



New England Common Assessment Program 2011–12 Technical Report

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CHAPTER 1. OVERVIEW

1.1. PURPOSE OF THE NEW ENGLAND COMMON ASSESSMENT PROGRAM

The New England Common Assessment Program (NECAP) is the result of collaboration among Maine, New Hampshire, Rhode Island, and Vermont to build a set of tests for grades 3 through 8 and 11 to meet the requirements of the No Child Left Behind Act (NCLB). The purposes of the tests are to provide: (a) data on student achievement in reading/English language arts and mathematics to meet the requirements of NCLB; (b) information to support program evaluation and improvement; and (c) information regarding student and school performance to both parents and the public. The tests are constructed to meet rigorous technical criteria, to include universal design elements and accommodations to allow all students access to test content, and to gather reliable student demographic information for accurate reporting. School improvement is supported by:

- providing a transparent test design through the elementary and middle school grade level expectations (GLEs), the high school grade span expectations (GSEs), distributions of emphasis, and practice tests;
- reporting results by GLE/GSE subtopics, released items, and subgroups; and
- hosting report interpretation workshops to foster understanding of results.

It is important to note that the NECAP tests in reading, mathematics, and writing are administered in the fall at the beginning of the school year and test student achievement based on the prior year's GLEs/GSEs. Student level results are provided to schools and families for use as one piece of evidence about progress and learning that occurred on the prior year's GLEs/GSEs. The results are a status report of a student's performance against GLEs/GSEs and should be used cautiously in concert with local data.

1.2. PURPOSE OF THIS REPORT

The purpose of this report is to document the technical aspects of the 2011–12 NECAP tests. In October 2011, students in grades 3 through 8 and 11 participated in the administration of the NECAP tests in reading and mathematics. Students in grades 5, 8, and 11 also participated in writing. This report provides information about the technical quality of those tests, including a description of the processes used to develop, administer, and score the tests and to analyze the test results. This report is intended to serve as a guide for replicating and/or improving the procedures in subsequent years.

Though some parts of this technical report may be used by educated laypersons, the intended audience is experts in psychometrics and educational research. The report assumes a working knowledge of

measurement concepts, such as “reliability” and “validity,” and statistical concepts, such as “correlation” and “central tendency.” In some chapters, knowledge on more advanced topics is required.

1.3. ORGANIZATION OF THIS REPORT

The organization of this report is based on the conceptual flow of a test’s life span. The report begins with the initial test specification and addresses all the intermediate steps that lead to final score reporting. Chapters 2 through 4 provide a description of the NECAP tests by covering the test design and development process, the administration of the tests, and scoring. Chapters 5 through 7 provide statistical and psychometric summaries, including chapters on item analysis, scaling and equating, and reliability. Chapter 8 is devoted to NECAP score reporting, and Chapter 9 is devoted to discussions on validity. Finally, the references cited throughout the report are provided, followed by the report appendices.

CHAPTER 2. TEST DESIGN AND DEVELOPMENT

2.1. TEST SPECIFICATIONS

2.1.1. Criterion-Referenced Test

Items on the NECAP tests are developed specifically for those states participating in the NECAP and are directly linked to the NECAP Grade Level Expectations/Grade Span Expectations. These GLEs/GSEs are the basis for the reporting categories developed for each content area and are used to help guide the development of test items. Although each item is designed to measure a specific GLE/GSE, an item may address several GLEs/GSEs within a strand.

2.1.2. Item Types

The item types used and the functions of each are described below.

Multiple-choice items were administered in grades 3 through 8 and 11 in reading and mathematics and in grades 5 and 8 in writing to provide breadth of coverage of the GLEs/GSEs. Because each requires approximately one minute for most students to answer, these items make efficient use of limited testing time and allow coverage of a wide range of knowledge and skills, including, for example, word identification and vocabulary skills.

Short-answer items were administered in grades 3 through 8 and 11 in mathematics to assess students' skills and their ability to work with brief, well-structured problems with one solution or a very limited number of solutions. Each short-answer item requires approximately two to five minutes for most students to answer. The advantage of this item type is that it requires students to demonstrate knowledge and skills by generating, rather than merely selecting, an answer.

Constructed-response items typically require students to use higher-order thinking skills such as summary, evaluation, and analysis in constructing a satisfactory response. Each constructed-response item requires approximately 5 to 10 minutes for most students to complete. These items were administered in grades 3 through 8 and 11 in reading, in grades 5 through 8 and 11 in mathematics and in grades 5 and 8 in writing.

A common **writing prompt** was administered in grades 5, 8, and 11. In grade 11, an additional matrix prompt was administered to students. Students were given 45 minutes (plus additional time if necessary) to compose an extended response for the common prompt that was scored by two independent readers both on quality of the stylistic and rhetorical aspects of the writing and on the use of standard English conventions.

Approximately 25% of the common NECAP items were released to the public in 2011–12. The released NECAP items are posted on a Web site hosted by Measured Progress and on each Department of

Education Web site. Schools are encouraged to incorporate the use of released items in their instructional activities so that students will be familiar with the types of questions found on the NECAP tests.

2.1.3. Description of Test Design

The NECAP test is structured using both *common* and *matrix* items. Common items are taken by all students in a given grade level. Student scores are based only on common items. Matrix items are either new items included on the test for field-test purposes or equating items used to link one year's results to those of previous years. In addition, field-test and equating items are divided among the multiple forms of the test for each grade and content. The number of test forms varies by grade and content area but ranges between eight and nine forms. Each student takes only one form of the test and therefore answers a fraction of the field-test items. Equating and field-test items are not distinguishable to students and have a negligible impact on testing time. Because all students participate in the field test, an adequate sample size is provided to produce reliable data that can be used to inform item selection for future tests.

2.2. READING TEST SPECIFICATIONS

2.2.1. Standards

The test framework for reading in grades 3 through 8 was based on the NECAP GLEs, and each item on the NECAP tests was designed to measure a specific GLE. The test framework for reading in grade 11 was based on the NECAP GSEs, and each item on the NECAP test was designed to measure a specific GSE.

Reading comprehension is assessed on the NECAP test by items that are dually categorized by the type of text and by the level of comprehension measured. The level of comprehension is designated as either "Initial Understanding" or "Analysis and Interpretation." Word identification and vocabulary skills are assessed at each grade level primarily through multiple-choice items.

2.2.2. Item Types

The NECAP reading tests include multiple-choice and constructed-response items. Multiple-choice items require students to demonstrate a wide range of knowledge and skills, requiring one minute of response time per item. Constructed-response items are more complex, requiring 5 to 10 minutes of response time per item. Each type of item is worth a specific number of points in the student's total reading score, as shown in Table 2-1.

Table 2-1. 2011–12 NECAP: Reading Item Types

<i>Item Type</i>	<i>Possible Score Points</i>
MC	0 or 1
CR	0, 1, 2, 3, or 4

MC = multiple-choice; CR = constructed-response

2.2.3. Test Design

Table 2-2 summarizes the numbers and types of items that were used in the 2011–12 NECAP reading tests for grades 3 through 8. Note that, in reading, all students received the common items and one of either the equating or field-test forms. Each multiple-choice item was worth one point and each constructed-response item was worth four points.

Table 2-2. 2011–12 NECAP: Item Type and Number of Items—Reading Grades 3–8

	<i>Long passages</i>	<i>Short passages</i>	<i>Stand-alone MC</i>	<i>Total MC</i>	<i>Total CR</i>
Common	2	2	4	28	6
Matrix—Equating					
Forms 1–3	1	1	2	14	3
Matrix—FT					
Forms 4–7	1	1	2	14	3
Forms 8–9	1	1	2	14	3
Total per Student					
Forms 1–7	3	3	6	42	9
Forms 8–9	3	3	6	42	9

Long passages have 8 MC and 2 CR items; short passages have 4 MC and 1 CR items.

MC = multiple-choice; CR = constructed-response; FT = field test

Table 2-3 summarizes the numbers and types of items that were used in the 2011–12 NECAP reading test for grade 11. Note that, in reading, all students received the common items and one of either the equating or field-test forms. Each multiple-choice item was worth one point and each constructed-response item was worth four points.

Table 2-3. 2011–12 NECAP: Item Type and Number of Items—Reading Grade 11

	<i>Long passages</i>	<i>Short passages</i>	<i>Stand-alone MC</i>	<i>Total MC</i>	<i>Total CR</i>
Common	2	2	4	28	6
Matrix—Equating					
Forms 1–2	1	1	2	14	3
Matrix—FT					
Forms 3–8	1	1	2	14	3
Total per Student	3	3	6	42	9

Long passages have 8 MC and 2 CR items; short passages have 4 MC and 1 CR items;

MC = multiple-choice; CR = constructed-response; FT = field test

2.2.4. Blueprints

The distribution of emphasis for reading is shown in Table 2-4.

Table 2-4. 2011–12 NECAP: Distribution of Emphasis Across Reporting Subcategories in Terms of Targeted Percentage of Test by Grade—Reading Grades 3–8 and 11

<i>Subcategory</i>	<i>GLE/GSE grade (grade tested)</i>						
	<i>2 (3)</i>	<i>3 (4)</i>	<i>4 (5)</i>	<i>5 (6)</i>	<i>6 (7)</i>	<i>7 (8)</i>	<i>9–10 (11)</i>
Word Identification Skills and Strategies	20%	15%	0%	0%	0%	0%	0%
Vocabulary Strategies/Breadth of Vocabulary	20%	20%	20%	20%	20%	20%	20%
Initial Understanding of Literary Text	20%	20%	20%	20%	15%	15%	15%
Initial Understanding of Informational Text	20%	20%	20%	20%	20%	20%	20%
Analysis and Interpretation of Literary Text	10%	15%	20%	20%	25%	25%	25%
Analysis and Interpretation of Informational Text	10%	10%	20%	20%	20%	20%	20%
TOTAL	100%	100%	100%	100%	100%	100%	100%

Table 2-5 shows the content area subcategory reporting structure for reading and the maximum possible number of raw score points that students could earn. (With the exception of word identification/vocabulary items, reading items were reported in two ways: type of text and level of comprehension.) Note: because only common items are counted toward students' scaled scores, only common items are reflected in this table.

Table 2-5. 2011–12 NECAP: Reporting Subcategories and Possible Raw Score Points by Grade—Reading Grades 3–8 and 11

<i>Subcategory</i>	<i>Grade tested</i>						
	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>11</i>
Word ID/Vocabulary	19	17	10	10	10	10	10
Type of Text							
Literary	16	18	21	21	21	21	21
Informational	17	17	21	21	21	21	21
Level of Comprehension							
Initial Understanding	21	20	19	23	18	18	17
Analysis and Interpretation	12	15	23	19	24	24	25
TOTAL	52	52	52	52	52	52	52

The total possible points in reading equals the sum of Word ID/Vocabulary points and the total points from either Type of Text or Level of Comprehension (since reading comprehension items are dually categorized by type of text and level of comprehension).

2.2.5. Depth of Knowledge

Each item on the NECAP tests in reading is assigned a DOK level according to the cognitive demand of the item. DOK is not synonymous with difficulty. The DOK level rates the complexity of the mental processing a student must use to answer the question. Each of the three levels is described in Figure 2-1.

Figure 2-1. 2011-12 NECAP: Depth of Knowledge—Reading

Level 1 (Recall)	This level requires students to receive or recite facts or to use simple skills or abilities. Oral reading that does not include analysis of the text as well as basic comprehension of a text is included. Items require only a shallow understanding of text presented and often consist of verbatim recall from text or simple understanding of a single word or phrase.
Level 2 (Skill/Concept)	This level includes the engagement of some mental processing beyond recalling or reproducing a response; it requires both comprehension and subsequent processing of text or portions of text. Intersentence analysis of inference is required. Some important concepts are covered but not in a complex way.
Level 3 (Strategic Thinking)	This level requires students to go beyond the text; however, they are still required to show understanding of the ideas in the text. Students may be encouraged to explain, generalize, or connect ideas. Standards and items involve reasoning and planning. Students must be able to support their thinking. Items may involve abstract theme identification, inference across an entire passage, or application of prior knowledge. Items may also involve more superficial connections between texts.

Table 2-6 lists the percentage of actual score points assigned to each depth-of-knowledge (DOK) level in reading.

Table 2-6. 2011–12 NECAP: Depth of Knowledge in Terms of Percentage of Test by Grade—Reading Grades 3–8 and 11

DOK	Grade						
	3	4	5	6	7	8	11
Level 1	58%	40%	15%	12%	19%	17%	23%
Level 2	42%	60%	77%	88%	81%	75%	69%
Level 3	0%	0%	8%	0%	0%	8%	8%
TOTAL	100%	100%	100%	100%	100%	100%	100%

2.2.6. Passage Types

The reading passages on all the NECAP tests are broken down into the following categories:

- Literary passages, representing a variety of forms: modern narratives; diary entries; dramas; poetry; biographies; essays; excerpts from novels; short stories; and traditional narratives, such as fables, tall tales, myths, and folktales
- Informational passages/factual text, often dealing with areas of science and social studies. These passages are taken from such sources as newspapers, magazines, and book excerpts. Informational text could also be directions, manuals, recipes, etc. The passages are authentic texts selected from grade level appropriate reading sources that students would be likely to encounter in both classroom and independent reading.
- All passages are collected from published works.

2.3. MATHEMATICS TEST SPECIFICATIONS

2.3.1. Standards

The test framework for mathematics at grades 3 through 8 was based on the NECAP GLEs, and each item on the grades 3 through 8 NECAP tests was designed to measure a specific GLE. The test framework for mathematics at grade 11 was based on the NECAP GSEs, and each item on the grade 11 NECAP test was designed to measure a specific GSE. The mathematics items are organized into four content strands:

- Numbers and Operations: Students understand and demonstrate a sense of what numbers mean and how they are used. Students understand and demonstrate computation skills.
- Geometry and Measurement: Students understand and apply concepts from geometry. Students understand and demonstrate measurement skills.
- Functions and Algebra: Students understand that mathematics is the science of patterns, relationships, and functions. Students understand and apply algebraic concepts.
- Data, Statistics, and Probability: Students understand and apply concepts of data analysis. Students understand and apply concepts of probability.

Additionally, problem solving, reasoning, connections, and communication are embedded throughout the GLEs/GSEs.

2.3.2. Item Types

The NECAP mathematics tests include multiple-choice, short-answer, and constructed-response items. Short-answer items require students to perform a computation or solve a problem, requiring two to five minutes of response time per item. Constructed-response items are more complex, requiring 8 to 10 minutes

of response time per item. Each type of item is worth a specific number of points in the student’s total mathematics score, as shown in Table 2-7.

Table 2-7. 2011–12 NECAP: Mathematics Item Types

<i>Item Type</i>	<i>Possible Score Points</i>
MC	0 or 1
SA	0, 1, or 2
CR	0, 1, 2, 3, or 4

MC = multiple-choice; SA = short-answer;
CR = constructed-response

2.3.3. Test Design

Table 2-8 summarizes the numbers and types of items that were used in the 2011–12 NECAP mathematics tests for grades 3 and 4, 5 through 8, and 11, respectively. Note that all students received the common items plus equating and field-test items in their forms. Each multiple-choice item was worth one point, each short-answer item was worth either one or two points, and each constructed-response item was worth four points. Except for grade 11, score points within a grade level were evenly divided so that multiple-choice items represented approximately 50% of the possible score points and short-answer and constructed-response items together represented approximately 50% of the possible score points. In grade 11, multiple-choice items represented approximately 40% of the possible score points and short-answer and constructed-response represented approximately 60% of the possible score points.

Table 2-8. 2011–12 NECAP: Item Type and Number of Items—Mathematics

Content Area and Grade	Common				Matrix–equating				Matrix–FT				Total per student			
	MC	SA1	SA2	CR	MC	SA1	SA2	CR	MC	SA1	SA2	CR	MC	SA1	SA2	CR
Mathematics 3–4	35	10	10		6	2	2		3	1	1		44	13	13	
Mathematics 5–8	32	6	6	4	6	2	2	1	3	1	1	1	41	9	9	6
Mathematics 11	24	12	6	4	4	2	1	1	4	2	1	1	32	16	8	6

MC = multiple-choice; SA1 = 1-point short-answer; SA2 = 2-point short-answer; FT = field-test
For grades 3–4 and 5–8, total of nine forms per grade; six contained unique matrix-equating items.
For grade 11, total of eight forms; six contained unique matrix-equating items.

2.3.4. Blueprints

The distribution of emphasis for NECAP content strands for mathematics is shown in Table 2-9.

**Table 2-9. 2011–12 NECAP: Distribution of Emphasis
in Terms of Target Percentage of Test by Grade—Mathematics Grades 3–8 and 11**

<i>Subcategory</i>	<i>GLE/GSE grade (grade tested)</i>						
	2 (3)	3 (4)	4 (5)	5 (6)	6 (7)	7 (8)	9–10 (11)
Numbers and Operations	55%	50%	45%	40%	30%	20%	15%
Geometry and Measurement	15%	20%	20%	25%	25%	25%	30%
Functions and Algebra	15%	15%	20%	20%	30%	40%	40%
Data, Statistics, and Probability	15%	15%	15%	15%	15%	15%	15%
TOTAL	100%	100%	100%	100%	100%	100%	100%

Table 2-10 shows the subcategory reporting structure for mathematics and the maximum possible number of raw score points that students could earn. The goal for distribution of score points or balance of representation across the four content strands varies from grade to grade. Note: only common items are reflected in this table, as only they are counted toward students’ scaled scores.

**Table 2-10. 2011–12 NECAP: Reporting Subcategories and
Possible Raw Score Points by Grade—Mathematics Grades 3–8 and 11**

<i>Subcategory</i>	<i>Grade tested</i>						
	3	4	5	6	7	8	11
Numbers and Operations	35	32	30	27	20	13	9
Geometry and Measurement	10	13	13	16	16	16	20
Functions and Algebra	10	10	13	13	20	27	25
Data, Statistics, and Probability	10	10	10	10	10	10	10
TOTAL	65	65	66	66	66	66	64

2.3.5. Depth of Knowledge

Each item on the NECAP test in mathematics is assigned a DOK level according to the cognitive demand of the item. DOK is not synonymous with difficulty. The DOK level rates the complexity of the mental processing a student must use to solve a problem. Each of the three levels is described in Figure 2-2.

Figure 2-2. 2011–12 NECAP: Depth of Knowledge—Mathematics

Level 1 (Recalling Information and Carrying Out Simple Procedures)	This level requires the recall of a fact, definition, term, or simple procedure; the application of a formula; or the performance of a straight algorithmic procedure. Items at this level may require students to demonstrate a rote response.
Level 2 (Skill/Concept)	This level requires mental processing beyond that of a simple habitual response. These items often require students to make some decisions about how to approach a problem.
Level 3 (Strategic Thinking, Reasoning, Planning, Drawing Conclusions, and Using Concepts and Evidence)	This level requires students to develop a plan or sequence of steps. These items are more complex and abstract than the items at the previous two levels. These items may also have more than one possible answer and may require students to use evidence, make conjectures, or justify their answers.

Table 2-11 lists the percentage of total score points assigned to each level of DOK in mathematics.

Table 2-11. 2011–12 NECAP: Depth of Knowledge in Terms of Targeted Percentage of Test by Grade—Mathematics Grades 3–8 and 11

<i>DOK</i>	<i>Grade</i>						
	3	4	5	6	7	8	11
Level 1	18%	26%	27%	21%	29%	23%	36%
Level 2	72%	66%	59%	76%	62%	52%	58%
Level 3	9%	8%	14%	3%	9%	26%	6%
TOTAL	100%	100%	100%	100%	100%	100%	100%

2.3.6. Use of Calculators and Reference Sheets

The mathematics specialists from the New Hampshire, Rhode Island, Maine, and Vermont Departments of Education who designed the mathematics test acknowledge the importance of mastering arithmetic algorithms. At the same time, they understand that the use of calculators is a necessary and important skill. Calculators can save time and prevent error in the measurement of some higher-order thinking skills and, in turn, allow students to work on more sophisticated and intricate problems. For these reasons, it was decided that, at grades 3 through 8, calculators should be prohibited in the first of the three sessions of the NECAP mathematics tests and permitted in the remaining two sessions. It was decided that, at grade 11, calculators should be prohibited in the first of the two sessions and permitted in the second session.

Reference sheets are provided to students at grades 5–8 and 11. These sheets contain information, such as formulas, that students may need to answer certain test items. The reference sheets are published each year with the released items and have remained the same for several years over the various test administrations. Toolkits are provided to students at grades 3–5. These toolkits contain manipulatives to answer specific questions. The toolkits are designed for specific items and therefore change annually. They are published with the released items. All students in grades 3–8 and 11 receive rulers for use on the mathematics test. Students in grades 5–7 receive protractors for use on the mathematics test. Students may keep the rulers and protractors after test administration.

2.4. WRITING TEST SPECIFICATIONS

2.4.1. Standards

Grades 5 and 8

The test framework for grades 5 and 8 writing was based on the NECAP GLEs, and each item on the NECAP tests was designed to measure a specific GLE. The content standards for grades 5 and 8 writing identify four major genres that are assessed in the writing portion of the NECAP test each year:

- writing in response to literary text
- writing in response to informational text
- narratives
- informational writing (report/procedure text for grade 5 and persuasive essay for grade 8)

Grade 11

The test framework for grade 11 writing was based on the NECAP GSEs, and each item on the NECAP test was designed to measure a specific GSE. The content standards for grade 11 writing identify six genres:

- writing in response to literary text
- writing in response to informational text
- report writing
- procedural writing
- persuasive writing
- reflective writing

2.4.2. Item Types

The NECAP writing tests include multiple-choice items, constructed-response items, and extended-response writing prompts. At grades 5 and 8, multiple-choice items provide breadth of coverage of the GLEs/GSEs, requiring approximately one minute for most students to answer each item. Constructed-response items are more complex, requiring 5 to 10 minutes of response time per item. At grades 5, 8, and 11, students are required to respond to a writing prompt, receiving 45 minutes (plus additional time if necessary) to develop a response. Each type of item is worth a specific number of points in the student's total writing score, as shown in Table 2-12.

Table 2-12. 2011–12 NECAP: Writing Item Types

<i>Item Type</i>	<i>Possible Score Points</i>
MC	0 or 1
CR	0, 1, 2, 3, or 4
ER	0, 2–12

MC = multiple-choice; CR=constructed-response;
ER = extended-response writing prompt

2.4.3. Test Design

All items on the grades 5 and 8 writing tests were common. Each multiple-choice item was worth one point, each constructed-response item was worth four points, and the extended-response writing prompt was worth 12 points.

Table 2-13 summarizes the test design used in the 2011–12 NECAP writing test for grade 11. There were a total of eight forms: five equating forms and three field-test forms. Each grade 11 student responded to two different extended-response writing prompts, one common and either one matrix-equating or one field-test prompt depending on the form. The common prompt was worth 12 points.

Table 2-13. 2011–12 NECAP: Number of Items by Item Type and Number of Items —Writing Grade11

<i>Common</i>	<i>Matrix–Equating (5 Forms)</i>	<i>Matrix–Field Test (3 Forms)</i>
1 ER	1 ER	1 ER

ER = extended-response writing prompt.

2.4.4. Blueprints

Grades 5 and 8

The writing prompt and the three constructed-response items each address a different genre. In addition, structures of language and writing conventions are assessed through multiple-choice items but are also assessed through the extended-response writing prompts and the constructed-response items. The extended-response writing prompts and constructed-response items were developed with the following criteria as guidelines:

- The prompts must be interesting to students.
- The prompts must be accessible to all students (i.e., all students would have something to write about the topic).
- The prompts must generate sufficient text to be effectively scored.

The category reporting structure for grades 5 and 8 writing is shown in Table 2-14. The table provides the maximum possible number of raw score points that students could earn. The content category “Short

Responses” lists the total raw score points from the three constructed-response items; the reporting category “Extended Response” lists the total raw score points from the writing prompt.

Table 2-14. 2011–12 NECAP: Reporting Subcategory and Possible Raw Score Points Possible by Grade—Writing Grades 5 and 8

<i>Subcategory</i>	<i>Grade Tested</i>	
	5	8
Structures of Language and Writing Conventions	10	10
Short Response	12	12
Extended Response	12	12
TOTAL	34	34

Short response = constructed-response items; Extended response = writing prompt

Grade 11

The writing prompts (common, matrix-equating, and field-test), in combination, address each of the different genres. The prompts were developed using the following criteria as guidelines:

- The prompt must be interesting to students.
- The prompt must be accessible to all students (i.e., all students would have something to write about the topic).
- The prompt must generate sufficient text to be effectively scored.

For grade 11 writing, there is only one reporting category, “Extended Response,” with a total possible raw score of 12 points. One hundred percent of the raw score points for writing was assigned to DOK Level 3.

Each item on the NECAP test in writing is assigned a DOK level according to the cognitive demand of the item. DOK is not synonymous with difficulty. The DOK level rates the complexity of the mental processing a student must use to answer the question. Each of the three levels is described in Figure 2-3:

Figure 2-3. 2011–12 NECAP: Depth of Knowledge—Writing

Level 1	This level requires the student to write or recite simple facts. This writing or recitation does not include complex synthesis or analysis but basic ideas.
Level 2	This level requires some mental processing. Students are beginning to connect ideas using a simple organizational structure. For example, students may be engaged in note-taking, outlining, or simple summaries.
Level 3	This level requires some higher-level mental processing. Students are engaged in developing compositions that include multiple paragraphs. These compositions may include complex sentence structure and may demonstrate some synthesis and analysis. Students show awareness of their audience and purpose through focus, organization, and the use of appropriate compositional elements. The use of appropriate compositional elements includes such things as addressing chronological order in a narrative or including supporting facts and details in an informational report.

Table 2-15 lists the percentage of actual score points assigned to each level of DOK in writing for grades 5 and 8.

Table 2-15. 2011–12 NECAP: Depth of Knowledge by Grade (in Percentage of Test)—Writing Grades 5 and 8

<i>DOK</i>	<i>Grade Tested</i>	
	5	8
Level 1	24%	21%
Level 2	41%	44%
Level 3	35%	35%
TOTAL	100%	100%

Table 2-16 lists the percentage of actual score points assigned to each level of DOK in writing for grade 11.

Table 2-16. 2011–12 NECAP: Depth of Knowledge in Terms of Percentage of Test,—Writing Grade 11

<i>DOK</i>	<i>Grade 11</i>
Level 1	0%
Level 2	0%
Level 3*	100%
TOTAL	100

* In grade 11, 100% of the writing test is assigned to DOK Level 3.

2.5. TEST DEVELOPMENT PROCESS

2.5.1. Item Development

Items used on the NECAP tests are developed and customized specifically for use on the NECAP tests and are consistent with NECAP GLE and GSE content standards. Measured Progress test developers work with Maine, New Hampshire, Rhode Island, and Vermont educators to verify the alignment of items to the appropriate NECAP content standards.

The development process combined the expertise of Measured Progress test developers and committees of educators to help ensure items meet the needs of the NECAP tests. All items used on the common portions of the NECAP tests were reviewed by a committee of content experts and by a committee of bias experts. Tables 2-17 through 2-20 show the number of items developed within each content area for the 2011–2012 NECAP tests.

Table 2-17. 2011–12 NECAP: Annual English Language Arts Item Development—Grades 3–8

<i>Passages</i>	<i>MC</i>	<i>CR</i>
5 long passages (divided by literary and informational)	80	15
5 short passages (divided by literary and informational)	40	10
Standalones	20	0
10 total passages	140	25

MC = multiple-choice; CR = constructed-response

Table 2-18. 2011–12 NECAP: Annual English Language Arts Item Development—Grade 11

<i>Passages</i>	<i>MC</i>	<i>CR</i>
5 long passages (divided by literary and informational)	80	15
5 short passages (divided by literary and informational)	40	10
Standalones	20	0
10 total passages	140	25

MC = multiple-choice; CR = constructed-response

Table 2-19. 2011–12 NECAP: Annual Writing Item Development—Grade 11

<i>Grade</i>	<i>ER</i>
11	6

ER = extended-response writing prompt

Table 2-20. 2011–12 NECAP: Annual Mathematics Item Development—Grades 3–8 and 11

<i>Grade</i>	<i>MC</i>	<i>SA1</i>	<i>SA2</i>	<i>CR</i>
3	27	9	9	0
4	27	9	9	0
5	27	9	9	9
6	27	9	9	9
7	27	9	9	9
8	27	9	9	9
11	46	24	20	14

MC = multiple-choice; SA1 = 1-point short-answer; SA2 = 2-point short-answer; CR = constructed-response

2.5.2. Item Reviews at Measured Progress

For the internal item review, the lead Measured Progress test developer within the content area performed the following activities:

- review of the formatted items, open-response scoring guides, and any reading selections and graphics
- evaluation of item “integrity,” content, and structure; appropriateness to designated content area; format; clarity; possible ambiguity; answer cueing; appropriateness and quality of reading selections and graphics; and appropriateness of scoring guide descriptions and distinctions (in relation to each item and across all items within the guide)
- ensuring that, for each item, there was only one correct answer
- consideration of scorability and evaluation as to whether the scoring guide adequately addressed performance on the item

Fundamental questions the lead developer considered, but was not limited to, included the following:

- What is the item asking?
- Is the key the only possible key? (Is there only one correct answer?)
- Is the open-response item scorable as written? (Were the correct words used to elicit the response defined by the guide?)
- Is the wording of the scoring guide appropriate and parallel to the item wording?
- Is the item complete (i.e., includes scoring guide, content codes, key, grade level, DOK, and identified contract)?
- Is the item appropriate for the designated grade level?

2.5.3. Item Reviews at State Level

Item Review Committees (IRCs) were formed by the states to provide an external review of items. The committees included teachers, curriculum supervisors, and higher education faculty from all four states, with committee members serving rotating terms. (A list of IRC member names and affiliations is included in Appendix A.) The committees' role is to review test items for the NECAP, provide feedback, and make recommendations about which items should be selected for program use. The 2011–12 NECAP IRCs for each content area in grade levels 3 through 8 and 11 met in the spring of 2010. Committee members reviewed the entire set of embedded field-test items proposed for the 2011–12 operational test and made recommendations about selecting, revising, or eliminating specific items from the item pool. Members reviewed each item against the following criteria:

- GLE/GSE alignment
 - Is the test item aligned to the appropriate GLE/GSE?
 - If not, which GLE/GSE or grade level is more appropriate?
- Content Correctness
 - Are the items and distractors correct with respect to content accuracy and developmental appropriateness?
 - Are the scoring guides consistent with GLE/GSE wording and developmental appropriateness?
- Depth of Knowledge¹
 - Are the items coded to the appropriate DOK?
 - If consensus cannot be reached, is there clarity around why the item might be on the borderline of two levels?

¹ NECAP employed the work of Dr. Norman Webb to guide the development process with respect to Depth of Knowledge. Test specification documents identified ceilings and targets for Depth of Knowledge coding.

- Universal Design
 - Is there an appropriate use of simplified language? (Does it not interfere with the construct being assessed?)
 - Are charts, tables, and diagrams easy to read and understandable?
 - Are charts, tables, and diagrams necessary to the item?
 - Are instructions easy to follow?
 - Is the item amenable to accommodations—read-aloud, signed, or Brailled?
 - Is the item language clear?
 - Is the item language accurate (syntax, grammar, conventions)?

2.5.4. Bias and Sensitivity Review

Bias review is an essential part of the development process. NECAP passages and items were reviewed by a committee of teachers, English language learner specialists, special education teachers, and other educators and members of major constituency groups who represent the interests of legally protected and/or educationally disadvantaged groups. (A list of bias and sensitivity review committee member names and affiliations is included in Appendix A.) Passages and items were examined for issues that might offend or dismay students, teachers, or parents. Including such groups in the development of test items and materials can prevent many unduly controversial issues and can allay unfounded concerns before the test forms are produced.

2.5.5. Reviewing and Refining

Test developers presented item sets to the IRCs who then recommended which items should be included in the embedded field-test portions of the test. The Maine, New Hampshire, Rhode Island, and Vermont Departments of Education content specialists made the final selections with the assistance of Measured Progress test developers at a final face-to-face meeting.

2.5.6. Item Editing

Measured Progress editors reviewed and edited the items to ensure uniform style (based on *The Chicago Manual of Style*, 15th edition) and adherence to sound testing principles. These principles included the stipulation that items

- were correct with regard to grammar, punctuation, usage, and spelling;
- were written in a clear, concise style;
- contained unambiguous explanations to students, detailing what is required to attain a maximum score;

- were written at a reading level that would allow the student to demonstrate his or her knowledge of the tested subject matter, regardless of reading ability;
- exhibited high technical quality in terms of psychometric characteristics;
- had appropriate answer options or score point descriptors; and
- were free of potentially sensitive content.

2.5.7. Item Selection and Operational Test Assembly

At Measured Progress, test assembly is the sorting and laying out of item sets into test forms. Criteria considered during this process for the 2011–12 NECAP included the following:

- *Content coverage / match to test design.* The Measured Progress test developers completed an initial sorting of items into sets based on a balance of reporting categories across sessions and forms, as well as a match to the test design (e.g., number of multiple-choice, short-answer, and constructed-response items).
- *Item difficulty and complexity.* Item statistics drawn from the data analysis of previously tested items were used to ensure similar levels of difficulty and complexity across forms.
- *Visual balance.* Item sets were reviewed to ensure that each set reflected similar length and “density” of selected items (e.g., length/complexity of reading selections, number of graphics).
- *Option balance.* Each item set was checked to verify that it contained a roughly equivalent number of key options (As, Bs, Cs, and Ds).
- *Name balance.* Item sets were reviewed to ensure that a diversity of student names was used.
- *Bias.* Each item set was reviewed to ensure fairness and balance based on gender, ethnicity, religion, socioeconomic status, and other factors.
- *Page fit.* Item placement was modified to ensure the best fit and arrangement of items on any given page.
- *Facing-page issues.* For multiple items associated with a single stimulus (a graphic or reading selection), consideration was given both to whether those items needed to begin on a left- or right-hand page and to the nature and amount of material that needed to be placed on facing pages. These considerations served to minimize the amount of “page flipping” required of students.
- *Relationship between forms.* Although embedded field-test items differ from form to form, they must take up the same number of pages in each form so that sessions and content areas begin on the same page in every form. Therefore, the number of pages needed for the longest form often determined the layout of each form.
- *Visual appeal.* The visual accessibility of each page of the form was always taken into consideration, including such aspects as the amount of “white space,” the density of the text, and the number of graphics.

2.5.8. Operational Test Draft Review

Any changes made by a test construction specialist were reviewed and approved by a lead developer. After a form was laid out in what was considered its final form, it was reviewed to identify any final considerations, including the following:

- *Editorial changes.* All text was scrutinized for editorial accuracy, including consistency of instructional language, grammar, spelling, punctuation, and layout (based on Measured Progress’s publishing standards and *The Chicago Manual of Style*, 15th edition).
- *“Keying” items.* Items were reviewed for any information that might “key” or provide information that would help to answer another item. Decisions about moving keying items are based on the severity of the “key-in” and the placement of the items in relation to each other within the form.
- *Key patterns.* The final sequence of keys was reviewed to ensure that their order appeared random (i.e., no recognizable pattern and no more than three of the same key in a row).

2.5.9. Alternative Presentations

Common items in each grade-level test were translated into Braille by a subcontractor that specializes in test materials for blind and visually impaired students. In addition, Form 1 for each grade was enlarged to a 20-point font to create a large-print version of the test for visually impaired students.

CHAPTER 3. TEST ADMINISTRATION

3.1. RESPONSIBILITY FOR ADMINISTRATION

The *2011 NECAP Principal/Test Coordinator Manual* indicated that principals and/or their designated NECAP test coordinators were responsible for the proper administration of the NECAP. Uniformity of administration procedures from school to school was ensured by using manuals that contained explicit directions and scripts to be read aloud to students by test administrators.

3.2. ADMINISTRATION PROCEDURES

Principals and/or the schools' designated NECAP test coordinators were instructed to read the *Principal/Test Coordinator Manual* before testing and to be familiar with the instructions provided in the grade-level *Test Administrator Manual*. The *Principal/Test Coordinator Manual* included a section highlighting aspects of test administration that were new for the year and checklists to help prepare for testing. The checklists outlined tasks to be performed by school staff before, during, and after test administration. In addition to these checklists, the *Principal/Test Coordinator Manual* described the testing material sent to each school and how to inventory it, track it during administration, and return it after testing was complete. The *Test Administrator Manual* included checklists for the administrators to use to prepare themselves, their classrooms, and the students for the administration of the tests. The *Test Administrator Manual* contained sections that detailed the procedures to be followed for each test session and instructions for preparing the material before the principal/test coordinator returned it to Measured Progress.

3.3. PARTICIPATION REQUIREMENTS AND DOCUMENTATION

The Departments of Education's intent is for *all* students in grades 3 through 8 and 11 to participate in the NECAP through standard administration, administration with accommodations, or alternate assessment. Furthermore, any student who is absent during any session of the NECAP tests is expected to take a make-up test within the three-week testing window.

Schools were required to return a Student Answer Booklet for every enrolled student in the grade level, with the exception of students who took an alternate assessment in the previous school year. Students who were alternately assessed in the 2010–11 school year were not required to participate in the NECAP in 2011–12. On those occasions when it was deemed impossible to test a particular student, school personnel were required to inform their Department of Education. A grid was included on the Student Answer Booklet that listed the approved reasons why a booklet could be returned blank for one or more sessions of the test:

- Student is new to the United States after October 1, 2010, and is LEP (reading and writing only)
 - A. First-year LEP students who took the ACCESS test of English language proficiency, as scheduled in their states, were not required to take the reading and writing tests in 2011; however, these students were required to take the mathematics test in 2011.
- Student withdrew from school after October 1, 2011
 - B. If a student withdrew after October 1, 2011, but before completing all of the test sessions, school personnel were instructed to code this reason on the student’s answer booklet.
- Student enrolled in school after October 1, 2011
 - C. If a student enrolled after October 1, 2011, and was unable to complete all of the test sessions before the end of the test administration window, school personnel were instructed to code this reason on the student’s answer booklet.
- State-approved special consideration
 - D. Each state Department of Education had a process for documenting and approving circumstances that made it impossible or not advisable for a student to participate in testing.
- Student was enrolled in school on October 1, 2011, and did not complete test for reasons other than those listed above.
 - E. If a student was not tested for a reason other than those stated above, school personnel were instructed to code this reason on the student’s answer booklet. These “Other” categories were considered “not state-approved.”

Appendix B lists the participation rates of the four NECAP states combined in reading, mathematics, and writing.

3.4. ADMINISTRATOR TRAINING

In addition to distributing the *Principal/Test Coordinator Manual* and *Test Administrator Manual*, the Maine, New Hampshire, Rhode Island, and Vermont Departments of Education, along with Measured Progress, conducted test administration workshops in regional locations in each state to inform school personnel about the NECAP tests and to provide training on the policies and procedures regarding administration of the tests. A test administration workshop was also conducted via an online webinar for each state. These live webinars were recorded so that test coordinators and test administrators could view them at a time that was convenient for them. A link was provided to each state for their recorded workshop presentation in order for it to be added to the Department of Education Web site for school personnel to access. Lastly, an audio PowerPoint workshop presentation was prerecorded and provided to each state for inclusion on their Department of Education Web site.

3.5. DOCUMENTATION OF ACCOMMODATIONS

The *Principal/Test Coordinator Manual* and *Test Administrator Manual* provided directions for coding information related to accommodations and modifications on page 2 of the Student Answer Booklet. All accommodations used during any test session were required to be coded by authorized school personnel—not students—after testing was completed.

The first list of allowable accommodations was created by the three original NECAP states (New Hampshire, Rhode Island, and Vermont) at the beginning of the program in 2004. The list was later reviewed and revised in 2009 when the state of Maine joined the program. The four NECAP states worked together to change the coding system, revise existing accommodations, and add or delete certain accommodations. The resulting Table of Standard Test Accommodations is divided into accommodations for timing, setting, presentation, and response. Each accommodation is listed with details on how to deliver it to students. A *NECAP Accommodations Guide* was also produced to provide additional details on planning for and implementing accommodations. This guide was available on each state’s Department of Education Web site. The states collectively made the decision that accommodations would continue to be made available to all students based on individual need regardless of disability status. Decisions regarding accommodations were to be made by the student’s educational team on an individual basis and were to be consistent with those used during the student’s regular classroom instruction. Making accommodations decisions for a group rather than on an individual basis was not permitted. If the decision made by a student’s educational team required an accommodation not listed in the state-approved Table of Standard Test Accommodations, schools were instructed to contact the Department of Education in advance of testing for specific instructions for coding in the “Other Accommodations (O)” and/or “Modifications (M)” sections.

Appendix C shows the accommodation frequencies by content area for the October 2011 NECAP test administration. The accommodation codes (T1–4, S1–2, P1–11, R1–7, O1–2, and M1–M3) are defined in the Table of Standard Test Accommodations, which can be found in Appendix D.

3.6. TEST SECURITY

Maintaining test security is critical to the success of the NECAP and the continued partnership among the four states. The *Principal/Test Coordinator Manual* and *Test Administrator Manual* explain in detail all test security measures and test administration procedures. School personnel were informed that any concerns about breaches in test security were to be reported to the school’s test coordinator and/or principal immediately. The test coordinator or the principal or both were responsible for immediately reporting the concern to the District Superintendent and the State Assessment Director at the Department of Education. Test security was also strongly emphasized during test administration webinars as well as workshops that were conducted in all four states. The four states also required principals to log on to a secure Web site to complete the *Principal’s Certification of Proper Test Administration* form for each grade level tested at their

school. Principals were requested to provide the number of secure tests received from Measured Progress, the number of tests administered to students, and the number of secure test materials they were returning to Measured Progress. Principals were instructed to submit the form by entering a unique password, which acted as their digital signature. By signing and submitting the form, the principal was certifying that the tests were administered according to the test administration procedures outlined in the *Principal/Test Coordinator Manual* and *Test Administrator Manual*, that the security of the tests was maintained, that no secure material was duplicated or in any way retained in the school, and that all test materials had been accounted for and returned to Measured Progress.

3.7. TEST AND ADMINISTRATION IRREGULARITIES

There were several test irregularities that occurred during the 2011 NECAP test administration. One of the irregularities involved an issue with a reading field-test item in grade 4 while others were attributed to printing issues.

A reading field-test item associated with a field-test passage that was used in test form 8 and test form 9 contained a reference to a numbered paragraph in the passage. The issue is that students were asked to reference a specific paragraph by number but the paragraph was not numbered in the passage printed in the test booklet. Students were still able to respond to the item because the paragraph referenced was accessible in the passage. However, Measured Progress and the NECAP states decided not to score the item. Since this item was a field-test item, there was no affect on NECAP reports.

During test administration, a printing error was discovered in a grade 3 integrated test booklet and in a grade 4 integrated test booklet. Both of these printing errors were reported to Measured Progress by a school calling the NECAP Service Center. The two defective booklets were produced by the same print vendor. In the grade 3 test booklet, pages 3 through 10 were duplicated. In this case, the school was instructed to have the student skip those duplicate pages and complete the remaining items in the session. The school was also instructed to place the defective booklet in a special handling envelope for return to Measured Progress. In the grade 4 test booklet, pages 19 through 26 were printed in reverse order. The pages went from 1 to 18, then 26 to 19, followed by pages 27 to 84 which is the end of the test booklet. In this case, the school reported this after the student had completed testing. The school reported that the student was able to respond to all of the items and record the responses in the correct spaces in the test booklet. Therefore, NECAP reports were not affected by these irregularities. Measured Progress discussed these issues with the print vendor and is continuing to work with the company to ensure the print quality of the test booklets in the future.

3.8. TEST ADMINISTRATION WINDOW

The test administration window was October 3–25, 2011.

3.9. NECAP SERVICE CENTER

To provide additional support to schools before, during, and after testing, Measured Progress operates the NECAP Service Center. The support of a service center is essential to the successful administration of any statewide test program. It provides a centralized location to which individuals in the field can call, using a toll-free number, to ask specific questions or report any problems they may be experiencing. Representatives are responsible for receiving, responding to, and tracking calls, then routing issues to the appropriate person(s) for resolution. All calls are logged into a database that includes notes regarding the issue and resolution of each call.

The service center was staffed year-round and was available to receive calls from 8:00 a.m. to 4:00 p.m. Monday through Friday. Extra representatives were available as needed, beginning approximately two weeks before the start of the testing window and ending two weeks after the end of the testing window to assist with handling the additional call volume.

CHAPTER 4. SCORING

4.1. SCORING OF STANDARD TEST ITEMS

Upon receipt of used NECAP answer booklets following testing, Measured Progress scanned all student responses, along with student identification and demographic information. Imaged data for multiple-choice responses were machine-scored. Images of open-response items were processed and organized by iScore, a secure, server-to-server electronic scoring software designed by Measured Progress, for hand-scoring.

Student responses that could not be physically scanned (e.g., answer documents damaged during shipping) and typed responses submitted according to applicable test accommodations were physically reviewed and scored on an individual basis by trained, qualified readers. These scores were linked to the student's demographic data and merged with the student's scoring file by Measured Progress's Data Processing department.

4.1.1. Machine-Scored Items

Multiple-choice item responses were compared to scoring keys using item analysis software. Correct answers were assigned a score of one point and incorrect answers were assigned zero points. Student responses with multiple marks and blank responses were also assigned zero points.

The hardware elements of the scanners monitor themselves continuously for correct read, and the software that drives these scanners also monitors correct data reads. Standard checks include recognition of a sheet that does not belong or is upside down or backward, identification of critical data that are missing (e.g., a student ID number), test forms that are out of range or missing, and page or document sequence errors. When a problem is detected, the scanner stops and displays an error message directing the operator to investigate and correct the situation.

4.1.2. Person-Scored Items

The images of student responses to constructed-response items were hand-scored through the iScore system. Use of iScore minimizes the need for readers to physically handle answer booklets and related scoring materials. Student confidentiality was easily maintained since all NECAP scoring was "blind" (i.e., district, school, and student names were not visible to readers). The iScore system maintained the linkage between the student response images and their associated test booklet numbers.

Through iScore, qualified readers at computer terminals accessed electronically scanned images of student responses. Readers evaluated each response and recorded each score via keypad or mouse entry

through the iScore system. When a reader finished one response, the next response appeared immediately on the computer screen.

Imaged responses from all answer booklets were sorted into item-specific groups for scoring purposes. Readers reviewed responses from only one item at a time; however, imaged responses from a student’s entire booklet were always available for viewing when necessary, and the physical booklet was also available to the chief reader on-site. (Chief reader and other scoring roles are described in the section that follows.)

The use of iScore also helped ensure that access to student response images was limited to only those who were scoring or working for Measured Progress in a scoring management capacity.

4.1.2.1. Scoring Location and Staff

Scoring Location

The iScore database, its operation, and its administrative controls are all based in Dover, New Hampshire. Table 4-1 presents the locations where 2011–12 NECAP test item responses by grade and content area were scored.

Table 4-1. 2011–12 NECAP: Operational Scoring Locations by Content Area and Grade

<i>Content area</i>	<i>Grade</i>	<i>Dover, NH</i>	<i>Menands, NY</i>	<i>Longmont, CO</i>
Mathematics	3	X		
	4			X
	5			X
	6			X
	7			X
	8			X
	11			X
Reading	3	X		
	4		X	
	5		X	
	6		X	
	7		X	
	8			X
Writing	11			X
	5		X	
	8			X
	11			X

The iScore system monitored accuracy, reliability, and consistency across all scoring sites. Constant daily communication and coordination were accomplished through e-mail, telephone, faxes, and secure Web sites to ensure that critical information and scoring modifications were shared and implemented across all scoring sites.

Staff Positions

The following staff members were involved with scoring the 2011–12 NECAP responses:

- The NECAP scoring project manager, an employee of Measured Progress, was located in Dover, New Hampshire, and oversaw communication and coordination of scoring across all scoring sites.
- The iScore operational manager and iScore administrators, employees of Measured Progress, were located in Dover, New Hampshire, and coordinated technical communication across all scoring sites.
- A chief reader in each content area (mathematics, reading, and writing) ensured consistency of scoring across all scoring sites for all grades tested in that content area. Chief readers also provided read-behind activities (defined in a later section) for quality assurance coordinators (QACs). Chief readers are employees of Measured Progress.
- Numerous QACs, selected from a pool of experienced senior readers for their ability to score accurately and their ability to instruct and train readers, participated in benchmarking activities for each specific grade and content area. QACs provided read-behind activities (defined in a later section) for senior readers at their sites. The ratio of QACs and senior readers to readers was approximately 1:11.
- Numerous senior readers, selected from a pool of skilled and experienced readers, provided read-behind activities (defined in a later section) for the readers at their scoring tables (2–12 readers at each table). The ratio of QACs and senior readers to readers was approximately 1:11.
- Readers at scoring sites scored operational and field-test NECAP 2011–12 student responses. Recruitment of readers is described in Section 4.1.2.3.

4.1.2.2. Benchmarking Meetings with the NECAP State Specialists

In preparation for implementing NECAP scoring guidelines, Measured Progress scoring staff prepared and facilitated benchmarking meetings held with NECAP state specialists from their respective Departments of Education. The purpose of these meetings was to establish guidelines for scoring NECAP items during the current field-test scoring session and for future operational scoring sessions.

Several dozen student responses for each item that chief readers identified as illustrative midrange examples of the respective score points were selected. Chief readers presented these responses to the NECAP content specialists during benchmarking meetings and worked collaboratively with them to finalize an authoritative set of score point exemplars for each field-test item. As a matter of practice, these sets are included in the scoring training materials each time an item is administered.

This repeated use of NECAP-approved sets of midrange score point exemplars helps ensure that readers follow established guidelines each time a particular NECAP item is scored.

4.1.2.3. Reader Recruitment and Qualifications

For scoring the 2011–12 NECAP, Measured Progress actively sought a diverse scoring pool representative of the population of the four NECAP states. The broad range of reader backgrounds included scientists, editors, business professionals, authors, teachers, graduate school students, and retired educators. Demographic information (e.g., gender, race, educational background) about readers was electronically captured for reporting.

Although a four-year college degree or higher was preferred, readers were required to have successfully completed at least two years of college and to have demonstrated knowledge of the content area they scored. This permitted recruiting readers currently enrolled in a college program, a sector of the population with relatively recent exposure to current classroom practices and trends in their fields. In all cases, potential readers were required to submit documentation (e.g., résumé and/or transcripts) of their qualifications.

Table 4-2 summarizes the qualifications of the 2011–12 NECAP scoring leadership and readers.

Table 4-2. 2011–12 NECAP: Qualifications of Scoring Leadership and Readers—Fall Administration

<i>Scoring Responsibility</i>	<i>Educational Credentials</i>				<i>Total</i>
	<i>Doctorate</i>	<i>Master's</i>	<i>Bachelor's</i>	<i>Other</i>	
Scoring Leadership	7.6%	29.7%	55.7%	7.0%	100.0%
Readers	5.1%	29.4%	54.6%	10.9%	100.0%

Scoring Leadership = chief readers, QACs, and senior readers

*9 QACs/senior readers had an associate's degree and 2 had at least 48+ college credits.

**77 readers had an associate's degree and 53 had at least 48+ college credits.

Readers were either temporary Measured Progress employees or were secured through temporary employment agencies. All readers were required to sign a nondisclosure/confidentiality agreement.

4.1.2.4. Methodology for Scoring Polytomous Items

Possible Score Points

The ranges of possible score points for the different polytomous items are shown in Table 4-3.

Table 4-3. 2011–12 NECAP: Possible Score Points for Polytomous Item Types

<i>Polytomous Item Type</i>	<i>Possible Score Point Range</i>
Writing prompt	0–6
Constructed-response	0–4
2-point short-answer (SA2)	0–2
1-point short-answer (SA1)	0–1
Non-scorable items	0

Non-Scorable Items

Readers could designate a response as non-scorable for any of the following reasons:

- Response was blank (no attempt to respond to the question).
- Response was unreadable (illegible, too faint to see, or only partially legible/visible)—*see note below*.
- Response was written in the wrong location (seemed to be a legitimate answer to a different question)—*see note below*.
- Response was written in a language other than English.
- Response was completely off-task or off-topic.
- Response included an insufficient amount of material to make scoring possible.
- Response was an exact copy of the assignment.
- Response was incomprehensible.
- Student made a statement refusing to write a response to the question.

Note: “unreadable” and “wrong location” responses were eventually resolved, whenever possible, by researching the actual answer booklet (electronic copy or hard copy, as needed) to identify the correct location (in the answer booklet) or to more closely examine the response and then assign a score.

Scoring Procedures

Scoring procedures for polytomous items included both single scoring and double scoring. Single-scored items were scored by one reader. Double-scored items were scored independently by two readers, whose scores were tracked for “interrater agreement.” (For further discussion of double scoring and interrater agreement, see Section 5.1.2.7 and Appendix P.)

4.1.2.5. Reader Training

Reader training began with an introduction of the on-site scoring staff and an overview of the NECAP’s purpose and goals (including discussion about the security, confidentiality, and proprietary nature of testing materials, scoring materials, and procedures).

Next, readers thoroughly reviewed and discussed the scoring guides for each item to be scored. Each item-specific scoring guide included the item itself and score point descriptions.

Following review of an item’s scoring guide, readers reviewed or scored the particular response set organized for that training: anchor sets, training sets, and qualifying sets. (These are defined below.)

During training, readers could highlight or mark hard copies of the anchor and training sets (as well as the first qualifying sets after the qualification round), even if all or part of the set was also presented online.

Anchor Set

Readers first reviewed an anchor set of exemplary responses for an item. This is a set approved by the reading, writing, and mathematics content specialists representing the four NECAP state Departments of Education. Responses in anchor sets are typical, rather than unusual or uncommon; solid, rather than controversial or borderline; and true, meaning that they had scores that could not be changed by anyone other than the NECAP client and Measured Progress scoring staff. Each set contains one client-approved sample response per score point considered to be a midrange exemplar. The set included a second sample response if there was more than one plausible way to illustrate the merits and intent of a score point.

Responses were read aloud to the room of readers in descending score order. Announcing the true score of each anchor response, trainers facilitated group discussion of responses in relation to score point descriptions to help readers internalize the typical characteristics of score points.

This anchor set continued to serve as a reference for readers as they went on to calibration, scoring, and recalibration activities for that item.

Training Set

Next, readers practiced applying the scoring guide and anchors to responses in the training set. The training set typically included 10 to 15 student responses designed to help establish both the full score point range and the range of possible responses within each score point. The training set often included unusual responses that were less clear or solid (e.g., shorter than normal, employing atypical approaches, simultaneously containing very low and very high attributes, and written in ways difficult to decipher). Responses in the training set were presented in randomized score point order.

After readers independently read and scored a training set response, trainers would poll readers or use online training system reports to record their initial range of scores. Trainers then led a group discussion of one or two responses, directing readers' attentions to difficult scoring issues (e.g., the borderline between two score points). Throughout the training, trainers modeled how to discuss scores by referring to the anchor set and to scoring guides.

Qualifying Set

After the training set had been completed, readers were required to score responses accurately and reliably in qualifying sets composed of constructed-response items, writing prompts, and all 2-point short-answer items for grades 3 and 4 mathematics. The 10 responses in each qualifying set were selected from an array of responses that clearly illustrated the range of score points for that item as reviewed and approved by the state specialists. Hard copies of the responses were also made available to readers after the qualification round so that they could make notes and refer back during the post-qualifying discussion.

To be eligible to live-score one of the above items, readers were required to demonstrate scoring accuracy rates of at least 80% exact agreement (i.e., to exactly match the predetermined score on at least eight of the ten responses) and at least 90% exact or adjacent agreement (i.e., to exactly match or be within one

score point of the predetermined score on nine or ten of the ten responses), except 70% and 90%, respectively, for 6-point writing-prompt responses. In other words, readers were allowed one discrepant score (i.e., one score of 10 that was more than 1 score point from the predetermined score) provided they had at least eight exact scores (seven for writing-prompt items).

To be eligible to score 1-point short-answer mathematics items (which were benchmarked “right” or “wrong”) and 2-point short-answer mathematics items for grades 5–8 and 11, readers had to qualify on at least one other mathematics item for that grade.

Retraining

Readers who did not pass the first qualifying set were retrained as a group by reviewing their performance with scoring leadership and then scoring a second qualifying set of responses. If they achieved the required accuracy rate on the second qualifying set, they were allowed to score operational responses.

Readers who did not achieve the required scoring accuracy rates on the second qualifying set were not allowed to score responses for that item. Instead, they either began training on a different item or were dismissed from scoring for that day.

4.1.2.6. Senior Quality Assurance Coordinator and Senior Reader Training

QACs and select senior readers were trained in a separate training session immediately prior to reader training. In addition to a discussion of the items and their responses, QAC and senior reader training included greater detail on the client’s rationale behind the score points than that covered with regular readers in order to better equip QACs and senior readers to handle questions from the readers.

4.1.2.7. Monitoring of Scoring Quality Control and Consistency

Readers were monitored for continued accuracy and consistency throughout the scoring process, using the following methods and tools (which are defined in this section):

- embedded committee-reviewed responses (CRRs)
- read-behind procedures
- double-blind scoring
- recalibration sets
- scoring reports

It should be noted that any reader whose accuracy rate fell below the expected rate for a particular item and monitoring method was retrained on that item. Upon approval by the QAC or chief reader as appropriate (see below), the reader was allowed to resume scoring. Readers who met or exceeded the expected accuracy rates continued scoring.

Furthermore, the accuracy rate required of a reader to *qualify* to score responses live was stricter than that required to *continue* to score responses live. The reason for the difference is that an “exact score” in double-blind scoring requires that *two* readers choose the same score for a response (in other words, it is dependent on peer agreement), whereas an “exact score” in qualification requires only that a *single* reader match a score pre-established by scoring leadership. The use of multiple monitoring techniques is critical toward monitoring reader accuracy during the process of live scoring.

Embedded CRRs

CRRs are previously scored responses that are loaded (“embedded”) by scoring leadership into iScore and distributed “blindly” to readers during scoring. Embedded CRRs may be chosen either before or during scoring, and are inserted into the scoring queue so that they appear the same as all other live student responses.

Between five and thirty embedded CRRs were distributed at random points throughout the first full day of scoring to ensure that readers were sufficiently calibrated at the beginning of the scoring period. Individual readers often received up to 20 embedded CRRs within the first 100 responses scored and up to 10 additional responses within the next 100 responses scored on that first day of scoring.

Any reader who fell below the required scoring accuracy rate was retrained before being allowed by the QAC to continue scoring. Once allowed to resume scoring, scoring leadership carefully monitored these readers by increasing the number of read-behinds (defined in the next section).

Embedded CRRs were employed for all constructed-response items. They were not used for writing 6-point extended-response items, because these are 100% double-blind scored (defined below). Embedded CRRs were also not used for math 2-point short-answer items, because read-behind and double-blind techniques are more informative and cost-effective for these items.

Read-Behind Procedures

Read-behind scoring refers to scoring leadership (usually a senior reader) scoring a response after a reader has already scored the response. The practice was applied to all open-response item types.

Responses placed into the read-behind queue were randomly selected by scoring leadership; readers were not aware which of their responses would be reviewed by their senior reader. The iScore system allowed one, two, or three responses per reader to be placed into the read-behind queue at a time.

The senior reader entered his or her score into iScore before being allowed to see the reader’s score. The senior reader then compared the two scores, and the score of record (i.e., the reported score) was determined as follows:

- If there was exact agreement between the scores, no action was necessary; the regular reader’s score remained.
- If the scores were adjacent (i.e., differed by one point), the senior reader’s score became the score of record. (A significant number of adjacent scores for a reader triggered an individual

scoring consultation with the senior reader, after which the QAC determined whether or when the reader could resume scoring.)

- If the scores were discrepant (i.e., differed by more than one point), the senior reader’s score became the score of record. (This triggered an individual consultation for the reader with the senior reader, after which the QAC determined whether or when the reader could resume scoring on that item.)

Table 4-4 illustrates how scores were resolved by read-behind.

Table 4-4. 2011–12 NECAP: Examples of Read-Behind Scoring Resolutions

<i>Reader Score</i>	<i>QAC/SR Score</i>	<i>Score of Record</i>
4	4	4
4	3	3*
4	2	2*

* QAC/senior reader’s score

Senior readers were tasked with conducting, on average, five read-behinds per reader throughout each half scoring day; however, senior readers conducted a proportionally greater number of read-behinds for readers who seemed to be struggling to maintain, or who fell below, accuracy standards.

In addition to regular read-behinds, scoring leadership could choose to do read-behinds on any reader at any point during the scoring process to gain an immediate, real-time “snapshot” of a reader’s accuracy.

Double-Blind Scoring

Double-blind scoring refers to two readers independently scoring a response without knowing whether the response was to be double-blind scored. The practice was applied to all open-response item types. Table 4-5 shows by which method(s) the responses to both common and equating open-response item types for each operational test were scored.

Table 4-5. 2011–12 NECAP: Frequency of Double-Blind Scoring by Grade and Content

<i>Grade</i>	<i>Content Area</i>	<i>Responses Double-Blind Scored</i>
3–8, 11	Reading	2% randomly
3–8, 11	Mathematics	2% randomly
5, 8, 11	Writing (ER)	100%
5, 8	Writing (CR)	2% randomly
All	Unreadable responses	100%
All	Blank responses	100%

If there was a discrepancy (a difference greater than one score point) between double-blind scores, the response was placed into an arbitration queue. Arbitration responses were reviewed by scoring leadership (senior Reader or QAC) without knowledge of the two readers’ scores. Scoring leadership assigned the final

score. Appendix P provides the NECAP 2011–12 percentages of agreement between readers for each common item for each grade and content area.

Scoring leadership consulted individually with any reader whose scoring rate fell below the required accuracy rate, and the QAC determined whether or when the reader could resume scoring on that item. Once the reader was allowed to resume scoring, scoring leadership carefully monitored the reader’s accuracy by increasing the number of read-behinds.

Recalibration Sets

To determine whether readers were still calibrated to the scoring standard, they were required to take an online recalibration set at the start and midpoint of the shift of their resumption of scoring.

Each recalibration set consisted of five responses representing the entire range of possible scores, including some with a score point of 0.

- Readers who were discrepant on two of the five responses of the first recalibration set, or exact on two or fewer, were not permitted to score on that item that day and were either assigned to a different item or dismissed for the day.
- Readers who were discrepant on only one of the five responses of the first recalibration set, and/or exact on three, were retrained by their senior reader by discussing the recalibration set responses in terms of the score point descriptions and the original anchor set. After this retraining, such readers began scoring operational responses under the proviso that the reader’s scores for that day and that item would be kept only if the reader was exact on all five of the five responses of the second recalibration set administered at the shift midpoint. The QAC determined whether or when these Readers had received enough retraining to resume scoring operational responses. Scoring leadership also carefully monitored the accuracy of such readers by significantly increasing the number of their read-behinds.
- Readers who were not discrepant on any response of the first recalibration set, and exact on at least four, were allowed to begin scoring operational responses immediately, under the proviso that this recalibration set performance would be combined with that of the second recalibration set administered at the shift midpoint.

The results of both recalibration sets were combined with the expectation that readers would have achieved an overall 80%-exact and 90%-adjacent standard for that item for that day.

The scoring project manager voided all scores posted on that item for that day by readers who did not meet the accuracy requirement. Responses associated with voided scores were reset and redistributed to readers with demonstrated accuracy for that item.

Recalibration sets were employed for all constructed-response items. They were not used for writing 6-point extended-response items, which were 100% double-blind scored. They were also not used for 2-point short-answer items, for which read-behind and double-blind techniques are more informative and cost-effective.

Scoring Reports

Measured Progress's electronic scoring software, iScore, generated multiple reports that were used by scoring leadership to measure and monitor readers for scoring accuracy, consistency, and productivity.

CHAPTER 5. CLASSICAL ITEM ANALYSIS

As noted in Brown (1983), “A test is only as good as the items it contains.” A complete evaluation of a test’s quality must include an evaluation of each item. Both *Standards for Educational and Psychological Testing* (AERA et al., 1999) and *Code of Fair Testing Practices in Education* (2004) include standards for identifying quality items. Items should assess only knowledge or skills that are identified as part of the domain being tested and should avoid assessing irrelevant factors. Items should also be unambiguous and free of grammatical errors, potentially insensitive content or language, and other confounding characteristics. In addition, items must not unfairly disadvantage students, in particular racial, ethnic, or gender groups.

Both qualitative and quantitative analyses are conducted to ensure that NECAP items meet these standards. Qualitative analyses are described in earlier chapters of this report; this chapter focuses on quantitative evaluations. Statistical evaluations are presented in four parts: (1) difficulty indices, (2) item-test correlations, (3) differential item functioning statistics, and (4) dimensionality analyses. The item analyses presented here are based on the statewide administration of NECAP in fall 2011. Note that the information presented in this chapter is based on the items common to all forms, since those are the items on which student scores are calculated. (Item analyses are also performed for field-test items, and the statistics are then used during the item review process and form assembly for future administrations.)

5.1. CLASSICAL DIFFICULTY AND DISCRIMINATION INDICES

All multiple-choice and constructed-response items are evaluated in terms of item difficulty according to standard classical test theory practices. Difficulty is defined as the average proportion of points achieved on an item and is measured by obtaining the average score on an item and dividing it by the maximum possible score for the item. Multiple-choice and one-point short-answer items are scored dichotomously (correct versus incorrect); so, for these items, the difficulty index is simply the proportion of students who correctly answered the item. Polytomously scored items include 2-point short-answer items, for which students can receive scores of 0, 1, or 2, and constructed-response items, which are worth 4 points total. By computing the difficulty index as the average proportion of points achieved, the indices for the different item types are placed on a similar scale, ranging from 0.0 to 1.0 regardless of the item type. Although this index is traditionally described as a measure of difficulty, it is properly interpreted as an *easiness* index, because larger values indicate easier items. An index of 0.0 indicates that all students received no credit for the item, and an index of 1.0 indicates that all students received full credit for the item.

