

# 2011 CSAPA

## FINAL Operational Technical Report

Submitted

October 31, 2011



CTB/McGraw-Hill  
Monterey, California 93940

---

## Copyright

---

Developed and published under contract with the Colorado Department of Education by CTB/McGraw-Hill LLC, a subsidiary of The McGraw-Hill Companies, Inc., 20 Ryan Ranch Road, Monterey, California 93940-5703. Copyright © 2011 by the Colorado Department of Education. Based on a template copyright © 1996 by CTB/McGraw-Hill LLC. All rights reserved. Only State of Colorado educators and citizens may copy, download and/or print the document, located online at <http://www.cde.state.co.us/cdeassess/publications.html>. Any other use or reproduction of this document, in whole or in part, requires written permission of the Colorado Department of Education and the publisher.

## Table of Contents

Copyright.....	i
Table of Contents.....	ii
List of Tables.....	iv
List of Figures .....	vii
Acronyms and Abbreviations .....	viii
Executive Summary .....	1
Overview .....	2
Introduction.....	2
Purpose of the CSAPA.....	3
Use of the Assessment Information .....	3
Part 1: Standards .....	4
Part 2: Test Development .....	4
Test Design .....	4
Item Review and Test Fairness.....	5
Item Selection.....	6
Part 3: Description of the Population .....	6
Description of Students .....	6
Student Eligibility Criteria .....	6
Population Characteristics.....	6
Part 4: Test Administration.....	8
Teacher/Test Examiner Training.....	8
Additional Training.....	8
Part 5: Scoring .....	8
Scoring Rubrics .....	8
<i>Level of Independence</i> .....	9
<i>Multiple Choice Item Types</i> .....	10
<i>Constructed Response Item Types</i> .....	10
Score Validation .....	11
Part 6: Standard Setting.....	12
Part 7: Analyses and Results.....	13
Item Level Statistics.....	13
<i>Item Difficulty (p-values)</i> .....	13
<i>Item Discrimination (point biserial correlation)</i> .....	16
Content Standards Level Statistics .....	17
Total Test Level Statistics .....	19
Proficiency Level Data.....	19
Part 8: Summary of Results—Reliability and Validity .....	20
Reliability .....	20
<i>Item-specific reliability</i> .....	20
<i>Total test reliability</i> .....	21
Validity .....	24
Part 9: Special Studies.....	26
Level of Independence .....	26
Additional Reliability Measures .....	26
Student Scores .....	27
Performance Levels and Response Modes .....	27

Part 10: Longitudinal Analyses .....	29
Reading .....	29
Writing.....	31
Mathematics .....	33
Science .....	36
Conclusion .....	38
References.....	48
Tables 1–102 .....	50
Figures 1–31 .....	378
Appendix A: Location of Information for Peer Review Critical Elements .....	410

## List of Tables

Table 1 Reading Test Design: Number of Items and Score Points per Expanded Benchmark by Grade and Maximum Score Possible .....	51
Table 2 Writing Test Design: Number of Items and Score Points per Expanded Benchmark by Grade and Maximum Score Possible .....	54
Table 3 Mathematics Test Design: Number of Items and Score Points per Expanded Benchmark by Grade and Maximum Score Possible .....	56
Table 4 Science Test Design: Number of Items and Score Points per Expanded Benchmark by Grade and Maximum Score Possible .....	58
Table 5 Test Design: Number of Items by Maximum Item Score .....	59
Table 6 Reading Descriptive Statistics by Gender and Race/Ethnicity .....	60
Table 7 Writing Descriptive Statistics by Gender and Race/Ethnicity .....	64
Table 8 Mathematics Descriptive Statistics by Gender and Race/Ethnicity .....	68
Table 9 Science Descriptive Statistics by Gender and Race/Ethnicity .....	72
Table 10 Reading Descriptive Statistics by English Language Proficiency .....	74
Table 11 Writing Descriptive Statistics by English Language Proficiency .....	82
Table 12 Mathematics Descriptive Statistics by English Language Proficiency .....	90
Table 13 Science Descriptive Statistics by English Language Proficiency .....	98
Table 14 Reading Descriptive Statistics by Free/Reduced Price Lunch Eligibility .....	101
Table 15 Writing Descriptive Statistics by Free/Reduced Price Lunch Eligibility .....	102
Table 16 Mathematics Descriptive Statistics by Free/Reduced Price Lunch Eligibility .....	103
Table 17 Science Descriptive Statistics by Free/Reduced Price Lunch Eligibility .....	104
Table 18 Reading Descriptive Statistics by Primary Disability .....	105
Table 19 Writing Descriptive Statistics by Primary Disability .....	113
Table 20 Mathematics Descriptive Statistics by Primary Disability .....	121
Table 21 Science Descriptive Statistics by Primary Disability .....	129
Table 22 Reading Descriptive Statistics by Expanded Accommodation .....	132
Table 23 Writing Descriptive Statistics by Expanded Accommodation .....	136
Table 24 Mathematics Descriptive Statistics by Expanded Accommodation .....	140
Table 25 Science Descriptive Statistics by Expanded Accommodation .....	144
Table 26 Scoring Rubric for Multiple-Choice Item Types .....	146
Table 27 Scoring Rubric for Constructed-Response Item Types .....	147
Table 28 Summary of Invalidations .....	148
Table 29 Breakdown of Invalidations Due to Test Examiners Marking Bubbles on Answer Document .....	149
Table 30 Writing Frequency Distributions of CR (6-Point) Items .....	151
Table 31 Mathematics Frequency Distributions of CR (6-Point) Items .....	153
Table 32 Science Frequency Distributions of CR (6-Point) Items .....	157
Table 33 Reading Item Level Statistics With and Without Level of Independence .....	158
Table 34 Writing Item Level Statistics With and Without Level of Independence .....	166
Table 35 Mathematics Item Level Statistics With and Without Level of Independence .....	174

Table 36 Science Item Level Statistics With and Without Level of Independence.....	186
Table 37 Summary of <i>P</i> -values and Point Biserial by Grade and Content Area Including Level of Independence .....	189
Table 38 Summary of <i>P</i> -values and Point Biserial by Grade and Content Area Without Including Level of Independence.....	190
Table 39 Reading Expanded Benchmark Level Statistics, Ordered by Mean Difficulty ( <i>P</i> -value).....	191
Table 40 Writing Expanded Benchmark Level Statistics, Ordered by Mean Difficulty ( <i>P</i> -value).....	195
Table 41 Mathematics Expanded Benchmark Level Statistics, Ordered by Mean Difficulty ( <i>P</i> -value) .....	198
Table 42 Science Expanded Benchmark Level Statistics, Ordered by Mean Difficulty ( <i>P</i> -value).....	201
Table 43 Reading Grade 3 Raw Score Frequency Distributions .....	202
Table 44 Reading Grade 4 Raw Score Frequency Distributions .....	206
Table 45 Reading Grade 5 Raw Score Frequency Distributions .....	210
Table 46 Reading Grade 6 Raw Score Frequency Distributions .....	214
Table 47 Reading Grade 7 Raw Score Frequency Distributions .....	218
Table 48 Reading Grade 8 Raw Score Frequency Distributions .....	222
Table 49 Reading Grade 9 Raw Score Frequency Distributions .....	226
Table 50 Reading Grade 10 Raw Score Frequency Distributions .....	229
Table 51 Writing Grade 3 Raw Score Frequency Distributions .....	232
Table 52 Writing Grade 4 Raw Score Frequency Distributions .....	236
Table 53 Writing Grade 5 Raw Score Frequency Distributions .....	240
Table 54 Writing Grade 6 Raw Score Frequency Distributions .....	244
Table 55 Writing Grade 7 Raw Score Frequency Distributions .....	248
Table 56 Writing Grade 8 Raw Score Frequency Distributions .....	252
Table 57 Writing Grade 9 Raw Score Frequency Distributions .....	256
Table 58 Writing Grade 10 Raw Score Frequency Distributions.....	260
Table 59 Mathematics Grade 3 Raw Score Frequency Distributions .....	264
Table 60 Mathematics Grade 4 Raw Score Frequency Distributions .....	268
Table 61 Mathematics Grade 5 Raw Score Frequency Distributions .....	272
Table 62 Mathematics Grade 6 Raw Score Frequency Distributions .....	278
Table 63 Mathematics Grade 7 Raw Score Frequency Distributions .....	283
Table 64 Mathematics Grade 8 Raw Score Frequency Distributions .....	287
Table 65 Mathematics Grade 9 Raw Score Frequency Distributions .....	292
Table 66 Mathematics Grade 10 Raw Score Frequency Distributions .....	297
Table 67 Science Grade 5 Raw Score Frequency Distributions .....	302
Table 68 Science Grade 8 Raw Score Frequency Distributions.....	305
Table 69 Science Grade 10 Raw Score Frequency Distributions.....	308
Table 70 Cut Scores and Percent of Students in Each Proficiency Level.....	311
Table 71 Total Group Statistics, Including Reliability.....	313

Table 72 Classification Consistency and Accuracy .....	314
Table 73 Level of Independence—Total Percentage by Level across All Items .....	315
Table 74 Reliability of Levels of Independence .....	316
Table 75 Percentages of Test Administrator Coding Errors .....	317
Table 76 Reliability of Test Examiner Rated Performance Level (via Test Examiner Surveys) versus Earned Performance Level .....	318
Table 77 Response Mode Analysis—Assessment Activities .....	319
Table 78 Response Mode Analysis—School Interactions .....	320
Table 79 Reading Average Level of Independence and Earned Proficiency Level .....	321
Table 80 Writing Average Level of Independence and Earned Proficiency Level .....	323
Table 81 Mathematics Average Level of Independence and Earned Proficiency Level .....	325
Table 82 Science Average Level of Independence and Earned Proficiency Level .....	327
Table 83 Reading Longitudinal Total Group Means and Standard Deviations .....	328
Table 84 Writing Longitudinal Total Group Means and Standard Deviations .....	329
Table 85 Mathematics Longitudinal Total Group Means and Standard Deviations .....	330
Table 86 Science Longitudinal Total Group Means and Standard Deviations .....	331
Table 87 Reading Longitudinal Subgroup Participation .....	332
Table 88 Writing Longitudinal Subgroup Participation .....	340
Table 89 Mathematics Longitudinal Subgroup Participation .....	348
Table 90 Science Longitudinal Subgroup Participation .....	356
Table 91 Reading Longitudinal Summary of <i>P</i> -values .....	359
Table 92 Writing Longitudinal Summary of <i>P</i> -values .....	360
Table 93 Mathematics Longitudinal Summary of <i>P</i> -values .....	361
Table 94 Science Longitudinal Summary of <i>P</i> -values .....	362
Table 95 Reading Longitudinal Summary of Point Biserials .....	363
Table 96 Writing Longitudinal Summary of Point Biserials .....	364
Table 97 Mathematics Longitudinal Summary of Point Biserials .....	365
Table 98 Science Longitudinal Summary of Point Biserials .....	366
Table 99 Reading Longitudinal Summary of Impact Data .....	367
Table 100 Writing Longitudinal Summary of Impact Data .....	370
Table 101 Mathematics Longitudinal Summary of Impact Data .....	373
Table 102 Science Longitudinal Summary of Impact Data .....	376

## List of Figures

Figure 1 Total Number of Students Participating in CSAPA 2010–11 by Grade and Content.....	379
Figure 2 Percent of Participating Students by Coded Disability.....	380
Figure 3 Reading Percent of Students Utilizing Expanded Accommodations.....	381
Figure 4 Writing Percent of Students Utilizing Expanded Accommodations.....	382
Figure 5 Mathematics Percent of Students Utilizing Expanded Accommodations.....	383
Figure 6 Science Percent of Students Utilizing Expanded Accommodations.....	384
Figure 7 Reading Mean as Percent of Total Possible Score by Gender.....	385
Figure 8 Writing Mean as Percent of Total Possible Score by Gender.....	386
Figure 9 Mathematics Mean as Percent of Total Possible Score by Gender.....	387
Figure 10 Science Mean as Percent of Total Possible Score by Gender.....	388
Figure 11 Reading Mean as Percent of Total Possible Score by Race/Ethnicity.....	389
Figure 12 Writing Mean as Percent of Total Possible Score by Race/Ethnicity.....	390
Figure 13 Mathematics Mean as Percent of Total Possible Score by Race/Ethnicity.....	391
Figure 14 Science Mean as Percent of Total Possible Score by Race/Ethnicity.....	392
Figure 15 Reading Impact Data.....	393
Figure 16 Writing Impact Data.....	394
Figure 17 Mathematics Impact Data.....	395
Figure 18 Science Impact Data.....	396
Figure 19 Impact Data—Developing and Novice Combined.....	397
Figure 20 Total Number of Students Participating in CSAPA Reading 2008, 2009, 2010, and 2011.....	398
Figure 21 Total Number of Students Participating in CSAPA Writing 2008, 2009, 2010, and 2011.....	399
Figure 22 Total Number of Students Participating in CSAPA Mathematics 2007, 2008, 2009, 2010, and 2011.....	400
Figure 23 Total Number of Students Participating in CSAPA Science 2008, 2009, 2010, and 2011.....	401
Figure 24 Mean Score as Percent of Total for Reading 2008, 2009, 2010, and 2011.....	402
Figure 25 Mean Score as Percent of Total for Writing 2008, 2009, 2010, and 2011.....	403
Figure 26 Mean Score as Percent of Total for Mathematics 2007, 2008, 2009, 2010, and 2011.....	404
Figure 27 Mean Score as Percent of Total for Science 2008, 2009, 2010, and 2011.....	405
Figure 28 Percent of Participating Students by Coded Disability Longitudinally for Reading.....	406
Figure 29 Percent of Participating Students by Coded Disability Longitudinally for Writing.....	407
Figure 30 Percent of Participating Students by Coded Disability Longitudinally for Mathematics.....	408
Figure 31 Percent of Participating Students by Coded Disability Longitudinally for Science.....	409



## **Acronyms and Abbreviations**

<u>AERA</u>	American Educational Research Association
<u>APA</u>	American Psychological Association
<u>AYP</u>	Adequate Yearly Progress
<u>CDE</u>	Colorado Department of Education
<u>CE</u>	Critical Element of Peer Review
<u>CR</u>	Constructed-Response
<u>CSAP</u>	Colorado Student Assessment Program
<u>CSAPA</u>	Colorado Student Assessment Program Alternate
<u>CTB</u>	CTB/McGraw-Hill
<u>ELL</u>	English Language Learner
<u>ESL</u>	English as a Second Language
<u>FEP</u>	Fluent English Proficient
<u>FERPA</u>	Family Education Rights & Privacy Act
<u>IDEA</u>	Individuals with Disabilities Education Act
<u>IEP</u>	Individualized Education Program
<u>LEP</u>	Limited English Proficient
<u>MA</u>	Mathematics
<u>MC</u>	Multiple-Choice
<u>NCLB</u>	No Child Left Behind Act
<u>NCME</u>	National Council on Measurement in Education
<u>NEP</u>	Not English Proficient
<u>PLD</u>	Performance Level Descriptor
<u>RD</u>	Reading
<u>SC</u>	Science
<u>SD</u>	Standard Deviation
<u>SEM</u>	Standard Error of Measurement
<u>USDOE</u>	United States Department of Education
<u>WR</u>	Writing

## **Executive Summary**

The 2010–11 Colorado Student Assessment Program Alternate (CSAPA) Operational Technical Report documents the processes and procedures implemented in support of the 2010–11 spring administration of the CSAPA by CTB/McGraw-Hill (CTB) and the Colorado Department of Education (CDE). The technical report shows how the processes and procedures applied, as well as the results, relate to the issues of validity and reliability, the *Standards for Educational and Psychological Testing* [American Educational Research Association (AERA), American Psychological Association (APA), & National Council on Measurement in Education (NCME), 1999], and the federal Peer Review process as detailed in the *Standards and Assessments Peer Review Guidance* (USDOE, 2007). Some primary findings presented in this technical report are summarized below.

**Purpose:** As succinctly stated in the CSAPA Examiner’s Manual Spring 2011 (CDE, 2011b), the purpose of the CSAPA is as follows: “The CSAPA is a standards-based assessment designed specifically for eligible students with significant cognitive disabilities and is meant to provide a picture of student performance to schools, districts, educators, parents, and the community. The primary purpose of the assessment program is to determine the level at which Colorado students meet the Expanded Benchmarks which are linked to the Colorado Model Content Standards in the content areas assessed. The data should be used to keep abreast of individual student progress toward attaining achievement in the content areas” (p. 1).

**Administration:** The administration of the 2010–11 CSAPA occurred from February 2, 2011, through March 25, 2011. A high level of security is maintained on all testing materials, at all levels. For all content areas, each test administration occurs on an individual student basis where teachers/test examiners mark the student’s response and the level of independence at which the student performed. The assessment administration is not timed and can be conducted over several days in order to accommodate the students and minimize fatigue.

**Student Population:** The CDE provides an eligibility checklist to be evaluated by a student’s Individualized Education Program (IEP) team in order to determine whether the student should be assessed with the Colorado Student Assessment Program (CSAP) or the CSAPA. Within the context of the 2010–11 administration, as few as 490 (grade 10 Writing and Science) and as many as 665 (grade 5 Reading) students participated in the CSAPA administration, compared to the 2009–10 administration where between 473 (grade 10 Writing) and 676 (grade 3 Reading) students participated.

Within the context of the 2010–11 administration, teachers/test examiners were asked to voluntarily and confidentially respond to an online survey regarding the response modes for students assessed with the CSAPA. The results of this survey indicate that the majority of students utilize verbal responses; between 53% (grade 3) and 73% (grade 7) of students utilize verbal responses in relation to assessment, and between 70% (grade 10) and 82% (grade 4) of students utilize verbal responses in relation to daily classroom interactions.

**Operational Analyses:** The CSAPA uses raw score reporting, incorporating both the content score and the level of independence with which a student answers an item to determine the total score for the item and ultimately the content area. Standard setting activities conducted in 2007 and 2008 (dependent on the content area) were based upon approximately the same items that are currently presented. The test forms include some item overages by standard in order to ensure that if items must be suppressed from scoring, a sufficient number of items will remain for each reported score. Items undergo classical item analyses yearly in order to ensure that the item performance is not dramatically altered from year to year, which could suggest item exposure or other issues that would raise concerns about item validity and year-to-year

comparability of scores. Any item that displays problematic classical statistics or dramatic changes across years is carefully reviewed to determine the appropriateness of continuing to include the item in scoring and reporting. Within the context of the 2010–11 CSAPA administration, no items required suppression due to classical statistics or due to changes in item performance over time. This report contains information regarding the statistics for each item and for the forms overall for both this administration and longitudinal comparisons.

**Results:** In general, longitudinal results indicate that the percentage of students with the highest proficiency levels, *Developing* and *Novice*, has remained generally stable for all content areas, with, in general, a slight decrease for each content area across all grades since the 2009–10 administration. Across all grade levels the average change in *Developing* and *Novice* combined was –0.19% for Reading, –1.14% for Writing, –1.49% for Mathematics, and –0.10% for Science. The greatest increase was in Mathematics grade 7 with a 4.45% increase across the two administrations. The greatest decrease was in Mathematics grade 10 with a –7.17% decrease across the two administrations.

This report provides detailed information related to the items and issues addressed above and demonstrates that the processes and procedures applied in the CSAPA adhered to appropriate standards and practices of educational assessment. Ultimately, this report serves to document evidence that valid inferences about Colorado students assessed with the CSAPA can be made from the CSAPA scoring and reporting.

## **Overview**

### **Introduction**

This document describes the CSAPA with a specific focus on the results of the 2010–11 assessment year. The CSAPA is an alternate assessment for students with a significant cognitive disability who are unable to participate in the general, on-grade Colorado assessment (Colorado Student Assessment Program, CSAP), even with accommodations (CDE, 2011b).

The 2010–11 CSAPA administration assessed students in Reading (RD), Writing (WR), and Mathematics (MA) at grades 3–10, and in Science (SC) at grades 5, 8, and 10. For all grade levels and content areas the forms and administration guidelines were consistent with the 2009–10 CSAPA. The testing window opened February 2, 2011, for all grade levels and closed March 25, 2011.

The work involved in the development of the curriculum standards, test forms, administration, scoring, standard setting, and analyses are all important steps in the process of developing a valid assessment system, regardless of the format of the assessment (Barton, 2007). This document serves to capture a small portion of the enormous amount of time and effort devoted to the CSAPA in relation to the importance, reliability, and validity of the assessment as part of the Colorado assessment system. From the American Educational Research Association (AERA), American Psychological Association (APA), & National Council on Measurement in Education (NCME) *Standards for Educational and Psychological Testing* (1999), guidance is given in Standard 3.6 that is of particular relevance to alternate assessments and the uniqueness of the “intended test takers.” It reads:

The type of items, the response formats, scoring procedures, and test administration procedures should be selected based on the purposes of the test, the domain to be measured, and the intended test takers. To the extent possible, test content should be chosen to ensure that intended inferences from test scores are equally valid for members of different groups of test takers. The test review process should include empirical analyses and, when appropriate, the use

of expert judges to review items and response formats. The qualifications, relevant experiences, and demographic characteristics of expert judges should also be documented. (p. 44)

The entire CSAPA process pays close attention to each of these directions.

In addition to being guided by the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999), guidance from the *Standards and Assessments Peer Review Guidance* (USDOE, 2007) is beneficial. This technical report provides evidence toward a variety of Critical Elements of Peer Review (CE) as part of the guidance for Peer Review. The majority of this document covers evidence in Section 4: A system of assessment with high quality, from the *Standards and Assessments Peer Review Guidance* (USDOE, 2007), including CEs 4.1 (validity), 4.2 (reliability), 4.3 (fairness and accessibility), 4.5 (administration, scoring, analysis, and reporting), and 4.6 (accommodations). For Critical Elements in other sections of the *Standards and Assessments Peer Review Guidance* (USDOE, 2007), Appendix A details the chapter in the *Standards and Assessments Peer Review Guidance* (USDOE, 2007) and the corresponding section in this technical report.

### **Purpose of the CSAPA**

In the 2005–06 school year the federal No Child Left Behind Act (NCLB) required all states to test all students in Reading and Mathematics in grades 3 through 8 and once in high school. Based on the NCLB legislation, student performance, reported in terms of proficiency categories, is used to determine the adequate yearly progress (AYP) of students at the school, district, and state levels. Beginning in the 2007–08 school year states were additionally required to administer Science assessments at least once in grades 3–5, once in grades 6–9, and once in grades 10–12.

The CSAPA is administered in Reading, Mathematics, and Writing in grades 3–10 and in Science in grades 5, 8, and 10. The addition of the Writing content area is critical within the state of Colorado, although not required by the federal government within the NCLB legislation. Reading and Writing are treated as separate content areas, are assessed with different items, have different Performance Level Descriptors (PLDs), and maintain separate scoring and reporting.

The 2004 reauthorization of the Individuals with Disabilities Education Act (IDEA) requires participation of students with disabilities in state- and district-wide assessments. Specifically, IDEA stipulates in section 612 part A, number 16, “All children with disabilities are included in all general State and districtwide assessment programs, including assessments described under section 1111 of the Elementary and Secondary Education Act of 1965, with appropriate accommodations and alternate assessments where necessary and as indicated in their respective individualized education programs” (USDOE, 2004). All decisions regarding the participation of a student with disabilities in the CSAP or CSAPA assessment must be addressed by the student’s Individualized Education Program (IEP) team, including the parent as an equal participant. The CSAPA is designed to meet the requirements of the NCLB accountability goals and IDEA and to provide students, parents, teachers, and schools with information about how students are progressing in relation to the Colorado Model Content Standards and Expanded Benchmarks.

### **Use of the Assessment Information**

The CSAPA provides achievement information serving multiple purposes to schools, teachers, parents, and students. In addition to providing results for use in state and federal accountability programs, CSAPA results may be used as one of many tools to provide parents and guardians

with information about the academic performances of their children; to help inform school district and school level decision making related to student learning; to identify grade-level curricular strengths and weaknesses; and to identify curricular areas where additional diagnoses are indicated in order to prescribe a course of intervention or enhancement, corrective instruction, or specialized services.

In addition to the above mentioned uses, additional interventions that should be used only in conjunction with other related achievement information include identifying the level and range of achievement in a class or grade level and informing placement, retention, and promotion decisions for individual students.

## **Part 1: Standards**

Alternate assessment standards were developed for CSAPA in accordance with NCLB regulations, which require that the content of alternate assessments be comparable to that of regular state assessments, and must show clear linkage to the content standards for the grade in which the student is enrolled. According to NCLB, alternate assessment standards may cover a more narrow range of content within a given content area, and grade-level content may be reduced in complexity (USDOE, 2007).

The 2010–11 CSAPA forms consist of custom multiple-choice (MC) and constructed-response (CR) performance task items measuring skills associated with the Colorado Model Content Standards and associated assessment frameworks for Reading, Writing, Mathematics, and Science. The Colorado Model Content Standards consist of a set of standards that are found across grades within a given content area. For each standard, the knowledge and skills students are expected to acquire at a given grade level are described by Benchmarks that vary across grade spans: K–4, 5–8, and 9–12. The Assessment Frameworks further describe the Assessment Objectives within each Benchmark by grade assessed. The CSAPA uses the Expanded Benchmarks, which are based on the Colorado Model Content Standards. These are the basis for the CSAPA Assessment Frameworks, which describe Critical Concepts (like the Benchmarks) and Assessment Objectives. The CSAPA Assessment Frameworks are available online at the following website: [http://www.cde.state.co.us/cdeassess/documents/csapa/2010/CSAPA\\_Assessment\\_Framework.pdf](http://www.cde.state.co.us/cdeassess/documents/csapa/2010/CSAPA_Assessment_Framework.pdf)

## **Part 2: Test Development**

The items for all grade levels and content areas were written by Development staff from CTB/McGraw-Hill (CTB) with guidance and input from the Colorado Department of Education (CDE). The tests consist of custom MC and CR items measuring skills associated with the CSAPA Assessment Frameworks. Information about the level of student independence demonstrated for each item is also gathered during the assessment administration. The test forms include some item overages by standard similar to the CSAP approach, thus providing ample alignment to the Colorado Model Content Standards even if some items do not perform to expectation and require suppression.<sup>1</sup>

### **Test Design**

The test items appear in a separate book for each grade level and content area. The exception is that the Reading and Writing content areas are contained within a single test book as two separate and clearly delineated sections. Tables 1–4 illustrate the test design (blueprints) by content area, where the total number of items and maximum points are provided per standard

---

<sup>1</sup> Across all grade levels and content areas, no items were suppressed from scoring for the 2010–11 CSAPA administration.

by grade and content area. Further illustration of the breakdown of the total number of items, the number of MC (3-point) and CR (6-point) items, and the maximum number of score points possible on each form appears in Table 5.

Within the context of the CSAPA, MC items are worth up to 3 points and CR items are worth up to 6 points in order to incorporate the level of independence with which the student responds to the item into the item scoring. There is a separate rubric for each item type and the rubrics are applicable across grade levels and content areas. The section on Scoring in Part 5 and Tables 26 and 27 provide more reference to the application of the scoring rules and logic. These scoring rubrics incorporate the level of student independence or assistance received for each item and each score level therein. This type of scoring was developed in an effort to both recognize and capture how students taking the CSAPA actually respond, their level of content knowledge, and the amount of support they need during the test administration—apart from typical expanded accommodations.<sup>2</sup> This type of scaffolded scoring rubric is often used in alternate assessments. According to Quenemoen, Perie, and Kearns (2010), 26 states use a scoring rubric that incorporates level of assistance (either with a multi-dimensional or scaffolded design). In addition, Almond and Case (2004) note that such a scoring approach, where level of assistance (independence) is captured, extends beyond scoring accuracy to provide additional and appropriate data for students with significant cognitive disabilities administered performance type assessments.

### **Item Review and Test Fairness**

All items are expected to be fair for all examinees. Various procedures are employed to review item fairness, also referred to as bias. Once the items are developed, they must go through a series of reviews and analyses prior to being selected as part of the item pool. A content and bias review has two purposes: to ensure that the items are grade-level appropriate and to ensure that any sensitivity issues are identified and addressed. Grade-level appropriateness is evaluated by grade-level experts who possess the on-the-ground knowledge of how content is taught in the classroom. Sensitivity reviews ensure that items are free of offensive, disturbing, or inappropriate language or content.

Content reviews and sensitivity and bias reviews were conducted on all items by internal and external experts. The CSAPA Steering Committee reviewed all items before the assessment administration. The review was lead by the CDE. CTB participated in the review process, under the direction of the CDE, by providing papers for the event and staff from the Project Development Team for instruction and interpretation.

Due to the small sample sizes, statistical bias analyses were not performed as part of the development, review, and fairness efforts. However, descriptions about the test level performances of various subgroups, including gender, ethnicity, English Language Learner (ELL) status, Free/Reduced price lunch eligibility, primary disability, and expanded accommodation, are described in detail in this report in Part 3: Description of the Population and Part 7: Analyses and Results.

---

<sup>2</sup> The CDE refers to the accommodations used within the context of the CSAPA as expanded accommodations, due to the fact that the CSAPA already has some accommodations built into the administration (such as unlimited time and individual administration). The term expanded accommodations is used here and throughout CDE references to the CSAPA accommodations in order to differentiate the CSAPA accommodations from those used with the CSAP assessment.

## **Item Selection**

Item selection for the CSAPA was completed by content editors in CTB Publishing and reviewed and approved by the CDE. Items were selected to fulfill the test blueprint. The primary criterion for the selection of items was to meet the content specifications represented by test blueprints. Any future operational test item selections will also incorporate the statistical research guidelines and operational analyses results such that selected items will reflect the best content and statistical characteristics. Such characteristics are described in Part 7: Analyses and Results of this report.

## **Part 3: Description of the Population**

### **Description of Students**

Students assessed with the CSAPA typically have significant limitations in intellectual functioning, in adaptive behavior, and in academic functioning expressed in conceptual, social, and practical adaptive skills. Often these students are identified as having a Cognitive Disability; however, students with other types of disabilities may also satisfy the criteria for participation in the CSAPA.

### **Student Eligibility Criteria**

When determining whether a student who is eligible for special education services should participate in the CSAPA or the CSAP, the student's IEP team must determine that the student meets the criteria from the Alternate Assessment Eligibility Criteria Worksheet (CDE, 2011a). When the IEP team concurs that the CSAPA is the most appropriate assessment, then the CSAPA should be administered as opposed to the CSAP in order to provide a meaningful evaluation of the student's current academic achievement. As stated on the CDE website, within the Eligibility Worksheet:

In order to be eligible for an alternate assessment in Colorado, all of the following criteria must be met for each content area separately on an annual basis: 1) The student has an Individualized Education Program (IEP). AND 2) The student exhibits a significant cognitive disability as determined through empirical evidence (educational testing results, evaluation team results, etc.) and it is documented on the IEP; students who qualify will have significant cognitive impairments, commensurate abilities in the content areas, and adaptive behavior impairments. AND 3) the student is working on the Expanded Benchmarks. AND 4) The IEP team met to review annual assessment data determine the student's eligibility for each content area.

The CDE provides an Alternate Assessment Eligibility Criteria Worksheet to be evaluated by a student's IEP team in order to determine whether the student should be assessed with the CSAP or CSAPA. The Alternate Assessment Eligibility Criteria Worksheet can be found at the following website:

[http://www.cde.state.co.us/cdeassess/documents/csapa/2011/CSAPA\\_Eligibility\\_Worksheet.pdf](http://www.cde.state.co.us/cdeassess/documents/csapa/2011/CSAPA_Eligibility_Worksheet.pdf)

### **Population Characteristics**

It is important to understand the types of students participating in the CSAPA. It is anticipated that the characteristics and resulting performance of students who participate will provide clarity about which students benefit the most from the CSAPA.

Demographic data, such as gender and ethnicity information, are reported in Tables 6–9.<sup>3</sup> Across grades and content areas, as few as 490 (grade 10 Writing and Science) and as many as 665 (grade 5 Reading) students participated in the 2010–11 CSAPA administration. As can be seen in Figure 1, the total number of participating students is highest for all content areas at grade 5. In all grades and across all content areas, the population of students is primarily Male, with the percentages of Male students ranging from 59% (grade 9 Mathematics) to 64% (grade 4 Mathematics). Additionally the majority of students are of White ethnicity, with the percentage of White students ranging from 49% (grade 5 Reading) to 56% (grade 10 Science).

Additional descriptive information includes ELL status, reported in Tables 10–13, for each content area. The tables include information related to Language Proficiency [Fluent English Proficient (FEP), Limited English Proficient (LEP), Not English Proficient (NEP), and Not Applicable (native English speaking)] and English Language Learner-Bilingual/English as a Second Language (ESL) status (No, Yes, Monitored in Year 1, Monitored in Year 2, Exited in Year 3+, and Choice). Across grades and content areas, the dominant classification is that Language Proficiency status is “Not Applicable,” with the range being a low of 81% (grade 3 Reading) to a high of 88% (grade 10 Mathematics). Nearly all students, ranging from 98% (grade 7 Writing and Mathematics) to 100% (grade 10 Writing and Mathematics), indicate ELL status for Bilingual students as “No.” The majority of students, ranging from 82% (grade 3 Reading) to 88% (grade 8 Writing), indicate ELL status for ESL students as “No.”

Information is also collected regarding students’ eligibility for Free and Reduced Price Lunch programs and is reported in Tables 14–17 for each content area respectively. Across grades and content areas, most students are either eligible for a Free Lunch as opposed to a Reduced Price Lunch or they are not eligible. The percentage of students eligible for a Free Lunch ranges from 42% (grade 9 Mathematics) to 49% (grade 5 Mathematics). A small percentage are eligible for a Reduced Price Lunch, ranging from 7% (grade 5 Reading) to 11% (grade 6 Mathematics). The percentage of students not eligible for either program ranges from a low of 43% (grade 5 Mathematics) to a high of 49% (grade 9 Mathematics).

Students’ primary disability information is categorized in Tables 18–21 by grade and content area. Within all content areas “Multiple Disabilities,” “Limited Intellectual Capacity,” and “Autism” are the most common primary disabilities indicated. Figure 2 also captures the data to more easily illustrate the predominant primary disabilities. Most of the students fall into the “Multiple Disabilities” and “Limited Intellectual Capacity” categories, followed by “Autism,” “Physical Disabilities,” and “Specific Learning Disabilities.”

Expanded accommodations provided to students during the CSAPA assessment are reported in Tables 22–25. While the test is a one-on-one administration with no time limits, there are a variety of additional expanded accommodations teachers/test examiners utilize to assure accessibility by students to the test items. It is important to note that a given student can have more than one expanded accommodation, further the percents reported in Tables 22–25 are based on the total population. Across all grade levels and content areas, no expanded accommodations are provided to the vast majority of students for them to access the test items. This is most strikingly illustrated in Figures 3–6. There are between 81% (grade 3 Mathematics) and 89% (grade 9 Writing) of students provided no expanded accommodations. For those students requiring additional expanded accommodations, the typical expanded accommodation varies by content area. Across all grades and content areas, the most common expanded accommodation used for a grade level was always less than 6%. In Writing, most students

---

<sup>3</sup> Subgroups with fewer than 16 students have only sample sizes reported (no statistics are calculated or reported) in accordance with Family Education Rights & Privacy Act (FERPA) and CO state regulations. This rule is instituted throughout all tables, figures, and reporting.



using an expanded accommodation used Assistive Technology. In the other content areas there was more variation in the expanded accommodations used.

#### **Part 4: Test Administration**

For all content areas, each test is administered on an individual student basis where teachers/test examiners mark the student's response and the level of independence at which the student performed. Examiners mark two ratings per item: actual student raw response and level of independence in the Test Protocol;<sup>4</sup> these ratings are later transferred by the test examiner to the scannable answer document.<sup>5</sup> The administration is guided by the Item Presentation Protocol, found at the following link: [http://www.cde.state.co.us/cdeassess/documents/csapa/2010/CSAPA\\_Item\\_Pres\\_Protocols.pdf](http://www.cde.state.co.us/cdeassess/documents/csapa/2010/CSAPA_Item_Pres_Protocols.pdf). The assessment can be administered over several days in order to accommodate the students and minimize fatigue. It is expected that all students be presented with and attempt all items for each content area.

Collecting the information about a student's level of independence (or engagement as defined by the Item Presentation and Level of Independence Protocols) and the amount of assistance provided by teachers provides specific data on the standardization of the administration of the assessment, the level at which students were able to respond independently, and specific data to help train examiners to administer the assessment in a supportive and valid environment.

#### **Teacher/Test Examiner Training**

District and School Assessment Coordinators and Special Education teachers were convened in various locations around the state for a train-the-trainer model of training on the administration of the CSAPA. Training was provided by the Unit of Student Assessment from the CDE with the support of CTB. The participants were given sample items, the Item Presentation Protocol, and Level of Independence Protocol. (All participants signed security agreements prior to participation.) The training format included a PowerPoint™ presentation, video training clips of examiners administering sample items to students, small and large group discussions, and question/answer sessions. The participants were responsible for the training of the CSAPA test examiners within their districts and schools.

#### **Additional Training**

As the results of the operational administrations are evaluated, continuous improvements in administration training will be ongoing. The Unit of Student Assessment of the CDE will continue to provide staff development and training on the operational administration and scoring of the CSAPA each year.

#### **Part 5: Scoring**

##### **Scoring Rubrics**

Two scoring rubrics are used to collect student responses and provide item-by-item scores. One rubric is applicable to MC items and this rubric appears in Table 26. The second rubric is

---

<sup>4</sup> The CSAPA test books are referred to as Test Protocols. The Test Protocol contains information for the test examiner to utilize during the assessment administration, such as: directions for item administration, preparation required, a copy of the item as viewed by the student in the student materials, item protocols, and an area to mark both student response and the level of independence with which the student answered the item.

<sup>5</sup> More information regarding scoring, marking student responses, and determining level of independence can be found in Part 5 of this report.

applicable to CR items and appears in Table 27. Both rubrics are applicable for any grade level or content area assessed by the CSAPA. These scoring rubrics incorporate the level of student independence or assistance received for each item and each score level therein. This type of scoring was developed in an effort to both recognize and capture how students taking the CSAPA actually respond, their level of content knowledge, and the amount of support they need during the test administration apart from typical accommodations. This type of scaffolded scoring rubric is often used in alternate assessments. According to Quenemoen, Perie, and Kearns (2010), 26 states use a scoring rubric that incorporates level of assistance (either with a multi-dimensional or scaffolded design). In addition, Almond and Case (2004) note that such a scoring approach, where level of assistance (independence) is captured, extends beyond scoring accuracy to provide additional and appropriate data for students with significant cognitive disabilities who are administered performance type assessments.

Within the context of the test administration, the test examiner is to use the Test Protocol to mark the student responses. The test examiner marks directly within the Test Protocol the student response to the test question (A, B, C, D, E, or F) as well as the level of independence with which the student responded to the test question (Levels 1–4). Once the assessment is completed, the test examiner records the student responses and level of independence for each test question on the scannable answer document. Note that test examiners are not responsible for applying the scoring rubrics or scoring the items.

For all item types, the test examiner marks the student response (A, B, C, D, E, or F) on the answer document in the “student response” column. On the CSAPA there are never more than four response options, though there can be as few as two. The following examples reflect the situation in which all possible bubbles are utilized. Answer choices A through D are actual responses that the student could provide in response to the test question (or indications by the teacher of the response given by the student in the case of CR items) and are detailed within the Test Protocol. Answer choice E allows the test examiner to indicate that the student has provided a response that is not reflected by answer choices A, B, C, or D. Answer choice F allows the test examiner to indicate that the student has provided no response to the test question. In the case that there are fewer options possible the selections would diminish in range (going from A to D as opposed to A to F for example). The number of answer choices available can vary by item and content area. Each item clearly delineates the possible/valid responses both within the Test Protocol and on the scannable answer document.

### ***Level of Independence***

Additionally, the test examiner marks the level of independence with which the student responds to the test question. There are four levels of independence captured within the context of the CSAPA. The Level of Independence Protocol, available at [http://www.cde.state.co.us/cdeassess/documents/csapa/2010/CSAPA\\_LOI\\_Protocol.pdf](http://www.cde.state.co.us/cdeassess/documents/csapa/2010/CSAPA_LOI_Protocol.pdf), clearly defines each level. Test examiners are required to move to the next level if the student is unable to respond to or complete the task at the higher level of independence; however, incorrect answers are captured by the actual student response code and do not necessarily indicate more assistance is required. Level 4 indicates complete independence. The student responds to the test question without assistance from the test examiner. The student is fully engaged and performs the task independently and does not require assistance, or at most requires refocusing. Level 3 indicates a partially independent response. The student responds to the test question with a partial physical, verbal, or gestural prompt. The student becomes engaged and is able to perform the task without being shown/told the answer. Level 2 indicates a limited independent response. The student requires a full physical prompt in order to respond to the test question. The student is able to perform the task only after being shown/told what the

answer is. Level 1 indicates that the student did not respond to the test question. This level is marked only when the student is unable to respond/complete the task even after being shown/told what the answer is.

### ***Multiple Choice Item Types***

Table 26 describes the scoring rubric for all MC item types. These are items where students select their answer among options, such that the student response is evaluated as correct or incorrect (dichotomous) and then, depending upon the level of independence, a final score is provided. For example, the examiner marks the response option chosen/demonstrated by the student (A, B, C, D, E, or F), and if the student received no help (level of independence is “Independent”), the examiner would mark Level 4 for Independence. If the response option selection is correct, the student would receive a score of “3” on that item. If the option is incorrect, the student would receive a score of “0.” However, the information about level of independence is still collected to provide item and test level data on the amount of assistance students receive or do not receive when their level of content knowledge is incorrect. This is important information for policy development to assure examiners are trained and able to assist students accurately, without over assisting, to provide adequate support to students while allowing opportunities to grow independently, as well as to provide a clearer evaluation of what students really know and can do academically. (See the Item Presentation and the Level of Independence Protocols for additional information.)

### ***Constructed Response Item Types***

The CSAPA also includes CR item types where student responses reflect multiple steps or where students provide multiple responses. The rubric for CR item types is found in Table 27. For multiple responses, the student receives up to 2 points for each correct response. This is akin to a 0–2 rubric. Thus it is possible for students to get full credit for their correct response (2 points), partial credit for their partially correct response (1 point), or no credit for their incorrect response (0 points). Within the context of the CR items, Level of Independence points are awarded as 4 points for a fully independent response where the student performs the task without assistance (Independent), 2 points for a partially independent response where the student performs the task with a partial physical, verbal, or gestural prompt from the test examiner (Partial), and 0 points for a limited independent response where the student performs the task with a full physical prompt from the test examiner (Limited).

The CR rubric and multi-step/multiple response item type is more clearly illustrated by an example. (Please note that this is only an example and not an actual item description.) An item might require the student to correctly group positive and negative numbers. The test examiner marks in the Test Protocol the frequency of numbers correctly identified, where the response options reflect: A) 5 out of 5, B) 3 or 4 out of 5, C) 2 or less out of 5, D) other, E) no response. Within this context, answer choice A is fully correct (2 points), answer choice B is partially correct (1 point), answer choice C is incorrect or does not illustrate sufficient mastery of the concept/skill being measured (0 points), and answer choices D and E are incorrect responses (0 points). Combining point values 0, 1, and 2 with the level of independence displayed by the student in responding, where 4 points are awarded for an Independent response, 2 points for a Partially independent response, and 0 points for a Limited independent response, results in the rubric in Table 27. A student with a correct response (A: 5 out of 5) earns 2 points for the correct response; if the item was answered independently (Independent), earning 4 points, then the item score is 6 points. A student with a partially correct response (B: 3 or 4 out of 5) earns 1 point; if the item was answered independently (Independent), earning 4 points, then the item score is 5 points. A student with a correct response

(A: 5 out of 5) earns 2 points; if the item was answered with a partial physical, verbal, or gestural prompt (Partial independence), earning 2 points, then the item score is 4 points. A student with a partially correct response (B: 3 or 4 out of 5) earns 1 point; if the item was answered with a partial physical, verbal, or gestural prompt (Partial independence), earning 2 points, then the item score is 3 points. A student with a correct response (A: 5 out of 5) earns 2 points; if the item was answered with a full physical prompt (Limited independence), earning 0 independence points, then the item score is 2. A student with a partially correct response (B: 3 or 4 out of 5) earns 1 point; if the item was answered with a full physical prompt (Limited independence), earning 0 independence points, then the item score is 1. A student providing a response corresponding to answer choices C (incorrect, 2 or less out of 5), D (incorrect, other), or E (no response) will receive 0 points for the item, regardless of their level of independence. However, the test examiner will still mark the level of independence with which the student responded in the Test Protocol and ultimately within the scannable answer document.

The scoring rules are instituted automatically by computer, utilizing the scannable answer documents, based upon the test examiner's coded responses for all item types; meaning, all items are designed such that the examiner bubbles the student responses and level of independence as captured in the Test Protocol onto a scannable answer sheet, from which scoring programs assign item-by-item scores. Examiners are not responsible for applying the scoring rubrics appearing in Tables 26 and 27; rather examiners grid the appropriate student response for each item as well as the level of independence demonstrated by the student when responding to each item individually.

### **Score Validation**

All students participating in the operational administration were scored. However, specific validation and logic rules are applied to the data to assure each student's score is based on a valid set of scored items. It is critical that the information reported is trustworthy. Without valid and therefore trustworthy data, valid conclusions and interpretations are not possible. Thus, there are safeguards in place to assure that reported data are valid, such that appropriate decisions can be made. For example, when a student's test is indicated as invalid by the examiner via a specific bubble on the answer document or if a student's response array includes 15% or more items that are flagged, the student does not receive a score. Student items are flagged if item scores are out of range (beyond the maximum value), invalid or illogical (such as a level of independence equal to 1 "no response" and a correct answer marked), items with multiple marks (i.e., more than one response option or level of independence bubbled), items with an incomplete response (either the response option OR level of independence are not marked), or when both the response option and level of independence are omitted (as all items must be attempted and documented).

A summary of the percentages of invalid test scores due to the 15% rule or due to examiner bubbling of the "invalid" bubble on a student's answer document is located in Table 28. In Table 28, it is illustrated that between 90.74% (grade 10 Writing and Science) and 96.00% (grade 3 Writing) of responses were valid for scoring, reporting, and data summary. Table 29 provides further details about the types of bubbles available to examiners for test score invalidation and the frequency with which they were used on the CSAPA. Typically, across content areas, the most common reason for invalidation was "Parental Refusal." The percentage of students with this invalidation code range from a low of 0.74% (grade 3 Mathematics) to a high of 2.46% (grade 6 Reading, Writing, and Mathematics).

## **Part 6: Standard Setting**

Student performance on the CSAPA is described in terms of proficiency levels. The purpose of setting standards on a test is to enhance its validity by increasing the interpretability of students' scores. There were two distinct standard setting activities for the CSAPA. The first occurred in 2007 for the Mathematics and Science (grade 10 only) content areas. Specific details of this standard setting are contained within the standard setting technical report available from the CDE entitled *Standard Setting Technical Report 2007 for Grades 3–10 Mathematics and Grade 10 Science* (CTB/McGraw-Hill, 2007). The second occurred in 2008 for the Reading, Writing, and Science<sup>6</sup> content areas for all grades. Specific details of this standard setting are contained within the standard setting technical report available from the CDE entitled *Standard Setting Technical Report 2008 for Grades 3–10 Reading, Grades 3–10 Writing, and Grades 5, 8, and 10 Science* (CTB/McGraw-Hill, 2008). The purpose of each standard setting was to identify cut scores that would separate students into five proficiency levels: *Inconclusive*, *Exploring*, *Emerging*, *Developing*, and *Novice*, with *Novice* representing the highest level of achievement.

It is important to note that the 2007 standard setting included Science grade 10, and cut scores were developed at that time. However, when the PLDs were developed for Science grades 5 and 8 for the 2008 administration, it was determined that the existing grade 10 PLDs were not congruent with the grades 5 and 8 PLDs. As such, the grade 10 PLDs were revised and a cut score review was undertaken for grade 10 within the context of the 2008 standard setting. Within the context of the cut score review (more detail can be found within the *Standard Setting Technical Report 2008 for Grades 3–10 Reading, Grades 3–10 Writing, and Grades 5, 8, and 10 Science* (CTB/McGraw-Hill, 2008)), it was determined that the grade 10 cut scores should be revised. Thus, the cut scores for Science grade 10 were new in 2008 and comparisons to 2007 data are not valid.

Recommended cut scores defining *Inconclusive*, *Exploring*, *Emerging*, *Developing*, and *Novice* were developed via Profile Sorting procedures, which were accompanied by a Contrasting Groups Survey administered to test examiners during the testing window. Live CSAPA data for all valid<sup>7</sup> students were included in the Profile Sorting procedure. Standard setting participants sorted response profiles into proficiency levels by reflecting their judgments on the content-specific performance characterized by each profile.

Each standard setting was divided into three phases. In the first phase of the standard setting, Colorado special educators of students tested by the CSAPA were invited to participate in a modified Contrasting Groups study (Livingston & Zieky, 1982), in which they rated each of their students into one of the five proficiency levels, by content area.

In the second phase of the standard setting, a committee of educators from across the state of Colorado convened and engaged in a profile sorting study (Jaeger, 1995). During the CSAPA Profile Sorting workshop, participants examined scored response vectors (student profiles) and classified them into the five proficiency levels.

In the third phase of the standard setting, the participants at the CSAPA Profile Sorting workshop convened for synthesis discussions to review the results from both the modified Contrasting Groups study and the profile sorting study. A separate synthesis discussion was held for each content area. The participants identified trends in the data and recommended changes in the cut scores to promote cross-grade articulation within a content area. The impact data (percentages

---

<sup>6</sup> Due to modifications to the Performance Level Descriptors, the cut scores for Science grade 10 were reviewed and revised within the context of the 2008 standard setting. For more information please see the 2008 standard setting technical report, available from the CDE.

<sup>7</sup> Valid cases were defined previously in Part 5: Scoring—Score Validation.

within each proficiency level) and cut scores approved by the CDE and applied to the 2010–11 data are shown in Table 70. More information about the cut scores and impact data can be found later in this report in Part 7: Analyses and Results—Proficiency Level Data.

## **Part 7: Analyses and Results**

This section describes the item and total test level statistics calculated and analyzed along with the results thereof. Due to the small sample sizes at each grade, only raw score statistics were calculated. These include raw scores at the total test level and at each standard. No scaling of scores was conducted. Furthermore, because the same test form is used each year, no equating was or will be conducted on these or future operational CSAPA items. This requires heavy reliance on raw score and classical test statistics.

### **Item Level Statistics**

Item statistics were reviewed for all content areas in order to ensure that items contributing to operational scores were appropriate. Items were flagged for intensive review based on the following statistical characteristics, delineated by Schmeiser and Welch in Brennan (2006, p. 338): 1) if the  $p$ -value was less than 0.30, 2) if the point biserial value was less than 0.20, and 3) if more than 5% of students omitted an item. Additionally, items were flagged for intensive review if the point biserial value for a distractor was greater than that for the key, and if the  $p$ -value for the item was greater than 0.90. Each item's frequency distribution (number of students at each score level), as well as each item's overall  $p$ -value (proportion of students choosing the correct answer) and point biserial item-test correlation (how correlated each individual item is with the test as a whole), were reviewed and results are presented in Tables 33–36 and discussed below.

The frequency distribution for each CR item in Writing, Mathematics, and Science is found in Tables 30–32,<sup>8</sup> where the number of students scoring at each score level for all 6-point items is illustrated. Interestingly, most CR items illustrate similar distributions, such that the majority of students obtain either the minimum (0 points) or the maximum (6 points) score. In general, the exception to this is a few items in most grade levels where there were also a high proportion of students scoring 5 points. This is likely reflective of the diversity of the population of students taking the CSAPA assessment.

Due to the nature of the rubrics, where level of independence weights each student's score, data analyses were conducted in two working sets: The weighted set (with level of independence) based on both student response and level of independence (data as received and ultimately used for operational scoring and reporting); and the non-weighted set (without level of independence) based on the transformation of all MC item scores of 0–2 as "0" and all scores of 3 as "1" for MC items such that only fully independent student scores are counted correct, and all CR item scores of 0, 1, 3, and 5 as "0" and 2, 4, and 6 as "1" for all CR items scored on the 6-point rubric. The purpose for removing the level of independence information from the data is to provide information about content-only performance apart from prompting or examiner-provided assistance. Additionally, classical item analysis indices typically assume that the item score is related only to item performance and not any additional information (Gulliksen, 1950).

### ***Item Difficulty ( $p$ -values)***

Typically in traditional assessments, and as seen in similar alternate assessments,  $p$ -values range between 0.30 and 0.90. Items with  $p$ -values less than 0.30 are considered more difficult,

---

<sup>8</sup> There are no 6-point CR items in Reading as illustrated in Table 5.

as less than 30% of the students are getting the correct answer, while  $p$ -values greater than 0.90 indicate a fairly easy item. Sometimes the lower bound of  $p$ -values can drop below 0.30. Those items should be reviewed in light of content to ensure the difficulty is due only to the content and skill assessed and not due to some illogic within the item. Items that are unduly easy, or above 0.90, should be reviewed in light of content as well and whether or not the item is providing additive information about students' skills. If the items are too easy, they are typically replaced by items that better discriminate between students who do or do not have certain skills. These approaches make for efficient use of test length and administration time. Additionally, mean  $p$ -values by grade level should be approximately 0.50 in order to maximize the validity of the assessments (Gulliksen, 1950).

The CSAPA  $p$ -values are stable across grades and content areas for the group as a whole. Tables 33–36 illustrate the item level data for each content area respectively. The data are presented both weighted—with level of independence, and unweighted—without level of independence. Table 37 provides a summary including the minimum, mean, and maximum  $p$ -values for each grade level and content area with the level of independence included in the scoring, as is used in operational scoring and reporting. The mean  $p$ -values range from 0.42 (grade 10 Mathematics) to 0.70 (grade 8 Science), with a mean of 0.56. Table 38 provides a summary without including the level of independence. The mean  $p$ -values range from 0.37 (grade 10 Mathematics) to 0.66 (grade 8 Science), with a mean of 0.52. In general, the mean  $p$ -values across content areas are around the mean difficulty of 0.50 as suggested by Gulliksen (1950).

#### Weighted (with level of independence)

When the data are weighted by level of independence (Tables 33 and 37), the  $p$ -values of Reading items range from 0.21 (grade 6) to 0.87<sup>9</sup> (grade 5). There are a total of 18 Reading items with  $p$ -values below 0.30, including one item with a  $p$ -value below 0.25. The grade 6 item with a 0.21  $p$ -value measures students' ability to identify author's purpose for writing. The mean  $p$ -value by grade-level ranges from a low of 0.48 (grade 10) to a high of 0.61 (grade 6). The mean  $p$ -value across all Reading items is 0.55.

The  $p$ -values of Writing items range from 0.15 (grade 10) to 0.85 (grade 7). There are a total of 20 Writing items with  $p$ -values below 0.30, including five items with  $p$ -values below 0.25. The grade 4 item with a 0.20  $p$ -value measures students' ability to identify parts of speech. The grade 5 item with a 0.23  $p$ -value measures students' ability to proofread to correct errors in grammar, punctuation, and spelling. The grade 7 item with a 0.21  $p$ -value measures students' ability to use upper and lower case letters in creating a product. There are two items at grade 10 with  $p$ -values below 0.25: the item with a 0.15  $p$ -value is an item that measures students' ability to use upper and lower case letters in creating a product, and the item with a 0.22  $p$ -value is an item that measures students' ability to use correct spelling, punctuation, and capitalization to complete a writing task. The mean  $p$ -value, by grade level, ranges from a low of 0.51<sup>10</sup> (grade 4) to a high of 0.59 (grade 6). The mean  $p$ -value across all Writing items is 0.54.

The  $p$ -values of Mathematics items range from 0.06 (grade 10) to 0.89 (grade 3). There are a total of 27 Mathematics items with  $p$ -values below 0.30, including 15 items with  $p$ -values below 0.25. The grade 4 item with a 0.13  $p$ -value measures students' ability to use data to solve a problem. The grade 7 item with a 0.15  $p$ -value and the grade 8 item with a 0.25  $p$ -value both measure students' ability to calculate perimeter. There are three items at grade 9 with  $p$ -values below 0.25: the item with a 0.21  $p$ -value measures students' ability to use data to solve a problem; the item with a 0.23  $p$ -value measures students' ability to calculate perimeter; and the

<sup>9</sup> There are two values of 0.87; however, the grade 5 value of 0.874 is higher.

<sup>10</sup> There are two values of 0.51; however, the grade 4 value of 0.508 is lower.

item with a 0.24  $p$ -value measures students' ability to convert dimensions from inches to feet. There are nine items at grade 10 with  $p$ -values below 0.25: the item with a 0.06  $p$ -value measures students' ability to calculate perimeter; the item with a 0.14  $p$ -value measures students' ability to convert dimensions from inches to feet; the item with a 0.17  $p$ -value measures students' ability to add simple fractions; the other item with a 0.17  $p$ -value measures students' ability to extend a growing numeric pattern by supplying the next element; the item with a 0.19  $p$ -value measures students' ability to understand characteristics of a graph; the item with a 0.20  $p$ -value measures students' ability to determine if two lines are congruent; the item with a 0.24  $p$ -value measures students' ability to find and supply a missing element in a growing numeric pattern; the item with a 0.25  $p$ -value measures students' ability to find the value of one variable given another variable when given a numerical relationship between two variables; and the other item with a 0.25  $p$ -value measures students' ability to solve a simple problem involving division (sets up to 45). The mean  $p$ -value by grade-level ranges from a low of 0.42 (grade 10) to a high of 0.62 (grade 3). The mean  $p$ -value across all Mathematics items is 0.54.

The  $p$ -values of Science items range from 0.24 (grade 10) to 0.88 (grade 5). There are a total of three Science items with  $p$ -values below 0.30, all three item's  $p$ -values are below 0.25. The grade 8 item with a 0.25  $p$ -value measures students' ability to interact with the weather. There are two items at grade 10 with  $p$ -values below 0.25: the item with a 0.24  $p$ -value measures students' ability to demonstrate awareness of physical and chemical properties—make qualitative observations about physical properties (identify a mixture as a solution); and the item with a 0.25  $p$ -value measures students' ability to make observations associated with energy. The mean  $p$ -value by grade level is 0.58 (grade 10), 0.67 (grade 5), and 0.70 (grade 8), with a mean  $p$ -value across all Science items of 0.65.

Unweighted (not including level of independence)

When the data are not weighted by level of independence, in order to be more true to the classical item statistics being reported, the  $p$ -values of Reading items range from 0.20 (grade 6) to 0.85<sup>11</sup> (grade 5). There are a total of 25 items with  $p$ -values below 0.30, including 10 items with  $p$ -values below 0.25. The mean  $p$ -value across all Reading items is 0.53. The  $p$ -values of Writing items range from 0.14 (grade 10) to 0.82 (grade 7). There are a total of 31 items with  $p$ -values below 0.30, including 11 items with  $p$ -values below 0.25. The mean  $p$ -value across all Writing items is 0.51. The  $p$ -values of Mathematics items range from 0.05 (grade 10) to 0.86 (grade 3). There are a total of 45 items with  $p$ -values below 0.30, including 27 items with  $p$ -values below 0.25. The mean  $p$ -value across all Mathematics items is 0.48. The  $p$ -values for Science items range from 0.22 (grade 10) to 0.85<sup>12</sup> (grade 5). There are a total of five items with  $p$ -values below 0.30, including three items with  $p$ -values below 0.25. The mean  $p$ -value across all Science items is 0.62.

The difference in the statistics as computed with and without level of independence included in scoring was also addressed. It was found that for all content areas, items are estimated to be easier (on average) when level of independence is included in the scoring. For Reading the mean difference is 0.02, for Science it is 0.03, for Writing it is 0.04, and for Mathematics it is 0.06. In general, grade and content area results indicate that the CSAPA items are not too easy or too difficult for the tested population as a whole. The items with low  $p$ -values were reviewed in light of content, complexity, and appropriateness for this population of students.

<sup>11</sup> There are two values of 0.85; however, the grade 5 value of 0.854 is higher.

<sup>12</sup> There are two values of 0.85; however, the grade 5 value of 0.854 is higher.



**Item Discrimination (point biserial correlation)**

The point biserial correlation, a derivation of the Pearson product moment correlation, is used here as an index of item discrimination. The point biserial correlation assumes that item responses are based upon a dichotomy, or correct and incorrect. Additionally, there is no assumption of normality of the data, which is important given the frequency distributions observed (Schmeiser & Welch, 2006). Further, given that the value of the point biserial correlation tends to be lower than the biserial correlation due to sensitivity to item difficulty, a conservative approach was chosen and point biserial rather than biserial correlation coefficients are reported. Due to the assumption of a dichotomous variable (correct versus incorrect item response), the data in Tables 33–36 illustrate the values both with and without level of independence included in scoring. When the values include level of independence, the assumption of a dichotomous distribution is violated. When the values do not include level of independence, a dichotomy is possible for MC items.

Acceptable point biserial item-test correlations are usually in the range of 0.30 and above. Crocker and Algina (1986), following Ebel (1965), suggest that point biserial correlation values for items to be retained operationally should be significantly greater than zero, where significance is established by computing an approximation for the standard error for the Pearson product moment correlation. This approximation is based upon the sample size for each item, and the critical value should be set two standard errors above zero. The approximation is computed as  $1 / \sqrt{(N-1)}$ . With the CSAPA data the minimum number of students tested, over all content areas, is 490 (grade 10 Writing and Science). Using this as the minimum N value, though it is noted that responses to individual items may have slightly lower N values, the obtained value is 0.0452. Thus the critical value for the correlation would be 0.0904. There is one item in the CSAPA assessment with a point biserial value less than 0.0904. This item appears in Mathematics at grade 10 and has a point biserial value of 0.03; this item also has a *p*-value of 0.14 and historically has had low statistical values. The item measures students' ability to convert dimensions from inches to feet. A generally accepted critical cut-off for student assessments is 0.15, as with increasing sample sizes the formula above would ultimately provide for results that were not substantively different from zero. It is important to note that threshold values will vary based upon the purpose of the assessment and the needs of the testing program.

Tables 33–36 illustrate the item level data for each content area. The data are presented both weighted with level of independence and unweighted without level of independence. Table 37 provides a summary including the minimum, mean, and maximum values for each grade level and content area with the level of independence included in the scoring, as is done with operational scoring and reporting. Table 38 provides a summary including the minimum, mean, and maximum values for each grade level and content area without including the level of independence in the scoring.

The ranges and means of the Reading, Writing, Mathematics, and Science point biserials including level of independence are as follows: Reading 0.14 (grade 7) to 0.73<sup>13</sup> (grade 6) with a mean across all items of 0.54; Writing 0.12<sup>14</sup> (grade 7) to 0.87<sup>15</sup> (grade 6) with a mean across all items of 0.57; Mathematics 0.03 (grade 10) to 0.82 (grade 3) with a mean across all items of 0.58; and Science 0.16 (grade 8) to 0.78 (grade 8) with a mean across all items of 0.61.

Across all grade levels and content areas there are just six items with point biserial values lower than the generally accepted critical cut-off of 0.15: one in Reading (grade 7), two in Writing

<sup>13</sup> There are three values of 0.73; however, the grade 6 value of 0.729 is highest.

<sup>14</sup> There are two values of 0.12; however, the grade 7 value of 0.118 is lower.

<sup>15</sup> There are two values of 0.87; however, the grade 6 value of 0.868 is higher.

(grades 7 and 10) and three in Mathematics (one in grade 8 and two in grade 10). The grade 7 Reading item has a point biserial value of 0.14 and a  $p$ -value of 0.28, and the item measures students' ability to distinguish between fact and opinion. The grade 7 Writing item has a point biserial value of 0.12 and a  $p$ -value of 0.31, and the item measures students' ability to identify parts of speech. The grade 10 Writing item has a point biserial value of 0.12 and a  $p$ -value of 0.15, and the item measures students' ability to use upper and lower case letters in creating product. The grade 8 Mathematics item has a point biserial value of 0.13 and a  $p$ -value of 0.26, and the item measures students' ability to calculate area. One grade 10 Mathematics item has a point biserial value of 0.03 and a  $p$ -value of 0.14, and the item measures students' ability to convert dimensions from inches to feet. The other grade 10 Mathematics item has a point biserial value of 0.12 and a  $p$ -value of 0.17, and the item measures students' ability to extend a growing numeric pattern by supplying the next element. This means that these items have reduced discriminating power, such that students with high and low ability may have a similar probability of correctly responding to these items (since the  $p$ -values are also low).

The ranges and means of the Reading, Writing, Mathematics, and Science point biserials without level of independence are as follows: Reading 0.15 (grade 7) to 0.74 (grade 5) with a mean of 0.55; Writing 0.13 (grade 10) to 0.84<sup>16</sup> (grade 8) with a mean of 0.57; Mathematics 0.06 (grade 10) to 0.82 (grade 3) with a mean of 0.58; and Science 0.17<sup>17</sup> (grade 10) to 0.79 (grade 8) with a mean of 0.61.

When not including level of independence, there were four items across all grade levels and content areas with point biserial values lower than the critical cut-off of 0.15: two in Writing and two in Mathematics. The grade 7 Writing item has a point biserial value of 0.14 and a  $p$ -value of 0.28, and the grade 10 item has a point biserial value of 0.13 and a  $p$ -value of 0.14. The grade 8 Mathematics item has a point biserial value of 0.13 and a  $p$ -value of 0.23, and the grade 10 item has a point biserial value of 0.06 and a  $p$ -value of 0.12. Again, these items have reduced discriminating power, such that students with high and low ability may have a similar probability of correctly responding to these items (since the  $p$ -values are also somewhat low).

The difference in the statistics as computed with and without level of independence included in scoring was also addressed. It was found that for all content areas, item discrimination statistics were stable (on average) regardless of the inclusion of level of independence in the scoring. For Reading the mean difference is  $-0.008$ , for Writing the mean difference is  $-0.002$ , for Mathematics the mean difference is  $+0.006$ , and for Science the mean difference is  $-0.003$ .

Detailed lists of  $p$ -values and item-test correlations by item, content, and grade level, both with and without level of independence included in scoring, are provided in Tables 33–36. A summary of the range of  $p$ -values and point biserial item-test correlations by grade and content area is found in Table 37, presenting just the values including the level of independence in the scoring as is done for operational scoring and reporting of CSAPA results. A summary of the range of  $p$ -values and point biserial item-test correlations by grade and content area without including level of independence is found in Table 38.

### Content Standards Level Statistics

Student performance on individual content standards (critical concepts) is reported in terms of the percentage of items within each critical concept students answered correctly. This proportion can be considered an average  $p$ -value across items within a specific critical concept. The critical concepts'  $p$ -values can also be compared from the standpoint of difficulty across the

<sup>16</sup> There are four values of 0.84; however, the grade 8 value of 0.845 is highest.

<sup>17</sup> There are two values of 0.17; however, the grade 10 value of 0.165 is lower.

individual critical concepts. To illustrate the level of difficulty by critical concept, critical concepts at each grade are ranked according to the average proportion of students responding correctly to items within each critical concept. This type of analysis is also meant to show the most difficult critical concepts for the tested population. The results of the rankings are found in Tables 39–42. As the tables indicate, the areas that are difficult for Reading, Writing, Mathematics, and Science vary by grade.

In Reading, “demonstrate understanding of symbolic representation” is the least difficult (by mean  $p$ -value) for grades 3–5, while “demonstrate understanding of beginning principles of phonics” is the least difficult for grades 6–10. The most difficult critical concept for grades 3, 4, and 8 is “identify elements of literature,” while for grades 5–7, 9, and 10 it is “demonstrate knowledge that various texts have different purposes.” The range of mean  $p$ -values is 0.37 (grade 7 Expanded Benchmark 3.1) to 0.75 (grade 7 Expanded Benchmark 1.3) with a trend that, in general, higher grade levels have lower mean  $p$ -values.

For Writing, the least difficult critical concept for all grades, except grade 4 is “demonstrate an understanding that writing communicates a message.” For grade 4 the least difficult critical concept is “use systematic conventions to make written product understandable by others.” The most difficult critical concept in Writing also varies by grade level. For grades 3–6 and 8 the most difficult critical concept is “apply elements of writing through appropriate word usage,” for grades 7 and 9 it is “edit a written product using legible handwriting/word processor for publication,” and for grade 10 it is “use systematic conventions to make written product understandable by others.” The range of mean  $p$ -values is 0.39 (grade 3 Expanded Benchmark 2.2) to 0.74 (grade 8 Expanded Benchmark 1.1).

Mean  $p$ -values in Mathematics indicate that the least difficult critical concept for grades 3, 5, and 8 is “identifies, sorts, and matches geometric shapes,” while the least difficult critical concept for grades 4, 6, 7, 9, and 10 is “counts, represents quantities, reads and writes numbers.” The most difficult Mathematics critical concept at grades 3 and 6 is “applies a variety of measurement skills,” for grade 4 it is “displays and analyzes data,” for grades 5, 7, 8, and 10 it is “identifies, describes, and creates patterns to solve problems,” and for grade 9 it is “uses calculation strategies to compute problems.” The range of mean  $p$ -values is 0.31 (grade 10 Expanded Benchmark 2) to 0.71 (grade 3 Expanded Benchmark 4) with a trend that, in general, higher grade levels have lower mean  $p$ -values.

In Science, the least difficult critical concept for grades 8 and 10 is “analyzes data and communicates results of scientific investigations,” and for grade 5 the least difficult critical concept is “interacts with the weather and Earth systems.” The most difficult critical concept in Science also varies by grade, where for grades 8 and 10 it is “demonstrates an understanding of the fundamental properties of matter and energy,” and for grade 5 it is “analyzes data and communicates results of scientific investigations.” It is interesting to note that the most difficult critical concept for grade 5 is the least difficult critical concept for grades 8 and 10. The range of mean  $p$ -values is 0.39 (grade 10 Expanded Benchmark 3) to 0.77 (grade 8 Expanded Benchmark 2).

In general, the range of mean  $p$ -values by critical concept is fairly consistent across all critical concepts in each grade/content area demonstrating a balance of difficulty across critical concepts. Again, all low  $p$ -value items were reviewed for content and appropriateness by CTB content experts and the CDE.

The average point biserial value across the critical concepts was also computed in order to evaluate the degree of relationship between the critical concepts and the test as a whole. In general, the range of mean point biserial values by critical concept/expanded benchmark illustrates critical concepts that are sufficiently correlated with the total test. Specifically, the

Reading average values range from 0.27 (grade 7 Expanded Benchmark 3.1) to 0.67 (grade 3 Expanded Benchmark 1.2). In Writing, the average values range from 0.41 (grade 9 Expanded Benchmark 2.3) to 0.75 (grade 8 Expanded Benchmark 1.1). In Mathematics, the average values range from 0.30 (grade 10 Expanded Benchmark 2) to 0.71 (grade 8 Expanded Benchmark 3). Finally, in Science, the average values range from 0.37 (grade 10 Expanded Benchmark 3) to 0.71<sup>18</sup> (grade 8 Expanded Benchmark 1).

### Total Test Level Statistics

Student performance is described in different ways, including total raw scores, performance on specific content expanded benchmarks/critical concepts, and proficiency levels (the details of which are described in the CSAPA standard setting technical reports). The maximum number of points per grade and content area varies across grades and content areas and can be found in Table 5. Given that the maximum number of total possible points varies by grade level within content areas, as seen in Table 5, Figures 7–14 illustrate mean scores as the percent of the total possible score. For example, if the mean score was 60 for a test with 120 possible total points, the figures would illustrate that the mean score was 50% of the total possible score. In this way differences in mean scores that are related to the number of possible points are not directly confounded. It is important to note that the forms are not equated across grade levels, so comparisons in performance across grade levels are not appropriate.

The raw score performance statistics by grade and content, broken down by gender and race/ethnicity, can be found in Tables 6–9. In general, Males and Females perform similarly in Reading, Writing, Mathematics, and Science (Figures 7–10). The largest difference is for Mathematics in grade 6 where on average Males have a higher score than Females by 5.47%. In general, students also perform similarly across race and ethnicity (Figures 11–14). In Reading, illustrated in Figure 11, White students slightly outperform other races/ethnicities at grades 3 and 8, while students identified with Two or More Races somewhat outperform other races/ethnicities at grades 4 and 9, and Black/African American students somewhat outperform other races/ethnicities at grades 5–7 and 10. In Writing, illustrated in Figure 12, White students somewhat outperform other races/ethnicities at grade 3, while students identified with Two or More Races somewhat outperform other races/ethnicities at grade 4, Black/African American students somewhat outperform other races/ethnicities at grades 5–7 and 10, and Hispanic students have the highest scores in grades 8 and 9. In Mathematics, illustrated in Figure 13, students identified with Two or More Races have the highest performance at grades 3 and 4, Black/African American students have the highest performance at grades 5–7 and 10, and Hispanic students somewhat outperform other races/ethnicities at grades 8 and 9. In Science, illustrated in Figure 14, Black/African American students have the highest performance at all grades.

Raw score frequency distributions by grade and content area are found in Tables 43–69.

### Proficiency Level Data

Student performance on the CSAPA is also described in terms of proficiency levels. The CSAPA categorizes performance into five categories: *Inconclusive*, *Exploring*, *Emerging*, *Developing*, and *Novice*, with *Novice* representing the highest level of proficiency.

Table 70 details the final cut scores for each proficiency level by grade and content area, along with the associated impact data (percentages of students in each proficiency level). To see the impact data in graphical form, refer to Figures 15–18. All impact data are calculated on the basis of performance on the 2011 CSAPA test administration; however the cut scores were developed

<sup>18</sup> There are two values of 0.71; however, the grade 8 Expanded Benchmark 1 value of 0.711 is higher.

at the 2007 and 2008 standard settings. Overall pass rates, as defined by the combination of the two highest proficiency levels, *Developing* and *Novice* (shown in Figure 19), are highest for Reading grade 5, Writing grade 6, Mathematics grade 5, and Science grade 8. Pass rates range from 25% to 46% in Reading, 28% to 43% in Writing, 19% to 51% in Mathematics, and 33% to 54% in Science.

## **Part 8: Summary of Results—Reliability and Validity**

This section summarizes results and describes some of the evidence that establishes the degree to which the CSAPA results are reliable and valid.

### **Reliability**

Assessment scores always contain some amount of measurement error. There are two types of error customarily defined in measurement: random and systematic. Both random and systematic errors can easily threaten and compromise the accessibility and therefore the precision, reliability (to include accuracy), and validity of an assessment.

Random errors are just that—random. They are varied, inconsistent, and usually are inherent to the assessment or administration thereof. Standardization of assessments is meant to minimize random error that occurs because of random factors that affect a student's performance on the assessment.

Systematic errors are inherent to examinees and are typically specific to some subgroup characteristic (e.g., students who need accommodations but are not offered them). Systematic error arises if the test or test administration in and of itself presents an inaccessible situation of students to items and items measuring to student ability. An example of a systematic error is when students with disabilities are administered a test without the accommodation(s) they require (for example, giving a blind student a regular, non-Braille, non-Large Print form). Other systematic errors can include improper test administrator training, mishandled test materials, or scanner malfunctions.

Errors are additionally introduced if the sampling of content on a test is too narrow and does not provide a solid representation of the skills being measured. This is circumvented by clear blueprints that show a variety of items and item approaches to assess each standard.

Reliability refers to the degree to which students' scores are free from such errors and provides a measure of consistency. In other words, reliability helps to describe how consistent students' performance would be if given the assessment over multiple occasions.

For the CSAPA, several measures of reliability are available. First, the tests are administered in standard fashion to all students, where examiners administer the assessments to the students in an individualized manner. In addition, students all respond to the same items in the same forms, and those who need expanded accommodations in order to access the test items are provided such. Providing expanded accommodations ensures that what is standard for the student in daily instruction carries over to and supports the validity of the CSAPA administration. CTB's policy (CTB/McGraw-Hill, 2004) on accommodations and their use on standardized tests stands by the philosophy that what is standard for the student in the classroom and instruction should be what is standard for that student during the assessment, minimizing systematic errors.

### ***Item-specific reliability***

Item-specific reliability statistics include the point biserial correlation, also called an item-test correlation. It is one type of internal consistency measure that is a derivation of the Pearson

product moment correlation measuring the correlation between each item and the group of items remaining on the test overall. The correlation provides an indication of how consistently each item measures information similar to the other items on a test measuring a single overall construct, such as Mathematics. Tables 33–36 illustrate point biserials item by item, while Table 37 summarizes the point biserials (and  $p$ -values) for each grade and content area based upon the operational scoring, including level of independence, and Table 38 summarizes the point biserials (and  $p$ -values) for each grade and content area without including level of independence. In general, the point biserial correlations including level of independence as done in operational scoring and reporting, are within acceptable ranges and above the critical cut-off value of 0.15, with only six exceptions as previously noted (one item in Reading grade 7; two items in Writing, one in grade 7 and one in grade 10; and three items in Mathematics, one in grade 8 and two in grade 10).

### ***Total test reliability***

Total test reliability measures consider the level of consistency (reliability) of student performance over all test questions in a given form, the results of which imply how well the questions measure the content domain and could continue to do so over repeated administrations.

#### *Cronbach's alpha*

Total test reliability coefficients, in this case measured by Cronbach's alpha (1951), may range from 0.00 to 1.00, where 1.00 refers to a perfectly consistent test. Achievement tests are typically considered of sound reliability when their reliability coefficients are 0.80 and above. The total test reliabilities of the CSAPA forms were evaluated first by Cronbach's alpha ( $\alpha$ ) index of internal consistency (Cronbach, 1951). The specific calculation for Cronbach's alpha is:

$$\hat{\alpha} = \frac{k}{k-1} \left( 1 - \frac{\sum \hat{\sigma}_i^2}{\hat{\sigma}_x^2} \right)$$

where  $k$  is the number of items on the test form,  $\hat{\sigma}_i^2$  is the variance of item  $i$ , and  $\hat{\sigma}_x^2$  is the total test variance. Cronbach's alpha is appropriate for both dichotomously scored items and those with a wide range of scoring weights (Crocker & Algina, 1986), making it an appropriate statistic for use with the CSAPA.

There are a number of factors that influence reliability coefficients, including group variation, time limits, test length, and the assumption of independence in the data. When the individuals participating in an assessment are sufficiently diverse the reliability estimates will be increased, while a more homogeneous group will produce lower reliability estimates (Crocker & Algina, 1986). Given the very diverse population of students who participate in the CSAPA it is likely that the reliability estimates will be quite high. Since the CSAPA is untimed, time limits are irrelevant. Further, test length has been established based upon sufficient measurement of the standards as identified by the CDE, thus test length is unlikely to be significantly modified. However, because the teacher is a constant variable across all student responses, the reliability coefficients should be interpreted in light of the fact that the data across items are not strictly independent.

Tables 6–25 show the reliability coefficients (Cronbach's alpha) for all grades and content areas from the 2010–11 CSAPA test administration based upon the total group and relevant subgroups. As is evident in the tables, the coefficients are quite high. At the total group level (summarized in Table 71), the ranges for the reliabilities by content area are as follows:

Reading 0.90 (grade 7) to 0.94<sup>19</sup> (grade 6); Writing 0.92 (grade 10) to 0.94 (grade 6); Mathematics 0.92 (grade 10) to 0.95<sup>20</sup> (grade 5); and Science 0.92 (grade 10) to 0.95 (grade 8). It is likely that the heterogeneity of the CSAPA population contributes to the high reliabilities.

At the subgroup level the reliabilities remain high. As seen in Tables 6–9, the lowest total score reliability by gender is for Females in grade 7 Reading where the reliability value equals 0.90. The lowest total score reliability by race/ethnicity is for the Two or More Races subgroup in grade 9 Reading with a value of 0.79. Tables 10–13 illustrate that the lowest total score reliability by Language Proficiency status is 0.82 for Reading grade 10 “NEP,” the lowest total score reliability by ELL program—Bilingual status is 0.90 for Reading grade 7 “No,” and the lowest total score reliability by ELL program—English as a Second Language status is 0.82 for Reading grade 10 “Yes.” As seen in Tables 14–17, the range for total score reliability by Free/Reduced Price Lunch status is 0.88 for Mathematics grade 9 “Reduced Lunch Eligible” to 0.96<sup>21</sup> for Science grade 8 “Reduced Lunch Eligible.”

Tables 18–21 illustrate that the lowest total score reliability by Primary Disability is 0.55 for Writing grade 8 “Specific Learning Disability” with a sample size of 24. This group of students had a mean score of 84.67 out of 108 possible points and the standard deviation for the group is just 9.02. Given the extremely homogenous sample, the reliability statistic was rendered ineffectual. For those subgroups with sufficient sample sizes for reporting (greater than 15), fewer than 12% had reliabilities less than 0.80, with sample sizes ranging from the minimum for reporting of 16 to a maximum of 49, thus those reliability estimates should be interpreted with caution due to the small sample sizes. Less than 8% of subgroups had reliability values of less than 0.70. The highest total score reliability by Primary Disability was 0.96<sup>22</sup> for Science grade 8 “Autism.” The vast majority of total score reliability values by Primary Disability were above 0.80.

As seen in Tables 22–25, the lowest total score reliability by Expanded Accommodation is 0.78 for Writing grade 10 “Modified Picture Symbols.” The highest total score reliability value is 0.97<sup>23</sup> for Mathematics grade 5 “Eye Gaze.”

### Standard Error of Measurement

Another measure of reliability is a direct estimate of the degree of measurement error in students’ total score on a test, which is a raw score for the CSAPA. This second measure is called a standard error of measurement (SEM). This represents the number of score points about which a given score can vary, similar to the standard deviation of a score: the smaller the SEM, the smaller the variability and the higher the reliability. The SEMs are computed with the following formula:

$$SEM = SD_{TS}(\sqrt{1 - \hat{\alpha}})$$

where  $SD_{TS}$  is the standard deviation of the total score and  $\hat{\alpha}$  is the result of the calculation of Cronbach’s alpha shown previously. The SEMs represent the total standard error of measurement in the raw score metric across all items in a given form. It is important to note that for the CSAPA an MC item contributes up to 3 points and a CR item contributes up to 6 points.

The SEMs by test for the total group and all subgroups are given in Tables 6–25 and are summarized at the total group level in Table 71. At the total group level, SEMs for Reading range from 6.50 (grade 6, 105 total possible points) to 7.29 (grade 10, 102 total possible points); for Writing from 7.33 (grade 5, 105 total possible points) to 7.82 (grade 10, 108 total possible

<sup>19</sup> There are two values of 0.94; however, the grade 6 value of 0.942 is higher.

<sup>20</sup> There are five values of 0.95; however, the grade 5 value of 0.953 is highest.

<sup>21</sup> There are four values of 0.96; however, the grade 8 Science value of 0.962 is highest.

<sup>22</sup> There are five values of 0.96; however, the grade 8 Science value of 0.961 is highest.

<sup>23</sup> There are two values of 0.97; however, the grade 5 Mathematics value of 0.972 for Eye Gaze is higher.

points); for Mathematics from 7.95 (grade 3, 126 total possible points) to 9.93 (grade 5, 171 total possible points); and for Science from 5.91 (grade 8, 99 total possible points) to 7.53 (grade 10, 102 total possible points). These are within acceptable ranges given that the CSAPA is on a raw score scale, with each item contributing up to 3 or 6 points (dependent on item type). Therefore, even the highest SEM value of 9.93 (grade 5 Mathematics) reflects approximately three MC items or two CR items, or some combination thereof.

### Classification Consistency and Accuracy

Classification consistency and accuracy are additional measures of reliability, as well as validity. Reliability coefficients, such as Cronbach's alpha, are used to check for the internal consistency within a test. Test-retest reliability requires two administrations of the same test which requires another testing as an external reference. When retesting students is not feasible, classification consistency is a viable and often utilized alternative. Consistency in the classification sense represents how well two forms of an assessment with equal difficulty agree (Livingston & Lewis, 1995). It is estimated using actual response data and total test reliability from an administered form of an assessment, from which two parallel forms of the assessment are statistically modeled and classifications compared.

Table 72 illustrates classification consistency and classification accuracy indices based on the Livingston and Lewis (1995) methodology. Note that the values of all indices depend on several factors, such as the reliability of the actual test form, the distribution of scores, the number of cut scores, and the location of each cut score. The probability of a correct classification (PC) is the probability that the classification the student received is consistent with the classification that the student would have received on a parallel form. This is akin to the exact agreement rate in inter-rater reliability and the expectation is that this probability would be high. For Reading the average PC is 0.65 across all grades and ranges from 0.61 (grade 10) to 0.68<sup>24</sup> (grade 3). For Writing the average PC is 0.62 across all grades and ranges from 0.56 (grade 8) to 0.68 (grade 3). For Mathematics the average PC is 0.66 across all grades and ranges from 0.62<sup>25</sup> (grade 3) to 0.69<sup>26</sup> (grade 5). For Science the average PC is 0.59 across all grades and ranges from 0.57 (grade 8) to 0.62 (grade 10). Probability of misclassification (PM) is 1 minus PC.

The probability of a correct classification by chance (Chance) is the probability that the classification is correct and is due to chance alone. The probability of Chance is estimated under a complete random assignment procedure using the marginal distribution of each form. The Chance probability is expected to be low. For Reading the average Chance is 0.24 across all grades and ranges from 0.21 (grade 10) to 0.26 (grade 7). For Writing the average Chance is 0.23 across all grades and ranges from 0.21 (grade 8) to 0.26<sup>27</sup> (grade 5). For Mathematics the average Chance is 0.24 across all grades and ranges from 0.21<sup>28</sup> (grade 6) to 0.28 (grade 5). For Science the average Chance is 0.22 across all grades and ranges from 0.21 (grade 5) to 0.22<sup>29</sup> (grade 8).

Cohen's kappa (kappa) provides the same type of reliability or agreement statistic as described previously with the Livingston and Lewis (1995) classification consistency methodology, representing the agreement of the classifications between the two parallel forms with the consideration of the probability of a correct classification by chance, PC minus Chance divided by one minus Chance. In general, the value of kappa is lower than the value of PC because the

<sup>24</sup> There are two values of 0.68; however, the grade 3 value of 0.681 is higher.

<sup>25</sup> There are two values of 0.62; however, the grade 3 value of 0.619 is lower.

<sup>26</sup> There are two values of 0.69; however, the grade 5 value of 0.692 is higher.

<sup>27</sup> There are two values of 0.26; however, the grade 5 value of 0.260 is higher.

<sup>28</sup> There are three values of 0.21; however, the grade 6 value of 0.212 is lowest.

<sup>29</sup> There are two values of 0.22; however, the grade 8 value of 0.219 is higher.



probability of a correct classification by chance is larger than zero. This is true of the CSAPA data in Table 72. For Reading the average kappa is 0.54 across all grades and ranges from 0.50 (grade 7) to 0.57<sup>30</sup> (grade 3). For Writing the average kappa is 0.50 across all grades and ranges from 0.45 (grade 8) to 0.57 (grade 3). For Mathematics the average kappa is 0.55 across all grades and ranges from 0.51 (grade 3) to 0.59 (grade 6). For Science the average kappa is 0.48 across all grades and ranges from 0.45 (grade 8) to 0.51 (grade 10). Landis and Koch (1977, p. 165) suggest the following as guidelines for interpretations of kappa:

<0.00 Poor  
 0.00–0.20 Slight  
 0.21–0.40 Fair  
 0.41–0.60 Moderate  
 0.61–0.80 Substantial  
 0.81–1.00 Almost Perfect.

Consistency and accuracy are important to consider in concert. The probability of accuracy (PA) represents the agreement between the observed classification based on the actual test form and true classification, given the modeled form. For Reading the average PA is 0.74 across all grades and ranges from 0.71 (grade 10) to 0.78 (grade 3). For Writing the average PA is 0.72 across all grades and ranges from 0.65 (grade 8) to 0.78 (grade 3). For Mathematics the average PA is 0.76 across all grades and ranges from 0.71 (grade 3) to 0.79 (grade 5). For Science the average PA is 0.68 across all grades and ranges from 0.67<sup>31</sup> (grade 8) to 0.71 (grade 10). Finally, Table 72 provides the probability of false positives (FP) and false negatives (FN) as measures of error in the data table, and these are low, as expected.

## Validity

Validity refers to the degree to which evidence and theory support the interpretations of test scores entailed by proposed uses of the test (AERA, APA, & NCME, 1999). The *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999) address the concept of validity in testing:

Validity refers to the degree to which evidence and theory support the interpretations of test scores entailed by proposed uses of tests. Validity is, therefore, the most fundamental consideration in developing and evaluating tests. The process of validation involves accumulating evidence to provide a sound scientific basis for the proposed score interpretations. It is the interpretations of test scores required by proposed uses that are evaluated, not the test itself. When test scores are used or interpreted in more than one way, each intended interpretation must be validated (p. 9).

Test validation is an ongoing process of gathering evidence from many sources to evaluate the soundness of the desired score interpretation or use. This evidence is acquired from studies of the procedures surrounding the targeted student group, the history of the content standards and their development, and the development of the test (procedural validity); the content of the test (content validity); and from studies involving scores produced by the test. Additionally, reliability is a necessary element for validity. A test cannot be valid if it is not also reliable. There are various sources of validity evidence, such as evidence based on procedures and processes in the development and scoring of the assessment, alignment of the assessment items with standards, and relations to other variables.

<sup>30</sup> There are two values of 0.57; however, the grade 3 value of 0.574 is higher.

<sup>31</sup> There are two values of 0.67; however, the grade 8 value of 0.665 is lower.

The purpose of the assessment, as described in the Overview of this document, is not only to meet accountability requirements but also to provide students, parents, teachers, and schools with information on how their students are progressing relative to the Colorado Model Content Standards and Expanded Benchmarks, as described in Part 1: Standards.

Generally, achievement tests are used for student level outcomes, either 1) making predictions about students or 2) describing students' performance (Mehrens & Lehmann, 1991). In addition, tests are now also used for the purpose of accountability and measuring AYP. As stated by R. L. Linn (2008), "Tests are used as policy tools to hold teachers and school administrators accountable for student learning and as levers to change instruction in the classroom" (p. 4). The CDE uses various assessment data in reporting AYP and in various programmatic and policy level decisions. Specific to student level outcomes, the CSAPA documents student performance in the areas of Reading, Writing, Mathematics, and Science as defined by the standards. To ensure that test scores allow interpretations appropriate for this purpose, the content of the test must be carefully matched to the specified standards. The 1999 AERA, APA, & NCME *Standards for Educational and Psychological Testing* state:

Important validity evidence can be obtained from an analysis of the relationship between a test's content and the construct it is intended to measure. Evidence based on test content can include logical or empirical analyses of the adequacy with which the test content represents the content domain and of the relevance of the content domain to the proposed interpretation of test scores. Evidence based on content can also come from expert judgments of the relationship between parts of the test and the construct (p.11).

In regards to content validity evidence, logical analyses of test content indicate the degree to which the content of a test covers the domain of content the test is intended to measure. In the case of the CSAPA, the content is defined by test blueprints that describe the skills that must be measured to assess the content standards. The test development process requires specific attention to content representation and the balance thereof within each test form. In addition, several item review committees contribute to the item review and approval process, assuring the items assess the content standards and are mapped accordingly. Part 2: Test Development of this report contains more information specific to these reviews. The reviews also help to assure fair and unbiased items so that items function similarly for members of different race/ethnic, gender, or disability groups.

The internal structure of the test also provides evidence of validity. For example, high internal consistency like that described by the reliability coefficients, constitutes evidence of validity. This is because high reliability coefficients imply that the test questions are measuring the same domain of skill, are reliable, and are consistent.

The validity of an assessment is also evidenced by establishing that the population of students for which the assessment is purposed and built is well targeted and that those are the students who participate. The targeted student population for the CSAPA is defined as students with a severe cognitive disability who cannot otherwise participate in the general CSAP even with accommodations. Given the high-stakes nature of the CSAPA and the requirements of NCLB and Peer Review Evidence, as well as the need for eligibility criteria data, it is important to note who was actually included in the CSAPA and gather data on their performance. The number of students in various subgroups who participated, along with each group's summary scores, is presented in Tables 6–9 (specific to gender and race/ethnicity), Tables 10–13 (specific to ELL status), Tables 14–17 (specific to Free/Reduced Price Lunch eligibility), Tables 18–21 (specific to primary disability), and Tables 22–25 (specific to expanded accommodation provided on the CSAPA).

It is also important to demonstrate via student performance that students are able to demonstrate a range of performances commensurate with the expectation of the targeted population. Total raw score results for each grade and content area for the total groups are found in Table 71 and raw score frequency distributions by grade and content area are found in Tables 43–69. Data by expanded benchmark or critical concept are found in Tables 39–42. These data are reviewed and explained in greater detail in Part 7: Analyses and Results in this report.

An assessment that is valid should be similarly reliable for subgroups of similar sample sizes. Therefore, in addition to the total group data, subgroup total test performance and the associated test reliabilities and standard errors must also be reported. Tables 6–25 show these by subgroup for only those subgroups with ample sample sizes to report statistics (no groups less than 16 have statistics reported, only sample size information). Specific details on test reliability and standard errors are further described in the reliability section.

## **Part 9: Special Studies**

Special studies, which were conducted as specific data analyses for the CSAPA, are meant to inform policy and provide additional evidence regarding reliability and validity.

### **Level of Independence**

To get a sense of the magnitude of student levels of independence, the percent of each was evaluated. The percentages of total items across all grades, by content area, on which students responded with each level of independence are found in Table 73. Overall, students responded independently to most items. In Reading, 86% of items were responded to independently (Level 4 according to the Level of Independence Protocol), in Writing this value is 85%, in Mathematics it is 79%, and in Science it is 87%.

### **Additional Reliability Measures**

Additional reliability coefficients were calculated (KR20) in an effort to describe the consistency of the levels of independence performed by students and documented by test examiners. The KR20 statistic yields the same results as Cronbach's alpha for dichotomously scored items (Crocker & Algina, 1986). The goal was to determine the consistency of the level of independence rating for each student, as it was assumed that a student would perform at approximately the same level of independence across all items. The belief is that a student answering an item independently would be likely to answer more items independently than they would be to require assistance (lower levels of independence) on other items. This helps to confirm that level of independence is about the student's ability as opposed to the type of item being administered. The concern is that there is no way to determine whether the rating is truly a reflection of the independent functioning of the student or the way in which the test examiner administered the assessment. The data in Table 74 illustrates the consistency of the level of independence ratings, describing by grade and content area the reliability of students at the highest level of independence (Level 4) compared with students at the remaining lower levels. The data demonstrate high reliabilities, of 0.96 and above across the board. This is an indication that the level of independence at which students perform and/or examiners provide assistance is consistent across items.

