.9%	-0.67	6.2%	
23	61097203-RI	801	58.7%	0.73	11.4%	-0.02	11.5%	-0.30	12.2%	-0.66	6.2%	
24	61097204-RI	801	28.1%	0.61	17.9%	0.23	19.7%	-0.02	28.1%	-0.75	6.2%	
25	61097205-RI	801	30.5%	0.65	21.8%	0.18	16.4%	-0.12	25.1%	-0.71	6.2%	

Table 6.3.6
2010 AIMS A Classical Item Analysis
Mathematics Grade 8

Multiple Choice

Item	Item ID	N	P-Value	Correct			Distractor 1		Distractor 2		
				%	<i>rpb</i>	<i>rbi</i>	%	<i>rpb</i>	%	<i>rpb</i>	%Omit
1	61098017-B	856	0.54	54%	0.25	0.32	19%	-0.25	23%	-0.24	5%
2	61098022-C	856	0.41	41%	0.12	0.15	29%	-0.13	26%	-0.18	4%
3	61098003-C	856	0.65	65%	0.41	0.53	16%	-0.30	15%	-0.37	4%
4	61098037-C	856	0.51	51%	0.27	0.34	24%	-0.24	22%	-0.25	4%
5	61098038-C	856	0.56	56%	0.15	0.19	11%	-0.24	28%	-0.16	4%
6	61098039-B	856	0.42	42%	0.13	0.16	18%	-0.22	36%	-0.12	5%
7	61098042-B	856	0.64	64%	0.36	0.48	10%	-0.32	20%	-0.32	5%
8	61108015-B	856	0.42	42%	0.17	0.22	17%	-0.26	35%	-0.13	6%
9	61098027-C	856	0.63	63%	0.42	0.54	9%	-0.37	23%	-0.35	4%
10	61098002-C	856	0.77	77%	0.39	0.55	9%	-0.36	10%	-0.31	4%
11	61098028-B	856	0.52	52%	0.36	0.45	26%	-0.29	17%	-0.31	5%
12	61098041-A	856	0.48	48%	0.17	0.22	35%	-0.15	12%	-0.27	4%
13	61098040-B	856	0.57	57%	0.27	0.34	17%	-0.28	19%	-0.23	6%
14	61098007-A	856	0.43	43%	0.26	0.33	24%	-0.25	26%	-0.21	6%
15	61098034-C	856	0.49	49%	0.25	0.32	17%	-0.26	27%	-0.23	7%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0		No Response	
			%	<i>rpb</i>	%	<i>rpb</i>	%	<i>rpb</i>	%	<i>rpb</i>
16	61098101-PT	856	57.6%	0.72	26.2%	-0.14	10.5%	-0.79	5.7%	
17	61098102-PT	856	51.2%	0.65	30.4%	-0.08	12.7%	-0.74	5.7%	
18	61098103-PT	856	55.7%	0.72	27.2%	-0.13	11.3%	-0.80	5.7%	
19	61098104-PT	856	45.9%	0.68	32.0%	-0.03	16.4%	-0.78	5.7%	
20	61098105-PT	856	64.0%	0.76	18.6%	-0.15	11.7%	-0.80	5.7%	

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0		No Response
			%	<i>rpb</i>	%	<i>rpb</i>	%	<i>rpb</i>	%	<i>rpb</i>	%
21	61098201-RI	856	53.5%	0.75	11.0%	0.03	12.9%	-0.28	16.9%	-0.70	5.7%
22	61098202-RI	856	45.7%	0.74	13.9%	0.07	15.7%	-0.24	19.0%	-0.71	5.7%
23	61098203-RI	856	47.1%	0.70	16.4%	0.05	13.4%	-0.26	17.4%	-0.67	5.7%
24	61108206-RI	856	6.4%	0.37	9.6%	0.32	17.3%	0.22	61.0%	-0.57	5.7%
25	61098205-RI	856	25.2%	0.62	17.1%	0.21	20.1%	0.01	31.9%	-0.72	5.7%

Table 6.3.7
2010 AIMS A Classical Item Analysis
Mathematics High School

Multiple Choice

Item	Item ID	N	P-Value	Correct			Distractor 1		Distractor 2		%Omit
				%	rpb	rbi	%	rpb	%	rpb	
1	61090001-A	1301	0.50	50%	0.28	0.35	17%	-0.33	26%	-0.18	2%
2	61100004-C	1301	0.55	55%	0.24	0.31	11%	-0.24	26%	-0.24	2%
3	61090003-A	1301	0.65	65%	0.35	0.47	9%	-0.35	18%	-0.28	2%
4	61090004-C	1301	0.55	55%	0.32	0.41	18%	-0.23	20%	-0.32	2%
5	61090005-A	1301	0.68	68%	0.43	0.58	13%	-0.32	11%	-0.38	3%
6	61090006-B	1301	0.55	55%	0.39	0.49	11%	-0.20	26%	-0.42	3%
7	61090007-C	1301	0.29	29%	0.10	0.14	25%	-0.11	38%	-0.13	2%
8	61090008-A	1301	0.64	64%	0.46	0.60	13%	-0.38	15%	-0.35	3%
9	61090009-A	1301	0.54	54%	0.35	0.45	14%	-0.31	25%	-0.29	2%
10	61090010-A	1301	0.61	61%	0.43	0.55	20%	-0.34	12%	-0.36	3%
11	61090013-B	1301	0.41	41%	0.14	0.17	23%	-0.14	28%	-0.18	3%
12	61090015-B	1301	0.47	47%	0.27	0.34	25%	-0.22	20%	-0.27	2%
13	61090016-B	1301	0.48	48%	0.30	0.38	17%	-0.28	26%	-0.25	3%
14	61090017-A	1301	0.51	51%	0.36	0.45	20%	-0.35	21%	-0.24	3%
15	61090018-C	1301	0.35	35%	0.11	0.14	31%	-0.05	27%	-0.22	3%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb
16	61090101-PT	1301	56.0%	0.74	26.5%	-0.17	12.2%	-0.77	5.3%	
17	61090102-PT	1301	49.3%	0.76	29.1%	-0.09	16.4%	-0.81	5.3%	
18	61090103-PT	1301	49.3%	0.76	24.8%	-0.03	20.5%	-0.83	5.3%	
19	61090104-PT	1301	67.9%	0.75	15.3%	-0.16	11.5%	-0.78	5.3%	
20	61090105-PT	1301	62.1%	0.76	18.9%	-0.15	13.7%	-0.79	5.3%	

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0		No Response
			%	rpb	%	rpb	%	rpb	%	rpb	%
21	61090201-RI	1301	38.7%	0.73	15.8%	0.10	16.5%	-0.19	23.6%	-0.72	5.3%
22	61100206-RI	1301	41.7%	0.74	15.1%	0.07	16.3%	-0.19	21.7%	-0.73	5.3%
23	61090203-RI	1301	54.3%	0.77	12.7%	-0.07	13.2%	-0.30	14.5%	-0.65	5.3%
24	61090204-RI	1301	22.2%	0.61	17.8%	0.26	18.7%	0.03	36.0%	-0.74	5.3%
25	61090205-RI	1301	29.5%	0.68	18.3%	0.18	19.5%	-0.09	27.4%	-0.73	5.3%

Table 6.3.8
2010 AIMS A Classical Item Analysis
Reading Grade 3

Multiple Choice

Item	Item ID	N	P-Value	Correct			Distractor 1		Distractor 2		%Omit
				%	rpb	rbi	%	rpb	%	rpb	
1	62093030-C	866	0.74	74%	0.38	0.55	7%	-0.25	11%	-0.38	3%
2	62093052-A	866	0.39	39%	0.26	0.32	26%	-0.23	26%	-0.20	4%
3	62093031-A	866	0.40	40%	0.35	0.45	19%	-0.21	32%	-0.32	4%
4	62093050-C	866	0.64	64%	0.28	0.37	12%	-0.16	15%	-0.35	4%
5	62103003-B	866	0.30	30%	0.12	0.16	9%	-0.23	50%	-0.11	6%
6	62103005-C	866	0.58	58%	0.35	0.46	8%	-0.25	24%	-0.36	5%
7	62103006-B	866	0.55	55%	0.33	0.42	10%	-0.23	25%	-0.34	5%
8	62093051-A	866	0.54	54%	0.44	0.56	17%	-0.37	19%	-0.32	5%
9	62093006-B	866	0.56	56%	0.35	0.45	16%	-0.28	17%	-0.31	6%
10	62103011-A	866	0.42	42%	0.20	0.25	22%	-0.14	25%	-0.25	6%
11	62103012-C	866	0.47	47%	0.30	0.37	17%	-0.24	24%	-0.27	7%
12	62093021-C	866	0.60	60%	0.28	0.37	17%	-0.28	13%	-0.25	5%
13	62103014-C	866	0.48	48%	0.27	0.33	9%	-0.15	32%	-0.33	6%
14	62093017-A	866	0.46	46%	0.34	0.42	15%	-0.28	28%	-0.28	6%
15	62103009-C	866	0.45	45%	0.36	0.45	26%	-0.29	18%	-0.29	6%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb
16	62103106-PT	866	60.6%	0.70	19.1%	-0.10	15.4%	-0.7	5.0%	5.0%
17	62103107-PT	866	64.2%	0.75	16.6%	-0.16	14.2%	-0.7	5.0%	5.0%
18	62103108-PT	866	25.4%	0.53	39.3%	0.26	30.4%	-0.7	5.0%	5.0%
19	62093104-PT	866	24.4%	0.51	41.2%	0.30	29.4%	-0.7	5.0%	5.0%
20	62103109-PT	866	28.3%	0.53	32.8%	0.26	33.9%	-0.7	5.0%	5.0%

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb	%	rpb
21	62093201-RI	866	63.3%	0.76	12.0%	-0.15	10.2%	-0.34	9.6%	-0.60	5.0%	
22	62093202-RI	866	17.1%	0.52	16.4%	0.29	24.0%	0.02	37.5%	-0.64	5.0%	
23	62103206-RI	866	41.7%	0.76	14.8%	0.07	13.6%	-0.14	24.9%	-0.76	5.0%	
24	62103207-RI	866	47.3%	0.78	13.2%	0.05	12.5%	-0.19	22.1%	-0.77	5.0%	
25	62103208-RI	866	23.1%	0.56	18.5%	0.21	18.2%	0.05	35.2%	-0.68	5.0%	

Table 6.3.9
2010 AIMS A Classical Item Analysis
Reading Grade 4
Multiple Choice

Item	Item ID	N	P-Value	Correct			Distractor 1		Distractor 2		
				%	<i>rpb</i>	<i>rbi</i>	%	<i>rpb</i>	%	<i>rpb</i>	%Omit
1	62094030-C	851	0.82	82%	0.39	0.65	4%	-0.26	6%	-0.36	2%
2	62094035-A	851	0.65	65%	0.46	0.62	11%	-0.29	14%	-0.43	4%
3	62094032-A	851	0.64	64%	0.47	0.61	14%	-0.32	14%	-0.40	3%
4	62104001-A	851	0.60	60%	0.48	0.62	13%	-0.34	17%	-0.40	4%
5	62094028-C	851	0.62	62%	0.31	0.41	12%	-0.25	15%	-0.30	5%
6	62104002-C	851	0.67	67%	0.33	0.45	10%	-0.24	12%	-0.34	5%
7	62104003-B	851	0.61	61%	0.38	0.50	11%	-0.15	19%	-0.45	3%
8	62104004-A	851	0.48	48%	0.40	0.50	17%	-0.31	25%	-0.30	4%
9	62104006-B	851	0.57	57%	0.36	0.46	12%	-0.19	21%	-0.40	4%
10	62104007-B	851	0.54	54%	0.39	0.49	14%	-0.19	21%	-0.42	5%
11	62104008-A	851	0.44	44%	0.32	0.40	23%	-0.19	23%	-0.32	4%
12	62104009-B	851	0.44	44%	0.28	0.35	16%	-0.13	29%	-0.33	5%
13	62104010-A	851	0.44	44%	0.41	0.51	20%	-0.26	25%	-0.34	5%
14	62094001-B	851	0.64	64%	0.26	0.34	11%	-0.18	16%	-0.30	4%
15	62094012-A	851	0.58	58%	0.37	0.48	19%	-0.28	13%	-0.34	4%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0		No Response	
			%	<i>rpb</i>	%	<i>rpb</i>	%	<i>rpb</i>	%	
16	62094101-PT	851	36.3%	0.62	38.1%	0.09	19.9%	-0.78	5.8%	
17	62094102-PT	851	43.5%	0.70	33.0%	-0.02	17.7%	-0.80	5.8%	
18	62094103-PT	851	50.8%	0.71	26.8%	-0.06	16.7%	-0.79	5.8%	
19	62094104-PT	851	67.2%	0.75	18.8%	-0.25	8.2%	-0.73	5.8%	
20	62094105-PT	851	54.9%	0.72	24.0%	-0.08	15.4%	-0.80	5.8%	

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0		No Response	
			%	<i>rpb</i>	%	<i>rpb</i>	%	<i>rpb</i>	%	<i>rpb</i>	%	
21	62094201-RI	851	40.2%	0.69	17.4%	0.10	16.6%	-0.19	20.1%	-0.70	5.8%	
22	62094202-RI	851	23.3%	0.57	19.3%	0.26	20.8%	0.00	30.9%	-0.72	5.8%	
23	62094203-RI	851	40.9%	0.70	18.1%	0.06	18.9%	-0.25	16.3%	-0.65	5.8%	
24	62104206-RI	851	23.9%	0.61	18.7%	0.27	23.9%	-0.04	27.8%	-0.73	5.8%	
25	62104207-RI	851	37.8%	0.68	15.2%	0.14	16.5%	-0.13	24.8%	-0.72	5.8%	

Table 6.3.10
2010 AIMS A Classical Item Analysis
Reading Grade 5
Multiple Choice

Item	Item ID	N	P-Value	Correct			Distractor 1			Distractor 2		%Omit
				%	rpb	rbi	%	rpb	%	rpb		
1	62095001-B	903	0.68	68%	0.39	0.53	10%	-0.32	12%	-0.32	3%	
2	62095002-B	903	0.53	53%	0.37	0.47	24%	-0.36	13%	-0.22	3%	
3	62105001-A	903	0.60	60%	0.41	0.53	17%	-0.31	11%	-0.36	5%	
4	62105006-C	903	0.58	58%	0.36	0.46	15%	-0.30	16%	-0.30	4%	
5	62095006-B	903	0.57	57%	0.39	0.50	14%	-0.26	18%	-0.36	4%	
6	62095007-C	903	0.55	55%	0.13	0.17	21%	-0.19	13%	-0.14	3%	
7	62095008-C	903	0.62	62%	0.41	0.55	9%	-0.34	17%	-0.34	4%	
8	62095009-C	903	0.52	52%	0.40	0.51	13%	-0.25	23%	-0.38	4%	
9	62095013-B	903	0.64	64%	0.38	0.51	9%	-0.33	16%	-0.32	4%	
10	62095011-C	903	0.61	61%	0.43	0.57	12%	-0.31	15%	-0.38	4%	
11	62095012-A	903	0.60	60%	0.41	0.53	14%	-0.39	15%	-0.27	4%	
12	62105010-A	903	0.30	30%	0.11	0.15	25%	-0.15	32%	-0.10	5%	
13	62105011-A	903	0.53	53%	0.30	0.38	19%	-0.27	17%	-0.25	5%	
14	62105007-C	903	0.60	60%	0.45	0.59	12%	-0.34	16%	-0.37	5%	
15	62105008-B	903	0.52	52%	0.36	0.45	20%	-0.31	17%	-0.27	4%	

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb
16	62095101-PT	903	54.8%	0.74	26.2%	-0.12	11.5%	-0.81	7.4%	
17	62095102-PT	903	54.3%	0.73	25.9%	-0.10	12.4%	-0.80	7.4%	
18	62095103-PT	903	45.5%	0.67	31.0%	0.05	16.1%	-0.84	7.4%	
19	62095104-PT	903	58.4%	0.76	21.8%	-0.11	12.4%	-0.83	7.4%	
20	62095105-PT	903	58.7%	0.77	20.6%	-0.10	13.3%	-0.83	7.4%	

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0		No Response
			%	rpb	%	rpb	%	rpb	%	rpb	%
21	62095201-RI	903	25.2%	0.64	18.7%	0.21	21.9%	-0.06	26.7%	-0.71	7.4%
22	62095202-RI	903	26.8%	0.65	16.7%	0.23	23.1%	-0.08	25.9%	-0.72	7.4%
23	62095203-RI	903	26.8%	0.64	17.8%	0.18	20.9%	-0.04	27.0%	-0.71	7.4%
24	62095204-RI	903	34.0%	0.71	15.2%	0.12	17.4%	-0.08	26.0%	-0.74	7.4%
25	62095205-RI	903	32.7%	0.65	19.0%	0.14	20.2%	-0.14	20.7%	-0.68	7.4%

Table 6.3.11
2010 AIMS A Classical Item Analysis
Reading Grade 6
Multiple Choice

Item	Item ID	N	P-Value	Correct			Distractor 1		Distractor 2		%Omit
				%	rpb	rbi	%	rpb	%	rpb	
1	62096010-A	876	0.71	71%	0.49	0.68	12%	-0.38	10%	-0.38	2%
2	62096009-C	876	0.69	69%	0.42	0.58	11%	-0.30	12%	-0.38	3%
3	62096014-B	876	0.60	60%	0.45	0.58	18%	-0.30	14%	-0.40	2%
4	62096013-B	876	0.66	66%	0.43	0.58	10%	-0.24	15%	-0.44	3%
5	62096015-B	876	0.51	51%	0.22	0.28	13%	-0.24	27%	-0.19	3%
6	62096012-A	876	0.41	41%	0.40	0.50	35%	-0.30	15%	-0.30	3%
7	62096004-C	876	0.60	60%	0.29	0.37	13%	-0.16	19%	-0.34	2%
8	62106001-A	876	0.64	64%	0.54	0.71	18%	-0.46	10%	-0.34	2%
9	62106002-C	876	0.67	67%	0.51	0.68	10%	-0.33	15%	-0.44	2%
10	62106010-B	876	0.70	70%	0.52	0.71	7%	-0.34	15%	-0.45	2%
11	62096007-C	876	0.70	70%	0.34	0.47	8%	-0.32	13%	-0.27	3%
12	62096002-B	876	0.68	68%	0.53	0.72	10%	-0.34	13%	-0.46	3%
13	62096003-C	876	0.62	62%	0.41	0.53	16%	-0.37	13%	-0.27	3%
14	62096011-A	876	0.57	57%	0.45	0.57	15%	-0.29	20%	-0.39	3%
15	62106004-B	876	0.55	55%	0.45	0.57	13%	-0.29	22%	-0.39	3%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb
16	62096101-PT	876	33.2%	0.61	39.7%	0.08	21.2%	-0.73	5.8%	
17	62096102-PT	876	49.3%	0.71	29.6%	-0.09	15.3%	-0.77	5.8%	
18	62096103-PT	876	47.0%	0.71	31.2%	-0.06	16.0%	-0.79	5.8%	
19	62096104-PT	876	55.0%	0.69	27.4%	-0.12	11.8%	-0.76	5.8%	
20	62096105-PT	876	39.7%	0.62	36.3%	0.06	18.2%	-0.78	5.8%	

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb	%	rpb
21	62096201-RI	876	22.8%	0.64	19.1%	0.24	23.6%	-0.05	28.7%	-0.71	5.8%	
22	62096202-RI	876	20.0%	0.64	18.7%	0.25	24.3%	0.01	31.2%	-0.75	5.8%	
23	62106206-RI	876	35.0%	0.69	17.2%	0.15	18.4%	-0.17	23.5%	-0.71	5.8%	
24	62096204-RI	876	38.4%	0.73	17.8%	0.06	18.3%	-0.21	19.7%	-0.68	5.8%	
25	62096205-RI	876	36.4%	0.71	19.2%	0.07	21.0%	-0.25	17.6%	-0.63	5.8%	

Table 6.3.12
2010 AIMS A Classical Item Analysis
Reading Grade 7

Multiple Choice

Item	Item ID	N	P-Value	Correct			Distractor 1		Distractor 2		%Omit
				%	rpb	rbi	%	rpb	%	rpb	
1	62097012-B	801	0.58	58%	0.25	0.32	10%	-0.16	23%	-0.30	2%
2	62097007-C	801	0.71	71%	0.38	0.53	6%	-0.25	15%	-0.38	2%
3	62097006-A	801	0.52	52%	0.50	0.63	26%	-0.38	14%	-0.35	2%
4	62097003-A	801	0.58	58%	0.49	0.63	16%	-0.29	17%	-0.45	3%
5	62097004-C	801	0.69	69%	0.35	0.48	11%	-0.23	11%	-0.36	3%
6	62097005-A	801	0.52	52%	0.45	0.57	19%	-0.31	20%	-0.36	3%
7	62107005-A	801	0.27	27%	0.18	0.23	27%	-0.04	38%	-0.24	3%
8	62097010-A	801	0.61	61%	0.53	0.68	12%	-0.30	19%	-0.47	2%
9	62107006-B	801	0.53	53%	0.40	0.51	22%	-0.18	15%	-0.48	4%
10	62097008-B	801	0.66	66%	0.52	0.70	9%	-0.30	16%	-0.48	4%
11	62097002-A	801	0.70	70%	0.48	0.66	7%	-0.27	15%	-0.47	3%
12	62097001-A	801	0.68	68%	0.46	0.62	10%	-0.30	14%	-0.42	2%
13	62097015-C	801	0.77	77%	0.33	0.50	7%	-0.25	8%	-0.32	3%
14	62107002-C	801	0.76	76%	0.37	0.56	9%	-0.32	7%	-0.31	2%
15	62107010-B	801	0.44	44%	0.31	0.39	11%	-0.21	36%	-0.31	3%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb
16	62097101-PT	801	51.9%	0.76	28.3%	-0.16	13.9%	-0.77	5.9%	
17	62097102-PT	801	44.6%	0.71	32.5%	-0.04	17.1%	-0.79	5.9%	
18	62107106-PT	801	57.1%	0.77	23.2%	-0.14	13.9%	-0.81	5.9%	
19	62097104-PT	801	54.9%	0.75	26.0%	-0.17	13.2%	-0.76	5.9%	
20	62097105-PT	801	50.3%	0.74	24.1%	-0.02	19.7%	-0.83	5.9%	

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb	%	rpb
21	62097201-RI	801	23.2%	0.64	20.6%	0.24	23.6%	-0.07	26.7%	-0.72	5.9%	
22	62097202-RI	801	41.6%	0.73	17.1%	0.07	20.3%	-0.26	15.1%	-0.69	5.9%	
23	62097203-RI	801	25.3%	0.64	21.3%	0.29	19.4%	-0.12	28.1%	-0.74	5.9%	
24	62097204-RI	801	41.6%	0.72	18.9%	0.04	17.7%	-0.24	16.0%	-0.67	5.9%	
25	62097205-RI	801	40.2%	0.70	17.4%	0.10	18.0%	-0.21	18.6%	-0.70	5.9%	

Table 6.3.13
2010 AIMS A Classical Item Analysis
Reading Grade 8

Multiple Choice

Item	Item ID	N	P-Value	Correct			Distractor 1		Distractor 2		
				%	rpb	rbi	%	rpb	%	rpb	%Omit
1	62108004-A	856	0.77	77%	0.37	0.56	7%	-0.24	8%	-0.38	3%
2	62098007-A	856	0.85	85%	0.39	0.72	5%	-0.34	3%	-0.30	3%
3	62098005-A	856	0.66	66%	0.47	0.64	12%	-0.43	12%	-0.33	5%
4	62098010-A	856	0.57	57%	0.37	0.48	20%	-0.30	14%	-0.32	4%
5	62098009-A	856	0.59	59%	0.34	0.44	18%	-0.31	15%	-0.27	3%
6	62098008-C	856	0.80	80%	0.37	0.60	4%	-0.24	6%	-0.37	4%
7	62098014-B	856	0.66	66%	0.38	0.51	14%	-0.37	12%	-0.27	3%
8	62098006-A	856	0.62	62%	0.47	0.61	13%	-0.36	15%	-0.38	5%
9	62098011-C	856	0.61	61%	0.33	0.43	16%	-0.29	13%	-0.29	5%
10	62098012-C	856	0.61	61%	0.37	0.48	17%	-0.29	12%	-0.34	4%
11	62098013-B	856	0.59	59%	0.45	0.58	15%	-0.29	16%	-0.41	5%
12	62098002-B	856	0.73	73%	0.40	0.58	7%	-0.28	10%	-0.38	4%
13	62098003-C	856	0.49	49%	0.34	0.42	26%	-0.30	16%	-0.26	4%
14	62108012-A	856	0.34	34%	0.18	0.23	27%	-0.17	28%	-0.17	6%
15	62108011-B	856	0.55	55%	0.39	0.50	14%	-0.27	21%	-0.36	5%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb
16	62098101-PT	856	52.9%	0.70	28.2%	-0.11	13.7%	-0.76	5.3%	
17	62098102-PT	856	63.8%	0.76	22.9%	-0.28	8.1%	-0.74	5.3%	
18	62098103-PT	856	52.2%	0.71	28.0%	-0.09	14.5%	-0.79	5.3%	
19	62098104-PT	856	46.4%	0.70	28.6%	0.00	19.7%	-0.80	5.3%	
20	62098105-PT	856	61.6%	0.72	22.5%	-0.18	10.6%	-0.75	5.3%	

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0		No Response
			%	rpb	%	rpb	%	rpb	%	rpb	%
21	62098201-RI	856	25.5%	0.65	22.2%	0.23	22.0%	-0.14	25.1%	-0.70	5.3%
22	62098202-RI	856	42.2%	0.70	20.0%	0.09	16.2%	-0.28	16.4%	-0.68	5.3%
23	62098203-RI	856	27.6%	0.65	22.4%	0.23	18.1%	-0.12	26.6%	-0.73	5.3%
24	62098204-RI	856	55.5%	0.75	14.4%	-0.07	12.7%	-0.30	12.1%	-0.65	5.3%
25	62098205-RI	856	35.3%	0.67	22.0%	0.11	18.9%	-0.19	18.6%	-0.68	5.3%

Table 6.3.14
2010 AIMS A Classical Item Analysis
Reading High School

Multiple Choice

Item	Item ID	N	Correct			Distractor 1		Distractor 2		%Omit	
			P-Value	%	rpb	rbi	%	rpb	%		rpb
1	62090013-A	1301		86%	0.38	0.69	4%	-0.35	3%	-0.26	2%
2	62090009-A	1301		78%	0.46	0.69	8%	-0.42	8%	-0.31	2%
3	62100001-B	1301		66%	0.43	0.57	9%	-0.26	17%	-0.42	3%
4	62090003-C	1301		69%	0.50	0.68	11%	-0.33	11%	-0.44	3%
5	62090004-A	1301		69%	0.52	0.70	17%	-0.49	6%	-0.30	3%
6	62100006-B	1301		61%	0.36	0.46	15%	-0.20	16%	-0.40	2%
7	62100008-A	1301		73%	0.39	0.55	12%	-0.31	7%	-0.35	2%
8	62100009-B	1301		50%	0.34	0.42	23%	-0.15	20%	-0.40	2%
9	62090007-B	1301		75%	0.48	0.69	7%	-0.33	11%	-0.42	2%
10	62090008-A	1301		72%	0.53	0.75	9%	-0.41	11%	-0.41	3%
11	62100010-C	1301		64%	0.46	0.61	12%	-0.36	17%	-0.37	3%
12	62090012-A	1301		69%	0.43	0.59	16%	-0.36	8%	-0.35	2%
13	62090011-A	1301		79%	0.51	0.79	9%	-0.43	5%	-0.37	2%
14	62100002-B	1301		66%	0.47	0.62	11%	-0.28	15%	-0.45	3%
15	62100011-B	1301		64%	0.40	0.53	17%	-0.35	11%	-0.30	3%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb
16	62090101-PT	1301	59.6%	0.76	22.6%	-0.14	13.0%	-0.81	4.8%	
17	62090102-PT	1301	63.7%	0.78	22.1%	-0.26	9.3%	-0.76	4.8%	
18	62090103-PT	1301	61.6%	0.78	20.1%	-0.15	13.5%	-0.83	4.8%	
19	62090104-PT	1301	64.0%	0.82	17.8%	-0.18	13.3%	-0.84	4.8%	
20	62090105-PT	1301	67.8%	0.81	16.7%	-0.24	10.7%	-0.80	4.8%	

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb	%	rpb
21	62090201-RI	1301	35.2%	0.69	18.2%	0.13	16.2%	-0.13	25.5%	-0.72	4.8%	
22	62090202-RI	1301	30.7%	0.66	20.9%	0.19	17.1%	-0.13	26.5%	-0.73	4.8%	
23	62090203-RI	1301	40.3%	0.71	16.7%	0.10	15.9%	-0.19	22.3%	-0.71	4.8%	
24	62090204-RI	1301	48.0%	0.76	14.9%	0.00	13.8%	-0.28	18.4%	-0.67	4.8%	
25	62090205-RI	1301	41.7%	0.72	16.2%	0.07	16.3%	-0.18	21.0%	-0.72	4.8%	

Table 6.3.15
2010 AIMS A Classical Item Analysis
Science Grade 4

Multiple Choice

Item	Item ID	N	P-Value	Correct		Distractor 1		Distractor 2		%Omit	
				%	rpb	rbi	%	rpb	%		rpb
1	64094015-B	851	0.70	70%	0.26	0.35	14%	-0.14	8%	-0.38	3%
2	64094016-A	851	0.63	63%	0.48	0.63	16%	-0.43	14%	-0.32	2%
3	64094021-A	851	0.73	73%	0.50	0.71	10%	-0.43	9%	-0.35	2%
4	64094019-A	851	0.64	64%	0.43	0.56	14%	-0.38	14%	-0.31	2%
5	64094022-B	851	0.75	75%	0.44	0.64	7%	-0.32	10%	-0.39	3%
6	64094030-A	851	0.45	45%	0.26	0.33	23%	-0.10	23%	-0.37	4%
7	64104007-C	851	0.63	63%	0.10	0.13	14%	-0.17	15%	-0.14	4%
8	64104008-A	851	0.55	55%	0.47	0.59	18%	-0.36	18%	-0.35	4%
9	64094013-C	851	0.68	68%	0.33	0.45	12%	-0.20	11%	-0.39	4%
10	64094003-C	851	0.71	71%	0.43	0.60	11%	-0.34	10%	-0.36	3%
11	64094025-B	851	0.71	71%	0.43	0.60	9%	-0.25	11%	-0.44	3%
12	64094005-B	851	0.84	84%	0.37	0.65	4%	-0.20	4%	-0.40	3%
13	64104009-C	851	0.63	63%	0.28	0.37	12%	-0.08	17%	-0.43	3%
14	64104001-A	851	0.63	63%	0.53	0.70	11%	-0.32	17%	-0.48	4%
15	64104005-B	851	0.40	40%	0.16	0.21	20%	-0.07	31%	-0.27	4%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb
16	64094101-PT	851	48.8%	0.73	26.7%	-0.05	19.5%	-0.79	5.1%	
17	64094102-PT	851	48.6%	0.74	25.0%	-0.04	21.3%	-0.80	5.1%	
18	64094103-PT	851	53.2%	0.72	23.1%	-0.07	18.6%	-0.77	5.1%	
19	64104106-PT	851	36.2%	0.61	36.7%	0.12	22.1%	-0.79	5.1%	
20	64104107-PT	851	36.9%	0.63	34.4%	0.12	23.6%	-0.79	5.1%	