Items that are answered correctly by almost all students provide little information about differences in student abilities, but do indicate knowledge or skills that have been mastered by most students. Similarly, items that are correctly answered by very few students provide little information about differences in student abilities, but may indicate knowledge or skills that have not yet been mastered by most students. In general, to provide the best measurement, difficulty indices should range from near-chance performance of 0.25 (for

four-option multiple-choice items or essentially 0 for constructed-response items) to 0.90, with the majority of items generally falling between approximately 0.4 and 0.7 for the lower mathematics grades and between about 0.6 and 0.8 for reading, writing, and the higher mathematics grades. However, on a standards-referenced assessment such as NECAP, it may be appropriate to include some items with very low or very high item difficulty values to ensure sufficient content coverage.

A desirable characteristic of an item is for higher-ability students to perform better on the item than lower-ability students do. The correlation between student performance on a single item and total test score is a commonly used measure of this characteristic of the item. Within classical test theory, the item-test correlation is referred to as the item’s discrimination, because it indicates the extent to which successful performance on an item discriminates between high and low scores on the test. For constructed-response items, the item discrimination index used was the Pearson product-moment correlation; for multiple-choice items, the corresponding statistic is commonly referred to as a point-biserial correlation. The theoretical range of these statistics is –1.0 to 1.0, with a typical observed range from 0.2 to 0.7.

Discrimination indices can be thought of as measures of how closely an item assesses the same knowledge and skills assessed by other items contributing to the criterion total score. That is, the discrimination index can be thought of as a measure of construct consistency.

A summary of the item difficulty and item discrimination statistics for each content area and grade is presented in Table 5-1. Note that the statistics are presented for all items as well as by item type (multiple-choice, short-answer, constructed-response, and, for writing, writing prompt). Note also that only a single writing prompt is administered in grades 5 and 8; thus, it is not possible to calculate standard deviations of the difficulty and discrimination values. Furthermore, because the grade 11 writing test consists solely of a single prompt, no discrimination values or standard deviations could be calculated. The mean difficulty and discrimination values shown in the table are within generally acceptable and expected ranges.

Table 5-1. 2011–12 NECAP: Summary of Item Difficulty and Discrimination Statistics by Content Area and Grade

Content Area	Grade	Item Type	Number of Items	p-Value		Discrimination	
				Mean	Standard Deviation	Mean	Standard Deviation
Mathematics	3	ALL	55	0.68	0.16	0.43	0.10
		MC	35	0.71	0.16	0.41	0.09
		SA	20	0.62	0.16	0.47	0.10
	4	ALL	55	0.66	0.15	0.45	0.08
		MC	35	0.70	0.16	0.42	0.07
		SA	20	0.60	0.12	0.50	0.06
	5	ALL	48	0.57	0.16	0.43	0.10
		CR	4	0.52	0.12	0.62	0.03
		MC	32	0.60	0.16	0.40	0.08
		SA	12	0.51	0.16	0.47	0.10

continued

Content Area	Grade	Item Type	Number of Items	p-Value		Discrimination	
				Mean	Standard Deviation	Mean	Standard Deviation
Mathematics	6	ALL	48	0.54	0.16	0.45	0.11
		CR	4	0.44	0.05	0.66	0.07
		MC	32	0.55	0.17	0.39	0.08
		SA	12	0.57	0.11	0.51	0.08
	7	ALL	48	0.53	0.17	0.44	0.13
		CR	4	0.38	0.08	0.63	0.03
		MC	32	0.58	0.18	0.37	0.10
		SA	12	0.45	0.11	0.54	0.11
	8	ALL	48	0.54	0.17	0.45	0.12
		CR	4	0.45	0.11	0.66	0.03
		MC	32	0.58	0.17	0.40	0.08
		SA	12	0.47	0.17	0.53	0.08
	11	ALL	46	0.41	0.18	0.48	0.13
		CR	4	0.31	0.04	0.67	0.07
		MC	24	0.49	0.19	0.40	0.10
SA		18	0.32	0.14	0.54	0.09	
Reading	3	ALL	34	0.72	0.16	0.45	0.08
		CR	6	0.54	0.23	0.51	0.06
		MC	28	0.76	0.11	0.43	0.08
	4	ALL	34	0.70	0.12	0.44	0.08
		CR	6	0.57	0.16	0.51	0.08
		MC	28	0.73	0.09	0.42	0.07
	5	ALL	34	0.70	0.17	0.44	0.08
		CR	6	0.41	0.03	0.55	0.07
		MC	28	0.76	0.11	0.41	0.06
	6	ALL	34	0.73	0.16	0.41	0.11
		CR	6	0.46	0.03	0.61	0.04
		MC	28	0.79	0.10	0.37	0.06
	7	ALL	34	0.70	0.14	0.42	0.13
		CR	6	0.49	0.05	0.65	0.02
		MC	28	0.74	0.11	0.37	0.07
8	ALL	34	0.70	0.15	0.41	0.13	
	CR	6	0.50	0.05	0.66	0.03	
	MC	28	0.74	0.12	0.36	0.07	
11	ALL	34	0.69	0.12	0.44	0.13	
	CR	6	0.56	0.06	0.70	0.02	
	MC	28	0.72	0.12	0.39	0.06	
Writing	5	ALL	14	0.72	0.18	0.40	0.14
		CR	3	0.45	0.05	0.59	0.03
		MC	10	0.82	0.03	0.33	0.06
	8	ER	1	0.44		0.62	
		ALL	14	0.71	0.11	0.43	0.15
		CR	3	0.60	0.04	0.64	0.04
	11	MC	10	0.76	0.08	0.35	0.04
		ER	1	0.50		0.67	
		ALL	1	0.52			
		ER	1	0.52			

A comparison of indices across grade levels is complicated because these indices are population dependent. Direct comparisons would require that either the items or students were common across groups. Since that is not the case, it cannot be determined whether differences in performance across grade levels are because of differences in student abilities, differences in item difficulties, or both. With this caveat in mind, it appears generally that, for mathematics, students in higher grade levels found their items more difficult than students in lower grades found theirs while, for reading, difficulty indices were more consistent across grades.

Comparing the difficulty indices of multiple-choice items and open-response (short-answer or constructed-response) items is inappropriate because multiple-choice items can be answered correctly by guessing. Thus, it is not surprising that the difficulty indices for multiple-choice items tend to be higher (indicating that students performed better on these items) than the difficulty indices for open-response items. Similarly, discrimination indices for the open-response items were larger than those for the dichotomous items because of the greater variability of the former (i.e., the partial credit these items allow) and the tendency for correlation coefficients to be higher given greater variances of the correlates.

In addition to the item difficulty and discrimination summaries presented above, item-level classical statistics and item-level score point distributions were also calculated. Item-level classical statistics are provided in Appendix E; item difficulty and discrimination values are presented for each item. The item difficulty and discrimination indices are within generally acceptable and expected ranges. Very few items were answered correctly at near-chance or near-perfect rates. Similarly, the positive discrimination indices indicate that students who performed well on individual items tended to perform well overall. There were a small number of items with low discrimination indices, but none was negative. While it is not inappropriate to include items with low discrimination values or with very high or very low item difficulty values to ensure that content is appropriately covered, there were very few such cases on NECAP. Item-level score point distributions are provided for open-response items in Appendix F; for each item, the percentage of students who received each score point is presented.

5.2. DIFFERENTIAL ITEM FUNCTIONING

Code of Fair Testing Practices in Education (2004) explicitly states that subgroup differences in performance should be examined when sample sizes permit and that actions should be taken to ensure that differences in performance are because of construct-relevant, rather than construct-irrelevant, factors. *Standards for Educational and Psychological Testing* (AERA et al., 1999) includes similar guidelines. As part of the effort to identify such problems, an evaluation of the NECAP items was conducted in terms of differential item functioning (DIF) statistics.

For NECAP, the standardization DIF procedure (Dorans & Kulick, 1986) was employed to evaluate subgroup differences. The standardization DIF procedure is designed to identify items for which subgroups of interest perform differently, beyond the impact of differences in overall achievement. The DIF procedure calculates the difference in item performance for two groups of students (at a time) matched for achievement

on the total test. Specifically, average item performance is calculated for students at every total score. Then an overall average is calculated, weighting the total score distribution so that it is the same for the two groups. In order to calculate DIF statistics, a minimum of 200 students must be in each comparison group.

When differential performance between two groups occurs on an item (i.e., a DIF index in the “low” or “high” categories, explained below), it may or may not be indicative of item bias. Course-taking patterns or differences in school curricula can lead to DIF, but for construct-relevant reasons. On the other hand, if subgroup differences in performance could be traced to differential experience (such as geographical living conditions or access to technology), the inclusion of such items should be reconsidered.

Computed DIF indices have a theoretical range from -1.0 to 1.0 for multiple-choice items, and the index is adjusted to the same scale for open-response items. Dorans and Holland (1993) suggested that index values between -0.05 and 0.05 should be considered negligible. The preponderance of NECAP items fell within this range. Dorans and Holland further stated that items with values between -0.10 and -0.05 and between 0.05 and 0.10 (i.e., “low” DIF) should be inspected to ensure that no possible effect is overlooked, and that items with values outside the -0.10 to 0.10 range (i.e., “high” DIF) are more unusual and should be examined very carefully.²

For the 2011–12 NECAP tests, seven subgroup comparisons were evaluated for DIF:

- male versus female
- no disability versus disability
- non-economically disadvantaged versus economically disadvantaged
- non-LEP versus LEP
- White versus Asian
- White versus Black
- White versus Hispanic

The tables in Appendix G present the numbers of items classified, overall and by group favored, as either “low” or “high” DIF.

5.3. DIMENSIONALITY ANALYSIS

Because tests are constructed with multiple content area subcategories and their associated knowledge and skills, the potential exists for a large number of dimensions being invoked beyond the common primary dimension. Generally, the subcategories are highly correlated with each other; therefore, the primary dimension they share typically explains an overwhelming majority of variance in test scores. In fact, the

² It should be pointed out here that DIF for items is evaluated initially at the time of field testing. If an item displays high DIF, it is flagged for review by a Measured Progress content specialist. The content specialist consults with the Department of Education to determine whether to include the flagged item in a future operational test administration.

presence of just such a dominant primary dimension is the psychometric assumption that provides the foundation for the unidimensional item response theory (IRT) models that are used for calibrating, linking, scaling, and equating the NECAP test forms.

The purpose of dimensionality analysis is to investigate whether violation of the assumption of test unidimensionality is statistically detectable and, if so, (a) the degree to which unidimensionality is violated and (b) the nature of the multidimensionality. Findings from dimensionality analyses performed on the 2011–12 NECAP common items for mathematics, reading, and writing are reported below. (Note: only common items were analyzed since they are used for score reporting, and grade 11 writing was not analyzed because it consisted of a single assessment task.)

The dimensionality analyses were conducted using the nonparametric IRT-based methods DIMTEST (Stout, 1987; Stout, Froelich, & Gao, 2001) and DETECT (Zhang & Stout, 1999). Both of these methods use as their basic statistical building block the estimated average conditional covariances for item pairs. A conditional covariance is the covariance between two items conditioned on total score for the rest of the test, and the average conditional covariance is obtained by averaging overall possible conditioning scores. When a test is strictly unidimensional, all conditional covariances are expected to take on values within random noise of zero, indicating statistically independent item responses for examinees with equal expected scores. Non-zero conditional covariances are essentially violations of the principle of local independence, and local *dependence* implies multidimensionality. Thus, nonrandom patterns of positive and negative conditional covariances are indicative of multidimensionality.

DIMTEST is a hypothesis-testing procedure for detecting violations of local independence. The data are first randomly divided into a training sample and a cross-validation sample. Then an exploratory analysis of the conditional covariances is conducted on the training sample data to find the cluster of items that displays the greatest evidence of local dependence. The cross-validation sample is then used to test whether the conditional covariances of the selected cluster of items displays local dependence, conditioning on total score on the non-clustered items. The DIMTEST statistic follows a standard normal distribution under the null hypothesis of unidimensionality.

DETECT is an effect-size measure of multidimensionality. As with DIMTEST, the data are first randomly divided into a training sample and a cross-validation sample (these samples are drawn independent of those used with DIMTEST). The training sample is used to find a set of mutually exclusive and collectively exhaustive clusters of items that best fits a systematic pattern of positive conditional covariances for pairs of items from the same cluster and negative conditional covariances from different clusters. Next, the clusters from the training sample are used with the cross-validation sample data to average the conditional covariances: within-cluster conditional covariances are summed, from this sum the between-cluster conditional covariances are subtracted, this difference is divided by the total number of item pairs, and this average is multiplied by 100 to yield an index of the average violation of local independence for an item pair. DETECT values less than 0.2 indicate very weak multidimensionality (or near unidimensionality), values of

0.2 to 0.4 indicate weak to moderate multidimensionality, values of 0.4 to 1.0 indicate moderate to strong multidimensionality, and values greater than 1.0 indicate very strong multidimensionality.

DIMTEST and DETECT were applied to the 2011–12 NECAP. The data for each grade and content area were split into a training sample and a cross-validation sample. Every grade and content area combination had at least 32,000 student examinees. Because DIMTEST was limited to using 24,000 students, the training and cross-validation samples for the DIMTEST analyses used 12,000 each, randomly sampled from the total sample. DETECT, on the other hand, had an upper limit of 50,000 students, so every training sample and cross-validation sample used with DETECT had at least 16,000 students. DIMTEST was then applied to every grade and content area combination. DETECT was applied to each dataset for which the DIMTEST null hypothesis was rejected in order to estimate the effect size of the multidimensionality.

The results of the DIMTEST analyses indicated that the null hypothesis was rejected at a significance level of 0.01 for every dataset. Because strict unidimensionality is an idealization that almost never holds exactly for a given dataset, these DIMTEST results were not surprising. Indeed, because of the very large sample sizes of NECAP, DIMTEST would be expected to be sensitive to even quite small violations of unidimensionality. Thus, it was important to use DETECT to estimate the effect size of the violations of local independence found by DIMTEST. Table 5-2 below displays the multidimensional effect size estimates from DETECT.

Table 5-2. 2011–12 NECAP: Multidimensionality Effect Sizes by Grade and Content Area

<i>Content Area</i>	<i>Grade</i>	<i>Multidimensionality Effect Size</i>	
		<i>2011–12</i>	<i>2010–11</i>
Reading	3	0.15	0.13
	4	0.20	0.19
	5	0.22	0.24
	6	0.21	0.23
	7	0.34	0.21
	8	0.30	0.34
	11	0.37	0.29
	Average	0.26	0.23
Mathematics	3	0.12	0.16
	4	0.12	0.13
	5	0.15	0.16
	6	0.15	0.18
	7	0.14	0.14
	8	0.16	0.11
	11	0.11	0.13
Average	0.14	0.15	
Writing	5	0.25	0.24
	8	0.20	0.28
	Average	0.23	0.26

All of the DETECT values for mathematics and writing indicated very weak to weak multidimensionality. For reading, grades 3 through 6 had very weak to weak multidimensionality, whereas grades 7, 8, and 11 had DETECT values indicative of moderate multidimensionality. The average DETECT values for all three content areas indicated weak (reading, writing) or very weak (mathematics) multidimensionality. Also shown in Table 5-2 are the values reported in last year's dimensionality analyses. The individual values for the different grade levels, as well as the averages for the three content areas, in the 2011–12 NECAP are seen to be very similar to those from last year with the exception of grade 7 reading, which had an increase of 0.13 (0.21 to 0.34) and, thus, went from weak to moderate multidimensionality. Looking back over the analyses of the past four years, the previous high for the grade 7 reading DETECT value had been 0.28 in 2007–08, and the average over the past four years had been 0.23.

The way in which DETECT divided the tests into clusters was also investigated to determine whether there were any discernable patterns with respect to the multiple-choice and constructed-response item types. Inspection of the DETECT clusters indicated that multiple-choice–constructed-response separation occurred much more strongly with reading and writing than with mathematics, which is a pattern that has been consistent across all five years of dimensionality analyses for the NECAP fall tests. Specifically, for mathematics, grades 3, 5, and 7 showed some evidence of multiple-choice–constructed-response separation in that they each had one or two clusters dominated by multiple-choice points, one or two clusters dominated by constructed-response points, as well as other clusters evenly mixed between multiple-choice and constructed-response points. Typically for these three mathematics tests, 60% or more of the points were accounted for by the multiple-choice- and constructed-response-dominated clusters. The remaining mathematics tests displayed no substantial separation of multiple-choice and constructed-response items in their DETECT solutions. In reading, on the other hand, grades 4, 5, 6, 7, 8, and 11 all displayed strong multiple-choice–constructed-response separation with one cluster containing all the multiple-choice items with no constructed-response items, and the remaining cluster(s) containing all the constructed-response items. Indeed, for reading grades 7, 8, and 11 (the three with moderate multidimensionality), DETECT indicated a two-cluster solution in every case where one cluster was all multiple-choice and the other was all constructed-response. In reading, only grade 3 displayed no evidence of any multiple-choice–constructed-response separation—this finding was also reported for reading grade 3 for the 2010–11 test. For writing, both grades displayed a strong multiple-choice–constructed-response separation in the same manner as occurred with reading, with one cluster having all the multiple-choice items and the remaining clusters having all the constructed-response items.

Thus, a tendency is suggested for multiple-choice and constructed-response to sometimes measure statistically separable dimensions, especially in regard to the reading and writing tests. This has been consistent across all five years of analyses of the NECAP fall test administrations. However, it is important to emphasize that the degree of violation of unidimensional local independence has not been large in any of the three content areas over the five years of analysis. The degree to which these violations of local independence can be attributed to item type differences tends to be greater for reading and writing than for mathematics.

More investigation by content experts would be required to better understand the violations of local independence that are due to sources other than item type.

In summary of the 2011–12 analyses, the violations of local independence, as evidenced by the DETECT effect sizes, were weak or very weak in all but three cases (reading in grades 7, 8, and 11)—all three of which had effect sizes near the 0.30 border between weak and moderate. Thus, these effects do not seem to warrant any changes in test design or scoring, which are designed to be consistent across a range of grade levels. In addition, the magnitude of the violations of local independence have been consistently low over the years, and the patterns with respect to the multiple-choice and constructed-response items have also been consistent, with reading and writing tending to display more separation than mathematics.

CHAPTER 6. ITEM RESPONSE THEORY (IRT) SCALING AND EQUATING

This chapter describes the procedures used to calibrate, equate, and scale NECAP. During the course of these psychometric analyses, a number of quality-control procedures and checks on the processes were implemented. These procedures included evaluations of the calibration processes (e.g., checking the number of Newton cycles required for convergence for reasonableness, checking item parameters and their standard errors for reasonableness, examination of test characteristic curves [TCCs] and test information functions [TIFs] for reasonableness); evaluation of model fit; evaluation of equating items (e.g., delta analyses, rescore analyses, examination of *a*-plots and *b*-plots for reasonableness); and evaluation of the scaling results (e.g., parallel processing by the Psychometrics and Research department and Data Analysis department; comparing look-up tables to the previous year's). An equating report, which provided complete documentation of the quality-control procedures and results, was submitted to the member Departments of Education for their approval prior to production of student reports.

Table 6-1 lists items that required intervention either during item calibration or as a result of the evaluations of the equating items. For each flagged item, the table shows the reason it was flagged and what action was taken. The number of items identified for evaluation was very typical across the grades. Descriptions of the evaluations and results are included in the Item Response Theory Results and Equating Results sections below.

Table 6-1. 2011–12 NECAP: Items That Required Intervention During IRT Calibration and Equating

<i>Content Area</i>	<i>Grade</i>	<i>Item Number</i>	<i>Reason</i>	<i>Action</i>
Mathematics	3	119763	c parameter	c = 0
		119911	c parameter	c = 0
		201312	c parameter	c = 0
		168752	Delta Analysis	Removed from equating
		168752	IRT Plot Outlier	Removed from equating
	4	145070	c parameter	c = 0
		169080	c parameter	c = 0
		139493	Delta Analysis	Removed from equating
		120224	IRT Plot Outlier	Removed from equating
		120203	Rescore Analysis	Retained for Equating
	5	120757	c parameter	c = 0
		145892	c parameter	c = 0
		139164	IRT Plot Outlier	Removed from equating
		120838	Delta Analysis	Removed from equating
		120838	IRT Plot Outlier	Removed from equating
	6	150829	Delta Analysis	Removed from equating
		150829	IRT Plot Outlier	Removed from equating
	7	120344	c parameter	c = 0
		144742	c parameter	c = 0
		120444	c parameter	c = 0
120411		c parameter	c = 0	

continued

<i>Content Area</i>	<i>Grade</i>	<i>Item Number</i>	<i>Reason</i>	<i>Action</i>	
Mathematics	7	125286	c parameter	c = 0	
		140025	Delta Analysis	Removed from equating	
		140025	IRT Plot Outlier	Removed from equating	
		224856	Delta Analysis	Removed from equating	
	8	145644	c parameter	c = 0	
		120991	c parameter	c = 0	
		121040	Delta Analysis	Removed from equating	
		121040	IRT Plot Outlier	Removed from equating	
	11	169689	c parameter	c = 0	
		169763	c parameter	c = 0	
		119446	c parameter	c = 0	
		140028	IRT Plot Outlier	Removed from equating	
		169507	c parameter	c = 0	
	Reading	3	117648	c parameter	c = 0
			147819	c parameter	c = 0
			148219	c parameter	c = 0
			148178	c parameter	c = 0
147960			c parameter	c = 0	
117796			Delta Analysis	Removed from equating	
147875			a parameter	a set to initial	
148163			a parameter	a set to initial	
171335		IRT Plot Outlier	Removed from equating		
4		117934	c parameter	c = 0	
		117924	c parameter	c = 0	
		171630	Delta Analysis	Removed from equating	
5		171916	c parameter	c = 0	
		171793	c parameter	c = 0	
6		118255	c parameter	c = 0	
		148768	c parameter	c = 0	
		148388	c parameter	c = 0	
	148399	c parameter	c = 0		
	148412	c parameter	c = 0		
	148428	c parameter	c = 0		
	118333	c parameter	c = 0		
	118338	c parameter	c = 0		
	118339	c parameter	c = 0		
	148508	c parameter	c = 0		
	171857	Delta Analysis	Removed from equating		
	171857	IRT Plot Outlier	Removed from equating		
	172099	Rescore Analysis	Retained for Equating		
7	129211	c parameter	c = 0		
	129212	c parameter	c = 0		
	129216	c parameter	c = 0		
	129217	c parameter	c = 0		
	173078	c parameter	c = 0		
	173091	c parameter	c = 0		
	173094	c parameter	c = 0		
	118572	c parameter	c = 0		
	118526	c parameter	c = 0		
	118573	c parameter	c = 0		

continued

Content Area	Grade	Item Number	Reason	Action
Reading	7	147546	IRT Plot Outlier	Removed from equating
		173247	Delta Analysis	Removed from equating
		173268	Rescore Analysis	Retained for Equating
		173260	c parameter	c = 0
	8	172733	c parameter	c = 0
		147322	c parameter	c = 0
		147334	c parameter	c = 0
		147333	c parameter	c = 0
		172379	c parameter	c = 0
		172385	c parameter	c = 0
		172401	c parameter	c = 0
		172743	c parameter	c = 0
		172353	Delta Analysis	Removed from equating
		118626	c parameter	c = 0
		118627	c parameter	c = 0
		11	147433	c parameter
	147435		c parameter	c = 0
	147439		c parameter	c = 0
	147463		c parameter	c = 0
	172434		c parameter	c = 0
	144035		c parameter	c = 0
	172833		c parameter	c = 0
	147388		Rescore Analysis	Retained for Equating
	172360		Delta Analysis	Removed from equating
	172360		IRT Plot Outlier	Removed from equating

6.1. ITEM RESPONSE THEORY (IRT)

All NECAP items were calibrated using IRT. IRT uses mathematical models to define a relationship between an unobserved measure of student performance, usually referred to as theta (θ), and the probability (p) of getting a dichotomous item correct or of getting a particular score on a polytomous item. In IRT, all items are assumed to be independent measures of the same construct (i.e., of the same θ). Another way to think of θ is as a mathematical representation of the latent trait of interest. Several common IRT models are used to specify the relationship between θ and p (Hambleton & van der Linden, 1997; Hambleton & Swaminathan, 1985). The process of determining the specific mathematical relationship between θ and p is called item calibration. After items are calibrated, they are defined by a set of parameters that specify a nonlinear, monotonically increasing relationship between θ and p . Once the item parameters are known, an estimate of θ for each student can be calculated. This estimate, $\hat{\theta}$, is considered to be an estimate of the student's true score or a general representation of student performance. It has characteristics that may be preferable to those of raw scores for equating purposes.

For the 2011–12 NECAP, the three-parameter logistic (3PL) model was used for dichotomous (multiple-choice) items and the graded-response model (GRM) was used for polytomous (open-response) items. The 3PL model for dichotomous items can be defined as:

$$P_i(1|\theta_j, \xi_i) = c_i + (1 - c_i) \frac{\exp[Da_i(\theta_j - b_i)]}{1 + \exp[Da_i(\theta_j - b_i)]}$$

where
i indexes the items,
j indexes students,
 α represents item discrimination,
b represents item difficulty,
c is the pseudoguessing parameter,
 ξ_i represents the set of item parameters (α , *b*, and *c*) for item *i*, and
D is a normalizing constant equal to 1.701.

In the GRM for polytomous items, an item is scored in $k + 1$ graded categories that can be viewed as a set of k dichotomies. At each point of dichotomization (i.e., at each threshold), a two-parameter model can be used. This implies that a polytomous item with $k + 1$ categories can be characterized by k item category threshold curves (ICTCs) of the two-parameter logistic form:

$$P_{ik}^*(1|\theta_j, \alpha_i, b_i, d_{ik}) = \frac{\exp[Da_i(\theta_j - b_i + d_{ik})]}{1 + \exp[Da_i(\theta_j - b_i + d_{ik})]}$$

where
i indexes the items,
j indexes students,
k indexes threshold,
 α represents item discrimination,
b represents item difficulty,
d represents threshold, and
D is a normalizing constant equal to 1.701.

After computing k ICTCs in the GRM, $k + 1$ item category characteristic curves (ICCCs) are derived by subtracting adjacent ICTCs:

$$P_{ik}(1|\theta_j) = P_{i(k-1)}^*(1|\theta_j) - P_{ik}^*(1|\theta_j)$$

where
 P_{ik} represents the probability that the score on item *i* falls in category *k*, and
 P_{ik}^* represents the probability that the score on item *i* falls above the threshold *k*
($P_{i0}^* = 1$ and $P_{i(m+1)}^* = 0$).

The GRM is also commonly expressed as:

$$P_{ik}(k|\theta_j, \xi_i) = \frac{\exp[Da_i(\theta_j - b_i + d_k)]}{1 + \exp[Da_i(\theta_j - b_i + d_k)]} - \frac{\exp[Da_i(\theta_j - b_i + d_{k+1})]}{1 + \exp[Da_i(\theta_j - b_i + d_{k+1})]}$$

where
 ξ_i represents the set of item parameters for item *i*.

Finally, the item characteristic curve (ICC) for polytomous items is computed as a weighted sum of ICCCs, where each ICCC is weighted by a score assigned to a corresponding category.

$$P_i(1|\theta_j) = \sum_k^{m+1} w_{ik} P_{ik}(1|\theta_j)$$

For more information about item calibration and determination, the reader is referred to Lord and Novick (1968), Hambleton and Swaminathan (1985), or Baker and Kim (2004).

6.2. ITEM RESPONSE THEORY RESULTS

The tables in Appendix H give the IRT item parameters of all common items on the 2011–12 NECAP tests by grade and content area. In addition, Appendix I shows graphs of the TCCs and TIFs, which are defined below.

TCCs display the expected (average) raw score associated with each θ_j value between -4.0 and 4.0 . Mathematically, the TCC is computed by summing the ICCs of all items that contribute to the raw score. Using the notation introduced in Section 6.1, the expected raw score at a given value of θ_j is

$$E(X|\theta_j) = \sum_{i=1}^n P_i(1|\theta_j)$$

where

i indexes the items (and n is the number of items contributing to the raw score),

j indexes students (here, θ_j runs from -4 to 4), and

$E(X|\theta_j)$ is the expected raw score for a student of ability θ_j .

The expected raw score monotonically increases with θ_j , consistent with the notion that students of high ability tend to earn higher raw scores than do students of low ability. Most TCCs are “S-shaped”—flatter at the ends of the distribution and steeper in the middle.

The TIF displays the amount of statistical information the test provides at each value of θ_j . Information functions depict test precision across the entire latent trait continuum. There is an inverse relationship between the information of a test and its standard error of measurement (SEM). For long tests, the SEM at a given θ_j is approximately equal to the inverse of the square root of the statistical information at θ_j (Hambleton, Swaminathan, & Rogers, 1991), as follows:

$$SEM(\theta_j) = \frac{1}{\sqrt{I(\theta_j)}}$$

Compared to the tails, TIFs are often higher near the middle of the θ distribution where most students are located and where most items are sensitive by design.

Table 6-1 above lists items that were flagged based on the quality-control checks implemented during the calibration process. (Note that some items were flagged as a result of the evaluations of the equating

items; those results are described below.) In all cases, items flagged during this step were identified because of the pseudoguessing parameter (*c* parameter) being poorly estimated. Difficulty in estimating the *c* parameter is not at all unusual and is well-documented in the psychometric literature (see, for example, Nering & Ostini, 2010), especially when the item’s discrimination is below 0.50. In all cases, fixing the *c* parameter resulted in reasonable and stable item parameter estimates and improved model fit.

The number of Newton cycles required for convergence for each grade and content area during the IRT analysis can be found in Table 6-2. The number of cycles required fell within acceptable ranges.

Table 6-2. 2011–12 NECAP: Number of Newton Cycles Required for Convergence

<i>Content Area</i>	<i>Grade</i>	<i>Cycles</i>
Mathematics	3	107
	4	31
	5	58
	6	55
	7	57
	8	56
	11	96
Reading	3	47
	4	56
	5	63
	6	47
	7	45
	8	44
	11	45

6.3. EQUATING

The purpose of equating is to ensure that scores obtained from different forms of a test are equivalent to each other. Equating may be used if multiple test forms are administered in the same year, as well as to equate one year’s forms to those given in the previous year. Equating ensures that students are not given an unfair advantage or disadvantage because the test form they took is easier or harder than those taken by other students.

The 2011–12 administration of NECAP used a raw score-to-theta equating procedure in which test forms were equated to the theta scale established on the reference form (i.e., the form used in the most recent standard setting). This is accomplished through the chained linking design, in which every new form is equated back to the theta scale of the previous year’s test form. It can therefore be assumed that the theta scale of every new test form is the same as the theta scale of the reference form, since this is where the chain originated.

The groups of students who took the equating items on the 2011–12 NECAP reading tests are not equivalent to the groups who took them in the reference years. IRT is particularly useful for equating

scenarios that involve nonequivalent groups (Allen & Yen, 1979). Equating for NECAP uses the *anchor-test-nonequivalent-groups* design described by Petersen, Kolen, and Hoover (1989). In this equating design, no assumption is made about the equivalence of the examinee groups taking different test forms (that is, naturally occurring groups are assumed). Comparability is instead evaluated by utilizing a set of anchor items (also called equating items). However, the equating items are designed to mirror the common test in terms of item types and distribution of emphasis. Subsets of the equating items are distributed across forms.

Item parameter estimates for 2011–12 were placed on the 2010–11 scale by using the method of Stocking and Lord (1983), which is based on the IRT principle of item parameter invariance. According to this principle, the equating items for both the 2010–11 and 2011–12 NECAP tests should have the same item parameters. After the item parameters for each 2011–12 test were estimated using PARSCALE (Muraki & Bock, 2003), the Stocking and Lord method was employed to find the linear transformation (slope and intercept) that adjusted the equating items' parameter estimates such that the 2011–12 TCC for the equating items was as close as possible to that of 2010–11.

6.4. EQUATING RESULTS

Prior to calculating the Stocking and Lord transformation constants, a variety of evaluations of the equating items were conducted. Items that were flagged as a result of these evaluations are listed in Table 6-1 at the beginning of this chapter. These items were scrutinized and a decision was made as to whether to include the item as an equating item or to discard it. The procedures used to evaluate the equating items are described below.

Appendix J presents the results from the delta analysis. This procedure was used to evaluate adequacy of equating items; the discard status presented in the appendix indicates whether the item was flagged as potentially inappropriate for use in equating.

Also presented in Appendix J are the results from the rescore analysis. With this analysis, 200 random papers from the previous year were interspersed with this year's papers to evaluate scorer consistency from one year to the next. All effect sizes were well below the criterion value for excluding an item as an equating item, 0.50 in absolute value.

Finally, *a*-plots and *b*-plots, which show IRT parameters for 2011–12 plotted against the values for 2010–11, are presented in Appendix K. Any items that appeared as outliers in the plots were evaluated in terms of suitability for use as equating items.

Once all flagged items had been evaluated and appropriate action taken, the Stocking and Lord method of equating was used to place the item parameters onto the previous year's scale, as described above. The Stocking and Lord transformation constants are presented in Table 6-3.

Table 6-3. 2011–12 NECAP: Stocking and Lord Transformation Constants

<i>Content Area</i>	<i>Grade</i>	<i>a-slope</i>	<i>b-intercept</i>
Mathematics	3	1.037	0.152
	4	1.109	0.098
	5	1.052	0.137
	6	1.113	0.253
	7	1.049	0.269
	8	0.965	0.288
	11	1.014	0.182
Reading	3	0.922	0.052
	4	1.054	0.233
	5	0.979	0.091
	6	1.096	0.163
	7	1.119	0.098
	8	1.102	0.307
	11	1.106	0.358

The next administration of NECAP (2012–13) will be scaled to the 2011–12 administration using the same equating method described above.

6.5. ACHIEVEMENT STANDARDS

NECAP standards to establish achievement level cut scores in reading and mathematics for grades 3 through 8 were set in January 2006, and in reading, mathematics, and writing for grade 11 in January 2008. Details of the standard setting procedures can be found in the respective standard setting reports, as well as in the technical reports of those years.

Achievement standards for writing grades 5 and 8 were set in December 2010; for complete details of the standard setting, please see the *2010–11 New England Common Assessment Program Standard Setting Report* (Measured Progress, 2011).

The cuts on the theta scale that were established via standard setting and used for reporting in fall 2011 are presented in Table 6-4 below. Also shown in the table are the cutpoints on the reporting score scale (described below). These cutpoints will remain fixed throughout the assessment program unless standards are reset for any reason.

Table 6-4. 2011–12 NECAP: Cutpoints on the Theta Metric and Reporting Scale by Content Area and Grade

Content Area	Grade	Theta			Scaled Score				
		Cut 1	Cut 2	Cut 3	Minimum	Cut 1	Cut 2	Cut 3	Maximum
Mathematics	3	-1.03810	-0.26850	0.97040	300	332	340	353	380
	4	-1.15040	-0.37785	0.94930	400	431	440	455	480
	5	-0.92790	-0.28455	1.03130	500	533	540	554	580
	6	-0.87425	-0.22365	1.03425	600	633	640	653	680
	7	-0.70795	-0.07870	1.09945	700	734	740	752	780
	8	-0.64440	-0.02860	1.11775	800	834	840	852	880
	11	-0.11688	0.61895	2.05863	1100	1134	1140	1152	1180
Reading	3	-1.32285	-0.49700	1.03070	300	331	340	357	380
	4	-1.17300	-0.31420	1.14725	400	431	440	456	480
	5	-1.33545	-0.42760	1.04035	500	530	540	556	580
	6	-1.47795	-0.51795	1.12545	600	629	640	659	680
	7	-1.48330	-0.52230	1.20575	700	729	740	760	780
	8	-1.52505	-0.52240	1.13440	800	828	840	859	880
	11	-1.20706	-0.30992	1.00378	1100	1130	1140	1154	1180
Writing	5	-1.28347	-0.00868	1.52440	500	527	540	555	580
	8	-1.34864	-0.10590	1.26816	800	827	840	854	880

The tables in Appendix L show achievement level distributions by content area and grade. Results are shown for each of the last three years for all grades of reading and mathematics and for writing grade 11. For writing grades 5 and 8, because standards were set in December 2010, results are shown only for the 2010–11 and 2011–12 administrations.

6.6. REPORTED SCALED SCORES

Because the θ scale used in IRT calibrations is not readily understood by most stakeholders, reporting scales were developed for NECAP. The reporting scales are simple linear transformations of the underlying θ scale. The reporting scales are developed such that they range from x00 through x80 (where x is grade level). In other words, grade 3 scaled scores ranged from 300 to 380, grade 4 from 400 through 480, and so forth through grade 11, where scores ranged from 1100 through 1180. The lowest scaled score in the Proficient range is fixed at x40 for each grade level. For example, to be classified in the Proficient achievement level or above, a minimum scaled score of 340 was required at grade 3, 440 at grade 4, and so forth.

By providing information that is more specific about the position of a student’s results, scaled scores supplement achievement level scores. School- and district-level scaled scores are calculated by computing the average of student-level scaled scores. Students’ raw scores (i.e., total number of points) on the 2011–12 NECAP tests were translated to scaled scores using a data analysis process called *scaling*. Scaling simply converts from one scale to another. In the same way that a given temperature can be expressed on either Fahrenheit or Celsius scales, or the same distance can be expressed in either miles or kilometers, student scores on the 2011–12 NECAP tests can be expressed in raw or scaled scores.

It is important to note that converting from raw scores to scaled scores does not change students' achievement level classifications. Given the relative simplicity of raw scores, it is fair to question why scaled scores for NECAP are reported instead of raw scores. Scaled scores make consistent the reporting of results. To illustrate, standard setting typically results in different *raw* cut scores across grades and content areas. The raw cut score between Partially Proficient and Proficient could be, say, 35 in mathematics and 33 in reading, yet both of these raw scores would be transformed to scaled scores of x40. It is this uniformity across *scaled scores* that facilitates the understanding of student performance. The psychometric advantage of scaled scores over raw scores comes from their being *linear* transformations of θ . Since the θ scale is used for equating, scaled scores are comparable from one year to the next. Raw scores are not.

The scaled scores are obtained by a simple translation of ability estimates ($\hat{\theta}$) using the linear relationship between threshold values on the θ metric and their equivalent values on the scaled score metric. Students' ability estimates are based on their raw scores and are found by mapping through the TCC. Scaled scores are calculated using the linear equation

$$SS = m\hat{\theta} + b$$

where
 m is the slope, and
 b is the intercept.

A separate linear transformation is used for each grade and content area combination. For NECAP, the transformation function is determined by fixing the Partially Proficient/Proficient cut score and the bottom of the scale—that is, the x40 and the x00 values (e.g., 440 and 400 for grade 4). The x00 location on the θ scale is beyond (i.e., below) the scaling of all items. To determine this location, a chance score (approximately equal to a student's expected performance by guessing) is mapped to a value of -4.0 on the θ scale. A raw score of 0 is also assigned a scaled score of x00. The maximum possible raw score is assigned a scaled score of x80 (e.g., 480 in the case of grade 4). Because only two points within the θ scaled score space are fixed, the scaled score cutpoints between Substantially Below Proficient and Partially Proficient and between Proficient and Proficient with Distinction are free to vary across the grade and content area combinations.

Table 6-5 shows the slope and intercept terms used to calculate the scaled scores for each content area and grade. Note that the values in Table 6-5 will not change unless the standards are reset.

Table 6-5. 2011–12 NECAP: Scaled Score Slope and Intercept by Content Area and Grade

<i>Content Area</i>	<i>Grade</i>	<i>Slope</i>	<i>Intercept</i>
Mathematics	3	10.71955	342.87820
	4	11.04316	444.17266
	5	10.76586	543.06342
	6	10.59224	642.36895
	7	10.20070	740.80279
	8	10.07201	840.28806
	11	8.65998	1134.63991
Reading	3	11.41878	345.67514
	4	10.85246	443.40984
	5	11.19695	544.78782
	6	11.48749	645.94994
	7	11.50185	746.00742
	8	11.50219	846.00874
	11	10.83987	1143.35949
Writing	5	10.02173	540.08694
	8	10.27195	841.08780

Appendix M contains raw score to scaled score look-up tables for the 2011–12 NECAP tests. These are the actual tables used to determine student scaled scores, error bands, and achievement levels.

Appendix N contains scaled score distribution graphs for each grade and content area. These distributions were calculated using the sparse data matrix files that were used in the IRT calibrations.

CHAPTER 7. RELIABILITY

Although an individual item's performance is an important focus for evaluation, a complete evaluation of an assessment must also address the way items function together and complement one another. Tests that function well provide a dependable assessment of the student's level of ability. Unfortunately, no test can do this perfectly. A variety of factors can contribute to a given student's score being either higher or lower than his or her true ability. For example, a student may misread an item, or mistakenly fill in the wrong bubble when he or she knew the answer. Collectively, extraneous factors that affect a student's score are referred to as "measurement error." Any assessment includes some amount of measurement error; that is, no measurement is perfect. This is true of all academic assessments—some students will receive scores that underestimate their true ability, and other students will receive scores that overestimate their true ability. When tests have a high amount of measurement error, student scores are very unstable. Students with high ability may get low scores, or vice versa. Consequently, one cannot reliably measure a student's true level of ability with such a test. Assessments that have less measurement error (i.e., errors made are small on average and student scores on such a test will consistently represent their ability) are described as reliable.

There are a number of ways to estimate an assessment's reliability. One possible approach is to give the same test to the same students at two different points in time. If students receive the same scores on each test, the extraneous factors affecting performance are small and the test is reliable. (This is referred to as "test-retest reliability.") A potential problem with this approach is that students may remember items from the first administration or may have gained (or lost) knowledge or skills in the interim between the two administrations. A solution to the remembering items problem is to give a different, but parallel test at the second administration. If student scores on each test correlate highly, the test is considered reliable. (This is known as "alternate forms reliability," because an alternate form of the test is used in each administration.) This approach, however, does not address the problem that students may have gained (or lost) knowledge or skills in the interim between the two administrations. In addition, the practical challenges of developing and administering parallel forms generally preclude the use of parallel forms reliability indices. One way to address the latter two problems is to split the test in half and then correlate students' scores on the two half-tests; this in effect treats each half-test as a complete test. By doing this, the problems associated with an intervening time interval and with creating and administering two parallel forms of the test are alleviated. This is known as a "split-half estimate of reliability." If the two half-test scores correlate highly, items on the two half-tests must be measuring very similar knowledge or skills. This is evidence that the items complement one another and function well as a group. This also suggests that measurement error will be minimal.

The split-half method requires psychometricians to select items that contribute to each half-test score. This decision may have an impact on the resulting correlation, since each different possible split of the test into halves will result in a different correlation. Another problem with the split-half method of calculating reliability is that it underestimates reliability, because test length is cut in half. All else being equal, a shorter

test is less reliable than a longer test. Cronbach (1951) provided a statistic, α (alpha), that eliminates the problem of the split-half method by comparing individual item variances to total test variance. Cronbach's α was used to assess the reliability of the 2011–12 NECAP:

$$\alpha \equiv \frac{n}{n-1} \left[1 - \frac{\sum_{i=1}^n \sigma_{(Y_i)}^2}{\sigma_x^2} \right]$$

where
i indexes the item,
n is the total number of items,
 $\sigma_{(Y_i)}^2$ represents individual item variance, and
 σ_x^2 represents the total test variance.

7.1. RELIABILITY AND STANDARD ERRORS OF MEASUREMENT

Table 7-1 presents descriptive statistics, Cronbach's α coefficient, and raw score standard errors of measurement (SEMs) for each grade and content area. (Statistics are based on common items only.) Note that reliability could not be calculated for grade 11 writing because the test consists of a single writing prompt.

Table 7-1. 2011–12 NECAP: Raw Score Descriptive Statistics, Cronbach's Alpha, and Standard Errors of Measurement (SEM) by Content Area and Grade

Content Area	Grade	Number of Students	Raw score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
Mathematics	3	43,414	65	42.68	12.52	0.93	3.33
	4	43,806	65	42.36	13.49	0.93	3.46
	5	44,289	66	36.52	13.72	0.92	3.86
	6	44,130	66	34.48	14.62	0.92	4.05
	7	44,630	66	32.41	14.02	0.92	3.85
	8	46,432	66	34.12	14.56	0.93	3.89
	11	31,711	64	23.89	13.61	0.94	3.46
Reading	3	43,360	52	34.25	8.75	0.89	2.88
	4	43,741	52	34.16	9.12	0.89	3.05
	5	44,243	52	31.06	8.68	0.89	2.89
	6	44,117	52	33.04	8.31	0.88	2.83
	7	44,522	52	32.56	9.25	0.89	3.06
	8	46,376	52	32.71	9.21	0.89	3.09
	11	31,927	52	33.46	9.87	0.90	3.08
Writing	5	44,008	34	18.94	4.59	0.77	2.22
	8	46,171	34	20.83	5.58	0.77	2.65
	11	31,859	12	6.26	2.07		

Because different grades and content areas have different test designs (e.g., the number of items varies by test), it is inappropriate to make inferences about the quality of one test by comparing its reliability to that of another test from a different grade and/or content area.

7.2. 2011–12 SUBGROUP RELIABILITY

The reliability coefficients discussed in the previous section were based on the overall population of students who took the 2011–12 NECAP test. Appendix O presents reliabilities for various subgroups of interest. Subgroup Cronbach's α 's were calculated using the formula defined above based only on the members of the subgroup in question in the computations; values are only calculated for subgroups with 10 or more students.

For several reasons, the results of this section should be interpreted with caution. First, inherent differences between grades and content areas preclude making valid inferences about the quality of a test based on statistical comparisons with other tests. Second, reliabilities are dependent not only on the measurement properties of a test but on the statistical distribution of the studied subgroup. For example, it can be readily seen in Appendix O that subgroup sample sizes may vary considerably, which results in natural variation in reliability coefficients. Or α , which is a type of correlation coefficient, may be artificially depressed for subgroups with little variability (Draper & Smith, 1998). Third, there is no industry standard to interpret the strength of a reliability coefficient, and this is particularly true when the population of interest is a single subgroup.

7.3. REPORTING SUBCATEGORY RELIABILITY

Of even more interest are reliabilities for the reporting subcategories within NECAP content areas, described in Chapter 2. Cronbach's α coefficients for subcategories were calculated via the same formula defined previously using just the items of a given subcategory in the computations. Results are presented in Appendix O. Once again as expected, because they are based on a subset of items rather than the full test, computed subcategory reliabilities were lower (sometimes substantially so) than were overall test reliabilities, and interpretations should take this into account. The subcategory reliabilities were lower than those based on the total test and approximately to the degree one would expect based on classical test theory. Qualitative differences between grades and content areas once again preclude valid inferences about the quality of the full test based on statistical comparisons among subcategories.

7.4. INTERRATER CONSISTENCY

Chapter 4 of this report describes in detail the processes that were implemented to monitor the quality of the hand-scoring of student responses for constructed-response items. One of these processes was double-blind scoring: approximately 2% of student responses were randomly selected and scored independently by two different scorers, except for the writing prompts in grades 5, 8, and 11, which were 100% double scored. Results of the double-blind scoring were used during the scoring process to identify scorers who required retraining or other intervention and are presented here as evidence of the reliability of NECAP. A summary of the interrater consistency results are presented in Table 7-2 below. Results in the table are collapsed across the

hand-scored items by grade and content area. The table shows the number of score categories, number of included scores, percent exact agreement, percent adjacent agreement, correlation between the first two sets of scores, and percentage of responses that required a third score. This same information is provided at the item level in Appendix P.

Table 7-2. 2011–12 NECAP: Summary of Interrater Consistency Statistics Collapsed Across Items by Content Area and Grade

<i>Content Area</i>	<i>Grade</i>	<i>Number of Score Categories</i>	<i>Number of Included Scores</i>	<i>Percent Exact</i>	<i>Percent Adjacent</i>	<i>Correlation</i>	<i>Percent of Third Scores</i>
Mathematics	3	2	8,646	97.68	2.32	0.94	0.00
		3	8,671	94.52	5.35	0.96	0.13
	4	2	8,790	96.67	3.33	0.93	0.00
		3	8,847	95.94	3.82	0.96	0.24
	5	2	5,332	98.14	1.86	0.96	0.00
		3	5,291	90.38	8.96	0.91	0.66
		5	3,622	88.18	10.96	0.96	0.86
	6	2	5,291	97.85	2.15	0.95	0.00
		3	5,358	88.67	10.49	0.90	0.84
		5	3,577	89.24	9.87	0.97	0.89
	7	2	5,314	97.48	2.52	0.95	0.00
		3	5,285	90.61	9.04	0.93	0.34
		5	3,597	84.65	13.12	0.93	2.20
	8	2	5,551	95.30	4.70	0.91	0.00
		3	5,546	91.74	7.86	0.94	0.38
		5	3,791	84.12	13.95	0.94	1.90
	11	2	7,254	98.70	1.30	0.97	0.00
		3	3,481	95.35	4.40	0.95	0.26
5		2,473	89.45	9.38	0.94	1.13	
Reading	3	5	5,318	79.84	18.90	0.93	1.24
	4	5	5,276	76.50	21.95	0.89	1.48
	5	5	5,457	64.39	33.10	0.76	2.40
	6	5	5,524	63.83	33.94	0.74	2.19
	7	5	5,572	63.98	33.54	0.80	2.44
	8	5	5,726	61.33	35.78	0.79	2.72
	11	5	3,916	61.87	35.83	0.79	2.20
Writing	5	5	2,713	65.09	33.62	0.75	1.29
		7	43,450	61.83	36.29	0.67	1.87
	8	5	2,813	65.41	32.99	0.77	1.60
		7	45,097	57.30	38.38	0.73	4.26
	11	7	31,150	59.45	38.32	0.79	2.09

7.5. RELIABILITY OF ACHIEVEMENT LEVEL CATEGORIZATION

While related to reliability, the accuracy and consistency of classifying students into achievement categories are even more important statistics in a standards-based reporting framework (Livingston & Lewis, 1995). After the achievement levels were specified and students were classified into those levels, empirical

analyses were conducted to determine the statistical accuracy and consistency of the classifications. For NECAP, students are classified into one of four achievement levels: Substantially Below Proficient, Partially Proficient, Proficient, or Proficient with Distinction. This section of the report explains the methodologies used to assess the reliability of classification decisions, and results are given.

Accuracy refers to the extent to which decisions based on test scores match decisions that would have been made if the scores did not contain any measurement error. Accuracy must be estimated, because errorless test scores do not exist. Consistency measures the extent to which classification decisions based on test scores match the decisions based on scores from a second, parallel form of the same test. Consistency can be evaluated directly from actual responses to test items if two complete and parallel forms of the test are given to the same group of students. In operational test programs, however, such a design is usually impractical. Instead, techniques have been developed to estimate both the accuracy and consistency of classification decisions based on a single administration of a test. The Livingston and Lewis (1995) technique was used for the 2011–12 NECAP because it is easily adaptable to all types of testing formats, including mixed format tests.

The accuracy and consistency estimates reported in Appendix Q make use of “true scores” in the classical test theory sense. A true score is the score that would be obtained if a test had no measurement error. Of course, true scores cannot be observed and so must be estimated. In the Livingston and Lewis (1995) method, estimated true scores are used to categorize students into their “true” classifications.

For the 2011–12 NECAP, after various technical adjustments (described in Livingston & Lewis, 1995), a four-by-four contingency table of accuracy was created for each grade and content area, where cell $[i, j]$ represented the estimated proportion of students whose true score fell into classification i (where $i = 1$ to 4) and observed score into classification j (where $j = 1$ to 4). The sum of the diagonal entries (i.e., the proportion of students whose true and observed classifications matched) signified overall accuracy.

To calculate consistency, true scores were used to estimate the joint distribution of classifications on two independent, parallel test forms. Following statistical adjustments per Livingston and Lewis (1995), a new four-by-four contingency table was created for each grade and content area and populated by the proportion of students who would be categorized into each combination of classifications according to the two (hypothetical) parallel test forms. Cell $[i, j]$ of this table represented the estimated proportion of students whose observed score on the first form would fall into classification i (where $i = 1$ to 4) and whose observed score on the second form would fall into classification j (where $j = 1$ to 4). The sum of the diagonal entries (i.e., the proportion of students categorized by the two forms into exactly the same classification) signified overall consistency.

Another way to measure consistency is to use Cohen’s (1960) coefficient κ (kappa), which assesses the proportion of consistent classifications after removing the proportion of consistent classifications that would be expected by chance. It is calculated using the following formula:

$$\kappa = \frac{(\text{Observed agreement}) - (\text{Chance agreement})}{1 - (\text{Chance agreement})} = \frac{\sum_i C_{ii} - \sum_i C_i.C_i}{1 - \sum_i C_i.C_i}$$

where

C_i is the proportion of students whose observed achievement level would be Level i (where $i = 1-4$) on the first hypothetical parallel form of the test;

C_i is the proportion of students whose observed achievement level would be Level i (where $i = 1-4$) on the second hypothetical parallel form of the test;

C_{ii} is the proportion of students whose observed achievement level would be Level i (where $i = 1-4$) on both hypothetical parallel forms of the test.

Because κ is corrected for chance, its values are lower than are other consistency estimates.

7.5.1. Accuracy and Consistency Results

The accuracy and consistency analyses described above are provided in Table Q-1 of Appendix Q. The table includes overall accuracy and consistency indices, including kappa. Accuracy and consistency values conditional upon achievement level are also given. For these calculations, the denominator is the proportion of students associated with a given achievement level. For example, the conditional accuracy value is 0.84 for Substantially Below Proficient for grade 3 mathematics. This figure indicates that among the students whose true scores placed them in this classification, 84% would be expected to be in this classification when categorized according to their observed scores. Similarly, a consistency value of 0.77 indicates that 77% of students with observed scores in the Substantially Below Proficient level would be expected to score in this classification again if a second, parallel test form were used.

For some testing situations, the greatest concern may be decisions around level thresholds. For example, in testing done for NCLB accountability purposes, the primary concern is distinguishing between students who are proficient and those who are not yet proficient. In this case, the accuracy of the Partially Proficient-Proficient threshold is of greatest interest. For the 2011–12 NECAP, Table Q-2 in Appendix Q provides accuracy and consistency estimates at each cutpoint as well as false positive and false negative decision rates. (A false positive is the proportion of students whose observed scores were above the cutpoint and whose true scores were below the cutpoint. A false negative is the proportion of students whose observed scores were below the cutpoint and whose true scores were above the cutpoint.)

The above indices are derived from Livingston and Lewis's (1995) method of estimating the accuracy and consistency of classifications. It should be noted that Livingston and Lewis discuss two versions of the accuracy and consistency tables. A standard version performs calculations for forms parallel to the form taken. An "adjusted" version adjusts the results of one form to match the observed score distribution obtained in the data. The tables use the standard version for two reasons: (1) this "unadjusted" version can be considered a smoothing of the data, thereby decreasing the variability of the results; and (2) for results dealing with the consistency of two parallel forms, the unadjusted tables are symmetrical, indicating that the two parallel forms have the same statistical properties. This second reason is consistent with the notion of forms

that are parallel; that is, it is more intuitive and interpretable for two parallel forms to have the same statistical distribution.

Note that, as with other methods of evaluating reliability, accuracy and consistency statistics calculated based on small groups can be expected to be lower than those calculated based on larger groups. For this reason, the values presented in Appendix Q should be interpreted with caution. In addition, it is important to remember that it is inappropriate to compare accuracy and consistency statistics between grades and content areas.

CHAPTER 8. SCORE REPORTING

8.1. TEACHING YEAR VERSUS TESTING YEAR REPORTING

The data used for the NECAP reports are the results of the fall 2011 NECAP test administration. It is important to note that the NECAP tests are based on the grade level expectations (GLEs) from the previous year. For example, the grade 7 NECAP test administered in the fall of seventh grade is based on the grade 6 GLEs. Because many students receive instruction at a different school from where they were tested, the state Departments of Education determined that access to results information would be valuable to both the school where the student was tested and the school where the student received instruction. To achieve this goal, separate Item Analysis, School and District Results, and School and District Summary Reports were created for the “testing” school and the “teaching” school. Every student who participated in the NECAP test was represented in testing reports, and most students were represented in teaching reports. In some cases (e.g., a student who recently moved to the state), it is not possible to provide information for a student in a teaching report.

8.2. PRIMARY REPORTING DELIVERABLES

The following reporting deliverables were produced for the 2011–12 NECAP:

- Student Report
- School and District Results Report
- School and District Summary Report
- School and District Student-Level Data File
- Analysis & Reporting System

With the exception of the Student Report, these reports and data files were available for schools and districts to view or download via the NECAP Analysis & Reporting System, a password-secure Web site hosted by Measured Progress. Each of these reporting deliverables is described in the following sections. Sample reports are provided in Appendix R.

Support is provided by the state Departments of Education and Measured Progress to stakeholders who use the various reporting deliverables by hosting report interpretation workshops and by providing the *Guide to Using the 2011 NECAP Reports*. These resources help foster proper use and interpretation of NECAP results.

The *Guide* includes a table that shows the number of scaled score points that would indicate a statistically significant difference between two equally sized groups of students. The calculations are

performed by computing the standard error of the difference in means ($\sigma_{\bar{x}_1 - \bar{x}_2}$) for different values of n , based on the observed scaled score standard deviations for each grade and content area. The formula for the variance error of the difference in means is:

$$\sigma_{\bar{x}_1 - \bar{x}_2}^2 = \sigma^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)$$

By assuming $n_1 = n_2 = n$ and $\sigma_1^2 = \sigma_2^2 = \sigma_w^2$, this equation simplifies to:

$$\sigma_{\bar{x}_1 - \bar{x}_2}^2 = \sigma_w^2 \left(\frac{1}{n} + \frac{1}{n} \right) = \frac{2\sigma^2}{n}, \text{ and}$$

$$\sigma_{\bar{x}_1 - \bar{x}_2} = \sqrt{2\sigma^2/n}$$

Therefore, if the difference in scaled scores of two equally sized groups is greater than or equal to $\sigma_{\bar{x}_1 - \bar{x}_2}$, you can be 67% certain that there is a true difference in performance between the two groups. Differences between two unequally sized groups can be interpreted, conservatively, by using the value associated with the size of the smaller group.

The *Guide* also includes a second table that shows corresponding values based on percentages of students, to help interpret differences in percentages of students in performance level categories. The calculations for this table are based on the variance error of a proportion:

$$s_p^2 = \frac{s^2}{n} = \frac{p(1-p)}{n}, \text{ and}$$

$$s_p = \sqrt{p(1-p)/n}$$

Together, these two tables in the *Guide to Using the 2011 NECAP Reports* help teachers, schools, and districts interpret differences in scores between two groups of students and, in this way, support appropriate interpretation of NECAP scores.

8.3. STUDENT REPORTS

The *NECAP Student Report* is a single-page, double-sided report printed on 8.5"-by-14" paper. The front of the report includes informational text about the design and uses of the assessment. The front of the report also contains text describing the three corresponding sections on the reverse side of the report and the achievement level descriptions. The reverse side of the *Student Report* provides a complete picture of an

individual student's performance on the NECAP test, divided into three sections. The first section provides the student's overall performance for each content area. The student's achievement levels are provided, and scaled scores are presented numerically as well as in a graphic that depicts the scaled score with the standard error of measurement bar constructed about it, set within the full range of possible scaled scores demarcated into the four achievement levels.

The second section displays the student's achievement level in each content area relative to the percentage of students at each achievement level within the school, district, and state.

The third section shows the student's raw score performance in content area reporting categories relative to possible points; gives the average points earned for the school, district, and state; and gives the average points earned by students at the Proficient level on the overall content area test. For reading, with the exception of Word ID/Vocabulary items, items are reported by Type of Text (Literary, Informational) and Level of Comprehension (Initial Understanding, Analysis and Interpretation). For mathematics, the reporting subcategories are Numbers and Operations; Geometry and Measurement; Functions and Algebra; and Data, Statistics, and Probability. Grade 5 and 8 writing report Multiple Choice, Short Responses, and Extended Response as categories. Grade 11 writing only reports Extended Response as a category.

The *NECAP Student Report* is confidential and should be kept secure within the school and district. The Family Educational Rights and Privacy Act (FERPA) requires that access to individual student results be restricted to the student, the student's parents/guardians, and authorized school personnel.

8.4. ITEM ANALYSIS REPORTS

The *NECAP Item Analysis Report* provides a roster of all students in a school and provides their performance on the common items that are released to the public, one report per content area. For all grades and content areas, the student names and identification numbers are listed as row headers down the left side of the report. For grades 3 through 8 and 11 in reading and mathematics, the items are listed as column headers in the same order they appeared in the released item documents (not the position in which they appeared on the test).

For each item, seven pieces of information are shown: the released item number, the content strand for the item, the GLE/GSE code for the item, the depth of knowledge (DOK) code for the item, the item type, the correct response key for multiple-choice items, and the total possible points.

For each student, multiple-choice items are marked either with a plus sign (+), indicating that the student chose the correct multiple-choice response, or a letter (from A to D), indicating the incorrect response chosen by the student. For short-answer and constructed-response items, the number of points earned is shown. All responses to released items are shown in the report, regardless of the student's participation status.

The columns on the right side of the report show the Total Test Results, broken into several categories. Subcategory Points Earned columns show points earned by the student in each content area subcategory relative to total points possible. A Total Points Earned column is a summary of all points earned

and total possible points in the content area. The last two columns show the student's Scaled Score and Achievement Level. Students reported as Not Tested are given a code in the Achievement Level column to indicate the reason why the student did not test. Descriptions of these codes can be found on the legend, after the last page of data on the report. It is important to note that not all items used to compute student scores are included in this report, only released items. At the bottom of the report, the average percent correct for each multiple-choice item and average scores for the short-answer and constructed-response items are shown for the school, district, and state.

For grade 11 writing, the top portion of the *NECAP Item Analysis Report* consists of a single row of item information containing the content strand, GSE codes, DOK code, item type/writing prompt, and total possible points. The student names and identification numbers are listed as row headers down the left side of the report. The Total Test Results section to the right includes Total Points Earned and Achievement Level for each student. At the bottom, the average points earned on the writing prompt are provided for the school, district, and state.

The *NECAP Item Analysis Report* is confidential and should be kept secure within the school and district. FERPA requires that access to individual student results be restricted to the student, the student's parents/guardians, and authorized school personnel.

8.5. SCHOOL AND DISTRICT RESULTS REPORTS

The *NECAP School Results Report* and the *NECAP District Results Report* consist of three parts: the grade level summary report, the results for the content areas, and the disaggregated content area results.

The grade level summary report provides a summary of participation in the NECAP and a summary of NECAP results. The participation section on the top half of the page shows the number and percentage of students who were enrolled on or after October 1, 2011. The total number of students enrolled is defined as the number of students tested plus the number of students not tested.

Data are provided for the following groups of students who are considered tested in NECAP:

- **Students Tested:** This category provides the total number of students tested.
- **Students Tested with an Approved Accommodation:** Students in this category tested with an accommodation and did not have their test invalidated.
- **Current LEP Students:** Students in this category are currently receiving LEP services.
- **Current LEP Student Tested with an Approved Accommodation:** Students in this category are currently receiving LEP services, tested with an accommodation, and did not have their test invalidated.
- **IEP Students:** Students in this category have an IEP.
- **IEP Student tested with an Approved Accommodation:** Students in this category have an IEP, tested with an accommodation, and did not have their test invalidated.

Because students who were not tested did not participate, average school scores were not affected by nontested students. These students were included in the calculation of the percentage of students participating, but not in the calculation of scores. For students who participated in some but not all sessions of the NECAP test, actual scores were reported for the content areas in which they participated. These reporting decisions were made to support the requirement that all students participate in the NECAP.

Data are provided for the following groups of students who may not have completed the entire battery of NECAP tests:

- **Alternate Assessment:** Students in this category completed an alternate test for the 2010–11 school year.
- **First-Year LEP:** Students in this category are defined as being new to the United States after October 1, 2010, and were not required to take the NECAP tests in reading and writing. Students in this category were expected to take the mathematics portion of the NECAP.
- **Withdrew after October 1:** Students withdrawing from a school after October 1, 2011, may have taken some sessions of the NECAP tests prior to their withdrawal from the school.
- **Enrolled after October 1:** Students enrolling in a school after October 1, 2011, may not have had adequate time to participate fully in all sessions of NECAP testing.
- **Special Consideration:** Schools received state approval for special consideration for an exemption on all or part of the NECAP tests for any student whose circumstances are not described by the previous categories but for whom the school determined that taking the NECAP tests would not be possible.
- **Other:** Occasionally students will not have completed the NECAP tests for reasons other than those listed above. These “other” categories were considered not state approved.

The results section in the bottom half of the page shows the number and percentage of students performing at each achievement level in each of the content areas across the school, district, and state. In addition, a mean scaled score is provided for each content area across school, district, and state levels except for grade 11 writing where the mean raw score is provided across the school, district, and state. School information is blank for the district version of this report.

For reading and mathematics, the content area results pages provide information on performance in specific content categories of the tested content areas (for example, geometry and measurement within mathematics). For writing in grades 5 and 8, information is provided by item type (multiple-choice, short-response, and extended-response). The purpose of these sections is to help schools determine the extent to which their curricula are effective in helping students to achieve the particular standards and benchmarks contained in the GLEs and GSEs. The content area results pages provide data for the 2009–10, 2010–11, and 2011–12 individual test administrations as well as cumulative data for the three years in reading and mathematics. For writing grades 5 and 8, data are only provided for the 2010–11 and the 2011–12 test

administrations as well as cumulative data for the two years. Data do not exist for the 2009–10 test administration for writing in grades 5 and 8 because the test was a pilot and results were not produced.

Information about each content area (reading and mathematics for all grades and writing for grades 5 and 8) for school, district, and state levels include:

- the total number of students enrolled, not tested (state-approved reason), not tested (other reason), and tested;
- the total number and percentage of students at each achievement level (based on the number in the tested column); and
- the mean scaled score.