Given that students tend to respond independently is a good sign that examiners are not over assisting their students on CSAPA and provides clearer data on the students' level of content-based understanding. An additional bit of information regarding the level of independence is looking at the number of occurrences where the student performed at the lowest level of independence, level 1 "no response," but responded correctly to the item, or where students

performed at the upper levels of independence (2–4) but had no response to the test item marked, per test administrator coding. This is believed to be an indication of coding errors more than anything else. The percentages of item responses where these errors occurred are found in Table 75. The occurrences of coding errors due to a level 1 “no response” and a correct response given (average 0.43%, maximum 1.02%) are on average higher than error due to no response provided to the item with level of independence coded as 2–4 (average 0.13%, maximum 0.55%). These types of errors have been reduced from the 2009–10 CSAPA administration; an indication that continued administrator training has been effective.

### **Student Scores**

It is also important to gauge the range of scores across students. One way to look at this is to evaluate the number of students earning the maximum total raw score (the ceiling) and those not earning any points (the floor). This type of data can help provide information regarding eligibility policy. The number of students at the maximum and minimum raw scores for the total student population is found in Tables 6–9 and 71. In all grades and content areas there are fewer students achieving the maximum score than the minimum score. In Reading, at four grade levels, no students achieved the maximum possible score, while as many as 18 students (grades 4 and 8) earned the minimum possible score. In Writing, there are three grade levels with no students achieving the maximum possible score, while at grade 8, 26 students earned the minimum possible score. In Mathematics, there are four grade levels in which no students earned the maximum possible score and the minimum score was earned by 20 students in grade 8. Science is different in that for both grades 5 and 8 there are 13 students earning the maximum possible score, and at grade 10 there are two students achieving the maximum possible score, while at grade 8 there are 18 students earning the minimum possible score. This information is also illustrated by subgroups in Tables 6–25.

Another way of looking at this is to view the distribution of students across the raw score scale. Raw score frequency distributions are found in Tables 43–69. It is seen that students are fairly evenly spread out across the range of scores, though there is some “clumping” evident at the top and bottom of the distributions as is typical with this population of students.

### **Performance Levels and Response Modes**

A matched data set of examiner-provided ratings via a Contrasting Groups Survey to each student’s earned performance level was created to evaluate the relationship between examiner judgments regarding the proficiency of their students, as defined by the state-generated PLDs and collected through the survey, and the earned proficiency level as a result of the final student score. The purpose of these analyses is to provide not only reliability evidence between final scores and examiner judgment, but additionally to continue the collection of criteria-related validity evidence to demonstrate how well the CSAPA represents, in examiners’ views, the performance of their students. It should be noted that these data are based only on valid cases where no missing data are considered, and that examiner participation in the online survey was voluntary.

The survey was conducted via a secure website, such that examiners would register for the survey and provide input regarding their students. The survey captured a host of information including perceived proficiency level, response mode utilized by the student during assessment, response mode utilized by the student during daily classroom interactions, and other demographic information in order to ensure the highest possible degree of record matching.

Agreement rates and rater reliabilities are found in Table 76. Percent of perfect/exact agreement and kappa rates are lower than anticipated, averaging 48% and 0.32, respectively. Differences

tend to be within a single rating (adjacent) where examiners estimated their students to be one level higher or lower than what students actually earned. If the agreement percentage is combined to include ratings that were one level higher or lower than the obtained rating, then average percent for agreement rises to 90%. There were some discrepant ratings defined as being plus or minus two or more levels in contrast. On average the percentage of discrepant ratings was low at 10%. As test examiners become more familiar with the performance levels and are able to reflect on the performance levels students received based on their CSAPA score, it is hypothesized that with continued teacher training on the PLDs and content standards, these rates of agreement and kappa indices will improve over time.

Table 77 provides survey data from the examiners in relation to the response mode utilized by the students within the context of the CSAPA assessment activities. The survey question stated, "Please indicate the primary method of response a student used during the CSAPA assessment." The examiner had to choose from one of the following options: Communication Device, Eye Gaze, Picture Symbols, Pointing/Gesturing, Sign Language, Verbal Response, Student Does Not Have a Response Mode, and Other. The question was asked of the examiner in an overall fashion, not by content area. Across grade levels there was an average of 86 matchable responses, where student assessment results could be matched with the survey information provided by teachers. Teachers reported that most students used a Verbal Response mode, with an average of 62% of students utilizing this mode of response within the context of the assessment. The next most common response mode was Pointing/Gesturing with an average of 29% of students. The remaining options each had an average of fewer than 4% of the students.

Table 78 describes survey data regarding student response modes within daily classroom interactions. The survey question stated, "Please indicate the student's primary means of communicating their needs and wants within daily school interactions." The examiner had to choose from one of the following options: Body Language, Communication Device, Eye Gaze/Picture Symbols, Pointing/Gesturing, Sign Language, Verbal Response, Utterances (crying, grunting, etc.), Student Does Not Have a Response Mode, and Other. Again the question was asked of the examiner in an overall fashion, not by content area. Teachers reported that most students use Verbal Responses within classroom interactions with an average of 77%, followed by Pointing/Gesturing with an average of 11%. The remaining options each had an average of less than 3%.

Tables 79–82 illustrate the average level of independence with which a student answers the test items by content area in relation to the percentage of students in each of the proficiency levels. The student's average level of independence was calculated as a simple average of the level of independence scores across all test items by content area. This provided a range for the levels of independence with which students tended to respond. Then, for each of the five proficiency levels, the percentage of students within each range of independence was calculated. It can be seen that, with the exception of Reading grade 10, zero percent of students achieved a proficiency rating of *Novice* with an average level of independence less than 3.5.<sup>32</sup> All students with an average level of independence of 1.0–1.4 achieved a proficiency level of *Inconclusive*. The greater the average level of independence with which a student responds, the more likely they are to have a higher proficiency rating. It is important to note that it is appropriate for independent responses to receive low scores (such as the percentage of students with the highest average level of independence scoring in the *Inconclusive* level) due to the possibility for an incorrect though independent response to be given. This finding is reassuring as it

---

<sup>32</sup> For Reading grade 10, 6% of students with an average level of independence ranging from 3.0 to 3.4 achieved a *Novice* rating.

illustrates that examiners are not simply redirecting if the student answers the question incorrectly at first.

## **Part 10: Longitudinal Analyses**

Reading, Writing, and Science comparisons examine the differences across four years, 2007–08, 2008–09, 2009–10, and 2010–11, while Mathematics comparisons examine differences for five years, 2006–07, 2007–08, 2008–09, 2009–10, and 2010–11. Throughout this section, differences are calculated as the most recent year compared to the prior year. As such, differences are calculated as 2010–11 minus 2009–10, 2009–10 minus 2008–09, and so forth as appropriate. Given this calculation of differences, negative values indicate that the values have decreased in the more recent year.

Over time it would be expected that there would be only minimal differences in test statistics such as *p*-values (item difficulty) and point biserial correlations (item-test correlation) assuming that the tested population remains stable. Given the reporting and use of raw score results without equating, the assumption of relative population invariance becomes critical in the examination of student performance over time.

### **Reading**

Figure 20 illustrates the number of students participating in the CSAPA Reading assessment by year. It is illustrated that the number of students increased across the four assessment years for grades 5 and 7. Other grades showed a variety of increasing and decreasing trends.

Table 83 illustrates the means and standard deviations at the total group level by grade for Reading. It is seen that differences from 2007–08 to 2008–09 were as small as  $-0.42$  points for grade 4 and as large as  $3.73$  points for grade 10. It is also seen that the means for grades 3, 4, 8, and 9 decreased ( $-0.42$  to  $-2.28$  points), while the means for grades 5–7 and 10 increased ( $1.08$  to  $3.73$  points). Differences from 2008–09 to 2009–10 were as small as  $-0.04$  points for grade 7 and as large as  $-2.67$  points for grade 10. It is also seen that the means for grades 3–5, 7, 9, and 10 decreased ( $-0.04$  to  $-2.67$  points), while the means for grades 6 and 8 increased ( $0.06$  to  $0.57$  points). Differences from 2009–10 to 2010–11 were as small as  $0.06$  points for grade 6 and as large as  $1.93$  points for grade 7. It is also seen that the means for grades 3, 4, and 8–10 decreased ( $-0.09$  to  $-0.88$  points), while the means for grades 5–7 increased ( $0.06$  to  $1.93$  points). This trend is also illustrated in Figure 24 where the mean score as a percent of the total possible score is presented. Given the nature of the Reading assessment, ranging by grade from 102 to 105 possible points, these small differences in mean scores over time reflect very minor variations in student performance.

Table 87 illustrates the population of students participating in the CSAPA Reading assessment by year based upon gender and primary disability, as well as indicating any differences in the population between the four years. The largest change by gender group from 2007–08 to 2008–09 was seen in grade 7 with a nearly 5% shift in the gender groupings. The smallest difference was observed at grade 10 with less than 0.75% of variation. The largest change by gender group from 2008–09 to 2009–10 was seen in grade 8 with a  $-3.5\%$  decline in the percentage of Male students. The smallest difference was observed at grade 7 with less than 0.25% of variation in the percentage of Male students. The largest change by gender group from 2009–10 to 2010–11 is seen in grade 9 with a  $\pm 4.29\%$  change for Male ( $-$ ) and Female ( $+$ ) students. The smallest difference is observed at grade 10 with  $-0.46\%$  of change in the percentage of Female students.

The primary disability classifications have also remained quite stable as detailed in Table 87 by grade level and as illustrated for the overall group in Figure 28, only differences for groups

containing students in both administrations are referenced here. The smallest difference between the 2007–08 and 2008–09 administrations in the percentage of students classified with a specific primary disability was a zero percent change for the percent of students classified as having a “Visual Disability” in grade 6. The largest difference was 7.17% for “Limited Intellectual Capacity” in grade 6. The smallest difference between the 2008–09 and 2009–10 administrations in the percentage of students classified with a specific primary disability was a zero percent change for the percent of students classified as having a “Visual Disability” in grade 7. The largest difference was an increase of 5.91% for “Limited Intellectual Capacity” in grade 4. The smallest difference between the 2009–10 and 2010–11 administrations in the percentage of students classified with a specific primary disability is a –0.01% change for the percent of students classified as having a “Physical Disability” in grade 7. The largest difference is an increase of 5.77% for “Multiple Disabilities” in grade 4.

The  $p$ -values for 2007–08, 2008–09, 2009–10, and 2010–11 are illustrated in Table 91. The mean  $p$ -values remain quite stable across administrations with the smallest difference from 2007–08 to 2008–09 of –0.004<sup>33</sup> at grade 4; for 2008–09 to 2009–10 the smallest difference was at grade 9, –0.001; and for 2009–10 to 2010–11 the smallest difference is at grade 3, –0.004. The largest difference for 2007–08 to 2008–09 was observed at grade 10 with a difference of 0.036; for 2008–09 to 2009–10 the largest difference, of –0.027, was at grade 10; and for 2009–10 to 2010–11 the largest difference of +0.018, is at grade 7. Equally the range of  $p$ -values remained stable. The highest observed  $p$ -value was 0.88 in grade 4 (2007–08); 0.89 in grade 5 (2008–09); 0.88 in grade 6 (2009–10); and 0.87<sup>34</sup> in grade 5 (2010–11). The lowest observed  $p$ -value was always in grade 6, it was 0.18 in 2007–08; 0.23 in 2008–09; 0.24 in 2009–10; and 0.21 in 2010–11.

Table 95 illustrates the point biserial statistics for 2007–08, 2008–09, 2009–10, and 2010–11 and provides results of the differences. The mean point biserials remain quite stable across administrations with grade 8 illustrating a difference of just –0.001<sup>35</sup> from 2007–08 to 2008–09; 0.002 for grade 9 from 2008–09 to 2009–10; and +0.007 for grade 4 from 2009–10 to 2010–11. The largest difference in mean point biserials between 2007–08 and 2008–09 was –0.019 for grade 6; from 2008–09 to 2009–10 the largest difference was –0.017 for grade 4; and from 2009–10 to 2010–11 the largest difference was –0.029 for grade 7. Equally, the range of point biserial values remained stable. The highest observed point biserial in 2007–08 was 0.74 in grade 9; in 2008–09 it was 0.75 in grade 5; in 2009–10 the highest observed point biserial was 0.75 in grade 5; and in 2010–11 the highest observed point biserial was 0.73<sup>36</sup> in grade 6. The lowest observed point biserial was always in grade 7, in 2007–08 it was 0.24; in 2008–09 it was 0.20; in 2009–10 it was 0.16, and in 2010–11 it was 0.14.

Another important trait to examine longitudinally is the impact data and differences over time, presented in Table 99. At the level of *Inconclusive* from 2007–08 to 2008–09 the largest decrease was –3.55% for grade 10, and the largest increase at this level was 3.34% for grade 4. From 2008–09 to 2009–10 the largest decrease at this level was –1.83% for grade 6, and the largest increase was 3.61% for grade 5. From 2009–10 to 2010–11 the largest decrease at the *Inconclusive* level was –3.93% for grade 7, and the only increase was 1.03% for grade 6. At the *Exploring* level from 2007–08 to 2008–09 there was a –3.90% decrease in students at grade 6, and the largest increase at this level was 3.51% for grade 8. From 2008–09 to 2009–10 the largest decrease in *Exploring* students was –3.50% for grade 5, and the largest increase was 3.86% for

<sup>33</sup> Difference values are expanded here to additional decimal places, as rounding to fewer digits would obscure differences.

<sup>34</sup> There are two values of 0.87; however, the 0.874 grade 5 value is higher.

<sup>35</sup> Difference values are expanded here to additional decimal places, as rounding to fewer digits would obscure differences.

<sup>36</sup> There are three values of 0.73; however, the 0.729 grade 6 value is highest.

grade 6. From 2009–10 to 2010–11 the only decrease at this level was  $-0.17\%$  for grade 8, and the largest increase was  $4.66\%$  for grade 10. At the level of *Emerging*, from 2007–08 to 2008–09 there was a decrease of  $-4.03\%$  in students at grade 4, while there was a  $6.25\%$  increase at grade 6. From 2008–09 to 2009–10, the largest decrease in *Emerging* students was  $-3.98\%$  for grade 6, and the largest increase was  $2.53\%$  for grade 5. From 2009–10 to 2010–11 the largest decrease at this level was  $-3.85\%$  for grade 6, and the largest increase was  $4.53\%$  for grade 8. At the *Developing* level, from 2007–08 to 2008–09 there was a  $-5.32\%$  decrease in students in grade 9, while there was an increase of  $2.79\%$  in grade 10. From 2008–09 to 2009–10 there was a  $-1.58\%$  decrease in students in grade 4, while there was an increase of  $4.58\%$  in grade 8. From 2009–10 to 2010–11 the largest decrease in *Developing* was  $-1.35\%$  for grade 3, and the largest increase was  $2.09\%$  for grade 7. At the *Novice* level, from 2007–08 to 2008–09 there was a decrease of  $-1.35\%$  of students in grade 6, with the greatest increase of  $2.84\%$  in grade 10. From 2008–09 to 2009–10 there was a  $-4.09\%$  decrease in students in grade 10, while there was an increase of  $0.35\%$  in grade 6. From 2009–10 to 2010–11 the largest decrease in *Novice* was  $-3.12\%$  for grade 8, and the largest increase was  $1.22\%$  for grade 10. From 2007–08 to 2008–09 the percentage of students classified as *Developing* and *Novice* combined decreased by  $-4.42\%$  in grade 8 and increased by  $5.64\%$  in grade 10. From 2008–09 to 2009–10 the percentage of students in the combined *Developing* and *Novice* category decreased by  $-5.10\%$  for grade 10 and increased by  $4.62\%$  for grade 8. Finally, from 2009–10 to 2010–11 the percentage of students in the combined *Developing* and *Novice* category decreased by  $-3.71\%$  for grade 8 and increased by  $1.65\%$  for grade 6. In general, the impact data are relatively stable across the administrations.

## Writing

Figure 21 illustrates the number of students participating in the CSAPA Writing assessment in 2007–08, 2008–09, 2009–10, and 2010–11. It is illustrated that the number of students increased across the four assessment years for grades 5 and 7, while other grade levels showed a variety of increasing and decreasing patterns over the administration years.

Table 84 illustrates the means and standard deviations at the total group level by grade for Writing. It is seen that the 2007–08 to 2008–09 differences are as small as  $-0.30$  points for grade 9 and as large as  $4.08$  points for grade 10. It is also seen that the means for grades 3, 4, 8, and 9 decreased (from  $-0.30$  to  $-2.24$  points), while the means for grades 5–7 and 10 increased (from  $1.15$  to  $4.08$  points). The 2008–09 to 2009–10 differences are as small as  $-0.35$  points for grade 4 and as large as  $-2.00$  points for grade 10. It is also seen that the means for grades 3–5, 7, 9, and 10 decreased (from  $-0.35$  to  $-2.00$  points), while the means for grades 6 and 8 increased (from  $0.76$  to  $0.83$  points). The 2009–10 to 2010–11 differences are as small as  $-0.01$  points for grade 9 and as large as  $-3.67$  points for grade 4. It is also seen that the means for grades 3, 4, 6, 9, and 10 decreased (from  $-0.01$  to  $-3.67$  points), while the means for grades 5, 7, and 8 increased (from  $0.19$  to  $1.50$  points). This trend is also illustrated in Figure 25 where the mean score as a percent of the total possible score is presented. Given the nature of the Writing assessment, ranging by grade from 105 to 108 possible points, these small differences in mean scores reflect very minor variations in student performance.

Table 88 illustrates the population of students participating in the CSAPA Writing assessment based upon gender and primary disability. The largest change by gender group between 2007–08 and 2008–09 was seen in grade 7 with a  $-4.98\%$  decrease in Male students, while the smallest difference was observed at grade 5 with a  $0.60\%$  increase in the percentage of Female students. For 2008–09 to 2009–10 the largest difference by gender group is observed for grade 8 Female students with a  $4.02\%$  increase, while the smallest difference is observed for grade 7 Female students with a  $-0.03\%$  decrease. For 2009–10 to 2010–11 the largest difference by gender group



is observed for grade 9 Male students with a  $-4.37\%$  decrease, while the smallest difference is observed for grade 7 Male students with a  $0.39\%$  increase.

The primary disability classifications have also remained quite stable by grade level as detailed in Table 88 and as illustrated for the overall group in Figure 29, only differences for groups containing students in both administrations are referenced here. The smallest difference in the percentage of students classified with a specific primary disability between 2007–08 and 2008–09 was a zero percent change for the percent of students classified as having “Multiple Disabilities” in grade 3; while from 2008–09 to 2009–10 the smallest difference was a zero percent change for students classified with a “Visual Disability” in grade 7; and finally the smallest difference from 2009–10 to 2010–11 was a  $-0.02\%$  change for students classified with a “Traumatic Brain Injury” in grade 10. The largest difference between 2007–08 and 2008–09 was a  $6.79\%$  increase for “Limited Intellectual Capacity” in grade 6; while for 2008–09 to 2009–10 the largest difference was a  $5.99\%$  increase for students classified as “Limited Intellectual Capacity” in grade 7; finally the largest difference from 2009–10 to 2010–11 was a  $5.82\%$  increase for students classified with “Multiple Disabilities” in grade 4.

The  $p$ -values for 2007–08, 2008–09, 2009–10, and 2010–11 are illustrated in Table 92, providing results of the differences between years. The mean  $p$ -values remain quite stable across administrations with the smallest difference from 2007–08 to 2008–09 of  $-0.003^{37}$  at grade 9; the smallest difference from 2008–09 to 2009–10 of  $-0.006$  at grade 7; and the smallest difference from 2009–10 to 2010–11 of  $0.000$  at grade 8. The largest difference observed between 2007–08 and 2008–09 was  $0.031$  for grade 10; the largest difference from 2008–09 to 2009–10 was  $-0.018$  at grade 10; and the largest difference observed between 2009–10 and 2010–11 was  $-0.029$  at grade 4. Equally the range of  $p$ -values remained stable. The highest observed  $p$ -value in 2007–08 was  $0.86$  in grade 8; in 2008–09 it was  $0.85$  in grade 7; in 2009–10 it was  $0.86$  in grade 6; and in 2010–11 the highest observed  $p$ -value was  $0.85$  in grade 7. The lowest observed  $p$ -value was always in grade 10, in 2007–08 was  $0.17$ ; in 2008–09 it was  $0.19$ ; in 2009–10 it was  $0.16$ ; and in 2010–11 the lowest observed  $p$ -value was  $0.15$  in grade 10.

Table 96 illustrates the point biserial statistics for 2007–08, 2008–09, 2009–10, and 2010–11 and provides results of the differences. The mean point biserials remain quite stable across administrations with grade 3 illustrating the smallest differences across all years with a difference of  $0.0002^{38}$  from 2007–08 to 2008–09; a difference of  $0.002$  from 2008–09 to 2009–10; and a difference of  $0.000$  from 2009–10 to 2010–11. The largest difference from 2007–08 to 2008–09 was observed at grade 6 with a difference of  $-0.018$ ; for 2008–09 to 2009–10 the largest difference was  $0.023$  in grade 9; and from 2009–10 to 2010–11 the largest difference was  $-0.034$  in grade 5. Equally, the range of point biserial values remained stable. The highest observed point biserial in 2007–08 was  $0.86$  in grade 7; in 2008–09 it was  $0.88$  in grade 8; in 2009–10 it was  $0.87$  in grade 8; and in 2010–11 the highest observed point biserial was  $0.87^{39}$  in grade 6. The lowest observed point biserial in 2007–08 was  $0.13$  in grade 7; in 2008–09 it was  $0.17$  in grade 9; in 2009–10 it was  $0.12$  in grade 10; and in 2010–11 the lowest observed point biserial was  $0.12^{40}$  in grade 7.

Another important trait to examine over time is the impact data which is presented in Table 100. At the level of *Inconclusive* from 2007–08 to 2008–09 the largest decrease was  $-4.33\%$  for grade 7,

<sup>37</sup> Difference values are expanded here to additional decimal places, as rounding to fewer digits would obscure differences.

<sup>38</sup> Difference values are expanded here to additional decimal places, as rounding to fewer digits would obscure differences.

<sup>39</sup> There are two values of  $0.87$ ; however, the  $0.868$  grade 6 value is higher.

<sup>40</sup> There are two values of  $0.12$ ; however, the  $0.118$  grade 7 value is lower.

for 2008–09 to 2009–10 the largest decrease was –2.41% for grade 8, and from 2009–10 to 2010–11 the largest decrease in *Inconclusive* students was –2.37% for grade 7. At this level there was a 2.62% increase in students in grade 8 from 2007–08 to 2008–09, the greatest increase from 2008–09 to 2009–10 was 4.15% for grade 9, and from 2009–10 to 2010–11 the greatest increase in *Inconclusive* students, of 2.90%, occurred at grade 4. At the *Exploring* level there was a –6.75% decrease at grade 10 from 2007–08 to 2008–09, from 2008–09 to 2009–10 the largest decrease was –1.44% for grade 7, and from 2009–10 to 2010–11 the largest decrease in *Exploring* students was –5.08% for grade 8. There was an increase in students classified as *Exploring* from 2007–08 to 2008–09 for grade 3 of 2.30%, from 2008–09 to 2009–10 the greatest increase was for grade 6 with a 5.77% increase, and from 2009–10 to 2010–11 the greatest increase in *Exploring* students was for grade 10 with a 3.81% increase. From 2007–08 to 2008–09 there was a –2.86% decrease for grade 5 students classified as *Emerging*, from 2008–09 to 2009–10 the greatest decrease of –5.53% was observed for grade 9, and from 2009–10 to 2010–11 the greatest decrease in *Emerging* students, of –6.35%, was observed for grade 10. From 2007–08 to 2008–09 there was a 2.42% increase in *Emerging* students at grade 6, from 2008–09 to 2009–10 the greatest increase was 2.11% for grade 7, and from 2009–10 to 2010–11 there was a 2.92% increase in *Emerging* students for grade 5. There was a –4.30% decrease in students classified as *Developing* in grade 9 from 2007–08 to 2008–09, from 2008–09 to 2009–10 the greatest decrease of –3.14% was for grade 7, and from 2009–10 to 2010–11 the greatest decrease in *Developing* students of –5.83% was for grade 4 students. From 2007–08 to 2008–09 there was a 6.25% increase at grade 6 in students classified as *Developing*, from 2008–09 to 2009–10 there was a 2.48% increase at grade 4, and from 2009–10 to 2010–11 there was a 3.44% increase in *Developing* students at grade 9. Within the *Novice* classification there was a –2.89% decrease at grade 6 (the only decrease evidenced) from 2007–08 to 2008–09, from 2008–09 to 2009–10 the greatest decrease of –4.68% was observed at grade 10, and from 2009–10 to 2010–11 the greatest decrease in *Novice* students, of –3.36%, occurred at grade 5. From 2007–08 to 2008–09 there was a 4.69% increase in *Novice* students at grade 10, from 2008–09 to 2009–10 the largest increase was 4.22% for grade 6, and from 2009–10 to 2010–11 the largest increase in *Novice* students, of 3.44%, was for grade 10. Within the combined levels of *Developing* and *Novice* there were decreases of –1.17% to –3.77% in the impact data at grades 3, 4, 8, and 9, and increases of 1.91% to 4.99% at grades 5–7 and 10 from 2007–08 to 2008–09. For 2008–09 to 2009–10 there were decreases of –1.18% to –2.77% in the impact data at grades 3, 7, and 10, and increases of 0.23% to 1.95% at grades 4–6, 8, and 9. For 2009–10 to 2010–11 for the percentage of students classified as *Developing* and *Novice* there were decreases of –1.16% to –6.09% at grades 3–6, and increases of 0.45% to 1.41% at grades 7–10. In general, the impact data are relatively stable across the four administrations.

## Mathematics

Figure 22 illustrates the number of students participating in the CSAPA Mathematics assessment in 2006–07, 2007–08, 2008–09, 2009–10, and 2010–11 and shows that for grades 5 and 7 the number of students participating has increased yearly. For the other grade levels there are a variety of increases and decreases between administrations and over time.

Table 85 illustrates the means and standard deviations at the total group level by grade for Mathematics. It is seen that the 2006–07 versus 2007–08 differences are as small as 0.70 points for grade 6 and as large as 3.65 points for grade 8, and that the means for grades 3–5 and 7 decrease, while the means for grades 6 and 8–10 increase. The 2007–08 versus 2008–09 differences are as small as 0.18 for grade 9 and as large as –4.66 points for grade 8, and the means for grades 3, 4, and 8 decrease, while the means for grades 5–7, 9, and 10 increase. The 2008–09 versus 2009–10 differences are as small as –0.10 points for grade 7 and as large as –4.20 points for grade 5, and the means for grades 3, 5, 7, 9, and 10 decrease, while the means

for grades 4, 6, and 8 increase. The 2009–10 versus 2010–11 differences are as small as  $-0.17$  points for grade 9 and as large as  $-4.13$  points for grade 4, and the means for grades 3, 4, 6, 9, and 10 decrease, while the means for grades 5, 7, and 8 increase. This trend is also illustrated in Figure 26 where the mean score as a percent of the total possible score is presented. Given the nature of the Mathematics assessment, ranging by grade from 126 to 171 possible points, these small differences in mean scores reflect very minor variations in student performance.

Table 89 illustrates the population of students participating in the CSAPA Mathematics assessment based upon gender and primary disability. The largest change by gender group between 2006–07 and 2007–08 was  $-7.61\%$  for grade 6 Males, while the smallest difference was observed for grade 4 Females with a decrease of  $-0.23\%$ . For 2007–08 to 2008–09 the largest difference by gender group was observed for grade 7 Males with a  $-5.34\%$  decrease, while the smallest difference was observed for grade 4 Females with a  $-0.11\%$  decrease. The largest change by gender group between 2008–09 and 2009–10 was a  $3.04\%$  increase in grade 4 Males, while the smallest difference was observed at grade 5 with a  $-0.16\%$  decrease in Female students and a  $0.16\%$  increase in Male students. The largest change by gender group between 2009–10 and 2010–11 was a  $-3.92\%$  decrease in grade 9 Male students, while the smallest difference was observed at grade 4 with a  $0.19\%$  increase in Female students.

The primary disability classifications have also remained quite stable as detailed in Table 89, by grade level and as illustrated for the total group in Figure 30, only differences for groups containing students in both administrations are referenced here. The smallest difference in the percentage of students classified with a specific primary disability between 2006–07 and 2007–08 was a  $0.01\%$  change at grade 9 for the students classified as having “Multiple Disabilities;” for 2007–08 to 2008–09 the smallest difference was a zero percent change for the percent of students classified as having a “Speech/Language Disability” in grade 10; for 2008–09 to 2009–10 the smallest difference was a zero percent change for students classified with “Visual Disability” in grade 7; and for 2009–10 to 2010–11 the smallest difference was a zero percent change for students classified with a “Traumatic Brain Injury” in grade 10. The largest difference between 2006–07 and 2007–08 was  $-5.17\%$  for grade 3 “Limited Intellectual Capacity;” for 2007–08 to 2008–09 the largest difference was  $-6.55\%$  for grade 6 students classified as having “Multiple Disabilities;” for 2008–09 to 2009–10 the greatest difference was  $6.22\%$  for students in grade 4 classified with “Limited Intellectual Capacity;” and for 2009–10 to 2010–11 the greatest difference was  $5.54\%$  for students in grade 5 classified with “Limited Intellectual Capacity.”

The  $p$ -values for 2006–07, 2007–08, 2008–09, 2009–10, and 2010–11 are illustrated in Table 93 providing results of the difference between years. The mean  $p$ -values remain quite stable across administrations with the smallest 2006–07 to 2007–08 difference of  $0.007^{41}$  at grade 6; the smallest 2007–08 to 2008–09 difference of  $0.000$  at grade 7; the smallest 2008–09 to 2009–10 difference of  $-0.002$  at grade 7; and the smallest 2009–10 to 2010–11 difference of  $-0.003$  at grade 9. Grade 8 illustrated the largest difference for 2006–07 to 2007–08 and 2007–08 to 2008–09 with differences of  $0.025$  and  $-0.032$ , respectively. From 2008–09 to 2009–10 the greatest difference was  $-0.022$  for grade 5, while from 2009–10 to 2010–11 the greatest difference was  $-0.029$  for grade 4. Equally the range of  $p$ -values remained stable. The highest observed  $p$ -values from 2006–07 through 2009–10 were at grade 4 with values of  $0.90$  (2006–07);  $0.91$  (2007–08);  $0.89$  (2008–09); and  $0.89$  (2009–10). In 2010–11, the highest observed  $p$ -value was  $0.89$  at grade 3. The lowest observed  $p$ -values across all years were at grade 10 with values of  $0.08$  (2006–07);  $0.07$  (2007–08);  $0.09$  (2008–09);  $0.08$  (2009–10); and  $0.06$  (2010–11).

<sup>41</sup> Difference values are expanded here to additional decimal places, as rounding to fewer digits would obscure differences.

Table 97 illustrates the point biserial statistics for 2006–07, 2007–08, 2008–09, 2009–10, and 2010–11 and provides results of the differences. The mean point biserials remain quite stable across administrations with grade 9 illustrating the smallest differences of  $-0.001^{42}$  for 2006–07 to 2007–08 and  $-0.005$  for 2007–08 to 2008–09, from 2008–09 to 2009–10 the smallest difference of  $0.002$  was for grade 8, and from 2009–10 to 2010–11 the smallest difference in point biserials was  $0.0049$  for grade 3. Grade 6 illustrated the largest difference in point biserials of  $0.030$  from 2006–07 to 2007–08 and  $-0.040$  from 2007–08 to 2008–09, while from 2008–09 to 2009–10 the largest difference of  $-0.019$  was observed at grade 7, and from 2009–10 to 2010–11 the largest difference in point biserials of  $-0.020$  was observed at grade 10. Equally, the range of point biserial values remained stable. The highest observed point biserial in 2006–07 was  $0.81$  in grade 9; in 2007–08 it was  $0.82$  in grade 6; in 2008–09 it was  $0.83$  in grade 3; in 2009–10 it was  $0.82$  in grade 3; and in 2010–11 the highest observed point biserial was  $0.82$  in grade 3. The lowest observed point biserial across all years was observed in grade 10 with a 2006–07 value of  $0.12$ ; a 2007–08 value of  $0.09$ ; a 2008–09 value of  $0.14$ ; a 2009–10 value of  $0.09$ ; and a 2010–11 value of  $0.03$ .

The impact data for 2006–07, 2007–08, 2008–09, 2009–10, and 2010–11, as well as the differences are presented in Table 101. At the level of *Inconclusive*, from 2006–07 to 2007–08 the largest decrease was  $-3.65\%$  for grade 10; from 2007–08 to 2008–09 the greatest decrease was  $-4.47\%$  for grade 6; from 2008–09 to 2009–10 the largest decrease was  $-3.08\%$  for grade 8; and from 2009–10 to 2010–11 the largest decrease was  $-3.88\%$  for grade 7. The largest increase from 2006–07 to 2007–08 was  $6.10\%$  for grade 7; from 2007–08 to 2008–09 was  $3.73\%$  for grade 8; from 2008–09 to 2009–10 the largest increase was  $2.98\%$  for grade 5, and from 2009–10 to 2010–11 the largest increase was  $1.84\%$  for grade 8. At the *Exploring* level, from 2006–07 to 2007–08 all values decreased, from  $-0.02\%$  for grade 10 to  $-2.99\%$  for grade 8; for 2007–08 to 2008–09 the largest decrease was  $-2.07\%$  for grade 9; from 2008–09 to 2009–10 the largest decrease was  $-3.03\%$  for grade 10; and from 2009–10 to 2010–11 the largest decrease was  $-4.18\%$  for grade 8. At the *Exploring* level, the largest increase from 2007–08 to 2008–09 was  $3.43\%$  for grade 5; from 2008–09 to 2009–10 the largest increase was  $3.60\%$  for grade 4; and from 2009–10 to 2010–11 the largest increase was  $5.77\%$  for grade 10. At the *Emerging* level, from 2006–07 to 2007–08 the largest decrease was  $-4.72\%$  for grade 8; from 2007–08 to 2008–09 it was  $-7.05\%$  for grade 5; from 2008–09 to 2009–10 it was  $-2.51\%$  for grade 4; and from 2009–10 to 2010–11 the largest decrease was  $-2.14\%$  for grade 7. The largest increase from 2006–07 to 2007–08 was  $2.43\%$  for grade 10; from 2007–08 to 2008–09 it was  $3.20\%$  for grade 8; from 2008–09 to 2009–10 the largest increase was  $3.39\%$  for grade 5; and from 2009–10 to 2010–11 the largest increase in students at the *Emerging* level was for grade 6 with a  $2.63\%$  increase. At the *Developing* level, from 2006–07 to 2007–08 the largest decrease was  $-5.57\%$  for grade 7; from 2007–08 to 2008–09 it was  $-7.00\%$  for grade 8; from 2008–09 to 2009–10 it was  $-4.22\%$  for grade 9; and from 2009–10 to 2010–11 the largest decrease was  $-6.17\%$  for grade 4. The largest increase from 2006–07 to 2007–08 was  $6.25\%$  for grade 4; from 2007–08 to 2008–09 it was  $5.55\%$  for grade 6; from 2008–09 to 2009–10 it was  $4.08\%$  for grade 4; and from 2009–10 to 2010–11 the largest increase in *Developing* was for grade 9 with  $2.83\%$ . At the *Novice* level, from 2006–07 to 2007–08 the largest decrease was  $-6.11\%$  for grade 4; from 2007–08 to 2008–09 it was  $-3.83\%$  for grade 6; from 2008–09 to 2009–10 it was  $-3.21\%$  for grade 4; and from 2009–10 to 2010–11 the largest decrease was  $-2.86\%$  for grade 10. The largest increase from 2006–07 to 2007–08 was  $5.61\%$  for grade 6; from 2007–08 to 2008–09 it was  $2.80\%$  for grade 10; from 2008–09 to 2009–10 it was  $5.50\%$  for grade 6; and from 2009–10 to 2010–11 the largest increase in *Novice* was  $2.47\%$  for grade 7. When combining *Developing* and *Novice* from 2006–07 to 2007–08 the largest decrease was  $-2.91\%$  for grade 7; from 2007–08 to 2008–09

<sup>42</sup> Difference values are expanded here to additional decimal places, as rounding to fewer digits would obscure differences.

it was  $-7.29\%$  for grade 8; from 2008–09 to 2009–10 it was  $-6.11\%$  for grade 5; and from 2009–10 to 2010–11 the largest decrease was  $-7.17\%$  for grade 10. The largest increase in the percentage of students classified as *Developing* and *Novice* from 2006–07 to 2007–08 was  $7.62\%$  for grade 8; from 2007–08 to 2008–09 it was  $6.21\%$  for grade 5; from 2008–09 to 2009–10 it was  $2.17\%$  for grade 8; and from 2009–10 to 2010–11 the largest increase in the percentage of students classified as *Developing* and *Novice* was  $4.45\%$  in grade 7. In general, the impact data are relatively stable across administrations.

## Science

Figure 23 illustrates the number of students participating in the CSAPA Science assessment in 2007–08, 2008–09, 2009–10, and 2010–11. It is illustrated that the number of students increased across the four assessment years for grade 5. Grades 8 and 10 showed an increase from 2007–08 to 2008–09 and a decrease from 2008–09 to 2009–10, then for grade 8 there was a continuing decrease from 2009–10 to 2010–11, while for grade 10 there was an increase for this same time period.

Table 86 illustrates the means and standard deviations at the total group level by grade for Science. It is seen that differences from 2007–08 to 2008–09 ranged from  $-1.32$  points (grade 8) to  $3.19$  points (grade 10), the differences for 2008–09 to 2009–10 ranged from  $-2.84$  points (grade 10) to  $0.52$  points (grade 8), and the differences for 2009–10 to 2010–11 ranged from  $-0.68$  points (grade 10) to  $0.25$  points (grade 5). This is also illustrated in Figure 27 where the mean score as a percent of the total possible score is presented. Given the nature of the Science assessment, ranging by grade from 96 to 102 possible points, these small differences in mean scores reflect very minor variations in student performance.

Table 90 illustrates the population of students participating in the CSAPA Science assessment based upon gender and primary disability, as well as indicating any differences in the population between administration years. From 2007–08 to 2008–09 the largest change by gender group was in grade 5 with just a  $-1.10\%$  decrease in the percentage of Male students, from 2008–09 to 2009–10 the largest change in gender groups was a  $-1.85\%$  decrease in the percentage of Male students in grade 8, while from 2009–10 to 2010–11 the largest change in gender groups was a  $-2.67\%$  decrease in the percentage of Female students in grade 5.

The primary disability classifications have also remained quite stable as detailed in Table 90 by grade level and as illustrated for the overall group in Figure 31, only differences for groups containing students in both administrations are referenced here. The smallest difference in the percentage of students classified with a specific primary disability from 2007–08 to 2008–09 was a  $0.01\%$  change for the percent of students classified as having a “Speech/Language Disability” in grade 10, from 2008–09 to 2009–10 the smallest difference was for students in the grade 5 “Hearing Disability” group with a  $-0.03\%$  change, and from 2009–10 to 2010–11 the smallest difference was for students in the grade 8 “Hearing Disability” group with a  $0.02\%$ <sup>43</sup> change. The largest difference from 2007–08 to 2008–09 was  $3.52\%$  for “Autism” in grade 5, from 2008–09 to 2009–10 the largest difference was a  $3.99\%$  increase for students with “Multiple Disabilities” in grade 10, and from 2009–10 to 2010–11 the largest difference was a  $5.49\%$  increase for students with “Limited Intellectual Capacity” in grade 5.

The  $p$ -values are illustrated in Table 94 providing results of the difference between years. The mean  $p$ -values remain quite stable across the 2007–08 and 2008–09 administrations with a grade 5 difference of  $0.010$ ,<sup>44</sup> a grade 8 difference of  $-0.017$ , and a grade 10 difference of  $0.034$ . A

<sup>43</sup> There are two values of  $0.02\%$ ; however, the  $0.021\%$  grade 8 value is lower.

<sup>44</sup> Difference values are expanded here to additional decimal places, as rounding to fewer digits would obscure differences.

reversed pattern is observed between the 2008–09 and 2009–10 administrations with a grade 5 difference of  $-0.024$ , a grade 8 difference of  $0.004$ , and a grade 10 difference of  $-0.032$ . The pattern from 2009–10 to 2010–11 illustrates continued stability, the mean  $p$ -value difference for grade 5 is  $0.007$ , grade 8 is  $0.000$ , and grade 10 is  $-0.004$ . Equally the range of  $p$ -values remained stable. The highest observed  $p$ -value each year was in grade 5 with values of  $0.88$  (2007–08);  $0.89$  (2008–09);  $0.87$  (2009–10); and  $0.88$  (2010–11). The lowest observed  $p$ -value in each year was in grade 10 with values of  $0.26$  (2007–08);  $0.27$  (2008–09);  $0.26$  (2009–10); and  $0.24$  (2010–11).

Table 98 illustrates the point biserial statistics. The mean point biserials remain quite stable across administrations, where from 2007–08 to 2008–09 grade 8 illustrated the smallest difference of  $0.001$ ,<sup>45</sup> and the largest difference was observed at grade 10 with a difference of  $0.008$ . From 2008–09 to 2009–10 the differences in point biserial values were  $0.016$  (grade 5),  $0.023$  (grade 8), and  $0.001$  (grade 10). Finally, from 2009–10 to 2010–11 the differences in point biserial values were  $-0.024$  (grade 5),  $-0.006$  (grade 8), and  $-0.020$  (grade 10). Equally, the range of point biserial values remained stable. The highest observed point biserial in 2007–08 was  $0.79$  in grade 5; in 2008–09 it was  $0.77$  in grade 8; in 2009–10 it was  $0.80$  in grade 8; and in 2010–11 the highest point biserial was  $0.78$  in grade 8. The lowest observed point biserial from 2007–08 through 2009–10 was  $0.17$  in grade 8, in 2010–11 the lowest observed point biserial remained at grade 8, but with a value of  $0.16$ .

The impact data for Science is presented in Table 102. The percentage of students classified as *Inconclusive* from 2007–08 to 2008–09 decreased for grades 5 and 10, and increased by less than 1% for grade 8, from 2008–09 to 2009–10 the percentage increased for all grade levels from  $0.43\%$  (grade 8) to  $3.64\%$  (grade 5), and from 2009–10 to 2010–11 the percentage decreased for grade 5 ( $-0.89\%$ ) and increased for grades 8 ( $1.31\%$ ) and 10 ( $0.61\%$ ). The percentage of students scoring at the *Exploring* level from 2007–08 to 2008–09 increased for grades 5 and 8 ( $2.15\%$  and  $0.86\%$ , respectively), but declined by  $-6.89\%$  for grade 10, from 2008–09 to 2009–10 the percentages decreased for grade 8 ( $-1.70\%$ ) and increased for grades 5 and 10 ( $0.15\%$  and  $4.81\%$ , respectively), finally from 2009–10 to 2010–11 the percentage of students decreased for grade 8 ( $-2.83\%$ ) and increased for grade 5 ( $0.98\%$ ) and grade 10 ( $1.32\%$ ). The percentage of students classified as *Emerging* from 2007–08 to 2008–09 declined at grades 5 and 8 ( $-1.73\%$  and  $-0.46\%$ , respectively), but increased by nearly 6% for grade 10, while from 2008–09 to 2009–10 it declined at grades 5 and 10 by approximately 3% and increased by  $1.17\%$  at grade 8, and finally, from 2009–10 to 2010–11 the percentage of *Emerging* students decreased at grade 8 ( $-0.60\%$ ) and grade 10 ( $-0.55\%$ ) and increased by  $0.94\%$  at grade 5. The percentage of students scoring at the *Developing* level from 2007–08 to 2008–09 decreased for grades 5 and 10 ( $-0.35\%$  and  $-2.83\%$ , respectively) while increasing by  $1.56\%$  at grade 8, from 2008–09 to 2009–10 the percentages decreased for grade 8 ( $-3.03\%$ ) and increased for grades 5 and 10 ( $1.93\%$  and  $2.36\%$ , respectively), and from 2009–10 to 2010–11 the percentages decreased for grade 5 ( $-1.49\%$ ) and grade 10 ( $-2.13\%$ ) and increased for grade 8 ( $6.35\%$ ). The percentage of students scoring at the *Novice* level from 2007–08 to 2008–09 increased for grades 5 ( $2.04\%$ ) and 10 ( $5.72\%$ ), though the percentage decreased for grade 8 by  $-2.68\%$ , from 2008–09 to 2009–10 the percentages decreased for grades 5 and 10, by  $-2.31\%$  and  $-5.07\%$  respectively, and increased for grade 8 by  $3.13\%$ , while from 2009–10 to 2010–11 the percentages decreased for grade 8 ( $-4.23\%$ ) and increased for grade 5 ( $0.47\%$ ) and grade 10 ( $0.74\%$ ). A similar trend is seen in the combination of the *Developing* and *Novice* levels, where from 2007–08 to 2008–09 grade 5 increased by  $1.69\%$ , grade 8 decreased by  $-1.12\%$ , and grade 10 increased by  $2.89\%$ , from 2008–09 to 2009–10 the percentages increased for grade 8 by  $0.10\%$ , and decreased for grades 5 and 10 by  $-0.37\%$  and  $-2.70\%$ , respectively, and

<sup>45</sup> Difference values are expanded here to additional decimal places, as rounding to fewer digits would obscure differences.

from 2009–10 to 2010–11 the percentage decreased for grade 5 (–1.02%) and grade 10 (–1.39%), and increased for grade 8 (2.12%). In general, the impact data are relatively stable across administrations.

## **Conclusion**

The 2010–11 CSAPA Operational Technical Report documents the processes and procedures implemented to support the 2010–11 spring CSAPA administration by CTB and the CDE. The Technical Report shows how the applied processes and procedures, as well as the results, relate to the issues of validity and reliability, the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999), and the federal Peer Review process.

The CSAPA began with the item and test development process. Alternate assessment standards were developed for the CSAPA in accordance with NCLB regulations, requiring that the content of alternate assessments be comparable to that of regular state assessments, and that they must show clear linkage to the content standards for the grade in which the student is enrolled. The 2010–11 CSAPA forms consisted of custom MC and CR performance task items measuring skills associated with the Colorado Model Content Standards and associated assessment frameworks for Reading, Writing, Mathematics, and Science. Raw scores incorporating both content knowledge and the level of independence with which the student responds to the item are reported and analyzed at the level of the item, the standard, and the total score for the content area. The reliability and validity of all applied processes, procedures, and the results were evaluated. A brief content summary of the Technical Report is provided below:

### *Test Development (Part 2)*

- Items for spring 2011 were the same as those used in the spring 2008, spring 2009, and spring 2010 forms.
- Review of items using classical item statistics yielded no rationale for item scoring suppressions.

### *Description of the Population (Part 3)*

- Students typically have significant limitations in intellectual functioning, in adaptive behavior, and in academic functioning.
- The student's IEP team determines participation in the CSAP or CSAPA based upon eligibility criteria provided by the CDE.
- Population characteristics
  - Participation rate ranged from a minimum of 490 students (grade 10 Writing and Science) to a maximum of 665 students (grade 5 Reading)
  - Majority Male students, 59% (grade 9 Mathematics) to 64% (grade 4 Mathematics)
  - Majority White students, 49% (grade 5 Reading) to 56% (grade 10 Science)
  - Majority ELL classification of Not Applicable, 81% (grade 3 Reading) to 88% (grade 10 Mathematics)
  - Free/Reduced Price Lunch Program eligibility is largely divided between not eligible and Free Lunch eligible.
    - Free lunch eligibility ranges from 42% (grade 9 Mathematics) to 49% (grade 5 Mathematics)
    - Not eligible ranges from 43% (grade 5 Mathematics) to 49% (grade 9 Mathematics)

- Most common primary disability of either “Multiple Disabilities,” “Limited Intellectual Capacity,” or “Autism”
- No expanded accommodations, beyond those built into the assessment, such as one-on-one administration with no time limits, are provided to most students in order for them to access the CSAPA items.

#### *Test Administration (Part 4)*

- District and School Assessment Coordinators and Special Education teachers are trained on the administration of the CSAPA, with a train-the-trainer model of training provided by the Unit of Student Assessment within the CDE.
- The test administration window was from February 2, 2011, through March 25, 2011.
- Test items appear in a separate book for each grade level and content area, with the exception of Reading and Writing, which are packaged in a single book but with a clear differentiation between the sections.

#### *Scoring (Part 5)*

- Two scoring rubrics are used to collect student responses and provide item-by-item scores.
  - One rubric is for MC items (0 to 3 point score range).
  - One rubric is for CR items (0 to 6 point score range).
- Both rubrics incorporate the level of independence with which a student responds to the item within the scoring for the item.
- Scoring is automated based upon a scannable answer document; teachers/test examiners do not apply the scoring rubrics.

#### *Standard Setting (Part 6)*

- The profile sorting method of standard setting was utilized in 2007 for the Mathematics and Science grade 10 forms, as well as in 2008 for the Reading, Writing, and Science forms (all grade levels).
- The 2007 and 2008 cut scores have been implemented again, as was done in 2008–09 and 2009–10 without revision, within the context of the 2010–11 CSAPA administration.

#### *Analyses and Results (Part 7)*

- Item level statistics, including item difficulty ( $p$ -value) and item discrimination (point biserial correlation), were evaluated both with and without the level of independence with which the student responded to the item included in the calculation of the statistics.
  - Including level of independence
    - $P$ -value minimum = 0.06 in grade 10 Mathematics
    - $P$ -value maximum = 0.89 in grade 3 Mathematics
    - Point biserial minimum = 0.03 in grade 10 Mathematics
    - Point biserial maximum = 0.87 in grade 6 Writing
  - Not including level of independence
    - $P$ -value minimum = 0.05 in grade 10 Mathematics
    - $P$ -value maximum = 0.86 in grade 3 Mathematics
    - Point biserial minimum = 0.06 in grade 10 Mathematics
    - Point biserial maximum = 0.84 in grade 8 Writing
- Student performance on individual content standards (expanded benchmarks) was reported in terms of the percentage of items within each expanded benchmark students answered correctly (an average  $p$ -value across the items within each expanded benchmark).
  - Over all grade levels and content areas, the least difficult expanded benchmark was for grade 8 Science, “Analyzes data and communicates results of scientific investigations” with a mean  $p$ -value = 0.77.



- Over all grade levels and content areas, the most difficult expanded benchmark was for grade 10 Mathematics, “Identifies, describes, and creates patterns to solve problems” with a mean  $p$ -value = 0.31.
- Summary descriptive statistics for the reported raw scores were reported for the total group as well as relevant subgroups such as: gender, race/ethnicity, ELL, Free/Reduced Price Lunch Program eligibility, primary disability, and expanded accommodation.
  - Reading total group
    - Means range from 49.32 (grade 10, 102 possible points) to 64.66 (grade 6, 105 possible points)
    - Standard deviations range from 22.72 (grade 7, 105 possible points) to 27.01 (grade 6, 105 possible points)
  - Writing total group
    - Means range from 55.56 (grade 3, 105 possible points) to 65.17 (grade 7, 108 possible points)
    - Standard deviations range from 27.43 (grade 5, 105 possible points) to 29.51 (grade 8, 108 possible points)
  - Mathematics total group
    - Means range from 69.34 (grade 9, 144 possible points) to 101.52 (grade 5, 171 possible points)
    - Standard deviations range from 33.46 (grade 7, 132 possible points) to 45.57 (grade 5, 171 possible points)
  - Science total group
    - Means range from 58.82 (grade 10, 102 possible points) to 70.31 (grade 8, 99 possible points)
    - Standard deviations range from 24.97 (grade 5, 96 possible points) to 26.83 (grade 8, 99 possible points)
- The percentage of students at each performance level was analyzed. The range for each performance level was
  - *Inconclusive*: 6.91% (grade 4 Mathematics) to 18.64% (grade 8 Writing)
  - *Exploring*: 12.90% (grade 8 Science) to 30.55% (grade 10 Reading)
  - *Emerging*: 17.26% (grade 8 Science) to 38.79% (grade 10 Mathematics)
  - *Developing*: 14.34% (grade 10 Mathematics) to 40.99% (grade 5 Mathematics)
  - *Novice*: 3.40% (grade 3 Writing) to 29.37% (grade 8 Science)
  - *Developing and Novice Combined*: 18.59% (grade 10 Mathematics) to 53.97% (grade 8 Science)
- Data files containing the demographic information of each student, as well as item responses and raw scores for all content areas, were provided to the CDE.

#### Summary of Results—Reliability and Validity (Part 8)

- The reliability of the 2010–11 CSAPA was estimated in four ways
  - Point biserial correlation—item specific reliability
    - Including level of independence ranges: 0.03 (grade 10 Mathematics) to 0.87 (grade 6 Writing)
    - Not including level of independence ranges: 0.06 (grade 10 Mathematics) to 0.84 (grade 8 Writing)
  - Internal consistency using Cronbach’s alpha—total test reliability ranges
    - Reading: 0.90 (grade 7) to 0.94 (grade 6)
    - Writing: 0.92 (grade 10) to 0.94 (grade 6)
    - Mathematics: 0.92 (grade 10) to 0.95 (grade 5)
    - Science: 0.92 (grade 10) to 0.95 (grade 8)

- Standard error of measurement (SEM)—total test reliability ranges
  - Reading: 6.50 (grade 6, 105 possible points) to 7.29 (grade 10, 102 possible points)
  - Writing: 7.33 (grade 5, 105 possible points) to 7.82 (grade 10, 108 possible points)
  - Mathematics: 7.95 (grade 3, 126 possible points) to 9.93 (grade 5, 171 possible points)
  - Science: 5.91 (grade 8, 99 possible points) to 7.53 (grade 10, 102 possible points)
- Classification consistency and accuracy—total test reliability
  - Probability of a correct classification ranges from 0.56 (grade 8 Writing) to 0.69 (grade 5 Mathematics).
  - Probability of accuracy ranges from 0.65 (grade 8 Writing) to 0.79 (grade 5 Mathematics).
  - Kappa ranges from 0.45 (grade 8 Writing) to 0.59 (grade 6 Mathematics).
- The Technical Report provided detailed documentation concerning the different phases of the testing cycle and highlighted the meaning and significance of the procedures, processes, and results in terms of validity and their relationship to the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999). The final issues in validity were addressed in Part 8.
  - Assessment purpose
  - Content validity evidence
  - Internal structure of the assessment
  - Population of students participating in the assessment
  - Reliability

#### *Special Studies (Part 9)*

- The Level of Independence was examined across grades by content area across all items in each content area.
  - Level 1 ranges: 4.47% (Reading) to 6.21% (Mathematics)
  - Level 2 ranges: 2.92% (Science) to 5.26% (Mathematics)
  - Level 3 ranges: 5.80% (Science) to 10.00% (Mathematics)
  - Level 4 ranges: 78.51% (Mathematics) to 86.78% (Science)
- An additional reliability coefficient (KR20) was used to describe the consistency of the levels of independence performed by students and documented by test examiners.
  - All very high, 0.96 and above
- Test examiner coding errors have decreased or remained stable in comparison to prior years.
  - Indicating Level 1 for Level of Independence but providing a correct answer ranges: 0.01% (grade 9 Writing) to 1.02% (grade 4 Mathematics)
  - Indicating Levels 2–4 for Level of Independence but not providing a response ranges: 0.01% (grade 5 Reading) to 0.55% (grade 6 Mathematics)
- Range of scores across students—examining the number of students at the ceiling and the floor
  - The most students obtained the ceiling in grades 5 and 8 Science (13 students obtained the maximum possible score)
  - The most students obtained the floor in grade 8 Writing (26 students obtained the minimum possible score)
- Matched data comparing teacher responses to the online survey regarding teacher's perceived level of student performance and student's actual scored performance level

using weighted kappa ranges from 0.78 in grade 3 Reading to 0.92 in grade 7 Mathematics.

- Response modes analysis (based on mean reported)
  - Assessment activities
    - Most common (on average): Verbal Response
    - Least common (on average): Sign Language
  - Classroom interactions
    - Most common (on average): Verbal Response
    - Least common (on average): Other
- Average Level of Independence related to Proficiency Level
  - The proficiency level of *Novice* contains average Level of Independence of 3.5 to 4.0 for all content areas (single exception is grade 10 Reading with 6% of students with an average Level of Independence from 3.0 to 3.4 scoring at *Novice*).
  - The combined Proficiency level of *Developing* and *Novice* only contains average Level of Independence of 3.0 to 4.0 for all content areas.
  - The average Level of Independence equal to 1.0 to 1.4 always scores as *Inconclusive* for all content areas.

#### *Longitudinal Analyses (Part 10)*

- Completed for all four content areas
  - Reading, Writing, and Science (all grades) included 2007–08, 2008–09, 2009–10, and 2010–11 assessment years.
  - Mathematics examined 2006–07, 2007–08, 2008–09, 2009–10, and 2010–11.
- Descriptive statistics including
  - Number of students participating
    - Reading and Writing both 2007–08 to 2008–09:
      - increased at grades 3–5, 7, 8, and 10
      - decreased at grades 6 and 9
    - Reading and Writing both 2008–09 to 2009–10:
      - increased at grades 4–7 and 9
      - decreased at grades 3, 8, and 10
    - Reading and Writing both 2009–10 to 2010–11:
      - increased at grades 5, 7, and 10
      - decreased at grades 3, 4, 6, 8, and 9
    - Mathematics 2006–07 to 2007–08
      - increased at grades 3–7, 9, and 10
      - decreased at grade 8
    - Mathematics 2007–08 to 2008–09
      - increased at grades 3–8 and 10
      - decreased at grade 9
    - Mathematics 2008–09 to 2009–10
      - increased at grades 4–7 and 9
      - decreased at grades 3, 8, and 10
    - Mathematics 2009–10 to 2010–11
      - increased at grades 5, 7, and 10
      - decreased at grades 3, 4, 6, 8, and 9

- Science increased at all grades from 2007–08 to 2008–09
    - Science 2008–09 to 2009–10
      - increased at grade 5
      - decreased at grades 8 and 10
    - Science 2009–10 to 2010–11
      - increased at grades 5 and 10
      - decreased at grade 8
  - Percentage change over time (largest changes observed)
    - Gender
      - 2006–07 to 2007–08 Mathematics grade 6, Males with a 7.61% decrease
      - 2007–08 to 2008–09 Mathematics grade 7, Males with a 5.34% decrease
      - 2008–09 to 2009–10 Writing grade 8, Females with a 4.02% increase
      - 2009–10 to 2010–11 Writing grade 9, Males with a 4.37% decrease
    - Primary disability
      - 2006–07 to 2007–08 Mathematics grade 3, Limited Intellectual Capacity with a decrease of 5.17%
      - 2007–08 to 2008–09 Reading grade 6, Limited Intellectual Capacity with an increase of 7.17%
      - 2008–09 to 2009–10 Mathematics grade 4, Limited Intellectual Capacity with an increase of 6.22%
      - 2009–10 to 2010–11 Writing grade 4, Multiple Disabilities with an increase of 5.82%
  - Differences in raw score means and standard deviations over time
    - Reading 2007–08 to 2008–09
      - The mean score increases at grades 5–7 and 10 and decreases at grades 3, 4, 8, and 9.
      - The standard deviation increases at grades 3, 4, and 9 and decreases at grades 5–8 and 10.
    - Reading 2008–09 to 2009–10
      - The mean score increases at grades 6 and 8 and decreases at grades 3–5, 7, 9, and 10.
      - The standard deviation increases at grades 5, 6, 8, and 9 and decreases at grades 3, 4, 7, and 10.
    - Reading 2009–10 to 2010–11
      - The mean score increases at grades 5–7 and decreases at grades 3, 4, and 8–10.
      - The standard deviation increases at grades 4 and 6 and decreases at grades 3, 5, and 7–10.
    - Writing 2007–08 to 2008–09
      - The mean score increases at grades 5–7 and 10 and decreases at grades 3, 4, 8, and 9.
      - The standard deviation increases at grades 3, 4, and 8 and decreases at grades 5–7, 9, and 10.

- Writing 2008–09 to 2009–10
  - The mean score increases at grades 6 and 8 and decreases at grades 3–5, 7, 9, and 10.
  - The standard deviation increases at grades 3, 5, and 7–9 and decreases at grades 4, 6, and 10.
- Writing 2009–10 to 2010–11
  - The mean score increases at grades 5, 7, and 8 and decreases at grades 3, 4, 6, 9, and 10.
  - The standard deviation increases at grades 3, 4, 6, and 10 and decreases at grades 5 and 7–9.
- Mathematics 2006–07 to 2007–08
  - The mean score increases at grades 6 and 8–10 and decreases at grades 3–5 and 7.
  - The standard deviation increases at grades 3 and 5–9 and decreases at grades 4 and 10.
- Mathematics 2007–08 to 2008–09
  - The mean score increases at grades 5–7, 9, and 10 and decreases at grades 3, 4, and 8.
  - The standard deviation increases at grades 3–5, 8, and 10 and decreases at grades 6, 7, and 9.
- Mathematics 2008–09 to 2009–10
  - The mean score increases at grades 4, 6, and 8 and decreases at grades 3, 5, 7, 9, and 10.
  - The standard deviation increases at grades 5, 6, and 9 and decreases at grades 3, 4, 7, 8, and 10.
- Mathematics 2009–10 to 2010–11
  - The mean score increases at grades 5, 7, and 8 and decreases at grades 3, 4, 6, 9, and 10.
  - The standard deviation increases at grades 3, 4, 6, and 8 and decreases at grades 5, 7, 9, and 10.
- Science 2007–08 to 2008–09
  - The mean score increases at grades 5 and 10 and decreases at grade 8.
  - The standard deviation increases at grades 8 and 10 and decreases at grade 5.
- Science 2008–09 to 2009–10
  - The mean score increases at grade 8 and decreases at grades 5 and 10.
  - The standard deviation increases at all grades.
- Science 2009–10 to 2010–11
  - The mean score increases at grade 5 and decreases at grades 8 and 10.
  - The standard deviation decreases at all grades.

- Changes in item statistics (including Level of Independence)
  - *P*-values
    - High values
      - 2006–07 Mathematics ranged from 0.72 in grade 9 to 0.90 in grade 4
      - 2007–08 ranged from 0.70 in grade 10 Reading to 0.91 in grade 4 Mathematics
      - 2008–09 ranged from 0.76 in grade 10 Reading to 0.89 in grade 5 Science
      - 2009–10 ranged from 0.74 in grade 10 Reading to 0.89 in grade 4 Mathematics
      - 2010–11 ranged from 0.74 in grade 10 Reading to 0.89 in grade 3 Mathematics
    - Mean values
      - 2006–07 Mathematics ranged from 0.41 in grade 10 to 0.67 in grade 3
      - 2007–08 ranged from 0.44 in grade 10 Mathematics to 0.71 in grade 8 Science
      - 2008–09 ranged from 0.45 in grade 10 Mathematics to 0.70 in grade 8 Science
      - 2009–10 ranged from 0.45 in grade 10 Mathematics to 0.70 in grade 8 Science
      - 2010–11 ranged from 0.42 in grade 10 Mathematics to 0.70 in grade 8 Science
    - Low values
      - 2006–07 Mathematics ranged from 0.08 in grade 10 to 0.39 in grade 3
      - 2007–08 ranged from 0.07 in grade 10 Mathematics to 0.42 in grade 5 Science
      - 2008–09 ranged from 0.09 in grade 10 Mathematics to 0.41 in grade 5 Science
      - 2009–10 ranged from 0.08 in grade 10 Mathematics to 0.39 in grade 5 Science
      - 2010–11 ranged from 0.06 in grade 10 Mathematics to 0.41 in grade 5 Science
  - Point Biserial values
    - High values
      - 2006–07 Mathematics ranged from 0.74 in grade 7 to 0.81 in grade 9
      - 2007–08 ranged from 0.68 in grade 4 Reading to 0.86 in grade 7 Writing
      - 2008–09 ranged from 0.68 in grade 10 Reading to 0.88 in grade 8 Writing
      - 2009–10 ranged from 0.69 in grade 10 Reading to 0.87 in grade 8 Writing
      - 2010–11 ranged from 0.68 in grade 7 Reading to 0.87 in grade 6 Writing

- Mean values
  - 2006–07 Mathematics ranged from 0.52 in grade 10 to 0.63 in grade 4
  - 2007–08 ranged from 0.49 in grade 10 Mathematics to 0.64 in grade 6 Mathematics
  - 2008–09 ranged from 0.52 in grade 10 Reading to 0.65 in grade 3 Mathematics
  - 2009–10 ranged from 0.50 in grade 10 Mathematics to 0.66 in grade 8 Science
  - 2010–11 ranged from 0.48 in grade 10 Mathematics to 0.66 in grade 8 Science
- Low values
  - 2006–07 Mathematics ranged from 0.12 in grade 10 to 0.36 in grade 3
  - 2007–08 ranged from 0.09 in grade 10 Mathematics to 0.42 in grade 5 Science
  - 2008–09 ranged from 0.14 in grade 10 Mathematics to 0.38 in grade 5 Mathematics
  - 2009–10 ranged from 0.09 in grade 10 Mathematics to 0.43 in grade 5 Science
  - 2010–11 ranged from 0.03 in grade 10 Mathematics to 0.39 in grade 5 Mathematics
- Impact Data over time
  - *Inconclusive*
    - 2006–07 Mathematics ranged from 6% in grade 3 to 18% in grade 10
    - 2007–08 ranged from 6% in grade 4 Mathematics to 17% in grade 8 Reading
    - 2008–09 ranged from 7% in grade 4 Mathematics to 18% in grade 8 Writing
    - 2009–10 ranged from 6% in grade 4 Mathematics to 18% in grade 8 Reading
    - 2010–11 ranged from 7% in grade 4 Mathematics to 19% in grade 8 Writing
  - *Exploring*
    - 2006–07 Mathematics ranged from 15% in grade 5 to 29% in grade 8
    - 2007–08 ranged from 12% in grade 5 Mathematics to 28% in grade 10 Reading
    - 2008–09 ranged from 14% in grade 6 Mathematics to 30% in grade 8 Reading
    - 2009–10 ranged from 15% in grade 6 Mathematics to 29% in grade 8 Reading
    - 2010–11 ranged from 13% in grade 8 Science to 31% in grade 10 Reading

- *Emerging*
  - 2006–07 Mathematics ranged from 23% in grade 5 to 36% in grade 10
  - 2007–08 ranged from 17% in grade 8 Science to 38% in grade 10 Mathematics
  - 2008–09 ranged from 17% in grade 8 Science to 38% in grade 10 Writing
  - 2009–10 ranged from 18% in grade 8 Science to 39% in grade 10 Mathematics
  - 2010–11 ranged from 17% in grade 8 Science to 39% in grade 10 Mathematics
- *Developing*
  - 2006–07 Mathematics ranged from 16% in grade 10 to 42% in grade 5
  - 2007–08 ranged from 17% in grade 10 Mathematics to 38% in grade 5 Mathematics
  - 2008–09 ranged from 15% in grade 10 Science to 43% in grade 5 Mathematics
  - 2009–10 ranged from 16% in grade 9 Mathematics to 39% in grade 5 Mathematics
  - 2010–11 ranged from 14% in grade 10 Mathematics to 41% in grade 5 Mathematics
- *Novice*
  - 2006–07 Mathematics ranged from 4% in grade 10 to 26% in grade 3
  - 2007–08 ranged from 3% in grade 3 Writing to 33% in grade 8 Science
  - 2008–09 ranged from 3% in grade 3 Writing to 30% in grade 8 Science
  - 2009–10 ranged from 4% in grade 3 Writing to 34% in grade 8 Science
  - 2010–11 ranged from 3% in grade 3 Writing to 29% in grade 8 Science
- *Developing and Novice combined*
  - 2006–07 Mathematics ranged from 20% in grade 10 to 53% in grade 3
  - 2007–08 ranged from 22% in grade 10 Mathematics to 53% in grade 8 Science
  - 2008–09 ranged from 26% in grade 10 Mathematics to 55% in grade 5 Mathematics
  - 2009–10 ranged from 25% in grade 3 Reading to 53% in grade 6 Mathematics
  - 2010–11 ranged from 19% in grade 10 Mathematics to 54% in grade 8 Science



## References

---

- Almond, P., & Case, B. (2004). *Alternate assessments for students with significant cognitive disabilities*. Harcourt. Retrieved from:  
<http://harcourtassessment.com/hai/Images/pdf/assessmentReports/AlternateAssessments-Final.pdf>
- American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (1999). *Standards for educational and psychological testing*. Washington, D.C.: American Educational Research Association.
- Barton, K. (2007). Validity and accommodations: The journey toward accessible assessments. In C. Cahalan Laitusis & L. Cook (Eds). *Large-scale assessment and accommodations: What works?*, (pp. 81–94). Arlington, VA: Council for Exceptional Children.
- Colorado Department of Education (2011a). *Alternate Assessment Eligibility Criteria Worksheet*. Retrieved from:  
[http://www.cde.state.co.us/cdeassess/documents/csapa/2011/CSAPA\\_Eligibility\\_Worksheet.pdf](http://www.cde.state.co.us/cdeassess/documents/csapa/2011/CSAPA_Eligibility_Worksheet.pdf)
- Colorado Department of Education (2011b). *Examiners manual spring 2011*. CTB/McGraw-Hill.
- Colorado Department of Education (2011c). *Parent Brochure Colorado Student Assessment Program Alternate (CSAPA)*. Retrieved from:  
<http://www.cde.state.co.us/cdeassess/documents/csapa/2009/CSAPAparentbrochure%20final.pdf>
- Crocker, L., & Algina, J. (1986). *Introduction to classical and modern test theory*. New York: Harcourt Brace Jovanovich College Publishers.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297–334.
- CTB/McGraw-Hill (2004). *Guidelines to inclusive test administration*. CTB/McGraw-Hill.  
<http://www.ctb.com/ctb.com/control/assetDetailsViewAction?articleId=475&assetType=article&currentPage=1&p=library>
- CTB/McGraw-Hill (2007). *Standard setting technical report 2007 for grades 3–10 mathematics and grade 10 science*. Monterey, CA: Author.
- CTB/McGraw-Hill (2008). *Standard setting technical report 2008 for grades 3–10 reading, grades 3–10 writing, and grades 5, 8, and 10 science*. Monterey, CA: Author.
- Ebel, R. L. (1965). *Measuring educational achievement*. Englewood Cliffs, NJ: Prentice-Hall.
- Gulliksen, H. (1950). *Theory of mental tests*. New York: Wiley.
- Jaeger, R. M. (1995). Setting performance standards through two-stage judgmental policy capturing. *Applied Measurement in Education*, 8, 15–40.
- Landis, J.R., & Koch, G.G. (1977). The measurement of observer agreement for categorical data. *Biometrics*, 33(1), 159–174.
- Linn, R. L. (2008). Educational accountability systems. In K. E. Ryan & L. A. Shepard (Eds.), *The future of test-based educational accountability* (pp. 3–24). New York: Routledge.

- Livingston, S. A., & Lewis, C. (1995). Estimating the consistency and accuracy of classifications based on test scores. *Journal of Educational Measurement*, 32, 179–197.
- Livingston, S. A., & Zieky, M. J. (1982). *Passing scores*. Princeton, NJ: Educational Testing Service.
- Mehrens, W. A., & Lehmann, I. J. (1991). *Measurement and evaluation in education and psychology* (3rd ed.). New York: Holt, Rinehart, and Winston.
- Quenemoen, M., Perie, M., & Kearns, J. (2010). *Scoring Alternate Assessments Based on Alternate Achievement Standards: A Proposed Typology of AA-AAS Scoring Practices*. Lexington, KY: National Alternate Assessment Center. Retrieved from: <http://www.cehd.umn.edu/nceo/projects/NCSC/ScoringTypology.pdf>
- Schmeiser, C. B., & Welch, C. J. (2006). Test development. In R. L. Brennan (Ed.) *Educational measurement* (4th ed., pp. 307–353). Westport, CT: Praeger.
- United States Department of Education (2004). *Individuals with disabilities education improvement act of 2004*. U.S. Department of Education. Retrieved from: <http://idea.ed.gov/download/statute.html>
- United States Department of Education (2007). *Standards and assessments peer review guidance: Information and examples for meeting requirements of the No Child Left Behind Act of 2001*. U.S. Department of Education, Office of Elementary and Secondary Education. Retrieved from: <http://www.ed.gov/policy/elsec/quid/saaprguidance.pdf>

---

## **Tables 1–102**

---

**Table 1**  
**Reading Test Design: Number of Items and Score Points per Expanded Benchmark by Grade and Maximum Score Possible**

Content	Grade	Expanded Benchmark	Critical Concept	No. Items	Total No. Score Points	Max Score Possible
RD	3	1.2	Demonstrate understanding of symbolic representation	5	15	105
		1.3	Demonstrate understanding of beginning principles of phonics	5	15	
		1.4	Use a variety of strategies to make meaning of text	5	15	
		2.1	Make connections to reading passages	5	15	
		2.2	Identify elements of literature (character, plot, setting)	5	15	
		3.1	Demonstrate knowledge that various texts have different purposes	5	15	
		3.2	Understands informational and functional text	5	15	
	4	1.2	Demonstrate understanding of symbolic representation	5	15	105
		1.3	Demonstrate understanding of beginning principles of phonics	5	15	
		1.4	Use a variety of strategies to make meaning of text	5	15	
		2.1	Make connections to reading passages	5	15	
		2.2	Identify elements of literature (character, plot, setting)	5	15	
		3.1	Demonstrate knowledge that various texts have different purposes	5	15	
		3.2	Understands informational and functional text	5	15	
	5	1.2	Demonstrate understanding of symbolic representation	5	15	105
		1.3	Demonstrate understanding of beginning principles of phonics	5	15	
		1.4	Use a variety of strategies to make meaning of text	5	15	
		2.1	Make connections to reading passages	5	15	
		2.2	Identify elements of literature (character, plot, setting)	5	15	
		3.1	Demonstrate knowledge that various texts have different purposes	5	15	
		3.2	Understands informational and functional text	5	15	

**Table 1**  
**Reading Test Design: Number of Items and Score Points per Expanded Benchmark by Grade and Maximum Score Possible (continued)**

Content	Grade	Expanded Benchmark	Critical Concept	No. Items	Total No. Score Points	Max Score Possible
RD	6	1.2	Demonstrate understanding of symbolic representation	5	15	105
		1.3	Demonstrate understanding of beginning principles of phonics	5	15	
		1.4	Use a variety of strategies to make meaning of text	5	15	
		2.1	Make connections to reading passages	5	15	
		2.2	Identify elements of literature (character, plot, setting)	5	15	
		3.1	Demonstrate knowledge that various texts have different purposes	5	15	
		3.2	Understands informational and functional text	5	15	
	7	1.2	Demonstrate understanding of symbolic representation	5	15	105
		1.3	Demonstrate understanding of beginning principles of phonics	5	15	
		1.4	Use a variety of strategies to make meaning of text	5	15	
		2.1	Make connections to reading passages	5	15	
		2.2	Identify elements of literature (character, plot, setting)	5	15	
		3.1	Demonstrate knowledge that various texts have different purposes	5	15	
		3.2	Understands informational and functional text	5	15	
	8	1.2	Demonstrate understanding of symbolic representation	5	15	105
		1.3	Demonstrate understanding of beginning principles of phonics	5	15	
		1.4	Use a variety of strategies to make meaning of text	5	15	
		2.1	Make connections to reading passages	5	15	
		2.2	Identify elements of literature (character, plot, setting)	5	15	
		3.1	Demonstrate knowledge that various texts have different purposes	5	15	
		3.2	Understands informational and functional text	5	15	

**Table 1**  
**Reading Test Design: Number of Items and Score Points per Expanded Benchmark by Grade and Maximum Score Possible (continued)**

Content	Grade	Expanded Benchmark	Critical Concept	No. Items	Total No. Score Points	Max Score Possible
RD	9	1.2	Demonstrate understanding of symbolic representation	4	12	102
		1.3	Demonstrate understanding of beginning principles of phonics	5	15	
		1.4	Use a variety of strategies to make meaning of text	5	15	
		2.1	Make connections to reading passages	5	15	
		2.2	Identify elements of literature (character, plot, setting)	5	15	
		3.1	Demonstrate knowledge that various texts have different purposes	5	15	
		3.2	Understands informational and functional text	5	15	
	10	1.2	Demonstrate understanding of symbolic representation	5	15	102
		1.3	Demonstrate understanding of beginning principles of phonics	5	15	
		1.4	Use a variety of strategies to make meaning of text	4	12	
		2.1	Make connections to reading passages	5	15	
		2.2	Identify elements of literature (character, plot, setting)	5	15	
		3.1	Demonstrate knowledge that various texts have different purposes	5	15	
		3.2	Understands informational and functional text	5	15	

**Table 2**  
**Writing Test Design: Number of Items and Score Points per Expanded Benchmark by Grade and Maximum Score Possible**

Content	Grade	Expanded Benchmark	Critical Concept	No. Items	Total No. Score Points	Max Score Possible
WR	3	1.1	Demonstrate an understanding that writing communicates a message	5	18	105
		1.2	Organize writing to create a draft document	5	18	
		2.1	Use systematic conventions to make written product understandable by others	6	21	
		2.2	Apply elements of writing through appropriate word usage	6	24	
		2.3	Edit a written product using legible handwriting/word processor for publication	7	24	
	4	1.1	Demonstrate an understanding that writing communicates a message	5	18	108
		1.2	Organize writing to create a draft document	5	18	
		2.1	Use systematic conventions to make written product understandable by others	6	21	
		2.2	Apply elements of writing through appropriate word usage	7	27	
		2.3	Edit a written product using legible handwriting/word processor for publication	7	24	
	5	1.1	Demonstrate an understanding that writing communicates a message	5	18	105
		1.2	Organize writing to create a draft document	5	18	
		2.1	Use systematic conventions to make written product understandable by others	6	21	
		2.2	Apply elements of writing through appropriate word usage	6	24	
		2.3	Edit a written product using legible handwriting/word processor for publication	7	24	
	6	1.1	Demonstrate an understanding that writing communicates a message	5	18	105
		1.2	Organize writing to create a draft document	5	18	
		2.1	Use systematic conventions to make written product understandable by others	6	21	
		2.2	Apply elements of writing through appropriate word usage	6	24	
		2.3	Edit a written product using legible handwriting/word processor for publication	7	24	

**Table 2**  
**Writing Test Design: Number of Items and Score Points per Expanded Benchmark by Grade and Maximum Score Possible (continued)**

Content	Grade	Expanded Benchmark	Critical Concept	No. Items	Total No. Score Points	Max Score Possible
WR	7	1.1	Demonstrate an understanding that writing communicates a message	6	24	108
		1.2	Organize writing to create a draft document	5	18	
		2.1	Use systematic conventions to make written product understandable by others	6	21	
		2.2	Apply elements of writing through appropriate word usage	7	27	
		2.3	Edit a written product using legible handwriting/word processor for publication	6	18	
	8	1.1	Demonstrate an understanding that writing communicates a message	6	24	108
		1.2	Organize writing to create a draft document	5	18	
		2.1	Use systematic conventions to make written product understandable by others	6	21	
		2.2	Apply elements of writing through appropriate word usage	7	27	
		2.3	Edit a written product using legible handwriting/word processor for publication	6	18	
	9	1.1	Demonstrate an understanding that writing communicates a message	6	24	105
		1.2	Organize writing to create a draft document	5	18	
		2.1	Use systematic conventions to make written product understandable by others	6	21	
		2.2	Apply elements of writing through appropriate word usage	6	24	
		2.3	Edit a written product using legible handwriting/word processor for publication	6	18	
	10	1.1	Demonstrate an understanding that writing communicates a message	6	24	108
		1.2	Organize writing to create a draft document	5	18	
		2.1	Use systematic conventions to make written product understandable by others	6	21	
		2.2	Apply elements of writing through appropriate word usage	7	27	
		2.3	Edit a written product using legible handwriting/word processor for publication	6	18	



**Table 3**  
**Mathematics Test Design: Number of Items and Score Points per Expanded Benchmark by Grade and Maximum Score Possible**

Content	Grade	Expanded Benchmark	Critical Concept	No. Items	Total No. Score Points	Max Score Possible
MA	3	1	Counts, represents quantities, reads and writes numbers	8	33	126
		2	Identifies, describes, and creates patterns to solve problems	4	18	
		3	Displays and analyzes data	5	21	
		4	Identifies, sorts, and matches geometric shapes	6	21	
		5	Applies a variety of measurement skills	5	21	
		6	Uses calculation strategies to compute problems	4	12	
	4	1	Counts, represents quantities, reads and writes numbers	8	33	129
		2	Identifies, describes, and creates patterns to solve problems	4	18	
		3	Displays and analyzes data	5	21	
		4	Identifies, sorts, and matches geometric shapes	6	24	
		5	Applies a variety of measurement skills	5	21	
		6	Uses calculation strategies to compute problems	4	12	
	5	1	Counts, represents quantities, reads and writes numbers	12	54	171
		2	Identifies, describes, and creates patterns to solve problems	6	27	
		3	Displays and analyzes data	5	21	
		4	Identifies, sorts, and matches geometric shapes	6	27	
		5	Applies a variety of measurement skills	7	30	
		6	Uses calculation strategies to compute problems	4	12	
	6	1	Counts, represents quantities, reads and writes numbers	8	39	138
		2	Identifies, describes, and creates patterns to solve problems	5	18	
		3	Displays and analyzes data	6	27	
		4	Identifies, sorts, and matches geometric shapes	5	15	
		5	Applies a variety of measurement skills	6	27	
		6	Uses calculation strategies to compute problems	4	12	

**Table 3**  
**Mathematics Test Design: Number of Items and Score Points per Expanded Benchmark by Grade and Maximum Score Possible (continued)**

Content	Grade	Expanded Benchmark	Critical Concept	No. Items	Total No. Score Points	Max Score Possible
MA	7	1	Counts, represents quantities, reads and writes numbers	7	36	132
		2	Identifies, describes, and creates patterns to solve problems	7	21	
		3	Displays and analyzes data	5	24	
		4	Identifies, sorts, and matches geometric shapes	4	12	
		5	Applies a variety of measurement skills	6	27	
		6	Uses calculation strategies to compute problems	4	12	
	8	1	Counts, represents quantities, reads and writes numbers	8	42	147
		2	Identifies, describes, and creates patterns to solve problems	6	18	
		3	Displays and analyzes data	6	24	
		4	Identifies, sorts, and matches geometric shapes	5	15	
		5	Applies a variety of measurement skills	8	33	
		6	Uses calculation strategies to compute problems	5	15	
	9	1	Counts, represents quantities, reads and writes numbers	7	36	144
		2	Identifies, describes, and creates patterns to solve problems	6	18	
		3	Displays and analyzes data	6	24	
		4	Identifies, sorts, and matches geometric shapes	5	15	
		5	Applies a variety of measurement skills	8	33	
		6	Uses calculation strategies to compute problems	6	18	
	10	1	Counts, represents quantities, reads and writes numbers	8	42	156
		2	Identifies, describes, and creates patterns to solve problems	7	21	
		3	Displays and analyzes data	6	24	
		4	Identifies, sorts, and matches geometric shapes	5	18	
		5	Applies a variety of measurement skills	8	33	
		6	Uses calculation strategies to compute problems	6	18	

**Table 4**  
**Science Test Design: Number of Items and Score Points per Expanded Benchmark by Grade and Maximum Score Possible**

Content	Grade	Expanded Benchmark	Critical Concept	No. Items	Total No. Score Points	Max Score Possible
SC	5	1	Makes observations, collects and organizes data	5	15	96
		2	Analyzes data and communicates results of scientific investigations	1	3	
		3	Demonstrates an understanding of the fundamental properties of matter and energy	6	18	
		4	Interacts with living things	8	27	
		5	Interacts with the weather and Earth systems	10	33	
	8	1	Makes observations, collects and organizes data	4	15	99
		2	Analyzes data and communicates results of scientific investigations	4	12	
		3	Demonstrates an understanding of the fundamental properties of matter and energy	8	24	
		4	Interacts with living things	6	24	
		5	Interacts with the weather and Earth systems	8	24	
	10	1	Makes observations, collects and organizes data	6	18	102
		2	Analyzes data and communicates results of scientific investigations	3	15	
		3	Demonstrates an understanding of the fundamental properties of matter and energy	5	15	
		4	Interacts with living things	8	30	
		5	Interacts with the weather and Earth systems	8	24	

**Table 5**  
**Test Design: Number of Items by Maximum Item Score**

Content	Grade	Total Number of Items	Number of Items with a Maximum Score of:		Max Score
			3	6	
RD	3	35	35	0	105
	4	35	35	0	105
	5	35	35	0	105
	6	35	35	0	105
	7	35	35	0	105
	8	35	35	0	105
	9	34	34	0	102
	10	34	34	0	102
WR	3	29	23	6	105
	4	30	24	6	108
	5	29	23	6	105
	6	29	23	6	105
	7	30	24	6	108
	8	30	24	6	108
	9	29	23	6	105
	10	30	24	6	108
MA	3	32	22	10	126
	4	32	21	11	129
	5	40	23	17	171
	6	34	22	12	138
	7	33	22	11	132
	8	38	27	11	147
	9	38	28	10	144
	10	40	28	12	156
SC	5	30	28	2	96
	8	30	27	3	99
	10	30	26	4	102

**Table 6**  
**Reading Descriptive Statistics by Gender and Race/Ethnicity**

Content	Grade	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RD	3	Total	641	100%	58.83	25.41	0	13	0.93	6.84
		Female	232	36.19%	58.98	26.34	0	5	0.93	6.85
		Male	408	63.65%	58.78	24.93	0	8	0.93	6.82
		American Indian/Alaska Native	8	1.25%	-	-	-	-	-	-
		Asian	14	2.18%	-	-	-	-	-	-
		Black/ African American	39	6.08%	57.00	22.54	0	0	0.90	7.06
		Hispanic/ Latino	238	37.13%	56.97	25.47	0	7	0.93	6.95
		White	317	49.45%	60.50	25.80	0	4	0.93	6.71
		Native Hawaiian/ Other Pacific Islander	0	0%	-	-	-	-	-	-
		Two or More Races	25	3.90%	60.16	23.68	0	0	0.91	7.12
	4	Total	620	100%	58.76	26.29	2	18	0.93	6.82
		Female	219	35.32%	59.43	26.29	1	6	0.93	6.84
		Male	399	64.36%	58.28	26.29	1	12	0.93	6.81
		American Indian/Alaska Native	9	1.45%	-	-	-	-	-	-
		Asian	16	2.58%	45.56	26.16	0	0	0.93	7.05
		Black/ African American	37	5.97%	58.65	23.74	0	1	0.91	7.10
		Hispanic/ Latino	217	35.00%	58.01	26.74	2	7	0.93	6.84
		White	321	51.77%	59.46	26.60	0	10	0.94	6.74
		Native Hawaiian/ Other Pacific Islander	1	0.16%	-	-	-	-	-	-
Two or More Races	18	2.90%	64.78	24.61	0	0	0.93	6.67		

**Table 6**  
**Reading Descriptive Statistics by Gender and Race/Ethnicity (continued)**

Content	Grade	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RD	5	Total	665	100%	62.59	26.96	5	17	0.94	6.76
		Female	239	35.94%	63.97	25.09	2	5	0.92	6.88
		Male	423	63.61%	62.02	27.85	3	11	0.94	6.68
		American Indian/Alaska Native	6	0.90%	-	-	-	-	-	-
		Asian	14	2.11%	-	-	-	-	-	-
		Black/ African American	53	7.97%	64.36	27.31	0	2	0.94	6.57
		Hispanic/ Latino	248	37.29%	61.12	23.93	1	3	0.91	7.08
		White	324	48.72%	63.01	28.66	3	10	0.95	6.57
		Native Hawaiian/ Other Pacific Islander	2	0.30%	-	-	-	-	-	-
		Two or More Races	15	2.26%	-	-	-	-	-	-
	6	Total	531	100%	64.66	27.01	7	11	0.94	6.50
		Female	197	37.10%	62.82	28.85	2	4	0.95	6.45
		Male	334	62.90%	65.74	25.84	5	7	0.94	6.53
		American Indian/Alaska Native	6	1.13%	-	-	-	-	-	-
		Asian	8	1.51%	-	-	-	-	-	-
		Black/ African American	42	7.91%	68.07	23.16	0	0	0.91	6.81
		Hispanic/ Latino	180	33.90%	63.22	27.71	2	6	0.95	6.48
		White	282	53.11%	65.44	26.15	5	3	0.94	6.52
		Native Hawaiian/ Other Pacific Islander	2	0.38%	-	-	-	-	-	-
Two or More Races	11	2.07%	-	-	-	-	-	-		

**Table 6**  
**Reading Descriptive Statistics by Gender and Race/Ethnicity (continued)**

Content	Grade	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RD	7	Total	565	100%	58.17	22.72	0	15	0.90	7.08
		Female	220	38.94%	58.46	22.44	0	5	0.90	7.15
		Male	343	60.71%	57.96	22.98	0	10	0.91	7.04
		American Indian/Alaska Native	7	1.24%	-	-	-	-	-	-
		Asian	13	2.30%	-	-	-	-	-	-
		Black/ African American	46	8.14%	61.93	19.18	0	0	0.87	6.92
		Hispanic/ Latino	191	33.81%	55.00	24.11	0	9	0.91	7.07
		White	292	51.68%	59.08	22.40	0	6	0.90	7.10
		Native Hawaiian/ Other Pacific Islander	1	0.18%	-	-	-	-	-	-
	Two or More Races	13	2.30%	-	-	-	-	-	-	
	8	Total	502	100%	53.72	26.06	0	18	0.92	7.14
		Female	204	40.64%	51.92	26.85	0	8	0.93	7.02
		Male	298	59.36%	54.95	25.48	0	10	0.92	7.21
		American Indian/Alaska Native	7	1.39%	-	-	-	-	-	-
		Asian	18	3.59%	42.94	23.50	0	1	0.91	7.13
		Black/ African American	36	7.17%	53.39	29.46	0	2	0.95	6.83
		Hispanic/ Latino	170	33.87%	53.67	25.50	0	7	0.92	7.20
		White	264	52.59%	54.14	26.33	0	8	0.93	7.12
		Native Hawaiian/ Other Pacific Islander	0	0%	-	-	-	-	-	-
Two or More Races		7	1.39%	-	-	-	-	-	-	

**Table 6**  
**Reading Descriptive Statistics by Gender and Race/Ethnicity (continued)**

Content	Grade	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RD	9	Total	528	100%	53.68	26.51	2	17	0.93	6.92
		Female	214	40.53%	53.68	26.32	1	8	0.93	6.93
		Male	313	59.28%	53.72	26.71	1	9	0.93	6.91
		American Indian/Alaska Native	6	1.14%	-	-	-	-	-	-
		Asian	15	2.84%	-	-	-	-	-	-
		Black/ African American	47	8.90%	54.60	29.01	0	1	0.94	6.88
		Hispanic/ Latino	167	31.63%	54.52	24.65	1	5	0.92	7.14
		White	275	52.08%	53.51	27.71	1	11	0.94	6.74
		Native Hawaiian/ Other Pacific Islander	1	0.19%	-	-	-	-	-	-
	Two or More Races	16	3.03%	57.56	16.77	0	0	0.79	7.68	
	10	Total	491	100%	49.32	24.48	0	15	0.91	7.29
		Female	190	38.70%	49.62	24.04	0	5	0.91	7.38
		Male	301	61.30%	49.13	24.80	0	10	0.91	7.24
		American Indian/Alaska Native	11	2.24%	-	-	-	-	-	-
		Asian	8	1.63%	-	-	-	-	-	-
		Black/ African American	35	7.13%	52.89	22.38	0	0	0.89	7.46
		Hispanic/ Latino	156	31.77%	46.19	22.74	0	6	0.89	7.39
		White	272	55.40%	50.82	25.81	0	9	0.92	7.20
		Native Hawaiian/ Other Pacific Islander	0	0%	-	-	-	-	-	-
Two or More Races		8	1.63%	-	-	-	-	-	-	



**Table 7**  
**Writing Descriptive Statistics by Gender and Race/Ethnicity**

Content	Grade	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
WR	3	Total	648	100%	55.56	28.67	1	19	0.93	7.50
		Female	237	36.57%	54.68	28.71	0	8	0.93	7.62
		Male	410	63.27%	56.09	28.70	1	11	0.93	7.44
		American Indian/Alaska Native	8	1.24%	-	-	-	-	-	-
		Asian	14	2.16%	-	-	-	-	-	-
		Black/ African American	39	6.02%	51.72	28.58	0	1	0.93	7.52
		Hispanic/ Latino	242	37.35%	55.49	28.54	0	7	0.93	7.55
		White	319	49.23%	56.09	29.06	1	9	0.93	7.43
		Native Hawaiian/ Other Pacific Islander	0	0%	-	-	-	-	-	-
	Two or More Races	26	4.01%	55.08	26.75	0	0	0.91	7.90	
	4	Total	614	100%	57.11	29.04	1	21	0.93	7.68
		Female	217	35.34%	57.43	29.28	0	6	0.93	7.63
		Male	395	64.33%	56.76	28.91	1	15	0.93	7.71
		American Indian/Alaska Native	9	1.47%	-	-	-	-	-	-
		Asian	16	2.61%	44.19	29.54	0	0	0.93	7.90
		Black/ African American	38	6.19%	55.16	25.89	0	1	0.91	7.90
		Hispanic/ Latino	211	34.37%	57.54	29.44	0	7	0.93	7.64
		White	320	52.12%	56.86	29.35	0	13	0.93	7.67
		Native Hawaiian/ Other Pacific Islander	1	0.16%	-	-	-	-	-	-
Two or More Races		18	2.93%	67.39	27.78	1	0	0.93	7.42	