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb	%	rpb
21	64094201-RI	851	50.6%	0.75	15.9%	-0.01	15.3%	-0.32	13.2%	-0.66	5.1%	
22	64104211-RI	851	34.1%	0.67	19.7%	0.15	19.6%	-0.15	21.5%	-0.72	5.1%	
23	64094203-RI	851	58.8%	0.79	8.7%	-0.06	10.9%	-0.25	16.6%	-0.71	5.1%	
24	64094204-RI	851	38.8%	0.69	13.9%	0.11	17.5%	-0.11	24.8%	-0.72	5.1%	
25	64094205-RI	851	24.6%	0.57	17.9%	0.23	25.0%	-0.01	27.5%	-0.70	5.1%	

Table 6.3.16
2010 AIMS A Classical Item Analysis
Science Grade 8

Multiple Choice

Item	Item ID	N	P-Value	Correct			Distractor 1		Distractor 2		%Omit
				%	rpb	rbi	%	rpb	%	rpb	
1	64098010-B	856	0.60	60%	0.48	0.62	17%	-0.36	16%	-0.36	3%
2	64098015-C	856	0.75	75%	0.43	0.63	13%	-0.41	5%	-0.27	3%
3	64098017-B	856	0.55	55%	0.48	0.61	12%	-0.25	25%	-0.44	3%
4	64098019-B	856	0.58	58%	0.46	0.59	11%	-0.27	23%	-0.42	4%
5	64098020-A	856	0.74	74%	0.55	0.79	7%	-0.33	11%	-0.48	3%
6	64098023-B	856	0.67	67%	0.44	0.59	9%	-0.16	15%	-0.50	4%
7	64098009-A	856	0.59	59%	0.60	0.77	14%	-0.33	19%	-0.51	4%
8	64098028-A	856	0.56	56%	0.49	0.62	12%	-0.33	23%	-0.40	4%
9	64098025-A	856	0.64	64%	0.45	0.59	9%	-0.32	20%	-0.39	3%
10	64098022-A	856	0.70	70%	0.58	0.79	9%	-0.34	13%	-0.51	3%
11	64098029-B	856	0.63	63%	0.58	0.76	12%	-0.37	17%	-0.46	4%
12	64098027-C	856	0.73	73%	0.41	0.59	8%	-0.33	10%	-0.33	4%
13	64108004-B	856	0.48	48%	0.37	0.46	29%	-0.19	15%	-0.41	4%
14	64108003-A	856	0.54	54%	0.45	0.57	17%	-0.35	21%	-0.33	4%
15	64108007-C	856	0.53	53%	0.15	0.19	16%	-0.12	21%	-0.21	5%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb
16	64098101-PT	856	73.1%	0.80	15.4%	-0.30	6.8%	-0.77	4.7%	
17	64108106-PT	856	47.1%	0.62	32.2%	-0.01	16.0%	-0.75	4.7%	
18	64098103-PT	856	59.8%	0.74	23.2%	-0.13	12.3%	-0.81	4.7%	
19	64098104-PT	856	68.1%	0.78	16.1%	-0.18	11.1%	-0.82	4.7%	
20	64098105-PT	856	66.5%	0.77	18.6%	-0.18	10.3%	-0.82	4.7%	

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb	%	rpb
21	64108201-RI	856	68.2%	0.78	11.2%	-0.19	7.4%	-0.32	8.5%	-0.65	4.7%	
22	64108202-RI	856	59.8%	0.80	15.3%	-0.13	10.9%	-0.32	9.3%	-0.70	4.7%	
23	64108203-RI	856	51.1%	0.78	17.9%	-0.03	12.3%	-0.28	14.1%	-0.74	4.7%	
24	64108204-RI	856	30.4%	0.64	19.9%	0.23	20.0%	-0.08	25.1%	-0.77	4.7%	
25	64108205-RI	856	43.5%	0.72	17.5%	0.09	17.1%	-0.22	17.3%	-0.75	4.7%	

Table 6.3.17
2010 AIMS A Classical Item Analysis
Science Grade 10
Multiple Choice

Item	Item ID	N	P-Value	Correct			Distractor 1		Distractor 2		%Omit
				%	rpb	rbi	%	rpb	%	rpb	
1	64090006-B	883	0.84	84%	0.39	0.65	4%	-0.27	7%	-0.36	2%
2	64090007-A	883	0.55	55%	0.32	0.40	19%	-0.28	19%	-0.27	3%
3	64090002-B	883	0.60	60%	0.35	0.45	9%	-0.33	25%	-0.29	2%
4	64100006-C	883	0.48	48%	0.24	0.29	17%	-0.19	29%	-0.24	2%
5	64090013-C	883	0.65	65%	0.45	0.60	14%	-0.36	14%	-0.36	2%
6	64090015-B	883	0.72	72%	0.51	0.71	9%	-0.30	12%	-0.48	3%
7	64090017-A	883	0.62	62%	0.50	0.64	17%	-0.28	15%	-0.48	3%
8	64090018-B	883	0.43	43%	0.26	0.33	18%	-0.31	33%	-0.15	2%
9	64090020-A	883	0.76	76%	0.49	0.71	9%	-0.35	10%	-0.42	2%
10	64090023-A	883	0.71	71%	0.55	0.76	10%	-0.42	11%	-0.42	3%
11	64090024-B	883	0.50	50%	0.34	0.43	14%	-0.23	30%	-0.32	2%
12	64090027-C	883	0.72	72%	0.43	0.59	9%	-0.29	12%	-0.40	2%
13	64100008-A	883	0.62	62%	0.48	0.62	9%	-0.46	22%	-0.33	2%
14	64090009-A	883	0.67	67%	0.47	0.63	11%	-0.35	15%	-0.39	3%
15	64100001-A	883	0.46	46%	0.23	0.29	24%	-0.34	23%	-0.08	3%

Performance Tasks

Item	Item ID	N	Score 4		Score 2		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb
16	64090101-PT	883	67.8%	0.79	16.3%	-0.22	11.3%	-0.79	4.1%	
17	64090102-PT	883	75.9%	0.78	13.5%	-0.36	6.1%	-0.69	4.1%	
18	64090103-PT	883	47.7%	0.69	25.8%	0.02	22.0%	-0.80	4.1%	
19	64090104-PT	883	46.1%	0.64	32.2%	0.01	17.2%	-0.79	4.1%	
20	64090105-PT	883	54.9%	0.72	26.0%	-0.09	14.5%	-0.82	4.1%	

Rater Items

Item	Item ID	N	Score 4		Score 2		Score 1		Score 0		No Response	
			%	rpb	%	rpb	%	rpb	%	rpb	%	rpb
21	64100201-RI	883	35.0%	0.68	20.6%	0.12	20.5%	-0.21	19.4%	-0.68	4.1%	
22	64100202-RI	883	29.7%	0.69	21.5%	0.20	18.5%	-0.11	25.8%	-0.76	4.1%	
23	64100203-RI	883	33.3%	0.72	18.8%	0.16	15.7%	-0.13	27.6%	-0.76	4.1%	
24	64090204-RI	883	46.2%	0.73	17.3%	0.02	13.1%	-0.24	18.8%	-0.69	4.1%	
25	64100205-RI	883	28.5%	0.62	18.8%	0.26	18.9%	-0.10	29.2%	-0.72	4.1%	

Part 7: Calibration, Scaling, and Scoring

Part 7 of the Technical Report describes the scaling procedures and results for the 2010 AIMS A assessments. All grade levels and content areas were scaled with calibration samples that typically consisted of the entire student population. Part 7 of this report addresses the following AERA/APA/NCME standards: 1.13, 2.1, 2.2, 2.14, 4.1, 4.2, 4.3, 6.4, 6.5, and 13.6.

7.1 Calibration Methods

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

7.1.1 Calibration Models

The AIMS A Mathematics, Reading, and Science criterion-reference assessments are comprised of multiple-choice items, performance tasks and rater items. All items contributing to the AIMS A scores were calibrated using the Rasch model to create the scale scores. The Rasch model (Rasch, 1960; Wright, 1977) can be conceptualized as a one-parameter IRT 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

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

where b_i is the item difficulty.

7.1.2 Calibration Software

Parameter estimation for items on the tests using the Rasch model was implemented using Winsteps 3.68.0 (Linacre, 2010). Winsteps uses joint maximum likelihood estimation (JMLE) as described by Wright and Masters (1982). Additionally, Lertap 5.7.2 (Larry Nelson, Curtin University of Technology 2010) was utilized to provide classical item and test analysis, and SPSS V17 was used to provide correlations, frequencies and demographic distributions. Finally, Excel 2007 was used to produce final scale scores.

7.2 Calibration Results

7.2.1 IRT Item Statistics

Item statistics resulting from calibration of the AIMS A tests in reading, mathematics, and science are presented in tables 7.2.1.2 through 7.2.1.18. All items for all reading, mathematics, and science 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 indicated

the degree of accuracy and predictability with which the data fits the model (Linacre, 2002). In Winsteps and Rasch literature, weighted mean-square is also referred to as infit MNSQ and unweighted mean-square is referred to as outfit MNSQ. The weighted mean-square statistic is sensitive to unexpected responses at or near the item's calibrated level, whereas unweighted mean-square statistics is sensitive to unexpected responses away from the item's calibrated level. Typically, values less than 0.6 and greater than 1.4 for weighted MNSQ indicate misfit, and values greater than 1.4 for unweighted MNSQ indicate misfit (Wright & Linacre, 1994). Thirteen items were flagged as having misfit as indicated by weighted MNSQ and 82 items were flagged as having misfit as indicated by unweighted MNSQ. Items on 17 of the 17 tests, with between three and eight items flagged per test, had misfit as indicated by unweighted MNSQ. It should be noted that the amount of difference between the limits and actual measure was as little as 0.01. The items that were flagged for both weighted and unweighted MNSQ along with low point biserials and P-Values are included in Table 7.2.1.1.

Table 7.2.1.1
Weighted and Unweighted Flagged Items

	Subject	Grade	Item	IN.MSQ	OUT.MS	PTBISE	PVALUE
1	Math	Grade 3	4		1.59		
2	Math	Grade 3	5	1.61	4.34	-0.04	0.20
3	Math	Grade 3	11		1.91		
4	Math	Grade 3	12		1.96	0.25	
5	Math	Grade 3	13		1.94	0.21	
6	Math	Grade 3	15		1.52		
7	Math	Grade 4	4		1.80		
8	Math	Grade 4	5	1.42	1.72		
9	Math	Grade 4	7		2.19		
10	Math	Grade 4	9		1.77		
11	Math	Grade 4	13		1.67		
12	Math	Grade 4	15	1.45	1.72		
13	Math	Grade 5	1		1.86	0.25	
14	Math	Grade 5	4		1.59	0.28	
15	Math	Grade 5	9		1.43	0.28	
16	Math	Grade 5	10	1.41	1.54	0.15	
17	Math	Grade 5	11		1.97	0.25	
18	Math	Grade 6	1		1.54	0.18	
19	Math	Grade 6	4		1.56	0.19	
20	Math	Grade 6	8		1.51	0.25	
21	Math	Grade 6	12			0.28	
22	Math	Grade 6	13		1.88	0.21	
23	Math	Grade 6	14	1.54	1.99	0.06	
24	Math	Grade 7	1		1.66		
25	Math	Grade 7	2		2.05	0.17	
26	Math	Grade 7	5		1.58		
27	Math	Grade 7	6		1.57		

28	Math	Grade 7	10		1.59	0.28
29	Math	Grade 7	13		1.64	0.26
30	Math	Grade 8	1		1.74	
31	Math	Grade 8	2		1.54	0.17
32	Math	Grade 8	4		1.60	0.29
33	Math	Grade 8	5		1.51	0.28
34	Math	Grade 8	6		1.52	0.19
35	Math	Grade 8	8		1.94	0.23
36	Math	Grade 8	12		1.42	0.26
37	Math	Grade 8	15		1.48	
38	Math	HS	1		1.50	
39	Math	HS	2		1.55	
40	Math	HS	6			
41	Math	HS	7		2.47	0.12
42	Math	HS	11		1.85	0.18
43	Math	HS	12		1.50	
44	Math	HS	13		1.48	
45	Math	HS	15		2.17	0.13
46	Reading	Grade 3	2		1.54	
47	Reading	Grade 3	5		2.70	0.17
48	Reading	Grade 3	10		1.82	0.29
49	Reading	Grade 4	3		1.49	
50	Reading	Grade 4	11		1.47	
51	Reading	Grade 4	12		1.65	
52	Reading	Grade 4	14		1.73	
53	Reading	Grade 4	15		1.53	
54	Reading	Grade 5	2		1.49	
55	Reading	Grade 5	6	1.53	2.19	0.20
56	Reading	Grade 5	12	1.55	2.47	0.15
57	Reading	Grade 6	5	1.54	2.14	0.28
58	Reading	Grade 6	6		1.58	
59	Reading	Grade 6	7	1.42	2.04	
60	Reading	Grade 6	11		1.78	
61	Reading	Grade 6	13		1.51	
62	Reading	Grade 7	1	1.59	2.08	0.28
63	Reading	Grade 7	2		1.49	
64	Reading	Grade 7	7	1.61	2.79	0.18
65	Reading	Grade 7	15		1.90	
66	Reading	Grade 8	2		0.49	
67	Reading	Grade 8	5		1.89	
68	Reading	Grade 8	7		1.83	
69	Reading	Grade 8	13		1.80	
70	Reading	Grade 8	14	1.54	2.97	0.24
71	Reading	HS	6	1.41	1.62	
72	Reading	HS	7		2.05	

73	Reading	HS	8	1.48	3.01	
74	Reading	HS	12		1.50	
75	Reading	HS	15		1.66	
76	Science	Grade 4	1		1.84	
77	Science	Grade 4	6		1.51	
78	Science	Grade 4	7	1.61	2.72	0.22
79	Science	Grade 4	13		1.79	
80	Science	Grade 4	15	1.51	2.64	0.23
81	Science	Grade 8	1		1.73	
82	Science	Grade 8	3		2.08	
83	Science	Grade 8	4		1.83	
84	Science	Grade 8	5		0.57	
85	Science	Grade 8	9		1.43	
86	Science	Grade 8	13	1.45	1.86	
87	Science	Grade 8	15	1.79	2.78	0.24
88	Science	HS	2		1.78	
89	Science	HS	3		1.74	
90	Science	HS	4	1.47	1.91	0.28
91	Science	HS	8		1.91	
92	Science	HS	11		1.74	
93	Science	HS	15	1.53	1.94	0.26

Table 7.2.1.2
2010 AIMS A IRT Item Statistics
Mathematics Grade 3

Item	Rasch Measure	SE	IN.MSO	OUT.MS	PTBISE	PVALUE
1	-0.0713	0.0235	1.18	1.28	0.46	0.67
2	0.0304	0.0224	1.07	1.03	0.46	0.65
3	0.0787	0.0220	1.09	1.20	0.44	0.65
4	-0.3250	0.0285	1.25	1.59	0.45	0.80
5	0.7377	0.0254	1.61	4.34	-0.04	0.20
6	0.1720	0.0214	1.06	1.15	0.46	0.57
7	-0.3449	0.0290	1.04	0.76	0.55	0.81
8	-0.0103	0.0228	0.89	0.86	0.58	0.67
9	0.1152	0.0217	1.16	1.09	0.41	0.62
10	0.2096	0.0213	1.10	1.15	0.43	0.53
11	0.3740	0.0214	1.23	1.91	0.32	0.42
12	0.3449	0.0213	1.37	1.96	0.25	0.44
13	0.4424	0.0217	1.36	1.94	0.21	0.37
14	0.0852	0.0219	1.03	1.22	0.49	0.61
15	0.1932	0.0214	1.30	1.52	0.32	0.54
16	-0.5177	0.0329	0.89	0.66	0.66	0.82
17	0.6371	0.0265	0.64	0.65	0.55	0.31
18	0.2779	0.0247	0.75	0.70	0.64	0.48
19	0.2681	0.0247	0.75	0.71	0.69	0.49
20	0.4119	0.0250	0.76	0.71	0.63	0.42
21	0.0105	0.0248	0.80	0.74	0.66	0.58
22	0.0216	0.0248	0.76	0.71	0.63	0.57
23	-0.6035	0.0324	0.91	0.72	0.57	0.83
24	0.6881	0.0293	0.63	0.60	0.55	0.26
25	-0.1324	0.0256	0.85	0.80	0.63	0.65

Table 7.2.1.3
2010 AIMS A IRT Item Statistics
Mathematics Grade 4

Item	Rasch Measure	ERROR	IN.MSQ	OUT.MS	PTBISE	PVALUE
1	-0.1215	0.0247	1.02	0.97	0.60	0.67
2	0.1811	0.0223	1.27	1.28	0.40	0.54
3	-0.3083	0.0280	0.90	0.65	0.59	0.80
4	0.2554	0.0222	1.22	1.80	0.41	0.52
5	0.2168	0.0222	1.42	1.72	0.32	0.52
6	-0.1190	0.0247	1.14	1.16	0.46	0.73
7	-0.0726	0.0241	1.35	2.19	0.40	0.65
8	0.0163	0.0232	0.90	0.85	0.60	0.65
9	0.1911	0.0223	1.24	1.77	0.41	0.54
10	-0.0300	0.0237	1.00	0.92	0.52	0.71
11	0.1368	0.0225	1.11	1.24	0.48	0.60
12	-0.3610	0.0292	0.96	0.71	0.57	0.81
13	0.3634	0.0223	1.36	1.67	0.32	0.44
14	0.0048	0.0233	1.01	0.94	0.56	0.64
15	0.2738	0.0221	1.45	1.72	0.31	0.49
16	-0.5473	0.0336	0.76	0.52	0.67	0.83
17	-0.4302	0.0312	0.75	0.62	0.66	0.80
18	0.1612	0.0249	0.70	0.66	0.68	0.54
19	0.3543	0.0248	0.71	0.69	0.68	0.45
20	0.4643	0.0252	0.72	0.65	0.66	0.39
21	-0.3138	0.0278	0.76	0.65	0.68	0.73
22	0.8556	0.0316	1.00	1.00	0.42	0.21
23	-0.0611	0.0255	0.89	0.91	0.55	0.62
24	1.0698	0.0369	1.06	1.01	0.38	0.15
25	0.3815	0.0256	0.71	0.66	0.67	0.40

Table 7.2.1.4
2010 AIMS A IRT Item Statistics
Mathematics Grade 5

Item	Rasch Measure	ERROR	IN.MSQ	OUT.MS	PTBISE	PVALUE
1	0.3279	0.0209	1.22	1.86	0.25	0.36
2	-0.3393	0.0259	1.01	0.83	0.50	0.78
3	-0.0827	0.0217	1.04	1.01	0.47	0.64
4	-0.0246	0.0211	1.26	1.59	0.28	0.65
5	0.2831	0.0206	1.02	1.36	0.40	0.39
6	0.0815	0.0205	1.15	1.14	0.37	0.50
7	0.2404	0.0205	1.10	1.21	0.37	0.43
8	-0.2571	0.0242	1.19	0.99	0.48	0.71
9	0.3399	0.0210	1.23	1.43	0.28	0.37
10	0.2985	0.0207	1.41	1.54	0.15	0.38
11	0.3835	0.0213	1.32	1.97	0.25	0.38
12	-0.2312	0.0237	1.10	1.14	0.44	0.72
13	0.0580	0.0206	0.95	0.89	0.50	0.55
14	0.1925	0.0204	1.09	1.06	0.38	0.46
15	-0.1139	0.0220	1.13	1.34	0.37	0.67
16	-0.0289	0.0253	0.78	0.75	0.67	0.57
17	0.1278	0.0249	0.90	0.89	0.53	0.50
18	0.2555	0.0250	0.89	0.86	0.48	0.44
19	0.4404	0.0258	0.96	0.94	0.40	0.35
20	0.5057	0.0263	0.81	0.75	0.54	0.32
21	-0.2603	0.0251	0.82	0.78	0.60	0.65
22	0.0216	0.0241	0.77	0.74	0.59	0.51
23	-0.1435	0.0244	0.76	0.73	0.62	0.59
24	0.4723	0.0274	0.84	0.79	0.54	0.30
25	0.1431	0.0244	0.90	0.87	0.52	0.45

Table 7.2.1.5
2010 AIMS A IRT Item Statistics
Mathematics Grade 6

Item	Rasch Measure	ERROR	IN.MSQ	OUT.MS	PTBISE	PVALUE
1	0.2975	0.0208	1.39	1.54	0.18	0.41
2	-0.1049	0.0221	1.08	1.02	0.43	0.67
3	-0.0750	0.0218	1.12	1.08	0.39	0.66
4	0.3516	0.0211	1.36	1.56	0.19	0.37
5	0.0359	0.0209	0.96	0.92	0.47	0.62
6	-0.1505	0.0227	0.94	0.79	0.47	0.74
7	0.1059	0.0206	1.02	1.10	0.44	0.53
8	0.1038	0.0206	1.28	1.51	0.25	0.58
9	-0.1239	0.0223	0.94	0.75	0.53	0.69
10	0.1922	0.0205	1.15	1.33	0.34	0.51
11	-0.2039	0.0235	1.01	1.07	0.43	0.74
12	0.2449	0.0206	1.25	1.29	0.28	0.44
13	0.3044	0.0208	1.28	1.88	0.21	0.41
14	0.3078	0.0208	1.54	1.99	0.06	0.40
15	-0.3367	0.0261	1.16	1.08	0.41	0.79
16	-0.4455	0.0294	0.78	0.67	0.61	0.78
17	-0.2493	0.0266	0.80	0.78	0.54	0.70
18	-0.1993	0.0261	0.82	0.76	0.60	0.68
19	-0.2465	0.0266	0.69	0.64	0.67	0.70
20	-0.2296	0.0264	0.69	0.63	0.71	0.70
21	-0.0083	0.0243	0.94	0.97	0.45	0.55
22	0.3652	0.0260	0.79	0.77	0.56	0.36
23	-0.1561	0.0247	0.74	0.71	0.64	0.62
24	0.4521	0.0270	0.79	0.73	0.61	0.33
25	0.2281	0.0249	0.75	0.72	0.63	0.43

Table 7.2.1.6
2010 AIMS A IRT Item Statistics
Mathematics Grade 7

Item	Rasch Measure	ERROR	IN.MSQ	OUT.MS	PTBISE	PVALUE
1	0.1068	0.0220	1.26	1.66	0.30	0.58
2	0.3262	0.0217	1.39	2.05	0.17	0.44
3	0.1739	0.0217	1.12	1.14	0.39	0.51
4	0.1195	0.0219	1.18	1.32	0.35	0.57
5	0.3221	0.0217	1.16	1.58	0.33	0.48
6	0.0764	0.0222	1.11	1.57	0.39	0.62
7	0.1259	0.0219	1.07	1.09	0.41	0.61
8	-0.1545	0.0250	0.86	0.62	0.56	0.75
9	0.2693	0.0216	1.23	1.37	0.30	0.49
10	0.2064	0.0216	1.25	1.59	0.28	0.52
11	-0.4519	0.0327	1.21	1.05	0.39	0.86
12	0.0573	0.0224	0.97	0.96	0.49	0.62
13	0.2625	0.0216	1.27	1.64	0.26	0.48
14	0.2452	0.0216	1.17	1.24	0.34	0.51
15	0.1153	0.0220	1.04	1.31	0.44	0.59
16	-0.3824	0.0310	0.75	0.69	0.61	0.78
17	-0.1703	0.0280	0.82	0.80	0.55	0.69
18	-0.0852	0.0272	0.80	0.79	0.58	0.66
19	-0.0357	0.0268	0.75	0.71	0.61	0.63
20	-0.2684	0.0292	0.72	0.64	0.70	0.73
21	-0.1444	0.0265	0.80	0.78	0.58	0.65
22	0.1563	0.0258	0.74	0.73	0.60	0.50
23	-0.2996	0.0279	0.85	0.78	0.60	0.72
24	0.2578	0.0261	0.90	0.87	0.53	0.45
25	0.1816	0.0258	0.78	0.75	0.61	0.49

Table 7.2.1.7
2010 AIMS A IRT Item Statistics
Mathematics Grade 8

Item	Rasch Measure	ERROR	IN.MSQ	OUT.MS	PTBISE	PVALUE
1	0.1116	0.0208	1.17	1.74	0.33	0.54
2	0.3182	0.0208	1.35	1.54	0.17	0.41
3	-0.0553	0.0222	0.98	0.89	0.51	0.65
4	0.1803	0.0206	1.21	1.60	0.29	0.51
5	0.1059	0.0208	1.24	1.51	0.28	0.57
6	0.3027	0.0207	1.32	1.52	0.19	0.42
7	0.0446	0.0212	0.91	0.83	0.50	0.65
8	0.3044	0.0207	1.25	1.94	0.23	0.42
9	0.0212	0.0214	0.95	0.87	0.49	0.63
10	-0.2515	0.0254	0.95	0.76	0.53	0.77
11	0.1512	0.0207	1.01	0.92	0.44	0.52
12	0.2159	0.0206	1.24	1.42	0.26	0.48
13	0.1493	0.0207	1.12	1.16	0.36	0.57
14	0.2637	0.0206	1.07	1.22	0.36	0.43
15	0.2055	0.0206	1.16	1.48	0.32	0.49
16	-0.3749	0.0294	0.78	0.71	0.62	0.75
17	-0.2545	0.0277	0.85	0.83	0.54	0.71
18	-0.3359	0.0288	0.76	0.69	0.63	0.74
19	-0.1431	0.0265	0.76	0.72	0.63	0.66
20	-0.4563	0.0308	0.89	0.77	0.63	0.78
21	-0.1899	0.0251	0.81	0.77	0.63	0.66
22	-0.0721	0.0243	0.76	0.73	0.64	0.60
23	-0.1143	0.0245	0.80	0.78	0.58	0.62
24	0.9135	0.0352	0.94	0.82	0.43	0.17
25	0.2800	0.0245	0.80	0.78	0.56	0.41

Table 7.2.1.8
2010 AIMS A IRT Item Statistics
Mathematics High School

Item	Rasch Measure	ERROR	IN.MSQ	OUT.MS	PTBISE	PVALUE
1	0.1859	0.0169	1.21	1.50	0.32	0.52
2	0.0790	0.0172	1.23	1.55	0.32	0.58
3	-0.1048	0.0185	1.09	1.08	0.43	0.69
4	0.1077	0.0171	1.16	1.35	0.36	0.58
5	-0.0807	0.0183	0.91	0.86	0.50	0.72
6	0.1209	0.0170	1.03	1.11	0.44	0.58
7	0.4837	0.0181	1.40	2.47	0.12	0.31
8	-0.0994	0.0185	0.96	0.86	0.54	0.67
9	0.0691	0.0172	1.17	1.19	0.38	0.57
10	0.0447	0.0173	0.97	0.93	0.48	0.64
11	0.2909	0.0170	1.40	1.85	0.18	0.43
12	0.2090	0.0169	1.22	1.50	0.31	0.50
13	0.1459	0.0170	1.21	1.48	0.33	0.51
14	0.0848	0.0172	1.15	1.32	0.39	0.54
15	0.3898	0.0174	1.40	2.17	0.13	0.37
16	-0.2783	0.0222	0.71	0.66	0.62	0.73
17	-0.1477	0.0209	0.66	0.62	0.68	0.67
18	-0.1021	0.0206	0.70	0.64	0.71	0.65
19	-0.4591	0.0247	0.87	0.72	0.59	0.80
20	-0.3404	0.0230	0.77	0.67	0.66	0.76
21	0.0480	0.0197	0.70	0.67	0.70	0.54
22	-0.0022	0.0198	0.80	0.76	0.62	0.56
23	-0.2270	0.0208	0.77	0.73	0.64	0.68
24	0.3605	0.0207	0.82	0.78	0.57	0.38
25	0.1949	0.0199	0.69	0.66	0.67	0.46

Table 7.2.1.9
2010 AIMS A IRT Item Statistics
Reading Grade 3

Item	Rasch Measure	ERROR	IN.MSQ	OUT.MS	PTBISE	PVALUE
1	-0.2949	0.0270	1.16	0.95	0.48	0.78
2	0.3570	0.0211	1.24	1.54	0.30	0.41
3	0.3427	0.0211	1.11	1.40	0.39	0.42
4	-0.0199	0.0222	1.16	1.29	0.37	0.68
5	0.4984	0.0222	1.38	2.70	0.17	0.32
6	0.0567	0.0215	1.08	1.03	0.44	0.62
7	0.1059	0.0212	1.06	1.10	0.45	0.58
8	0.0402	0.0216	1.02	0.95	0.53	0.57
9	0.1517	0.0210	1.07	1.25	0.43	0.59
10	0.3075	0.0209	1.28	1.82	0.29	0.44
11	0.2326	0.0208	1.15	1.16	0.38	0.50
12	0.0795	0.0214	1.16	1.21	0.37	0.63
13	0.2186	0.0209	1.20	1.29	0.36	0.51
14	0.2500	0.0208	1.06	1.09	0.44	0.48
15	0.2569	0.0208	1.08	1.24	0.42	0.48
16	-0.3230	0.0290	0.90	0.79	0.63	0.74
17	-0.3945	0.0301	0.89	0.74	0.66	0.76
18	0.2713	0.0250	0.74	0.75	0.59	0.48
19	0.2726	0.0250	0.74	0.72	0.56	0.47
20	0.2788	0.0250	0.88	0.87	0.55	0.47
21	-0.3962	0.0281	0.75	0.64	0.65	0.76
22	0.4976	0.0264	0.80	0.74	0.54	0.33
23	0.0441	0.0243	0.78	0.74	0.67	0.55
24	-0.0502	0.0246	0.77	0.73	0.68	0.60
25	0.3686	0.0252	0.83	0.83	0.55	0.39