Information about each content area reporting category for reading and mathematics in all grades and about each item type for writing in grades 5 and 8 includes the following:

- The total possible points for that reporting category or item type. In order to provide as much information as possible for each category, the total number of points includes both the common items used to calculate scores and additional items in each category used for equating the test from year to year.
- A graphic display of the percentage of total possible points for each subcontent area/reporting category for the school, district, and state. In this graphic display, there are symbols representing school, district, and state performances. In addition, there is a line representing the standard error of measurement. This statistic indicates how much a student's score could vary if the student were examined repeatedly with the same test (assuming that no learning were to occur between test administrations).

The first content area results page for the grade 11 writing test provides data for the 2009–10, 2010–11, and 2011–12 individual test administrations as well as cumulative data for the three years. Information provided for the school, district, and state includes:

- the total number of students enrolled, not tested (state-approved reason), not tested (other reason), and tested;
- the total number and percentage of students at each achievement level (based on the number in the tested column); and
- the mean raw score.

The bottom half of this page includes a table that lists the type of writing (genre) for the common prompt (i.e., the prompt for which the results on the top half of the page are about) for each of the last three test administrations. The type of writing and a description of that type is included for each year.

The second content area results page lists the types of writing that are assessed in the grade 11 writing test. The list is comprised of the types of writing used to make both a common prompt (one that is administered to all students) and matrix prompts (ones that vary across the eight different forms of the test). The first column on this page provides the name and a description of each type of writing. The second column provides separate rows for the current year (2011–12) and the previous year that each type of writing was assessed. The symbol “(C)” indicates the type of writing that was common in that year’s test. The number of students tested and the mean raw score are provided for the school, district, and state levels. A graphic display is also provided for each year and type of writing that shows the average score attained on the 0-to-12 scale for the school, district, and state levels. The scale of 0 to 12 on the graphic display represents the possible score range for the writing prompt. The two scores assigned to the student’s response from the 6-point rubric are added; the result is a score from 0 to 12. A score of 7 depicted on the scale represents the score needed to be proficient.

Finally, the third page of the grade 11 writing content area results contains a table that presents information on the distribution of scores across the 0-to-12 range. The first column of the table lists the possible scores from 12 down to 0. The next two columns (“Score 1” and “Score 2”) represent the two independent scores assigned to a student’s response to the common writing prompt. The student’s total score on the common writing prompt is the sum of these two scores. The next four columns list the total number of students, N, and the percentage, %, of students for each score on the 0-to-12 scale for the school and district. The last column provides the percentage, %, of students for each score on the 0-to-12 scale for the state. The 6-point scoring rubric that is used to score student responses to the common writing prompt is also included on this page of the report.

The disaggregated content area results pages (all grades and content areas) present the relationship between performance and student reporting categories (see list below) in each content area across school, district, and state levels. Each content area page shows the number of students categorized as enrolled, not tested (state-approved reason), not tested (other reason), and tested. The tables also provide the number and percentage of students within each of the four achievement levels and the mean scaled score (or mean raw score for grade 11 writing) by each reporting category.

The list of student reporting categories is as follows:

- All Students
- Gender
- Race/Ethnicity
- LEP Status
- IEP
- SES (socioeconomic status)
- Migrant

- Title I
- 504 Plan

The data for achievement levels and mean scaled score (or mean raw score for grade 11 writing) are based on the number shown in the tested column. The data for the reporting categories were provided by information coded on the students' answer booklets by teachers and/or data linked to the student label. Because performance is being reported by categories that can contain relatively low numbers of students, school personnel are advised, under FERPA guidelines, to treat these pages confidentially.

It should be noted that no data were reported for the 504 Plan in any of the content areas for New Hampshire and Vermont. Additionally, no data were reported for Title I in any of the content areas for Vermont.

8.6. SCHOOL AND DISTRICT SUMMARY REPORTS

The *NECAP School Summary Report* and the *NECAP District Summary Report* provide details, broken down by content area, on student performance by grade level tested in the school. The purpose of the summary is to help schools determine the extent to which their students achieve the particular standards and benchmarks contained in the GLEs and GSEs.

Information about each content area and grade level for school, district, and state includes:

- the total number of students enrolled, not tested (state-approved reason), not tested (other reason), and tested;
- the total number and percentage of students at each achievement level (based on the number in the tested column); and
- the mean scaled score (mean raw score for grade 11 writing).

The data reported, the report format, and the guidelines for using the reported data are identical for both the school and district reports. The only difference between the reports is that the *NECAP District Summary Report* includes no individual school data. Separate school reports and district reports were produced for each grade level tested.

8.7. SCHOOL AND DISTRICT STUDENT-LEVEL DATA FILES

In addition to the reports described above, districts and, for the first time this year, schools received access to and were able to download student-level data files from the Analysis & Reporting System for each grade of students tested within their district or school. Student-level data files were produced for both “teaching year” and “testing year.”

The student-level data files list students alphabetically within each school and contain all of the demographic information that was provided by the state for each student. Student records contain the scaled score, achievement level, and subscores earned by the student for each content area tested. In addition, the student records contain each student's actual performance on each of the released items for each content area tested as well as the student's responses to the student questionnaire.

The data collected from the optional reports field, if it was coded by schools on page 2 of the Student Answer Booklets, are also available for each student in the student-level data file. The optional reports field was provided to allow schools the option of grouping individual students into additional categories (e.g., by class or by previous year's teacher). This allows schools to make comparisons between subgroups that are not already listed on the disaggregated results pages of the school and district results reports.

The file layout of the student-level data files that lists all of the field names, variable information, and valid values for each field was also available to districts and schools on the Analysis & Reporting System.

8.8. ANALYSIS & REPORTING SYSTEM

NECAP results for the 2011–12 test administration were accessible online via the Analysis & Reporting System. In addition to accessing and downloading reports and student-level data files in the same manner as in previous years, this new system includes interactive capabilities that allow school and district users to sort and filter item and subgroup data to create custom reports.

8.8.1. Interactive Reports

There are four interactive reports that were available from the Analysis & Reporting System: “Item Analysis Report,” “Achievement Level Summary,” “Released Items Summary Data,” and “Longitudinal Data .” Each of these interactive reports is described in the following sections. To access these four interactive reports, the user needed to click the “Interactive” tab on the home page of the system and select the report desired from the drop-down menu. Next, the user had to apply basic filtering options such as the name of the district or school and the grade level/content area test to open the specific report. At this point, the user had the option of printing the report for the entire grade level or applying advanced filtering options to select a subgroup of students for which to analyze their results. Advanced filtering options included gender, ethnicity, LEP, IEP, and SES. Users also needed to select either the “Teaching” or “Testing” cohort of students using the “Filter by Group” drop-down menu. All interactive reports, with the exception of the Longitudinal Data Report, allowed the user to provide a custom title for the report.

8.8.1.1. Item Analysis Report

The Item Analysis Report provides individual student performance data on the released items and total test results for a selected grade and content area. . Please note that when advanced filtering criteria are applied by the user, the School and District Percent Correct and Average Score rows at the bottom of the

report are blanked out and only the Group row and the State row for the group selected will contain data. This report can be saved, printed, or exported as a PDF.

8.8.1.2. Achievement Level Summary

The Achievement Level Summary provides a visual display of the percentages of students in each achievement level for a selected grade and content area. The four achievement levels (Proficient with Distinction, Proficient, Partially Proficient, and Substantially Below Proficient) are represented by various colors in a pie chart. A separate table is also included below the chart that shows the number and percentage of students in each achievement level. This report can be saved, printed, or exported as a PDF or JPG file.

8.8.1.3. Released Items Summary Data

The Released Items Summary Data report is a school-level report that provides a summary of student responses to the released items for a selected grade and content area. The report is divided into two sections by item type (multiple-choice and open-response). For multiple-choice items, the content strand and GE code linked to the item are included as well as the total number and percentage of students who answered the item correctly and the number of students who chose each incorrect option or provided an invalid response. An invalid response on a multiple-choice item is defined as “the item was left blank” or “the student selected more than one option for the item.” For open-response items, the content strand and GE code linked to the item are included as well as the point value and average score for the item. Users are also able to view the actual released items within the report. If a user clicks on a particular magnifying glass icon next to a released item number, a pop-up box will open, displaying the released item.

8.8.1.4. Longitudinal Data

The Longitudinal Data report is a confidential student-level report that provides individual student performance data for multiple test administrations. Fall 2011 NECAP scores and achievement levels are provided for each tested student in reading, mathematics, and writing. In addition, fall NECAP 2008, 2009, and 2010 reading, mathematics, and writing scores and achievement levels as well as spring NECAP science scores and achievement levels are also included for students in New Hampshire, Rhode Island, and Vermont. Maine students in grades 3 through 8 will show fall 2009, 2010, and 2011 NECAP scores and achievement levels in reading and mathematics, since this is only the third test administration for Maine since joining NECAP. Student performance on future test administrations will be included on this report over time. This report can be saved, printed, or exported as a PDF file.

8.8.2. User Accounts

In the Analysis & Reporting System, principals have the ability to create unique user accounts by assigning specific usernames and passwords to educators, such as teachers, curriculum coordinators, or special education coordinators, in their school. Once the accounts have been created, individual students may be assigned to each user account. After users have received their usernames and passwords, they are able to log in to their accounts and access the interactive reports, which will be populated only with the subgroup of students assigned to them.

Information about the interactive reports and setting up user accounts is available in the *Analysis & Reporting System User Manual* that is available for download on the Analysis & Reporting System.

8.9. DECISION RULES

To ensure that reported results for the 2011–12 NECAP are accurate relative to collected data and other pertinent information, a document that delineates analysis and reporting rules was created. These decision rules were observed in the analyses of NECAP test data and in reporting the test results. Moreover, these rules are the main reference for quality assurance checks.

The decision rules document used for reporting results of the October 2011 administration of the NECAP is found in Appendix S.

The first set of rules pertains to general issues in reporting scores. Each issue is described, and pertinent variables are identified. The actual rules applied are described by the way they impact analyses and aggregations and their specific impact on each of the reports. The general rules are further grouped into issues pertaining to test items, school type, student exclusions, and number of students for aggregations.

The second set of rules pertains to reporting student participation. These rules describe which students were counted and reported for each subgroup in the student participation report.

8.9.1.1. Quality Assurance

Quality assurance measures are embedded throughout the entire process of analysis and reporting. The data processor, data analyst, and psychometrician assigned to work on NECAP implement quality control checks of their respective computer programs and intermediate products. Moreover, when data are handed off to different functions within the Data and Reporting and Psychometrics departments, the sending function verifies that the data are accurate before handoff. Additionally, when a function receives a data set, the first step is to verify the data for accuracy.

Another type of quality assurance measure is parallel processing. Students' scaled scores for each content area are assigned by a psychometrician through a process of equating and scaling. The scaled scores are also computed by a data analyst to verify that scaled scores and corresponding achievement levels are

assigned accurately. Respective scaled scores and assigned achievement levels are compared across all students for 100% agreement. Different exclusions that determine whether each student received scaled scores and/or was included in different levels of aggregation are also parallel processed. Using the decision rules document, two data analysts independently write a computer program that assigns students' exclusions. For each content area and grade combination, the exclusions assigned by each data analyst are compared across all students. Only when 100% agreement is achieved can the rest of data analysis be completed.

The third aspect of quality control involves the procedures implemented by the quality assurance group to check the accuracy of reported data. Using a sample of schools and districts, the quality assurance group verifies that reported information is correct. The step is conducted in two parts: (1) verify that the computed information was obtained correctly through appropriate application of different decision rules, and (2) verify that the correct data points populate each cell in the NECAP reports. The selection of sample schools and districts for this purpose is very specific and can affect the success of the quality control efforts. There are two sets of samples selected that may not be mutually exclusive.

The first set includes those that satisfy the following criteria:

- one-school district
- two-school district
- multi-school district

The second set of samples includes districts or schools that have unique reporting situations as indicated by decision rules. This second set is necessary to ensure that each rule is applied correctly. The second set includes the following criteria:

- private school
- small school that receives no school report
- small district that receives no district report
- district that receives a report but with schools that are too small to receive a school report
- school with excluded (not tested) students
- school with home-schooled students

The quality assurance group uses a checklist to implement its procedures. After the checklist is completed, sample reports are circulated for psychometric checks and program management review. The appropriate sample reports are then presented to the client for review and sign-off.

CHAPTER 9. VALIDITY

Because interpretations of test scores, and not a test itself, are evaluated for validity, the purpose of the *2011–12 NECAP Technical Report* is to describe several technical aspects of the NECAP tests in support of score interpretations (AERA, 1999). Each chapter contributes an important component in the investigation of score validation: test development and design; test administration; scoring, scaling, and equating; item analyses; reliability; and score reporting.

Standards for Educational and Psychological Testing (AERA, et al., 1999) provides a framework for describing sources of evidence that should be considered when constructing a validity argument. The evidence around test content, response processes, internal structure, relationship to other variables, and consequences of testing speaks to different *aspects* of validity but are not distinct *types* of validity. Instead, each aspect of validity contributes to a body of evidence about the comprehensive validity of score interpretations.

Evidence on test content validity is meant to determine how well the assessment tasks represent the curriculum and standards for each grade level and content area. Content validation is informed by the item development process, including how the test blueprints and test items align to the curriculum and standards. Viewed through this lens provided by the standards, evidence based on test content was extensively described in Chapters 2 and 3. Item alignment with NECAP content standards; item bias, sensitivity, and content appropriateness review processes; adherence to the test blueprint; use of multiple item types; use of standardized administration procedures, with accommodated options for participation; and appropriate test administration training are all components of validity evidence based on test content. As discussed earlier, all NECAP questions are aligned by educators from the member states to specific NECAP content standards, and undergo several rounds of review for content fidelity and appropriateness. Items are presented to students in multiple formats (constructed-response, short-answer, and multiple-choice). Finally, tests are administered according to state-mandated standardized procedures, with allowable accommodations, and all test coordinators and administrators are required to familiarize themselves with and adhere to all of the procedures outlined in the *NECAP Principal/Test Coordinator* and *Test Administrator Manuals*.

The scoring information in Chapter 4 describes the steps taken to train and monitor hand-scorers, as well as quality control procedures related to scanning and machine scoring. To speak to student response processes, however, additional studies would be helpful and might include an investigation of students' cognitive methods using think-aloud protocols.

Evidence based on internal structure is presented in great detail in the discussions of item analyses, reliability, and scaling and equating in Chapters 5 through 7. Technical characteristics of the internal structure of the assessments are presented in terms of classical item statistics (item difficulty, item-test correlation), differential item functioning analyses, dimensionality analyses, reliability, standard errors of measurement, and item response theory parameters and procedures. Each test is equated to the same grade and content area

test from the prior year in order to preserve the meaning of scores over time. In general, item difficulty and discrimination indices were in acceptable and expected ranges. Very few items were answered correctly at near-chance or near-perfect rates. Similarly, the positive discrimination indices indicate that most items were assessing consistent constructs, and students who performed well on individual items tended to perform well overall.

Evidence based on the consequences of testing is addressed in the scaled score information in Chapter 6 and the reporting information in Chapter 8, as well as in the *Guide to Using the 2010 NECAP Reports*, which is a separate document. Each of these chapters speaks to the efforts undertaken to promote accurate and clear information provided to the public regarding test scores. Scaled scores offer the advantage of simplifying the reporting of results across content areas, grade levels, and subsequent years. Achievement levels provide users with reference points for mastery at each grade and content area, which is another useful and simple way to interpret scores. Several different standard reports are provided to stakeholders. Additional evidence of the consequences of testing could be supplemented with broader investigation of the affect of testing on student learning.

To further support the validation of the assessment program, additional studies might be considered to provide evidence regarding the relationship of NECAP results to other variables, including the extent to which scores from NECAP converge with other measures of similar constructs, and the extent to which they diverge from measures of different constructs. Relationships among measures of the same or similar constructs can sharpen the meaning of scores and appropriate interpretations by refining the definition of the construct.

9.1. QUESTIONNAIRE DATA

External validity of the NECAP assessment is conveyed by the relationship of test scores and situational variables such as time-spent patterns and attitude toward content matter. These situational variables were all based on student questionnaire data collected during the administration of the NECAP test. Note that no inferential statistics are included in the results presented below; however, because the numbers of students are quite large, differences in average scores may be statistically significant.

9.1.1. Difficulty of Assessment

Examinees in all grades and content areas were asked how difficult the test was relative to their regular schoolwork. In the sections below, results are presented for selected grade levels for each content area.

9.1.1.1. Difficulty: Reading

Figures 9-1 and 9-2 below show that students in grades 8 and 11 who thought the test was easier than their regular reading schoolwork did better overall than those who thought it was more difficult.

Question: How difficult was the reading test?

Figure 9-1. 2011–12 NECAP: Reading Grade 8 Questionnaire Responses—Difficulty

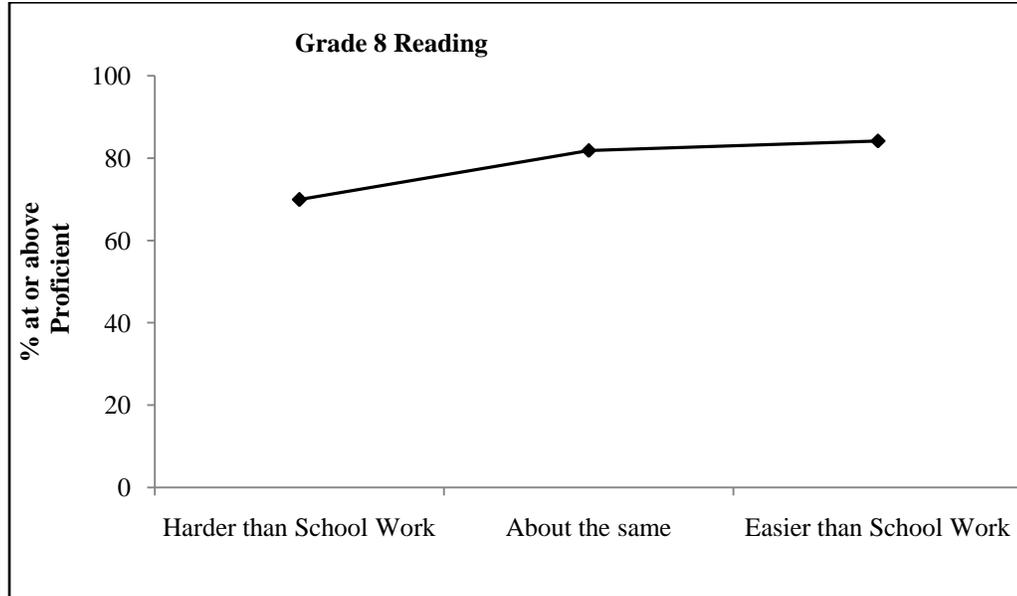
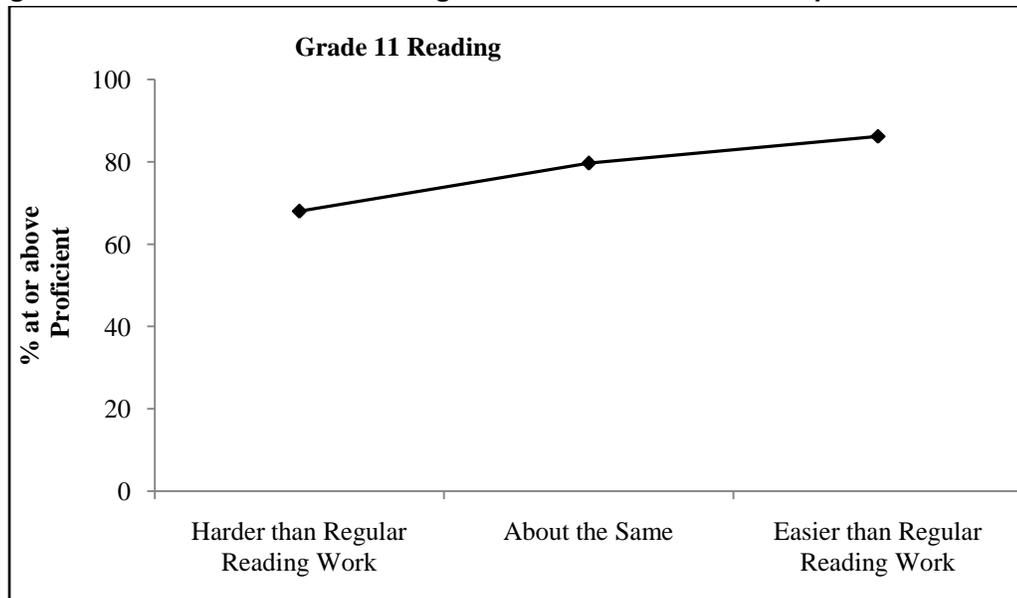


Figure 9-2. 2011–12 NECAP: Reading Grade 11 Questionnaire Responses—Difficulty



9.1.1.2. Difficulty: Mathematics

Figures 9-3 and 9-4 below show a very similar pattern to that for reading: students in grades 8 and 11 who thought the test was easier than their regular mathematics schoolwork did better overall than those who thought it was more difficult.

Question: How difficult was the mathematics test?

Figure 9-3. 2011–12 NECAP: Mathematics Grade 8 Questionnaire Responses—Difficulty

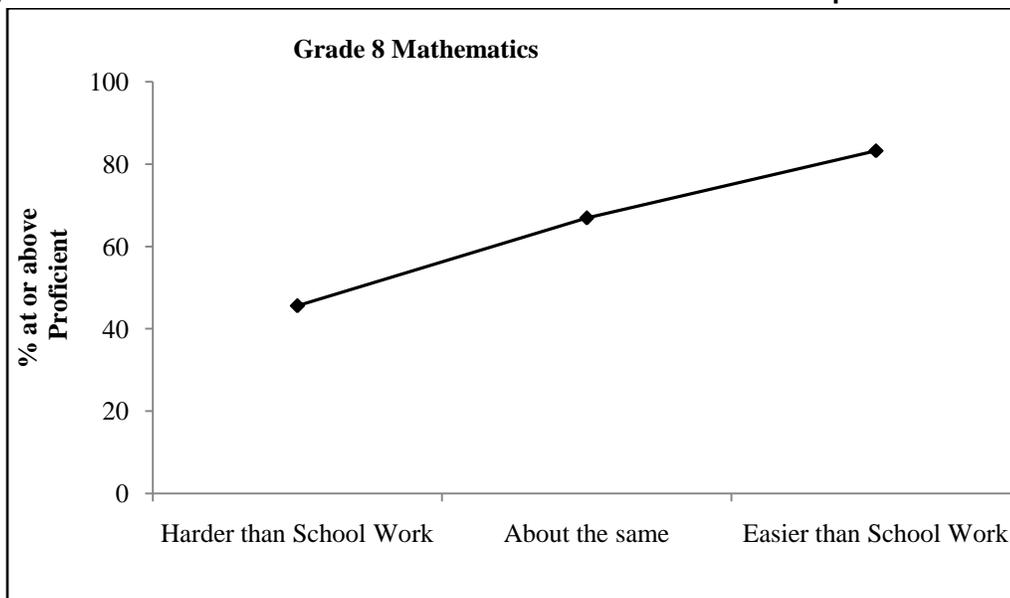
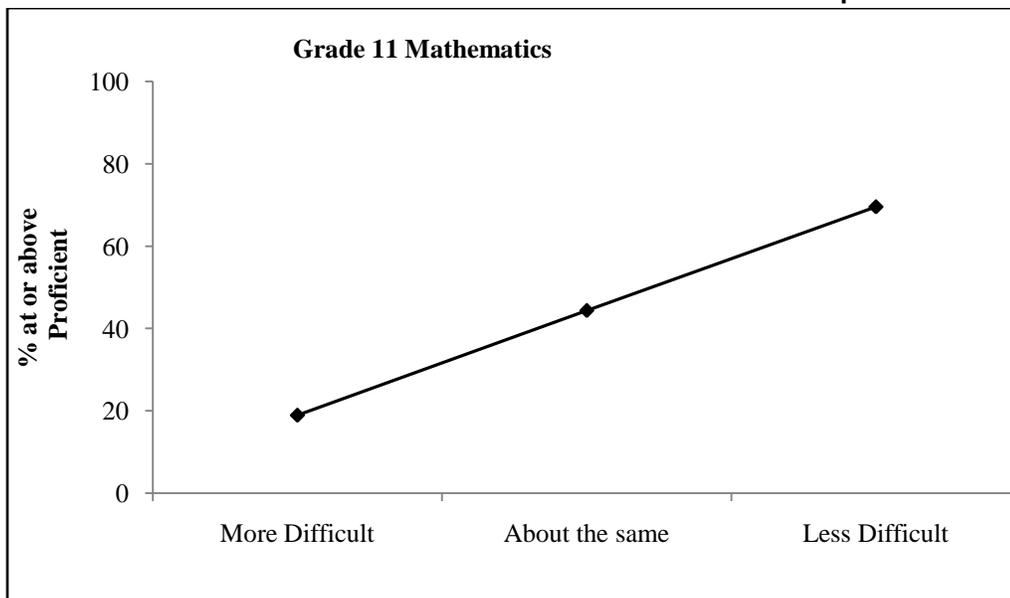


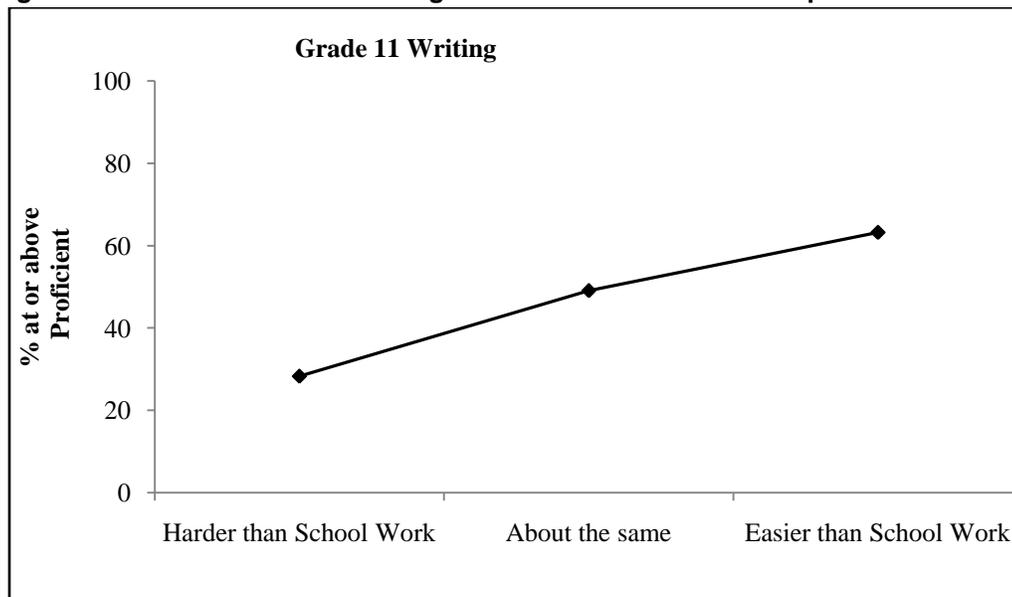
Figure 9-4. 2011–12 NECAP: Mathematics Grade 11 Questionnaire Responses—Difficulty



9.1.1.3. Difficulty: Writing

For writing, as shown in Figure 9-5 below, there was a pronounced relationship between perception of the difficulty of the test and student performance at grade 11.

Figure 9-5. 2011–12 NECAP: Writing Grade 11 Questionnaire Responses—Difficulty



9.1.2. Content

Across grades, examinees were asked about the frequency with which they engage in academic activities (specific to content area) that are expected to be related to test performance. In the sections below, results are presented for selected grade levels for each content area.

9.1.2.1. Content: Reading

Examinees in reading were asked how often they are asked to write at least one paragraph for reading/English language arts (grades 3 through 8) or reading (grade 11) class. Figures 9-6 through 9-9 show that students who indicated they write at least one paragraph a few times a week perform better than any of the other groups.

Figure 9-6. 2011–12 NECAP: Grade 3 Reading Questionnaire Responses—Content

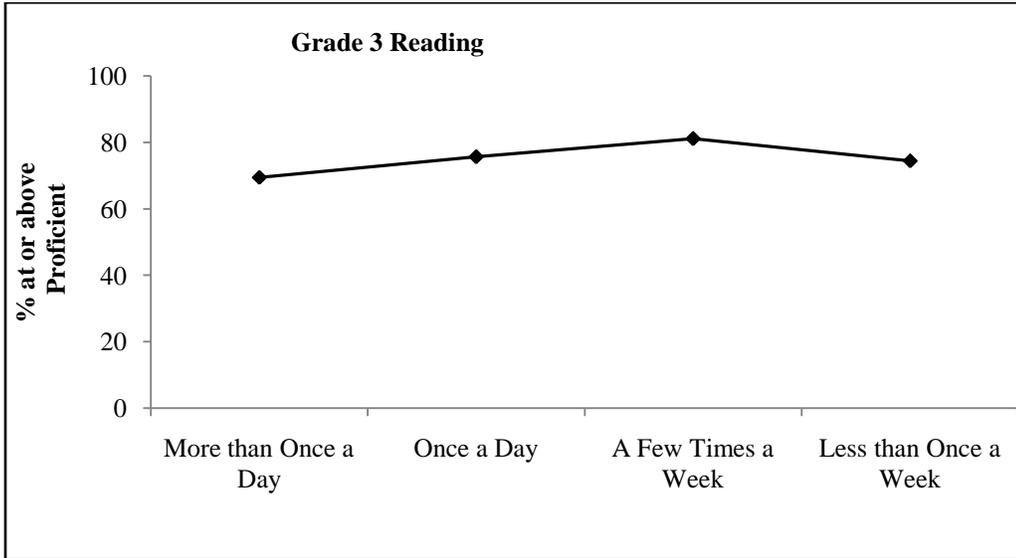


Figure 9-7. 2011–12 NECAP: Grade 4 Reading Questionnaire Responses—Content

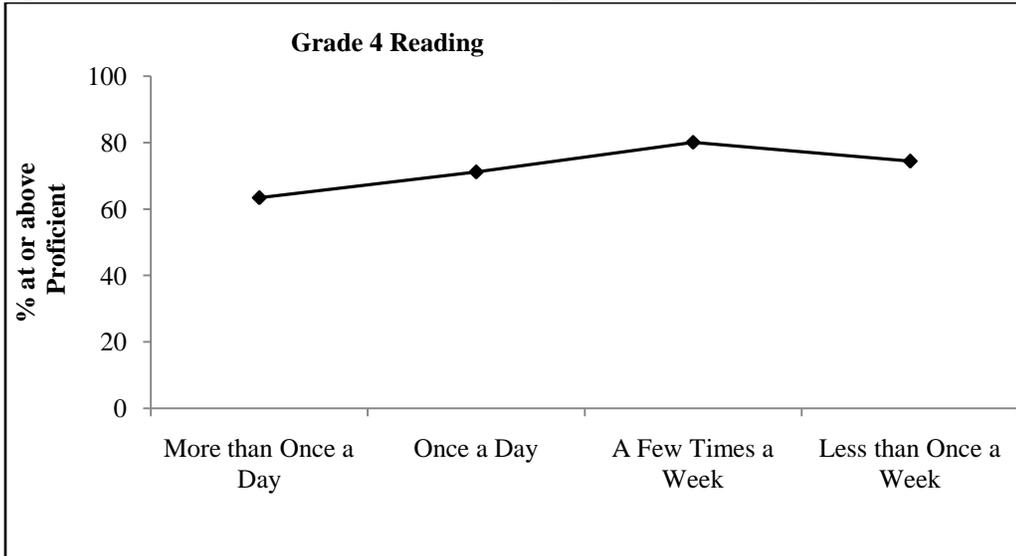


Figure 9-8. 2011–12 NECAP: Grade 7 Reading Questionnaire Responses—Content

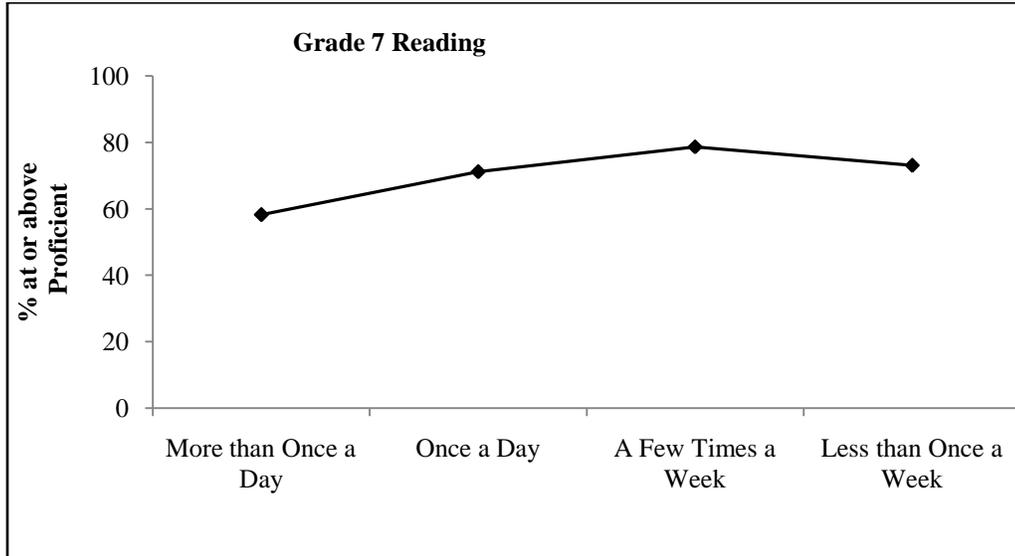
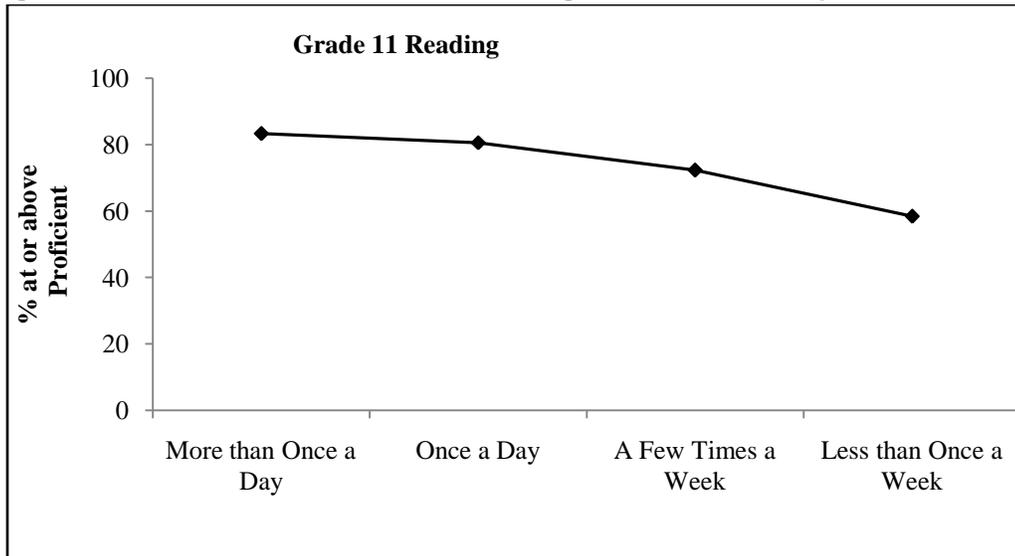


Figure 9-9. 2011–12 NECAP: Grade 11 Reading Questionnaire Responses—Content



9.1.2.2. Content: Mathematics

For mathematics, examinees in grades 7 and 8 were asked whether they were currently enrolled in an Algebra I or higher mathematics class. In grade 11, examinees were asked which mathematics course they last completed (e.g., Geometry). Figures 9-10 through 9-12 seem to suggest that students with more exposure to mathematics coursework tend to perform better than students who have been exposed to fewer mathematics courses.

Figure 9-10. 2011–12 NECAP: Grade 7 Mathematics Questionnaire Responses—Content

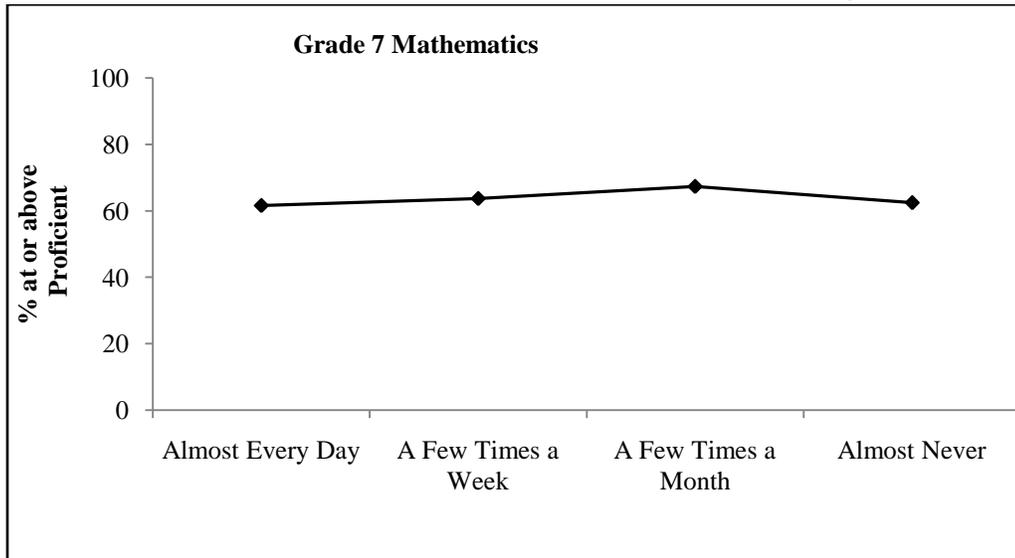


Figure 9-11. 2011–12 NECAP: Grade 8 Mathematics Questionnaire Responses—Content

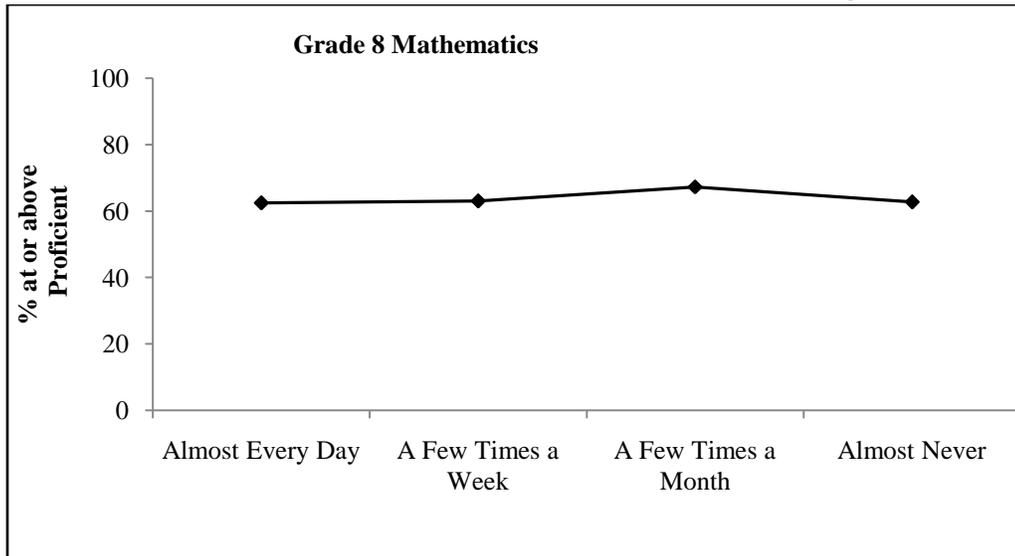
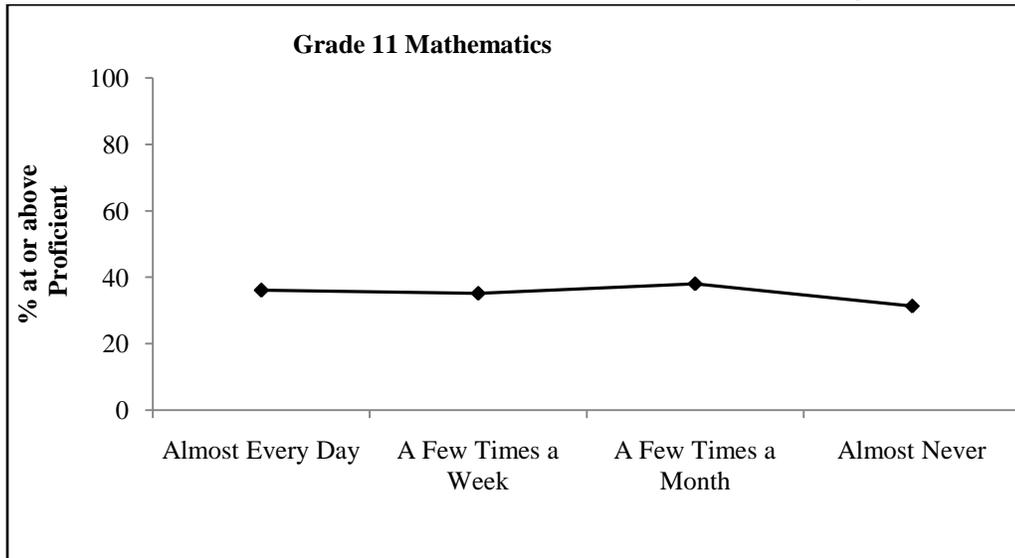


Figure 9-12. 2011–12 NECAP: Grade 11 Mathematics Questionnaire Responses—Content



9.1.2.3. Content: Writing

Examinees in writing were asked how often they write more than one draft. Figures 9-13 through 9-15 show that students who indicated they write multiple drafts more frequently did better than students who write multiple drafts less frequently, although the differences at grade 5 were slight.

Figure 9-13. 2011–12 NECAP: Grade 5 Writing Questionnaire Responses—Content

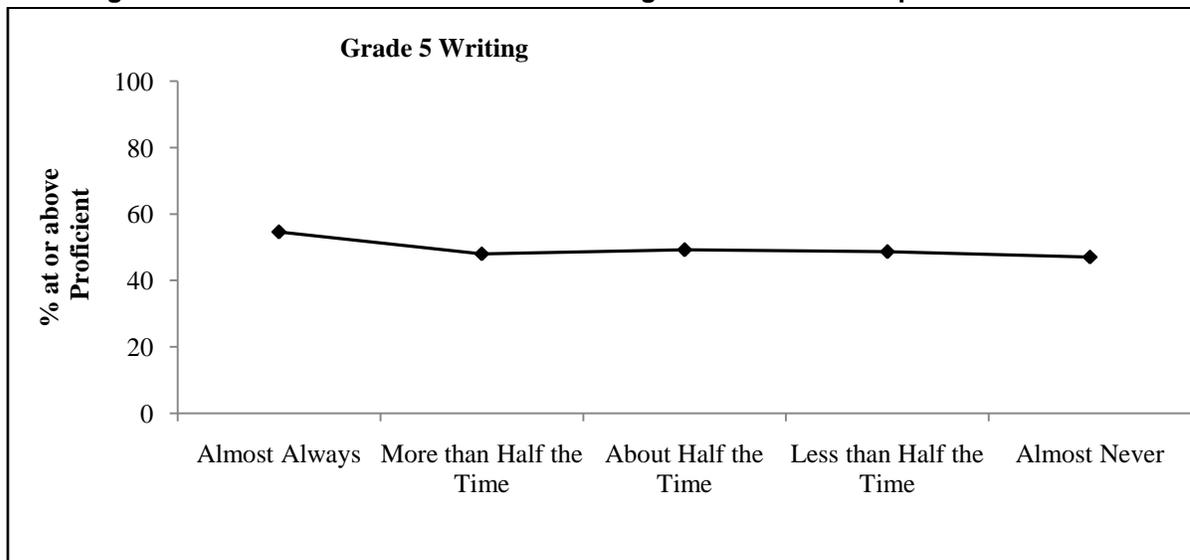


Figure 9-14. 2011–12 NECAP: Grade 8 Writing Questionnaire Responses—Content

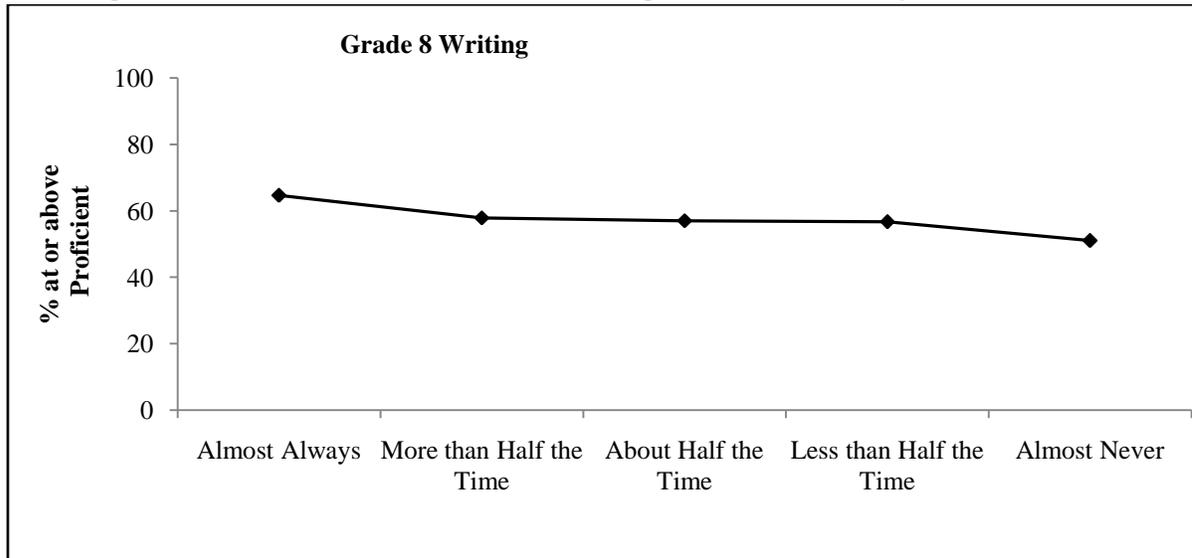
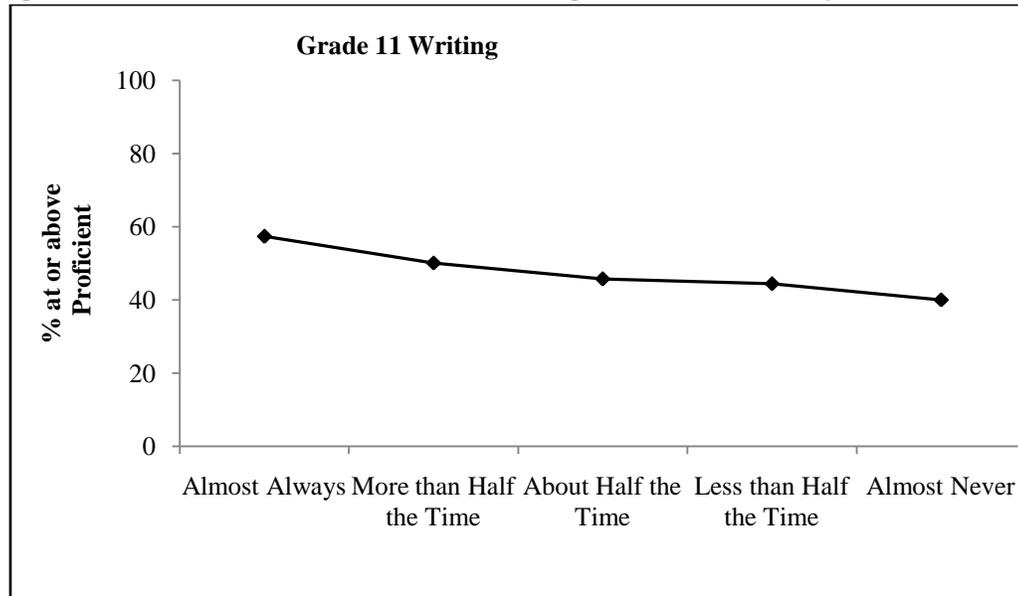


Figure 9-15. 2011–12 NECAP: Grade 11 Writing Questionnaire Responses—Content



9.1.3. Homework

Examinees in all grades in reading and mathematics were asked how often they have homework. In the sections below, results are presented for selected grade levels for each content area.

9.1.3.1. Homework: Reading

Figures 9-16 through 9-18 below show that students in grades 4, 7, and 11 who indicated they had reading homework more frequently performed better than students who had less homework. The relationship is more pronounced in the higher grades.

Figure 9-16. 2011–12 NECAP: Grade 4 Reading Questionnaire Responses—Homework

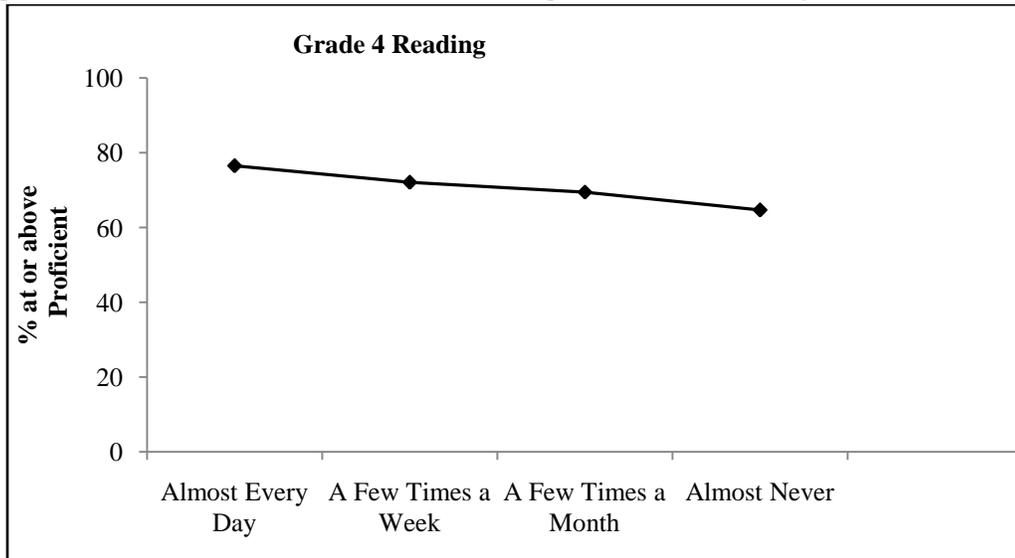


Figure 9-17. 2011–12 NECAP: Grade 7 Reading Questionnaire Responses—Homework

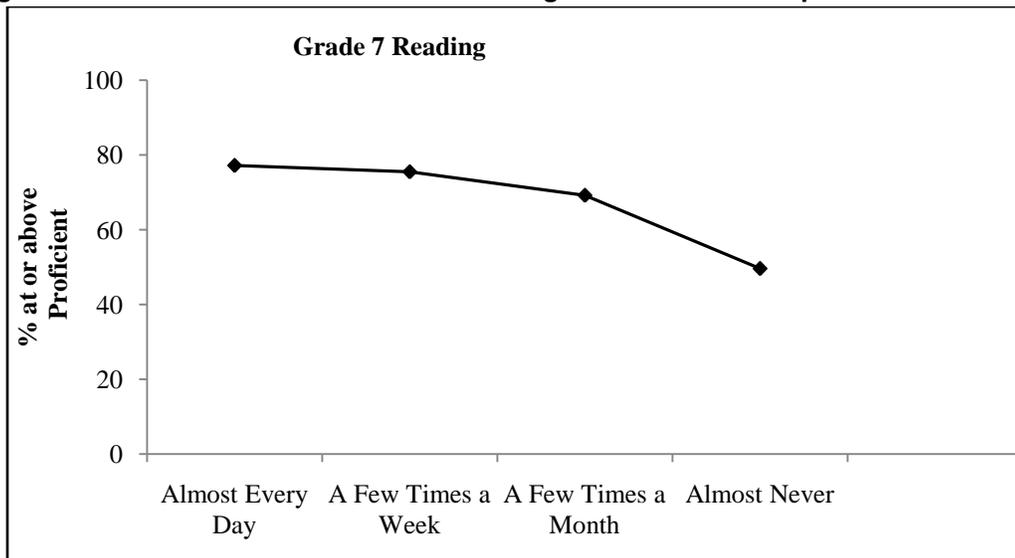
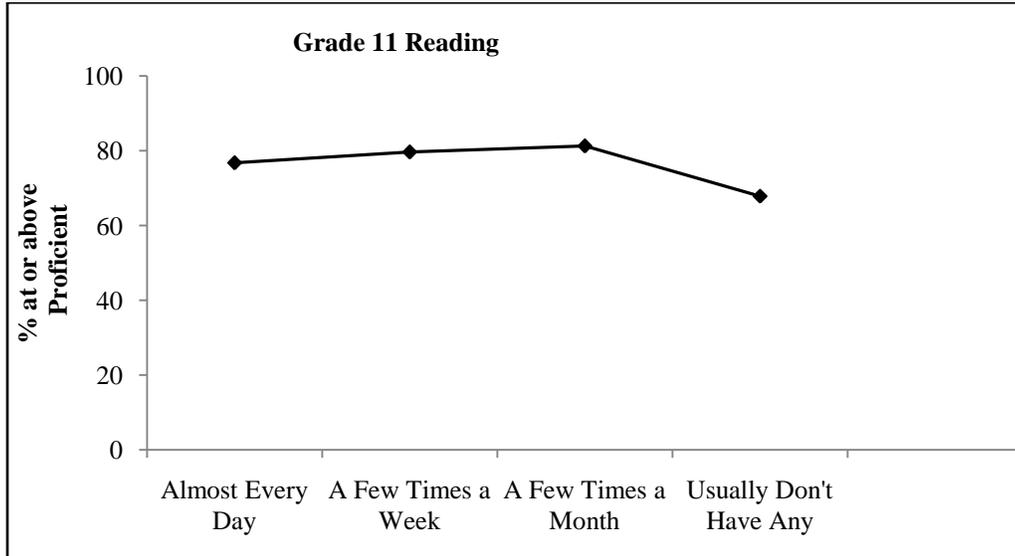


Figure 9-18. 2011–12 NECAP: Grade 11 Reading Questionnaire Responses—Homework



9.1.3.2. Homework: Mathematics

Figures 9-19 through 9-22 below show results that are very similar to those for reading: students in grades 4, 5, 8, and 11 who indicated that they had mathematics homework more frequently performed better than students who had less homework. Again, the pattern is more pronounced in the higher grades.

Figure 9-19. 2011–12 NECAP: Grade 4 Mathematics Questionnaire Responses—Homework

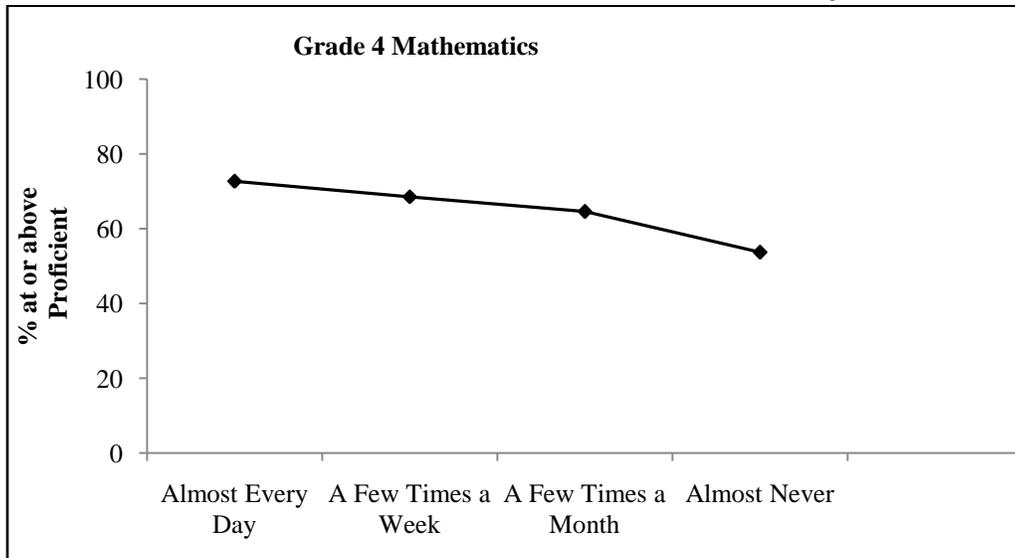


Figure 9-20. 2011–12 NECAP: Grade 5 Mathematics Questionnaire Responses—Homework

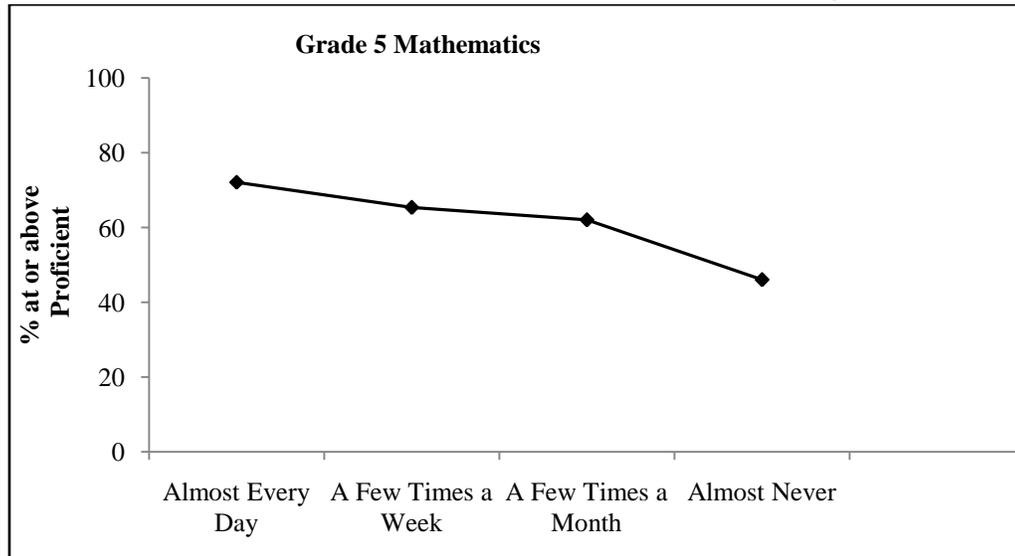


Figure 9-21. 2011–12 NECAP: Grade 8 Mathematics Questionnaire Responses—Homework

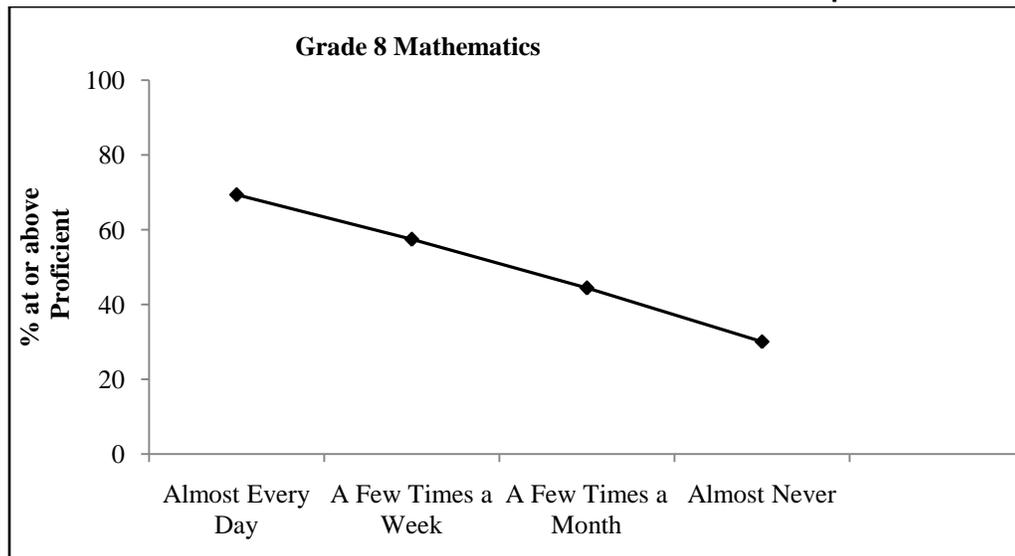
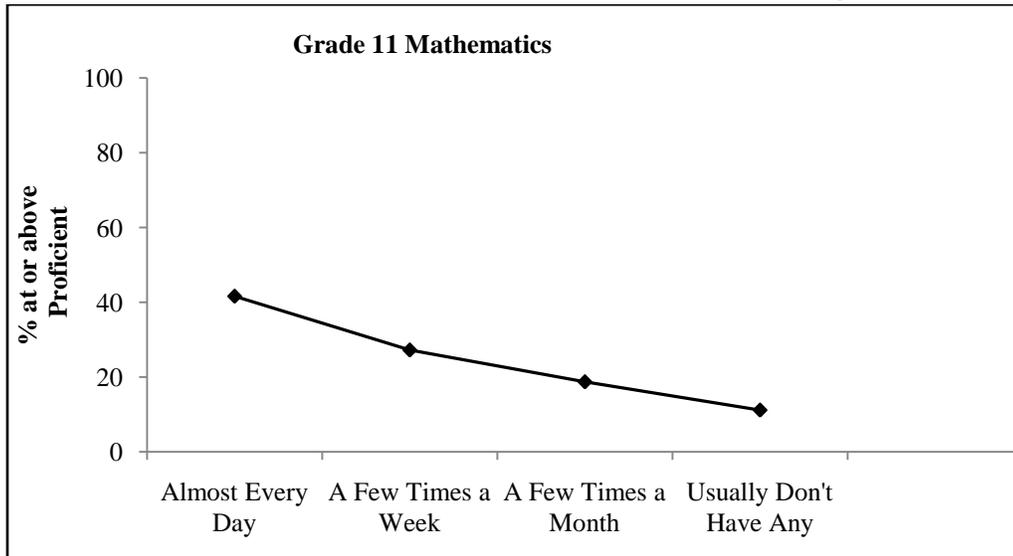


Figure 9-22. 2011–12 NECAP: Grade 11 Mathematics Questionnaire Responses—Homework



9.1.4. Performance in Courses

Students in grade 11 for both reading and mathematics were asked what their most recent course grade was. Figures 9-23 and 9-24 indicate that, for both reading and mathematics, there was a strong positive relationship between the most recent course grade and NECAP scores in that subject area.

Figure 9-23. 2011–12 NECAP: Grade 11 Questionnaire Responses—Grade in Reading

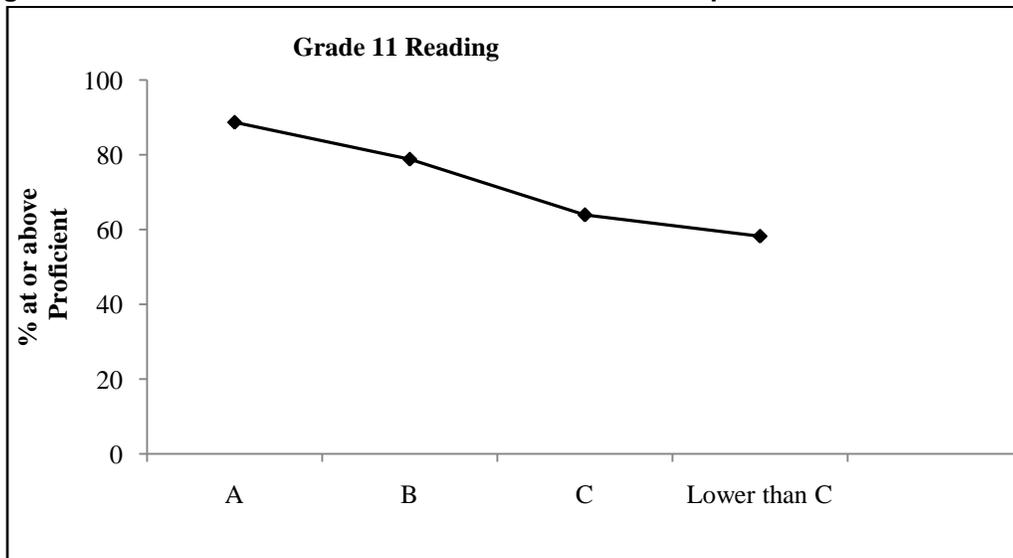
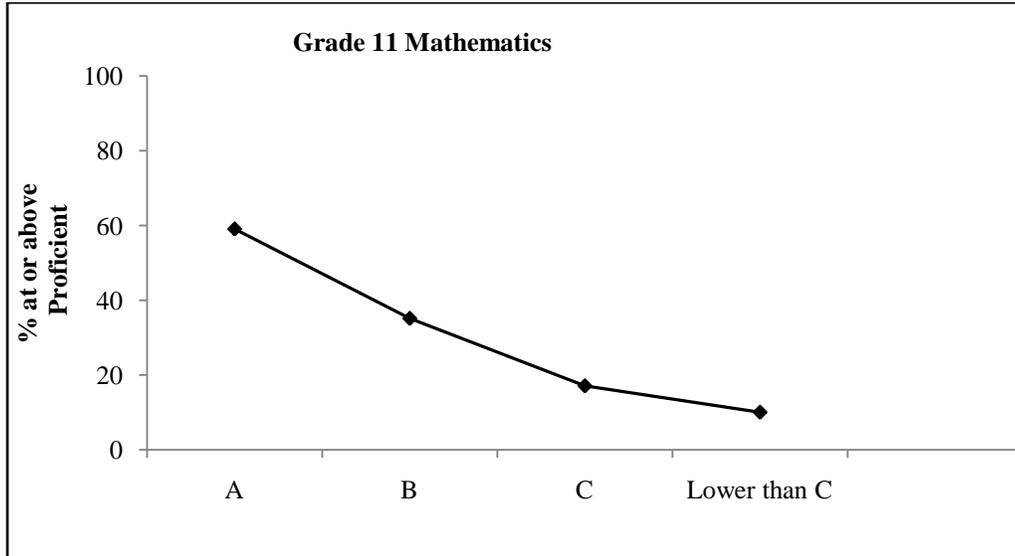


Figure 9-24. 2011–12 NECAP: Questionnaire Responses—Grade in Mathematics



The evidence presented in this report supports inferences made about student achievement on the content represented in the NECAP standards. As such, the evidence provided also supports the use of NECAP results for the purposes of program and instructional improvement and as a component of school accountability.