**Table 7**  
**Writing Descriptive Statistics by Gender and Race/Ethnicity (continued)**

Content	Grade	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
WR	5	Total	660	100%	63.52	27.43	1	15	0.93	7.33
		Female	237	35.91%	65.08	26.30	0	3	0.92	7.25
		Male	420	63.64%	62.86	27.88	1	11	0.93	7.36
		American Indian/Alaska Native	6	0.91%	-	-	-	-	-	-
		Asian	13	1.97%	-	-	-	-	-	-
		Black/ African American	53	8.03%	64.53	29.68	0	1	0.95	6.94
		Hispanic/ Latino	245	37.12%	62.45	25.87	0	2	0.92	7.53
		White	323	48.94%	63.96	28.12	1	10	0.93	7.24
		Native Hawaiian/ Other Pacific Islander	2	0.30%	-	-	-	-	-	-
		Two or More Races	15	2.27%	-	-	-	-	-	-
	6	Total	533	100%	63.46	29.28	3	13	0.94	7.40
		Female	197	36.96%	61.22	31.54	1	5	0.95	7.31
		Male	336	63.04%	64.77	27.83	2	8	0.93	7.45
		American Indian/Alaska Native	6	1.13%	-	-	-	-	-	-
		Asian	8	1.50%	-	-	-	-	-	-
		Black/ African American	41	7.69%	68.27	26.64	1	1	0.93	7.21
		Hispanic/ Latino	181	33.96%	61.66	29.71	2	8	0.94	7.45
		White	284	53.28%	64.34	28.63	0	2	0.93	7.42
		Native Hawaiian/ Other Pacific Islander	2	0.38%	-	-	-	-	-	-
Two or More Races	11	2.06%	-	-	-	-	-	-		

**Table 7**  
**Writing Descriptive Statistics by Gender and Race/Ethnicity (continued)**

Content	Grade	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
WR	7	Total	562	100%	65.17	28.40	3	14	0.93	7.55
		Female	216	38.43%	65.55	28.00	1	4	0.93	7.62
		Male	344	61.21%	64.87	28.74	2	10	0.93	7.51
		American Indian/Alaska Native	7	1.25%	-	-	-	-	-	-
		Asian	12	2.14%	-	-	-	-	-	-
		Black/ African American	46	8.19%	70.76	25.88	0	0	0.92	7.40
		Hispanic/ Latino	191	33.99%	62.33	29.89	1	9	0.94	7.51
		White	290	51.60%	65.58	27.83	2	5	0.92	7.62
		Native Hawaiian/ Other Pacific Islander	1	0.18%	-	-	-	-	-	-
		Two or More Races	13	2.31%	-	-	-	-	-	-
	8	Total	499	100%	60.59	29.51	0	26	0.93	7.53
		Female	205	41.08%	59.59	29.99	0	13	0.94	7.62
		Male	294	58.92%	61.28	29.20	0	13	0.93	7.47
		American Indian/Alaska Native	7	1.40%	-	-	-	-	-	-
		Asian	18	3.61%	56.00	32.98	0	1	0.95	7.46
		Black/ African American	35	7.01%	59.69	31.13	0	3	0.94	7.64
		Hispanic/ Latino	170	34.07%	60.71	29.82	0	10	0.94	7.47
		White	262	52.51%	60.60	29.26	0	12	0.93	7.53
		Native Hawaiian/ Other Pacific Islander	0	0%	-	-	-	-	-	-
Two or More Races	7	1.40%	-	-	-	-	-	-		

**Table 7**  
**Writing Descriptive Statistics by Gender and Race/Ethnicity (continued)**

Content	Grade	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
WR	9	Total	527	100%	58.25	28.52	0	23	0.93	7.60
		Female	213	40.42%	58.37	29.07	0	11	0.93	7.65
		Male	312	59.20%	58.25	28.26	0	12	0.93	7.57
		American Indian/Alaska Native	6	1.14%	-	-	-	-	-	-
		Asian	15	2.85%	-	-	-	-	-	-
		Black/ African American	46	8.73%	59.22	30.45	0	1	0.94	7.73
		Hispanic/ Latino	166	31.50%	59.56	26.65	0	5	0.92	7.65
		White	276	52.37%	57.60	29.94	0	17	0.94	7.49
		Native Hawaiian/ Other Pacific Islander	1	0.19%	-	-	-	-	-	-
	Two or More Races	15	2.85%	-	-	-	-	-	-	
	10	Total	490	100%	58.76	28.49	0	18	0.92	7.82
		Female	187	38.16%	60.76	27.78	0	4	0.92	7.84
		Male	303	61.84%	57.52	28.90	0	14	0.93	7.81
		American Indian/Alaska Native	11	2.25%	-	-	-	-	-	-
		Asian	8	1.63%	-	-	-	-	-	-
		Black/ African American	36	7.35%	63.78	25.97	0	0	0.91	7.76
		Hispanic/ Latino	154	31.43%	56.11	27.47	0	5	0.92	7.96
		White	272	55.51%	59.64	29.61	0	13	0.93	7.73
		Native Hawaiian/ Other Pacific Islander	0	0%	-	-	-	-	-	-
Two or More Races		8	1.63%	-	-	-	-	-	-	

**Table 8**  
**Mathematics Descriptive Statistics by Gender and Race/Ethnicity**

Content	Grade	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	3	Total	634	100%	78.47	35.22	2	13	0.95	7.95
		Female	231	36.44%	77.54	36.01	0	6	0.95	7.99
		Male	402	63.41%	79.03	34.83	2	7	0.95	7.92
		American Indian/Alaska Native	8	1.26%	-	-	-	-	-	-
		Asian	14	2.21%	-	-	-	-	-	-
		Black/ African American	39	6.15%	76.59	34.76	0	0	0.95	7.92
		Hispanic/ Latino	235	37.07%	78.74	35.88	1	6	0.95	7.84
		White	313	49.37%	78.52	34.86	1	5	0.95	7.97
		Native Hawaiian/ Other Pacific Islander	0	0%	-	-	-	-	-	-
	Two or More Races	25	3.94%	80.04	34.60	0	0	0.94	8.56	
	4	Total	608	100%	79.03	36.37	1	18	0.95	8.24
		Female	215	35.36%	79.86	35.44	0	5	0.95	8.22
		Male	392	64.47%	78.48	36.91	1	13	0.95	8.25
		American Indian/Alaska Native	9	1.48%	-	-	-	-	-	-
		Asian	16	2.63%	59.81	37.58	0	1	0.95	8.59
		Black/ African American	37	6.09%	78.32	36.38	0	1	0.95	8.16
		Hispanic/ Latino	208	34.21%	79.95	35.72	0	6	0.95	8.33
		White	319	52.47%	78.27	37.23	1	10	0.95	8.17
		Native Hawaiian/ Other Pacific Islander	1	0.16%	-	-	-	-	-	-
Two or More Races		17	2.80%	93.71	28.46	0	0	0.92	8.07	

**Table 8**  
**Mathematics Descriptive Statistics by Gender and Race/Ethnicity (continued)**

Content	Grade	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	5	Total	644	100%	101.52	45.57	1	17	0.95	9.93
		Female	232	36.03%	102.85	42.01	0	4	0.94	10.01
		Male	409	63.51%	101.19	47.22	1	12	0.96	9.89
		American Indian/Alaska Native	6	0.93%	-	-	-	-	-	-
		Asian	14	2.17%	-	-	-	-	-	-
		Black/ African American	51	7.92%	105.12	49.25	0	3	0.96	9.44
		Hispanic/ Latino	240	37.27%	102.40	43.48	1	3	0.95	10.14
		White	314	48.76%	99.51	46.80	0	9	0.96	9.85
		Native Hawaiian/ Other Pacific Islander	2	0.31%	-	-	-	-	-	-
	Two or More Races	14	2.17%	-	-	-	-	-	-	
	6	Total	531	100%	81.64	37.47	0	13	0.95	8.76
		Female	199	37.48%	76.92	38.98	0	5	0.95	8.84
		Male	332	62.52%	84.46	36.30	0	8	0.94	8.71
		American Indian/Alaska Native	6	1.13%	-	-	-	-	-	-
		Asian	7	1.32%	-	-	-	-	-	-
		Black/ African American	42	7.91%	85.67	29.69	0	0	0.90	9.35
		Hispanic/ Latino	178	33.52%	81.61	38.48	0	7	0.95	8.72
		White	285	53.67%	81.30	36.96	0	4	0.94	8.75
		Native Hawaiian/ Other Pacific Islander	2	0.38%	-	-	-	-	-	-
Two or More Races		11	2.07%	-	-	-	-	-	-	

**Table 8**  
**Mathematics Descriptive Statistics by Gender and Race/Ethnicity (continued)**

Content	Grade	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	7	Total	562	100%	76.31	33.46	1	11	0.93	8.72
		Female	220	39.15%	75.19	31.49	0	3	0.92	8.91
		Male	340	60.50%	77.06	34.68	1	8	0.94	8.58
		American Indian/Alaska Native	4	0.71%	-	-	-	-	-	-
		Asian	13	2.31%	-	-	-	-	-	-
		Black/ African American	45	8.01%	82.33	26.54	0	0	0.89	8.73
		Hispanic/ Latino	190	33.81%	73.68	35.06	1	7	0.94	8.68
		White	293	52.14%	76.45	33.26	0	4	0.93	8.78
		Native Hawaiian/ Other Pacific Islander	1	0.18%	-	-	-	-	-	-
	Two or More Races	14	2.49%	-	-	-	-	-	-	
	8	Total	506	100%	82.15	39.69	0	20	0.95	9.10
		Female	207	40.91%	78.73	38.75	0	9	0.94	9.30
		Male	299	59.09%	84.51	40.23	0	11	0.95	8.96
		American Indian/Alaska Native	7	1.38%	-	-	-	-	-	-
		Asian	19	3.76%	72.21	46.58	0	1	0.97	8.68
		Black/ African American	36	7.12%	81.44	39.70	0	2	0.95	9.00
		Hispanic/ Latino	168	33.20%	83.80	40.33	0	7	0.95	9.09
		White	269	53.16%	81.45	39.24	0	10	0.95	9.14
		Native Hawaiian/ Other Pacific Islander	0	0%	-	-	-	-	-	-
Two or More Races		7	1.38%	-	-	-	-	-	-	

**Table 8**  
**Mathematics Descriptive Statistics by Gender and Race/Ethnicity (continued)**

Content	Grade	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	9	Total	532	100%	69.34	35.87	0	19	0.93	9.37
		Female	217	40.79%	66.81	35.85	0	8	0.93	9.36
		Male	313	58.84%	71.27	35.83	0	11	0.93	9.37
		American Indian/Alaska Native	7	1.32%	-	-	-	-	-	-
		Asian	15	2.82%	-	-	-	-	-	-
		Black/ African American	46	8.65%	67.61	38.73	0	2	0.94	9.45
		Hispanic/ Latino	165	31.02%	72.72	33.27	0	5	0.92	9.47
		White	280	52.63%	68.46	37.17	0	12	0.94	9.28
		Native Hawaiian/ Other Pacific Islander	1	0.19%	-	-	-	-	-	-
	Two or More Races	16	3.01%	67.75	28.55	0	0	0.88	9.76	
	10	Total	495	100%	71.42	35.03	0	19	0.92	9.82
		Female	192	38.79%	71.98	32.85	0	5	0.91	9.94
		Male	303	61.21%	71.07	36.39	0	14	0.93	9.74
		American Indian/Alaska Native	10	2.02%	-	-	-	-	-	-
		Asian	8	1.62%	-	-	-	-	-	-
		Black/ African American	37	7.48%	80.76	28.31	0	1	0.88	9.71
		Hispanic/ Latino	155	31.31%	68.68	34.45	0	6	0.92	9.77
		White	276	55.76%	71.74	36.47	0	11	0.93	9.86
		Native Hawaiian/ Other Pacific Islander	0	0%	-	-	-	-	-	-
Two or More Races		8	1.62%	-	-	-	-	-	-	



**Table 9**  
**Science Descriptive Statistics by Gender and Race/Ethnicity**

Content	Grade	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
SC	5	Total	652	100%	65.62	24.97	13	15	0.94	6.05
		Female	236	36.20%	67.16	23.39	1	4	0.93	6.04
		Male	413	63.34%	64.96	25.57	12	10	0.94	6.05
		American Indian/Alaska Native	6	0.92%	-	-	-	-	-	-
		Asian	14	2.15%	-	-	-	-	-	-
		Black/ African American	53	8.13%	66.09	26.38	1	2	0.95	5.96
		Hispanic/ Latino	241	36.96%	65.88	22.51	3	2	0.92	6.22
		White	318	48.77%	65.21	26.46	8	9	0.95	5.94
		Native Hawaiian/ Other Pacific Islander	2	0.31%	-	-	-	-	-	-
		Two or More Races	15	2.30%	-	-	-	-	-	-
	8	Total	504	100%	70.31	26.83	13	18	0.95	5.91
		Female	204	40.48%	67.86	27.84	5	10	0.95	6.02
		Male	300	59.52%	71.97	26.04	8	8	0.95	5.83
		American Indian/Alaska Native	7	1.39%	-	-	-	-	-	-
		Asian	19	3.77%	63.11	32.52	0	1	0.97	5.87
		Black/ African American	36	7.14%	70.97	25.53	0	2	0.95	5.75
		Hispanic/ Latino	168	33.33%	69.80	27.52	2	7	0.95	5.95
		White	268	53.18%	70.65	26.63	10	8	0.95	5.90
		Native Hawaiian/ Other Pacific Islander	0	0%	-	-	-	-	-	-
Two or More Races	6	1.19%	-	-	-	-	-	-		

**Table 9**  
**Science Descriptive Statistics by Gender and Race/Ethnicity (continued)**

Content	Grade	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
SC	10	Total	490	100%	58.82	26.39	2	15	0.92	7.53
		Female	191	38.98%	58.57	25.02	1	5	0.91	7.57
		Male	299	61.02%	58.98	27.27	1	10	0.92	7.50
		American Indian/Alaska Native	11	2.25%	-	-	-	-	-	-
		Asian	8	1.63%	-	-	-	-	-	-
		Black/ African American	34	6.94%	64.41	24.20	0	0	0.91	7.34
		Hispanic/ Latino	154	31.43%	55.85	25.36	0	5	0.91	7.68
		White	274	55.92%	60.37	27.16	2	9	0.93	7.43
		Native Hawaiian/ Other Pacific Islander	0	0%	-	-	-	-	-	-
		Two or More Races	8	1.63%	-	-	-	-	-	-

**Table 10**  
**Reading Descriptive Statistics by English Language Proficiency**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement	
						Mean	SD					
RD	3	Language Proficiency	Not Applicable	520	81.12%	60.11	25.41	0	9	0.93	6.80	
			NEP	99	15.45%	51.34	24.29	0	4	0.92	7.05	
			LEP	10	1.56%	-	-	-	-	-	-	-
			FEP	12	1.87%	-	-	-	-	-	-	-
		ELL Program - Bilingual	No	630	98.28%	58.83	25.51	0	13	0.93	6.84	
			Yes	6	0.94%	-	-	-	-	-	-	-
			Monitored Y1	3	0.47%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
		ELL Program - ESL	No	527	82.22%	60.16	25.37	0	9	0.93	6.80	
			Yes	93	14.51%	53.47	25.39	0	4	0.92	7.02	
			Monitored Y1	6	0.94%	-	-	-	-	-	-	-
			Monitored Y2	2	0.31%	-	-	-	-	-	-	-
			Exited Y3+	1	0.16%	-	-	-	-	-	-	-
			Choice	10	1.56%	-	-	-	-	-	-	-

**Table 10**  
**Reading Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement	
						Mean	SD					
RD	4	Language Proficiency	Not Applicable	520	83.87%	60.02	26.20	2	12	0.93	6.76	
			NEP	87	14.03%	51.48	26.11	0	6	0.93	7.12	
			LEP	6	0.97%	-	-	-	-	-	-	-
			FEP	6	0.97%	-	-	-	-	-	-	-
		ELL Program - Bilingual	No	614	99.03%	58.90	26.19	2	17	0.93	6.81	
			Yes	2	0.32%	-	-	-	-	-	-	-
			Monitored Y1	3	0.48%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
		ELL Program - ESL	No	525	84.68%	59.84	26.35	2	13	0.93	6.76	
			Yes	81	13.07%	53.41	24.54	0	4	0.91	7.22	
			Monitored Y1	2	0.32%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	1	0.16%	-	-	-	-	-	-	-
			Choice	10	1.61%	-	-	-	-	-	-	-

**Table 10**  
**Reading Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement	
						Mean	SD					
RD	5	Language Proficiency	Not Applicable	562	84.51%	63.30	27.56	5	14	0.94	6.64	
			NEP	88	13.23%	57.83	22.58	0	2	0.89	7.39	
			LEP	10	1.50%	-	-	-	-	-	-	-
			FEP	3	0.45%	-	-	-	-	-	-	-
		ELL Program - Bilingual	No	658	98.95%	62.86	26.89	5	16	0.94	6.75	
			Yes	3	0.45%	-	-	-	-	-	-	-
			Monitored Y1	2	0.30%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
		ELL Program - ESL	No	567	85.26%	63.08	27.56	5	14	0.94	6.65	
			Yes	83	12.48%	60.51	23.14	0	2	0.90	7.32	
			Monitored Y1	0	0%	-	-	-	-	-	-	-
			Monitored Y2	1	0.15%	-	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-	-
			Choice	12	1.81%	-	-	-	-	-	-	-

**Table 10**  
**Reading Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
						Mean	SD				
RD	6	Language Proficiency	Not Applicable	451	84.93%	65.19	27.31	6	9	0.94	6.45
			NEP	60	11.30%	59.55	24.25	1	1	0.92	6.85
			LEP	11	2.07%	-	-	-	-	-	-
			FEP	9	1.70%	-	-	-	-	-	-
		ELL Program - Bilingual	No	526	99.06%	64.72	27.02	7	11	0.94	6.50
			Yes	2	0.38%	-	-	-	-	-	-
			Monitored Y1	1	0.19%	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-
		ELL Program - ESL	No	451	84.93%	65.17	27.36	6	9	0.94	6.45
			Yes	54	10.17%	64.39	21.43	0	0	0.90	6.80
			Monitored Y1	1	0.19%	-	-	-	-	-	-
			Monitored Y2	5	0.94%	-	-	-	-	-	-
			Exited Y3+	2	0.38%	-	-	-	-	-	-
			Choice	16	3.01%	57.88	32.86	1	1	0.96	6.52

**Table 10**  
**Reading Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement	
						Mean	SD					
RD	7	Language Proficiency	Not Applicable	484	85.66%	58.48	23.03	0	13	0.91	7.06	
			NEP	65	11.50%	55.80	20.27	0	2	0.87	7.17	
			LEP	3	0.53%	-	-	-	-	-	-	-
			FEP	12	2.12%	-	-	-	-	-	-	-
		ELL Program - Bilingual	No	555	98.23%	58.33	22.75	0	15	0.90	7.07	
			Yes	6	1.06%	-	-	-	-	-	-	-
			Monitored Y1	3	0.53%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
		ELL Program - ESL	No	493	87.26%	58.28	23.01	0	13	0.91	7.08	
			Yes	53	9.38%	56.42	20.18	0	2	0.87	7.17	
			Monitored Y1	3	0.53%	-	-	-	-	-	-	-
			Monitored Y2	2	0.35%	-	-	-	-	-	-	-
			Exited Y3+	3	0.53%	-	-	-	-	-	-	-
			Choice	10	1.77%	-	-	-	-	-	-	-

**Table 10**  
**Reading Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement	
						Mean	SD					
RD	8	Language Proficiency	Not Applicable	437	87.05%	53.97	26.39	0	16	0.93	7.12	
			NEP	50	9.96%	51.78	21.48	0	1	0.88	7.45	
			LEP	4	0.80%	-	-	-	-	-	-	-
			FEP	11	2.19%	-	-	-	-	-	-	-
		ELL Program - Bilingual	No	497	99.00%	53.75	26.01	0	18	0.92	7.14	
			Yes	2	0.40%	-	-	-	-	-	-	-
			Monitored Y1	3	0.60%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
		ELL Program - ESL	No	442	88.05%	53.93	26.45	0	16	0.93	7.11	
			Yes	45	8.96%	50.49	21.53	0	1	0.88	7.45	
			Monitored Y1	2	0.40%	-	-	-	-	-	-	-
			Monitored Y2	1	0.20%	-	-	-	-	-	-	-
			Exited Y3+	5	1.00%	-	-	-	-	-	-	-
			Choice	7	1.39%	-	-	-	-	-	-	-
			Choice	7	1.39%	-	-	-	-	-	-	-



**Table 10**  
**Reading Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement	
						Mean	SD					
RD	9	Language Proficiency	Not Applicable	452	85.61%	54.06	26.84	2	14	0.93	6.87	
			NEP	55	10.42%	46.89	23.96	0	3	0.91	7.29	
			LEP	13	2.46%	-	-	-	-	-	-	-
			FEP	7	1.33%	-	-	-	-	-	-	-
		ELL Program - Bilingual	No	525	99.43%	53.73	26.46	2	17	0.93	6.93	
			Yes	1	0.19%	-	-	-	-	-	-	-
			Monitored Y1	1	0.19%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
		ELL Program - ESL	No	454	85.99%	54.04	26.91	2	14	0.93	6.87	
			Yes	57	10.80%	49.88	23.95	0	3	0.91	7.25	
			Monitored Y1	1	0.19%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	4	0.76%	-	-	-	-	-	-	-
			Choice	11	2.08%	-	-	-	-	-	-	-

**Table 10**  
**Reading Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
						Mean	SD				
RD	10	Language Proficiency	Not Applicable	428	87.17%	50.52	24.94	0	13	0.92	7.27
			NEP	50	10.18%	40.40	17.75	0	1	0.82	7.58
			LEP	5	1.02%	-	-	-	-	-	-
			FEP	8	1.63%	-	-	-	-	-	-
		ELL Program - Bilingual	No	489	99.59%	49.45	24.42	0	14	0.91	7.30
			Yes	1	0.20%	-	-	-	-	-	-
			Monitored Y1	1	0.20%	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-
		ELL Program - ESL	No	430	87.58%	50.36	25.02	0	14	0.92	7.26
			Yes	45	9.17%	43.16	18.11	0	0	0.82	7.68
			Monitored Y1	4	0.82%	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-
			Exited Y3+	3	0.61%	-	-	-	-	-	-
			Choice	9	1.83%	-	-	-	-	-	-

**Table 11**  
**Writing Descriptive Statistics by English Language Proficiency**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement	
						Mean	SD					
WR	3	Language Proficiency	Not Applicable	526	81.17%	56.18	28.81	1	15	0.93	7.47	
			NEP	100	15.43%	51.54	28.12	0	4	0.93	7.68	
			LEP	10	1.54%	-	-	-	-	-	-	-
			FEP	12	1.85%	-	-	-	-	-	-	-
		ELL Program - Bilingual	No	637	98.30%	55.50	28.76	1	19	0.93	7.51	
			Yes	6	0.93%	-	-	-	-	-	-	-
			Monitored Y1	3	0.46%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
		ELL Program - ESL	No	533	82.25%	56.31	28.79	1	15	0.93	7.47	
			Yes	94	14.51%	52.96	27.92	0	4	0.92	7.69	
			Monitored Y1	6	0.93%	-	-	-	-	-	-	-
			Monitored Y2	2	0.31%	-	-	-	-	-	-	-
			Exited Y3+	1	0.15%	-	-	-	-	-	-	-
			Choice	10	1.54%	-	-	-	-	-	-	-

**Table 11**  
**Writing Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement	
						Mean	SD					
WR	4	Language Proficiency	Not Applicable	517	84.20%	58.22	28.90	1	16	0.93	7.64	
			NEP	84	13.68%	49.74	28.70	0	5	0.92	7.87	
			LEP	6	0.98%	-	-	-	-	-	-	-
			FEP	6	0.98%	-	-	-	-	-	-	-
		ELL Program - Bilingual	No	608	99.02%	57.21	28.96	1	20	0.93	7.67	
			Yes	2	0.33%	-	-	-	-	-	-	-
			Monitored Y1	3	0.49%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
		ELL Program - ESL	No	522	85.02%	58.03	29.00	1	17	0.93	7.65	
			Yes	78	12.70%	52.22	27.99	0	3	0.92	7.88	
			Monitored Y1	2	0.33%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	1	0.16%	-	-	-	-	-	-	-
			Choice	10	1.63%	-	-	-	-	-	-	-

**Table 11**  
**Writing Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement	
						Mean	SD					
WR	5	Language Proficiency	Not Applicable	558	84.55%	64.09	27.83	1	13	0.93	7.23	
			NEP	88	13.33%	59.31	24.68	0	1	0.90	7.91	
			LEP	9	1.36%	-	-	-	-	-	-	-
			FEP	3	0.46%	-	-	-	-	-	-	-
		ELL Program - Bilingual	No	653	98.94%	63.73	27.37	1	14	0.93	7.31	
			Yes	3	0.46%	-	-	-	-	-	-	-
			Monitored Y1	2	0.30%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
		ELL Program - ESL	No	563	85.30%	63.92	27.81	1	13	0.93	7.25	
			Yes	82	12.42%	61.02	25.05	0	1	0.90	7.78	
			Monitored Y1	0	0%	-	-	-	-	-	-	-
			Monitored Y2	1	0.15%	-	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-	-
			Choice	12	1.82%	-	-	-	-	-	-	-

**Table 11**  
**Writing Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
						Mean	SD				
WR	6	Language Proficiency	Not Applicable	453	84.99%	63.49	29.57	2	10	0.94	7.38
			NEP	60	11.26%	62.33	27.21	1	2	0.92	7.64
			LEP	11	2.06%	-	-	-	-	-	-
			FEP	9	1.69%	-	-	-	-	-	-
		ELL Program - Bilingual	No	528	99.06%	63.58	29.19	3	13	0.94	7.40
			Yes	2	0.38%	-	-	-	-	-	-
			Monitored Y1	1	0.19%	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-
		ELL Program - ESL	No	453	84.99%	63.46	29.60	2	10	0.94	7.38
			Yes	54	10.13%	66.59	23.85	0	0	0.90	7.61
			Monitored Y1	1	0.19%	-	-	-	-	-	-
			Monitored Y2	5	0.94%	-	-	-	-	-	-
			Exited Y3+	2	0.38%	-	-	-	-	-	-
			Choice	16	3.00%	61.06	35.31	1	2	0.96	6.92

**Table 11**  
**Writing Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement	
						Mean	SD					
WR	7	Language Proficiency	Not Applicable	481	85.59%	65.12	28.64	3	12	0.93	7.54	
			NEP	65	11.57%	66.02	25.12	0	2	0.91	7.67	
			LEP	3	0.53%	-	-	-	-	-	-	-
			FEP	12	2.14%	-	-	-	-	-	-	-
		ELL Program - Bilingual	No	552	98.22%	65.30	28.35	3	14	0.93	7.54	
			Yes	6	1.07%	-	-	-	-	-	-	-
			Monitored Y1	3	0.53%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
		ELL Program - ESL	No	490	87.19%	64.93	28.70	3	12	0.93	7.56	
			Yes	53	9.43%	65.62	25.56	0	2	0.91	7.53	
			Monitored Y1	3	0.53%	-	-	-	-	-	-	-
			Monitored Y2	2	0.36%	-	-	-	-	-	-	-
			Exited Y3+	3	0.53%	-	-	-	-	-	-	-
			Choice	10	1.78%	-	-	-	-	-	-	-

**Table 11**  
**Writing Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement	
						Mean	SD					
WR	8	Language Proficiency	Not Applicable	435	87.17%	60.50	29.59	0	23	0.94	7.54	
			NEP	49	9.82%	62.55	27.17	0	2	0.92	7.45	
			LEP	4	0.80%	-	-	-	-	-	-	-
			FEP	11	2.20%	-	-	-	-	-	-	-
		ELL Program - Bilingual	No	494	99.00%	60.62	29.41	0	26	0.93	7.53	
			Yes	2	0.40%	-	-	-	-	-	-	-
			Monitored Y1	3	0.60%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
		ELL Program - ESL	No	440	88.18%	60.47	29.70	0	23	0.94	7.53	
			Yes	45	9.02%	61.78	26.34	0	2	0.92	7.54	
			Monitored Y1	2	0.40%	-	-	-	-	-	-	-
			Monitored Y2	1	0.20%	-	-	-	-	-	-	-
			Exited Y3+	5	1.00%	-	-	-	-	-	-	-
			Choice	6	1.20%	-	-	-	-	-	-	-



**Table 11**  
**Writing Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
						Mean	SD				
WR	9	Language Proficiency	Not Applicable	451	85.58%	58.33	29.07	0	20	0.93	7.57
			NEP	54	10.25%	52.83	24.21	0	3	0.89	8.03
			LEP	13	2.47%	-	-	-	-	-	-
			FEP	7	1.33%	-	-	-	-	-	-
		ELL Program - Bilingual	No	523	99.24%	58.32	28.51	0	23	0.93	7.60
			Yes	1	0.19%	-	-	-	-	-	-
			Monitored Y1	1	0.19%	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-
		ELL Program - ESL	No	453	85.96%	58.31	29.13	0	20	0.93	7.56
			Yes	56	10.63%	57.80	25.65	0	3	0.91	7.79
			Monitored Y1	1	0.19%	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-
			Exited Y3+	4	0.76%	-	-	-	-	-	-
			Choice	11	2.09%	-	-	-	-	-	-

**Table 11**  
**Writing Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
						Mean	SD				
WR	10	Language Proficiency	Not Applicable	428	87.35%	59.65	29.12	0	17	0.93	7.74
			NEP	49	10.00%	52.71	21.90	0	0	0.85	8.41
			LEP	5	1.02%	-	-	-	-	-	-
			FEP	8	1.63%	-	-	-	-	-	-
		ELL Program - Bilingual	No	489	99.80%	58.81	28.50	0	18	0.92	7.82
			Yes	0	0%	-	-	-	-	-	-
			Monitored Y1	1	0.20%	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-
		ELL Program - ESL	No	429	87.55%	59.59	29.11	0	17	0.93	7.74
			Yes	45	9.18%	56.18	21.98	0	0	0.86	8.33
			Monitored Y1	4	0.82%	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-
			Exited Y3+	3	0.61%	-	-	-	-	-	-
			Choice	9	1.84%	-	-	-	-	-	-

**Table 12**  
**Mathematics Descriptive Statistics by English Language Proficiency**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement	
						Mean	SD					
MA	3	Language Proficiency	Not Applicable	516	81.39%	79.15	35.28	2	10	0.95	7.89	
			NEP	97	15.30%	73.12	35.44	0	3	0.95	8.31	
			LEP	10	1.58%	-	-	-	-	-	-	-
			FEP	11	1.74%	-	-	-	-	-	-	-
		ELL Program - Bilingual	No	623	98.27%	78.44	35.35	2	13	0.95	7.95	
			Yes	6	0.95%	-	-	-	-	-	-	-
			Monitored Y1	3	0.47%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
		ELL Program - ESL	No	523	82.49%	79.27	35.24	2	10	0.95	7.88	
			Yes	91	14.35%	75.18	35.02	0	3	0.94	8.29	
			Monitored Y1	5	0.79%	-	-	-	-	-	-	-
			Monitored Y2	2	0.32%	-	-	-	-	-	-	-
			Exited Y3+	1	0.16%	-	-	-	-	-	-	-
			Choice	10	1.58%	-	-	-	-	-	-	-
			Choice	10	1.58%	-	-	-	-	-	-	-

**Table 12**  
**Mathematics Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement	
						Mean	SD					
MA	4	Language Proficiency	Not Applicable	510	83.88%	80.07	36.40	1	13	0.95	8.21	
			NEP	86	14.15%	72.08	36.05	0	5	0.95	8.44	
			LEP	6	0.99%	-	-	-	-	-	-	-
			FEP	5	0.82%	-	-	-	-	-	-	-
		ELL Program - Bilingual	No	602	99.01%	79.16	36.34	1	17	0.95	8.24	
			Yes	3	0.49%	-	-	-	-	-	-	-
			Monitored Y1	2	0.33%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
		ELL Program - ESL	No	515	84.70%	79.83	36.44	1	14	0.95	8.21	
			Yes	79	12.99%	75.34	34.59	0	3	0.94	8.42	
			Monitored Y1	2	0.33%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	1	0.16%	-	-	-	-	-	-	-
			Choice	10	1.65%	-	-	-	-	-	-	-

**Table 12**  
**Mathematics Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
						Mean	SD				
MA	5	Language Proficiency	Not Applicable	542	84.16%	101.42	46.33	0	14	0.95	9.86
			NEP	87	13.51%	102.05	41.57	1	2	0.94	10.34
			LEP	10	1.55%	-	-	-	-	-	-
			FEP	3	0.47%	-	-	-	-	-	-
		ELL Program - Bilingual	No	638	99.07%	101.90	45.41	1	16	0.95	9.93
			Yes	2	0.31%	-	-	-	-	-	-
			Monitored Y1	2	0.31%	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-
		ELL Program - ESL	No	546	84.78%	101.13	46.38	0	14	0.95	9.86
			Yes	83	12.89%	104.35	40.66	1	2	0.94	10.20
			Monitored Y1	0	0%	-	-	-	-	-	-
			Monitored Y2	1	0.16%	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-
			Choice	12	1.86%	-	-	-	-	-	-

**Table 12**  
**Mathematics Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement	
						Mean	SD					
MA	6	Language Proficiency	Not Applicable	452	85.12%	81.08	37.66	0	10	0.95	8.76	
			NEP	59	11.11%	82.46	34.87	0	2	0.93	9.04	
			LEP	11	2.07%	-	-	-	-	-	-	-
			FEP	9	1.70%	-	-	-	-	-	-	-
		ELL Program - Bilingual	No	526	99.06%	81.79	37.43	0	13	0.95	8.76	
			Yes	2	0.38%	-	-	-	-	-	-	-
			Monitored Y1	1	0.19%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
		ELL Program - ESL	No	452	85.12%	81.06	37.73	0	10	0.95	8.76	
			Yes	53	9.98%	88.66	30.22	0	0	0.91	9.08	
			Monitored Y1	1	0.19%	-	-	-	-	-	-	-
			Monitored Y2	5	0.94%	-	-	-	-	-	-	-
			Exited Y3+	2	0.38%	-	-	-	-	-	-	-
			Choice	16	3.01%	79.06	46.10	0	2	0.97	8.47	
			Choice	16	3.01%	79.06	46.10	0	2	0.97	8.47	

**Table 12**  
**Mathematics Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement	
						Mean	SD					
MA	7	Language Proficiency	Not Applicable	483	85.94%	76.06	33.58	1	9	0.93	8.72	
			NEP	63	11.21%	78.83	32.58	0	2	0.93	8.69	
			LEP	3	0.53%	-	-	-	-	-	-	-
			FEP	12	2.14%	-	-	-	-	-	-	-
		ELL Program - Bilingual	No	552	98.22%	76.32	33.49	1	11	0.93	8.71	
			Yes	6	1.07%	-	-	-	-	-	-	-
			Monitored Y1	3	0.53%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
		ELL Program - ESL	No	492	87.54%	75.99	33.55	1	9	0.93	8.73	
			Yes	51	9.08%	79.14	32.58	0	2	0.93	8.62	
			Monitored Y1	3	0.53%	-	-	-	-	-	-	-
			Monitored Y2	2	0.36%	-	-	-	-	-	-	-
			Exited Y3+	3	0.53%	-	-	-	-	-	-	-
			Choice	10	1.78%	-	-	-	-	-	-	-

**Table 12**  
**Mathematics Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement	
						Mean	SD					
MA	8	Language Proficiency	Not Applicable	440	86.96%	81.73	39.72	0	18	0.95	9.10	
			NEP	49	9.68%	85.08	38.91	0	1	0.95	9.11	
			LEP	5	0.99%	-	-	-	-	-	-	-
			FEP	12	2.37%	-	-	-	-	-	-	-
		ELL Program - Bilingual	No	501	99.01%	82.28	39.69	0	20	0.95	9.09	
			Yes	2	0.40%	-	-	-	-	-	-	-
			Monitored Y1	3	0.59%	-	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-	-
		ELL Program - ESL	No	445	87.95%	81.59	39.72	0	18	0.95	9.10	
			Yes	45	8.89%	85.02	38.53	0	1	0.94	9.11	
			Monitored Y1	2	0.40%	-	-	-	-	-	-	-
			Monitored Y2	1	0.20%	-	-	-	-	-	-	-
			Exited Y3+	6	1.19%	-	-	-	-	-	-	-
			Choice	7	1.38%	-	-	-	-	-	-	-



**Table 12**  
**Mathematics Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
						Mean	SD				
MA	9	Language Proficiency	Not Applicable	457	85.90%	69.00	36.16	0	16	0.93	9.35
			NEP	53	9.96%	65.55	30.94	0	3	0.90	9.74
			LEP	13	2.44%	-	-	-	-	-	-
			FEP	7	1.32%	-	-	-	-	-	-
		ELL Program - Bilingual	No	528	99.25%	69.44	35.75	0	19	0.93	9.38
			Yes	1	0.19%	-	-	-	-	-	-
			Monitored Y1	1	0.19%	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-
		ELL Program - ESL	No	459	86.28%	69.00	36.30	0	16	0.93	9.34
			Yes	55	10.34%	72.27	34.36	0	3	0.92	9.48
			Monitored Y1	1	0.19%	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-
			Exited Y3+	4	0.75%	-	-	-	-	-	-
			Choice	11	2.07%	-	-	-	-	-	-

**Table 12**  
**Mathematics Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
						Mean	SD				
MA	10	Language Proficiency	Not Applicable	434	87.68%	71.88	35.82	0	18	0.92	9.81
			NEP	47	9.50%	65.40	26.86	0	0	0.86	10.06
			LEP	5	1.01%	-	-	-	-	-	-
			FEP	9	1.82%	-	-	-	-	-	-
		ELL Program - Bilingual	No	494	99.80%	71.42	35.07	0	19	0.92	9.82
			Yes	0	0%	-	-	-	-	-	-
			Monitored Y1	1	0.20%	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-
		ELL Program - ESL	No	435	87.88%	71.88	35.78	0	18	0.92	9.81
			Yes	44	8.89%	69.34	27.72	0	0	0.87	10.02
			Monitored Y1	5	1.01%	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-
			Exited Y3+	3	0.61%	-	-	-	-	-	-
			Choice	8	1.62%	-	-	-	-	-	-

**Table 13**  
**Science Descriptive Statistics by English Language Proficiency**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
						Mean	SD				
SC	5	Language Proficiency	Not Applicable	551	84.51%	65.95	25.38	13	13	0.94	5.98
			NEP	86	13.19%	63.38	22.00	0	1	0.91	6.42
			LEP	10	1.53%	-	-	-	-	-	-
			FEP	3	0.46%	-	-	-	-	-	-
		ELL Program - Bilingual	No	646	99.08%	65.74	24.87	13	14	0.94	6.05
			Yes	2	0.31%	-	-	-	-	-	-
			Monitored Y1	2	0.31%	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-
		ELL Program - ESL	No	555	85.12%	65.88	25.35	13	13	0.94	5.99
			Yes	82	12.58%	64.04	22.55	0	1	0.92	6.36
			Monitored Y1	0	0%	-	-	-	-	-	-
			Monitored Y2	1	0.15%	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-
			Choice	12	1.84%	-	-	-	-	-	-

**Table 13**  
**Science Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
						Mean	SD				
SC	8	Language Proficiency	Not Applicable	438	86.91%	70.57	26.87	11	15	0.95	5.88
			NEP	50	9.92%	68.92	25.67	2	2	0.94	6.19
			LEP	5	0.99%	-	-	-	-	-	-
			FEP	11	2.18%	-	-	-	-	-	-
		ELL Program - Bilingual	No	499	99.01%	70.41	26.81	13	18	0.95	5.89
			Yes	2	0.40%	-	-	-	-	-	-
			Monitored Y1	3	0.60%	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-
		ELL Program - ESL	No	443	87.90%	70.45	26.89	11	15	0.95	5.89
			Yes	46	9.13%	67.83	25.69	2	2	0.94	6.31
			Monitored Y1	2	0.40%	-	-	-	-	-	-
			Monitored Y2	1	0.20%	-	-	-	-	-	-
			Exited Y3+	5	0.99%	-	-	-	-	-	-
			Choice	7	1.39%	-	-	-	-	-	-
			Choice	7	1.39%	-	-	-	-	-	-

**Table 13**  
**Science Descriptive Statistics by English Language Proficiency (continued)**

Content	Grade	Variable	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
						Mean	SD				
SC	10	Language Proficiency	Not Applicable	428	87.35%	59.68	26.81	2	13	0.92	7.48
			NEP	49	10.00%	52.45	21.71	0	1	0.87	7.96
			LEP	5	1.02%	-	-	-	-	-	-
			FEP	8	1.63%	-	-	-	-	-	-
		ELL Program - Bilingual	No	488	99.59%	59.00	26.29	2	14	0.92	7.53
			Yes	1	0.20%	-	-	-	-	-	-
			Monitored Y1	1	0.20%	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-
			Exited Y3+	0	0%	-	-	-	-	-	-
			Choice	0	0%	-	-	-	-	-	-
		ELL Program - ESL	No	430	87.76%	59.48	26.93	2	14	0.92	7.48
			Yes	44	8.98%	55.70	20.32	0	0	0.84	8.03
			Monitored Y1	4	0.82%	-	-	-	-	-	-
			Monitored Y2	0	0%	-	-	-	-	-	-
			Exited Y3+	3	0.61%	-	-	-	-	-	-
			Choice	9	1.84%	-	-	-	-	-	-

**Table 14**  
**Reading Descriptive Statistics by Free/Reduced Price Lunch Eligibility**

Content	Grade	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RD	3	Free Lunch Eligible	307	47.89%	61.17	24.82	0	5	0.92	6.85
		Reduced Lunch Eligible	56	8.74%	54.84	25.29	0	0	0.92	6.94
		Not Eligible	276	43.06%	57.12	26.01	0	8	0.93	6.79
	4	Free Lunch Eligible	293	47.26%	59.70	25.78	2	8	0.93	6.85
		Reduced Lunch Eligible	56	9.03%	54.07	27.81	0	3	0.94	6.86
		Not Eligible	269	43.39%	58.85	26.50	0	7	0.93	6.76
	5	Free Lunch Eligible	325	48.87%	63.98	26.68	5	8	0.94	6.75
		Reduced Lunch Eligible	46	6.92%	62.43	24.75	0	1	0.92	6.91
		Not Eligible	291	43.76%	61.37	27.44	0	7	0.94	6.73
	6	Free Lunch Eligible	231	43.50%	64.74	26.29	4	6	0.94	6.62
		Reduced Lunch Eligible	60	11.30%	66.08	26.25	1	3	0.94	6.41
		Not Eligible	238	44.82%	64.20	28.04	2	2	0.95	6.42
	7	Free Lunch Eligible	263	46.55%	58.00	22.26	0	8	0.90	7.08
		Reduced Lunch Eligible	44	7.79%	59.05	23.65	0	0	0.91	7.01
		Not Eligible	252	44.60%	58.25	23.20	0	7	0.91	7.10
	8	Free Lunch Eligible	225	44.82%	54.63	24.72	0	7	0.91	7.26
		Reduced Lunch Eligible	49	9.76%	49.92	27.22	0	2	0.93	6.97
		Not Eligible	228	45.42%	53.64	27.13	0	9	0.93	7.04
9	Free Lunch Eligible	226	42.80%	56.79	25.47	1	7	0.92	6.99	
	Reduced Lunch Eligible	43	8.14%	58.79	25.16	0	0	0.92	7.08	
	Not Eligible	258	48.86%	50.16	27.26	1	10	0.94	6.83	
10	Free Lunch Eligible	213	43.38%	49.97	23.54	0	2	0.90	7.40	
	Reduced Lunch Eligible	41	8.35%	57.34	24.88	0	1	0.92	7.19	
	Not Eligible	236	48.07%	47.44	25.03	0	12	0.92	7.22	

**Table 15**  
**Writing Descriptive Statistics by Free/Reduced Price Lunch Eligibility**

Content	Grade	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
WR	3	Free Lunch Eligible	309	47.69%	59.19	27.52	0	7	0.93	7.47
		Reduced Lunch Eligible	57	8.80%	51.00	29.39	0	0	0.93	7.56
		Not Eligible	280	43.21%	52.54	29.46	1	12	0.93	7.51
	4	Free Lunch Eligible	290	47.23%	58.68	28.30	0	8	0.93	7.59
		Reduced Lunch Eligible	55	8.96%	53.04	30.41	1	3	0.93	7.80
		Not Eligible	267	43.49%	56.25	29.52	0	10	0.93	7.73
	5	Free Lunch Eligible	323	48.94%	65.55	26.39	1	6	0.92	7.29
		Reduced Lunch Eligible	46	6.97%	60.54	27.67	0	1	0.93	7.49
		Not Eligible	288	43.64%	62.03	28.23	0	7	0.93	7.32
	6	Free Lunch Eligible	231	43.34%	63.73	27.98	1	8	0.93	7.44
		Reduced Lunch Eligible	61	11.45%	65.08	28.29	1	3	0.93	7.48
		Not Eligible	239	44.84%	62.87	30.74	1	2	0.94	7.34
	7	Free Lunch Eligible	262	46.62%	66.21	27.82	1	7	0.93	7.48
		Reduced Lunch Eligible	44	7.83%	66.25	28.81	0	0	0.93	7.65
		Not Eligible	250	44.48%	64.05	29.07	2	7	0.93	7.62
	8	Free Lunch Eligible	221	44.29%	61.02	28.17	0	10	0.93	7.50
		Reduced Lunch Eligible	49	9.82%	56.94	32.10	0	4	0.94	7.60
		Not Eligible	229	45.89%	60.95	30.28	0	12	0.94	7.53
	9	Free Lunch Eligible	224	42.51%	61.62	26.46	0	8	0.92	7.60
		Reduced Lunch Eligible	43	8.16%	63.84	26.49	0	0	0.92	7.58
		Not Eligible	258	48.96%	54.50	30.20	0	15	0.94	7.56
10	Free Lunch Eligible	213	43.47%	60.14	27.17	0	3	0.92	7.80	
	Reduced Lunch Eligible	40	8.16%	65.38	23.89	0	0	0.90	7.59	
	Not Eligible	236	48.16%	56.44	30.22	0	15	0.93	7.83	

**Table 16**  
**Mathematics Descriptive Statistics by Free/Reduced Price Lunch Eligibility**

Content	Grade	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	3	Free Lunch Eligible	301	47.48%	83.79	33.88	0	5	0.95	7.74
		Reduced Lunch Eligible	55	8.68%	72.36	36.95	0	0	0.95	8.19
		Not Eligible	276	43.53%	73.97	35.70	2	8	0.95	8.09
	4	Free Lunch Eligible	284	46.71%	82.68	34.82	1	6	0.94	8.23
		Reduced Lunch Eligible	58	9.54%	73.72	39.84	0	3	0.96	8.20
		Not Eligible	264	43.42%	76.27	36.97	0	9	0.95	8.27
	5	Free Lunch Eligible	318	49.38%	107.97	44.86	1	9	0.95	9.78
		Reduced Lunch Eligible	46	7.14%	99.57	45.44	0	1	0.95	10.25
		Not Eligible	277	43.01%	95.06	45.12	0	6	0.95	10.02
	6	Free Lunch Eligible	231	43.50%	83.98	36.83	0	8	0.94	8.80
		Reduced Lunch Eligible	61	11.49%	83.77	36.74	0	2	0.94	8.66
		Not Eligible	238	44.82%	78.75	38.28	0	3	0.95	8.76
	7	Free Lunch Eligible	260	46.26%	79.48	33.48	0	6	0.93	8.57
		Reduced Lunch Eligible	44	7.83%	78.41	33.63	0	0	0.93	8.74
		Not Eligible	252	44.84%	73.25	33.13	1	5	0.93	8.85
	8	Free Lunch Eligible	224	44.27%	83.03	37.91	0	7	0.94	9.26
		Reduced Lunch Eligible	50	9.88%	79.22	44.38	0	2	0.96	8.89
		Not Eligible	232	45.85%	81.93	40.45	0	11	0.95	8.99
	9	Free Lunch Eligible	226	42.48%	74.94	34.26	0	7	0.92	9.41
		Reduced Lunch Eligible	43	8.08%	75.60	28.64	0	0	0.88	9.75
		Not Eligible	261	49.06%	63.66	37.47	0	12	0.94	9.22
10	Free Lunch Eligible	216	43.64%	73.62	34.36	0	5	0.92	9.79	
	Reduced Lunch Eligible	40	8.08%	78.93	29.75	0	0	0.89	9.84	
	Not Eligible	238	48.08%	68.21	36.29	0	14	0.93	9.83	



**Table 17**  
**Science Descriptive Statistics by Free/Reduced Price Lunch Eligibility**

Content	Grade	Subgroup	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
SC	5	Free Lunch Eligible	320	49.08%	68.57	23.94	6	6	0.94	5.95
		Reduced Lunch Eligible	46	7.06%	65.24	24.50	1	1	0.94	6.24
		Not Eligible	283	43.41%	62.67	25.52	6	7	0.94	6.15
	8	Free Lunch Eligible	225	44.64%	71.28	24.94	4	3	0.94	6.04
		Reduced Lunch Eligible	50	9.92%	68.12	29.46	2	2	0.96	5.77
		Not Eligible	229	45.44%	69.83	28.08	7	13	0.96	5.81
	10	Free Lunch Eligible	210	42.86%	60.63	25.20	0	2	0.91	7.56
		Reduced Lunch Eligible	40	8.16%	62.88	25.31	0	1	0.91	7.57
		Not Eligible	239	48.78%	56.68	27.47	2	12	0.93	7.50

**Table 18**  
**Reading Descriptive Statistics by Primary Disability**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RD	3	Autism	117	18.25%	57.62	23.88	0	3	0.92	6.76
		Deaf-Blind	1	0.16%	-	-	-	-	-	-
		Emotional Disability	5	0.78%	-	-	-	-	-	-
		Hearing Disability	0	0%	-	-	-	-	-	-
		Limited Intellectual Capacity	155	24.18%	63.32	21.33	0	1	0.90	6.89
		Multiple Disabilities	172	26.83%	46.37	26.59	0	8	0.93	6.81
		Physical Disability	110	17.16%	60.95	25.07	0	1	0.92	6.91
		Specific Learning Disability	40	6.24%	79.93	15.34	0	0	0.83	6.42
		Speech/Language Disability	30	4.68%	76.90	15.39	0	0	0.81	6.75
		Traumatic Brain Injury	10	1.56%	-	-	-	-	-	-
		Visual Disability	1	0.16%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	0	0%	-	-	-	-	-	-

**Table 18**  
**Reading Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RD	4	Autism	103	16.61%	52.02	25.39	0	3	0.93	6.81
		Deaf-Blind	0	0%	-	-	-	-	-	-
		Emotional Disability	15	2.42%	-	-	-	-	-	-
		Hearing Disability	2	0.32%	-	-	-	-	-	-
		Limited Intellectual Capacity	165	26.61%	66.85	20.92	0	0	0.89	6.85
		Multiple Disabilities	196	31.61%	47.25	26.70	0	12	0.93	6.90
		Physical Disability	74	11.94%	57.49	25.73	1	3	0.93	6.90
		Specific Learning Disability	43	6.94%	81.58	14.57	0	0	0.82	6.26
		Speech/Language Disability	11	1.77%	-	-	-	-	-	-
		Traumatic Brain Injury	7	1.13%	-	-	-	-	-	-
		Visual Disability	3	0.48%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	1	0.16%	-	-	-	-	-	-

**Table 18**  
**Reading Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RD	5	Autism	97	14.59%	59.66	28.06	2	1	0.95	6.53
		Deaf-Blind	1	0.15%	-	-	-	-	-	-
		Emotional Disability	4	0.60%	-	-	-	-	-	-
		Hearing Disability	5	0.75%	-	-	-	-	-	-
		Limited Intellectual Capacity	207	31.13%	70.75	22.23	2	0	0.91	6.74
		Multiple Disabilities	202	30.38%	48.51	27.01	0	13	0.93	6.98
		Physical Disability	79	11.88%	68.68	25.41	1	1	0.93	6.66
		Specific Learning Disability	49	7.37%	81.29	11.83	0	0	0.71	6.41
		Speech/Language Disability	13	1.96%	-	-	-	-	-	-
		Traumatic Brain Injury	6	0.90%	-	-	-	-	-	-
		Visual Disability	0	0%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	2	0.30%	-	-	-	-	-	-

**Table 18**  
**Reading Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RD	6	Autism	78	14.69%	53.14	25.08	0	2	0.93	6.82
		Deaf-Blind	0	0%	-	-	-	-	-	-
		Emotional Disability	7	1.32%	-	-	-	-	-	-
		Hearing Disability	1	0.19%	-	-	-	-	-	-
		Limited Intellectual Capacity	172	32.39%	76.56	19.38	3	0	0.89	6.29
		Multiple Disabilities	170	32.02%	49.29	27.82	0	9	0.94	6.75
		Physical Disability	58	10.92%	73.24	21.60	0	0	0.91	6.39
		Specific Learning Disability	26	4.90%	86.92	13.00	3	0	0.81	5.70
		Speech/Language Disability	13	2.45%	-	-	-	-	-	-
		Traumatic Brain Injury	6	1.13%	-	-	-	-	-	-
		Visual Disability	0	0%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	0	0%	-	-	-	-	-	-

**Table 18**  
**Reading Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RD	7	Autism	83	14.69%	54.64	23.58	0	1	0.91	7.10
		Deaf-Blind	2	0.35%	-	-	-	-	-	-
		Emotional Disability	4	0.71%	-	-	-	-	-	-
		Hearing Disability	2	0.35%	-	-	-	-	-	-
		Limited Intellectual Capacity	195	34.51%	65.78	16.92	0	0	0.83	7.08
		Multiple Disabilities	180	31.86%	44.73	22.76	0	13	0.90	7.13
		Physical Disability	46	8.14%	64.07	21.48	0	1	0.89	6.98
		Specific Learning Disability	36	6.37%	75.86	15.35	0	0	0.82	6.60
		Speech/Language Disability	6	1.06%	-	-	-	-	-	-
		Traumatic Brain Injury	7	1.24%	-	-	-	-	-	-
		Visual Disability	3	0.53%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	1	0.18%	-	-	-	-	-	-

**Table 18**  
**Reading Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RD	8	Autism	53	10.56%	49.83	27.12	0	2	0.93	7.03
		Deaf-Blind	1	0.20%	-	-	-	-	-	-
		Emotional Disability	1	0.20%	-	-	-	-	-	-
		Hearing Disability	5	1.00%	-	-	-	-	-	-
		Limited Intellectual Capacity	178	35.46%	62.13	20.71	0	1	0.87	7.33
		Multiple Disabilities	185	36.85%	41.56	26.34	0	15	0.93	6.91
		Physical Disability	42	8.37%	61.45	24.22	0	0	0.91	7.28
		Specific Learning Disability	24	4.78%	76.75	16.01	0	0	0.82	6.89
		Speech/Language Disability	3	0.60%	-	-	-	-	-	-
		Traumatic Brain Injury	8	1.59%	-	-	-	-	-	-
		Visual Disability	2	0.40%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	0	0%	-	-	-	-	-	-

**Table 18**  
**Reading Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RD	9	Autism	55	10.42%	47.05	20.11	0	0	0.88	7.10
		Deaf-Blind	0	0%	-	-	-	-	-	-
		Emotional Disability	2	0.38%	-	-	-	-	-	-
		Hearing Disability	1	0.19%	-	-	-	-	-	-
		Limited Intellectual Capacity	182	34.47%	62.93	21.58	1	0	0.89	7.10
		Multiple Disabilities	221	41.86%	41.50	26.02	0	17	0.93	6.88
		Physical Disability	31	5.87%	65.26	26.28	0	0	0.94	6.56
		Specific Learning Disability	23	4.36%	81.39	16.24	1	0	0.86	6.06
		Speech/Language Disability	5	0.95%	-	-	-	-	-	-
		Traumatic Brain Injury	6	1.14%	-	-	-	-	-	-
		Visual Disability	1	0.19%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	1	0.19%	-	-	-	-	-	-



**Table 18**  
**Reading Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RD	10	Autism	52	10.59%	46.33	25.32	0	0	0.92	7.20
		Deaf-Blind	0	0%	-	-	-	-	-	-
		Emotional Disability	5	1.02%	-	-	-	-	-	-
		Hearing Disability	2	0.41%	-	-	-	-	-	-
		Limited Intellectual Capacity	174	35.44%	57.80	20.55	0	1	0.87	7.43
		Multiple Disabilities	207	42.16%	38.04	21.77	0	13	0.89	7.26
		Physical Disability	29	5.91%	57.00	24.90	0	1	0.91	7.31
		Specific Learning Disability	16	3.26%	81.56	10.42	0	0	0.61	6.50
		Speech/Language Disability	3	0.61%	-	-	-	-	-	-
		Traumatic Brain Injury	3	0.61%	-	-	-	-	-	-
		Visual Disability	0	0%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	0	0%	-	-	-	-	-	-

**Table 19**  
**Writing Descriptive Statistics by Primary Disability**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
WR	3	Autism	116	17.90%	54.70	27.83	0	4	0.93	7.51
		Deaf-Blind	1	0.15%	-	-	-	-	-	-
		Emotional Disability	6	0.93%	-	-	-	-	-	-
		Hearing Disability	0	0%	-	-	-	-	-	-
		Limited Intellectual Capacity	157	24.23%	62.29	23.89	1	2	0.90	7.43
		Multiple Disabilities	175	27.01%	40.92	28.93	0	11	0.93	7.43
		Physical Disability	112	17.28%	55.62	28.24	0	2	0.93	7.53
		Specific Learning Disability	40	6.17%	79.68	15.21	0	0	0.82	6.54
		Speech/Language Disability	30	4.63%	75.63	18.44	0	0	0.85	7.07
		Traumatic Brain Injury	10	1.54%	-	-	-	-	-	-
		Visual Disability	1	0.15%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	0	0%	-	-	-	-	-	-

**Table 19**  
**Writing Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
WR	4	Autism	104	16.94%	51.21	29.54	0	3	0.93	7.67
		Deaf-Blind	0	0%	-	-	-	-	-	-
		Emotional Disability	14	2.28%	-	-	-	-	-	-
		Hearing Disability	2	0.33%	-	-	-	-	-	-
		Limited Intellectual Capacity	163	26.55%	68.34	22.66	1	0	0.89	7.34
		Multiple Disabilities	196	31.92%	43.84	29.53	0	17	0.93	7.70
		Physical Disability	74	12.05%	53.86	27.50	0	1	0.92	7.96
		Specific Learning Disability	41	6.68%	80.49	14.69	0	0	0.82	6.21
		Speech/Language Disability	10	1.63%	-	-	-	-	-	-
		Traumatic Brain Injury	6	0.98%	-	-	-	-	-	-
		Visual Disability	3	0.49%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
Missing	1	0.16%	-	-	-	-	-	-		

**Table 19**  
**Writing Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
WR	5	Autism	96	14.55%	62.61	27.94	1	0	0.93	7.13
		Deaf-Blind	1	0.15%	-	-	-	-	-	-
		Emotional Disability	4	0.61%	-	-	-	-	-	-
		Hearing Disability	5	0.76%	-	-	-	-	-	-
		Limited Intellectual Capacity	205	31.06%	72.18	21.57	0	0	0.90	6.90
		Multiple Disabilities	202	30.61%	48.86	28.62	0	11	0.93	7.78
		Physical Disability	78	11.82%	66.42	26.05	0	1	0.92	7.25
		Specific Learning Disability	48	7.27%	83.35	10.13	0	0	0.67	5.79
		Speech/Language Disability	13	1.97%	-	-	-	-	-	-
		Traumatic Brain Injury	6	0.91%	-	-	-	-	-	-
		Visual Disability	0	0%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	2	0.30%	-	-	-	-	-	-

**Table 19**  
**Writing Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
WR	6	Autism	79	14.82%	55.61	29.60	0	2	0.93	7.68
		Deaf-Blind	0	0%	-	-	-	-	-	-
		Emotional Disability	7	1.31%	-	-	-	-	-	-
		Hearing Disability	1	0.19%	-	-	-	-	-	-
		Limited Intellectual Capacity	172	32.27%	75.45	20.94	1	0	0.90	6.73
		Multiple Disabilities	172	32.27%	46.84	30.87	0	11	0.94	7.68
		Physical Disability	57	10.69%	70.40	23.49	0	0	0.90	7.39
		Specific Learning Disability	26	4.88%	90.35	9.73	2	0	0.69	5.39
		Speech/Language Disability	13	2.44%	-	-	-	-	-	-
		Traumatic Brain Injury	6	1.13%	-	-	-	-	-	-
		Visual Disability	0	0%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	0	0%	-	-	-	-	-	-

**Table 19**  
**Writing Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
WR	7	Autism	84	14.95%	60.90	31.67	3	1	0.94	7.56
		Deaf-Blind	2	0.36%	-	-	-	-	-	-
		Emotional Disability	4	0.71%	-	-	-	-	-	-
		Hearing Disability	2	0.36%	-	-	-	-	-	-
		Limited Intellectual Capacity	193	34.34%	75.83	20.36	0	0	0.88	6.98
		Multiple Disabilities	179	31.85%	48.15	28.51	0	12	0.92	8.11
		Physical Disability	45	8.01%	69.96	27.40	0	1	0.93	7.13
		Specific Learning Disability	36	6.41%	85.72	10.53	0	0	0.68	5.99
		Speech/Language Disability	6	1.07%	-	-	-	-	-	-
		Traumatic Brain Injury	7	1.25%	-	-	-	-	-	-
		Visual Disability	3	0.53%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	1	0.18%	-	-	-	-	-	-

**Table 19**  
**Writing Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
WR	8	Autism	54	10.82%	55.93	32.36	0	3	0.95	7.27
		Deaf-Blind	1	0.20%	-	-	-	-	-	-
		Emotional Disability	1	0.20%	-	-	-	-	-	-
		Hearing Disability	5	1.00%	-	-	-	-	-	-
		Limited Intellectual Capacity	176	35.27%	71.45	21.78	0	1	0.89	7.11
		Multiple Disabilities	184	36.87%	45.71	30.73	0	21	0.94	7.81
		Physical Disability	41	8.22%	69.54	25.44	0	0	0.92	7.25
		Specific Learning Disability	24	4.81%	84.67	9.02	0	0	0.55	6.06
		Speech/Language Disability	3	0.60%	-	-	-	-	-	-
		Traumatic Brain Injury	8	1.60%	-	-	-	-	-	-
		Visual Disability	2	0.40%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	0	0%	-	-	-	-	-	-

**Table 19**  
**Writing Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
WR	9	Autism	56	10.63%	51.63	25.05	0	0	0.90	7.84
		Deaf-Blind	0	0%	-	-	-	-	-	-
		Emotional Disability	2	0.38%	-	-	-	-	-	-
		Hearing Disability	1	0.19%	-	-	-	-	-	-
		Limited Intellectual Capacity	182	34.54%	69.52	20.91	0	0	0.88	7.18
		Multiple Disabilities	220	41.75%	44.96	29.51	0	21	0.93	7.81
		Physical Disability	31	5.88%	68.65	28.69	0	2	0.94	7.07
		Specific Learning Disability	22	4.18%	84.55	9.71	0	0	0.66	5.69
		Speech/Language Disability	5	0.95%	-	-	-	-	-	-
		Traumatic Brain Injury	6	1.14%	-	-	-	-	-	-
		Visual Disability	1	0.19%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	1	0.19%	-	-	-	-	-	-



**Table 19**  
**Writing Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
WR	10	Autism	52	10.61%	55.85	31.93	0	3	0.94	7.62
		Deaf-Blind	0	0%	-	-	-	-	-	-
		Emotional Disability	5	1.02%	-	-	-	-	-	-
		Hearing Disability	2	0.41%	-	-	-	-	-	-
		Limited Intellectual Capacity	173	35.31%	69.31	21.95	0	1	0.89	7.30
		Multiple Disabilities	206	42.04%	45.67	27.52	0	13	0.91	8.20
		Physical Disability	29	5.92%	68.28	27.62	0	1	0.93	7.49
		Specific Learning Disability	17	3.47%	89.29	10.18	0	0	0.63	6.15
		Speech/Language Disability	3	0.61%	-	-	-	-	-	-
		Traumatic Brain Injury	3	0.61%	-	-	-	-	-	-
		Visual Disability	0	0%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	0	0%	-	-	-	-	-	-

**Table 20**  
**Mathematics Descriptive Statistics by Primary Disability**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	3	Autism	114	17.98%	74.48	33.64	1	2	0.94	8.12
		Deaf-Blind	1	0.16%	-	-	-	-	-	-
		Emotional Disability	6	0.95%	-	-	-	-	-	-
		Hearing Disability	0	0%	-	-	-	-	-	-
		Limited Intellectual Capacity	156	24.61%	90.01	26.10	1	1	0.91	7.85
		Multiple Disabilities	171	26.97%	60.05	38.42	0	9	0.96	8.01
		Physical Disability	111	17.51%	79.50	34.85	0	1	0.95	7.97
		Specific Learning Disability	35	5.52%	106.40	10.07	0	0	0.56	6.66
		Speech/Language Disability	29	4.57%	103.72	13.89	0	0	0.76	6.82
		Traumatic Brain Injury	10	1.58%	-	-	-	-	-	-
		Visual Disability	1	0.16%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	0	0%	-	-	-	-	-	-

**Table 20**  
**Mathematics Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	4	Autism	100	16.45%	66.70	37.03	0	2	0.95	8.35
		Deaf-Blind	0	0%	-	-	-	-	-	-
		Emotional Disability	12	1.97%	-	-	-	-	-	-
		Hearing Disability	2	0.33%	-	-	-	-	-	-
		Limited Intellectual Capacity	164	26.97%	94.68	25.34	0	0	0.90	7.85
		Multiple Disabilities	195	32.07%	63.60	38.40	0	14	0.95	8.40
		Physical Disability	75	12.34%	75.69	35.50	0	2	0.94	8.56
		Specific Learning Disability	39	6.41%	108.18	14.43	0	0	0.77	6.89
		Speech/Language Disability	11	1.81%	-	-	-	-	-	-
		Traumatic Brain Injury	6	0.99%	-	-	-	-	-	-
		Visual Disability	3	0.49%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	1	0.16%	-	-	-	-	-	-

**Table 20**  
**Mathematics Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	5	Autism	95	14.75%	95.50	47.16	0	1	0.96	9.88
		Deaf-Blind	1	0.16%	-	-	-	-	-	-
		Emotional Disability	4	0.62%	-	-	-	-	-	-
		Hearing Disability	2	0.31%	-	-	-	-	-	-
		Limited Intellectual Capacity	208	32.30%	118.12	35.94	0	0	0.93	9.75
		Multiple Disabilities	195	30.28%	76.40	46.28	0	12	0.95	10.01
		Physical Disability	79	12.27%	105.91	40.37	0	2	0.94	10.03
		Specific Learning Disability	39	6.06%	137.74	17.99	1	0	0.74	9.26
		Speech/Language Disability	13	2.02%	-	-	-	-	-	-
		Traumatic Brain Injury	6	0.93%	-	-	-	-	-	-
		Visual Disability	0	0%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	2	0.31%	-	-	-	-	-	-

**Table 20**  
**Mathematics Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	6	Autism	78	14.69%	67.73	34.45	0	2	0.93	8.91
		Deaf-Blind	0	0%	-	-	-	-	-	-
		Emotional Disability	6	1.13%	-	-	-	-	-	-
		Hearing Disability	1	0.19%	-	-	-	-	-	-
		Limited Intellectual Capacity	172	32.39%	98.46	27.41	0	0	0.91	8.36
		Multiple Disabilities	172	32.39%	59.30	37.58	0	11	0.94	8.92
		Physical Disability	56	10.55%	90.09	31.08	0	0	0.92	8.85
		Specific Learning Disability	27	5.09%	119.85	11.04	0	0	0.61	6.91
		Speech/Language Disability	13	2.45%	-	-	-	-	-	-
		Traumatic Brain Injury	6	1.13%	-	-	-	-	-	-
		Visual Disability	0	0%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	0	0%	-	-	-	-	-	-

**Table 20**  
**Mathematics Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	7	Autism	82	14.59%	68.94	37.53	0	1	0.95	8.59
		Deaf-Blind	3	0.53%	-	-	-	-	-	-
		Emotional Disability	3	0.53%	-	-	-	-	-	-
		Hearing Disability	2	0.36%	-	-	-	-	-	-
		Limited Intellectual Capacity	191	33.99%	87.42	24.68	0	0	0.88	8.50
		Multiple Disabilities	178	31.67%	56.95	32.07	0	9	0.92	9.07
		Physical Disability	48	8.54%	82.71	30.20	0	1	0.92	8.62
		Specific Learning Disability	37	6.58%	107.78	16.78	1	0	0.82	7.07
		Speech/Language Disability	7	1.25%	-	-	-	-	-	-
		Traumatic Brain Injury	7	1.25%	-	-	-	-	-	-
		Visual Disability	3	0.53%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	1	0.18%	-	-	-	-	-	-

**Table 20**  
**Mathematics Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	8	Autism	57	11.27%	70.63	43.95	0	2	0.96	8.94
		Deaf-Blind	1	0.20%	-	-	-	-	-	-
		Emotional Disability	2	0.40%	-	-	-	-	-	-
		Hearing Disability	5	0.99%	-	-	-	-	-	-
		Limited Intellectual Capacity	177	34.98%	96.99	30.04	0	1	0.91	9.02
		Multiple Disabilities	187	36.96%	65.14	41.43	0	17	0.95	9.00
		Physical Disability	41	8.10%	90.15	33.00	0	0	0.92	9.20
		Specific Learning Disability	23	4.55%	114.39	17.58	0	0	0.78	8.19
		Speech/Language Disability	3	0.59%	-	-	-	-	-	-
		Traumatic Brain Injury	8	1.58%	-	-	-	-	-	-
		Visual Disability	2	0.40%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	0	0%	-	-	-	-	-	-

**Table 20**  
**Mathematics Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	9	Autism	58	10.90%	62.17	35.38	0	0	0.93	9.07
		Deaf-Blind	0	0%	-	-	-	-	-	-
		Emotional Disability	3	0.56%	-	-	-	-	-	-
		Hearing Disability	1	0.19%	-	-	-	-	-	-
		Limited Intellectual Capacity	181	34.02%	82.81	27.35	0	0	0.88	9.47
		Multiple Disabilities	219	41.17%	52.74	34.85	0	19	0.93	9.17
		Physical Disability	34	6.39%	75.65	36.16	0	0	0.93	9.33
		Specific Learning Disability	23	4.32%	108.30	18.97	0	0	0.83	7.82
		Speech/Language Disability	5	0.94%	-	-	-	-	-	-
		Traumatic Brain Injury	6	1.13%	-	-	-	-	-	-
		Visual Disability	1	0.19%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	1	0.19%	-	-	-	-	-	-



**Table 20**  
**Mathematics Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	10	Autism	50	10.10%	62.96	41.25	0	1	0.94	9.69
		Deaf-Blind	0	0%	-	-	-	-	-	-
		Emotional Disability	5	1.01%	-	-	-	-	-	-
		Hearing Disability	2	0.40%	-	-	-	-	-	-
		Limited Intellectual Capacity	175	35.35%	85.89	27.55	0	2	0.88	9.60
		Multiple Disabilities	207	41.82%	54.71	31.02	0	15	0.90	9.75
		Physical Disability	29	5.86%	76.62	34.93	0	1	0.92	10.05
		Specific Learning Disability	20	4.04%	110.65	20.06	0	0	0.82	8.46
		Speech/Language Disability	3	0.61%	-	-	-	-	-	-
		Traumatic Brain Injury	4	0.81%	-	-	-	-	-	-
		Visual Disability	0	0%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	0	0%	-	-	-	-	-	-

**Table 21**  
**Science Descriptive Statistics by Primary Disability**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
SC	5	Autism	96	14.72%	59.84	26.22	4	1	0.94	6.31
		Deaf-Blind	1	0.15%	-	-	-	-	-	-
		Emotional Disability	4	0.61%	-	-	-	-	-	-
		Hearing Disability	3	0.46%	-	-	-	-	-	-
		Limited Intellectual Capacity	208	31.90%	74.36	17.98	1	0	0.90	5.82
		Multiple Disabilities	197	30.22%	53.45	26.33	1	11	0.94	6.46
		Physical Disability	77	11.81%	67.82	24.15	2	1	0.94	5.96
		Specific Learning Disability	45	6.90%	84.58	10.67	5	0	0.80	4.81
		Speech/Language Disability	13	1.99%	-	-	-	-	-	-
		Traumatic Brain Injury	6	0.92%	-	-	-	-	-	-
		Visual Disability	0	0%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
Missing	2	0.31%	-	-	-	-	-	-		

**Table 21**  
**Science Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
SC	8	Autism	56	11.11%	62.20	30.18	1	2	0.96	5.98
		Deaf-Blind	1	0.20%	-	-	-	-	-	-
		Emotional Disability	1	0.20%	-	-	-	-	-	-
		Hearing Disability	5	0.99%	-	-	-	-	-	-
		Limited Intellectual Capacity	177	35.12%	80.85	17.74	7	1	0.90	5.57
		Multiple Disabilities	185	36.71%	59.23	30.21	4	14	0.96	6.24
		Physical Disability	42	8.33%	73.45	23.34	0	0	0.93	5.96
		Specific Learning Disability	24	4.76%	89.13	7.50	1	0	0.63	4.56
		Speech/Language Disability	3	0.60%	-	-	-	-	-	-
		Traumatic Brain Injury	8	1.59%	-	-	-	-	-	-
		Visual Disability	2	0.40%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
		Missing	0	0%	-	-	-	-	-	-

**Table 21**  
**Science Descriptive Statistics by Primary Disability (continued)**

Content	Grade	Primary Disability	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
SC	10	Autism	52	10.61%	52.67	28.82	0	0	0.93	7.63
		Deaf-Blind	0	0%	-	-	-	-	-	-
		Emotional Disability	5	1.02%	-	-	-	-	-	-
		Hearing Disability	2	0.41%	-	-	-	-	-	-
		Limited Intellectual Capacity	172	35.10%	69.32	20.08	0	2	0.87	7.22
		Multiple Disabilities	206	42.04%	46.32	24.79	1	12	0.90	7.67
		Physical Disability	29	5.92%	66.55	24.37	1	1	0.91	7.40
		Specific Learning Disability	17	3.47%	90.12	9.80	0	0	0.78	4.64
		Speech/Language Disability	3	0.61%	-	-	-	-	-	-
		Traumatic Brain Injury	4	0.82%	-	-	-	-	-	-
		Visual Disability	0	0%	-	-	-	-	-	-
		None	0	0%	-	-	-	-	-	-
Missing	0	0%	-	-	-	-	-	-		

**Table 22**  
**Reading Descriptive Statistics by Expanded Accommodation**

Content	Grade	Expanded Accommodation	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RD	3	None	543	84.71%	62.31	23.67	0	9	0.92	6.87
		Assistive Technology	16	2.50%	42.75	27.97	0	1	0.94	6.56
		Braille	4	0.62%	-	-	-	-	-	-
		Eye Gaze	18	2.81%	22.56	16.06	0	1	0.87	5.79
		Modified Picture Symbols	25	3.90%	27.24	20.59	0	2	0.92	5.90
		Objects	17	2.65%	26.65	22.73	0	1	0.94	5.42
		Sign Language	8	1.25%	-	-	-	-	-	-
		Translation Into Native Language	0	0%	-	-	-	-	-	-
		Other	20	3.12%	47.70	26.14	0	0	0.93	6.98
	4	None	540	87.10%	60.75	25.64	2	12	0.93	6.81
		Assistive Technology	17	2.74%	44.06	24.07	0	1	0.91	7.37
		Braille	0	0%	-	-	-	-	-	-
		Eye Gaze	14	2.26%	-	-	-	-	-	-
		Modified Picture Symbols	15	2.42%	-	-	-	-	-	-
		Objects	13	2.10%	-	-	-	-	-	-
		Sign Language	15	2.42%	-	-	-	-	-	-
Translation Into Native Language	0	0%	-	-	-	-	-	-		
Other	13	2.10%	-	-	-	-	-	-		

**Table 22**  
**Reading Descriptive Statistics by Expanded Accommodation (continued)**

Content	Grade	Expanded Accommodation	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RD	5	None	586	88.12%	65.29	25.95	5	10	0.93	6.75
		Assistive Technology	20	3.01%	43.70	23.19	0	1	0.90	7.29
		Braille	1	0.15%	-	-	-	-	-	-
		Eye Gaze	16	2.41%	22.50	22.02	0	4	0.94	5.37
		Modified Picture Symbols	12	1.81%	-	-	-	-	-	-
		Objects	12	1.81%	-	-	-	-	-	-
		Sign Language	9	1.35%	-	-	-	-	-	-
		Translation Into Native Language	0	0%	-	-	-	-	-	-
	Other	11	1.65%	-	-	-	-	-	-	
	6	None	463	87.19%	67.39	25.39	7	6	0.93	6.51
		Assistive Technology	10	1.88%	-	-	-	-	-	-
		Braille	1	0.19%	-	-	-	-	-	-
		Eye Gaze	12	2.26%	-	-	-	-	-	-
		Modified Picture Symbols	14	2.64%	-	-	-	-	-	-
		Objects	7	1.32%	-	-	-	-	-	-
		Sign Language	4	0.75%	-	-	-	-	-	-
Translation Into Native Language		0	0%	-	-	-	-	-	-	
Other	13	2.45%	-	-	-	-	-	-		

**Table 22**  
**Reading Descriptive Statistics by Expanded Accommodation (continued)**

Content	Grade	Expanded Accommodation	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RD	7	None	485	85.84%	59.58	22.48	0	12	0.90	7.05
		Assistive Technology	13	2.30%	-	-	-	-	-	-
		Braille	3	0.53%	-	-	-	-	-	-
		Eye Gaze	10	1.77%	-	-	-	-	-	-
		Modified Picture Symbols	15	2.66%	-	-	-	-	-	-
		Objects	8	1.42%	-	-	-	-	-	-
		Sign Language	6	1.06%	-	-	-	-	-	-
		Translation Into Native Language	0	0%	-	-	-	-	-	-
		Other	19	3.36%	47.84	22.82	0	1	0.90	7.30
	8	None	438	87.25%	55.63	25.27	0	14	0.92	7.18
		Assistive Technology	15	2.99%	-	-	-	-	-	-
		Braille	0	0%	-	-	-	-	-	-
		Eye Gaze	9	1.79%	-	-	-	-	-	-
		Modified Picture Symbols	13	2.59%	-	-	-	-	-	-
		Objects	6	1.20%	-	-	-	-	-	-
Sign Language	8	1.59%	-	-	-	-	-	-		
Translation Into Native Language	0	0%	-	-	-	-	-	-		
Other	9	1.79%	-	-	-	-	-	-		

**Table 22**  
**Reading Descriptive Statistics by Expanded Accommodation (continued)**

Content	Grade	Expanded Accommodation	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
RD	9	None	468	88.64%	55.72	26.00	2	12	0.93	6.96
		Assistive Technology	15	2.84%	-	-	-	-	-	-
		Braille	2	0.38%	-	-	-	-	-	-
		Eye Gaze	15	2.84%	-	-	-	-	-	-
		Modified Picture Symbols	11	2.08%	-	-	-	-	-	-
		Objects	3	0.57%	-	-	-	-	-	-
		Sign Language	4	0.76%	-	-	-	-	-	-
		Translation Into Native Language	0	0%	-	-	-	-	-	-
	Other	13	2.46%	-	-	-	-	-	-	
	10	None	418	85.13%	51.32	23.52	0	7	0.90	7.38
		Assistive Technology	13	2.65%	-	-	-	-	-	-
		Braille	1	0.20%	-	-	-	-	-	-
		Eye Gaze	20	4.07%	15.75	18.01	0	6	0.91	5.29
		Modified Picture Symbols	20	4.07%	39.05	20.31	0	1	0.86	7.49
		Objects	6	1.22%	-	-	-	-	-	-
		Sign Language	4	0.82%	-	-	-	-	-	-
Translation Into Native Language		0	0%	-	-	-	-	-	-	
Other	12	2.44%	-	-	-	-	-	-		



**Table 23**  
**Writing Descriptive Statistics by Expanded Accommodation**

Content	Grade	Expanded Accommodation	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
WR	3	None	530	81.79%	59.72	26.94	1	14	0.92	7.48
		Assistive Technology	31	4.78%	46.61	30.67	0	1	0.94	7.46
		Braille	4	0.62%	-	-	-	-	-	-
		Eye Gaze	18	2.78%	12.50	13.53	0	2	0.88	4.76
		Modified Picture Symbols	25	3.86%	24.80	24.28	0	3	0.93	6.46
		Objects	16	2.47%	24.75	23.62	0	1	0.93	6.04
		Sign Language	10	1.54%	-	-	-	-	-	-
		Translation Into Native Language	1	0.15%	-	-	-	-	-	-
	Other	24	3.70%	39.83	31.77	0	0	0.95	7.39	
	4	None	524	85.34%	60.11	28.07	1	13	0.93	7.61
		Assistive Technology	23	3.75%	29.96	20.95	0	0	0.86	7.72
		Braille	0	0%	-	-	-	-	-	-
		Eye Gaze	14	2.28%	-	-	-	-	-	-
		Modified Picture Symbols	17	2.77%	33.29	25.07	0	1	0.92	7.29
		Objects	14	2.28%	-	-	-	-	-	-
		Sign Language	14	2.28%	-	-	-	-	-	-
Translation Into Native Language		0	0%	-	-	-	-	-	-	
Other	12	1.95%	-	-	-	-	-	-		

**Table 23**  
**Writing Descriptive Statistics by Expanded Accommodation (continued)**

Content	Grade	Expanded Accommodation	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
WR	5	None	568	86.06%	66.33	25.96	0	10	0.92	7.22
		Assistive Technology	36	5.46%	49.50	27.81	0	0	0.92	7.91
		Braille	1	0.15%	-	-	-	-	-	-
		Eye Gaze	16	2.42%	11.44	14.60	0	4	0.91	4.33
		Modified Picture Symbols	10	1.52%	-	-	-	-	-	-
		Objects	9	1.36%	-	-	-	-	-	-
		Sign Language	10	1.52%	-	-	-	-	-	-
		Translation Into Native Language	0	0%	-	-	-	-	-	-
	Other	13	1.97%	-	-	-	-	-	-	
	6	None	459	86.12%	66.69	27.83	3	8	0.93	7.30
		Assistive Technology	16	3.00%	45.13	24.18	0	0	0.88	8.23
		Braille	1	0.19%	-	-	-	-	-	-
		Eye Gaze	11	2.06%	-	-	-	-	-	-
		Modified Picture Symbols	12	2.25%	-	-	-	-	-	-
		Objects	5	0.94%	-	-	-	-	-	-
		Sign Language	4	0.75%	-	-	-	-	-	-
Translation Into Native Language		0	0%	-	-	-	-	-	-	
Other	16	3.00%	40.69	30.26	0	2	0.93	7.83		

**Table 23**  
**Writing Descriptive Statistics by Expanded Accommodation (continued)**

Content	Grade	Expanded Accommodation	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
WR	7	None	485	86.30%	67.06	27.96	3	11	0.93	7.44
		Assistive Technology	12	2.14%	-	-	-	-	-	-
		Braille	2	0.36%	-	-	-	-	-	-
		Eye Gaze	10	1.78%	-	-	-	-	-	-
		Modified Picture Symbols	10	1.78%	-	-	-	-	-	-
		Objects	6	1.07%	-	-	-	-	-	-
		Sign Language	8	1.42%	-	-	-	-	-	-
		Translation Into Native Language	0	0%	-	-	-	-	-	-
	Other	21	3.74%	48.52	30.08	0	1	0.93	7.97	
	8	None	442	88.58%	62.48	28.67	0	19	0.93	7.47
		Assistive Technology	15	3.01%	-	-	-	-	-	-
		Braille	0	0%	-	-	-	-	-	-
		Eye Gaze	9	1.80%	-	-	-	-	-	-
		Modified Picture Symbols	10	2.00%	-	-	-	-	-	-
		Objects	5	1.00%	-	-	-	-	-	-
		Sign Language	10	2.00%	-	-	-	-	-	-
Translation Into Native Language		0	0%	-	-	-	-	-	-	
Other	10	2.00%	-	-	-	-	-	-		

**Table 23**  
**Writing Descriptive Statistics by Expanded Accommodation (continued)**

Content	Grade	Expanded Accommodation	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
WR	9	None	468	88.81%	60.52	27.60	0	16	0.93	7.56
		Assistive Technology	16	3.04%	33.19	20.47	0	3	0.87	7.40
		Braille	2	0.38%	-	-	-	-	-	-
		Eye Gaze	13	2.47%	-	-	-	-	-	-
		Modified Picture Symbols	5	0.95%	-	-	-	-	-	-
		Objects	3	0.57%	-	-	-	-	-	-
		Sign Language	4	0.76%	-	-	-	-	-	-
		Translation Into Native Language	1	0.19%	-	-	-	-	-	-
	Other	12	2.28%	-	-	-	-	-	-	
	10	None	414	84.49%	61.65	27.13	0	8	0.92	7.74
		Assistive Technology	16	3.27%	43.56	25.11	0	1	0.88	8.83
		Braille	1	0.20%	-	-	-	-	-	-
		Eye Gaze	20	4.08%	11.95	15.06	0	8	0.90	4.74
		Modified Picture Symbols	18	3.67%	36.06	18.57	0	1	0.78	8.68
		Objects	5	1.02%	-	-	-	-	-	-
		Sign Language	4	0.82%	-	-	-	-	-	-
Translation Into Native Language		1	0.20%	-	-	-	-	-	-	
Other	12	2.45%	-	-	-	-	-	-		

**Table 24**  
**Mathematics Descriptive Statistics by Expanded Accommodation**

Content	Grade	Expanded Accommodation	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	3	None	515	81.23%	84.52	31.52	2	9	0.94	7.91
		Assistive Technology	19	3.00%	43.89	32.61	0	0	0.94	8.01
		Braille	3	0.47%	-	-	-	-	-	-
		Eye Gaze	17	2.68%	23.88	30.68	0	2	0.96	6.20
		Modified Picture Symbols	15	2.37%	-	-	-	-	-	-
		Objects	31	4.89%	42.97	33.05	0	1	0.95	7.14
		Sign Language	9	1.42%	-	-	-	-	-	-
		Translation Into Native Language	2	0.32%	-	-	-	-	-	-
	Other	25	3.94%	50.72	35.54	0	0	0.95	8.19	
	4	None	521	85.69%	82.67	34.85	0	12	0.94	8.19
		Assistive Technology	21	3.45%	48.62	29.94	0	0	0.91	8.87
		Braille	0	0%	-	-	-	-	-	-
		Eye Gaze	14	2.30%	-	-	-	-	-	-
		Modified Picture Symbols	8	1.32%	-	-	-	-	-	-
		Objects	25	4.11%	50.72	37.66	0	3	0.96	7.91
		Sign Language	15	2.47%	-	-	-	-	-	-
Translation Into Native Language		0	0%	-	-	-	-	-	-	
Other	12	1.97%	-	-	-	-	-	-		

**Table 24**  
**Mathematics Descriptive Statistics by Expanded Accommodation (continued)**

Content	Grade	Expanded Accommodation	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	5	None	555	86.18%	106.51	42.94	1	10	0.95	9.95
		Assistive Technology	22	3.42%	55.09	39.33	0	1	0.94	9.64
		Braille	1	0.16%	-	-	-	-	-	-
		Eye Gaze	17	2.64%	24.00	35.49	0	4	0.97	5.93
		Modified Picture Symbols	10	1.55%	-	-	-	-	-	-
		Objects	30	4.66%	63.93	49.66	0	3	0.97	8.87
		Sign Language	8	1.24%	-	-	-	-	-	-
		Translation Into Native Language	0	0%	-	-	-	-	-	-
	Other	10	1.55%	-	-	-	-	-	-	
	6	None	453	85.31%	86.00	35.35	0	8	0.94	8.75
		Assistive Technology	16	3.01%	51.00	25.57	0	0	0.87	9.39
		Braille	1	0.19%	-	-	-	-	-	-
		Eye Gaze	11	2.07%	-	-	-	-	-	-
		Modified Picture Symbols	13	2.45%	-	-	-	-	-	-
		Objects	17	3.20%	54.12	43.31	0	2	0.96	8.11
		Sign Language	4	0.75%	-	-	-	-	-	-
Translation Into Native Language		0	0%	-	-	-	-	-	-	
Other	17	3.20%	61.24	38.81	0	1	0.95	8.58		

**Table 24**  
**Mathematics Descriptive Statistics by Expanded Accommodation (continued)**

Content	Grade	Expanded Accommodation	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	7	None	478	85.05%	78.76	32.87	1	8	0.93	8.66
		Assistive Technology	18	3.20%	58.89	26.56	0	0	0.88	9.22
		Braille	3	0.53%	-	-	-	-	-	-
		Eye Gaze	10	1.78%	-	-	-	-	-	-
		Modified Picture Symbols	12	2.14%	-	-	-	-	-	-
		Objects	19	3.38%	60.84	33.56	0	0	0.93	8.61
		Sign Language	6	1.07%	-	-	-	-	-	-
		Translation Into Native Language	0	0%	-	-	-	-	-	-
	Other	20	3.56%	55.15	36.28	0	1	0.95	8.25	
	8	None	440	86.96%	85.45	37.65	0	15	0.94	9.08
		Assistive Technology	16	3.16%	65.94	35.93	0	0	0.93	9.80
		Braille	0	0%	-	-	-	-	-	-
		Eye Gaze	9	1.78%	-	-	-	-	-	-
		Modified Picture Symbols	9	1.78%	-	-	-	-	-	-
		Objects	10	1.98%	-	-	-	-	-	-
		Sign Language	10	1.98%	-	-	-	-	-	-
Translation Into Native Language		0	0%	-	-	-	-	-	-	
Other	9	1.78%	-	-	-	-	-	-		

**Table 24**  
**Mathematics Descriptive Statistics by Expanded Accommodation (continued)**

Content	Grade	Expanded Accommodation	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
MA	9	None	462	86.84%	72.52	34.95	0	12	0.93	9.40
		Assistive Technology	16	3.01%	40.63	23.84	0	2	0.88	8.41
		Braille	2	0.38%	-	-	-	-	-	-
		Eye Gaze	15	2.82%	-	-	-	-	-	-
		Modified Picture Symbols	4	0.75%	-	-	-	-	-	-
		Objects	13	2.44%	-	-	-	-	-	-
		Sign Language	4	0.75%	-	-	-	-	-	-
		Translation Into Native Language	1	0.19%	-	-	-	-	-	-
		Other	11	2.07%	-	-	-	-	-	-
	10	None	417	84.24%	75.08	32.73	0	6	0.91	9.84
		Assistive Technology	19	3.84%	54.84	36.49	0	1	0.93	9.43
		Braille	0	0%	-	-	-	-	-	-
		Eye Gaze	18	3.64%	19.83	26.60	0	9	0.96	5.60
		Modified Picture Symbols	10	2.02%	-	-	-	-	-	-
		Objects	17	3.43%	52.76	43.52	0	2	0.96	8.25
		Sign Language	5	1.01%	-	-	-	-	-	-
		Translation Into Native Language	1	0.20%	-	-	-	-	-	-
Other	13	2.63%	-	-	-	-	-	-		



**Table 25**  
**Science Descriptive Statistics by Expanded Accommodation**

Content	Grade	Expanded Accommodation	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
SC	5	None	578	88.65%	68.03	23.47	13	9	0.93	6.00
		Assistive Technology	15	2.30%	-	-	-	-	-	-
		Braille	0	0%	-	-	-	-	-	-
		Eye Gaze	16	2.45%	25.44	26.92	0	4	0.96	5.41
		Modified Picture Symbols	10	1.53%	-	-	-	-	-	-
		Objects	12	1.84%	-	-	-	-	-	-
		Sign Language	8	1.23%	-	-	-	-	-	-
		Translation Into Native Language	1	0.15%	-	-	-	-	-	-
		Other	9	1.38%	-	-	-	-	-	-
	8	None	445	88.29%	72.21	25.42	12	14	0.95	5.86
		Assistive Technology	11	2.18%	-	-	-	-	-	-
		Braille	0	0%	-	-	-	-	-	-
		Eye Gaze	9	1.79%	-	-	-	-	-	-
		Modified Picture Symbols	8	1.59%	-	-	-	-	-	-
		Objects	8	1.59%	-	-	-	-	-	-
		Sign Language	9	1.79%	-	-	-	-	-	-
Translation Into Native Language	0	0%	-	-	-	-	-	-		
Other	9	1.79%	-	-	-	-	-	-		

**Table 25**  
**Science Descriptive Statistics by Expanded Accommodation (continued)**

Content	Grade	Expanded Accommodation	Sample Size	%	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
					Mean	SD				
SC	10	None	414	84.49%	61.60	24.88	2	5	0.91	7.56
		Assistive Technology	13	2.65%	-	-	-	-	-	-
		Braille	0	0%	-	-	-	-	-	-
		Eye Gaze	18	3.67%	20.39	23.32	0	7	0.94	5.49
		Modified Picture Symbols	13	2.65%	-	-	-	-	-	-
		Objects	13	2.65%	-	-	-	-	-	-
		Sign Language	3	0.61%	-	-	-	-	-	-
		Translation Into Native Language	1	0.20%	-	-	-	-	-	-
		Other	13	2.65%	-	-	-	-	-	-

**Table 26**  
**Scoring Rubric for Multiple-Choice Item Types**

Total Score	Content Score	Level of Independence
3	Correct	Level 4: INDEPENDENT - Performs task without assistance
2	Correct	Level 3: PARTIAL - Partial physical, verbal, or gestural prompt
1	Correct	Level 2: LIMITED - Full physical prompt
0	Incorrect or No Response	Further coded:
		4 – Independent and incorrect
		3 – Partial and incorrect
		2 – Limited and incorrect

**Table 27**  
**Scoring Rubric for Constructed-Response Item Types**

Total Score	Content Score	Level of Independence
6	Correct	Level 4: INDEPENDENT - Performs task without assistance
5	Partially Correct/Some Error	Level 4: INDEPENDENT - Performs task without assistance
4	Correct	Level 3: PARTIAL - Partial physical, verbal, or gestural prompt
3	Partially Correct/Some Error	Level 3: PARTIAL - Partial physical, verbal, or gestural prompt
2	Correct	Level 2: LIMITED - Full physical prompt
1	Partially Correct/Some Error	Level 2: LIMITED - Full physical prompt
0	Incorrect or No response	Further coded: 4 – Independent and incorrect 3 – Partial and incorrect 2 – Limited and incorrect