Table 7.2.1.10
2010 AIMS A IRT Item Statistics
Reading Grade 4

Item	Rasch Measure	ERROR	IN.MSQ	OUT.MS	PTBISE	PVALUE
1	-0.2245	0.0301	0.91	0.61	0.49	0.87
2	0.0773	0.0241	1.00	1.07	0.55	0.69
3	0.1281	0.0235	1.02	1.49	0.53	0.68
4	0.1949	0.0228	0.92	0.83	0.58	0.64
5	0.1099	0.0237	1.23	1.19	0.45	0.66
6	0.0602	0.0243	1.14	1.15	0.46	0.71
7	0.1781	0.0230	1.13	1.22	0.46	0.65
8	0.3953	0.0220	1.15	1.33	0.44	0.51
9	0.2441	0.0225	1.20	1.32	0.43	0.61
10	0.2921	0.0222	1.11	1.23	0.47	0.58
11	0.4667	0.0220	1.32	1.47	0.35	0.47
12	0.4667	0.0220	1.32	1.65	0.34	0.47
13	0.4647	0.0220	1.12	1.15	0.46	0.47
14	0.1711	0.0230	1.34	1.73	0.32	0.68
15	0.1918	0.0229	1.23	1.53	0.43	0.62
16	0.2162	0.0267	0.75	0.77	0.62	0.59
17	0.1013	0.0273	0.72	0.71	0.68	0.64
18	-0.0082	0.0283	0.84	0.78	0.64	0.68
19	-0.4093	0.0343	0.82	0.68	0.64	0.81
20	-0.0837	0.0291	0.80	0.72	0.69	0.71
21	0.1828	0.0261	0.82	0.81	0.64	0.56
22	0.5346	0.0271	0.86	0.82	0.58	0.41
23	0.1447	0.0261	0.77	0.74	0.65	0.58
24	0.5084	0.0269	0.70	0.67	0.66	0.42
25	0.2634	0.0260	0.90	0.88	0.62	0.53

Table 7.2.1.11
2010 AIMS A IRT Item Statistics
Reading Grade 5

Item	Rasch Measure	ERROR	IN.MSQ	OUT.MS	PTBISE	PVALUE
1	-0.0792	0.0237	1.09	1.21	0.46	0.74
2	0.1125	0.0217	1.21	1.49	0.41	0.57
3	0.0486	0.0222	1.04	1.00	0.49	0.65
4	0.0875	0.0219	1.11	1.12	0.45	0.63
5	0.1290	0.0216	1.07	1.04	0.47	0.61
6	0.1421	0.0215	1.53	2.19	0.20	0.59
7	-0.0237	0.0230	1.09	1.07	0.50	0.67
8	0.2298	0.0212	1.15	1.16	0.42	0.57
9	-0.0587	0.0235	1.16	1.33	0.46	0.69
10	0.0926	0.0218	1.01	0.93	0.49	0.67
11	0.0272	0.0224	1.08	1.03	0.49	0.65
12	0.5463	0.0222	1.55	2.47	0.15	0.33
13	0.1788	0.0213	1.17	1.19	0.41	0.57
14	0.0446	0.0223	0.98	1.09	0.53	0.66
15	0.1952	0.0213	1.11	1.37	0.44	0.56
16	-0.2562	0.0286	0.73	0.69	0.66	0.74
17	-0.2352	0.0283	0.75	0.71	0.66	0.73
18	-0.0684	0.0265	0.71	0.69	0.65	0.66
19	-0.2961	0.0291	0.75	0.64	0.68	0.75
20	-0.2877	0.0290	0.79	0.69	0.68	0.75
21	0.3239	0.0255	0.81	0.79	0.58	0.43
22	0.3038	0.0254	0.80	0.77	0.59	0.44
23	0.3038	0.0254	0.89	0.84	0.55	0.44
24	0.1894	0.0251	0.88	0.84	0.61	0.50
25	0.1599	0.0250	0.86	0.88	0.55	0.51

Table 7.2.1.12
2010 AIMS A IRT Item Statistics
Reading Grade 6

Item	Rasch Measure	ERROR	IN.MSQ	OUT.MS	PTBISE	PVALUE
1	-0.2005	0.0248	0.97	0.78	0.54	0.76
2	-0.0818	0.0235	1.00	1.25	0.50	0.73
3	0.0515	0.0226	1.17	1.37	0.45	0.64
4	-0.0765	0.0234	1.10	1.01	0.47	0.71
5	0.1896	0.0223	1.54	2.14	0.28	0.54
6	0.3155	0.0225	1.24	1.58	0.42	0.44
7	0.0024	0.0228	1.42	2.04	0.33	0.64
8	-0.0446	0.0231	0.96	0.85	0.56	0.68
9	-0.1037	0.0237	0.97	0.86	0.54	0.71
10	-0.1707	0.0244	0.92	0.73	0.56	0.75
11	-0.1667	0.0244	1.11	1.78	0.44	0.75
12	-0.0742	0.0234	0.90	0.77	0.56	0.73
13	-0.0540	0.0232	1.23	1.51	0.43	0.66
14	0.0335	0.0227	1.18	1.21	0.47	0.61
15	0.1099	0.0224	1.13	1.25	0.48	0.59
16	0.1164	0.0267	0.75	0.74	0.63	0.56
17	-0.1711	0.0282	0.80	0.74	0.66	0.68
18	-0.1303	0.0278	0.85	0.81	0.62	0.67
19	-0.3050	0.0294	0.90	0.82	0.58	0.73
20	-0.0052	0.0271	0.89	0.91	0.55	0.62
21	0.3911	0.0276	0.86	0.86	0.58	0.41
22	0.4686	0.0282	0.81	0.79	0.61	0.38
23	0.1386	0.0264	0.87	0.84	0.64	0.51
24	0.0519	0.0263	0.81	0.79	0.66	0.55
25	0.0657	0.0263	0.79	0.76	0.64	0.55

Table 7.2.1.13
2010 AIMS A IRT Item Statistics
Reading Grade 7

Item	Rasch Measure	ERROR	IN.MSQ	OUT.MS	PTBISE	PVALUE
1	0.1217	0.0240	1.59	2.08	0.28	0.62
2	-0.1656	0.0271	1.28	1.49	0.43	0.76
3	0.1951	0.0236	1.14	1.18	0.51	0.55
4	0.1457	0.0239	1.08	1.03	0.52	0.62
5	-0.1004	0.0261	1.18	1.38	0.47	0.74
6	0.2995	0.0234	1.22	1.37	0.44	0.55
7	0.6977	0.0253	1.61	2.79	0.18	0.29
8	0.0338	0.0247	1.09	1.04	0.55	0.64
9	0.2255	0.0235	1.20	1.32	0.47	0.56
10	-0.0449	0.0254	1.00	0.86	0.58	0.70
11	-0.0855	0.0259	0.98	0.87	0.55	0.74
12	0.0107	0.0249	1.03	0.95	0.52	0.72
13	-0.3134	0.0299	1.20	1.08	0.46	0.82
14	-0.2598	0.0288	1.13	0.98	0.47	0.81
15	0.3723	0.0234	1.35	1.90	0.36	0.47
16	-0.1447	0.0293	0.65	0.60	0.73	0.70
17	-0.0053	0.0281	0.68	0.67	0.69	0.65
18	-0.2170	0.0301	0.79	0.72	0.66	0.73
19	-0.1954	0.0298	0.79	0.79	0.63	0.72
20	-0.0451	0.0284	0.80	0.74	0.69	0.66
21	0.4158	0.0284	0.79	0.80	0.61	0.42
22	0.0261	0.0277	0.77	0.74	0.66	0.59
23	0.3790	0.0282	0.81	0.80	0.62	0.44
24	0.0208	0.0277	0.79	0.76	0.65	0.59
25	0.0712	0.0276	0.72	0.72	0.72	0.57

Table 7.2.1.14
2010 AIMS A IRT Item Statistics
Reading Grade 8

Item	Rasch Measure	ERROR	IN.MSQ	OUT.MS	PTBISE	PVALUE
1	-0.1431	0.0283	1.09	1.17	0.50	0.81
2	-0.4565	0.0377	0.96	0.49	0.54	0.90
3	0.0754	0.0246	1.06	0.91	0.55	0.70
4	0.2862	0.0228	1.23	1.39	0.44	0.60
5	0.1526	0.0237	1.36	1.89	0.42	0.63
6	-0.3552	0.0341	1.23	1.32	0.53	0.85
7	0.0605	0.0248	1.23	1.83	0.47	0.70
8	0.1716	0.0236	1.07	1.08	0.53	0.65
9	0.3231	0.0226	1.19	1.38	0.45	0.64
10	0.1726	0.0236	1.25	1.26	0.45	0.65
11	0.2695	0.0229	1.09	1.08	0.51	0.62
12	0.0120	0.0255	0.96	0.83	0.54	0.78
13	0.4169	0.0224	1.32	1.80	0.38	0.51
14	0.6762	0.0232	1.54	2.97	0.24	0.36
15	0.3116	0.0227	1.22	1.23	0.44	0.58
16	-0.0576	0.0289	0.78	0.76	0.65	0.71
17	-0.3202	0.0326	0.71	0.62	0.68	0.80
18	-0.0361	0.0286	0.76	0.72	0.67	0.70
19	0.1124	0.0274	0.77	0.72	0.69	0.64
20	-0.2370	0.0312	0.91	0.89	0.58	0.77
21	0.4736	0.0272	0.77	0.75	0.62	0.45
22	0.1255	0.0269	0.81	0.79	0.65	0.59
23	0.4421	0.0270	0.80	0.78	0.63	0.46
24	-0.1232	0.0283	0.80	0.73	0.69	0.70
25	0.2534	0.0267	0.80	0.78	0.63	0.54

Table 7.2.1.15
2010 AIMS A IRT Item Statistics
Reading High School

Item	Rasch Measure	ERROR	IN.MSQ	OUT.MS	PTBISE	PVALUE
1	-0.4810	0.0311	1.06	0.77	0.50	0.90
2	-0.1831	0.0238	1.10	1.04	0.53	0.82
3	0.1161	0.0202	1.25	1.29	0.48	0.70
4	0.0188	0.0210	1.13	1.01	0.55	0.73
5	0.0351	0.0209	1.07	0.96	0.57	0.73
6	0.2186	0.0196	1.41	1.62	0.41	0.64
7	-0.0425	0.0217	1.28	2.05	0.44	0.77
8	0.4364	0.0191	1.48	3.01	0.36	0.52
9	-0.0717	0.0221	1.09	0.93	0.53	0.79
10	0.0766	0.0205	0.91	0.77	0.60	0.76
11	0.1690	0.0198	1.14	1.24	0.53	0.67
12	0.0195	0.0210	1.27	1.50	0.49	0.72
13	-0.2024	0.0241	0.94	0.86	0.57	0.83
14	0.1079	0.0202	1.13	1.26	0.53	0.70
15	0.1579	0.0199	1.29	1.66	0.46	0.67
16	-0.1081	0.0241	0.70	0.64	0.72	0.75
17	-0.2335	0.0256	0.69	0.69	0.69	0.79
18	-0.1316	0.0243	0.78	0.67	0.69	0.75
19	-0.1727	0.0248	0.74	0.61	0.73	0.77
20	-0.2804	0.0262	0.72	0.61	0.72	0.80
21	0.3969	0.0221	0.92	0.90	0.61	0.51
22	0.4729	0.0222	0.84	0.82	0.62	0.48
23	0.2904	0.0220	0.82	0.79	0.67	0.55
24	0.1301	0.0222	0.80	0.77	0.69	0.62
25	0.2591	0.0220	0.82	0.80	0.67	0.57

Table 7.2.1.16
2010 AIMS A IRT Item Statistics
Science Grade 4

Item	Rasch Measure	ERROR	IN.MSQ	OUT.MS	PTBISE	PVALUE
1	0.0247	0.0251	1.37	1.84	0.35	0.74
2	0.1789	0.0233	1.00	1.04	0.55	0.66
3	-0.0395	0.0261	0.96	0.79	0.56	0.77
4	0.1187	0.0239	1.14	1.39	0.49	0.68
5	-0.1354	0.0280	1.11	0.97	0.52	0.80
6	0.4662	0.0220	1.35	1.51	0.33	0.47
7	0.1694	0.0234	1.61	2.72	0.22	0.66
8	0.3009	0.0224	0.98	0.94	0.55	0.58
9	0.1285	0.0238	1.17	1.13	0.43	0.72
10	-0.0284	0.0259	1.11	1.10	0.52	0.75
11	0.0013	0.0254	1.07	1.09	0.52	0.75
12	-0.4318	0.0368	1.10	1.28	0.47	0.89
13	0.1650	0.0234	1.35	1.79	0.37	0.66
14	0.1606	0.0235	0.91	0.96	0.60	0.67
15	0.5567	0.0221	1.51	2.64	0.23	0.42
16	0.0838	0.0272	0.77	0.73	0.69	0.66
17	0.1072	0.0270	0.76	0.70	0.71	0.65
18	0.0145	0.0278	0.84	0.77	0.67	0.68
19	0.2655	0.0261	0.77	0.76	0.60	0.58
20	0.2750	0.0260	0.75	0.72	0.64	0.57
21	-0.0022	0.0266	0.74	0.70	0.67	0.66
22	0.3065	0.0256	0.79	0.78	0.61	0.52
23	-0.0869	0.0273	0.80	0.73	0.72	0.69
24	0.2790	0.0256	0.74	0.68	0.70	0.53
25	0.5132	0.0263	0.82	0.79	0.56	0.42

Table 7.2.1.17
2010 AIMS A IRT Item Statistics
Science Grade 8

Item	Rasch Measure	ERROR	IN.MSQ	OUT.MS	PTBISE	PVALUE
1	0.3062	0.0243	1.23	1.73	0.52	0.63
2	0.0464	0.0275	1.18	0.94	0.50	0.79
3	0.4684	0.0235	1.17	2.08	0.51	0.58
4	0.4173	0.0237	1.20	1.83	0.50	0.61
5	0.0525	0.0274	0.84	0.57	0.65	0.78
6	0.2611	0.0247	1.12	1.19	0.53	0.71
7	0.5058	0.0234	0.95	0.92	0.61	0.62
8	0.4423	0.0236	1.17	1.16	0.53	0.59
9	0.3025	0.0244	1.26	1.43	0.48	0.67
10	0.1198	0.0263	0.86	0.66	0.67	0.74
11	0.3259	0.0242	1.00	0.87	0.60	0.66
12	0.0646	0.0272	1.13	1.14	0.54	0.77
13	0.6124	0.0233	1.45	1.86	0.37	0.50
14	0.4991	0.0234	1.21	1.36	0.50	0.56
15	0.5101	0.0234	1.79	2.78	0.24	0.56
16	-0.3577	0.0367	0.74	0.52	0.70	0.85
17	0.2309	0.0279	0.90	0.93	0.56	0.66
18	-0.0057	0.0303	0.68	0.63	0.74	0.75
19	-0.1661	0.0328	0.79	0.66	0.70	0.80
20	-0.1512	0.0325	0.79	0.70	0.68	0.80
21	-0.2410	0.0320	0.81	0.71	0.68	0.80
22	-0.0634	0.0296	0.79	0.75	0.66	0.74
23	0.1379	0.0280	0.76	0.71	0.70	0.66
24	0.5950	0.0276	0.82	0.77	0.66	0.48
25	0.3093	0.0273	0.74	0.71	0.72	0.59

Table 7.2.1.18
2010 AIMS A IRT Item Statistics
Science Grade 10

Item	Rasch Measure	ERROR	IN.MSQ	OUT.MS	PTBISE	PVALUE
1	-0.3728	0.0336	1.15	1.21	0.49	0.87
2	0.2981	0.0220	1.40	1.78	0.34	0.58
3	0.2237	0.0225	1.30	1.74	0.40	0.63
4	0.4238	0.0216	1.47	1.91	0.28	0.50
5	0.2154	0.0225	1.01	1.26	0.53	0.68
6	0.0323	0.0245	0.93	0.82	0.57	0.75
7	0.1791	0.0228	1.02	1.26	0.55	0.64
8	0.5114	0.0216	1.39	1.91	0.30	0.45
9	-0.1661	0.0280	1.12	0.91	0.54	0.79
10	-0.0478	0.0257	0.91	0.76	0.63	0.75
11	0.3995	0.0216	1.32	1.74	0.35	0.52
12	-0.0235	0.0253	1.14	1.19	0.50	0.76
13	0.1889	0.0227	1.11	1.16	0.50	0.65
14	0.0829	0.0238	1.07	1.09	0.53	0.70
15	0.4629	0.0216	1.53	1.94	0.26	0.48
16	-0.2866	0.0310	0.81	0.68	0.67	0.79
17	-0.5498	0.0367	0.83	0.59	0.64	0.86
18	0.1389	0.0259	0.72	0.67	0.72	0.63
19	0.1009	0.0262	0.78	0.80	0.61	0.65
20	-0.0459	0.0276	0.74	0.67	0.67	0.71
21	0.2879	0.0254	0.74	0.71	0.64	0.53
22	0.4111	0.0256	0.72	0.69	0.68	0.47
23	0.3746	0.0255	0.74	0.70	0.70	0.49
24	0.1100	0.0258	0.77	0.75	0.69	0.61
25	0.4665	0.0258	0.78	0.73	0.65	0.45

7.3 Scaling Methods

A raw score to scale score table was determined for each of the Spring 2010 AIMS A Reading, Mathematics, and Science tests. The scale of measurement was determined for each test using spring 2010 operational test results and cut scores from the subsequent standard setting. The desired AIMS A scales for Grades 3-8 and High School ranged from 1000 to 1500. AIMS A scales are not on a vertical scale as are the general assessment AIMS scales. Each grade has its own unique scale within the 1000-1500 range. The scale scores for different grades cannot be compared.

7.4 Scoring and Standard Error of Measurement

Item response theory makes available number-correct scoring. Number-correct scoring was used to derive scales scores for the AIMS A tests. With number-correct scoring, a student’s number-correct score (or raw score) is converted to a scale score through the use of transformation constants. These constants were calculated for each test and each grade. A direct linear transformation was then applied in Excel to transform the logit value generated in the score file provided by Winsteps to the necessary scale score. The formula utilized for calculating the M1 and M2 values was as follows:

$$M1 = \text{Desired SD/Logit SD} \qquad M2 = \text{Desired Mean}/(\text{Logit Mean} * M1)$$

Figure 7.4.1
AIMS A Transformation Constants Established 2010

Math	M1	M2
3	71.42857142857140	1252
4	78.12500000000000	1255
5	75.75757575757580	1256
6	119.04761904761900	1246
7	108.69565217391300	1252
8	104.16666666666700	1252
10	113.63636363636400	1252

Reading	M1	M2
3	96.15384615384610	1247
4	108.69565217391300	1240
5	131.57894736842100	1240
6	138.88888888888900	1248
7	131.57894736842100	1249
8	100.00000000000000	1246
10	100.00000000000000	1251

Science	M1	M2
4	100.00000000000000	1240
8	83.33333333333330	1235
10	75.75757575757580	1245

The desired mean for all tests was set to 1250 with a standard deviation of 25. With that information, all transformation constants were calculated.

Typically, a test score is obtained from a single observation of behavior 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 7.4.2 through 7.4.18 present raw score to scale score conversion tables and IRT conditional standard errors of measurement for all AIMS A tests.

Table 7.4.2
2010 AIMS A Raw Score to Scale Score
Mathematics Grade 3

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	315	51	1263	9
1	1112	61	52	1264	9
2	1145	39	53	1265	9
3	1162	30	54	1266	9
4	1172	25	55	1267	9
5	1180	22	56	1268	9
6	1187	20	57	1269	9
7	1192	18	58	1270	9
8	1196	17	59	1271	9
9	1200	16	60	1273	9
10	1203	15	61	1274	9
11	1206	14	62	1275	9
12	1209	14	63	1276	9
13	1212	13	64	1277	9
14	1214	13	65	1278	9
15	1216	12	66	1279	9
16	1218	12	67	1280	9
17	1220	12	68	1282	9
18	1222	11	69	1283	9
19	1224	11	70	1284	9
20	1226	11	71	1285	10
21	1227	11	72	1286	10
22	1229	11	73	1288	10
23	1230	10	74	1289	10
24	1232	10	75	1291	10
25	1233	10	76	1292	10
26	1235	10	77	1293	10
27	1236	10	78	1295	10
28	1237	10	79	1296	11
29	1239	10	80	1298	11
30	1240	9	81	1300	11
31	1241	9	82	1301	11
32	1242	9	83	1303	12
33	1244	9	84	1305	12
34	1245	9	85	1307	12
35	1246	9	86	1309	12
36	1247	9	87	1312	13
37	1248	9	88	1314	13
38	1249	9	89	1317	14
39	1250	9	90	1319	14
40	1252	9	91	1322	15
41	1253	9	92	1326	16
42	1254	9	93	1330	17
43	1255	9	94	1334	18
44	1256	9	95	1339	20
45	1257	9	96	1346	23
46	1258	9	97	1354	26
47	1259	9	98	1365	32
48	1260	9	99	1386	47
49	1261	9	100	1500	223
50	1262	9			

Table 7.4.3
2010 AIMS A Raw Score to Scale Score
Mathematics Grade 4

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	335	51	1263	9
1	1117	60	52	1264	9
2	1146	39	53	1265	9
3	1161	30	54	1266	9
4	1171	26	55	1268	9
5	1179	23	56	1269	9
6	1185	21	57	1270	9
7	1189	19	58	1271	10
8	1194	18	59	1272	10
9	1198	17	60	1273	10
10	1201	16	61	1275	10
11	1204	15	62	1276	10
12	1207	14	63	1277	10
13	1209	14	64	1278	10
14	1212	13	65	1279	10
15	1214	13	66	1281	10
16	1216	13	67	1282	10
17	1218	12	68	1283	10
18	1220	12	69	1285	10
19	1222	12	70	1286	10
20	1224	12	71	1287	11
21	1225	11	72	1289	11
22	1227	11	73	1290	11
23	1229	11	74	1292	11
24	1230	11	75	1293	11
25	1232	11	76	1295	11
26	1233	11	77	1297	12
27	1234	10	78	1299	12
28	1236	10	79	1300	12
29	1237	10	80	1302	12
30	1238	10	81	1304	13
31	1240	10	82	1306	13
32	1241	10	83	1309	13
33	1242	10	84	1311	14
34	1244	10	85	1313	14
35	1245	10	86	1316	15
36	1246	10	87	1319	15
37	1247	10	88	1322	16
38	1248	10	89	1325	17
39	1250	10	90	1329	17
40	1251	9	91	1333	18
41	1252	9	92	1338	19
42	1253	9	93	1343	20
43	1254	9	94	1348	22
44	1255	9	95	1355	24
45	1256	9	96	1363	26
46	1257	9	97	1373	30
47	1259	9	98	1386	36
48	1260	9	99	1409	50
49	1261	9	100	1500	240
50	1262	9			

Table 7.4.4
2010 AIMS A Raw Score to Scale Score
Mathematics Grade 5

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	334	51	1266	9
1	1113	64	52	1267	9
2	1147	41	53	1268	9
3	1164	32	54	1269	9
4	1175	26	55	1270	9
5	1183	23	56	1271	9
6	1190	21	57	1272	9
7	1195	19	58	1273	9
8	1199	17	59	1275	9
9	1203	16	60	1276	9
10	1206	15	61	1277	9
11	1209	15	62	1278	9
12	1212	14	63	1279	9
13	1214	14	64	1280	9
14	1217	13	65	1281	9
15	1219	13	66	1282	9
16	1221	12	67	1284	9
17	1223	12	68	1285	10
18	1225	12	69	1286	10
19	1226	11	70	1287	10
20	1228	11	71	1289	10
21	1230	11	72	1290	10
22	1231	11	73	1291	10
23	1233	11	74	1292	10
24	1234	10	75	1294	10
25	1236	10	76	1295	10
26	1237	10	77	1297	11
27	1238	10	78	1298	11
28	1240	10	79	1300	11
29	1241	10	80	1302	11
30	1242	10	81	1303	11
31	1244	10	82	1305	12
32	1245	10	83	1307	12
33	1246	10	84	1309	12
34	1247	9	85	1311	13
35	1248	9	86	1313	13
36	1250	9	87	1315	14
37	1251	9	88	1318	14
38	1252	9	89	1321	15
39	1253	9	90	1324	15
40	1254	9	91	1327	16
41	1255	9	92	1331	17
42	1256	9	93	1335	18
43	1257	9	94	1340	20
44	1258	9	95	1345	22
45	1260	9	96	1352	25
46	1261	9	97	1362	29
47	1262	9	98	1375	35
48	1263	9	99	1398	51
49	1264	9	100	1500	238
50	1265	9			

Table 7.4.5
2010 AIMS A Raw Score to Scale Score
Mathematics Grade 6

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	515	51	1253	14
1	1007	97	52	1254	14
2	1058	64	53	1256	14
3	1085	50	54	1258	14
4	1103	42	55	1259	14
5	1116	37	56	1261	14
6	1127	34	57	1263	14
7	1136	31	58	1264	14
8	1143	29	59	1266	14
9	1149	27	60	1268	14
10	1155	25	61	1270	14
11	1160	24	62	1271	14
12	1165	23	63	1273	14
13	1169	22	64	1275	15
14	1173	21	65	1277	15
15	1177	21	66	1278	15
16	1180	20	67	1280	15
17	1183	19	68	1282	15
18	1186	19	69	1284	15
19	1189	18	70	1286	15
20	1192	18	71	1288	15
21	1195	18	72	1290	15
22	1197	17	73	1292	16
23	1200	17	74	1294	16
24	1202	17	75	1296	16
25	1205	17	76	1298	16
26	1207	16	77	1301	16
27	1209	16	78	1303	17
28	1211	16	79	1305	17
29	1213	16	80	1308	17
30	1215	16	81	1310	18
31	1217	15	82	1313	18
32	1219	15	83	1316	18
33	1221	15	84	1319	19
34	1223	15	85	1322	19
35	1225	15	86	1325	20
36	1227	15	87	1329	21
37	1229	15	88	1332	21
38	1231	15	89	1336	22
39	1232	15	90	1341	23
40	1234	14	91	1346	25
41	1236	14	92	1351	26
42	1238	14	93	1357	28
43	1239	14	94	1364	30
44	1241	14	95	1372	33
45	1243	14	96	1382	37
46	1244	14	97	1395	43
47	1246	14	98	1414	53
48	1248	14	99	1447	76
49	1249	14	100	1500	368
50	1251	14			

Table 7.4.6
2010 AIMS A Raw Score to Scale Score
Mathematics Grade 7

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	472	51	1263	13
1	1030	90	52	1264	13
2	1079	60	53	1265	13
3	1105	47	54	1267	13
4	1122	40	55	1268	13
5	1134	35	56	1270	13
6	1144	31	57	1271	13
7	1152	29	58	1273	13
8	1160	27	59	1274	13
9	1166	25	60	1276	13
10	1171	24	61	1277	13
11	1176	22	62	1279	13
12	1180	22	63	1280	13
13	1184	21	64	1281	13
14	1188	20	65	1283	13
15	1192	19	66	1285	13
16	1195	19	67	1286	13
17	1198	18	68	1288	13
18	1201	18	69	1289	13
19	1204	17	70	1291	13
20	1207	17	71	1293	13
21	1209	17	72	1294	14
22	1212	16	73	1296	14
23	1214	16	74	1298	14
24	1217	16	75	1300	14
25	1219	15	76	1301	14
26	1221	15	77	1303	15
27	1223	15	78	1305	15
28	1225	15	79	1307	15
29	1227	15	80	1309	15
30	1229	14	81	1312	16
31	1231	14	82	1314	16
32	1233	14	83	1316	16
33	1234	14	84	1319	17
34	1236	14	85	1321	17
35	1238	14	86	1324	18
36	1240	14	87	1327	18
37	1241	13	88	1330	19
38	1243	13	89	1334	20
39	1244	13	90	1338	21
40	1246	13	91	1342	22
41	1248	13	92	1347	23
42	1249	13	93	1352	25
43	1251	13	94	1358	27
44	1252	13	95	1365	29
45	1254	13	96	1374	33
46	1255	13	97	1385	38
47	1257	13	98	1402	48
48	1258	13	99	1432	70
49	1260	13	100	1500	338
50	1261	13			

Table 7.4.7
2010 AIMS A Raw Score to Scale Score
Mathematics Grade 8

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	443	51	1262	12
1	1043	83	52	1264	12
2	1087	56	53	1265	12
3	1111	44	54	1266	12
4	1127	38	55	1268	12
5	1139	33	56	1269	12
6	1148	30	57	1271	12
7	1156	28	58	1272	12
8	1163	26	59	1273	12
9	1169	24	60	1275	12
10	1175	23	61	1276	12
11	1179	22	62	1278	12
12	1184	21	63	1279	12
13	1188	20	64	1281	12
14	1191	19	65	1282	12
15	1195	19	66	1284	13
16	1198	18	67	1285	13
17	1201	18	68	1287	13
18	1204	17	69	1288	13
19	1207	17	70	1290	13
20	1209	16	71	1291	13
21	1212	16	72	1293	13
22	1214	16	73	1295	13
23	1216	15	74	1297	14
24	1219	15	75	1298	14
25	1221	15	76	1300	14
26	1223	14	77	1302	14
27	1225	14	78	1304	14
28	1227	14	79	1306	15
29	1228	14	80	1308	15
30	1230	14	81	1311	15
31	1232	14	82	1313	16
32	1234	13	83	1315	16
33	1236	13	84	1318	17
34	1237	13	85	1321	17
35	1239	13	86	1323	18
36	1240	13	87	1327	18
37	1242	13	88	1330	19
38	1244	13	89	1334	20
39	1245	13	90	1338	21
40	1247	13	91	1342	22
41	1248	12	92	1347	23
42	1250	12	93	1353	25
43	1251	12	94	1359	27
44	1252	12	95	1367	30
45	1254	12	96	1376	33
46	1255	12	97	1388	38
47	1257	12	98	1406	47
48	1258	12	99	1435	67
49	1260	12	100	1500	319
50	1261	12			

Table 7.4.8
2010 AIMS A Raw Score to Scale Score
Mathematics High School

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	491	51	1262	13
1	1031	92	52	1263	13
2	1079	61	53	1265	13
3	1105	48	54	1266	13
4	1122	40	55	1268	13
5	1134	35	56	1269	13
6	1144	32	57	1271	13
7	1152	29	58	1272	13
8	1159	27	59	1274	13
9	1165	26	60	1275	13
10	1171	24	61	1277	13
11	1176	23	62	1278	13
12	1180	22	63	1280	13
13	1184	21	64	1281	13
14	1188	20	65	1283	13
15	1191	20	66	1284	14
16	1195	19	67	1286	14
17	1198	18	68	1288	14
18	1201	18	69	1289	14
19	1204	18	70	1291	14
20	1206	17	71	1293	14
21	1209	17	72	1295	14
22	1211	16	73	1296	14
23	1213	16	74	1298	15
24	1216	16	75	1300	15
25	1218	16	76	1302	15
26	1220	15	77	1304	15
27	1222	15	78	1306	15
28	1224	15	79	1308	16
29	1226	15	80	1311	16
30	1228	15	81	1313	16
31	1230	14	82	1315	17
32	1232	14	83	1318	17
33	1233	14	84	1320	17
34	1235	14	85	1323	18
35	1237	14	86	1326	18
36	1238	14	87	1329	19
37	1240	14	88	1333	20
38	1242	14	89	1336	21
39	1243	13	90	1340	21
40	1245	13	91	1344	23
41	1246	13	92	1349	24
42	1248	13	93	1354	25
43	1250	13	94	1360	27
44	1251	13	95	1368	30
45	1253	13	96	1376	34
46	1254	13	97	1388	39
47	1256	13	98	1404	48
48	1257	13	99	1434	70
49	1259	13	100	1500	350
50	1260	13			