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APPENDICES

<i>Appendix A</i>	<i>Committee Membership</i>
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<i>Appendix N</i>	<i>Scaled Score Distributions</i>
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APPENDIX A—COMMITTEE MEMBERSHIP

**Table A-1. 2011–12 NECAP: Technical Advisory Committee Members—
March 24–25, 2011; September 26–27, 2011**

<i>Name</i>	<i>Association/Affiliation</i>
Dale Carlson	NAEP Coach, NAEO -Westat
Bill Erpenbach	WJE Consulting, LTD.
Jeff Nellhaus	PARCC Assessment, Achieve, Inc.
Jim Pellegrino	University of Illinois
Joe Ryan	Consultant
Steve Slater	Oregon Department of Education
Martha Thurlow	NCEO, University of Minnesota
Craig Wells	University of Massachusetts Amherst
Laurie Wise	Principal Scientist HumRRO

**Table A-2. 2011–12 NECAP: Maine Item Review Committee—
February 7–9, 2011**

<i>Name</i>	<i>School/Association/Affiliation</i>	<i>Position</i>
Beth Ahlholm	Medomak Middle School	Grades 7 & 8 Language Arts/ Social Studies Teacher
Marshalyn Baker	Messalonskee Middle School	Math Teacher
Mary Belisle	Greely Middle School	Math Teacher
Melissa Biehn	Hermon Middle School	Literacy Coach
Wendy Dunbar	Mt. Jefferson Jr. High School	ELA Teacher/ Title 1A Coordinator/ Literacy Specialist
Lesley Fowler	Albert S. Hall School	Grade 5 Teacher
Melissa Goeke	Hope Elementary School	Grade 5 Teacher
Heidi Goodwin	Margaret Chase Smith School	Literacy Coach
Kate Greeley	Maine School Administrative District 75	Technology Integrator/ Math Lead Teacher
Robert Haskell	Burchard Dunn School	Grade 4 Teacher
Karin Howe	Teague Park School	Teacher
Kathy Kauffman	Oak Hill Middle School	Grade 8 ELA Teacher
Evelyn Krahn	Paris Elementary School	Grade 3 Teacher
Eleanor Merrick	Emerson School	Principal
Karen Morgan	Gray-New Gloucester Middle School	Grade 8 ELA/ SST Teacher
Tracy Morin	Crescent Park School	Teacher
Narda Plant	Fort Fairfield Elementary School	Special Education Teacher
Bethany Richards	Belgrade Central School	Grade 4 Teacher
Stacey Schatzabel	Kennebunk Elementary School	Grade 2 Teacher
Nancy Sirois	Longfellow Elementary School	Teacher
Elizabeth Soules	Wentworth Intermediate School	Math Support Specialist
Jane Stork	Regional Supervisory Unit 19	Head of Math Department
Terry Taiani	Jordan-Small Middle School	Grades 5 & 6 Math/ Science Teacher

**Table A-3. 2011–12 NECAP: New Hampshire Item Review Committee—
February 7–9, 2011**

<i>Name</i>	<i>School/Association/Affiliation</i>	<i>Position</i>
Carleen Bergquist	David R. Cawley Middle School	Grade 6 Math Teacher
Coleen Bridle	Iber Holmes Gove Middle School	Math Teacher
Shane Clifford	They Ray School	Grade 5 Teacher
Karen Cloutier	Fuller Elementary School	Grade 4 Teacher
George Drinkwater	Dover Middle School	Teacher
Donna Dubey	Winnisquam Regional High School	Math Teacher
Jill Duffield	New Durham School	Grades 5 & 6 Teacher
Cheryl Erdody	Milford Middle School	Grade 6 Teacher
Jack Finley	Franklin High School	Teacher
Connie Gilman	Stratham Memorial	Reading Specialist
Kyle Harrison	Portsmouth Middle School	Grade 8 English Teacher
Sharon Knapp	Kearsarge Regional Elementary School	Grade 2 Teacher
Deborah Lafreniere	Lebanon High School	Math Teacher
Maryanne Lockwood	Cawley Middle School	Grade 7 Language Arts Teacher
Patricia Maestranzi	Woodbury School	Literacy Specialist
Nancy Maguire	School Administration Unit 39	Literacy Coordinator
William Maniotis Jr.	Merrimack High School	English Teacher/ Literary Specialist
Susan Mathieson Carey	Fairgrounds Middle School	Teacher
Dominic Miranda	Berlin High School	Math Department Chair
Jerrell Moodie	Conval High School	English & Reading Teacher Grades 9-12
Linda Nelson	Barnstead Elementary School	Reading Enrichment Teacher
Lauren Provost	UNH - Durham	Research Assistant/ Ph.D. Candidate
Michael Quigley	Somersworth Middle School	Principal
Michelle Romein	NH Department of Education	ELA School Improvement Coach
Karen Shackford	Freedom Elementary School	Teacher
Patricia Stinson	Groveton Elementary School	Guidance Counselor
Jeanne Sturges	Souhegan High School	Literacy Coach
Maryann Vollaro	Crescent Lake School	Grade 6 Teacher
Ann West	Bow Elementary School	Grade 2 Teacher
Kathleen Woodbury	Gilsum Elementary	Reading/ Special Education

**Table A-4. 2011–12 NECAP: Rhode Island Item Review Committee—
February 7–9, 2011**

<i>Name</i>	<i>School/Association/Affiliation</i>	<i>Position</i>
Brenda Aspelund	Aldrich Junior High School	English Teacher
Linda Bello	Cranston School District	Math Coach
Nicole Dantas	Pawtucket School District	Math Coach
Linda Davis	Hugh B. Bain Middle School	Reading Specialist
Michelle Diaz	Westerly Middle School	Grade 6 ELA Teacher
Heather Forman	Exeter-W. Greenwich Jr. High School	ELA Teacher
Judy Fried	Providence School District	Secondary Math Specialist
Donna Gattinella	Central Falls School District	District Math Coach
Mary Gazda	Westerly Middle School	Reading Specialist
Deborah Gorman	Barrington High School	Reading/ English Teacher
Nicolle Greene	E.G. Robertson School	Grade 3 Teacher
Robert Gruetzke	Woonsocket Area Career & Tech. Center	Math Teacher
Adam Heywood	Pleasant View Elementary School	Reading Coach
Lisa Caroline Kee Melmed	Mt. Hope High School	ELA Teacher
Kathleen Keenaghan	Pawtucket School District	Math Coach
Shelley Kenny	Chariho Regional High School	English Chairperson
Debra Lancia	Cranston School District	Math Coach
Robert Marley	Barrington High School	Math Department Chair
Kim Mather	South Kingstown School District	Math Coach
Timothy May	Warwick Veterans Memorial High School	Math Teacher
Roxanne Murphy	Gladstone Street School	Math Coach
Jodie Olivo	Nathanael Greene School	Grade 5 Teacher
Janice Place	Pilgrim High School & Aldrich Jr. High School	ELA Department Chair
Patricia Pora	Harris Elementary School	Teacher in Multiple Environments (TIME)
Janice Roehr	Joseph H. Gaudet Middle School	Grade 5 Teacher
Gino Sangiuliano	Hampden Meadows School	Grades 4 & 5 Teacher
Kevin Seekell	Feinstein Middle School	Math Curriculum Coordinator
Kristina Sparfven	Chariho Middle School	Math Teacher
Gus Steppen	Middletown High School	Math Teacher
Sharron Wolfe	E.G. Robertson School	Teacher

**Table A-5. 2011–12 NECAP: Vermont Item Review Committee—
February 7–9, 2011**

<i>Name</i>	<i>School/Association/Affiliation</i>	<i>Position</i>
Lorraine Bargmann Metz	Rutland Intermediate School	Literacy Coach/ Enrichment Coordinator
Michelle Carter	Camels Hump Middle School/ Essex - Caledonia Supervisory Union	Language Arts Teacher
Sally Conway	Vergennes Union Elementary School	Teacher
Tom Cooch	Orange Southwest Supervisory Union	Math Coach
Sandy Frizzell	North Country Union High School	Grade 9 Teacher
Kim Gannon	North Country Supervisory Union	Literacy Specialist
Linda Gilbert	Dothan Brook School	Math Teacher
Kelley Green	Central Elementary School	Grade 3 Teacher
Jennifer Harper	Cavendish Town Elementary School	Grade 4 Teacher
Kathleen Jacob	Mill River Union High School	Math Teacher
Lindy Johnson	Washington Central Supervisory Union	Literacy Coordinator
Dana Johnson	Rutland Public School	Math Coach
Karen Lawson	Concord School/ Essex - Caledonia Supervisory Union	Math Teacher/ Support Specialist
Juliette Longchamp	Williston Central School	Teacher
Richard McCraw	Williston Central School	Grade 7 Math Teacher
Sara McKenny	Lake Region Union High School	Department Chair
Kimberly Messier	Lake Region Union High School	Math Department Chair
Kathleen Nano-Sitrick	Barre City Elementary & Middle School	Reading Intervention Specialist
Cathy Newton	Dothan Brook School	Grade 2 Teacher/ Leader in Literacy
Marie Paige	Windham Southwest Supervisory Union	Differentiated Instructor for District
Travis Redman Jr	Rutland Town School	Math Teacher
Kathryn Schonbeck	Mt. Anthony Union High School	Teacher/ Head of Math Department
Molly Superchi	Green Street School	Academic Support Teacher
Ann Thompson	Cavendish Town Elementary School	Grade 5 Teacher
Rachel Trussler	Barre Town Middle & Elementary School	Literacy Teacher
JoAnn Vana	Brownington Central School	Principal/ Math Teacher
Brenda Waterhouse	Spaulding High School	High School Math Teacher
Marilyn Woodard	Mt. Anthony Union High School	Department Head

**Table A-6. 2011–12 NECAP: Bias and Sensitivity Review Committee—
February 7–9, 2011**

<i>Name</i>	<i>School/Association/Affiliation</i>	<i>Position</i>
MAINE		
Shelly Chasse-Johndro	University of Maine	ESL Teacher Trainer
Sheree Granger	Sweetser	Special Education Teacher
Indriani Demers	Riverton Elementary School	ESL Teacher
Melvin Curtis	Lewiston Schools	SPED Director
NEW HAMPSHIRE		
Chris Blackstone	Franklin Middle & High School	Curriculum Coordinator
Marisa Bozek	Epping Middle School	Teacher
Kathaleen Cobb	Cutler School	Grade 4 Teacher
Christine Leach	Exeter High School	Guidance Counselor
Diane Bush	Jaffrey-Rindge Middle School	School Counselor
RHODE ISLAND		
Monique Condon	West Warwick	Mathematics Teacher
Earl Fenner	Pawtucket	ESL Resource Teacher
Ana Rodrigues	Woonsocket	Teacher
Ricardo Pimentel	Shea High School	ELL Reading/Writing
VERMONT		
Brenda Seitz	VT Center/Austine School	Special Educator
Paula Gervia	Montpelier Public Schools	Speech/Language Pathologist
Ruth Ann Hicks	Barre City Elementary & Middle School	ELL Teacher
Carol McNair	Camels Hump Middle School	Teacher & Math Consultant
Kimberly Means	The Stern Center	ESL Teacher

**Table A-7. 2011–12 NECAP: Bias and Sensitivity Review Committee—
June 29–30, 2011**

<i>Name</i>	<i>School/Association/Affiliation</i>	<i>Position</i>
MAINE		
Anne Boucher	Southern Penobscot Regional Program	Special Education Teacher
Melvin Curtis	Lewiston Public Schools	Retired Special Education Director
Linda Parkin	n/a	Consultant for Maine CIPS Team
Hana Tallan	East End Community School	Education Technician
NEW HAMPSHIRE		
Diane Bush	Jaffrey-Rindge Middle School	Guidance Counselor
Enchi Chen	Farmington District	K-12 ESL Teacher
Alex Markowsky	SAU #18	K-12 School Psychologist
Ashley Meehan	James Masticola Upper Elementary School	Grade 5 Teacher
RHODE ISLAND		
Darline Berrios	Paul Cuffee Charter School	Grade 5 Teacher
Kayla Groccia	William L. Callahan Elementary School	Grades 3 & 4 Resource
Erica Jacobson	Woonsocket Middle School	Reading Specialist
Marybeth Vierra	Rogers High School	Special Education Teacher
VERMONT		
Colleen Fiore	Long Trail School	Special Services Director
Margo Grace	Vergennes Elementary School	Grades 3 & 4 Literacy Teacher
Aranka Gyuk	Integrated Arts Academy	ELL Teacher
Trisha Klein	VT Association for the Blind and Visually Impaired	Certified Orientation & Mobility Instructor

APPENDIX B—PARTICIPATION RATES

Table B-1. 2011–12 NECAP: Summary of Participation by Demographic Category—Mathematics

<i>Description</i>	<i>Tested</i>	
	<i>Number</i>	<i>Percent</i>
All Students	298,414	100.00
Male	153,577	51.46
Female	144,768	48.51
Gender Not Reported	69	0.02
Hispanic or Latino	21,576	7.23
American Indian or Alaskan Native	1,640	0.55
Asian	6,918	2.32
Black or African American	10,983	3.68
Native Hawaiian or Pacific Islander	247	0.08
White (non-Hispanic)	251,768	84.37
Two or More Races (non-Hispanic)	5,127	1.72
No Primary Race/Ethnicity Reported	155	0.05
Currently Receiving LEP services	9,504	3.18
Former LEP Student – Monitoring Year 1	1,412	0.47
Former LEP Student – Monitoring Year 2	1,188	0.40
LEP: All Other Students	286,310	95.94
Students with an IEP	43,811	14.68
IEP: All Other Students	254,603	85.32
Economically Disadvantaged Students	111,937	37.51
SES: All Other Students	186,477	62.49
Migrant Students	109	0.04
Migrant: All Other Students	298,305	99.96
Students Receiving Title 1 Services	50,991	17.09
Title 1: All Other Students	247,423	82.91
Plan 504	3,026	1.01
Plan 504: All Other Students	295,388	98.99

Table B-2. 2011–12 NECAP: Summary of Participation by Demographic Category—Reading

<i>Description</i>	<i>Tested</i>	
	<i>Number</i>	<i>Percent</i>
All Students	298,288	100.00
Male	153,532	51.47
Female	144,695	48.51
Gender Not Reported	61	0.02
Hispanic or Latino	21,248	7.12
American Indian or Alaskan Native	1,638	0.55
Asian	6,752	2.26
Black or African American	10,909	3.66
Native Hawaiian or Pacific Islander	246	0.08
White (non-Hispanic)	252,220	84.56
Two or More Races (non-Hispanic)	5,129	1.72
No Primary Race/Ethnicity Reported	146	0.05
Currently Receiving LEP services	8,816	2.96
Former LEP Student – Monitoring Year 1	1,413	0.47
Former LEP Student – Monitoring Year 2	1,191	0.40
LEP: All Other Students	286,868	96.17

continued

<i>Description</i>	<i>Tested</i>	
	<i>Number</i>	<i>Percent</i>
Students with an IEP	43,898	14.72
IEP: All Other Students	254,390	85.28
Economically Disadvantaged Students	111,832	37.49
SES: All Other Students	186,456	62.51
Migrant Students	106	0.04
Migrant: All Other Students	298,182	99.96
Students Receiving Title 1 Services	51,960	17.42
Title 1: All Other Students	246,328	82.58
Plan 504	3,027	1.01
Plan 504: All Other Students	295,261	98.99

Table B-3. 2011–12 NECAP: Summary of Participation by Demographic Category—Writing

<i>Description</i>	<i>Tested</i>	
	<i>Number</i>	<i>Percent</i>
All Students	122,038	100.00
Male	62,413	51.14
Female	59,600	48.84
Gender Not Reported	25	0.02
Hispanic or Latino	8,838	7.24
American Indian or Alaskan Native	642	0.53
Asian	2,794	2.29
Black or African American	4,524	3.71
Native Hawaiian or Pacific Islander	107	0.09
White (non-Hispanic)	103,144	84.52
Two or More Races (non-Hispanic)	1,930	1.58
No Primary Race/Ethnicity Reported	59	0.05
Currently Receiving LEP services	3,137	2.57
Former LEP Student – Monitoring Year 1	474	0.39
Former LEP Student – Monitoring Year 2	601	0.49
LEP: All Other Students	117,826	96.55
Students with an IEP	18,163	14.88
IEP: All Other Students	103,875	85.12
Economically Disadvantaged Students	43,034	35.26
SES: All Other Students	79,004	64.74
Migrant Students	35	0.03
Migrant: All Other Students	122,003	99.97
Students Receiving Title 1 Services	17,183	14.08
Title 1: All Other Students	104,855	85.92
Plan 504	1,272	1.04
Plan 504: All Other Students	120,766	98.96

APPENDIX C—ACCOMMODATION FREQUENCIES BY CONTENT AREA

Table C-1. 2011–12 NECAP: Numbers of Students Tested with and without Accommodations by Content Area and Grade

Content Area	Grade	Number of Students Tested:	
		with Accommodations	without Accommodations
Mathematics	3	34,724	8,690
	4	34,963	8,844
	5	35,088	9,201
	6	36,235	7,895
	7	37,317	7,313
	8	39,187	7,245
	11	27,132	4,580
Reading	3	34,950	8,410
	4	34,996	8,746
	5	35,201	9,042
	6	36,287	7,830
	7	37,243	7,279
	8	39,110	7,266
	11	27,834	4,094
Writing	5	35,408	8,600
	8	39,535	6,636
	11	28,231	3,628

Table C-2. 2011–12 NECAP: Numbers of Students Tested with Accommodations by Accommodation Type and Subject—Mathematics

Accommodation Code	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
mataccomT1	3,974	3,966	4,885	3,916	3,645	3,618	2,594
mataccomT2	154	178	216	190	145	154	70
mataccomT3	3,389	3,440	3,550	2,533	2,399	2,168	600
mataccomT4	192	206	215	166	151	134	49
mataccomS1	5,776	5,853	5,922	4,491	3,454	3,597	1,974
mataccomS2	31	44	28	33	30	45	31
mataccomP1	1,227	1,236	1,174	979	708	667	178
mataccomP2	6,068	6,306	6,239	5,347	5,102	4,937	2,000
mataccomP3	4,811	4,755	4,442	3,235	2,283	2,034	424
mataccomP4	559	528	477	458	519	532	142
mataccomP5	2,755	2,742	2,829	2,149	1,824	1,595	225
mataccomP6	30	20	24	18	20	35	3
mataccomP7	2,962	3,042	3,073	2,108	1,551	1,426	587
mataccomP8	35	45	57	52	38	37	9
mataccomP9	4	3	2	2	2	1	1
mataccomP10	22	28	44	53	79	92	39
mataccomP11	222	271	242	113	90	35	12
mataccomR1	1,708	1,798	1,648	1,137	689	572	41
mataccomR2	36	15	30	20	23	25	3
mataccomR3	383	389	303	132	94	64	7
mataccomR4	26	29	68	92	124	170	31
mataccomR5	109	121	110	78	70	46	19
mataccomR6	14	11	25	11	15	8	0
mataccomR7	13	18	23	30	67	61	26
mataccomO1	9	3	6	6	5	2	6

<i>Accommodation Code</i>	<i>Grade 3</i>	<i>Grade 4</i>	<i>Grade 5</i>	<i>Grade 6</i>	<i>Grade 7</i>	<i>Grade 8</i>	<i>Grade 11</i>
mataccomM1	22	9	12	9	46	38	72
mataccomM3	1	4	3	1	0	0	0

Table C-3. 2011–12 NECAP: Numbers of Students Tested with Accommodations by Accommodation Type and Subject—Reading

<i>Accommodation Code</i>	<i>Grade 3</i>	<i>Grade 4</i>	<i>Grade 5</i>	<i>Grade 6</i>	<i>Grade 7</i>	<i>Grade 8</i>	<i>Grade 11</i>
reaaccomT1	3,881	4,078	4,872	3,875	3,728	3,762	2,079
reaaccomT2	164	177	216	187	163	148	57
reaaccomT3	3,429	3,511	3,557	2,583	2,438	2,227	594
reaaccomT4	200	206	215	168	149	142	49
reaaccomS1	5,679	5,780	5,894	4,506	3,437	3,624	2,007
reaaccomS2	32	43	29	33	26	45	30
reaaccomP1	1,247	1,260	1,177	1,011	715	678	182
reaaccomP2	5,903	6,214	6,184	5,339	5,107	4,971	2,012
reaaccomP4	730	719	640	574	596	572	160
reaaccomP5	2,684	2,699	2,805	2,134	1,802	1,603	200
reaaccomP6	31	22	27	22	19	36	3
reaaccomP7	2,858	2,992	3,020	2,090	1,537	1,411	589
reaaccomP8	36	46	58	52	37	37	9
reaaccomP9	4	3	2	2	2	1	1
reaaccomP11	278	335	239	109	101	35	13
reaaccomR1	1,902	2,137	1,972	1,442	934	698	57
reaaccomR2	39	19	38	32	29	33	5
reaaccomR3	397	395	302	135	101	63	8
reaaccomR4	34	45	123	165	275	353	78
reaaccomR5	107	126	115	75	75	42	18
reaaccomR6	15	12	31	11	13	8	0
reaaccomO1	15	5	6	8	4	2	6
reaaccomM2	13	8	8	6	8	6	2
reaaccomM3	2	3	3	1	0	0	0

Table C-4. 2011–12 NECAP: Numbers of Students Tested with Accommodations by Accommodation Type and Subject—Writing

<i>Accommodation Code</i>	<i>Grade 5</i>	<i>Grade 8</i>	<i>Grade 11</i>
wriaccomT1	4,333	3,144	1,534
wriaccomT2	196	131	58
wriaccomT3	3,276	2,037	587
wriaccomT4	202	125	50
wriaccomS1	5,536	3,430	1,979
wriaccomS2	28	48	28
wriaccomP1	1,047	618	177
wriaccomP2	5,851	4,642	2,013
wriaccomP3	4,058	1,892	463
wriaccomP4	445	476	155
wriaccomP5	2,650	1,539	243
wriaccomP6	27	36	5
wriaccomP7	2,849	1,320	584
wriaccomP8	56	36	9

<i>Accommodation Code</i>	<i>Grade 5</i>	<i>Grade 8</i>	<i>Grade 11</i>
wriacomP9	4	1	1
wriacomP10	26	69	61
wriacomP11	226	30	13
wriacomR3	271	61	9
wriacomR4	219	437	120
wriacomR5	91	36	11
wriacomR6	24	8	0
wriacomR7	13	53	28
wriacomO1	10	2	8
wriacomO2	48	52	13
wriacomM3	16	5	4

APPENDIX D—TABLE OF STANDARD ACCOMMODATIONS

NECAP Table of Standard Accommodations

Revised August 2009

Any accommodation(s) used for the assessment of an individual student will be the result of a team decision made at the local level. All decisions regarding the use of accommodations must be made on an individual student basis – not for a large group, entire class, or grade level. Accommodations are available to all students on the basis of individual need regardless of disability status and should be consistent with the student’s normal routine during instruction and assessment. This table is not intended to be used as a stand-alone document and should always be used in conjunction with the *NECAP Accommodations Guide*.

T. Timing		
Code	Tests were administered	Details on Delivery of Accommodations
T1	with time to complete a session extended beyond the scheduled administration time within the same day.	NECAP tests are not designed to be timed or speeded tests. The scheduled administration time already includes additional time and the vast majority of students complete the test session within that time period. Extended time within a single sitting may be needed by students who are unable to meet time constraints. A test session may be extended until the student can no longer sustain the activity.
T2	so that only a portion of the test session was administered on a particular day.	In rare and severe cases, the extended time accommodation (T1) may not be adequate for a student not able to complete a test session within a single day. A test session may be administered to a student as two or more “mini-sessions” if procedures are followed to maintain test security and ensure that the student only has access to the items administered on that day (see the <i>NECAP Accommodations Guide</i> for details).
T3	with short, supervised breaks.	Multiple or frequent breaks may be required by a student whose attention span, distractibility, or physical condition, requires shorter working periods.
T4	at the time of day or day of week that takes into account the student’s medical needs or learning style.	Individual scheduling may be used for a student whose school performance is noticeably affected by the time of day or day of the school week on which it is done. This accommodation may not be used specifically to change the order of administration of test sessions. This accommodation must not result in the administration of a test session to an individual student prior to the regularly scheduled administration time for that session for all students.

S. Setting		
Code	Tests were administered	Details on Delivery of Accommodations
S1	in a separate location within the school by trained school personnel.	A student or students may be tested individually or in small groups in an alternative site within the school to reduce distractions for themselves or others, or to increase physical access to special equipment.
S2	in an out-of-school setting by trained school personnel.	Out-of-school testing may be used for a student who is hospitalized or tutored because they are unable to attend school. The test must be administered by trained school personnel familiar with test administration procedures and guidelines. Relatives/guardians of the student may not be used as the test administrator.

P. Presentation		
Code	Tests were administered	Details on Delivery of Accommodations
P1	individually.	Individual or small group testing may be used to minimize distractions for a student or students whose test is administered out of the classroom or so that others will not be distracted by other accommodations being used (e.g., dictation)
P2	in a small group.	
P3	with test and directions read aloud in English or signed to the student. (NOT allowed for the Reading test.)	A reader may be used for a student whose inability to read would hinder performance on the Mathematics, Science, or Writing test. Words must be read as written. Guidelines for reading mathematical symbols must be followed. No translations (with the exception of signed language) or explanations are allowed. Trained personnel may use sign language to administer the test.
P4	with only test directions read aloud or signed to the student.	A reader may be used for a student whose inability to read or locate directions would hinder performance on the test. Note that most directions on the NECAP test occur at the beginning of the test session and are already read aloud by the test administrator. Guidelines for what are and are not “test directions” must be followed. With the exception of sign language and the case of students enrolled in a program where the test administrator routinely presents information in a foreign language, directions may not be translated.
P5	with administrator verification of student understanding following the reading of test directions.	After test directions have been read, the test administrator may ask the student to explain what he/she has been asked to do. If directions have been misunderstood by the student, the test directions may be paraphrased or demonstrated. Test items MUST NOT be paraphrased or explained.
P6	using alternative or assistive technology that is part of the student’s communication system.	The test may be presented through his/her regular communication system to a student who uses alternative or assistive technology on a daily basis. Technology may not be used to “read” the Reading test to the student.
P7	by trained school personnel known to the student other than the student’s classroom teacher.	A student may be more comfortable with a test administrator who works with the student on a regular basis, but is not the student’s regular teacher for the general curriculum or other staff assigned as test administrator. All test administrators must be trained school personnel familiar with test administration and accommodations procedures and guidelines.
P8	using a large-print version of assessment.	Both large-print and Braille versions of the assessment require special preparation and processing and must be pre-ordered. Directions for ordering these materials are included in communications sent to school principals prior to the test.
P9	using Braille version of assessment.	
P10	using a word-to-word translation dictionary for ELL students. (NOT allowed for the Reading test.)	A student with limited English proficiency may have a word-to-word dictionary available for individual use as needed. A word-to-word dictionary is one that does not include any definitions. Information on acceptable dictionaries is provided on the departments’ websites.
P11	using visual or auditory supports.	The test may be presented using visual aids such as visual magnification devices, reduction of visual print by blocking or other techniques, or acetate shields; or auditory devices such as special acoustics, amplification, noise buffers, whisper phones, or calming music.

R. Response		
Code	Tests were administered	Details on Delivery of Accommodations
R1	with a student dictating responses to school personnel. (NOT allowed for the Writing test. See O2 – using a scribe for the Writing test.)	A student may dictate answers to constructed-response or short-answer questions to locally trained personnel or record oral answers in an individual setting so that other students will not benefit by hearing answers or be otherwise disturbed. Policies regarding recorded answers must be followed prior to returning test materials.
R2	with a student dictating responses using alternative or assistive technology/devices that are part of the student’s communication system. (NOT allowed for the Writing test. See O2 – using a scribe for the Writing test.)	Technology is used to permit a student to respond to the test. When using a computer, word processing device, or other assistive technology, spell and grammar checks must be turned off. Policies regarding recorded answers must be followed prior to returning test materials.
R3	with a student using approved tools or devices to minimize distractions.	Noise buffers, place markers, carrels, etc. may be used to minimize distractions for the student. This accommodation does NOT include assistive devices such as templates, graphic organizers, or other devices intended specifically to help students organize thinking or develop a strategy for a specific question.
R4	with a student writing responses using separate paper, a word processor, computer, braille, or similar device.	A student may use technological or other tools (e.g., large-spaced paper) to write responses to constructed-response, short-answer, and extended response items. A key distinction between this accommodation and R2 is that the student using this accommodation is responding in writing rather than dictating. When using a computer, word processing device, or other assistive technology, spell and grammar checks must be turned off, as well as access to the Web. This accommodation is intended for unique individual needs, not an entire class. Policies regarding recorded answers must be followed prior to returning test materials.
R5	with a student indicating responses to multiple-choice items to school personnel.	A student unable to write or otherwise unable to fill-in answers to multiple-choice questions may indicate a response to trained school personnel. The school personnel records the student’s response in the student answer booklet.
R6	with a student responding with the use of visual aids.	Visual aids include any optical or non-optical devices used to enhance visual capability. Examples include magnifiers, special lighting, markers, filters, large-spaced paper, color overlays, etc. An abacus may also be used for student with severe visual impairment or blindness on the Mathematics and Science tests. Note that the use of this accommodation still requires student responses to be recorded in a student answer booklet.
R7	with a student with limited English proficiency responding with use of a word-to-word dictionary. (NOT allowed for the Reading test.)	A student with limited English proficiency may have a word-to-word dictionary available for individual use as needed when responding. A word-to-word dictionary is one that does not include any definitions. Information on acceptable dictionaries is provided on each Department’s website.

O. Other		
These accommodations require DOE approval.		
Code	Tests were administered	Details on Delivery of Accommodations
O1	using other accommodation(s) not on this list, requested by the accommodations team.	An IEP team or other appropriate accommodation team may request that a student be provided an accommodation not included on this standard list of accommodations. Like all other accommodations, these should be consistent with the student's normal routine during instruction and/or assessment. Requests should be made to the DOE when accommodation plans are being made for a student prior to testing. DOE approval must be received for the requested accommodation to be coded as an O1 accommodation. Non-approved accommodations used during test administration will be coded as an M3 modification.
O2	with a scribe used on the Writing test.	The use of a scribe for students dictating a response to the Writing test may only be used under limited circumstances and must be approved by the DOE. When approved as an accommodation, the scribe must follow established guidelines and procedures.

M. Modifications		
All modifications result in impacted items being scored as incorrect.		
Code	Tests were administered	Details on Delivery of Accommodations
M1	using a calculator and/or manipulatives on Session 1 of the Mathematics test or using a scientific or graphing calculator on Session 3 of the Science test	Inappropriate use of a calculator or other tools will result in impacted items being scored as incorrect.
M2	with the test administrator reading the Reading test.	The read aloud accommodation (P3) is not allowed for the Reading test. If it is used, all reading items in the sessions that are read aloud will be scored as incorrect.
M3	using an accommodation on this list not approved for a particular test or an accommodation not included on this list without prior approval of the DOE.	Inappropriate use of an accommodation included on this list or use of another accommodation without prior approval of the DOE will result in impacted items being scored as incorrect.

Note: English Language Learners may qualify for any of the accommodations listed as appropriate and determined by a team. Refer to the *NECAP Accommodations Guide* for additional information.

APPENDIX E—ITEM-LEVEL CLASSICAL STATISTICS

Table E-1. 2011–12 NECAP: Item-Level Classical Test Theory Statistics—Mathematics Grade 3

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
119683	MC	0.70	0.46	1
119685	MC	0.80	0.50	1
119687	SA	0.73	0.55	1
119688	SA	0.71	0.43	2
119697	MC	0.81	0.42	1
119710	MC	0.91	0.39	1
119715	MC	0.83	0.50	1
119763	MC	0.73	0.47	1
119770	MC	0.75	0.50	1
119772	MC	0.85	0.33	1
119842	MC	0.70	0.35	0
119846	MC	0.51	0.38	2
119880	MC	0.74	0.40	1
119886	SA	0.54	0.47	1
119891	MC	0.44	0.23	1
119911	MC	0.76	0.38	1
124308	MC	0.88	0.31	1
124436	MC	0.79	0.50	1
124462	SA	0.62	0.54	1
139548	MC	0.76	0.36	1
139560	MC	0.90	0.35	0
139572	MC	0.44	0.40	2
139575	MC	0.63	0.19	2
139580	SA	0.72	0.37	1
139598	SA	0.47	0.49	2
139603	SA	0.65	0.59	2
139641	MC	0.47	0.50	0
139653	SA	0.46	0.44	1
139673	SA	0.67	0.44	1
144611	SA	0.69	0.43	3
144617	SA	0.82	0.30	1
145245	MC	0.75	0.41	1
145247	MC	0.78	0.54	1
145249	SA	0.72	0.54	1
145256	SA	0.83	0.52	2
145504	SA	0.37	0.56	2
145515	MC	0.71	0.54	1
145522	MC	0.81	0.30	1
145672	MC	0.94	0.34	0
145678	MC	0.92	0.35	0
145680	MC	0.73	0.50	1
145720	MC	0.78	0.52	2
145751	MC	0.40	0.42	2
168362	MC	0.69	0.48	1
168416	SA	0.59	0.53	1
168489	MC	0.78	0.34	1
168602	SA	0.56	0.33	1
168613	SA	0.60	0.53	1

continued

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
168625	MC	0.77	0.53	1
168702	MC	0.32	0.38	1
168709	SA	0.69	0.28	1
168716	MC	0.71	0.28	1
168763	SA	0.15	0.35	2
168766	SA	0.73	0.61	1
176770	MC	0.47	0.48	1

Table E-2. 2011–12 NECAP: Item-Level Classical Test Theory Statistics—Mathematics Grade 4

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
120045	MC	0.60	0.39	1
120047	MC	0.77	0.45	0
120094	MC	0.67	0.52	1
120102	MC	0.86	0.39	0
120110	MC	0.50	0.39	1
120146	MC	0.43	0.24	1
120174	SA	0.43	0.41	1
120176	MC	0.34	0.34	1
120220	MC	0.84	0.52	0
120236	MC	0.76	0.38	1
120240	SA	0.64	0.53	2
120245	MC	0.79	0.47	1
120251	MC	0.88	0.44	0
120257	MC	0.64	0.47	1
120261	MC	0.81	0.29	2
120266	SA	0.63	0.49	1
120269	MC	0.60	0.42	1
120274	MC	0.81	0.30	1
120291	MC	0.85	0.43	1
120299	SA	0.72	0.49	1
120301	SA	0.52	0.57	1
124594	MC	0.87	0.43	1
124616	MC	0.88	0.41	1
124700	SA	0.59	0.50	0
139424	MC	0.72	0.49	1
139432	MC	0.65	0.43	2
139437	MC	0.77	0.43	2
139450	SA	0.40	0.53	2
139452	SA	0.55	0.59	1
139468	MC	0.76	0.40	1
139482	SA	0.62	0.48	1
139489	MC	0.55	0.41	1
139491	MC	0.69	0.45	1
139503	SA	0.68	0.57	0
144635	SA	0.76	0.44	1
144639	SA	0.61	0.63	1
145070	MC	0.90	0.34	0

continued

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
145077	MC	0.81	0.27	1
145079	MC	0.68	0.43	1
145545	SA	0.78	0.45	2
145780	MC	0.71	0.40	1
145788	SA	0.79	0.45	1
145805	MC	0.75	0.56	1
145815	SA	0.49	0.47	2
145854	MC	0.50	0.52	1
168384	MC	0.42	0.45	1
168395	MC	0.68	0.46	1
168398	MC	0.30	0.30	1
168410	SA	0.73	0.48	2
168439	SA	0.59	0.43	1
168467	SA	0.52	0.39	1
168483	SA	0.46	0.57	1
168901	MC	0.79	0.50	1
169080	MC	0.81	0.41	1
169109	SA	0.55	0.53	3

Table E-3. 2011–12 NECAP: Item-Level Classical Test Theory Statistics—Mathematics Grade 5

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
120626	MC	0.52	0.43	0
120640	MC	0.82	0.29	1
120644	MC	0.77	0.47	0
120670	MC	0.62	0.33	1
120675	CR	0.59	0.61	1
120697	MC	0.49	0.48	0
120702	MC	0.57	0.42	1
120708	MC	0.74	0.28	0
120714	MC	0.28	0.38	1
120724	MC	0.65	0.40	0
120740	SA	0.60	0.62	1
120744	SA	0.46	0.55	2
120757	MC	0.81	0.40	1
120760	MC	0.57	0.30	1
120764	MC	0.72	0.46	0
120769	MC	0.53	0.37	0
120781	SA	0.39	0.50	1
120814	SA	0.66	0.55	1
120819	MC	0.77	0.32	0
121805	MC	0.59	0.39	0
121826	MC	0.60	0.43	0
124796	MC	0.47	0.29	0
124832	SA	0.29	0.50	1
124858	CR	0.35	0.66	1
124918	MC	0.72	0.50	0
124925	SA	0.26	0.57	2

continued

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
139334	MC	0.75	0.43	1
139374	SA	0.42	0.42	2
144684	MC	0.80	0.41	0
144685	MC	0.50	0.49	0
145098	MC	0.41	0.36	1
145311	MC	0.56	0.43	0
145568	MC	0.46	0.23	0
145575	SA	0.54	0.47	0
145592	MC	0.34	0.44	1
145871	MC	0.67	0.51	0
145880	SA	0.59	0.42	0
145892	MC	0.83	0.37	1
145896	MC	0.61	0.41	0
145917	MC	0.26	0.39	0
145964	SA	0.44	0.43	1
167664	MC	0.55	0.51	0
167682	MC	0.49	0.49	0
167762	CR	0.50	0.61	1
167801	MC	0.86	0.29	0
167811	SA	0.82	0.24	0
167851	CR	0.62	0.61	1
167878	SA	0.62	0.41	1

Table E-4. 2011–12 NECAP: Item-Level Classical Test Theory Statistics—Mathematics Grade 6

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
119175	MC	0.64	0.41	0
119178	MC	0.48	0.41	0
119183	MC	0.72	0.40	0
119209	MC	0.41	0.46	0
119220	MC	0.38	0.24	0
119228	SA	0.41	0.67	1
119234	MC	0.37	0.35	1
119247	MC	0.38	0.38	1
119248	SA	0.75	0.44	1
119258	MC	0.58	0.54	0
119262	MC	0.56	0.32	0
119271	MC	0.57	0.30	0
119274	MC	0.72	0.39	0
119275	MC	0.77	0.45	0
119277	SA	0.71	0.59	1
119289	SA	0.54	0.56	2
119290	MC	0.62	0.50	0
119292	MC	0.71	0.43	0
119294	MC	0.31	0.46	0
119303	MC	0.34	0.34	0
119313	MC	0.49	0.40	0
119317	MC	0.54	0.32	1

continued

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
119353	MC	0.71	0.34	0
119355	MC	0.24	0.33	0
119368	SA	0.57	0.49	1
119369	SA	0.55	0.45	1
123316	MC	0.93	0.25	0
123377	MC	0.60	0.48	0
125004	MC	0.54	0.39	0
125065	CR	0.45	0.56	1
125099	CR	0.43	0.71	1
125111	CR	0.50	0.68	1
139235	SA	0.51	0.51	1
139248	SA	0.58	0.53	1
139259	MC	0.42	0.40	1
139370	SA	0.75	0.36	1
139397	CR	0.39	0.67	1
144705	SA	0.46	0.48	1
144710	MC	0.60	0.41	0
145354	MC	0.78	0.47	0
145630	SA	0.55	0.50	2
145999	MC	0.31	0.18	0
167633	MC	0.37	0.49	0
167703	MC	0.51	0.51	1
167914	MC	0.38	0.45	1
167923	MC	0.65	0.49	0
167943	MC	0.87	0.32	0
167963	SA	0.47	0.56	3

Table E-5. 2011–12 NECAP: Item-Level Classical Test Theory Statistics—Mathematics Grade 7

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
120328	MC	0.66	0.48	0
120340	MC	0.73	0.48	1
120344	MC	0.90	0.32	0
120348	MC	0.42	0.49	0
120371	MC	0.31	0.22	0
120391	CR	0.26	0.66	2
120394	MC	0.42	0.20	0
120411	MC	0.91	0.34	0
120433	MC	0.39	0.26	0
120442	MC	0.67	0.39	0
120444	MC	0.65	0.31	0
120455	MC	0.55	0.41	0
120464	MC	0.69	0.45	0
120469	SA	0.45	0.59	2
120475	CR	0.40	0.64	1
120477	SA	0.32	0.55	2
120487	SA	0.66	0.47	1
120511	MC	0.73	0.38	0

continued

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
120516	MC	0.81	0.40	0
125216	CR	0.41	0.64	1
125229	MC	0.55	0.44	0
125260	MC	0.66	0.46	0
125282	MC	0.34	0.44	0
139924	MC	0.45	0.44	1
139926	MC	0.31	0.33	0
139971	SA	0.34	0.53	1
139980	SA	0.35	0.63	1
139994	MC	0.56	0.41	0
139997	MC	0.59	0.40	1
140255	MC	0.79	0.40	0
144742	MC	0.87	0.31	0
144749	SA	0.42	0.62	2
145144	SA	0.39	0.58	2
145380	CR	0.45	0.59	1
146059	MC	0.43	0.30	0
146208	SA	0.40	0.27	2
146263	MC	0.32	0.20	1
146265	MC	0.43	0.18	0
154775	MC	0.63	0.46	1
169201	MC	0.33	0.22	1
169205	MC	0.70	0.41	1
169224	SA	0.64	0.49	1
169252	SA	0.45	0.68	2
169486	SA	0.47	0.62	2
169524	MC	0.56	0.42	0
169533	SA	0.45	0.47	1
169536	MC	0.59	0.53	0
181200	MC	0.61	0.46	0

Table E-6. 2011–12 NECAP: Item-Level Classical Test Theory Statistics—Mathematics Grade 8

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
120877	MC	0.66	0.46	0
120884	MC	0.73	0.37	0
120886	MC	0.79	0.52	1
120887	MC	0.67	0.49	0
120890	SA	0.59	0.52	2
120913	MC	0.75	0.36	0
120915	MC	0.83	0.43	0
120923	MC	0.68	0.52	1
120934	SA	0.47	0.56	1
120936	SA	0.57	0.63	3
120938	CR	0.57	0.64	1
120946	MC	0.66	0.37	0
120965	MC	0.27	0.24	1
120977	SA	0.31	0.42	1

continued

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
120980	CR	0.50	0.63	1
120981	MC	0.39	0.37	1
120985	SA	0.40	0.62	2
120991	MC	0.72	0.29	0
121027	SA	0.62	0.50	1
121037	MC	0.55	0.49	0
121047	MC	0.39	0.24	1
121078	MC	0.66	0.38	0
121081	MC	0.57	0.46	0
121082	SA	0.64	0.59	1
122525	MC	0.86	0.33	0
123745	MC	0.62	0.43	0
123821	MC	0.57	0.55	0
125563	SA	0.50	0.63	2
125576	SA	0.16	0.52	3
139771	SA	0.74	0.46	0
139837	MC	0.65	0.34	1
139869	SA	0.37	0.57	3
139880	MC	0.30	0.27	0
139894	CR	0.42	0.69	1
145199	MC	0.66	0.45	0
145395	CR	0.32	0.69	2
145641	MC	0.75	0.45	1
145644	MC	0.71	0.32	1
146286	MC	0.35	0.44	0
146307	MC	0.62	0.44	0
146358	MC	0.39	0.40	1
146373	MC	0.29	0.45	0
146468	MC	0.65	0.40	0
152807	SA	0.30	0.37	2
169257	MC	0.39	0.40	0
169370	MC	0.54	0.48	0
169410	MC	0.50	0.35	1
169455	MC	0.43	0.27	0

Table E-7. 2011–12 NECAP: Item-Level Classical Test Theory Statistics—Mathematics Grade 11

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
119446	MC	0.73	0.40	1
119464	SA	0.39	0.61	4
119476	MC	0.38	0.45	1
119494	SA	0.19	0.52	9
119504	SA	0.13	0.35	13
119603	SA	0.23	0.50	5
119605	SA	0.57	0.56	6
119620	SA	0.15	0.41	7
125740	SA	0.14	0.49	8
125817	MC	0.26	0.23	1

continued

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
125844	MC	0.42	0.43	2
130100	MC	0.29	0.31	1
140047	MC	0.24	0.33	1
140068	MC	0.47	0.45	1
140089	SA	0.31	0.63	8
140203	SA	0.38	0.56	5
141266	SA	0.38	0.54	4
144789	MC	0.31	0.29	1
144820	MC	0.74	0.45	1
145220	MC	0.36	0.55	1
145222	MC	0.45	0.44	1
145231	MC	0.25	0.43	1
145461	SA	0.54	0.55	5
169502	MC	0.39	0.54	1
169505	MC	0.46	0.45	1
169516	SA	0.50	0.56	5
169553	CR	0.37	0.73	4
169559	MC	0.52	0.40	1
169565	MC	0.25	0.37	1
169568	MC	0.53	0.60	1
169588	SA	0.47	0.41	3
169599	SA	0.34	0.65	9
169657	CR	0.31	0.73	5
169685	MC	0.61	0.43	1
169689	MC	0.77	0.19	0
169690	MC	0.65	0.32	1
169703	MC	0.42	0.37	1
169704	MC	0.84	0.36	0
169711	SA	0.35	0.62	4
169719	SA	0.38	0.64	10
169739	CR	0.27	0.61	6
169763	MC	0.80	0.31	1
169769	MC	0.54	0.48	1
169800	CR	0.29	0.60	6
178058	SA	0.14	0.57	11
178083	SA	0.25	0.62	5

Table E-8. 2011–12 NECAP: Item-Level Classical Test Theory Statistics—Reading Grade 3

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
117645	MC	0.79	0.51	1
117646	MC	0.84	0.36	1
117647	MC	0.74	0.45	1
117648	MC	0.85	0.37	1
147819	MC	0.83	0.49	0
147835	MC	0.69	0.41	2
147849	MC	0.45	0.32	1
147851	MC	0.88	0.53	1
147856	MC	0.64	0.27	2
147865	MC	0.70	0.49	0
147868	MC	0.57	0.41	1
147870	MC	0.79	0.52	1
147875	CR	0.81	0.47	1
147889	CR	0.31	0.54	1
147960	MC	0.76	0.29	1
147966	MC	0.85	0.52	0
147967	MC	0.76	0.47	1
147970	MC	0.89	0.52	1
147990	CR	0.45	0.48	1
148072	MC	0.69	0.24	2
148080	MC	0.74	0.45	1
148104	MC	0.58	0.44	2
148118	MC	0.72	0.46	1
148121	MC	0.78	0.40	1
148124	MC	0.66	0.45	1
148135	MC	0.88	0.52	0
148141	MC	0.76	0.50	1
148155	CR	0.36	0.62	1
148163	CR	0.86	0.47	1
148178	MC	0.77	0.45	1
148219	MC	0.87	0.43	0
171737	MC	0.82	0.36	0
171772	MC	0.89	0.47	0
233382	CR	0.47	0.50	1

Table E-9. 2011–12 NECAP: Item-Level Classical Test Theory Statistics—Reading Grade 4

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
117881	MC	0.81	0.48	0
117882	MC	0.80	0.40	1
117883	MC	0.63	0.37	1
117884	MC	0.63	0.49	1
117885	MC	0.66	0.50	1
117886	MC	0.48	0.34	1
117887	MC	0.70	0.48	1
117888	MC	0.70	0.42	1
117889	CR	0.57	0.40	1

continued

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
117890	CR	0.39	0.59	1
117924	MC	0.70	0.28	0
117925	MC	0.88	0.50	1
117926	MC	0.76	0.48	2
117927	MC	0.68	0.44	0
117931	CR	0.48	0.47	1
117932	MC	0.82	0.45	0
117933	MC	0.78	0.46	1
117934	MC	0.63	0.29	1
117935	MC	0.61	0.24	1
117936	MC	0.73	0.44	0
117937	MC	0.72	0.42	1
117938	MC	0.79	0.44	1
117939	MC	0.69	0.44	2
117940	CR	0.72	0.47	0
117941	CR	0.46	0.57	1
148403	MC	0.71	0.45	0
171763	MC	0.78	0.38	0
171773	MC	0.67	0.35	1
171776	MC	0.79	0.51	0
171799	MC	0.78	0.49	0
171813	CR	0.81	0.58	1
172180	MC	0.83	0.46	0
172200	MC	0.84	0.45	1
172216	MC	0.85	0.33	1

Table E-10. 2011–12 NECAP: Item-Level Classical Test Theory Statistics—Reading Grade 5

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
118068	MC	0.91	0.43	0
118069	MC	0.73	0.46	0
118071	MC	0.67	0.37	0
118072	CR	0.37	0.55	1
118199	MC	0.59	0.31	0
127825	MC	0.79	0.40	1
148595	MC	0.78	0.47	0
148614	MC	0.70	0.41	1
148616	MC	0.86	0.49	0
148617	MC	0.68	0.43	0
148618	MC	0.87	0.54	1
148631	MC	0.84	0.46	1
148639	MC	0.68	0.42	1
148667	MC	0.73	0.41	1
148680	CR	0.39	0.59	1
148698	CR	0.43	0.65	1
171793	MC	0.92	0.34	0
171797	MC	0.59	0.39	1
171803	MC	0.76	0.45	0

continued

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
171808	MC	0.87	0.47	1
171812	CR	0.44	0.55	1
171892	MC	0.64	0.40	0
171895	MC	0.83	0.48	0
171913	MC	0.83	0.34	0
171914	MC	0.82	0.41	0
171916	MC	0.73	0.28	1
171922	MC	0.87	0.44	1
171924	MC	0.57	0.32	1
171928	MC	0.93	0.43	1
171930	CR	0.40	0.53	1
171934	CR	0.42	0.44	1
172068	MC	0.60	0.31	0
172082	MC	0.70	0.38	0
172092	MC	0.78	0.44	0

Table E-11. 2011–12 NECAP: Item-Level Classical Test Theory Statistics—Reading Grade 6

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
118255	MC	0.72	0.25	0
118327	MC	0.73	0.40	0
118328	MC	0.82	0.43	0
118330	MC	0.92	0.45	0
118333	MC	0.69	0.36	0
118335	MC	0.89	0.49	1
118338	MC	0.76	0.33	1
118339	MC	0.88	0.39	1
118341	MC	0.82	0.47	1
118343	CR	0.45	0.66	1
118344	CR	0.44	0.62	1
118384	MC	0.78	0.39	0
148388	MC	0.91	0.36	0
148393	MC	0.70	0.39	0
148399	MC	0.86	0.32	0
148401	MC	0.78	0.42	0
148410	MC	0.86	0.43	0
148412	MC	0.91	0.40	0
148425	MC	0.90	0.41	0
148428	MC	0.80	0.32	1
148440	CR	0.46	0.61	1
148455	CR	0.48	0.62	1
148469	MC	0.62	0.26	0
148481	MC	0.85	0.39	0
148501	MC	0.70	0.41	0
148508	MC	0.65	0.22	1
148540	CR	0.43	0.59	1
148768	MC	0.89	0.38	0
148779	MC	0.76	0.38	0

continued

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
148794	MC	0.88	0.38	0
148800	MC	0.63	0.36	1
148810	CR	0.51	0.54	0
172228	MC	0.56	0.27	0
172234	MC	0.71	0.37	0

Table E-12. 2011–12 NECAP: Item-Level Classical Test Theory Statistics—Reading Grade 7

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
118526	MC	0.79	0.35	0
118528	MC	0.76	0.38	0
118532	CR	0.50	0.62	1
118572	MC	0.87	0.42	0
118573	MC	0.82	0.38	1
129210	MC	0.66	0.28	0
129211	MC	0.90	0.36	0
129212	MC	0.86	0.38	0
129213	MC	0.71	0.43	0
129214	MC	0.81	0.39	1
129215	MC	0.72	0.47	1
129216	MC	0.50	0.24	1
129217	MC	0.73	0.22	1
129218	CR	0.45	0.69	1
129219	CR	0.55	0.67	1
147573	MC	0.91	0.40	0
147577	MC	0.80	0.41	0
147583	MC	0.74	0.44	0
147606	CR	0.53	0.64	0
147668	MC	0.74	0.38	0
147681	MC	0.45	0.41	0
173057	MC	0.68	0.46	0
173062	MC	0.75	0.26	0
173066	MC	0.77	0.34	0
173078	MC	0.88	0.43	1
173082	MC	0.65	0.39	1
173091	MC	0.53	0.21	1
173094	MC	0.78	0.37	1
173096	MC	0.73	0.41	1
173106	CR	0.49	0.65	1
173107	CR	0.42	0.65	1
173330	MC	0.72	0.36	0
173364	MC	0.83	0.41	0
177359	MC	0.72	0.34	0

Table E-13. 2011–12 NECAP: Item-Level Classical Test Theory Statistics—Reading Grade 8

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
118704	MC	0.76	0.38	0
118706	MC	0.82	0.35	0
118707	MC	0.60	0.34	0
118708	MC	0.57	0.35	1
118711	CR	0.57	0.62	1
118742	MC	0.70	0.25	0
147318	MC	0.77	0.46	0
147319	MC	0.60	0.42	0
147322	MC	0.70	0.31	0
147324	MC	0.80	0.43	0
147332	MC	0.79	0.43	0
147333	MC	0.85	0.36	1
147334	MC	0.84	0.38	0
147340	MC	0.49	0.40	0
147346	CR	0.54	0.70	1
147351	CR	0.43	0.63	1
147616	MC	0.76	0.34	0
172329	MC	0.84	0.42	0
172331	MC	0.56	0.33	0
172332	MC	0.79	0.39	0
172338	MC	0.78	0.31	0
172351	CR	0.45	0.66	1
172379	MC	0.91	0.38	0
172383	MC	0.64	0.39	0
172385	MC	0.83	0.40	0
172388	MC	0.82	0.42	0
172400	MC	0.55	0.22	1
172401	MC	0.83	0.18	1
172403	MC	0.71	0.31	1
172406	MC	0.62	0.44	1
172414	CR	0.51	0.68	1
172416	CR	0.49	0.65	1
172733	MC	0.94	0.31	0
172743	MC	0.92	0.26	0

Table E-14. 2011–12 NECAP: Item-Level Classical Test Theory Statistics—Reading Grade 11

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
144031	MC	0.56	0.32	1
144033	MC	0.80	0.51	1
144035	MC	0.73	0.34	1
144037	MC	0.55	0.37	1
144040	CR	0.50	0.69	4
147423	MC	0.90	0.43	0
147433	MC	0.86	0.42	0
147435	MC	0.73	0.39	0
147439	MC	0.89	0.42	0

continued

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
147450	MC	0.49	0.27	1
147456	MC	0.75	0.41	1
147463	MC	0.80	0.37	1
147473	MC	0.70	0.37	1
147484	CR	0.63	0.70	1
147488	CR	0.60	0.72	2
147900	MC	0.58	0.30	0
172420	MC	0.74	0.42	1
172424	MC	0.76	0.42	1
172427	MC	0.71	0.34	1
172434	MC	0.87	0.38	1
172437	CR	0.54	0.70	2
172827	MC	0.72	0.43	1
172832	MC	0.69	0.37	1
172833	MC	0.75	0.46	1
172834	MC	0.80	0.36	1
172838	MC	0.84	0.48	1
172839	MC	0.60	0.39	1
172840	MC	0.77	0.47	1
172844	MC	0.56	0.30	1
172845	CR	0.57	0.70	2
172846	CR	0.49	0.67	3
172854	MC	0.75	0.38	1
172870	MC	0.70	0.33	0
172896	MC	0.51	0.40	0

Table E-15. 2011–12 NECAP: Item-Level Classical Test Theory Statistics—Writing Grade 5

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
148028	MC	0.75	0.27	0
148042	MC	0.83	0.35	0
148113	MC	0.81	0.36	0
148136	MC	0.85	0.25	0
148179	MC	0.82	0.36	0
148239	MC	0.81	0.41	0
148266	MC	0.85	0.25	1
148272	MC	0.87	0.31	0
148312	MC	0.84	0.40	0
148319	MC	0.79	0.31	0
150153	CR	0.47	0.61	0
150157	CR	0.39	0.56	1
150202	CR	0.49	0.60	1
150251	WP	0.44	0.62	0

Table E-16. 2011–12 NECAP: Item-Level Classical Test Theory Statistics—Writing Grade 8

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
148459	MC	0.61	0.34	0
148465	MC	0.75	0.35	0
148518	MC	0.70	0.38	0
148565	MC	0.84	0.36	0
148609	MC	0.75	0.28	0
148677	MC	0.82	0.40	0
148705	MC	0.88	0.40	0
148759	MC	0.76	0.35	0
148778	MC	0.79	0.31	0
148869	MC	0.74	0.31	0
150435	CR	0.57	0.67	1
150788	WP	0.50	0.67	0
150790	CR	0.65	0.60	1
150847	CR	0.58	0.66	1

Table E-17. 2011–12 NECAP: Item-Level Classical Test Theory Statistics—Writing Grade 11

<i>Item Number</i>	<i>Item Type</i>	<i>Difficulty</i>	<i>Discrimination</i>	<i>Percent Omitted</i>
174398	WP	0.52		

APPENDIX F—ITEM-LEVEL SCORE POINT DISTRIBUTIONS

Table F-1. 2011–12 NECAP: Item-Level Score Distributions for Constructed-Response Items by Content Area and Grade—Mathematics and Reading

Content Area	Grade	Item Number	Total Possible Points	Percent of Students at Score Point				
				0	1	2	3	4
Mathematics	03	119687	1	25.31	73.38			
		119688	2	16.34	21.23	60.67		
		119886	1	45.26	53.54			
		124462	1	36.86	61.69			
		139580	1	27.40	71.72			
		139598	2	24.01	54.17	20.09		
		139603	2	15.88	34.33	48.23		
		139653	2	41.23	24.67	33.48		
		139673	2	7.68	49.15	42.44		
		144611	1	27.84	69.48			
		144617	1	17.00	82.24			
		145249	1	27.15	71.51			
		145256	1	15.62	82.64			
		145504	2	45.33	31.78	20.64		
		168416	2	25.22	29.32	44.64		
		168602	1	42.17	56.40			
		168613	2	19.94	39.18	40.26		
		168709	1	30.43	68.94			
		168763	2	72.88	21.91	3.66		
		168766	2	12.26	26.77	60.02		
	04	120174	1	55.94	43.06			
		120240	1	34.04	64.32			
		120266	1	36.71	62.52			
		120299	2	11.82	30.85	56.62		
		120301	2	36.02	21.45	41.58		
		124700	2	4.73	70.96	23.87		
		139450	2	50.04	16.87	31.21		
		139452	2	29.50	28.00	41.42		
		139482	2	18.77	37.78	42.82		
		139503	2	15.19	33.51	50.87		
		144635	2	19.57	7.69	71.97		
		144639	2	22.75	31.47	45.15		
		145545	1	20.68	77.53			
		145788	1	20.33	78.99			
		145815	1	49.56	48.90			
		168410	1	25.45	72.90			
		168439	1	39.34	59.30			
		168467	1	47.61	51.89			
		168483	2	46.28	13.77	39.19		
		169109	1	42.12	55.34			
	05	120675	4	7.88	10.03	33.75	31.97	15.24
		120740	2	23.73	29.66	45.43		
		120744	2	41.08	21.39	35.57		
		120781	1	60.19	39.17			
		120814	2	20.96	22.51	55.08		
124832		1	69.95	29.25				

continued

Content Area	Grade	Item Number	Total Possible Points	Percent of Students at Score Point				
				0	1	2	3	4
Mathematics	05	124858	4	33.14	26.94	17.17	10.68	11.33
		124925	2	65.11	14.41	18.80		
		139374	2	18.03	75.95	3.91		
		145575	1	45.63	53.88			
		145880	1	40.13	59.39			
		145964	2	40.72	27.57	30.26		
		167762	4	18.16	20.98	22.96	13.36	23.70
		167811	1	17.31	82.26			
		167851	4	7.27	15.41	25.63	23.54	27.49
		167878	1	37.01	62.08			
	06	119228	2	45.94	24.16	28.47		
		119248	1	24.36	75.11			
		119277	1	28.24	71.05			
		119289	2	40.35	8.83	49.12		
		119368	1	42.46	56.73			
		119369	2	12.86	60.79	24.96		
		125065	4	16.08	27.04	26.93	19.23	9.90
		125099	4	24.41	27.81	13.90	16.01	16.80
		125111	4	34.93	6.34	13.41	10.15	33.96
		139235	1	48.16	50.90			
		139248	2	27.74	26.41	45.19		
		139370	1	24.82	74.63			
	07	139397	4	26.42	20.72	34.22	5.41	12.42
		144705	1	52.54	46.41			
		145630	2	22.79	40.43	34.78		
		167963	2	37.61	25.08	34.65		
		120391	4	53.56	14.05	12.37	7.01	11.15
		120469	1	52.93	45.47			
	08	120475	4	20.17	19.89	42.34	11.36	5.50
		120477	2	59.67	12.86	25.80		
		120487	1	33.53	65.86			
		125216	4	18.54	21.36	45.15	4.86	9.38
		139971	1	65.55	33.84			
		139980	2	49.07	28.78	21.01		
		144749	2	43.44	24.30	29.78		
		145144	2	42.70	32.92	22.56		
		145380	4	22.92	14.53	19.44	40.55	1.15
		146208	1	58.74	39.52			
		169224	1	35.77	63.57			
		169252	2	49.90	6.38	42.04		
	08	169486	2	39.78	22.73	35.65		
		169533	1	54.30	44.50			
120890		2	26.43	25.98	45.74			
120934		1	52.17	46.55				
120936		2	32.83	13.50	50.53			
120938		4	9.63	10.66	30.90	37.38	10.68	
120977	1	68.00	30.66					
120980	4	29.62	9.61	18.34	11.72	29.79		

continued

Content Area	Grade	Item Number	Total Possible Points	Percent of Students at Score Point				
				0	1	2	3	4
Mathematics	08	120985	2	51.41	13.96	33.04		
		121027	1	37.34	61.50			
		121082	1	34.72	64.26			
		125563	2	30.32	35.21	32.34		
		125576	2	79.19	5.25	13.00		
		139771	1	25.62	74.07			
		139869	2	57.67	4.73	34.95		
		139894	4	18.56	22.99	30.64	21.04	5.43
		145395	4	28.72	36.56	8.32	23.35	1.46
		152807	1	67.25	30.28			
	11	119464	1	57.42	38.82			
		119494	1	71.69	19.38			
		119504	2	68.81	9.80	8.16		
		119603	1	71.62	23.13			
		119605	1	37.72	56.55			
		119620	2	75.63	4.62	12.46		
		125740	1	78.12	14.04			
		140089	1	60.58	31.40			
		140203	1	56.20	38.42			
		141266	1	57.18	38.37			
		145461	1	40.51	54.25			
		169516	1	44.62	50.00			
		169553	4	25.93	26.91	22.70	6.25	13.93
		169588	1	50.25	47.14			
		169599	2	55.80	3.88	31.63		
		169657	4	22.93	34.66	27.21	5.65	4.04
		169711	2	36.91	49.14	10.02		
		169719	2	37.81	27.94	24.00		
		169739	4	21.29	49.51	15.46	4.12	3.32
		169800	4	20.07	50.50	12.03	7.68	4.20
178058	2	71.92	6.03	10.97				
178083	1	69.92	25.26					
Reading	03	147875	4	0.63	2.92	16.35	27.69	51.78
		147889	4	15.71	47.00	30.95	4.47	0.52
		147990	4	5.52	29.53	45.86	14.60	3.34
		148155	4	26.19	22.13	31.28	17.26	1.89
		148163	4	0.42	2.06	6.83	30.33	59.78
		233382	4	10.40	25.45	34.61	19.56	8.98
	04	117889	4	6.86	9.12	44.21	26.10	12.93
		117890	4	12.66	35.16	36.40	12.07	2.89
		117931	4	3.15	28.72	44.62	18.74	4.24
		117940	4	1.75	11.47	21.99	24.70	39.64
		117941	4	5.83	28.60	42.81	16.73	5.34
		171813	4	3.46	5.08	10.73	25.02	55.15
	05	118072	4	15.34	37.19	32.34	11.52	2.83
		148680	4	9.50	37.55	38.67	11.00	2.28
		148698	4	10.27	22.65	49.00	14.61	2.32
		171812	4	4.92	31.98	47.42	13.02	2.08

continued

Content Area	Grade	Item Number	Total Possible Points	Percent of Students at Score Point				
				0	1	2	3	4
Reading	05	171930	4	13.18	35.87	31.63	13.81	4.46
		171934	4	12.08	31.88	34.82	14.04	6.44
	06	118343	4	10.44	25.84	41.71	16.56	4.76
		118344	4	5.83	29.31	46.70	13.78	3.26
		148440	4	4.12	29.89	46.31	15.06	3.86
		148455	4	4.57	25.36	45.88	18.24	5.43
		148540	4	14.19	27.03	36.90	14.47	6.53
		148810	4	2.23	23.32	47.79	20.69	5.49
		07	118532	4	7.88	22.38	39.00	22.33
	129218		4	14.87	23.58	32.00	22.47	6.19
	129219		4	7.44	19.49	32.19	26.41	13.82
	147606		4	7.50	16.08	42.46	23.89	9.67
	173106		4	4.00	25.76	44.12	18.63	6.83
	173107		4	7.06	36.97	37.08	12.77	5.12
	08	118711	4	3.19	14.57	42.08	28.04	11.30
		147346	4	7.64	17.63	35.15	27.54	11.19
		147351	4	17.64	23.92	31.61	20.33	5.51
		172351	4	12.72	24.19	37.37	18.85	6.13
		172414	4	9.19	19.04	35.54	25.87	9.33
		172416	4	4.40	26.14	42.02	20.20	6.18
	11	144040	4	8.59	15.20	38.27	26.12	7.72
		147484	4	3.00	10.46	31.85	36.63	16.63
		147488	4	3.60	11.56	33.11	36.18	13.76
		172437	4	4.14	16.39	40.01	27.79	9.50
		172845	4	4.66	12.87	37.36	31.28	11.66
		172846	4	9.42	19.52	36.71	22.79	8.58