**Table 28**  
**Summary of Invalidations**

Content	Grade	Total % Invalid	Source of Invalid		Total % Valid
			15%	Bubble	
RD	3	5.04%	3.26%	1.78%	94.96%
	4	6.77%	4.21%	2.56%	93.23%
	5	4.59%	3.73%	0.86%	95.41%
	6	6.35%	4.41%	1.94%	93.65%
	7	7.38%	5.90%	1.48%	92.62%
	8	8.23%	5.85%	2.38%	91.77%
	9	5.38%	3.94%	1.43%	94.62%
	10	9.07%	7.22%	1.85%	90.93%
WR	3	4.00%	2.96%	1.04%	96.00%
	4	7.67%	4.81%	2.86%	92.33%
	5	5.31%	3.87%	1.43%	94.69%
	6	6.00%	4.23%	1.76%	94.00%
	7	7.87%	5.74%	2.13%	92.13%
	8	8.78%	6.22%	2.56%	91.23%
	9	5.56%	4.30%	1.25%	94.44%
	10	9.26%	7.22%	2.04%	90.74%
MA	3	6.07%	4.00%	2.07%	93.93%
	4	8.57%	6.32%	2.26%	91.43%
	5	7.60%	6.03%	1.58%	92.40%
	6	6.35%	4.94%	1.41%	93.65%
	7	7.87%	5.90%	1.97%	92.13%
	8	7.50%	5.12%	2.38%	92.51%
	9	4.66%	3.23%	1.43%	95.34%
	10	8.33%	5.93%	2.41%	91.67%
SC	5	6.46%	4.59%	1.87%	93.54%
	8	7.86%	5.30%	2.56%	92.14%
	10	9.26%	6.67%	2.59%	90.74%

**Table 29**  
**Breakdown of Invalidations Due to Test Examiners Marking Bubbles on Answer Document**

		Invalidation Bubbles Available on Answer Document															
Content	Grade	Student Tested All Activities		Parental Refusal		Test Not Completed		Student Withdrew Before Completion		Misadministration		Taking CSAP Assessment		District Ed. Services		Missing	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
RD	3	653	96.74%	6	0.88%	7	1.03%	1	0.14%	0	0%	7	1.03%	1	0.14%	0	0%
	4	636	95.63%	9	1.35%	7	1.05%	1	0.15%	0	0%	7	1.05%	4	0.60%	1	0.15%
	5	668	95.83%	9	1.29%	6	0.86%	0	0%	0	0%	8	1.14%	3	0.43%	3	0.43%
	6	541	95.41%	14	2.46%	3	0.52%	3	0.52%	0	0%	3	0.52%	2	0.35%	1	0.17%
	7	573	93.93%	13	2.13%	6	0.98%	0	0%	1	0.16%	12	1.96%	4	0.65%	1	0.16%
	8	511	93.41%	11	2.01%	6	1.09%	1	0.18%	0	0%	11	2.01%	3	0.54%	4	0.73%
	9	535	95.87%	7	1.25%	5	0.89%	1	0.17%	0	0%	8	1.43%	1	0.17%	1	0.17%
	10	500	92.59%	11	2.03%	7	1.29%	4	0.74%	0	0%	13	2.40%	4	0.74%	1	0.18%
WR	3	655	97.03%	6	0.88%	8	1.18%	1	0.14%	0	0%	4	0.59%	1	0.14%	0	0%
	4	632	95.03%	9	1.35%	7	1.05%	2	0.30%	0	0%	10	1.50%	4	0.60%	1	0.15%
	5	667	95.69%	9	1.29%	6	0.86%	0	0%	0	0%	9	1.29%	3	0.43%	3	0.43%
	6	542	95.59%	14	2.46%	3	0.52%	3	0.52%	0	0%	2	0.35%	2	0.35%	1	0.17%
	7	574	94.09%	13	2.13%	5	0.81%	0	0%	1	0.16%	12	1.96%	4	0.65%	1	0.16%
	8	509	93.05%	11	2.01%	6	1.09%	1	0.18%	0	0%	13	2.37%	3	0.54%	4	0.73%
	9	533	95.51%	7	1.25%	5	0.89%	1	0.17%	0	0%	9	1.61%	2	0.35%	1	0.17%
	10	500	92.59%	11	2.03%	8	1.48%	4	0.74%	0	0%	12	2.22%	4	0.74%	1	0.18%

**Table 29**  
**Breakdown of Invalidations Due to Test Examiners Marking Bubbles on Answer Document (continued)**

		Invalidation Bubbles Available on Answer Document															
Content	Grade	Student Tested All Activities		Parental Refusal		Test Not Completed		Student Withdrew Before Completion		Misadministration		Taking CSAP Assessment		District Ed. Services		Missing	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
MA	3	648	96.00%	5	0.74%	6	0.88%	1	0.14%	0	0%	14	2.07%	1	0.14%	0	0%
	4	622	93.53%	9	1.35%	7	1.05%	1	0.15%	0	0%	21	3.15%	4	0.60%	1	0.15%
	5	652	93.54%	9	1.29%	6	0.86%	0	0%	0	0%	24	3.44%	3	0.43%	3	0.43%
	6	538	94.88%	14	2.46%	5	0.88%	2	0.35%	0	0%	5	0.88%	2	0.35%	1	0.17%
	7	573	93.93%	13	2.13%	5	0.81%	0	0%	1	0.16%	13	2.13%	4	0.65%	1	0.16%
	8	515	94.14%	11	2.01%	7	1.27%	0	0%	0	0%	7	1.27%	3	0.54%	4	0.73%
	9	539	96.59%	7	1.25%	4	0.71%	2	0.35%	0	0%	4	0.71%	1	0.17%	1	0.17%
	10	507	93.88%	11	2.03%	9	1.66%	3	0.55%	0	0%	5	0.92%	4	0.74%	1	0.18%
SC	5	662	94.97%	9	1.29%	6	0.86%	0	0%	0	0%	14	2.00%	3	0.43%	3	0.43%
	8	514	93.96%	11	2.01%	8	1.46%	0	0%	0	0%	7	1.27%	3	0.54%	4	0.73%
	10	503	93.14%	11	2.03%	8	1.48%	4	0.74%	0	0%	9	1.66%	4	0.74%	1	0.18%

**Table 30**  
**Writing Frequency Distributions of CR (6-Point) Items**

Content	Grade	Item Number	% of Students Obtaining Score Level						
			0	1	2	3	4	5	6
WR	3	5	18.46%	0.62%	0.92%	0.92%	2.62%	6.00%	70.46%
		10	41.54%	1.08%	1.69%	3.69%	4.15%	13.85%	34.00%
		15	23.69%	0.31%	0.62%	0.62%	2.46%	7.54%	64.77%
		20	44.00%	2.31%	0.77%	5.23%	0.92%	35.39%	11.39%
		24	46.15%	1.38%	1.08%	3.69%	1.38%	35.54%	10.77%
		29	28.15%	0.77%	0.62%	0.62%	2.15%	18.46%	49.23%
	4	5	18.31%	0.32%	0.65%	0.97%	2.11%	4.38%	73.26%
		10	41.98%	0.65%	0.81%	1.78%	3.40%	12.64%	38.74%
		15	21.88%	0.65%	1.13%	0.97%	3.24%	7.94%	64.18%
		20	40.68%	1.62%	0.32%	5.35%	0.49%	37.60%	13.94%
		25	42.14%	1.62%	0.32%	3.08%	1.30%	36.31%	15.24%
		30	24.47%	0.32%	0.32%	1.78%	2.27%	11.02%	59.81%
	5	5	14.24%	0.15%	1.06%	0.30%	1.97%	3.33%	78.94%
		10	31.82%	1.21%	1.52%	1.36%	3.48%	11.36%	49.24%
		15	18.33%	0.15%	0.76%	0.30%	1.21%	4.09%	75.15%
		20	29.70%	1.67%	0.61%	4.39%	1.67%	38.03%	23.94%
		24	29.85%	1.97%	0.61%	3.18%	1.21%	38.18%	25.00%
		29	21.21%	0.15%	0.30%	0.76%	1.06%	10.91%	65.61%
	6	5	16.29%	0.19%	0.19%	0.75%	1.87%	2.62%	78.09%
		10	32.40%	1.12%	0.75%	1.50%	2.62%	5.99%	55.62%
		15	21.54%	0.37%	0.94%	0.19%	2.06%	7.12%	67.79%
		20	34.27%	1.50%	0.19%	2.25%	1.12%	35.77%	24.91%
		24	33.15%	1.69%	0.19%	4.49%	0.75%	32.77%	26.97%
		29	22.66%	0.75%	0.19%	0.37%	1.31%	12.36%	62.36%



**Table 30**  
**Writing Frequency Distributions of CR (6-Point) Items (continued)**

Content	Grade	Item Number	% of Students Obtaining Score Level						
			0	1	2	3	4	5	6
WR	7	5	13.42%	0.18%	0.72%	0.72%	1.25%	3.40%	80.32%
		10	29.70%	0.36%	0.89%	1.43%	2.86%	10.73%	54.03%
		15	17.71%	0%	0.54%	0.36%	1.43%	3.76%	76.21%
		20	31.49%	1.61%	0.54%	3.22%	1.61%	32.92%	28.62%
		25	30.41%	1.97%	0.18%	3.04%	0.89%	39.00%	24.51%
		30	24.69%	0%	1.25%	0.36%	3.22%	6.44%	64.04%
	8	5	17.80%	0%	0.20%	0.20%	1.80%	1.80%	78.20%
		10	37.00%	0.80%	0.60%	2.20%	2.80%	8.80%	47.80%
		15	19.40%	0%	0.20%	0.20%	1.80%	4.80%	73.60%
		20	31.80%	1.60%	0.40%	2.60%	1.00%	32.40%	30.20%
		25	32.60%	1.00%	0.20%	3.20%	2.00%	32.80%	28.20%
		30	26.20%	0.40%	1.40%	1.60%	2.80%	11.00%	56.60%
	9	5	16.42%	0.19%	0.57%	1.70%	1.51%	5.28%	74.34%
		10	32.83%	0.75%	1.13%	2.08%	2.64%	7.17%	53.40%
		15	18.87%	0%	0.94%	0.19%	0.38%	4.53%	75.09%
		20	33.21%	1.32%	0.19%	4.34%	0.75%	30.94%	29.25%
		24	33.40%	1.89%	0.38%	3.96%	2.26%	30.19%	27.93%
		29	28.87%	0.94%	2.26%	0.75%	3.77%	7.74%	55.66%
	10	5	18.46%	0.20%	0.20%	1.42%	1.42%	3.04%	75.25%
		10	32.66%	0.20%	2.43%	0.41%	1.62%	8.32%	54.36%
		15	22.72%	0.81%	1.62%	0%	3.04%	3.65%	68.15%
		20	27.18%	1.83%	0.61%	2.23%	1.01%	31.03%	36.11%
		25	30.02%	2.84%	0%	2.84%	1.42%	37.12%	25.76%
		30	27.99%	0.20%	2.23%	1.22%	4.26%	9.53%	54.56%

**Table 31**  
**Mathematics Frequency Distributions of CR (6-Point) Items**

Content	Grade	Item Number	% of Students Obtaining Score Level						
			0	1	2	3	4	5	6
	3	2	17.77%	1.57%	3.62%	1.42%	3.15%	5.50%	66.98%
		4	32.39%	0.94%	2.36%	5.03%	6.13%	16.98%	36.16%
		5	19.81%	1.42%	0.94%	1.42%	2.83%	7.55%	66.04%
		9	24.84%	1.42%	1.26%	2.67%	2.99%	11.16%	55.66%
		12	38.99%	1.10%	3.30%	6.60%	6.13%	29.87%	13.99%
		13	28.62%	1.57%	2.99%	3.14%	8.02%	4.09%	51.57%
		17	32.23%	1.10%	2.83%	1.73%	6.13%	6.29%	49.69%
		23	11.95%	0.47%	0.79%	2.20%	6.29%	3.93%	74.37%
		24	36.64%	2.04%	1.26%	5.03%	1.89%	34.59%	18.55%
		26	28.93%	2.99%	3.46%	8.96%	2.67%	41.82%	11.16%
MA	4	2	17.65%	0.65%	0.98%	2.12%	3.60%	10.78%	64.22%
		3	17.48%	0.65%	0.98%	2.78%	1.80%	6.05%	70.26%
		4	28.76%	0.49%	2.12%	2.94%	6.70%	16.67%	42.32%
		9	31.86%	1.31%	1.14%	4.58%	2.29%	16.18%	42.65%
		12	39.22%	2.45%	3.59%	5.72%	5.88%	14.22%	28.92%
		16	40.36%	0.65%	3.43%	1.31%	8.01%	3.27%	42.97%
		18	10.62%	0.33%	1.47%	1.63%	5.56%	3.11%	77.29%
		19	27.12%	1.47%	2.78%	2.12%	7.84%	5.39%	53.27%
		20	37.75%	3.43%	3.92%	4.09%	7.35%	12.26%	31.21%
		26	36.11%	0.98%	1.47%	7.84%	2.78%	26.31%	24.51%
		28	56.54%	0.65%	2.29%	1.47%	3.11%	14.54%	21.41%

**Table 31**  
**Mathematics Frequency Distributions of CR (6-Point) Items (continued)**

Content	Grade	Item Number	% of Students Obtaining Score Level						
			0	1	2	3	4	5	6
MA	5	3	26.05%	0.62%	2.02%	4.65%	4.19%	21.86%	40.62%
		4	19.38%	1.55%	2.33%	1.71%	2.02%	16.74%	56.28%
		5	31.94%	0.47%	3.41%	3.88%	9.30%	16.59%	34.42%
		6	51.94%	1.24%	1.71%	4.34%	3.41%	14.11%	23.26%
		9	17.21%	0.78%	0.62%	1.24%	2.33%	7.60%	70.23%
		12	26.05%	0.47%	1.40%	1.86%	6.05%	10.08%	54.11%
		13	31.63%	1.09%	2.02%	3.41%	3.10%	14.42%	44.34%
		17	48.84%	1.55%	1.86%	5.74%	2.02%	27.29%	12.71%
		18	60.62%	0.47%	2.17%	2.17%	1.24%	8.06%	25.27%
		22	10.54%	1.09%	0.93%	1.71%	1.86%	4.81%	79.07%
	23	17.52%	1.40%	2.17%	3.41%	4.50%	8.53%	62.48%	
	25	30.39%	2.33%	3.41%	4.03%	10.23%	8.06%	41.55%	
	26	33.64%	1.71%	2.33%	6.98%	5.58%	25.58%	24.19%	
	27	41.55%	2.17%	4.19%	5.74%	5.43%	16.28%	24.65%	
	28	61.71%	0.47%	2.64%	2.02%	5.12%	10.08%	17.98%	
	29	35.04%	3.26%	4.19%	3.88%	7.44%	11.63%	34.57%	
	31	16.28%	0.31%	2.02%	1.09%	3.88%	4.50%	71.94%	
	6	1	25.38%	0.94%	3.01%	4.32%	4.32%	24.06%	37.97%
		2	18.42%	1.69%	2.07%	4.14%	1.88%	15.04%	56.77%
		3	14.85%	0.94%	1.13%	1.69%	2.07%	11.09%	68.23%
4		30.08%	0.75%	3.01%	3.01%	8.84%	11.84%	42.48%	
6		22.93%	1.50%	1.69%	2.07%	3.01%	11.47%	57.33%	
12		27.82%	2.07%	1.88%	5.64%	3.57%	36.28%	22.74%	
15		30.83%	1.50%	2.63%	2.26%	9.96%	7.90%	44.93%	
19		17.86%	2.82%	2.07%	4.51%	7.71%	7.33%	57.71%	
20		45.30%	2.26%	2.82%	2.44%	8.27%	5.45%	33.46%	
29		27.07%	1.32%	1.32%	7.33%	6.20%	19.36%	37.41%	
30	59.40%	1.50%	0.75%	3.01%	2.82%	15.41%	17.11%		
31	34.77%	2.07%	2.26%	2.82%	6.77%	7.52%	43.80%		

**Table 31**  
**Mathematics Frequency Distributions of CR (6-Point) Items (continued)**

Content	Grade	Item Number	% of Students Obtaining Score Level						
			0	1	2	3	4	5	6
MA	7	1	24.11%	0.89%	1.61%	6.79%	2.14%	40.00%	24.46%
		2	14.82%	1.96%	1.43%	3.39%	1.25%	18.75%	58.39%
		3	14.64%	0.89%	0.89%	1.25%	1.79%	10.00%	70.54%
		4	27.50%	0.71%	3.39%	2.68%	7.50%	10.71%	47.50%
		6	22.14%	0.71%	2.32%	2.50%	3.75%	12.68%	55.89%
		16	37.32%	1.43%	5.18%	4.11%	5.36%	7.14%	39.46%
		17	11.79%	1.61%	2.32%	3.21%	8.04%	6.07%	66.96%
		20	36.96%	0.71%	2.86%	3.21%	9.64%	16.25%	30.36%
		26	28.57%	0.71%	1.61%	3.93%	3.57%	30.89%	30.71%
	27	23.39%	0.89%	2.50%	5.18%	5.18%	21.96%	40.89%	
	29	50.54%	0.54%	2.68%	2.32%	5.54%	6.79%	31.61%	
	8	1	23.73%	0.78%	1.76%	6.27%	2.16%	40.20%	25.10%
		2	25.49%	0.59%	0.78%	2.94%	2.16%	15.49%	52.55%
		3	29.02%	0.39%	0.78%	1.76%	8.63%	12.16%	47.26%
		4	47.06%	0.20%	2.16%	0.78%	7.84%	5.29%	36.67%
		6	19.80%	1.18%	1.18%	2.75%	1.37%	28.04%	45.69%
		7	30.39%	0.39%	3.53%	2.55%	8.43%	10.78%	43.92%
		18	33.92%	0.78%	2.75%	3.14%	6.28%	7.84%	45.29%
		21	18.63%	1.37%	1.37%	4.51%	6.47%	6.47%	61.18%
29		30.59%	0.39%	1.57%	3.53%	2.55%	35.29%	26.08%	
30		27.65%	0.98%	3.14%	3.73%	4.12%	31.18%	29.22%	
		31	45.88%	0.98%	2.35%	2.55%	5.88%	12.94%	29.41%

**Table 31**  
**Mathematics Frequency Distributions of CR (6-Point) Items (continued)**

Content	Grade	Item Number	% of Students Obtaining Score Level						
			0	1	2	3	4	5	6
MA	9	1	26.31%	0.93%	1.12%	3.92%	3.92%	22.58%	41.23%
		2	20.34%	0.93%	1.49%	3.17%	2.24%	22.39%	49.44%
		3	33.77%	0.75%	2.80%	2.24%	7.84%	9.70%	42.91%
		5	18.10%	1.68%	1.12%	3.54%	1.68%	31.16%	42.72%
		6	48.13%	2.24%	3.36%	5.41%	8.58%	8.58%	23.69%
		13	36.01%	1.49%	2.61%	6.16%	5.22%	15.49%	33.02%
		15	37.87%	2.43%	3.92%	3.73%	4.48%	6.34%	41.23%
		25	38.99%	1.49%	1.68%	2.05%	1.68%	18.47%	35.63%
		28	33.96%	1.31%	0.93%	3.73%	2.99%	24.25%	32.84%
	29	50.93%	1.31%	1.49%	3.73%	1.49%	12.13%	28.92%	
	10	1	26.05%	1.00%	2.00%	5.01%	4.01%	22.04%	39.88%
		2	21.84%	1.80%	1.00%	1.40%	2.00%	23.85%	48.10%
		3	37.28%	0%	3.01%	2.20%	7.82%	9.82%	39.88%
		4	40.68%	1.80%	6.21%	2.00%	7.42%	10.22%	31.66%
		6	21.44%	1.00%	2.20%	3.21%	2.41%	22.24%	47.50%
		15	24.45%	2.61%	1.00%	3.01%	7.01%	9.22%	52.71%
		19	47.70%	1.60%	2.20%	5.01%	4.81%	12.83%	25.85%
		24	15.63%	2.20%	1.20%	1.60%	4.81%	4.21%	70.34%
		28	37.07%	0.80%	1.80%	4.01%	3.21%	27.26%	25.85%
29		37.28%	0.80%	1.40%	6.01%	0.60%	36.87%	17.03%	
	30	53.31%	1.40%	1.00%	4.01%	2.20%	23.85%	14.23%	
	36	53.51%	2.20%	3.61%	2.61%	7.62%	13.63%	16.83%	

**Table 32**  
**Science Frequency Distributions of CR (6-Point) Items**

Content	Grade	Item Number	% of Students Obtaining Score Level						
			0	1	2	3	4	5	6
SC	5	12	9.22%	0.46%	1.38%	2.92%	8.76%	8.76%	68.51%
		19	11.37%	1.23%	1.38%	3.23%	5.22%	15.67%	61.91%
	8	21	11.13%	1.79%	1.59%	4.97%	4.18%	13.32%	63.02%
		23	10.74%	0.99%	1.39%	3.58%	5.37%	11.13%	66.80%
		29	15.51%	1.19%	0.60%	4.37%	4.57%	21.87%	51.89%
	10	10	40.24%	0.20%	2.24%	0.61%	5.28%	2.03%	49.39%
		21	25.00%	0.61%	1.63%	1.42%	3.86%	23.58%	43.90%
		27	44.11%	0.20%	0.81%	0.61%	3.25%	3.66%	47.36%
		28	53.46%	0.20%	1.42%	1.02%	1.63%	4.07%	38.21%

**Table 33**  
**Reading Item Level Statistics With and Without Level of Independence**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
RD	3	1	3	0.70	0.64	1	0.66	0.67
		2	3	0.51	0.49	1	0.48	0.52
		3	3	0.35	0.41	1	0.31	0.44
		4	3	0.28	0.29	1	0.25	0.31
		5	3	0.29	0.28	1	0.25	0.32
		6	3	0.55	0.45	1	0.51	0.48
		7	3	0.63	0.54	1	0.57	0.56
		8	3	0.68	0.56	1	0.64	0.58
		9	3	0.41	0.30	1	0.39	0.33
		10	3	0.34	0.43	1	0.31	0.45
		11	3	0.65	0.50	1	0.61	0.55
		12	3	0.73	0.69	1	0.69	0.70
		13	3	0.84	0.67	1	0.82	0.69
		14	3	0.86	0.65	1	0.84	0.67
		15	3	0.75	0.71	1	0.72	0.72
		16	3	0.75	0.68	1	0.72	0.69
		17	3	0.78	0.69	1	0.76	0.70
		18	3	0.35	0.39	1	0.30	0.40
		19	3	0.76	0.66	1	0.74	0.67
		20	3	0.29	0.31	1	0.27	0.36
		21	3	0.69	0.68	1	0.66	0.69
		22	3	0.78	0.73	1	0.75	0.73
		23	3	0.62	0.66	1	0.57	0.67
		24	3	0.73	0.71	1	0.72	0.72
		25	3	0.45	0.61	1	0.41	0.59
		26	3	0.62	0.66	1	0.59	0.67
		27	3	0.52	0.60	1	0.50	0.61
		28	3	0.52	0.61	1	0.51	0.60
		29	3	0.57	0.59	1	0.55	0.60
		30	3	0.39	0.50	1	0.36	0.51
		31	3	0.57	0.58	1	0.55	0.58
		32	3	0.35	0.42	1	0.31	0.45
		33	3	0.36	0.51	1	0.33	0.52
		34	3	0.35	0.33	1	0.33	0.35
		35	3	0.50	0.62	1	0.48	0.63

**Table 33**  
**Reading Item Level Statistics With and Without Level of Independence**  
**(continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
		1	3	0.56	0.64	1	0.50	0.62
		2	3	0.33	0.43	1	0.30	0.44
		3	3	0.27	0.29	1	0.23	0.30
		4	3	0.52	0.56	1	0.48	0.56
		5	3	0.49	0.60	1	0.45	0.60
		6	3	0.60	0.70	1	0.56	0.68
		7	3	0.67	0.53	1	0.62	0.54
		8	3	0.60	0.61	1	0.57	0.62
		9	3	0.56	0.49	1	0.53	0.50
		10	3	0.41	0.52	1	0.38	0.52
		11	3	0.82	0.67	1	0.81	0.68
		12	3	0.86	0.62	1	0.83	0.62
		13	3	0.82	0.58	1	0.81	0.59
		14	3	0.72	0.72	1	0.69	0.72
		15	3	0.71	0.58	1	0.68	0.59
		16	3	0.79	0.69	1	0.77	0.69
		17	3	0.78	0.65	1	0.76	0.63
RD	4	18	3	0.82	0.66	1	0.80	0.66
		19	3	0.31	0.38	1	0.28	0.39
		20	3	0.39	0.39	1	0.36	0.40
		21	3	0.62	0.61	1	0.60	0.62
		22	3	0.35	0.34	1	0.32	0.35
		23	3	0.70	0.67	1	0.68	0.68
		24	3	0.68	0.67	1	0.66	0.67
		25	3	0.59	0.59	1	0.56	0.60
		26	3	0.56	0.60	1	0.52	0.60
		27	3	0.45	0.56	1	0.43	0.55
		28	3	0.35	0.46	1	0.32	0.47
		29	3	0.29	0.46	1	0.27	0.46
		30	3	0.46	0.43	1	0.43	0.45
		31	3	0.53	0.62	1	0.51	0.63
		32	3	0.43	0.46	1	0.39	0.48
		33	3	0.58	0.55	1	0.53	0.55
		34	3	0.48	0.61	1	0.46	0.61
		35	3	0.41	0.58	1	0.38	0.58



**Table 33**  
**Reading Item Level Statistics With and Without Level of Independence**  
**(continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
		1	3	0.71	0.65	1	0.68	0.66
		2	3	0.79	0.63	1	0.77	0.65
		3	3	0.35	0.45	1	0.32	0.45
		4	3	0.57	0.56	1	0.54	0.57
		5	3	0.44	0.50	1	0.41	0.50
		6	3	0.47	0.51	1	0.44	0.52
		7	3	0.43	0.37	1	0.40	0.38
		8	3	0.51	0.50	1	0.47	0.52
		9	3	0.53	0.61	1	0.51	0.61
		10	3	0.53	0.35	1	0.49	0.37
		11	3	0.79	0.70	1	0.76	0.70
		12	3	0.87	0.66	1	0.85	0.67
		13	3	0.85	0.65	1	0.83	0.66
		14	3	0.73	0.63	1	0.70	0.63
		15	3	0.74	0.64	1	0.71	0.62
		16	3	0.85	0.67	1	0.83	0.69
		17	3	0.46	0.43	1	0.42	0.45
RD	5	18	3	0.25	0.21	1	0.23	0.20
		19	3	0.55	0.62	1	0.54	0.60
		20	3	0.53	0.58	1	0.49	0.57
		21	3	0.76	0.73	1	0.74	0.72
		22	3	0.59	0.56	1	0.55	0.57
		23	3	0.62	0.65	1	0.59	0.66
		24	3	0.43	0.31	1	0.40	0.33
		25	3	0.71	0.67	1	0.68	0.69
		26	3	0.50	0.55	1	0.47	0.54
		27	3	0.46	0.59	1	0.44	0.59
		28	3	0.63	0.60	1	0.59	0.61
		29	3	0.65	0.70	1	0.62	0.70
		30	3	0.68	0.71	1	0.65	0.70
		31	3	0.71	0.68	1	0.69	0.69
		32	3	0.40	0.52	1	0.37	0.52
		33	3	0.57	0.69	1	0.54	0.69
		34	3	0.49	0.45	1	0.47	0.47
		35	3	0.71	0.73	1	0.68	0.74

**Table 33**  
**Reading Item Level Statistics With and Without Level of Independence**  
**(continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
		1	3	0.26	0.39	1	0.23	0.39
		2	3	0.78	0.61	1	0.74	0.64
		3	3	0.46	0.53	1	0.43	0.55
		4	3	0.73	0.61	1	0.71	0.64
		5	3	0.61	0.64	1	0.57	0.65
		6	3	0.35	0.51	1	0.31	0.51
		7	3	0.38	0.36	1	0.34	0.39
		8	3	0.21	0.24	1	0.20	0.27
		9	3	0.73	0.67	1	0.72	0.69
		10	3	0.38	0.49	1	0.35	0.50
		11	3	0.84	0.69	1	0.83	0.70
		12	3	0.81	0.71	1	0.79	0.71
		13	3	0.84	0.67	1	0.82	0.66
		14	3	0.69	0.62	1	0.66	0.60
		15	3	0.74	0.61	1	0.71	0.60
		16	3	0.78	0.73	1	0.76	0.72
		17	3	0.80	0.68	1	0.78	0.70
RD	6	18	3	0.63	0.70	1	0.60	0.71
		19	3	0.53	0.52	1	0.50	0.54
		20	3	0.66	0.69	1	0.63	0.68
		21	3	0.70	0.63	1	0.67	0.65
		22	3	0.76	0.59	1	0.74	0.59
		23	3	0.52	0.59	1	0.50	0.59
		24	3	0.58	0.58	1	0.55	0.59
		25	3	0.50	0.52	1	0.48	0.53
		26	3	0.51	0.61	1	0.48	0.62
		27	3	0.43	0.53	1	0.40	0.53
		28	3	0.60	0.63	1	0.57	0.64
		29	3	0.82	0.69	1	0.79	0.71
		30	3	0.69	0.69	1	0.67	0.72
		31	3	0.74	0.65	1	0.72	0.67
		32	3	0.52	0.57	1	0.48	0.58
		33	3	0.64	0.69	1	0.61	0.71
		34	3	0.44	0.42	1	0.42	0.44
		35	3	0.80	0.58	1	0.77	0.61

**Table 33**  
**Reading Item Level Statistics With and Without Level of Independence**  
**(continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
		1	3	0.66	0.59	1	0.64	0.61
		2	3	0.36	0.27	1	0.35	0.30
		3	3	0.44	0.39	1	0.41	0.40
		4	3	0.55	0.53	1	0.54	0.55
		5	3	0.34	0.33	1	0.29	0.33
		6	3	0.49	0.39	1	0.46	0.40
		7	3	0.42	0.44	1	0.40	0.45
		8	3	0.39	0.52	1	0.36	0.50
		9	3	0.26	0.38	1	0.23	0.40
		10	3	0.28	0.14	1	0.25	0.15
		11	3	0.26	0.23	1	0.24	0.23
		12	3	0.66	0.59	1	0.63	0.60
		13	3	0.87	0.62	1	0.85	0.63
		14	3	0.67	0.62	1	0.65	0.63
		15	3	0.86	0.60	1	0.83	0.61
		16	3	0.86	0.61	1	0.85	0.62
		17	3	0.81	0.68	1	0.79	0.68
RD	7	18	3	0.84	0.65	1	0.83	0.66
		19	3	0.59	0.54	1	0.57	0.55
		20	3	0.66	0.60	1	0.63	0.63
		21	3	0.85	0.63	1	0.83	0.64
		22	3	0.68	0.59	1	0.66	0.60
		23	3	0.51	0.44	1	0.49	0.45
		24	3	0.79	0.60	1	0.76	0.59
		25	3	0.44	0.59	1	0.43	0.59
		26	3	0.30	0.28	1	0.29	0.29
		27	3	0.44	0.46	1	0.41	0.46
		28	3	0.56	0.63	1	0.55	0.63
		29	3	0.36	0.45	1	0.34	0.45
		30	3	0.65	0.63	1	0.64	0.64
		31	3	0.46	0.26	1	0.44	0.28
		32	3	0.26	0.39	1	0.24	0.38
		33	3	0.62	0.32	1	0.59	0.34
		34	3	0.74	0.68	1	0.72	0.68
		35	3	0.50	0.50	1	0.48	0.49

**Table 33**  
**Reading Item Level Statistics With and Without Level of Independence**  
**(continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
		1	3	0.32	0.43	1	0.30	0.44
		2	3	0.46	0.61	1	0.44	0.61
		3	3	0.30	0.37	1	0.28	0.39
		4	3	0.31	0.41	1	0.29	0.43
		5	3	0.40	0.50	1	0.39	0.51
		6	3	0.36	0.37	1	0.35	0.37
		7	3	0.36	0.43	1	0.34	0.44
		8	3	0.45	0.56	1	0.44	0.56
		9	3	0.42	0.45	1	0.40	0.48
		10	3	0.39	0.50	1	0.36	0.49
		11	3	0.69	0.61	1	0.67	0.63
		12	3	0.83	0.64	1	0.82	0.66
		13	3	0.52	0.52	1	0.50	0.54
		14	3	0.81	0.63	1	0.79	0.65
		15	3	0.72	0.72	1	0.70	0.72
		16	3	0.69	0.67	1	0.66	0.69
		17	3	0.71	0.70	1	0.69	0.71
RD	8	18	3	0.74	0.65	1	0.72	0.65
		19	3	0.38	0.52	1	0.36	0.53
		20	3	0.71	0.62	1	0.69	0.62
		21	3	0.36	0.38	1	0.33	0.41
		22	3	0.48	0.56	1	0.45	0.56
		23	3	0.62	0.65	1	0.59	0.65
		24	3	0.59	0.62	1	0.57	0.63
		25	3	0.56	0.54	1	0.53	0.54
		26	3	0.49	0.53	1	0.47	0.53
		27	3	0.45	0.52	1	0.43	0.54
		28	3	0.49	0.53	1	0.48	0.52
		29	3	0.39	0.49	1	0.38	0.50
		30	3	0.50	0.50	1	0.47	0.49
		31	3	0.30	0.28	1	0.28	0.27
		32	3	0.42	0.53	1	0.40	0.53
		33	3	0.43	0.41	1	0.42	0.41
		34	3	0.55	0.61	1	0.53	0.60
		35	3	0.67	0.59	1	0.64	0.59

**Table 33**  
**Reading Item Level Statistics With and Without Level of Independence**  
**(continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
		1	3	0.38	0.42	1	0.36	0.43
		2	3	0.44	0.48	1	0.42	0.49
		3	3	0.46	0.60	1	0.46	0.61
		4	3	0.47	0.60	1	0.45	0.61
		5	3	0.41	0.53	1	0.40	0.53
		6	3	0.41	0.59	1	0.39	0.59
		7	3	0.47	0.50	1	0.45	0.53
		8	3	0.45	0.55	1	0.42	0.55
		9	3	0.33	0.47	1	0.30	0.49
		10	3	0.56	0.42	1	0.54	0.43
		11	3	0.68	0.63	1	0.65	0.64
		12	3	0.61	0.64	1	0.60	0.64
		13	3	0.82	0.58	1	0.80	0.58
		14	3	0.82	0.57	1	0.81	0.57
		15	3	0.67	0.64	1	0.65	0.64
		16	3	0.68	0.66	1	0.66	0.67
		17	3	0.74	0.64	1	0.72	0.64
RD	9	18	3	0.71	0.63	1	0.69	0.64
		19	3	0.75	0.62	1	0.72	0.62
		20	3	0.47	0.54	1	0.45	0.54
		21	3	0.35	0.49	1	0.32	0.48
		22	3	0.66	0.66	1	0.64	0.66
		23	3	0.64	0.61	1	0.61	0.62
		24	3	0.44	0.55	1	0.41	0.55
		25	3	0.47	0.61	1	0.44	0.61
		26	3	0.52	0.65	1	0.51	0.66
		27	3	0.38	0.45	1	0.37	0.46
		28	3	0.54	0.50	1	0.52	0.52
		29	3	0.34	0.35	1	0.33	0.35
		30	3	0.58	0.72	1	0.56	0.72
		31	3	0.47	0.65	1	0.45	0.65
		32	3	0.26	0.37	1	0.23	0.37
		33	3	0.50	0.59	1	0.48	0.61
		34	3	0.37	0.44	1	0.32	0.43

**Table 33**  
**Reading Item Level Statistics With and Without Level of Independence**  
**(continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
RD	10	1	3	0.53	0.59	1	0.50	0.61
		2	3	0.39	0.35	1	0.36	0.37
		3	3	0.26	0.27	1	0.24	0.30
		4	3	0.38	0.28	1	0.35	0.31
		5	3	0.41	0.40	1	0.39	0.41
		6	3	0.47	0.51	1	0.45	0.53
		7	3	0.31	0.38	1	0.30	0.39
		8	3	0.60	0.60	1	0.59	0.60
		9	3	0.37	0.45	1	0.34	0.45
		10	3	0.60	0.44	1	0.57	0.44
		11	3	0.69	0.45	1	0.67	0.45
		12	3	0.45	0.54	1	0.42	0.52
		13	3	0.67	0.63	1	0.64	0.65
		14	3	0.45	0.35	1	0.43	0.35
		15	3	0.74	0.60	1	0.71	0.62
		16	3	0.50	0.54	1	0.48	0.56
		17	3	0.28	0.34	1	0.26	0.35
		18	3	0.50	0.55	1	0.48	0.54
		19	3	0.58	0.48	1	0.56	0.50
		20	3	0.47	0.44	1	0.44	0.45
		21	3	0.38	0.50	1	0.36	0.48
		22	3	0.41	0.51	1	0.40	0.52
		23	3	0.57	0.70	1	0.55	0.71
		24	3	0.44	0.49	1	0.42	0.50
		25	3	0.54	0.63	1	0.53	0.63
		26	3	0.29	0.37	1	0.27	0.37
		27	3	0.34	0.39	1	0.33	0.38
		28	3	0.47	0.63	1	0.46	0.63
		29	3	0.62	0.60	1	0.60	0.61
		30	3	0.70	0.66	1	0.68	0.68
		31	3	0.48	0.63	1	0.46	0.64
		32	3	0.57	0.64	1	0.55	0.65
		33	3	0.55	0.69	1	0.53	0.70
		34	3	0.37	0.55	1	0.35	0.56

**Table 34**  
**Writing Item Level Statistics With and Without Level of Independence**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
WR	3	1	3	0.31	0.32	1	0.26	0.29
		2	3	0.59	0.63	1	0.55	0.62
		3	3	0.75	0.71	1	0.71	0.70
		4	3	0.68	0.75	1	0.66	0.75
		5	6	0.78	0.76	2	0.74	0.76
		6	3	0.49	0.59	1	0.45	0.60
		7	3	0.50	0.63	1	0.47	0.65
		8	3	0.74	0.67	1	0.70	0.67
		9	3	0.79	0.62	1	0.76	0.63
		10	6	0.51	0.83	2	0.41	0.78
		11	3	0.71	0.71	1	0.68	0.71
		12	3	0.52	0.65	1	0.49	0.66
		13	3	0.45	0.57	1	0.41	0.59
		14	3	0.51	0.42	1	0.48	0.44
		15	6	0.73	0.78	2	0.69	0.76
		16	3	0.53	0.65	1	0.51	0.66
		17	3	0.38	0.41	1	0.34	0.43
		18	3	0.49	0.49	1	0.45	0.50
		19	3	0.31	0.21	1	0.29	0.23
		20	6	0.45	0.81	2	0.29	0.75
		21	3	0.25	0.24	1	0.24	0.25
		22	3	0.45	0.61	1	0.41	0.61
		23	3	0.49	0.51	1	0.45	0.54
		24	6	0.44	0.80	2	0.29	0.73
		25	3	0.30	0.37	1	0.27	0.39
		26	3	0.31	0.35	1	0.29	0.38
		27	3	0.52	0.55	1	0.48	0.58
		28	3	0.29	0.35	1	0.27	0.37
		29	6	0.67	0.81	2	0.59	0.78

**Table 34**  
**Writing Item Level Statistics With and Without Level of Independence (continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
WR	4	1	3	0.32	0.32	1	0.27	0.29
		2	3	0.41	0.50	1	0.37	0.51
		3	3	0.68	0.69	1	0.64	0.67
		4	3	0.61	0.64	1	0.58	0.65
		5	6	0.79	0.71	2	0.75	0.70
		6	3	0.32	0.29	1	0.29	0.32
		7	3	0.51	0.58	1	0.47	0.60
		8	3	0.66	0.69	1	0.63	0.69
		9	3	0.62	0.70	1	0.59	0.69
		10	6	0.53	0.83	2	0.45	0.79
		11	3	0.73	0.72	1	0.70	0.72
		12	3	0.69	0.76	1	0.67	0.75
		13	3	0.27	0.37	1	0.23	0.39
		14	3	0.58	0.67	1	0.55	0.66
		15	6	0.74	0.76	2	0.68	0.76
		16	3	0.48	0.42	1	0.46	0.44
		17	3	0.30	0.45	1	0.27	0.48
		18	3	0.50	0.55	1	0.47	0.56
		19	3	0.36	0.28	1	0.33	0.31
		20	6	0.49	0.82	2	0.33	0.75
		21	3	0.20	0.16	1	0.18	0.19
		22	3	0.54	0.49	1	0.51	0.49
		23	3	0.51	0.59	1	0.47	0.62
		24	3	0.52	0.57	1	0.49	0.60
		25	6	0.48	0.84	2	0.33	0.80
		26	3	0.44	0.51	1	0.41	0.53
		27	3	0.34	0.28	1	0.30	0.32
		28	3	0.57	0.62	1	0.52	0.62
		29	3	0.32	0.39	1	0.29	0.41
		30	6	0.72	0.77	2	0.66	0.77



**Table 34**  
**Writing Item Level Statistics With and Without Level of Independence (continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
WR	5	1	3	0.45	0.43	1	0.39	0.42
		2	3	0.75	0.64	1	0.71	0.65
		3	3	0.76	0.67	1	0.73	0.64
		4	3	0.78	0.68	1	0.77	0.67
		5	6	0.84	0.76	2	0.81	0.74
		6	3	0.34	0.40	1	0.31	0.41
		7	3	0.52	0.52	1	0.49	0.53
		8	3	0.77	0.62	1	0.74	0.63
		9	3	0.74	0.54	1	0.70	0.55
		10	6	0.62	0.83	2	0.55	0.78
		11	3	0.74	0.66	1	0.71	0.67
		12	3	0.76	0.68	1	0.73	0.70
		13	3	0.33	0.35	1	0.30	0.37
		14	3	0.65	0.55	1	0.62	0.56
		15	6	0.80	0.79	2	0.77	0.79
		16	3	0.63	0.59	1	0.61	0.60
		17	3	0.53	0.53	1	0.50	0.56
		18	3	0.57	0.51	1	0.54	0.52
		19	3	0.26	0.20	1	0.22	0.21
		20	6	0.60	0.84	2	0.43	0.76
		21	3	0.39	0.41	1	0.37	0.43
		22	3	0.66	0.61	1	0.63	0.60
		23	3	0.23	0.22	1	0.20	0.22
		24	6	0.60	0.84	2	0.44	0.76
		25	3	0.44	0.45	1	0.42	0.48
		26	3	0.42	0.34	1	0.40	0.36
		27	3	0.46	0.53	1	0.43	0.53
		28	3	0.54	0.51	1	0.51	0.51
		29	6	0.76	0.82	2	0.71	0.79

**Table 34**  
**Writing Item Level Statistics With and Without Level of Independence (continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
WR	6	1	3	0.68	0.65	1	0.64	0.67
		2	3	0.68	0.62	1	0.65	0.65
		3	3	0.71	0.73	1	0.66	0.71
		4	3	0.76	0.69	1	0.73	0.68
		5	6	0.82	0.77	2	0.79	0.75
		6	3	0.70	0.69	1	0.67	0.71
		7	3	0.48	0.40	1	0.46	0.43
		8	3	0.71	0.74	1	0.68	0.72
		9	3	0.67	0.65	1	0.65	0.66
		10	6	0.64	0.87	2	0.59	0.84
		11	3	0.71	0.69	1	0.68	0.70
		12	3	0.77	0.68	1	0.73	0.70
		13	3	0.50	0.44	1	0.48	0.46
		14	3	0.49	0.45	1	0.46	0.49
		15	6	0.76	0.80	2	0.71	0.79
		16	3	0.71	0.72	1	0.69	0.73
		17	3	0.46	0.44	1	0.43	0.47
		18	3	0.48	0.48	1	0.45	0.49
		19	3	0.36	0.31	1	0.33	0.33
		20	6	0.57	0.85	2	0.43	0.81
		21	3	0.42	0.42	1	0.40	0.44
		22	3	0.50	0.47	1	0.48	0.47
		23	3	0.39	0.37	1	0.36	0.42
		24	6	0.57	0.84	2	0.43	0.78
		25	3	0.47	0.46	1	0.44	0.50
		26	3	0.39	0.27	1	0.37	0.28
		27	3	0.40	0.45	1	0.37	0.45
		28	3	0.46	0.53	1	0.44	0.54
		29	6	0.74	0.84	2	0.69	0.81

**Table 34**  
**Writing Item Level Statistics With and Without Level of Independence (continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
WR	7	1	3	0.76	0.62	1	0.74	0.62
		2	3	0.52	0.65	1	0.48	0.63
		3	3	0.74	0.69	1	0.70	0.65
		4	3	0.77	0.65	1	0.75	0.66
		5	6	0.85	0.72	2	0.82	0.72
		6	3	0.57	0.59	1	0.53	0.59
		7	3	0.58	0.62	1	0.55	0.62
		8	3	0.72	0.71	1	0.69	0.71
		9	3	0.69	0.67	1	0.67	0.67
		10	6	0.66	0.85	2	0.59	0.84
		11	3	0.79	0.65	1	0.77	0.65
		12	3	0.30	0.24	1	0.28	0.29
		13	3	0.45	0.44	1	0.44	0.46
		14	3	0.73	0.60	1	0.70	0.61
		15	6	0.81	0.75	2	0.78	0.73
		16	3	0.53	0.54	1	0.49	0.55
		17	3	0.40	0.47	1	0.39	0.50
		18	3	0.69	0.64	1	0.67	0.65
		19	3	0.31	0.12	1	0.28	0.14
		20	6	0.59	0.83	2	0.45	0.78
		21	3	0.39	0.32	1	0.36	0.33
		22	3	0.45	0.26	1	0.45	0.28
		23	3	0.61	0.49	1	0.60	0.51
		24	3	0.45	0.44	1	0.43	0.47
		25	6	0.60	0.83	2	0.44	0.76
		26	3	0.21	0.22	1	0.20	0.22
		27	3	0.64	0.54	1	0.62	0.55
		28	3	0.52	0.54	1	0.49	0.54
		29	3	0.49	0.41	1	0.47	0.41
		30	6	0.72	0.82	2	0.67	0.80

**Table 34**  
**Writing Item Level Statistics With and Without Level of Independence (continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
WR	8	1	3	0.71	0.71	1	0.68	0.71
		2	3	0.71	0.74	1	0.69	0.74
		3	3	0.73	0.76	1	0.69	0.72
		4	3	0.77	0.73	1	0.74	0.73
		5	6	0.81	0.74	2	0.79	0.73
		6	3	0.60	0.68	1	0.57	0.69
		7	3	0.75	0.67	1	0.73	0.67
		8	3	0.67	0.74	1	0.65	0.73
		9	3	0.63	0.68	1	0.60	0.68
		10	6	0.58	0.85	2	0.52	0.81
		11	3	0.40	0.33	1	0.38	0.38
		12	3	0.35	0.31	1	0.33	0.34
		13	3	0.29	0.26	1	0.27	0.27
		14	3	0.70	0.72	1	0.68	0.71
		15	6	0.79	0.79	2	0.76	0.78
		16	3	0.34	0.43	1	0.32	0.43
		17	3	0.40	0.35	1	0.39	0.36
		18	3	0.36	0.39	1	0.34	0.41
		19	3	0.28	0.18	1	0.25	0.21
		20	6	0.60	0.87	2	0.46	0.82
		21	3	0.29	0.33	1	0.28	0.34
		22	3	0.27	0.36	1	0.26	0.37
		23	3	0.43	0.57	1	0.40	0.59
		24	3	0.57	0.63	1	0.55	0.65
		25	6	0.59	0.86	2	0.45	0.80
		26	3	0.40	0.39	1	0.38	0.44
		27	3	0.30	0.35	1	0.29	0.36
		28	3	0.61	0.60	1	0.58	0.60
		29	3	0.46	0.56	1	0.44	0.56
		30	6	0.69	0.84	2	0.62	0.84

**Table 34**  
**Writing Item Level Statistics With and Without Level of Independence (continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
WR	9	1	3	0.69	0.69	1	0.66	0.68
		2	3	0.71	0.55	1	0.68	0.58
		3	3	0.74	0.71	1	0.71	0.69
		4	3	0.77	0.66	1	0.75	0.66
		5	6	0.81	0.77	2	0.77	0.75
		6	3	0.52	0.48	1	0.50	0.49
		7	3	0.53	0.63	1	0.50	0.64
		8	3	0.41	0.52	1	0.38	0.55
		9	3	0.43	0.41	1	0.41	0.40
		10	6	0.63	0.85	2	0.57	0.83
		11	3	0.66	0.66	1	0.64	0.67
		12	3	0.65	0.70	1	0.62	0.70
		13	3	0.40	0.45	1	0.37	0.46
		14	3	0.44	0.59	1	0.42	0.62
		15	6	0.80	0.74	2	0.77	0.72
		16	3	0.35	0.34	1	0.34	0.36
		17	3	0.31	0.40	1	0.29	0.41
		18	3	0.49	0.62	1	0.47	0.63
		19	3	0.37	0.20	1	0.35	0.19
		20	6	0.58	0.85	2	0.45	0.81
		21	3	0.41	0.49	1	0.40	0.51
		22	3	0.38	0.44	1	0.35	0.44
		23	3	0.54	0.53	1	0.53	0.55
		24	6	0.57	0.84	2	0.43	0.79
		25	3	0.26	0.28	1	0.25	0.30
		26	3	0.28	0.23	1	0.27	0.24
		27	3	0.48	0.57	1	0.46	0.57
		28	3	0.46	0.41	1	0.43	0.44
		29	6	0.66	0.82	2	0.60	0.82

**Table 34**  
**Writing Item Level Statistics With and Without Level of Independence (continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
WR	10	1	3	0.66	0.71	1	0.63	0.72
		2	3	0.50	0.59	1	0.48	0.61
		3	3	0.75	0.68	1	0.73	0.68
		4	3	0.78	0.64	1	0.76	0.64
		5	6	0.80	0.77	2	0.77	0.75
		6	3	0.60	0.59	1	0.58	0.61
		7	3	0.58	0.57	1	0.56	0.56
		8	3	0.46	0.56	1	0.43	0.56
		9	3	0.46	0.59	1	0.44	0.60
		10	6	0.63	0.85	2	0.59	0.84
		11	3	0.48	0.55	1	0.46	0.57
		12	3	0.22	0.28	1	0.20	0.27
		13	3	0.26	0.29	1	0.24	0.31
		14	3	0.47	0.49	1	0.46	0.49
		15	6	0.74	0.73	2	0.70	0.69
		16	3	0.36	0.37	1	0.34	0.37
		17	3	0.53	0.57	1	0.51	0.58
		18	3	0.46	0.43	1	0.43	0.44
		19	3	0.42	0.46	1	0.40	0.45
		20	6	0.64	0.84	2	0.52	0.81
		21	3	0.26	0.21	1	0.24	0.19
		22	3	0.46	0.26	1	0.43	0.28
		23	3	0.53	0.57	1	0.52	0.59
		24	3	0.49	0.47	1	0.47	0.49
		25	6	0.60	0.83	2	0.44	0.78
		26	3	0.45	0.53	1	0.44	0.53
		27	3	0.15	0.12	1	0.14	0.13
		28	3	0.57	0.58	1	0.56	0.60
		29	3	0.45	0.38	1	0.43	0.38
		30	6	0.67	0.82	2	0.60	0.79

**Table 35**  
**Mathematics Item Level Statistics With and Without Level of Independence**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
MA	3	1	3	0.85	0.70	1	0.82	0.68
		2	6	0.76	0.78	2	0.70	0.76
		3	3	0.68	0.69	1	0.61	0.69
		4	6	0.58	0.71	2	0.45	0.66
		5	6	0.75	0.81	2	0.70	0.82
		6	3	0.66	0.70	1	0.62	0.72
		7	3	0.80	0.69	1	0.78	0.68
		8	3	0.46	0.52	1	0.42	0.57
		9	6	0.69	0.63	2	0.61	0.63
		10	3	0.62	0.69	1	0.57	0.69
		11	3	0.55	0.61	1	0.51	0.63
		12	6	0.48	0.55	2	0.29	0.45
		13	6	0.63	0.82	2	0.54	0.77
		14	3	0.50	0.53	1	0.46	0.56
		15	3	0.66	0.71	1	0.60	0.70
		16	3	0.39	0.56	1	0.33	0.54
		17	6	0.61	0.80	2	0.53	0.77
		18	3	0.89	0.65	1	0.86	0.64
		19	3	0.76	0.64	1	0.73	0.63
		20	3	0.65	0.61	1	0.62	0.60
		21	3	0.76	0.73	1	0.73	0.71
		22	3	0.34	0.38	1	0.26	0.35
		23	6	0.83	0.70	2	0.76	0.64
		24	6	0.52	0.66	2	0.36	0.62
		25	3	0.44	0.45	1	0.39	0.45
		26	6	0.54	0.56	2	0.32	0.53
		27	3	0.49	0.55	1	0.44	0.54
		28	3	0.66	0.71	1	0.62	0.74
		29	3	0.56	0.73	1	0.53	0.72
		30	3	0.38	0.46	1	0.32	0.47
		31	3	0.57	0.69	1	0.51	0.66
		32	3	0.66	0.65	1	0.59	0.62

**Table 35**  
**Mathematics Item Level Statistics With and Without Level of Independence**  
**(continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
		1	3	0.87	0.59	1	0.84	0.55
		2	6	0.77	0.75	2	0.70	0.74
		3	6	0.78	0.79	2	0.73	0.79
		4	6	0.63	0.74	2	0.51	0.69
		5	3	0.55	0.63	1	0.50	0.63
		6	3	0.70	0.68	1	0.64	0.68
		7	3	0.76	0.67	1	0.74	0.67
		8	3	0.53	0.53	1	0.51	0.55
		9	6	0.61	0.64	2	0.51	0.62
		10	3	0.65	0.73	1	0.61	0.74
		11	3	0.50	0.56	1	0.48	0.56
		12	6	0.49	0.65	2	0.36	0.59
		13	3	0.70	0.62	1	0.67	0.62
		14	3	0.62	0.48	1	0.58	0.48
		15	3	0.69	0.74	1	0.66	0.72
MA	4	16	6	0.53	0.64	2	0.45	0.63
		17	3	0.76	0.67	1	0.72	0.64
		18	6	0.85	0.69	2	0.79	0.67
		19	6	0.65	0.67	2	0.56	0.62
		20	6	0.50	0.72	2	0.37	0.65
		21	3	0.64	0.69	1	0.60	0.70
		22	3	0.72	0.76	1	0.67	0.75
		23	3	0.13	0.26	1	0.09	0.25
		24	3	0.70	0.59	1	0.66	0.60
		25	3	0.65	0.70	1	0.62	0.71
		26	6	0.53	0.68	2	0.38	0.63
		27	3	0.50	0.56	1	0.46	0.58
		28	6	0.37	0.63	2	0.29	0.60
		29	3	0.66	0.75	1	0.64	0.74
		30	3	0.53	0.63	1	0.49	0.64
		31	3	0.60	0.70	1	0.56	0.70
		32	3	0.33	0.54	1	0.27	0.53



**Table 35**  
**Mathematics Item Level Statistics With and Without Level of Independence**  
**(continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
		1	3	0.83	0.70	1	0.81	0.67
		2	3	0.74	0.70	1	0.69	0.69
		3	6	0.65	0.69	2	0.52	0.65
		4	6	0.73	0.72	2	0.65	0.74
		5	6	0.58	0.67	2	0.43	0.61
		6	6	0.40	0.55	2	0.30	0.53
		7	3	0.80	0.63	1	0.79	0.63
		8	3	0.55	0.67	1	0.51	0.64
		9	6	0.79	0.78	2	0.74	0.76
		10	3	0.57	0.54	1	0.55	0.56
		11	3	0.39	0.39	1	0.34	0.41
		12	6	0.68	0.74	2	0.59	0.70
		13	6	0.61	0.58	2	0.52	0.55
		14	3	0.57	0.50	1	0.53	0.51
		15	3	0.65	0.58	1	0.62	0.59
		16	3	0.38	0.40	1	0.32	0.40
		17	6	0.41	0.47	2	0.26	0.44
MA	5	18	6	0.35	0.54	2	0.29	0.55
		19	3	0.69	0.66	1	0.64	0.66
		20	3	0.50	0.57	1	0.46	0.60
		21	3	0.65	0.56	1	0.63	0.57
		22	6	0.86	0.70	2	0.81	0.66
		23	6	0.75	0.80	2	0.67	0.75
		24	3	0.41	0.60	1	0.34	0.59
		25	6	0.59	0.76	2	0.46	0.70
		26	6	0.54	0.64	2	0.37	0.60
		27	6	0.46	0.56	2	0.33	0.55
		28	6	0.32	0.55	2	0.23	0.52
		29	6	0.53	0.65	2	0.40	0.61
		30	3	0.59	0.47	1	0.57	0.46
		31	6	0.80	0.65	2	0.74	0.64
		32	3	0.71	0.78	1	0.68	0.76
		33	3	0.62	0.60	1	0.59	0.60
		34	3	0.64	0.76	1	0.61	0.76
		35	3	0.51	0.59	1	0.47	0.60

**Table 35**  
**Mathematics Item Level Statistics With and Without Level of Independence**  
**(continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
MA	5	36	3	0.65	0.50	1	0.63	0.50
		37	3	0.80	0.73	1	0.78	0.71
		38	3	0.65	0.72	1	0.59	0.71
		39	3	0.37	0.40	1	0.33	0.40
		40	3	0.42	0.59	1	0.37	0.59

**Table 35**  
**Mathematics Item Level Statistics With and Without Level of Independence**  
**(continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
MA	6	1	6	0.64	0.69	2	0.50	0.68
		2	6	0.74	0.74	2	0.64	0.77
		3	6	0.80	0.76	2	0.74	0.78
		4	6	0.61	0.71	2	0.48	0.66
		5	3	0.59	0.55	1	0.54	0.58
		6	6	0.71	0.75	2	0.63	0.75
		7	3	0.48	0.55	1	0.42	0.55
		8	3	0.82	0.58	1	0.80	0.58
		9	3	0.63	0.63	1	0.59	0.65
		10	3	0.49	0.55	1	0.45	0.57
		11	3	0.42	0.55	1	0.35	0.56
		12	6	0.59	0.72	2	0.41	0.67
		13	3	0.46	0.47	1	0.43	0.49
		14	3	0.61	0.56	1	0.56	0.56
		15	6	0.60	0.69	2	0.49	0.71
		16	3	0.54	0.61	1	0.49	0.60
		17	3	0.38	0.59	1	0.30	0.58
		18	3	0.50	0.53	1	0.46	0.55
		19	6	0.72	0.74	2	0.61	0.70
		20	6	0.46	0.74	2	0.36	0.70
		21	3	0.84	0.63	1	0.82	0.60
		22	3	0.33	0.18	1	0.30	0.19
		23	3	0.56	0.39	1	0.53	0.42
		24	3	0.79	0.61	1	0.77	0.60
		25	3	0.76	0.72	1	0.74	0.70
		26	3	0.32	0.25	1	0.31	0.26
		27	3	0.66	0.67	1	0.63	0.67
		28	3	0.56	0.48	1	0.53	0.51
		29	6	0.62	0.72	2	0.47	0.70
		30	6	0.34	0.60	2	0.25	0.56
		31	6	0.57	0.71	2	0.48	0.65
		32	3	0.77	0.70	1	0.74	0.71
		33	3	0.56	0.69	1	0.52	0.71
		34	3	0.30	0.54	1	0.24	0.53

**Table 35**  
**Mathematics Item Level Statistics With and Without Level of Independence**  
**(continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
MA	7	1	6	0.63	0.60	2	0.44	0.59
		2	6	0.77	0.67	2	0.68	0.71
		3	6	0.81	0.73	2	0.76	0.77
		4	6	0.64	0.69	2	0.53	0.66
		5	3	0.54	0.52	1	0.46	0.49
		6	6	0.71	0.70	2	0.62	0.71
		7	3	0.47	0.50	1	0.44	0.52
		8	3	0.39	0.35	1	0.33	0.38
		9	3	0.59	0.56	1	0.56	0.58
		10	3	0.50	0.49	1	0.48	0.50
		11	3	0.33	0.35	1	0.29	0.37
		12	3	0.40	0.51	1	0.39	0.54
		13	3	0.58	0.70	1	0.57	0.70
		14	3	0.31	0.32	1	0.28	0.33
		15	3	0.57	0.50	1	0.52	0.51
		16	6	0.53	0.70	2	0.43	0.70
		17	6	0.80	0.67	2	0.70	0.65
		18	3	0.77	0.72	1	0.72	0.70
		19	3	0.43	0.58	1	0.38	0.57
		20	6	0.53	0.66	2	0.38	0.61
		21	3	0.54	0.45	1	0.51	0.47
		22	3	0.78	0.55	1	0.75	0.53
		23	3	0.69	0.58	1	0.67	0.55
		24	3	0.35	0.27	1	0.32	0.29
		25	3	0.59	0.55	1	0.56	0.57
		26	6	0.61	0.70	2	0.46	0.64
		27	6	0.66	0.70	2	0.52	0.70
		28	3	0.60	0.53	1	0.56	0.54
		29	6	0.43	0.70	2	0.35	0.68
		30	3	0.15	0.45	1	0.11	0.41
		31	3	0.54	0.65	1	0.51	0.64
		32	3	0.44	0.47	1	0.41	0.48
		33	3	0.53	0.51	1	0.50	0.49

**Table 35**  
**Mathematics Item Level Statistics With and Without Level of Independence**  
**(continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
		1	6	0.64	0.73	2	0.45	0.67
		2	6	0.69	0.70	2	0.60	0.71
		3	6	0.64	0.75	2	0.53	0.73
		4	6	0.47	0.69	2	0.39	0.64
		5	3	0.46	0.42	1	0.42	0.42
		6	6	0.72	0.70	2	0.60	0.74
		7	6	0.61	0.72	2	0.49	0.68
		8	3	0.62	0.50	1	0.59	0.52
		9	3	0.35	0.43	1	0.31	0.42
		10	3	0.52	0.58	1	0.49	0.58
		11	3	0.35	0.34	1	0.33	0.35
		12	3	0.50	0.42	1	0.47	0.43
		13	3	0.33	0.43	1	0.31	0.46
		14	3	0.36	0.41	1	0.34	0.42
		15	3	0.44	0.70	1	0.40	0.69
		16	3	0.53	0.70	1	0.46	0.72
		17	3	0.67	0.58	1	0.59	0.52
MA	8	18	6	0.59	0.81	2	0.49	0.77
		19	3	0.53	0.64	1	0.49	0.63
		20	3	0.66	0.79	1	0.60	0.78
		21	6	0.74	0.75	2	0.64	0.69
		22	3	0.78	0.63	1	0.76	0.61
		23	3	0.80	0.56	1	0.78	0.55
		24	3	0.53	0.60	1	0.50	0.62
		25	3	0.48	0.66	1	0.43	0.65
		26	3	0.75	0.65	1	0.74	0.63
		27	3	0.55	0.59	1	0.53	0.58
		28	3	0.55	0.63	1	0.49	0.63
		29	6	0.60	0.68	2	0.44	0.63
		30	6	0.61	0.64	2	0.45	0.54
		31	6	0.46	0.71	2	0.36	0.66
		32	3	0.25	0.58	1	0.19	0.54
		33	3	0.26	0.13	1	0.23	0.13
		34	3	0.40	0.37	1	0.37	0.36
		35	3	0.62	0.63	1	0.59	0.62

**Table 35**  
**Mathematics Item Level Statistics With and Without Level of Independence**  
**(continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
MA	8	36	3	0.57	0.68	1	0.53	0.69
		37	3	0.29	0.36	1	0.26	0.36
		38	3	0.46	0.54	1	0.43	0.54

**Table 35**  
**Mathematics Item Level Statistics With and Without Level of Independence**  
**(continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
		1	6	0.65	0.73	2	0.53	0.73
		2	6	0.72	0.68	2	0.61	0.71
		3	6	0.59	0.69	2	0.48	0.67
		4	3	0.46	0.44	1	0.42	0.46
		5	6	0.72	0.71	2	0.58	0.76
		6	6	0.41	0.65	2	0.28	0.60
		7	3	0.63	0.67	1	0.60	0.67
		8	3	0.54	0.55	1	0.51	0.57
		9	3	0.44	0.56	1	0.42	0.58
		10	3	0.47	0.33	1	0.43	0.37
		11	3	0.33	0.34	1	0.32	0.38
		12	3	0.29	0.32	1	0.27	0.35
		13	6	0.54	0.77	2	0.41	0.73
		14	3	0.33	0.66	1	0.29	0.67
		15	6	0.53	0.77	2	0.44	0.77
		16	3	0.46	0.42	1	0.39	0.39
		17	3	0.28	0.54	1	0.24	0.54
MA	9	18	3	0.21	0.27	1	0.18	0.28
		19	3	0.31	0.58	1	0.26	0.60
		20	3	0.78	0.51	1	0.73	0.50
		21	3	0.27	0.21	1	0.24	0.23
		22	3	0.35	0.33	1	0.32	0.34
		23	3	0.60	0.61	1	0.58	0.60
		24	3	0.63	0.51	1	0.61	0.51
		25	6	0.54	0.60	2	0.45	0.59
		26	3	0.63	0.61	1	0.61	0.62
		27	3	0.53	0.67	1	0.48	0.68
		28	6	0.57	0.65	2	0.45	0.64
		29	6	0.43	0.76	2	0.35	0.73
		30	3	0.23	0.59	1	0.17	0.55
		31	3	0.26	0.28	1	0.23	0.30
		32	3	0.24	0.33	1	0.21	0.34
		33	3	0.33	0.39	1	0.30	0.41
		34	3	0.46	0.57	1	0.43	0.59
		35	3	0.26	0.25	1	0.24	0.27

**Table 35**  
**Mathematics Item Level Statistics With and Without Level of Independence**  
**(continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
		36	3	0.39	0.39	1	0.37	0.38
MA	9	37	3	0.53	0.61	1	0.50	0.63
		38	3	0.35	0.41	1	0.34	0.43



**Table 35**  
**Mathematics Item Level Statistics With and Without Level of Independence**  
**(continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
		1	6	0.64	0.72	2	0.51	0.72
		2	6	0.71	0.64	2	0.60	0.67
		3	6	0.55	0.70	2	0.45	0.70
		4	6	0.48	0.58	2	0.37	0.59
		5	3	0.27	0.43	1	0.21	0.40
		6	6	0.70	0.71	2	0.59	0.74
		7	3	0.66	0.57	1	0.63	0.59
		8	3	0.48	0.49	1	0.46	0.49
		9	3	0.40	0.41	1	0.38	0.40
		10	3	0.29	0.34	1	0.28	0.36
		11	3	0.17	0.12	1	0.16	0.16
		12	3	0.24	0.25	1	0.22	0.29
		13	3	0.32	0.23	1	0.30	0.26
		14	3	0.25	0.31	1	0.22	0.32
		15	6	0.67	0.76	2	0.57	0.68
		16	3	0.64	0.70	1	0.59	0.70
		17	3	0.67	0.58	1	0.64	0.61
MA	10	18	3	0.19	0.30	1	0.15	0.28
		19	6	0.43	0.71	2	0.32	0.66
		20	3	0.31	0.42	1	0.25	0.38
		21	3	0.26	0.50	1	0.24	0.52
		22	3	0.34	0.26	1	0.32	0.28
		23	3	0.59	0.58	1	0.56	0.59
		24	6	0.79	0.75	2	0.72	0.71
		25	3	0.20	0.39	1	0.18	0.39
		26	3	0.57	0.67	1	0.54	0.68
		27	3	0.56	0.62	1	0.54	0.65
		28	6	0.54	0.60	2	0.40	0.57
		29	6	0.52	0.57	2	0.35	0.54
		30	6	0.38	0.70	2	0.26	0.67
		31	3	0.06	0.35	1	0.05	0.31
		32	3	0.30	0.27	1	0.27	0.25
		33	3	0.14	0.03	1	0.12	0.06
		34	3	0.17	0.19	1	0.14	0.20
		35	3	0.32	0.47	1	0.31	0.49

**Table 35**  
**Mathematics Item Level Statistics With and Without Level of Independence**  
**(continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
MA	10	36	6	0.36	0.55	2	0.24	0.51
		37	3	0.42	0.53	1	0.39	0.55
		38	3	0.51	0.52	1	0.49	0.55
		39	3	0.49	0.53	1	0.47	0.57
		40	3	0.25	0.32	1	0.23	0.34

**Table 36**  
**Science Item Level Statistics With and Without Level of Independence**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
SC	5	1	3	0.85	0.66	1	0.83	0.68
		2	3	0.87	0.70	1	0.84	0.70
		3	3	0.76	0.67	1	0.73	0.68
		4	3	0.85	0.72	1	0.83	0.72
		5	3	0.75	0.71	1	0.72	0.72
		6	3	0.49	0.42	1	0.45	0.44
		7	3	0.76	0.67	1	0.74	0.67
		8	3	0.42	0.33	1	0.39	0.36
		9	3	0.65	0.56	1	0.63	0.58
		10	3	0.53	0.63	1	0.51	0.62
		11	3	0.45	0.49	1	0.42	0.50
		12	6	0.84	0.74	2	0.73	0.72
		13	3	0.76	0.56	1	0.75	0.58
		14	3	0.41	0.43	1	0.39	0.44
		15	3	0.71	0.65	1	0.69	0.65
		16	3	0.51	0.62	1	0.48	0.60
		17	3	0.72	0.70	1	0.68	0.69
		18	3	0.69	0.65	1	0.64	0.65
		19	6	0.81	0.76	2	0.70	0.77
		20	3	0.88	0.69	1	0.85	0.68
		21	3	0.82	0.70	1	0.79	0.71
		22	3	0.59	0.51	1	0.56	0.52
		23	3	0.61	0.60	1	0.57	0.60
		24	3	0.49	0.54	1	0.46	0.54
		25	3	0.72	0.68	1	0.69	0.68
		26	3	0.66	0.70	1	0.64	0.69
		27	3	0.60	0.66	1	0.58	0.67
		28	3	0.65	0.49	1	0.61	0.47
		29	3	0.73	0.66	1	0.71	0.67
		30	3	0.66	0.62	1	0.64	0.63

**Table 36**  
**Science Item Level Statistics With and Without Level of Independence (continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
SC	8	1	3	0.83	0.73	1	0.81	0.72
		2	3	0.72	0.71	1	0.69	0.72
		3	3	0.25	0.16	1	0.23	0.17
		4	3	0.80	0.77	1	0.77	0.78
		5	3	0.82	0.76	1	0.80	0.77
		6	3	0.75	0.70	1	0.74	0.69
		7	3	0.71	0.71	1	0.67	0.72
		8	3	0.52	0.55	1	0.49	0.55
		9	3	0.50	0.49	1	0.48	0.51
		10	3	0.65	0.67	1	0.59	0.63
		11	3	0.58	0.58	1	0.55	0.60
		12	3	0.65	0.54	1	0.62	0.57
		13	3	0.67	0.59	1	0.63	0.58
		14	3	0.70	0.60	1	0.67	0.61
		15	3	0.59	0.53	1	0.54	0.53
		16	3	0.82	0.73	1	0.80	0.74
		17	3	0.72	0.73	1	0.69	0.75
		18	3	0.72	0.64	1	0.69	0.62
		19	3	0.75	0.71	1	0.73	0.70
		20	3	0.85	0.74	1	0.83	0.73
		21	6	0.80	0.77	2	0.70	0.79
		22	3	0.66	0.59	1	0.62	0.61
		23	6	0.82	0.78	2	0.72	0.79
		24	3	0.63	0.67	1	0.59	0.68
		25	3	0.68	0.70	1	0.66	0.70
		26	3	0.73	0.74	1	0.70	0.77
		27	3	0.86	0.77	1	0.85	0.75
		28	3	0.81	0.77	1	0.79	0.76
		29	6	0.76	0.61	2	0.63	0.65
		30	3	0.70	0.73	1	0.67	0.72

**Table 36**  
**Science Item Level Statistics With and Without Level of Independence (continued)**

Content	Grade	Item	With Level of Independence			Without Level of Independence		
			Max Score Points	Item Difficulty	Item-Test Correlation	Max Score Points	Item Difficulty	Item-Test Correlation
SC	10	1	3	0.36	0.28	1	0.35	0.29
		2	3	0.74	0.63	1	0.73	0.62
		3	3	0.60	0.57	1	0.59	0.57
		4	3	0.65	0.49	1	0.64	0.49
		5	3	0.83	0.62	1	0.82	0.61
		6	3	0.78	0.69	1	0.77	0.69
		7	3	0.84	0.62	1	0.82	0.62
		8	3	0.74	0.48	1	0.70	0.48
		9	3	0.25	0.39	1	0.23	0.39
		10	6	0.56	0.74	2	0.50	0.73
		11	3	0.61	0.61	1	0.58	0.62
		12	3	0.41	0.43	1	0.39	0.44
		13	3	0.41	0.38	1	0.39	0.38
		14	3	0.30	0.42	1	0.28	0.42
		15	3	0.76	0.52	1	0.74	0.54
		16	3	0.24	0.19	1	0.22	0.17
		17	3	0.68	0.55	1	0.66	0.55
		18	3	0.70	0.67	1	0.68	0.67
		19	3	0.64	0.68	1	0.62	0.69
		20	3	0.35	0.47	1	0.33	0.45
		21	6	0.67	0.70	2	0.56	0.72
		22	3	0.63	0.56	1	0.61	0.57
		23	3	0.32	0.50	1	0.30	0.49
		24	3	0.63	0.53	1	0.61	0.52
		25	3	0.57	0.59	1	0.53	0.58
		26	3	0.56	0.59	1	0.53	0.59
		27	6	0.53	0.76	2	0.49	0.75
		28	6	0.44	0.73	2	0.40	0.73
		29	3	0.78	0.60	1	0.76	0.60
		30	3	0.73	0.68	1	0.72	0.69

**Table 37**  
**Summary of *P*-values and Point Biserial by Grade and Content Area Including Level of Independence**

Content	Grade	<i>P</i> -value			Point Biserial		
		High	Mean	Low	High	Mean	Low
RD	3	0.86	0.56	0.28	0.73	0.55	0.28
	4	0.86	0.56	0.27	0.72	0.56	0.29
	5	0.87	0.60	0.25	0.73	0.57	0.21
	6	0.84	0.61	0.21	0.73	0.59	0.24
	7	0.87	0.55	0.26	0.68	0.49	0.14
	8	0.83	0.51	0.30	0.72	0.53	0.28
	9	0.82	0.52	0.26	0.72	0.56	0.35
	10	0.74	0.48	0.26	0.70	0.50	0.27
WR	3	0.79	0.52	0.25	0.83	0.58	0.21
	4	0.79	0.51	0.20	0.84	0.57	0.16
	5	0.84	0.58	0.23	0.84	0.57	0.20
	6	0.82	0.59	0.36	0.87	0.60	0.27
	7	0.85	0.58	0.21	0.85	0.56	0.12
	8	0.81	0.54	0.27	0.87	0.58	0.18
	9	0.81	0.53	0.26	0.85	0.57	0.20
	10	0.80	0.51	0.15	0.85	0.54	0.12
MA	3	0.89	0.62	0.34	0.82	0.65	0.38
	4	0.87	0.61	0.13	0.79	0.65	0.26
	5	0.86	0.59	0.32	0.80	0.62	0.39
	6	0.84	0.58	0.30	0.76	0.61	0.18
	7	0.81	0.55	0.15	0.73	0.56	0.27
	8	0.80	0.54	0.25	0.81	0.59	0.13
	9	0.78	0.46	0.21	0.77	0.53	0.21
	10	0.79	0.42	0.06	0.76	0.48	0.03
SC	5	0.88	0.67	0.41	0.76	0.62	0.33
	8	0.86	0.70	0.25	0.78	0.66	0.16
	10	0.84	0.58	0.24	0.76	0.56	0.19

**Table 38**  
**Summary of *P*-values and Point Biserial by Grade and Content Area Without Including Level of Independence**

Content	Grade	<i>P</i> -value			Point Biserial		
		High	Mean	Low	High	Mean	Low
RD	3	0.84	0.53	0.25	0.73	0.56	0.31
	4	0.83	0.53	0.23	0.72	0.56	0.30
	5	0.85	0.57	0.23	0.74	0.58	0.20
	6	0.83	0.59	0.20	0.72	0.60	0.27
	7	0.85	0.53	0.23	0.68	0.50	0.15
	8	0.82	0.49	0.28	0.72	0.54	0.27
	9	0.81	0.50	0.23	0.72	0.56	0.35
	10	0.71	0.46	0.24	0.71	0.51	0.30
WR	3	0.76	0.47	0.24	0.78	0.58	0.23
	4	0.75	0.46	0.18	0.80	0.57	0.19
	5	0.81	0.54	0.20	0.79	0.57	0.21
	6	0.79	0.55	0.33	0.84	0.60	0.28
	7	0.82	0.55	0.20	0.84	0.56	0.14
	8	0.79	0.50	0.25	0.84	0.58	0.21
	9	0.77	0.50	0.25	0.83	0.57	0.19
	10	0.77	0.48	0.14	0.84	0.54	0.13
MA	3	0.86	0.55	0.26	0.82	0.63	0.35
	4	0.84	0.55	0.09	0.79	0.63	0.25
	5	0.81	0.53	0.23	0.76	0.60	0.40
	6	0.82	0.52	0.24	0.78	0.60	0.19
	7	0.76	0.49	0.11	0.77	0.56	0.29
	8	0.78	0.48	0.19	0.78	0.58	0.13
	9	0.73	0.40	0.17	0.77	0.53	0.23
	10	0.72	0.37	0.05	0.74	0.49	0.06
SC	5	0.85	0.64	0.39	0.77	0.62	0.36
	8	0.85	0.66	0.23	0.79	0.66	0.17
	10	0.82	0.55	0.22	0.75	0.56	0.17

**Table 39**  
**Reading Expanded Benchmark Level Statistics, Ordered by Mean Difficulty (*P*-value)**

Content	Grade	Expanded Benchmark	Critical Concept	<i>P</i> -value				Point Biserial			
				High	Mean	Low	SD	High	Mean	Low	SD
RD	3	1.2	Demonstrate understanding of symbolic representation	0.86	0.73	0.45	0.16	0.71	0.67	0.61	0.04
		1.4	Use a variety of strategies to make meaning of text	0.78	0.69	0.62	0.07	0.73	0.66	0.54	0.07
		3.2	Understand informational text	0.70	0.59	0.41	0.12	0.64	0.50	0.30	0.13
		1.3	Demonstrate understanding of beginning principles of phonics	0.78	0.59	0.29	0.25	0.69	0.55	0.31	0.18
		2.1	Make connections to reading passages	0.62	0.50	0.29	0.12	0.66	0.52	0.28	0.15
		3.1	Demonstrate knowledge that various texts have different purposes	0.57	0.42	0.28	0.14	0.59	0.46	0.29	0.13
		2.2	Identify elements of literature (character, plot, setting)	0.50	0.39	0.35	0.07	0.62	0.48	0.33	0.11
	4	1.2	Demonstrate understanding of symbolic representation	0.86	0.74	0.60	0.10	0.72	0.64	0.58	0.06
		1.3	Demonstrate understanding of beginning principles of phonics	0.82	0.71	0.31	0.22	0.69	0.61	0.38	0.13
		1.4	Use a variety of strategies to make meaning of text	0.70	0.55	0.27	0.18	0.67	0.57	0.29	0.16
		2.1	Make connections to reading passages	0.58	0.52	0.43	0.06	0.64	0.57	0.46	0.07
		3.2	Understand informational text	0.67	0.50	0.33	0.14	0.61	0.50	0.39	0.09
		3.1	Demonstrate knowledge that various texts have different purposes	0.62	0.47	0.35	0.11	0.61	0.51	0.34	0.10
		2.2	Identify elements of literature (character, plot, setting)	0.56	0.42	0.29	0.10	0.60	0.50	0.43	0.08



**Table 39**  
**Reading Expanded Benchmark Level Statistics, Ordered by Mean Difficulty (*P*-value) (continued)**

Content	Grade	Expanded Benchmark	Critical Concept	<i>P</i> -value				Point Biserial			
				High	Mean	Low	SD	High	Mean	Low	SD
RD	5	1.2	Demonstrate understanding of symbolic representation	0.87	0.73	0.59	0.13	0.66	0.63	0.56	0.04
		1.4	Use a variety of strategies to make meaning of text	0.79	0.65	0.44	0.15	0.73	0.64	0.50	0.09
		2.1	Make connections to reading passages	0.79	0.60	0.35	0.19	0.71	0.61	0.45	0.10
		3.2	Understand informational text	0.71	0.57	0.51	0.08	0.65	0.54	0.35	0.12
		1.3	Demonstrate understanding of beginning principles of phonics	0.85	0.57	0.25	0.24	0.67	0.50	0.21	0.19
		2.2	Identify elements of literature (character, plot, setting)	0.65	0.53	0.40	0.11	0.70	0.58	0.51	0.08
		3.1	Demonstrate knowledge that various texts have different purposes	0.71	0.53	0.43	0.12	0.73	0.51	0.31	0.19
	6	1.3	Demonstrate understanding of beginning principles of phonics	0.84	0.73	0.44	0.17	0.71	0.62	0.42	0.12
		1.2	Demonstrate understanding of symbolic representation	0.76	0.70	0.63	0.05	0.70	0.64	0.59	0.05
		1.4	Use a variety of strategies to make meaning of text	0.80	0.68	0.52	0.15	0.73	0.61	0.52	0.09
		2.1	Make connections to reading passages	0.73	0.61	0.51	0.08	0.69	0.64	0.58	0.05
		2.2	Identify elements of literature (character, plot, setting)	0.69	0.55	0.43	0.10	0.69	0.59	0.52	0.07
		3.2	Understand informational text	0.78	0.55	0.38	0.20	0.61	0.52	0.36	0.11
		3.1	Demonstrate knowledge that various texts have different purposes	0.82	0.48	0.21	0.28	0.69	0.50	0.24	0.19

**Table 39**  
**Reading Expanded Benchmark Level Statistics, Ordered by Mean Difficulty (*P*-value) (continued)**

Content	Grade	Expanded Benchmark	Critical Concept	<i>P</i> -value				Point Biserial			
				High	Mean	Low	SD	High	Mean	Low	SD
RD	7	1.3	Demonstrate understanding of beginning principles of phonics	0.87	0.75	0.51	0.16	0.62	0.58	0.44	0.08
		1.2	Demonstrate understanding of symbolic representation	0.85	0.73	0.66	0.09	0.63	0.60	0.59	0.02
		1.4	Use a variety of strategies to make meaning of text	0.84	0.62	0.36	0.20	0.68	0.56	0.45	0.10
		3.2	Understand informational text	0.66	0.50	0.36	0.12	0.59	0.44	0.27	0.12
		2.1	Make connections to reading passages	0.74	0.47	0.26	0.21	0.68	0.51	0.33	0.15
		2.2	Identify elements of literature (character, plot, setting)	0.56	0.44	0.30	0.09	0.63	0.47	0.28	0.14
		3.1	Demonstrate knowledge that various texts have different purposes	0.62	0.37	0.26	0.16	0.39	0.27	0.14	0.09
	8	1.3	Demonstrate understanding of beginning principles of phonics	0.83	0.67	0.49	0.16	0.64	0.59	0.52	0.06
		1.2	Demonstrate understanding of symbolic representation	0.74	0.62	0.38	0.15	0.70	0.61	0.52	0.08
		1.4	Use a variety of strategies to make meaning of text	0.72	0.50	0.30	0.19	0.72	0.54	0.37	0.15
		3.2	Understand informational text	0.62	0.49	0.32	0.14	0.65	0.54	0.37	0.13
		3.1	Demonstrate knowledge that various texts have different purposes	0.67	0.47	0.36	0.12	0.59	0.51	0.38	0.08
		2.1	Make connections to reading passages	0.50	0.43	0.31	0.07	0.61	0.50	0.41	0.09
		2.2	Identify elements of literature (character, plot, setting)	0.49	0.40	0.30	0.07	0.53	0.45	0.28	0.10

**Table 39**  
**Reading Expanded Benchmark Level Statistics, Ordered by Mean Difficulty (*P*-value) (continued)**

Content	Grade	Expanded Benchmark	Critical Concept	<i>P</i> -value				Point Biserial			
				High	Mean	Low	SD	High	Mean	Low	SD
RD	9	1.3	Demonstrate understanding of beginning principles of phonics	0.82	0.68	0.47	0.15	0.64	0.59	0.54	0.04
		1.2	Demonstrate understanding of symbolic representation	0.75	0.62	0.37	0.17	0.66	0.59	0.44	0.10
		1.4	Use a variety of strategies to make meaning of text	0.74	0.58	0.33	0.17	0.66	0.60	0.47	0.08
		3.2	Understand informational text	0.64	0.51	0.41	0.09	0.61	0.52	0.42	0.07
		2.2	Identify elements of literature (character, plot, setting)	0.58	0.49	0.34	0.09	0.72	0.57	0.35	0.14
		2.1	Make connections to reading passages	0.46	0.42	0.38	0.04	0.60	0.52	0.42	0.08
		3.1	Demonstrate knowledge that various texts have different purposes	0.47	0.40	0.26	0.09	0.65	0.52	0.37	0.11
	10	1.3	Demonstrate understanding of beginning principles of phonics	0.69	0.53	0.37	0.12	0.63	0.50	0.44	0.08
		1.2	Demonstrate understanding of symbolic representation	0.74	0.50	0.28	0.17	0.70	0.53	0.34	0.13
		2.2	Identify elements of literature (character, plot, setting)	0.70	0.50	0.29	0.18	0.66	0.53	0.37	0.14
		1.4	Use a variety of strategies to make meaning of text	0.67	0.49	0.38	0.12	0.63	0.47	0.28	0.18
		3.2	Understand informational text	0.60	0.48	0.38	0.09	0.60	0.54	0.50	0.05
		2.1	Make connections to reading passages	0.55	0.46	0.37	0.07	0.69	0.56	0.40	0.11
		3.1	Demonstrate knowledge that various texts have different purposes	0.58	0.40	0.26	0.13	0.48	0.38	0.27	0.08

**Table 40**  
**Writing Expanded Benchmark Level Statistics, Ordered by Mean Difficulty (*P*-value)**

Content	Expanded Grade Benchmark	Critical Concept	<i>P</i> -value				Point Biserial				
			High	Mean	Low	SD	High	Mean	Low	SD	
WR	3	1.1	Demonstrate an understanding that writing communicates a message	0.78	0.62	0.31	0.19	0.76	0.63	0.32	0.19
		1.2	Organize writing to create a draft document	0.79	0.61	0.49	0.15	0.83	0.67	0.59	0.09
		2.1	Use systematic conventions to make written product understandable by others	0.73	0.58	0.45	0.12	0.78	0.63	0.42	0.13
		2.3	Edit a written product using legible handwriting/word processor for publication	0.67	0.43	0.29	0.14	0.81	0.51	0.35	0.17
		2.2	Apply elements of writing through appropriate word usage	0.49	0.39	0.25	0.09	0.81	0.49	0.21	0.26
	4	2.1	Use systematic conventions to make written product understandable by others	0.74	0.58	0.27	0.18	0.76	0.61	0.37	0.17
		1.1	Demonstrate an understanding that writing communicates a message	0.79	0.56	0.32	0.19	0.71	0.57	0.32	0.16
		1.2	Organize writing to create a draft document	0.66	0.53	0.32	0.13	0.83	0.62	0.29	0.20
		2.3	Edit a written product using legible handwriting/word processor for publication	0.72	0.49	0.32	0.14	0.77	0.53	0.28	0.16
		2.2	Apply elements of writing through appropriate word usage	0.54	0.41	0.20	0.13	0.84	0.51	0.16	0.26
	5	1.1	Demonstrate an understanding that writing communicates a message	0.84	0.72	0.45	0.15	0.76	0.63	0.43	0.12
		2.1	Use systematic conventions to make written product understandable by others	0.80	0.65	0.33	0.17	0.79	0.60	0.35	0.15
		1.2	Organize writing to create a draft document	0.77	0.60	0.34	0.17	0.83	0.58	0.40	0.16
		2.3	Edit a written product using legible handwriting/word processor for publication	0.76	0.50	0.23	0.17	0.82	0.50	0.22	0.19
		2.2	Apply elements of writing through appropriate word usage	0.60	0.49	0.26	0.14	0.84	0.55	0.20	0.25

**Table 40**  
**Writing Expanded Benchmark Level Statistics, Ordered by Mean Difficulty (*P*-value) (continued)**

Content	Expanded Grade Benchmark	Critical Concept	<i>P</i> -value				Point Biserial				
			High	Mean	Low	SD	High	Mean	Low	SD	
WR	6	1.1	Demonstrate an understanding that writing communicates a message	0.82	0.73	0.68	0.06	0.77	0.69	0.62	0.06
		2.1	Use systematic conventions to make written product understandable by others	0.77	0.66	0.49	0.13	0.80	0.63	0.44	0.15
		1.2	Organize writing to create a draft document	0.71	0.64	0.48	0.09	0.87	0.67	0.40	0.17
		2.3	Edit a written product using legible handwriting/word processor for publication	0.74	0.48	0.39	0.12	0.84	0.48	0.27	0.18
		2.2	Apply elements of writing through appropriate word usage	0.57	0.48	0.36	0.08	0.85	0.56	0.31	0.23
	7	1.1	Demonstrate an understanding that writing communicates a message	0.85	0.73	0.52	0.11	0.82	0.69	0.62	0.07
		1.2	Organize writing to create a draft document	0.72	0.64	0.57	0.07	0.85	0.69	0.59	0.10
		2.1	Use systematic conventions to make written product understandable by others	0.81	0.60	0.30	0.20	0.75	0.53	0.24	0.18
		2.2	Apply elements of writing through appropriate word usage	0.69	0.49	0.31	0.14	0.83	0.50	0.12	0.28
		2.3	Edit a written product using legible handwriting/word processor for publication	0.64	0.49	0.21	0.15	0.54	0.44	0.22	0.12
8	1.1	Demonstrate an understanding that writing communicates a message	0.81	0.74	0.69	0.04	0.84	0.75	0.71	0.05	
	1.2	Organize writing to create a draft document	0.75	0.65	0.58	0.07	0.85	0.73	0.67	0.08	
	2.1	Use systematic conventions to make written product understandable by others	0.79	0.48	0.29	0.21	0.79	0.47	0.26	0.23	
	2.3	Edit a written product using legible handwriting/word processor for publication	0.61	0.46	0.30	0.11	0.63	0.52	0.35	0.12	
	2.2	Apply elements of writing through appropriate word usage	0.60	0.40	0.27	0.14	0.87	0.48	0.18	0.27	

**Table 40**  
**Writing Expanded Benchmark Level Statistics, Ordered by Mean Difficulty (*P*-value) (continued)**

Content	Expanded Grade Benchmark	Critical Concept	<i>P</i> -value				Point Biserial				
			High	Mean	Low	SD	High	Mean	Low	SD	
WR	9	1.1	Demonstrate an understanding that writing communicates a message	0.81	0.73	0.66	0.05	0.82	0.70	0.55	0.09
		2.1	Use systematic conventions to make written product understandable by others	0.80	0.55	0.35	0.18	0.74	0.58	0.34	0.15
		1.2	Organize writing to create a draft document	0.63	0.50	0.41	0.09	0.85	0.58	0.41	0.17
		2.2	Apply elements of writing through appropriate word usage	0.58	0.46	0.31	0.11	0.85	0.57	0.20	0.25
		2.3	Edit a written product using legible handwriting/word processor for publication	0.54	0.40	0.26	0.11	0.57	0.41	0.23	0.13
	10	1.1	Demonstrate an understanding that writing communicates a message	0.80	0.69	0.50	0.11	0.82	0.70	0.59	0.08
		1.2	Organize writing to create a draft document	0.63	0.54	0.46	0.08	0.85	0.63	0.56	0.12
		2.2	Apply elements of writing through appropriate word usage	0.64	0.48	0.26	0.13	0.84	0.51	0.21	0.25
		2.3	Edit a written product using legible handwriting/word processor for publication	0.57	0.44	0.15	0.15	0.58	0.44	0.12	0.17
		2.1	Use systematic conventions to make written product understandable by others	0.74	0.42	0.22	0.19	0.73	0.45	0.28	0.17

**Table 41**  
**Mathematics Expanded Benchmark Level Statistics, Ordered by Mean Difficulty (*P*-value)**

Content	Grade	Expanded Benchmark	Critical Concept	<i>P</i> -value				Point Biserial			
				High	Mean	Low	SD	High	Mean	Low	SD
MA	3	4	Identifies, sorts, and matches geometric shapes	0.89	0.71	0.34	0.19	0.73	0.62	0.38	0.13
		1	Counts, represents quantities, reads and writes numbers	0.85	0.69	0.46	0.13	0.81	0.70	0.52	0.08
		2	Identifies, describes, and creates patterns to solve problems	0.69	0.59	0.48	0.09	0.69	0.62	0.55	0.06
		3	Displays and analyzes data	0.66	0.56	0.39	0.11	0.82	0.68	0.53	0.13
		6	Uses calculation strategies to compute problems	0.66	0.54	0.38	0.12	0.73	0.63	0.46	0.12
		5	Applies a variety of measurement skills	0.66	0.53	0.44	0.08	0.71	0.59	0.45	0.10
	4	1	Counts, represents quantities, reads and writes numbers	0.87	0.70	0.53	0.12	0.79	0.67	0.53	0.09
		4	Identifies, sorts, and matches geometric shapes	0.85	0.69	0.53	0.11	0.74	0.64	0.48	0.09
		2	Identifies, describes, and creates patterns to solve problems	0.65	0.56	0.49	0.08	0.73	0.64	0.56	0.07
		5	Applies a variety of measurement skills	0.70	0.55	0.37	0.13	0.70	0.64	0.56	0.06
		6	Uses calculation strategies to compute problems	0.66	0.53	0.33	0.15	0.75	0.66	0.54	0.09
		3	Displays and analyzes data	0.72	0.53	0.13	0.24	0.76	0.62	0.26	0.21
	5	4	Identifies, sorts, and matches geometric shapes	0.86	0.69	0.53	0.12	0.78	0.64	0.47	0.11
		1	Counts, represents quantities, reads and writes numbers	0.83	0.64	0.39	0.15	0.78	0.65	0.39	0.11
		3	Displays and analyzes data	0.75	0.59	0.41	0.14	0.80	0.68	0.57	0.10
		6	Uses calculation strategies to compute problems	0.80	0.56	0.37	0.20	0.73	0.61	0.40	0.15
		5	Applies a variety of measurement skills	0.65	0.53	0.32	0.12	0.76	0.60	0.50	0.08
		2	Identifies, describes, and creates patterns to solve problems	0.65	0.49	0.35	0.13	0.58	0.51	0.40	0.07