Table 7.4.9
2010 AIMS A Raw Score to Scale Score
Reading Grade 3

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	309	51	1263	8
1	1064	58	52	1265	8
2	1106	39	53	1266	8
3	1128	30	54	1267	8
4	1142	26	55	1268	8
5	1153	22	56	1270	8
6	1162	20	57	1271	8
7	1169	19	58	1272	8
8	1175	17	59	1274	8
9	1180	16	60	1275	8
10	1185	15	61	1276	8
11	1189	15	62	1278	8
12	1193	14	63	1279	8
13	1196	13	64	1280	9
14	1199	13	65	1282	9
15	1202	12	66	1283	9
16	1205	12	67	1284	9
17	1208	12	68	1286	9
18	1210	11	69	1287	9
19	1213	11	70	1289	9
20	1215	11	71	1290	9
21	1217	11	72	1292	9
22	1219	10	73	1293	9
23	1221	10	74	1295	9
24	1223	10	75	1297	9
25	1225	10	76	1298	10
26	1227	10	77	1300	10
27	1229	10	78	1302	10
28	1231	10	79	1304	10
29	1232	9	80	1306	10
30	1234	9	81	1308	10
31	1236	9	82	1310	11
32	1237	9	83	1312	11
33	1239	9	84	1315	11
34	1240	9	85	1317	12
35	1242	9	86	1320	12
36	1243	9	87	1322	12
37	1245	9	88	1325	13
38	1246	9	89	1329	13
39	1247	9	90	1332	14
40	1249	9	91	1336	15
41	1250	8	92	1340	16
42	1251	8	93	1345	17
43	1253	8	94	1351	18
44	1254	8	95	1357	20
45	1255	8	96	1365	22
46	1257	8	97	1376	26
47	1258	8	98	1392	32
48	1259	8	99	1419	46
49	1261	8	100	1500	223
50	1262	8			

Table 7.4.10
2010 AIMS A Raw Score to Scale Score
Reading Grade 4

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	471	51	1265	13
1	1033	89	52	1266	13
2	1082	60	53	1268	13
3	1108	47	54	1269	13
4	1125	40	55	1270	13
5	1138	35	56	1272	13
6	1148	32	57	1273	13
7	1156	29	58	1275	13
8	1163	27	59	1276	13
9	1170	25	60	1278	13
10	1175	24	61	1279	13
11	1180	22	62	1281	13
12	1184	21	63	1283	13
13	1188	21	64	1284	13
14	1192	20	65	1286	13
15	1195	19	66	1287	13
16	1199	19	67	1289	13
17	1202	18	68	1291	14
18	1205	17	69	1292	14
19	1207	17	70	1294	14
20	1210	17	71	1296	14
21	1213	16	72	1298	14
22	1215	16	73	1300	14
23	1217	16	74	1301	14
24	1219	15	75	1303	15
25	1222	15	76	1305	15
26	1224	15	77	1307	15
27	1226	15	78	1310	15
28	1228	14	79	1312	16
29	1230	14	80	1314	16
30	1231	14	81	1316	16
31	1233	14	82	1319	17
32	1235	14	83	1321	17
33	1237	14	84	1324	17
34	1238	14	85	1327	18
35	1240	13	86	1330	19
36	1242	13	87	1333	19
37	1243	13	88	1337	20
38	1245	13	89	1341	21
39	1247	13	90	1345	22
40	1248	13	91	1349	23
41	1250	13	92	1354	24
42	1251	13	93	1360	26
43	1253	13	94	1367	28
44	1254	13	95	1375	31
45	1256	13	96	1384	34
46	1257	13	97	1397	40
47	1259	13	98	1415	49
48	1260	13	99	1446	71
49	1262	13	100	1500	243
50	1263	13			

Table 7.4.11
2010 AIMS A Raw Score to Scale Score
Reading Grade 5

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	570	51	1254	15
1	1000	108	52	1256	15
2	1038	72	53	1258	15
3	1068	57	54	1259	15
4	1089	48	55	1261	15
5	1104	42	56	1263	15
6	1116	38	57	1265	15
7	1126	35	58	1266	15
8	1135	32	59	1268	15
9	1142	30	60	1270	15
10	1149	28	61	1272	16
11	1154	27	62	1274	16
12	1160	26	63	1276	16
13	1165	25	64	1277	16
14	1169	24	65	1279	16
15	1173	23	66	1281	16
16	1177	22	67	1283	16
17	1181	21	68	1285	16
18	1184	21	69	1287	16
19	1187	20	70	1289	17
20	1190	20	71	1291	17
21	1193	19	72	1294	17
22	1196	19	73	1296	17
23	1199	19	74	1298	17
24	1201	18	75	1300	18
25	1204	18	76	1303	18
26	1206	18	77	1305	18
27	1209	17	78	1308	19
28	1211	17	79	1311	19
29	1213	17	80	1313	19
30	1215	17	81	1316	20
31	1217	17	82	1319	20
32	1219	16	83	1322	21
33	1222	16	84	1326	21
34	1224	16	85	1329	22
35	1225	16	86	1333	22
36	1227	16	87	1337	23
37	1229	16	88	1341	24
38	1231	16	89	1345	25
39	1233	16	90	1350	26
40	1235	15	91	1356	27
41	1237	15	92	1362	29
42	1238	15	93	1369	31
43	1240	15	94	1376	33
44	1242	15	95	1386	37
45	1244	15	96	1397	41
46	1246	15	97	1412	48
47	1247	15	98	1433	59
48	1249	15	99	1470	85
49	1251	15	100	1500	408
50	1252	15			

Table 7.4.12
2010 AIMS A Raw Score to Scale Score
Reading Grade 6

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	605	51	1252	16
1	1000	115	52	1254	16
2	1027	77	53	1256	16
3	1060	60	54	1258	16
4	1082	51	55	1260	16
5	1098	44	56	1261	16
6	1111	40	57	1263	16
7	1121	36	58	1265	16
8	1130	33	59	1267	16
9	1137	31	60	1269	17
10	1144	29	61	1271	17
11	1149	28	62	1273	17
12	1155	27	63	1275	17
13	1160	25	64	1277	17
14	1164	24	65	1279	17
15	1168	24	66	1282	17
16	1172	23	67	1284	17
17	1176	22	68	1286	18
18	1179	22	69	1288	18
19	1183	21	70	1291	18
20	1186	21	71	1293	18
21	1189	20	72	1295	19
22	1191	20	73	1298	19
23	1194	19	74	1300	19
24	1197	19	75	1303	19
25	1199	19	76	1306	20
26	1202	18	77	1309	20
27	1204	18	78	1312	20
28	1207	18	79	1315	21
29	1209	18	80	1318	21
30	1211	18	81	1321	22
31	1213	17	82	1325	22
32	1215	17	83	1328	23
33	1218	17	84	1332	23
34	1220	17	85	1336	24
35	1222	17	86	1341	25
36	1224	17	87	1345	26
37	1226	17	88	1350	27
38	1228	16	89	1356	28
39	1230	16	90	1361	29
40	1231	16	91	1368	31
41	1233	16	92	1375	33
42	1235	16	93	1383	35
43	1237	16	94	1393	38
44	1239	16	95	1404	41
45	1241	16	96	1417	46
46	1243	16	97	1435	53
47	1245	16	98	1460	65
48	1246	16	99	1500	93
49	1248	16	100	1500	434
50	1250	16			

Table 7.4.13
2010 A AIMS A Raw Score to Scale Score
Reading Grade 7

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	577	51	1260	16
1	1000	111	52	1262	16
2	1044	73	53	1264	16
3	1075	57	54	1266	16
4	1095	48	55	1268	16
5	1110	42	56	1269	16
6	1122	37	57	1271	16
7	1132	34	58	1273	16
8	1140	31	59	1275	16
9	1147	29	60	1277	16
10	1153	28	61	1279	16
11	1159	26	62	1281	16
12	1164	25	63	1283	16
13	1168	24	64	1285	16
14	1173	23	65	1287	17
15	1177	23	66	1289	17
16	1180	22	67	1292	17
17	1184	21	68	1294	17
18	1187	21	69	1296	17
19	1190	20	70	1298	17
20	1193	20	71	1301	17
21	1196	19	72	1303	18
22	1199	19	73	1305	18
23	1202	19	74	1308	18
24	1204	18	75	1310	18
25	1207	18	76	1313	19
26	1209	18	77	1316	19
27	1212	18	78	1318	19
28	1214	17	79	1321	20
29	1216	17	80	1324	20
30	1219	17	81	1327	20
31	1221	17	82	1330	21
32	1223	17	83	1334	21
33	1225	17	84	1337	22
34	1227	17	85	1341	22
35	1229	16	86	1345	23
36	1231	16	87	1349	24
37	1233	16	88	1353	25
38	1235	16	89	1358	26
39	1237	16	90	1363	27
40	1239	16	91	1369	28
41	1241	16	92	1375	29
42	1243	16	93	1382	31
43	1245	16	94	1390	34
44	1247	16	95	1400	37
45	1249	16	96	1411	41
46	1251	16	97	1426	48
47	1253	16	98	1448	59
48	1254	16	99	1486	86
49	1256	16	100	1500	409
50	1258	16			

Table 7.4.14
2010 AIMS A Raw Score to Scale Score
Reading Grade 8

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	435	51	1261	12
1	1046	83	52	1262	12
2	1090	55	53	1264	12
3	1114	43	54	1265	12
4	1129	36	55	1266	12
5	1140	32	56	1268	12
6	1149	28	57	1269	12
7	1157	26	58	1271	12
8	1163	24	59	1272	12
9	1168	23	60	1274	12
10	1173	22	61	1275	12
11	1178	21	62	1277	12
12	1182	20	63	1278	12
13	1186	19	64	1280	13
14	1189	18	65	1282	13
15	1192	18	66	1283	13
16	1195	17	67	1285	13
17	1198	17	68	1286	13
18	1201	16	69	1288	13
19	1204	16	70	1290	13
20	1206	16	71	1291	13
21	1209	15	72	1293	13
22	1211	15	73	1295	13
23	1213	15	74	1297	14
24	1215	15	75	1299	14
25	1217	14	76	1301	14
26	1219	14	77	1303	14
27	1221	14	78	1305	14
28	1223	14	79	1307	15
29	1225	14	80	1309	15
30	1227	14	81	1311	15
31	1229	13	82	1314	16
32	1231	13	83	1316	16
33	1233	13	84	1319	16
34	1234	13	85	1322	17
35	1236	13	86	1325	17
36	1238	13	87	1328	18
37	1239	13	88	1331	19
38	1241	13	89	1335	19
39	1242	13	90	1338	20
40	1244	13	91	1343	21
41	1246	12	92	1347	22
42	1247	12	93	1353	24
43	1249	12	94	1359	26
44	1250	12	95	1366	28
45	1252	12	96	1375	32
46	1253	12	97	1387	37
47	1255	12	98	1403	46
48	1256	12	99	1433	66
49	1258	12	100	1500	312
50	1259	12			

Table 7.4.15
2010 AIMS A Raw Score to Scale Score
Reading High School

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	430	51	1257	12
1	1064	79	52	1258	12
2	1104	52	53	1260	12
3	1125	40	54	1261	12
4	1138	34	55	1263	12
5	1148	30	56	1264	12
6	1156	27	57	1265	12
7	1163	25	58	1267	12
8	1169	23	59	1268	12
9	1174	22	60	1270	12
10	1178	20	61	1271	12
11	1182	20	62	1272	12
12	1186	19	63	1274	12
13	1189	18	64	1275	12
14	1192	17	65	1277	12
15	1195	17	66	1278	12
16	1198	16	67	1280	13
17	1201	16	68	1282	13
18	1203	16	69	1283	13
19	1205	15	70	1285	13
20	1208	15	71	1286	13
21	1210	15	72	1288	13
22	1212	14	73	1290	13
23	1214	14	74	1292	14
24	1216	14	75	1294	14
25	1218	14	76	1296	14
26	1220	13	77	1297	14
27	1222	13	78	1300	14
28	1223	13	79	1302	15
29	1225	13	80	1304	15
30	1227	13	81	1306	15
31	1228	13	82	1308	16
32	1230	13	83	1311	16
33	1231	12	84	1314	16
34	1233	12	85	1316	17
35	1235	12	86	1319	17
36	1236	12	87	1322	18
37	1237	12	88	1326	19
38	1239	12	89	1329	19
39	1240	12	90	1333	20
40	1242	12	91	1338	21
41	1243	12	92	1343	23
42	1245	12	93	1348	24
43	1246	12	94	1354	26
44	1247	12	95	1362	28
45	1249	12	96	1371	32
46	1250	12	97	1382	37
47	1252	12	98	1399	46
48	1253	12	99	1428	66
49	1254	12	100	1500	311
50	1256	12			

Table 7.4.16
2010 AIMS A Raw Score to Scale Score
Science Grade 4

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	440	51	1256	12
1	1057	84	52	1257	12
2	1101	54	53	1259	12
3	1123	41	54	1260	12
4	1138	35	55	1261	12
5	1148	30	56	1263	12
6	1156	27	57	1264	12
7	1163	25	58	1266	12
8	1168	23	59	1267	12
9	1173	22	60	1268	12
10	1178	20	61	1270	12
11	1182	19	62	1271	12
12	1185	19	63	1273	12
13	1189	18	64	1274	12
14	1192	17	65	1276	12
15	1195	17	66	1277	12
16	1197	16	67	1279	12
17	1200	16	68	1280	13
18	1203	15	69	1282	13
19	1205	15	70	1284	13
20	1207	15	71	1285	13
21	1209	15	72	1287	13
22	1211	14	73	1289	13
23	1213	14	74	1290	13
24	1215	14	75	1292	14
25	1217	14	76	1294	14
26	1219	13	77	1296	14
27	1221	13	78	1298	14
28	1222	13	79	1300	15
29	1224	13	80	1302	15
30	1226	13	81	1305	15
31	1227	13	82	1307	15
32	1229	13	83	1309	16
33	1230	12	84	1312	16
34	1232	12	85	1315	17
35	1234	12	86	1317	17
36	1235	12	87	1321	18
37	1236	12	88	1324	18
38	1238	12	89	1327	19
39	1239	12	90	1331	20
40	1241	12	91	1335	21
41	1242	12	92	1340	22
42	1244	12	93	1345	24
43	1245	12	94	1351	26
44	1246	12	95	1359	28
45	1248	12	96	1368	32
46	1249	12	97	1379	37
47	1250	12	98	1396	45
48	1252	12	99	1425	66
49	1253	12	100	1500	312
50	1255	12			

Table 7.4.17
2010 AIMS A Raw Score to Scale Score
Science Grade 8

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	364	51	1258	10
1	1069	71	52	1259	10
2	1108	47	53	1260	10
3	1129	37	54	1261	10
4	1143	32	55	1262	10
5	1154	28	56	1263	10
6	1162	25	57	1265	10
7	1169	23	58	1266	10
8	1175	21	59	1267	10
9	1180	20	60	1268	10
10	1185	19	61	1269	10
11	1189	18	62	1270	10
12	1192	17	63	1272	10
13	1196	16	64	1273	10
14	1199	16	65	1274	10
15	1202	15	66	1275	10
16	1204	15	67	1276	10
17	1207	14	68	1278	10
18	1209	14	69	1279	10
19	1212	14	70	1280	10
20	1214	13	71	1282	11
21	1216	13	72	1283	11
22	1218	13	73	1284	11
23	1220	12	74	1286	11
24	1221	12	75	1287	11
25	1223	12	76	1289	11
26	1225	12	77	1290	11
27	1226	12	78	1292	11
28	1228	11	79	1293	12
29	1230	11	80	1295	12
30	1231	11	81	1297	12
31	1233	11	82	1298	12
32	1234	11	83	1300	13
33	1235	11	84	1302	13
34	1237	11	85	1304	13
35	1238	11	86	1306	14
36	1239	10	87	1309	14
37	1241	10	88	1311	15
38	1242	10	89	1314	15
39	1243	10	90	1317	16
40	1245	10	91	1320	17
41	1246	10	92	1324	18
42	1247	10	93	1328	19
43	1248	10	94	1332	21
44	1249	10	95	1338	23
45	1251	10	96	1345	25
46	1252	10	97	1354	29
47	1253	10	98	1366	37
48	1254	10	99	1389	53
49	1255	10	100	1500	258
50	1256	10			

Table 7.4.18
2010 AIMS A Raw Score to Scale Score
Science Grade 10

Raw Score	Scale Score	SEM	Raw Score	Scale Score	SEM
0	1000	325	55	1263	9
1	1103	60	56	1264	9
2	1134	40	57	1265	9
3	1151	32	58	1266	9
4	1162	27	59	1267	9
5	1170	23	60	1268	9
6	1177	21	61	1269	9
7	1182	19	62	1270	9
8	1187	18	63	1271	9
9	1191	17	64	1273	9
10	1194	16	65	1274	9
11	1198	15	66	1275	9
12	1201	15	67	1276	10
13	1203	14	68	1277	10
14	1206	14	69	1279	10
15	1208	13	70	1280	10
16	1211	13	71	1281	10
17	1213	13	72	1282	10
18	1215	12	73	1284	10
19	1217	12	74	1285	10
20	1219	12	75	1286	10
21	1220	11	76	1288	10
22	1222	11	77	1289	11
23	1224	11	78	1291	11
24	1225	11	79	1292	11
25	1227	11	80	1294	11
26	1228	11	81	1296	11
27	1230	10	82	1297	12
28	1231	10	83	1299	12
29	1233	10	84	1301	12
30	1234	10	85	1303	12
31	1235	10	86	1305	13
32	1237	10	87	1307	13
33	1238	10	88	1310	14
34	1239	10	89	1312	14
35	1240	10	90	1315	15
36	1241	10	91	1318	16
37	1243	9	92	1322	17
38	1244	9	93	1326	18
39	1245	9	94	1330	19
40	1246	9	95	1336	21
41	1247	9	96	1342	24
42	1248	9	97	1351	28
43	1250	9	98	1363	34
44	1251	9	99	1385	49
45	1252	9	100	1489	236
46	1253	9			
47	1254	9			
48	1255	9			
49	1256	9			
50	1257	9			
51	1258	9			
52	1259	9			
53	1260	9			
54	1262	9			

Part 8: Test Results

8.1 Data

Part 8 of this Technical Report contains information about the results of the 2010 spring administration of AIMS A. This section provides information on the scores from the AIMS A assessments. The AERA/APA/NCME standards addressed in Part 8 include: 1.5, 4.3, 4.5, 4.6, 4.7, 6.35, 7.1, 7.10, 13.15, and 13.19.

Results presented 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 A assessments and should not be used for state accountability purposes.

8.1.1 AIMS A State Test Results

The AIMS A test results for Mathematics, Reading, and Science are each on a scale for Grades 3-8 and High School that runs from a lowest obtainable scale score (LOSS) of 1000 to a highest obtainable scale score (HOSS) of 1500. The LOSS and HOSS values for each grade/subject can be found in Table 8.1.1.1.

Test results for each grade level and content area test follow in Tables 8.1.1.2 through 8.1.1.4. 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 8.1.1.4, scale score frequency distributions are also presented in Tables 8.1.1.5 through 8.1.1.22. Each grade and content area is presented in a separate table. These tables show the raw score, scale score, frequency (FREQ), percent, and cumulative percentage (Cuml Pct).

Table 8.1.1.1
2010 AIMS A LOSS and HOSS Table

Content	Grade	LOSS	HOSS
Mathematics	3	1000	1500
	4	1000	1500
	5	1000	1500
	6	1000	1500
	7	1000	1500
	8	1000	1500
	9	1000	1500
	HS	1000	1500
	Reading	3	1000
4		1000	1500
5		1000	1500
6		1000	1500
7		1000	1500
8		1000	1500
HS		1000	1500
Science		4	1000
	8	1000	1500
	10	1000	1500

Table 8.1.1.2
2010 AIMS A State Test Results
Mathematics Grades 3-8 and High School

	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 3									
Total	866	1191.02	304.59	7%	15%	54%	17%	6%	1%
Ethnic Background									
White	332	1195.75	298.29	6%	14%	56%	17%	6%	1%
Black	75	1147.65	369.61	8%	20%	49%	13%	9%	0%
Hispanic	395	1195.96	294.28	7%	16%	54%	17%	6%	1%
American Indian	43	1207.51	267.51	2%	19%	63%	12%	5%	0%
Asian	21	1145.38	374.41	14%	10%	33%	33%	10%	0%
Gender									
Male	559	1211.94	270.70	5%	15%	54%	20%	5%	1%
Female	307	1153.07	354.41	10%	16%	55%	11%	8%	0%
Need									
Autism	233	1236.81	205.52	8%	17%	51%	21%	3%	1%
ED	10	1282.90	10.51	0%	0%	80%	20%	0%	0%
EDP	4	1272.75	13.37	0%	0%	100%	0%	0%	0%
HI	6	1254.67	38.02	17%	33%	50%	17%	0%	0%
MD	14	1070.23	456.58	0%	21%	57%	0%	14%	7%
MDSSI	47	662.04	608.58	23%	11%	19%	0%	45%	2%
MIMR	267	1274.54	83.56	1%	8%	67%	23%	0%	0%
MOMR	113	1252.71	26.83	8%	32%	57%	4%	0%	0%
OHI	20	1287.45	22.09	0%	10%	50%	40%	0%	0%
OI	80	1072.51	432.04	16%	19%	43%	9%	14%	0%
SLD	37	1292.62	14.57	0%	0%	62%	38%	0%	0%
SLI	8	1289.50	12.99	0%	0%	75%	25%	0%	0%
SMR	23	642.91	615.93	17%	26%	9%	0%	48%	0%
VI	4	1220.50	45.83	25%	50%	25%	0%	0%	0%
SES									
Free/Reduced Lunch	561	1225.09	238.92	5%	15%	57%	19%	4%	0%
No Lunch Assistance	305	1127.62	391.66	10%	15%	49%	14%	10%	1%
Migrant									
Non-Migrant	862	1190.58	305.23	15%	17%	7%	1%	54%	6%
Migrant	4	1284.75	17.44	0%	25%	0%	0%	75%	0%

Note: FFBS=Falls Far Below the Standard; AS=Approaches the Standard; MS=Meets the Standard; ES=Exceeds the Standard. These results are not final results and are presented here for purposes of addressing reliability and validity. They should not be used for accountability purposes. (Table continued.)

	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 4									
Total	851	1199.28	297.70	7%	14%	52%	21%	6%	0%
Ethnic Background									
White	332	1204.37	285.49	8%	16%	49%	22%	5%	1%
Black	60	1169.33	358.39	5%	8%	57%	22%	8%	0%
Hispanic	364	1188.87	312.91	8%	13%	55%	17%	6%	0%
American Indian	69	1229.70	266.03	3%	14%	45%	33%	4%	0%
Asian	26	1271.16	36.16	4%	23%	46%	23%	0%	4%
Gender									
Male	524	1193.77	308.31	7%	13%	52%	21%	6%	0%
Female	325	1208.21	279.87	8%	15%	52%	20%	5%	1%
Need									
Autism	182	1263.25	106.95	9%	16%	51%	23%	1%	1%
ED	10	1304.70	41.71	0%	10%	50%	40%	0%	0%
EDP	7	1273.14	13.87	0%	0%	100%	0%	0%	0%
HI	6	1233.50	117.65	17%	17%	50%	17%	0%	0%
MD	19	1133.89	406.10	5%	16%	37%	32%	11%	0%
MDSSI	55	903.55	548.30	24%	22%	25%	0%	25%	4%
MIMR	304	1286.90	28.51	1%	8%	62%	29%	0%	0%
MOMR	109	1218.52	208.02	12%	24%	60%	2%	3%	0%
OHI	23	1233.57	272.14	4%	13%	39%	39%	4%	0%
OI	72	1028.44	470.74	18%	21%	40%	3%	17%	1%
SLD	28	1309.50	25.37	0%	0%	36%	64%	0%	0%
SLI	5	1296.20	20.71	0%	0%	60%	40%	0%	0%
SMR	25	482.76	605.33	8%	20%	12%	0%	60%	0%
VI	5	1287.40	29.80	0%	0%	60%	40%	0%	0%
Other	1	1264.00	0.00	0%	0%	100%	0%	0%	0%
SES									
Free/Reduced Lunch	524	1231.61	238.11	7%	12%	52%	25%	3%	1%
No Lunch Assistance	327	1147.60	368.28	8%	17%	51%	14%	9%	0%
Migrant									
Non-Migrant	849	1199.11	298.03	7%	14%	52%	21%	6%	0%
Migrant	2	1271.00	22.63	0%	0%	100%	0%	0%	0%

Note: FFBS=Falls Far Below the Standard; AS=Approaches the Standard; MS=Meets the Standard; ES=Exceeds the Standard. These results are not final results and are presented here for purposes of addressing reliability and validity. They should not be used for accountability purposes. (Table continued.)

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 5									
Total	903	1166.53	337.06	7%	15%	63%	6%	8%	1%
Ethnic Background									
White	395	1160.85	344.24	16%	7%	7%	1%	62%	8%
Black	65	1168.22	340.88	15%	8%	6%	0%	63%	8%
Hispanic	358	1177.50	319.68	13%	6%	8%	1%	65%	7%
American Indian	60	1180.70	319.68	20%	7%	5%	0%	62%	7%
Asian	25	1055.96	482.91	8%	8%	4%	4%	60%	16%
Gender									
Male	573	1179.08	318.67	14%	6%	6%	1%	65%	7%
Female	330	1144.83	366.18	15%	7%	9%	1%	59%	9%
Need									
Autism	217	1205.80	255.80	7%	22%	62%	4%	4%	1%
ED	8	1285.75	8.07	0%	0%	100%	0%	0%	0%
EDP	7	1262.29	14.29	0%	14%	86%	0%	0%	0%
HI	1	1266.00	0.00	0%	0%	100%	0%	0%	0%
MD	11	1263.64	20.37	0%	27%	73%	0%	0%	0%
MDSSI	72	748.24	600.12	19%	15%	25%	0%	38%	3%
MIMR	294	1274.85	77.67	0%	7%	80%	13%	0%	0%
MOMR	125	1240.65	115.20	10%	26%	64%	0%	1%	0%
OHI	23	1272.09	23.25	4%	4%	87%	4%	0%	0%
OI	75	1006.66	492.40	19%	20%	39%	3%	19%	1%
SLD	34	1292.76	22.85	0%	0%	71%	29%	0%	0%
SLI	3	1285.00	11.14	0%	0%	100%	0%	0%	0%
SMR	28	472.78	583.45	29%	11%	0%	0%	57%	4%
VI	5	1279.40	18.62	0%	0%	100%	0%	0%	0%
SES									
Free/Reduced Lunch	554	1211.08	261.81	13%	8%	7%	1%	67%	4%
No Lunch Assistance	349	1095.83	421.13	18%	4%	8%	1%	57%	13%
Migrant									
Non-Migrant	899	1166.05	337.74	15%	6%	7%	1%	63%	8%
Migrant	4	1272.75	10.97	0%	0%	0%	0%	100%	0%

Note: FFBS=Falls Far Below the Standard; AS=Approaches the Standard; MS=Meets the Standard; ES=Exceeds the Standard. These results are not final results and are presented here for purposes of addressing reliability and validity. They should not be used for accountability purposes. (Table continued.)

	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 6									
Total	876	1193.11	298.00	4%	28%	50%	12%	6%	0%
Ethnic Background									
White	331	1168.64	337.73	4%	29%	49%	11%	8%	0%
Black	66	1220.05	273.09	3%	24%	53%	15%	5%	0%
Hispanic	376	1212.17	260.58	5%	27%	52%	12%	4%	0%
American Indian	79	1184.21	316.56	4%	33%	41%	15%	6%	1%
Asian	24	1186.96	260.21	8%	33%	54%	0%	4%	0%
Gender									
Male	544	1195.08	298.37	3%	27%	50%	13%	6%	0%
Female	332	1189.90	297.81	6%	30%	49%	9%	6%	0%
Need									
Autism	174	1234.93	170.53	5%	39%	47%	8%	2%	0%
ED	9	1301.44	30.43	0%	0%	67%	33%	0%	0%
EDP	5	1276.60	17.74	0%	20%	80%	0%	0%	0%
HI	2	1248.50	27.58	0%	50%	50%	0%	0%	0%
MD	14	1257.14	57.61	14%	21%	50%	14%	0%	0%
MDSSI	47	820.98	571.05	19%	34%	15%	0%	32%	0%
MIMR	307	1286.53	41.50	0%	16%	66%	18%	0%	0%
MOMR	146	1211.54	207.25	5%	45%	47%	1%	3%	0%
OHI	20	1287.50	49.12	5%	15%	50%	30%	0%	0%
OI	90	1076.13	430.48	7%	40%	32%	7%	13%	1%
SLD	29	1312.66	24.44	0%	0%	59%	41%	0%	0%
SLI	1	1280.00	0.00	0%	0%	100%	0%	0%	0%
SMR	27	486.48	598.25	19%	22%	0%	0%	59%	0%
VI	5	1291.80	30.65	0%	0%	60%	40%	0%	0%
SES									
Free/Reduced Lunch	544	1218.65	255.11	4%	26%	52%	13%	4%	0%
No Lunch Assistance	331	1151.17	354.46	5%	32%	46%	9%	8%	0%
Migrant									
Non-Migrant	869	1197.13	290.80	28%	12%	4%	0%	50%	5%
Migrant	6	619.83	679.40	17%	0%	0%	0%	33%	50%

Note: FFBS=Falls Far Below the Standard; AS=Approaches the Standard; MS=Meets the Standard; ES=Exceeds the Standard. These results are not final results and are presented here for purposes of addressing reliability and validity. They should not be used for accountability purposes. (Table continued.)