**Table F-2. 2011–12 NECAP: Item-Level Score Distributions for Constructed-Response Items
by Grade—Writing**

Grade	Item Number	Total Possible Points	Percent of Students at Score Point												
			0	1	2	3	4	5	6	7	8	9	10	11	12
05	150153	4	4.69	27.39	44.99	18.77	3.73								
	150157	4	10.56	35.00	41.68	10.26	1.65								
	150202	4	2.50	21.64	53.33	19.20	2.79								
	150251	12	1.12		3.44	4.79	19.57	18.44	35.48	10.74	4.81	1.04	0.27	0.01	0.01
08	150435	4	4.21	17.71	33.95	30.98	12.33								
	150788	12	2.36		3.85	3.56	10.75	11.25	28.07	15.60	15.89	5.69	2.36	0.11	0.04
	150790	4	0.90	7.02	36.19	38.58	16.13								
	150847	4	2.11	11.90	43.72	31.39	9.72								
11	174398	12	0.73		4.79	2.93	13.76	9.73	20.55	16.18	19.46	7.61	3.43	0.62	0.21

APPENDIX G—DIFFERENTIAL ITEM FUNCTIONING RESULTS

Table G-1. 2011–12 NECAP: Number of Items Classified as “Low” or “High” DIF Overall and by Grade and Group Favored—Mathematics

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number “Low”			Number “High”		
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal
03	Male	Female	MC	35	1	1	0	0	0	0
			SA	20	2	1	1	0	0	0
	No Disability	Disability	MC	35	1	0	1	0	0	0
			SA	20	0	0	0	0	0	0
	Non-EconDis	EconDis	MC	35	0	0	0	0	0	0
			SA	20	0	0	0	0	0	0
	Non-LEP	LEP	MC	35	3	3	0	0	0	0
			SA	20	1	1	0	0	0	0
	White	Asian	MC	35	4	2	2	0	0	0
			SA	20	2	1	1	0	0	0
	White	Black	MC	35	2	2	0	0	0	0
			SA	20	2	2	0	0	0	0
	White	Hispanic	MC	35	3	3	0	0	0	0
			SA	20	1	1	0	0	0	0
04	Male	Female	MC	35	4	3	1	1	1	0
			SA	20	2	0	2	1	1	0
	No Disability	Disability	MC	35	4	4	0	0	0	0
			SA	20	0	0	0	0	0	0
	Non-EconDis	EconDis	MC	35	0	0	0	0	0	0
			SA	20	0	0	0	0	0	0
	Non-LEP	LEP	MC	35	1	0	1	1	1	0
			SA	20	2	2	0	0	0	0
	White	Asian	MC	35	3	1	2	0	0	0
			SA	20	4	2	2	0	0	0
	White	Black	MC	35	3	2	1	0	0	0
			SA	20	1	0	1	0	0	0
	White	Hispanic	MC	35	3	2	1	0	0	0
			SA	20	3	2	1	0	0	0
05	Male	Female	CR	4	0	0	0	0	0	0
			MC	32	3	3	0	1	1	0
			SA	12	1	1	0	0	0	0

continued

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number "Low"			Number "High"			
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal	
05	No Disability	Disability	CR	4	0	0	0	0	0	0	
			MC	32	2	2	0	0	0		
			SA	12	0	0	0	0	0		
	Non-EconDis	EconDis	CR	4	0	0	0	0	0	0	
			MC	32	0	0	0	0	0	0	
			SA	12	0	0	0	0	0		
	Non-LEP	LEP	CR	4	1	1	0	0	0	0	
			MC	32	1	1	0	0	0	0	
			SA	12	1	0	1	0	0	0	
	White	Asian	CR	4	0	0	0	0	0	0	
			MC	32	1	0	1	0	0	0	
			SA	12	2	1	1	0	0	0	
	White	Black	CR	4	0	0	0	0	0	0	
			MC	32	3	2	1	0	0	0	
			SA	12	1	1	0	0	0	0	
	White	Hispanic	CR	4	0	0	0	0	0	0	
			MC	32	3	3	0	0	0	0	
			SA	12	1	1	0	0	0	0	
	Male	Female	CR	4	0	0	0	0	0	0	
			MC	32	2	2	0	0	0	0	
			SA	12	1	0	1	0	0	0	
	06	No Disability	Disability	CR	4	0	0	0	0	0	0
				MC	32	2	2	0	0	0	0
				SA	12	2	2	0	0	0	0
Non-EconDis		EconDis	CR	4	0	0	0	0	0	0	
			MC	32	0	0	0	0	0	0	
			SA	12	0	0	0	0	0	0	
Non-LEP		LEP	CR	4	0	0	0	0	0	0	
			MC	32	1	1	0	1	1	0	
			SA	12	0	0	0	0	0	0	
White		Asian	CR	4	0	0	0	0	0	0	
			MC	32	3	1	2	0	0	0	
			SA	12	2	0	2	0	0	0	

continued

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number "Low"			Number "High"		
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal
06	White	Black	CR	4	0	0	0	0	0	0
			MC	32	3	3	0	0	0	0
			SA	12	0	0	0	0	0	0
	White	Hispanic	CR	4	0	0	0	0	0	0
			MC	32	3	3	0	0	0	0
			SA	12	0	0	0	0	0	0
07	Male	Female	CR	4	0	0	0	0	0	0
			MC	32	4	3	1	0	0	0
			SA	12	3	1	2	0	0	0
	No Disability	Disability	CR	4	0	0	0	0	0	0
			MC	32	1	1	0	0	0	0
			SA	12	0	0	0	0	0	0
Non-EconDis	EconDis	CR	4	0	0	0	0	0	0	
		MC	32	0	0	0	0	0	0	
		SA	12	0	0	0	0	0	0	
Non-LEP	LEP	CR	4	1	1	0	0	0	0	
		MC	32	3	2	1	0	0	0	
		SA	12	1	1	0	0	0	0	
White	Asian	CR	4	0	0	0	0	0	0	
		MC	32	1	1	0	0	0	0	
		SA	12	0	0	0	0	0	0	
White	Black	CR	4	0	0	0	0	0	0	
		MC	32	3	3	0	0	0	0	
		SA	12	0	0	0	0	0	0	
White	Hispanic	CR	4	0	0	0	0	0	0	
		MC	32	3	3	0	0	0	0	
		SA	12	0	0	0	0	0	0	
08	Male	Female	CR	4	1	0	1	0	0	0
			MC	32	5	4	1	0	0	0
			SA	12	3	1	2	0	0	0
	No Disability	Disability	CR	4	0	0	0	0	0	0
			MC	32	1	1	0	0	0	0
			SA	12	1	1	0	0	0	0

continued

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number "Low"			Number "High"		
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal
08	Non-EconDis	EconDis	CR	4	0	0	0	0	0	0
			MC	32	0	0	0	0	0	0
			SA	12	0	0	0	0	0	0
	Non-LEP	LEP	CR	4	0	0	0	0	0	0
			MC	32	6	4	2	0	0	0
			SA	12	4	4	0	0	0	0
	White	Asian	CR	4	0	0	0	0	0	0
			MC	32	1	0	1	0	0	0
			SA	12	0	0	0	0	0	0
	White	Black	CR	4	0	0	0	0	0	0
			MC	32	3	2	1	0	0	0
			SA	12	1	1	0	0	0	0
	White	Hispanic	CR	4	0	0	0	0	0	0
			MC	32	3	2	1	0	0	0
			SA	12	0	0	0	0	0	0
	Male	Female	CR	4	0	0	0	0	0	0
			MC	24	3	3	0	0	0	0
			SA	18	4	1	3	0	0	0
No Disability	Disability	CR	4	0	0	0	0	0	0	
		MC	24	2	0	2	0	0	0	
		SA	18	3	3	0	0	0	0	
Non-EconDis	EconDis	CR	4	0	0	0	0	0	0	
		MC	24	0	0	0	0	0	0	
		SA	18	0	0	0	0	0	0	
Non-LEP	LEP	CR	4	2	2	0	0	0	0	
		MC	24	6	2	4	3	2	1	
		SA	18	6	3	3	0	0	0	
White	Asian	CR	4	0	0	0	0	0	0	
		MC	24	4	1	3	0	0	0	
		SA	18	1	0	1	0	0	0	
White	Black	CR	4	0	0	0	0	0	0	
		MC	24	0	0	0	0	0	0	
		SA	18	0	0	0	0	0	0	

continued

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number "Low"			Number "High"		
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal
11	White	Hispanic	CR	4	0	0	0	0	0	0
			MC	24	4	3	1	0	0	0
			SA	18	1	1	0	0	0	0

Table G-2. 2011–12 NECAP: Number of Items Classified as “Low” or “High” DIF Overall and by Grade and Group Favored—Reading

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number "Low"			Number "High"			
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal	
03	Male	Female	CR	6	0	0	0	0	0	0	
			MC	28	0	0	0	0	0	0	
	No Disability	Disability	CR	6	0	0	0	0	0	0	
			MC	28	1	1	0	0	0	0	
	Non-EconDis	EconDis	CR	6	0	0	0	0	0	0	
			MC	28	0	0	0	0	0	0	
	Non-LEP	LEP	CR	6	0	0	0	0	0	0	
			MC	28	7	6	1	1	1	0	
	White	Asian	CR	6	0	0	0	0	0	0	
			MC	28	3	1	2	1	1	0	
	White	Black	CR	6	0	0	0	0	0	0	
			MC	28	3	2	1	0	0	0	
	White	Hispanic	CR	6	0	0	0	0	0	0	
			MC	28	6	5	1	1	1	0	
	04	Male	Female	CR	6	1	0	1	0	0	0
				MC	28	1	1	0	0	0	0
		No Disability	Disability	CR	6	0	0	0	0	0	0
				MC	28	2	2	0	0	0	0
Non-EconDis		EconDis	CR	6	0	0	0	0	0	0	
			MC	28	1	1	0	0	0	0	
Non-LEP		LEP	CR	6	0	0	0	0	0	0	
			MC	28	7	7	0	2	2	0	
White		Asian	CR	6	0	0	0	0	0	0	
			MC	28	5	4	1	0	0	0	

continued

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number "Low"			Number "High"				
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal		
04	White	Black	CR	6	0	0	0	0	0	0		
			MC	28	6	6	0	0	0	0		
	White	Hispanic	CR	6	0	0	0	0	0	0		
			MC	28	7	6	1	1	1	0		
05	Male	Female	CR	6	0	0	0	0	0	0		
			MC	28	1	1	0	0	0	0		
	No Disability	Disability	CR	6	0	0	0	0	0	0		
			MC	28	7	7	0	1	1	0		
	Non-EconDis	EconDis	CR	6	0	0	0	0	0	0		
			MC	28	0	0	0	1	1	0		
	Non-LEP	LEP	CR	6	0	0	0	0	0	0		
			MC	28	8	8	0	1	1	0		
			White	Asian	CR	6	0	0	0	0	0	0
					MC	28	2	2	0	0	0	0
	White	Black	CR	6	0	0	0	0	0	0		
			MC	28	2	2	0	1	1	0		
	White	Hispanic	CR	6	0	0	0	0	0	0		
			MC	28	4	4	0	1	1	0		
	06	Male	Female	CR	6	0	0	0	0	0	0	
				MC	28	2	2	0	1	1	0	
No Disability		Disability	CR	6	0	0	0	0	0	0		
			MC	28	5	5	0	2	2	0		
Non-EconDis		EconDis	CR	6	0	0	0	0	0	0		
			MC	28	1	1	0	0	0	0		
Non-LEP		LEP	CR	6	0	0	0	0	0	0		
			MC	28	9	9	0	3	3	0		
	White		Asian	CR	6	0	0	0	0	0	0	
				MC	28	4	4	0	0	0	0	
White	Black	CR	6	0	0	0	0	0	0			
		MC	28	5	5	0	0	0	0			
White	Hispanic	CR	6	0	0	0	0	0	0			
		MC	28	7	7	0	1	1	0			
07	Male	Female	CR	6	3	0	3	0	0	0		
			MC	28	5	5	0	3	3	0		

continued

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number "Low"			Number "High"		
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal
07	No Disability	Disability	CR	6	0	0	0	0	0	0
			MC	28	3	3	0	0	0	0
	Non-EconDis	EconDis	CR	6	0	0	0	0	0	0
			MC	28	1	1	0	0	0	0
	Non-LEP	LEP	CR	6	1	0	1	0	0	0
			MC	28	5	5	0	7	7	0
	White	Asian	CR	6	3	0	3	0	0	0
			MC	28	5	5	0	1	1	0
	White	Black	CR	6	0	0	0	0	0	0
			MC	28	9	9	0	1	1	0
	White	Hispanic	CR	6	0	0	0	0	0	0
			MC	28	6	6	0	3	3	0
08	Male	Female	CR	6	3	0	3	0	0	0
			MC	28	6	6	0	1	1	0
	No Disability	Disability	CR	6	0	0	0	0	0	0
			MC	28	1	1	0	0	0	0
	Non-EconDis	EconDis	CR	6	0	0	0	0	0	0
			MC	28	0	0	0	0	0	0
	Non-LEP	LEP	CR	6	0	0	0	0	0	0
			MC	28	13	13	0	4	4	0
	White	Asian	CR	6	3	0	3	0	0	0
			MC	28	6	6	0	0	0	0
	White	Black	CR	6	0	0	0	0	0	0
			MC	28	7	7	0	2	2	0
White	Hispanic	CR	6	0	0	0	0	0	0	
		MC	28	8	8	0	1	1	0	
11	Male	Female	CR	6	2	0	2	0	0	0
			MC	28	4	4	0	3	3	0
	No Disability	Disability	CR	6	0	0	0	0	0	0
			MC	28	4	4	0	0	0	0
	Non-EconDis	EconDis	CR	6	0	0	0	0	0	0
			MC	28	7	7	0	0	0	0
	Non-LEP	LEP	CR	6	2	0	2	0	0	0
			MC	28	11	10	1	7	7	0

continued

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number "Low"			Number "High"		
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal
11	White	Asian	CR	6	3	0	3	0	0	0
			MC	28	5	5	0	1	1	0
	White	Black	CR	6	0	0	0	0	0	0
			MC	28	7	7	0	3	3	0
	White	Hispanic	CR	6	2	0	2	0	0	0
			MC	28	4	4	0	6	6	0

Table G-3. 2011–12 NECAP: Number of Items Classified as “Low” or “High” DIF Overall and by Grade and Group Favored—Writing

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number "Low"			Number "High"		
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal
05	Male	Female	CR	3	0	0	0	0	0	0
			MC	10	0	0	0	0	0	0
			WP	1	0	0	0	0	0	0
	No Disability	Disability	CR	3	0	0	0	0	0	0
			MC	10	7	7	0	0	0	0
			WP	1	0	0	0	0	0	0
	Non-EconDis	EconDis	CR	3	0	0	0	0	0	0
			MC	10	0	0	0	0	0	0
			WP	1	0	0	0	0	0	0
	Non-LEP	LEP	CR	3	0	0	0	0	0	0
			MC	10	3	3	0	1	1	0
			WP	1	0	0	0	0	0	0
	White	Asian	CR	3	0	0	0	0	0	0
			MC	10	0	0	0	0	0	0
			WP	1	0	0	0	0	0	0
	White	Black	CR	3	0	0	0	0	0	0
			MC	10	4	4	0	0	0	0
			WP	1	0	0	0	0	0	0
White	Hispanic	CR	3	0	0	0	0	0	0	
		MC	10	5	5	0	0	0	0	
		WP	1	0	0	0	0	0	0	

continued

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number "Low"			Number "High"		
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal
08	Male	Female	CR	3	0	0	0	0	0	0
			MC	10	1	1	0	0	0	0
			WP	1	0	0	0	0	0	0
	No Disability	Disability	CR	3	0	0	0	0	0	0
			MC	10	5	5	0	1	1	0
			WP	1	0	0	0	0	0	0
	Non-EconDis	EconDis	CR	3	0	0	0	0	0	0
			MC	10	1	1	0	0	0	0
			WP	1	0	0	0	0	0	0
	Non-LEP	LEP	CR	3	0	0	0	0	0	0
			MC	10	7	7	0	1	1	0
			WP	1	0	0	0	0	0	0
	White	Asian	CR	3	0	0	0	0	0	0
			MC	10	1	1	0	0	0	0
			WP	1	0	0	0	0	0	0
	White	Black	CR	3	0	0	0	0	0	0
			MC	10	4	4	0	0	0	0
			WP	1	0	0	0	0	0	0
	White	Hispanic	CR	3	0	0	0	0	0	0
			MC	10	4	4	0	1	1	0
			WP	1	0	0	0	0	0	0
11	Male	Female	WP	1	1	0	1	0	0	0
	No Disability	Disability	WP	1	0	0	0	1	1	0
	Non-EconDis	EconDis	WP	1	1	1	0	0	0	0
	Non-LEP	LEP	WP	1	0	0	0	1	1	0
	White	Asian	WP	1	0	0	0	0	0	0
	White	Black	WP	1	1	1	0	0	0	0
	White	Hispanic	WP	1	1	1	0	0	0	0

APPENDIX H—ITEM RESPONSE THEORY CALIBRATION RESULTS

Table H-1. 2011–12 NECAP: IRT Parameters for Dichotomous Items—Mathematics Grade 3

IREF	Parameters and Measures of Standard Error						IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)		a	SE (a)	b	SE (b)	c	SE (c)
145678	0.88211	0.02187	-1.68621	0.06071	0.30319	0.03028	168362	1.08307	0.01994	-0.19016	0.01756	0.20457	0.00854
119772	0.57574	0.01114	-1.89513	0.05583	0.05844	0.02426	119880	0.68561	0.01516	-0.77502	0.04332	0.13768	0.01835
145680	0.88887	0.01451	-0.69092	0.02151	0.06263	0.01070	119717	0.63298	0.02539	-1.91350	0.10513	0.11267	0.04576
119710	0.89693	0.01901	-1.77599	0.04884	0.15880	0.02874	119811	1.16870	0.04922	-1.17088	0.05796	0.26558	0.03201
119763	0.74766	0.00906	-0.88695	0.01193	0	0	168355	0.84043	0.03077	-1.18737	0.06315	0.11059	0.03140
119846	0.68861	0.01614	0.40174	0.02393	0.11911	0.00929	145674	0.44457	0.02345	-2.25886	0.21707	0.17674	0.07119
139572	1.11542	0.02266	0.76291	0.01159	0.16849	0.00485	119721	0.87149	0.02952	-1.00234	0.05008	0.08290	0.02454
139548	0.56419	0.01251	-1.12194	0.05705	0.07692	0.02286	139677	0.80316	0.03223	-0.66122	0.06127	0.14499	0.02744
139575	1.25185	0.04719	1.18966	0.01840	0.52670	0.00450	201416	0.92854	0.02951	-0.56504	0.03551	0.05947	0.01704
145672	0.86226	0.01533	-2.26744	0.03437	0.04043	0.01769	201450	1.21117	0.04400	0.59982	0.02006	0.10873	0.00897
119911	0.59267	0.00822	-1.24316	0.01736	0	0	168582	0.53272	0.02212	-1.48920	0.10656	0.09371	0.03955
119685	0.93526	0.01456	-1.03096	0.02177	0.04767	0.01149	139667	0.82967	0.03520	-0.62196	0.06391	0.17795	0.02903
119842	0.90981	0.02322	0.11139	0.02663	0.37120	0.00942	119681	0.78703	0.03554	-1.78929	0.11417	0.19419	0.05845
145522	0.49879	0.01116	-1.66923	0.07412	0.07328	0.02854	119704	0.88124	0.03512	0.08194	0.03804	0.12877	0.01694
145245	0.71917	0.01541	-0.80299	0.04058	0.14094	0.01776	122953	0.73956	0.04652	1.17448	0.04103	0.17880	0.01417
176770	0.97861	0.01614	0.40996	0.01133	0.06235	0.00494	119678	1.21830	0.04537	-0.64493	0.03886	0.19758	0.02183
168489	0.57590	0.01564	-1.04065	0.07348	0.17902	0.02738	145509	0.76295	0.04106	1.14355	0.03397	0.10966	0.01202
119683	0.77507	0.01389	-0.59841	0.02640	0.06958	0.01215	201312	0.74273	0.02159	-1.55433	0.03729	0.00000	0.00000
119770	0.87428	0.01339	-0.80287	0.02035	0.03911	0.00993	119808	0.86694	0.03054	-1.23492	0.05839	0.08986	0.03022
145751	1.31214	0.02404	0.81076	0.00897	0.12888	0.00379	119840	0.98386	0.04142	-0.25427	0.04657	0.23125	0.02138
168702	1.34585	0.02639	1.07896	0.00887	0.11615	0.00320	119752	0.80976	0.04409	-1.49111	0.10682	0.15517	0.05109
124308	0.63237	0.01742	-1.77629	0.09572	0.23441	0.04054	144607	1.16504	0.07883	0.41649	0.04717	0.34110	0.01875
139560	0.75583	0.01727	-1.82088	0.06494	0.16631	0.03405	119825	0.90767	0.04788	-0.62819	0.06868	0.15334	0.03214
119715	1.03493	0.01658	-1.15055	0.02192	0.06454	0.01258	119741	0.62192	0.04085	-1.47658	0.17353	0.21228	0.06687
168716	0.41623	0.01303	-0.99920	0.10542	0.10418	0.03214	119882	0.93284	0.05415	-0.42462	0.07086	0.22445	0.03150
139641	1.10678	0.01776	0.44342	0.00993	0.07390	0.00444	124334	1.03311	0.05415	-0.77657	0.06525	0.17853	0.03302
145515	1.12036	0.01784	-0.43495	0.01539	0.10833	0.00821	264355	0.98280	0.05694	-1.86983	0.10789	0.17862	0.06189
145247	1.01539	0.01313	-0.91510	0.01344	0.01605	0.00585	144609	0.74240	0.05247	0.02567	0.08880	0.23044	0.03304
145720	1.12185	0.01912	-0.71313	0.01933	0.14727	0.01071	139665	0.82020	0.06301	0.75428	0.05893	0.23465	0.02146
119891	0.65195	0.02543	1.40825	0.02630	0.25458	0.00784	201294	0.88159	0.06232	-0.27488	0.09203	0.34577	0.03444
124436	1.12542	0.02012	-0.73185	0.02090	0.18511	0.01141	198283	1.00108	0.05604	-1.17370	0.08769	0.20275	0.04666
168625	1.09213	0.01784	-0.71123	0.01848	0.11010	0.01019	168752	1.14092	0.05683	-0.22243	0.04423	0.15565	0.02244
119697	0.95102	0.02050	-0.72905	0.03173	0.28973	0.01431	223883	0.71727	0.04931	-0.63845	0.12391	0.25973	0.04660

continued

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
201301	1.02083	0.05975	-1.55798	0.09985	0.21674	0.05501
139606	0.64683	0.05746	0.88759	0.07914	0.21386	0.02612
201806	0.78360	0.04037	-0.31813	0.06399	0.10114	0.02725
145244	1.26817	0.07174	0.94521	0.02789	0.12828	0.01082
139687	1.22307	0.05870	-0.11276	0.03742	0.14561	0.01925
168709	0.36319	0.00672	-1.25961	0.02671	0	0
139580	0.54072	0.00768	-1.04512	0.01688	0	0
145249	0.94530	0.01046	-0.67422	0.00898	0	0
124462	0.93111	0.01001	-0.26857	0.00771	0	0
145256	1.00606	0.01204	-1.20079	0.01126	0	0
119687	0.99749	0.01100	-0.72786	0.00885	0	0
168602	0.43608	0.00681	-0.23041	0.01417	0	0
119886	0.75580	0.00869	0.02442	0.00842	0	0

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
144617	0.47734	0.00813	-1.98362	0.03067	0	0
144611	0.64308	0.00818	-0.77327	0.01273	0	0
119832	0.36556	0.01377	-1.00632	0.04873	0	0
119701	0.51802	0.01641	-1.47710	0.04565	0	0
139669	0.58957	0.01635	-0.30578	0.02367	0	0
201619	0.56540	0.01972	-2.08757	0.06139	0	0
119775	0.62432	0.01705	-0.59636	0.02560	0	0
119747	0.81000	0.01989	-0.62923	0.02108	0	0
201465	0.44767	0.02219	-1.71400	0.08235	0	0
119852	0.89986	0.03094	0.82275	0.02471	0	0
119873	0.86679	0.02863	0.32086	0.02245	0	0
255932	1.02448	0.03214	0.31442	0.01983	0	0
119731	0.98588	0.03730	-1.42183	0.03899	0	0

Table H-2. 2011–12 NECAP: IRT Parameters for Polytomous Items—Mathematics Grade 3

IREF	Parameters and Measures of Standard Error											
	a	SE (a)	b	SE (b)	c	SE (c)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)
168763	0.64004	0.00590	2.48287	0.01316	0	0	1.12622	0.01057	-1.12622	0.02300	0	0
119688	0.57620	0.00488	-1.01495	0.01116	0	0	0.65533	0.01309	-0.65533	0.01053	0	0
145504	0.95938	0.00678	0.70825	0.00607	0	0	0.63268	0.00684	-0.63268	0.00800	0	0
139598	0.70000	0.00430	0.29812	0.00788	0	0	1.30239	0.01003	-1.30239	0.01049	0	0
139603	0.86829	0.00613	-0.55455	0.00676	0	0	0.78273	0.00963	-0.78273	0.00736	0	0
168766	0.97409	0.00734	-0.82919	0.00676	0	0	0.65983	0.00962	-0.65983	0.00689	0	0
139673	0.58803	0.00394	-1.02951	0.00953	0	0	1.58906	0.01721	-1.58906	0.01025	0	0
168613	0.74466	0.00506	-0.32569	0.00739	0	0	0.90861	0.01015	-0.90861	0.00842	0	0
139653	0.61135	0.00482	0.37927	0.00883	0	0	0.59806	0.00992	-0.59806	0.01024	0	0
168416	0.73447	0.00538	-0.24960	0.00757	0	0	0.66398	0.00948	-0.66398	0.00842	0	0
119918	0.96223	0.01753	-0.33778	0.01445	0	0	0.22925	0.01568	-0.22925	0.01468	0	0
119909	0.67915	0.01002	0.53632	0.01689	0	0	0.82566	0.01944	-0.82566	0.02138	0	0
119708	0.74678	0.01151	-1.04723	0.01730	0	0	1.04300	0.02835	-1.04300	0.01765	0	0
145259	1.16269	0.01788	0.65071	0.01105	0	0	0.48593	0.01249	-0.48593	0.01420	0	0
242779	1.01999	0.01717	0.16377	0.01235	0	0	0.30668	0.01405	-0.30668	0.01383	0	0

continued

IREF	Parameters and Measures of Standard Error											
	a	SE (a)	b	SE (b)	c	SE (c)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)
124490	0.66018	0.01445	0.37243	0.02445	0	0	0.70858	0.02829	-0.70858	0.02940	0	0
139651	0.65632	0.01382	1.05194	0.02598	0	0	0.96052	0.02781	-0.96052	0.03648	0	0
198507	0.55529	0.01323	-1.21722	0.03406	0	0	0.91918	0.04532	-0.91918	0.03256	0	0
119780	0.79777	0.01538	0.38442	0.02070	0	0	1.01096	0.02567	-1.01096	0.02739	0	0

Table H-3. 2011–12 NECAP: IRT Parameters for Dichotomous Items—Mathematics Grade 4

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
120220	1.07797	0.01844	-1.29314	0.01972	0.07238	0.01194
120047	0.72098	0.01400	-1.09116	0.03220	0.07260	0.01558
145780	0.60542	0.01447	-0.74500	0.04294	0.11368	0.01755
168384	0.96802	0.01879	0.65943	0.01098	0.09957	0.00465
139432	0.62165	0.01221	-0.54600	0.02816	0.04446	0.01169
145805	1.01438	0.01618	-0.82344	0.01594	0.05791	0.00860
120261	0.42739	0.01153	-1.94841	0.09823	0.09198	0.03548
120257	0.74162	0.01411	-0.36240	0.02189	0.06978	0.00982
124594	0.81218	0.01604	-1.67885	0.03710	0.08703	0.02106
145070	0.63596	0.01071	-2.36424	0.02607	0	0
120251	1.06338	0.02439	-1.21414	0.03074	0.32013	0.01587
168395	0.82406	0.01731	-0.35377	0.02373	0.17649	0.01067
145077	0.52711	0.02116	-0.86507	0.09839	0.42535	0.02518
168398	1.27635	0.03187	1.37857	0.01034	0.15463	0.00314
145079	0.81622	0.01855	-0.23342	0.02518	0.22843	0.01062
139491	0.78336	0.01643	-0.42421	0.02541	0.15250	0.01140
120146	0.31577	0.01281	0.90295	0.06282	0.04675	0.01651
169080	0.62951	0.00910	-1.59484	0.01733	0	0
120291	0.75750	0.01450	-1.60519	0.03630	0.06870	0.01946
120110	0.63060	0.01552	0.40108	0.02326	0.09961	0.00904
168901	0.84412	0.01384	-1.16067	0.02179	0.04014	0.01118
120045	0.54172	0.01276	-0.30766	0.03617	0.05864	0.01365
120102	0.67020	0.01184	-1.89807	0.03466	0.03965	0.01654
124616	0.87094	0.02038	-1.45602	0.04221	0.25147	0.02157
120236	0.83541	0.02148	-0.40492	0.03182	0.35396	0.01203

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
139468	0.60458	0.01199	-1.22547	0.03906	0.05252	0.01715
120274	0.46146	0.01205	-1.84456	0.08785	0.09233	0.03362
120269	0.64581	0.01424	-0.16771	0.02717	0.08504	0.01112
139424	0.77683	0.01400	-0.76100	0.02350	0.06152	0.01129
120176	1.16852	0.02658	1.14660	0.01008	0.14614	0.00359
120245	0.77714	0.01374	-1.17518	0.02678	0.05216	0.01353
145854	1.06155	0.01780	0.27956	0.01013	0.07978	0.00472
139437	0.68273	0.01399	-1.11105	0.03677	0.08140	0.01726
120094	0.98649	0.01768	-0.30878	0.01593	0.12911	0.00801
139489	0.59128	0.01270	-0.00755	0.02509	0.04467	0.00978
124560	0.72144	0.02517	-1.04106	0.04830	0.05877	0.02152
120150	0.80696	0.03108	-1.31560	0.05956	0.10381	0.03050
120253	0.70963	0.03505	-1.41871	0.10234	0.21760	0.04619
139511	0.90568	0.03527	-2.26478	0.05926	0.07222	0.03097
145851	0.58594	0.04331	1.43827	0.04789	0.14626	0.01492
139515	1.35234	0.05976	0.49367	0.02192	0.24921	0.01005
120187	0.75538	0.03997	-0.58570	0.07639	0.30129	0.02929
232445	0.63247	0.02502	-2.04310	0.08334	0.08615	0.03672
139466	0.73316	0.03839	-0.14926	0.06219	0.24949	0.02366
139477	0.44732	0.02335	-1.78744	0.16005	0.13882	0.05473
255701	0.52760	0.02775	-3.06136	0.17691	0.17342	0.07322
139455	0.80987	0.03514	-0.08609	0.04269	0.15404	0.01852
120218	0.60070	0.03122	-0.14229	0.07026	0.13498	0.02647
145802	0.48875	0.02834	-0.97772	0.13962	0.15905	0.04765
202390	0.62311	0.02967	-2.25676	0.13316	0.16400	0.06282

continued

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
255692	0.69217	0.03238	-0.82197	0.07649	0.16041	0.03292
120232	1.00882	0.03630	-1.46077	0.04551	0.08288	0.02616
227065	0.78258	0.03634	-2.69388	0.10235	0.13334	0.05675
139426	1.06065	0.05712	0.71459	0.02758	0.08191	0.01117
120209	0.70339	0.04813	-1.01647	0.12095	0.22905	0.05010
145087	0.46798	0.03065	-2.49466	0.17760	0.13208	0.05873
120183	0.74954	0.04304	-2.06279	0.11137	0.13541	0.05446
139497	1.18406	0.07983	0.69035	0.03463	0.24782	0.01464
120173	0.80935	0.05522	0.10781	0.06429	0.21731	0.02634
145538	0.90175	0.05692	0.83152	0.03569	0.11281	0.01436
120108	0.48794	0.04499	-0.63021	0.20093	0.24395	0.06051
169095	0.64435	0.03988	-1.35795	0.12449	0.15470	0.05299
139493	1.20221	0.06378	0.21811	0.03167	0.15228	0.01590
120224	0.55985	0.06390	-0.45256	0.21994	0.48401	0.05107
255685	0.89923	0.04227	-1.32703	0.05687	0.06918	0.02737
255694	0.59550	0.03935	-0.51594	0.10213	0.12827	0.03918
202322	0.64493	0.04490	-2.03955	0.17934	0.22840	0.07888
169090	0.98000	0.08305	1.31232	0.04173	0.20990	0.01334
120126	1.05060	0.05386	-1.44055	0.06099	0.10372	0.03480
120255	1.10270	0.06334	-0.27817	0.04754	0.21600	0.02422
168467	0.51894	0.00740	0.01105	0.01075	0	0

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
120266	0.70595	0.00869	-0.44553	0.00931	0	0
169109	0.82477	0.00954	-0.08970	0.00751	0	0
145815	0.68999	0.00857	0.17161	0.00842	0	0
145545	0.69494	0.00926	-1.25687	0.01348	0	0
120240	0.83503	0.00973	-0.46808	0.00825	0	0
120174	0.57151	0.00788	0.47157	0.01019	0	0
145788	0.71227	0.00952	-1.32783	0.01371	0	0
168439	0.59706	0.00790	-0.34433	0.01030	0	0
168410	0.72716	0.00920	-0.95155	0.01121	0	0
139521	0.60920	0.01794	-1.26552	0.03115	0	0
120119	0.52788	0.01943	-2.33571	0.06060	0	0
124737	0.79351	0.01992	-0.55681	0.01877	0	0
169111	0.83579	0.02075	0.44576	0.01579	0	0
120071	0.87184	0.02109	-0.23600	0.01578	0	0
120048	0.40013	0.01448	-0.90380	0.03855	0	0
120074	0.65070	0.02504	-0.67436	0.03254	0	0
120159	0.89633	0.03252	-1.03146	0.02984	0	0
232574	0.57166	0.03461	-3.01473	0.12233	0	0
120098	0.89931	0.03159	0.56958	0.02123	0	0
120221	0.51125	0.02463	-1.62759	0.06393	0	0
145085	0.66149	0.02828	-1.49181	0.04856	0	0

Table H-4. 2011–12 NECAP: IRT Parameters for Polytomous Items—Mathematics Grade 4

IREF	Parameters and Measures of Standard Error											
	a	SE (a)	b	SE (b)	c	SE (c)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)
139450	0.81817	0.00720	0.57752	0.00681	0	0	0.35812	0.00728	-0.35812	0.00771	0	0
144635	0.59887	0.00680	-1.30414	0.01302	0	0	0.25610	0.01155	-0.25610	0.01044	0	0
144639	0.91719	0.00688	-0.33823	0.00590	0	0	0.66901	0.00784	-0.66901	0.00668	0	0
120301	0.82752	0.00680	0.01545	0.00644	0	0	0.44240	0.00750	-0.44240	0.00725	0	0
139452	0.82888	0.00639	-0.10786	0.00633	0	0	0.59187	0.00781	-0.59187	0.00726	0	0
120299	0.62129	0.00498	-1.17774	0.00921	0	0	0.98955	0.01328	-0.98955	0.00918	0	0
124700	0.87829	0.00644	-0.68918	0.00705	0	0	1.91592	0.01452	-1.91592	0.00786	0	0

continued

<i>IREF</i>	<i>Parameters and Measures of Standard Error</i>											
	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>	<i>D0</i>	<i>SE (D0)</i>	<i>D1</i>	<i>SE (D1)</i>	<i>D2</i>	<i>SE (D2)</i>
139503	0.79522	0.00605	-0.74686	0.00697	0	0	0.84818	0.01001	-0.84818	0.00746	0	0
139482	0.61233	0.00452	-0.58194	0.00837	0	0	1.03207	0.01151	-1.03207	0.00925	0	0
168483	0.88432	0.00791	0.29226	0.00630	0	0	0.27218	0.00689	-0.27218	0.00696	0	0
139487	0.70667	0.00972	0.07774	0.01590	0	0	1.49021	0.02132	-1.49021	0.02093	0	0
145288	0.75299	0.01204	-0.11533	0.01443	0	0	0.70664	0.01796	-0.70664	0.01680	0	0
224099	0.66225	0.01303	-1.18360	0.02129	0	0	0.52558	0.02399	-0.52558	0.01940	0	0
120222	0.86777	0.01235	-0.04002	0.01489	0	0	1.75580	0.02204	-1.75580	0.01936	0	0
168481	0.67219	0.01037	1.20494	0.01700	0	0	1.15732	0.01810	-1.15732	0.02688	0	0
169117	0.87784	0.01353	0.30705	0.01253	0	0	0.71604	0.01522	-0.71604	0.01573	0	0
120203	0.66994	0.01524	-0.14498	0.02262	0	0	0.77551	0.02824	-0.77551	0.02599	0	0
145290	0.90065	0.01984	0.10118	0.01736	0	0	0.67519	0.02173	-0.67519	0.02102	0	0
120075	0.77890	0.01703	-0.69742	0.02072	0	0	1.10156	0.03309	-1.10156	0.02276	0	0
120083	0.67007	0.01658	-1.20013	0.02708	0	0	0.89352	0.03852	-0.89352	0.02621	0	0
124723	0.68049	0.01630	-0.83461	0.02462	0	0	0.80032	0.03299	-0.80032	0.02536	0	0
198442	0.70145	0.01918	-1.73964	0.03136	0	0	0.87968	0.04560	-0.87968	0.02717	0	0

Table H-5. 2011–12 NECAP: IRT Parameters for Dichotomous Items—Mathematics Grade 5

<i>IREF</i>	<i>Parameters and Measures of Standard Error</i>					
	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>
120819	0.59229	0.01731	-0.85016	0.07074	0.26158	0.02429
145896	0.63128	0.01350	-0.24827	0.03214	0.07525	0.01282
124796	1.15630	0.03281	1.15238	0.01400	0.31748	0.00457
120764	0.92085	0.01803	-0.43169	0.02400	0.20148	0.01118
120760	1.04317	0.03087	0.91090	0.01764	0.39130	0.00565
167801	0.54740	0.01341	-1.97869	0.09072	0.11650	0.03949
121826	1.06604	0.02242	0.32300	0.01582	0.26024	0.00673
145098	1.23133	0.02905	1.07081	0.01125	0.22312	0.00412
139334	0.76890	0.01502	-0.79595	0.03251	0.11488	0.01526
145592	1.17771	0.02219	0.99206	0.00924	0.09597	0.00340
120626	1.09891	0.02289	0.56706	0.01327	0.22200	0.00563
144684	0.80215	0.01648	-1.01047	0.03734	0.16245	0.01801
145871	1.04184	0.01759	-0.29396	0.01626	0.13272	0.00825
145568	0.50549	0.02317	1.33825	0.03837	0.23653	0.01144

<i>IREF</i>	<i>Parameters and Measures of Standard Error</i>					
	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>
167664	1.26125	0.02190	0.30276	0.01081	0.16734	0.00526
120769	0.60988	0.01524	0.26359	0.03054	0.11051	0.01133
120697	1.19340	0.02187	0.51336	0.01085	0.16323	0.00493
124918	1.05382	0.01856	-0.45534	0.01856	0.16837	0.00956
120714	0.99020	0.02169	1.28672	0.01154	0.08637	0.00349
121805	1.10272	0.02500	0.49001	0.01549	0.30308	0.00621
120757	0.72224	0.00948	-1.38395	0.01532	0	0
120708	0.54114	0.01951	-0.43252	0.08037	0.34545	0.02199
120644	0.99944	0.01835	-0.66977	0.02273	0.17859	0.01170
145311	0.76800	0.01583	0.16542	0.02110	0.12032	0.00880
120724	0.84060	0.01956	0.05958	0.02521	0.26571	0.00981
167682	0.99152	0.01718	0.40481	0.01199	0.09310	0.00533
145917	1.31343	0.02685	1.28586	0.00915	0.09222	0.00270
144685	1.04744	0.01894	0.42428	0.01220	0.13131	0.00549

continued

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
120640	0.51218	0.01331	-1.69042	0.09316	0.11746	0.03682
120670	0.77776	0.02228	0.43517	0.02799	0.33497	0.00923
145892	0.67257	0.00938	-1.60653	0.01834	0	0
120702	0.87767	0.01918	0.34012	0.01893	0.20524	0.00774
167675	0.81642	0.03667	-0.30975	0.05812	0.21495	0.02426
203365	0.51937	0.02467	-1.46895	0.13731	0.13495	0.05052
120799	0.51091	0.02396	-2.32092	0.16062	0.14573	0.06156
120718	0.77779	0.04730	0.33126	0.06257	0.35756	0.02012
124887	0.78884	0.03437	-0.67694	0.06841	0.18950	0.02992
120700	1.22647	0.05252	0.30871	0.02850	0.27569	0.01270
145573	1.16142	0.04835	-0.91345	0.05044	0.26717	0.02746
120713	1.04674	0.05104	1.13403	0.02540	0.15690	0.00883
145951	1.62125	0.08810	1.05352	0.02200	0.33062	0.00792
139344	0.87930	0.04312	0.30616	0.04436	0.25842	0.01727
120720	0.80192	0.03484	-0.15135	0.05193	0.16954	0.02207
120657	1.09635	0.03916	-0.02185	0.02917	0.14512	0.01438
167651	0.79566	0.04105	1.14050	0.03166	0.11712	0.01115
167875	1.00184	0.04257	-0.36667	0.04799	0.26605	0.02189
139181	1.08341	0.03758	-0.42725	0.03407	0.13341	0.01787
120630	0.79776	0.03055	-0.92658	0.06243	0.11710	0.02983
120830	0.42890	0.02891	0.38375	0.11172	0.11102	0.03259
120803	1.26231	0.06083	-0.52394	0.04210	0.15261	0.02374
120807	0.93550	0.06186	0.59704	0.04763	0.21334	0.01906
139164	0.60794	0.03997	-0.54385	0.11919	0.15601	0.04408
269140	0.60266	0.03211	-1.76261	0.11592	0.10132	0.04429
120801	1.19768	0.06170	0.35177	0.03238	0.14880	0.01534
120736	1.50828	0.07399	0.50101	0.02412	0.14087	0.01134
120762	0.92498	0.07500	0.60286	0.06262	0.37087	0.02056

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
145919	0.83180	0.04409	-0.41493	0.06542	0.13342	0.02917
145294	0.76146	0.04945	-0.33003	0.09092	0.22886	0.03563
120634	0.92293	0.05093	-0.19153	0.05798	0.17984	0.02598
120728	0.78669	0.05481	-0.01503	0.08313	0.25395	0.03182
124760	1.03595	0.05148	-0.70106	0.05701	0.14004	0.03016
145953	0.84196	0.06321	1.26941	0.04340	0.12554	0.01414
124961	0.62428	0.05758	0.88965	0.08110	0.20393	0.02717
120797	0.83613	0.05160	-1.49829	0.12667	0.23129	0.06230
120682	0.69806	0.05184	-0.12460	0.10525	0.25108	0.03790
145575	0.71564	0.00835	-0.01735	0.00865	0	0
145880	0.60390	0.00767	-0.31353	0.01067	0	0
124832	0.99345	0.01128	0.94009	0.00792	0	0
167811	0.39850	0.00777	-2.35078	0.04049	0	0
167878	0.58830	0.00761	-0.45550	0.01147	0	0
120781	0.85193	0.00958	0.58375	0.00781	0	0
139136	1.03794	0.02278	0.08983	0.01365	0	0
124804	0.72020	0.01799	-0.53177	0.02119	0	0
139129	0.97570	0.02175	-0.12325	0.01470	0	0
120822	0.63041	0.01695	-0.68411	0.02511	0	0
255148	0.78425	0.01977	-0.87665	0.02352	0	0
139183	0.74391	0.01898	0.77050	0.01957	0	0
269373	0.47394	0.02135	0.69424	0.04010	0	0
145900	0.63120	0.02354	-0.24756	0.03041	0	0
120838	0.76194	0.02578	-0.38878	0.02693	0	0
255765	0.62462	0.02497	-1.30698	0.04807	0	0
120698	0.85484	0.02876	0.52627	0.02290	0	0
120850	0.82837	0.02772	-0.32432	0.02507	0	0

Table H-6. 2011–12 NECAP: IRT Parameters for Polytomous Items—Mathematics Grade 5

IREF	Parameters and Measures of Standard Error															
	a	SE (a)	b	SE (b)	c	SE (c)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)	D3	SE (D3)	D4	SE (D4)
124925	1.15196	0.00981	1.03344	0.00610	0	0	0.29833	0.00607	-0.29833	0.00701	0	0				
139374	0.69151	0.00440	0.99944	0.00979	0	0	2.36052	0.01073	-2.36052	0.02036	0	0				
120740	0.96991	0.00692	-0.26277	0.00587	0	0	0.59495	0.00764	-0.59495	0.00664	0	0				
145964	0.54558	0.00421	0.43268	0.00953	0	0	0.73955	0.01073	-0.73955	0.01127	0	0				
120814	0.81347	0.00635	-0.56423	0.00736	0	0	0.51916	0.00899	-0.51916	0.00764	0	0				
120744	0.80670	0.00633	0.29457	0.00683	0	0	0.43652	0.00774	-0.43652	0.00785	0	0				
167743	0.98701	0.01551	0.27471	0.01209	0	0	0.45077	0.01415	-0.45077	0.01430	0	0				
272113	0.72596	0.01016	0.23791	0.01537	0	0	0.96137	0.01909	-0.96137	0.01942	0	0				
255150	0.53120	0.00884	1.26228	0.02305	0	0	0.87925	0.02303	-0.87925	0.02942	0	0				
145571	0.83727	0.01570	0.06795	0.01475	0	0	0.22761	0.01600	-0.22761	0.01580	0	0				
120631	0.84446	0.01514	0.12701	0.01439	0	0	0.28843	0.01594	-0.28843	0.01571	0	0				
145888	0.79392	0.01324	-0.39096	0.01554	0	0	0.48454	0.01855	-0.48454	0.01644	0	0				
198571	0.96523	0.02538	1.05151	0.02134	0	0	0.30375	0.02071	-0.30375	0.02357	0	0				
139210	0.96735	0.02652	0.71781	0.02005	0	0	0.18276	0.02026	-0.18276	0.02121	0	0				
145901	1.08613	0.02642	1.30286	0.01975	0	0	0.50751	0.01928	-0.50751	0.02624	0	0				
203949	0.98939	0.02192	0.65343	0.01765	0	0	0.50292	0.01967	-0.50292	0.02200	0	0				
139197	0.67519	0.01412	0.57346	0.02353	0	0	0.85074	0.02698	-0.85074	0.03011	0	0				
145594	0.69458	0.01628	1.05643	0.02539	0	0	0.65345	0.02590	-0.65345	0.03171	0	0				
167762	0.86401	0.00479	0.10951	0.00573	0	0	1.37364	0.00910	0.34487	0.00729	-0.57008	0.00731	-1.14843	0.00816	0	0
167851	0.87365	0.00468	-0.45866	0.00570	0	0	1.67535	0.01252	0.47464	0.00818	-0.61967	0.00707	-1.53032	0.00778	0	0
120675	0.88998	0.00456	-0.32512	0.00562	0	0	1.66438	0.01169	0.91812	0.00883	-0.55384	0.00701	-2.02866	0.00922	0	0
124858	1.11083	0.00626	0.77122	0.00469	0	0	1.19988	0.00636	0.25063	0.00596	-0.42839	0.00677	-1.02212	0.00856	0	0
230748	1.06865	0.01468	1.09707	0.01148	0	0	0.86224	0.01301	0.35326	0.01336	-0.42398	0.01644	-0.79151	0.01942	0	0
230964	1.01524	0.01106	0.10360	0.01059	0	0	2.08756	0.02380	0.49897	0.01414	-0.9362	0.01478	-1.65031	0.01875	0	0
167794	0.92122	0.01142	0.14214	0.01198	0	0	1.11959	0.01733	0.89567	0.01635	-0.8032	0.01544	-1.21205	0.01701	0	0
269311	0.82391	0.01404	-0.45067	0.01836	0	0	1.29745	0.03304	0.43496	0.02528	-0.42477	0.02235	-1.30764	0.02347	0	0
198567	1.34533	0.02552	0.86819	0.01281	0	0	0.79106	0.01583	0.16673	0.01607	-0.33207	0.01809	-0.62571	0.02038	0	0
167848	0.84307	0.01341	0.48272	0.01759	0	0	1.51193	0.02606	0.32248	0.02174	-0.25993	0.02243	-1.57449	0.03237	0	0

Table H-7. 2011–12 NECAP: IRT Parameters for Dichotomous Items—Mathematics Grade 6

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
123316	0.62818	0.01524	-2.65290	0.08234	0.11453	0.04671
119353	0.79351	0.02366	0.22693	0.03147	0.40888	0.01001
145354	1.12228	0.02313	-0.49062	0.02027	0.28165	0.01038
119355	0.88991	0.02449	1.80467	0.01453	0.09048	0.00332
119209	1.28350	0.02616	0.98881	0.00907	0.16064	0.00378
123377	0.75071	0.01429	-0.02525	0.01995	0.06917	0.00887
119313	1.09168	0.02616	0.92929	0.01268	0.25185	0.00501
119220	0.72124	0.02900	1.82893	0.02186	0.24093	0.00567
119317	0.85188	0.02563	0.98576	0.01927	0.31923	0.00655
167703	1.30842	0.02453	0.61586	0.00951	0.17458	0.00448
167943	0.60534	0.01320	-1.86193	0.06053	0.08279	0.03039
167923	0.91187	0.01737	-0.08217	0.01806	0.14497	0.00862
119274	0.61286	0.01463	-0.66732	0.04455	0.11552	0.01874
167633	1.21860	0.02311	1.01622	0.00853	0.10452	0.00339
144710	0.79218	0.01938	0.34059	0.02281	0.23541	0.00894
119178	1.07526	0.02523	0.93415	0.01244	0.23084	0.00497
125004	0.66028	0.01696	0.44242	0.02595	0.15570	0.00992
145999	0.56300	0.03111	2.47098	0.03912	0.19100	0.00645
119292	0.78524	0.01724	-0.33601	0.02827	0.18990	0.01251
119294	1.18519	0.02326	1.22224	0.00860	0.08408	0.00296
119234	1.01485	0.02635	1.36168	0.01223	0.18312	0.00418
119275	0.81656	0.01472	-0.88715	0.02564	0.06703	0.01350
119183	0.67469	0.01561	-0.53955	0.03757	0.14582	0.01617
119262	0.59045	0.01938	0.65201	0.03448	0.23264	0.01138
119271	0.52635	0.01949	0.60023	0.04556	0.24330	0.01388
119175	0.63567	0.01462	-0.18768	0.03250	0.10359	0.01334
119303	0.88841	0.02394	1.44851	0.01352	0.15188	0.00442
119247	0.79568	0.02032	1.21734	0.01448	0.13264	0.00530
119258	1.16416	0.02071	0.25124	0.01150	0.15466	0.00571
167914	1.40122	0.02919	1.09753	0.00843	0.16271	0.00340
119290	0.89203	0.01634	-0.03312	0.01684	0.10897	0.00802
139259	1.07723	0.02557	1.12118	0.01154	0.19701	0.00442
144698	1.04666	0.04827	0.46694	0.03107	0.25491	0.01323

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
119326	0.75253	0.03872	1.04470	0.03220	0.11819	0.01211
145988	0.98805	0.05332	0.85023	0.03219	0.28509	0.01212
119365	0.62663	0.04869	0.93490	0.06684	0.32291	0.02000
124983	0.94387	0.03235	0.22611	0.02437	0.06125	0.01087
167709	0.90885	0.03890	0.18994	0.03646	0.18245	0.01611
119316	0.92035	0.03463	-0.13555	0.03488	0.11636	0.01677
119214	0.72324	0.03190	0.24471	0.04309	0.10871	0.01776
119377	0.75214	0.03823	0.55239	0.04318	0.18233	0.01678
225427	0.71169	0.04808	1.30765	0.04175	0.22089	0.01391
119216	0.69066	0.02427	-0.35557	0.04160	0.04929	0.01732
119184	1.05213	0.04463	-0.68684	0.04788	0.23726	0.02583
167987	0.46051	0.03584	1.62232	0.05922	0.08436	0.01890
225180	1.12575	0.04496	0.65830	0.02233	0.14187	0.01009
139333	0.92784	0.07195	1.55048	0.03794	0.34781	0.01062
119231	0.45836	0.03082	-0.08805	0.13061	0.16024	0.04052
145604	1.08167	0.04640	0.48515	0.02784	0.20473	0.01260
203453	0.59434	0.04177	-0.59645	0.12766	0.17173	0.04903
145332	0.92784	0.08373	1.24004	0.04765	0.29272	0.01584
145124	0.95002	0.05520	0.27163	0.04461	0.15777	0.02027
255468	0.83128	0.05977	0.49366	0.05834	0.22960	0.02306
139336	0.78032	0.04985	-0.11881	0.07310	0.18154	0.03140
256905	1.16107	0.06621	0.41936	0.03462	0.18457	0.01631
119193	0.71911	0.05912	-0.39042	0.12720	0.36400	0.04417
119311	0.83626	0.06319	0.73898	0.05534	0.24267	0.02118
146702	0.76322	0.08039	1.72665	0.05772	0.22433	0.01601
139358	0.90518	0.04241	-0.98107	0.05426	0.07385	0.02743
119283	1.08460	0.06788	0.61034	0.03827	0.21603	0.01691
167910	0.74915	0.05716	0.83161	0.05715	0.18767	0.02173
125025	0.51420	0.03277	-0.30523	0.10098	0.09323	0.03471
139329	0.34351	0.03355	0.67634	0.15589	0.10142	0.03955
119349	1.16630	0.06133	0.77324	0.02606	0.09833	0.01103
145626	0.50680	0.07341	1.54080	0.11058	0.30840	0.02963
139219	0.85815	0.04682	-0.60916	0.06613	0.13808	0.03160

continued

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
139269	0.64371	0.05585	0.87328	0.07055	0.19649	0.02467
144705	0.69676	0.00850	0.41993	0.00836	0	0
139235	0.77053	0.00898	0.22231	0.00772	0	0
119248	0.71251	0.00918	-0.96286	0.01198	0	0
119277	1.17202	0.01304	-0.52041	0.00680	0	0
139370	0.54390	0.00798	-1.15498	0.01645	0	0
119368	0.73972	0.00874	-0.03252	0.00823	0	0
119263	0.33700	0.01361	0.69410	0.03556	0	0
167715	0.63337	0.01691	0.13629	0.01921	0	0
167961	1.01909	0.02586	1.19507	0.01644	0	0

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
255376	0.71539	0.01806	0.24467	0.01737	0	0
150829	0.61805	0.02513	2.64722	0.06101	0	0
119337	0.55259	0.01741	-1.21017	0.03608	0	0
144716	0.57867	0.02318	0.45552	0.02930	0	0
119319	0.82554	0.02981	-0.75889	0.02882	0	0
198616	0.59423	0.02413	-0.63678	0.03645	0	0
167925	1.20539	0.04452	1.38837	0.02258	0	0
203543	0.49475	0.02123	-0.11490	0.03499	0	0
167927	0.70733	0.02824	1.22231	0.03178	0	0

Table H-8. 2011–12 NECAP: IRT Parameters for Polytomous Items—Mathematics Grade 6

IREF	Parameters and Measures of Standard Error															
	a	SE (a)	b	SE (b)	c	SE (c)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)	D3	SE (D3)	D4	SE (D4)
139248	0.70691	0.00562	-0.12808	0.00733	0	0	0.62382	0.00893	-0.62382	0.00815	0	0				
167963	0.77188	0.00614	0.38521	0.00668	0	0	0.54475	0.00775	-0.54475	0.00785	0	0				
119289	0.81836	0.00788	0.09059	0.00695	0	0	0.18495	0.00741	-0.18495	0.00728	0	0				
119369	0.58914	0.00379	-0.18076	0.00884	0	0	1.76932	0.01317	-1.76932	0.01067	0	0				
119228	1.10605	0.00860	0.61796	0.00505	0	0	0.45588	0.00584	-0.45588	0.00621	0	0				
145630	0.63140	0.00451	-0.02063	0.00784	0	0	1.03008	0.01020	-1.03008	0.00926	0	0				
198637	0.97224	0.01925	0.50813	0.01283	0	0	0.17482	0.01358	-0.17482	0.01378	0	0				
119381	1.07963	0.02295	-0.17728	0.01308	0	0	0.06943	0.01321	-0.06943	0.01299	0	0				
119371	0.77860	0.01235	1.31125	0.01522	0	0	0.97276	0.01611	-0.97276	0.02328	0	0				
225370	1.10994	0.02450	1.73322	0.01662	0	0	0.29758	0.01444	-0.29758	0.01803	0	0				
270499	1.35361	0.02745	0.91551	0.01080	0	0	0.13353	0.01106	-0.13353	0.01152	0	0				
167751	0.89723	0.01324	0.10461	0.01231	0	0	0.99454	0.01687	-0.99454	0.01534	0	0				
167962	0.97562	0.02072	0.79323	0.02019	0	0	1.84889	0.02365	-1.84889	0.03715	0	0				
145632	0.78252	0.02403	0.87722	0.02329	0	0	0.17509	0.02291	-0.17509	0.02381	0	0				
119205	0.81629	0.02310	0.74695	0.02103	0	0	0.24483	0.02180	-0.24483	0.02271	0	0				
197550	1.08023	0.03319	-0.95340	0.02306	0	0	0.19333	0.02317	-0.19333	0.02059	0	0				
119370	0.94209	0.02772	0.43878	0.01886	0	0	0.12320	0.01973	-0.12320	0.01979	0	0				
119229	0.88977	0.02086	0.03769	0.01802	0	0	0.51397	0.02198	-0.51397	0.02049	0	0				

continued

IREF	Parameters and Measures of Standard Error															
	a	SE (a)	b	SE (b)	c	SE (c)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)	D3	SE (D3)	D4	SE (D4)
125065	0.69680	0.00374	0.56831	0.00660	0	0	2.07923	0.01067	0.59627	0.00820	-0.66024	0.00874	-2.01527	0.01276	0	0
139397	1.02356	0.00604	0.76186	0.00479	0	0	1.41016	0.00685	0.58491	0.00609	-0.82675	0.0074	-1.16831	0.00842	0	0
125099	1.10361	0.00648	0.54322	0.00439	0	0	1.26476	0.00667	0.17398	0.00571	-0.35792	0.00593	-1.08081	0.00718	0	0
125111	1.08909	0.00771	0.28119	0.00481	0	0	0.53550	0.00611	0.28353	0.00588	-0.22341	0.0058	-0.59562	0.00604	0	0
167831	1.22907	0.01677	1.03349	0.00910	0	0	1.02538	0.01162	0.25586	0.01156	-0.51625	0.01396	-0.76500	0.01552	0	0
167941	0.79230	0.01221	0.89769	0.01396	0	0	0.70620	0.01577	0.36474	0.01572	-0.28192	0.0168	-0.78903	0.01890	0	0
146045	0.89398	0.01056	0.86517	0.01132	0	0	1.89305	0.01745	0.29742	0.01428	-0.69709	0.01674	-1.49337	0.02258	0	0
153701	0.93605	0.01764	0.98012	0.01619	0	0	1.04491	0.01981	0.56534	0.01934	-0.43265	0.02222	-1.17759	0.02913	0	0
145618	1.07771	0.02058	1.31023	0.01474	0	0	1.10979	0.01763	0.33315	0.01822	-0.30016	0.02140	-1.14278	0.03167	0	0
146029	0.95609	0.01761	0.34348	0.01521	0	0	1.09262	0.02205	0.51500	0.01972	-0.58662	0.01983	-1.02100	0.02171	0	0

Table H-9. 2011–12 NECAP: IRT Parameters for Dichotomous Items—Mathematics Grade 7

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
120344	0.76710	0.01170	-1.92791	0.02189	0	0
144742	0.65193	0.01000	-1.86287	0.02349	0	0
120464	1.00721	0.02007	-0.06208	0.02062	0.24997	0.00933
146265	0.75517	0.03529	1.93607	0.02720	0.32015	0.00577
120348	1.23957	0.02244	0.86762	0.00948	0.13185	0.00399
125260	1.01530	0.02016	0.09683	0.01878	0.24083	0.00838
120444	0.42121	0.00677	-0.73904	0.01834	0	0
139924	0.84468	0.01712	0.74388	0.01489	0.10741	0.00608
120340	0.96082	0.01610	-0.53768	0.02059	0.09600	0.01089
169205	1.21748	0.02748	0.26626	0.01757	0.39469	0.00699
120411	0.92505	0.01384	-1.86797	0.01862	0	0
120328	0.96733	0.01752	-0.08135	0.01870	0.15790	0.00895
139994	0.82314	0.01881	0.48008	0.02128	0.20803	0.00836
169536	1.02603	0.01627	0.08977	0.01330	0.08509	0.00646
120516	0.78463	0.01463	-1.11391	0.03655	0.08048	0.01923
120442	0.78171	0.01883	0.04499	0.03081	0.26667	0.01164
120371	0.83376	0.03199	2.00875	0.02281	0.19743	0.00448
120433	0.81652	0.02827	1.63075	0.01931	0.24192	0.00544
125229	0.79801	0.01614	0.31095	0.02020	0.12578	0.00851

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
146263	0.57135	0.02830	2.22152	0.03471	0.18213	0.00711
146059	0.66096	0.02160	1.29213	0.02316	0.19721	0.00780
140255	0.71415	0.01147	-1.08763	0.02890	0.03564	0.01364
120394	0.66082	0.03028	1.85114	0.02791	0.28392	0.00695
120455	0.85913	0.01949	0.55883	0.01949	0.21369	0.00769
125282	0.91109	0.01821	1.13536	0.01151	0.07362	0.00412
181200	0.98361	0.01955	0.26615	0.01757	0.21343	0.00769
120511	0.89061	0.02166	-0.04303	0.02952	0.35791	0.01092
169524	1.00790	0.02221	0.59442	0.01643	0.25760	0.00660
139926	1.23094	0.03088	1.51538	0.01131	0.16947	0.00335
169201	1.64227	0.05171	1.74317	0.01160	0.25074	0.00291
154775	1.09772	0.02199	0.28650	0.01617	0.26043	0.00712
139997	0.79709	0.01860	0.35775	0.02420	0.22185	0.00936
120329	0.39989	0.02105	-0.48430	0.13030	0.08989	0.03717
120379	1.04302	0.04451	0.83452	0.02551	0.15894	0.01043
140000	0.85129	0.06441	1.76441	0.04207	0.22533	0.01015
181112	0.71549	0.03294	-0.42003	0.07545	0.17307	0.03104
140259	0.69265	0.02676	-0.29486	0.05499	0.07838	0.02291
145166	0.85051	0.03128	-0.48537	0.04879	0.10580	0.02330

continued

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
120479	0.83824	0.03785	-0.29559	0.06332	0.23688	0.02735
120446	1.22327	0.04369	0.57983	0.02152	0.13138	0.01002
120484	1.09094	0.06657	1.47936	0.02985	0.25722	0.00910
120363	1.13808	0.05606	0.83468	0.03031	0.29689	0.01170
120467	0.95762	0.03312	-1.09943	0.05024	0.08799	0.02819
234445	1.22500	0.05039	0.70159	0.02450	0.20914	0.01077
120441	0.89354	0.03054	0.54545	0.02474	0.05231	0.00994
206107	0.96031	0.04126	1.22508	0.02370	0.08563	0.00796
199900	1.65480	0.10529	1.72560	0.02347	0.23160	0.00600
140014	1.52010	0.05230	1.00705	0.01485	0.07827	0.00550
125286	0.44364	0.01465	-0.99528	0.04161	0.00000	0.00000
199905	0.63745	0.03620	1.28936	0.04020	0.09396	0.01376
120380	0.73367	0.05734	1.05917	0.05744	0.16936	0.02057
139923	1.06721	0.06628	1.06752	0.03379	0.14802	0.01288
181202	0.98430	0.05036	-1.09291	0.07504	0.14066	0.04183
120531	0.28257	0.02510	-1.06678	0.31728	0.14807	0.06438
120326	0.83885	0.04617	-0.92566	0.09298	0.16503	0.04566
120353	0.80283	0.06655	0.65447	0.07694	0.32536	0.02581
181196	0.94357	0.07154	0.91887	0.05138	0.27514	0.01881
256152	0.98803	0.07726	1.61818	0.04007	0.12691	0.01103
120450	0.43434	0.02843	-1.19517	0.18045	0.12796	0.05508
145151	0.98660	0.06794	1.15417	0.03851	0.16812	0.01439
120331	0.54694	0.03752	-2.01436	0.22594	0.22100	0.08592
120495	1.13224	0.08112	1.34976	0.03524	0.18572	0.01159