**Table 41**  
**Mathematics Expanded Benchmark Level Statistics, Ordered by Mean Difficulty (*P*-value) (continued)**

Content	Grade	Expanded Benchmark	Critical Concept	<i>P</i> -value				Point Biserial			
				High	Mean	Low	SD	High	Mean	Low	SD
MA	6	1	Counts, represents quantities, reads and writes numbers	0.82	0.67	0.48	0.11	0.76	0.67	0.55	0.09
		4	Identifies, sorts, and matches geometric shapes	0.84	0.66	0.33	0.21	0.72	0.50	0.18	0.22
		3	Displays and analyzes data	0.72	0.55	0.38	0.12	0.74	0.65	0.56	0.08
		6	Uses calculation strategies to compute problems	0.77	0.53	0.30	0.19	0.70	0.62	0.53	0.09
		2	Identifies, describes, and creates patterns to solve problems	0.63	0.52	0.42	0.09	0.72	0.58	0.47	0.10
		5	Applies a variety of measurement skills	0.66	0.51	0.32	0.14	0.72	0.57	0.25	0.18
	7	1	Counts, represents quantities, reads and writes numbers	0.81	0.65	0.47	0.12	0.73	0.63	0.50	0.09
		3	Displays and analyzes data	0.80	0.61	0.43	0.16	0.72	0.67	0.58	0.05
		4	Identifies, sorts, and matches geometric shapes	0.78	0.59	0.35	0.19	0.58	0.46	0.27	0.14
		5	Applies a variety of measurement skills	0.66	0.51	0.15	0.19	0.70	0.60	0.45	0.11
		6	Uses calculation strategies to compute problems	0.54	0.47	0.39	0.08	0.65	0.49	0.35	0.12
		2	Identifies, describes, and creates patterns to solve problems	0.59	0.47	0.31	0.12	0.70	0.49	0.32	0.13
	8	4	Identifies, sorts, and matches geometric shapes	0.80	0.67	0.48	0.15	0.66	0.62	0.56	0.04
		3	Displays and analyzes data	0.74	0.62	0.53	0.08	0.81	0.71	0.58	0.09
		1	Counts, represents quantities, reads and writes numbers	0.72	0.61	0.46	0.09	0.75	0.65	0.42	0.12
		5	Applies a variety of measurement skills	0.61	0.46	0.25	0.14	0.71	0.54	0.13	0.19
		6	Uses calculation strategies to compute problems	0.62	0.46	0.29	0.14	0.68	0.53	0.36	0.13
		2	Identifies, describes, and creates patterns to solve problems	0.52	0.42	0.33	0.08	0.70	0.48	0.34	0.13



**Table 41**  
**Mathematics Expanded Benchmark Level Statistics, Ordered by Mean Difficulty (*P*-value) (continued)**

Content	Grade	Expanded Benchmark	Critical Concept	<i>P</i> -value				Point Biserial			
				High	Mean	Low	SD	High	Mean	Low	SD
MA	9	1	Counts, represents quantities, reads and writes numbers	0.72	0.60	0.41	0.12	0.73	0.65	0.44	0.10
		4	Identifies, sorts, and matches geometric shapes	0.78	0.53	0.27	0.21	0.61	0.43	0.21	0.16
		5	Applies a variety of measurement skills	0.63	0.43	0.23	0.17	0.76	0.56	0.28	0.17
		2	Identifies, describes, and creates patterns to solve problems	0.54	0.40	0.29	0.10	0.66	0.46	0.32	0.15
		3	Displays and analyzes data	0.54	0.39	0.21	0.14	0.77	0.56	0.27	0.20
		6	Uses calculation strategies to compute problems	0.53	0.39	0.26	0.10	0.61	0.44	0.25	0.13
	10	1	Counts, represents quantities, reads and writes numbers	0.71	0.55	0.27	0.16	0.72	0.61	0.43	0.10
		3	Displays and analyzes data	0.67	0.49	0.19	0.21	0.76	0.58	0.30	0.18
		4	Identifies, sorts, and matches geometric shapes	0.79	0.44	0.20	0.25	0.75	0.49	0.26	0.19
		5	Applies a variety of measurement skills	0.57	0.38	0.06	0.20	0.70	0.48	0.03	0.24
		6	Uses calculation strategies to compute problems	0.51	0.36	0.17	0.14	0.53	0.43	0.19	0.14
		2	Identifies, describes, and creates patterns to solve problems	0.48	0.31	0.17	0.11	0.49	0.30	0.12	0.12

**Table 42**  
**Science Expanded Benchmark Level Statistics, Ordered by Mean Difficulty (*P*-value)**

Content	Grade	Expanded Benchmark	Critical Concept	<i>P</i> -value				Point Biserial			
				High	Mean	Low	SD	High	Mean	Low	SD
SC	5	5	Interacts with the weather and Earth systems	0.85	0.71	0.45	0.14	0.74	0.65	0.42	0.10
		4	Interacts with living things	0.88	0.67	0.49	0.15	0.76	0.63	0.51	0.08
		1	Makes observations, collects and organizes data	0.73	0.67	0.60	0.05	0.70	0.63	0.49	0.08
		3	Demonstrates an understanding of the fundamental properties of matter and energy	0.87	0.64	0.41	0.19	0.70	0.54	0.33	0.14
		2	Analyzes data and communicates results of scientific investigations	0.53	0.53	0.53	-	0.63	0.63	0.63	-
	8	2	Analyzes data and communicates results of scientific investigations	0.86	0.77	0.68	0.09	0.77	0.71	0.60	0.08
		1	Makes observations, collects and organizes data	0.82	0.73	0.67	0.06	0.78	0.71	0.59	0.08
		4	Interacts with living things	0.81	0.73	0.63	0.07	0.77	0.69	0.59	0.08
		5	Interacts with the weather and Earth systems	0.83	0.68	0.25	0.19	0.77	0.64	0.16	0.20
		3	Demonstrates an understanding of the fundamental properties of matter and energy	0.85	0.65	0.50	0.12	0.74	0.61	0.49	0.09
	10	2	Analyzes data and communicates results of scientific investigations	0.78	0.67	0.56	0.11	0.74	0.68	0.60	0.07
		1	Makes observations, collects and organizes data	0.76	0.66	0.57	0.07	0.68	0.58	0.52	0.06
		5	Interacts with the weather and Earth systems	0.84	0.65	0.36	0.18	0.69	0.54	0.28	0.13
		4	Interacts with living things	0.70	0.52	0.32	0.14	0.76	0.62	0.47	0.11
		3	Demonstrates an understanding of the fundamental properties of matter and energy	0.74	0.39	0.24	0.21	0.48	0.37	0.19	0.11

**Table 43**  
**Reading Grade 3 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	13	13	2.03%	2.03%
		1	1	14	0.16%	2.18%
		2	2	16	0.31%	2.50%
		3	2	18	0.31%	2.81%
		4	2	20	0.31%	3.12%
		5	4	24	0.62%	3.74%
		6	4	28	0.62%	4.37%
		7	0	28	0.00%	4.37%
		8	3	31	0.47%	4.84%
		9	2	33	0.31%	5.15%
		10	4	37	0.62%	5.77%
		11	1	38	0.16%	5.93%
		12	2	40	0.31%	6.24%
		13	2	42	0.31%	6.55%
		14	5	47	0.78%	7.33%
		15	3	50	0.47%	7.80%
RD	3	16	4	54	0.62%	8.42%
		17	0	54	0.00%	8.42%
		18	3	57	0.47%	8.89%
		19	1	58	0.16%	9.05%
		20	3	61	0.47%	9.52%
		21	7	68	1.09%	10.61%
		22	2	70	0.31%	10.92%
		23	6	76	0.94%	11.86%
		24	4	80	0.62%	12.48%
		25	0	80	0.00%	12.48%
		26	3	83	0.47%	12.95%
		27	6	89	0.94%	13.89%
		28	5	94	0.78%	14.67%
		29	4	98	0.62%	15.29%
		30	0	98	0.00%	15.29%
		31	4	102	0.62%	15.91%
		32	4	106	0.62%	16.54%
		33	5	111	0.78%	17.32%

**Table 43**  
**Reading Grade 3 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	2	113	0.31%	17.63%
		35	3	116	0.47%	18.10%
		36	7	123	1.09%	19.19%
		37	4	127	0.62%	19.81%
		38	6	133	0.94%	20.75%
		39	13	146	2.03%	22.78%
		40	6	152	0.94%	23.71%
		41	7	159	1.09%	24.81%
		42	11	170	1.72%	26.52%
		43	4	174	0.62%	27.15%
		44	5	179	0.78%	27.93%
		45	8	187	1.25%	29.17%
		46	0	187	0.00%	29.17%
		47	3	190	0.47%	29.64%
		48	9	199	1.40%	31.05%
		49	4	203	0.62%	31.67%
RD	3	50	5	208	0.78%	32.45%
		51	19	227	2.96%	35.41%
		52	1	228	0.16%	35.57%
		53	8	236	1.25%	36.82%
		54	14	250	2.18%	39.00%
		55	2	252	0.31%	39.31%
		56	8	260	1.25%	40.56%
		57	18	278	2.81%	43.37%
		58	4	282	0.62%	43.99%
		59	5	287	0.78%	44.77%
		60	25	312	3.90%	48.67%
		61	5	317	0.78%	49.45%
		62	5	322	0.78%	50.23%
		63	20	342	3.12%	53.35%
		64	2	344	0.31%	53.67%
		65	11	355	1.72%	55.38%
		66	19	374	2.96%	58.35%
		67	3	377	0.47%	58.81%

**Table 43**  
**Reading Grade 3 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	7	384	1.09%	59.91%
		69	14	398	2.18%	62.09%
		70	2	400	0.31%	62.40%
		71	5	405	0.78%	63.18%
		72	22	427	3.43%	66.62%
		73	3	430	0.47%	67.08%
		74	11	441	1.72%	68.80%
		75	13	454	2.03%	70.83%
		76	4	458	0.62%	71.45%
		77	5	463	0.78%	72.23%
		78	19	482	2.96%	75.20%
		79	2	484	0.31%	75.51%
		80	5	489	0.78%	76.29%
		81	16	505	2.50%	78.78%
		82	2	507	0.31%	79.10%
		83	6	513	0.94%	80.03%
RD	3	84	16	529	2.50%	82.53%
		85	4	533	0.62%	83.15%
		86	11	544	1.72%	84.87%
		87	16	560	2.50%	87.36%
		88	4	564	0.62%	87.99%
		89	5	569	0.78%	88.77%
		90	22	591	3.43%	92.20%
		91	3	594	0.47%	92.67%
		92	3	597	0.47%	93.14%
		93	9	606	1.40%	94.54%
		94	2	608	0.31%	94.85%
		95	3	611	0.47%	95.32%
		96	17	628	2.65%	97.97%
		97	1	629	0.16%	98.13%
		98	1	630	0.16%	98.28%
		99	7	637	1.09%	99.38%
		100	0	637	0.00%	99.38%
		101	1	638	0.16%	99.53%

**Table 43**  
**Reading Grade 3 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	2	640	0.31%	99.84%
RD	3	103	0	640	0.00%	99.84%
		104	1	641	0.16%	100%
		105	0	641	0.00%	100%

**Table 44**  
**Reading Grade 4 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	18	18	2.90%	2.90%
		1	1	19	0.16%	3.07%
		2	4	23	0.65%	3.71%
		3	4	27	0.65%	4.36%
		4	1	28	0.16%	4.52%
		5	2	30	0.32%	4.84%
		6	0	30	0.00%	4.84%
		7	0	30	0.00%	4.84%
		8	1	31	0.16%	5.00%
		9	2	33	0.32%	5.32%
		10	4	37	0.65%	5.97%
		11	1	38	0.16%	6.13%
		12	1	39	0.16%	6.29%
		13	0	39	0.00%	6.29%
		14	2	41	0.32%	6.61%
		15	4	45	0.65%	7.26%
RD	4	16	2	47	0.32%	7.58%
		17	5	52	0.81%	8.39%
		18	1	53	0.16%	8.55%
		19	3	56	0.48%	9.03%
		20	3	59	0.48%	9.52%
		21	7	66	1.13%	10.65%
		22	3	69	0.48%	11.13%
		23	4	73	0.65%	11.77%
		24	5	78	0.81%	12.58%
		25	1	79	0.16%	12.74%
		26	2	81	0.32%	13.07%
		27	4	85	0.65%	13.71%
		28	1	86	0.16%	13.87%
		29	1	87	0.16%	14.03%
		30	7	94	1.13%	15.16%
		31	8	102	1.29%	16.45%
		32	5	107	0.81%	17.26%
		33	7	114	1.13%	18.39%

**Table 44**  
**Reading Grade 4 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	3	117	0.48%	18.87%
		35	5	122	0.81%	19.68%
		36	11	133	1.77%	21.45%
		37	1	134	0.16%	21.61%
		38	10	144	1.61%	23.23%
		39	8	152	1.29%	24.52%
		40	4	156	0.65%	25.16%
		41	1	157	0.16%	25.32%
		42	13	170	2.10%	27.42%
		43	4	174	0.65%	28.07%
		44	4	178	0.65%	28.71%
		45	11	189	1.77%	30.48%
		46	4	193	0.65%	31.13%
		47	9	202	1.45%	32.58%
		48	17	219	2.74%	35.32%
		49	3	222	0.48%	35.81%
RD	4	50	3	225	0.48%	36.29%
		51	8	233	1.29%	37.58%
		52	1	234	0.16%	37.74%
		53	5	239	0.81%	38.55%
		54	11	250	1.77%	40.32%
		55	3	253	0.48%	40.81%
		56	6	259	0.97%	41.77%
		57	20	279	3.23%	45.00%
		58	4	283	0.65%	45.65%
		59	7	290	1.13%	46.77%
		60	15	305	2.42%	49.19%
		61	7	312	1.13%	50.32%
		62	5	317	0.81%	51.13%
		63	19	336	3.06%	54.19%
		64	1	337	0.16%	54.36%
		65	3	340	0.48%	54.84%
		66	15	355	2.42%	57.26%
		67	6	361	0.97%	58.23%



**Table 44**  
**Reading Grade 4 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	1	362	0.16%	58.39%
		69	8	370	1.29%	59.68%
		70	3	373	0.48%	60.16%
		71	7	380	1.13%	61.29%
		72	26	406	4.19%	65.48%
		73	5	411	0.81%	66.29%
		74	6	417	0.97%	67.26%
		75	14	431	2.26%	69.52%
		76	3	434	0.48%	70.00%
		77	2	436	0.32%	70.32%
		78	23	459	3.71%	74.03%
		79	3	462	0.48%	74.52%
		80	5	467	0.81%	75.32%
		81	13	480	2.10%	77.42%
		82	5	485	0.81%	78.23%
		83	5	490	0.81%	79.03%
RD	4	84	17	507	2.74%	81.77%
		85	2	509	0.32%	82.10%
		86	5	514	0.81%	82.90%
		87	18	532	2.90%	85.81%
		88	5	537	0.81%	86.61%
		89	6	543	0.97%	87.58%
		90	14	557	2.26%	89.84%
		91	2	559	0.32%	90.16%
		92	2	561	0.32%	90.48%
		93	23	584	3.71%	94.19%
		94	2	586	0.32%	94.52%
		95	3	589	0.48%	95.00%
		96	9	598	1.45%	96.45%
		97	1	599	0.16%	96.61%
		98	2	601	0.32%	96.94%
		99	3	604	0.48%	97.42%
		100	0	604	0.00%	97.42%
		101	0	604	0.00%	97.42%

**Table 44**  
**Reading Grade 4 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	14	618	2.26%	99.68%
RD	4	103	0	618	0.00%	99.68%
		104	0	618	0.00%	99.68%
		105	2	620	0.32%	100%

**Table 45**  
**Reading Grade 5 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	17	17	2.56%	2.56%
		1	2	19	0.30%	2.86%
		2	0	19	0.00%	2.86%
		3	2	21	0.30%	3.16%
		4	0	21	0.00%	3.16%
		5	1	22	0.15%	3.31%
		6	3	25	0.45%	3.76%
		7	3	28	0.45%	4.21%
		8	0	28	0.00%	4.21%
		9	2	30	0.30%	4.51%
		10	3	33	0.45%	4.96%
		11	2	35	0.30%	5.26%
		12	5	40	0.75%	6.02%
		13	2	42	0.30%	6.32%
		14	3	45	0.45%	6.77%
		15	2	47	0.30%	7.07%
RD	5	16	0	47	0.00%	7.07%
		17	2	49	0.30%	7.37%
		18	4	53	0.60%	7.97%
		19	2	55	0.30%	8.27%
		20	1	56	0.15%	8.42%
		21	2	58	0.30%	8.72%
		22	2	60	0.30%	9.02%
		23	3	63	0.45%	9.47%
		24	7	70	1.05%	10.53%
		25	3	73	0.45%	10.98%
		26	4	77	0.60%	11.58%
		27	5	82	0.75%	12.33%
		28	1	83	0.15%	12.48%
		29	1	84	0.15%	12.63%
		30	7	91	1.05%	13.68%
		31	2	93	0.30%	13.99%
		32	3	96	0.45%	14.44%
		33	10	106	1.50%	15.94%

**Table 45**  
**Reading Grade 5 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	5	111	0.75%	16.69%
		35	4	115	0.60%	17.29%
		36	14	129	2.11%	19.40%
		37	2	131	0.30%	19.70%
		38	8	139	1.20%	20.90%
		39	17	156	2.56%	23.46%
		40	4	160	0.60%	24.06%
		41	3	163	0.45%	24.51%
		42	6	169	0.90%	25.41%
		43	4	173	0.60%	26.02%
		44	6	179	0.90%	26.92%
		45	11	190	1.65%	28.57%
		46	1	191	0.15%	28.72%
		47	2	193	0.30%	29.02%
		48	16	209	2.41%	31.43%
		49	4	213	0.60%	32.03%
RD	5	50	2	215	0.30%	32.33%
		51	6	221	0.90%	33.23%
		52	5	226	0.75%	33.99%
		53	5	231	0.75%	34.74%
		54	13	244	1.95%	36.69%
		55	2	246	0.30%	36.99%
		56	3	249	0.45%	37.44%
		57	16	265	2.41%	39.85%
		58	1	266	0.15%	40.00%
		59	5	271	0.75%	40.75%
		60	11	282	1.65%	42.41%
		61	0	282	0.00%	42.41%
		62	3	285	0.45%	42.86%
		63	18	303	2.71%	45.56%
		64	4	307	0.60%	46.17%
		65	8	315	1.20%	47.37%
		66	13	328	1.95%	49.32%
		67	1	329	0.15%	49.47%

**Table 45**  
**Reading Grade 5 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	6	335	0.90%	50.38%
		69	19	354	2.86%	53.23%
		70	2	356	0.30%	53.53%
		71	2	358	0.30%	53.84%
		72	19	377	2.86%	56.69%
		73	1	378	0.15%	56.84%
		74	5	383	0.75%	57.59%
		75	17	400	2.56%	60.15%
		76	4	404	0.60%	60.75%
		77	9	413	1.35%	62.11%
		78	23	436	3.46%	65.56%
		79	3	439	0.45%	66.02%
		80	6	445	0.90%	66.92%
		81	24	469	3.61%	70.53%
		82	4	473	0.60%	71.13%
		83	2	475	0.30%	71.43%
RD	5	84	25	500	3.76%	75.19%
		85	2	502	0.30%	75.49%
		86	8	510	1.20%	76.69%
		87	26	536	3.91%	80.60%
		88	0	536	0.00%	80.60%
		89	1	537	0.15%	80.75%
		90	26	563	3.91%	84.66%
		91	5	568	0.75%	85.41%
		92	6	574	0.90%	86.32%
		93	22	596	3.31%	89.62%
		94	3	599	0.45%	90.08%
		95	9	608	1.35%	91.43%
		96	18	626	2.71%	94.14%
		97	4	630	0.60%	94.74%
		98	4	634	0.60%	95.34%
		99	18	652	2.71%	98.05%
		100	1	653	0.15%	98.20%
		101	4	657	0.60%	98.80%

**Table 45**  
**Reading Grade 5 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	1	658	0.15%	98.95%
RD	5	103	0	658	0.00%	98.95%
		104	2	660	0.30%	99.25%
		105	5	665	0.75%	100%

**Table 46**  
**Reading Grade 6 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	11	11	2.07%	2.07%
		1	1	12	0.19%	2.26%
		2	2	14	0.38%	2.64%
		3	1	15	0.19%	2.83%
		4	0	15	0.00%	2.83%
		5	0	15	0.00%	2.83%
		6	4	19	0.75%	3.58%
		7	1	20	0.19%	3.77%
		8	0	20	0.00%	3.77%
		9	0	20	0.00%	3.77%
		10	0	20	0.00%	3.77%
		11	0	20	0.00%	3.77%
		12	1	21	0.19%	3.96%
		13	2	23	0.38%	4.33%
		14	4	27	0.75%	5.09%
		15	6	33	1.13%	6.22%
RD	6	16	1	34	0.19%	6.40%
		17	2	36	0.38%	6.78%
		18	0	36	0.00%	6.78%
		19	2	38	0.38%	7.16%
		20	3	41	0.57%	7.72%
		21	2	43	0.38%	8.10%
		22	0	43	0.00%	8.10%
		23	4	47	0.75%	8.85%
		24	7	54	1.32%	10.17%
		25	0	54	0.00%	10.17%
		26	4	58	0.75%	10.92%
		27	3	61	0.57%	11.49%
		28	2	63	0.38%	11.86%
		29	5	68	0.94%	12.81%
		30	3	71	0.57%	13.37%
		31	3	74	0.57%	13.94%
		32	5	79	0.94%	14.88%
		33	6	85	1.13%	16.01%

**Table 46**  
**Reading Grade 6 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	4	89	0.75%	16.76%
		35	3	92	0.57%	17.33%
		36	4	96	0.75%	18.08%
		37	1	97	0.19%	18.27%
		38	3	100	0.57%	18.83%
		39	8	108	1.51%	20.34%
		40	3	111	0.57%	20.90%
		41	0	111	0.00%	20.90%
		42	8	119	1.51%	22.41%
		43	4	123	0.75%	23.16%
		44	3	126	0.57%	23.73%
		45	16	142	3.01%	26.74%
		46	4	146	0.75%	27.50%
		47	3	149	0.57%	28.06%
		48	10	159	1.88%	29.94%
		49	0	159	0.00%	29.94%
RD	6	50	4	163	0.75%	30.70%
		51	5	168	0.94%	31.64%
		52	3	171	0.57%	32.20%
		53	3	174	0.57%	32.77%
		54	6	180	1.13%	33.90%
		55	3	183	0.57%	34.46%
		56	5	188	0.94%	35.41%
		57	6	194	1.13%	36.54%
		58	4	198	0.75%	37.29%
		59	2	200	0.38%	37.67%
		60	10	210	1.88%	39.55%
		61	3	213	0.57%	40.11%
		62	3	216	0.57%	40.68%
		63	13	229	2.45%	43.13%
		64	0	229	0.00%	43.13%
		65	5	234	0.94%	44.07%
		66	9	243	1.69%	45.76%
		67	2	245	0.38%	46.14%



**Table 46**  
**Reading Grade 6 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	3	248	0.57%	46.70%
		69	17	265	3.20%	49.91%
		70	2	267	0.38%	50.28%
		71	2	269	0.38%	50.66%
		72	17	286	3.20%	53.86%
		73	4	290	0.75%	54.61%
		74	2	292	0.38%	54.99%
		75	12	304	2.26%	57.25%
		76	1	305	0.19%	57.44%
		77	3	308	0.57%	58.00%
		78	11	319	2.07%	60.08%
		79	2	321	0.38%	60.45%
		80	6	327	1.13%	61.58%
		81	18	345	3.39%	64.97%
		82	2	347	0.38%	65.35%
		83	1	348	0.19%	65.54%
RD	6	84	29	377	5.46%	71.00%
		85	1	378	0.19%	71.19%
		86	7	385	1.32%	72.51%
		87	26	411	4.90%	77.40%
		88	4	415	0.75%	78.15%
		89	7	422	1.32%	79.47%
		90	20	442	3.77%	83.24%
		91	2	444	0.38%	83.62%
		92	5	449	0.94%	84.56%
		93	14	463	2.64%	87.19%
		94	1	464	0.19%	87.38%
		95	5	469	0.94%	88.32%
		96	28	497	5.27%	93.60%
		97	2	499	0.38%	93.97%
		98	3	502	0.57%	94.54%
		99	13	515	2.45%	96.99%
		100	0	515	0.00%	96.99%
		101	1	516	0.19%	97.18%

**Table 46**  
**Reading Grade 6 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	4	520	0.75%	97.93%
RD	6	103	0	520	0.00%	97.93%
		104	4	524	0.75%	98.68%
		105	7	531	1.32%	100%

**Table 47**  
**Reading Grade 7 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	15	15	2.65%	2.66%
		1	0	15	0.00%	2.66%
		2	1	16	0.18%	2.83%
		3	1	17	0.18%	3.01%
		4	1	18	0.18%	3.19%
		5	0	18	0.00%	3.19%
		6	1	19	0.18%	3.36%
		7	0	19	0.00%	3.36%
		8	1	20	0.18%	3.54%
		9	1	21	0.18%	3.72%
		10	0	21	0.00%	3.72%
		11	0	21	0.00%	3.72%
		12	1	22	0.18%	3.89%
		13	2	24	0.35%	4.25%
		14	2	26	0.35%	4.60%
		15	3	29	0.53%	5.13%
RD	7	16	0	29	0.00%	5.13%
		17	1	30	0.18%	5.31%
		18	1	31	0.18%	5.49%
		19	0	31	0.00%	5.49%
		20	0	31	0.00%	5.49%
		21	4	35	0.71%	6.20%
		22	2	37	0.35%	6.55%
		23	3	40	0.53%	7.08%
		24	8	48	1.42%	8.50%
		25	0	48	0.00%	8.50%
		26	2	50	0.35%	8.85%
		27	6	56	1.06%	9.91%
		28	1	57	0.18%	10.09%
		29	1	58	0.18%	10.27%
		30	9	67	1.59%	11.86%
		31	5	72	0.89%	12.74%
		32	3	75	0.53%	13.27%
		33	11	86	1.95%	15.22%

**Table 47**  
**Reading Grade 7 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	8	94	1.42%	16.64%
		35	4	98	0.71%	17.35%
		36	10	108	1.77%	19.12%
		37	0	108	0.00%	19.12%
		38	3	111	0.53%	19.65%
		39	16	127	2.83%	22.48%
		40	3	130	0.53%	23.01%
		41	2	132	0.35%	23.36%
		42	11	143	1.95%	25.31%
		43	4	147	0.71%	26.02%
		44	5	152	0.89%	26.90%
		45	17	169	3.01%	29.91%
		46	2	171	0.35%	30.27%
		47	3	174	0.53%	30.80%
		48	16	190	2.83%	33.63%
		49	1	191	0.18%	33.81%
RD	7	50	3	194	0.53%	34.34%
		51	13	207	2.30%	36.64%
		52	1	208	0.18%	36.81%
		53	2	210	0.35%	37.17%
		54	17	227	3.01%	40.18%
		55	1	228	0.18%	40.35%
		56	11	239	1.95%	42.30%
		57	18	257	3.19%	45.49%
		58	4	261	0.71%	46.20%
		59	8	269	1.42%	47.61%
		60	21	290	3.72%	51.33%
		61	0	290	0.00%	51.33%
		62	2	292	0.35%	51.68%
		63	14	306	2.48%	54.16%
		64	5	311	0.89%	55.04%
		65	3	314	0.53%	55.58%
		66	14	328	2.48%	58.05%
		67	6	334	1.06%	59.12%

**Table 47**  
**Reading Grade 7 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	7	341	1.24%	60.35%
		69	18	359	3.19%	63.54%
		70	2	361	0.35%	63.89%
		71	3	364	0.53%	64.43%
		72	29	393	5.13%	69.56%
		73	4	397	0.71%	70.27%
		74	7	404	1.24%	71.50%
		75	25	429	4.42%	75.93%
		76	4	433	0.71%	76.64%
		77	5	438	0.89%	77.52%
		78	22	460	3.89%	81.42%
		79	2	462	0.35%	81.77%
		80	4	466	0.71%	82.48%
		81	18	484	3.19%	85.66%
		82	1	485	0.18%	85.84%
		83	1	486	0.18%	86.02%
RD	7	84	23	509	4.07%	90.09%
		85	2	511	0.35%	90.44%
		86	1	512	0.18%	90.62%
		87	19	531	3.36%	93.98%
		88	0	531	0.00%	93.98%
		89	0	531	0.00%	93.98%
		90	12	543	2.12%	96.11%
		91	1	544	0.18%	96.28%
		92	2	546	0.35%	96.64%
		93	8	554	1.42%	98.05%
		94	1	555	0.18%	98.23%
		95	0	555	0.00%	98.23%
		96	3	558	0.53%	98.76%
		97	0	558	0.00%	98.76%
		98	2	560	0.35%	99.12%
		99	3	563	0.53%	99.65%
		100	0	563	0.00%	99.65%
		101	1	564	0.18%	99.82%

**Table 47**  
**Reading Grade 7 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	1	565	0.18%	100%
RD	7	103	0	565	0.00%	100%
		104	0	565	0.00%	100%
		105	0	565	0.00%	100%

**Table 48**  
**Reading Grade 8 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	18	18	3.59%	3.59%
		1	4	22	0.80%	4.38%
		2	1	23	0.20%	4.58%
		3	2	25	0.40%	4.98%
		4	2	27	0.40%	5.38%
		5	1	28	0.20%	5.58%
		6	3	31	0.60%	6.18%
		7	1	32	0.20%	6.38%
		8	2	34	0.40%	6.77%
		9	1	35	0.20%	6.97%
		10	0	35	0.00%	6.97%
		11	1	36	0.20%	7.17%
		12	4	40	0.80%	7.97%
		13	3	43	0.60%	8.57%
		14	0	43	0.00%	8.57%
		15	4	47	0.80%	9.36%
RD	8	16	0	47	0.00%	9.36%
		17	1	48	0.20%	9.56%
		18	5	53	1.00%	10.56%
		19	2	55	0.40%	10.96%
		20	1	56	0.20%	11.16%
		21	10	66	1.99%	13.15%
		22	2	68	0.40%	13.55%
		23	2	70	0.40%	13.94%
		24	8	78	1.59%	15.54%
		25	1	79	0.20%	15.74%
		26	1	80	0.20%	15.94%
		27	3	83	0.60%	16.53%
		28	4	87	0.80%	17.33%
		29	2	89	0.40%	17.73%
		30	8	97	1.59%	19.32%
		31	1	98	0.20%	19.52%
		32	6	104	1.20%	20.72%
		33	18	122	3.59%	24.30%

**Table 48**  
**Reading Grade 8 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	4	126	0.80%	25.10%
		35	2	128	0.40%	25.50%
		36	15	143	2.99%	28.49%
		37	4	147	0.80%	29.28%
		38	2	149	0.40%	29.68%
		39	16	165	3.19%	32.87%
		40	0	165	0.00%	32.87%
		41	0	165	0.00%	32.87%
		42	15	180	2.99%	35.86%
		43	2	182	0.40%	36.26%
		44	3	185	0.60%	36.85%
		45	14	199	2.79%	39.64%
		46	0	199	0.00%	39.64%
		47	3	202	0.60%	40.24%
		48	8	210	1.59%	41.83%
		49	4	214	0.80%	42.63%
RD	8	50	1	215	0.20%	42.83%
		51	14	229	2.79%	45.62%
		52	1	230	0.20%	45.82%
		53	2	232	0.40%	46.22%
		54	15	247	2.99%	49.20%
		55	1	248	0.20%	49.40%
		56	5	253	1.00%	50.40%
		57	13	266	2.59%	52.99%
		58	1	267	0.20%	53.19%
		59	4	271	0.80%	53.98%
		60	12	283	2.39%	56.38%
		61	0	283	0.00%	56.38%
		62	4	287	0.80%	57.17%
		63	16	303	3.19%	60.36%
		64	1	304	0.20%	60.56%
		65	3	307	0.60%	61.16%
		66	14	321	2.79%	63.94%
		67	1	322	0.20%	64.14%



**Table 48**  
**Reading Grade 8 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	5	327	1.00%	65.14%
		69	20	347	3.98%	69.12%
		70	2	349	0.40%	69.52%
		71	1	350	0.20%	69.72%
		72	20	370	3.98%	73.71%
		73	2	372	0.40%	74.10%
		74	3	375	0.60%	74.70%
		75	12	387	2.39%	77.09%
		76	3	390	0.60%	77.69%
		77	2	392	0.40%	78.09%
		78	10	402	1.99%	80.08%
		79	3	405	0.60%	80.68%
		80	2	407	0.40%	81.08%
		81	12	419	2.39%	83.47%
		82	1	420	0.20%	83.67%
		83	6	426	1.20%	84.86%
RD	8	84	12	438	2.39%	87.25%
		85	1	439	0.20%	87.45%
		86	2	441	0.40%	87.85%
		87	19	460	3.78%	91.63%
		88	1	461	0.20%	91.83%
		89	2	463	0.40%	92.23%
		90	12	475	2.39%	94.62%
		91	1	476	0.20%	94.82%
		92	1	477	0.20%	95.02%
		93	9	486	1.79%	96.81%
		94	1	487	0.20%	97.01%
		95	1	488	0.20%	97.21%
		96	4	492	0.80%	98.01%
		97	0	492	0.00%	98.01%
		98	3	495	0.60%	98.61%
		99	6	501	1.20%	99.80%
		100	0	501	0.00%	99.80%
		101	0	501	0.00%	99.80%

**Table 48**  
**Reading Grade 8 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	1	502	0.20%	100%
RD	8	103	0	502	0.00%	100%
		104	0	502	0.00%	100%
		105	0	502	0.00%	100%

**Table 49**  
**Reading Grade 9 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	17	17	3.22%	3.22%
		1	2	19	0.38%	3.60%
		2	0	19	0.00%	3.60%
		3	5	24	0.95%	4.55%
		4	1	25	0.19%	4.74%
		5	1	26	0.19%	4.92%
		6	2	28	0.38%	5.30%
		7	3	31	0.57%	5.87%
		8	0	31	0.00%	5.87%
		9	7	38	1.33%	7.20%
		10	0	38	0.00%	7.20%
		11	1	39	0.19%	7.39%
		12	0	39	0.00%	7.39%
		13	1	40	0.19%	7.58%
		14	0	40	0.00%	7.58%
		15	5	45	0.95%	8.52%
RD	9	16	1	46	0.19%	8.71%
		17	2	48	0.38%	9.09%
		18	8	56	1.52%	10.61%
		19	2	58	0.38%	10.99%
		20	0	58	0.00%	10.99%
		21	9	67	1.70%	12.69%
		22	2	69	0.38%	13.07%
		23	1	70	0.19%	13.26%
		24	9	79	1.70%	14.96%
		25	4	83	0.76%	15.72%
		26	3	86	0.57%	16.29%
		27	11	97	2.08%	18.37%
		28	2	99	0.38%	18.75%
		29	3	102	0.57%	19.32%
		30	9	111	1.70%	21.02%
		31	3	114	0.57%	21.59%
		32	5	119	0.95%	22.54%
		33	19	138	3.60%	26.14%

**Table 49**  
**Reading Grade 9 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	3	141	0.57%	26.71%
		35	4	145	0.76%	27.46%
		36	15	160	2.84%	30.30%
		37	1	161	0.19%	30.49%
		38	5	166	0.95%	31.44%
		39	13	179	2.46%	33.90%
		40	2	181	0.38%	34.28%
		41	2	183	0.38%	34.66%
		42	16	199	3.03%	37.69%
		43	2	201	0.38%	38.07%
		44	3	204	0.57%	38.64%
		45	13	217	2.46%	41.10%
		46	1	218	0.19%	41.29%
		47	4	222	0.76%	42.05%
		48	10	232	1.89%	43.94%
		49	3	235	0.57%	44.51%
RD	9	50	3	238	0.57%	45.08%
		51	13	251	2.46%	47.54%
		52	3	254	0.57%	48.11%
		53	0	254	0.00%	48.11%
		54	15	269	2.84%	50.95%
		55	3	272	0.57%	51.52%
		56	3	275	0.57%	52.08%
		57	8	283	1.52%	53.60%
		58	0	283	0.00%	53.60%
		59	0	283	0.00%	53.60%
		60	16	299	3.03%	56.63%
		61	0	299	0.00%	56.63%
		62	1	300	0.19%	56.82%
		63	24	324	4.55%	61.36%
		64	1	325	0.19%	61.55%
		65	4	329	0.76%	62.31%
		66	15	344	2.84%	65.15%
		67	1	345	0.19%	65.34%

**Table 49**  
**Reading Grade 9 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	3	348	0.57%	65.91%
		69	10	358	1.89%	67.80%
		70	2	360	0.38%	68.18%
		71	4	364	0.76%	68.94%
		72	12	376	2.27%	71.21%
		73	1	377	0.19%	71.40%
		74	1	378	0.19%	71.59%
		75	15	393	2.84%	74.43%
		76	0	393	0.00%	74.43%
		77	4	397	0.76%	75.19%
		78	13	410	2.46%	77.65%
		79	2	412	0.38%	78.03%
		80	0	412	0.00%	78.03%
		81	24	436	4.55%	82.58%
		82	0	436	0.00%	82.58%
		83	4	440	0.76%	83.33%
		84	18	458	3.41%	86.74%
RD	9	85	1	459	0.19%	86.93%
		86	3	462	0.57%	87.50%
		87	14	476	2.65%	90.15%
		88	1	477	0.19%	90.34%
		89	1	478	0.19%	90.53%
		90	13	491	2.46%	92.99%
		91	4	495	0.76%	93.75%
		92	1	496	0.19%	93.94%
		93	12	508	2.27%	96.21%
		94	0	508	0.00%	96.21%
		95	3	511	0.57%	96.78%
		96	8	519	1.52%	98.30%
		97	0	519	0.00%	98.30%
		98	1	520	0.19%	98.49%
		99	6	526	1.14%	99.62%
		100	0	526	0.00%	99.62%
		101	0	526	0.00%	99.62%
		102	2	528	0.38%	100%

**Table 50**  
**Reading Grade 10 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	15	15	3.06%	3.06%
		1	0	15	0.00%	3.06%
		2	2	17	0.41%	3.46%
		3	0	17	0.00%	3.46%
		4	3	20	0.61%	4.07%
		5	2	22	0.41%	4.48%
		6	1	23	0.20%	4.68%
		7	0	23	0.00%	4.68%
		8	2	25	0.41%	5.09%
		9	2	27	0.41%	5.50%
		10	0	27	0.00%	5.50%
		11	1	28	0.20%	5.70%
		12	5	33	1.02%	6.72%
		13	1	34	0.20%	6.93%
		14	3	37	0.61%	7.54%
		15	0	37	0.00%	7.54%
RD	10	16	1	38	0.20%	7.74%
		17	1	39	0.20%	7.94%
		18	5	44	1.02%	8.96%
		19	2	46	0.41%	9.37%
		20	0	46	0.00%	9.37%
		21	16	62	3.26%	12.63%
		22	2	64	0.41%	13.04%
		23	3	67	0.61%	13.65%
		24	15	82	3.06%	16.70%
		25	7	89	1.43%	18.13%
		26	5	94	1.02%	19.15%
		27	9	103	1.83%	20.98%
		28	5	108	1.02%	22.00%
		29	4	112	0.81%	22.81%
		30	16	128	3.26%	26.07%
		31	4	132	0.81%	26.88%
		32	5	137	1.02%	27.90%
		33	21	158	4.28%	32.18%

**Table 50**  
**Reading Grade 10 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	2	160	0.41%	32.59%
		35	6	166	1.22%	33.81%
		36	16	182	3.26%	37.07%
		37	2	184	0.41%	37.48%
		38	4	188	0.81%	38.29%
		39	13	201	2.65%	40.94%
		40	1	202	0.20%	41.14%
		41	5	207	1.02%	42.16%
		42	7	214	1.43%	43.59%
		43	1	215	0.20%	43.79%
		44	3	218	0.61%	44.40%
		45	15	233	3.06%	47.45%
		46	1	234	0.20%	47.66%
		47	2	236	0.41%	48.07%
		48	24	260	4.89%	52.95%
		49	4	264	0.81%	53.77%
RD	10	50	2	266	0.41%	54.18%
		51	9	275	1.83%	56.01%
		52	0	275	0.00%	56.01%
		53	0	275	0.00%	56.01%
		54	10	285	2.04%	58.05%
		55	0	285	0.00%	58.05%
		56	0	285	0.00%	58.05%
		57	15	300	3.06%	61.10%
		58	2	302	0.41%	61.51%
		59	4	306	0.81%	62.32%
		60	7	313	1.43%	63.75%
		61	1	314	0.20%	63.95%
		62	1	315	0.20%	64.16%
		63	17	332	3.46%	67.62%
		64	1	333	0.20%	67.82%
		65	3	336	0.61%	68.43%
		66	8	344	1.63%	70.06%
		67	3	347	0.61%	70.67%

**Table 50**  
**Reading Grade 10 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	3	350	0.61%	71.28%
		69	15	365	3.06%	74.34%
		70	0	365	0.00%	74.34%
		71	4	369	0.81%	75.15%
		72	18	387	3.67%	78.82%
		73	2	389	0.41%	79.23%
		74	4	393	0.81%	80.04%
		75	12	405	2.44%	82.49%
		76	0	405	0.00%	82.49%
		77	5	410	1.02%	83.50%
		78	12	422	2.44%	85.95%
		79	2	424	0.41%	86.35%
		80	3	427	0.61%	86.97%
		81	15	442	3.06%	90.02%
		82	3	445	0.61%	90.63%
		83	2	447	0.41%	91.04%
		84	8	455	1.63%	92.67%
RD	10	85	0	455	0.00%	92.67%
		86	1	456	0.20%	92.87%
		87	8	464	1.63%	94.50%
		88	1	465	0.20%	94.71%
		89	3	468	0.61%	95.32%
		90	14	482	2.85%	98.17%
		91	0	482	0.00%	98.17%
		92	2	484	0.41%	98.57%
		93	4	488	0.81%	99.39%
		94	0	488	0.00%	99.39%
		95	0	488	0.00%	99.39%
		96	2	490	0.41%	99.80%
		97	1	491	0.20%	100%
		98	0	491	0.00%	100%
		99	0	491	0.00%	100%
		100	0	491	0.00%	100%
		101	0	491	0.00%	100%
		102	0	491	0.00%	100%



**Table 51**  
**Writing Grade 3 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	19	19	2.93%	2.93%
		1	3	22	0.46%	3.40%
		2	3	25	0.46%	3.86%
		3	4	29	0.62%	4.48%
		4	7	36	1.08%	5.56%
		5	5	41	0.77%	6.33%
		6	1	42	0.15%	6.48%
		7	3	45	0.46%	6.94%
		8	6	51	0.93%	7.87%
		9	4	55	0.62%	8.49%
		10	3	58	0.46%	8.95%
		11	6	64	0.93%	9.88%
		12	7	71	1.08%	10.96%
		13	3	74	0.46%	11.42%
		14	4	78	0.62%	12.04%
		15	4	82	0.62%	12.65%
WR	3	16	3	85	0.46%	13.12%
		17	3	88	0.46%	13.58%
		18	10	98	1.54%	15.12%
		19	4	102	0.62%	15.74%
		20	5	107	0.77%	16.51%
		21	10	117	1.54%	18.06%
		22	3	120	0.46%	18.52%
		23	3	123	0.46%	18.98%
		24	5	128	0.77%	19.75%
		25	3	131	0.46%	20.22%
		26	5	136	0.77%	20.99%
		27	5	141	0.77%	21.76%
		28	4	145	0.62%	22.38%
		29	3	148	0.46%	22.84%
		30	9	157	1.39%	24.23%
		31	1	158	0.15%	24.38%
		32	2	160	0.31%	24.69%
		33	2	162	0.31%	25.00%

**Table 51**  
**Writing Grade 3 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	5	167	0.77%	25.77%
		35	8	175	1.23%	27.01%
		36	8	183	1.23%	28.24%
		37	4	187	0.62%	28.86%
		38	6	193	0.93%	29.78%
		39	3	196	0.46%	30.25%
		40	6	202	0.93%	31.17%
		41	8	210	1.23%	32.41%
		42	7	217	1.08%	33.49%
		43	2	219	0.31%	33.80%
		44	7	226	1.08%	34.88%
		45	5	231	0.77%	35.65%
		46	4	235	0.62%	36.27%
		47	7	242	1.08%	37.35%
		48	3	245	0.46%	37.81%
		49	8	253	1.23%	39.04%
WR	3	50	6	259	0.93%	39.97%
		51	7	266	1.08%	41.05%
		52	5	271	0.77%	41.82%
		53	6	277	0.93%	42.75%
		54	7	284	1.08%	43.83%
		55	6	290	0.93%	44.75%
		56	3	293	0.46%	45.22%
		57	8	301	1.23%	46.45%
		58	5	306	0.77%	47.22%
		59	3	309	0.46%	47.69%
		60	9	318	1.39%	49.07%
		61	5	323	0.77%	49.85%
		62	5	328	0.77%	50.62%
		63	7	335	1.08%	51.70%
		64	10	345	1.54%	53.24%
		65	7	352	1.08%	54.32%
		66	8	360	1.23%	55.56%
		67	9	369	1.39%	56.94%

**Table 51**  
**Writing Grade 3 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	7	376	1.08%	58.03%
		69	10	386	1.54%	59.57%
		70	9	395	1.39%	60.96%
		71	9	404	1.39%	62.35%
		72	14	418	2.16%	64.51%
		73	16	434	2.47%	66.98%
		74	7	441	1.08%	68.06%
		75	4	445	0.62%	68.67%
		76	13	458	2.01%	70.68%
		77	3	461	0.46%	71.14%
		78	10	471	1.54%	72.69%
		79	14	485	2.16%	74.85%
		80	5	490	0.77%	75.62%
		81	9	499	1.39%	77.01%
		82	10	509	1.54%	78.55%
		83	8	517	1.23%	79.78%
WR	3	84	15	532	2.31%	82.10%
		85	13	545	2.01%	84.11%
		86	6	551	0.93%	85.03%
		87	11	562	1.70%	86.73%
		88	12	574	1.85%	88.58%
		89	7	581	1.08%	89.66%
		90	9	590	1.39%	91.05%
		91	15	605	2.31%	93.36%
		92	7	612	1.08%	94.44%
		93	5	617	0.77%	95.22%
		94	4	621	0.62%	95.83%
		95	5	626	0.77%	96.61%
		96	6	632	0.93%	97.53%
		97	3	635	0.46%	97.99%
		98	3	638	0.46%	98.46%
		99	2	640	0.31%	98.77%
		100	1	641	0.15%	98.92%
		101	2	643	0.31%	99.23%

**Table 51**  
**Writing Grade 3 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	2	645	0.31%	99.54%
WR	3	103	1	646	0.15%	99.69%
		104	1	647	0.15%	99.85%
		105	1	648	0.15%	100%

**Table 52**  
**Writing Grade 4 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	21	21	3.42%	3.42%
		1	2	23	0.33%	3.75%
		2	1	24	0.16%	3.91%
		3	4	28	0.65%	4.56%
		4	1	29	0.16%	4.72%
		5	3	32	0.49%	5.21%
		6	7	39	1.14%	6.35%
		7	2	41	0.33%	6.68%
		8	3	44	0.49%	7.17%
		9	5	49	0.81%	7.98%
		10	3	52	0.49%	8.47%
		11	3	55	0.49%	8.96%
		12	3	58	0.49%	9.45%
		13	3	61	0.49%	9.94%
		14	2	63	0.33%	10.26%
		15	7	70	1.14%	11.40%
WR	4	16	4	74	0.65%	12.05%
		17	4	78	0.65%	12.70%
		18	5	83	0.81%	13.52%
		19	3	86	0.49%	14.01%
		20	5	91	0.81%	14.82%
		21	7	98	1.14%	15.96%
		22	4	102	0.65%	16.61%
		23	5	107	0.81%	17.43%
		24	5	112	0.81%	18.24%
		25	5	117	0.81%	19.06%
		26	1	118	0.16%	19.22%
		27	7	125	1.14%	20.36%
		28	2	127	0.33%	20.68%
		29	8	135	1.30%	21.99%
		30	8	143	1.30%	23.29%
		31	3	146	0.49%	23.78%
		32	4	150	0.65%	24.43%
		33	10	160	1.63%	26.06%

**Table 52**  
**Writing Grade 4 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	2	162	0.33%	26.38%
		35	9	171	1.47%	27.85%
		36	5	176	0.81%	28.66%
		37	7	183	1.14%	29.81%
		38	3	186	0.49%	30.29%
		39	5	191	0.81%	31.11%
		40	1	192	0.16%	31.27%
		41	5	197	0.81%	32.09%
		42	6	203	0.98%	33.06%
		43	7	210	1.14%	34.20%
		44	2	212	0.33%	34.53%
		45	4	216	0.65%	35.18%
		46	5	221	0.81%	35.99%
		47	5	226	0.81%	36.81%
		48	5	231	0.81%	37.62%
		49	1	232	0.16%	37.79%
WR	4	50	4	236	0.65%	38.44%
		51	6	242	0.98%	39.41%
		52	5	247	0.81%	40.23%
		53	2	249	0.33%	40.55%
		54	5	254	0.81%	41.37%
		55	5	259	0.81%	42.18%
		56	5	264	0.81%	43.00%
		57	2	266	0.33%	43.32%
		58	7	273	1.14%	44.46%
		59	4	277	0.65%	45.11%
		60	5	282	0.81%	45.93%
		61	5	287	0.81%	46.74%
		62	8	295	1.30%	48.05%
		63	4	299	0.65%	48.70%
		64	5	304	0.81%	49.51%
		65	7	311	1.14%	50.65%
		66	8	319	1.30%	51.95%
		67	12	331	1.95%	53.91%

**Table 52**  
**Writing Grade 4 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	7	338	1.14%	55.05%
		69	11	349	1.79%	56.84%
		70	10	359	1.63%	58.47%
		71	8	367	1.30%	59.77%
		72	10	377	1.63%	61.40%
		73	9	386	1.47%	62.87%
		74	8	394	1.30%	64.17%
		75	11	405	1.79%	65.96%
		76	14	419	2.28%	68.24%
		77	6	425	0.98%	69.22%
		78	7	432	1.14%	70.36%
		79	8	440	1.30%	71.66%
		80	11	451	1.79%	73.45%
		81	13	464	2.12%	75.57%
		82	10	474	1.63%	77.20%
		83	4	478	0.65%	77.85%
WR	4	84	8	486	1.30%	79.15%
		85	15	501	2.44%	81.60%
		86	7	508	1.14%	82.74%
		87	8	516	1.30%	84.04%
		88	8	524	1.30%	85.34%
		89	14	538	2.28%	87.62%
		90	13	551	2.12%	89.74%
		91	6	557	0.98%	90.72%
		92	7	564	1.14%	91.86%
		93	5	569	0.81%	92.67%
		94	9	578	1.47%	94.14%
		95	11	589	1.79%	95.93%
		96	6	595	0.98%	96.91%
		97	2	597	0.33%	97.23%
		98	1	598	0.16%	97.39%
		99	2	600	0.33%	97.72%
		100	3	603	0.49%	98.21%
		101	1	604	0.16%	98.37%

**Table 52**  
**Writing Grade 4 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	3	607	0.49%	98.86%
		103	2	609	0.33%	99.19%
		104	2	611	0.33%	99.51%
WR	4	105	2	613	0.33%	99.84%
		106	0	613	0.00%	99.84%
		107	0	613	0.00%	99.84%
		108	1	614	0.16%	100%



**Table 53**  
**Writing Grade 5 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	15	15	2.27%	2.27%
		1	3	18	0.45%	2.73%
		2	0	18	0.00%	2.73%
		3	4	22	0.61%	3.33%
		4	2	24	0.30%	3.64%
		5	2	26	0.30%	3.94%
		6	5	31	0.76%	4.70%
		7	2	33	0.30%	5.00%
		8	3	36	0.45%	5.46%
		9	3	39	0.45%	5.91%
		10	6	45	0.91%	6.82%
		11	0	45	0.00%	6.82%
		12	9	54	1.36%	8.18%
		13	3	57	0.45%	8.64%
		14	4	61	0.61%	9.24%
		15	3	64	0.45%	9.70%
WR	5	16	0	64	0.00%	9.70%
		17	1	65	0.15%	9.85%
		18	4	69	0.61%	10.46%
		19	3	72	0.45%	10.91%
		20	3	75	0.45%	11.36%
		21	0	75	0.00%	11.36%
		22	2	77	0.30%	11.67%
		23	1	78	0.15%	11.82%
		24	5	83	0.76%	12.58%
		25	1	84	0.15%	12.73%
		26	3	87	0.45%	13.18%
		27	4	91	0.61%	13.79%
		28	0	91	0.00%	13.79%
		29	3	94	0.45%	14.24%
		30	4	98	0.61%	14.85%
		31	7	105	1.06%	15.91%
		32	5	110	0.76%	16.67%
		33	12	122	1.82%	18.49%

**Table 53**  
**Writing Grade 5 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	4	126	0.61%	19.09%
		35	5	131	0.76%	19.85%
		36	6	137	0.91%	20.76%
		37	2	139	0.30%	21.06%
		38	6	145	0.91%	21.97%
		39	3	148	0.45%	22.42%
		40	6	154	0.91%	23.33%
		41	4	158	0.61%	23.94%
		42	4	162	0.61%	24.55%
		43	6	168	0.91%	25.46%
		44	4	172	0.61%	26.06%
		45	1	173	0.15%	26.21%
		46	4	177	0.61%	26.82%
		47	1	178	0.15%	26.97%
		48	3	181	0.45%	27.42%
		49	2	183	0.30%	27.73%
WR	5	50	1	184	0.15%	27.88%
		51	2	186	0.30%	28.18%
		52	2	188	0.30%	28.49%
		53	7	195	1.06%	29.55%
		54	4	199	0.61%	30.15%
		55	2	201	0.30%	30.46%
		56	6	207	0.91%	31.36%
		57	4	211	0.61%	31.97%
		58	4	215	0.61%	32.58%
		59	7	222	1.06%	33.64%
		60	11	233	1.67%	35.30%
		61	8	241	1.21%	36.52%
		62	3	244	0.45%	36.97%
		63	10	254	1.52%	38.49%
		64	6	260	0.91%	39.39%
		65	6	266	0.91%	40.30%
		66	7	273	1.06%	41.36%
		67	8	281	1.21%	42.58%

**Table 53**  
**Writing Grade 5 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	4	285	0.61%	43.18%
		69	9	294	1.36%	44.55%
		70	14	308	2.12%	46.67%
		71	11	319	1.67%	48.33%
		72	7	326	1.06%	49.39%
		73	14	340	2.12%	51.52%
		74	12	352	1.82%	53.33%
		75	13	365	1.97%	55.30%
		76	13	378	1.97%	57.27%
		77	9	387	1.36%	58.64%
		78	22	409	3.33%	61.97%
		79	14	423	2.12%	64.09%
		80	9	432	1.36%	65.46%
		81	13	445	1.97%	67.42%
		82	18	463	2.73%	70.15%
		83	10	473	1.52%	71.67%
WR	5	84	19	492	2.88%	74.55%
		85	18	510	2.73%	77.27%
		86	9	519	1.36%	78.64%
		87	15	534	2.27%	80.91%
		88	11	545	1.67%	82.58%
		89	15	560	2.27%	84.85%
		90	14	574	2.12%	86.97%
		91	9	583	1.36%	88.33%
		92	16	599	2.42%	90.76%
		93	16	615	2.42%	93.18%
		94	10	625	1.52%	94.70%
		95	5	630	0.76%	95.46%
		96	9	639	1.36%	96.82%
		97	4	643	0.61%	97.42%
		98	3	646	0.45%	97.88%
		99	7	653	1.06%	98.94%
		100	2	655	0.30%	99.24%
		101	2	657	0.30%	99.55%

**Table 53**  
**Writing Grade 5 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	2	659	0.30%	99.85%
WR	5	103	0	659	0.00%	99.85%
		104	0	659	0.00%	99.85%
		105	1	660	0.15%	100%

**Table 54**  
**Writing Grade 6 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	13	13	2.44%	2.44%
		1	3	16	0.56%	3.00%
		2	1	17	0.19%	3.19%
		3	4	21	0.75%	3.94%
		4	2	23	0.38%	4.32%
		5	3	26	0.56%	4.88%
		6	2	28	0.38%	5.25%
		7	1	29	0.19%	5.44%
		8	3	32	0.56%	6.00%
		9	5	37	0.94%	6.94%
		10	1	38	0.19%	7.13%
		11	0	38	0.00%	7.13%
		12	3	41	0.56%	7.69%
		13	1	42	0.19%	7.88%
		14	0	42	0.00%	7.88%
		15	7	49	1.31%	9.19%
WR	6	16	6	55	1.13%	10.32%
		17	1	56	0.19%	10.51%
		18	9	65	1.69%	12.20%
		19	4	69	0.75%	12.95%
		20	2	71	0.38%	13.32%
		21	7	78	1.31%	14.63%
		22	1	79	0.19%	14.82%
		23	1	80	0.19%	15.01%
		24	3	83	0.56%	15.57%
		25	3	86	0.56%	16.14%
		26	1	87	0.19%	16.32%
		27	2	89	0.38%	16.70%
		28	2	91	0.38%	17.07%
		29	3	94	0.56%	17.64%
		30	1	95	0.19%	17.82%
		31	5	100	0.94%	18.76%
		32	3	103	0.56%	19.33%
		33	4	107	0.75%	20.08%

**Table 54**  
**Writing Grade 6 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	2	109	0.38%	20.45%
		35	4	113	0.75%	21.20%
		36	6	119	1.13%	22.33%
		37	3	122	0.56%	22.89%
		38	5	127	0.94%	23.83%
		39	5	132	0.94%	24.77%
		40	2	134	0.38%	25.14%
		41	2	136	0.38%	25.52%
		42	1	137	0.19%	25.70%
		43	3	140	0.56%	26.27%
		44	5	145	0.94%	27.21%
		45	3	148	0.56%	27.77%
		46	3	151	0.56%	28.33%
		47	4	155	0.75%	29.08%
		48	5	160	0.94%	30.02%
		49	3	163	0.56%	30.58%
WR	6	50	2	165	0.38%	30.96%
		51	3	168	0.56%	31.52%
		52	2	170	0.38%	31.90%
		53	2	172	0.38%	32.27%
		54	5	177	0.94%	33.21%
		55	4	181	0.75%	33.96%
		56	2	183	0.38%	34.33%
		57	3	186	0.56%	34.90%
		58	2	188	0.38%	35.27%
		59	3	191	0.56%	35.84%
		60	1	192	0.19%	36.02%
		61	5	197	0.94%	36.96%
		62	4	201	0.75%	37.71%
		63	5	206	0.94%	38.65%
		64	4	210	0.75%	39.40%
		65	5	215	0.94%	40.34%
		66	4	219	0.75%	41.09%
		67	4	223	0.75%	41.84%

**Table 54**  
**Writing Grade 6 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	3	226	0.56%	42.40%
		69	12	238	2.25%	44.65%
		70	5	243	0.94%	45.59%
		71	4	247	0.75%	46.34%
		72	8	255	1.50%	47.84%
		73	15	270	2.81%	50.66%
		74	11	281	2.06%	52.72%
		75	5	286	0.94%	53.66%
		76	10	296	1.88%	55.54%
		77	6	302	1.13%	56.66%
		78	5	307	0.94%	57.60%
		79	21	328	3.94%	61.54%
		80	0	328	0.00%	61.54%
		81	11	339	2.06%	63.60%
		82	9	348	1.69%	65.29%
		83	13	361	2.44%	67.73%
WR	6	84	11	372	2.06%	69.79%
		85	17	389	3.19%	72.98%
		86	10	399	1.88%	74.86%
		87	14	413	2.63%	77.49%
		88	8	421	1.50%	78.99%
		89	12	433	2.25%	81.24%
		90	16	449	3.00%	84.24%
		91	5	454	0.94%	85.18%
		92	7	461	1.31%	86.49%
		93	10	471	1.88%	88.37%
		94	6	477	1.13%	89.49%
		95	5	482	0.94%	90.43%
		96	11	493	2.06%	92.50%
		97	6	499	1.13%	93.62%
		98	7	506	1.31%	94.93%
		99	11	517	2.06%	97.00%
		100	6	523	1.13%	98.12%
		101	0	523	0.00%	98.12%

**Table 54**  
**Writing Grade 6 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	6	529	1.13%	99.25%
WR	6	103	0	529	0.00%	99.25%
		104	1	530	0.19%	99.44%
		105	3	533	0.56%	100%



**Table 55**  
**Writing Grade 7 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	14	14	2.49%	2.49%
		1	1	15	0.18%	2.67%
		2	1	16	0.18%	2.85%
		3	3	19	0.53%	3.38%
		4	1	20	0.18%	3.56%
		5	2	22	0.36%	3.92%
		6	2	24	0.36%	4.27%
		7	1	25	0.18%	4.45%
		8	1	26	0.18%	4.63%
		9	3	29	0.53%	5.16%
		10	1	30	0.18%	5.34%
		11	1	31	0.18%	5.52%
		12	3	34	0.53%	6.05%
		13	2	36	0.36%	6.41%
		14	1	37	0.18%	6.58%
		15	3	40	0.53%	7.12%
WR	7	16	1	41	0.18%	7.30%
		17	0	41	0.00%	7.30%
		18	6	47	1.07%	8.36%
		19	1	48	0.18%	8.54%
		20	5	53	0.89%	9.43%
		21	3	56	0.53%	9.96%
		22	2	58	0.36%	10.32%
		23	2	60	0.36%	10.68%
		24	8	68	1.42%	12.10%
		25	1	69	0.18%	12.28%
		26	6	75	1.07%	13.35%
		27	8	83	1.42%	14.77%
		28	1	84	0.18%	14.95%
		29	2	86	0.36%	15.30%
		30	4	90	0.71%	16.01%
		31	4	94	0.71%	16.73%
		32	6	100	1.07%	17.79%
		33	7	107	1.25%	19.04%

**Table 55**  
**Writing Grade 7 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	3	110	0.53%	19.57%
		35	4	114	0.71%	20.29%
		36	2	116	0.36%	20.64%
		37	4	120	0.71%	21.35%
		38	5	125	0.89%	22.24%
		39	4	129	0.71%	22.95%
		40	4	133	0.71%	23.67%
		41	0	133	0.00%	23.67%
		42	4	137	0.71%	24.38%
		43	4	141	0.71%	25.09%
		44	3	144	0.53%	25.62%
		45	4	148	0.71%	26.34%
		46	3	151	0.53%	26.87%
		47	5	156	0.89%	27.76%
		48	0	156	0.00%	27.76%
		49	3	159	0.53%	28.29%
WR	7	50	4	163	0.71%	29.00%
		51	1	164	0.18%	29.18%
		52	2	166	0.36%	29.54%
		53	5	171	0.89%	30.43%
		54	6	177	1.07%	31.50%
		55	5	182	0.89%	32.38%
		56	2	184	0.36%	32.74%
		57	3	187	0.53%	33.27%
		58	7	194	1.25%	34.52%
		59	3	197	0.53%	35.05%
		60	7	204	1.25%	36.30%
		61	6	210	1.07%	37.37%
		62	2	212	0.36%	37.72%
		63	6	218	1.07%	38.79%
		64	4	222	0.71%	39.50%
		65	1	223	0.18%	39.68%
		66	3	226	0.53%	40.21%
		67	11	237	1.96%	42.17%

**Table 55**  
**Writing Grade 7 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	4	241	0.71%	42.88%
		69	7	248	1.25%	44.13%
		70	7	255	1.25%	45.37%
		71	4	259	0.71%	46.09%
		72	9	268	1.60%	47.69%
		73	10	278	1.78%	49.47%
		74	3	281	0.53%	50.00%
		75	11	292	1.96%	51.96%
		76	10	302	1.78%	53.74%
		77	6	308	1.07%	54.80%
		78	9	317	1.60%	56.41%
		79	16	333	2.85%	59.25%
		80	8	341	1.42%	60.68%
		81	11	352	1.96%	62.63%
		82	13	365	2.31%	64.95%
		83	5	370	0.89%	65.84%
WR	7	84	12	382	2.14%	67.97%
		85	9	391	1.60%	69.57%
		86	15	406	2.67%	72.24%
		87	15	421	2.67%	74.91%
		88	12	433	2.14%	77.05%
		89	11	444	1.96%	79.00%
		90	10	454	1.78%	80.78%
		91	7	461	1.25%	82.03%
		92	14	475	2.49%	84.52%
		93	9	484	1.60%	86.12%
		94	8	492	1.42%	87.54%
		95	14	506	2.49%	90.04%
		96	17	523	3.02%	93.06%
		97	5	528	0.89%	93.95%
		98	4	532	0.71%	94.66%
		99	7	539	1.25%	95.91%
		100	0	539	0.00%	95.91%
		101	2	541	0.36%	96.26%

**Table 55**  
**Writing Grade 7 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	6	547	1.07%	97.33%
		103	1	548	0.18%	97.51%
		104	3	551	0.53%	98.04%
WR	7	105	7	558	1.25%	99.29%
		106	0	558	0.00%	99.29%
		107	1	559	0.18%	99.47%
		108	3	562	0.53%	100%

**Table 56**  
**Writing Grade 8 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	26	26	5.21%	5.21%
		1	0	26	0.00%	5.21%
		2	3	29	0.60%	5.81%
		3	3	32	0.60%	6.41%
		4	0	32	0.00%	6.41%
		5	1	33	0.20%	6.61%
		6	1	34	0.20%	6.81%
		7	1	35	0.20%	7.01%
		8	3	38	0.60%	7.62%
		9	1	39	0.20%	7.82%
		10	2	41	0.40%	8.22%
		11	2	43	0.40%	8.62%
		12	0	43	0.00%	8.62%
		13	4	47	0.80%	9.42%
		14	3	50	0.60%	10.02%
		15	8	58	1.60%	11.62%
WR	8	16	4	62	0.80%	12.43%
		17	1	63	0.20%	12.63%
		18	8	71	1.60%	14.23%
		19	2	73	0.40%	14.63%
		20	2	75	0.40%	15.03%
		21	1	76	0.20%	15.23%
		22	2	78	0.40%	15.63%
		23	4	82	0.80%	16.43%
		24	5	87	1.00%	17.44%
		25	1	88	0.20%	17.64%
		26	5	93	1.00%	18.64%
		27	2	95	0.40%	19.04%
		28	0	95	0.00%	19.04%
		29	4	99	0.80%	19.84%
		30	3	102	0.60%	20.44%
		31	3	105	0.60%	21.04%
		32	3	108	0.60%	21.64%
		33	3	111	0.60%	22.24%

**Table 56**  
**Writing Grade 8 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	2	113	0.40%	22.65%
		35	1	114	0.20%	22.85%
		36	4	118	0.80%	23.65%
		37	2	120	0.40%	24.05%
		38	8	128	1.60%	25.65%
		39	4	132	0.80%	26.45%
		40	4	136	0.80%	27.26%
		41	4	140	0.80%	28.06%
		42	3	143	0.60%	28.66%
		43	6	149	1.20%	29.86%
		44	1	150	0.20%	30.06%
		45	4	154	0.80%	30.86%
		46	2	156	0.40%	31.26%
		47	1	157	0.20%	31.46%
		48	3	160	0.60%	32.06%
		49	0	160	0.00%	32.06%
WR	8	50	2	162	0.40%	32.47%
		51	4	166	0.80%	33.27%
		52	4	170	0.80%	34.07%
		53	3	173	0.60%	34.67%
		54	3	176	0.60%	35.27%
		55	4	180	0.80%	36.07%
		56	7	187	1.40%	37.48%
		57	5	192	1.00%	38.48%
		58	3	195	0.60%	39.08%
		59	3	198	0.60%	39.68%
		60	4	202	0.80%	40.48%
		61	2	204	0.40%	40.88%
		62	2	206	0.40%	41.28%
		63	7	213	1.40%	42.69%
		64	5	218	1.00%	43.69%
		65	3	221	0.60%	44.29%
		66	3	224	0.60%	44.89%
		67	7	231	1.40%	46.29%

**Table 56**  
**Writing Grade 8 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	1	232	0.20%	46.49%
		69	2	234	0.40%	46.89%
		70	6	240	1.20%	48.10%
		71	4	244	0.80%	48.90%
		72	8	252	1.60%	50.50%
		73	12	264	2.40%	52.91%
		74	8	272	1.60%	54.51%
		75	10	282	2.00%	56.51%
		76	12	294	2.40%	58.92%
		77	8	302	1.60%	60.52%
		78	11	313	2.20%	62.73%
		79	8	321	1.60%	64.33%
		80	9	330	1.80%	66.13%
		81	11	341	2.20%	68.34%
		82	13	354	2.61%	70.94%
		83	14	368	2.81%	73.75%
WR	8	84	18	386	3.61%	77.36%
		85	4	390	0.80%	78.16%
		86	11	401	2.20%	80.36%
		87	16	417	3.21%	83.57%
		88	4	421	0.80%	84.37%
		89	9	430	1.80%	86.17%
		90	13	443	2.61%	88.78%
		91	5	448	1.00%	89.78%
		92	8	456	1.60%	91.38%
		93	11	467	2.20%	93.59%
		94	3	470	0.60%	94.19%
		95	1	471	0.20%	94.39%
		96	7	478	1.40%	95.79%
		97	1	479	0.20%	95.99%
		98	4	483	0.80%	96.79%
		99	7	490	1.40%	98.20%
		100	1	491	0.20%	98.40%
		101	2	493	0.40%	98.80%

**Table 56**  
**Writing Grade 8 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	3	496	0.60%	99.40%
		103	0	496	0.00%	99.40%
		104	0	496	0.00%	99.40%
WR	8	105	3	499	0.60%	100%
		106	0	499	0.00%	100%
		107	0	499	0.00%	100%
		108	0	499	0.00%	100%



**Table 57**  
**Writing Grade 9 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	23	23	4.36%	4.36%
		1	3	26	0.57%	4.93%
		2	1	27	0.19%	5.12%
		3	3	30	0.57%	5.69%
		4	1	31	0.19%	5.88%
		5	1	32	0.19%	6.07%
		6	3	35	0.57%	6.64%
		7	1	36	0.19%	6.83%
		8	1	37	0.19%	7.02%
		9	2	39	0.38%	7.40%
		10	0	39	0.00%	7.40%
		11	2	41	0.38%	7.78%
		12	6	47	1.14%	8.92%
		13	1	48	0.19%	9.11%
		14	5	53	0.95%	10.06%
		15	6	59	1.14%	11.20%
WR	9	16	1	60	0.19%	11.39%
		17	0	60	0.00%	11.39%
		18	11	71	2.09%	13.47%
		19	1	72	0.19%	13.66%
		20	4	76	0.76%	14.42%
		21	6	82	1.14%	15.56%
		22	1	83	0.19%	15.75%
		23	3	86	0.57%	16.32%
		24	3	89	0.57%	16.89%
		25	3	92	0.57%	17.46%
		26	3	95	0.57%	18.03%
		27	4	99	0.76%	18.79%
		28	1	100	0.19%	18.98%
		29	3	103	0.57%	19.55%
		30	3	106	0.57%	20.11%
		31	2	108	0.38%	20.49%
		32	11	119	2.09%	22.58%
		33	3	122	0.57%	23.15%

**Table 57**  
**Writing Grade 9 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	3	125	0.57%	23.72%
		35	6	131	1.14%	24.86%
		36	6	137	1.14%	26.00%
		37	2	139	0.38%	26.38%
		38	5	144	0.95%	27.32%
		39	5	149	0.95%	28.27%
		40	4	153	0.76%	29.03%
		41	6	159	1.14%	30.17%
		42	4	163	0.76%	30.93%
		43	1	164	0.19%	31.12%
		44	1	165	0.19%	31.31%
		45	4	169	0.76%	32.07%
		46	1	170	0.19%	32.26%
		47	3	173	0.57%	32.83%
		48	5	178	0.95%	33.78%
		49	2	180	0.38%	34.16%
WR	9	50	8	188	1.52%	35.67%
		51	4	192	0.76%	36.43%
		52	3	195	0.57%	37.00%
		53	8	203	1.52%	38.52%
		54	7	210	1.33%	39.85%
		55	6	216	1.14%	40.99%
		56	2	218	0.38%	41.37%
		57	3	221	0.57%	41.94%
		58	3	224	0.57%	42.51%
		59	7	231	1.33%	43.83%
		60	6	237	1.14%	44.97%
		61	7	244	1.33%	46.30%
		62	6	250	1.14%	47.44%
		63	6	256	1.14%	48.58%
		64	6	262	1.14%	49.72%
		65	3	265	0.57%	50.29%
		66	1	266	0.19%	50.47%
		67	5	271	0.95%	51.42%

**Table 57**  
**Writing Grade 9 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	7	278	1.33%	52.75%
		69	8	286	1.52%	54.27%
		70	10	296	1.90%	56.17%
		71	7	303	1.33%	57.50%
		72	7	310	1.33%	58.82%
		73	6	316	1.14%	59.96%
		74	6	322	1.14%	61.10%
		75	13	335	2.47%	63.57%
		76	10	345	1.90%	65.47%
		77	8	353	1.52%	66.98%
		78	9	362	1.71%	68.69%
		79	8	370	1.52%	70.21%
		80	9	379	1.71%	71.92%
		81	12	391	2.28%	74.19%
		82	6	397	1.14%	75.33%
		83	10	407	1.90%	77.23%
WR	9	84	12	419	2.28%	79.51%
		85	4	423	0.76%	80.27%
		86	6	429	1.14%	81.40%
		87	20	449	3.80%	85.20%
		88	10	459	1.90%	87.10%
		89	10	469	1.90%	88.99%
		90	12	481	2.28%	91.27%
		91	2	483	0.38%	91.65%
		92	8	491	1.52%	93.17%
		93	9	500	1.71%	94.88%
		94	4	504	0.76%	95.64%
		95	3	507	0.57%	96.21%
		96	7	514	1.33%	97.53%
		97	0	514	0.00%	97.53%
		98	3	517	0.57%	98.10%
		99	7	524	1.33%	99.43%
		100	0	524	0.00%	99.43%
		101	0	524	0.00%	99.43%

**Table 57**  
**Writing Grade 9 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	3	527	0.57%	100%
WR	9	103	0	527	0.00%	100%
		104	0	527	0.00%	100%
		105	0	527	0.00%	100%

**Table 58**  
**Writing Grade 10 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	18	18	3.67%	3.67%
		1	3	21	0.61%	4.29%
		2	0	21	0.00%	4.29%
		3	3	24	0.61%	4.90%
		4	1	25	0.20%	5.10%
		5	1	26	0.20%	5.31%
		6	3	29	0.61%	5.92%
		7	0	29	0.00%	5.92%
		8	2	31	0.41%	6.33%
		9	1	32	0.20%	6.53%
		10	0	32	0.00%	6.53%
		11	2	34	0.41%	6.94%
		12	7	41	1.43%	8.37%
		13	0	41	0.00%	8.37%
		14	4	45	0.82%	9.18%
		15	9	54	1.84%	11.02%
WR	10	16	2	56	0.41%	11.43%
		17	2	58	0.41%	11.84%
		18	4	62	0.82%	12.65%
		19	2	64	0.41%	13.06%
		20	1	65	0.20%	13.27%
		21	4	69	0.82%	14.08%
		22	1	70	0.20%	14.29%
		23	2	72	0.41%	14.69%
		24	4	76	0.82%	15.51%
		25	5	81	1.02%	16.53%
		26	3	84	0.61%	17.14%
		27	8	92	1.63%	18.78%
		28	1	93	0.20%	18.98%
		29	5	98	1.02%	20.00%
		30	2	100	0.41%	20.41%
		31	5	105	1.02%	21.43%
		32	5	110	1.02%	22.45%
		33	1	111	0.20%	22.65%

**Table 58**  
**Writing Grade 10 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	2	113	0.41%	23.06%
		35	0	113	0.00%	23.06%
		36	3	116	0.61%	23.67%
		37	6	122	1.22%	24.90%
		38	2	124	0.41%	25.31%
		39	4	128	0.82%	26.12%
		40	2	130	0.41%	26.53%
		41	6	136	1.22%	27.76%
		42	3	139	0.61%	28.37%
		43	2	141	0.41%	28.78%
		44	3	144	0.61%	29.39%
		45	7	151	1.43%	30.82%
		46	5	156	1.02%	31.84%
		47	9	165	1.84%	33.67%
		48	6	171	1.22%	34.90%
		49	5	176	1.02%	35.92%
WR	10	50	6	182	1.22%	37.14%
		51	6	188	1.22%	38.37%
		52	8	196	1.63%	40.00%
		53	1	197	0.20%	40.20%
		54	6	203	1.22%	41.43%
		55	5	208	1.02%	42.45%
		56	3	211	0.61%	43.06%
		57	6	217	1.22%	44.29%
		58	2	219	0.41%	44.69%
		59	1	220	0.20%	44.90%
		60	5	225	1.02%	45.92%
		61	2	227	0.41%	46.33%
		62	6	233	1.22%	47.55%
		63	4	237	0.82%	48.37%
		64	3	240	0.61%	48.98%
		65	4	244	0.82%	49.80%
		66	6	250	1.22%	51.02%
		67	8	258	1.63%	52.65%

**Table 58**  
**Writing Grade 10 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	10	268	2.04%	54.69%
		69	5	273	1.02%	55.71%
		70	3	276	0.61%	56.33%
		71	6	282	1.22%	57.55%
		72	7	289	1.43%	58.98%
		73	6	295	1.22%	60.20%
		74	8	303	1.63%	61.84%
		75	8	311	1.63%	63.47%
		76	7	318	1.43%	64.90%
		77	8	326	1.63%	66.53%
		78	8	334	1.63%	68.16%
		79	10	344	2.04%	70.20%
		80	9	353	1.84%	72.04%
		81	9	362	1.84%	73.88%
		82	9	371	1.84%	75.71%
		83	9	380	1.84%	77.55%
WR	10	84	10	390	2.04%	79.59%
		85	6	396	1.22%	80.82%
		86	7	403	1.43%	82.25%
		87	9	412	1.84%	84.08%
		88	6	418	1.22%	85.31%
		89	5	423	1.02%	86.33%
		90	9	432	1.84%	88.16%
		91	4	436	0.82%	88.98%
		92	4	440	0.82%	89.80%
		93	12	452	2.45%	92.25%
		94	5	457	1.02%	93.27%
		95	3	460	0.61%	93.88%
		96	8	468	1.63%	95.51%
		97	2	470	0.41%	95.92%
		98	3	473	0.61%	96.53%
		99	2	475	0.41%	96.94%
		100	2	477	0.41%	97.35%
		101	4	481	0.82%	98.16%

**Table 58**  
**Writing Grade 10 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	5	486	1.02%	99.18%
		103	1	487	0.20%	99.39%
WR	10	104	2	489	0.41%	99.80%
		105	1	490	0.20%	100%
		106	0	490	0.00%	100%
		107	0	490	0.00%	100%
		108	0	490	0.00%	100%



**Table 59**  
**Mathematics Grade 3 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	13	13	2.05%	2.05%
		1	2	15	0.32%	2.37%
		2	1	16	0.16%	2.52%
		3	2	18	0.32%	2.84%
		4	4	22	0.63%	3.47%
		5	2	24	0.32%	3.79%
		6	5	29	0.79%	4.57%
		7	3	32	0.47%	5.05%
		8	3	35	0.47%	5.52%
		9	5	40	0.79%	6.31%
		10	2	42	0.32%	6.63%
		11	0	42	0.00%	6.63%
		12	3	45	0.47%	7.10%
		13	5	50	0.79%	7.89%
		14	2	52	0.32%	8.20%
		15	3	55	0.47%	8.68%
MA	3	16	1	56	0.16%	8.83%
		17	2	58	0.32%	9.15%
		18	5	63	0.79%	9.94%
		19	3	66	0.47%	10.41%
		20	1	67	0.16%	10.57%
		21	1	68	0.16%	10.73%
		22	2	70	0.32%	11.04%
		23	4	74	0.63%	11.67%
		24	4	78	0.63%	12.30%
		25	1	79	0.16%	12.46%
		26	1	80	0.16%	12.62%
		27	1	81	0.16%	12.78%
		28	7	88	1.10%	13.88%
		29	3	91	0.47%	14.35%
		30	5	96	0.79%	15.14%
		31	2	98	0.32%	15.46%
		32	5	103	0.79%	16.25%
		33	1	104	0.16%	16.40%

**Table 59**  
**Mathematics Grade 3 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	1	105	0.16%	16.56%
		35	5	110	0.79%	17.35%
		36	2	112	0.32%	17.67%
		37	2	114	0.32%	17.98%
		38	1	115	0.16%	18.14%
		39	2	117	0.32%	18.45%
		40	3	120	0.47%	18.93%
		41	3	123	0.47%	19.40%
		42	3	126	0.47%	19.87%
		43	1	127	0.16%	20.03%
		44	1	128	0.16%	20.19%
		45	2	130	0.32%	20.51%
		46	0	130	0.00%	20.51%
		47	5	135	0.79%	21.29%
		48	6	141	0.95%	22.24%
		49	1	142	0.16%	22.40%
MA	3	50	3	145	0.47%	22.87%
		51	1	146	0.16%	23.03%
		52	2	148	0.32%	23.34%
		53	6	154	0.95%	24.29%
		54	4	158	0.63%	24.92%
		55	2	160	0.32%	25.24%
		56	6	166	0.95%	26.18%
		57	4	170	0.63%	26.81%
		58	3	173	0.47%	27.29%
		59	1	174	0.16%	27.45%
		60	3	177	0.47%	27.92%
		61	3	180	0.47%	28.39%
		62	1	181	0.16%	28.55%
		63	5	186	0.79%	29.34%
		64	2	188	0.32%	29.65%
		65	2	190	0.32%	29.97%
		66	4	194	0.63%	30.60%
		67	3	197	0.47%	31.07%

**Table 59**  
**Mathematics Grade 3 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	4	201	0.63%	31.70%
		69	4	205	0.63%	32.33%
		70	2	207	0.32%	32.65%
		71	4	211	0.63%	33.28%
		72	8	219	1.26%	34.54%
		73	5	224	0.79%	35.33%
		74	4	228	0.63%	35.96%
		75	6	234	0.95%	36.91%
		76	7	241	1.10%	38.01%
		77	5	246	0.79%	38.80%
		78	5	251	0.79%	39.59%
		79	4	255	0.63%	40.22%
		80	9	264	1.42%	41.64%
		81	5	269	0.79%	42.43%
		82	4	273	0.63%	43.06%
		83	6	279	0.95%	44.01%
MA	3	84	5	284	0.79%	44.80%
		85	7	291	1.10%	45.90%
		86	9	300	1.42%	47.32%
		87	3	303	0.47%	47.79%
		88	6	309	0.95%	48.74%
		89	5	314	0.79%	49.53%
		90	7	321	1.10%	50.63%
		91	7	328	1.10%	51.74%
		92	6	334	0.95%	52.68%
		93	7	341	1.10%	53.79%
		94	5	346	0.79%	54.57%
		95	5	351	0.79%	55.36%
		96	11	362	1.74%	57.10%
		97	7	369	1.10%	58.20%
		98	9	378	1.42%	59.62%
		99	11	389	1.74%	61.36%
		100	12	401	1.89%	63.25%
		101	18	419	2.84%	66.09%

**Table 59**  
**Mathematics Grade 3 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	10	429	1.58%	67.67%
		103	8	437	1.26%	68.93%
		104	12	449	1.89%	70.82%
		105	13	462	2.05%	72.87%
		106	9	471	1.42%	74.29%
		107	12	483	1.89%	76.18%
		108	14	497	2.21%	78.39%
		109	10	507	1.58%	79.97%
		110	15	522	2.37%	82.33%
		111	8	530	1.26%	83.60%
		112	14	544	2.21%	85.80%
		113	9	553	1.42%	87.22%
MA	3	114	11	564	1.74%	88.96%
		115	8	572	1.26%	90.22%
		116	10	582	1.58%	91.80%
		117	12	594	1.89%	93.69%
		118	10	604	1.58%	95.27%
		119	9	613	1.42%	96.69%
		120	8	621	1.26%	97.95%
		121	2	623	0.32%	98.27%
		122	5	628	0.79%	99.05%
		123	2	630	0.32%	99.37%
		124	0	630	0.00%	99.37%
		125	2	632	0.32%	99.69%
		126	2	634	0.32%	100%

**Table 60**  
**Mathematics Grade 4 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	18	18	2.96%	2.96%
		1	0	18	0.00%	2.96%
		2	3	21	0.49%	3.45%
		3	2	23	0.33%	3.78%
		4	1	24	0.16%	3.95%
		5	4	28	0.66%	4.61%
		6	2	30	0.33%	4.93%
		7	1	31	0.16%	5.10%
		8	0	31	0.00%	5.10%
		9	3	34	0.49%	5.59%
		10	1	35	0.16%	5.76%
		11	4	39	0.66%	6.41%
		12	3	42	0.49%	6.91%
		13	2	44	0.33%	7.24%
		14	1	45	0.16%	7.40%
		15	3	48	0.49%	7.90%
MA	4	16	0	48	0.00%	7.90%
		17	2	50	0.33%	8.22%
		18	3	53	0.49%	8.72%
		19	2	55	0.33%	9.05%
		20	2	57	0.33%	9.38%
		21	5	62	0.82%	10.20%
		22	2	64	0.33%	10.53%
		23	4	68	0.66%	11.18%
		24	0	68	0.00%	11.18%
		25	1	69	0.16%	11.35%
		26	3	72	0.49%	11.84%
		27	4	76	0.66%	12.50%
		28	3	79	0.49%	12.99%
		29	2	81	0.33%	13.32%
		30	5	86	0.82%	14.15%
		31	2	88	0.33%	14.47%
		32	3	91	0.49%	14.97%
		33	2	93	0.33%	15.30%

**Table 60**  
**Mathematics Grade 4 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	3	96	0.49%	15.79%
		35	7	103	1.15%	16.94%
		36	11	114	1.81%	18.75%
		37	1	115	0.16%	18.91%
		38	1	116	0.16%	19.08%
		39	2	118	0.33%	19.41%
		40	3	121	0.49%	19.90%
		41	1	122	0.16%	20.07%
		42	7	129	1.15%	21.22%
		43	4	133	0.66%	21.88%
		44	3	136	0.49%	22.37%
		45	2	138	0.33%	22.70%
		46	3	141	0.49%	23.19%
		47	4	145	0.66%	23.85%
		48	0	145	0.00%	23.85%
		49	6	151	0.99%	24.84%
MA	4	50	1	152	0.16%	25.00%
		51	2	154	0.33%	25.33%
		52	1	155	0.16%	25.49%
		53	4	159	0.66%	26.15%
		54	2	161	0.33%	26.48%
		55	4	165	0.66%	27.14%
		56	4	169	0.66%	27.80%
		57	4	173	0.66%	28.45%
		58	1	174	0.16%	28.62%
		59	3	177	0.49%	29.11%
		60	3	180	0.49%	29.61%
		61	4	184	0.66%	30.26%
		62	3	187	0.49%	30.76%
		63	2	189	0.33%	31.09%
		64	4	193	0.66%	31.74%
		65	4	197	0.66%	32.40%
		66	3	200	0.49%	32.90%
		67	0	200	0.00%	32.90%

**Table 60**  
**Mathematics Grade 4 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	5	205	0.82%	33.72%
		69	6	211	0.99%	34.70%
		70	2	213	0.33%	35.03%
		71	1	214	0.16%	35.20%
		72	1	215	0.16%	35.36%
		73	3	218	0.49%	35.86%
		74	3	221	0.49%	36.35%
		75	5	226	0.82%	37.17%
		76	5	231	0.82%	37.99%
		77	1	232	0.16%	38.16%
		78	2	234	0.33%	38.49%
		79	5	239	0.82%	39.31%
		80	6	245	0.99%	40.30%
		81	11	256	1.81%	42.11%
		82	1	257	0.16%	42.27%
		83	11	268	1.81%	44.08%
MA	4	84	6	274	0.99%	45.07%
		85	3	277	0.49%	45.56%
		86	6	283	0.99%	46.55%
		87	2	285	0.33%	46.88%
		88	5	290	0.82%	47.70%
		89	12	302	1.97%	49.67%
		90	3	305	0.49%	50.16%
		91	10	315	1.64%	51.81%
		92	5	320	0.82%	52.63%
		93	5	325	0.82%	53.45%
		94	13	338	2.14%	55.59%
		95	4	342	0.66%	56.25%
		96	9	351	1.48%	57.73%
		97	9	360	1.48%	59.21%
		98	4	364	0.66%	59.87%
		99	7	371	1.15%	61.02%
		100	12	383	1.97%	62.99%
		101	2	385	0.33%	63.32%

**Table 60**  
**Mathematics Grade 4 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	9	394	1.48%	64.80%
		103	8	402	1.32%	66.12%
		104	12	414	1.97%	68.09%
		105	7	421	1.15%	69.24%
		106	7	428	1.15%	70.40%
		107	8	436	1.32%	71.71%
		108	8	444	1.32%	73.03%
		109	9	453	1.48%	74.51%
		110	15	468	2.47%	76.97%
		111	10	478	1.64%	78.62%
		112	8	486	1.32%	79.93%
		113	11	497	1.81%	81.74%
		114	11	508	1.81%	83.55%
MA	4	115	12	520	1.97%	85.53%
		116	10	530	1.64%	87.17%
		117	10	540	1.64%	88.82%
		118	8	548	1.32%	90.13%
		119	11	559	1.81%	91.94%
		120	11	570	1.81%	93.75%
		121	7	577	1.15%	94.90%
		122	8	585	1.32%	96.22%
		123	8	593	1.32%	97.53%
		124	4	597	0.66%	98.19%
		125	3	600	0.49%	98.68%
		126	4	604	0.66%	99.34%
		127	1	605	0.16%	99.51%
		128	2	607	0.33%	99.84%
		129	1	608	0.16%	100%



**Table 61**  
**Mathematics Grade 5 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	17	17	2.64%	2.64%
		1	2	19	0.31%	2.95%
		2	4	23	0.62%	3.57%
		3	1	24	0.16%	3.73%
		4	3	27	0.47%	4.19%
		5	3	30	0.47%	4.66%
		6	2	32	0.31%	4.97%
		7	0	32	0.00%	4.97%
		8	1	33	0.16%	5.12%
		9	2	35	0.31%	5.44%
		10	0	35	0.00%	5.44%
		11	3	38	0.47%	5.90%
		12	0	38	0.00%	5.90%
		13	2	40	0.31%	6.21%
		14	2	42	0.31%	6.52%
		15	1	43	0.16%	6.68%
MA	5	16	2	45	0.31%	6.99%
		17	3	48	0.47%	7.45%
		18	0	48	0.00%	7.45%
		19	3	51	0.47%	7.92%
		20	2	53	0.31%	8.23%
		21	2	55	0.31%	8.54%
		22	0	55	0.00%	8.54%
		23	2	57	0.31%	8.85%
		24	0	57	0.00%	8.85%
		25	0	57	0.00%	8.85%
		26	3	60	0.47%	9.32%
		27	1	61	0.16%	9.47%
		28	6	67	0.93%	10.40%
		29	1	68	0.16%	10.56%
		30	4	72	0.62%	11.18%
		31	1	73	0.16%	11.34%
		32	1	74	0.16%	11.49%
		33	3	77	0.47%	11.96%

**Table 61**  
**Mathematics Grade 5 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	4	81	0.62%	12.58%
		35	3	84	0.47%	13.04%
		36	1	85	0.16%	13.20%
		37	3	88	0.47%	13.67%
		38	3	91	0.47%	14.13%
		39	3	94	0.47%	14.60%
		40	1	95	0.16%	14.75%
		41	1	96	0.16%	14.91%
		42	2	98	0.31%	15.22%
		43	2	100	0.31%	15.53%
		44	3	103	0.47%	15.99%
		45	1	104	0.16%	16.15%
		46	1	105	0.16%	16.30%
		47	2	107	0.31%	16.62%
		48	1	108	0.16%	16.77%
		49	1	109	0.16%	16.93%
MA	5	50	5	114	0.78%	17.70%
		51	1	115	0.16%	17.86%
		52	2	117	0.31%	18.17%
		53	0	117	0.00%	18.17%
		54	2	119	0.31%	18.48%
		55	5	124	0.78%	19.26%
		56	3	127	0.47%	19.72%
		57	3	130	0.47%	20.19%
		58	0	130	0.00%	20.19%
		59	3	133	0.47%	20.65%
		60	4	137	0.62%	21.27%
		61	3	140	0.47%	21.74%
		62	2	142	0.31%	22.05%
		63	1	143	0.16%	22.21%
		64	1	144	0.16%	22.36%
		65	2	146	0.31%	22.67%
		66	2	148	0.31%	22.98%
		67	1	149	0.16%	23.14%