	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 7									
Total	801	1197.17	313.32	2%	19%	57%	15%	6%	0%
Ethnic Background									
White	323	1204.14	306.66	2%	20%	55%	17%	6%	1%
Black	61	1212.44	281.40	5%	16%	61%	13%	5%	0%
Hispanic	341	1183.56	329.80	3%	19%	59%	12%	7%	0%
American Indian	58	1266.45	174.26	0%	17%	53%	28%	2%	0%
Asian	18	1055.56	488.75	6%	17%	50%	11%	17%	0%
Gender									
Male	506	1197.46	315.71	2%	19%	56%	16%	6%	1%
Female	295	1196.68	309.73	3%	19%	59%	14%	6%	0%
Need									
Autism	149	1233.98	235.71	1%	30%	50%	15%	3%	0%
ED	11	1303.91	22.54	0%	0%	82%	18%	0%	0%
EDP	5	1318.60	20.61	0%	0%	40%	60%	0%	0%
HI	1	1252.00	0.00	0%	0%	100%	0%	0%	0%
MD	22	1287.68	31.00	0%	5%	82%	14%	0%	0%
MDSSI	54	669.09	615.85	7%	24%	20%	2%	44%	2%
MIMR	252	1294.76	29.60	0%	3%	74%	23%	0%	0%
MOMR	125	1222.56	197.23	2%	41%	51%	2%	2%	1%
OHI	23	1307.35	35.34	0%	0%	65%	35%	0%	0%
OI	80	1078.32	439.57	8%	26%	48%	4%	14%	1%
SLD	48	1312.81	41.44	0%	2%	56%	42%	0%	0%
SLI	3	1297.67	3.51	0%	0%	100%	0%	0%	0%
SMR	23	836.13	566.64	22%	39%	9%	0%	30%	0%
VI	5	1265.80	25.83	0%	40%	60%	0%	0%	0%
SES									
Free/Reduced Lunch	487	1218.47	282.05	2%	16%	59%	18%	5%	0%
No Lunch Assistance	313	1163.52	355.19	3%	23%	53%	12%	8%	1%
Migrant									
Non-Migrant	794	1198.10	311.73	2%	19%	57%	15%	6%	1%
Migrant	6	1061.17	520.38	0%	17%	67%	0%	17%	0%

Note: FFBS=Falls Far Below the Standard; AS=Approaches the Standard; MS=Meets the Standard; ES=Exceeds the Standard. These results are not final results and are presented here for purposes of addressing reliability and validity. They should not be used for accountability purposes. (Table continued.)

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 8									
Total	856	1197.10	296.44	5%	17%	54%	18%	6%	0%
Ethnic Background									
White	340	1180.22	323.07	6%	18%	53%	17%	7%	0%
Black	69	1197.78	302.88	3%	17%	58%	16%	6%	0%
Hispanic	358	1198.18	295.37	4%	17%	55%	18%	6%	0%
American Indian	64	1250.37	172.53	9%	16%	52%	20%	2%	2%
Asian	25	1274.64	32.65	4%	8%	64%	24%	0%	0%
Gender									
Male	523	1202.58	285.61	6%	18%	54%	17%	5%	0%
Female	333	1188.50	312.96	4%	17%	55%	18%	6%	0%
Need									
Autism	143	1161.18	341.36	6%	23%	52%	11%	8%	1%
ED	15	1312.53	56.29	0%	0%	53%	47%	0%	0%
EDP	6	1278.17	33.97	0%	17%	67%	17%	0%	0%
HI	4	1272.50	25.05	0%	0%	100%	0%	0%	0%
MD	28	1274.82	64.58	4%	14%	54%	29%	0%	0%
MDSSI	64	835.19	570.76	17%	30%	19%	3%	31%	0%
MIMR	287	1290.12	28.23	0%	4%	69%	27%	0%	0%
MOMR	146	1218.15	207.95	6%	30%	58%	3%	3%	0%
OHI	22	1286.86	37.38	5%	5%	50%	41%	0%	0%
OI	85	1123.11	370.28	11%	32%	42%	5%	9%	1%
SLD	31	1308.77	29.69	0%	0%	48%	52%	0%	0%
SLI	2	1320.50	3.54	0%	0%	0%	100%	0%	0%
SMR	20	895.25	534.77	25%	30%	20%	0%	25%	0%
VI	2	1356.00	4.24	0%	0%	100%	0%	0%	0%
Other	1	1250.00	0.00	0%	0%	100%	0%	0%	0%
SES									
Free/Reduced Lunch	505	1222.09	258.94	4%	15%	56%	21%	4%	0%
No Lunch Assistance	351	1161.13	340.52	7%	20%	52%	13%	8%	0%
Migrant									
Non-Migrant	851	1196.85	297.27	5%	17%	55%	18%	6%	0%
Migrant	5	1240.20	60.50	20%	40%	20%	20%	0%	0%

Note: FFBS=Falls Far Below the Standard; AS=Approaches the Standard; MS=Meets the Standard; ES=Exceeds the Standard. These results are not final results and are presented here for purposes of addressing reliability and validity. They should not be used for accountability purposes. (Table continued.)

	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade HS									
Total	1301	1206.36	289.22	5%	20%	61%	8%	5%	1%
Ethnic Background									
White	596	1212.48	275.95	5%	21%	60%	8%	5%	1%
Black	115	1193.49	331.13	1%	18%	64%	10%	7%	0%
Hispanic	465	1203.93	293.05	6%	20%	61%	7%	5%	1%
American Indian	107	1198.31	299.06	6%	19%	62%	7%	6%	2%
Asian	18	1197.44	300.79	6%	22%	67%	0%	6%	0%
Gender									
Male	763	1219.18	269.50	5%	20%	61%	9%	4%	1%
Female	538	1188.14	314.51	6%	21%	60%	6%	6%	1%
Need									
Autism	205	1220.83	238.71	8%	28%	51%	9%	3%	1%
ED	26	1301.65	32.43	0%	0%	85%	15%	0%	0%
EDP	26	1283.46	26.34	0%	15%	85%	0%	0%	0%
HI	5	1294.60	95.99	20%	20%	20%	40%	0%	0%
MD	43	1287.60	49.40	0%	23%	67%	9%	0%	0%
MDSSI	71	859.08	564.37	14%	32%	23%	1%	30%	0%
MIMR	424	1292.27	76.56	1%	7%	79%	12%	0%	1%
MOMR	251	1226.28	178.56	5%	41%	51%	1%	2%	0%
OHI	25	1239.92	260.04	0%	8%	80%	8%	4%	0%
OI	115	1035.00	479.02	8%	23%	51%	1%	17%	0%
SLD	63	1313.60	29.35	0%	0%	71%	27%	0%	2%
SLI	3	1274.00	0.00	0%	0%	100%	0%	0%	0%
SMR	39	769.62	576.02	38%	15%	8%	0%	33%	5%
VI	4	1289.00	22.14	0%	0%	100%	0%	0%	0%
Other	1	1295.00	0.00	0%	0%	100%	0%	0%	0%
SES									
Free/Reduced Lunch	708	1222.81	263.65	5%	19%	63%	9%	4%	1%
No Lunch Assistance	593	1186.71	316.20	6%	22%	58%	7%	6%	1%
Migrant									
Non-Migrant	1293	1206.19	289.97	5%	20%	61%	8%	5%	1%
Migrant	8	1237.71	61.03	25%	38%	25%	0%	0%	13%

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Table 8.1.1.3
2010 AIMS A State Test Results
Reading Grades 3-8 and High School

	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 3									
Total	866	1201.89	279.50	7%	17%	53%	18%	5%	1%
Ethnic Background									
White	332	1221.83	233.42	8%	16%	55%	17%	3%	1%
Black	75	1134.55	396.49	4%	21%	47%	17%	11%	0%
Hispanic	395	1201.41	281.75	8%	15%	51%	20%	5%	1%
American Indian	43	1205.70	270.48	2%	21%	63%	9%	5%	0%
Asian	21	1131.24	381.59	14%	19%	43%	14%	10%	0%
Gender									
Male	559	1217.88	250.90	16%	19%	6%	1%	54%	4%
Female	307	1172.89	323.46	17%	16%	9%	0%	51%	7%
Need									
Autism	233	1244.51	149.10	9%	24%	53%	12%	1%	1%
ED	10	1285.70	19.02	0%	0%	70%	30%	0%	0%
EDP	4	1273.25	25.06	0%	25%	50%	25%	0%	0%
HI	6	1256.33	24.30	17%	17%	67%	0%	0%	0%
MD	14	1149.31	353.64	7%	14%	57%	7%	7%	7%
MDSSI	47	820.17	554.93	36%	13%	19%	0%	30%	2%
MIMR	267	1278.76	84.55	0%	7%	62%	30%	0%	0%
MOMR	113	1252.74	23.58	9%	30%	56%	5%	0%	0%
OHI	20	1290.10	22.51	0%	5%	50%	45%	0%	0%
OI	80	1049.45	467.74	11%	19%	48%	6%	16%	0%
SLD	37	1293.27	19.93	0%	0%	46%	54%	0%	0%
SLI	8	1289.13	17.65	0%	0%	63%	38%	0%	0%
SMR	23	637.74	625.08	17%	26%	9%	0%	48%	0%
VI	4	1223.00	43.41	0%	50%	25%	25%	0%	0%
SES									
Free/Reduced Lunch	561	1227.67	234.04	6%	15%	54%	22%	3%	0%
No Lunch Assistance	305	1153.93	344.00	11%	20%	50%	10%	8%	1%
Migrant									
Non-Migrant	862	1201.46	280.08	17%	18%	7%	1%	53%	5%
Migrant	4	1294.25	11.18	0%	50%	0%	0%	50%	0%

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2010 AIMS A Technical Report

	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 4									
Total	851	1209.49	306.28	4%	15%	60%	14%	6%	0%
Ethnic Background									
White	332	1210.17	306.61	4%	19%	55%	15%	6%	1%
Black	60	1189.73	363.76	0%	10%	67%	15%	8%	0%
Hispanic	364	1201.45	312.41	6%	12%	63%	12%	6%	0%
American Indian	69	1239.96	269.53	0%	13%	59%	23%	4%	0%
Asian	26	1280.60	69.87	4%	27%	50%	15%	0%	4%
Gender									
Male	526	1206.36	308.77	4%	17%	58%	15%	6%	0%
Female	325	1214.57	302.61	5%	13%	62%	14%	6%	1%
Need									
Autism	182	1262.13	147.43	6%	23%	55%	14%	1%	1%
ED	10	1341.50	70.54	0%	0%	60%	40%	0%	0%
EDP	7	1286.57	34.48	0%	14%	86%	0%	0%	0%
HI	6	1265.17	46.59	0%	33%	67%	0%	0%	0%
MD	19	1140.05	410.04	5%	21%	58%	5%	11%	0%
MDSSI	55	876.15	558.94	13%	25%	29%	2%	27%	4%
MIMR	304	1306.46	48.89	0%	6%	74%	20%	0%	0%
MOMR	109	1239.39	176.46	6%	22%	66%	5%	2%	0%
OHI	23	1245.70	278.24	0%	17%	52%	26%	4%	0%
OI	72	1029.86	472.10	11%	24%	46%	1%	17%	1%
SLD	28	1343.21	51.85	0%	0%	43%	57%	0%	0%
SLI	5	1306.00	32.21	0%	0%	80%	20%	0%	0%
SMR	25	476.92	599.67	12%	16%	12%	0%	60%	0%
VI	5	1298.40	51.40	0%	0%	80%	20%	0%	0%
Other	1	1301.00	0.00	0%	0%	100%	0%	0%	0%
SES									
Free/Reduced Lunch	524	1247.81	239.06	5%	11%	62%	18%	3%	1%
No Lunch Assistance	327	1148.26	382.94	3%	22%	56%	9%	10%	0%
Migrant									
Non-Migrant	849	1209.36	306.63	4%	15%	60%	14%	6%	0%
Migrant	2	1264.50	14.85	0%	0%	100%	0%	0%	0%

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2010 AIMS A Technical Report

	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 5									
Total	903	1179.15	341.22	4%	23%	49%	15%	7%	1%
Ethnic Background									
White	395	1171.43	355.70	22%	14%	4%	1%	50%	8%
Black	65	1193.69	313.92	26%	18%	3%	0%	46%	6%
Hispanic	358	1190.50	320.00	24%	15%	5%	1%	49%	6%
American Indian	60	1188.78	326.67	23%	20%	7%	0%	43%	7%
Asian	25	1072.63	491.71	24%	20%	0%	4%	36%	16%
Gender									
Male	573	1191.01	324.97	23%	16%	3%	1%	50%	7%
Female	330	1158.63	367.24	23%	15%	6%	1%	47%	9%
Need									
Autism	217	1214.19	261.55	2%	38%	41%	13%	4%	1%
ED	8	1338.13	34.98	0%	0%	38%	63%	0%	0%
EDP	7	1278.29	46.54	0%	29%	57%	14%	0%	0%
HI	1	1259.00	0.00	0%	0%	100%	0%	0%	0%
MD	11	1270.55	56.52	0%	36%	45%	18%	0%	0%
MDSSI	72	756.91	589.14	18%	25%	18%	0%	36%	3%
MIMR	294	1299.74	48.24	1%	10%	64%	25%	0%	0%
MOMR	125	1252.86	50.42	6%	33%	59%	2%	0%	0%
OHI	23	1295.83	65.59	0%	30%	52%	17%	0%	0%
OI	75	992.85	509.21	8%	27%	33%	11%	20%	1%
SLD	34	1318.62	31.33	0%	0%	71%	29%	0%	0%
SLI	3	1325.00	8.54	0%	0%	67%	33%	0%	0%
SMR	28	426.37	568.66	18%	18%	0%	0%	61%	4%
VI	5	1320.00	28.57	0%	0%	60%	40%	0%	0%
SES									
Free/Reduced Lunch	554	1229.23	258.92	22%	19%	4%	1%	51%	4%
No Lunch Assistance	349	1099.67	430.01	26%	10%	5%	1%	46%	13%
Migrant									
Non-Migrant	899	1178.71	341.91	23%	15%	4%	1%	49%	7%
Migrant	4	1276.75	53.32	25%	25%	0%	0%	50%	0%

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 6									
Total	876	1210.83	309.70	3%	27%	43%	22%	6%	0%
Ethnic Background									
White	331	1192.12	341.39	2%	30%	39%	22%	7%	0%
Black	66	1244.89	284.83	2%	15%	25%	21%	3%	0%
Hispanic	376	1226.58	276.40	3%	26%	47%	20%	5%	0%
American Indian	79	1201.10	323.61	4%	27%	35%	27%	6%	1%
Asian	24	1160.29	362.87	8%	21%	54%	8%	8%	0%
Gender									
Male	544	1213.68	312.03	2%	25%	43%	23%	6%	0%
Female	332	1206.18	306.27	3%	30%	41%	20%	6%	0%
Need									
Autism	174	1255.92	151.53	2%	36%	47%	14%	1%	0%
ED	9	1333.11	27.20	0%	0%	44%	56%	0%	0%
EDP	5	1290.40	42.49	0%	20%	80%	0%	0%	0%
HI	2	1274.00	94.75	0%	50%	0%	50%	0%	0%
MD	14	1264.00	57.80	7%	29%	50%	14%	0%	0%
MDSSI	47	849.89	563.21	15%	34%	19%	2%	30%	0%
MIMR	307	1320.16	63.37	0%	11%	51%	38%	0%	0%
MOMR	146	1197.59	253.34	4%	45%	43%	3%	4%	0%
OHI	20	1327.35	76.37	0%	15%	45%	40%	0%	0%
OI	90	1059.01	464.54	2%	42%	31%	8%	16%	1%
SLD	29	1359.07	51.20	0%	0%	34%	66%	0%	0%
SLI	1	1341.00	0.00	0%	0%	0%	100%	0%	0%
SMR	27	519.67	593.64	11%	33%	0%	0%	56%	0%
VI	5	1318.20	48.49	0%	20%	40%	40%	0%	0%
SES									
Free/Reduced Lunch	544	1237.94	269.99	2%	26%	42%	26%	4%	0%
No Lunch Assistance	331	1166.79	362.20	3%	29%	44%	15%	8%	0%
Migrant									
Non-Migrant	869	1214.07	305.27	27%	22%	2%	0%	43%	6%
Migrant	6	777.83	609.41	33%	0%	17%	0%	17%	33%

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 7									
Total	801	1208.53	307.53	3%	20%	47%	24%	6%	0%
Ethnic Background									
White	323	1228.91	279.65	2%	21%	41%	30%	5%	1%
Black	61	1219.97	284.68	5%	20%	51%	20%	5%	0%
Hispanic	341	1181.07	343.57	3%	21%	50%	19%	8%	0%
American Indian	58	1290.64	59.17	3%	12%	53%	31%	0%	0%
Asian	18	1061.50	490.05	6%	6%	61%	11%	17%	0%
Gender									
Male	506	1208.31	309.10	3%	20%	47%	24%	6%	1%
Female	295	1208.89	305.36	3%	20%	45%	25%	6%	0%
Need									
Autism	149	1238.55	238.08	2%	29%	41%	25%	3%	0%
ED	11	1324.73	38.92	0%	9%	36%	55%	0%	0%
EDP	5	1355.40	95.52	0%	0%	60%	40%	0%	0%
HI	1	1276.00	0.00	0%	0%	100%	0%	0%	0%
MD	22	1293.23	36.15	0%	9%	68%	23%	0%	0%
MDSSI	54	718.66	612.44	9%	30%	17%	2%	41%	2%
MIMR	252	1307.07	36.92	0%	7%	54%	38%	0%	0%
MOMR	125	1216.04	225.99	3%	37%	50%	6%	3%	1%
OHI	23	1318.70	38.44	0%	4%	35%	61%	0%	0%
OI	80	1110.59	405.64	5%	31%	44%	8%	11%	1%
SLD	48	1318.98	46.26	0%	2%	60%	38%	0%	0%
SLI	3	1311.67	16.62	0%	0%	67%	33%	0%	0%
SMR	23	822.52	559.84	30%	26%	13%	0%	30%	0%
VI	5	1278.40	32.27	0%	20%	80%	0%	0%	0%
SES									
Free/Reduced Lunch	487	1223.05	290.11	2%	17%	49%	26%	5%	0%
No Lunch Assistance	313	1185.50	332.64	4%	24%	42%	21%	7%	1%
Migrant									
Non-Migrant	794	1209.51	305.81	3%	20%	47%	24%	6%	1%
Migrant	6	1065.67	523.20	0%	17%	50%	17%	17%	0%

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 8									
Total	856	1222.90	290.87	5%	12%	40%	38%	5%	0%
Ethnic Background									
White	340	1211.47	309.90	6%	13%	39%	36%	6%	0%
Black	69	1251.00	225.87	6%	9%	38%	45%	3%	0%
Hispanic	358	1217.92	301.83	4%	11%	41%	38%	6%	0%
American Indian	64	1255.70	234.04	2%	13%	34%	47%	3%	2%
Asian	25	1288.92	37.21	4%	4%	60%	32%	0%	0%
Gender									
Male	523	1225.83	280.92	6%	11%	40%	38%	5%	0%
Female	333	1218.30	306.22	4%	12%	39%	39%	6%	0%
Need									
Autism	143	1182.49	331.39	6%	17%	44%	24%	7%	1%
ED	15	1335.20	56.55	0%	0%	33%	67%	0%	0%
EDP	6	1293.33	19.52	0%	0%	67%	33%	0%	0%
HI	4	1264.25	41.23	0%	25%	75%	0%	0%	0%
MD	28	1302.00	40.45	0%	7%	43%	50%	0%	0%
MDSSI	64	834.84	589.49	14%	22%	23%	8%	33%	0%
MIMR	287	1318.49	45.73	0%	1%	37%	62%	0%	0%
MOMR	146	1248.74	153.75	5%	22%	58%	14%	1%	0%
OHI	22	1316.77	55.24	5%	0%	32%	64%	0%	0%
OI	85	1169.45	331.47	12%	20%	36%	24%	7%	1%
SLD	31	1322.19	31.10	0%	0%	23%	77%	0%	0%
SLI	2	1338.50	28.99	0%	0%	0%	100%	0%	0%
SMR	20	899.85	538.72	25%	35%	10%	5%	25%	0%
VI	2	1429.50	99.70	0%	0%	0%	100%	0%	0%
Other	1	1265.00	0.00	0%	0%	100%	0%	0%	0%
SES									
Free/Reduced Lunch	505	1255.26	234.43	3%	10%	39%	43%	3%	0%
No Lunch Assistance	351	1176.30	351.97	7%	13%	40%	31%	8%	0%
Migrant									
Non-Migrant	851	1222.61	291.67	5%	12%	40%	38%	5%	0%
Migrant	5	1271.80	61.55	20%	20%	20%	40%	0%	0%

Note: FFBS=Falls Far Below the Standard; AS=Approaches the Standard; MS=Meets the Standard; ES=Exceeds the Standard. These results are not final results and are presented here for purposes of addressing reliability and validity. They should not be used for accountability purposes. (Table continued.)

	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade HS									
Total	1301	1244.05	291.38	4%	11%	47%	33%	5%	1%
Ethnic Background									
White	596	1249.79	278.30	4%	11%	47%	33%	4%	1%
Black	115	1244.23	326.44	3%	7%	42%	43%	6%	0%
Hispanic	465	1239.42	299.94	5%	11%	45%	33%	5%	1%
American Indian	107	1236.52	286.56	4%	10%	58%	21%	5%	2%
Asian	18	1217.44	308.77	6%	17%	39%	33%	6%	0%
Gender									
Male	763	1256.67	274.70	4%	11%	44%	36%	4%	1%
Female	538	1226.10	312.98	4%	11%	51%	28%	6%	1%
Need									
Autism	205	1255.06	214.13	9%	18%	41%	28%	2%	1%
ED	26	1342.54	57.17	0%	4%	50%	46%	0%	0%
EDP	26	1329.54	51.25	0%	0%	50%	50%	0%	0%
HI	5	1316.40	141.07	20%	0%	20%	60%	0%	0%
MD	43	1320.19	60.23	0%	12%	51%	37%	0%	0%
MDSSI	71	887.68	564.98	15%	17%	37%	3%	28%	0%
MIMR	424	1341.21	93.39	0%	2%	43%	53%	0%	1%
MOMR	251	1251.74	166.98	3%	19%	70%	6%	2%	0%
OHI	25	1282.48	271.94	0%	0%	44%	52%	4%	0%
OI	115	1056.93	490.43	5%	15%	44%	18%	17%	0%
SLD	63	1367.95	63.07	0%	0%	29%	70%	0%	2%
SLI	3	1308.00	18.36	0%	0%	67%	33%	0%	0%
SMR	39	814.92	574.29	18%	33%	13%	0%	31%	5%
VI	4	1338.25	41.56	0%	0%	25%	75%	0%	0%
Other	1	1349.00	0.00	0%	0%	0%	100%	0%	0%
SES									
Free/Reduced Lunch	708	1260.10	267.82	3%	10%	48%	34%	4%	1%
No Lunch Assistance	593	1224.87	316.43	5%	11%	46%	31%	6%	1%
Migrant									
Non-Migrant	1293	1243.90	292.14	4%	11%	47%	33%	5%	1%
Migrant	8	1271.71	62.60	0%	38%	25%	25%	0%	13%

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Table 8.1.1.4
2010 AIMS A State Test Results
Science Grades 4, 8, and 10

	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 4									
Total	851	1218.32	284.22	4%	19%	59%	14%	5%	0%
Ethnic Background									
White	332	1218.57	280.83	4%	20%	57%	14%	5%	1%
Black	60	1183.13	361.38	0%	17%	65%	10%	8%	0%
Hispanic	364	1216.19	285.45	5%	19%	59%	13%	5%	0%
American Indian	69	1240.70	270.19	0%	13%	64%	19%	4%	0%
Asian	26	1268.48	48.27	4%	31%	54%	8%	0%	4%
Gender									
Male	526	1217.00	283.64	4%	19%	60%	12%	5%	0%
Female	325	1220.46	285.59	3%	18%	57%	17%	5%	1%
Need									
Autism	182	1263.87	108.09	4%	26%	62%	8%	1%	1%
ED	10	1317.40	39.19	0%	0%	70%	30%	0%	0%
EDP	7	1302.43	33.57	0%	0%	86%	14%	0%	0%
HI	6	1266.33	47.09	0%	33%	67%	0%	0%	0%
MD	19	1154.95	414.03	5%	16%	42%	26%	11%	0%
MDSSI	55	921.62	533.43	11%	35%	27%	0%	24%	4%
MIMR	304	1307.49	46.14	0%	5%	72%	23%	0%	0%
MOMR	109	1237.81	173.99	2%	39%	55%	3%	2%	0%
OHI	23	1248.74	279.63	4%	9%	57%	26%	4%	0%
OI	72	1035.20	472.70	8%	32%	42%	0%	17%	1%
SLD	28	1325.57	28.91	0%	0%	54%	46%	0%	0%
SLI	5	1307.80	21.46	0%	0%	100%	0%	0%	0%
SMR	25	655.72	597.28	24%	24%	8%	0%	44%	0%
VI	5	1305.00	37.64	0%	20%	60%	20%	0%	0%
Other	1	1284.00	0.00	0%	0%	100%	0%	0%	0%
SES									
Free/Reduced Lunch	524	1251.03	223.68	3%	16%	60%	17%	3%	1%
No Lunch Assistance	327	1166.03	354.65	4%	23%	57%	7%	8%	0%
Migrant									
Non-Migrant	849	1218.19	284.55	4%	19%	59%	14%	5%	0%
Migrant	2	1271.50	10.61	0%	0%	100%	0%	0%	0%

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 8									
Total	856	1231.56	278.00	4%	17%	48%	26%	5%	0%
Ethnic Background									
White	340	1224.81	291.56	6%	17%	47%	25%	5%	0%
Black	69	1230.09	269.07	3%	13%	52%	28%	4%	0%
Hispanic	358	1227.92	282.16	3%	19%	48%	25%	5%	0%
American Indian	64	1264.27	240.45	0%	16%	47%	33%	3%	2%
Asian	25	1296.48	53.01	0%	12%	68%	20%	0%	0%
Gender									
Male	523	1238.22	263.06	4%	17%	48%	27%	4%	0%
Female	333	1221.10	300.05	3%	17%	50%	24%	5%	0%
Need									
Autism	143	1193.94	298.36	8%	25%	48%	13%	6%	1%
ED	15	1350.93	64.44	0%	0%	20%	80%	0%	0%
EDP	6	1318.67	89.56	0%	0%	83%	17%	0%	0%
HI	4	1268.00	25.10	0%	25%	75%	0%	0%	0%
MD	28	1300.57	50.53	0%	11%	61%	29%	0%	0%
MDSSI	64	885.19	561.24	14%	31%	22%	5%	28%	0%
MIMR	287	1322.32	60.11	0%	2%	55%	43%	0%	0%
MOMR	146	1237.41	184.85	1%	30%	60%	6%	2%	0%
OHI	22	1330.32	74.95	0%	9%	50%	41%	0%	0%
OI	85	1173.93	333.87	5%	34%	39%	13%	7%	2%
SLD	31	1349.97	78.16	0%	0%	35%	65%	0%	0%
SLI	2	1328.00	5.66	0%	0%	0%	100%	0%	0%
SMR	20	958.40	496.34	25%	40%	15%	0%	20%	0%
VI	2	1419.00	114.55	0%	0%	100%	0%	0%	0%
Other	1	1279.00	0.00	0%	0%	100%	0%	0%	0%
SES									
Free/Reduced Lunch	505	1258.85	230.36	2%	16%	48%	31%	3%	0%
No Lunch Assistance	351	1192.14	331.47	5%	20%	50%	18%	7%	1%
Migrant									
Non-Migrant	851	1231.13	278.65	4%	17%	48%	26%	5%	0%
Migrant	5	1304.00	114.57	0%	20%	60%	20%	0%	0%

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	N	Scale Score		% at Performance Level					
		M	SD	FFBS	AS	MS	ES	NR	INV
Grade 10									
Total	883	1227.16	255.90	3%	18%	59%	15%	4%	1%
Ethnic Background									
White	383	1224.64	254.32	4%	17%	58%	15%	4%	1%
Black	80	1226.23	289.91	3%	11%	60%	21%	5%	0%
Hispanic	344	1229.80	249.98	3%	19%	59%	14%	4%	1%
American Indian	66	1223.08	275.76	2%	17%	59%	17%	5%	2%
Asian	10	1266.10	35.51	0%	30%	70%	0%	0%	0%
Gender									
Male	521	1236.48	240.07	3%	17%	59%	17%	3%	1%
Female	362	1213.70	276.96	4%	19%	59%	13%	5%	1%
Need									
Autism	137	1244.94	162.24	7%	29%	53%	8%	1%	1%
ED	18	1309.61	27.19	0%	0%	50%	50%	0%	0%
EDP	15	1294.67	21.45	0%	0%	80%	20%	0%	0%
HI	2	1311.50	14.85	0%	0%	50%	50%	0%	0%
MD	33	1291.94	60.03	0%	15%	73%	12%	0%	0%
MDSSI	39	842.21	571.80	15%	33%	21%	0%	31%	0%
MIMR	310	1298.79	46.77	0%	3%	70%	25%	0%	1%
MOMR	156	1239.00	144.47	2%	37%	57%	3%	1%	0%
OHI	20	1220.85	288.09	0%	5%	85%	5%	5%	0%
OI	72	1065.99	458.16	7%	22%	50%	6%	15%	0%
SLD	51	1311.38	43.05	0%	0%	57%	41%	0%	2%
SLI	2	1279.50	30.41	0%	0%	100%	0%	0%	0%
SMR	25	854.29	562.02	12%	52%	4%	0%	28%	4%
VI	2	1392.00	152.74	0%	0%	50%	50%	0%	0%
Other	1	1301.00	0.00	0%	0%	100%	0%	0%	0%
SES									
Free/Reduced Lunch	518	1244.09	221.60	2%	17%	62%	16%	3%	1%
No Lunch Assistance	365	1203.05	296.67	5%	18%	55%	15%	5%	1%
Migrant									
Non-Migrant	879	1227.12	256.33	3%	18%	59%	15%	4%	1%
Migrant	4	1236.67	45.54	0%	50%	25%	0%	0%	25%

Note: FFBS=Falls Far Below the Standard; AS=Approaches the Standard; MS=Meets the Standard; ES=Exceeds the Standard. These results are not final results and are presented here for purposes of addressing reliability and validity. They should not be used for accountability purposes.