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
206092	1.22898	0.06875	0.69241	0.03271	0.18669	0.01421
120501	0.98887	0.05515	-0.29765	0.06349	0.21389	0.03014
224796	1.20120	0.06975	0.66103	0.03553	0.21384	0.01526
122346	0.83698	0.04575	-0.12564	0.06447	0.14045	0.02851
206144	1.34131	0.09402	0.56444	0.04381	0.40759	0.01655
169224	0.79132	0.00888	-0.29854	0.00886	0	0
139971	0.94436	0.01037	0.89174	0.00764	0	0
146208	0.35328	0.00653	1.02928	0.01930	0	0
169533	0.70576	0.00827	0.50992	0.00873	0	0
120487	0.75554	0.00870	-0.41908	0.00962	0	0
120469	1.09011	0.01108	0.43818	0.00622	0	0
169401	1.17621	0.04037	1.22001	0.02288	0	0
120366	0.78283	0.01855	0.37384	0.01681	0	0
120518	0.71332	0.01778	-0.33452	0.02073	0	0
145174	0.65147	0.01830	-1.01366	0.03135	0	0
206112	0.86278	0.02033	0.79781	0.01679	0	0
120435	0.92864	0.02107	-0.39217	0.01719	0	0
120409	0.99526	0.02183	0.45581	0.01416	0	0
120434	1.06058	0.03223	0.07690	0.01946	0	0
120517	0.62525	0.02379	0.84902	0.03168	0	0
144733	0.90575	0.03054	0.99700	0.02438	0	0
234459	0.37874	0.02039	1.51166	0.06900	0	0
140025	0.38467	0.02275	2.33644	0.10636	0	0

Table H-10. 2011–12 NECAP: IRT Parameters for Polytomous Items—Mathematics Grade 7

<i>IREF</i>	<i>Parameters and Measures of Standard Error</i>															
	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>	<i>D0</i>	<i>SE (D0)</i>	<i>D1</i>	<i>SE (D1)</i>	<i>D2</i>	<i>SE (D2)</i>	<i>D3</i>	<i>SE (D3)</i>	<i>D4</i>	<i>SE (D4)</i>
139980	1.07782	0.00773	0.83303	0.00547	0	0	0.55709	0.00616	-0.55709	0.00715	0	0				
169486	0.98928	0.00737	0.37846	0.00573	0	0	0.42321	0.00666	-0.42321	0.00672	0	0				
144749	0.97170	0.00717	0.55997	0.00583	0	0	0.46602	0.00668	-0.46602	0.00703	0	0				
120477	0.90476	0.00789	0.97448	0.00710	0	0	0.27260	0.00712	-0.27260	0.00773	0	0				
169252	1.38462	0.01213	0.43716	0.00493	0	0	0.10400	0.00521	-0.10400	0.00523	0	0				
145144	0.89366	0.00625	0.72567	0.00622	0	0	0.67632	0.00714	-0.67632	0.00807	0	0				
206213	0.47782	0.00984	0.15081	0.02353	0	0	0.40707	0.02551	-0.40707	0.02526	0	0				
120492	0.89077	0.01579	0.79570	0.01441	0	0	0.31414	0.01505	-0.31414	0.01615	0	0				
269069	1.35599	0.02675	1.27241	0.01268	0	0	0.17402	0.01215	-0.17402	0.01345	0	0				
120367	0.55470	0.01022	0.58157	0.02045	0	0	0.48894	0.02212	-0.48894	0.02292	0	0				
150893	0.89737	0.01949	1.27178	0.01830	0	0	0.13831	0.01624	-0.13831	0.01725	0	0				
120523	1.10214	0.01970	0.87285	0.01257	0	0	0.23937	0.01306	-0.23937	0.01397	0	0				
140241	0.91642	0.01827	1.10619	0.01908	0	0	1.11299	0.02133	-1.11299	0.03196	0	0				
120417	1.09847	0.02408	0.65611	0.01599	0	0	0.45343	0.01833	-0.45343	0.01969	0	0				
120423	1.30146	0.02829	0.66415	0.01387	0	0	0.41959	0.01616	-0.41959	0.01737	0	0				
224856	0.84226	0.02490	0.92659	0.02340	0	0	0.13468	0.02268	-0.13468	0.02346	0	0				
146128	1.06898	0.02240	1.17245	0.01721	0	0	0.89188	0.01885	-0.89188	0.02817	0	0				
123631	1.01482	0.02189	0.19946	0.01671	0	0	0.49560	0.02033	-0.49560	0.01971	0	0				
125216	1.04123	0.00560	0.71233	0.00502	0	0	1.70178	0.00782	0.75986	0.00638	-1.06122	0.00829	-1.40042	0.00966	0	0
120475	0.99682	0.00519	0.80790	0.00516	0	0	1.73318	0.00785	0.87337	0.00658	-0.84042	0.00808	-1.76611	0.01250	0	0
145380	0.87436	0.00506	0.89376	0.00599	0	0	1.69991	0.00821	1.01993	0.00725	0.27501	0.00721	-2.99484	0.02829	0	0
120391	1.26831	0.00832	1.17249	0.00474	0	0	0.72602	0.00547	0.24041	0.00567	-0.28578	0.00652	-0.68066	0.00778	0	0
145159	0.94195	0.01095	1.36649	0.01178	0	0	1.80642	0.01537	0.39463	0.01500	-0.8428	0.02246	-1.35825	0.02972	0	0
169226	1.00029	0.01171	0.82738	0.01077	0	0	1.28790	0.01482	0.28183	0.01356	-0.45373	0.01514	-1.11600	0.01908	0	0
120355	1.21303	0.01366	0.75296	0.00921	0	0	1.82331	0.01585	0.27540	0.01196	-0.26773	0.01274	-1.83098	0.02613	0	0
140223	1.25489	0.02281	0.89815	0.01319	0	0	0.84793	0.01681	0.20528	0.01655	-0.29741	0.01809	-0.75581	0.02134	0	0
120393	1.06485	0.01697	0.68633	0.01414	0	0	1.34576	0.02114	0.38833	0.01821	-0.45281	0.01974	-1.28127	0.02633	0	0
256118	0.93425	0.01617	1.74738	0.01739	0	0	2.15670	0.02187	1.26120	0.02058	-1.15739	0.04565	-2.26051	0.09512	0	0

Table H-11. 2011–12 NECAP: IRT Parameters for Dichotomous Items—Mathematics Grade 8

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
122525	0.88449	0.02213	-0.75544	0.05540	0.41865	0.02015
120887	1.45549	0.02490	0.17402	0.01328	0.27985	0.00644
145199	0.78446	0.01252	-0.29946	0.02523	0.04628	0.01129
146286	1.76185	0.03073	1.09005	0.00755	0.14697	0.00293
120913	0.63833	0.01193	-0.84387	0.04893	0.06369	0.02086
145644	0.50013	0.00700	-0.92057	0.01931	0	0
120981	1.25177	0.02611	1.15408	0.01123	0.19578	0.00405
120886	1.31921	0.01859	-0.62036	0.01570	0.08646	0.00962
121047	1.00106	0.03069	1.57642	0.01768	0.26239	0.00463
139837	0.56068	0.01398	-0.29399	0.06093	0.10311	0.02149
121081	1.36717	0.02455	0.53321	0.01221	0.25722	0.00541
120877	0.84739	0.01448	-0.19518	0.02517	0.09149	0.01147
120991	0.46291	0.00693	-1.09417	0.02281	0	0
169257	1.09797	0.02176	1.05321	0.01192	0.15425	0.00449
139880	2.00480	0.04686	1.48849	0.00877	0.19625	0.00261
121078	0.71493	0.01609	-0.09472	0.03993	0.17802	0.01519
169370	1.28195	0.02210	0.55952	0.01193	0.20367	0.00532
121037	1.28621	0.02157	0.48363	0.01198	0.19553	0.00548
169410	1.27690	0.02855	0.98964	0.01299	0.29968	0.00474
120915	1.03184	0.01790	-0.90646	0.03151	0.15132	0.01793
120923	1.24836	0.01944	-0.05747	0.01502	0.17399	0.00772
120946	0.74406	0.01744	0.05353	0.03745	0.22966	0.01361
146468	0.79229	0.01717	0.04798	0.03224	0.21091	0.01243
146373	1.75661	0.02939	1.18775	0.00716	0.09782	0.00243
120884	0.69109	0.01560	-0.50522	0.05192	0.16733	0.02065
146307	1.39842	0.02626	0.44781	0.01338	0.31398	0.00579
169455	0.87170	0.02642	1.39946	0.01927	0.26425	0.00580
123745	0.96421	0.01863	0.25505	0.02085	0.21855	0.00865
120965	1.33626	0.03600	1.72305	0.01392	0.17538	0.00300
123821	1.09876	0.01539	0.17223	0.01230	0.06325	0.00581
146358	1.02441	0.02090	1.06942	0.01276	0.14781	0.00476
145641	0.96835	0.01705	-0.46740	0.02769	0.17065	0.01359
121091	1.09846	0.04025	-0.03291	0.03955	0.21895	0.01796

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
120998	1.26591	0.04430	0.80613	0.02069	0.13251	0.00849
233602	0.84367	0.03788	0.26073	0.05378	0.22963	0.02024
199731	0.89459	0.03610	0.84642	0.03012	0.11130	0.01157
120917	1.12560	0.02956	-0.75960	0.03147	0.04588	0.01620
122522	0.77075	0.02831	0.09342	0.04756	0.08462	0.01929
120919	0.87221	0.03541	0.00339	0.05617	0.19500	0.02338
121004	0.41769	0.03152	0.81961	0.13640	0.12572	0.03652
269361	1.45447	0.05417	0.61662	0.02332	0.24634	0.01030
120927	1.08341	0.04332	0.34407	0.03779	0.25296	0.01574
139782	0.82131	0.06185	1.72451	0.04797	0.25901	0.01166
120921	0.98972	0.04548	-0.71922	0.08568	0.36985	0.03571
120961	1.20444	0.05211	0.65099	0.03129	0.29726	0.01249
224853	0.60067	0.05427	1.80327	0.06728	0.23249	0.01747
121038	0.81202	0.04966	1.53807	0.03983	0.17299	0.01158
139853	1.20920	0.04007	0.14917	0.02922	0.16372	0.01431
120895	0.97390	0.06409	0.76854	0.05715	0.50911	0.01486
146291	1.33763	0.06045	0.38292	0.03187	0.14447	0.01533
120912	1.43309	0.07280	0.28066	0.03785	0.25984	0.01805
120974	1.09470	0.05316	0.34381	0.04187	0.14317	0.01896
121018	0.96027	0.04259	-1.20070	0.07939	0.10912	0.04246
146401	1.38453	0.09584	1.72832	0.03762	0.09258	0.00695
269046	0.85174	0.07606	1.88650	0.06352	0.13037	0.01223
146455	0.92899	0.07583	1.27170	0.05293	0.26531	0.01679
120976	1.20403	0.07028	0.58441	0.04386	0.28016	0.01790
121024	0.68845	0.03396	-1.18402	0.11967	0.12464	0.05097
256511	0.52054	0.03513	-0.67389	0.19649	0.17443	0.06249
224919	1.54847	0.07104	0.18380	0.03230	0.20631	0.01702
120906	1.33791	0.05481	0.59114	0.02510	0.07386	0.01093
120896	0.92933	0.05672	0.42535	0.06300	0.23359	0.02474
139843	0.92630	0.10443	2.07465	0.08049	0.21826	0.01219
121025	1.34678	0.06882	-0.03364	0.04802	0.27810	0.02370
121059	1.97817	0.14169	1.41675	0.02706	0.25083	0.00873
120875	1.82153	0.08865	0.63548	0.02465	0.21247	0.01202

continued

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
139771	0.86159	0.00914	-0.69561	0.01075	0	0
120934	1.03377	0.00975	0.40986	0.00672	0	0
121027	0.86093	0.00862	-0.15241	0.00841	0	0
121082	1.23696	0.01135	-0.16993	0.00648	0	0
152807	0.60444	0.00780	1.25158	0.01447	0	0
120977	0.74000	0.00852	1.11201	0.01116	0	0
269296	1.09270	0.02246	0.78259	0.01487	0	0
256438	0.83247	0.01862	0.85671	0.01905	0	0
224936	1.03330	0.02092	0.67715	0.01486	0	0

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
120932	0.65276	0.01725	-1.05848	0.03535	0	0
120889	1.35252	0.02680	-0.30125	0.01371	0	0
121040	0.44296	0.01424	-0.90435	0.04574	0	0
120933	1.01145	0.02909	-0.22976	0.02310	0	0
242392	1.19951	0.03341	0.58270	0.01836	0	0
146274	0.78622	0.02699	1.22671	0.03394	0	0
121061	0.92905	0.03174	1.41061	0.03341	0	0
145405	1.54846	0.05203	1.44516	0.02299	0	0
120999	0.97428	0.02789	0.32221	0.02103	0	0

Table H-12. 2011–12 NECAP: IRT Parameters for Polytomous Items—Mathematics Grade 8

IREF	Parameters and Measures of Standard Error															
	a	SE (a)	b	SE (b)	c	SE (c)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)	D3	SE (D3)	D4	SE (D4)
120985	1.15434	0.00853	0.63683	0.00567	0	0	0.23497	0.00611	-0.23497	0.00636	0	0				
120890	0.78311	0.00532	-0.10479	0.00746	0	0	0.54946	0.00907	-0.54946	0.00821	0	0				
139869	1.09613	0.00951	0.71867	0.00646	0	0	0.08184	0.00646	-0.08184	0.00657	0	0				
125563	1.06841	0.00656	0.27922	0.00548	0	0	0.61808	0.00692	-0.61808	0.00675	0	0				
125576	1.56141	0.01500	1.45852	0.00680	0	0	0.12158	0.00598	-0.12158	0.00667	0	0				
120936	1.17150	0.00854	0.07441	0.00559	0	0	0.22885	0.00629	-0.22885	0.00604	0	0				
145186	1.21885	0.02921	1.66997	0.02240	0	0	0.05357	0.01665	-0.05357	0.01749	0	0				
224855	0.97464	0.01213	1.03223	0.01391	0	0	1.34102	0.01562	-1.34102	0.02646	0	0				
269098	1.45151	0.02399	0.61239	0.01057	0	0	0.12004	0.01116	-0.12004	0.01137	0	0				
120958	1.04472	0.01997	1.21360	0.01679	0	0	0.13213	0.01512	-0.13213	0.01614	0	0				
121031	1.14210	0.01482	-0.09291	0.01126	0	0	0.71151	0.01604	-0.71151	0.01319	0	0				
199783	0.83678	0.01007	1.02309	0.01658	0	0	1.67380	0.01869	-1.67380	0.03185	0	0				
139813	0.70008	0.01486	1.18367	0.02692	0	0	0.63717	0.02714	-0.63717	0.03349	0	0				
120993	1.10930	0.02526	0.28625	0.01746	0	0	0.19047	0.01910	-0.19047	0.01889	0	0				
139777	1.24450	0.03321	0.99114	0.01933	0	0	0.07470	0.01835	-0.07470	0.01895	0	0				
233719	0.97466	0.02288	-0.43768	0.02203	0	0	0.25521	0.02376	-0.25521	0.02146	0	0				
206242	1.29547	0.03178	0.84226	0.01710	0	0	0.12069	0.01728	-0.12069	0.01794	0	0				
206324	0.63459	0.01346	-0.32952	0.02780	0	0	0.63955	0.03366	-0.63955	0.02928	0	0				
120980	1.02727	0.00577	0.29016	0.00538	0	0	0.70449	0.00715	0.33381	0.00669	-0.30831	0.0066	-0.72999	0.00704	0	0

continued

IREF	Parameters and Measures of Standard Error															
	a	SE (a)	b	SE (b)	c	SE (c)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)	D3	SE (D3)	D4	SE (D4)
120938	1.11055	0.00514	-0.00454	0.00489	0	0	1.42086	0.00960	0.80608	0.00749	-0.32293	0.00622	-1.90401	0.00918	0	0
145395	1.37725	0.00714	1.12023	0.00424	0	0	1.45405	0.00589	0.29547	0.00553	0.01681	0.0059	-1.76633	0.01808	0	0
139894	1.18862	0.00550	0.65818	0.00453	0	0	1.48074	0.00732	0.59398	0.00597	-0.42525	0.00644	-1.64946	0.01135	0	0
145207	1.08494	0.01149	1.50032	0.01154	0	0	2.07779	0.01531	0.11819	0.01600	-0.56162	0.02143	-1.63436	0.04385	0	0
146441	1.17072	0.01269	0.93435	0.01016	0	0	1.08977	0.01332	0.17343	0.01292	-0.23047	0.01396	-1.03273	0.01943	0	0
121085	1.04046	0.01246	0.97711	0.01182	0	0	0.82758	0.01396	0.32377	0.01390	-0.38586	0.01601	-0.76550	0.01853	0	0
169286	1.68796	0.02681	0.88317	0.01056	0	0	0.96156	0.01484	0.15138	0.01416	-0.44022	0.01662	-0.67272	0.01876	0	0
139827	1.07403	0.01576	1.02705	0.01528	0	0	1.49531	0.02111	0.35148	0.01928	-0.72871	0.0258	-1.11807	0.03145	0	0
139890	0.92462	0.01329	1.65527	0.01835	0	0	2.45187	0.02551	0.41841	0.02378	-0.63865	0.03534	-2.23164	0.09753	0	0

Table H-13. 2011–12 NECAP: IRT Parameters for Dichotomous Items—Mathematics Grade 11

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
169689	0.32798	0.00832	-2.17005	0.05626	0	0
169690	0.59028	0.02050	-0.04868	0.06409	0.22323	0.02085
169559	0.83351	0.02245	0.57875	0.02382	0.19246	0.00917
169704	0.97864	0.02403	-0.91794	0.04174	0.26434	0.02095
169703	1.03043	0.02933	1.08203	0.01644	0.21414	0.00581
169565	1.81467	0.04927	1.48005	0.01022	0.13708	0.00279
169505	0.96501	0.02218	0.64932	0.01659	0.13916	0.00683
140047	1.43503	0.04294	1.63250	0.01354	0.13374	0.00304
145231	2.02859	0.04883	1.33756	0.00844	0.11518	0.00258
169502	1.16466	0.02120	0.71121	0.01049	0.05827	0.00411
140068	0.89538	0.02088	0.58539	0.01847	0.12908	0.00759
130100	1.37641	0.04395	1.59193	0.01440	0.18287	0.00354
169763	0.60516	0.01006	-1.42074	0.02304	0	0
125844	0.73140	0.01734	0.69095	0.01994	0.05693	0.00775
145222	1.09321	0.02610	0.80606	0.01473	0.17752	0.00588
144789	1.69227	0.05435	1.54236	0.01243	0.21692	0.00333
169769	0.98546	0.02021	0.25760	0.01766	0.12096	0.00798
119446	0.75326	0.01047	-0.82729	0.01373	0	0
169568	1.49315	0.02492	0.26298	0.00955	0.08934	0.00478
144820	1.03800	0.01957	-0.58400	0.02293	0.09856	0.01256

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
125817	1.79005	0.06458	1.75155	0.01379	0.19594	0.00296
119476	1.64552	0.03862	1.04706	0.00992	0.18325	0.00380
145220	1.55191	0.02976	0.85585	0.00878	0.09852	0.00348
169685	0.82433	0.01926	0.02959	0.02781	0.14654	0.01188
270864	1.12653	0.10249	1.89831	0.04911	0.28343	0.00849
140154	0.91530	0.08012	1.30872	0.05241	0.19670	0.01591
119516	1.69201	0.14141	1.48775	0.03280	0.44475	0.00785
140028	1.69836	0.19804	2.17518	0.05985	0.15000	0.00000
259944	1.45967	0.11446	1.32271	0.03456	0.20691	0.01085
140086	1.16058	0.06380	-0.85913	0.06706	0.17060	0.03774
119627	0.94901	0.04485	0.17960	0.04675	0.22199	0.01941
119427	0.74142	0.05950	0.21943	0.10023	0.23886	0.03572
119451	1.50839	0.07699	1.29057	0.02179	0.16078	0.00699
259947	1.15453	0.10035	1.24955	0.04405	0.25566	0.01401
259873	1.19307	0.12068	1.52839	0.04933	0.27944	0.01279
259852	0.30431	0.04185	2.01041	0.17903	0.13476	0.04142
119439	0.90517	0.04585	0.01246	0.04923	0.07712	0.02171
145455	1.85137	0.08074	1.26127	0.01646	0.08688	0.00496
119423	0.89057	0.03916	-0.35682	0.04562	0.04957	0.01923
169561	1.11787	0.10336	1.65721	0.04821	0.15050	0.01084

continued

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
145444	1.39008	0.08009	0.83106	0.02899	0.12888	0.01175
119484	1.68963	0.06351	0.35844	0.01959	0.16701	0.01022
259842	1.14507	0.06813	0.53055	0.04077	0.16161	0.01808
169507	1.13480	0.03225	-1.16290	0.02496	0.00000	0.00000
144787	1.03536	0.06974	0.52201	0.05233	0.21789	0.02178
169570	1.13466	0.06144	0.78366	0.03149	0.07457	0.01195
140089	1.39669	0.01653	0.80086	0.00699	0	0
178083	1.47902	0.01834	1.01009	0.00730	0	0
119603	0.96306	0.01316	1.25179	0.01160	0	0
119494	1.10650	0.01529	1.36032	0.01114	0	0
169516	1.03378	0.01208	0.19556	0.00781	0	0
140203	1.04364	0.01247	0.60419	0.00814	0	0
169588	0.63027	0.00897	0.31981	0.01153	0	0
119464	1.15489	0.01349	0.57426	0.00750	0	0
125740	1.19612	0.01794	1.60270	0.01254	0	0

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
119605	1.14078	0.01312	-0.03084	0.00744	0	0
141266	0.97652	0.01188	0.61673	0.00859	0	0
145461	1.02864	0.01205	0.04200	0.00792	0	0
169512	0.75454	0.02049	0.83656	0.02295	0	0
178080	1.27812	0.04692	1.18400	0.02564	0	0
119492	0.69811	0.02958	-1.23304	0.05157	0	0
119457	0.87720	0.02166	0.47302	0.01804	0	0
119542	1.01423	0.03504	0.77408	0.02466	0	0
259874	1.58710	0.06104	1.30386	0.02295	0	0
145492	0.88029	0.02151	0.06568	0.01772	0	0
145465	0.75756	0.03029	1.10707	0.03664	0	0
119582	0.85470	0.03571	1.46016	0.04105	0	0
259989	0.84808	0.02177	0.69662	0.01969	0	0
145459	1.05068	0.03477	0.11988	0.02180	0	0
169784	0.92362	0.03916	1.56954	0.04271	0	0

Table H-14. 2011–12 NECAP: IRT Parameters for Polytomous Items—Mathematics Grade 11

IREF	Parameters and Measures of Standard Error															
	a	SE (a)	b	SE (b)	c	SE (c)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)	D3	SE (D3)	D4	SE (D4)
169711	1.05626	0.00806	0.89185	0.00683	0	0	1.04320	0.00779	-1.04320	0.01138	0	0				
169719	1.14125	0.00934	0.64030	0.00628	0	0	0.50664	0.00718	-0.50664	0.00807	0	0				
119504	0.50508	0.00689	2.70947	0.02769	0	0	0.56944	0.01728	-0.56944	0.02366	0	0				
178058	1.49767	0.01810	1.50658	0.00835	0	0	0.16024	0.00735	-0.16024	0.00850	0	0				
119620	0.77033	0.01086	1.89580	0.01807	0	0	0.16822	0.01222	-0.16822	0.01369	0	0				
169599	1.41101	0.01522	0.73385	0.00646	0	0	0.06505	0.00644	-0.06505	0.00657	0	0				
119472	0.77653	0.01297	0.95861	0.01809	0	0	0.70980	0.01920	-0.70980	0.02386	0	0				
259826	1.07320	0.04622	2.20962	0.04985	0	0	0.22058	0.03273	-0.22058	0.04197	0	0				
119543	1.03217	0.03252	0.62688	0.02244	0	0	0.06760	0.02236	-0.06760	0.02266	0	0				
119502	1.11492	0.02532	0.87406	0.01849	0	0	0.65071	0.02058	-0.65071	0.02612	0	0				
119481	1.03366	0.03012	1.71408	0.02860	0	0	0.48999	0.02479	-0.48999	0.03678	0	0				
259921	0.87914	0.01810	1.48120	0.02157	0	0	0.40613	0.01893	-0.40613	0.02405	0	0				
169553	1.32829	0.00855	0.68615	0.00485	0	0	1.15872	0.00694	0.26843	0.00638	-0.55704	0.00746	-0.87009	0.00848	0	0

continued

IREF	Parameters and Measures of Standard Error															
	a	SE (a)	b	SE (b)	c	SE (c)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)	D3	SE (D3)	D4	SE (D4)
169800	0.90659	0.00558	1.28121	0.00713	0	0	2.09947	0.00965	0.07313	0.00945	-0.64771	0.01194	-1.52488	0.01869	0	0
169657	1.40359	0.00886	1.04027	0.00472	0	0	1.57322	0.00684	0.43422	0.00632	-0.73939	0.00921	-1.26805	0.01303	0	0
169739	1.03341	0.00652	1.38230	0.00640	0	0	2.02577	0.00853	0.16855	0.00871	-0.80648	0.01287	-1.38782	0.01839	0	0
145490	1.67721	0.02416	1.31570	0.00894	0	0	1.22736	0.01113	0.68614	0.01135	-0.73380	0.02068	-1.17970	0.02982	0	0
141291	1.52312	0.03098	0.85135	0.01343	0	0	0.73663	0.01676	0.52254	0.01660	-0.46193	0.01991	-0.79723	0.02334	0	0
119621	1.22780	0.02266	1.11600	0.01541	0	0	1.18872	0.01959	0.47036	0.01943	-0.36564	0.02400	-1.29343	0.04017	0	0
169659	1.31428	0.02523	0.21367	0.01400	0	0	0.86708	0.02061	0.11826	0.01796	-0.34861	0.01822	-0.63673	0.01921	0	0
119546	1.17408	0.02488	0.56021	0.01641	0	0	0.55970	0.01993	0.33831	0.01963	-0.28281	0.02057	-0.61521	0.02231	0	0
119589	1.25031	0.01931	1.76404	0.01285	0	0	1.20349	0.01367	0.14060	0.01798	-0.43742	0.02470	-0.90666	0.03477	0	0

Table H-15. 2011–12 NECAP: IRT Parameters for Dichotomous Items—Reading Grade 3

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
171772	1.06488	0.01556	-1.56472	0.02780	0.04764	0.01556
171737	0.74162	0.01698	-1.07453	0.06418	0.25129	0.02436
117646	0.68116	0.01381	-1.49677	0.06920	0.11381	0.03006
117645	1.23501	0.01963	-0.68333	0.02080	0.19412	0.01073
117647	0.90054	0.01585	-0.62736	0.03062	0.15814	0.01347
117648	0.66906	0.00884	-1.73858	0.02374	0	0
147819	0.97348	0.01067	-1.26862	0.01348	0	0
147849	0.57183	0.01526	0.60224	0.03424	0.09496	0.01133
147851	1.54675	0.02579	-1.15335	0.02079	0.19500	0.01303
147856	0.41410	0.01152	-0.63803	0.09720	0.07524	0.02636
147865	0.93837	0.01353	-0.56664	0.02087	0.05496	0.00954
147868	1.09980	0.01905	0.20323	0.01589	0.18704	0.00680
147870	1.19201	0.01779	-0.82089	0.02067	0.12461	0.01105
147835	0.70644	0.01372	-0.56057	0.04033	0.10284	0.01576
148121	0.88454	0.01787	-0.66639	0.03857	0.26276	0.01535
148124	0.92771	0.01556	-0.28651	0.02307	0.13281	0.01002
148080	1.03164	0.01798	-0.46962	0.02503	0.21433	0.01115
148104	0.94807	0.01555	-0.00158	0.01841	0.11255	0.00788
148135	1.42768	0.02259	-1.27380	0.02180	0.12630	0.01379
148141	1.15251	0.01761	-0.64858	0.02050	0.14508	0.01041

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
148118	0.95701	0.01607	-0.50174	0.02551	0.15120	0.01146
148072	0.36334	0.01003	-1.09348	0.12320	0.07473	0.03070
148219	0.88534	0.01067	-1.61554	0.01789	0	0
148178	0.76947	0.00867	-1.11276	0.01472	0	0
147966	1.23950	0.01838	-1.17994	0.02238	0.08870	0.01302
147967	1.00904	0.01676	-0.67416	0.02634	0.16299	0.01241
147970	1.49939	0.02479	-1.24516	0.02185	0.16740	0.01392
147960	0.43930	0.00697	-1.66391	0.03184	0	0
171714	0.84202	0.04344	-0.73945	0.09576	0.17457	0.03896
171325	0.79482	0.04048	-0.75712	0.09821	0.15100	0.03911
171327	1.22232	0.05888	-0.74372	0.06430	0.23122	0.03130
171329	1.00900	0.04685	-0.76457	0.07206	0.15843	0.03294
171334	0.64013	0.03913	-0.45006	0.12645	0.16108	0.04231
117787	0.70199	0.03928	-0.57639	0.11199	0.15461	0.04042
117793	0.81576	0.04860	-0.50238	0.10714	0.25126	0.03903
117789	1.16154	0.05372	-0.60168	0.05942	0.18972	0.02832
117798	0.94474	0.04597	-0.82032	0.08366	0.17280	0.03687
117790	0.37398	0.02976	-1.32687	0.35215	0.20318	0.07829
117794	0.58336	0.04112	-0.32341	0.15385	0.19107	0.04665
117796	1.25116	0.06221	0.38464	0.03593	0.17635	0.01539

continued

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
117797	1.02019	0.05827	0.30602	0.05267	0.22556	0.02048
171720	0.93200	0.04174	-0.81357	0.07427	0.12102	0.03292
171725	0.54466	0.03719	0.09500	0.12083	0.12085	0.03645
147996	1.03836	0.05339	-0.89676	0.08804	0.23698	0.03974
148009	0.76494	0.04629	0.02847	0.08434	0.18189	0.03003
148012	1.09232	0.05236	-0.32512	0.05793	0.19264	0.02572
148011	1.05795	0.05039	-0.86166	0.07603	0.18378	0.03578
117697	1.33572	0.05586	-1.01007	0.05192	0.11604	0.02799

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
117700	1.11526	0.04720	-0.34931	0.04752	0.11634	0.02181
117699	1.08641	0.05690	-0.08661	0.05788	0.24104	0.02399
117701	0.96141	0.04742	0.07456	0.05205	0.13833	0.02128
117704	0.75347	0.03801	-0.51492	0.08925	0.12128	0.03400
117703	1.43658	0.06156	-0.46395	0.04160	0.17119	0.02172
117702	0.86024	0.03666	-0.93711	0.07526	0.09197	0.03179
128558	1.05963	0.06236	0.51850	0.04699	0.22246	0.01793
171719	0.77602	0.03418	-0.50396	0.06835	0.07614	0.02634

Table H-16. 2011–12 NECAP: IRT Parameters for Polytomous Items—Reading Grade 3

IREF	Parameters and Measures of Standard Error															
	a	SE (a)	b	SE (b)	c	SE (c)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)	D3	SE (D3)	D4	SE (D4)
233382	0.73527	0.00321	0.23896	0.00764	0	0	2.18625	0.01407	0.65947	0.00954	-0.77859	0.01002	-2.06712	0.01510	0	0
147875	0.41102	0.00000	-3.29065	0.01516	0	0	3.19801	0.06657	1.40975	0.03737	-1.27282	0.01895	-3.33494	0.01555	0	0
147889	0.87130	0.00407	1.51216	0.00695	0	0	2.86156	0.01066	0.87311	0.00835	-1.04884	0.01676	-2.68582	0.04868	0	0
148163	0.41384	0.00000	-3.88902	0.01642	0	0	2.87064	0.07347	1.23412	0.04275	-0.63103	0.02484	-3.47373	0.01567	0	0
148155	1.17403	0.00558	0.84461	0.00508	0	0	1.52749	0.00729	0.75457	0.00639	-0.36007	0.00774	-1.92198	0.02018	0	0
147990	0.71306	0.00308	0.47718	0.00818	0	0	3.03928	0.01811	0.93019	0.00987	-1.16276	0.01199	-2.80671	0.02412	0	0
171335	0.73860	0.01019	1.57716	0.02383	0	0	2.79543	0.03333	0.84572	0.02879	-0.96671	0.05088	-2.67445	0.12918	0	0
117802	0.60018	0.00992	-2.84510	0.03098	0	0	2.26702	0.16323	1.59748	0.11886	-0.68804	0.04814	-3.17646	0.03334	0	0
117801	0.73203	0.01010	-1.10474	0.02436	0	0	1.72472	0.05946	1.01295	0.04406	-0.18564	0.03105	-2.55204	0.03382	0	0
148019	1.20814	0.01887	-0.80000	0.01549	0	0	0.97084	0.03265	0.45834	0.02570	-0.21694	0.02066	-1.21224	0.01916	0	0
117705	0.85873	0.01539	-1.88558	0.02515	0	0	1.77950	0.09720	0.47272	0.04718	-0.67471	0.03024	-1.57751	0.02528	0	0
117706	1.15159	0.01985	-0.17149	0.01636	0	0	0.63998	0.02288	0.18784	0.02036	-0.25073	0.01944	-0.57708	0.01972	0	0

Table H-17. 2011–12 NECAP: IRT Parameters for Dichotomous Items—Reading Grade 4

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
172216	0.59667	0.01595	-1.58132	0.08686	0.18066	0.03666
148403	0.87596	0.01795	-0.25892	0.02523	0.20248	0.01138
171763	0.74725	0.01801	-0.62765	0.04284	0.25623	0.01731
171776	1.41703	0.02653	-0.44832	0.01574	0.26934	0.00903
171799	1.05112	0.01927	-0.59409	0.02156	0.18100	0.01146
171773	0.58996	0.01540	-0.26430	0.04728	0.15453	0.01728
117932	0.86866	0.01628	-1.05476	0.03151	0.11154	0.01669
117933	0.86501	0.01639	-0.79303	0.02899	0.13060	0.01462
117934	0.37765	0.00667	-0.67913	0.01982	0.00000	0.00000
117935	0.34178	0.01377	-0.24200	0.12153	0.10100	0.03061
117936	0.73693	0.01304	-0.70281	0.02774	0.05311	0.01279
117937	0.69508	0.01404	-0.59560	0.03417	0.08951	0.01505
117938	0.79874	0.01466	-0.95485	0.03118	0.08139	0.01562
117939	0.82906	0.01708	-0.21135	0.02584	0.17833	0.01145
117881	0.90246	0.01521	-0.99370	0.02488	0.06584	0.01330
117882	0.71141	0.01516	-1.06076	0.04493	0.12387	0.02095
117883	0.97445	0.02279	0.37599	0.01980	0.30674	0.00788
117884	1.12272	0.01928	0.05134	0.01363	0.14760	0.00696
117885	1.00793	0.01719	-0.15950	0.01629	0.11846	0.00822
117886	0.78130	0.01876	0.77669	0.01884	0.16695	0.00735
117887	1.02205	0.01834	-0.23050	0.01809	0.16027	0.00913
117888	0.75994	0.01573	-0.36498	0.02993	0.14180	0.01316
172180	0.87451	0.01533	-1.15356	0.02889	0.07202	0.01560
172200	1.06595	0.02174	-0.83876	0.02746	0.26163	0.01430
117924	0.38904	0.00694	-1.18745	0.02488	0.00000	0.00000
117925	1.26886	0.02339	-1.18663	0.02207	0.15380	0.01431
117927	0.82132	0.01623	-0.25285	0.02495	0.14388	0.01132
117926	0.89709	0.01575	-0.68415	0.02377	0.09607	0.01219

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
172194	1.01048	0.05497	-1.45807	0.08453	0.15797	0.04703
171441	0.81547	0.04103	-0.89756	0.07499	0.10946	0.03485
177161	0.91716	0.05395	-1.01880	0.09327	0.22477	0.04550
171459	0.81542	0.04809	-0.90931	0.09890	0.19763	0.04507
171462	0.95098	0.05454	-0.44752	0.06935	0.22040	0.03239
203668	0.76010	0.04607	0.66994	0.04807	0.09909	0.01878
203670	0.44588	0.03313	0.48317	0.10457	0.08384	0.03101
232576	1.07357	0.06015	-1.11128	0.07706	0.20899	0.04217
203673	0.84875	0.04920	-0.24217	0.06975	0.18202	0.03062
203675	1.05792	0.05480	-0.32088	0.05147	0.17155	0.02590
203678	0.94297	0.06609	0.92176	0.04464	0.21372	0.01697
232585	1.02329	0.05366	-0.39005	0.05557	0.17316	0.02768
232579	1.05269	0.05229	-0.25234	0.04685	0.14044	0.02353
148411	0.53087	0.03733	-1.04937	0.17701	0.18221	0.06027
171911	0.80221	0.03916	-0.89807	0.07112	0.09335	0.03193
171904	0.66547	0.03858	-1.40418	0.12764	0.14993	0.05361
171908	0.77201	0.05281	0.48596	0.06286	0.18668	0.02437
171970	0.69245	0.04067	-0.87034	0.10718	0.15044	0.04443
171623	1.03412	0.04570	-1.02139	0.05062	0.07115	0.02477
171625	0.73468	0.03424	-1.12677	0.07155	0.07072	0.02898
171626	0.50120	0.02836	-1.26917	0.12408	0.09322	0.04042
171630	0.69138	0.04811	0.09928	0.08717	0.19190	0.03252
171629	0.67195	0.03828	0.42949	0.05361	0.06917	0.02007
171633	1.16691	0.05932	-0.63835	0.05215	0.16772	0.02839
171636	0.81242	0.04942	-0.26947	0.07793	0.19600	0.03292
171641	0.60021	0.03754	-0.36242	0.10271	0.12299	0.03768
172219	0.82262	0.04827	-1.52046	0.11743	0.18268	0.05879
148398	0.89485	0.04674	-0.65312	0.06923	0.13619	0.03401

Table H-18. 2011–12 NECAP: IRT Parameters for Polytomous Items—Reading Grade 4

IREF	Parameters and Measures of Standard Error															
	a	SE (a)	b	SE (b)	c	SE (c)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)	D3	SE (D3)	D4	SE (D4)
171813	0.82972	0.00540	-1.39289	0.00708	0	0	1.31370	0.01760	0.51334	0.01214	-0.34389	0.00901	-1.48315	0.00750	0	0
117940	0.59537	0.00345	-1.41987	0.00860	0	0	2.62563	0.03078	0.51828	0.01387	-0.95753	0.01017	-2.18639	0.00996	0	0
117941	0.85457	0.00427	0.43074	0.00597	0	0	2.65129	0.01400	0.72883	0.00760	-1.01826	0.00845	-2.36185	0.01459	0	0
117889	0.52689	0.00263	-0.33338	0.00942	0	0	2.60715	0.01972	1.51835	0.01436	-1.12147	0.01104	-3.00403	0.01557	0	0
117890	0.91076	0.00464	0.94873	0.00563	0	0	2.38845	0.00992	0.71856	0.00691	-0.86511	0.00916	-2.24191	0.01836	0	0
117931	0.65700	0.00325	0.33694	0.00773	0	0	3.57542	0.02225	0.88495	0.00959	-1.26548	0.01043	-3.19488	0.02074	0	0
171473	0.64377	0.00965	1.28590	0.02346	0	0	3.10192	0.03865	0.71106	0.02756	-1.07870	0.03916	-2.73427	0.07800	0	0
205951	0.79653	0.01469	-1.15995	0.02063	0	0	1.36606	0.04744	0.56793	0.03395	-0.43913	0.02539	-1.49485	0.02305	0	0
203684	0.80239	0.01188	0.45819	0.01883	0	0	2.52674	0.03907	0.88814	0.02415	-0.96237	0.02625	-2.45251	0.04681	0	0
171975	0.96299	0.01515	0.23519	0.01572	0	0	1.43050	0.02650	0.78833	0.02191	-0.47440	0.02023	-1.74442	0.02885	0	0
171642	0.66562	0.01328	-2.31620	0.02660	0	0	2.29861	0.12788	0.85278	0.06391	-0.82785	0.03475	-2.32353	0.02714	0	0
171664	0.92962	0.01421	0.78727	0.01653	0	0	2.16562	0.02884	0.83881	0.02084	-0.78777	0.02511	-2.21666	0.05003	0	0

Table H-19. 2011–12 NECAP: IRT Parameters for Dichotomous Items—Reading Grade 5

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
172092	0.94418	0.01760	-0.77743	0.03012	0.17760	0.01470
118199	0.48670	0.01328	-0.20034	0.06072	0.07623	0.01944
118068	1.15850	0.02240	-1.53550	0.03584	0.17979	0.02276
118069	1.14985	0.02068	-0.35515	0.01957	0.23564	0.00958
118071	0.78348	0.01744	-0.22580	0.03330	0.21628	0.01300
127825	0.83066	0.01724	-0.90160	0.04144	0.19734	0.01872
171892	0.64185	0.01063	-0.49000	0.02732	0.02941	0.01058
171895	1.03101	0.01652	-1.12598	0.02563	0.07887	0.01454
171913	0.63747	0.01547	-1.40240	0.07895	0.15653	0.03316
171914	0.80666	0.01525	-1.19782	0.04227	0.10557	0.02108
171916	0.42366	0.00703	-1.39641	0.02668	0	0
171922	0.97481	0.01583	-1.46344	0.03082	0.06257	0.01793
171924	0.47862	0.01032	-0.17805	0.04225	0.03551	0.01347
171928	1.22091	0.02283	-1.73582	0.03350	0.11746	0.02352
148595	0.96374	0.01628	-0.86908	0.02659	0.10818	0.01388
148616	1.23563	0.02096	-1.18549	0.02419	0.14131	0.01504

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
148617	0.87476	0.01634	-0.36129	0.02574	0.14773	0.01157
148618	1.61825	0.02654	-1.11440	0.01641	0.13863	0.01134
148614	1.07719	0.02149	-0.14952	0.02137	0.28975	0.00928
148631	1.10516	0.01978	-1.07440	0.02823	0.17769	0.01589
148639	0.80003	0.01549	-0.41059	0.02975	0.12955	0.01294
148667	0.96863	0.01941	-0.39123	0.02681	0.25602	0.01171
172068	0.57313	0.01655	0.02016	0.05150	0.17737	0.01671
172082	0.74804	0.01644	-0.44503	0.03830	0.18466	0.01533
171793	0.78475	0.01197	-2.17749	0.02652	0	0
171797	0.71277	0.01425	-0.09502	0.02792	0.08503	0.01131
171803	0.90126	0.01596	-0.75681	0.02858	0.11987	0.01405
171808	1.10533	0.01786	-1.38504	0.02658	0.07384	0.01636
172065	0.78382	0.04784	-0.88477	0.12167	0.23237	0.04927
171306	0.98050	0.04682	-0.97707	0.07280	0.13723	0.03647
171308	0.51303	0.03983	-0.00984	0.14436	0.14988	0.04343
171313	0.70459	0.03023	-0.97745	0.07067	0.06331	0.02689

continued

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
171317	0.66669	0.03310	-1.19519	0.10696	0.10705	0.04256
147820	0.94050	0.04356	-0.99592	0.07179	0.11641	0.03517
147825	1.03944	0.04543	-0.68588	0.05286	0.10027	0.02607
147987	0.91990	0.03985	-1.38219	0.07135	0.08693	0.03448
147992	0.92324	0.04316	-1.06387	0.07593	0.11893	0.03714
147999	1.00228	0.05509	-0.67612	0.07792	0.23949	0.03557
148001	1.06196	0.05673	-0.58403	0.06810	0.23470	0.03183
148006	0.61496	0.04979	0.32328	0.10874	0.20805	0.03457
148008	1.21687	0.06152	-0.16697	0.04520	0.21408	0.02161
118205	0.58382	0.04320	-0.61444	0.17277	0.21569	0.05620
172073	0.58960	0.03484	-0.52257	0.11550	0.11407	0.04045
118170	0.74322	0.03794	-1.92188	0.12283	0.12609	0.05408

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
118175	0.81531	0.03897	-1.81270	0.09932	0.10375	0.04491
118172	0.44037	0.03213	-0.18664	0.15950	0.11452	0.04434
118176	0.75684	0.04217	-0.50906	0.09049	0.14101	0.03701
171482	0.56147	0.03102	-1.87380	0.15820	0.12789	0.05598
171637	0.88368	0.05557	-0.40352	0.09169	0.27815	0.03646
171493	1.10812	0.04848	-0.70405	0.05098	0.10130	0.02613
171564	0.78045	0.04197	-0.54360	0.08536	0.13327	0.03581
171639	0.87620	0.04386	-1.00770	0.08729	0.13602	0.04118
171655	0.73945	0.04499	0.33943	0.06322	0.11858	0.02426
171656	1.29577	0.06275	-1.11925	0.06120	0.15834	0.03611
171666	0.84771	0.03984	-0.71418	0.07012	0.09766	0.03130
269423	0.76590	0.04365	-0.03131	0.07288	0.12668	0.02943

Table H-20. 2011–12 NECAP: IRT Parameters for Polytomous Items—Reading Grade 5

IREF	Parameters and Measures of Standard Error															
	a	SE (a)	b	SE (b)	c	SE (c)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)	D3	SE (D3)	D4	SE (D4)
118072	0.84579	0.00397	0.92658	0.00639	0	0	2.33485	0.01029	0.66522	0.00772	-0.80411	0.01050	-2.19595	0.02105	0	0
171934	0.60829	0.00278	0.64530	0.00864	0	0	2.71416	0.01475	0.75979	0.01020	-1.03452	0.01236	-2.43943	0.01979	0	0
171930	0.81488	0.00378	0.71132	0.00657	0	0	2.30507	0.01115	0.60266	0.00794	-0.78919	0.00987	-2.11854	0.01772	0	0
148680	0.98269	0.00465	0.75538	0.00566	0	0	2.46031	0.01085	0.70672	0.00689	-0.90608	0.00954	-2.26095	0.02055	0	0
148698	1.11370	0.00533	0.55887	0.00509	0	0	2.08467	0.00954	0.94944	0.00658	-0.80765	0.00797	-2.22645	0.01804	0	0
171812	0.87167	0.00409	0.55195	0.00644	0	0	2.95060	0.01545	0.89316	0.00782	-1.09546	0.01007	-2.74830	0.02374	0	0
171320	0.89129	0.01249	0.57924	0.01795	0	0	2.00704	0.02942	0.64392	0.02229	-0.70077	0.02653	-1.95019	0.04597	0	0
148158	0.86443	0.01262	1.22034	0.01903	0	0	2.32140	0.02717	0.88467	0.02298	-0.95947	0.03853	-2.24660	0.08044	0	0
148137	0.83006	0.01202	1.27979	0.02019	0	0	2.95920	0.03331	0.95834	0.02383	-1.18540	0.04474	-2.73214	0.11152	0	0
118178	0.79518	0.01102	0.77681	0.02037	0	0	2.54249	0.03597	0.77784	0.02438	-0.94814	0.03241	-2.37219	0.06328	0	0
171668	1.12147	0.01615	0.79688	0.01479	0	0	1.90479	0.02419	0.56445	0.01856	-0.66587	0.02461	-1.80338	0.04754	0	0
171670	1.08110	0.01697	1.21017	0.01585	0	0	1.49384	0.01987	0.58703	0.01964	-0.56329	0.02885	-1.51758	0.05171	0	0

Table H-21. 2011–12 NECAP: IRT Parameters for Dichotomous Items—Reading Grade 6

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
118384	0.57654	0.01068	-1.32591	0.03759	0.03940	0.01595
118255	0.31103	0.00675	-1.71404	0.03530	0	0
148768	0.69576	0.01129	-2.09679	0.02314	0	0
148779	0.58032	0.01315	-1.08860	0.05056	0.08003	0.02173
148794	0.70541	0.01399	-1.90328	0.04559	0.06661	0.02466
148800	0.55525	0.01484	-0.23548	0.04517	0.12508	0.01672
148388	0.71471	0.01224	-2.31145	0.02588	0	0
148393	0.58605	0.01307	-0.73356	0.04214	0.07271	0.01757
148399	0.53770	0.00946	-2.21014	0.02937	0	0
148401	0.75418	0.01719	-0.87031	0.03883	0.19244	0.01791
148410	0.86086	0.01884	-1.33051	0.03920	0.18090	0.02134
148412	0.82002	0.01326	-2.12607	0.02117	0	0
148425	0.90295	0.01982	-1.69545	0.04256	0.15188	0.02594
148428	0.46622	0.00811	-1.82791	0.02666	0	0
118327	0.63682	0.01502	-0.73258	0.04352	0.13004	0.01853
118328	0.72877	0.01249	-1.36147	0.02898	0.03883	0.01435
118330	1.03342	0.01903	-1.83274	0.02719	0.05480	0.01769
118333	0.48231	0.00747	-0.98520	0.01680	0	0
118335	1.11620	0.01960	-1.52186	0.02181	0.05686	0.01412
118338	0.44881	0.00767	-1.55854	0.02394	0	0
118339	0.70949	0.01095	-1.90355	0.02038	0	0
118341	0.84846	0.01400	-1.25763	0.02352	0.03878	0.01253
172234	0.51702	0.01000	-0.95828	0.03778	0.03562	0.01438
172228	0.39075	0.01619	0.27746	0.08145	0.13501	0.02263
148469	0.31724	0.00846	-0.70208	0.07004	0.04016	0.01790
148481	0.69816	0.01517	-1.57578	0.05020	0.10082	0.02607
148501	0.64043	0.01450	-0.60971	0.03852	0.10773	0.01649
148508	0.26560	0.00631	-1.28857	0.03333	0	0

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
172264	0.70235	0.04192	-0.99501	0.10081	0.15130	0.04426
172206	0.37325	0.05284	1.04247	0.20042	0.23041	0.04793
171785	0.56385	0.03050	-0.69947	0.08413	0.07679	0.03086
171801	0.63359	0.03696	-2.10544	0.13193	0.13706	0.05801
171807	0.65876	0.04978	0.82438	0.06018	0.13895	0.02136
171818	0.70660	0.04366	-0.28553	0.07776	0.14630	0.03183
172035	0.52873	0.04025	0.33840	0.09360	0.11796	0.03142
172042	0.63305	0.04345	-0.15987	0.09249	0.15973	0.03470
172045	1.02071	0.05796	-1.62953	0.08170	0.15940	0.04863
172056	0.39127	0.04221	0.56910	0.17242	0.15870	0.04565
172069	0.58614	0.05139	-0.21762	0.14231	0.29342	0.04436
172074	0.73656	0.03505	-1.48026	0.07092	0.07191	0.03083
172081	1.02694	0.05485	-1.49774	0.07060	0.13103	0.04128
172094	0.43608	0.03025	-0.75944	0.15123	0.11652	0.04654
118387	0.51661	0.03105	-0.85755	0.11182	0.09822	0.03917
172111	0.62271	0.03108	-1.37905	0.08120	0.06994	0.03057
172131	0.65873	0.03764	-0.82072	0.09061	0.11335	0.03769
172129	0.54478	0.03130	-0.63392	0.09226	0.08426	0.03306
172134	0.76865	0.03896	-1.61734	0.08118	0.09010	0.03717
171853	0.72947	0.03930	-0.65718	0.07188	0.10123	0.03141
171857	0.63286	0.07614	1.45625	0.08475	0.32246	0.02254
171867	0.97919	0.04894	-1.42551	0.06411	0.09636	0.03424
171868	1.15945	0.07006	-1.97243	0.08115	0.15205	0.05176
171872	0.67502	0.03481	-1.03129	0.07902	0.08558	0.03308
171873	0.96160	0.05888	-2.37322	0.09947	0.13030	0.05425
171882	0.70323	0.03954	-0.99354	0.09048	0.12124	0.03977
171885	1.14379	0.06447	-1.80041	0.07209	0.13030	0.04445
172238	0.38107	0.03450	0.51889	0.14617	0.10614	0.03973

Table H-22. 2011–12 NECAP: IRT Parameters for Polytomous Items—Reading Grade 6

<i>IREF</i>	<i>Parameters and Measures of Standard Error</i>															
	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>	<i>D0</i>	<i>SE (D0)</i>	<i>D1</i>	<i>SE (D1)</i>	<i>D2</i>	<i>SE (D2)</i>	<i>D3</i>	<i>SE (D3)</i>	<i>D4</i>	<i>SE (D4)</i>
148810	0.82118	0.00430	0.02364	0.00606	0	0	3.15786	0.02001	0.86414	0.00818	-1.19840	0.00809	-2.82359	0.01462	0	0
148455	1.01329	0.00539	0.23497	0.00496	0	0	2.54682	0.01296	0.79474	0.00671	-0.99889	0.00707	-2.34266	0.01238	0	0
148440	1.03409	0.00559	0.38914	0.00494	0	0	2.71657	0.01305	0.76461	0.00642	-1.06995	0.00747	-2.41121	0.01407	0	0
118343	1.13026	0.00606	0.51102	0.00443	0	0	2.06646	0.00874	0.75345	0.00589	-0.79821	0.00676	-2.02171	0.01187	0	0
118344	1.03557	0.00557	0.52845	0.00493	0	0	2.57226	0.01129	0.85485	0.00636	-1.03428	0.00773	-2.39284	0.01516	0	0
148540	0.90059	0.00475	0.60169	0.00536	0	0	2.05025	0.00921	0.73839	0.00682	-0.82503	0.00797	-1.96361	0.01253	0	0
171823	0.93586	0.01492	0.51862	0.01596	0	0	2.72437	0.03531	0.59294	0.01999	-1.01911	0.02470	-2.29820	0.04383	0	0
172103	0.88479	0.01402	0.71147	0.01682	0	0	2.70096	0.03274	0.83267	0.02087	-1.07106	0.02767	-2.46256	0.05367	0	0
172099	1.07219	0.01755	0.74523	0.01429	0	0	2.47217	0.02745	0.80207	0.01815	-1.02689	0.02518	-2.24734	0.04902	0	0
172140	0.85336	0.01345	-0.23595	0.01709	0	0	2.63889	0.05147	0.69816	0.02441	-1.04695	0.02198	-2.29010	0.03074	0	0
171893	0.85477	0.01330	0.16905	0.01700	0	0	2.38621	0.03782	0.80297	0.02283	-0.91003	0.02296	-2.27914	0.03630	0	0
171889	0.94884	0.01519	0.40751	0.01585	0	0	2.72616	0.03889	0.64508	0.02011	-1.08890	0.02388	-2.28232	0.04019	0	0

Table H-23. 2011–12 NECAP: IRT Parameters for Dichotomous Items—Reading Grade 7

<i>IREF</i>	<i>Parameters and Measures of Standard Error</i>					
	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>
173330	0.50096	0.01104	-1.07434	0.04908	0.05211	0.01928
147681	0.67512	0.01600	0.61902	0.01920	0.09745	0.00757
177359	0.45544	0.00991	-1.17871	0.05109	0.04515	0.01864
147573	0.91116	0.02011	-1.86923	0.04238	0.13523	0.02804
147577	0.66161	0.01419	-1.31733	0.04424	0.08540	0.02194
147583	0.67166	0.01160	-1.03506	0.02656	0.03436	0.01239
129210	0.35841	0.01047	-0.92192	0.08475	0.06233	0.02497
129211	0.70503	0.01201	-2.29135	0.02382	0	0
129212	0.63912	0.01010	-1.93745	0.02059	0	0
129213	0.68758	0.01558	-0.65781	0.03542	0.13386	0.01586
129215	0.86703	0.01782	-0.55424	0.02434	0.17395	0.01197
129214	0.61832	0.01298	-1.50652	0.04752	0.06972	0.02311
129216	0.26389	0.00607	0.11709	0.01942	0	0
129217	0.26698	0.00668	-2.23692	0.04735	0	0
173057	0.66735	0.01158	-0.67535	0.02340	0.03152	0.01042
173062	0.34331	0.00838	-1.80849	0.07463	0.04750	0.02172

<i>IREF</i>	<i>Parameters and Measures of Standard Error</i>					
	<i>a</i>	<i>SE (a)</i>	<i>b</i>	<i>SE (b)</i>	<i>c</i>	<i>SE (c)</i>
173066	0.49144	0.01070	-1.48073	0.05553	0.05562	0.02231
173078	0.85217	0.01248	-1.79197	0.01536	0.00000	0.00000
173082	0.68852	0.01777	-0.11521	0.03259	0.22194	0.01259
173091	0.21928	0.00591	-0.17692	0.02393	0	0
173094	0.55076	0.00846	-1.53196	0.01845	0	0
173096	0.59290	0.01006	-1.04204	0.02678	0.02679	0.01111
173364	0.76263	0.01818	-1.27868	0.04593	0.20238	0.02292
147668	0.54804	0.01110	-1.19232	0.04229	0.04772	0.01792
118572	0.77495	0.01154	-1.82783	0.01680	0	0
118526	0.50658	0.00831	-1.73404	0.02197	0	0
118528	0.57348	0.01453	-1.15456	0.05906	0.11720	0.02530
118573	0.58034	0.00907	-1.74815	0.01989	0	0
147686	0.60156	0.04118	0.14355	0.07742	0.11799	0.02873
147666	0.79644	0.04240	-1.67944	0.08420	0.11102	0.04286
147526	0.78042	0.04285	-2.00851	0.09278	0.11219	0.04648
147539	0.73463	0.04108	-2.09014	0.10087	0.11514	0.04854

continued

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
147546	0.23433	0.02311	-0.67837	0.28791	0.11773	0.05246
147549	0.89046	0.04554	-1.81317	0.07032	0.08922	0.03652
173246	0.63375	0.05478	-0.42479	0.13808	0.33913	0.04449
173249	0.78243	0.04716	-0.42627	0.07049	0.16375	0.03131
173247	0.38329	0.03606	-0.71587	0.24588	0.19217	0.06546
173255	0.48798	0.04124	0.17104	0.12076	0.14671	0.03860
173254	0.90167	0.04896	-1.22837	0.07199	0.13609	0.03870
173260	0.41983	0.02076	-1.15052	0.05571	0	0
173261	0.99077	0.05357	-0.87448	0.05852	0.15303	0.03160
173269	0.44042	0.02733	-0.66204	0.10959	0.08058	0.03425
173349	0.50085	0.02941	-1.56559	0.12232	0.10049	0.04424
147690	0.51256	0.04312	-0.88570	0.19210	0.22959	0.06411

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
147641	0.60174	0.03157	-1.41356	0.08856	0.08251	0.03594
147643	0.43620	0.03451	-0.76546	0.18139	0.15259	0.05641
147647	0.56350	0.03233	-0.98519	0.09955	0.09647	0.03893
147646	0.55521	0.03050	-0.74259	0.08363	0.07583	0.03138
147157	0.80885	0.04367	-1.69969	0.08645	0.11575	0.04608
147154	1.07751	0.06398	-1.92931	0.08069	0.14707	0.05344
147161	1.05212	0.05784	-1.26595	0.06558	0.14869	0.03995
147162	0.55242	0.03146	-1.12446	0.10284	0.09583	0.03984
147164	0.75569	0.04357	-1.62923	0.10388	0.14419	0.05355
147171	0.72232	0.03643	-1.63870	0.07728	0.08128	0.03535
147172	1.11539	0.05434	-1.00958	0.04634	0.09630	0.02749
147174	0.78445	0.04497	-0.39731	0.06450	0.12405	0.02960

Table H-24. 2011–12 NECAP: IRT Parameters for Polytomous Items—Reading Grade 7

IREF	Parameters and Measures of Standard Error															
	a	SE (a)	b	SE (b)	c	SE (c)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)	D3	SE (D3)	D4	SE (D4)
147606	0.99140	0.00534	-0.03879	0.00484	0	0	2.02822	0.01068	0.91187	0.00712	-0.80475	0.00647	-2.13535	0.00970	0	0
129219	1.05255	0.00570	-0.11968	0.00449	0	0	1.86633	0.01011	0.61739	0.00651	-0.63018	0.00599	-1.85355	0.00813	0	0
129218	1.12435	0.00615	0.41786	0.00425	0	0	1.76710	0.00756	0.68489	0.00576	-0.52784	0.00613	-1.92416	0.01056	0	0
173106	1.12150	0.00617	0.09236	0.00442	0	0	2.45797	0.01214	0.69900	0.00616	-0.97753	0.00633	-2.17944	0.01016	0	0
173107	1.12240	0.00622	0.48037	0.00442	0	0	2.41389	0.00973	0.53699	0.00573	-0.94991	0.00700	-2.00097	0.01141	0	0
118532	0.95732	0.00510	0.15095	0.00495	0	0	2.16911	0.01058	0.77957	0.00680	-0.77623	0.00680	-2.17245	0.01090	0	0
147555	0.85314	0.01366	-0.50046	0.01675	0	0	2.57128	0.05248	0.90735	0.02624	-0.96619	0.02107	-2.51244	0.03012	0	0
173293	0.89304	0.01527	0.13766	0.01569	0	0	1.29159	0.02383	0.63656	0.02074	-0.32563	0.02018	-1.60251	0.02669	0	0
173286	1.04850	0.01696	0.05056	0.01377	0	0	2.14777	0.03135	0.78099	0.01954	-0.82236	0.01917	-2.10640	0.02965	0	0
147649	0.97810	0.01574	-0.14528	0.01449	0	0	2.17643	0.03582	0.62159	0.02047	-0.79098	0.01929	-2.00703	0.02685	0	0
147179	1.11591	0.01826	0.11232	0.01273	0	0	1.70194	0.02455	0.58381	0.01773	-0.59478	0.01774	-1.69098	0.02473	0	0
147181	1.15201	0.01911	0.56449	0.01259	0	0	1.80357	0.02128	0.64377	0.01672	-0.71737	0.01993	-1.72996	0.03110	0	0

Table H-25. 2011–12 NECAP: IRT Parameters for Dichotomous Items—Reading Grade 8

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
118742	0.35874	0.01509	-0.72934	0.14974	0.15864	0.04029
172733	0.71856	0.01350	-2.45141	0.03057	0	0
172329	0.78298	0.01554	-1.24352	0.03791	0.09355	0.02136
172331	0.49102	0.01546	0.38517	0.04925	0.13448	0.01625
172338	0.44826	0.01132	-1.38397	0.08242	0.08141	0.03081
172332	0.62773	0.01277	-1.15054	0.04476	0.06866	0.02146
147318	0.91167	0.01870	-0.49797	0.02616	0.21338	0.01316
147319	0.66745	0.01518	0.12301	0.02877	0.12866	0.01180
147322	0.38843	0.00683	-1.07404	0.02201	0	0
147332	0.74795	0.01576	-0.86677	0.03764	0.13147	0.01895
147324	0.76095	0.01583	-0.97298	0.03799	0.12472	0.01978
147334	0.60884	0.00933	-1.60726	0.02021	0	0
147340	0.71301	0.01692	0.76862	0.02027	0.14438	0.00792
147333	0.59168	0.00939	-1.73963	0.02227	0	0
172379	0.82448	0.01305	-1.90878	0.01975	0	0
172383	0.55101	0.01210	-0.31948	0.03880	0.05637	0.01542
172385	0.66018	0.00956	-1.43991	0.01726	0	0
172388	0.74455	0.01421	-1.19520	0.03620	0.07139	0.01963
172400	0.31992	0.01847	0.66651	0.13260	0.17626	0.03009
172401	0.25300	0.00749	-3.52777	0.08991	0	0
172406	0.64676	0.01292	-0.15417	0.02777	0.05891	0.01199
172403	0.43804	0.01178	-0.85248	0.07610	0.07818	0.02649
172743	0.54150	0.01111	-2.73105	0.04167	0	0
147616	0.50791	0.01399	-1.04617	0.07870	0.12512	0.03061
118706	0.57292	0.01468	-1.30642	0.07290	0.13541	0.03218
118704	0.56983	0.01289	-1.00637	0.05373	0.08228	0.02346
118707	0.45862	0.01280	-0.05366	0.05494	0.07234	0.01865
118708	0.55287	0.01573	0.36970	0.03961	0.14935	0.01394

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
147611	0.59107	0.03949	-0.43797	0.11802	0.15841	0.04492
172734	0.65624	0.05246	-0.06824	0.11876	0.29832	0.04038
172356	0.61292	0.03557	-0.96595	0.11213	0.12894	0.04690
172361	0.77954	0.04987	-0.71845	0.10171	0.22904	0.04576
172359	0.57464	0.04507	-1.08175	0.19753	0.27932	0.07050
172353	0.85332	0.04628	-1.59903	0.09086	0.13299	0.05040
172653	0.58420	0.03789	-0.11215	0.09761	0.12547	0.03652
172658	0.35103	0.02588	-1.23933	0.21709	0.13260	0.05748
172666	0.68244	0.04408	-0.52304	0.10537	0.18628	0.04380
172675	0.61995	0.04167	0.36526	0.07728	0.12672	0.02882
172678	0.64211	0.03832	-1.08655	0.11970	0.15145	0.05212
172697	0.73719	0.04633	0.01606	0.07405	0.17113	0.03061
172699	0.73451	0.05066	0.75225	0.05751	0.16818	0.02169
172700	0.68560	0.04668	0.50651	0.06782	0.15704	0.02579
147600	0.56252	0.03156	-1.13824	0.11149	0.10660	0.04357
118749	0.29306	0.02383	-1.05323	0.24281	0.12191	0.05402
172442	0.76257	0.04401	-1.66932	0.11228	0.15301	0.05717
172446	0.45942	0.03152	-0.02753	0.11732	0.10002	0.03735
172451	0.96646	0.05765	-2.00234	0.09630	0.14467	0.05657
172450	0.85001	0.05060	-1.23657	0.10017	0.19362	0.05243
118618	0.65709	0.03978	-2.37009	0.12987	0.12119	0.05402
118619	0.52011	0.03371	-0.51886	0.12386	0.12431	0.04411
118620	0.57018	0.04349	0.37473	0.09886	0.16329	0.03430
118622	0.73300	0.03912	-1.75748	0.09564	0.10559	0.04487
118625	1.02941	0.05287	-1.67652	0.06517	0.08832	0.03594
118626	0.27654	0.01766	-0.51905	0.06807	0	0
118627	0.40982	0.01975	-0.54093	0.04787	0	0
118628	0.29235	0.03443	0.66303	0.26714	0.15207	0.05646