**Table 61**  
**Mathematics Grade 5 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	2	151	0.31%	23.45%
		69	3	154	0.47%	23.91%
		70	3	157	0.47%	24.38%
		71	3	160	0.47%	24.85%
		72	5	165	0.78%	25.62%
		73	3	168	0.47%	26.09%
		74	2	170	0.31%	26.40%
		75	4	174	0.62%	27.02%
		76	2	176	0.31%	27.33%
		77	0	176	0.00%	27.33%
		78	1	177	0.16%	27.48%
		79	4	181	0.62%	28.11%
		80	4	185	0.62%	28.73%
		81	1	186	0.16%	28.88%
		82	6	192	0.93%	29.81%
		83	4	196	0.62%	30.44%
MA	5	84	3	199	0.47%	30.90%
		85	3	202	0.47%	31.37%
		86	8	210	1.24%	32.61%
		87	2	212	0.31%	32.92%
		88	3	215	0.47%	33.39%
		89	1	216	0.16%	33.54%
		90	3	219	0.47%	34.01%
		91	3	222	0.47%	34.47%
		92	5	227	0.78%	35.25%
		93	3	230	0.47%	35.71%
		94	4	234	0.62%	36.34%
		95	1	235	0.16%	36.49%
		96	5	240	0.78%	37.27%
		97	3	243	0.47%	37.73%
		98	0	243	0.00%	37.73%
		99	3	246	0.47%	38.20%
		100	1	247	0.16%	38.35%
		101	9	256	1.40%	39.75%

**Table 61**  
**Mathematics Grade 5 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	3	259	0.47%	40.22%
		103	3	262	0.47%	40.68%
		104	5	267	0.78%	41.46%
		105	6	273	0.93%	42.39%
		106	0	273	0.00%	42.39%
		107	1	274	0.16%	42.55%
		108	7	281	1.09%	43.63%
		109	1	282	0.16%	43.79%
		110	9	291	1.40%	45.19%
		111	4	295	0.62%	45.81%
		112	6	301	0.93%	46.74%
		113	4	305	0.62%	47.36%
		114	9	314	1.40%	48.76%
		115	4	318	0.62%	49.38%
		116	6	324	0.93%	50.31%
		117	5	329	0.78%	51.09%
MA	5	118	10	339	1.55%	52.64%
		119	8	347	1.24%	53.88%
		120	10	357	1.55%	55.44%
		121	5	362	0.78%	56.21%
		122	9	371	1.40%	57.61%
		123	8	379	1.24%	58.85%
		124	8	387	1.24%	60.09%
		125	10	397	1.55%	61.65%
		126	6	403	0.93%	62.58%
		127	6	409	0.93%	63.51%
		128	8	417	1.24%	64.75%
		129	9	426	1.40%	66.15%
		130	9	435	1.40%	67.55%
		131	9	444	1.40%	68.94%
		132	7	451	1.09%	70.03%
		133	6	457	0.93%	70.96%
		134	7	464	1.09%	72.05%
		135	0	464	0.00%	72.05%

**Table 61**  
**Mathematics Grade 5 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		136	9	473	1.40%	73.45%
		137	11	484	1.71%	75.16%
		138	9	493	1.40%	76.55%
		139	11	504	1.71%	78.26%
		140	7	511	1.09%	79.35%
		141	7	518	1.09%	80.44%
		142	10	528	1.55%	81.99%
		143	6	534	0.93%	82.92%
		144	10	544	1.55%	84.47%
		145	5	549	0.78%	85.25%
		146	6	555	0.93%	86.18%
		147	8	563	1.24%	87.42%
		148	9	572	1.40%	88.82%
		149	6	578	0.93%	89.75%
		150	8	586	1.24%	90.99%
		151	4	590	0.62%	91.62%
MA	5	152	1	591	0.16%	91.77%
		153	3	594	0.47%	92.24%
		154	3	597	0.47%	92.70%
		155	4	601	0.62%	93.32%
		156	8	609	1.24%	94.57%
		157	1	610	0.16%	94.72%
		158	6	616	0.93%	95.65%
		159	2	618	0.31%	95.96%
		160	5	623	0.78%	96.74%
		161	5	628	0.78%	97.52%
		162	4	632	0.62%	98.14%
		163	2	634	0.31%	98.45%
		164	2	636	0.31%	98.76%
		165	1	637	0.16%	98.91%
		166	2	639	0.31%	99.22%
		167	3	642	0.47%	99.69%
		168	1	643	0.16%	99.85%
		169	0	643	0.00%	99.85%

**Table 61**  
**Mathematics Grade 5 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
MA	5	170	0	643	0.00%	99.85%
		171	1	644	0.16%	100%

**Table 62**  
**Mathematics Grade 6 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	13	13	2.45%	2.45%
		1	4	17	0.75%	3.20%
		2	0	17	0.00%	3.20%
		3	2	19	0.38%	3.58%
		4	1	20	0.19%	3.77%
		5	3	23	0.57%	4.33%
		6	2	25	0.38%	4.71%
		7	0	25	0.00%	4.71%
		8	0	25	0.00%	4.71%
		9	2	27	0.38%	5.09%
		10	2	29	0.38%	5.46%
		11	0	29	0.00%	5.46%
		12	1	30	0.19%	5.65%
		13	4	34	0.75%	6.40%
		14	5	39	0.94%	7.35%
		15	1	40	0.19%	7.53%
MA	6	16	2	42	0.38%	7.91%
		17	2	44	0.38%	8.29%
		18	1	45	0.19%	8.48%
		19	3	48	0.57%	9.04%
		20	2	50	0.38%	9.42%
		21	0	50	0.00%	9.42%
		22	1	51	0.19%	9.61%
		23	3	54	0.57%	10.17%
		24	1	55	0.19%	10.36%
		25	3	58	0.57%	10.92%
		26	1	59	0.19%	11.11%
		27	2	61	0.38%	11.49%
		28	3	64	0.57%	12.05%
		29	2	66	0.38%	12.43%
		30	2	68	0.38%	12.81%
		31	2	70	0.38%	13.18%
		32	2	72	0.38%	13.56%
		33	3	75	0.57%	14.12%

**Table 62**  
**Mathematics Grade 6 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	2	77	0.38%	14.50%
		35	4	81	0.75%	15.25%
		36	5	86	0.94%	16.20%
		37	5	91	0.94%	17.14%
		38	4	95	0.75%	17.89%
		39	0	95	0.00%	17.89%
		40	1	96	0.19%	18.08%
		41	2	98	0.38%	18.46%
		42	1	99	0.19%	18.64%
		43	2	101	0.38%	19.02%
		44	2	103	0.38%	19.40%
		45	2	105	0.38%	19.77%
		46	3	108	0.57%	20.34%
		47	2	110	0.38%	20.72%
		48	3	113	0.57%	21.28%
		49	5	118	0.94%	22.22%
MA	6	50	1	119	0.19%	22.41%
		51	4	123	0.75%	23.16%
		52	1	124	0.19%	23.35%
		53	2	126	0.38%	23.73%
		54	5	131	0.94%	24.67%
		55	4	135	0.75%	25.42%
		56	2	137	0.38%	25.80%
		57	4	141	0.75%	26.55%
		58	4	145	0.75%	27.31%
		59	3	148	0.57%	27.87%
		60	7	155	1.32%	29.19%
		61	4	159	0.75%	29.94%
		62	2	161	0.38%	30.32%
		63	2	163	0.38%	30.70%
		64	0	163	0.00%	30.70%
		65	3	166	0.57%	31.26%
		66	4	170	0.75%	32.02%
		67	4	174	0.75%	32.77%



**Table 62**  
**Mathematics Grade 6 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	2	176	0.38%	33.15%
		69	2	178	0.38%	33.52%
		70	6	184	1.13%	34.65%
		71	5	189	0.94%	35.59%
		72	2	191	0.38%	35.97%
		73	2	193	0.38%	36.35%
		74	2	195	0.38%	36.72%
		75	8	203	1.51%	38.23%
		76	7	210	1.32%	39.55%
		77	5	215	0.94%	40.49%
		78	5	220	0.94%	41.43%
		79	2	222	0.38%	41.81%
		80	2	224	0.38%	42.19%
		81	2	226	0.38%	42.56%
		82	4	230	0.75%	43.32%
		83	5	235	0.94%	44.26%
MA	6	84	7	242	1.32%	45.57%
		85	5	247	0.94%	46.52%
		86	3	250	0.57%	47.08%
		87	6	256	1.13%	48.21%
		88	2	258	0.38%	48.59%
		89	3	261	0.57%	49.15%
		90	5	266	0.94%	50.09%
		91	6	272	1.13%	51.22%
		92	5	277	0.94%	52.17%
		93	7	284	1.32%	53.48%
		94	6	290	1.13%	54.61%
		95	3	293	0.57%	55.18%
		96	7	300	1.32%	56.50%
		97	4	304	0.75%	57.25%
		98	4	308	0.75%	58.00%
		99	4	312	0.75%	58.76%
		100	7	319	1.32%	60.08%
		101	4	323	0.75%	60.83%

**Table 62**  
**Mathematics Grade 6 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	4	327	0.75%	61.58%
		103	2	329	0.38%	61.96%
		104	9	338	1.69%	63.65%
		105	5	343	0.94%	64.60%
		106	7	350	1.32%	65.91%
		107	3	353	0.57%	66.48%
		108	6	359	1.13%	67.61%
		109	11	370	2.07%	69.68%
		110	2	372	0.38%	70.06%
		111	10	382	1.88%	71.94%
		112	11	393	2.07%	74.01%
		113	5	398	0.94%	74.95%
		114	5	403	0.94%	75.90%
		115	13	416	2.45%	78.34%
		116	6	422	1.13%	79.47%
		117	8	430	1.51%	80.98%
MA	6	118	10	440	1.88%	82.86%
		119	7	447	1.32%	84.18%
		120	8	455	1.51%	85.69%
		121	4	459	0.75%	86.44%
		122	7	466	1.32%	87.76%
		123	9	475	1.69%	89.45%
		124	9	484	1.69%	91.15%
		125	10	494	1.88%	93.03%
		126	6	500	1.13%	94.16%
		127	4	504	0.75%	94.92%
		128	0	504	0.00%	94.92%
		129	5	509	0.94%	95.86%
		130	3	512	0.57%	96.42%
		131	4	516	0.75%	97.18%
		132	7	523	1.32%	98.49%
		133	2	525	0.38%	98.87%
		134	3	528	0.57%	99.44%
		135	1	529	0.19%	99.62%

**Table 62**  
**Mathematics Grade 6 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		136	1	530	0.19%	99.81%
MA	6	137	1	531	0.19%	100%
		138	0	531	0.00%	100%

**Table 63**  
**Mathematics Grade 7 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	11	11	1.96%	1.96%
		1	1	12	0.18%	2.14%
		2	0	12	0.00%	2.14%
		3	1	13	0.18%	2.31%
		4	1	14	0.18%	2.49%
		5	1	15	0.18%	2.67%
		6	1	16	0.18%	2.85%
		7	1	17	0.18%	3.03%
		8	2	19	0.36%	3.38%
		9	3	22	0.53%	3.92%
		10	1	23	0.18%	4.09%
		11	1	24	0.18%	4.27%
		12	2	26	0.36%	4.63%
		13	0	26	0.00%	4.63%
		14	1	27	0.18%	4.80%
		15	3	30	0.53%	5.34%
MA	7	16	0	30	0.00%	5.34%
		17	2	32	0.36%	5.69%
		18	3	35	0.53%	6.23%
		19	4	39	0.71%	6.94%
		20	3	42	0.53%	7.47%
		21	2	44	0.36%	7.83%
		22	2	46	0.36%	8.19%
		23	2	48	0.36%	8.54%
		24	3	51	0.53%	9.08%
		25	1	52	0.18%	9.25%
		26	4	56	0.71%	9.96%
		27	2	58	0.36%	10.32%
		28	2	60	0.36%	10.68%
		29	3	63	0.53%	11.21%
		30	4	67	0.71%	11.92%
		31	5	72	0.89%	12.81%
		32	4	76	0.71%	13.52%
		33	3	79	0.53%	14.06%

**Table 63**  
**Mathematics Grade 7 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	1	80	0.18%	14.24%
		35	5	85	0.89%	15.13%
		36	5	90	0.89%	16.01%
		37	4	94	0.71%	16.73%
		38	1	95	0.18%	16.90%
		39	2	97	0.36%	17.26%
		40	4	101	0.71%	17.97%
		41	3	104	0.53%	18.51%
		42	3	107	0.53%	19.04%
		43	5	112	0.89%	19.93%
		44	4	116	0.71%	20.64%
		45	3	119	0.53%	21.17%
		46	5	124	0.89%	22.06%
		47	5	129	0.89%	22.95%
		48	3	132	0.53%	23.49%
		49	2	134	0.36%	23.84%
MA	7	50	2	136	0.36%	24.20%
		51	7	143	1.25%	25.45%
		52	3	146	0.53%	25.98%
		53	4	150	0.71%	26.69%
		54	1	151	0.18%	26.87%
		55	4	155	0.71%	27.58%
		56	4	159	0.71%	28.29%
		57	4	163	0.71%	29.00%
		58	5	168	0.89%	29.89%
		59	1	169	0.18%	30.07%
		60	5	174	0.89%	30.96%
		61	4	178	0.71%	31.67%
		62	4	182	0.71%	32.38%
		63	4	186	0.71%	33.10%
		64	5	191	0.89%	33.99%
		65	6	197	1.07%	35.05%
		66	3	200	0.53%	35.59%
		67	5	205	0.89%	36.48%

**Table 63**  
**Mathematics Grade 7 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	7	212	1.25%	37.72%
		69	3	215	0.53%	38.26%
		70	6	221	1.07%	39.32%
		71	3	224	0.53%	39.86%
		72	5	229	0.89%	40.75%
		73	6	235	1.07%	41.82%
		74	6	241	1.07%	42.88%
		75	4	245	0.71%	43.59%
		76	6	251	1.07%	44.66%
		77	3	254	0.53%	45.20%
		78	8	262	1.42%	46.62%
		79	5	267	0.89%	47.51%
		80	5	272	0.89%	48.40%
		81	3	275	0.53%	48.93%
		82	7	282	1.25%	50.18%
		83	2	284	0.36%	50.53%
MA	7	84	6	290	1.07%	51.60%
		85	7	297	1.25%	52.85%
		86	3	300	0.53%	53.38%
		87	8	308	1.42%	54.80%
		88	8	316	1.42%	56.23%
		89	6	322	1.07%	57.30%
		90	2	324	0.36%	57.65%
		91	5	329	0.89%	58.54%
		92	9	338	1.60%	60.14%
		93	9	347	1.60%	61.74%
		94	8	355	1.42%	63.17%
		95	4	359	0.71%	63.88%
		96	3	362	0.53%	64.41%
		97	11	373	1.96%	66.37%
		98	8	381	1.42%	67.79%
		99	4	385	0.71%	68.51%
		100	9	394	1.60%	70.11%
		101	10	404	1.78%	71.89%

**Table 63**  
**Mathematics Grade 7 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	5	409	0.89%	72.78%
		103	7	416	1.25%	74.02%
		104	9	425	1.60%	75.62%
		105	10	435	1.78%	77.40%
		106	6	441	1.07%	78.47%
		107	8	449	1.42%	79.89%
		108	9	458	1.60%	81.50%
		109	3	461	0.53%	82.03%
		110	10	471	1.78%	83.81%
		111	6	477	1.07%	84.88%
		112	7	484	1.25%	86.12%
		113	4	488	0.71%	86.83%
		114	8	496	1.42%	88.26%
		115	9	505	1.60%	89.86%
		116	7	512	1.25%	91.10%
MA	7	117	7	519	1.25%	92.35%
		118	8	527	1.42%	93.77%
		119	5	532	0.89%	94.66%
		120	4	536	0.71%	95.37%
		121	3	539	0.53%	95.91%
		122	4	543	0.71%	96.62%
		123	3	546	0.53%	97.15%
		124	2	548	0.36%	97.51%
		125	3	551	0.53%	98.04%
		126	2	553	0.36%	98.40%
		127	2	555	0.36%	98.75%
		128	3	558	0.53%	99.29%
		129	1	559	0.18%	99.47%
		130	1	560	0.18%	99.64%
		131	1	561	0.18%	99.82%
		132	1	562	0.18%	100%

**Table 64**  
**Mathematics Grade 8 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	20	20	3.95%	3.95%
		1	1	21	0.20%	4.15%
		2	1	22	0.20%	4.35%
		3	1	23	0.20%	4.55%
		4	2	25	0.40%	4.94%
		5	4	29	0.79%	5.73%
		6	0	29	0.00%	5.73%
		7	3	32	0.59%	6.32%
		8	3	35	0.59%	6.92%
		9	6	41	1.19%	8.10%
		10	2	43	0.40%	8.50%
		11	0	43	0.00%	8.50%
		12	1	44	0.20%	8.70%
		13	0	44	0.00%	8.70%
		14	2	46	0.40%	9.09%
		15	1	47	0.20%	9.29%
MA	8	16	3	50	0.59%	9.88%
		17	1	51	0.20%	10.08%
		18	1	52	0.20%	10.28%
		19	1	53	0.20%	10.47%
		20	1	54	0.20%	10.67%
		21	0	54	0.00%	10.67%
		22	2	56	0.40%	11.07%
		23	3	59	0.59%	11.66%
		24	3	62	0.59%	12.25%
		25	0	62	0.00%	12.25%
		26	2	64	0.40%	12.65%
		27	2	66	0.40%	13.04%
		28	6	72	1.19%	14.23%
		29	2	74	0.40%	14.63%
		30	1	75	0.20%	14.82%
		31	0	75	0.00%	14.82%
		32	1	76	0.20%	15.02%
		33	1	77	0.20%	15.22%



**Table 64**  
**Mathematics Grade 8 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	2	79	0.40%	15.61%
		35	2	81	0.40%	16.01%
		36	4	85	0.79%	16.80%
		37	1	86	0.20%	17.00%
		38	2	88	0.40%	17.39%
		39	0	88	0.00%	17.39%
		40	6	94	1.19%	18.58%
		41	0	94	0.00%	18.58%
		42	4	98	0.79%	19.37%
		43	0	98	0.00%	19.37%
		44	2	100	0.40%	19.76%
		45	1	101	0.20%	19.96%
		46	2	103	0.40%	20.36%
		47	2	105	0.40%	20.75%
		48	1	106	0.20%	20.95%
		49	3	109	0.59%	21.54%
MA	8	50	2	111	0.40%	21.94%
		51	5	116	0.99%	22.93%
		52	2	118	0.40%	23.32%
		53	4	122	0.79%	24.11%
		54	2	124	0.40%	24.51%
		55	3	127	0.59%	25.10%
		56	3	130	0.59%	25.69%
		57	1	131	0.20%	25.89%
		58	4	135	0.79%	26.68%
		59	4	139	0.79%	27.47%
		60	4	143	0.79%	28.26%
		61	2	145	0.40%	28.66%
		62	3	148	0.59%	29.25%
		63	0	148	0.00%	29.25%
		64	4	152	0.79%	30.04%
		65	5	157	0.99%	31.03%
		66	2	159	0.40%	31.42%
		67	2	161	0.40%	31.82%

**Table 64**  
**Mathematics Grade 8 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	5	166	0.99%	32.81%
		69	5	171	0.99%	33.79%
		70	5	176	0.99%	34.78%
		71	3	179	0.59%	35.38%
		72	1	180	0.20%	35.57%
		73	2	182	0.40%	35.97%
		74	2	184	0.40%	36.36%
		75	5	189	0.99%	37.35%
		76	3	192	0.59%	37.95%
		77	7	199	1.38%	39.33%
		78	5	204	0.99%	40.32%
		79	9	213	1.78%	42.10%
		80	3	216	0.59%	42.69%
		81	6	222	1.19%	43.87%
		82	8	230	1.58%	45.46%
		83	4	234	0.79%	46.25%
MA	8	84	4	238	0.79%	47.04%
		85	4	242	0.79%	47.83%
		86	2	244	0.40%	48.22%
		87	1	245	0.20%	48.42%
		88	3	248	0.59%	49.01%
		89	6	254	1.19%	50.20%
		90	4	258	0.79%	50.99%
		91	5	263	0.99%	51.98%
		92	1	264	0.20%	52.17%
		93	7	271	1.38%	53.56%
		94	1	272	0.20%	53.76%
		95	6	278	1.19%	54.94%
		96	4	282	0.79%	55.73%
		97	4	286	0.79%	56.52%
		98	3	289	0.59%	57.12%
		99	4	293	0.79%	57.91%
		100	3	296	0.59%	58.50%
		101	2	298	0.40%	58.89%

**Table 64**  
**Mathematics Grade 8 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	10	308	1.98%	60.87%
		103	5	313	0.99%	61.86%
		104	5	318	0.99%	62.85%
		105	9	327	1.78%	64.63%
		106	6	333	1.19%	65.81%
		107	6	339	1.19%	67.00%
		108	6	345	1.19%	68.18%
		109	7	352	1.38%	69.57%
		110	4	356	0.79%	70.36%
		111	6	362	1.19%	71.54%
		112	6	368	1.19%	72.73%
		113	9	377	1.78%	74.51%
		114	3	380	0.59%	75.10%
		115	8	388	1.58%	76.68%
		116	3	391	0.59%	77.27%
		117	7	398	1.38%	78.66%
MA	8	118	5	403	0.99%	79.64%
		119	7	410	1.38%	81.03%
		120	6	416	1.19%	82.21%
		121	6	422	1.19%	83.40%
		122	7	429	1.38%	84.78%
		123	4	433	0.79%	85.57%
		124	4	437	0.79%	86.36%
		125	4	441	0.79%	87.15%
		126	6	447	1.19%	88.34%
		127	3	450	0.59%	88.93%
		128	6	456	1.19%	90.12%
		129	8	464	1.58%	91.70%
		130	3	467	0.59%	92.29%
		131	3	470	0.59%	92.89%
		132	3	473	0.59%	93.48%
		133	2	475	0.40%	93.87%
		134	5	480	0.99%	94.86%
		135	3	483	0.59%	95.46%

**Table 64**  
**Mathematics Grade 8 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		136	4	487	0.79%	96.25%
		137	4	491	0.79%	97.04%
		138	2	493	0.40%	97.43%
		139	2	495	0.40%	97.83%
		140	2	497	0.40%	98.22%
MA	8	141	4	501	0.79%	99.01%
		142	2	503	0.40%	99.41%
		143	2	505	0.40%	99.80%
		144	1	506	0.20%	100%
		145	0	506	0.00%	100%
		146	0	506	0.00%	100%
		147	0	506	0.00%	100%

**Table 65**  
**Mathematics Grade 9 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	19	19	3.57%	3.57%
		1	3	22	0.56%	4.14%
		2	2	24	0.38%	4.51%
		3	1	25	0.19%	4.70%
		4	3	28	0.56%	5.26%
		5	1	29	0.19%	5.45%
		6	1	30	0.19%	5.64%
		7	2	32	0.38%	6.02%
		8	0	32	0.00%	6.02%
		9	5	37	0.94%	6.96%
		10	2	39	0.38%	7.33%
		11	1	40	0.19%	7.52%
		12	4	44	0.75%	8.27%
		13	1	45	0.19%	8.46%
		14	3	48	0.56%	9.02%
		15	1	49	0.19%	9.21%
MA	9	16	5	54	0.94%	10.15%
		17	1	55	0.19%	10.34%
		18	1	56	0.19%	10.53%
		19	4	60	0.75%	11.28%
		20	2	62	0.38%	11.65%
		21	3	65	0.56%	12.22%
		22	3	68	0.56%	12.78%
		23	0	68	0.00%	12.78%
		24	6	74	1.13%	13.91%
		25	0	74	0.00%	13.91%
		26	5	79	0.94%	14.85%
		27	2	81	0.38%	15.23%
		28	2	83	0.38%	15.60%
		29	3	86	0.56%	16.17%
		30	2	88	0.38%	16.54%
		31	4	92	0.75%	17.29%
		32	1	93	0.19%	17.48%
		33	3	96	0.56%	18.05%

**Table 65**  
**Mathematics Grade 9 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	4	100	0.75%	18.80%
		35	3	103	0.56%	19.36%
		36	3	106	0.56%	19.93%
		37	7	113	1.32%	21.24%
		38	1	114	0.19%	21.43%
		39	10	124	1.88%	23.31%
		40	6	130	1.13%	24.44%
		41	5	135	0.94%	25.38%
		42	5	140	0.94%	26.32%
		43	1	141	0.19%	26.50%
		44	4	145	0.75%	27.26%
		45	4	149	0.75%	28.01%
		46	4	153	0.75%	28.76%
		47	4	157	0.75%	29.51%
		48	6	163	1.13%	30.64%
		49	5	168	0.94%	31.58%
MA	9	50	4	172	0.75%	32.33%
		51	7	179	1.32%	33.65%
		52	3	182	0.56%	34.21%
		53	5	187	0.94%	35.15%
		54	6	193	1.13%	36.28%
		55	3	196	0.56%	36.84%
		56	3	199	0.56%	37.41%
		57	2	201	0.38%	37.78%
		58	5	206	0.94%	38.72%
		59	1	207	0.19%	38.91%
		60	5	212	0.94%	39.85%
		61	3	215	0.56%	40.41%
		62	5	220	0.94%	41.35%
		63	5	225	0.94%	42.29%
		64	6	231	1.13%	43.42%
		65	6	237	1.13%	44.55%
		66	7	244	1.32%	45.87%
		67	5	249	0.94%	46.81%

**Table 65**  
**Mathematics Grade 9 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	4	253	0.75%	47.56%
		69	3	256	0.56%	48.12%
		70	4	260	0.75%	48.87%
		71	3	263	0.56%	49.44%
		72	5	268	0.94%	50.38%
		73	7	275	1.32%	51.69%
		74	2	277	0.38%	52.07%
		75	3	280	0.56%	52.63%
		76	3	283	0.56%	53.20%
		77	7	290	1.32%	54.51%
		78	0	290	0.00%	54.51%
		79	5	295	0.94%	55.45%
		80	5	300	0.94%	56.39%
		81	7	307	1.32%	57.71%
		82	2	309	0.38%	58.08%
		83	7	316	1.32%	59.40%
MA	9	84	6	322	1.13%	60.53%
		85	4	326	0.75%	61.28%
		86	4	330	0.75%	62.03%
		87	5	335	0.94%	62.97%
		88	7	342	1.32%	64.29%
		89	4	346	0.75%	65.04%
		90	2	348	0.38%	65.41%
		91	1	349	0.19%	65.60%
		92	8	357	1.50%	67.11%
		93	10	367	1.88%	68.99%
		94	4	371	0.75%	69.74%
		95	6	377	1.13%	70.87%
		96	10	387	1.88%	72.74%
		97	4	391	0.75%	73.50%
		98	8	399	1.50%	75.00%
		99	1	400	0.19%	75.19%
		100	9	409	1.69%	76.88%
		101	4	413	0.75%	77.63%

**Table 65**  
**Mathematics Grade 9 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	5	418	0.94%	78.57%
		103	2	420	0.38%	78.95%
		104	9	429	1.69%	80.64%
		105	8	437	1.50%	82.14%
		106	7	444	1.32%	83.46%
		107	1	445	0.19%	83.65%
		108	8	453	1.50%	85.15%
		109	6	459	1.13%	86.28%
		110	6	465	1.13%	87.41%
		111	4	469	0.75%	88.16%
		112	5	474	0.94%	89.10%
		113	4	478	0.75%	89.85%
		114	4	482	0.75%	90.60%
		115	4	486	0.75%	91.35%
		116	3	489	0.56%	91.92%
		117	1	490	0.19%	92.11%
MA	9	118	2	492	0.38%	92.48%
		119	4	496	0.75%	93.23%
		120	5	501	0.94%	94.17%
		121	1	502	0.19%	94.36%
		122	2	504	0.38%	94.74%
		123	3	507	0.56%	95.30%
		124	2	509	0.38%	95.68%
		125	3	512	0.56%	96.24%
		126	3	515	0.56%	96.81%
		127	2	517	0.38%	97.18%
		128	3	520	0.56%	97.74%
		129	4	524	0.75%	98.50%
		130	1	525	0.19%	98.68%
		131	1	526	0.19%	98.87%
		132	1	527	0.19%	99.06%
		133	1	528	0.19%	99.25%
		134	1	529	0.19%	99.44%
		135	1	530	0.19%	99.62%



**Table 65**  
**Mathematics Grade 9 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		136	0	530	0.00%	99.62%
		137	0	530	0.00%	99.62%
		138	2	532	0.38%	100%
		139	0	532	0.00%	100%
MA	9	140	0	532	0.00%	100%
		141	0	532	0.00%	100%
		142	0	532	0.00%	100%
		143	0	532	0.00%	100%
		144	0	532	0.00%	100%

**Table 66**  
**Mathematics Grade 10 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	19	19	3.84%	3.84%
		1	0	19	0.00%	3.84%
		2	1	20	0.20%	4.04%
		3	1	21	0.20%	4.24%
		4	2	23	0.40%	4.65%
		5	2	25	0.40%	5.05%
		6	0	25	0.00%	5.05%
		7	3	28	0.61%	5.66%
		8	1	29	0.20%	5.86%
		9	2	31	0.40%	6.26%
		10	1	32	0.20%	6.47%
		11	1	33	0.20%	6.67%
		12	2	35	0.40%	7.07%
		13	0	35	0.00%	7.07%
		14	3	38	0.61%	7.68%
		15	3	41	0.61%	8.28%
MA	10	16	2	43	0.40%	8.69%
		17	1	44	0.20%	8.89%
		18	1	45	0.20%	9.09%
		19	1	46	0.20%	9.29%
		20	4	50	0.81%	10.10%
		21	3	53	0.61%	10.71%
		22	5	58	1.01%	11.72%
		23	1	59	0.20%	11.92%
		24	1	60	0.20%	12.12%
		25	4	64	0.81%	12.93%
		26	3	67	0.61%	13.54%
		27	3	70	0.61%	14.14%
		28	3	73	0.61%	14.75%
		29	2	75	0.40%	15.15%
		30	2	77	0.40%	15.56%
		31	4	81	0.81%	16.36%
		32	3	84	0.61%	16.97%
		33	3	87	0.61%	17.58%

**Table 66**  
**Mathematics Grade 10 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	2	89	0.40%	17.98%
		35	1	90	0.20%	18.18%
		36	3	93	0.61%	18.79%
		37	4	97	0.81%	19.60%
		38	2	99	0.40%	20.00%
		39	1	100	0.20%	20.20%
		40	2	102	0.40%	20.61%
		41	2	104	0.40%	21.01%
		42	0	104	0.00%	21.01%
		43	1	105	0.20%	21.21%
		44	4	109	0.81%	22.02%
		45	3	112	0.61%	22.63%
		46	4	116	0.81%	23.43%
		47	5	121	1.01%	24.44%
		48	4	125	0.81%	25.25%
		49	3	128	0.61%	25.86%
MA	10	50	4	132	0.81%	26.67%
		51	6	138	1.21%	27.88%
		52	2	140	0.40%	28.28%
		53	5	145	1.01%	29.29%
		54	4	149	0.81%	30.10%
		55	5	154	1.01%	31.11%
		56	3	157	0.61%	31.72%
		57	4	161	0.81%	32.53%
		58	3	164	0.61%	33.13%
		59	6	170	1.21%	34.34%
		60	10	180	2.02%	36.36%
		61	3	183	0.61%	36.97%
		62	6	189	1.21%	38.18%
		63	5	194	1.01%	39.19%
		64	7	201	1.41%	40.61%
		65	6	207	1.21%	41.82%
		66	4	211	0.81%	42.63%
		67	6	217	1.21%	43.84%

**Table 66**  
**Mathematics Grade 10 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	4	221	0.81%	44.65%
		69	7	228	1.41%	46.06%
		70	6	234	1.21%	47.27%
		71	2	236	0.40%	47.68%
		72	4	240	0.81%	48.49%
		73	4	244	0.81%	49.29%
		74	4	248	0.81%	50.10%
		75	5	253	1.01%	51.11%
		76	5	258	1.01%	52.12%
		77	6	264	1.21%	53.33%
		78	6	270	1.21%	54.55%
		79	1	271	0.20%	54.75%
		80	4	275	0.81%	55.56%
		81	5	280	1.01%	56.57%
		82	8	288	1.62%	58.18%
		83	6	294	1.21%	59.39%
MA	10	84	6	300	1.21%	60.61%
		85	6	306	1.21%	61.82%
		86	1	307	0.20%	62.02%
		87	3	310	0.61%	62.63%
		88	5	315	1.01%	63.64%
		89	3	318	0.61%	64.24%
		90	6	324	1.21%	65.46%
		91	4	328	0.81%	66.26%
		92	9	337	1.82%	68.08%
		93	5	342	1.01%	69.09%
		94	7	349	1.41%	70.51%
		95	7	356	1.41%	71.92%
		96	6	362	1.21%	73.13%
		97	4	366	0.81%	73.94%
		98	4	370	0.81%	74.75%
		99	4	374	0.81%	75.56%
		100	9	383	1.82%	77.37%
		101	5	388	1.01%	78.38%

**Table 66**  
**Mathematics Grade 10 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		102	7	395	1.41%	79.80%
		103	8	403	1.62%	81.41%
		104	5	408	1.01%	82.42%
		105	4	412	0.81%	83.23%
		106	6	418	1.21%	84.44%
		107	4	422	0.81%	85.25%
		108	3	425	0.61%	85.86%
		109	5	430	1.01%	86.87%
		110	1	431	0.20%	87.07%
		111	1	432	0.20%	87.27%
		112	5	437	1.01%	88.28%
		113	2	439	0.40%	88.69%
		114	4	443	0.81%	89.50%
		115	0	443	0.00%	89.50%
		116	7	450	1.41%	90.91%
		117	2	452	0.40%	91.31%
MA	10	118	3	455	0.61%	91.92%
		119	4	459	0.81%	92.73%
		120	3	462	0.61%	93.33%
		121	2	464	0.40%	93.74%
		122	2	466	0.40%	94.14%
		123	5	471	1.01%	95.15%
		124	3	474	0.61%	95.76%
		125	1	475	0.20%	95.96%
		126	1	476	0.20%	96.16%
		127	0	476	0.00%	96.16%
		128	3	479	0.61%	96.77%
		129	3	482	0.61%	97.37%
		130	1	483	0.20%	97.58%
		131	1	484	0.20%	97.78%
		132	0	484	0.00%	97.78%
		133	2	486	0.40%	98.18%
		134	2	488	0.40%	98.59%
		135	0	488	0.00%	98.59%

**Table 66**  
**Mathematics Grade 10 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		136	1	489	0.20%	98.79%
		137	1	490	0.20%	98.99%
		138	1	491	0.20%	99.19%
		139	1	492	0.20%	99.39%
		140	0	492	0.00%	99.39%
		141	0	492	0.00%	99.39%
		142	0	492	0.00%	99.39%
		143	0	492	0.00%	99.39%
		144	0	492	0.00%	99.39%
		145	0	492	0.00%	99.39%
MA	10	146	0	492	0.00%	99.39%
		147	2	494	0.40%	99.80%
		148	0	494	0.00%	99.80%
		149	1	495	0.20%	100%
		150	0	495	0.00%	100%
		151	0	495	0.00%	100%
		152	0	495	0.00%	100%
		153	0	495	0.00%	100%
		154	0	495	0.00%	100%
		155	0	495	0.00%	100%
		156	0	495	0.00%	100%

**Table 67**  
**Science Grade 5 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	15	15	2.30%	2.30%
		1	3	18	0.46%	2.76%
		2	3	21	0.46%	3.22%
		3	1	22	0.15%	3.37%
		4	0	22	0.00%	3.37%
		5	0	22	0.00%	3.37%
		6	1	23	0.15%	3.53%
		7	2	25	0.31%	3.83%
		8	1	26	0.15%	3.99%
		9	5	31	0.77%	4.76%
		10	1	32	0.15%	4.91%
		11	1	33	0.15%	5.06%
		12	1	34	0.15%	5.22%
		13	0	34	0.00%	5.22%
		14	1	35	0.15%	5.37%
		15	1	36	0.15%	5.52%
SC	5	16	1	37	0.15%	5.68%
		17	1	38	0.15%	5.83%
		18	7	45	1.07%	6.90%
		19	2	47	0.31%	7.21%
		20	1	48	0.15%	7.36%
		21	1	49	0.15%	7.52%
		22	2	51	0.31%	7.82%
		23	5	56	0.77%	8.59%
		24	4	60	0.61%	9.20%
		25	0	60	0.00%	9.20%
		26	2	62	0.31%	9.51%
		27	1	63	0.15%	9.66%
		28	3	66	0.46%	10.12%
		29	3	69	0.46%	10.58%
		30	2	71	0.31%	10.89%
		31	6	77	0.92%	11.81%
		32	6	83	0.92%	12.73%
		33	5	88	0.77%	13.50%

**Table 67**  
**Science Grade 5 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	1	89	0.15%	13.65%
		35	3	92	0.46%	14.11%
		36	4	96	0.61%	14.72%
		37	2	98	0.31%	15.03%
		38	7	105	1.07%	16.10%
		39	5	110	0.77%	16.87%
		40	3	113	0.46%	17.33%
		41	3	116	0.46%	17.79%
		42	3	119	0.46%	18.25%
		43	9	128	1.38%	19.63%
		44	3	131	0.46%	20.09%
		45	5	136	0.77%	20.86%
		46	6	142	0.92%	21.78%
		47	6	148	0.92%	22.70%
		48	2	150	0.31%	23.01%
		49	5	155	0.77%	23.77%
SC	5	50	12	167	1.84%	25.61%
		51	5	172	0.77%	26.38%
		52	4	176	0.61%	26.99%
		53	7	183	1.07%	28.07%
		54	4	187	0.61%	28.68%
		55	1	188	0.15%	28.83%
		56	7	195	1.07%	29.91%
		57	8	203	1.23%	31.14%
		58	5	208	0.77%	31.90%
		59	7	215	1.07%	32.98%
		60	8	223	1.23%	34.20%
		61	5	228	0.77%	34.97%
		62	7	235	1.07%	36.04%
		63	6	241	0.92%	36.96%
		64	4	245	0.61%	37.58%
		65	11	256	1.69%	39.26%
		66	12	268	1.84%	41.10%
		67	6	274	0.92%	42.03%



**Table 67**  
**Science Grade 5 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	6	280	0.92%	42.95%
		69	13	293	1.99%	44.94%
		70	3	296	0.46%	45.40%
		71	8	304	1.23%	46.63%
		72	18	322	2.76%	49.39%
		73	1	323	0.15%	49.54%
		74	10	333	1.53%	51.07%
		75	17	350	2.61%	53.68%
		76	4	354	0.61%	54.29%
		77	11	365	1.69%	55.98%
		78	21	386	3.22%	59.20%
		79	7	393	1.07%	60.28%
		80	12	405	1.84%	62.12%
		81	35	440	5.37%	67.49%
SC	5	82	1	441	0.15%	67.64%
		83	9	450	1.38%	69.02%
		84	31	481	4.75%	73.77%
		85	8	489	1.23%	75.00%
		86	4	493	0.61%	75.61%
		87	47	540	7.21%	82.82%
		88	7	547	1.07%	83.90%
		89	5	552	0.77%	84.66%
		90	39	591	5.98%	90.64%
		91	0	591	0.00%	90.64%
		92	4	595	0.61%	91.26%
		93	34	629	5.21%	96.47%
		94	4	633	0.61%	97.09%
		95	6	639	0.92%	98.01%
		96	13	652	1.99%	100%

**Table 68**  
**Science Grade 8 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	18	18	3.57%	3.57%
		1	1	19	0.20%	3.77%
		2	0	19	0.00%	3.77%
		3	0	19	0.00%	3.77%
		4	1	20	0.20%	3.97%
		5	0	20	0.00%	3.97%
		6	5	25	0.99%	4.96%
		7	0	25	0.00%	4.96%
		8	1	26	0.20%	5.16%
		9	0	26	0.00%	5.16%
		10	1	27	0.20%	5.36%
		11	2	29	0.40%	5.75%
		12	1	30	0.20%	5.95%
		13	0	30	0.00%	5.95%
		14	1	31	0.20%	6.15%
		15	0	31	0.00%	6.15%
SC	8	16	2	33	0.40%	6.55%
		17	2	35	0.40%	6.94%
		18	1	36	0.20%	7.14%
		19	1	37	0.20%	7.34%
		20	2	39	0.40%	7.74%
		21	1	40	0.20%	7.94%
		22	2	42	0.40%	8.33%
		23	2	44	0.40%	8.73%
		24	1	45	0.20%	8.93%
		25	2	47	0.40%	9.33%
		26	2	49	0.40%	9.72%
		27	1	50	0.20%	9.92%
		28	1	51	0.20%	10.12%
		29	3	54	0.60%	10.71%
		30	4	58	0.79%	11.51%
		31	2	60	0.40%	11.91%
		32	2	62	0.40%	12.30%
		33	3	65	0.60%	12.90%

**Table 68**  
**Science Grade 8 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	2	67	0.40%	13.29%
		35	0	67	0.00%	13.29%
		36	2	69	0.40%	13.69%
		37	6	75	1.19%	14.88%
		38	3	78	0.60%	15.48%
		39	2	80	0.40%	15.87%
		40	1	81	0.20%	16.07%
		41	4	85	0.79%	16.87%
		42	1	86	0.20%	17.06%
		43	5	91	0.99%	18.06%
		44	3	94	0.60%	18.65%
		45	1	95	0.20%	18.85%
		46	3	98	0.60%	19.44%
		47	5	103	0.99%	20.44%
		48	2	105	0.40%	20.83%
		49	5	110	0.99%	21.83%
SC	8	50	0	110	0.00%	21.83%
		51	4	114	0.79%	22.62%
		52	4	118	0.79%	23.41%
		53	2	120	0.40%	23.81%
		54	0	120	0.00%	23.81%
		55	2	122	0.40%	24.21%
		56	4	126	0.79%	25.00%
		57	1	127	0.20%	25.20%
		58	4	131	0.79%	25.99%
		59	4	135	0.79%	26.79%
		60	4	139	0.79%	27.58%
		61	3	142	0.60%	28.18%
		62	3	145	0.60%	28.77%
		63	1	146	0.20%	28.97%
		64	5	151	0.99%	29.96%
		65	4	155	0.79%	30.75%
		66	4	159	0.79%	31.55%
		67	2	161	0.40%	31.94%

**Table 68**  
**Science Grade 8 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	6	167	1.19%	33.14%
		69	8	175	1.59%	34.72%
		70	6	181	1.19%	35.91%
		71	6	187	1.19%	37.10%
		72	5	192	0.99%	38.10%
		73	7	199	1.39%	39.48%
		74	5	204	0.99%	40.48%
		75	6	210	1.19%	41.67%
		76	6	216	1.19%	42.86%
		77	6	222	1.19%	44.05%
		78	9	231	1.79%	45.83%
		79	1	232	0.20%	46.03%
		80	9	241	1.79%	47.82%
		81	16	257	3.17%	50.99%
		82	4	261	0.79%	51.79%
SC	8	83	16	277	3.17%	54.96%
		84	27	304	5.36%	60.32%
		85	6	310	1.19%	61.51%
		86	12	322	2.38%	63.89%
		87	29	351	5.75%	69.64%
		88	5	356	0.99%	70.64%
		89	10	366	1.98%	72.62%
		90	20	386	3.97%	76.59%
		91	5	391	0.99%	77.58%
		92	12	403	2.38%	79.96%
		93	28	431	5.56%	85.52%
		94	2	433	0.40%	85.91%
		95	9	442	1.79%	87.70%
		96	46	488	9.13%	96.83%
		97	1	489	0.20%	97.02%
		98	2	491	0.40%	97.42%
		99	13	504	2.58%	100%

**Table 69**  
**Science Grade 10 Raw Score Frequency Distributions**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		0	15	15	3.06%	3.06%
		1	0	15	0.00%	3.06%
		2	0	15	0.00%	3.06%
		3	2	17	0.41%	3.47%
		4	0	17	0.00%	3.47%
		5	0	17	0.00%	3.47%
		6	2	19	0.41%	3.88%
		7	1	20	0.20%	4.08%
		8	1	21	0.20%	4.29%
		9	0	21	0.00%	4.29%
		10	1	22	0.20%	4.49%
		11	2	24	0.41%	4.90%
		12	1	25	0.20%	5.10%
		13	0	25	0.00%	5.10%
		14	0	25	0.00%	5.10%
		15	2	27	0.41%	5.51%
SC	10	16	2	29	0.41%	5.92%
		17	4	33	0.82%	6.74%
		18	3	36	0.61%	7.35%
		19	2	38	0.41%	7.76%
		20	2	40	0.41%	8.16%
		21	3	43	0.61%	8.78%
		22	2	45	0.41%	9.18%
		23	4	49	0.82%	10.00%
		24	13	62	2.65%	12.65%
		25	2	64	0.41%	13.06%
		26	4	68	0.82%	13.88%
		27	5	73	1.02%	14.90%
		28	2	75	0.41%	15.31%
		29	10	85	2.04%	17.35%
		30	2	87	0.41%	17.76%
		31	0	87	0.00%	17.76%
		32	8	95	1.63%	19.39%
		33	7	102	1.43%	20.82%

**Table 69**  
**Science Grade 10 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		34	1	103	0.20%	21.02%
		35	7	110	1.43%	22.45%
		36	3	113	0.61%	23.06%
		37	4	117	0.82%	23.88%
		38	8	125	1.63%	25.51%
		39	8	133	1.63%	27.14%
		40	5	138	1.02%	28.16%
		41	5	143	1.02%	29.18%
		42	3	146	0.61%	29.80%
		43	2	148	0.41%	30.20%
		44	4	152	0.82%	31.02%
		45	9	161	1.84%	32.86%
		46	5	166	1.02%	33.88%
		47	9	175	1.84%	35.71%
		48	5	180	1.02%	36.74%
		49	2	182	0.41%	37.14%
SC	10	50	7	189	1.43%	38.57%
		51	8	197	1.63%	40.20%
		52	1	198	0.20%	40.41%
		53	5	203	1.02%	41.43%
		54	5	208	1.02%	42.45%
		55	1	209	0.20%	42.65%
		56	5	214	1.02%	43.67%
		57	7	221	1.43%	45.10%
		58	0	221	0.00%	45.10%
		59	7	228	1.43%	46.53%
		60	9	237	1.84%	48.37%
		61	3	240	0.61%	48.98%
		62	9	249	1.84%	50.82%
		63	4	253	0.82%	51.63%
		64	0	253	0.00%	51.63%
		65	7	260	1.43%	53.06%
		66	6	266	1.22%	54.29%
		67	1	267	0.20%	54.49%

**Table 69**  
**Science Grade 10 Raw Score Frequency Distributions (continued)**

Content	Grade	Raw Score	Frequency	Cumulative Frequency	Percent	Cumulative Percent
		68	9	276	1.84%	56.33%
		69	8	284	1.63%	57.96%
		70	4	288	0.82%	58.78%
		71	5	293	1.02%	59.80%
		72	8	301	1.63%	61.43%
		73	0	301	0.00%	61.43%
		74	11	312	2.24%	63.67%
		75	8	320	1.63%	65.31%
		76	2	322	0.41%	65.71%
		77	7	329	1.43%	67.14%
		78	15	344	3.06%	70.20%
		79	4	348	0.82%	71.02%
		80	7	355	1.43%	72.45%
		81	18	373	3.67%	76.12%
		82	4	377	0.82%	76.94%
		83	3	380	0.61%	77.55%
		84	15	395	3.06%	80.61%
SC	10	85	0	395	0.00%	80.61%
		86	9	404	1.84%	82.45%
		87	17	421	3.47%	85.92%
		88	4	425	0.82%	86.74%
		89	10	435	2.04%	88.78%
		90	12	447	2.45%	91.22%
		91	4	451	0.82%	92.04%
		92	3	454	0.61%	92.65%
		93	6	460	1.22%	93.88%
		94	4	464	0.82%	94.69%
		95	3	467	0.61%	95.31%
		96	10	477	2.04%	97.35%
		97	0	477	0.00%	97.35%
		98	2	479	0.41%	97.76%
		99	8	487	1.63%	99.39%
		100	0	487	0.00%	99.39%
		101	1	488	0.20%	99.59%
		102	2	490	0.41%	100%

**Table 70**  
**Cut Scores and Percent of Students in Each Proficiency Level**

Content	Grade	N	Cut Scores				Percent of Students in Each Proficiency Level					
			Exploring	Emerging	Developing	Novice	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
RD	3	641	31	56	79	95	15.29%	24.03%	35.88%	19.66%	5.15%	24.81%
	4	620	32	53	76	93	16.45%	21.29%	31.77%	20.97%	9.52%	30.48%
	5	665	26	52	72	93	10.98%	22.26%	20.60%	32.48%	13.68%	46.17%
	6	531	25	53	78	97	10.17%	22.03%	25.80%	35.59%	6.40%	42.00%
	7	565	27	50	68	88	8.85%	24.96%	25.31%	34.87%	6.02%	40.89%
	8	502	29	53	70	91	17.33%	28.49%	23.31%	25.50%	5.38%	30.88%
	9	528	24	48	71	89	13.26%	28.79%	26.14%	22.16%	9.66%	31.82%
	10	491	23	43	64	80	13.03%	30.55%	24.03%	18.74%	13.65%	32.38%
WR	3	648	18	48	78	96	13.58%	23.77%	33.80%	25.46%	3.40%	28.86%
	4	614	19	46	78	94	13.52%	21.66%	34.04%	23.45%	7.33%	30.78%
	5	660	19	50	78	93	10.45%	17.27%	30.91%	32.12%	9.24%	41.36%
	6	533	18	51	78	93	10.51%	20.45%	25.70%	29.83%	13.51%	43.34%
	7	562	23	57	80	94	10.32%	22.42%	26.51%	26.87%	13.88%	40.75%
	8	499	27	62	80	90	18.64%	22.24%	23.45%	21.84%	13.83%	35.67%
	9	527	21	60	79	91	14.42%	29.41%	24.86%	22.58%	8.73%	31.31%
	10	490	21	56	81	93	13.27%	29.18%	29.59%	17.76%	10.20%	27.96%



**Table 70**  
**Cut Scores and Percent of Students in Each Proficiency Level (continued)**

Content	Grade	N	Cut Scores				Percent of Students in Each Proficiency Level					
			Exploring	Emerging	Developing	Novice	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
MA	3	634	19	63	93	108	9.94%	18.61%	24.13%	23.50%	23.82%	47.32%
	4	608	13	72	99	119	6.91%	28.29%	24.67%	30.26%	9.87%	40.13%
	5	644	41	82	115	150	14.75%	14.13%	19.88%	40.99%	10.25%	51.24%
	6	531	28	60	92	113	11.49%	16.38%	23.35%	22.79%	25.99%	48.78%
	7	562	29	61	89	110	10.68%	20.28%	25.27%	25.80%	17.97%	43.77%
	8	506	30	76	107	129	14.62%	22.73%	28.46%	24.31%	9.88%	34.19%
	9	532	29	63	97	116	15.60%	25.75%	31.39%	18.61%	8.65%	27.26%
	10	495	29	67	104	125	14.75%	27.88%	38.79%	14.34%	4.24%	18.59%
SC	5	652	33	60	76	87	12.73%	20.25%	20.71%	21.93%	24.39%	46.32%
	8	504	40	63	80	89	15.87%	12.90%	17.26%	24.60%	29.37%	53.97%
	10	490	28	54	78	87	14.90%	26.53%	25.71%	15.31%	17.55%	32.86%

**Table 71**  
**Total Group Statistics, Including Reliability**

Content	Grade	Sample Size	Raw Score		N Students at Max Score	N Students at Min Score	Coefficient Alpha	Standard Error of Measurement
			Mean	SD				
RD	3	641	58.83	25.41	0	13	0.93	6.84
	4	620	58.76	26.29	2	18	0.93	6.82
	5	665	62.59	26.96	5	17	0.94	6.76
	6	531	64.66	27.01	7	11	0.94	6.50
	7	565	58.17	22.72	0	15	0.90	7.08
	8	502	53.72	26.06	0	18	0.92	7.14
	9	528	53.68	26.51	2	17	0.93	6.92
	10	491	49.32	24.48	0	15	0.91	7.29
WR	3	648	55.56	28.67	1	19	0.93	7.50
	4	614	57.11	29.04	1	21	0.93	7.68
	5	660	63.52	27.43	1	15	0.93	7.33
	6	533	63.46	29.28	3	13	0.94	7.40
	7	562	65.17	28.40	3	14	0.93	7.55
	8	499	60.59	29.51	0	26	0.93	7.53
	9	527	58.25	28.52	0	23	0.93	7.60
	10	490	58.76	28.49	0	18	0.92	7.82
MA	3	634	78.47	35.22	2	13	0.95	7.95
	4	608	79.03	36.37	1	18	0.95	8.24
	5	644	101.52	45.57	1	17	0.95	9.93
	6	531	81.64	37.47	0	13	0.95	8.76
	7	562	76.31	33.46	1	11	0.93	8.72
	8	506	82.15	39.69	0	20	0.95	9.10
	9	532	69.34	35.87	0	19	0.93	9.37
	10	495	71.42	35.03	0	19	0.92	9.82
SC	5	652	65.62	24.97	13	15	0.94	6.05
	8	504	70.31	26.83	13	18	0.95	5.91
	10	490	58.82	26.39	2	15	0.92	7.53

**Table 72**  
**Classification Consistency and Accuracy**

Content	Grade	Consistency				Accuracy		
		Prob of Correct Classification (PC)	Prob of Correct Classification By Chance (Chance)	Kappa	Prob of Misclassification (PM)	Prob of Accuracy (PA)	Prob of False Positive Error (FP)	Prob of False Negative Error (FN)
RD	3	0.68	0.25	0.57	0.32	0.78	0.11	0.11
	4	0.64	0.23	0.54	0.36	0.74	0.15	0.11
	5	0.65	0.24	0.54	0.35	0.74	0.15	0.11
	6	0.68	0.25	0.57	0.32	0.77	0.14	0.09
	7	0.62	0.26	0.50	0.38	0.73	0.16	0.11
	8	0.64	0.23	0.53	0.36	0.74	0.15	0.11
	9	0.65	0.22	0.55	0.35	0.75	0.13	0.12
	10	0.61	0.21	0.51	0.39	0.71	0.15	0.14
WR	3	0.68	0.26	0.57	0.32	0.78	0.11	0.11
	4	0.65	0.24	0.53	0.35	0.75	0.15	0.10
	5	0.64	0.26	0.51	0.36	0.75	0.14	0.11
	6	0.62	0.23	0.51	0.38	0.72	0.19	0.09
	7	0.60	0.22	0.48	0.40	0.69	0.21	0.10
	8	0.56	0.21	0.45	0.44	0.65	0.21	0.14
	9	0.61	0.23	0.49	0.39	0.71	0.17	0.12
	10	0.60	0.23	0.48	0.40	0.70	0.17	0.13
MA	3	0.62	0.21	0.51	0.38	0.71	0.13	0.16
	4	0.69	0.27	0.57	0.31	0.78	0.14	0.08
	5	0.69	0.28	0.57	0.31	0.79	0.14	0.07
	6	0.67	0.21	0.59	0.33	0.77	0.11	0.13
	7	0.62	0.21	0.52	0.38	0.72	0.13	0.15
	8	0.68	0.24	0.58	0.32	0.78	0.14	0.09
	9	0.64	0.22	0.53	0.36	0.73	0.14	0.13
	10	0.67	0.26	0.55	0.33	0.76	0.13	0.11
SC	5	0.58	0.21	0.47	0.42	0.67	0.19	0.15
	8	0.57	0.22	0.45	0.43	0.67	0.13	0.20
	10	0.62	0.22	0.51	0.38	0.71	0.14	0.15

**Table 73**  
**Level of Independence—Total Percentage by Level across All Items**

Content	Total Items	Level of Independence			
		1	2	3	4
RD	157885	4.47%	3.44%	6.06%	86.01%
WR	133520	4.88%	3.64%	6.47%	84.98%
MA	161210	6.21%	5.26%	10.00%	78.51%
SC	49347	4.48%	2.92%	5.80%	86.78%

**Table 74**  
**Reliability of Levels of Independence**

Content	Grade	Independent versus Not Independent	All Levels of Independence
RD	3	0.98	0.99
	4	0.98	0.99
	5	0.98	0.99
	6	0.98	0.99
	7	0.98	0.99
	8	0.98	0.99
	9	0.98	0.99
	10	0.98	0.99
WR	3	0.97	0.98
	4	0.97	0.99
	5	0.97	0.99
	6	0.98	0.99
	7	0.97	0.99
	8	0.98	0.99
	9	0.97	0.99
	10	0.98	0.99
MA	3	0.97	0.98
	4	0.96	0.98
	5	0.97	0.99
	6	0.97	0.98
	7	0.96	0.98
	8	0.97	0.99
	9	0.97	0.99
	10	0.97	0.99
SC	5	0.97	0.99
	8	0.98	0.99
	10	0.97	0.99

**Table 75**  
**Percentages of Test Administrator Coding Errors**

Content	Grade	Level 1 and correct answer	Levels 2 - 4 and no response
RD	3	0.53%	0.04%
	4	0.95%	0.01%
	5	0.25%	0.01%
	6	0.38%	0.40%
	7	0.57%	0.03%
	8	0.74%	0.15%
	9	0.12%	0.19%
	10	0.07%	0.17%
WR	3	0.45%	0.03%
	4	0.88%	0.06%
	5	0.22%	0.01%
	6	0.26%	0.43%
	7	0.64%	0.03%
	8	0.71%	0.02%
	9	0.01%	0.22%
	10	0.08%	0.09%
MA	3	0.63%	0.09%
	4	1.02%	0.07%
	5	0.23%	0.05%
	6	0.25%	0.55%
	7	0.59%	0.07%
	8	0.73%	0.04%
	9	0.14%	0.24%
	10	0.07%	0.28%
SC	5	0.29%	0.01%
	8	0.81%	0.04%
	10	0.10%	0.19%

**Table 76**  
**Reliability of Test Examiner Rated Performance Level (via Test Examiner Surveys)**  
**versus Earned Performance Level**

Content	Grade	N Matched Records	Kappa	Weighted Kappa	Percent Perfect	Percent Adjacent	Percent Discrepant
RD	3	89	0.28	0.78	46.07%	43.82%	10.11%
	4	85	0.39	0.80	55.29%	34.12%	10.59%
	5	95	0.34	0.89	48.42%	44.21%	7.37%
	6	83	0.31	0.82	48.19%	40.96%	10.84%
	7	64	0.30	0.87	48.44%	45.31%	6.25%
	8	77	0.45	0.90	58.44%	35.07%	6.49%
	9	87	0.30	0.89	44.83%	44.83%	10.35%
	10	75	0.26	0.81	41.33%	45.33%	13.33%
WR	3	90	0.33	0.80	48.89%	37.78%	13.33%
	4	85	0.31	0.82	49.41%	42.35%	8.24%
	5	95	0.41	0.91	53.68%	41.05%	5.26%
	6	84	0.15	0.81	34.52%	52.38%	13.10%
	7	64	0.39	0.89	53.13%	40.63%	6.25%
	8	78	0.33	0.85	48.72%	43.59%	7.69%
	9	87	0.34	0.88	48.28%	42.53%	9.20%
	10	76	0.33	0.86	47.37%	43.42%	9.21%
MA	3	89	0.29	0.82	43.82%	44.94%	11.24%
	4	85	0.24	0.89	43.53%	52.94%	3.53%
	5	91	0.27	0.86	42.86%	47.25%	9.89%
	6	83	0.18	0.84	36.15%	53.01%	10.84%
	7	64	0.44	0.92	56.25%	37.50%	6.25%
	8	77	0.28	0.89	46.75%	48.05%	5.20%
	9	88	0.39	0.90	52.27%	38.64%	9.09%
	10	75	0.37	0.85	52.00%	36.00%	12.00%
SC	5	92	0.29	0.89	43.48%	45.65%	10.87%
	8	77	0.36	0.83	48.05%	33.77%	18.18%
	10	75	0.36	0.84	50.67%	36.00%	13.33%

**Table 77**  
**Response Mode Analysis—Assessment Activities**

Grade	Response Mode																
	Total N	Communication Device		Eye Gaze		Picture Symbols		Pointing/ Gesturing		Sign Language		Verbal Response		Student Does Not Have a Response Mode		Other	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
3	91	0	0%	0	0%	2	2.20%	35	38.46%	1	1.10%	48	52.75%	5	5.50%	0	0%
4	88	3	3.41%	1	1.14%	0	0%	26	29.55%	0	0%	56	63.64%	2	2.27%	0	0%
5	96	0	0%	0	0%	2	2.08%	28	29.17%	0	0%	63	65.63%	1	1.04%	2	2.08%
6	89	0	0%	1	1.12%	0	0%	33	37.08%	0	0%	50	56.18%	3	3.37%	2	2.25%
7	71	0	0%	3	4.23%	0	0%	12	16.90%	0	0%	52	73.24%	3	4.23%	1	1.41%
8	82	2	2.44%	3	3.66%	1	1.22%	26	31.71%	0	0%	46	56.10%	3	3.66%	1	1.22%
9	92	0	0%	3	3.26%	0	0%	18	19.57%	0	0%	65	70.65%	5	5.44%	1	1.09%
10	77	1	1.30%	3	3.90%	0	0%	23	29.87%	0	0%	45	58.44%	3	3.90%	2	2.60%



**Table 78**  
**Response Mode Analysis—School Interactions**

Grade	Response Mode																		
	Total	Body Language		Communication Device		Eye Gaze/ Picture Symbols		Pointing/ Gesturing		Sign Language		Verbal Response		Utterances (crying, grunting, etc.)		Student Does Not Have a Response Mode		Other	
		N	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
3	91	1	1.10%	3	3.30%	2	2.20%	14	15.39%	1	1.10%	66	72.53%	3	3.30%	1	1.10%	0	0%
4	88	1	1.14%	4	4.55%	1	1.14%	7	7.96%	0	0%	72	81.82%	3	3.41%	0	0%	0	0%
5	96	0	0%	2	2.08%	2	2.08%	8	8.33%	1	1.04%	78	81.25%	4	4.17%	0	0%	1	1.04%
6	89	3	3.37%	1	1.12%	1	1.12%	9	10.11%	0	0%	72	80.90%	0	0%	2	2.25%	1	1.12%
7	71	0	0%	0	0%	3	4.23%	4	5.63%	0	0%	58	81.69%	2	2.82%	3	4.23%	1	1.41%
8	82	1	1.22%	2	2.44%	3	3.66%	9	10.98%	1	1.22%	61	74.39%	2	2.44%	3	3.66%	0	0%
9	92	4	4.35%	0	0%	0	0%	10	10.87%	0	0%	70	76.09%	1	1.09%	7	7.61%	0	0%
10	77	1	1.30%	2	2.60%	3	3.90%	12	15.58%	1	1.30%	54	70.13%	3	3.90%	1	1.30%	0	0%

**Table 79**  
**Reading Average Level of Independence and Earned Proficiency Level**

Content	Grade	Average Level of Independence	Percent of Students in Each Proficiency Level				
			Inconclusive	Exploring	Emerging	Developing	Novice
RD	3	3.5-4.0	4.48%	24.63%	41.42%	23.32%	6.16%
		3.0-3.4	36.84%	39.47%	21.05%	2.63%	0%
		2.5-2.9	76.19%	23.81%	0%	0%	0%
		2.0-2.4	92.31%	7.69%	0%	0%	0%
		1.5-1.9	93.75%	6.25%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%
	4	3.5-4.0	8.01%	22.16%	35.01%	23.84%	10.99%
		3.0-3.4	53.85%	11.54%	26.92%	7.69%	0%
		2.5-2.9	44.44%	44.44%	11.11%	0%	0%
		2.0-2.4	81.82%	18.18%	0%	0%	0%
		1.5-1.9	100%	0%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%
	5	3.5-4.0	3.74%	21.73%	22.92%	36.16%	15.45%
		3.0-3.4	35.00%	40.00%	10.00%	15.00%	0%
		2.5-2.9	52.63%	47.37%	0%	0%	0%
		2.0-2.4	75.00%	25.00%	0%	0%	0%
		1.5-1.9	100%	0%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%
	6	3.5-4.0	4.28%	19.91%	28.05%	40.47%	7.28%
		3.0-3.4	12.50%	62.50%	25.00%	0%	0%
		2.5-2.9	46.15%	53.85%	0%	0%	0%
		2.0-2.4	66.67%	33.33%	0%	0%	0%
		1.5-1.9	100%	0%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%
7	3.5-4.0	4.26%	23.84%	27.13%	38.18%	6.59%	
	3.0-3.4	28.57%	57.14%	14.29%	0%	0%	
	2.5-2.9	20.00%	70.00%	10.00%	0%	0%	
	2.0-2.4	57.14%	42.86%	0%	0%	0%	
	1.5-1.9	100%	0%	0%	0%	0%	
	1.0-1.4	100%	0%	0%	0%	0%	
8	3.5-4.0	7.75%	30.75%	26.42%	28.93%	6.15%	
	3.0-3.4	56.25%	31.25%	6.25%	6.25%	0%	
	2.5-2.9	87.50%	12.50%	0%	0%	0%	
	2.0-2.4	80.00%	20.00%	0%	0%	0%	
	1.5-1.9	100%	0%	0%	0%	0%	
	1.0-1.4	100%	0%	0%	0%	0%	

**Table 79**  
**Reading Average Level of Independence and Earned Proficiency Level**  
**(continued)**

Content	Grade	Average Level of Independence	Percent of Students in Each Proficiency Level				
			Inconclusive	Exploring	Emerging	Developing	Novice
RD	9	3.5-4.0	5.38%	30.11%	28.39%	25.16%	10.97%
		3.0-3.4	41.18%	41.18%	17.65%	0%	0%
		2.5-2.9	50.00%	33.33%	16.67%	0%	0%
		2.0-2.4	75.00%	12.50%	12.50%	0%	0%
		1.5-1.9	100%	0%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%
	10	3.5-4.0	5.57%	32.25%	26.45%	20.42%	15.31%
		3.0-3.4	17.65%	35.29%	17.65%	23.53%	6%
		2.5-2.9	63.64%	27.27%	9.09%	0%	0%
		2.0-2.4	66.67%	33.33%	0%	0%	0%
		1.5-1.9	100%	0%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%

**Table 80**  
**Writing Average Level of Independence and Earned Proficiency Level**

Content	Grade	Average Level of Independence	Percent of Students in Each Proficiency Level				
			Inconclusive	Exploring	Emerging	Developing	Novice
WR	3	3.5-4.0	3.77%	22.98%	38.42%	30.70%	4.14%
		3.0-3.4	22.22%	42.22%	31.11%	4.44%	0%
		2.5-2.9	57.90%	36.84%	5.26%	0%	0%
		2.0-2.4	70.59%	29.41%	0%	0%	0%
		1.5-1.9	93.75%	6.25%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%
	4	3.5-4.0	5.32%	19.09%	38.39%	28.35%	8.86%
		3.0-3.4	17.50%	50.00%	32.50%	0%	0%
		2.5-2.9	47.62%	47.62%	4.76%	0%	0%
		2.0-2.4	75.00%	25.00%	0%	0%	0%
		1.5-1.9	80.00%	20.00%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%
	5	3.5-4.0	3.27%	15.98%	34.19%	36.08%	10.48%
		3.0-3.4	33.33%	45.46%	15.15%	6.06%	0%
		2.5-2.9	66.67%	33.33%	0%	0%	0%
		2.0-2.4	63.64%	36.36%	0%	0%	0%
		1.5-1.9	100%	0%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%
	6	3.5-4.0	3.29%	17.98%	28.07%	34.87%	15.79%
		3.0-3.4	13.33%	60.00%	26.67%	0%	0%
		2.5-2.9	53.33%	40.00%	6.67%	0%	0%
		2.0-2.4	75.00%	25.00%	0%	0%	0%
		1.5-1.9	85.71%	14.29%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%
7	3.5-4.0	5.31%	21.22%	28.88%	29.27%	15.32%	
	3.0-3.4	25.00%	55.00%	10.00%	10.00%	0%	
	2.5-2.9	54.55%	45.46%	0%	0%	0%	
	2.0-2.4	66.67%	33.33%	0%	0%	0%	
	1.5-1.9	80.00%	20.00%	0%	0%	0%	
	1.0-1.4	100%	0%	0%	0%	0%	
8	3.5-4.0	8.99%	23.50%	26.50%	25.12%	15.90%	
	3.0-3.4	57.14%	33.33%	9.52%	0%	0%	
	2.5-2.9	85.71%	14.29%	0%	0%	0%	
	2.0-2.4	87.50%	12.50%	0%	0%	0%	
	1.5-1.9	100%	0%	0%	0%	0%	
	1.0-1.4	100%	0%	0%	0%	0%	

**Table 80**  
**Writing Average Level of Independence and Earned Proficiency Level**  
**(continued)**

Content	Grade	Average Level of Independence	Percent of Students in Each Proficiency Level				
			Inconclusive	Exploring	Emerging	Developing	Novice
WR	9	3.5-4.0	6.36%	29.17%	28.29%	26.10%	10.09%
		3.0-3.4	36.00%	56.00%	8.00%	0%	0%
		2.5-2.9	36.36%	63.64%	0%	0%	0%
		2.0-2.4	85.71%	14.29%	0%	0%	0%
		1.5-1.9	100%	0%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%
	10	3.5-4.0	6.27%	28.54%	33.41%	20.19%	11.60%
		3.0-3.4	35.00%	60.00%	5.00%	0%	0%
		2.5-2.9	28.57%	71.43%	0%	0%	0%
		2.0-2.4	57.14%	42.86%	0%	0%	0%
		1.5-1.9	100%	0%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%

**Table 81**  
**Mathematics Average Level of Independence and Earned Proficiency Level**

Content	Grade	Average Level of Independence	Percent of Students in Each Proficiency Level				
			Inconclusive	Exploring	Emerging	Developing	Novice
MA	3	3.5-4.0	1.04%	9.54%	27.39%	30.71%	31.33%
		3.0-3.4	1.56%	71.88%	25.00%	1.56%	0%
		2.5-2.9	17.24%	65.52%	17.24%	0%	0%
		2.0-2.4	70.59%	29.41%	0%	0%	0%
		1.5-1.9	91.30%	8.70%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%
	4	3.5-4.0	0.21%	19.54%	28.99%	38.66%	12.61%
		3.0-3.4	3.85%	75.00%	21.15%	0%	0%
		2.5-2.9	21.21%	75.76%	3.03%	0%	0%
		2.0-2.4	13.33%	86.67%	0%	0%	0%
		1.5-1.9	87.50%	12.50%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%
	5	3.5-4.0	4.72%	12.83%	21.13%	48.87%	12.45%
		3.0-3.4	20.46%	36.36%	31.82%	11.36%	0%
		2.5-2.9	75.00%	15.00%	10.00%	0%	0%
		2.0-2.4	73.33%	26.67%	0%	0%	0%
		1.5-1.9	100%	0%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%
	6	3.5-4.0	2.40%	11.03%	25.18%	28.30%	33.09%
		3.0-3.4	10.35%	53.45%	31.03%	5.17%	0%
		2.5-2.9	38.89%	55.56%	5.56%	0%	0%
		2.0-2.4	100%	0%	0%	0%	0%
		1.5-1.9	100%	0%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%
7	3.5-4.0	2.55%	17.23%	28.09%	30.64%	21.49%	
	3.0-3.4	31.25%	45.83%	20.83%	2.08%	0%	
	2.5-2.9	56.25%	43.75%	0%	0%	0%	
	2.0-2.4	60.00%	40.00%	0%	0%	0%	
	1.5-1.9	100%	0%	0%	0%	0%	
	1.0-1.4	100%	0%	0%	0%	0%	
8	3.5-4.0	2.43%	22.09%	33.98%	29.37%	12.14%	
	3.0-3.4	36.36%	45.46%	12.12%	6.06%	0%	
	2.5-2.9	55.00%	45.00%	0%	0%	0%	
	2.0-2.4	100%	0%	0%	0%	0%	
	1.5-1.9	100%	0%	0%	0%	0%	
	1.0-1.4	100%	0%	0%	0%	0%	

**Table 81**  
**Mathematics Average Level of Independence and Earned Proficiency Level**  
**(continued)**

Content	Grade	Average Level of Independence	Percent of Students in Each Proficiency Level				
			Inconclusive	Exploring	Emerging	Developing	Novice
MA	9	3.5-4.0	3.28%	26.46%	37.00%	22.48%	10.77%
		3.0-3.4	40.48%	35.71%	16.67%	7.14%	0%
		2.5-2.9	40.00%	46.67%	13.33%	0%	0%
		2.0-2.4	81.82%	18.18%	0%	0%	0%
		1.5-1.9	100%	0%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%
	10	3.5-4.0	2.98%	28.04%	46.40%	17.37%	5.21%
		3.0-3.4	50.00%	36.11%	11.11%	2.78%	0%
		2.5-2.9	44.44%	50.00%	5.56%	0%	0%
		2.0-2.4	80.00%	20.00%	0%	0%	0%
		1.5-1.9	87.50%	12.50%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%

**Table 82**  
**Science Average Level of Independence and Earned Proficiency Level**

Content	Grade	Average Level of Independence	Percent of Students in Each Proficiency Level				
			Inconclusive	Exploring	Emerging	Developing	Novice
SC	5	3.5-4.0	4.94%	21.12%	22.49%	24.36%	27.09%
		3.0-3.4	46.67%	33.33%	20.00%	0%	0%
		2.5-2.9	76.92%	23.08%	0%	0%	0%
		2.0-2.4	100%	0%	0%	0%	0%
		1.5-1.9	100%	0%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%
	8	3.5-4.0	6.56%	12.90%	19.23%	27.83%	33.48%
		3.0-3.4	55.00%	30.00%	10.00%	5.00%	0%
		2.5-2.9	77.78%	22.22%	0%	0%	0%
		2.0-2.4	100%	0%	0%	0%	0%
		1.5-1.9	100%	0%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%
	10	3.5-4.0	8.18%	27.05%	28.18%	17.05%	19.55%
		3.0-3.4	40.00%	46.67%	13.33%	0%	0%
		2.5-2.9	66.67%	33.33%	0%	0%	0%
		2.0-2.4	83.33%	16.67%	0%	0%	0%
		1.5-1.9	100%	0%	0%	0%	0%
		1.0-1.4	100%	0%	0%	0%	0%



**Table 83**  
**Reading Longitudinal Total Group Means and Standard Deviations**

Content	Grade	2011		2010		2009		2008	
		Raw Score		Raw Score		Raw Score		Raw Score	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
RD	3	58.83	25.41	58.92	25.97	60.54	26.14	61.69	25.59
	4	58.76	26.29	59.55	25.60	60.72	26.58	61.14	25.52
	5	62.59	26.96	61.85	27.76	63.22	27.18	61.51	27.30
	6	64.66	27.01	64.60	26.74	64.54	26.59	63.25	28.20
	7	58.17	22.72	56.25	24.50	56.28	24.86	55.20	25.07
	8	53.72	26.06	54.60	27.09	54.03	26.31	56.31	26.35
	9	53.68	26.51	54.29	27.29	54.39	27.07	55.39	26.70
	10	49.32	24.48	49.87	24.74	52.53	24.85	48.80	24.97

Content	Grade	Difference 2011-2010		Difference 2010-2009		Difference 2009-2008	
		Raw Score		Raw Score		Raw Score	
		Mean	SD	Mean	SD	Mean	SD
RD	3	-0.09	-0.56	-1.62	-0.16	-1.14	0.55
	4	-0.80	0.69	-1.17	-0.98	-0.42	1.06
	5	0.74	-0.80	-1.37	0.58	1.71	-0.12
	6	0.06	0.27	0.06	0.15	1.29	-1.61
	7	1.93	-1.78	-0.04	-0.36	1.08	-0.21
	8	-0.88	-1.03	0.57	0.78	-2.28	-0.04
	9	-0.61	-0.79	-0.10	0.23	-1.00	0.37
	10	-0.55	-0.26	-2.67	-0.12	3.73	-0.12

**Table 84**  
**Writing Longitudinal Total Group Means and Standard Deviations**

Content	Grade	2011		2010		2009		2008	
		Raw Score		Raw Score		Raw Score		Raw Score	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
WR	3	55.56	28.67	57.11	28.44	58.34	27.93	60.05	27.69
	4	57.11	29.04	60.78	27.82	61.13	28.85	61.92	27.87
	5	63.52	27.43	63.27	29.23	64.20	27.91	63.05	28.11
	6	63.46	29.28	65.27	28.18	64.44	28.51	62.65	29.81
	7	65.17	28.40	63.67	30.16	64.58	29.31	61.57	31.16
	8	60.59	29.51	60.40	29.56	59.63	29.38	61.87	28.34
	9	58.25	28.52	58.26	29.68	60.19	27.87	60.50	28.04
	10	58.76	28.49	60.23	27.54	62.23	27.60	58.15	27.71

Content	Grade	Difference 2011-2010		Difference 2010-2009		Difference 2009-2008	
		Raw Score		Raw Score		Raw Score	
		Mean	SD	Mean	SD	Mean	SD
WR	3	-1.55	0.23	-1.23	0.51	-1.71	0.24
	4	-3.67	1.22	-0.35	-1.03	-0.79	0.97
	5	0.25	-1.80	-0.93	1.33	1.15	-0.20
	6	-1.81	1.10	0.83	-0.34	1.78	-1.30
	7	1.50	-1.76	-0.91	0.84	3.01	-1.84
	8	0.19	-0.04	0.76	0.18	-2.24	1.04
	9	-0.01	-1.16	-1.93	1.81	-0.30	-0.17
	10	-1.47	0.96	-2.00	-0.06	4.08	-0.11

**Table 85**  
**Mathematics Longitudinal Total Group Means and Standard Deviations**

Content	Grade	2011		2010		2009		2008		2007	
		Raw Score		Raw Score		Raw Score		Raw Score		Raw Score	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
MA	3	78.47	35.22	80.27	34.65	81.33	34.79	82.14	33.75	84.24	31.56
	4	79.03	36.37	83.16	34.66	82.98	35.91	84.97	34.87	85.88	35.50
	5	101.52	45.57	100.69	46.51	104.89	45.69	100.95	45.42	102.30	42.79
	6	81.64	37.47	83.66	37.12	81.96	36.76	79.99	40.58	79.28	38.15
	7	76.31	33.46	73.06	34.76	73.16	35.38	72.11	37.24	75.18	33.78
	8	82.15	39.69	80.52	39.55	78.28	39.66	82.94	39.03	79.29	37.54
	9	69.34	35.87	69.52	36.46	71.98	35.41	71.80	35.54	68.76	35.54
	10	71.42	35.03	75.12	36.21	76.23	36.83	72.23	35.80	69.47	37.11

Content	Grade	Difference 2011-2010		Difference 2010-2009		Difference 2009-2008		Difference 2008-2007	
		Raw Score		Raw Score		Raw Score		Raw Score	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
MA	3	-1.81	0.56	-1.05	-0.14	-0.81	1.04	-2.10	2.19
	4	-4.13	1.71	0.18	-1.25	-1.98	1.04	-0.92	-0.63
	5	0.83	-0.94	-4.20	0.81	3.94	0.28	-1.35	2.63
	6	-2.02	0.35	1.70	0.36	1.97	-3.82	0.70	2.43
	7	3.26	-1.30	-0.10	-0.63	1.05	-1.86	-3.08	3.46
	8	1.63	0.14	2.24	-0.11	-4.66	0.63	3.65	1.49
	9	-0.17	-0.59	-2.47	1.05	0.18	-0.13	3.05	0.00
	10	-3.70	-1.18	-1.11	-0.62	4.00	1.03	2.76	-1.32

**Table 86**  
**Science Longitudinal Total Group Means and Standard Deviations**

		2011		2010		2009		2008	
		Raw Score		Raw Score		Raw Score		Raw Score	
Content	Grade	Mean	SD	Mean	SD	Mean	SD	Mean	SD
SC	5	65.62	24.97	65.37	25.93	67.69	24.27	66.42	25.02
	8	70.31	26.83	70.46	27.11	69.94	26.23	71.26	25.75
	10	58.82	26.39	59.50	27.10	62.34	26.75	59.15	26.55

		Difference 2011-2010		Difference 2010-2009		Difference 2009-2008	
		Raw Score		Raw Score		Raw Score	
Content	Grade	Mean	SD	Mean	SD	Mean	SD
SC	5	0.25	-0.97	-2.32	1.66	1.26	-0.75
	8	-0.15	-0.28	0.52	0.89	-1.32	0.48
	10	-0.68	-0.71	-2.84	0.36	3.19	0.19

**Table 87**  
**Reading Longitudinal Subgroup Participation**

Content	Variable	Subgroup	Grade 3						
			2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
RD	Gender	Female	36.19%	35.06%	32.95%	34.58%	1.13%	2.11%	-1.63%
		Male	63.65%	64.94%	66.62%	65.42%	-1.29%	-1.68%	1.20%
	Primary Disability	Autism	18.25%	16.27%	14.16%	12.77%	1.98%	2.11%	1.39%
		Deaf-Blind	0.16%	0%	0.29%	0%	0.16%	-0.29%	0.29%
		Emotional Disability	0.78%	2.07%	0.87%	1.56%	-1.29%	1.20%	-0.69%
		Hearing Disability	0%	1.48%	0.87%	2.18%	-1.48%	0.61%	-1.31%
		Limited Intellectual Capacity	24.18%	23.52%	27.17%	21.18%	0.66%	-3.65%	5.98%
		Multiple Disabilities	26.83%	28.40%	23.84%	24.14%	-1.57%	4.56%	-0.30%
		Physical Disability	17.16%	12.57%	13.73%	12.62%	4.59%	-1.15%	1.11%
		Specific Learning Disability	6.24%	7.40%	10.26%	15.11%	-1.16%	-2.86%	-4.85%
		Speech/Language Disability	4.68%	6.66%	7.66%	9.50%	-1.98%	-1.00%	-1.84%
		Traumatic Brain Injury	1.56%	0.89%	1.01%	0.62%	0.67%	-0.12%	0.39%
		Visual Disability	0.16%	0.74%	0.15%	0.31%	-0.58%	0.60%	-0.17%

**Table 87**  
**Reading Longitudinal Subgroup Participation (continued)**

Content	Variable	Subgroup	Grade 4				Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
			2011	2010	2009	2008			
RD	Gender	Female	35.32%	34.10%	36.80%	37.76%	1.23%	-2.70%	-0.96%
		Male	64.36%	65.90%	62.89%	61.77%	-1.55%	3.01%	1.12%
	Primary Disability	Autism	16.61%	15.14%	12.42%	10.11%	1.48%	2.72%	2.31%
		Deaf-Blind	0%	0.15%	0%	0.16%	-0.15%	0.15%	-0.16%
		Emotional Disability	2.42%	0.15%	1.40%	2.37%	2.27%	-1.25%	-0.97%
		Hearing Disability	0.32%	1.38%	1.40%	1.26%	-1.05%	-0.02%	0.13%
		Limited Intellectual Capacity	26.61%	29.36%	23.45%	25.59%	-2.75%	5.91%	-2.15%
		Multiple Disabilities	31.61%	25.84%	27.48%	28.91%	5.77%	-1.64%	-1.43%
		Physical Disability	11.94%	13.61%	12.73%	11.37%	-1.67%	0.88%	1.36%
		Specific Learning Disability	6.94%	9.48%	13.20%	13.90%	-2.55%	-3.72%	-0.70%
		Speech/Language Disability	1.77%	3.67%	6.52%	4.58%	-1.90%	-2.85%	1.94%
		Traumatic Brain Injury	1.13%	1.07%	0.93%	0.95%	0.06%	0.14%	-0.02%
		Visual Disability	0.48%	0.15%	0.31%	0.32%	0.33%	-0.16%	-0.01%

**Table 87**  
**Reading Longitudinal Subgroup Participation (continued)**

Content	Variable	Subgroup	Grade 5						
			2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
RD	Gender	Female	35.94%	39.10%	39.71%	38.95%	-3.16%	-0.61%	0.76%
		Male	63.61%	60.58%	59.97%	61.05%	3.03%	0.61%	-1.09%
	Primary Disability	Autism	14.59%	12.28%	11.44%	8.07%	2.31%	0.84%	3.37%
		Deaf-Blind	0.15%	0%	0.16%	0.35%	0.15%	-0.16%	-0.19%
		Emotional Disability	0.60%	1.13%	2.12%	1.58%	-0.53%	-0.99%	0.55%
		Hearing Disability	0.75%	1.62%	1.47%	1.75%	-0.86%	0.15%	-0.28%
		Limited Intellectual Capacity	31.13%	26.33%	28.43%	31.75%	4.80%	-2.10%	-3.32%
		Multiple Disabilities	30.38%	29.08%	28.27%	29.12%	1.30%	0.81%	-0.86%
		Physical Disability	11.88%	11.79%	10.62%	9.30%	0.09%	1.17%	1.32%
		Specific Learning Disability	7.37%	11.15%	11.60%	12.63%	-3.78%	-0.45%	-1.03%
		Speech/Language Disability	1.96%	5.49%	3.76%	4.39%	-3.54%	1.74%	-0.63%
		Traumatic Brain Injury	0.90%	0.65%	1.14%	1.05%	0.26%	-0.50%	0.09%
		Visual Disability	0%	0.16%	0.65%	0%	-0.16%	-0.49%	0.65%

**Table 87**  
**Reading Longitudinal Subgroup Participation (continued)**

Content	Variable	Subgroup	Grade 6						
			2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
RD	Gender	Female	37.10%	38.97%	38.03%	40.36%	-1.87%	0.94%	-2.33%
		Male	62.90%	61.03%	61.61%	58.92%	1.87%	-0.58%	2.69%
	Primary Disability	Autism	14.69%	13.97%	10.60%	9.19%	0.72%	3.36%	1.41%
		Deaf-Blind	0%	0.35%	0.37%	0.18%	-0.35%	-0.02%	0.19%
		Emotional Disability	1.32%	0.52%	1.28%	1.26%	0.80%	-0.76%	0.02%
		Hearing Disability	0.19%	1.21%	2.19%	1.26%	-1.02%	-0.99%	0.93%
		Limited Intellectual Capacity	32.39%	30.69%	34.55%	27.39%	1.70%	-3.86%	7.17%
		Multiple Disabilities	32.02%	31.38%	29.43%	34.41%	0.64%	1.95%	-4.98%
		Physical Disability	10.92%	8.45%	6.95%	8.65%	2.48%	1.50%	-1.70%
		Specific Learning Disability	4.90%	9.48%	10.24%	13.15%	-4.59%	-0.76%	-2.92%
		Speech/Language Disability	2.45%	1.90%	2.38%	2.88%	0.55%	-0.48%	-0.51%
		Traumatic Brain Injury	1.13%	1.38%	1.46%	0.90%	-0.25%	-0.08%	0.56%
		Visual Disability	0%	0.69%	0.18%	0.18%	-0.69%	0.51%	0%



**Table 87**  
**Reading Longitudinal Subgroup Participation (continued)**

Content	Variable	Subgroup	Grade 7						
			2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
RD	Gender	Female	38.94%	39.63%	39.29%	35.55%	-0.69%	0.34%	3.74%
		Male	60.71%	60.19%	59.96%	64.45%	0.52%	0.22%	-4.49%
	Primary Disability	Autism	14.69%	9.82%	10.53%	9.32%	4.88%	-0.71%	1.21%
		Deaf-Blind	0.35%	0%	0.19%	0%	0.35%	-0.19%	0.19%
		Emotional Disability	0.71%	0.56%	1.13%	1.14%	0.15%	-0.57%	-0.01%
		Hearing Disability	0.35%	2.22%	1.32%	1.33%	-1.87%	0.91%	-0.02%
		Limited Intellectual Capacity	34.51%	35.93%	30.26%	30.42%	-1.41%	5.66%	-0.16%
		Multiple Disabilities	31.86%	32.96%	36.09%	35.93%	-1.11%	-3.13%	0.16%
		Physical Disability	8.14%	8.15%	8.27%	9.13%	-0.01%	-0.12%	-0.85%
		Specific Learning Disability	6.37%	7.59%	9.59%	10.08%	-1.22%	-1.99%	-0.49%
		Speech/Language Disability	1.06%	1.30%	1.88%	0.95%	-0.23%	-0.58%	0.93%
		Traumatic Brain Injury	1.24%	1.30%	0.56%	1.71%	-0.06%	0.73%	-1.15%
		Visual Disability	0.53%	0.19%	0.19%	0%	0.35%	0%	0.19%

**Table 87**  
**Reading Longitudinal Subgroup Participation (continued)**

Content	Variable	Subgroup	Grade 8						
			2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
RD	Gender	Female	40.64%	39.72%	36.21%	38.93%	0.91%	3.51%	-2.72%
		Male	59.36%	59.88%	63.42%	61.07%	-0.52%	-3.54%	2.35%
	Primary Disability	Autism	10.56%	10.08%	10.48%	9.09%	0.48%	-0.40%	1.39%
		Deaf-Blind	0.20%	0%	0.19%	0%	0.20%	-0.19%	0.19%
		Emotional Disability	0.20%	0.59%	0.92%	1.38%	-0.39%	-0.33%	-0.46%
		Hearing Disability	1.00%	1.38%	1.47%	1.38%	-0.39%	-0.09%	0.09%
		Limited Intellectual Capacity	35.46%	32.21%	30.88%	33.60%	3.25%	1.33%	-2.72%
		Multiple Disabilities	36.85%	40.91%	37.32%	36.17%	-4.06%	3.59%	1.15%
		Physical Disability	8.37%	7.71%	8.27%	5.93%	0.66%	-0.56%	2.34%
		Specific Learning Disability	4.78%	4.55%	7.35%	9.09%	0.24%	-2.81%	-1.74%
		Speech/Language Disability	0.60%	1.78%	1.84%	2.37%	-1.18%	-0.06%	-0.53%
		Traumatic Brain Injury	1.59%	0.59%	1.47%	0.40%	1.00%	-0.88%	1.08%
		Visual Disability	0.40%	0.20%	0%	0.59%	0.20%	0.20%	-0.59%

**Table 87**  
**Reading Longitudinal Subgroup Participation (continued)**

Content	Variable	Subgroup	Grade 9						
			2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
RD	Gender	Female	40.53%	36.25%	38.43%	40.64%	4.29%	-2.19%	-2.21%
		Male	59.28%	63.57%	61.37%	59.36%	-4.29%	2.20%	2.00%
	Primary Disability	Autism	10.42%	9.67%	9.86%	7.95%	0.75%	-0.19%	1.91%
		Deaf-Blind	0%	0.19%	0%	0.18%	-0.19%	0.19%	-0.18%
		Emotional Disability	0.38%	1.30%	0.60%	1.06%	-0.92%	0.70%	-0.46%
		Hearing Disability	0.19%	1.30%	1.21%	0.88%	-1.11%	0.09%	0.32%
		Limited Intellectual Capacity	34.47%	34.57%	36.22%	37.46%	-0.10%	-1.65%	-1.24%
		Multiple Disabilities	41.86%	38.29%	35.41%	34.45%	3.57%	2.88%	0.96%
		Physical Disability	5.87%	7.06%	7.04%	5.48%	-1.19%	0.02%	1.57%
		Specific Learning Disability	4.36%	5.39%	6.24%	10.07%	-1.03%	-0.85%	-3.83%
		Speech/Language Disability	0.95%	1.12%	2.01%	1.41%	-0.17%	-0.90%	0.60%
		Traumatic Brain Injury	1.14%	0.93%	0.60%	0.71%	0.21%	0.33%	-0.10%
		Visual Disability	0.19%	0%	0.40%	0.35%	0.19%	-0.40%	0.05%

**Table 87**  
**Reading Longitudinal Subgroup Participation (continued)**

Content	Variable	Subgroup	Grade 10						
			2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
RD	Gender	Female	38.70%	39.16%	39.78%	39.05%	-0.46%	-0.62%	0.73%
		Male	61.30%	60.63%	60.04%	60.95%	0.67%	0.59%	-0.92%
	Primary Disability	Autism	10.59%	10.53%	8.44%	5.86%	0.06%	2.08%	2.59%
		Deaf-Blind	0%	0%	0%	0.22%	0%	0%	-0.22%
		Emotional Disability	1.02%	0.63%	0.94%	1.30%	0.39%	-0.31%	-0.36%
		Hearing Disability	0.41%	0.84%	1.13%	2.82%	-0.44%	-0.28%	-1.69%
		Limited Intellectual Capacity	35.44%	36.42%	38.09%	35.79%	-0.98%	-1.67%	2.29%
		Multiple Disabilities	42.16%	39.16%	36.02%	38.40%	3.00%	3.14%	-2.37%
		Physical Disability	5.91%	5.26%	5.63%	8.68%	0.64%	-0.37%	-3.05%
		Specific Learning Disability	3.26%	5.05%	6.57%	4.99%	-1.79%	-1.51%	1.58%
		Speech/Language Disability	0.61%	1.05%	1.13%	0.87%	-0.44%	-0.07%	0.26%
		Traumatic Brain Injury	0.61%	0.63%	1.31%	1.09%	-0.02%	-0.68%	0.23%
		Visual Disability	0%	0.21%	0.56%	0%	-0.21%	-0.35%	0.56%

**Table 88**  
**Writing Longitudinal Subgroup Participation**

Content	Variable	Subgroup	Grade 3				Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
			2011	2010	2009	2008			
WR	Gender	Female	36.57%	35.29%	33.38%	34.81%	1.28%	1.91%	-1.43%
		Male	63.27%	64.71%	66.18%	65.19%	-1.43%	-1.48%	0.99%
	Primary Disability	Autism	17.90%	16.44%	13.99%	12.66%	1.46%	2.45%	1.34%
		Deaf-Blind	0.15%	0%	0.29%	0%	0.15%	-0.29%	0.29%
		Emotional Disability	0.93%	1.96%	0.73%	1.58%	-1.04%	1.23%	-0.85%
		Hearing Disability	0%	1.51%	0.88%	2.22%	-1.51%	0.63%	-1.34%
		Limited Intellectual Capacity	24.23%	23.68%	27.41%	21.20%	0.55%	-3.73%	6.20%
		Multiple Disabilities	27.01%	28.81%	24.05%	24.05%	-1.80%	4.76%	0%
		Physical Disability	17.28%	12.37%	13.85%	12.66%	4.92%	-1.48%	1.19%
		Specific Learning Disability	6.17%	7.09%	10.06%	15.35%	-0.92%	-2.97%	-5.29%
		Speech/Language Disability	4.63%	6.64%	7.58%	9.49%	-2.01%	-0.94%	-1.91%
		Traumatic Brain Injury	1.54%	0.75%	1.02%	0.63%	0.79%	-0.27%	0.39%
		Visual Disability	0.15%	0.75%	0.15%	0.16%	-0.60%	0.61%	-0.01%