Table 8.1.1.5
2010 AIMS A Frequency Distribution Mathematics Grade 3

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	5	0.62%	0.6%	51	1263	11	1.35%	40.0%
1	1112	2	0.25%	0.9%	52	1264	12	1.48%	41.5%
2	1145	3	0.37%	1.2%	53	1265	2	0.25%	41.7%
3	1162	2	0.25%	1.5%	54	1266	13	1.60%	43.3%
4	1172	7	0.86%	2.3%	55	1267	17	2.09%	45.4%
5	1180	5	0.62%	3.0%	56	1268	16	1.97%	47.4%
6	1187	2	0.25%	3.2%	57	1269	9	1.11%	48.5%
7	1192	0	0.00%	3.2%	58	1270	9	1.11%	49.6%
8	1196	4	0.49%	3.7%	59	1271	12	1.48%	51.0%
9	1200	4	0.49%	4.2%	60	1273	16	1.97%	53.0%
10	1203	2	0.25%	4.4%	61	1274	5	0.62%	53.6%
11	1206	1	0.12%	4.6%	62	1275	10	1.23%	54.9%
12	1209	9	1.11%	5.7%	63	1276	11	1.35%	56.2%
13	1212	4	0.49%	6.2%	64	1277	16	1.97%	58.2%
14	1214	3	0.37%	6.5%	65	1278	18	2.21%	60.4%
15	1216	2	0.25%	6.8%	66	1279	13	1.60%	62.0%
16	1218	6	0.74%	7.5%	67	1280	9	1.11%	63.1%
17	1220	1	0.12%	7.6%	68	1282	21	2.58%	65.7%
18	1222	3	0.37%	8.0%	69	1283	16	1.97%	67.7%
19	1224	1	0.12%	8.1%	70	1284	16	1.97%	69.6%
20	1226	4	0.49%	8.6%	71	1285	13	1.60%	71.2%
21	1227	2	0.25%	8.9%	72	1286	21	2.58%	73.8%
22	1229	3	0.37%	9.2%	73	1288	10	1.23%	75.0%
23	1230	0	0.00%	9.2%	74	1289	16	1.97%	77.0%
24	1232	4	0.49%	9.7%	75	1291	13	1.60%	78.6%
25	1233	7	0.86%	10.6%	76	1292	16	1.97%	80.6%
26	1235	9	1.11%	11.7%	77	1293	10	1.23%	81.8%
27	1236	5	0.62%	12.3%	78	1295	18	2.21%	84.0%
28	1237	11	1.35%	13.7%	79	1296	4	0.49%	84.5%
29	1239	6	0.74%	14.4%	80	1298	17	2.09%	86.6%
30	1240	10	1.23%	15.6%	81	1300	9	1.11%	87.7%
31	1241	5	0.62%	16.2%	82	1301	14	1.72%	89.4%
32	1242	12	1.48%	17.7%	83	1303	7	0.86%	90.3%
33	1244	6	0.74%	18.5%	84	1305	12	1.48%	91.8%
34	1245	5	0.62%	19.1%	85	1307	5	0.62%	92.4%
35	1246	8	0.98%	20.0%	86	1309	11	1.35%	93.7%
36	1247	11	1.35%	21.4%	87	1312	2	0.25%	94.0%
37	1248	11	1.35%	22.8%	88	1314	12	1.48%	95.4%
38	1249	10	1.23%	24.0%	89	1317	2	0.25%	95.7%
39	1250	6	0.74%	24.7%	90	1319	5	0.62%	96.3%
40	1252	15	1.85%	26.6%	91	1322	1	0.12%	96.4%
41	1253	16	1.97%	28.5%	92	1326	12	1.48%	97.9%
42	1254	10	1.23%	29.8%	93	1330	0	0.00%	97.9%
43	1255	7	0.86%	30.6%	94	1334	6	0.74%	98.6%
44	1256	7	0.86%	31.5%	95	1339	0	0.00%	98.6%
45	1257	8	0.98%	32.5%	96	1346	7	0.86%	99.5%
46	1258	10	1.23%	33.7%	97	1354	0	0.00%	99.5%

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47	1259	8	0.98%	34.7%	98	1365	2	0.25%	99.8%
48	1260	10	1.23%	35.9%	99	1386	0	0.00%	99.8%
49	1261	6	0.74%	36.7%	100	1500	2	0.25%	100.0%
50	1262	16	1.97%	38.6%					

Table 8.1.1.6
2010 AIMS A Frequency Distribution Mathematics Grade 4

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	9	1.12%	1.1%	51	1263	5	0.62%	37.2%
1	1117	2	0.25%	1.4%	52	1264	15	1.87%	39.1%
2	1146	2	0.25%	1.6%	53	1265	5	0.62%	39.7%
3	1161	2	0.25%	1.9%	54	1266	8	1.00%	40.7%
4	1171	3	0.37%	2.2%	55	1268	5	0.62%	41.3%
5	1179	3	0.37%	2.6%	56	1269	23	2.87%	44.2%
6	1185	3	0.37%	3.0%	57	1270	7	0.87%	45.1%
7	1189	0	0.00%	3.0%	58	1271	9	1.12%	46.2%
8	1194	7	0.87%	3.9%	59	1272	4	0.50%	46.7%
9	1198	2	0.25%	4.1%	60	1273	13	1.62%	48.3%
10	1201	0	0.00%	4.1%	61	1275	6	0.75%	49.1%
11	1204	2	0.25%	4.4%	62	1276	11	1.37%	50.4%
12	1207	10	1.25%	5.6%	63	1277	9	1.12%	51.6%
13	1209	4	0.50%	6.1%	64	1278	20	2.50%	54.1%
14	1212	1	0.12%	6.2%	65	1279	10	1.25%	55.3%
15	1214	3	0.37%	6.6%	66	1281	17	2.12%	57.4%
16	1216	5	0.62%	7.2%	67	1282	11	1.37%	58.8%
17	1218	4	0.50%	7.7%	68	1283	9	1.12%	59.9%
18	1220	3	0.37%	8.1%	69	1285	9	1.12%	61.0%
19	1222	4	0.50%	8.6%	70	1286	13	1.62%	62.7%
20	1224	11	1.37%	10.0%	71	1287	14	1.75%	64.4%
21	1225	5	0.62%	10.6%	72	1289	13	1.62%	66.0%
22	1227	4	0.50%	11.1%	73	1290	10	1.25%	67.3%
23	1229	2	0.25%	11.4%	74	1292	12	1.50%	68.8%
24	1230	9	1.12%	12.5%	75	1293	9	1.12%	69.9%
25	1232	1	0.12%	12.6%	76	1295	19	2.37%	72.3%
26	1233	10	1.25%	13.9%	77	1297	10	1.25%	73.5%
27	1234	4	0.50%	14.4%	78	1299	19	2.37%	75.9%
28	1236	7	0.87%	15.2%	79	1300	16	2.00%	77.9%
29	1237	5	0.62%	15.9%	80	1302	19	2.37%	80.3%
30	1238	7	0.87%	16.7%	81	1304	9	1.12%	81.4%
31	1240	7	0.87%	17.6%	82	1306	19	2.37%	83.8%
32	1241	3	0.37%	18.0%	83	1309	6	0.75%	84.5%
33	1242	3	0.37%	18.4%	84	1311	20	2.50%	87.0%
34	1244	9	1.12%	19.5%	85	1313	6	0.75%	87.8%
35	1245	3	0.37%	19.9%	86	1316	12	1.50%	89.3%
36	1246	11	1.37%	21.2%	87	1319	9	1.12%	90.4%
37	1247	3	0.37%	21.6%	88	1322	19	2.37%	92.8%
38	1248	11	1.37%	23.0%	89	1325	7	0.87%	93.6%
39	1250	7	0.87%	23.8%	90	1329	18	2.25%	95.9%
40	1251	9	1.12%	25.0%	91	1333	5	0.62%	96.5%
41	1252	10	1.25%	26.2%	92	1338	8	1.00%	97.5%
42	1253	14	1.75%	28.0%	93	1343	4	0.50%	98.0%
43	1254	3	0.37%	28.3%	94	1348	8	1.00%	99.0%
44	1255	14	1.75%	30.1%	95	1355	1	0.12%	99.1%
45	1256	8	1.00%	31.1%	96	1363	1	0.12%	99.3%
46	1257	14	1.75%	32.8%	97	1373	0	0.00%	99.3%
47	1259	8	1.00%	33.8%	98	1386	5	0.62%	99.9%
48	1260	8	1.00%	34.8%	99	1409	0	0.00%	99.9%
49	1261	6	0.75%	35.6%	100	1500	1	0.12%	100.0%
50	1262	8	1.00%	36.6%					

Table 8.1.1.7
2010 AIMS A Frequency Distribution Mathematics Grade 5

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	13	1.56%	1.6%	51	1266	12	1.44%	49.3%
1	1113	3	0.36%	1.9%	52	1267	9	1.08%	50.4%
2	1147	1	0.12%	2.0%	53	1268	11	1.32%	51.7%
3	1164	0	0.00%	2.0%	54	1269	14	1.68%	53.4%
4	1175	11	1.32%	3.4%	55	1270	18	2.16%	55.5%
5	1183	3	0.36%	3.7%	56	1271	14	1.68%	57.2%
6	1190	4	0.48%	4.2%	57	1272	12	1.44%	58.6%
7	1195	1	0.12%	4.3%	58	1273	18	2.16%	60.8%
8	1199	7	0.84%	5.2%	59	1275	13	1.56%	62.4%
9	1203	1	0.12%	5.3%	60	1276	5	0.60%	62.9%
10	1206	1	0.12%	5.4%	61	1277	18	2.16%	65.1%
11	1209	2	0.24%	5.6%	62	1278	16	1.92%	67.0%
12	1212	7	0.84%	6.5%	63	1279	14	1.68%	68.7%
13	1214	4	0.48%	7.0%	64	1280	13	1.56%	70.3%
14	1217	3	0.36%	7.3%	65	1281	12	1.44%	71.7%
15	1219	3	0.36%	7.7%	66	1282	13	1.56%	73.3%
16	1221	6	0.72%	8.4%	67	1284	9	1.08%	74.3%
17	1223	0	0.00%	8.4%	68	1285	22	2.64%	77.0%
18	1225	6	0.72%	9.1%	69	1286	5	0.60%	77.6%
19	1226	3	0.36%	9.5%	70	1287	13	1.56%	79.1%
20	1228	5	0.60%	10.1%	71	1289	14	1.68%	80.8%
21	1230	4	0.48%	10.6%	72	1290	21	2.52%	83.3%
22	1231	2	0.24%	10.8%	73	1291	5	0.60%	83.9%
23	1233	5	0.60%	11.4%	74	1292	11	1.32%	85.3%
24	1234	17	2.04%	13.4%	75	1294	6	0.72%	86.0%
25	1236	6	0.72%	14.1%	76	1295	19	2.28%	88.2%
26	1237	8	0.96%	15.1%	77	1297	6	0.72%	89.0%
27	1238	7	0.84%	15.9%	78	1298	9	1.08%	90.0%
28	1240	8	0.96%	16.9%	79	1300	8	0.96%	91.0%
29	1241	4	0.48%	17.4%	80	1302	17	2.04%	93.0%
30	1242	8	0.96%	18.3%	81	1303	3	0.36%	93.4%
31	1244	5	0.60%	18.9%	82	1305	13	1.56%	95.0%
32	1245	15	1.80%	20.7%	83	1307	5	0.60%	95.6%
33	1246	10	1.20%	21.9%	84	1309	11	1.32%	96.9%
34	1247	10	1.20%	23.1%	85	1311	3	0.36%	97.2%
35	1248	11	1.32%	24.5%	86	1313	6	0.72%	98.0%
36	1250	5	0.60%	25.1%	87	1315	1	0.12%	98.1%
37	1251	9	1.08%	26.1%	88	1318	2	0.24%	98.3%
38	1252	17	2.04%	28.2%	89	1321	0	0.00%	98.3%
39	1253	14	1.68%	29.9%	90	1324	3	0.36%	98.7%
40	1254	16	1.92%	31.8%	91	1327	0	0.00%	98.7%
41	1255	12	1.44%	33.2%	92	1331	7	0.84%	99.5%
42	1256	18	2.16%	35.4%	93	1335	0	0.00%	99.5%
43	1257	11	1.32%	36.7%	94	1340	1	0.12%	99.6%
44	1258	11	1.32%	38.0%	95	1345	0	0.00%	99.6%
45	1260	13	1.56%	39.6%	96	1352	2	0.24%	99.9%
46	1261	11	1.32%	40.9%	97	1362	0	0.00%	99.9%
47	1262	7	0.84%	41.7%	98	1375	1	0.12%	100.0%
48	1263	20	2.40%	44.1%	99	1398	0	0.00%	100.0%
49	1264	17	2.04%	46.2%	100	1500	0	0.00%	100.0%
50	1265	14	1.68%	47.8%					

Table 8.1.1.8
2010 AIMS A Frequency Distribution Mathematics Grade 6

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	2	0.24%	0.2%	51	1253	10	1.21%	37.9%
1	1007	2	0.24%	0.5%	52	1254	12	1.45%	39.3%
2	1058	1	0.12%	0.6%	53	1256	8	0.97%	40.3%
3	1085	0	0.00%	0.6%	54	1258	15	1.82%	42.1%
4	1103	3	0.36%	1.0%	55	1259	11	1.33%	43.5%
5	1116	1	0.12%	1.1%	56	1261	8	0.97%	44.4%
6	1127	1	0.12%	1.2%	57	1263	6	0.73%	45.2%
7	1136	2	0.24%	1.5%	58	1264	21	2.54%	47.7%
8	1143	5	0.61%	2.1%	59	1266	16	1.94%	49.6%
9	1149	2	0.24%	2.3%	60	1268	14	1.69%	51.3%
10	1155	2	0.24%	2.5%	61	1270	11	1.33%	52.7%
11	1160	0	0.00%	2.5%	62	1271	11	1.33%	54.0%
12	1165	3	0.36%	2.9%	63	1273	17	2.06%	56.1%
13	1169	0	0.00%	2.9%	64	1275	15	1.82%	57.9%
14	1173	4	0.48%	3.4%	65	1277	11	1.33%	59.2%
15	1177	0	0.00%	3.4%	66	1278	20	2.42%	61.6%
16	1180	5	0.61%	4.0%	67	1280	18	2.18%	63.8%
17	1183	2	0.24%	4.2%	68	1282	19	2.30%	66.1%
18	1186	4	0.48%	4.7%	69	1284	10	1.21%	67.3%
19	1189	1	0.12%	4.8%	70	1286	15	1.82%	69.1%
20	1192	7	0.85%	5.7%	71	1288	16	1.94%	71.1%
21	1195	2	0.24%	5.9%	72	1290	16	1.94%	73.0%
22	1197	5	0.61%	6.5%	73	1292	7	0.85%	73.8%
23	1200	2	0.24%	6.8%	74	1294	14	1.69%	75.5%
24	1202	8	0.97%	7.7%	75	1296	11	1.33%	76.9%
25	1205	4	0.48%	8.2%	76	1298	12	1.45%	78.3%
26	1207	5	0.61%	8.8%	77	1301	6	0.73%	79.1%
27	1209	3	0.36%	9.2%	78	1303	16	1.94%	81.0%
28	1211	6	0.73%	9.9%	79	1305	14	1.69%	82.7%
29	1213	6	0.73%	10.7%	80	1308	17	2.06%	84.7%
30	1215	6	0.73%	11.4%	81	1310	7	0.85%	85.6%
31	1217	11	1.33%	12.7%	82	1313	17	2.06%	87.7%
32	1219	15	1.82%	14.5%	83	1316	6	0.73%	88.4%
33	1221	2	0.24%	14.8%	84	1319	18	2.18%	90.6%
34	1223	9	1.09%	15.9%	85	1322	9	1.09%	91.6%
35	1225	11	1.33%	17.2%	86	1325	11	1.33%	93.0%
36	1227	8	0.97%	18.2%	87	1329	2	0.24%	93.2%
37	1229	7	0.85%	19.0%	88	1332	12	1.45%	94.7%
38	1231	7	0.85%	19.9%	89	1336	6	0.73%	95.4%
39	1232	14	1.69%	21.5%	90	1341	12	1.45%	96.9%
40	1234	8	0.97%	22.5%	91	1346	1	0.12%	97.0%
41	1236	9	1.09%	23.6%	92	1351	8	0.97%	97.9%
42	1238	12	1.45%	25.1%	93	1357	3	0.36%	98.3%
43	1239	7	0.85%	25.9%	94	1364	4	0.48%	98.8%
44	1241	17	2.06%	28.0%	95	1372	0	0.00%	98.8%
45	1243	4	0.48%	28.5%	96	1382	3	0.36%	99.2%
46	1244	21	2.54%	31.0%	97	1395	0	0.00%	99.2%
47	1246	11	1.33%	32.3%	98	1414	3	0.36%	99.5%
48	1248	13	1.57%	33.9%	99	1447	0	0.00%	99.5%
49	1249	7	0.85%	34.7%	100	1500	4	0.48%	100.0%
50	1251	16	1.94%	36.7%					

Table 8.1.1.9
2010 AIMS A Frequency Distribution Mathematics Grade 7

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	2	0.27%	0.3%	51	1263	17	2.26%	34.1%
1	1030	0	0.00%	0.3%	52	1264	17	2.26%	36.4%
2	1079	1	0.13%	0.4%	53	1265	11	1.46%	37.8%
3	1105	0	0.00%	0.4%	54	1267	10	1.33%	39.1%
4	1122	6	0.80%	1.2%	55	1268	10	1.33%	40.5%
5	1134	0	0.00%	1.2%	56	1270	13	1.73%	42.2%
6	1144	0	0.00%	1.2%	57	1271	10	1.33%	43.5%
7	1152	0	0.00%	1.2%	58	1273	7	0.93%	44.5%
8	1160	4	0.53%	1.7%	59	1274	9	1.20%	45.7%
9	1166	0	0.00%	1.7%	60	1276	13	1.73%	47.4%
10	1171	0	0.00%	1.7%	61	1277	13	1.73%	49.1%
11	1176	0	0.00%	1.7%	62	1279	13	1.73%	50.9%
12	1180	6	0.80%	2.5%	63	1280	6	0.80%	51.7%
13	1184	2	0.27%	2.8%	64	1281	16	2.13%	53.8%
14	1188	1	0.13%	2.9%	65	1283	8	1.07%	54.9%
15	1192	3	0.40%	3.3%	66	1285	13	1.73%	56.6%
16	1195	5	0.67%	4.0%	67	1286	13	1.73%	58.3%
17	1198	0	0.00%	4.0%	68	1288	12	1.60%	59.9%
18	1201	1	0.13%	4.1%	69	1289	6	0.80%	60.7%
19	1204	1	0.13%	4.3%	70	1291	14	1.86%	62.6%
20	1207	5	0.67%	4.9%	71	1293	12	1.60%	64.2%
21	1209	2	0.27%	5.2%	72	1294	21	2.80%	67.0%
22	1212	2	0.27%	5.5%	73	1296	6	0.80%	67.8%
23	1214	5	0.67%	6.1%	74	1298	27	3.60%	71.4%
24	1217	13	1.73%	7.9%	75	1300	7	0.93%	72.3%
25	1219	3	0.40%	8.3%	76	1301	20	2.66%	75.0%
26	1221	4	0.53%	8.8%	77	1303	9	1.20%	76.2%
27	1223	6	0.80%	9.6%	78	1305	16	2.13%	78.3%
28	1225	7	0.93%	10.5%	79	1307	5	0.67%	79.0%
29	1227	7	0.93%	11.5%	80	1309	14	1.86%	80.8%
30	1229	2	0.27%	11.7%	81	1312	5	0.67%	81.5%
31	1231	10	1.33%	13.0%	82	1314	16	2.13%	83.6%
32	1233	8	1.07%	14.1%	83	1316	8	1.07%	84.7%
33	1234	6	0.80%	14.9%	84	1319	16	2.13%	86.8%
34	1236	12	1.60%	16.5%	85	1321	2	0.27%	87.1%
35	1238	3	0.40%	16.9%	86	1324	13	1.73%	88.8%
36	1240	4	0.53%	17.4%	87	1327	6	0.80%	89.6%
37	1241	10	1.33%	18.8%	88	1330	21	2.80%	92.4%
38	1243	10	1.33%	20.1%	89	1334	2	0.27%	92.7%
39	1244	3	0.40%	20.5%	90	1338	13	1.73%	94.4%
40	1246	6	0.80%	21.3%	91	1342	2	0.27%	94.7%
41	1248	8	1.07%	22.4%	92	1347	12	1.60%	96.3%
42	1249	4	0.53%	22.9%	93	1352	1	0.13%	96.4%
43	1251	8	1.07%	24.0%	94	1358	12	1.60%	98.0%
44	1252	11	1.46%	25.4%	95	1365	0	0.00%	98.0%
45	1254	9	1.20%	26.6%	96	1374	6	0.80%	98.8%
46	1255	6	0.80%	27.4%	97	1385	0	0.00%	98.8%
47	1257	6	0.80%	28.2%	98	1402	5	0.67%	99.5%
48	1258	12	1.60%	29.8%	99	1432	0	0.00%	99.5%
49	1260	5	0.67%	30.5%	100	1500	4	0.53%	100.0%
50	1261	10	1.33%	31.8%					

Table 8.1.1.10
2010 AIMS A Frequency Distribution Mathematics Grade 8

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	9	1.12%	1.1%	51	1262	9	1.12%	38.0%
1	1043	1	0.12%	1.2%	52	1264	13	1.61%	39.7%
2	1087	3	0.37%	1.6%	53	1265	6	0.74%	40.4%
3	1111	0	0.00%	1.6%	54	1266	17	2.11%	42.5%
4	1127	9	1.12%	2.7%	55	1268	11	1.36%	43.9%
5	1139	0	0.00%	2.7%	56	1269	21	2.60%	46.5%
6	1148	2	0.25%	3.0%	57	1271	11	1.36%	47.8%
7	1156	1	0.12%	3.1%	58	1272	15	1.86%	49.7%
8	1163	2	0.25%	3.3%	59	1273	9	1.12%	50.8%
9	1169	1	0.12%	3.5%	60	1275	15	1.86%	52.7%
10	1175	2	0.25%	3.7%	61	1276	12	1.49%	54.2%
11	1179	0	0.00%	3.7%	62	1278	17	2.11%	56.3%
12	1184	5	0.62%	4.3%	63	1279	7	0.87%	57.1%
13	1188	1	0.12%	4.5%	64	1281	21	2.60%	59.7%
14	1191	3	0.37%	4.8%	65	1282	13	1.61%	61.3%
15	1195	1	0.12%	5.0%	66	1284	15	1.86%	63.2%
16	1198	4	0.50%	5.5%	67	1285	12	1.49%	64.7%
17	1201	0	0.00%	5.5%	68	1287	14	1.73%	66.4%
18	1204	2	0.25%	5.7%	69	1288	12	1.49%	67.9%
19	1207	2	0.25%	5.9%	70	1290	16	1.98%	69.9%
20	1209	4	0.50%	6.4%	71	1291	14	1.73%	71.6%
21	1212	2	0.25%	6.7%	72	1293	19	2.35%	74.0%
22	1214	5	0.62%	7.3%	73	1295	14	1.73%	75.7%
23	1216	2	0.25%	7.6%	74	1297	14	1.73%	77.4%
24	1219	12	1.49%	9.0%	75	1298	9	1.12%	78.6%
25	1221	4	0.50%	9.5%	76	1300	23	2.85%	81.4%
26	1223	4	0.50%	10.0%	77	1302	3	0.37%	81.8%
27	1225	5	0.62%	10.7%	78	1304	21	2.60%	84.4%
28	1227	9	1.12%	11.8%	79	1306	3	0.37%	84.8%
29	1228	2	0.25%	12.0%	80	1308	14	1.73%	86.5%
30	1230	13	1.61%	13.6%	81	1311	12	1.49%	88.0%
31	1232	10	1.24%	14.9%	82	1313	13	1.61%	89.6%
32	1234	7	0.87%	15.7%	83	1315	7	0.87%	90.5%
33	1236	4	0.50%	16.2%	84	1318	8	0.99%	91.4%
34	1237	8	0.99%	17.2%	85	1321	9	1.12%	92.6%
35	1239	4	0.50%	17.7%	86	1323	10	1.24%	93.8%
36	1240	13	1.61%	19.3%	87	1327	2	0.25%	94.1%
37	1242	5	0.62%	20.0%	88	1330	10	1.24%	95.3%
38	1244	10	1.24%	21.2%	89	1334	0	0.00%	95.3%
39	1245	3	0.37%	21.6%	90	1338	9	1.12%	96.4%
40	1247	7	0.87%	22.4%	91	1342	6	0.74%	97.1%
41	1248	11	1.36%	23.8%	92	1347	10	1.24%	98.4%
42	1250	11	1.36%	25.2%	93	1353	3	0.37%	98.8%
43	1251	4	0.50%	25.7%	94	1359	4	0.50%	99.3%
44	1252	12	1.49%	27.1%	95	1367	0	0.00%	99.3%
45	1254	12	1.49%	28.6%	96	1376	4	0.50%	99.8%
46	1255	20	2.48%	31.1%	97	1388	0	0.00%	99.8%
47	1257	6	0.74%	31.8%	98	1406	0	0.00%	99.8%
48	1258	15	1.86%	33.7%	99	1435	0	0.00%	99.8%
49	1260	10	1.24%	34.9%	100	1500	2	0.25%	100.0%
50	1261	16	1.98%	36.9%					

Table 8.1.1.11
2010 AIMS A Frequency Distribution Mathematics High School

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	9	0.73%	0.7%	51	1262	17	1.38%	37.2%
1	1031	1	0.08%	0.8%	52	1263	22	1.79%	39.0%
2	1079	0	0.00%	0.8%	53	1265	21	1.70%	40.7%
3	1105	1	0.08%	0.9%	54	1266	16	1.30%	42.0%
4	1122	6	0.49%	1.4%	55	1268	11	0.89%	42.9%
5	1134	1	0.08%	1.5%	56	1269	17	1.38%	44.2%
6	1144	5	0.41%	1.9%	57	1271	16	1.30%	45.5%
7	1152	0	0.00%	1.9%	58	1272	19	1.54%	47.1%
8	1159	9	0.73%	2.6%	59	1274	23	1.87%	48.9%
9	1165	1	0.08%	2.7%	60	1275	17	1.38%	50.3%
10	1171	8	0.65%	3.3%	61	1277	12	0.97%	51.3%
11	1176	1	0.08%	3.4%	62	1278	18	1.46%	52.8%
12	1180	6	0.49%	3.9%	63	1280	11	0.89%	53.7%
13	1184	0	0.00%	3.9%	64	1281	22	1.79%	55.4%
14	1188	2	0.16%	4.1%	65	1283	12	0.97%	56.4%
15	1191	0	0.00%	4.1%	66	1284	32	2.60%	59.0%
16	1195	16	1.30%	5.4%	67	1286	18	1.46%	60.5%
17	1198	3	0.24%	5.6%	68	1288	27	2.19%	62.7%
18	1201	4	0.32%	5.9%	69	1289	13	1.06%	63.7%
19	1204	1	0.08%	6.0%	70	1291	30	2.44%	66.2%
20	1206	12	0.97%	7.0%	71	1293	12	0.97%	67.1%
21	1209	3	0.24%	7.2%	72	1295	30	2.44%	69.6%
22	1211	7	0.57%	7.8%	73	1296	16	1.30%	70.9%
23	1213	6	0.49%	8.3%	74	1298	33	2.68%	73.5%
24	1216	15	1.22%	9.5%	75	1300	11	0.89%	74.4%
25	1218	3	0.24%	9.7%	76	1302	34	2.76%	77.2%
26	1220	8	0.65%	10.4%	77	1304	7	0.57%	77.8%
27	1222	5	0.41%	10.8%	78	1306	28	2.27%	80.0%
28	1224	16	1.30%	12.1%	79	1308	6	0.49%	80.5%
29	1226	11	0.89%	13.0%	80	1311	28	2.27%	82.8%
30	1228	10	0.81%	13.8%	81	1313	14	1.14%	83.9%
31	1230	15	1.22%	15.0%	82	1315	20	1.62%	85.6%
32	1232	15	1.22%	16.2%	83	1318	11	0.89%	86.4%
33	1233	9	0.73%	17.0%	84	1320	37	3.00%	89.4%
34	1235	12	0.97%	17.9%	85	1323	8	0.65%	90.1%
35	1237	15	1.22%	19.2%	86	1326	20	1.62%	91.7%
36	1238	13	1.06%	20.2%	87	1329	8	0.65%	92.4%
37	1240	10	0.81%	21.0%	88	1333	20	1.62%	94.0%
38	1242	11	0.89%	21.9%	89	1336	4	0.32%	94.3%
39	1243	18	1.46%	23.4%	90	1340	8	0.65%	95.0%
40	1245	14	1.14%	24.5%	91	1344	3	0.24%	95.2%
41	1246	13	1.06%	25.6%	92	1349	19	1.54%	96.8%
42	1248	19	1.54%	27.1%	93	1354	4	0.32%	97.1%
43	1250	17	1.38%	28.5%	94	1360	8	0.65%	97.7%
44	1251	9	0.73%	29.2%	95	1368	0	0.00%	97.7%
45	1253	14	1.14%	30.4%	96	1376	14	1.14%	98.9%
46	1254	13	1.06%	31.4%	97	1388	0	0.00%	98.9%
47	1256	14	1.14%	32.5%	98	1404	2	0.16%	99.0%
48	1257	19	1.54%	34.1%	99	1434	0	0.00%	99.0%
49	1259	10	0.81%	34.9%	100	1500	12	0.97%	100.0%
50	1260	11	0.89%	35.8%					

Table 8.1.1.12
2010 AIMS A Frequency Distribution Reading Grade 3

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	12	1.46%	1.5%	51	1263	10	1.22%	43.0%
1	1064	4	0.49%	1.9%	52	1265	15	1.82%	44.8%
2	1106	1	0.12%	2.1%	53	1266	13	1.58%	46.4%
3	1128	2	0.24%	2.3%	54	1267	15	1.82%	48.2%
4	1142	3	0.36%	2.7%	55	1268	18	2.19%	50.4%
5	1153	3	0.36%	3.0%	56	1270	14	1.70%	52.1%
6	1162	3	0.36%	3.4%	57	1271	23	2.79%	54.9%
7	1169	1	0.12%	3.5%	58	1272	13	1.58%	56.5%
8	1175	6	0.73%	4.3%	59	1274	8	0.97%	57.5%
9	1180	2	0.24%	4.5%	60	1275	15	1.82%	59.3%
10	1185	1	0.12%	4.6%	61	1276	7	0.85%	60.1%
11	1189	2	0.24%	4.9%	62	1278	16	1.94%	62.1%
12	1193	8	0.97%	5.8%	63	1279	11	1.34%	63.4%
13	1196	2	0.24%	6.1%	64	1280	13	1.58%	65.0%
14	1199	3	0.36%	6.4%	65	1282	6	0.73%	65.7%
15	1202	1	0.12%	6.6%	66	1283	11	1.34%	67.1%
16	1205	9	1.09%	7.7%	67	1284	8	0.97%	68.0%
17	1208	3	0.36%	8.0%	68	1286	17	2.07%	70.1%
18	1210	1	0.12%	8.1%	69	1287	4	0.49%	70.6%
19	1213	0	0.00%	8.1%	70	1289	17	2.07%	72.7%
20	1215	9	1.09%	9.2%	71	1290	11	1.34%	74.0%
21	1217	10	1.22%	10.4%	72	1292	13	1.58%	75.6%
22	1219	3	0.36%	10.8%	73	1293	7	0.85%	76.4%
23	1221	2	0.24%	11.1%	74	1295	16	1.94%	78.4%
24	1223	7	0.85%	11.9%	75	1297	4	0.49%	78.9%
25	1225	3	0.36%	12.3%	76	1298	13	1.58%	80.4%
26	1227	5	0.61%	12.9%	77	1300	6	0.73%	81.2%
27	1229	6	0.73%	13.6%	78	1302	9	1.09%	82.3%
28	1231	12	1.46%	15.1%	79	1304	4	0.49%	82.7%
29	1232	5	0.61%	15.7%	80	1306	21	2.55%	85.3%
30	1234	3	0.36%	16.0%	81	1308	6	0.73%	86.0%
31	1236	4	0.49%	16.5%	82	1310	14	1.70%	87.7%
32	1237	14	1.70%	18.2%	83	1312	9	1.09%	88.8%
33	1239	9	1.09%	19.3%	84	1315	17	2.07%	90.9%
34	1240	13	1.58%	20.9%	85	1317	6	0.73%	91.6%
35	1242	9	1.09%	22.0%	86	1320	5	0.61%	92.2%
36	1243	8	0.97%	23.0%	87	1322	4	0.49%	92.7%
37	1245	10	1.22%	24.2%	88	1325	15	1.82%	94.5%
38	1246	11	1.34%	25.5%	89	1329	5	0.61%	95.1%
39	1247	4	0.49%	26.0%	90	1332	7	0.85%	96.0%
40	1249	17	2.07%	28.1%	91	1336	4	0.49%	96.5%
41	1250	10	1.22%	29.3%	92	1340	8	0.97%	97.4%
42	1251	13	1.58%	30.9%	93	1345	1	0.12%	97.6%
43	1253	9	1.09%	32.0%	94	1351	7	0.85%	98.4%
44	1254	14	1.70%	33.7%	95	1357	1	0.12%	98.5%
45	1255	11	1.34%	35.0%	96	1365	6	0.73%	99.3%
46	1257	14	1.70%	36.7%	97	1376	1	0.12%	99.4%
47	1258	4	0.49%	37.2%	98	1392	1	0.12%	99.5%
48	1259	13	1.58%	38.8%	99	1419	0	0.00%	99.5%
49	1261	11	1.34%	40.1%	100	1500	4	0.49%	100.0%
50	1262	14	1.70%	41.8%					