Table H-26. 2011–12 NECAP: IRT Parameters for Polytomous Items—Reading Grade 8

IREF	Parameters and Measures of Standard Error															
	a	SE (a)	b	SE (b)	c	SE (c)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)	D3	SE (D3)	D4	SE (D4)
172351	1.08015	0.00565	0.61732	0.00441	0	0	1.90086	0.00808	0.74223	0.00591	-0.68268	0.00648	-1.96042	0.01082	0	0
147351	0.98431	0.00517	0.76939	0.00477	0	0	1.80086	0.00773	0.74505	0.00620	-0.53491	0.00687	-2.01100	0.01231	0	0
147346	1.18170	0.00623	0.14834	0.00406	0	0	1.77222	0.00906	0.70748	0.00603	-0.59309	0.00553	-1.88661	0.00803	0	0
172414	1.16064	0.00610	0.28348	0.00412	0	0	1.76634	0.00852	0.71825	0.00593	-0.57736	0.00568	-1.90723	0.00869	0	0
172416	1.11462	0.00586	0.35607	0.00438	0	0	2.36403	0.01128	0.70113	0.00603	-0.87423	0.00627	-2.19093	0.01057	0	0
118711	0.96750	0.00502	-0.12282	0.00495	0	0	2.28626	0.01427	0.88564	0.00772	-0.87641	0.00638	-2.29549	0.00926	0	0
172373	1.03684	0.01608	0.20091	0.01376	0	0	2.12269	0.03162	0.78034	0.01960	-0.66215	0.01859	-2.24087	0.03096	0	0
172704	1.15799	0.01828	0.28421	0.01254	0	0	2.23271	0.03119	0.63116	0.01755	-0.78915	0.01791	-2.07472	0.02866	0	0
172709	1.01079	0.01567	0.17310	0.01406	0	0	2.03639	0.03096	0.82244	0.02022	-0.73686	0.01902	-2.12196	0.02910	0	0
172468	1.06807	0.01668	0.40972	0.01334	0	0	1.97398	0.02717	0.67867	0.01820	-0.75911	0.01912	-1.89353	0.02846	0	0
118629	1.13938	0.01797	0.26157	0.01284	0	0	2.18764	0.03169	0.79745	0.01844	-0.77635	0.01796	-2.20874	0.03042	0	0
118630	1.05694	0.01646	0.13240	0.01347	0	0	2.00004	0.03132	0.72411	0.01948	-0.64216	0.01805	-2.08200	0.02751	0	0

Table H-27. 2011–12 NECAP: IRT Parameters for Dichotomous Items—Reading Grade 11

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
172854	0.58715	0.01856	-0.59828	0.06537	0.18552	0.02488
147900	0.38038	0.01444	0.05817	0.08225	0.07273	0.02383
172870	0.50100	0.01972	-0.22377	0.08211	0.22422	0.02569
172896	0.73377	0.02057	0.75021	0.02313	0.15421	0.00917
147423	0.88383	0.02195	-1.53947	0.04769	0.13854	0.02862
147433	0.69124	0.01192	-1.57690	0.02172	0	0
147435	0.51731	0.00908	-0.98842	0.02017	0	0
147439	0.75062	0.01327	-1.74701	0.02250	0	0
147450	0.49887	0.02381	1.24771	0.04584	0.21822	0.01403
147456	0.60895	0.01497	-0.82931	0.04839	0.07381	0.02099
147463	0.51897	0.00968	-1.49656	0.02596	0	0
147473	0.49125	0.01324	-0.66899	0.05877	0.06197	0.02158
172420	0.70031	0.02002	-0.40456	0.04587	0.21792	0.01866
172424	0.65705	0.01711	-0.75935	0.04912	0.11680	0.02182
172427	0.44360	0.01280	-0.79308	0.07228	0.06650	0.02478
172434	0.62800	0.01155	-1.78406	0.02609	0	0

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
144031	0.45581	0.01863	0.44378	0.06542	0.13963	0.02030
144033	0.87119	0.01661	-0.93046	0.02517	0.04516	0.01313
144035	0.44209	0.00856	-1.12394	0.02464	0	0
144037	0.65199	0.02038	0.63325	0.03136	0.17780	0.01163
172827	0.70384	0.01922	-0.30715	0.04089	0.18293	0.01705
172832	0.48735	0.01248	-0.66293	0.05381	0.05232	0.01956
172833	0.65674	0.01025	-0.87031	0.01564	0	0
172834	0.52151	0.01251	-1.36544	0.05951	0.05949	0.02413
172838	0.87469	0.01798	-1.14752	0.03087	0.06410	0.01716
172839	0.63794	0.01909	0.27633	0.03684	0.16566	0.01393
172840	0.79019	0.01824	-0.65441	0.03413	0.11436	0.01673
172844	0.64001	0.02530	0.96358	0.03571	0.29296	0.01135
147908	0.41672	0.03574	-0.04563	0.16410	0.12524	0.04718
147926	0.40959	0.03959	-0.42798	0.23553	0.18980	0.06473
147735	0.93283	0.05681	-1.64402	0.09410	0.14404	0.05307
147736	1.04812	0.06295	-1.61948	0.07986	0.13001	0.04763

continued

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
147747	0.67695	0.04118	-0.61093	0.09247	0.11388	0.03857
147766	0.82501	0.04509	-0.71326	0.07003	0.09886	0.03284
147749	0.58066	0.03353	0.04819	0.06705	0.05864	0.02328
147753	0.59860	0.03338	-1.03409	0.09288	0.08201	0.03510
147764	1.07559	0.06285	0.09773	0.04485	0.15731	0.02173
147767	0.74036	0.04753	-0.64565	0.09715	0.15385	0.04271
147381	0.75529	0.05340	0.29753	0.07020	0.16553	0.02814
147382	0.69342	0.03854	-0.42848	0.07171	0.08039	0.02926
147383	0.63235	0.03557	-0.46760	0.07775	0.07662	0.02991
147385	0.86988	0.04830	-0.37785	0.06071	0.10322	0.02831
172855	0.74323	0.06349	0.47156	0.08526	0.27548	0.03071
147929	0.50525	0.03891	-0.73979	0.16644	0.15798	0.05669

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
172354	0.77000	0.04510	-1.29751	0.09691	0.12020	0.04606
172355	0.57455	0.04098	0.23628	0.08757	0.09971	0.03157
172358	0.44887	0.04345	0.33136	0.15586	0.14993	0.04641
172366	1.00272	0.06258	-1.13335	0.08444	0.17482	0.04678
172360	0.47195	0.03355	-0.28167	0.12235	0.09766	0.03925
172363	0.41502	0.02966	-0.01713	0.11257	0.07461	0.03223
172372	1.06146	0.06001	-1.08460	0.06617	0.11989	0.03710
172375	0.64838	0.05071	0.08568	0.10161	0.18448	0.03802
118874	0.67833	0.04138	-1.55906	0.11821	0.12674	0.05219
118876	0.47470	0.03097	-0.79472	0.12386	0.09295	0.04005
118878	0.61969	0.03432	-0.43486	0.07304	0.06659	0.02718
118880	0.83674	0.04274	-0.50191	0.05543	0.06901	0.02462

Table H-28. 2011–12 NECAP: IRT Parameters for Polytomous Items—Reading Grade 11

IREF	Parameters and Measures of Standard Error															
	a	SE (a)	b	SE (b)	c	SE (c)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)	D3	SE (D3)	D4	SE (D4)
147484	1.19386	0.00780	-0.28271	0.00490	0	0	1.83884	0.01438	0.77300	0.00877	-0.60491	0.00645	-2.00693	0.00814	0	0
147488	1.28791	0.00844	-0.13596	0.00459	0	0	1.78063	0.01265	0.76809	0.00801	-0.56696	0.00611	-1.98176	0.00823	0	0
172437	1.22496	0.00787	0.14215	0.00478	0	0	1.96382	0.01225	0.77583	0.00754	-0.71841	0.00645	-2.02125	0.00975	0	0
144040	1.17900	0.00754	0.41845	0.00491	0	0	1.66391	0.00954	0.82202	0.00720	-0.56711	0.00671	-1.91881	0.01084	0	0
172845	1.23062	0.00795	0.03610	0.00475	0	0	1.78854	0.01179	0.80940	0.00783	-0.62989	0.00632	-1.96806	0.00901	0	0
172846	1.14285	0.00724	0.46201	0.00500	0	0	1.74123	0.00982	0.70818	0.00709	-0.62365	0.00695	-1.82575	0.01065	0	0
147774	1.25563	0.02299	0.11128	0.01297	0	0	1.57417	0.02802	0.59495	0.02004	-0.48953	0.01766	-1.67958	0.02312	0	0
147775	1.32917	0.02444	0.36661	0.01261	0	0	1.86849	0.02793	0.72234	0.01899	-0.73119	0.01809	-1.85966	0.02775	0	0
147388	1.23630	0.02249	0.41437	0.01345	0	0	1.91287	0.02868	0.78642	0.01985	-0.71822	0.01909	-1.98108	0.03128	0	0
172378	1.19926	0.02164	0.48367	0.01359	0	0	1.66148	0.02608	0.70224	0.01931	-0.46926	0.01869	-1.89446	0.03132	0	0
172380	1.06280	0.01953	0.74647	0.01604	0	0	2.10765	0.02952	0.94958	0.02101	-1.13623	0.02590	-1.92101	0.03803	0	0
118883	1.03801	0.01840	0.65127	0.01560	0	0	2.04096	0.03014	0.78509	0.02099	-0.72262	0.02234	-2.10343	0.04024	0	0

Table H-29. 2011–12 NECAP: IRT Parameters for Dichotomous Items—Writing Grade 5

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
148136	0.54554	0.05297	-1.93432	0.24607	0.18536	0.07875
148272	0.66240	0.06006	-1.86152	0.19722	0.17321	0.07363
148179	0.66905	0.05653	-1.41162	0.17505	0.16857	0.06917
148028	0.53364	0.04849	-1.24020	0.20843	0.16238	0.06825
148113	0.65282	0.05584	-1.04834	0.17017	0.16729	0.06492
148042	0.75525	0.06698	-1.38024	0.17201	0.19136	0.07385
148319	0.47040	0.04987	-1.31651	0.29858	0.22008	0.08577
148312	0.82607	0.06772	-1.58021	0.14378	0.15372	0.06404
148239	0.75742	0.06375	-1.18968	0.14784	0.15975	0.06322
148266	0.40591	0.04891	-2.51039	0.40468	0.23490	0.09537

Table H-30. 2011–12 NECAP: IRT Parameters for Polytomous Items—Writing Grade 5

IREF	Parameters and Measures of Standard Error													
	a	SE (a)	b	SE (b)	c	SE (c)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)	D3	SE (D3)
150202	1.22752	0.03221	-0.11139	0.02426	0	0	2.84019	0.10801	0.74069	0.03323	-1.09681	0.03477	-2.48407	0.06938
150153	1.39388	0.03510	0.06872	0.02019	0	0	2.45031	0.06773	0.56148	0.02714	-0.80882	0.02970	-2.20297	0.06134
150157	1.03984	0.02550	0.37736	0.02663	0	0	3.05839	0.08211	0.62651	0.03209	-1.07996	0.04265	-2.60494	0.09911
150251	1.08904	0.02277	1.03172	0.02291	0	0	4.34993	0.13024	3.14668	0.05741	2.69732	0.04529	1.66725	0.03210

IREF	Parameters and Measures of Standard Error											
	D4	SE (D4)	D5	SE (D5)	D6	SE (D6)	D7	SE (D7)	D8	SE (D8)	D9	SE (D9)
150202	0.00000	0.00000										
150153	0.00000	0.00000										
150157	0.00000	0.00000										
150251	1.15517	0.03036	-0.08056	0.03643	-0.89237	0.05142	-2.02006	0.10638	-2.75529	0.19148	-3.34112	0.53731

IREF	Parameters and Measures of Standard Error			
	D10	SE (D10)	D11	SE (D11)
150202				
150153				
150157				
150251	-3.92696	0.00000	0	0

Table H-31. 2011–12 NECAP: IRT Parameters for Dichotomous Items—Writing Grade 8

IREF	Parameters and Measures of Standard Error					
	a	SE (a)	b	SE (b)	c	SE (c)
148565	0.81141	0.06931	-1.60250	0.16124	0.19193	0.07401
148677	0.84163	0.07272	-0.98742	0.14497	0.20930	0.06374
148705	0.96371	0.08788	-1.37780	0.16036	0.27423	0.07680
148778	0.57805	0.06748	-1.18966	0.28631	0.28751	0.09098
148609	0.45935	0.05173	-1.21629	0.32291	0.23402	0.08827
148759	0.54695	0.05924	-1.05854	0.26646	0.24026	0.08242
148869	0.50716	0.05143	-1.12728	0.25407	0.19886	0.07692
148465	0.67147	0.08367	-0.63469	0.22309	0.31119	0.07357
148518	0.60802	0.06537	-0.47393	0.20061	0.21090	0.06661
148459	0.72123	0.09474	0.02860	0.14994	0.26867	0.05182

Table H-32. 2011–12 NECAP: IRT Parameters for Polytomous Items—Writing Grade 8

IREF	Parameters and Measures of Standard Error													
	a	SE (a)	b	SE (b)	c	SE (c)	D0	SE (D0)	D1	SE (D1)	D2	SE (D2)	D3	SE (D3)
150790	1.03155	0.02571	-1.08291	0.02579	0	0	1.89693	0.09823	0.84558	0.05317	-0.72455	0.03260	-2.01796	0.03594
150435	1.41994	0.03437	-0.31217	0.01855	0	0	1.40465	0.04205	0.55456	0.02915	-0.43929	0.02528	-1.51992	0.03233
150847	1.46118	0.03610	-0.45350	0.01876	0	0	1.62631	0.05343	0.72102	0.03244	-0.51933	0.02508	-1.82800	0.03490
150788	1.39794	0.02952	0.32676	0.01802	0	0	2.96583	0.08082	2.45644	0.05513	2.13470	0.04485	1.48242	0.03247

IREF	Parameters and Measures of Standard Error											
	D4	SE (D4)	D5	SE (D5)	D6	SE (D6)	D7	SE (D7)	D8	SE (D8)	D9	SE (D9)
150790	0.00000	0.00000										
150435	0.00000	0.00000										
150847	0.00000	0.00000										
150788	1.01800	0.02813	-0.00143	0.02610	-0.49818	0.02852	-1.11973	0.03647	-1.98481	0.06376	-2.82120	0.13224

IREF	Parameters and Measures of Standard Error			
	D10	SE (D10)	D11	SE (D11)
150790				
150435				
150847				
150788	-3.63206	0.30449	0	0