**Table 88**  
**Writing Longitudinal Subgroup Participation (continued)**

Content	Variable	Subgroup	Grade 4						
			2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
WR	Gender	Female	35.34%	34.14%	36.99%	37.70%	1.20%	-2.85%	-0.71%
		Male	64.33%	65.86%	62.70%	61.82%	-1.53%	3.16%	0.87%
	Primary Disability	Autism	16.94%	15.33%	12.38%	10.22%	1.61%	2.94%	2.16%
		Deaf-Blind	0%	0.15%	0%	0.16%	-0.15%	0.15%	-0.16%
		Emotional Disability	2.28%	0.15%	1.41%	2.24%	2.13%	-1.26%	-0.83%
		Hearing Disability	0.33%	1.37%	1.41%	1.44%	-1.04%	-0.04%	-0.03%
		Limited Intellectual Capacity	26.55%	29.14%	23.67%	26.04%	-2.59%	5.47%	-2.37%
		Multiple Disabilities	31.92%	26.10%	27.43%	28.75%	5.82%	-1.33%	-1.33%
		Physical Disability	12.05%	13.35%	12.70%	11.02%	-1.30%	0.66%	1.67%
		Specific Learning Disability	6.68%	9.26%	13.01%	13.74%	-2.58%	-3.75%	-0.73%
		Speech/Language Disability	1.63%	3.95%	6.58%	4.63%	-2.32%	-2.64%	1.95%
		Traumatic Brain Injury	0.98%	1.06%	0.94%	0.96%	-0.09%	0.12%	-0.02%
		Visual Disability	0.49%	0.15%	0.31%	0.32%	0.34%	-0.16%	-0.01%

**Table 88**  
**Writing Longitudinal Subgroup Participation (continued)**

Content	Variable	Subgroup	Grade 5						
			2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
WR	Gender	Female	35.91%	39.12%	39.50%	38.91%	-3.21%	-0.39%	0.60%
		Male	63.64%	60.56%	60.17%	61.09%	3.08%	0.39%	-0.93%
	Primary Disability	Autism	14.55%	12.77%	11.41%	8.10%	1.78%	1.36%	3.31%
		Deaf-Blind	0.15%	0%	0.17%	0.35%	0.15%	-0.17%	-0.19%
		Emotional Disability	0.61%	1.15%	2.15%	1.59%	-0.54%	-1.00%	0.56%
		Hearing Disability	0.76%	1.64%	1.49%	1.76%	-0.88%	0.15%	-0.27%
		Limited Intellectual Capacity	31.06%	26.35%	28.43%	31.87%	4.71%	-2.08%	-3.44%
		Multiple Disabilities	30.61%	28.64%	28.43%	29.05%	1.96%	0.21%	-0.62%
		Physical Disability	11.82%	11.78%	10.91%	9.33%	0.03%	0.87%	1.58%
		Specific Learning Disability	7.27%	10.97%	11.07%	12.50%	-3.69%	-0.11%	-1.43%
		Speech/Language Disability	1.97%	5.57%	3.80%	4.40%	-3.60%	1.76%	-0.60%
		Traumatic Brain Injury	0.91%	0.66%	1.16%	1.06%	0.25%	-0.50%	0.10%
		Visual Disability	0%	0.16%	0.66%	0%	-0.16%	-0.50%	0.66%

**Table 88**  
**Writing Longitudinal Subgroup Participation (continued)**

Content	Variable	Subgroup	Grade 6						
			2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
WR	Gender	Female	36.96%	38.96%	38.43%	40.36%	-2.00%	0.52%	-1.93%
		Male	63.04%	61.04%	61.20%	58.91%	2.00%	-0.16%	2.29%
	Primary Disability	Autism	14.82%	13.91%	10.75%	9.27%	0.91%	3.17%	1.47%
		Deaf-Blind	0%	0.35%	0.36%	0.18%	-0.35%	-0.02%	0.18%
		Emotional Disability	1.31%	0.52%	1.28%	1.27%	0.79%	-0.75%	0%
		Hearing Disability	0.19%	1.22%	2.37%	1.27%	-1.03%	-1.15%	1.10%
		Limited Intellectual Capacity	32.27%	30.78%	34.43%	27.64%	1.49%	-3.64%	6.79%
		Multiple Disabilities	32.27%	31.30%	29.14%	34.55%	0.97%	2.16%	-5.40%
		Physical Disability	10.69%	8.35%	6.92%	8.36%	2.35%	1.43%	-1.44%
		Specific Learning Disability	4.88%	9.57%	10.20%	12.73%	-4.69%	-0.63%	-2.53%
		Speech/Language Disability	2.44%	1.91%	2.55%	2.91%	0.53%	-0.64%	-0.36%
		Traumatic Brain Injury	1.13%	1.39%	1.46%	0.91%	-0.27%	-0.07%	0.55%
		Visual Disability	0%	0.70%	0.18%	0.36%	-0.70%	0.51%	-0.18%



**Table 88**  
**Writing Longitudinal Subgroup Participation (continued)**

Content	Variable	Subgroup	Grade 7						
			2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
WR	Gender	Female	38.43%	38.99%	39.02%	34.79%	-0.56%	-0.03%	4.23%
		Male	61.21%	60.82%	60.23%	65.21%	0.39%	0.60%	-4.98%
	Primary Disability	Autism	14.95%	10.08%	10.51%	9.70%	4.87%	-0.43%	0.81%
		Deaf-Blind	0.36%	0%	0.19%	0%	0.36%	-0.19%	0.19%
		Emotional Disability	0.71%	0.56%	1.31%	1.14%	0.15%	-0.75%	0.17%
		Hearing Disability	0.36%	2.24%	1.31%	1.33%	-1.88%	0.93%	-0.02%
		Limited Intellectual Capacity	34.34%	36.01%	30.02%	29.85%	-1.67%	5.99%	0.17%
		Multiple Disabilities	31.85%	32.84%	36.02%	35.93%	-0.98%	-3.19%	0.09%
		Physical Disability	8.01%	7.84%	8.26%	9.13%	0.17%	-0.42%	-0.87%
		Specific Learning Disability	6.41%	7.46%	9.57%	10.08%	-1.06%	-2.11%	-0.51%
		Speech/Language Disability	1.07%	1.49%	2.06%	0.95%	-0.43%	-0.57%	1.11%
		Traumatic Brain Injury	1.25%	1.31%	0.56%	1.90%	-0.06%	0.74%	-1.34%
		Visual Disability	0.53%	0.19%	0.19%	0%	0.35%	0%	0.19%

**Table 88**  
**Writing Longitudinal Subgroup Participation (continued)**

Content	Variable	Subgroup	Grade 8						
			2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
WR	Gender	Female	41.08%	40.00%	35.98%	39.28%	1.08%	4.02%	-3.30%
		Male	58.92%	59.80%	63.65%	60.72%	-0.88%	-3.85%	2.93%
	Primary Disability	Autism	10.82%	10.10%	10.70%	9.22%	0.72%	-0.60%	1.48%
		Deaf-Blind	0.20%	0%	0%	0%	0.20%	0%	0%
		Emotional Disability	0.20%	0.59%	0.92%	1.60%	-0.39%	-0.33%	-0.68%
		Hearing Disability	1.00%	1.39%	1.48%	1.40%	-0.38%	-0.09%	0.07%
		Limited Intellectual Capacity	35.27%	32.08%	30.63%	33.27%	3.19%	1.45%	-2.64%
		Multiple Disabilities	36.87%	40.79%	37.27%	35.87%	-3.92%	3.52%	1.40%
		Physical Disability	8.22%	7.92%	8.30%	6.01%	0.29%	-0.38%	2.29%
		Specific Learning Disability	4.81%	4.55%	7.38%	9.62%	0.26%	-2.83%	-2.24%
		Speech/Language Disability	0.60%	1.78%	1.85%	2.00%	-1.18%	-0.06%	-0.16%
		Traumatic Brain Injury	1.60%	0.59%	1.48%	0.40%	1.01%	-0.88%	1.08%
		Visual Disability	0.40%	0.20%	0%	0.60%	0.20%	0.20%	-0.60%

**Table 88**  
**Writing Longitudinal Subgroup Participation (continued)**

Content	Variable	Subgroup	Grade 9						
			2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
WR	Gender	Female	40.42%	36.25%	38.15%	40.60%	4.17%	-1.91%	-2.45%
		Male	59.20%	63.57%	61.65%	59.40%	-4.37%	1.92%	2.25%
	Primary Disability	Autism	10.63%	9.67%	10.04%	7.73%	0.96%	-0.38%	2.31%
		Deaf-Blind	0%	0.19%	0%	0.18%	-0.19%	0.19%	-0.18%
		Emotional Disability	0.38%	1.30%	0.60%	1.05%	-0.92%	0.70%	-0.45%
		Hearing Disability	0.19%	1.30%	1.21%	0.88%	-1.11%	0.10%	0.33%
		Limited Intellectual Capacity	34.54%	34.39%	36.35%	37.43%	0.15%	-1.96%	-1.09%
		Multiple Disabilities	41.75%	38.85%	35.14%	34.80%	2.90%	3.71%	0.34%
		Physical Disability	5.88%	6.88%	7.03%	5.62%	-1.00%	-0.15%	1.40%
		Specific Learning Disability	4.18%	5.20%	6.23%	9.84%	-1.03%	-1.02%	-3.62%
		Speech/Language Disability	0.95%	1.12%	2.01%	1.41%	-0.17%	-0.89%	0.60%
		Traumatic Brain Injury	1.14%	0.93%	0.60%	0.70%	0.21%	0.33%	-0.10%
		Visual Disability	0.19%	0%	0.40%	0.35%	0.19%	-0.40%	0.05%

**Table 88**  
**Writing Longitudinal Subgroup Participation (continued)**

Content	Variable	Subgroup	Grade 10						
			2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
WR	Gender	Female	38.16%	39.54%	39.96%	39.22%	-1.37%	-0.43%	0.75%
		Male	61.84%	60.25%	59.85%	60.78%	1.58%	0.40%	-0.93%
	Primary Disability	Autism	10.61%	10.57%	8.26%	6.10%	0.04%	2.32%	2.16%
		Deaf-Blind	0%	0%	0%	0.22%	0%	0%	-0.22%
		Emotional Disability	1.02%	0.63%	0.75%	1.31%	0.39%	-0.12%	-0.56%
		Hearing Disability	0.41%	0.85%	1.13%	2.83%	-0.44%	-0.28%	-1.71%
		Limited Intellectual Capacity	35.31%	36.36%	38.09%	36.60%	-1.06%	-1.72%	1.49%
		Multiple Disabilities	42.04%	38.90%	36.21%	37.69%	3.14%	2.69%	-1.48%
		Physical Disability	5.92%	5.29%	5.63%	8.28%	0.63%	-0.34%	-2.65%
		Specific Learning Disability	3.47%	5.07%	6.57%	5.01%	-1.61%	-1.49%	1.56%
		Speech/Language Disability	0.61%	1.27%	1.13%	0.87%	-0.66%	0.14%	0.26%
		Traumatic Brain Injury	0.61%	0.63%	1.50%	1.09%	-0.02%	-0.87%	0.41%
		Visual Disability	0%	0.21%	0.56%	0%	-0.21%	-0.35%	0.56%

**Table 89**  
**Mathematics Longitudinal Subgroup Participation**

			Grade 3								
Content	Variable	Subgroup	2011	2010	2009	2008	2007	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008	Difference 2008-2007
MA	Gender	Female	36.44%	35.54%	33.03%	35.52%	39.29%	0.90%	2.51%	-2.49%	-3.78%
		Male	63.41%	64.47%	66.52%	64.48%	60.71%	-1.06%	-2.05%	2.03%	3.78%
	Primary Disability	Autism	17.98%	16.82%	14.09%	12.24%	8.57%	1.16%	2.73%	1.85%	3.67%
		Deaf-Blind	0.16%	0%	0.30%	0%	0.37%	0.16%	-0.30%	0.30%	-0.37%
		Emotional Disability	0.95%	1.73%	0.61%	1.72%	2.24%	-0.78%	1.12%	-1.12%	-0.52%
		Hearing Disability	0%	1.10%	0.61%	1.55%	0.75%	-1.10%	0.50%	-0.95%	0.80%
		Limited Intellectual Capacity	24.61%	24.37%	28.03%	22.76%	27.93%	0.23%	-3.66%	5.27%	-5.17%
		Multiple Disabilities	26.97%	29.09%	25.00%	26.21%	26.63%	-2.12%	4.09%	-1.21%	-0.42%
		Physical Disability	17.51%	12.74%	14.55%	13.62%	12.10%	4.77%	-1.81%	0.92%	1.52%
		Specific Learning Disability	5.52%	6.76%	8.33%	12.41%	12.10%	-1.24%	-1.57%	-4.08%	0.31%
		Speech/Language Disability	4.57%	5.98%	7.42%	8.62%	8.19%	-1.40%	-1.45%	-1.20%	0.43%
		Traumatic Brain Injury	1.58%	0.79%	1.06%	0.52%	0.56%	0.79%	-0.28%	0.54%	-0.04%
		Visual Disability	0.16%	0.63%	0%	0.35%	0.37%	-0.47%	0.63%	-0.35%	-0.03%

**Table 89**  
**Mathematics Longitudinal Subgroup Participation (continued)**

			Grade 4								
Content	Variable	Subgroup	2011	2010	2009	2008	2007	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008	Difference 2008-2007
MA	Gender	Female	35.36%	35.17%	38.05%	38.16%	38.39%	0.19%	-2.88%	-0.11%	-0.23%
		Male	64.47%	64.83%	61.79%	61.33%	61.02%	-0.35%	3.04%	0.46%	0.31%
	Primary Disability	Autism	16.45%	14.98%	12.36%	11.07%	8.47%	1.46%	2.63%	1.29%	2.60%
		Deaf-Blind	0%	0.16%	0%	0.17%	0.20%	-0.16%	0.16%	-0.17%	-0.03%
		Emotional Disability	1.97%	0.16%	1.30%	2.39%	1.38%	1.82%	-1.14%	-1.08%	1.01%
		Hearing Disability	0.33%	0.79%	0.65%	1.19%	1.97%	-0.46%	0.14%	-0.54%	-0.78%
		Limited Intellectual Capacity	26.97%	30.28%	24.07%	27.09%	30.51%	-3.31%	6.22%	-3.02%	-3.42%
		Multiple Disabilities	32.07%	26.81%	28.46%	30.66%	28.15%	5.26%	-1.64%	-2.21%	2.51%
		Physical Disability	12.34%	13.88%	13.17%	10.56%	11.22%	-1.54%	0.71%	2.61%	-0.66%
		Specific Learning Disability	6.41%	7.73%	12.20%	10.73%	10.83%	-1.32%	-4.47%	1.46%	-0.10%
		Speech/Language Disability	1.81%	3.94%	6.34%	4.26%	5.32%	-2.13%	-2.40%	2.08%	-1.06%
		Traumatic Brain Injury	0.99%	1.10%	0.98%	1.02%	1.18%	-0.12%	0.13%	-0.05%	-0.16%
		Visual Disability	0.49%	0.16%	0.33%	0.34%	0.39%	0.34%	-0.17%	-0.02%	-0.05%

**Table 89**  
**Mathematics Longitudinal Subgroup Participation (continued)**

			Grade 5								
Content	Variable	Subgroup	2011	2010	2009	2008	2007	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008	Difference 2008-2007
MA	Gender	Female	36.03%	39.30%	39.46%	38.91%	40.51%	-3.27%	-0.16%	0.55%	-1.60%
		Male	63.51%	60.37%	60.20%	61.09%	59.28%	3.14%	0.16%	-0.89%	1.81%
	Primary Disability	Autism	14.75%	12.71%	11.91%	8.84%	9.07%	2.04%	0.80%	3.07%	-0.24%
		Deaf-Blind	0.16%	0%	0.34%	0.19%	0.21%	0.16%	-0.34%	0.15%	-0.02%
		Emotional Disability	0.62%	1.17%	2.04%	1.50%	1.48%	-0.55%	-0.87%	0.54%	0.02%
		Hearing Disability	0.31%	0.67%	0.85%	1.32%	0.84%	-0.36%	-0.18%	-0.47%	0.48%
		Limited Intellectual Capacity	32.30%	26.76%	29.25%	34.02%	31.86%	5.54%	-2.50%	-4.77%	2.16%
		Multiple Disabilities	30.28%	29.77%	29.42%	30.08%	31.65%	0.51%	0.34%	-0.65%	-1.58%
		Physical Disability	12.27%	11.71%	11.22%	9.21%	10.34%	0.56%	0.48%	2.01%	-1.13%
		Specific Learning Disability	6.06%	10.70%	8.84%	9.59%	9.49%	-4.65%	1.86%	-0.74%	0.10%
		Speech/Language Disability	2.02%	5.35%	3.91%	4.32%	4.01%	-3.33%	1.44%	-0.41%	0.31%
		Traumatic Brain Injury	0.93%	0.67%	1.19%	0.94%	0.21%	0.26%	-0.52%	0.25%	0.73%
		Visual Disability	0%	0.17%	0.68%	0%	0.21%	-0.17%	-0.51%	0.68%	-0.21%

**Table 89**  
**Mathematics Longitudinal Subgroup Participation (continued)**

			Grade 6								
Content	Variable	Subgroup	2011	2010	2009	2008	2007	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008	Difference 2008-2007
MA	Gender	Female	37.48%	39.55%	37.68%	40.83%	33.78%	-2.08%	1.87%	-3.15%	7.05%
		Male	62.52%	60.45%	61.96%	58.41%	66.02%	2.08%	-1.51%	3.55%	-7.61%
	Primary Disability	Autism	14.69%	14.34%	11.23%	9.07%	8.30%	0.35%	3.10%	2.16%	0.77%
		Deaf-Blind	0%	0.52%	0.36%	0.19%	0.0%	-0.52%	0.16%	0.17%	0.19%
		Emotional Disability	1.13%	0.69%	1.27%	1.51%	1.35%	0.44%	-0.58%	-0.24%	0.16%
		Hearing Disability	0.19%	0.86%	1.81%	1.13%	1.54%	-0.68%	-0.95%	0.68%	-0.41%
		Limited Intellectual Capacity	32.39%	30.57%	34.24%	28.36%	31.47%	1.82%	-3.67%	5.88%	-3.12%
		Multiple Disabilities	32.39%	30.92%	28.80%	35.35%	33.40%	1.48%	2.11%	-6.55%	1.95%
		Physical Disability	10.55%	8.64%	7.07%	8.51%	10.43%	1.91%	1.57%	-1.44%	-1.92%
		Specific Learning Disability	5.09%	8.98%	10.51%	11.34%	9.07%	-3.90%	-1.53%	-0.84%	2.27%
		Speech/Language Disability	2.45%	2.59%	2.72%	2.84%	2.90%	-0.14%	-0.13%	-0.12%	-0.06%
		Traumatic Brain Injury	1.13%	1.21%	1.45%	0.76%	0.97%	-0.08%	-0.24%	0.69%	-0.21%
		Visual Disability	0%	0.69%	0.18%	0.38%	0.19%	-0.69%	0.51%	-0.20%	0.19%



**Table 89**  
**Mathematics Longitudinal Subgroup Participation (continued)**

			Grade 7								
Content	Variable	Subgroup	2011	2010	2009	2008	2007	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008	Difference 2008-2007
MA	Gender	Female	39.15%	38.75%	40.23%	35.65%	38.17%	0.39%	-1.48%	4.58%	-2.52%
		Male	60.50%	61.06%	59.01%	64.36%	61.41%	-0.56%	2.05%	-5.34%	2.95%
	Primary Disability	Autism	14.59%	10.40%	10.63%	8.86%	8.74%	4.19%	-0.23%	1.76%	0.12%
		Deaf-Blind	0.53%	0%	0.19%	0%	0%	0.53%	-0.19%	0.19%	0%
		Emotional Disability	0.53%	0.76%	1.52%	1.35%	0.85%	-0.22%	-0.76%	0.17%	0.50%
		Hearing Disability	0.36%	1.70%	0.95%	1.35%	1.07%	-1.35%	0.75%	-0.40%	0.28%
		Limited Intellectual Capacity	33.99%	36.11%	30.36%	30.44%	34.54%	-2.12%	5.75%	-0.08%	-4.10%
		Multiple Disabilities	31.67%	32.89%	36.43%	36.42%	32.41%	-1.22%	-3.54%	0.02%	4.01%
		Physical Disability	8.54%	8.32%	8.16%	8.67%	7.25%	0.22%	0.16%	-0.51%	1.42%
		Specific Learning Disability	6.58%	6.81%	8.16%	9.83%	11.94%	-0.22%	-1.35%	-1.67%	-2.11%
		Speech/Language Disability	1.25%	1.51%	2.66%	0.96%	1.71%	-0.27%	-1.15%	1.69%	-0.75%
		Traumatic Brain Injury	1.25%	1.32%	0.76%	2.12%	0.64%	-0.08%	0.56%	-1.36%	1.48%
		Visual Disability	0.53%	0.19%	0.19%	0%	0.21%	0.35%	0%	0.19%	-0.21%

**Table 89**  
**Mathematics Longitudinal Subgroup Participation (continued)**

			Grade 8								
Content	Variable	Subgroup	2011	2010	2009	2008	2007	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008	Difference 2008-2007
MA	Gender	Female	40.91%	40.08%	37.64%	39.53%	39.96%	0.83%	2.44%	-1.89%	-0.43%
		Male	59.09%	59.54%	62.18%	60.47%	59.67%	-0.45%	-2.64%	1.71%	0.80%
	Primary Disability	Autism	11.27%	10.31%	10.33%	9.20%	9.31%	0.96%	-0.03%	1.13%	-0.11%
		Deaf-Blind	0.20%	0%	0%	0%	0.18%	0.20%	0%	0%	-0.18%
		Emotional Disability	0.40%	0.76%	1.11%	1.76%	0.73%	-0.37%	-0.34%	-0.65%	1.03%
		Hearing Disability	0.99%	0.95%	1.48%	1.37%	0.73%	0.03%	-0.52%	0.11%	0.64%
		Limited Intellectual Capacity	34.98%	32.25%	31.00%	33.46%	36.13%	2.73%	1.26%	-2.47%	-2.67%
		Multiple Disabilities	36.96%	39.70%	38.01%	35.81%	35.95%	-2.74%	1.69%	2.20%	-0.14%
		Physical Disability	8.10%	8.40%	8.30%	6.07%	5.66%	-0.29%	0.09%	2.24%	0.41%
		Specific Learning Disability	4.55%	4.58%	6.83%	9.20%	6.02%	-0.04%	-2.25%	-2.37%	3.18%
		Speech/Language Disability	0.59%	2.10%	1.66%	1.96%	2.19%	-1.51%	0.44%	-0.30%	-0.23%
		Traumatic Brain Injury	1.58%	0.76%	1.29%	0.59%	1.64%	0.82%	-0.53%	0.71%	-1.05%
		Visual Disability	0.40%	0.19%	0%	0.59%	0.37%	0.20%	0.19%	-0.59%	0.22%

**Table 89**  
**Mathematics Longitudinal Subgroup Participation (continued)**

			Grade 9								
Content	Variable	Subgroup	2011	2010	2009	2008	2007	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008	Difference 2008-2007
MA	Gender	Female	40.79%	37.06%	39.21%	41.03%	39.50%	3.72%	-2.14%	-1.82%	1.53%
		Male	58.84%	62.75%	60.59%	58.97%	60.29%	-3.92%	2.16%	1.62%	-1.32%
	Primary Disability	Autism	10.90%	9.17%	10.10%	8.17%	6.30%	1.73%	-0.92%	1.93%	1.87%
		Deaf-Blind	0%	0.18%	0%	0.18%	0.42%	-0.18%	0.18%	-0.18%	-0.24%
		Emotional Disability	0.56%	1.65%	0.59%	1.07%	1.05%	-1.09%	1.06%	-0.47%	0.02%
		Hearing Disability	0.19%	1.65%	1.19%	0.53%	2.94%	-1.46%	0.46%	0.66%	-2.41%
		Limited Intellectual Capacity	34.02%	33.95%	35.84%	37.83%	38.66%	0.08%	-1.90%	-1.99%	-0.83%
		Multiple Disabilities	41.17%	38.53%	34.06%	34.46%	34.45%	2.63%	4.47%	-0.40%	0.01%
		Physical Disability	6.39%	6.79%	7.72%	5.51%	7.98%	-0.40%	-0.93%	2.22%	-2.47%
		Specific Learning Disability	4.32%	5.87%	6.73%	9.59%	5.25%	-1.55%	-0.86%	-2.86%	4.34%
		Speech/Language Disability	0.94%	0.92%	2.18%	1.60%	1.26%	0.02%	-1.26%	0.58%	0.34%
		Traumatic Brain Injury	1.13%	1.10%	0.79%	0.71%	1.26%	0.03%	0.31%	0.08%	-0.55%
		Visual Disability	0.19%	0%	0.40%	0.36%	0.21%	0.19%	-0.40%	0.04%	0.15%

**Table 89**  
**Mathematics Longitudinal Subgroup Participation (continued)**

			Grade 10								
Content	Variable	Subgroup	2011	2010	2009	2008	2007	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008	Difference 2008-2007
MA	Gender	Female	38.79%	40.57%	40.30%	39.53%	36.91%	-1.78%	0.27%	0.77%	2.61%
		Male	61.21%	59.23%	59.52%	60.48%	62.86%	1.98%	-0.29%	-0.96%	-2.39%
	Primary Disability	Autism	10.10%	10.95%	8.87%	5.83%	6.04%	-0.85%	2.08%	3.04%	-0.21%
		Deaf-Blind	0%	0%	0%	0.22%	0%	0%	0%	-0.22%	0.22%
		Emotional Disability	1.01%	0.61%	0.92%	1.30%	1.57%	0.40%	-0.32%	-0.37%	-0.27%
		Hearing Disability	0.40%	0.81%	0.92%	3.02%	1.57%	-0.41%	-0.11%	-2.10%	1.45%
		Limited Intellectual Capacity	35.35%	35.70%	37.89%	37.37%	33.33%	-0.35%	-2.19%	0.53%	4.04%
		Multiple Disabilities	41.82%	37.53%	35.86%	36.72%	41.61%	4.29%	1.67%	-0.86%	-4.89%
		Physical Disability	5.86%	6.29%	5.55%	8.21%	8.28%	-0.43%	0.74%	-2.66%	-0.07%
		Specific Learning Disability	4.04%	5.68%	6.65%	4.97%	5.15%	-1.64%	-0.97%	1.69%	-0.18%
		Speech/Language Disability	0.61%	1.22%	1.29%	1.30%	2.01%	-0.61%	-0.08%	0%	-0.71%
		Traumatic Brain Injury	0.81%	0.81%	1.29%	1.08%	0.45%	0%	-0.48%	0.21%	0.63%
		Visual Disability	0%	0.20%	0.56%	0%	0%	-0.20%	-0.35%	0.56%	0%

**Table 90**  
**Science Longitudinal Subgroup Participation**

Content	Variable	Subgroup	Grade 5						
			2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
SC	Gender	Female	36.20%	38.87%	39.93%	39.17%	-2.67%	-1.06%	0.76%
		Male	63.34%	60.80%	59.73%	60.83%	2.55%	1.07%	-1.10%
	Primary Disability	Autism	14.72%	12.63%	12.18%	8.66%	2.10%	0.44%	3.52%
		Deaf-Blind	0.15%	0%	0.17%	0%	0.15%	-0.17%	0.17%
		Emotional Disability	0.61%	1.16%	2.20%	1.44%	-0.55%	-1.04%	0.76%
		Hearing Disability	0.46%	1.33%	1.35%	1.63%	-0.87%	-0.03%	-0.27%
		Limited Intellectual Capacity	31.90%	26.41%	29.61%	33.03%	5.49%	-3.20%	-3.42%
		Multiple Disabilities	30.22%	29.57%	28.77%	30.14%	0.65%	0.80%	-1.38%
		Physical Disability	11.81%	11.96%	11.34%	9.75%	-0.15%	0.62%	1.59%
		Specific Learning Disability	6.90%	10.30%	8.80%	10.29%	-3.40%	1.50%	-1.49%
		Speech/Language Disability	1.99%	5.48%	3.72%	3.97%	-3.49%	1.76%	-0.25%
		Traumatic Brain Injury	0.92%	0.66%	1.02%	1.08%	0.26%	-0.35%	-0.07%
		Visual Disability	0%	0.17%	0.51%	0%	-0.17%	-0.34%	0.51%

**Table 90**  
**Science Longitudinal Subgroup Participation (continued)**

Content	Variable	Subgroup	Grade 8						
			2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
SC	Gender	Female	40.48%	39.81%	38.17%	38.86%	0.67%	1.64%	-0.69%
		Male	59.52%	59.81%	61.65%	61.14%	-0.28%	-1.85%	0.51%
	Primary Disability	Autism	11.11%	10.29%	10.46%	9.67%	0.82%	-0.17%	0.79%
		Deaf-Blind	0.20%	0%	0%	0%	0.20%	0%	0%
		Emotional Disability	0.20%	0.97%	0.73%	1.58%	-0.77%	0.24%	-0.84%
		Hearing Disability	0.99%	0.97%	1.28%	1.38%	0.02%	-0.31%	-0.10%
		Limited Intellectual Capacity	35.12%	32.82%	31.38%	33.93%	2.30%	1.44%	-2.55%
		Multiple Disabilities	36.71%	40.39%	37.80%	36.49%	-3.68%	2.59%	1.31%
		Physical Disability	8.33%	7.96%	8.99%	5.52%	0.37%	-1.03%	3.47%
		Specific Learning Disability	4.76%	4.08%	6.24%	8.68%	0.68%	-2.16%	-2.44%
		Speech/Language Disability	0.60%	1.55%	1.65%	1.78%	-0.96%	-0.10%	-0.12%
		Traumatic Brain Injury	1.59%	0.78%	1.47%	0.39%	0.81%	-0.69%	1.07%
		Visual Disability	0.40%	0.19%	0%	0.59%	0.20%	0.19%	-0.59%

**Table 90**  
**Science Longitudinal Subgroup Participation (continued)**

Content	Variable	Subgroup	Grade 10						
			2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
SC	Gender	Female	38.98%	39.71%	40.26%	39.52%	-0.73%	-0.55%	0.74%
		Male	61.02%	60.29%	59.56%	60.48%	0.73%	0.74%	-0.92%
	Primary Disability	Autism	10.61%	10.92%	9.19%	6.11%	-0.31%	1.73%	3.08%
		Deaf-Blind	0%	0%	0%	0.22%	0%	0%	-0.22%
		Emotional Disability	1.02%	0.63%	0.92%	1.31%	0.39%	-0.29%	-0.39%
		Hearing Disability	0.41%	0.84%	1.10%	2.84%	-0.43%	-0.26%	-1.74%
		Limited Intellectual Capacity	35.10%	36.13%	38.24%	37.56%	-1.03%	-2.10%	0.68%
		Multiple Disabilities	42.04%	39.29%	35.29%	36.68%	2.76%	3.99%	-1.39%
		Physical Disability	5.92%	5.25%	5.33%	8.52%	0.67%	-0.08%	-3.18%
		Specific Learning Disability	3.47%	4.62%	6.80%	4.59%	-1.15%	-2.18%	2.22%
		Speech/Language Disability	0.61%	1.26%	1.10%	1.09%	-0.65%	0.16%	0.01%
		Traumatic Brain Injury	0.82%	0.84%	1.29%	1.09%	-0.02%	-0.45%	0.20%
		Visual Disability	0%	0.21%	0.55%	0%	-0.21%	-0.34%	0.55%

**Table 91**  
**Reading Longitudinal Summary of P-values**

		High P-value						
Content	Grade	2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
RD	3	0.86	0.85	0.85	0.87	0.02	0.00	-0.02
	4	0.86	0.86	0.86	0.88	0.00	0.00	-0.02
	5	0.87	0.86	0.89	0.87	0.01	-0.03	0.02
	6	0.84	0.88	0.86	0.85	-0.03	0.01	0.01
	7	0.87	0.84	0.85	0.85	0.03	-0.01	0.00
	8	0.83	0.84	0.81	0.87	-0.01	0.03	-0.06
	9	0.82	0.83	0.80	0.85	-0.01	0.03	-0.05
	10	0.74	0.74	0.76	0.70	0.01	-0.02	0.06

		Mean P-value						
Content	Grade	2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
RD	3	0.56	0.56	0.57	0.59	0.00	-0.01	-0.02
	4	0.56	0.57	0.58	0.58	-0.01	-0.01	0.00
	5	0.60	0.59	0.60	0.59	0.01	-0.01	0.01
	6	0.61	0.62	0.61	0.61	-0.01	0.01	0.01
	7	0.55	0.54	0.53	0.53	0.02	0.00	0.01
	8	0.51	0.52	0.51	0.54	-0.01	0.01	-0.02
	9	0.52	0.53	0.53	0.54	-0.01	0.00	-0.01
	10	0.48	0.49	0.51	0.48	-0.01	-0.03	0.04

		Low P-value						
Content	Grade	2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
RD	3	0.28	0.27	0.25	0.28	0.01	0.02	-0.03
	4	0.27	0.24	0.26	0.27	0.03	-0.02	-0.01
	5	0.25	0.24	0.25	0.27	0.01	-0.01	-0.02
	6	0.21	0.24	0.23	0.18	-0.03	0.01	0.04
	7	0.26	0.25	0.23	0.23	0.00	0.03	0.00
	8	0.30	0.30	0.29	0.33	-0.01	0.01	-0.04
	9	0.26	0.28	0.28	0.27	-0.03	0.00	0.01
	10	0.26	0.27	0.25	0.25	-0.01	0.02	0.00



**Table 92**  
**Writing Longitudinal Summary of P-values**

		High P-value						
Content	Grade	2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
WR	3	0.79	0.81	0.81	0.83	-0.02	0.00	-0.02
	4	0.79	0.82	0.81	0.84	-0.03	0.01	-0.03
	5	0.84	0.82	0.84	0.83	0.01	-0.02	0.01
	6	0.82	0.86	0.82	0.83	-0.04	0.03	-0.01
	7	0.85	0.83	0.85	0.81	0.01	-0.02	0.03
	8	0.81	0.85	0.82	0.86	-0.04	0.03	-0.04
	9	0.81	0.80	0.83	0.84	0.01	-0.04	0.00
	10	0.80	0.82	0.84	0.82	-0.03	-0.02	0.02

		Mean P-value						
Content	Grade	2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
WR	3	0.52	0.53	0.54	0.55	-0.01	-0.01	-0.02
	4	0.51	0.54	0.54	0.55	-0.03	-0.01	0.00
	5	0.58	0.58	0.59	0.58	0.00	-0.01	0.01
	6	0.59	0.61	0.59	0.58	-0.02	0.01	0.02
	7	0.58	0.57	0.57	0.55	0.02	-0.01	0.02
	8	0.54	0.54	0.53	0.55	0.00	0.01	-0.02
	9	0.53	0.53	0.54	0.55	0.00	-0.01	0.00
	10	0.51	0.52	0.54	0.51	-0.01	-0.02	0.03

		Low P-value						
Content	Grade	2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
WR	3	0.25	0.24	0.26	0.30	0.01	-0.01	-0.04
	4	0.20	0.19	0.22	0.21	0.02	-0.04	0.02
	5	0.23	0.25	0.23	0.25	-0.02	0.02	-0.02
	6	0.36	0.37	0.32	0.33	-0.01	0.05	-0.01
	7	0.21	0.22	0.24	0.21	-0.01	-0.01	0.02
	8	0.27	0.27	0.25	0.25	0.00	0.02	0.00
	9	0.26	0.27	0.29	0.24	-0.01	-0.01	0.04
	10	0.15	0.16	0.19	0.17	-0.01	-0.03	0.02

**Table 93**  
**Mathematics Longitudinal Summary of *P*-values**

		High <i>P</i> -value								
Content	Grade	2011	2010	2009	2008	2007	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008	Difference 2008-2007
MA	3	0.89	0.87	0.87	0.88	0.90	0.01	0.00	-0.01	-0.01
	4	0.87	0.89	0.89	0.91	0.90	-0.02	0.01	-0.02	0.00
	5	0.86	0.84	0.86	0.86	0.87	0.01	-0.02	0.00	-0.01
	6	0.84	0.83	0.81	0.79	0.79	0.01	0.02	0.01	0.01
	7	0.81	0.80	0.81	0.78	0.82	0.01	-0.01	0.03	-0.04
	8	0.80	0.81	0.80	0.81	0.81	-0.01	0.00	-0.01	0.00
	9	0.78	0.76	0.76	0.77	0.72	0.02	0.00	0.00	0.04
	10	0.79	0.83	0.82	0.83	0.81	-0.04	0.01	-0.01	0.02
		Mean <i>P</i> -value								
Content	Grade	2011	2010	2009	2008	2007	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008	Difference 2008-2007
MA	3	0.62	0.63	0.64	0.65	0.67	-0.02	0.00	-0.01	-0.02
	4	0.61	0.64	0.64	0.66	0.63	-0.03	0.00	-0.02	0.02
	5	0.59	0.59	0.61	0.59	0.60	0.01	-0.02	0.02	-0.01
	6	0.58	0.60	0.58	0.57	0.57	-0.01	0.02	0.00	0.01
	7	0.55	0.53	0.53	0.53	0.55	0.03	0.00	0.00	-0.02
	8	0.54	0.53	0.52	0.55	0.52	0.00	0.01	-0.03	0.03
	9	0.46	0.46	0.47	0.47	0.45	0.00	-0.01	0.00	0.02
	10	0.42	0.45	0.45	0.44	0.41	-0.02	-0.01	0.02	0.02
		Low <i>P</i> -value								
Content	Grade	2011	2010	2009	2008	2007	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008	Difference 2008-2007
MA	3	0.34	0.34	0.37	0.34	0.39	0.00	-0.03	0.02	-0.05
	4	0.13	0.12	0.16	0.14	0.16	0.01	-0.05	0.02	-0.02
	5	0.32	0.29	0.33	0.33	0.31	0.03	-0.03	0.00	0.02
	6	0.30	0.27	0.27	0.30	0.26	0.03	0.00	-0.03	0.04
	7	0.15	0.15	0.16	0.19	0.21	0.00	-0.01	-0.03	-0.02
	8	0.25	0.22	0.23	0.23	0.23	0.03	-0.01	-0.01	0.00
	9	0.21	0.16	0.19	0.19	0.17	0.04	-0.02	0.00	0.02
	10	0.06	0.08	0.09	0.07	0.08	-0.02	0.00	0.01	-0.01

**Table 94**  
**Science Longitudinal Summary of *P*-values**

		High P-value						
Content	Grade	2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
	5	0.88	0.87	0.89	0.88	0.01	-0.02	0.02
SC	8	0.86	0.85	0.87	0.88	0.01	-0.01	-0.01
	10	0.84	0.86	0.88	0.86	-0.02	-0.02	0.02

		Mean P-value						
Content	Grade	2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
	5	0.67	0.67	0.69	0.68	0.01	-0.02	0.01
SC	8	0.70	0.70	0.70	0.71	0.00	0.00	-0.02
	10	0.58	0.58	0.61	0.58	0.00	-0.03	0.03

		Low P-value						
Content	Grade	2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
	5	0.41	0.39	0.41	0.42	0.02	-0.02	-0.01
SC	8	0.25	0.26	0.28	0.32	-0.01	-0.02	-0.04
	10	0.24	0.26	0.27	0.26	-0.02	-0.02	0.01

**Table 95**  
**Reading Longitudinal Summary of Point Biserials**

		High Point Biserial						
Content	Grade	2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
RD	3	0.73	0.73	0.73	0.72	0.00	0.00	0.00
	4	0.72	0.71	0.72	0.68	0.01	-0.01	0.04
	5	0.73	0.75	0.75	0.74	-0.02	0.00	0.01
	6	0.73	0.71	0.74	0.72	0.02	-0.03	0.01
	7	0.68	0.72	0.71	0.71	-0.03	0.01	0.00
	8	0.72	0.72	0.69	0.70	-0.01	0.03	-0.01
	9	0.72	0.72	0.71	0.74	0.00	0.01	-0.03
	10	0.70	0.69	0.68	0.68	0.01	0.01	-0.01

		Mean Point Biserial						
Content	Grade	2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
RD	3	0.55	0.55	0.57	0.55	-0.01	-0.01	0.02
	4	0.56	0.55	0.57	0.55	0.01	-0.02	0.02
	5	0.57	0.59	0.58	0.58	-0.01	0.00	0.01
	6	0.59	0.57	0.59	0.60	0.02	-0.01	-0.02
	7	0.49	0.52	0.53	0.53	-0.03	-0.01	0.00
	8	0.53	0.55	0.54	0.54	-0.02	0.01	0.00
	9	0.56	0.57	0.57	0.57	-0.02	0.00	0.00
	10	0.50	0.51	0.52	0.52	-0.01	-0.01	0.00

		Low Point Biserial						
Content	Grade	2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
RD	3	0.28	0.26	0.29	0.31	0.02	-0.03	-0.02
	4	0.29	0.28	0.35	0.36	0.01	-0.07	-0.01
	5	0.21	0.16	0.24	0.28	0.04	-0.08	-0.04
	6	0.24	0.28	0.31	0.35	-0.04	-0.04	-0.03
	7	0.14	0.16	0.20	0.24	-0.02	-0.04	-0.04
	8	0.28	0.35	0.32	0.31	-0.06	0.03	0.01
	9	0.35	0.40	0.37	0.37	-0.05	0.03	0.00
	10	0.27	0.33	0.33	0.36	-0.06	0.00	-0.03

**Table 96**  
**Writing Longitudinal Summary of Point Biserials**

		High Point Biserial						
Content	Grade	2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
WR	3	0.83	0.82	0.83	0.82	0.01	-0.01	0.01
	4	0.84	0.82	0.84	0.82	0.02	-0.02	0.01
	5	0.84	0.85	0.85	0.84	-0.01	0.00	0.01
	6	0.87	0.85	0.83	0.85	0.02	0.02	-0.02
	7	0.85	0.84	0.84	0.86	0.01	0.00	-0.02
	8	0.87	0.87	0.88	0.85	-0.01	0.00	0.02
	9	0.85	0.87	0.84	0.85	-0.02	0.03	-0.02
	10	0.85	0.86	0.85	0.84	-0.01	0.01	0.01

		Mean Point Biserial						
Content	Grade	2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
WR	3	0.58	0.58	0.58	0.58	0.00	0.00	0.00
	4	0.57	0.56	0.57	0.56	0.01	-0.01	0.01
	5	0.57	0.60	0.58	0.58	-0.03	0.02	0.01
	6	0.60	0.58	0.59	0.61	0.02	-0.01	-0.02
	7	0.56	0.60	0.59	0.61	-0.03	0.00	-0.01
	8	0.58	0.58	0.58	0.56	0.00	0.00	0.01
	9	0.57	0.59	0.57	0.58	-0.02	0.02	-0.01
	10	0.54	0.54	0.55	0.54	0.00	-0.01	0.01

		Low Point Biserial						
Content	Grade	2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
WR	3	0.21	0.23	0.25	0.24	-0.02	-0.02	0.01
	4	0.16	0.12	0.21	0.21	0.03	-0.08	0.00
	5	0.20	0.21	0.18	0.21	-0.01	0.03	-0.02
	6	0.27	0.20	0.23	0.29	0.07	-0.03	-0.06
	7	0.12	0.21	0.20	0.13	-0.09	0.00	0.08
	8	0.18	0.17	0.20	0.20	0.01	-0.03	-0.01
	9	0.20	0.22	0.17	0.19	-0.02	0.05	-0.02
	10	0.12	0.12	0.21	0.20	0.00	-0.09	0.01

**Table 97**  
**Mathematics Longitudinal Summary of Point Biserials**

		High Point Biserial								
Content	Grade	2011	2010	2009	2008	2007	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008	Difference 2008-2007
MA	3	0.82	0.82	0.83	0.81	0.80	0.00	-0.01	0.02	0.01
	4	0.79	0.78	0.80	0.78	0.77	0.01	-0.01	0.01	0.01
	5	0.80	0.79	0.81	0.78	0.77	0.00	-0.02	0.03	0.01
	6	0.76	0.77	0.79	0.82	0.79	-0.01	-0.02	-0.03	0.03
	7	0.73	0.76	0.77	0.78	0.74	-0.02	-0.01	-0.01	0.04
	8	0.81	0.79	0.80	0.79	0.79	0.02	-0.01	0.01	-0.01
	9	0.77	0.79	0.76	0.80	0.81	-0.02	0.03	-0.04	-0.01
	10	0.76	0.75	0.73	0.73	0.74	0.02	0.02	-0.01	-0.01
		Mean Point Biserial								
Content	Grade	2011	2010	2009	2008	2007	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008	Difference 2008-2007
MA	3	0.65	0.64	0.65	0.63	0.62	0.00	-0.01	0.02	0.02
	4	0.65	0.63	0.65	0.64	0.63	0.01	-0.02	0.01	0.01
	5	0.62	0.63	0.63	0.61	0.59	-0.02	0.01	0.02	0.02
	6	0.61	0.60	0.60	0.64	0.61	0.01	0.00	-0.04	0.03
	7	0.56	0.57	0.59	0.61	0.58	-0.01	-0.02	-0.01	0.03
	8	0.59	0.58	0.58	0.58	0.56	0.01	0.00	0.01	0.01
	9	0.53	0.54	0.52	0.53	0.53	-0.01	0.01	0.00	0.00
	10	0.48	0.50	0.52	0.49	0.52	-0.02	-0.02	0.03	-0.03
		Low Point Biserial								
Content	Grade	2011	2010	2009	2008	2007	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008	Difference 2008-2007
MA	3	0.38	0.36	0.35	0.28	0.36	0.02	0.01	0.07	-0.08
	4	0.26	0.20	0.29	0.25	0.25	0.05	-0.08	0.03	0.00
	5	0.39	0.34	0.38	0.36	0.35	0.05	-0.04	0.02	0.01
	6	0.18	0.15	0.18	0.27	0.25	0.03	-0.03	-0.09	0.02
	7	0.27	0.32	0.34	0.33	0.27	-0.05	-0.02	0.00	0.06
	8	0.13	0.21	0.14	0.10	0.16	-0.08	0.08	0.04	-0.06
	9	0.21	0.20	0.19	0.17	0.21	0.01	0.01	0.02	-0.05
	10	0.03	0.09	0.14	0.09	0.12	-0.07	-0.04	0.05	-0.03

**Table 98**  
**Science Longitudinal Summary of Point Biserials**

		High Point Biserial						
Content	Grade	2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
	5	0.76	0.76	0.77	0.79	0.00	0.00	-0.02
SC	8	0.78	0.80	0.77	0.77	-0.02	0.03	0.00
	10	0.76	0.78	0.76	0.75	-0.02	0.01	0.02

		Mean Point Biserial						
Content	Grade	2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
	5	0.62	0.64	0.63	0.62	-0.02	0.02	0.00
SC	8	0.66	0.66	0.64	0.64	-0.01	0.02	0.00
	10	0.56	0.58	0.58	0.57	-0.02	0.00	0.01

		Low Point Biserial						
Content	Grade	2011	2010	2009	2008	Difference 2011-2010	Difference 2010-2009	Difference 2009-2008
	5	0.33	0.43	0.34	0.42	-0.10	0.09	-0.08
SC	8	0.16	0.17	0.17	0.17	-0.02	0.01	0.00
	10	0.19	0.27	0.29	0.23	-0.08	-0.02	0.06

**Table 99**  
**Reading Longitudinal Summary of Impact Data**

		2011						
		Percent of Students in Each Proficiency Level						
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined	
RD	3	15.29%	24.03%	35.88%	19.66%	5.15%	24.81%	
	4	16.45%	21.29%	31.77%	20.97%	9.52%	30.48%	
	5	10.98%	22.26%	20.60%	32.48%	13.68%	46.17%	
	6	10.17%	22.03%	25.80%	35.59%	6.40%	42.00%	
	7	8.85%	24.96%	25.31%	34.87%	6.02%	40.89%	
	8	17.33%	28.49%	23.31%	25.50%	5.38%	30.88%	
	9	13.26%	28.79%	26.14%	22.16%	9.66%	31.82%	
	10	13.03%	30.55%	24.03%	18.74%	13.65%	32.38%	

		2010						
		Percent of Students in Each Proficiency Level						
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined	
RD	3	15.53%	22.49%	36.98%	21.01%	3.99%	25.00%	
	4	16.51%	19.27%	33.49%	21.71%	9.02%	30.73%	
	5	13.09%	20.03%	21.97%	30.69%	14.22%	44.91%	
	6	9.14%	20.86%	29.66%	33.97%	6.38%	40.34%	
	7	12.78%	23.70%	24.07%	32.78%	6.67%	39.44%	
	8	17.98%	28.66%	18.77%	26.09%	8.50%	34.59%	
	9	14.50%	26.95%	25.09%	22.86%	10.59%	33.46%	
	10	14.11%	25.89%	27.58%	20.00%	12.42%	32.42%	

		2009						
		Percent of Students in Each Proficiency Level						
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined	
RD	3	16.19%	19.08%	36.85%	21.39%	6.50%	27.89%	
	4	16.61%	17.86%	31.68%	23.29%	10.56%	33.85%	
	5	9.48%	23.53%	19.44%	32.19%	15.36%	47.55%	
	6	10.97%	17.00%	33.64%	32.36%	6.03%	38.39%	
	7	12.59%	25.38%	23.12%	30.83%	8.08%	38.91%	
	8	18.38%	29.60%	22.06%	21.51%	8.46%	29.96%	
	9	13.88%	25.15%	28.57%	20.12%	12.27%	32.39%	
	10	11.63%	24.95%	25.89%	21.01%	16.51%	37.52%	



**Table 99**  
**Reading Longitudinal Summary of Impact Data (continued)**

		<b>2008</b>					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
RD	3	13.24%	20.25%	37.85%	24.14%	4.52%	28.66%
	4	13.27%	19.43%	35.70%	21.64%	9.95%	31.60%
	5	12.46%	20.70%	23.33%	30.18%	13.33%	43.51%
	6	11.53%	20.90%	27.39%	32.79%	7.39%	40.18%
	7	13.69%	24.71%	25.86%	29.28%	6.46%	35.74%
	8	16.80%	26.09%	22.73%	25.89%	8.50%	34.39%
	9	13.96%	22.79%	28.27%	25.44%	9.54%	34.98%
	10	15.18%	28.42%	24.51%	18.22%	13.67%	31.89%
		<b>Difference between 2011 and 2010</b>					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
RD	3	-0.24%	1.54%	-1.10%	-1.35%	1.15%	-0.20%
	4	-0.06%	2.02%	-1.71%	-0.74%	0.49%	-0.25%
	5	-2.11%	2.22%	-1.37%	1.79%	-0.53%	1.25%
	6	1.03%	1.17%	-3.85%	1.63%	0.02%	1.65%
	7	-3.93%	1.25%	1.24%	2.09%	-0.65%	1.44%
	8	-0.65%	-0.17%	4.53%	-0.59%	-3.12%	-3.71%
	9	-1.24%	1.84%	1.04%	-0.70%	-0.94%	-1.64%
	10	-1.07%	4.66%	-3.55%	-1.26%	1.22%	-0.04%
		<b>Difference between 2010 and 2009</b>					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
RD	3	-0.65%	3.41%	0.13%	-0.38%	-2.51%	-2.89%
	4	-0.10%	1.41%	1.81%	-1.58%	-1.54%	-3.12%
	5	3.61%	-3.50%	2.53%	-1.49%	-1.14%	-2.64%
	6	-1.83%	3.86%	-3.98%	1.61%	0.35%	1.95%
	7	0.18%	-1.67%	0.95%	1.95%	-1.42%	0.53%
	8	-0.40%	-0.94%	-3.28%	4.58%	0.04%	4.62%
	9	0.61%	1.80%	-3.48%	2.74%	-1.68%	1.06%
	10	2.47%	0.94%	1.69%	-1.01%	-4.09%	-5.10%

**Table 99**  
**Reading Longitudinal Summary of Impact Data (continued)**

		<b>Difference between 2009 and 2008</b>					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
RD	3	2.95%	-1.17%	-1.00%	-2.76%	1.99%	-0.77%
	4	3.34%	-1.57%	-4.03%	1.65%	0.61%	2.26%
	5	-2.98%	2.83%	-3.89%	2.01%	2.03%	4.04%
	6	-0.56%	-3.90%	6.25%	-0.43%	-1.35%	-1.79%
	7	-1.09%	0.66%	-2.74%	1.55%	1.62%	3.17%
	8	1.58%	3.51%	-0.67%	-4.38%	-0.04%	-4.42%
	9	-0.07%	2.36%	0.30%	-5.32%	2.73%	-2.59%
	10	-3.55%	-3.46%	1.38%	2.79%	2.84%	5.64%

**Table 100**  
**Writing Longitudinal Summary of Impact Data**

		2011					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
WR	3	13.58%	23.77%	33.80%	25.46%	3.40%	28.86%
	4	13.52%	21.66%	34.04%	23.45%	7.33%	30.78%
	5	10.45%	17.27%	30.91%	32.12%	9.24%	41.36%
	6	10.51%	20.45%	25.70%	29.83%	13.51%	43.34%
	7	10.32%	22.42%	26.51%	26.87%	13.88%	40.75%
	8	18.64%	22.24%	23.45%	21.84%	13.83%	35.67%
	9	14.42%	29.41%	24.86%	22.58%	8.73%	31.31%
	10	13.27%	29.18%	29.59%	17.76%	10.20%	27.96%
		2010					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
WR	3	12.97%	21.57%	35.44%	26.09%	3.92%	30.02%
	4	10.62%	18.51%	33.99%	29.29%	7.59%	36.87%
	5	11.13%	17.84%	27.99%	30.44%	12.60%	43.04%
	6	8.52%	20.52%	23.65%	32.52%	14.78%	47.30%
	7	12.69%	22.39%	25.19%	25.19%	14.55%	39.74%
	8	16.04%	27.33%	22.38%	18.61%	15.64%	34.26%
	9	15.80%	26.95%	26.39%	19.15%	11.71%	30.86%
	10	11.63%	25.37%	35.94%	20.30%	6.77%	27.06%
		2009					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
WR	3	12.10%	19.39%	37.32%	27.70%	3.50%	31.20%
	4	12.38%	15.67%	35.74%	26.80%	9.40%	36.21%
	5	10.41%	16.36%	30.41%	32.23%	10.58%	42.81%
	6	10.75%	14.75%	29.14%	34.79%	10.56%	45.36%
	7	10.88%	23.83%	23.08%	28.33%	13.88%	42.21%
	8	18.45%	22.88%	24.91%	19.93%	13.84%	33.76%
	9	11.65%	26.31%	31.93%	19.08%	11.04%	30.12%
	10	12.38%	20.26%	37.52%	18.39%	11.44%	29.83%

**Table 100**  
**Writing Longitudinal Summary of Impact Data (continued)**

		<b>2008</b>					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
WR	3	10.92%	17.09%	37.03%	31.80%	3.16%	34.97%
	4	10.70%	15.81%	36.10%	29.23%	8.15%	37.38%
	5	11.62%	14.96%	33.27%	29.75%	10.39%	40.14%
	6	12.18%	19.09%	26.73%	28.55%	13.45%	42.00%
	7	15.21%	22.81%	21.67%	26.62%	13.69%	40.30%
	8	15.83%	23.05%	25.65%	21.84%	13.63%	35.47%
	9	13.01%	25.13%	29.53%	23.37%	8.96%	32.34%
	10	12.42%	27.02%	35.73%	18.08%	6.75%	24.84%

		<b>Difference between 2011 and 2010</b>					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
WR	3	0.61%	2.20%	-1.65%	-0.63%	-0.53%	-1.16%
	4	2.90%	3.15%	0.05%	-5.83%	-0.26%	-6.09%
	5	-0.67%	-0.57%	2.92%	1.68%	-3.36%	-1.68%
	6	1.98%	-0.07%	2.05%	-2.69%	-1.27%	-3.96%
	7	-2.37%	0.03%	1.33%	1.68%	-0.67%	1.01%
	8	2.60%	-5.08%	1.07%	3.23%	-1.82%	1.41%
	9	-1.38%	2.46%	-1.54%	3.44%	-2.98%	0.45%
	10	1.64%	3.81%	-6.35%	-2.54%	3.44%	0.90%

		<b>Difference between 2010 and 2009</b>					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
WR	3	0.87%	2.18%	-1.87%	-1.60%	0.42%	-1.18%
	4	-1.76%	2.84%	-1.75%	2.48%	-1.82%	0.67%
	5	0.72%	1.48%	-2.43%	-1.79%	2.02%	0.23%
	6	-2.23%	5.77%	-5.49%	-2.27%	4.22%	1.95%
	7	1.80%	-1.44%	2.11%	-3.14%	0.67%	-2.48%
	8	-2.41%	4.45%	-2.53%	-1.31%	1.81%	0.49%
	9	4.15%	0.65%	-5.53%	0.07%	0.67%	0.73%
	10	-0.75%	5.11%	-1.58%	1.91%	-4.68%	-2.77%

**Table 100**  
**Writing Longitudinal Summary of Impact Data (continued)**

		Difference between 2009 and 2008					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
	3	1.18%	2.30%	0.29%	-4.11%	0.33%	-3.77%
	4	1.68%	-0.14%	-0.37%	-2.43%	1.26%	-1.17%
	5	-1.21%	1.40%	-2.86%	2.48%	0.19%	2.67%
WR	6	-1.44%	-4.34%	2.42%	6.25%	-2.89%	3.36%
	7	-4.33%	1.01%	1.40%	1.71%	0.20%	1.91%
	8	2.62%	-0.17%	-0.74%	-1.92%	0.21%	-1.71%
	9	-1.36%	1.17%	2.40%	-4.30%	2.08%	-2.22%
	10	-0.04%	-6.75%	1.79%	0.30%	4.69%	4.99%

**Table 101**  
**Mathematics Longitudinal Summary of Impact Data**

		2011					
		Percent of Students in Each Proficiency Level					
Content Grade		Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
MA	3	9.94%	18.61%	24.13%	23.50%	23.82%	47.32%
	4	6.91%	28.29%	24.67%	30.26%	9.87%	40.13%
	5	14.75%	14.13%	19.88%	40.99%	10.25%	51.24%
	6	11.49%	16.38%	23.35%	22.79%	25.99%	48.78%
	7	10.68%	20.28%	25.27%	25.80%	17.97%	43.77%
	8	14.62%	22.73%	28.46%	24.31%	9.88%	34.19%
	9	15.60%	25.75%	31.39%	18.61%	8.65%	27.26%
	10	14.75%	27.88%	38.79%	14.34%	4.24%	18.59%
		2010					
		Percent of Students in Each Proficiency Level					
Content Grade		Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
MA	3	8.65%	17.92%	22.64%	26.26%	24.53%	50.79%
	4	5.52%	25.55%	23.19%	36.44%	9.31%	45.74%
	5	15.05%	15.38%	20.40%	38.80%	10.37%	49.16%
	6	10.71%	15.37%	20.73%	24.87%	28.32%	53.20%
	7	14.56%	18.71%	27.41%	23.82%	15.50%	39.32%
	8	12.79%	26.91%	28.24%	22.90%	9.16%	32.06%
	9	15.78%	26.06%	31.01%	15.78%	11.38%	27.16%
	10	13.18%	22.11%	38.95%	18.66%	7.10%	25.76%
		2009					
		Percent of Students in Each Proficiency Level					
Content Grade		Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
MA	3	8.33%	17.73%	22.58%	24.39%	26.97%	51.36%
	4	7.48%	21.95%	25.69%	32.36%	12.52%	44.88%
	5	12.07%	15.65%	17.01%	42.86%	12.42%	55.27%
	6	11.41%	14.49%	22.46%	28.80%	22.83%	51.63%
	7	13.66%	21.06%	24.29%	24.86%	16.13%	40.99%
	8	15.87%	26.38%	27.86%	21.77%	8.12%	29.89%
	9	13.86%	24.75%	31.49%	20.00%	9.90%	29.90%
	10	12.94%	25.14%	35.86%	18.30%	7.76%	26.06%

**Table 101**  
**Mathematics Longitudinal Summary of Impact Data (continued)**

		<b>2008</b>					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
MA	3	8.45%	15.17%	25.52%	24.66%	26.21%	50.86%
	4	6.30%	20.61%	25.89%	35.78%	11.41%	47.19%
	5	14.66%	12.22%	24.06%	37.97%	11.09%	49.06%
	6	15.88%	13.42%	20.79%	23.25%	26.65%	49.91%
	7	16.76%	18.88%	25.05%	20.23%	19.08%	39.31%
	8	12.13%	26.03%	24.66%	28.77%	8.41%	37.18%
	9	13.50%	26.82%	30.55%	17.76%	11.37%	29.13%
	10	14.47%	25.49%	38.44%	16.63%	4.97%	21.60%
		<b>2007</b>					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
MA	3	5.59%	16.76%	24.21%	27.56%	25.88%	53.45%
	4	5.91%	22.24%	24.80%	29.53%	17.52%	47.05%
	5	12.03%	14.98%	22.78%	41.77%	8.44%	50.21%
	6	13.13%	15.83%	23.17%	26.83%	21.04%	47.88%
	7	10.66%	19.40%	27.72%	25.80%	16.42%	42.22%
	8	12.04%	29.01%	29.38%	23.18%	6.39%	29.56%
	9	14.92%	27.52%	32.14%	17.44%	7.98%	25.42%
	10	18.12%	25.50%	36.02%	16.11%	4.25%	20.36%
		<b>Difference between 2011 and 2010</b>					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
MA	3	1.29%	0.69%	1.49%	-2.76%	-0.71%	-3.47%
	4	1.39%	2.74%	1.49%	-6.17%	0.56%	-5.61%
	5	-0.30%	-1.25%	-0.53%	2.20%	-0.12%	2.08%
	6	0.78%	1.01%	2.63%	-2.08%	-2.34%	-4.42%
	7	-3.88%	1.57%	-2.14%	1.98%	2.47%	4.45%
	8	1.84%	-4.18%	0.21%	1.41%	0.72%	2.13%
	9	-0.18%	-0.30%	0.38%	2.83%	-2.73%	0.10%
	10	1.56%	5.77%	-0.16%	-4.32%	-2.86%	-7.17%

**Table 101**  
**Mathematics Longitudinal Summary of Impact Data (continued)**

		<b>Difference between 2010 and 2009</b>					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
MA	3	0.31%	0.20%	0.07%	1.86%	-2.44%	-0.58%
	4	-1.96%	3.60%	-2.51%	4.08%	-3.21%	0.86%
	5	2.98%	-0.26%	3.39%	-4.06%	-2.05%	-6.11%
	6	-0.70%	0.88%	-1.74%	-3.93%	5.50%	1.56%
	7	0.89%	-2.35%	3.12%	-1.04%	-0.63%	-1.67%
	8	-3.08%	0.52%	0.38%	1.13%	1.04%	2.17%
	9	1.92%	1.30%	-0.48%	-4.22%	1.48%	-2.75%
	10	0.25%	-3.03%	3.09%	0.36%	-0.66%	-0.30%
		<b>Difference between 2009 and 2008</b>					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
MA	3	-0.12%	2.55%	-2.94%	-0.26%	0.76%	0.50%
	4	1.18%	1.34%	-0.20%	-3.42%	1.11%	-2.31%
	5	-2.59%	3.43%	-7.05%	4.89%	1.32%	6.21%
	6	-4.47%	1.07%	1.67%	5.55%	-3.83%	1.72%
	7	-3.10%	2.18%	-0.76%	4.63%	-2.95%	1.68%
	8	3.73%	0.36%	3.20%	-7.00%	-0.30%	-7.29%
	9	0.36%	-2.07%	0.93%	2.24%	-1.47%	0.77%
	10	-1.53%	-0.35%	-2.59%	1.67%	2.80%	4.46%
		<b>Difference between 2008 and 2007</b>					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
MA	3	2.86%	-1.59%	1.31%	-2.91%	0.32%	-2.58%
	4	0.40%	-1.63%	1.09%	6.25%	-6.11%	0.14%
	5	2.64%	-2.76%	1.28%	-3.80%	2.65%	-1.15%
	6	2.75%	-2.41%	-2.37%	-3.58%	5.61%	2.03%
	7	6.10%	-0.52%	-2.67%	-5.57%	2.66%	-2.91%
	8	0.09%	-2.99%	-4.72%	5.59%	2.03%	7.62%
	9	-1.42%	-0.70%	-1.59%	0.33%	3.38%	3.71%
	10	-3.65%	-0.02%	2.43%	0.52%	0.72%	1.24%



**Table 102**  
**Science Longitudinal Summary of Impact Data**

		<b>2011</b>					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
	5	12.73%	20.25%	20.71%	21.93%	24.39%	46.32%
SC	8	15.87%	12.90%	17.26%	24.60%	29.37%	53.97%
	10	14.90%	26.53%	25.71%	15.31%	17.55%	32.86%

		<b>2010</b>					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
	5	13.62%	19.27%	19.77%	23.42%	23.92%	47.34%
SC	8	14.56%	15.73%	17.86%	18.25%	33.59%	51.84%
	10	14.29%	25.21%	26.26%	17.44%	16.81%	34.24%

		<b>2009</b>					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
	5	9.98%	19.12%	23.18%	21.49%	26.23%	47.72%
SC	8	14.13%	17.43%	16.70%	21.28%	30.46%	51.74%
	10	12.68%	20.40%	29.96%	15.07%	21.88%	36.95%

		<b>2008</b>					
		Percent of Students in Each Proficiency Level					
Content	Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
	5	12.09%	16.97%	24.91%	21.84%	24.19%	46.03%
SC	8	13.41%	16.57%	17.16%	19.72%	33.14%	52.86%
	10	14.63%	27.29%	24.02%	17.90%	16.16%	34.06%

**Table 102**  
**Science Longitudinal Summary of Impact Data (continued)**

<b>Difference between 2011 and 2010</b>						
Percent of Students in Each Proficiency Level						
Content Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
5	-0.89%	0.98%	0.94%	-1.49%	0.47%	-1.02%
SC 8	1.31%	-2.83%	-0.60%	6.35%	-4.23%	2.12%
10	0.61%	1.32%	-0.55%	-2.13%	0.74%	-1.39%

<b>Difference between 2010 and 2009</b>						
Percent of Students in Each Proficiency Level						
Content Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
5	3.64%	0.15%	-3.41%	1.93%	-2.31%	-0.37%
SC 8	0.43%	-1.70%	1.17%	-3.03%	3.13%	0.10%
10	1.60%	4.81%	-3.70%	2.36%	-5.07%	-2.70%

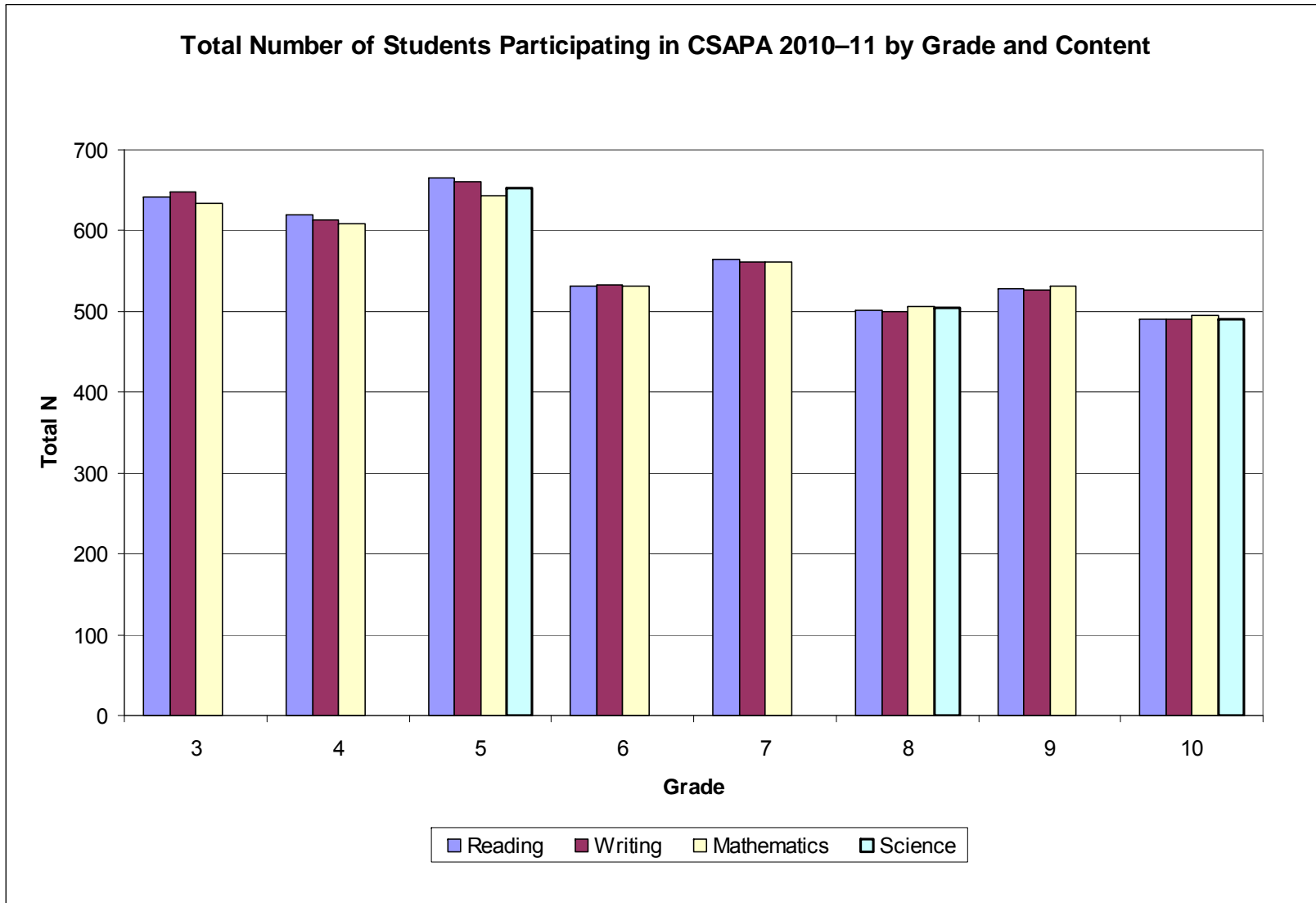
<b>Difference between 2009 and 2008</b>						
Percent of Students in Each Proficiency Level						
Content Grade	Inconclusive	Exploring	Emerging	Developing	Novice	Developing & Novice Combined
5	-2.11%	2.15%	-1.73%	-0.35%	2.04%	1.69%
SC 8	0.72%	0.86%	-0.46%	1.56%	-2.68%	-1.12%
10	-1.95%	-6.89%	5.95%	-2.83%	5.72%	2.89%

---

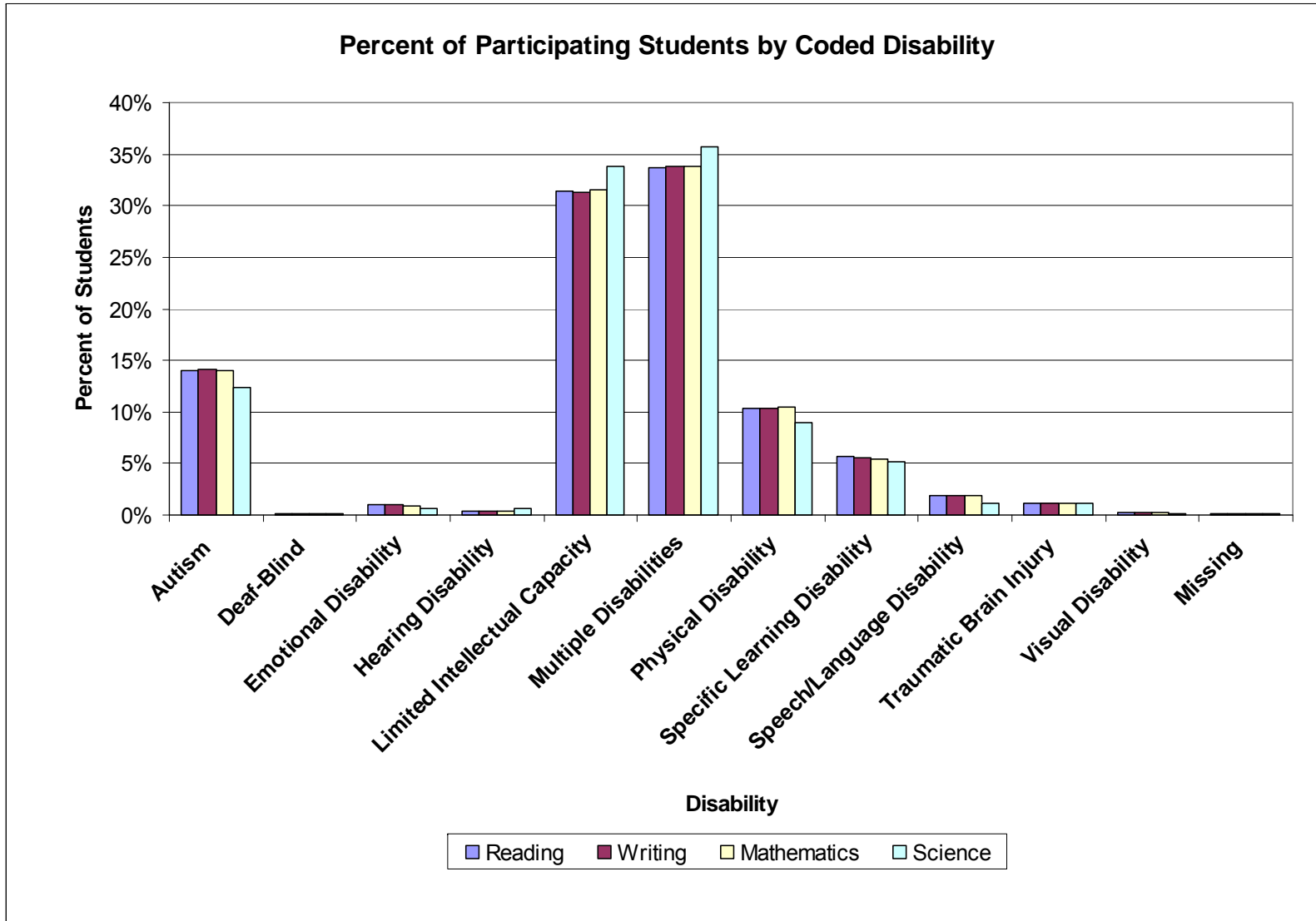
## Figures 1–31

---

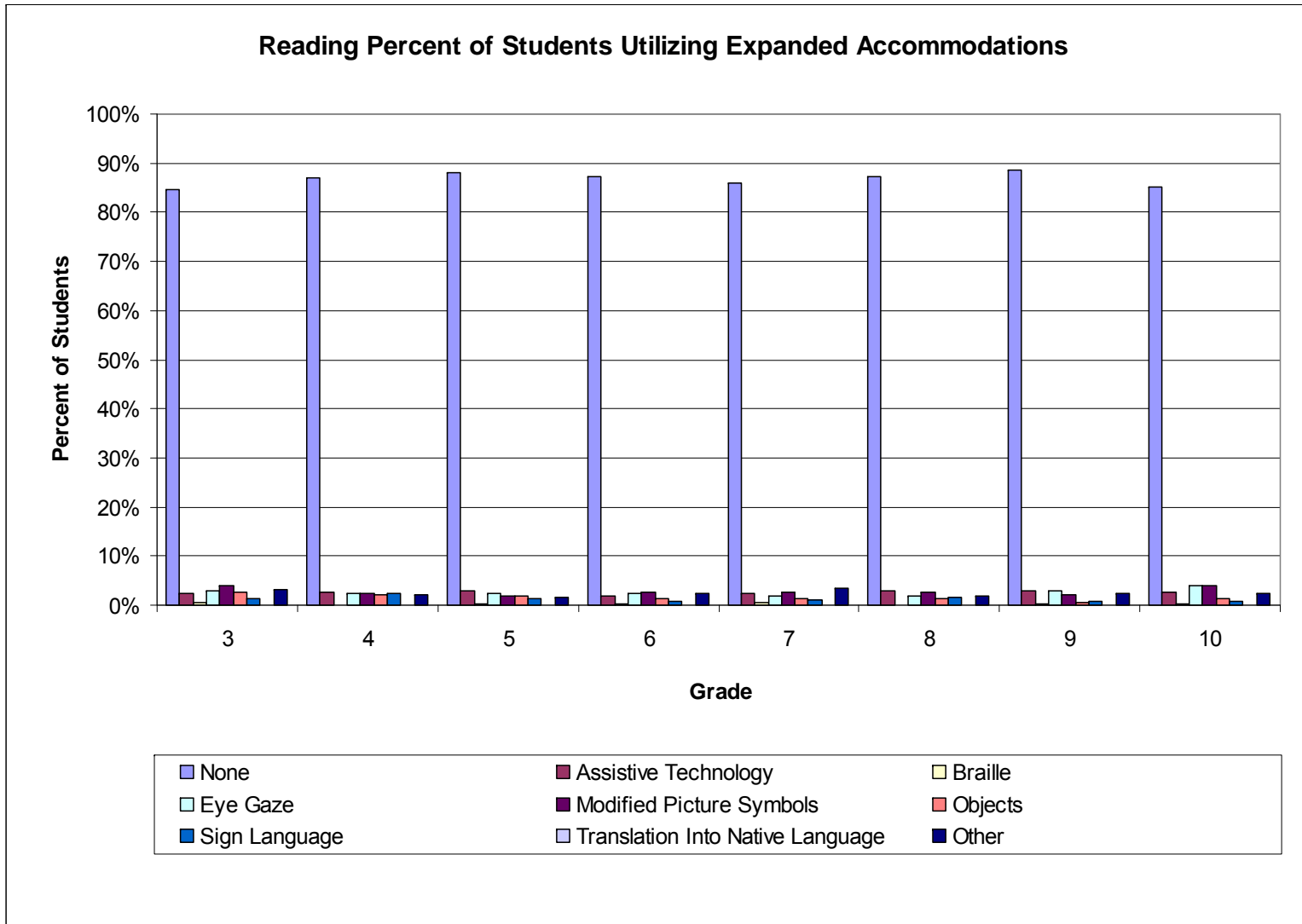
**Figure 1**  
**Total Number of Students Participating in CSAPA 2010–11 by Grade and Content**



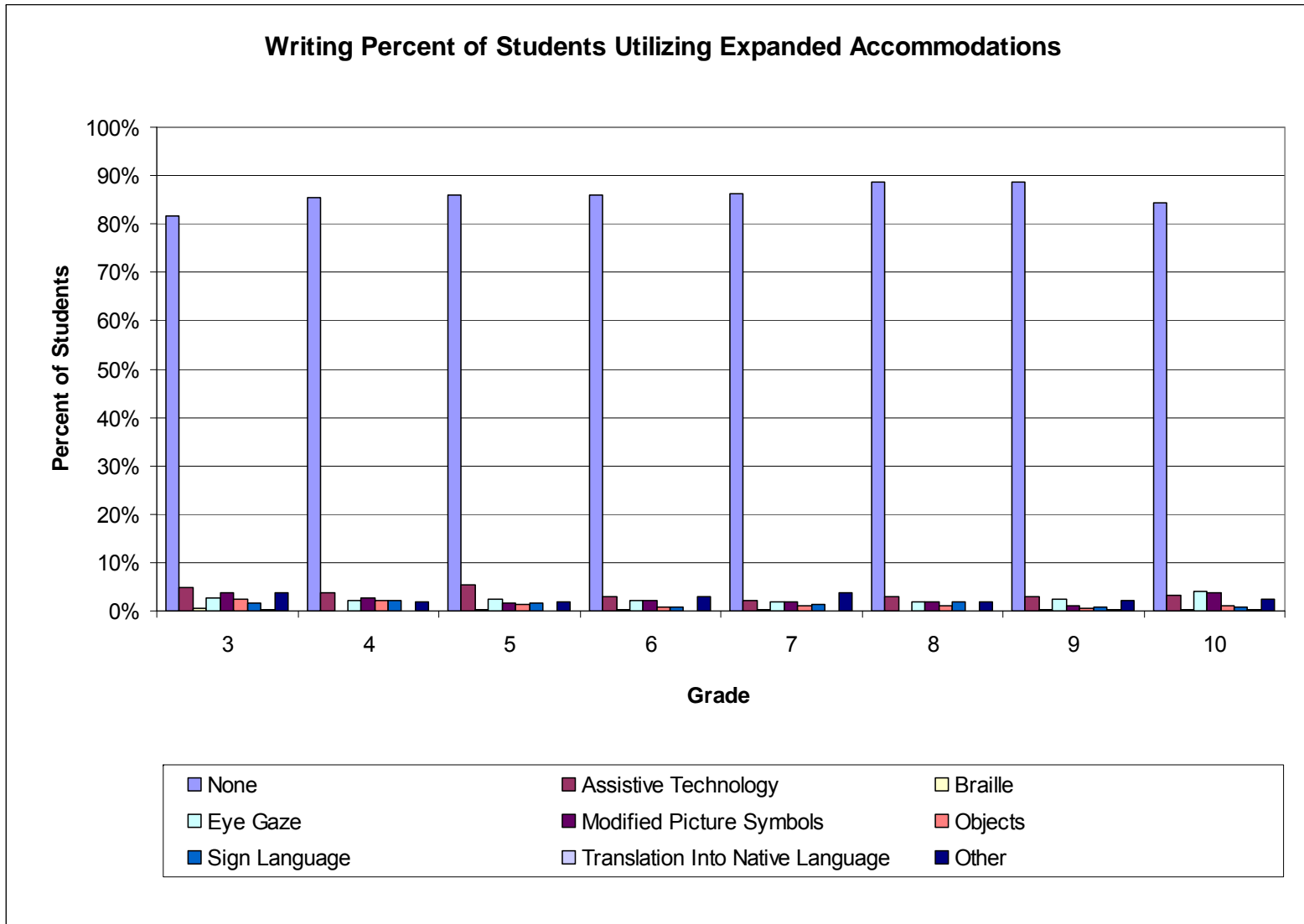
**Figure 2**  
**Percent of Participating Students by Coded Disability**



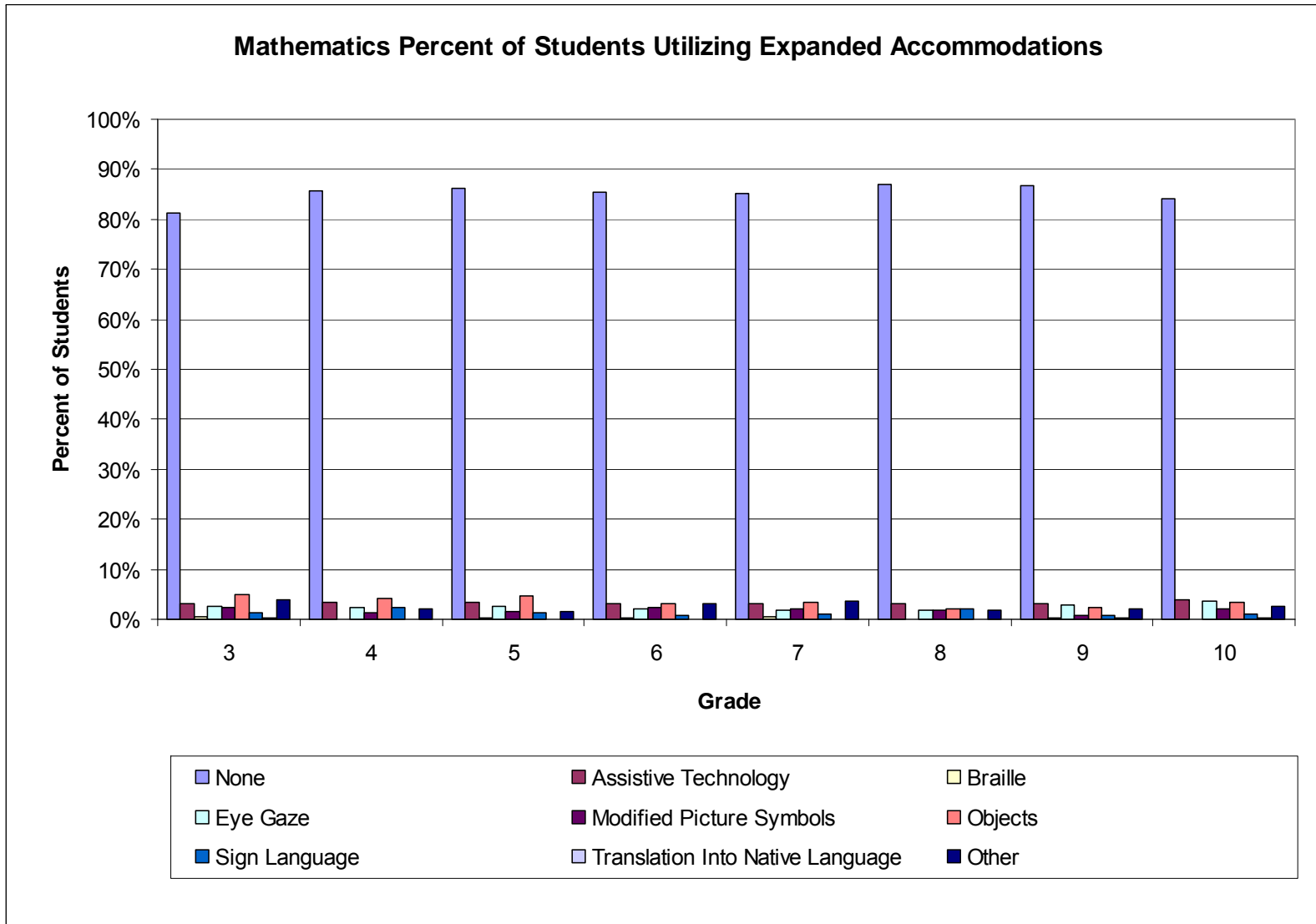
**Figure 3**  
**Reading Percent of Students Utilizing Expanded Accommodations**



**Figure 4**  
**Writing Percent of Students Utilizing Expanded Accommodations**

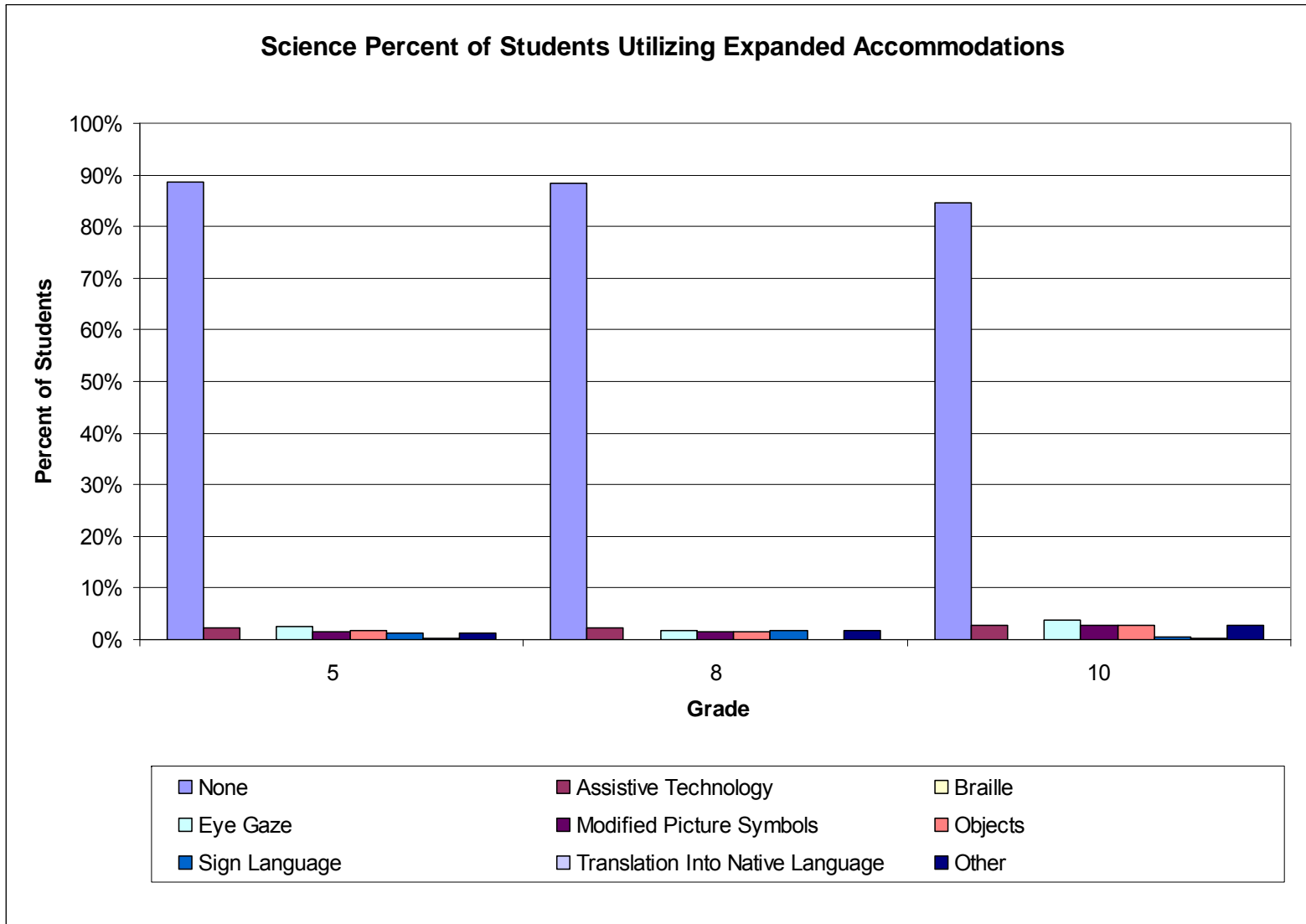


**Figure 5**  
**Mathematics Percent of Students Utilizing Expanded Accommodations**

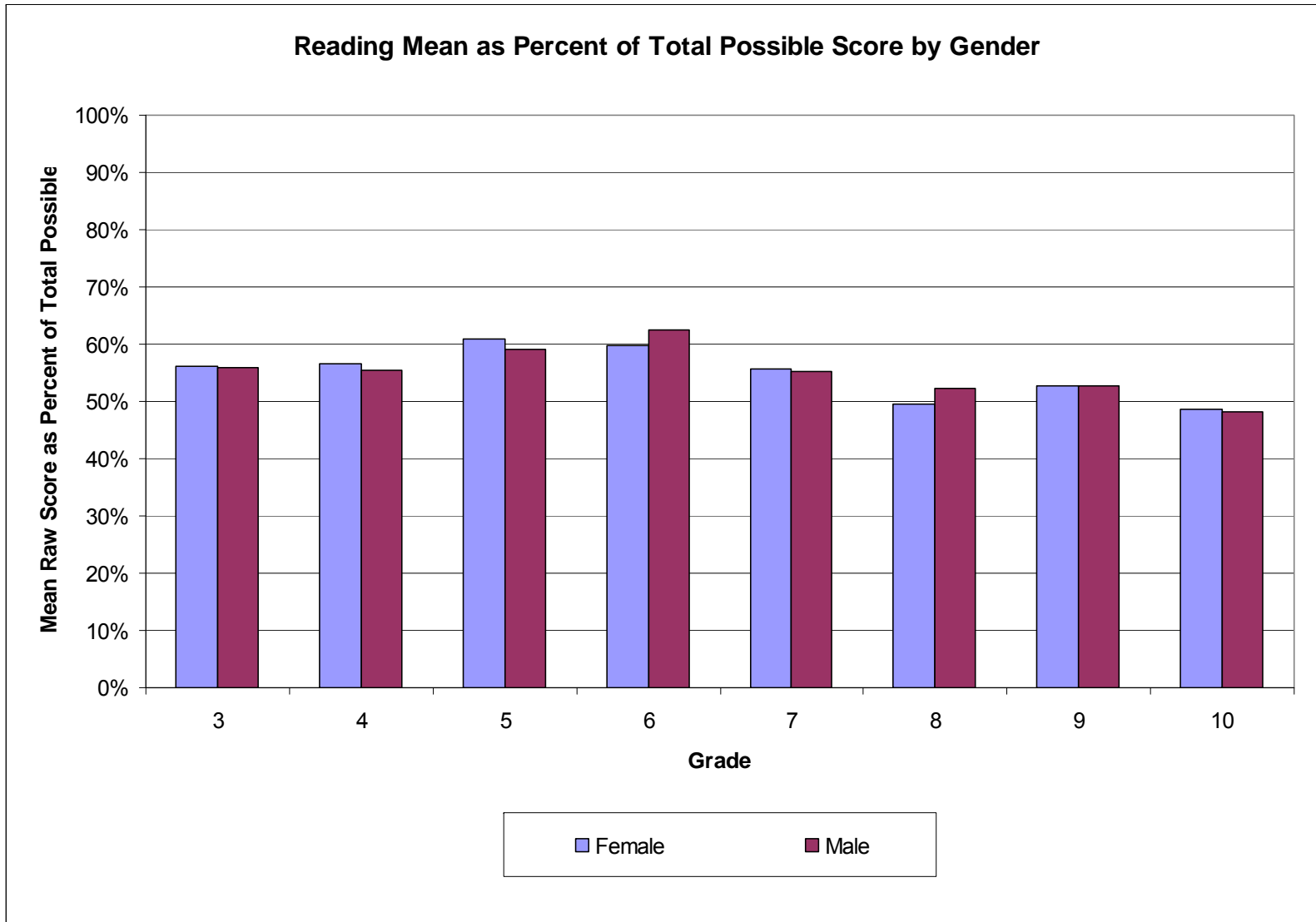




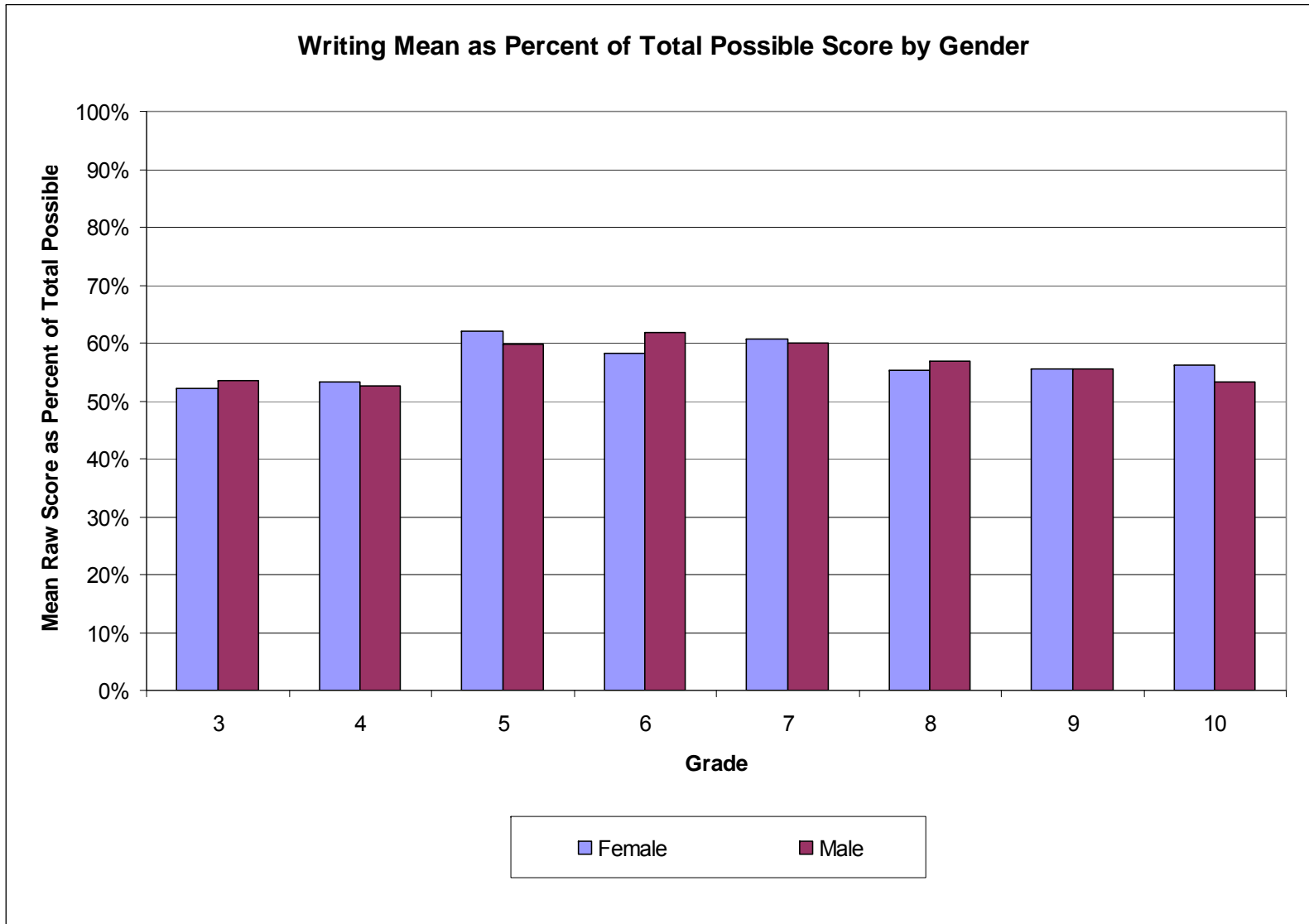
**Figure 6**  
**Science Percent of Students Utilizing Expanded Accommodations**