Table 8.1.1.13
2010 AIMS A Frequency Distribution Reading Grade 4

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	10	1.25%	1.2%	51	1265	11	1.37%	33.2%
1	1033	0	0.00%	1.2%	52	1266	14	1.75%	34.9%
2	1082	4	0.50%	1.7%	53	1268	9	1.12%	36.0%
3	1108	0	0.00%	1.7%	54	1269	7	0.87%	36.9%
4	1125	8	1.00%	2.7%	55	1270	13	1.62%	38.5%
5	1138	1	0.12%	2.9%	56	1272	7	0.87%	39.4%
6	1148	2	0.25%	3.1%	57	1273	10	1.25%	40.6%
7	1156	1	0.12%	3.2%	58	1275	17	2.12%	42.8%
8	1163	3	0.37%	3.6%	59	1276	6	0.75%	43.5%
9	1170	1	0.12%	3.7%	60	1278	14	1.75%	45.3%
10	1175	3	0.37%	4.1%	61	1279	9	1.12%	46.4%
11	1180	0	0.00%	4.1%	62	1281	12	1.50%	47.9%
12	1184	5	0.62%	4.7%	63	1283	11	1.37%	49.3%
13	1188	1	0.12%	4.9%	64	1284	13	1.62%	50.9%
14	1192	4	0.50%	5.4%	65	1286	12	1.50%	52.4%
15	1195	1	0.12%	5.5%	66	1287	9	1.12%	53.5%
16	1199	7	0.87%	6.4%	67	1289	4	0.50%	54.0%
17	1202	0	0.00%	6.4%	68	1291	12	1.50%	55.5%
18	1205	5	0.62%	7.0%	69	1292	7	0.87%	56.4%
19	1207	2	0.25%	7.2%	70	1294	13	1.62%	58.0%
20	1210	10	1.25%	8.5%	71	1296	9	1.12%	59.1%
21	1213	2	0.25%	8.7%	72	1298	15	1.87%	61.0%
22	1215	4	0.50%	9.2%	73	1300	16	2.00%	63.0%
23	1217	3	0.37%	9.6%	74	1301	7	0.87%	63.8%
24	1219	3	0.37%	10.0%	75	1303	11	1.37%	65.2%
25	1222	1	0.12%	10.1%	76	1305	8	1.00%	66.2%
26	1224	5	0.62%	10.7%	77	1307	16	2.00%	68.2%
27	1226	4	0.50%	11.2%	78	1310	31	3.87%	72.1%
28	1228	6	0.75%	12.0%	79	1312	10	1.25%	73.3%
29	1230	4	0.50%	12.5%	80	1314	18	2.24%	75.6%
30	1231	4	0.50%	13.0%	81	1316	11	1.37%	76.9%
31	1233	8	1.00%	14.0%	82	1319	21	2.62%	79.6%
32	1235	7	0.87%	14.8%	83	1321	7	0.87%	80.4%
33	1237	10	1.25%	16.1%	84	1324	16	2.00%	82.4%
34	1238	6	0.75%	16.8%	85	1327	5	0.62%	83.0%
35	1240	5	0.62%	17.5%	86	1330	13	1.62%	84.7%
36	1242	8	1.00%	18.5%	87	1333	7	0.87%	85.5%
37	1243	3	0.37%	18.8%	88	1337	13	1.62%	87.2%
38	1245	6	0.75%	19.6%	89	1341	6	0.75%	87.9%
39	1247	4	0.50%	20.1%	90	1345	14	1.75%	89.7%
40	1248	9	1.12%	21.2%	91	1349	4	0.50%	90.1%
41	1250	10	1.25%	22.4%	92	1354	17	2.12%	92.3%
42	1251	9	1.12%	23.6%	93	1360	2	0.25%	92.5%
43	1253	9	1.12%	24.7%	94	1367	16	2.00%	94.5%
44	1254	6	0.75%	25.4%	95	1375	1	0.12%	94.6%
45	1256	8	1.00%	26.4%	96	1384	20	2.49%	97.1%
46	1257	12	1.50%	27.9%	97	1397	1	0.12%	97.3%
47	1259	6	0.75%	28.7%	98	1415	11	1.37%	98.6%
48	1260	10	1.25%	29.9%	99	1446	0	0.00%	98.6%
49	1262	8	1.00%	30.9%	100	1500	11	1.37%	100.0%
50	1263	7	0.87%	31.8%					

Table 8.1.1.14
2010 AIMS A Frequency Distribution Reading Grade 5

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	6	0.72%	0.7%	51	1254	8	0.96%	32.9%
1	1000	0	0.00%	0.7%	52	1256	13	1.56%	34.5%
2	1038	4	0.48%	1.2%	53	1258	10	1.20%	35.7%
3	1068	0	0.00%	1.2%	54	1259	13	1.56%	37.2%
4	1089	11	1.32%	2.5%	55	1261	11	1.32%	38.6%
5	1104	1	0.12%	2.6%	56	1263	11	1.32%	39.9%
6	1116	1	0.12%	2.8%	57	1265	15	1.80%	41.7%
7	1126	0	0.00%	2.8%	58	1266	16	1.92%	43.6%
8	1135	7	0.84%	3.6%	59	1268	9	1.08%	44.7%
9	1142	1	0.12%	3.7%	60	1270	12	1.44%	46.1%
10	1149	2	0.24%	4.0%	61	1272	8	0.96%	47.1%
11	1154	0	0.00%	4.0%	62	1274	16	1.92%	49.0%
12	1160	8	0.96%	4.9%	63	1276	9	1.08%	50.1%
13	1165	1	0.12%	5.0%	64	1277	12	1.44%	51.5%
14	1169	4	0.48%	5.5%	65	1279	11	1.32%	52.8%
15	1173	0	0.00%	5.5%	66	1281	11	1.32%	54.1%
16	1177	9	1.08%	6.6%	67	1283	12	1.44%	55.6%
17	1181	2	0.24%	6.8%	68	1285	16	1.92%	57.5%
18	1184	0	0.00%	6.8%	69	1287	7	0.84%	58.3%
19	1187	3	0.36%	7.2%	70	1289	17	2.04%	60.4%
20	1190	13	1.56%	8.7%	71	1291	12	1.44%	61.8%
21	1193	1	0.12%	8.9%	72	1294	14	1.68%	63.5%
22	1196	4	0.48%	9.3%	73	1296	11	1.32%	64.8%
23	1199	1	0.12%	9.5%	74	1298	13	1.56%	66.3%
24	1201	3	0.36%	9.8%	75	1300	9	1.08%	67.4%
25	1204	3	0.36%	10.2%	76	1303	5	0.60%	68.0%
26	1206	2	0.24%	10.4%	77	1305	9	1.08%	69.1%
27	1209	4	0.48%	10.9%	78	1308	22	2.63%	71.7%
28	1211	12	1.44%	12.3%	79	1311	11	1.32%	73.1%
29	1213	5	0.60%	12.9%	80	1313	22	2.63%	75.7%
30	1215	2	0.24%	13.2%	81	1316	14	1.68%	77.4%
31	1217	3	0.36%	13.5%	82	1319	18	2.16%	79.5%
32	1219	6	0.72%	14.3%	83	1322	6	0.72%	80.2%
33	1222	2	0.24%	14.5%	84	1326	21	2.51%	82.8%
34	1224	4	0.48%	15.0%	85	1329	6	0.72%	83.5%
35	1225	5	0.60%	15.6%	86	1333	17	2.04%	85.5%
36	1227	7	0.84%	16.4%	87	1337	11	1.32%	86.8%
37	1229	6	0.72%	17.1%	88	1341	20	2.40%	89.2%
38	1231	7	0.84%	18.0%	89	1345	12	1.44%	90.7%
39	1233	8	0.96%	18.9%	90	1350	15	1.80%	92.5%
40	1235	10	1.20%	20.1%	91	1356	5	0.60%	93.1%
41	1237	10	1.20%	21.3%	92	1362	18	2.16%	95.2%
42	1238	10	1.20%	22.5%	93	1369	7	0.84%	96.0%
43	1240	9	1.08%	23.6%	94	1376	13	1.56%	97.6%
44	1242	10	1.20%	24.8%	95	1386	2	0.24%	97.8%
45	1244	8	0.96%	25.7%	96	1397	12	1.44%	99.3%
46	1246	14	1.68%	27.4%	97	1412	1	0.12%	99.4%
47	1247	11	1.32%	28.7%	98	1433	2	0.24%	99.6%
48	1249	15	1.80%	30.5%	99	1470	0	0.00%	99.6%
49	1251	5	0.60%	31.1%	100	1500	3	0.36%	100.0%
50	1252	7	0.84%	32.0%					

Table 8.1.1.15
2010 AIMS A Frequency Distribution Reading Grade 6

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	4	0.48%	0.5%	51	1252	13	1.58%	33.6%
1	1000	0	0.00%	0.5%	52	1254	8	0.97%	34.5%
2	1027	2	0.24%	0.7%	53	1256	12	1.45%	36.0%
3	1060	0	0.00%	0.7%	54	1258	11	1.33%	37.3%
4	1082	1	0.12%	0.8%	55	1260	13	1.58%	38.9%
5	1098	1	0.12%	1.0%	56	1261	13	1.58%	40.5%
6	1111	3	0.36%	1.3%	57	1263	8	0.97%	41.5%
7	1121	0	0.00%	1.3%	58	1265	8	0.97%	42.4%
8	1130	0	0.00%	1.3%	59	1267	8	0.97%	43.4%
9	1137	1	0.12%	1.5%	60	1269	14	1.70%	45.1%
10	1144	1	0.12%	1.6%	61	1271	12	1.45%	46.5%
11	1149	0	0.00%	1.6%	62	1273	9	1.09%	47.6%
12	1155	9	1.09%	2.7%	63	1275	2	0.24%	47.9%
13	1160	0	0.00%	2.7%	64	1277	6	0.73%	48.6%
14	1164	1	0.12%	2.8%	65	1279	11	1.33%	49.9%
15	1168	0	0.00%	2.8%	66	1282	11	1.33%	51.3%
16	1172	10	1.21%	4.0%	67	1284	9	1.09%	52.4%
17	1176	1	0.12%	4.1%	68	1286	14	1.70%	54.1%
18	1179	3	0.36%	4.5%	69	1288	11	1.33%	55.4%
19	1183	2	0.24%	4.7%	70	1291	10	1.21%	56.6%
20	1186	12	1.45%	6.2%	71	1293	9	1.09%	57.7%
21	1189	3	0.36%	6.5%	72	1295	10	1.21%	58.9%
22	1191	4	0.48%	7.0%	73	1298	10	1.21%	60.1%
23	1194	2	0.24%	7.3%	74	1300	8	0.97%	61.1%
24	1197	12	1.45%	8.7%	75	1303	8	0.97%	62.1%
25	1199	3	0.36%	9.1%	76	1306	16	1.94%	64.0%
26	1202	5	0.61%	9.7%	77	1309	10	1.21%	65.2%
27	1204	3	0.36%	10.1%	78	1312	17	2.06%	67.3%
28	1207	12	1.45%	11.5%	79	1315	8	0.97%	68.2%
29	1209	4	0.48%	12.0%	80	1318	13	1.58%	69.8%
30	1211	8	0.97%	13.0%	81	1321	9	1.09%	70.9%
31	1213	4	0.48%	13.5%	82	1325	16	1.94%	72.8%
32	1215	12	1.45%	14.9%	83	1328	9	1.09%	73.9%
33	1218	8	0.97%	15.9%	84	1332	11	1.33%	75.3%
34	1220	5	0.61%	16.5%	85	1336	12	1.45%	76.7%
35	1222	4	0.48%	17.0%	86	1341	30	3.64%	80.4%
36	1224	5	0.61%	17.6%	87	1345	4	0.48%	80.8%
37	1226	5	0.61%	18.2%	88	1350	25	3.03%	83.9%
38	1228	10	1.21%	19.4%	89	1356	15	1.82%	85.7%
39	1230	12	1.45%	20.8%	90	1361	18	2.18%	87.9%
40	1231	14	1.70%	22.5%	91	1368	3	0.36%	88.2%
41	1233	7	0.85%	23.4%	92	1375	24	2.91%	91.2%
42	1235	12	1.45%	24.8%	93	1383	3	0.36%	91.5%
43	1237	8	0.97%	25.8%	94	1393	15	1.82%	93.3%
44	1239	9	1.09%	26.9%	95	1404	5	0.61%	93.9%
45	1241	10	1.21%	28.1%	96	1417	29	3.52%	97.5%
46	1243	6	0.73%	28.8%	97	1435	3	0.36%	97.8%
47	1245	5	0.61%	29.5%	98	1460	5	0.61%	98.4%
48	1246	8	0.97%	30.4%	99	1500	0	0.00%	98.4%
49	1248	9	1.09%	31.5%	100	1500	13	1.58%	100.0%
50	1250	4	0.48%	32.0%					

Table 8.1.1.16
2010 AIMS A Frequency Distribution Reading Grade 7

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent
0	1000	3	0.40%	0.4%	51	1260	6	0.80%
1	1000	0	0.00%	0.4%	52	1262	5	0.66%
2	1044	1	0.13%	0.5%	53	1264	4	0.53%
3	1075	0	0.00%	0.5%	54	1266	8	1.06%
4	1095	4	0.53%	1.1%	55	1268	7	0.93%
5	1110	1	0.13%	1.2%	56	1269	7	0.93%
6	1122	1	0.13%	1.3%	57	1271	9	1.19%
7	1132	1	0.13%	1.5%	58	1273	16	2.12%
8	1140	7	0.93%	2.4%	59	1275	10	1.33%
9	1147	0	0.00%	2.4%	60	1277	12	1.59%
10	1153	1	0.13%	2.5%	61	1279	8	1.06%
11	1159	0	0.00%	2.5%	62	1281	4	0.53%
12	1164	4	0.53%	3.1%	63	1283	9	1.19%
13	1168	4	0.53%	3.6%	64	1285	12	1.59%
14	1173	0	0.00%	3.6%	65	1287	7	0.93%
15	1177	0	0.00%	3.6%	66	1289	15	1.99%
16	1180	12	1.59%	5.2%	67	1292	4	0.53%
17	1184	0	0.00%	5.2%	68	1294	8	1.06%
18	1187	3	0.40%	5.6%	69	1296	5	0.66%
19	1190	2	0.27%	5.8%	70	1298	14	1.86%
20	1193	7	0.93%	6.8%	71	1301	8	1.06%
21	1196	0	0.00%	6.8%	72	1303	9	1.19%
22	1199	5	0.66%	7.4%	73	1305	12	1.59%
23	1202	6	0.80%	8.2%	74	1308	12	1.59%
24	1204	9	1.19%	9.4%	75	1310	13	1.72%
25	1207	3	0.40%	9.8%	76	1313	16	2.12%
26	1209	6	0.80%	10.6%	77	1316	5	0.66%
27	1212	6	0.80%	11.4%	78	1318	18	2.39%
28	1214	7	0.93%	12.3%	79	1321	3	0.40%
29	1216	3	0.40%	12.7%	80	1324	26	3.45%
30	1219	5	0.66%	13.4%	81	1327	8	1.06%
31	1221	7	0.93%	14.3%	82	1330	24	3.18%
32	1223	6	0.80%	15.1%	83	1334	8	1.06%
33	1225	7	0.93%	16.0%	84	1337	23	3.05%
34	1227	4	0.53%	16.6%	85	1341	1	0.13%
35	1229	6	0.80%	17.4%	86	1345	21	2.79%
36	1231	11	1.46%	18.8%	87	1349	4	0.53%
37	1233	8	1.06%	19.9%	88	1353	22	2.92%
38	1235	8	1.06%	21.0%	89	1358	6	0.80%
39	1237	6	0.80%	21.8%	90	1363	21	2.79%
40	1239	3	0.40%	22.1%	91	1369	4	0.53%
41	1241	9	1.19%	23.3%	92	1375	26	3.45%
42	1243	7	0.93%	24.3%	93	1382	3	0.40%
43	1245	5	0.66%	24.9%	94	1390	23	3.05%
44	1247	8	1.06%	26.0%	95	1400	0	0.00%
45	1249	8	1.06%	27.1%	96	1411	17	2.25%
46	1251	8	1.06%	28.1%	97	1426	1	0.13%
47	1253	7	0.93%	29.0%	98	1448	7	0.93%
48	1254	4	0.53%	29.6%	99	1486	0	0.00%
49	1256	9	1.19%	30.8%	100	1500		
50	1258	4	0.53%	31.3%				

Table 8.1.1.17
2010 AIMS A Frequency Distribution Reading Grade 8

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	4	0.49%	0.5%	51	1261	4	0.49%	27.6%
1	1046	1	0.12%	0.6%	52	1262	3	0.37%	28.0%
2	1090	1	0.12%	0.7%	53	1264	8	0.99%	29.0%
3	1114	0	0.00%	0.7%	54	1265	8	0.99%	30.0%
4	1129	5	0.62%	1.4%	55	1266	8	0.99%	30.9%
5	1140	4	0.49%	1.8%	56	1268	15	1.85%	32.8%
6	1149	1	0.12%	2.0%	57	1269	10	1.23%	34.0%
7	1157	2	0.25%	2.2%	58	1271	12	1.48%	35.5%
8	1163	5	0.62%	2.8%	59	1272	12	1.48%	37.0%
9	1168	2	0.25%	3.1%	60	1274	9	1.11%	38.1%
10	1173	1	0.12%	3.2%	61	1275	7	0.86%	39.0%
11	1178	1	0.12%	3.3%	62	1277	14	1.73%	40.7%
12	1182	4	0.49%	3.8%	63	1278	5	0.62%	41.3%
13	1186	1	0.12%	3.9%	64	1280	11	1.36%	42.7%
14	1189	1	0.12%	4.1%	65	1282	8	0.99%	43.6%
15	1192	2	0.25%	4.3%	66	1283	11	1.36%	45.0%
16	1195	7	0.86%	5.2%	67	1285	9	1.11%	46.1%
17	1198	1	0.12%	5.3%	68	1286	15	1.85%	48.0%
18	1201	3	0.37%	5.7%	69	1288	7	0.86%	48.8%
19	1204	1	0.12%	5.8%	70	1290	17	2.10%	50.9%
20	1206	6	0.74%	6.5%	71	1291	7	0.86%	51.8%
21	1209	0	0.00%	6.5%	72	1293	12	1.48%	53.3%
22	1211	3	0.37%	6.9%	73	1295	8	0.99%	54.3%
23	1213	4	0.49%	7.4%	74	1297	15	1.85%	56.1%
24	1215	4	0.49%	7.9%	75	1299	12	1.48%	57.6%
25	1217	5	0.62%	8.5%	76	1301	17	2.10%	59.7%
26	1219	6	0.74%	9.2%	77	1303	8	0.99%	60.7%
27	1221	0	0.00%	9.2%	78	1305	19	2.34%	63.0%
28	1223	9	1.11%	10.4%	79	1307	9	1.11%	64.1%
29	1225	2	0.25%	10.6%	80	1309	19	2.34%	66.5%
30	1227	2	0.25%	10.9%	81	1311	10	1.23%	67.7%
31	1229	1	0.12%	11.0%	82	1314	20	2.47%	70.2%
32	1231	3	0.37%	11.3%	83	1316	6	0.74%	70.9%
33	1233	6	0.74%	12.1%	84	1319	31	3.82%	74.7%
34	1234	5	0.62%	12.7%	85	1322	10	1.23%	76.0%
35	1236	9	1.11%	13.8%	86	1325	23	2.84%	78.8%
36	1238	4	0.49%	14.3%	87	1328	9	1.11%	79.9%
37	1239	4	0.49%	14.8%	88	1331	26	3.21%	83.1%
38	1241	7	0.86%	15.7%	89	1335	5	0.62%	83.7%
39	1242	2	0.25%	15.9%	90	1338	16	1.97%	85.7%
40	1244	11	1.36%	17.3%	91	1343	2	0.25%	85.9%
41	1246	3	0.37%	17.6%	92	1347	28	3.45%	89.4%
42	1247	9	1.11%	18.7%	93	1353	5	0.62%	90.0%
43	1249	2	0.25%	19.0%	94	1359	35	4.32%	94.3%
44	1250	8	0.99%	20.0%	95	1366	5	0.62%	94.9%
45	1252	9	1.11%	21.1%	96	1375	22	2.71%	97.7%
46	1253	10	1.23%	22.3%	97	1387	0	0.00%	97.7%
47	1255	7	0.86%	23.2%	98	1403	7	0.86%	98.5%
48	1256	9	1.11%	24.3%	99	1433	0	0.00%	98.5%
49	1258	12	1.48%	25.8%	100		12	1.48%	100.0%
50	1259	11	1.36%	27.1%					

Table 8.1.1.18
2010 AIMS A Frequency Distribution Reading High School

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	7	0.57%	0.6%	51	1257	7	0.57%	23.4%
1	1064	5	0.40%	1.0%	52	1258	9	0.73%	24.2%
2	1104	0	0.00%	1.0%	53	1260	5	0.40%	24.6%
3	1125	1	0.08%	1.1%	54	1261	12	0.97%	25.5%
4	1138	12	0.97%	2.0%	55	1263	12	0.97%	26.5%
5	1148	0	0.00%	2.0%	56	1264	16	1.29%	27.8%
6	1156	1	0.08%	2.1%	57	1265	5	0.40%	28.2%
7	1163	0	0.00%	2.1%	58	1267	12	0.97%	29.2%
8	1169	5	0.40%	2.5%	59	1268	12	0.97%	30.1%
9	1174	1	0.08%	2.6%	60	1270	13	1.05%	31.2%
10	1178	2	0.16%	2.7%	61	1271	12	0.97%	32.1%
11	1182	1	0.08%	2.8%	62	1272	11	0.89%	33.0%
12	1186	7	0.57%	3.4%	63	1274	14	1.13%	34.2%
13	1189	0	0.00%	3.4%	64	1275	15	1.21%	35.4%
14	1192	1	0.08%	3.5%	65	1277	10	0.81%	36.2%
15	1195	1	0.08%	3.6%	66	1278	7	0.57%	36.8%
16	1198	8	0.65%	4.2%	67	1280	17	1.37%	38.1%
17	1201	2	0.16%	4.4%	68	1282	16	1.29%	39.4%
18	1203	1	0.08%	4.4%	69	1283	18	1.45%	40.9%
19	1205	4	0.32%	4.8%	70	1285	12	0.97%	41.8%
20	1208	8	0.65%	5.4%	71	1286	8	0.65%	42.5%
21	1210	2	0.16%	5.6%	72	1288	24	1.94%	44.4%
22	1212	4	0.32%	5.9%	73	1290	12	0.97%	45.4%
23	1214	1	0.08%	6.0%	74	1292	18	1.45%	46.8%
24	1216	10	0.81%	6.8%	75	1294	9	0.73%	47.6%
25	1218	4	0.32%	7.1%	76	1296	26	2.10%	49.7%
26	1220	9	0.73%	7.8%	77	1297	12	0.97%	50.6%
27	1222	3	0.24%	8.1%	78	1300	18	1.45%	52.1%
28	1223	11	0.89%	9.0%	79	1302	11	0.89%	53.0%
29	1225	5	0.40%	9.4%	80	1304	29	2.34%	55.3%
30	1227	6	0.48%	9.9%	81	1306	11	0.89%	56.2%
31	1228	2	0.16%	10.0%	82	1308	20	1.62%	57.8%
32	1230	8	0.65%	10.7%	83	1311	15	1.21%	59.0%
33	1231	4	0.32%	11.0%	84	1314	30	2.42%	61.5%
34	1233	3	0.24%	11.2%	85	1316	21	1.70%	63.2%
35	1235	3	0.24%	11.5%	86	1319	27	2.18%	65.3%
36	1236	10	0.81%	12.3%	87	1322	11	0.89%	66.2%
37	1237	6	0.48%	12.8%	88	1326	41	3.31%	69.5%
38	1239	13	1.05%	13.8%	89	1329	16	1.29%	70.8%
39	1240	3	0.24%	14.1%	90	1333	46	3.72%	74.6%
40	1242	11	0.89%	14.9%	91	1338	18	1.45%	76.0%
41	1243	2	0.16%	15.1%	92	1343	64	5.17%	81.2%
42	1245	10	0.81%	15.9%	93	1348	8	0.65%	81.8%
43	1246	11	0.89%	16.8%	94	1354	38	3.07%	84.9%
44	1247	14	1.13%	17.9%	95	1362	8	0.65%	85.5%
45	1249	5	0.40%	18.3%	96	1371	60	4.85%	90.4%
46	1250	7	0.57%	18.9%	97	1382	5	0.40%	90.8%
47	1252	12	0.97%	19.9%	98	1399	43	3.47%	94.3%
48	1253	17	1.37%	21.2%	99	1428	0	0.00%	94.3%
49	1254	10	0.81%	22.1%	100	1500	71	5.74%	100.0%
50	1256	10	0.81%	22.9%					

Table 8.1.1.19
2010 AIMS A Frequency Distribution Science Grade 4

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	6	0.74%	0.7%	51	1256	11	1.36%	28.2%
1	1057	1	0.12%	0.9%	52	1257	10	1.24%	29.5%
2	1101	0	0.00%	0.9%	53	1259	10	1.24%	30.7%
3	1123	0	0.00%	0.9%	54	1260	10	1.24%	31.9%
4	1138	9	1.11%	2.0%	55	1261	7	0.87%	32.8%
5	1148	2	0.25%	2.2%	56	1263	6	0.74%	33.5%
6	1156	0	0.00%	2.2%	57	1264	4	0.50%	34.0%
7	1163	0	0.00%	2.2%	58	1266	14	1.73%	35.8%
8	1168	7	0.87%	3.1%	59	1267	5	0.62%	36.4%
9	1173	3	0.37%	3.5%	60	1268	5	0.62%	37.0%
10	1178	0	0.00%	3.5%	61	1270	7	0.87%	37.9%
11	1182	0	0.00%	3.5%	62	1271	12	1.49%	39.4%
12	1185	2	0.25%	3.7%	63	1273	7	0.87%	40.2%
13	1189	1	0.12%	3.8%	64	1274	17	2.10%	42.3%
14	1192	1	0.12%	4.0%	65	1276	9	1.11%	43.4%
15	1195	3	0.37%	4.3%	66	1277	7	0.87%	44.3%
16	1197	14	1.73%	6.1%	67	1279	5	0.62%	44.9%
17	1200	1	0.12%	6.2%	68	1280	10	1.24%	46.2%
18	1203	3	0.37%	6.6%	69	1282	9	1.11%	47.3%
19	1205	0	0.00%	6.6%	70	1284	13	1.61%	48.9%
20	1207	6	0.74%	7.3%	71	1285	6	0.74%	49.6%
21	1209	1	0.12%	7.4%	72	1287	15	1.86%	51.5%
22	1211	5	0.62%	8.0%	73	1289	12	1.49%	53.0%
23	1213	1	0.12%	8.2%	74	1290	19	2.35%	55.3%
24	1215	6	0.74%	8.9%	75	1292	5	0.62%	55.9%
25	1217	2	0.25%	9.2%	76	1294	27	3.34%	59.3%
26	1219	2	0.25%	9.4%	77	1296	8	0.99%	60.3%
27	1221	3	0.37%	9.8%	78	1298	21	2.60%	62.9%
28	1222	9	1.11%	10.9%	79	1300	12	1.49%	64.4%
29	1224	3	0.37%	11.3%	80	1302	26	3.22%	67.6%
30	1226	3	0.37%	11.6%	81	1305	15	1.86%	69.4%
31	1227	2	0.25%	11.9%	82	1307	25	3.09%	72.5%
32	1229	4	0.50%	12.4%	83	1309	12	1.49%	74.0%
33	1230	2	0.25%	12.6%	84	1312	23	2.85%	76.9%
34	1232	7	0.87%	13.5%	85	1315	9	1.11%	78.0%
35	1234	8	0.99%	14.5%	86	1317	30	3.71%	81.7%
36	1235	7	0.87%	15.3%	87	1321	7	0.87%	82.5%
37	1236	9	1.11%	16.5%	88	1324	16	1.98%	84.5%
38	1238	4	0.50%	17.0%	89	1327	10	1.24%	85.8%
39	1239	5	0.62%	17.6%	90	1331	24	2.97%	88.7%
40	1241	8	0.99%	18.6%	91	1335	4	0.50%	89.2%
41	1242	3	0.37%	18.9%	92	1340	25	3.09%	92.3%
42	1244	5	0.62%	19.6%	93	1345	6	0.74%	93.1%
43	1245	7	0.87%	20.4%	94	1351	14	1.73%	94.8%
44	1246	9	1.11%	21.5%	95	1359	1	0.12%	94.9%
45	1248	10	1.24%	22.8%	96	1368	17	2.10%	97.0%
46	1249	8	0.99%	23.8%	97	1379	3	0.37%	97.4%
47	1250	8	0.99%	24.8%	98	1396	9	1.11%	98.5%
48	1252	6	0.74%	25.5%	99	1425	0	0.00%	98.5%
49	1253	5	0.62%	26.1%	100	1500	12	1.49%	100.0%
50	1255	6	0.74%	26.9%					

Table 8.1.1.20
2010 AIMS A Frequency Distribution Science Grade 8

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	7	0.86%	0.9%	51	1258	4	0.49%	20.5%
1	1069	2	0.25%	1.1%	52	1259	4	0.49%	21.0%
2	1108	3	0.37%	1.5%	53	1260	4	0.49%	21.4%
3	1129	0	0.00%	1.5%	54	1261	4	0.49%	21.9%
4	1143	4	0.49%	2.0%	55	1262	4	0.49%	22.4%
5	1154	0	0.00%	2.0%	56	1263	4	0.49%	22.9%
6	1162	0	0.00%	2.0%	57	1265	4	0.49%	23.4%
7	1169	0	0.00%	2.0%	58	1266	4	0.49%	23.9%
8	1175	4	0.49%	2.5%	59	1267	4	0.49%	24.4%
9	1180	2	0.25%	2.7%	60	1268	4	0.49%	24.9%
10	1185	2	0.25%	2.9%	61	1269	4	0.49%	25.4%
11	1189	2	0.25%	3.2%	62	1270	4	0.49%	25.9%
12	1192	6	0.74%	3.9%	63	1272	4	0.49%	26.3%
13	1196	0	0.00%	3.9%	64	1273	4	0.49%	26.8%
14	1199	1	0.12%	4.0%	65	1274	4	0.49%	27.3%
15	1202	0	0.00%	4.0%	66	1275	4	0.49%	27.8%
16	1204	3	0.37%	4.4%	67	1276	4	0.49%	28.3%
17	1207	1	0.12%	4.5%	68	1278	4	0.49%	28.8%
18	1209	1	0.12%	4.7%	69	1279	4	0.49%	29.3%
19	1212	3	0.37%	5.0%	70	1280	4	0.49%	29.8%
20	1214	7	0.86%	5.9%	71	1282	4	0.49%	30.3%
21	1216	4	0.49%	6.4%	72	1283	4	0.49%	30.8%
22	1218	1	0.12%	6.5%	73	1284	4	0.49%	31.3%
23	1220	2	0.25%	6.7%	74	1286	4	0.49%	31.7%
24	1221	4	0.49%	7.2%	75	1287	4	0.49%	32.2%
25	1223	4	0.49%	7.7%	76	1289	4	0.49%	32.7%
26	1225	7	0.86%	8.6%	77	1290	4	0.49%	33.2%
27	1226	1	0.12%	8.7%	78	1292	4	0.49%	33.7%
28	1228	9	1.10%	9.8%	79	1293	4	0.49%	34.2%
29	1230	3	0.37%	10.2%	80	1295	4	0.49%	34.7%
30	1231	8	0.98%	11.2%	81	1297	4	0.49%	35.2%
31	1233	3	0.37%	11.5%	82	1298	4	0.49%	35.7%
32	1234	11	1.35%	12.9%	83	1300	4	0.49%	36.2%
33	1235	6	0.74%	13.6%	84	1302	4	0.49%	36.6%
34	1237	6	0.74%	14.3%	85	1304	4	0.49%	37.1%
35	1238	4	0.49%	14.8%	86	1306	4	0.49%	37.6%
36	1239	8	0.98%	15.8%	87	1309	4	0.49%	38.1%
37	1241	10	1.23%	17.0%	88	1311	4	0.49%	38.6%
38	1242	8	0.98%	18.0%	89	1314	4	0.49%	39.1%
39	1243	4	0.49%	18.5%	90	1317	4	0.49%	39.6%
40	1245	5	0.61%	19.1%	91	1320	4	0.49%	40.1%
41	1246	6	0.74%	19.9%	92	1324	4	0.49%	40.6%
42	1247	5	0.61%	20.5%	93	1328	4	0.49%	41.1%
43	1248	6	0.74%	21.2%	94	1332	4	0.49%	41.5%
44	1249	9	1.10%	22.3%	95	1338	4	0.49%	42.0%
45	1251	6	0.74%	23.0%	96	1345	4	0.49%	42.5%
46	1252	9	1.10%	24.1%	97	1354	4	0.49%	43.0%
47	1253	2	0.25%	24.4%	98	1366	4	0.49%	43.5%
48	1254	8	0.98%	25.4%	99	1389	4	0.49%	44.0%
49	1255	1	0.12%	25.5%	100	1500	4	0.49%	44.5%
50	1256	2	0.25%	25.7%					

Table 8.1.1.21
2010 AIMS A Frequency Distribution Science Grade 10

Raw Score	Scale Score	FREQ	Percent	Cuml Pct	Raw Score	Scale Score	FREQ	Percent	Cuml Pct
0	1000	4	0.47%	0.5%	51	1258	6	0.71%	29.2%
1	1103	0	0.00%	0.5%	52	1259	7	0.83%	30.0%
2	1134	5	0.59%	1.1%	53	1260	4	0.47%	30.5%
3	1151	1	0.12%	1.2%	54	1262	5	0.59%	31.1%
4	1162	8	0.94%	2.1%	55	1263	12	1.42%	32.5%
5	1170	0	0.00%	2.1%	56	1264	13	1.53%	34.0%
6	1177	1	0.12%	2.2%	57	1265	13	1.53%	35.5%
7	1182	0	0.00%	2.2%	58	1266	8	0.94%	36.5%
8	1187	6	0.71%	3.0%	59	1267	6	0.71%	37.2%
9	1191	0	0.00%	3.0%	60	1268	12	1.42%	38.6%
10	1194	3	0.35%	3.3%	61	1269	12	1.42%	40.0%
11	1198	1	0.12%	3.4%	62	1270	12	1.42%	41.4%
12	1201	6	0.71%	4.1%	63	1271	7	0.83%	42.3%
13	1203	1	0.12%	4.3%	64	1273	14	1.65%	43.9%
14	1206	2	0.24%	4.5%	65	1274	10	1.18%	45.1%
15	1208	1	0.12%	4.6%	66	1275	13	1.53%	46.6%
16	1211	7	0.83%	5.4%	67	1276	12	1.42%	48.1%
17	1213	1	0.12%	5.5%	68	1277	12	1.42%	49.5%
18	1215	2	0.24%	5.8%	69	1279	13	1.53%	51.0%
19	1217	2	0.24%	6.0%	70	1280	8	0.94%	51.9%
20	1219	11	1.30%	7.3%	71	1281	12	1.42%	53.4%
21	1220	1	0.12%	7.4%	72	1282	14	1.65%	55.0%
22	1222	5	0.59%	8.0%	73	1284	8	0.94%	56.0%
23	1224	0	0.00%	8.0%	74	1285	14	1.65%	57.6%
24	1225	10	1.18%	9.2%	75	1286	11	1.30%	58.9%
25	1227	3	0.35%	9.6%	76	1288	28	3.31%	62.2%
26	1228	6	0.71%	10.3%	77	1289	7	0.83%	63.0%
27	1230	1	0.12%	10.4%	78	1291	10	1.18%	64.2%
28	1231	8	0.94%	11.3%	79	1292	9	1.06%	65.3%
29	1233	3	0.35%	11.7%	80	1294	30	3.54%	68.8%
30	1234	3	0.35%	12.0%	81	1296	15	1.77%	70.6%
31	1235	6	0.71%	12.8%	82	1297	33	3.90%	74.5%
32	1237	8	0.94%	13.7%	83	1299	9	1.06%	75.6%
33	1238	6	0.71%	14.4%	84	1301	37	4.37%	79.9%
34	1239	9	1.06%	15.5%	85	1303	8	0.94%	80.9%
35	1240	4	0.47%	15.9%	86	1305	16	1.89%	82.8%
36	1241	8	0.94%	16.9%	87	1307	10	1.18%	83.9%
37	1243	7	0.83%	17.7%	88	1310	18	2.13%	86.1%
38	1244	5	0.59%	18.3%	89	1312	5	0.59%	86.7%
39	1245	8	0.94%	19.2%	90	1315	19	2.24%	88.9%
40	1246	12	1.42%	20.7%	91	1318	5	0.59%	89.5%
41	1247	6	0.71%	21.4%	92	1322	24	2.83%	92.3%
42	1248	4	0.47%	21.8%	93	1326	2	0.24%	92.6%
43	1250	8	0.94%	22.8%	94	1330	13	1.53%	94.1%
44	1251	10	1.18%	24.0%	95	1336	1	0.12%	94.2%
45	1252	1	0.12%	24.1%	96	1342	20	2.36%	96.6%
46	1253	10	1.18%	25.3%	97	1351	1	0.12%	96.7%
47	1254	7	0.83%	26.1%	98	1363	9	1.06%	97.8%
48	1255	8	0.94%	27.0%	99	1385	0	0.00%	97.8%
49	1256	4	0.47%	27.5%	100	1489	19	2.24%	100.0%
50	1257	8	0.94%	28.5%					

Part 9: Validity Evidence

Part 9 of the Technical Report provides evidence supporting the reliability and validity of the 2010 AIMS A 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 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.

9.1 Reliability

AERA/APA/NCME standards for Educational and Psychological Testing refer to reliability as the “consistency of [a measure] when the testing procedure is repeated on a population of individuals or groups.” 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 2010 AIMS A assessments was estimated by internal consistency for all tests. It should be noted that due to the large number of non-responders in the sample and the low number of test items in the rater and performance tasks subtests the accuracy of the reliability coefficient may be problematic.

9.1.1 Measures of Internal Consistency

For tests consisting of constructed response and/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 .

Reliability estimates for the tests administered as part of the 2010 AIMS A assessments are presented in Table 9.1.1. Note that a high degree of internal consistency is evident for all tests.

Table 9.1.1
2010 AIMS A Internal Consistency

Grade	Mathematics				Reading				Science			
	N	Alpha			N	Alpha			N	Alpha		
		MC	PT	RI		MC	PT	RI		MC	PT	RI
03	877	.86	.87	.84	877	.82	.88	.83				
04	898	.89	.87	.84	898	.89	.87	.85	897	.89	.90	.86
05	807	.86	.82	.84	807	.84	.91	.87				
06	798	.84	.87	.83	798	.87	.87	.85				
07	804	.84	.87	.85	804	.87	.90	.87				
08	860	.83	.90	.82	860	.86	.90	.86	860	.87	.93	.88
HS	1368	.81	.91	.88	1368	.87	.93	.89	821	.87	.88	.87

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). 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 2010 AIMS A tests were designed and developed to provide fair and accurate ability scores that support appropriate, meaningful, and useful educational decisions. Evidence of this is also provided in Part 2 (Involvement of Arizona Educators), Part 3 (Test Design), Part 4 (Test Development), Part 5 (Test Administration), Part 6 (Data for Operational Analysis), Part 7 (Calibration, Scaling, and Scoring), Part 9 (Validity Evidence), 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 A, 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 Parts 2 through 10. Following is a brief review.

Part 2 of the Technical Report describes the involvement of Arizona educators, and ADE 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 A. The knowledge, expertise, and professional judgment offered by Arizona educators ultimately ensured that the content of AIMS A 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 address the issue of test form development. Parts 3 and 4 provide a general discussion of test form creation and editing process, the process of selecting operational test items, the content distribution and blueprints. The test design process and the participation of Arizona educators in the process of test creation, including item content and bias review, provide a solid rationale for having confidence in the content and design of AIMS A as a tool from which to derive valid inferences about Arizona special student performance.

Part 5 of the Technical Report describes the process, procedures, and policies that guided the administration of the AIMS A, including accommodations, security, and the written procedures provided to test administrators and school personnel.

Part 6 of the Technical Report describes classical data analysis of the spring 2010 AIMS A.

Part 7 of the Technical Report describes 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 9 of the Technical Report describes Cronbach’s alpha as a measure for internal consistency for Reading, Mathematics, and Science.

Part 10 of the Technical Report describes the cut score classifications as determined by the standard setting.

Additional evidence to support the validity of the 2010 AIMS A assessments is provided by the following:

- Correlations between scores on the 2010 AIMS A tests for each grade level as construct validity were presented.
- Further evidence in support of the AIMS assessment has been documented in previous AIMS A technical reports.

9.2.1 Correlations among AIMS A Assessments

Correlations were examined between scale scores on 2010 AIMS A 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.

All correlations are presented in Tables 9.2.1.1 through 9.2.1.7. The patterns of correlation presented in the tables are consistent with expectations given the constructs measured.

**Table 9.2.1.1
2010 AIMS A Correlation between Assessments
Grade 3**

Test	Math	Reading
Math	1	.851
Reading	.851	1

N=866

**Table 9.2.1.2
2010 AIMS A Correlation among Assessments
Grade 4**

Test	Math	Reading	Science
Math	1	.924	.874
Reading	.924	1	.873
Science	.874	.873	1

N=851

Table 9.2.1.3
2010 AIMS A Correlation between Assessments
Grade 5

Test	Math	Reading
Math	1	.902
Reading	.902	1

N=903

Table 9.2.1.4
2010 AIMS A Correlation between Assessments
Grade 6

Test	Math	Reading
Math	1	.901
Reading	.901	1

N=876

Table 9.2.1.5
2010 AIMS A Correlation between Assessments
Grade 7

Test	Math	Reading
Math	1	.924
Reading	.924	1

N=801

Table 9.2.1.6
2010 AIMS A Correlation among Assessments
Grade 8

Test	Math	Reading	Science
Math	1	.878	.820
Reading	.878	1	.883
Science	.820	.883	1

N=856

Table 9.2.1.7
2010 AIMS A Correlation among Assessments
High School

Test	Math	Reading	Science
Math	1	.880	.852
Reading	.880	1	.858
Science	.852	.858	1

N=1301

Part 10: Classification

Part 10 of this Technical Report provides information regarding classifying students into proficiency categories. The following AERA/APA/NCME standards are covered in this part: 1.5, 1.7, 2.14, 2.15, 4.9, 4.19, 4.20, 4.21, and 6.5.

Scores from the 2010 AIMS A 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.

10.1 Standard Setting Technical Documentation

Standard setting for the AIMS A Mathematics, Reading, and Science tests was conducted in early May 2009 using the Bookmark Standard Setting Procedure. All technical documentation regarding the standard setting is available in the 2009 AIMS A Technical Report.

Final scale score ranges for each of the four performance level categories for the AIMS A tests are presented in Table 10.1.1.

Table 10.1.1
2010 AIMS A
Final Scale Score Ranges by Performance Level

Test		FFBS	AS	MS	ES
Mathematics	3	1000-1221	1222-1249	1250-1294	1295-1500
	4	1000-1221	1222-1249	1250-1301	1302-1500
	5	1000-1222	1223-1249	1250-1302	1303-1500
	6	1000-1186	1187-1249	1250-1313	1314-1500
	7	1000-1181	1182-1249	1250-1315	1316-1500
	8	1000-1200	1201-1249	1250-1300	1301-1500
	HS	1000-1198	1199-1249	1250-1328	1329-1500
Reading	3	1000-1210	1211-1249	1250-1301	1302-1500
	4	1000-1186	1187-1249	1250-1331	1332-1500
	5	1000-1162	1163-1249	1250-1330	1331-1500
	6	1000-1164	1165-1249	1250-1336	1337-1500
	7	1000-1181	1182-1249	1250-1339	1340-1500
	8	1000-1195	1196-1249	1250-1330	1331-1500
	HS	1000-1186	1187-1249	1250-1344	1345-1500
Science	4	1000-1187	1188-1249	1250-1330	1331-1500
	8	1000-1196	1197-1249	1250-1314	1315-1500
	10	1000-1196	1197-1249	1250-1308	1309-1500

Note: FFBS= Falls Far Below the Standard; AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard.

Table 10.1.2
2010 AIMS A
Standard Error of Measurement at Cut Scores

Test		AS		MS		ES	
		Cut Score	SEM	Cut Score	SEM	Cut Score	SEM
Mathematics	3	1222	11	1250	9	1295	13
	4	1222	12	1250	10	1302	14
	5	1223	11	1250	10	1303	14
	6	1187	12	1250	10	1314	13
	7	1182	15	1250	10	1316	13
	8	1201	13	1250	10	1301	12
	HS	1199	19	1250	14	1329	22
Reading	3	1211	15	1250	13	1302	17
	4	1187	18	1250	15	1332	26
	5	1163	25	1250	18	1331	27
	6	1165	14	1250	10	1337	15
	7	1182	13	1250	10	1340	15
	8	1196	13	1250	11	1331	17
	HS	1187	19	1250	14	1345	26
Science	4	1188	13	1250	10	1331	19
	8	1197	14	1250	10	1315	20
	10	1197	15	1250	11	1309	18

Note: AS= Approaches the Standard; MS= Meets the Standard; ES= Exceeds the Standard.

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APPENDIX A

AIMS A Eligibility Criteria

Print Form

Arizona Department of Education
Alternate Assessment Eligibility Determination
03/10/2010

The Arizona Department of Education offers criterion reference tests in compliance with the US Department of Education federal regulations and guidance. Please see the Eligibility Decision Flow Chart for AIMS to guide you through which assessment would best suit your student with special needs. A student must have an Individualized Education Program (IEP) in order to be considered for participation in an alternate assessment.

- AIMS A (Alternate)**
- Assesses grades 3–8 and high school
 - Includes mathematics, reading, and science (grades 4, 8, and 10)
 - Assesses qualifying students in all areas
 - Addresses Arizona *Alternate* Academic Content Standards
 - Based on *Alternate* Academic Achievement Standards

- AIMS**
- Assesses grades 3–8 and high school
 - Includes mathematics, reading, writing (grades 5, 6, 7, and HS), and science (grades 4, 8, and 10)
 - Addresses *grade-level* Arizona Academic Content Standards
 - Based on *grade-level* Academic Achievement Standards

STUDENT NAME: _____ STUDENT ID: _____
 SAIS ID: _____ DATE OF BIRTH: _____ GRADE LEVEL: _____
 SCHOOL: _____ CASE MANAGER: _____

AIMS A

The student has an IEP with goals based on *Alternate* Academic Content Standards.

The student is exposed to high quality instruction focusing on *Alternate* Academic Content Standards.

Part I: AIMS A Eligibility Requirements

In order to be considered for AIMS A, students must meet all three of the following criteria in all content areas that are tested: Mathematics, Reading, and Science (Science is only for grades 4, 8, and 10).

1. Evidence of a Significant Cognitive Disability

Empirical evidence (formal testing results, multidisciplinary evaluation team results, etc.) of a significant cognitive disability prevents the acquisition of the grade-level Arizona Academic Content Standards. Please note that students with learning disabilities who have overall intellectual and/or adaptive behavior abilities within the average range are not students with most significant cognitive disabilities. The student functions like a student with MR across all areas: commensurate abilities in mathematics, reading, and writing, adaptive behavior scores, and measures of intellectual abilities.

Check disability category:

- MIMR MOMR SMR
 MD with MR component MDSSI with MR component TBI with MR component
 Autism with MR component Other _____

Example 1: An eighth-grade student functioning at second-grade level in reading and writing and at fourth-grade level in mathematics does not qualify under criteria 1.

Example 2: A tenth-grade student functioning at the second-grade level in mathematics, reading, and writing, does qualify under criteria 1.

The student meets the *Evidence of a SCD* criterion for AIMS A eligibility.

- Yes No

2. Curricular Outcomes

The student has access to high-quality instruction based on *Alternate Academic Standards* (in all content areas tested) and the student's IEP goals and objectives focus on enrolled grade-level *Alternate Academic Standards*.

The student meets the *Curricular Outcomes* criterion for AIMS A eligibility.

- Yes No

3. Intensity of Instruction

is extremely difficult for the student to acquire, maintain, generalize, and apply academic skills across environments, even with high-quality extensive/intensive, pervasive, frequent, and individualized instruction in multiple settings in all content areas tested.

The student meets the *Intensity of Instruction* criterion for AIMS A eligibility.

- Yes No

The student is eligible for AIMS A.

- Yes (*All responses above are marked Yes.*)
 No (*Any response above is marked No and student must participate in AIMS.*)

Parent Notification

Parents must be notified that the student's AIMS assessment will be based on Alternate Academic Achievement Standards.

Measure of Academic Achievement

The child's academic achievement will be measured by the most appropriate assessment as determined by the IEP team and the noted documentation and data. The student will participate in testing with the following assessment(s).

AIMS A Mathematics, Reading, and Science
(Science is only for grades 4, 8, and 10.)

OR

AIMS Mathematics, Reading, Science, & Writing
(Science is only for grades 4, 8, and 10 and Writing is only for grades 5, 6, 7 and HS.)

Potential Consequences

Are there any effects of state or local policies that would preclude completion requirements for a regular high school diploma for the child participating in either test?

Yes

Explain: _____

No

Documentation Requirements for Informing Parents

If a parent or legal guardian participated in the IEP meeting during which the Alternate Assessment Eligibility Determination form was completed, then the parent attendance indicated on the IEP cover page will suffice.

Parent participated at IEP meeting.

If the parent or legal guardian did not participate in the IEP meeting, then contact the parent to discuss the points above.

Parent contacted through letter dated _____.

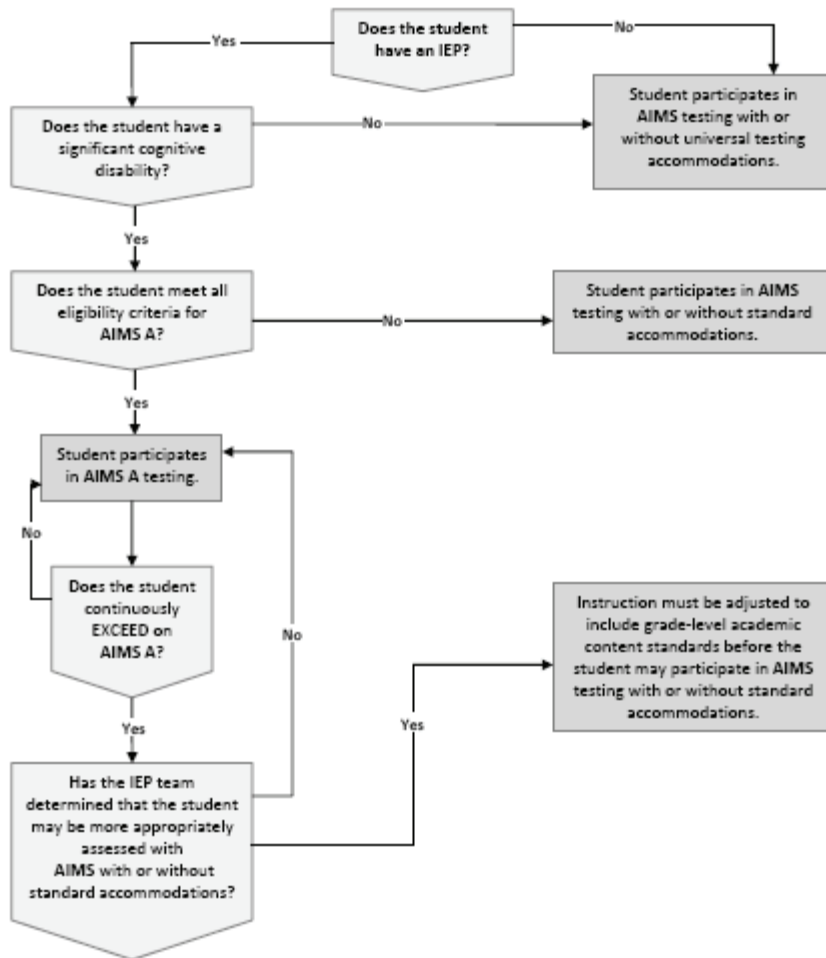
Parent contacted via phone by _____ on _____.

Date of Alternate Assessment eligibility determination: _____

IEP team members present at Alternate Assessment eligibility determination decision:

Eligibility Decision Flow Chart for AIMS

IEP teams must consider participation in general education assessments (AIMS 3-8 and HS), with or without standard accommodations, for students before considering participation in an alternate assessment- AIMS A (alternate achievement standards). Eligibility is determined based on the needs and abilities of each individual student. Please see the AA Eligibility Determination form for further information.



APPENDIX B

Item Writer Selection Criteria

APP AIMS A Committee Participant Selection Criteria

ARIZONA DEPARTMENT OF EDUCATION

PROCEDURE FOR SELECTION OF EDUCATOR COMMITTEES

ARIZONA ASSESSMENT SECTION

Although our database contains over 1000 educators, 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. (This is a change in procedure)*
- 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 on primary list **
- After decline and accept emails are received by established deadline, additional invitations issued to members on alternate list
- Committee meeting held
- Review performance of participants

* ADE is concerned that utilizing the same committee members on a series of committees will reduce the input from a variety of educators and have requested that past committee participation be part of the selection process. As the pool of teachers expands, individual members will serve on fewer committees.

** It is not the policy to inform all members in our database of scheduled committee meetings, but only those invited to a particular meeting.

Beginning in April of 2006, all past participants have been invited to update their applications on a yearly basis in order to have the most current information in the database. Also, when Arizona educators participate on a committee, they are asked to review their information and note anything that might have changed. The application identifies the demographics of each committee member: geographic location in Arizona, ethnicity of school/district population and/or committee participant, and a detailed biographical background including participation on AIMS A committees.

In order to replace past participants who have moved, changed positions, or no longer possess the time to serve, a recruitment letter was sent in October of 2006 to solicit recommendations from District Superintendents regarding prospective educators whose expertise and participation could be of great benefit. The ADE is constantly recruiting Arizona educators to serve on the various AIMS A committees as well as encouraging retention of its veteran contributors and recognizing them as excellent Ambassadors of the Assessment.

APPENDIX C

Item Writing Committee

Item Writing Guidelines

1. Use closed stems whenever possible.
2. There should only be one correct answer.
3. Keep wording clear and simple. No Trick Questions!
4. Only use three responses (distracters)
5. Distracters must be parallel in structure.

Do's and Don'ts of Item Writing	
Don't Do	Do – <i>All distracters are infinitive format</i>
<p>Why did the wolf go to grandma's house?</p> <p>a. To find the goodies in Red's basket. b. To blow the house down. c. He needed food. (<i>This distracter does not use infinitive format and is not parallel</i>)</p>	<p>Why did the wolf go to grandma's house?</p> <p>a. To find the goodies in Red's basket. b. To blow the house down. c. To eat the woodsman.</p>
	Do – <i>Each distracter is different.</i>
	<p>Why did the wolf go to grandma's house?</p> <p>a. He liked older women. b. To blow down the pig's house. c. Red invited him.</p>

6. One question should not cue another.

<p>Why couldn't the Big Bad Wolf blow down the third pig's house? (<i>If students get this correct they will get the second correct because this question provides the answer for the second.</i>)</p> <p>a. It was made of straw. b. It was made of sticks. c. It was made of bricks.</p>
<p>Which house could <i>NOT</i> be blown down by the Big Bad Wolf? (<i>Using "not" should be avoided because kids tend to read over it, but sometimes it can't be avoided.</i>)</p> <p>a. The first pig's b. The second pig's c. The third pig's</p>

7. Distracters should all be similar in length.

Do's and Don'ts of Item Writing	
Don't Do	Do – Stepping format
Why did the wolf go to grandma's house? a. He was hungry and wanted some food. b. He liked Red. c. He wanted cookies	Why did the wolf go to grandma's house? a. To find the goodies in Red's basket. b. To blow the house down. c. To eat the woodsman.
	Do – Another Format.
	Why did the wolf go to grandma's house? a. He liked older women. b. To blow down the pig's house. c. Red invited him for lunch.

8. Distracters should all be plausible. NO THROW AWAYS!

Don't Do -
Why did the wolf go to grandma's house? a. To eat Little Red Riding Hood. b. To get the basket of goodies. <i>(This could be an answer based on a misreading.)</i> c. He liked to wear women's clothes. <i>(Even with a misreading this is not plausible and can not be supported with the text.)</i>

9. Identify your answer!

Item Writing and Review

December 2, 2009

Desert Willow Conference Center

Welcome and Introductions

- Introductions
- Overview of committee work
- Resources and materials
- Item Writing Do's and Don'ts
- Points and Ideas to consider

Adapting Academic Tasks

- Simplify Tasks
 - Add Information
 - Target Much Easier Concepts
 - Have Less to Do
- Make More Active
- Make Tangible
- Make Materials Larger/Add Color
- Make it Fun/Game-like when Possible

June Downing, Access Center Webinar, September 2005

English Literature

- Build Vocabulary
- Identify Big Ideas
- Determine color of ink to write with
- Same/Different concepts
- Count particular items on pages
- Add page numbers
- Sign name

June Downing, Access Center Webinar, September 2005

APPENDIX D

2010 AIMS A Monitoring Review

The Individuals with Disabilities Education Act (IDEA) and Title I of the No Child Left Behind Act (NCLB) require the inclusion of all students with disabilities in the State assessment system. Title I further requires that the assessment results for all students be used for system accountability to ensure that the best education possible is provided to all students (Improving the Academic Achievement of the Disadvantaged, 2007).

The Arizona Department of Education (ADE) Assessment and Exceptional Student Services sections monitor the administration of Arizona's Instrument to Measure Standards Alternate (AIMS A) during the spring testing window. Assessment monitoring is conducted to ensure test validity and reliability and also for continuity in subsequent assessment years. The Individuals with Disabilities Education Act (IDEA) (300.149) requires, and state law (ARS 15-755) authorizes, monitoring and evaluation activities to determine the effectiveness of programs for meeting the educational needs of children with disabilities. These practices help to ensure that programs are carried out and educational results for children with disabilities improve.

This monitoring was conducted through the dissemination of web cameras for the video recording of students as they are administered the performance and rater sections of the assessment and in person by ADE throughout the testing window from February 15, 2010 to March 31, 2010. The onsite testing monitors evaluated the environment in which the student was being assessed, as well as the administration of each section of the assessment.

The video monitoring evaluated information about the assessment administration, standardized activities, and data collection procedures. Teachers were selected for video monitoring based on the students for whom they administered the AIMS A. Students were randomly selected to be representative of the population that took AIMS A in 2008. The sampling was done based on special education need, ethnicity, gender, and region. A total of 60 students were selected, and 49 were returned. A committee of ADE specialists in special education and familiar with the AIMS A assessments reviewed each recording and made the following suggestions for the 2010 administration.

- To clarify what constitutes prompting, modeling, and cueing.
- To provide guidelines on the proper testing environment.
- To amend the Rater Item Data Sheets to include more information on the items being assessed.

From the committee's suggestions, the following will be instituted for the AIMS A 2011 administration.

- Each district is required to send a representative to AIMS A regional training and agree to train all staff in their district on the proper administration. Included in the training is a clarification of prompting, modeling, and cueing, based on recommendations from the National Alternate Assessment Center and guidelines on the proper testing environment.
- The Performance Task and Rater Item Directions will be clarified to include those definitions on prompting, modeling, and cueing provided by the National Alternate Assessment Center.
- The Rater Item Data Sheets will be amended to include more information on the assessed items.

APPENDIX E

Example Item Specification Card

Item Card
 Arizona's Instrument to Measure Standards - Alternate
 (AIMS-A)
 Reading

Item Number:	Grade Level: 4
Item Writer:	Depth of Knowledge Level (DOK): L2 S4
Strand: 2 (Comprehending Literary Text)	
Concept: 1 (Elements of Literature)	
PO: 2 (Identify a solution to a problem in a story)	

Three giraffes wanted to live together. The house was too small. What should they do?

Graphic Suggestion: There should be a graphic showing 3 giraffes and a house

- A go to the movies
- B build a bigger house
- C paint the house

Correct Answer:

B

Vocabulary levels:

K-3