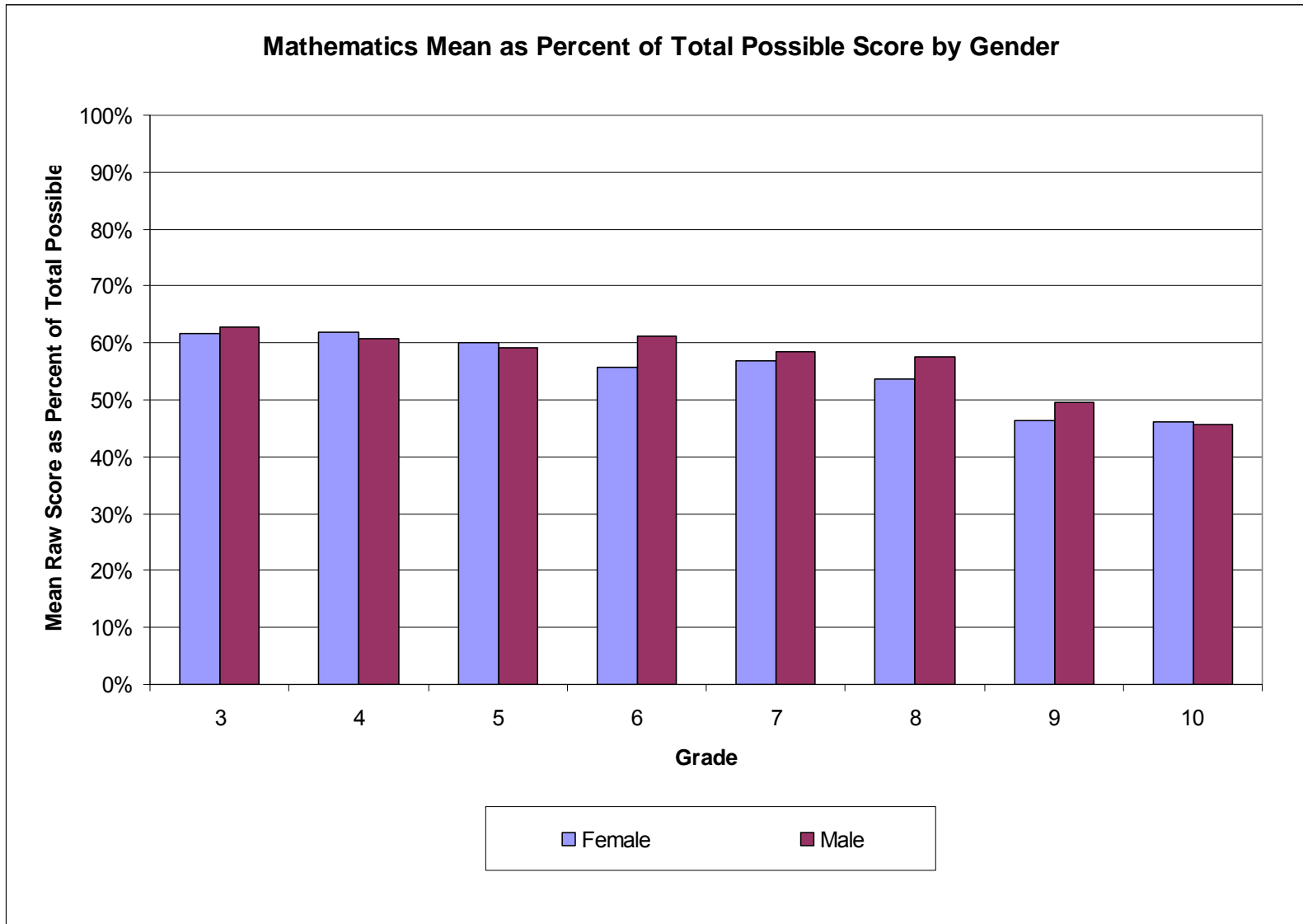
**Figure 7**  
**Reading Mean as Percent of Total Possible Score by Gender**



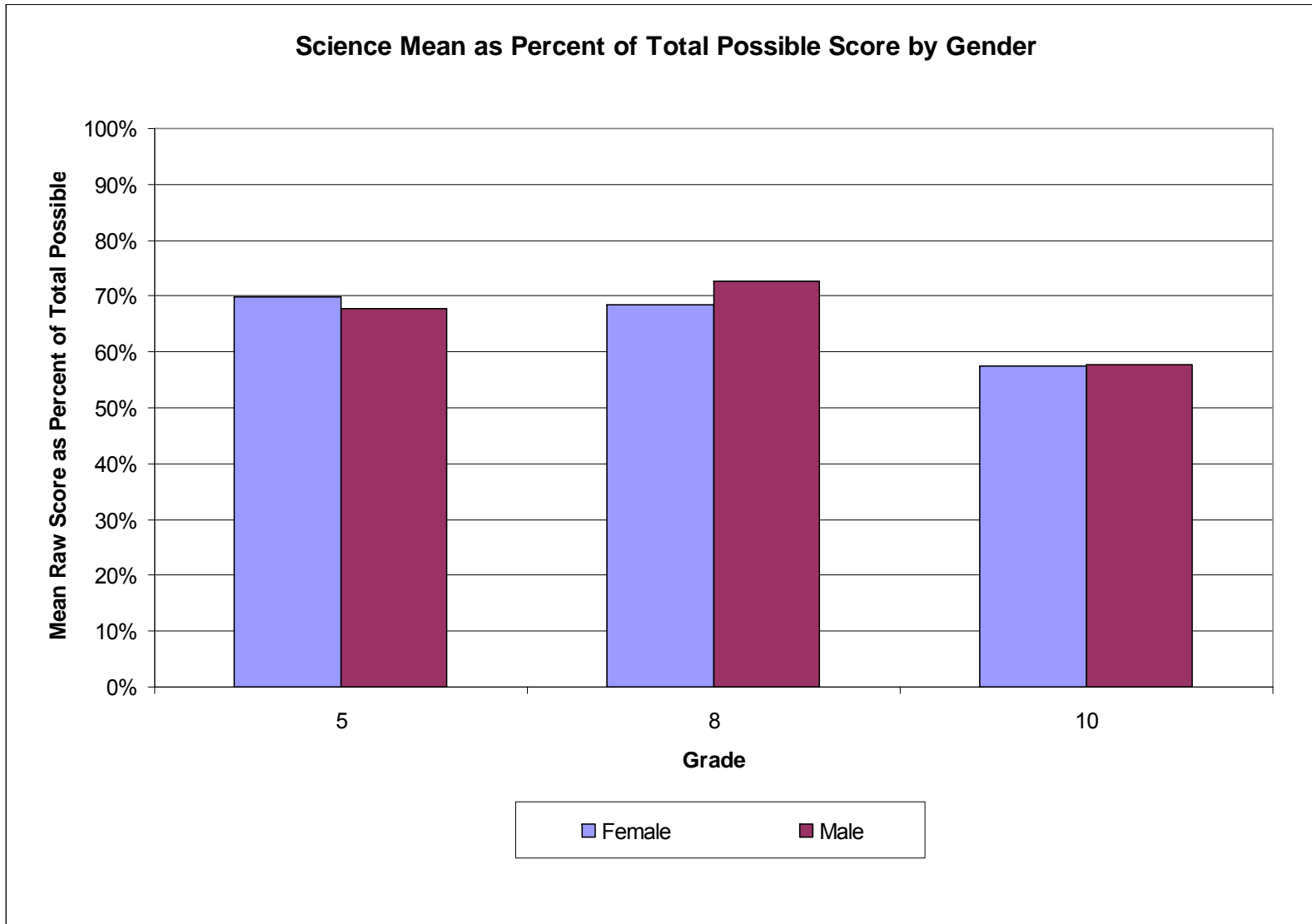
**Figure 8**  
**Writing Mean as Percent of Total Possible Score by Gender**



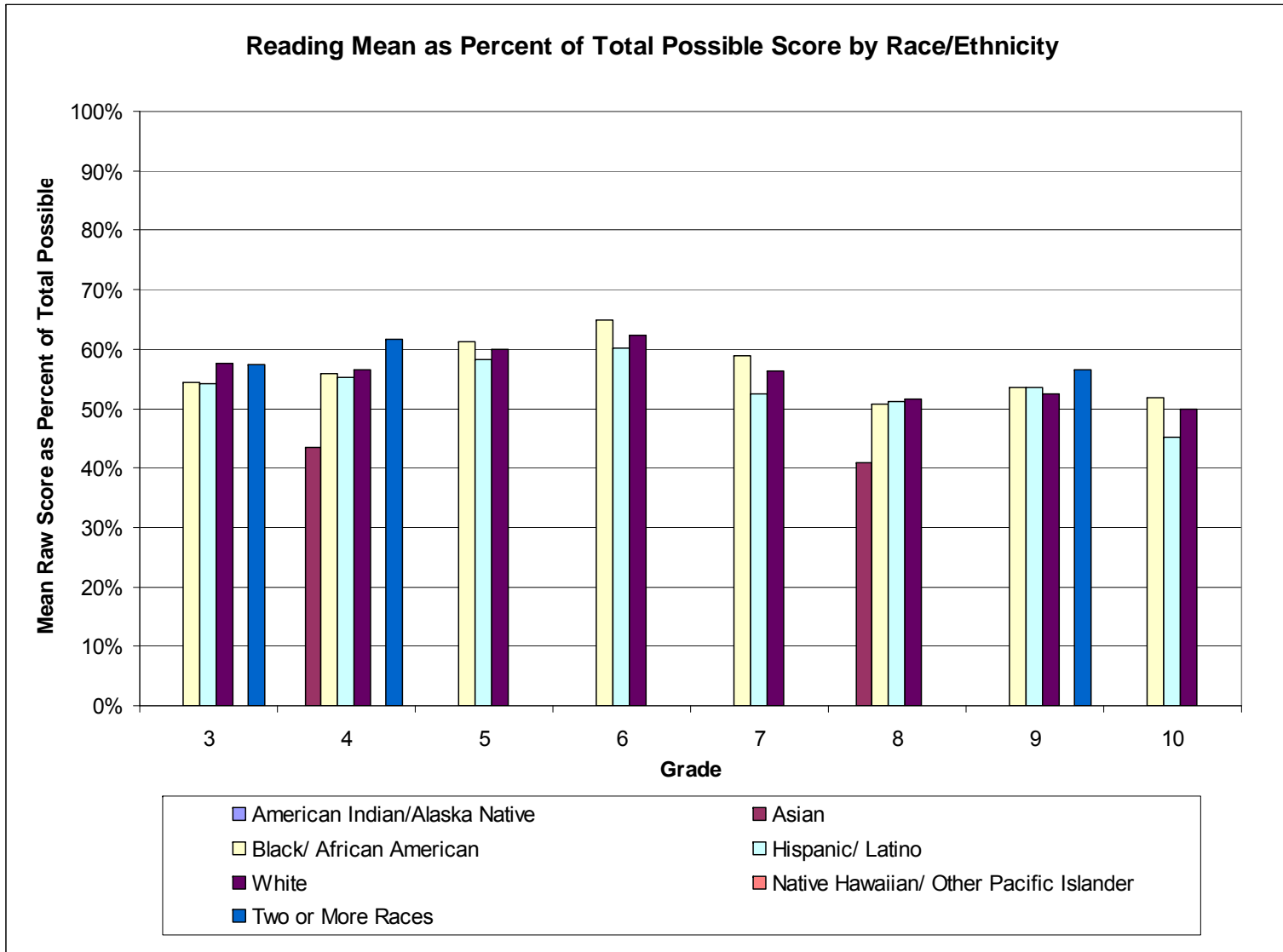
**Figure 9**  
**Mathematics Mean as Percent of Total Possible Score by Gender**



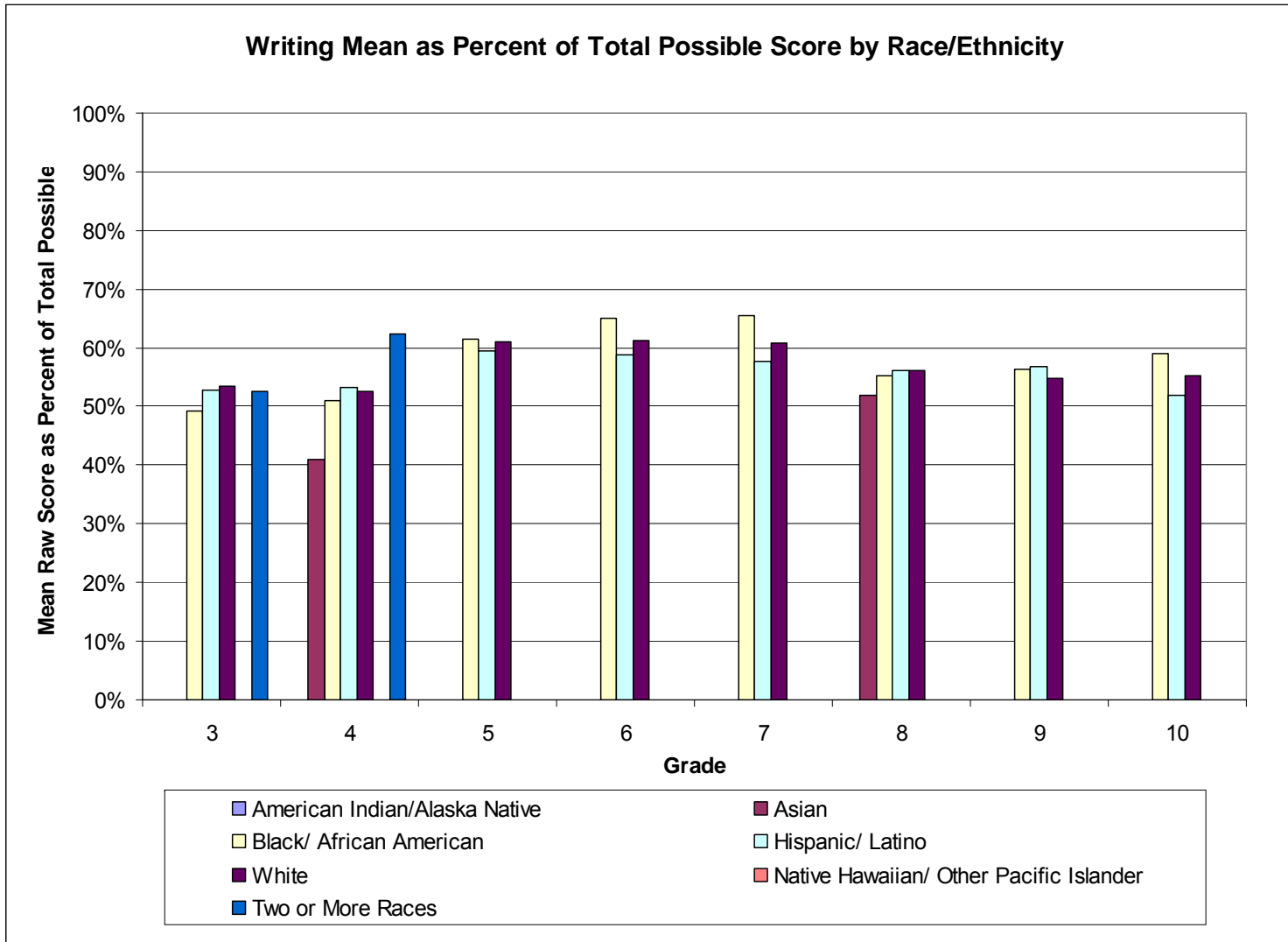
**Figure 10**  
**Science Mean as Percent of Total Possible Score by Gender**



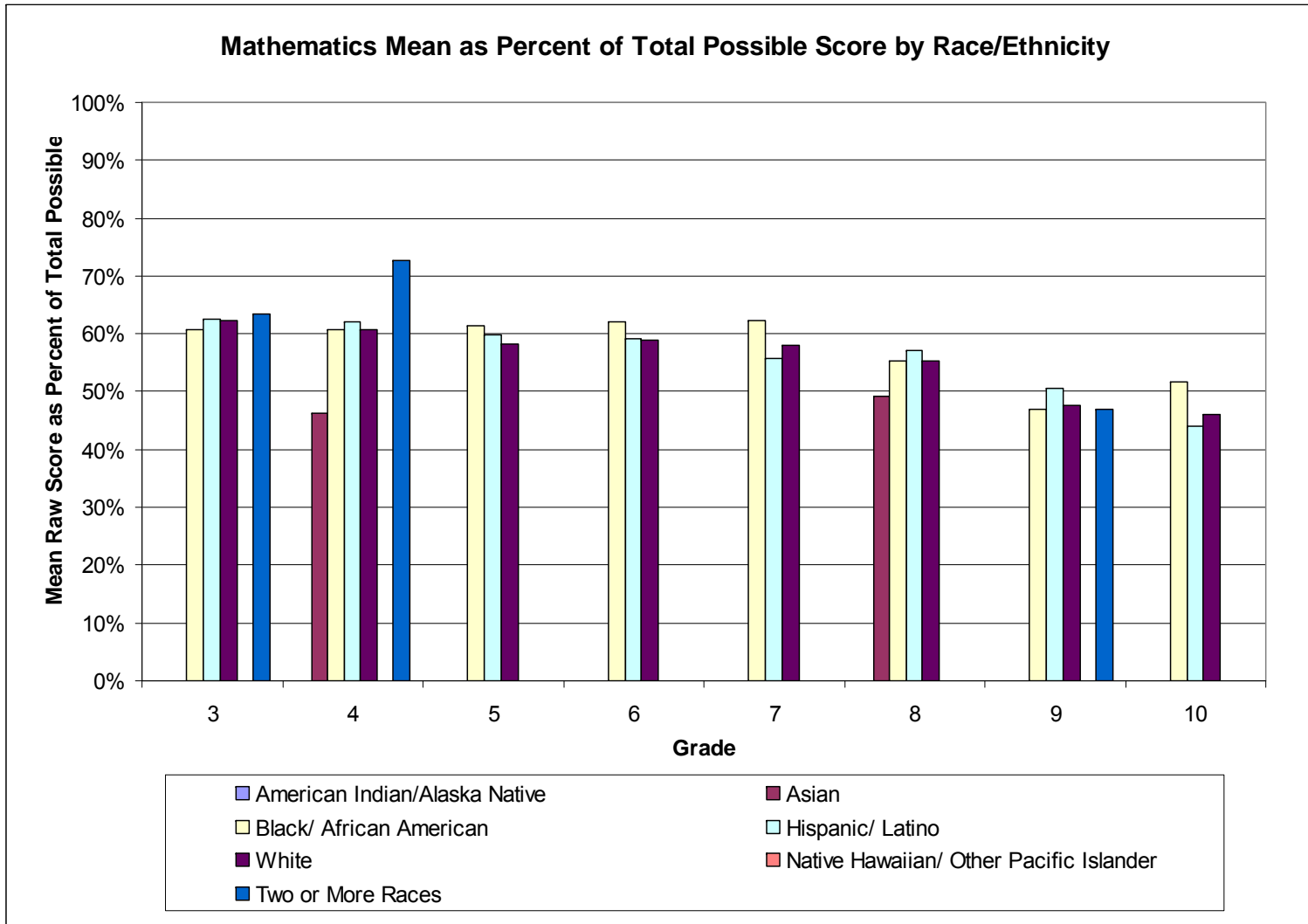
**Figure 11**  
**Reading Mean as Percent of Total Possible Score by Race/Ethnicity**



**Figure 12**  
**Writing Mean as Percent of Total Possible Score by Race/Ethnicity**

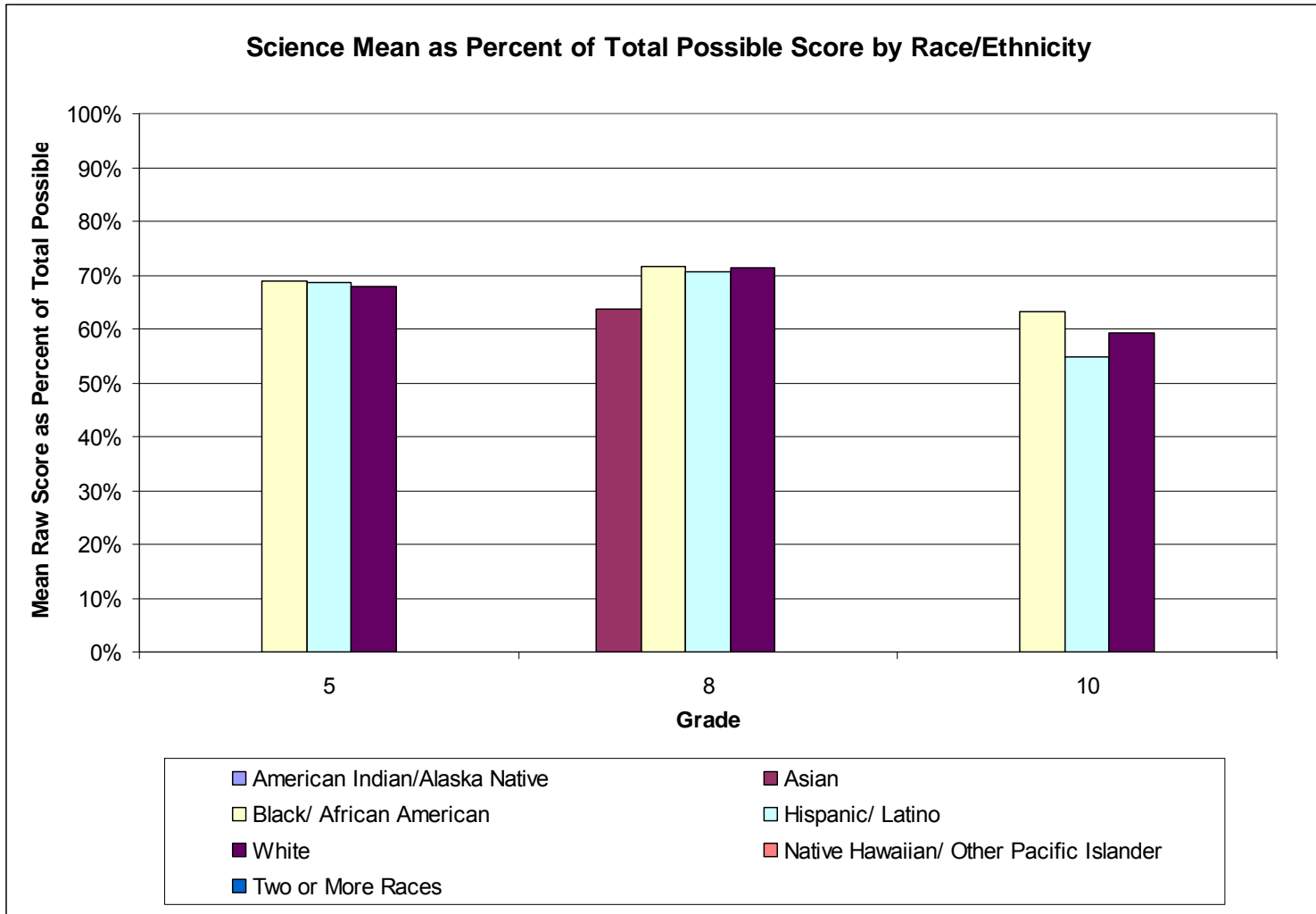


**Figure 13**  
**Mathematics Mean as Percent of Total Possible Score by Race/Ethnicity**

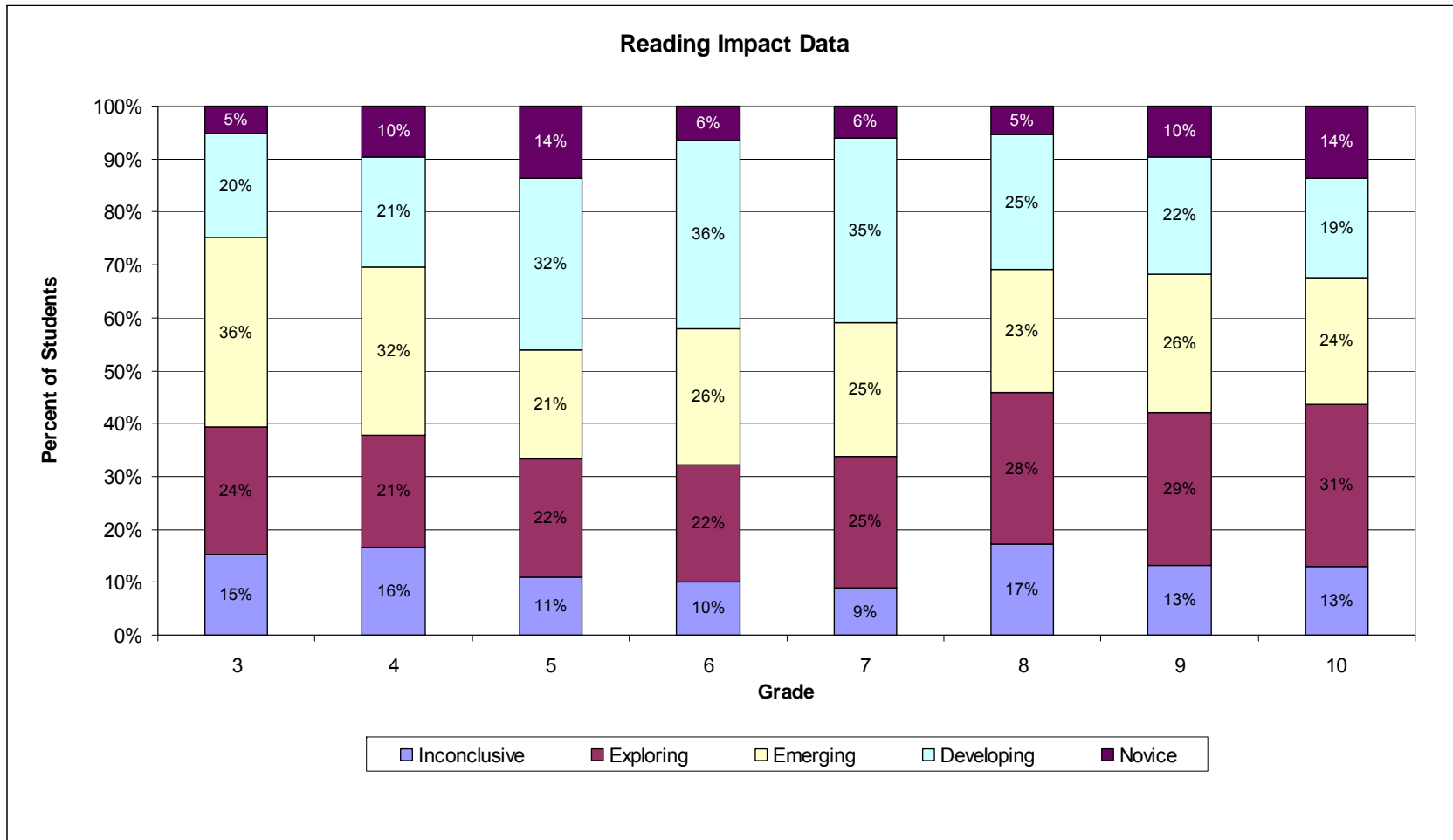




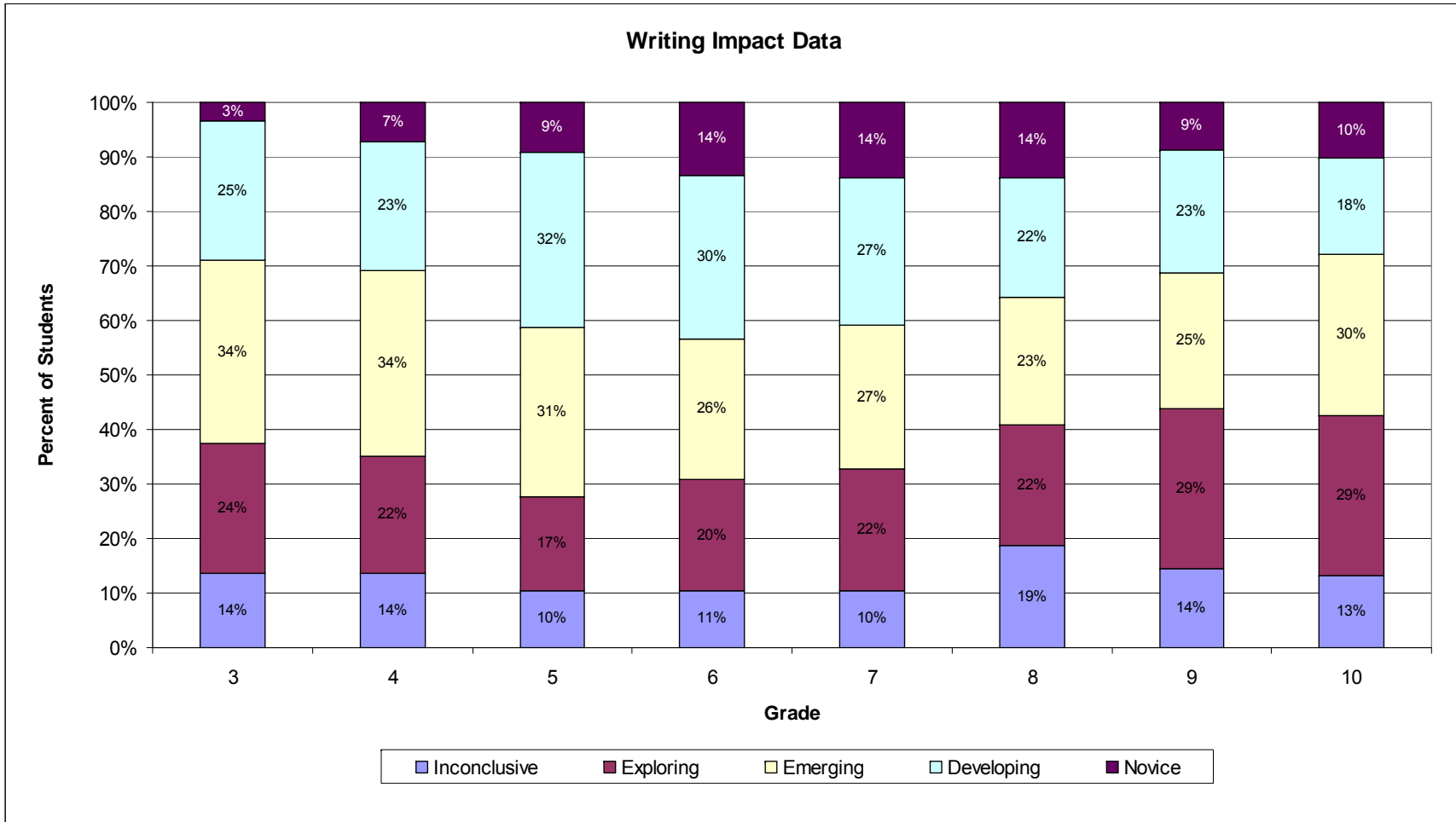
**Figure 14**  
**Science Mean as Percent of Total Possible Score by Race/Ethnicity**



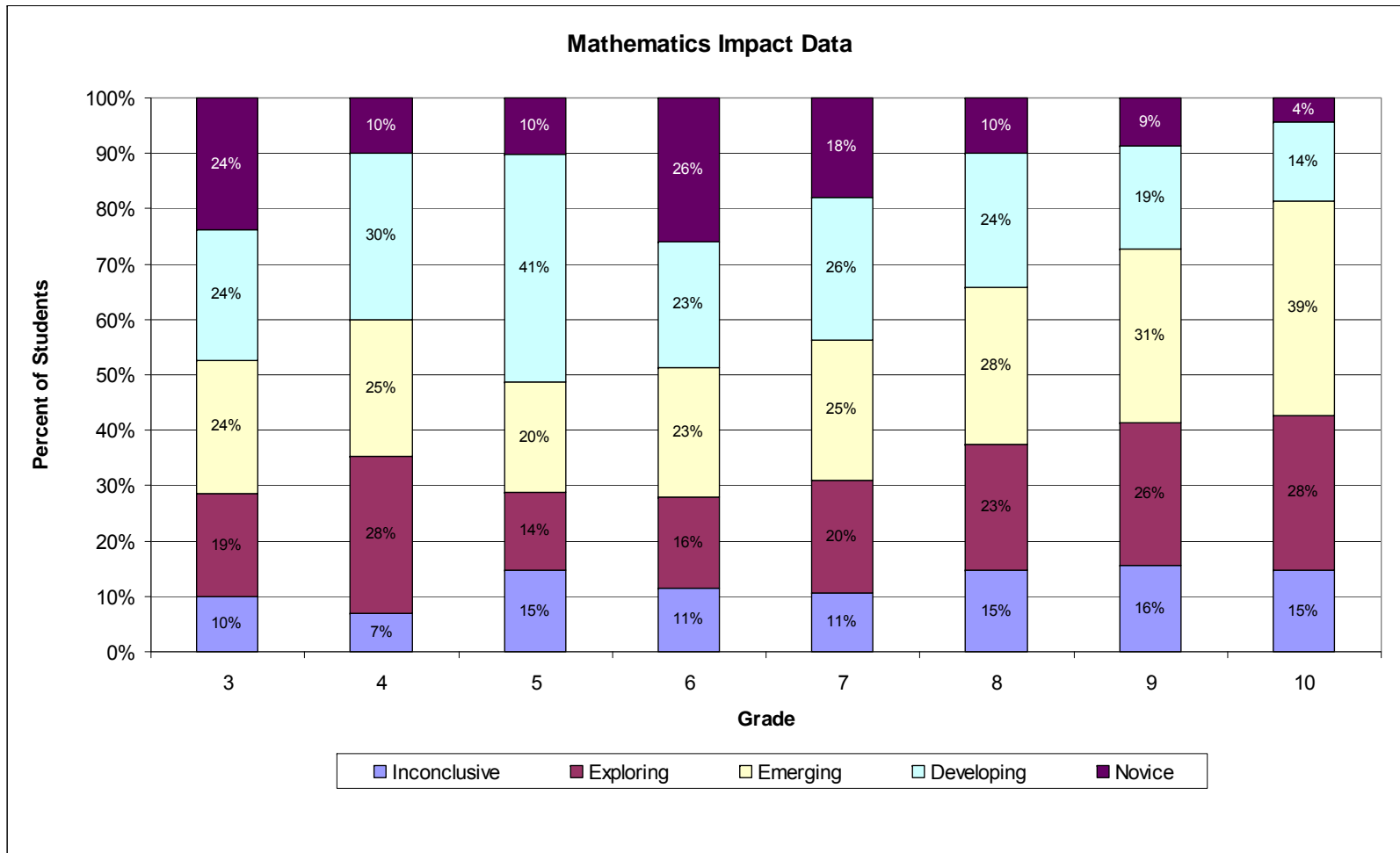
**Figure 15**  
**Reading Impact Data**



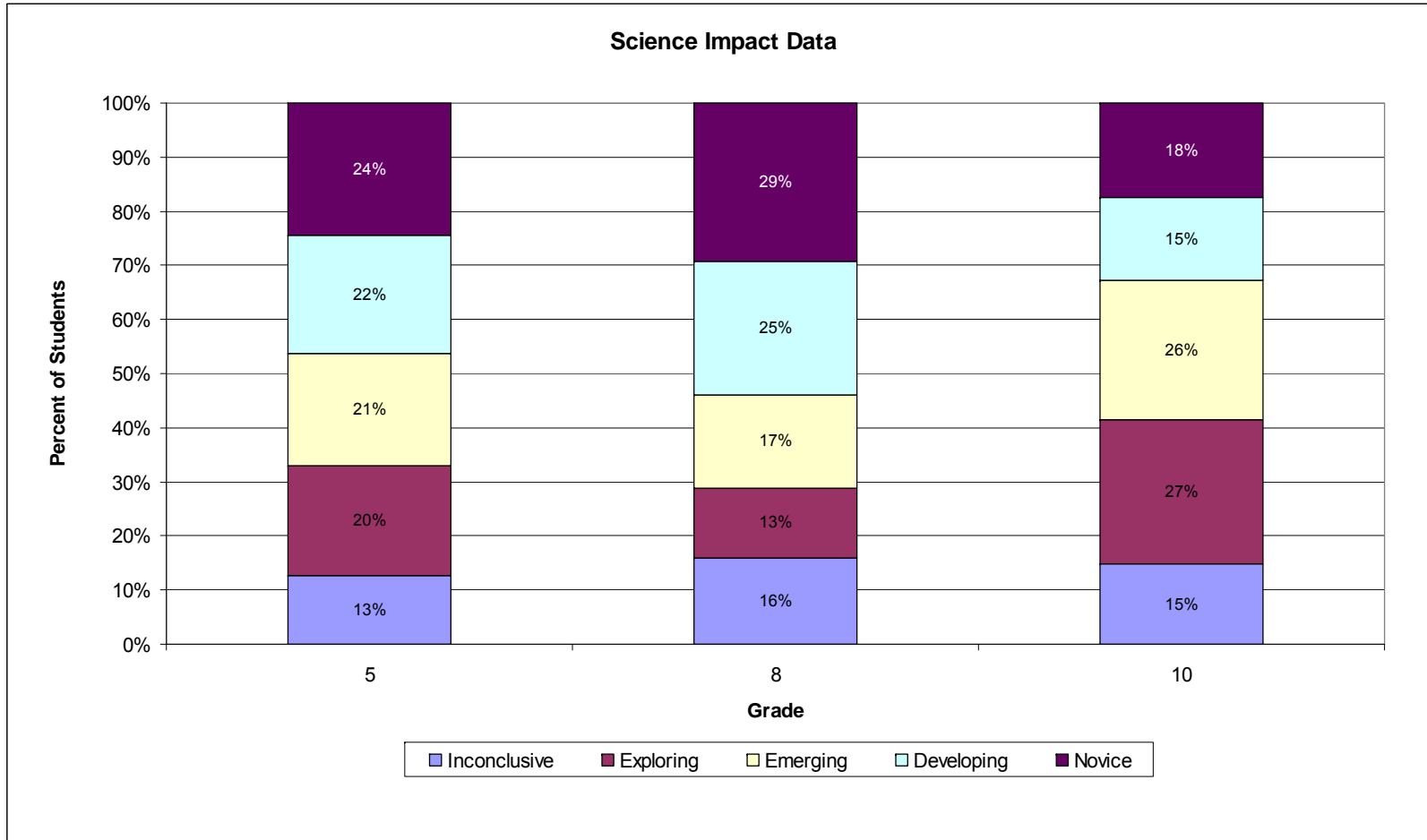
**Figure 16**  
**Writing Impact Data**



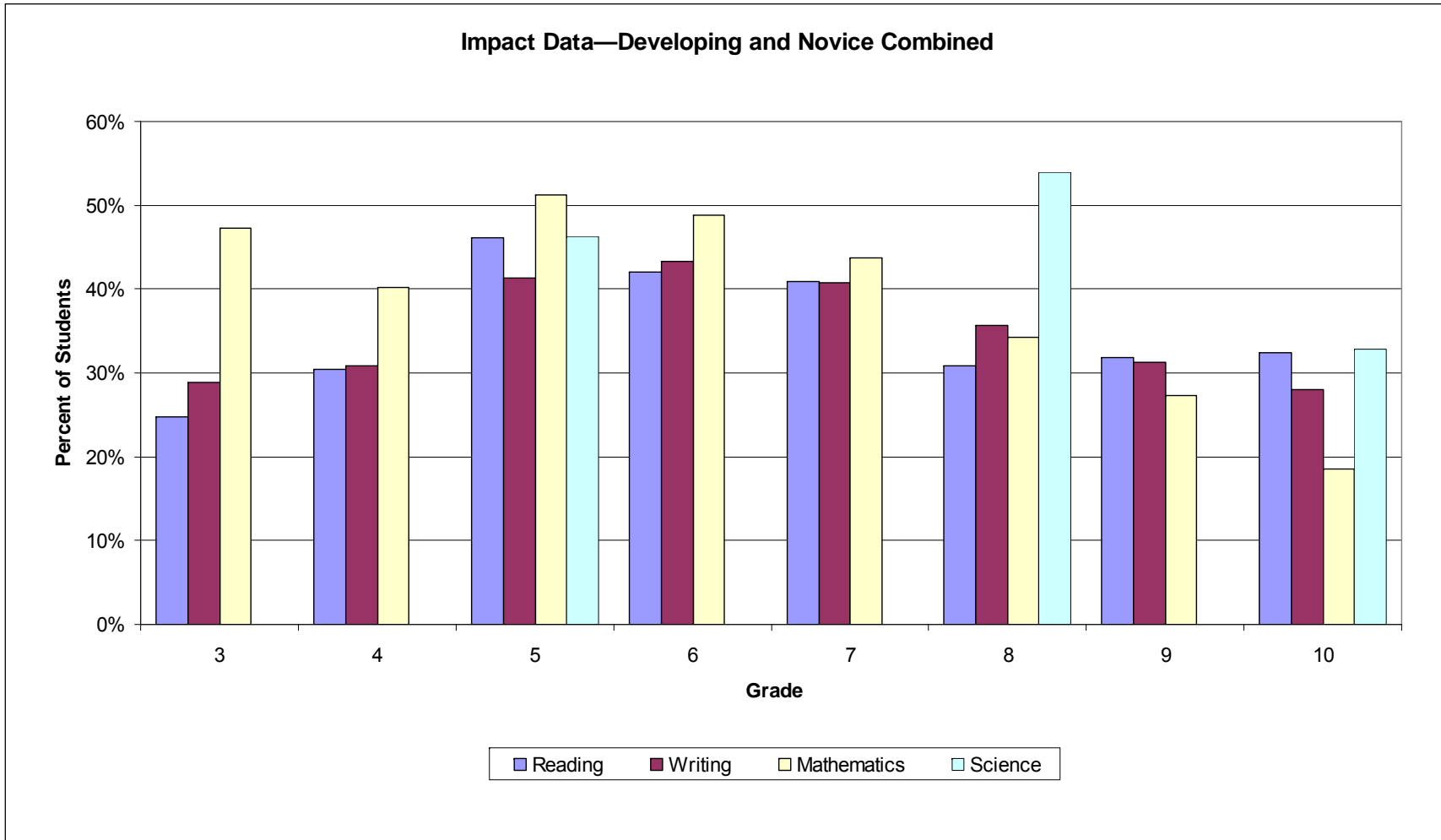
**Figure 17**  
**Mathematics Impact Data**



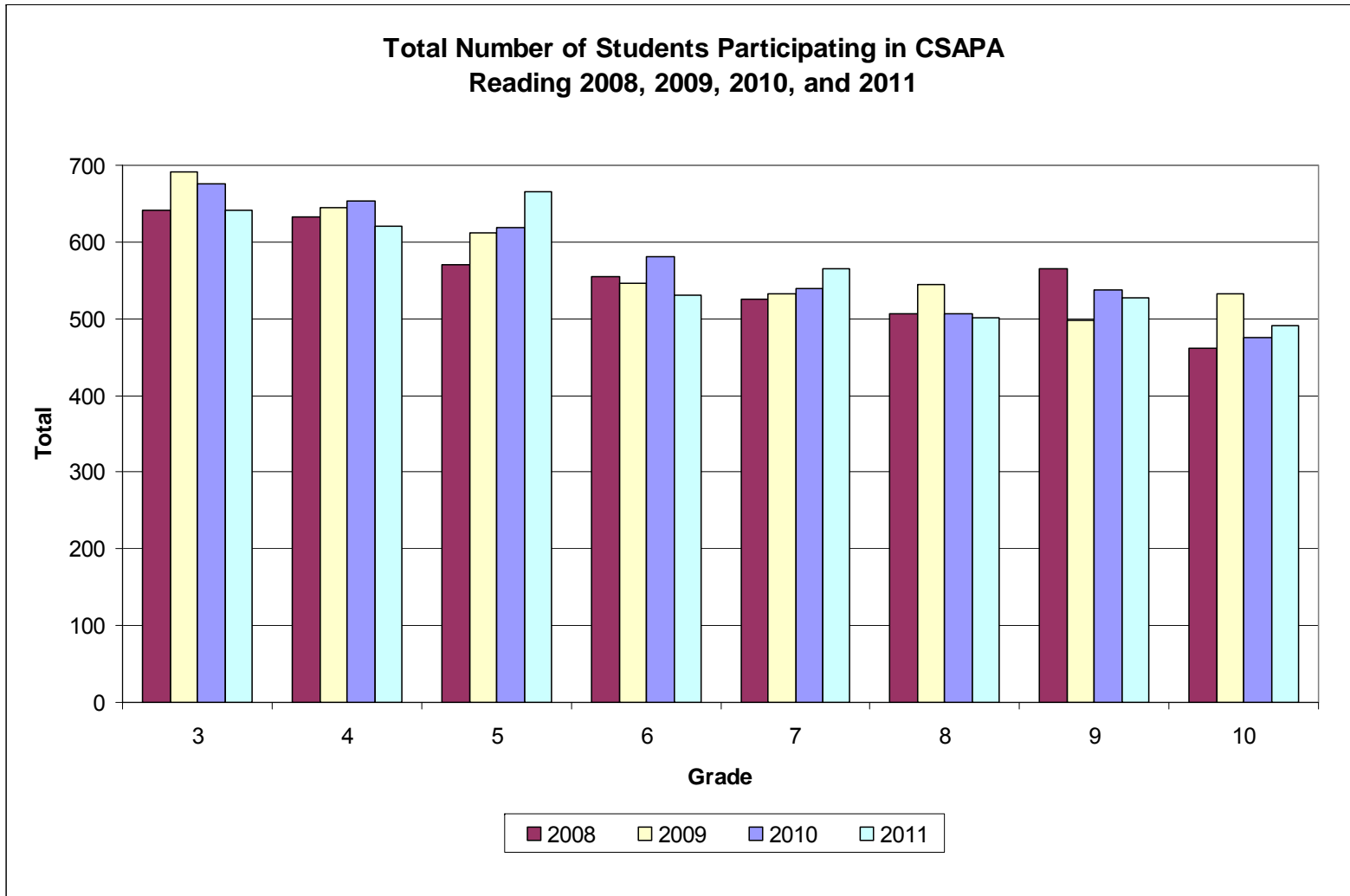
**Figure 18**  
**Science Impact Data**



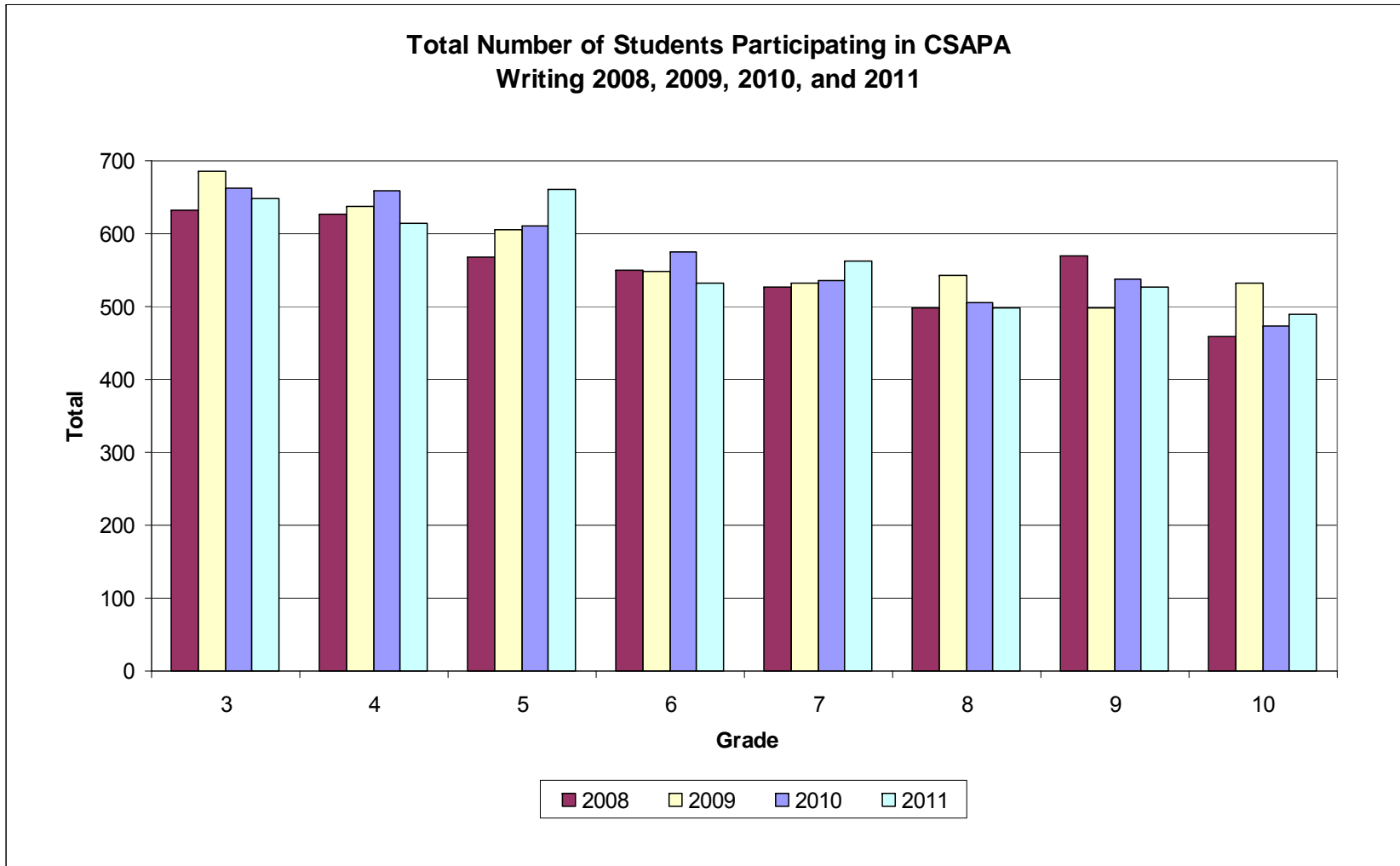
**Figure 19**  
**Impact Data—Developing and Novice Combined**



**Figure 20**  
**Total Number of Students Participating in CSAPA Reading 2008, 2009, 2010, and 2011**

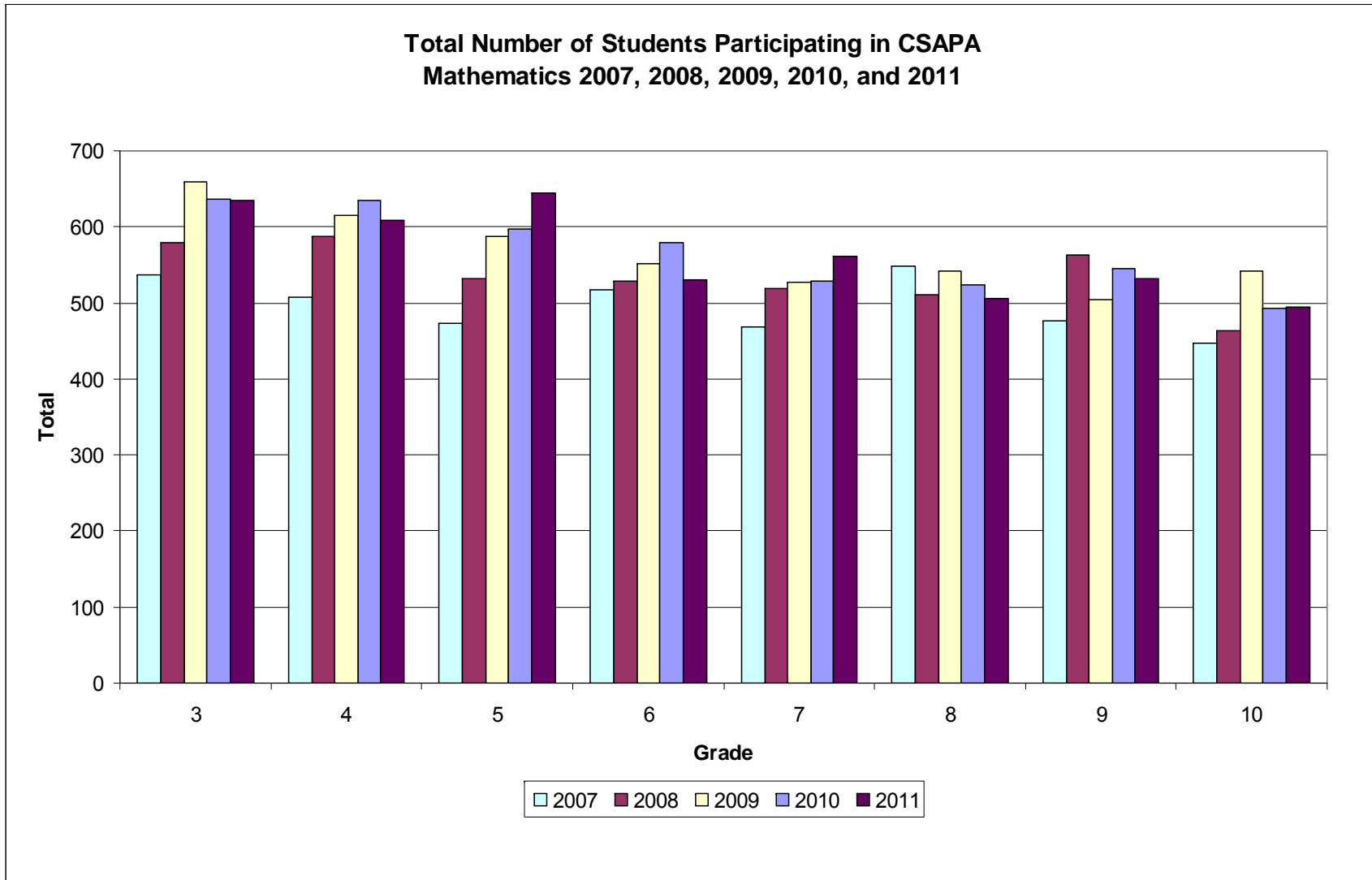


**Figure 21**  
**Total Number of Students Participating in CSAPA Writing 2008, 2009, 2010, and 2011**

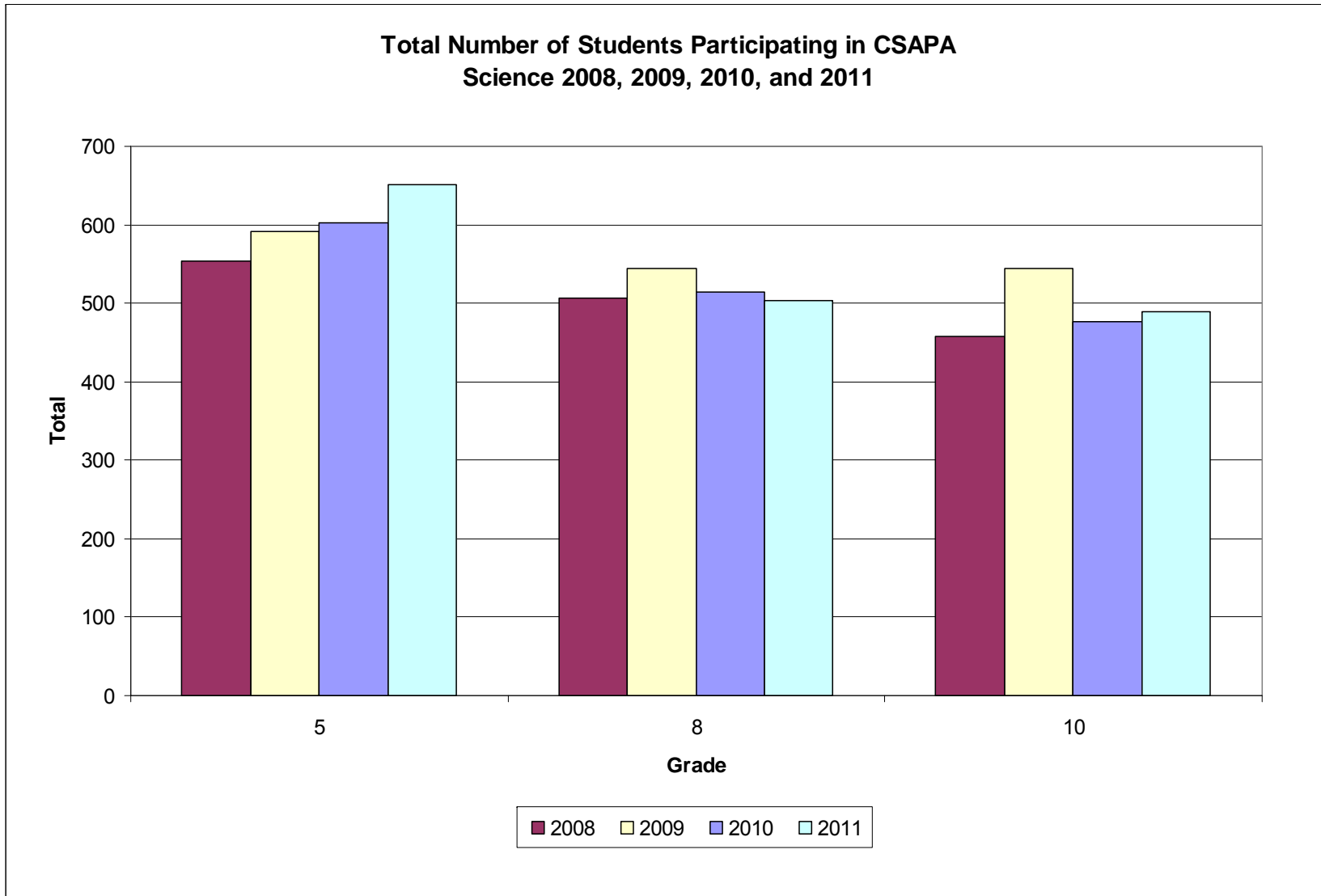




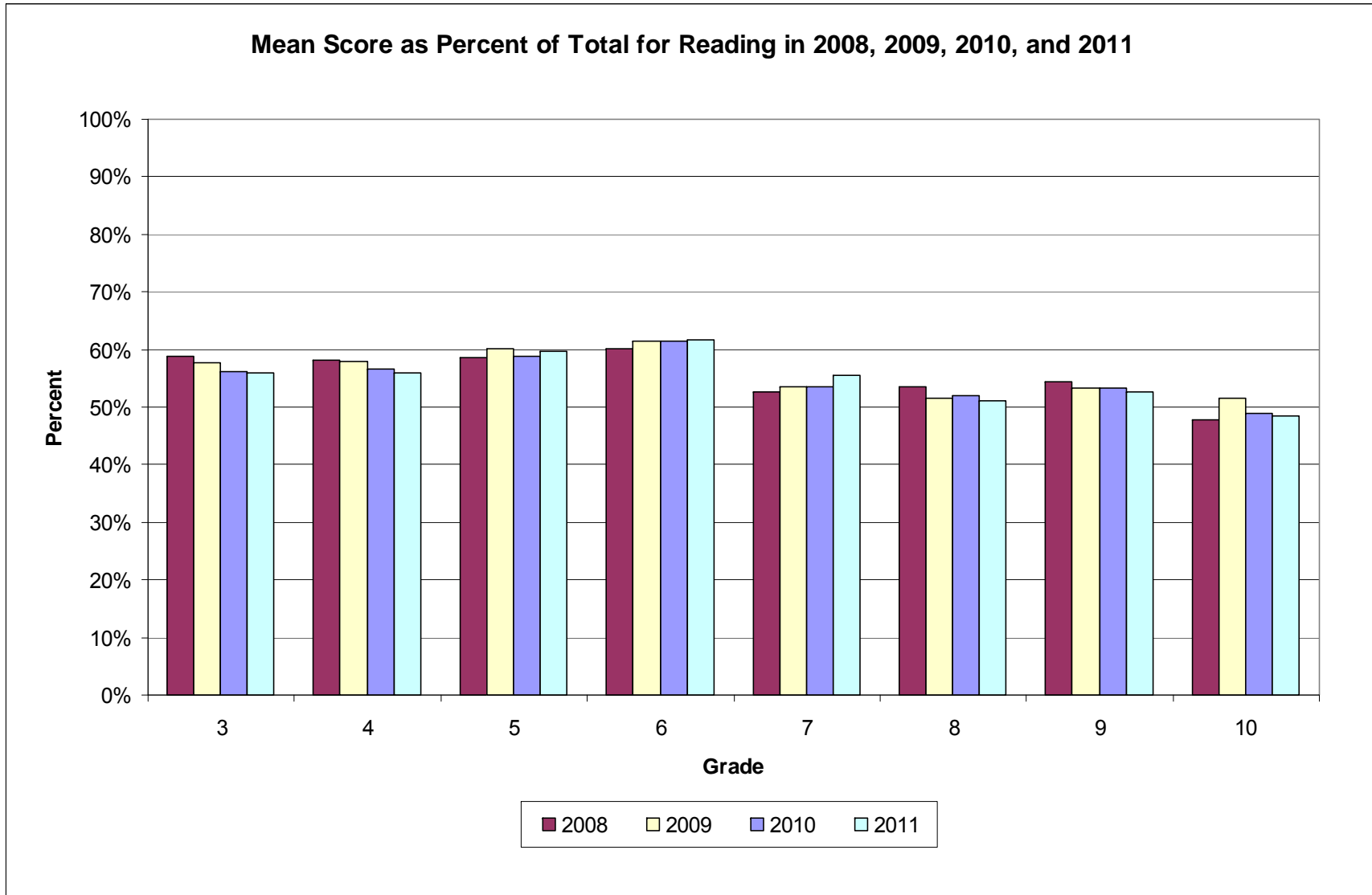
**Figure 22**  
**Total Number of Students Participating in CSAPA Mathematics 2007, 2008, 2009, 2010, and 2011**



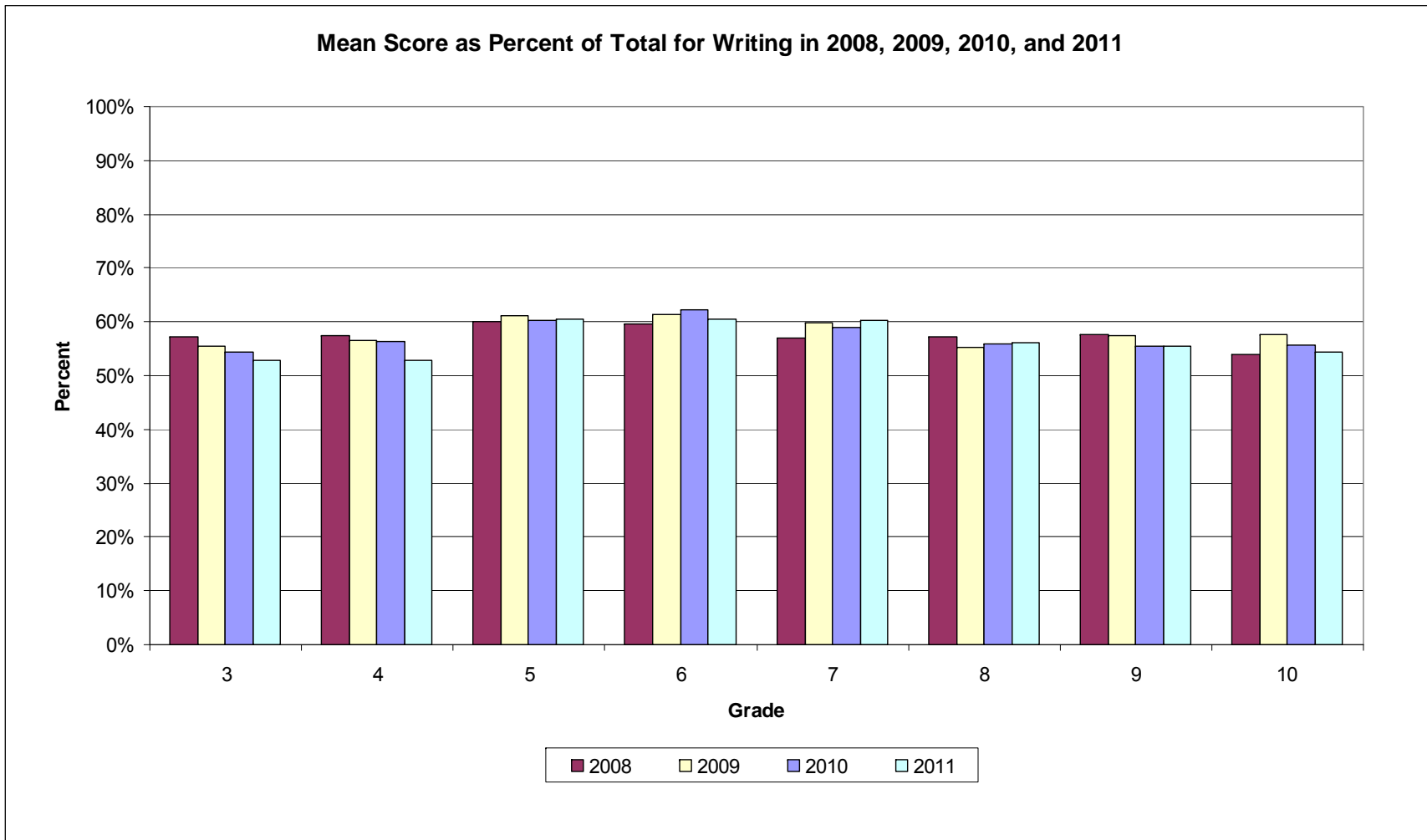
**Figure 23**  
**Total Number of Students Participating in CSAPA Science 2008, 2009, 2010, and 2011**



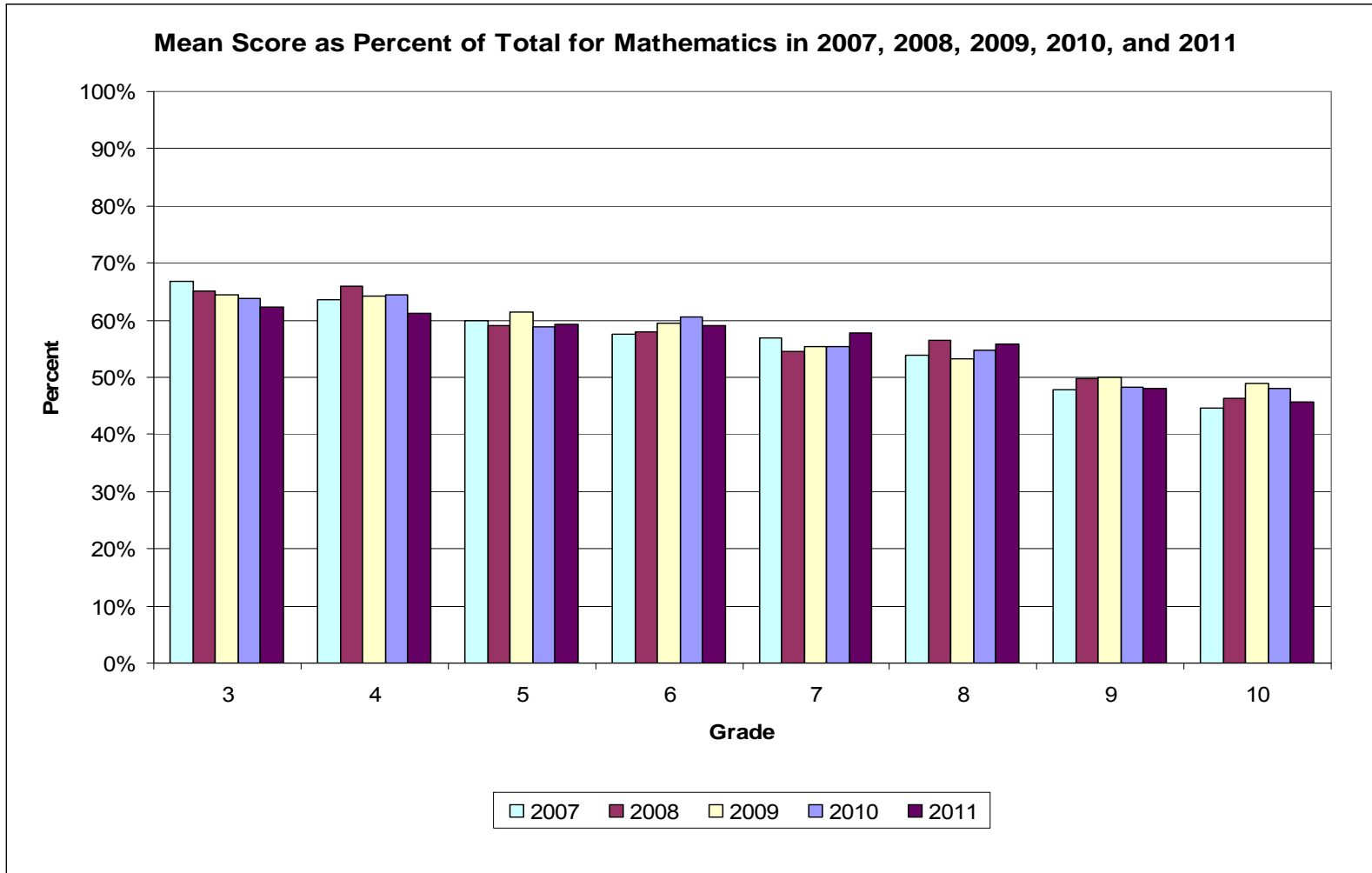
**Figure 24**  
**Mean Score as Percent of Total for Reading 2008, 2009, 2010, and 2011**



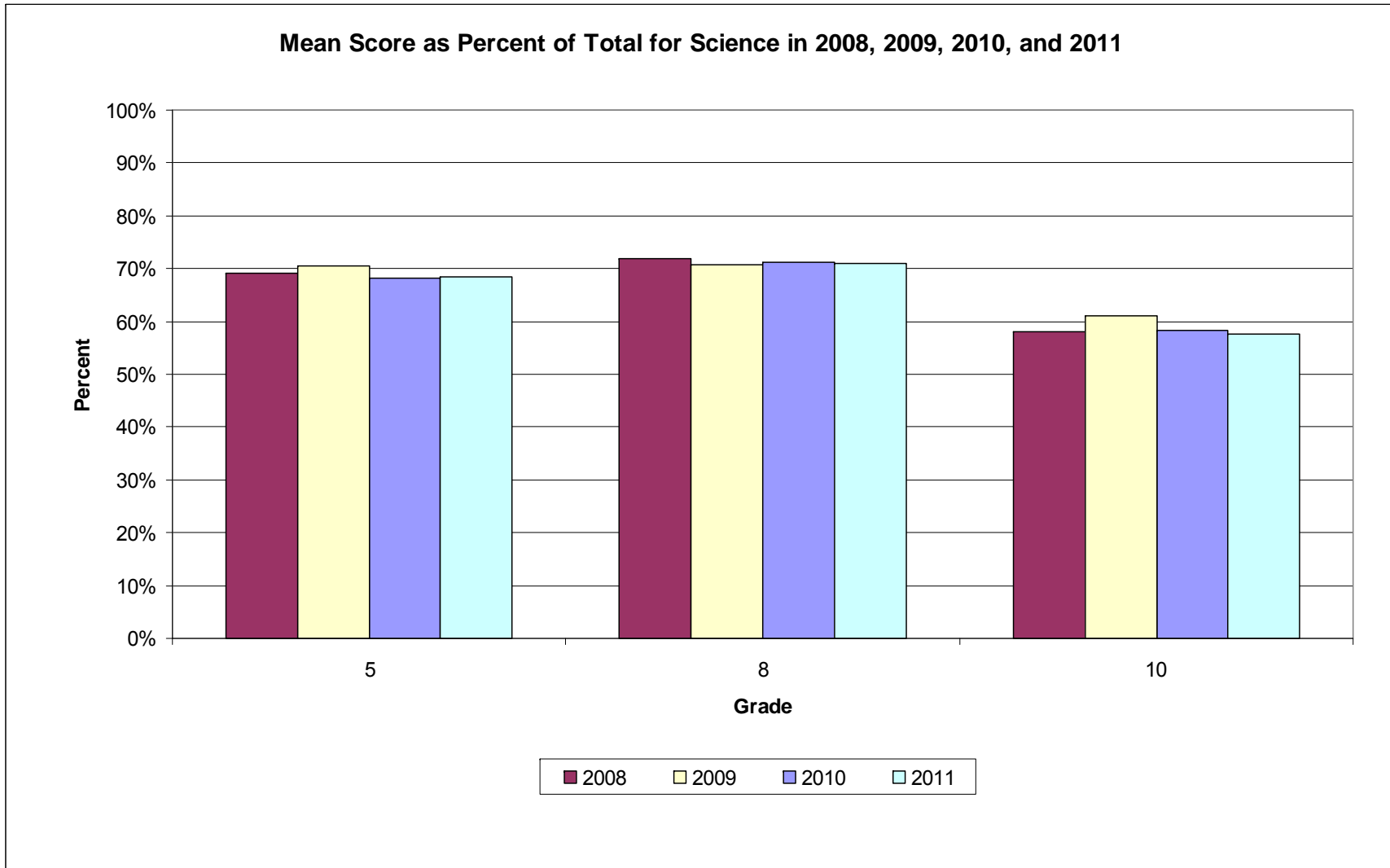
**Figure 25**  
**Mean Score as Percent of Total for Writing 2008, 2009, 2010, and 2011**



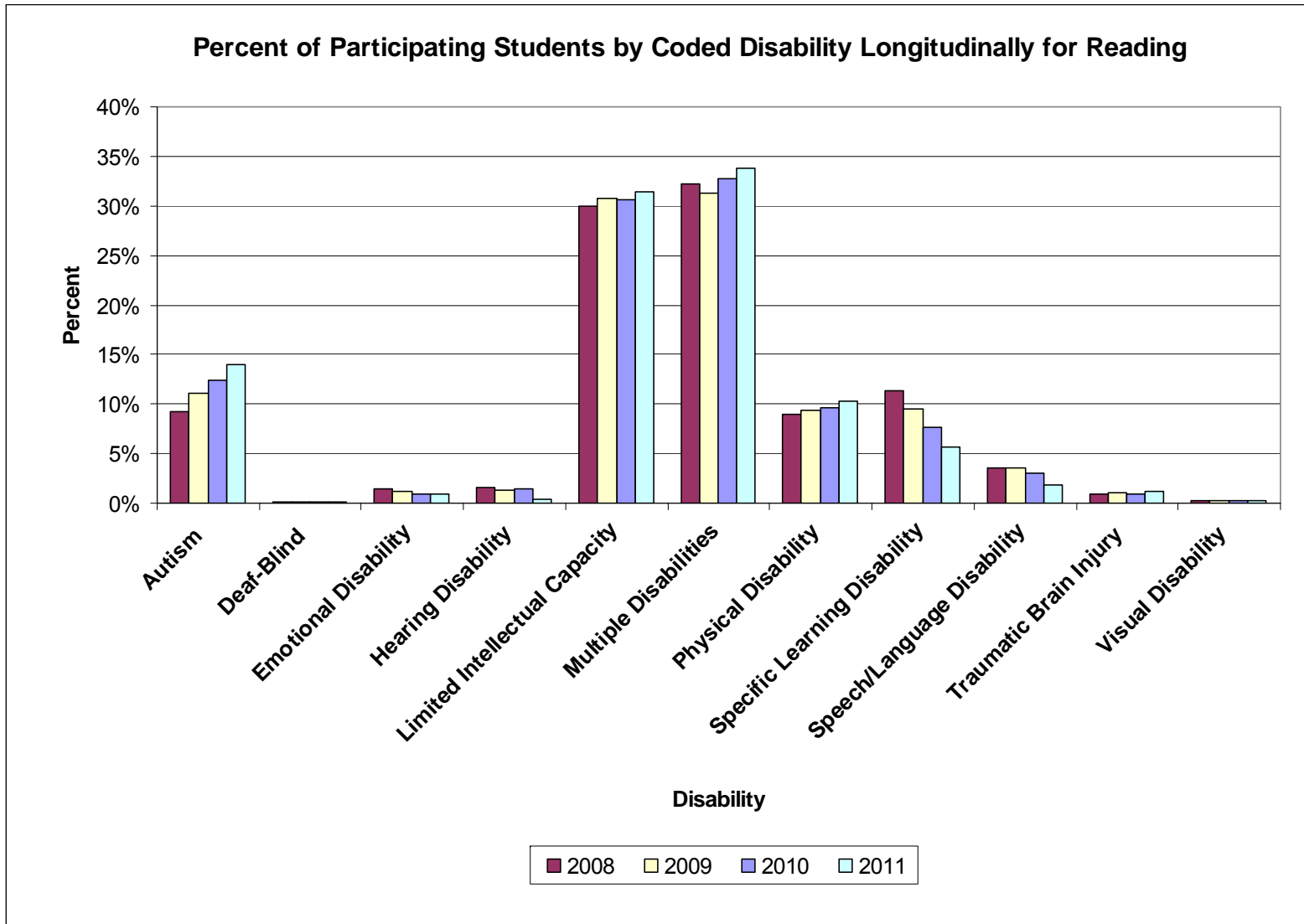
**Figure 26**  
**Mean Score as Percent of Total for Mathematics 2007, 2008, 2009, 2010, and 2011**



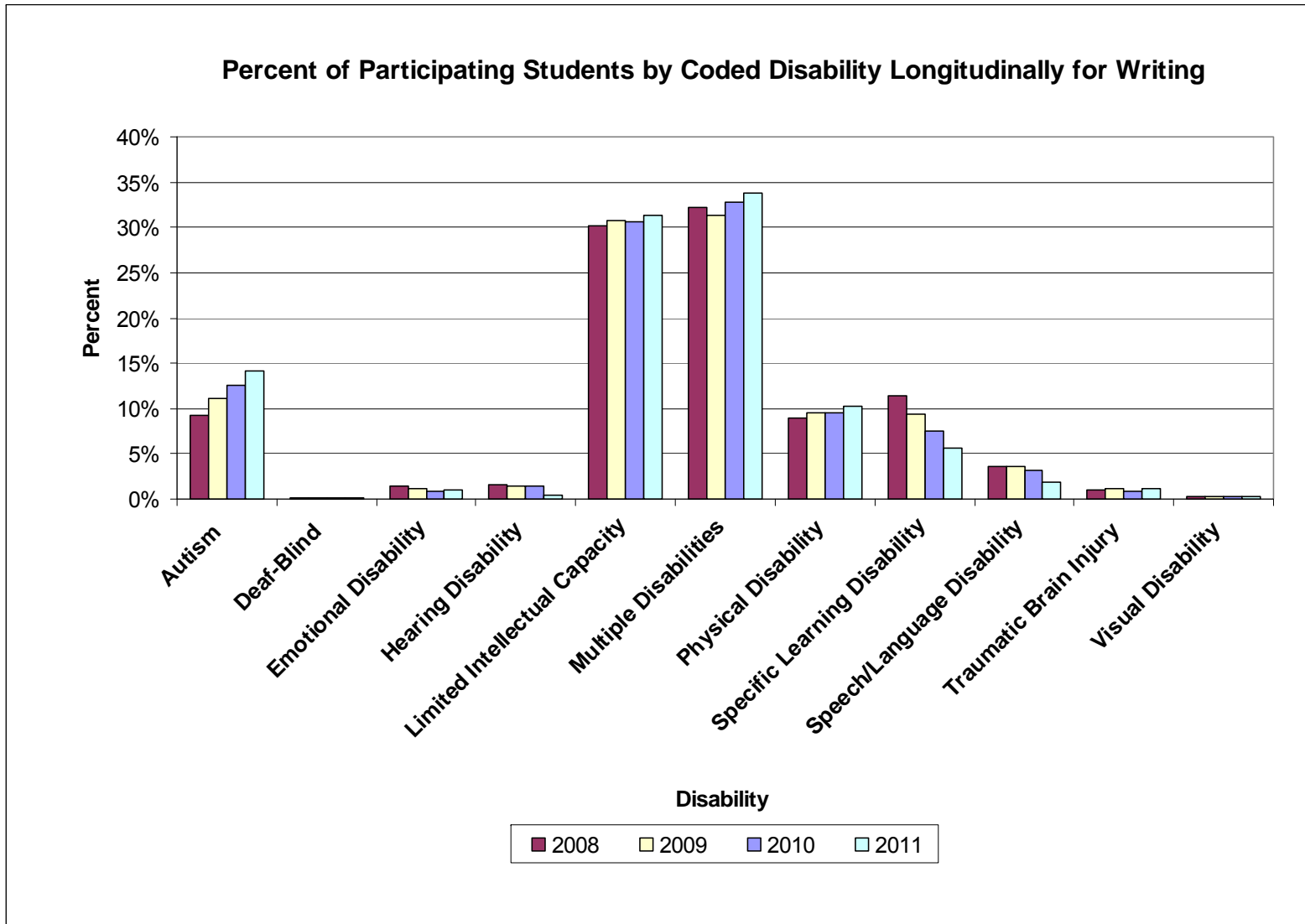
**Figure 27**  
**Mean Score as Percent of Total for Science 2008, 2009, 2010, and 2011**



**Figure 28**  
**Percent of Participating Students by Coded Disability Longitudinally for Reading**

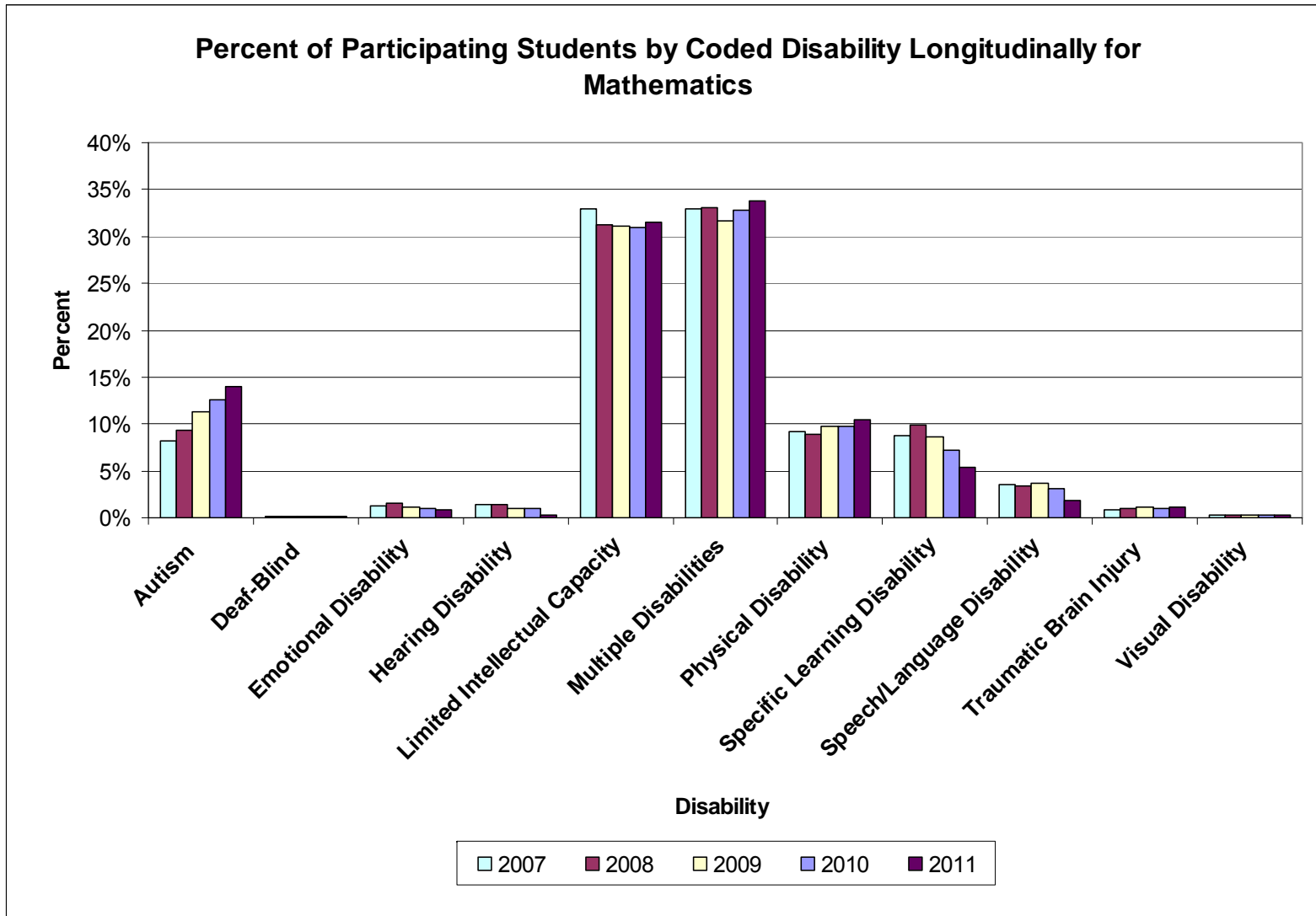


**Figure 29**  
**Percent of Participating Students by Coded Disability Longitudinally for Writing**

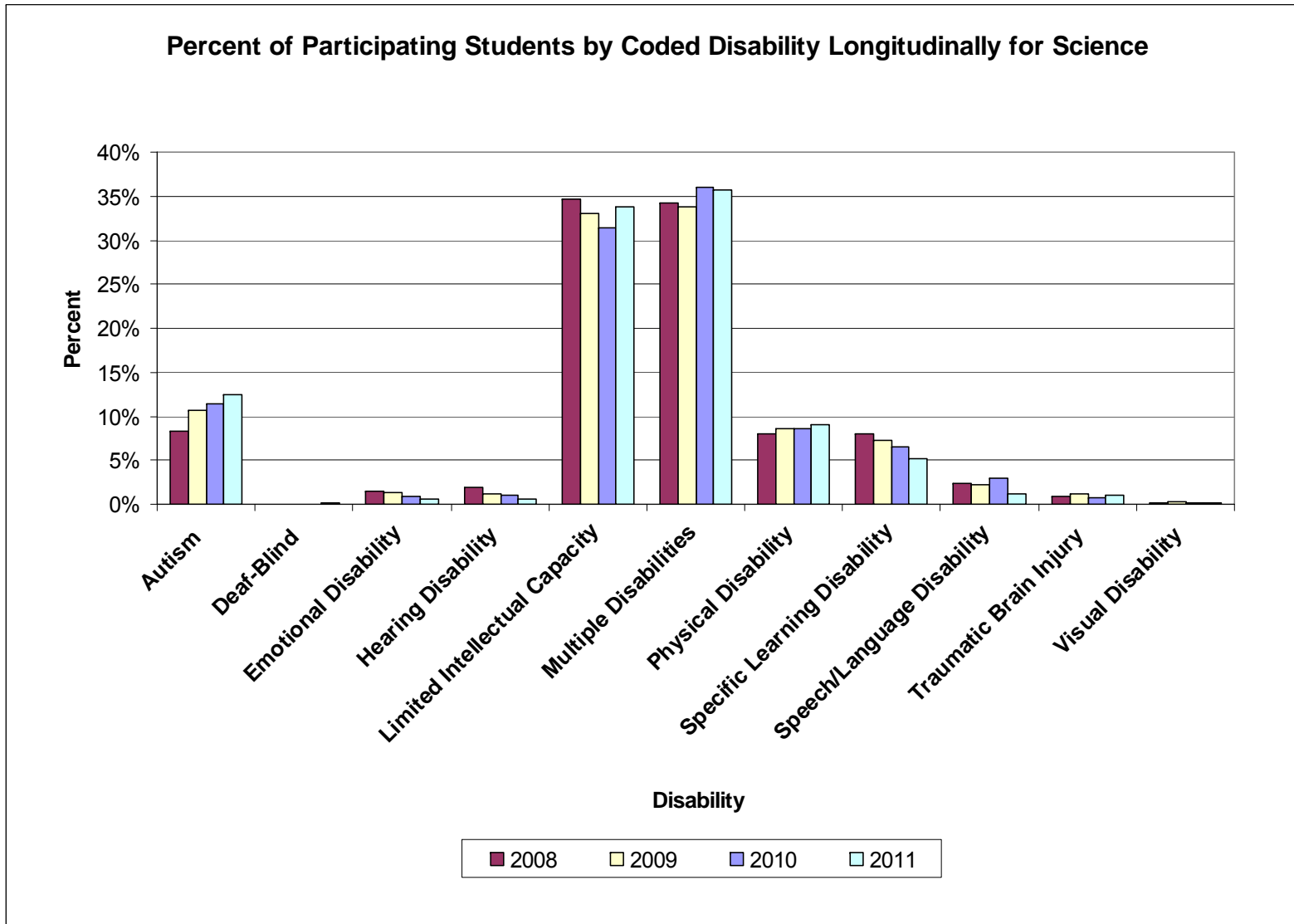




**Figure 30**  
**Percent of Participating Students by Coded Disability Longitudinally for Mathematics**



**Figure 31**  
**Percent of Participating Students by Coded Disability Longitudinally for Science**



## Appendix A: Location of Information for Peer Review Critical Elements

### Peer Review Chapter 1

1. Overview, Part 1: Standards, and Part 8: Summary of Results—Reliability and Validity
2. Overview, Part 1: Standards, and Part 8: Summary of Results—Reliability and Validity
3. Part 1: Standards and Part 7: Analyses and Results
4. Overview, Part 1: Standards, and Part 8: Summary of Results—Reliability and Validity

### Peer Review Chapter 2

1. Overview, Part 1: Standards, Part 2: Test Development, Part 6: Standard Setting, Part 7: Analyses and Results, and Part 8: Summary of Results—Reliability and Validity
2. Overview, Part 1: Standards, Part 2: Test Development, Part 6: Standard Setting, Part 7: Analyses and Results, and Part 8: Summary of Results—Reliability and Validity
3. Overview, Part 1: Standards, Part 6: Standard Setting, Part 7: Analyses and Results, Part 8: Summary of Results—Reliability and Validity, Part 9: Special Studies, and Part 10: Longitudinal Analyses
4. None
5. Part 1: Standards and Part 2: Test Development
6. Part 1: Standards, Part 2: Test Development, and Part 6: Standard Setting

### Peer Review Chapter 3

1. None
2. None
3. None
4. Part 1: Standards, Part 2: Test Development, Part 3: Description of the Population, Part 4: Test Administration, Part 6: Standard Setting, and Part 8: Summary of Results—Reliability and Validity
5. None
6. Part 2: Test Development, Part 7: Analyses and Results, and Part 9: Special Studies
7. Overview, Part 1: Standards, Part 2: Test Development, Part 3: Description of the Population, Part 4: Test Administration, and Part 10: Longitudinal Analyses

### Peer Review Chapter 5

1. Part 1: Standards, Part 2: Test Development, Part 6: Standard Setting, Part 7: Analyses and Results, Part 8: Summary of Results—Reliability and Validity, and Part 10: Longitudinal Analyses
2. Part 1: Standards, Part 7: Analyses and Results, and Part 8: Summary of Results—Reliability and Validity
3. Part 1: Standards, Part 2: Test Development, and Part 8: Summary of Results—Reliability and Validity

4. Part 2: Test Development and Part 8: Summary of Results—Reliability and Validity
5. Part 2: Test Development, Part 8: Summary of Results—Reliability and Validity, and Part 9: Special Studies
6. Part 7: Analyses and Results and Part 8: Summary of Results—Reliability and Validity
7. Part 2: Test Development

**Peer Review Chapter 6**

1. Part 3: Description of the Population, Part 7: Analyses and Results, Part 8: Summary of Results—Reliability and Validity, and Part 10: Longitudinal Analyses
2. Overview, Part 3: Description of the Population, Part 4: Test Administration, Part 7: Analyses and Results, Part 8: Summary of Results—Reliability and Validity, and Part 10: Longitudinal Analyses
3. Part 3: Description of the Population, Part 4: Test Administration, Part 7: Analyses and Results, and Part 8: Summary of Results—Reliability and Validity
4. Part 3: Description of the Population, Part 7: Analyses and Results, and Part 8: Summary of Results—Reliability and Validity