APPENDIX I—TEST CHARACTERISTIC CURVES AND TEST INFORMATION FUNCTION PLOTS

Figure I-1. 2011–12 NECAP: Test Characteristic Curve Plot—Mathematics Grade 3

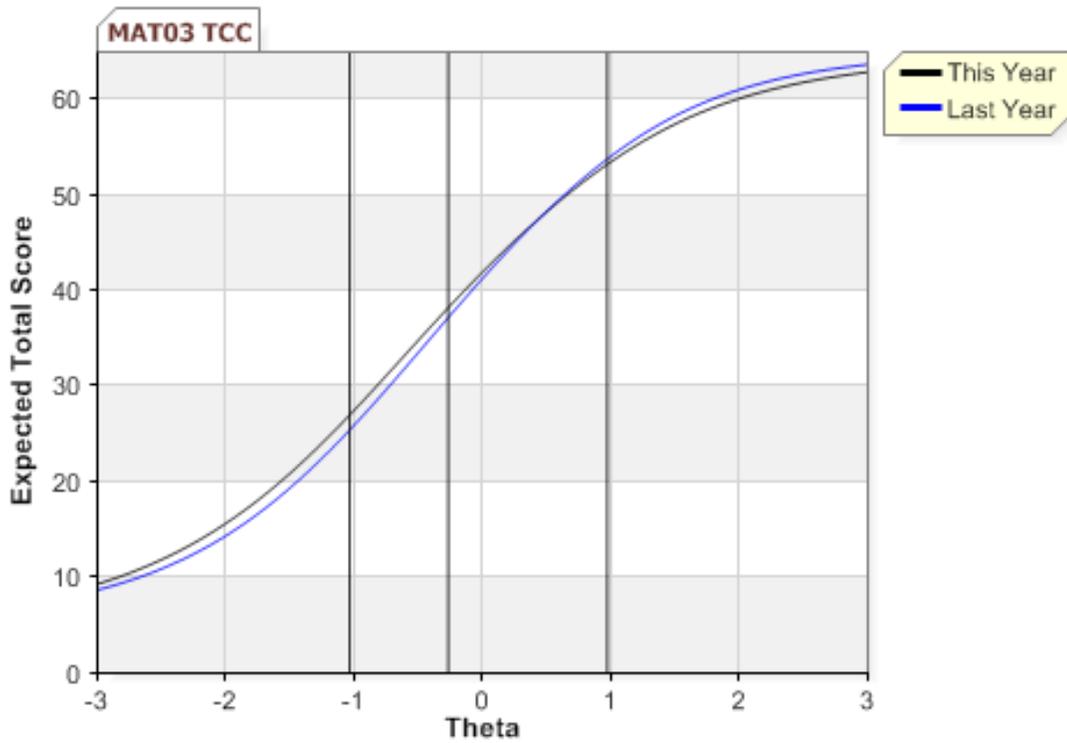


Figure I-2. 2011–12 NECAP: Test Information Function Plot—Mathematics Grade 3

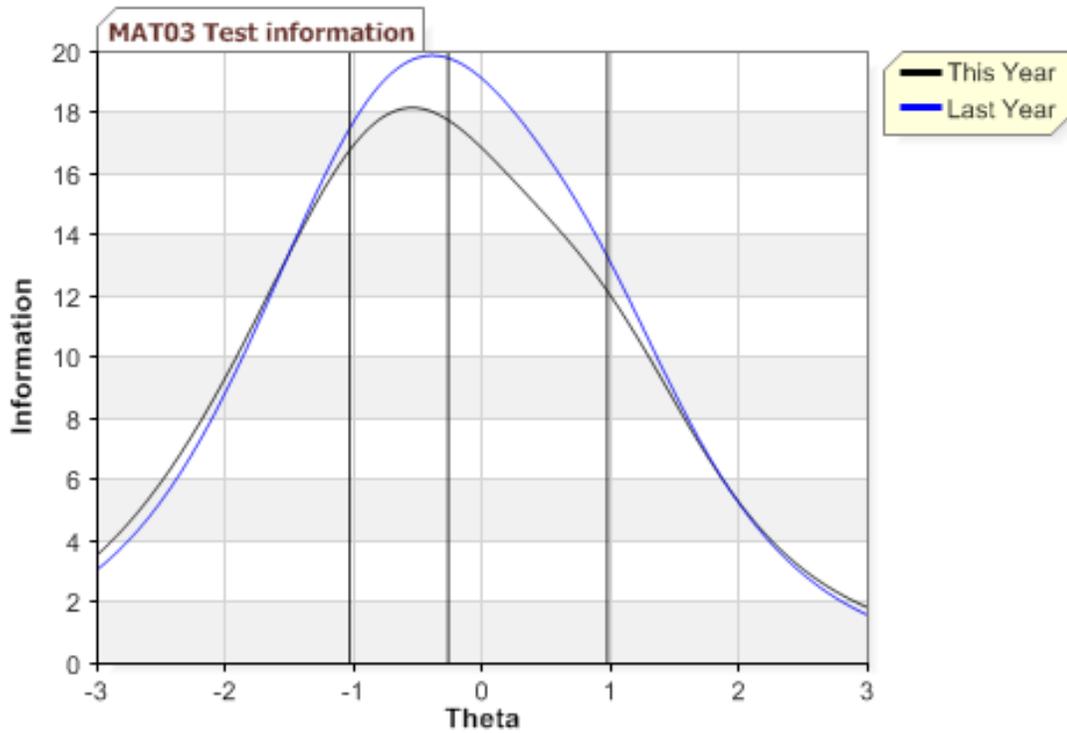


Figure I-3. 2011–12 NECAP: Test Characteristic Curve Plot—Mathematics Grade 4

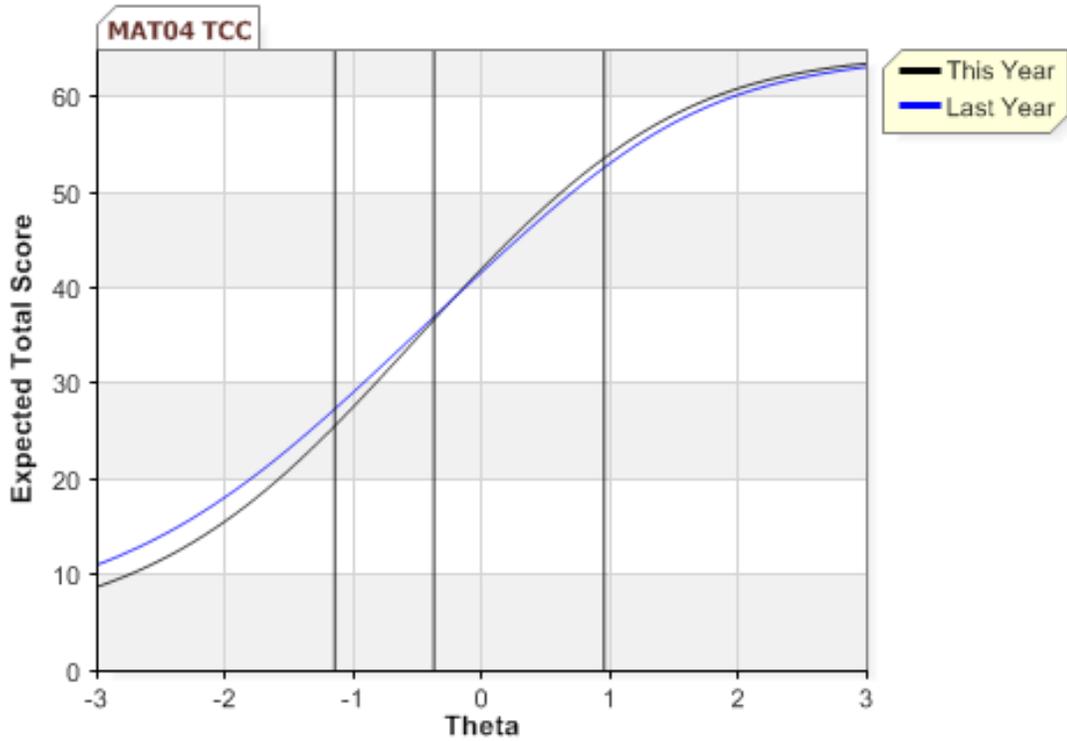


Figure I-4. 2011–12 NECAP: Test Information Function Plot—Mathematics Grade 4

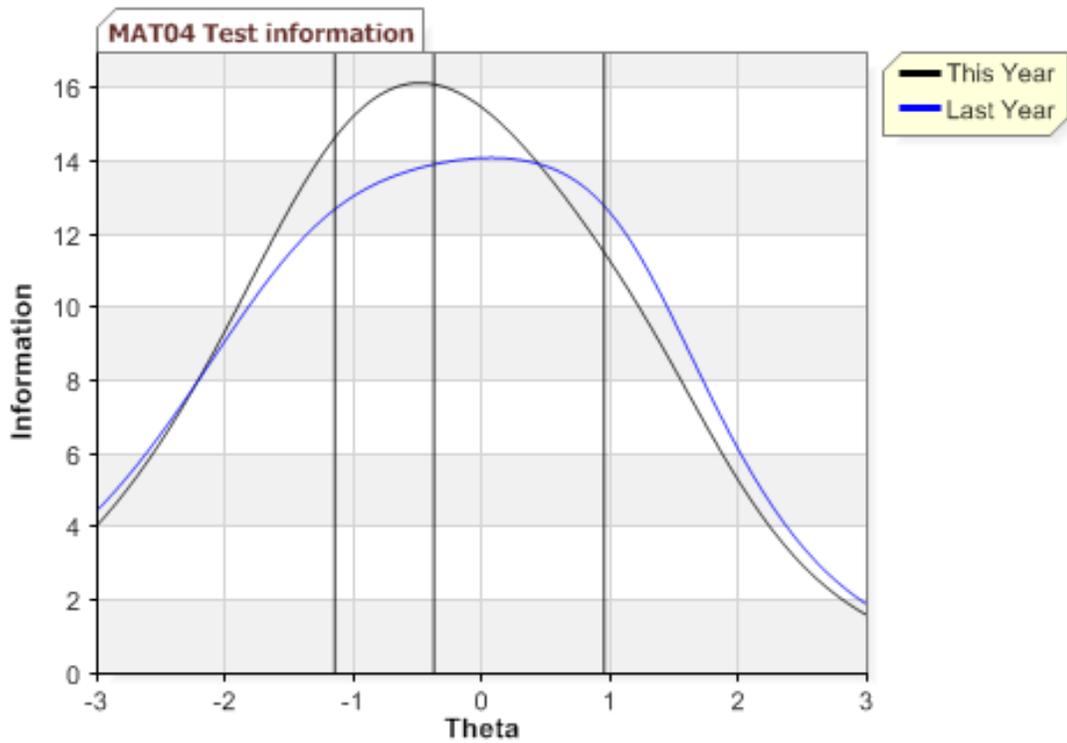


Figure I-5. 2011–12 NECAP: Test Characteristic Curve Plot—Mathematics Grade 5

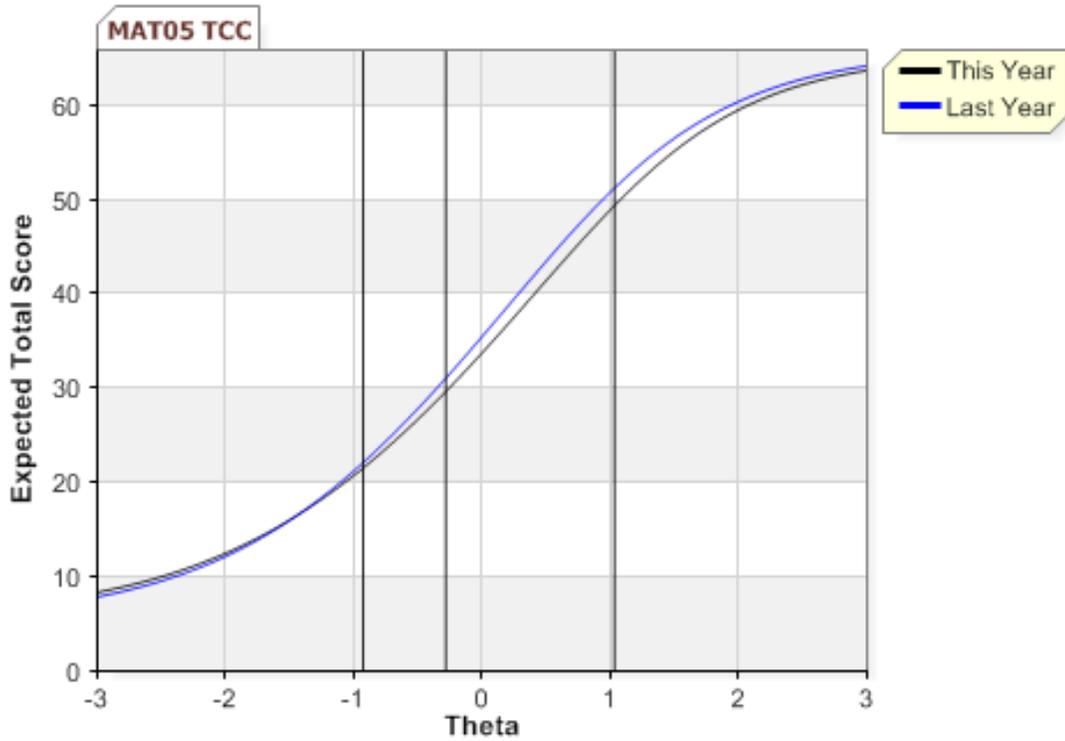


Figure I-6. 2011–12 NECAP: Test Information Function Plot—Mathematics Grade 5

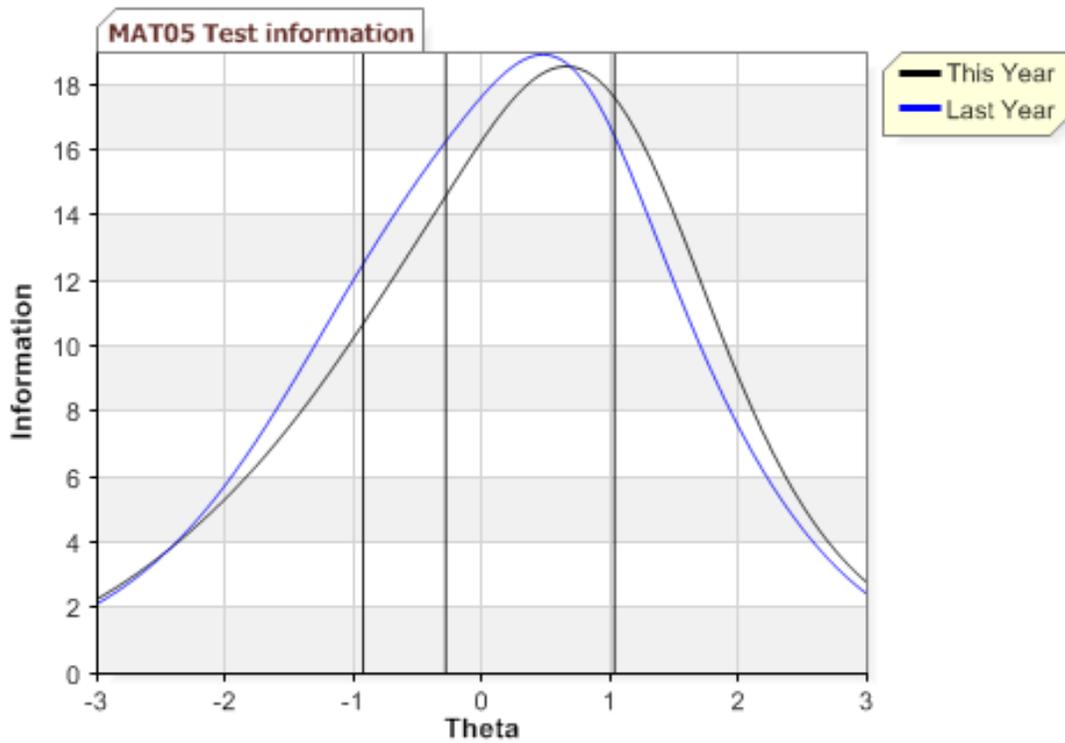


Figure I-7. 2011–12 NECAP: Test Characteristic Curve Plot—Mathematics Grade 6

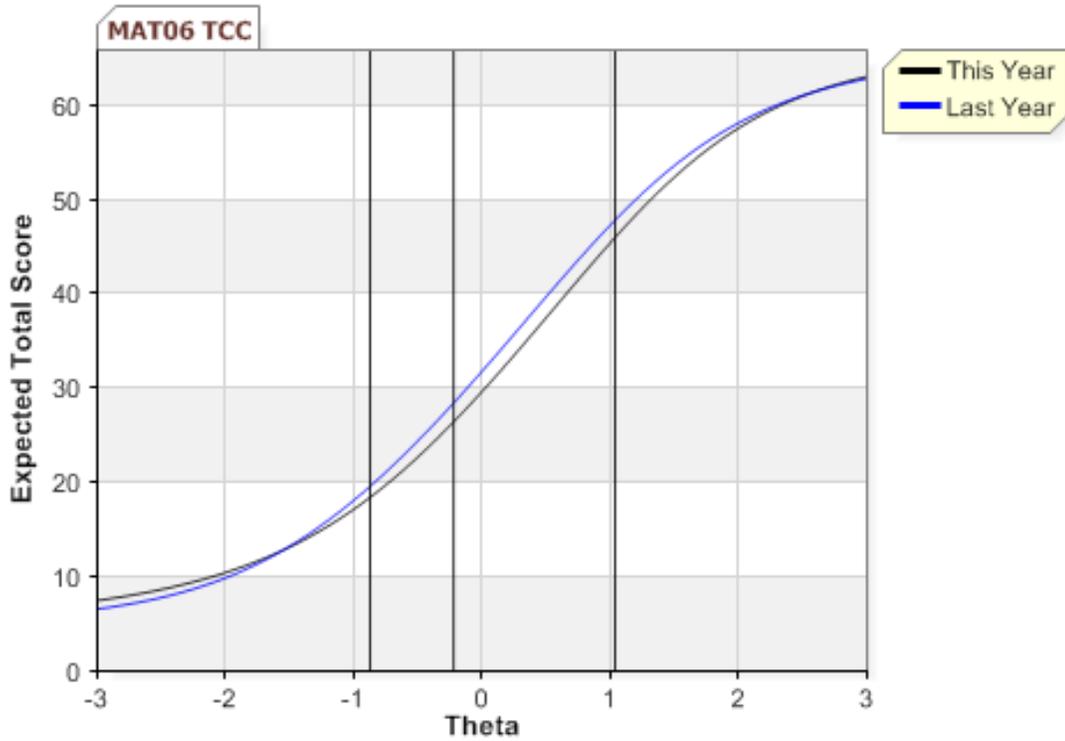


Figure I-8. 2011–12 NECAP: Test Information Function Plot—Mathematics Grade 6

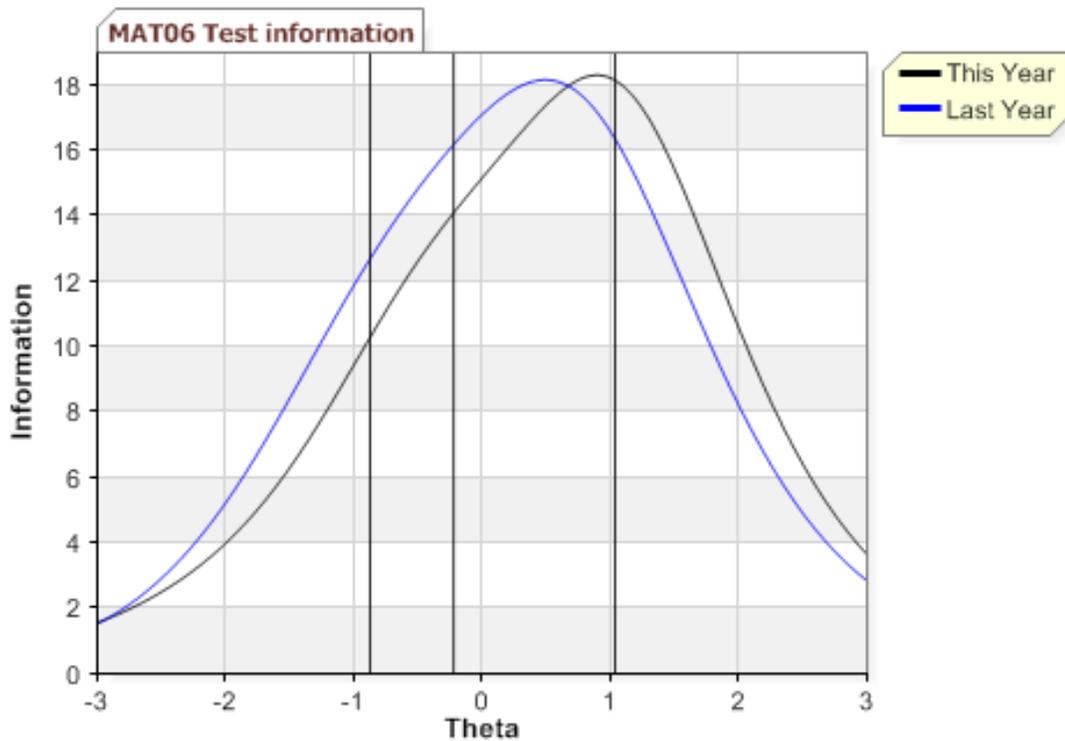


Figure I-9. 2011–12 NECAP: Test Characteristic Curve Plot—Mathematics Grade 7

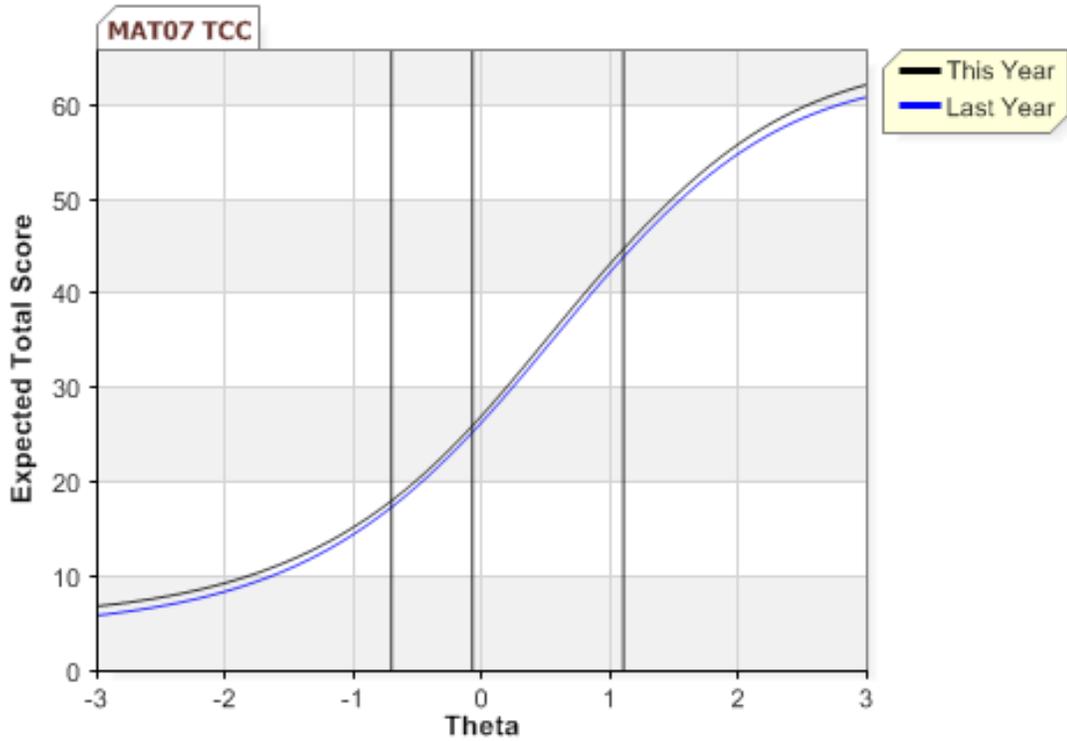


Figure I-10. 2011–12 NECAP: Test Information Function Plot—Mathematics Grade 7

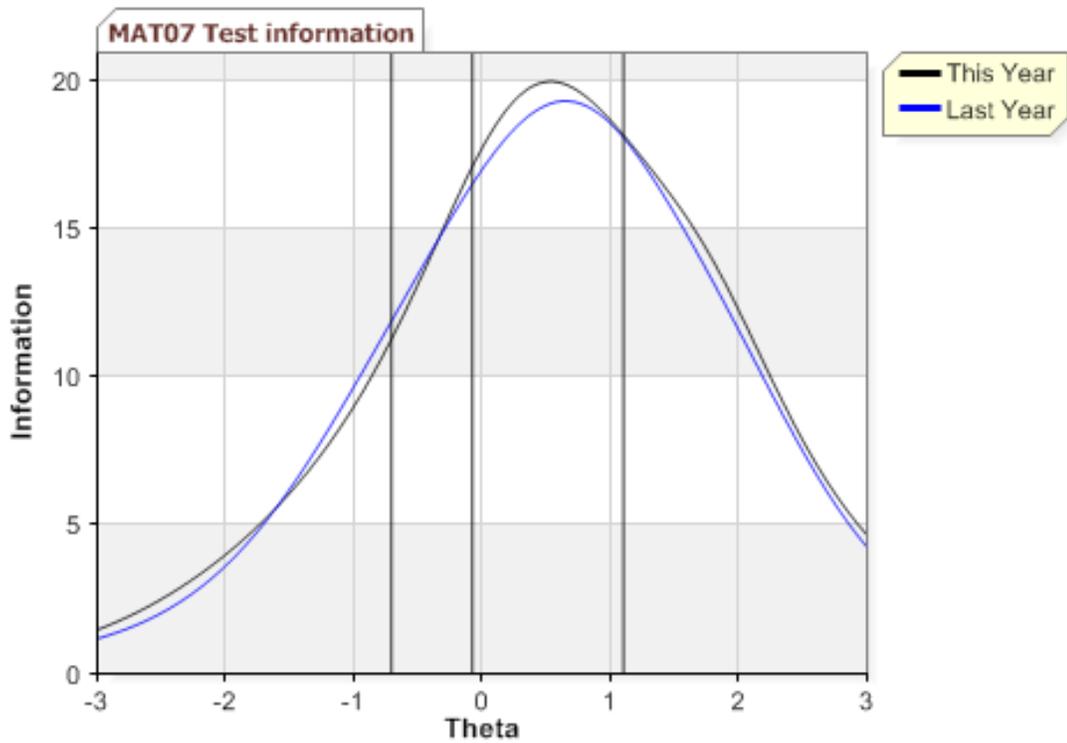


Figure I-11. 2011–12 NECAP: Test Characteristic Curve Plot—Mathematics Grade 8

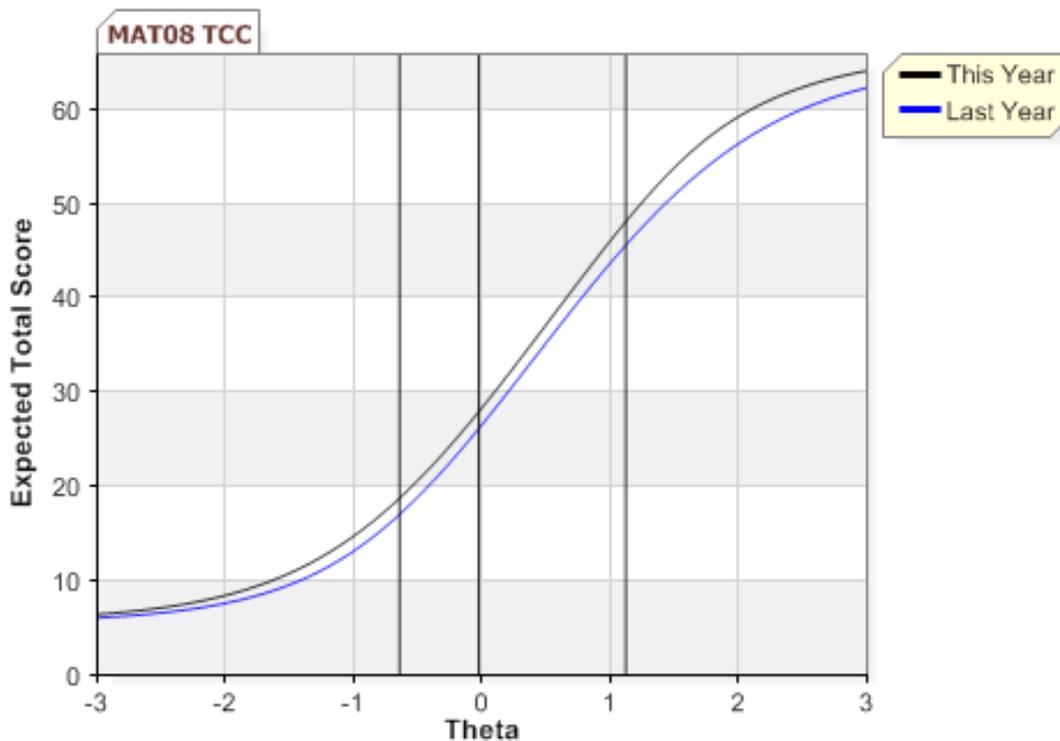


Figure I-12. 2011–12 NECAP: Test Information Function Plot—Mathematics Grade 8

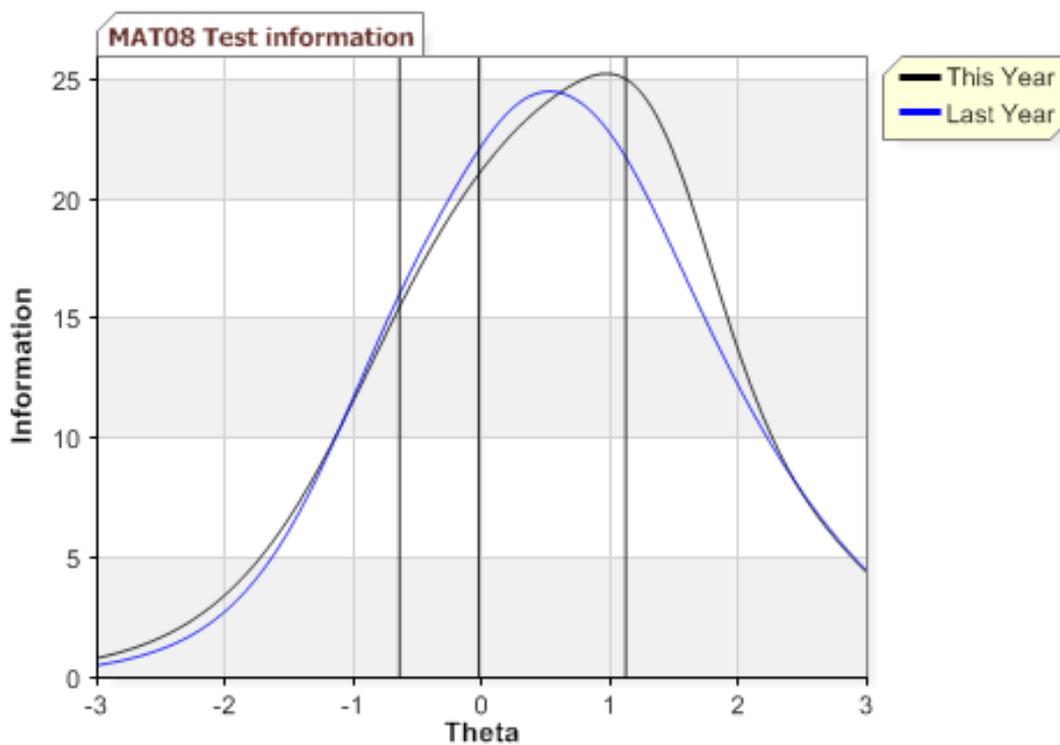


Figure I-13. 2011–12 NECAP: Test Characteristic Curve Plot—Mathematics Grade 11

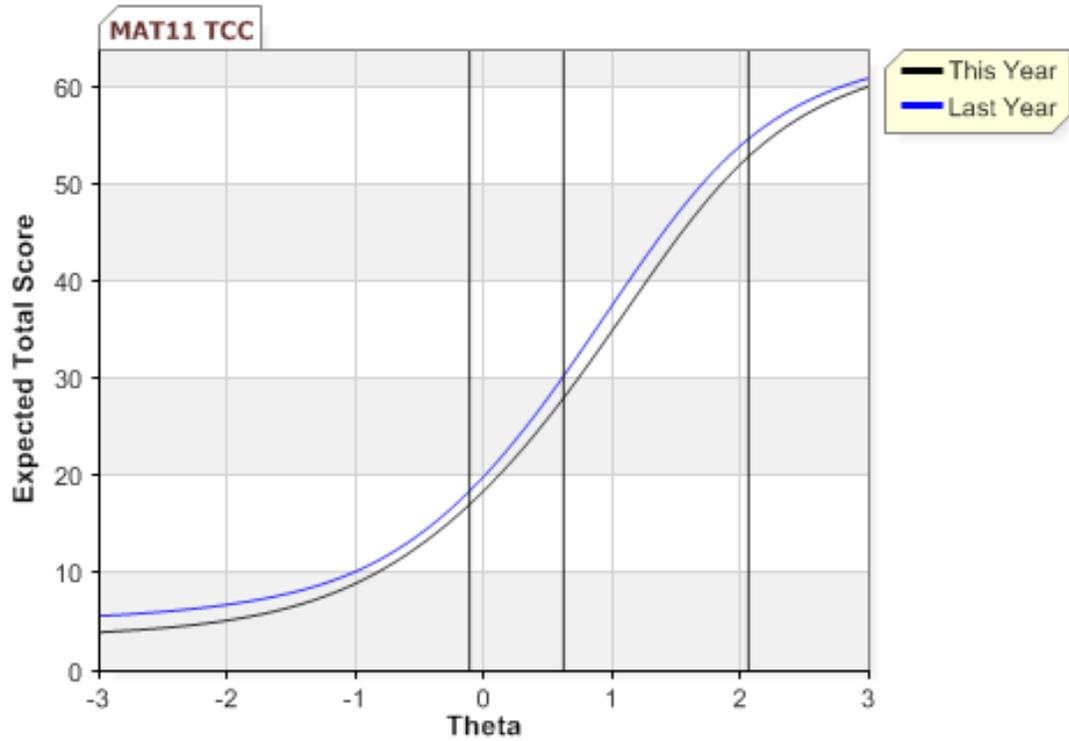


Figure I-14. 2011–12 NECAP: Test Information Function Plot—Mathematics Grade 11

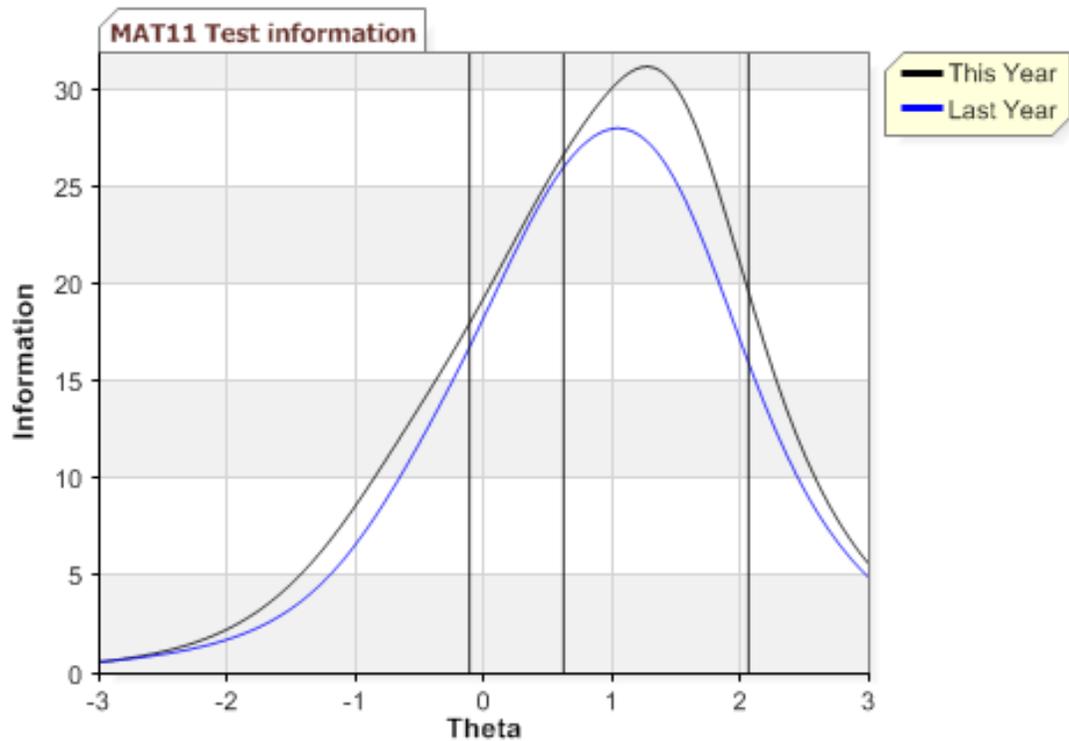


Figure I-15. 2011–12 NECAP: Test Characteristic Curve Plot—Reading Grade 3

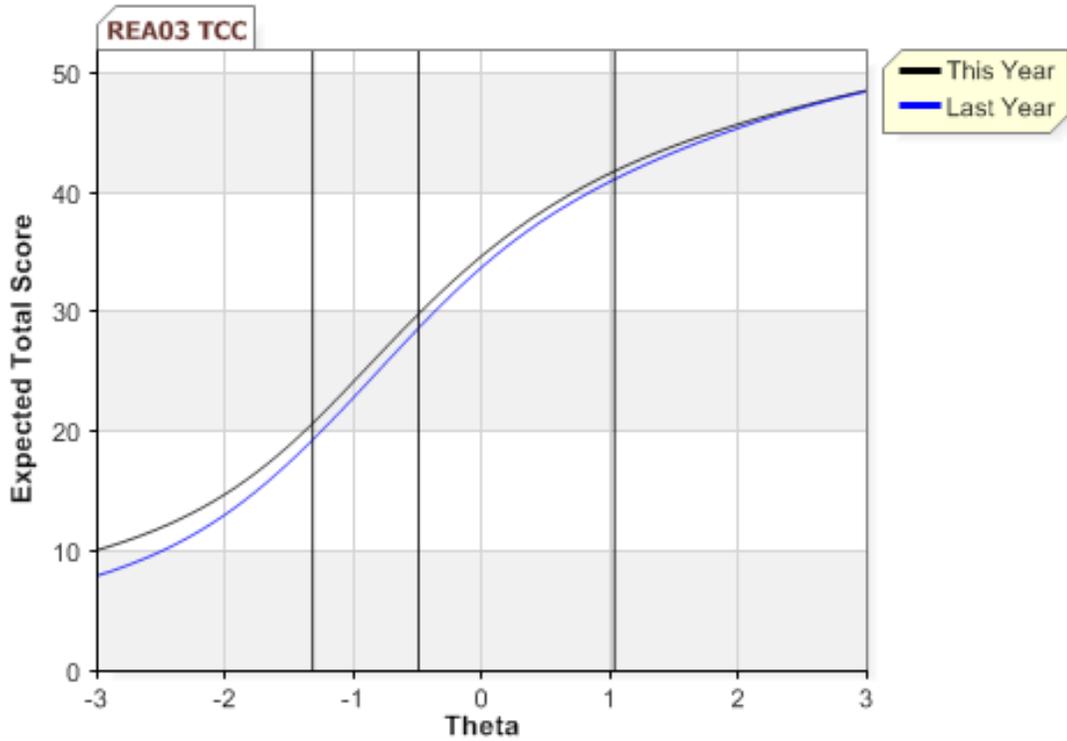


Figure I-16. 2011–12 NECAP: Test Information Function Plot—Reading Grade 3

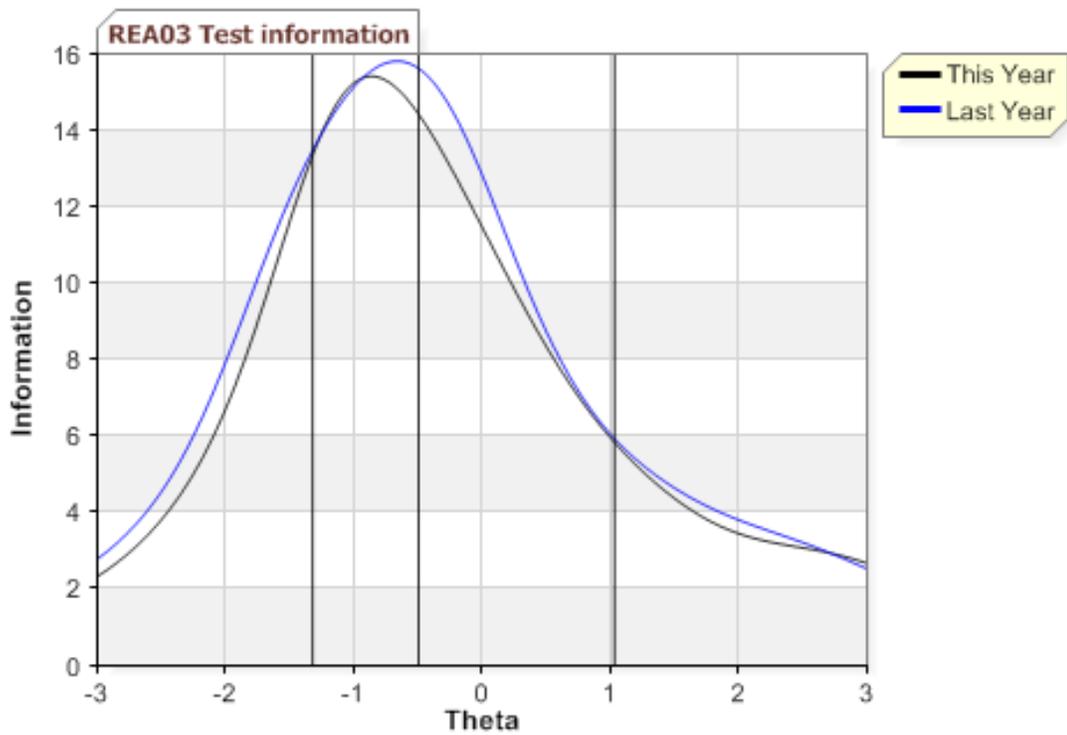


Figure I-17. 2011–12 NECAP: Test Characteristic Curve Plot—Reading Grade 4

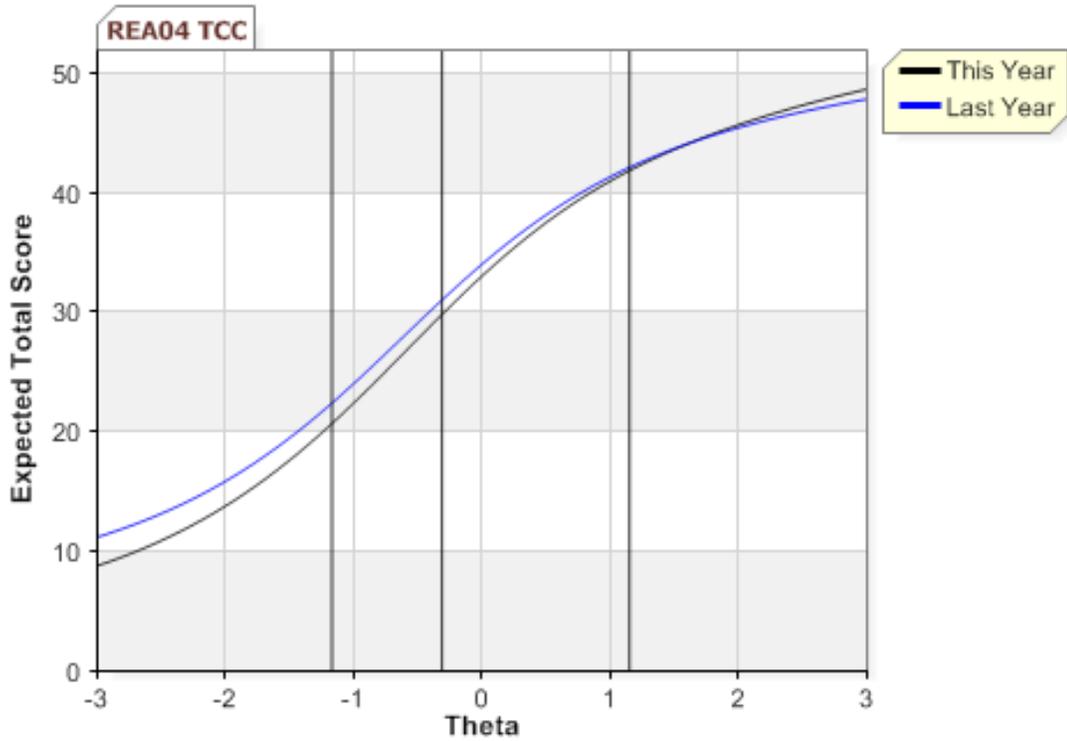


Figure I-18. 2011–12 NECAP: Test Information Function Plot—Reading Grade 4

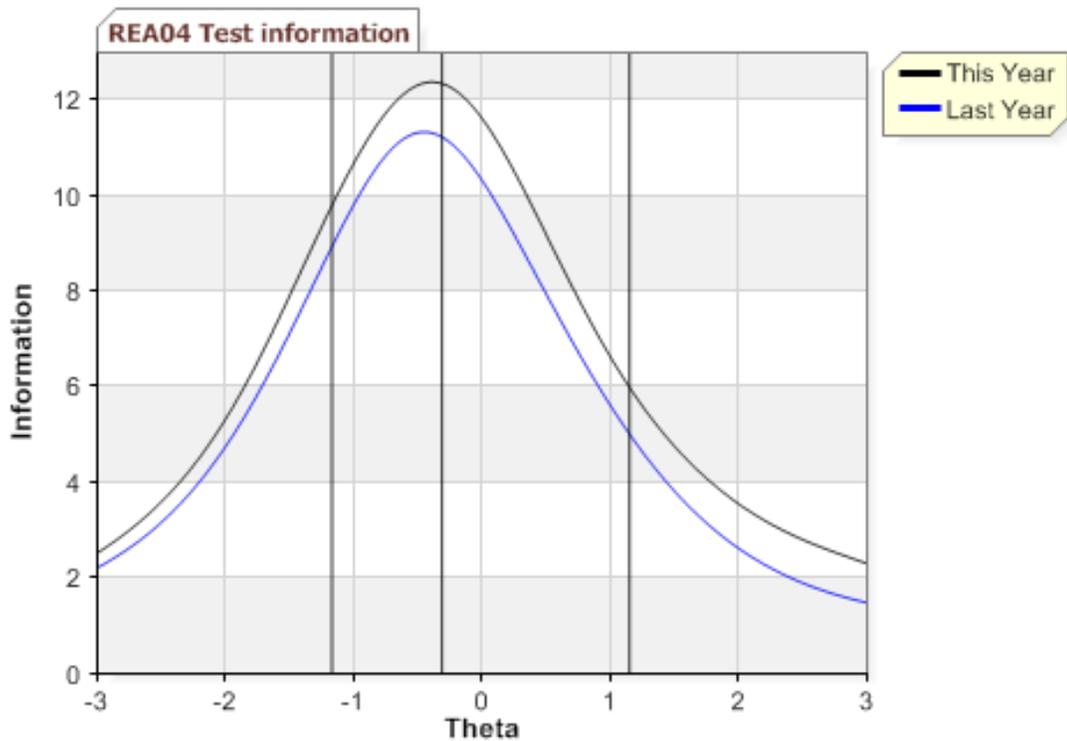


Figure I-19. 2011–12 NECAP: Test Characteristic Curve Plot—Reading Grade 5

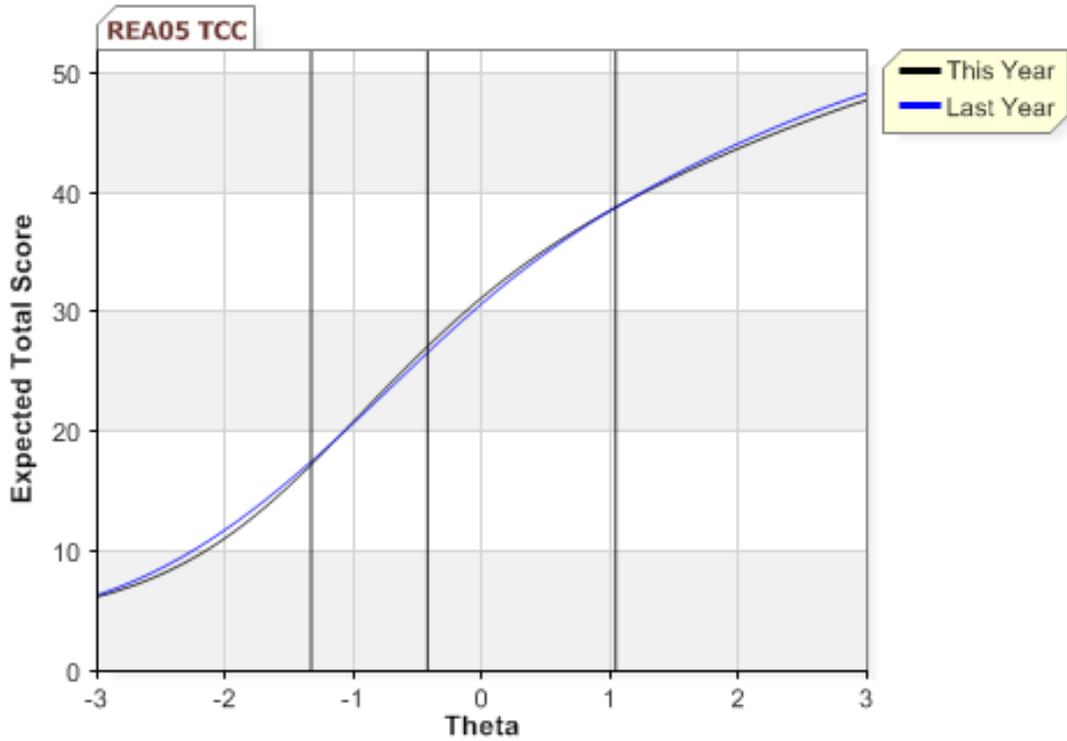


Figure I-20. 2011–12 NECAP: Test Information Function Plot—Reading Grade 5

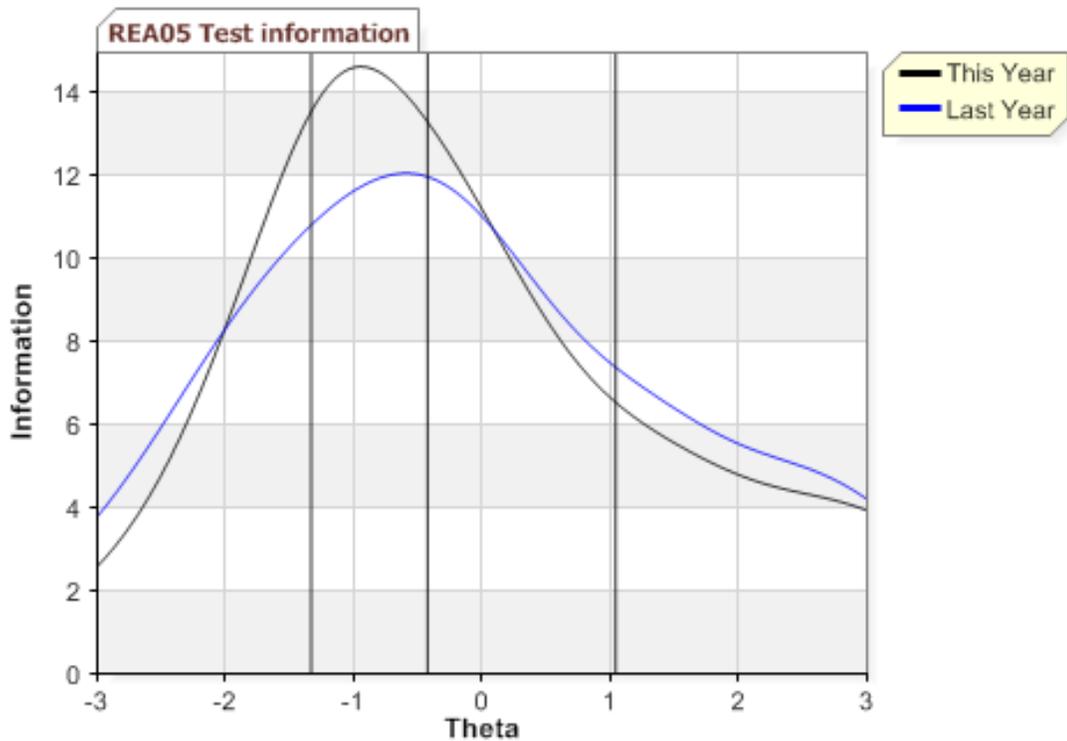


Figure I-21. 2011–12 NECAP: Test Characteristic Curve Plot—Reading Grade 6

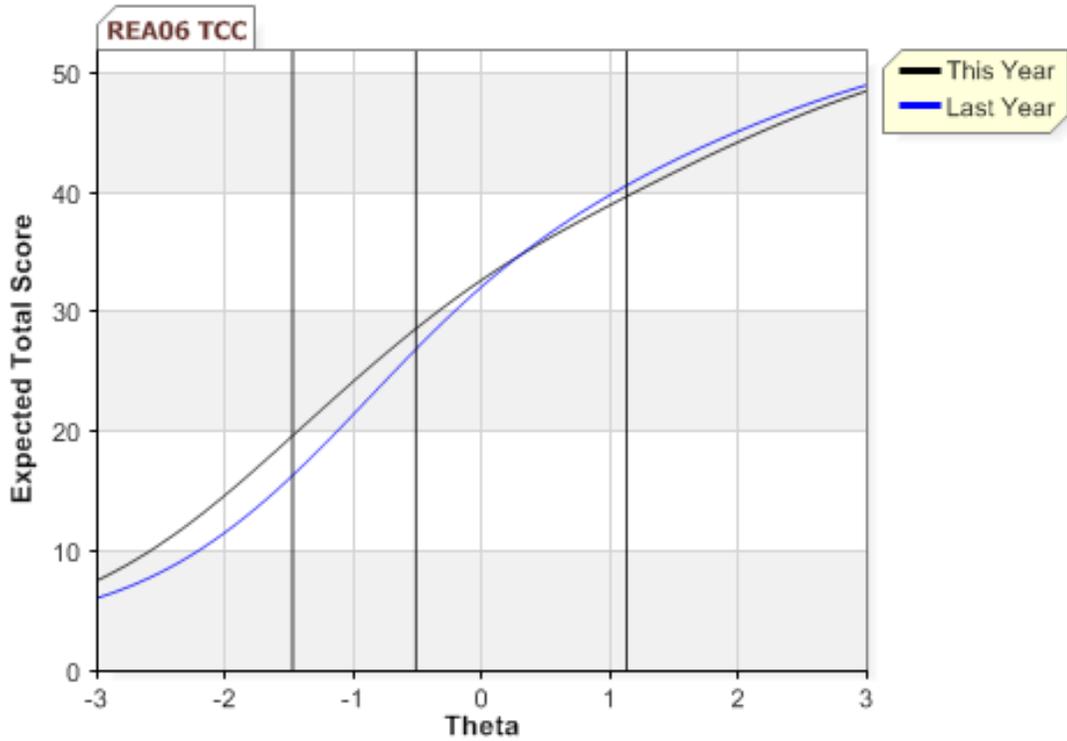


Figure I-22. 2011–12 NECAP: Test Information Function Plot—Reading Grade 6

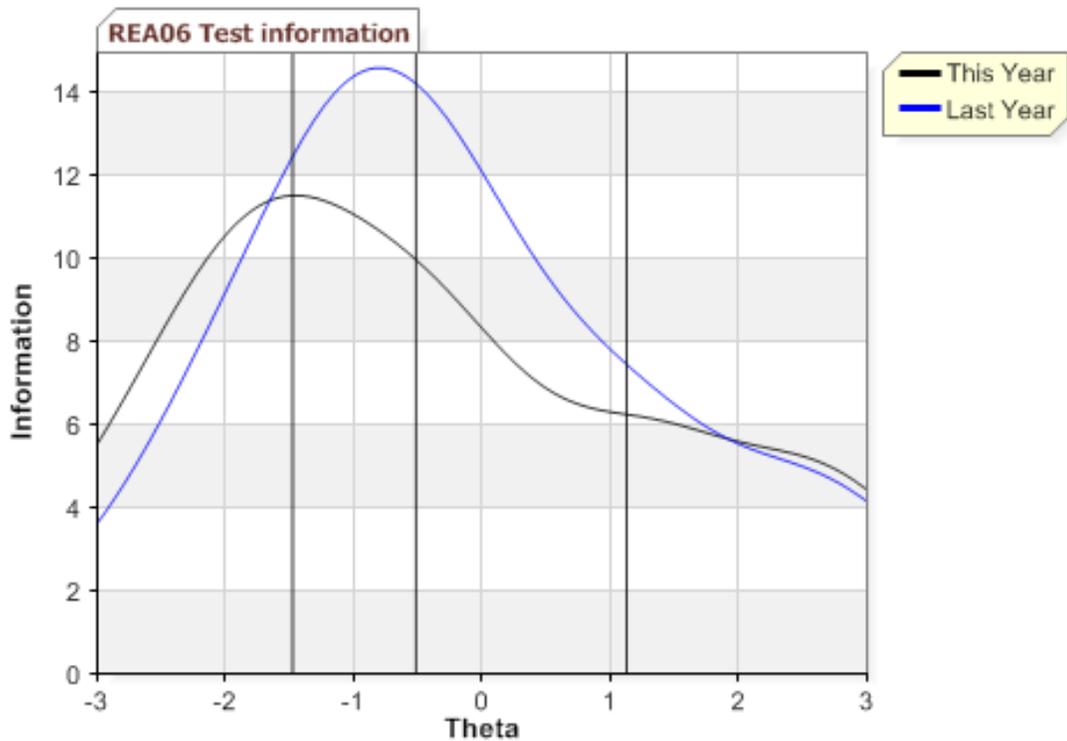


Figure I-23. 2011–12 NECAP: Test Characteristic Curve Plot—Reading Grade 7

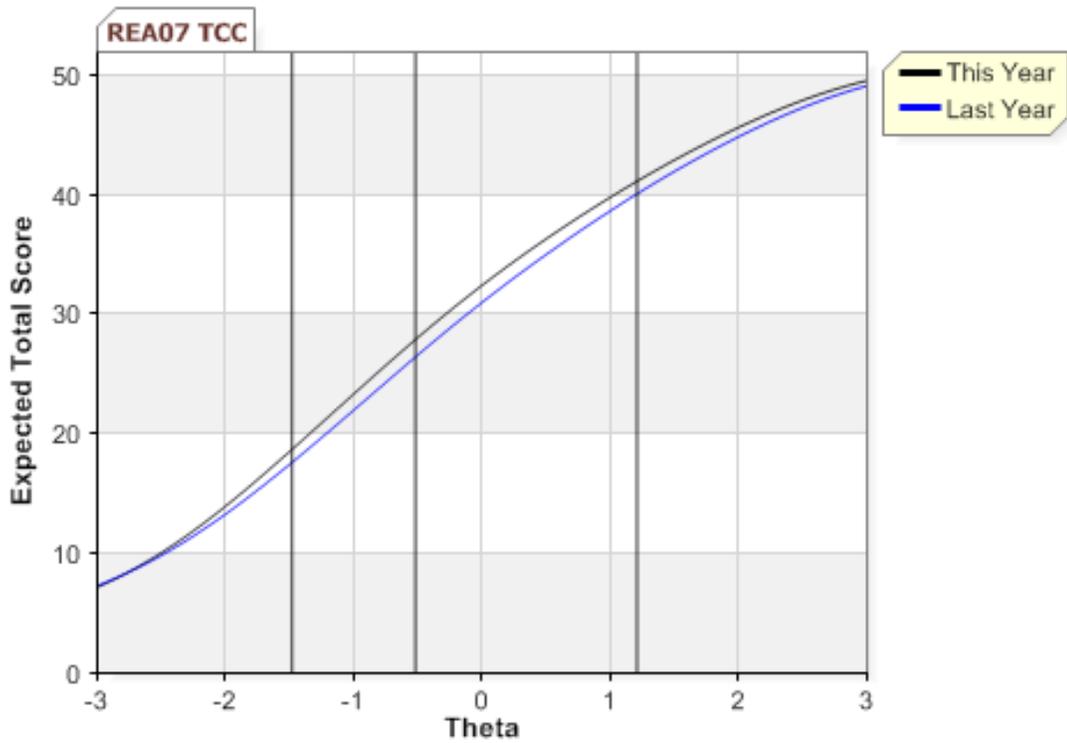


Figure I-24. 2011–12 NECAP: Test Information Function Plot—Reading Grade 7

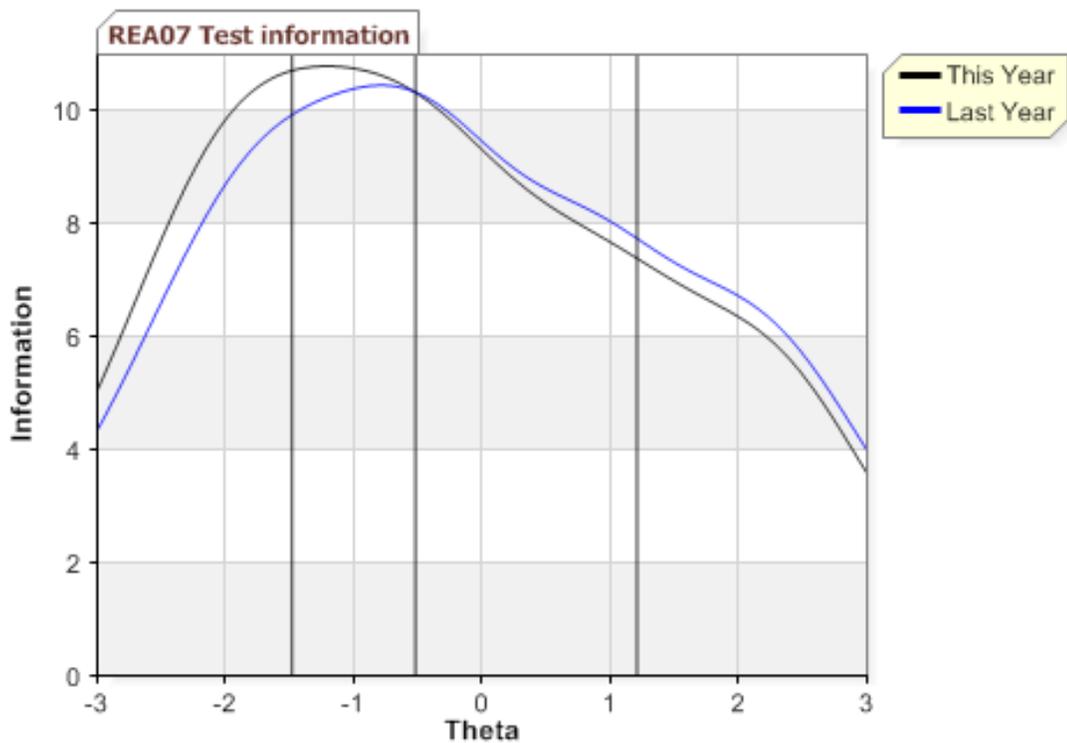


Figure I-25. 2011–12 NECAP: Test Characteristic Curve Plot—Reading Grade 8

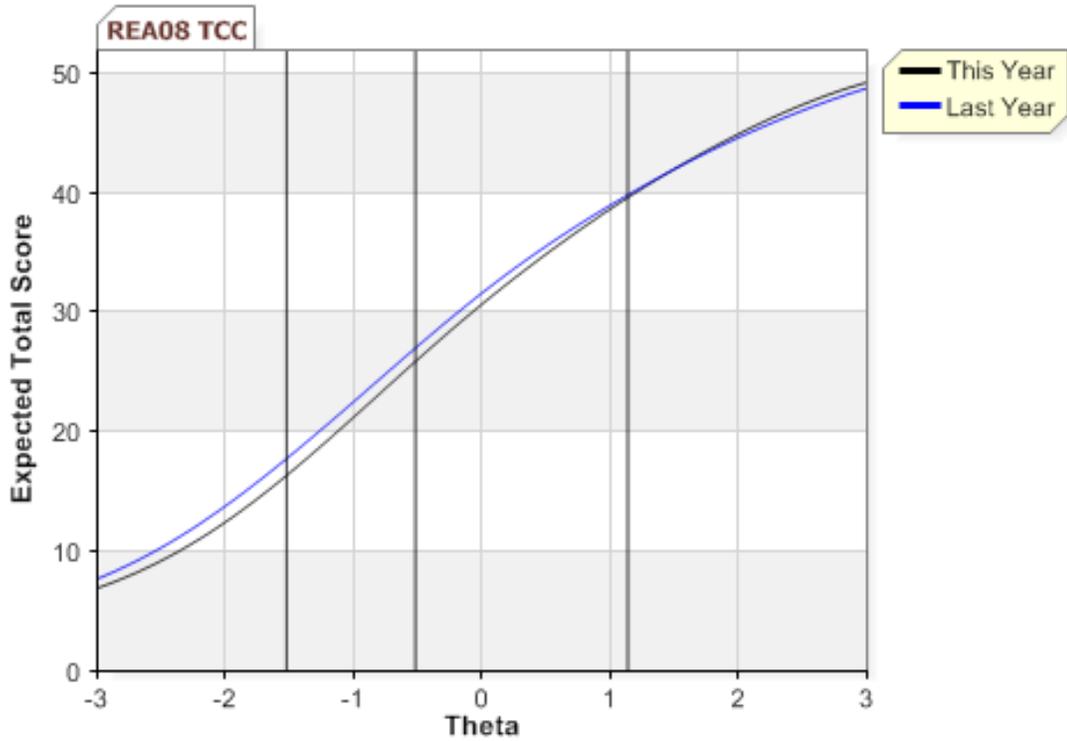


Figure I-26. 2011–12 NECAP: Test Information Function Plot—Reading Grade 8

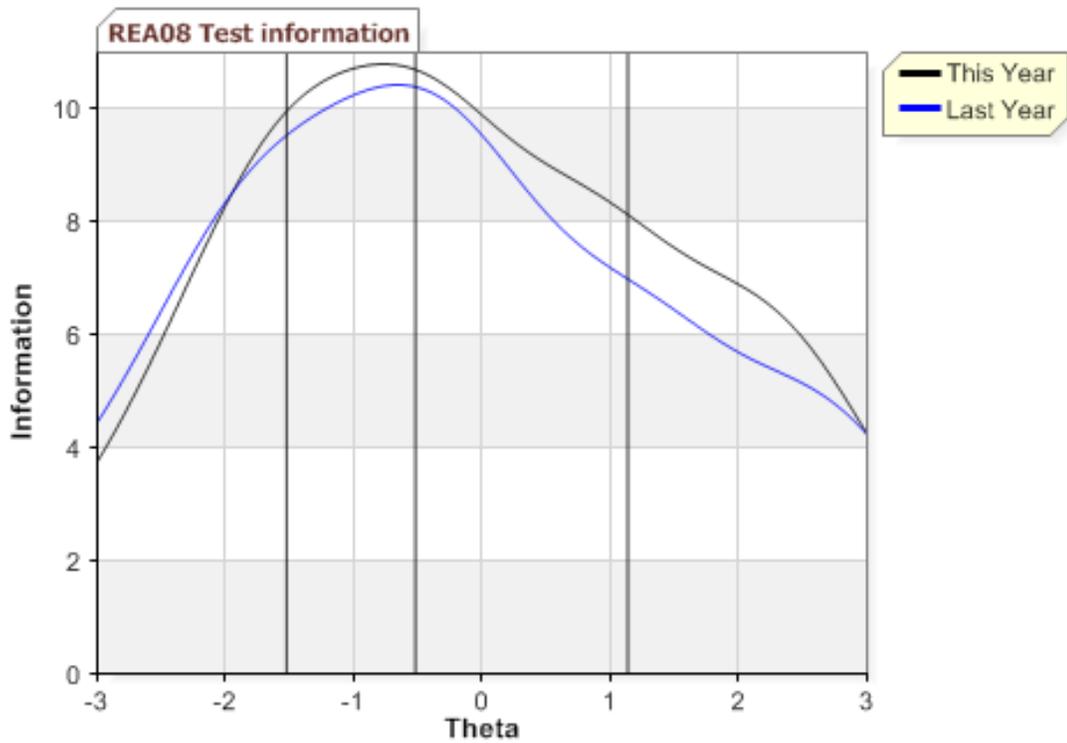


Figure I-27. 2011–12 NECAP: Test Characteristic Curve Plot—Reading Grade 11

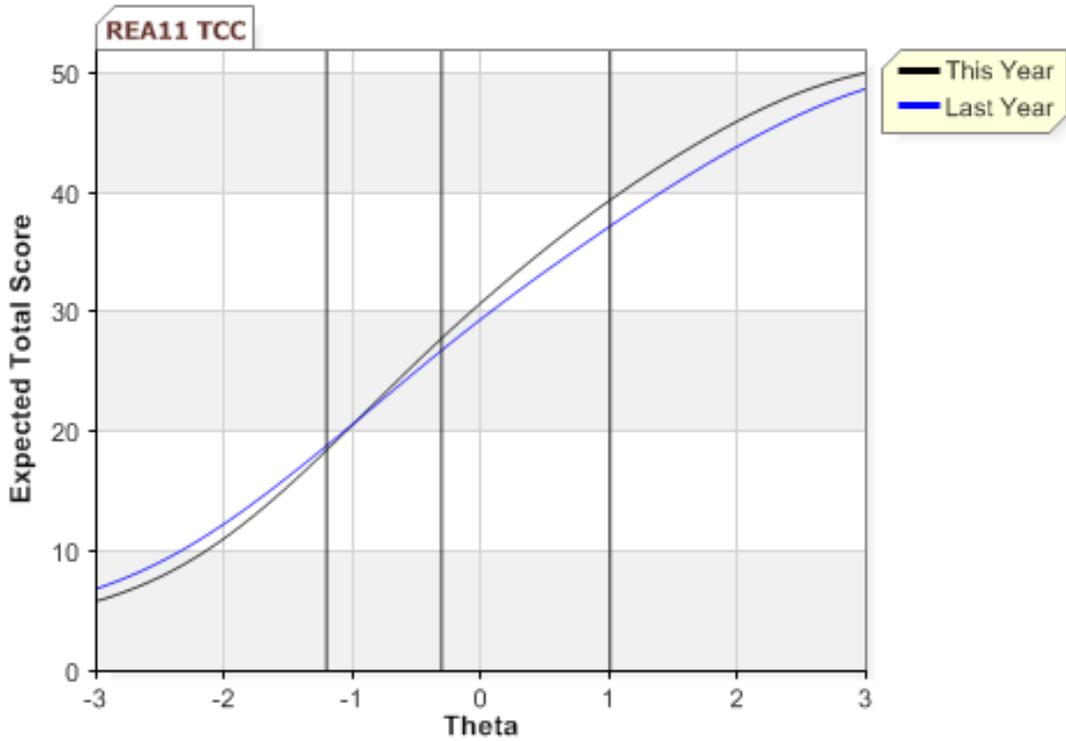
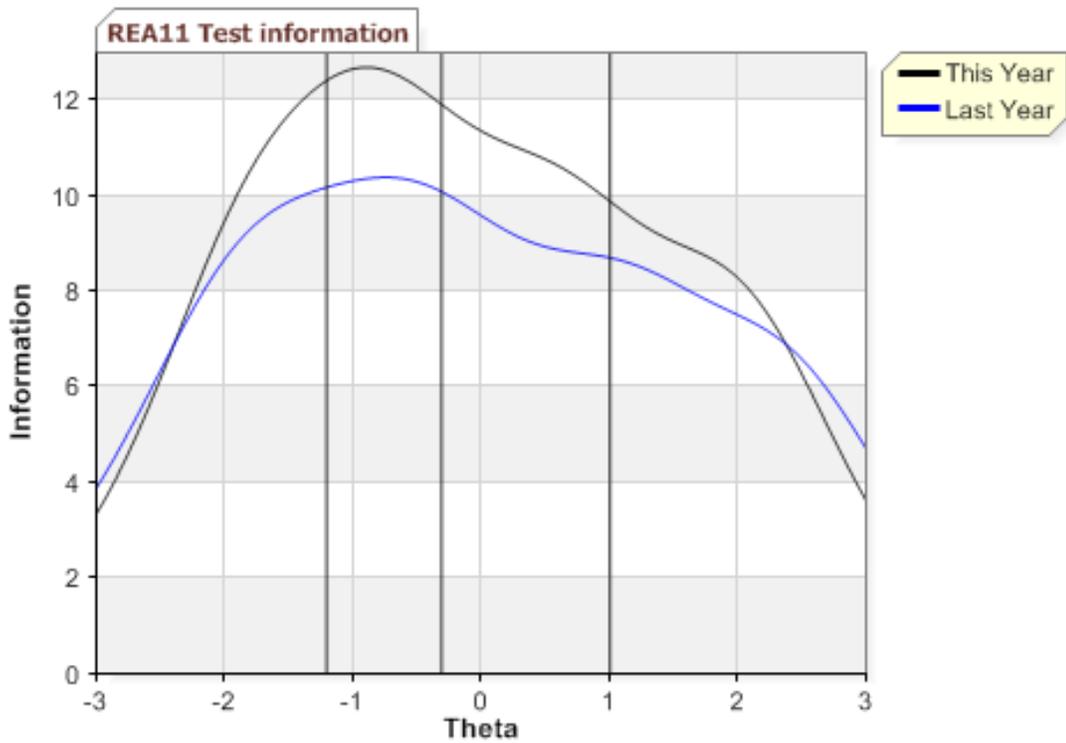


Figure I-28. 2011–12 NECAP: Test Information Function Plot—Reading Grade 11



APPENDIX J—DELTA ANALYSES AND RESCORE ANALYSES

Figure J-1. 2011–12 NECAP: Delta Plot—Mathematics Grade 3

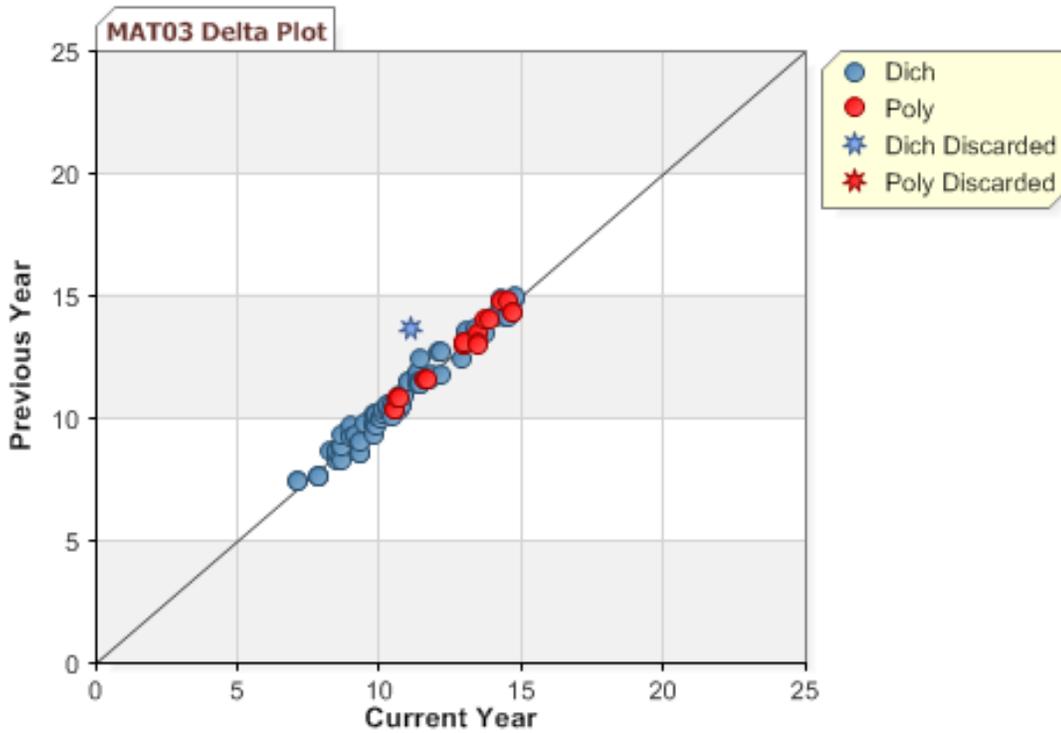


Table J-1. 2011–12 NECAP: Delta Analysis—Mathematics Grade 3

IREF	P		Delta		Discard	Std
	Old	New	Old	New		
119678	0.76	0.78	10.17	9.91	False	-0.19
119678	0.76	0.79	10.17	9.77	False	0.30
119681	0.91	0.90	7.64	7.87	False	0.17
119681	0.91	0.90	7.64	7.87	False	0.17
119701	0.77	0.77	10.04	10.04	False	-0.72
119701	0.78	0.78	9.91	9.91	False	-0.71
119701	0.78	0.77	9.91	10.04	False	-0.24
119701	0.77	0.78	10.04	9.91	False	-0.66
119704	0.53	0.58	12.70	12.19	False	0.72
119704	0.53	0.59	12.70	12.09	False	1.08
119708	0.71	0.73	10.84	10.61	False	-0.28
119708	0.71	0.72	10.84	10.73	False	-0.70
119717	0.86	0.87	8.68	8.49	False	-0.50
119717	0.86	0.87	8.68	8.49	False	-0.50
119721	0.80	0.79	9.63	9.77	False	-0.21
119721	0.80	0.78	9.63	9.91	False	0.28
119731	0.82	0.86	9.34	8.68	False	1.20
119741	0.80	0.84	9.63	9.02	False	1.03
119747	0.65	0.69	11.46	11.02	False	0.47
119747	0.65	0.69	11.46	11.02	False	0.47
119752	0.86	0.86	8.68	8.68	False	-0.69

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
119775	0.66	0.66	11.35	11.35	False	-0.74
119775	0.66	0.65	11.35	11.46	False	-0.35
119775	0.66	0.66	11.35	11.35	False	-0.74
119775	0.66	0.65	11.35	11.46	False	-0.35
119780	0.46	0.46	13.40	13.45	False	-0.60
119808	0.82	0.83	9.34	9.18	False	-0.59
119808	0.82	0.84	9.34	9.02	False	-0.02
119808	0.83	0.83	9.18	9.18	False	-0.70
119808	0.83	0.84	9.18	9.02	False	-0.57
119811	0.86	0.87	8.68	8.49	False	-0.50
119811	0.86	0.88	8.68	8.30	False	0.19
119825	0.77	0.74	10.04	10.43	False	0.64
119832	0.65	0.65	11.46	11.46	False	-0.74
119832	0.65	0.66	11.46	11.35	False	-0.72
119840	0.70	0.70	10.90	10.90	False	-0.73
119840	0.70	0.72	10.90	10.67	False	-0.28
119852	0.32	0.33	14.87	14.76	False	-0.65
119852	0.31	0.33	14.98	14.76	False	-0.25
119873	0.49	0.46	13.10	13.40	False	0.30
119882	0.74	0.73	10.43	10.55	False	-0.29
119909	0.40	0.43	14.01	13.76	False	-0.15
119909	0.40	0.42	14.01	13.86	False	-0.51
119918	0.64	0.64	11.57	11.57	False	-0.74
119918	0.64	0.63	11.57	11.73	False	-0.18
122953	0.39	0.40	14.12	14.01	False	-0.69
122953	0.39	0.40	14.12	14.01	False	-0.69
124334	0.82	0.79	9.34	9.77	False	0.84
124490	0.50	0.45	13.00	13.50	False	1.02
124490	0.49	0.45	13.10	13.50	False	0.66
139606	0.46	0.49	13.40	13.10	False	0.00
139606	0.45	0.49	13.50	13.10	False	0.36
139651	0.38	0.34	14.27	14.70	False	0.74
139651	0.37	0.34	14.33	14.70	False	0.55
139665	0.56	0.51	12.40	12.90	False	1.03
139667	0.73	0.74	10.55	10.43	False	-0.69
139667	0.73	0.75	10.55	10.30	False	-0.24
139667	0.73	0.75	10.55	10.30	False	-0.24
139667	0.73	0.74	10.55	10.43	False	-0.69
139669	0.62	0.61	11.78	11.88	False	-0.37
139669	0.62	0.58	11.78	12.19	False	0.73
139677	0.75	0.72	10.30	10.67	False	0.58
139677	0.75	0.75	10.30	10.30	False	-0.72
139687	0.56	0.65	12.40	11.46	False	2.24
144607	0.64	0.62	11.57	11.78	False	0.01
144609	0.64	0.64	11.57	11.57	False	-0.74
144609	0.64	0.64	11.57	11.57	False	-0.74
145244	0.35	0.37	14.54	14.33	False	-0.29
145244	0.32	0.37	14.87	14.33	False	0.89
145259	0.33	0.38	14.76	14.27	False	0.68

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
145259	0.33	0.35	14.76	14.54	False	-0.27
145509	0.39	0.36	14.12	14.43	False	0.34
145509	0.39	0.35	14.12	14.54	False	0.72
145674	0.88	0.86	8.30	8.68	False	0.66
145674	0.88	0.87	8.30	8.49	False	0.01
168355	0.84	0.82	9.02	9.34	False	0.43
168355	0.84	0.82	9.02	9.34	False	0.43
168582	0.79	0.81	9.77	9.49	False	-0.12
168582	0.79	0.79	9.77	9.77	False	-0.71
168752	0.44	0.68	13.60	11.13	True	7.72
198283	0.85	0.86	8.85	8.68	False	-0.53
198507	0.75	0.73	10.30	10.55	False	0.16
198507	0.75	0.73	10.36	10.55	False	-0.07
242779	0.50	0.51	13.00	12.95	False	-0.90
242779	0.50	0.51	13.00	12.95	False	-0.90
255932	0.45	0.46	13.50	13.40	False	-0.71
255932	0.44	0.46	13.60	13.40	False	-0.35
264355	0.92	0.93	7.38	7.10	False	-0.17
264355	0.92	0.93	7.38	7.10	False	-0.17
201294	0.74	0.75	10.43	10.30	False	-0.68
201301	0.91	0.90	7.64	7.87	False	0.17
201312	0.87	0.87	8.49	8.49	False	-0.69
201312	0.87	0.82	8.49	9.34	False	2.31
201312	0.87	0.87	8.49	8.49	False	-0.69
201312	0.87	0.82	8.49	9.34	False	2.31
201416	0.73	0.71	10.55	10.79	False	0.12
201416	0.73	0.71	10.55	10.79	False	0.12
201416	0.72	0.71	10.67	10.79	False	-0.31
201416	0.72	0.71	10.67	10.79	False	-0.31
201450	0.46	0.44	13.40	13.60	False	-0.06
201450	0.46	0.43	13.40	13.71	False	0.30
201465	0.77	0.78	10.04	9.91	False	-0.66
201619	0.85	0.86	8.85	8.68	False	-0.53
201619	0.85	0.86	8.85	8.68	False	-0.53
201619	0.85	0.86	8.85	8.68	False	-0.53
201619	0.85	0.86	8.85	8.68	False	-0.53
201806	0.61	0.66	11.88	11.35	False	0.80
201806	0.61	0.66	11.88	11.35	False	0.80
223883	0.75	0.76	10.30	10.17	False	-0.67
223883	0.76	0.76	10.17	10.17	False	-0.72
242779	0.49	0.51	13.10	12.95	False	-0.54
242779	0.49	0.51	13.10	12.95	False	-0.54

Table J-2. 2011–12 NECAP: Rescore Analysis—Mathematics Grade 3

<i>IREF</i>	<i>Max</i>	<i>Mean</i>		<i>St Dev</i>		<i>Effect Size</i>	<i>Discard</i>
		<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
119918	2	1.22	1.24	0.91	0.90	0.02	No
119909	2	0.80	0.79	0.75	0.76	-0.02	No
119708	2	1.48	1.48	0.67	0.67	0.01	No
145259	2	0.67	0.65	0.76	0.75	-0.03	No
242779	2	1.00	0.99	0.91	0.91	-0.02	No
124490	2	0.96	0.84	0.78	0.80	-0.15	No
139651	2	0.75	0.74	0.71	0.72	-0.03	No
198507	2	1.54	1.56	0.69	0.69	0.02	No
119780	2	0.94	0.95	0.71	0.71	0.01	No

Figure J-2. 2011–12 NECAP: Delta Plot—Mathematics Grade 4

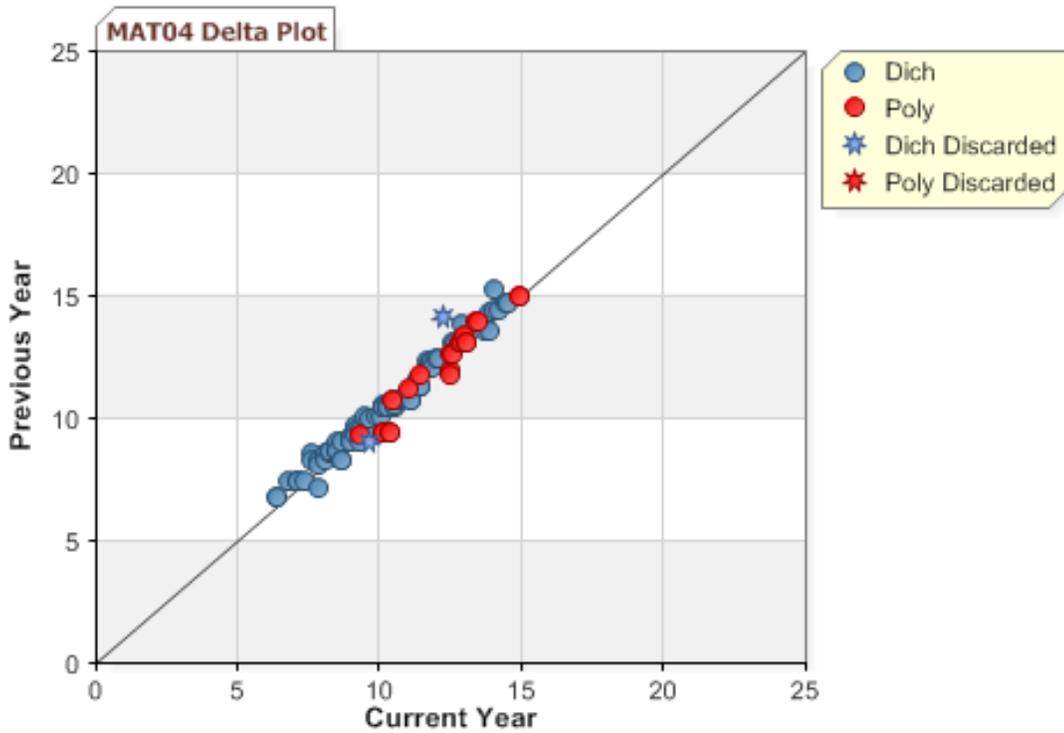


Table J-3. 2011–12 NECAP: Delta Analysis—Mathematics Grade 4

IREF	P		Delta		Discard	Std
	Old	New	Old	New		
139511	0.92	0.93	7.38	7.10	False	-0.45
139511	0.92	0.93	7.38	7.10	False	-0.45
139515	0.49	0.53	13.10	12.70	False	-0.04
139515	0.49	0.54	13.10	12.60	False	0.31
139521	0.73	0.75	10.55	10.30	False	-0.57
139521	0.74	0.75	10.43	10.30	False	-0.95
139521	0.74	0.75	10.43	10.30	False	-0.95
139521	0.73	0.75	10.55	10.30	False	-0.57
145085	0.77	0.81	10.04	9.49	False	0.50
145087	0.87	0.88	8.49	8.30	False	-0.75
145288	0.55	0.54	12.55	12.60	False	-0.34
145288	0.55	0.55	12.55	12.50	False	-0.69
145290	0.47	0.51	13.35	12.95	False	-0.04
145538	0.37	0.41	14.33	13.91	False	0.01
145802	0.72	0.74	10.67	10.43	False	-0.59
145802	0.72	0.73	10.67	10.55	False	-0.93
145851	0.34	0.36	14.65	14.43	False	-0.68
145851	0.34	0.35	14.65	14.54	False	-0.89
168481	0.32	0.31	14.93	14.98	False	-0.32
168481	0.32	0.32	14.93	14.93	False	-0.52
169090	0.36	0.38	14.43	14.22	False	-0.70

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
169095	0.84	0.82	9.02	9.34	False	0.57
169111	0.45	0.43	13.50	13.71	False	0.18
169111	0.45	0.41	13.50	13.91	False	0.89
169117	0.41	0.46	13.96	13.40	False	0.51
169117	0.41	0.46	13.96	13.45	False	0.33
198442	0.82	0.82	9.34	9.34	False	-0.52
202322	0.89	0.90	8.09	7.87	False	-0.66
202322	0.88	0.90	8.30	7.87	False	0.05
202390	0.88	0.91	8.30	7.64	False	0.87
202390	0.88	0.89	8.30	8.09	False	-0.71
202390	0.87	0.91	8.49	7.64	False	1.54
202390	0.87	0.89	8.49	8.09	False	-0.04
224099	0.82	0.76	9.41	10.17	False	2.11
224099	0.82	0.75	9.41	10.36	False	2.77
224099	0.82	0.76	9.41	10.17	False	2.11
224099	0.82	0.75	9.41	10.36	False	2.77
227065	0.94	0.95	6.78	6.42	False	-0.18
227065	0.94	0.95	6.78	6.42	False	-0.18
232445	0.86	0.88	8.68	8.30	False	-0.12
232445	0.86	0.87	8.68	8.49	False	-0.79
232445	0.86	0.88	8.68	8.30	False	-0.12
232445	0.86	0.87	8.68	8.49	False	-0.79
232574	0.92	0.93	7.38	7.10	False	-0.45
255685	0.80	0.83	9.63	9.18	False	0.13
255685	0.81	0.83	9.49	9.18	False	-0.37
255692	0.74	0.76	10.43	10.17	False	-0.56
255692	0.74	0.73	10.43	10.55	False	-0.10
255692	0.73	0.76	10.55	10.17	False	-0.13
255692	0.73	0.73	10.55	10.55	False	-0.52
255694	0.72	0.68	10.67	11.13	False	1.07
255694	0.72	0.68	10.67	11.13	False	1.07
255701	0.92	0.92	7.38	7.38	False	-0.52
255701	0.92	0.94	7.38	6.78	False	0.65
120048	0.67	0.65	11.24	11.46	False	0.24
120048	0.67	0.65	11.24	11.46	False	0.24
120071	0.56	0.60	12.40	11.99	False	-0.01
120071	0.56	0.59	12.40	12.09	False	-0.37
120074	0.64	0.66	11.57	11.35	False	-0.68
120074	0.64	0.66	11.57	11.35	False	-0.68
120075	0.62	0.66	11.78	11.40	False	-0.14
120083	0.72	0.74	10.73	10.43	False	-0.39
120098	0.29	0.40	15.21	14.01	False	2.72
120108	0.72	0.72	10.67	10.67	False	-0.52
120108	0.72	0.72	10.67	10.67	False	-0.52
120119	0.88	0.86	8.30	8.68	False	0.79
120119	0.88	0.86	8.30	8.68	False	0.79
120126	0.86	0.87	8.68	8.49	False	-0.79
120150	0.82	0.83	9.34	9.18	False	-0.89
120150	0.82	0.81	9.34	9.49	False	0.00

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
120159	0.77	0.77	10.04	10.04	False	-0.52
120173	0.58	0.62	12.19	11.78	False	0.00
120183	0.93	0.90	7.10	7.87	False	2.16
120187	0.74	0.76	10.43	10.17	False	-0.56
120187	0.74	0.76	10.43	10.17	False	-0.56
120187	0.74	0.76	10.43	10.17	False	-0.56
120187	0.74	0.76	10.43	10.17	False	-0.56
120203	0.61	0.55	11.93	12.50	False	1.43
120203	0.63	0.55	11.73	12.50	False	2.15
120209	0.78	0.80	9.91	9.63	False	-0.47
120218	0.60	0.62	11.99	11.78	False	-0.71
120218	0.60	0.61	11.99	11.88	False	-0.88
120221	0.77	0.78	10.04	9.91	False	-0.97
120222	0.50	0.51	13.05	12.90	False	-0.91
120222	0.50	0.52	13.05	12.80	False	-0.56
120224	0.84	0.80	9.02	9.63	False	1.59
120232	0.84	0.87	9.02	8.49	False	0.40
120232	0.84	0.86	9.02	8.68	False	-0.24
120253	0.83	0.84	9.18	9.02	False	-0.87
120253	0.84	0.84	9.02	9.02	False	-0.52
120253	0.83	0.84	9.18	9.02	False	-0.87
120253	0.84	0.84	9.02	9.02	False	-0.52
120255	0.71	0.70	10.79	10.90	False	-0.12
124560	0.74	0.75	10.43	10.30	False	-0.95
124560	0.74	0.75	10.43	10.30	False	-0.95
124723	0.68	0.69	11.18	11.07	False	-0.91
124737	0.67	0.65	11.24	11.46	False	0.24
124737	0.67	0.66	11.24	11.35	False	-0.14
139426	0.36	0.40	14.43	14.01	False	0.02
139455	0.57	0.63	12.29	11.67	False	0.72
139455	0.57	0.61	12.29	11.88	False	0.00
139466	0.67	0.67	11.24	11.24	False	-0.52
139466	0.67	0.67	11.24	11.24	False	-0.52
139477	0.81	0.80	9.49	9.63	False	-0.02
139477	0.81	0.82	9.49	9.34	False	-0.91
139487	0.50	0.50	13.05	13.05	False	-0.52
139487	0.50	0.50	13.05	13.05	False	-0.52
139493	0.39	0.57	14.12	12.29	True	4.87
139497	0.42	0.51	13.81	12.90	False	1.71

Table J-4. 2011–12 NECAP: Rescore Analysis—Mathematics Grade 4

<i>IREF</i>	<i>Max</i>	<i>Mean</i>		<i>St Dev</i>		<i>Effect Size</i>	<i>Discard</i>
		<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
139487	2	1.03	1.04	0.57	0.59	0.03	No
145288	2	1.03	1.01	0.83	0.84	-0.02	No
224099	2	1.64	1.64	0.69	0.70	-0.01	No
120222	2	1.00	1.01	0.50	0.49	0.03	No
168481	2	0.63	0.58	0.67	0.69	-0.07	No
169117	2	0.84	0.84	0.80	0.78	0.00	No
120203	2	1.30	1.14	0.73	0.80	-0.22	No
145290	2	0.91	0.89	0.84	0.84	-0.02	No
120075	2	1.26	1.20	0.67	0.73	-0.08	No
120083	2	1.52	1.52	0.67	0.66	0.00	No
124723	2	1.26	1.22	0.71	0.76	-0.05	No
198442	2	1.60	1.62	0.65	0.62	0.03	No

Figure J-3. 2011–12 NECAP: Delta Plot—Mathematics Grade 5

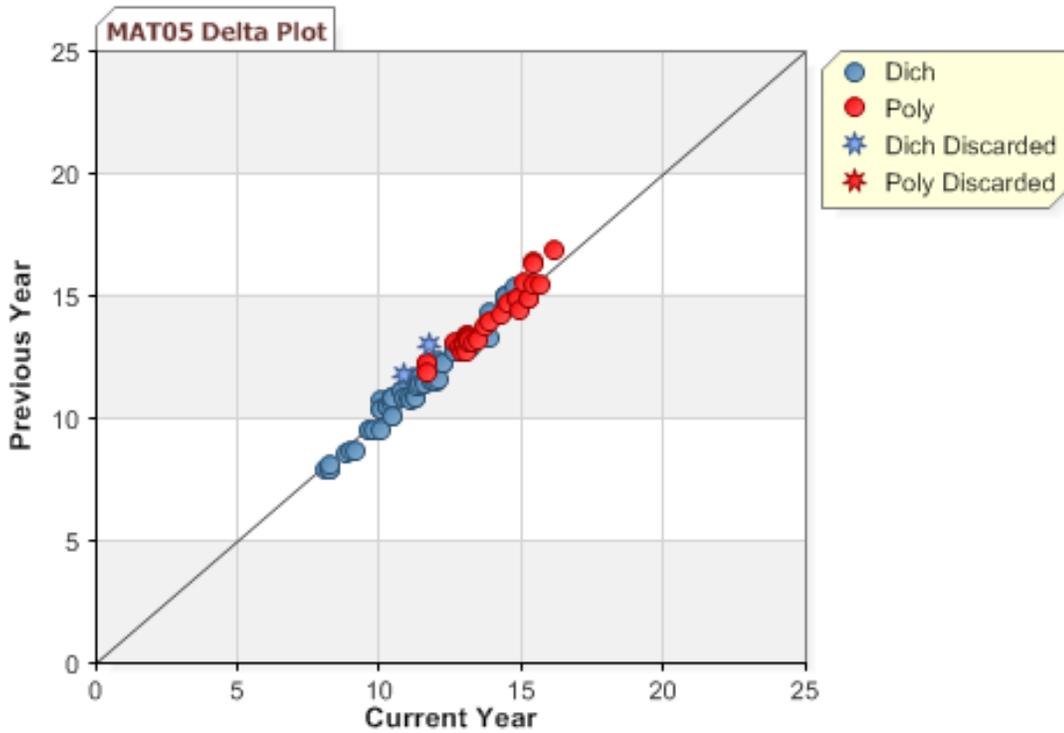


Table J-5. 2011–12 NECAP: Delta Analysis—Mathematics Grade 5

IREF	P		Delta		Discard	Std
	Old	New	Old	New		
120630	0.81	0.77	9.49	10.04	False	1.08
120630	0.81	0.79	9.49	9.77	False	-0.30
120631	0.51	0.52	12.90	12.80	False	-1.26
120631	0.51	0.51	12.90	12.95	False	-0.68
120634	0.67	0.66	11.24	11.35	False	-0.78
120657	0.62	0.62	11.78	11.78	False	-1.21
120657	0.62	0.62	11.78	11.78	False	-1.21
120682	0.65	0.67	11.46	11.24	False	-0.30
120698	0.37	0.41	14.33	13.91	False	0.02
120698	0.40	0.41	14.01	13.91	False	-1.20
120700	0.65	0.61	11.46	11.88	False	0.88
120700	0.65	0.60	11.46	11.99	False	1.42
120713	0.33	0.36	14.76	14.43	False	-0.55
120713	0.31	0.36	14.98	14.43	False	0.54
120713	0.33	0.36	14.76	14.43	False	-0.55
120713	0.31	0.36	14.98	14.43	False	0.54
120718	0.63	0.65	11.67	11.46	False	-0.38
120718	0.63	0.65	11.67	11.46	False	-0.38
120718	0.63	0.65	11.67	11.46	False	-0.38
120718	0.63	0.65	11.67	11.46	False	-0.38
120720	0.66	0.64	11.35	11.57	False	-0.21

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
120720	0.66	0.65	11.35	11.46	False	-0.76
120728	0.67	0.66	11.24	11.35	False	-0.78
120736	0.51	0.48	12.90	13.20	False	0.60
120762	0.60	0.61	11.99	11.88	False	-1.02
120762	0.59	0.61	12.09	11.88	False	-0.51
120797	0.90	0.88	7.87	8.30	False	0.03
120797	0.89	0.88	8.09	8.30	False	-1.05
120799	0.90	0.88	7.87	8.30	False	0.03
120799	0.90	0.89	7.87	8.09	False	-1.03
120801	0.53	0.53	12.70	12.70	False	-0.99
120803	0.74	0.75	10.43	10.30	False	-0.53
120803	0.74	0.75	10.43	10.30	False	-0.53
120807	0.49	0.52	13.10	12.80	False	-0.28
120822	0.71	0.67	10.79	11.24	False	0.87
120822	0.71	0.67	10.79	11.24	False	0.87
120830	0.50	0.52	13.00	12.80	False	-0.77
120830	0.50	0.53	13.00	12.70	False	-0.25
120830	0.50	0.53	13.00	12.70	False	-0.25
120830	0.50	0.52	13.00	12.80	False	-0.77
120838	0.50	0.62	13.00	11.78	True	4.47
120850	0.60	0.62	11.99	11.78	False	-0.48
124760	0.72	0.77	10.67	10.04	False	1.97
124760	0.75	0.77	10.30	10.04	False	0.18
124804	0.65	0.64	11.46	11.57	False	-0.74
124804	0.65	0.66	11.46	11.35	False	-0.87
124887	0.73	0.74	10.55	10.43	False	-0.58
124887	0.73	0.75	10.55	10.30	False	0.06
124961	0.49	0.48	13.10	13.20	False	-0.38
124961	0.49	0.48	13.10	13.20	False	-0.38
139129	0.58	0.57	12.19	12.29	False	-0.59
139129	0.58	0.57	12.19	12.29	False	-0.59
139136	0.53	0.50	12.70	13.00	False	0.55
139136	0.53	0.53	12.70	12.70	False	-0.99
139164	0.62	0.70	11.78	10.90	False	2.99
139181	0.68	0.71	11.13	10.79	False	0.41
139181	0.68	0.71	11.13	10.79	False	0.41
139183	0.31	0.36	14.98	14.43	False	0.54
139183	0.31	0.36	14.98	14.43	False	0.54
139197	0.41	0.42	13.91	13.86	False	-0.96
139210	0.34	0.35	14.65	14.54	False	-1.07
139344	0.64	0.61	11.57	11.88	False	0.36
139344	0.64	0.59	11.57	12.09	False	1.42
145294	0.71	0.70	10.79	10.90	False	-0.86
145571	0.50	0.51	13.05	12.95	False	-1.29
145571	0.50	0.53	13.05	12.70	False	-0.01
145573	0.86	0.83	8.68	9.18	False	0.62
145573	0.86	0.84	8.68	9.02	False	-0.20
145594	0.36	0.32	14.43	14.93	False	1.96
145888	0.58	0.63	12.24	11.73	False	1.04

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
145888	0.58	0.63	12.24	11.67	False	1.31
145900	0.57	0.59	12.29	12.09	False	-0.58
145901	0.17	0.22	16.82	16.16	False	0.66
145919	0.72	0.68	10.67	11.13	False	0.88
145951	0.49	0.48	13.10	13.20	False	-0.38
145951	0.49	0.49	13.10	13.10	False	-0.89
145953	0.28	0.33	15.33	14.76	False	0.57
167651	0.33	0.36	14.76	14.43	False	-0.55
167651	0.33	0.36	14.76	14.43	False	-0.55
167675	0.71	0.69	10.79	11.02	False	-0.27
167675	0.71	0.70	10.79	10.90	False	-0.86
167743	0.48	0.46	13.20	13.45	False	0.42
167743	0.48	0.49	13.20	13.15	False	-1.13
167794	0.54	0.49	12.65	13.10	False	1.31
167794	0.54	0.51	12.65	12.92	False	0.41
167848	0.43	0.43	13.76	13.71	False	-1.00
167875	0.77	0.74	10.04	10.43	False	0.33
167875	0.77	0.74	10.04	10.43	False	0.33
198567	0.27	0.30	15.51	15.13	False	-0.43
198571	0.21	0.28	16.30	15.39	False	2.04
198571	0.20	0.28	16.37	15.39	False	2.39
203365	0.81	0.80	9.49	9.63	False	-1.02
203365	0.81	0.80	9.49	9.63	False	-1.02
203949	0.39	0.37	14.17	14.33	False	0.18
230748	0.27	0.26	15.42	15.64	False	0.77
230748	0.27	0.28	15.42	15.39	False	-0.49
230964	0.47	0.49	13.33	13.10	False	-0.72
230964	0.47	0.49	13.33	13.15	False	-0.97
230964	0.47	0.49	13.30	13.10	False	-0.84
230964	0.47	0.49	13.30	13.15	False	-1.10
255148	0.71	0.74	10.79	10.43	False	0.58
255148	0.71	0.74	10.79	10.43	False	0.58
255148	0.71	0.74	10.79	10.43	False	0.58
255148	0.71	0.74	10.79	10.43	False	0.58
255150	0.32	0.29	14.87	15.27	False	1.59
255150	0.32	0.32	14.87	14.87	False	-0.46
255150	0.32	0.29	14.87	15.27	False	1.59
255150	0.32	0.32	14.87	14.87	False	-0.46
255765	0.75	0.77	10.30	10.04	False	0.18
269140	0.87	0.85	8.49	8.85	False	-0.16
269311	0.62	0.63	11.80	11.73	False	-1.10
269373	0.47	0.41	13.30	13.91	False	2.28
272113	0.50	0.47	13.05	13.35	False	0.64
272113	0.50	0.49	13.05	13.15	False	-0.39

Table J-6. 2011–12 NECAP: Rescore Analysis—Mathematics Grade 5

<i>IREF</i>	<i>Max</i>	<i>Mean</i>		<i>St Dev</i>		<i>Effect Size</i>	<i>Discard</i>
		<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
167743	2	0.95	0.96	0.89	0.88	0.01	No
230748	4	1.20	1.23	1.45	1.45	0.02	No
272113	2	1.00	1.02	0.70	0.69	0.03	No
255150	2	0.73	0.80	0.81	0.77	0.09	No
230964	4	2.04	2.03	1.15	1.10	-0.01	No
145571	2	1.02	1.04	0.89	0.93	0.02	No
120631	2	1.06	1.10	0.94	0.92	0.04	No
167794	4	2.17	2.20	1.35	1.37	0.02	No
145888	2	1.31	1.33	0.85	0.84	0.03	No
198571	2	0.49	0.50	0.77	0.78	0.02	No
139210	2	0.73	0.77	0.92	0.93	0.04	No
269311	4	2.58	2.58	1.36	1.33	0.00	No
145901	2	0.33	0.31	0.61	0.62	-0.03	No
203949	2	0.78	0.82	0.80	0.87	0.06	No
198567	4	1.21	1.32	1.51	1.51	0.07	No
139197	2	0.80	0.77	0.73	0.73	-0.05	No
145594	2	0.72	0.71	0.86	0.83	-0.01	No
167848	4	1.71	1.78	1.21	1.24	0.06	No

Figure J-4. 2011–12 NECAP: Delta Plot—Mathematics Grade 6

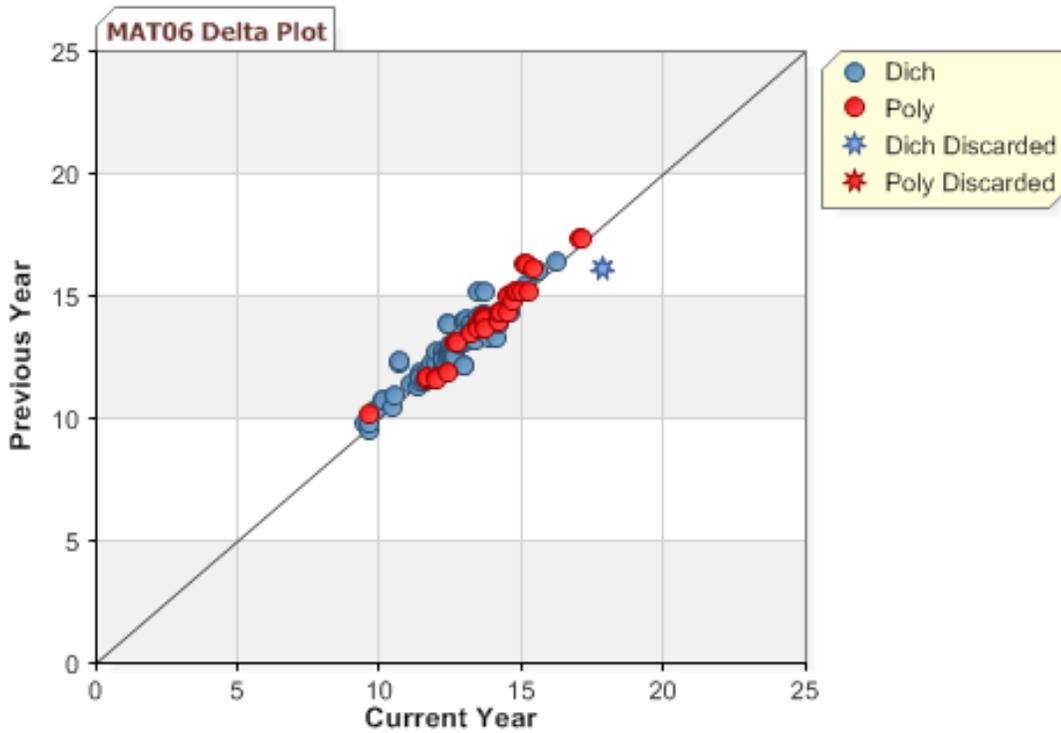


Table J-7. 2011–12 NECAP: Delta Analysis—Mathematics Grade 6

IREF	P		Delta		Discard	Std
	Old	New	Old	New		
167751	0.50	0.53	13.05	12.75	False	-0.74
167831	0.29	0.31	15.18	15.01	False	-0.66
167831	0.29	0.29	15.18	15.24	False	-0.85
167910	0.43	0.49	13.71	13.10	False	0.16
167925	0.20	0.21	16.37	16.23	False	-0.52
167927	0.27	0.29	15.45	15.21	False	-0.45
167941	0.31	0.35	14.96	14.57	False	-0.16
167941	0.31	0.35	14.96	14.51	False	-0.02
167961	0.23	0.27	15.96	15.45	False	0.33
167961	0.23	0.26	15.96	15.57	False	0.02
167962	0.44	0.43	13.60	13.76	False	-0.31
167987	0.37	0.34	14.33	14.65	False	-0.01
167987	0.37	0.35	14.33	14.54	False	-0.29
197550	0.76	0.80	10.17	9.63	False	-0.68
198616	0.66	0.68	11.35	11.13	False	-0.83
198637	0.40	0.44	14.01	13.60	False	-0.28
198637	0.40	0.43	14.01	13.71	False	-0.54
198637	0.40	0.44	14.07	13.60	False	-0.14
198637	0.40	0.43	14.07	13.71	False	-0.40
203453	0.57	0.72	12.29	10.67	False	2.49
203453	0.58	0.72	12.19	10.67	False	2.21

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
203543	0.42	0.56	13.81	12.40	False	2.23
203543	0.42	0.56	13.81	12.40	False	2.23
119184	0.79	0.80	9.77	9.63	False	-0.32
119184	0.79	0.81	9.77	9.49	False	-0.69
119193	0.75	0.78	10.30	9.91	False	-1.04
119205	0.41	0.39	13.96	14.17	False	-0.24
119205	0.40	0.39	14.01	14.17	False	-0.38
119214	0.53	0.56	12.70	12.40	False	-0.81
119214	0.54	0.56	12.60	12.40	False	-1.02
119214	0.54	0.55	12.60	12.50	False	-0.76
119214	0.53	0.55	12.70	12.50	False	-1.04
119216	0.65	0.65	11.46	11.46	False	-0.29
119216	0.65	0.64	11.46	11.57	False	-0.01
119229	0.61	0.56	11.88	12.45	False	1.07
119231	0.64	0.63	11.57	11.67	False	-0.04
119231	0.64	0.63	11.57	11.67	False	-0.04
119263	0.30	0.45	15.10	13.50	False	2.94
119263	0.39	0.43	14.12	13.71	False	-0.26
119263	0.30	0.43	15.10	13.71	False	2.43
119263	0.39	0.45	14.12	13.50	False	0.26
119283	0.58	0.54	12.19	12.60	False	0.61
119311	0.53	0.54	12.70	12.60	False	-0.78
119316	0.63	0.63	11.67	11.67	False	-0.33
119316	0.61	0.65	11.88	11.46	False	-0.65
119316	0.61	0.63	11.88	11.67	False	-0.90
119316	0.63	0.65	11.67	11.46	False	-0.87
119319	0.70	0.73	10.90	10.55	False	-1.02
119326	0.47	0.39	13.30	14.12	False	1.44
119326	0.47	0.41	13.30	13.91	False	0.91
119337	0.72	0.76	10.67	10.17	False	-0.71
119337	0.72	0.76	10.67	10.17	False	-0.71
119349	0.46	0.42	13.40	13.81	False	0.38
119365	0.56	0.56	12.40	12.40	False	-0.47
119365	0.56	0.57	12.40	12.29	False	-0.72
119365	0.56	0.57	12.40	12.29	False	-0.72
119365	0.56	0.56	12.40	12.40	False	-0.47
119370	0.42	0.46	13.86	13.45	False	-0.32
119370	0.44	0.46	13.60	13.45	False	-1.02
119371	0.21	0.30	16.30	15.16	False	2.01
119371	0.21	0.30	16.30	15.10	False	2.16
119377	0.55	0.54	12.50	12.60	False	-0.23
119377	0.53	0.54	12.70	12.60	False	-0.78
119377	0.55	0.53	12.50	12.70	False	0.03
119377	0.53	0.53	12.70	12.70	False	-0.52
119381	0.64	0.63	11.57	11.67	False	-0.04
119381	0.63	0.63	11.67	11.67	False	-0.33
119381	0.63	0.60	11.67	11.99	False	0.47
119381	0.64	0.60	11.57	11.99	False	0.76
124983	0.50	0.55	13.00	12.50	False	-0.24

continued

IREF	P		Delta		Discard	Std
	Old	New	Old	New		
124983	0.50	0.52	13.00	12.80	False	-1.01
125025	0.64	0.64	11.57	11.57	False	-0.31
139219	0.74	0.74	10.43	10.43	False	-0.09
139269	0.40	0.49	14.01	13.10	False	1.00
139329	0.49	0.50	13.10	13.00	False	-0.86
139333	0.48	0.48	13.20	13.20	False	-0.62
139333	0.48	0.48	13.20	13.20	False	-0.62
139336	0.67	0.66	11.24	11.35	False	0.04
139358	0.81	0.80	9.49	9.63	False	0.46
144698	0.53	0.57	12.70	12.29	False	-0.55
144698	0.53	0.60	12.70	11.99	False	0.24
144716	0.48	0.46	13.20	13.40	False	-0.11
145124	0.56	0.57	12.40	12.29	False	-0.72
145332	0.45	0.48	13.50	13.20	False	-0.65
145604	0.59	0.54	12.09	12.60	False	0.89
145604	0.59	0.57	12.09	12.29	False	0.11
145618	0.22	0.27	16.12	15.45	False	0.79
145626	0.59	0.50	12.09	13.00	False	1.91
145632	0.38	0.35	14.27	14.54	False	-0.15
145988	0.55	0.54	12.50	12.60	False	-0.23
145988	0.55	0.53	12.50	12.70	False	0.03
146029	0.46	0.48	13.40	13.23	False	-0.99
146045	0.38	0.38	14.27	14.27	False	-0.82
146045	0.38	0.38	14.27	14.25	False	-0.89
146702	0.42	0.38	13.81	14.22	False	0.32
150829	0.22	0.11	16.09	17.91	True	3.46
150829	0.22	0.11	16.09	17.91	True	3.46
153701	0.33	0.34	14.79	14.68	False	-0.90
167709	0.58	0.60	12.19	11.99	False	-0.95
167709	0.58	0.61	12.19	11.88	False	-0.89
167715	0.59	0.50	12.09	13.00	False	1.91
167715	0.59	0.54	12.09	12.60	False	0.89
167751	0.50	0.54	13.05	12.65	False	-0.49
225180	0.42	0.48	13.81	13.20	False	0.18
225180	0.42	0.48	13.81	13.20	False	0.18
225180	0.46	0.48	13.40	13.20	False	-0.93
225180	0.46	0.48	13.40	13.20	False	-0.93
225370	0.14	0.16	17.32	17.06	False	-0.03
225370	0.14	0.15	17.32	17.15	False	-0.25
225427	0.38	0.43	14.22	13.71	False	0.03
225427	0.38	0.44	14.22	13.60	False	0.29
255376	0.41	0.50	13.91	13.00	False	0.97
255376	0.41	0.50	13.91	13.00	False	0.97
255468	0.57	0.57	12.29	12.29	False	-0.45
255468	0.56	0.57	12.40	12.29	False	-0.72
256905	0.53	0.55	12.70	12.50	False	-1.04
256905	0.51	0.55	12.90	12.50	False	-0.51
270499	0.30	0.32	15.10	14.87	False	-0.54
270499	0.30	0.33	15.10	14.82	False	-0.40

Table J-8. 2011–12 NECAP: Rescore Analysis—Mathematics Grade 6

<i>IREF</i>	<i>Max</i>	<i>Mean</i>		<i>St Dev</i>		<i>Effect Size</i>	<i>Discard</i>
		<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
198637	2	0.74	0.70	0.88	0.91	-0.04	No
167831	4	1.32	1.36	1.40	1.41	0.03	No
119381	2	1.34	1.30	0.90	0.94	-0.04	No
119371	2	0.38	0.50	0.60	0.64	0.20	No
167941	4	1.33	1.40	1.41	1.56	0.05	No
225370	2	0.28	0.31	0.61	0.66	0.06	No
270499	2	0.64	0.65	0.84	0.89	0.01	No
146045	4	1.41	1.40	1.10	1.10	-0.01	No
167751	2	0.98	0.95	0.77	0.77	-0.04	No
167962	2	0.85	0.86	0.49	0.48	0.03	No
145632	2	0.76	0.81	0.90	0.93	0.06	No
153701	4	1.40	1.35	1.45	1.43	-0.04	No
119205	2	0.85	0.81	0.93	0.91	-0.05	No
197550	2	1.55	1.57	0.76	0.77	0.03	No
145618	4	0.93	0.98	1.22	1.24	0.04	No
119370	2	0.85	0.84	0.96	0.96	-0.01	No
119229	2	1.14	1.07	0.87	0.85	-0.08	No
146029	4	1.88	1.94	1.46	1.47	0.04	No

Figure J-5. 2011–12 NECAP: Delta Plot—Mathematics Grade 7

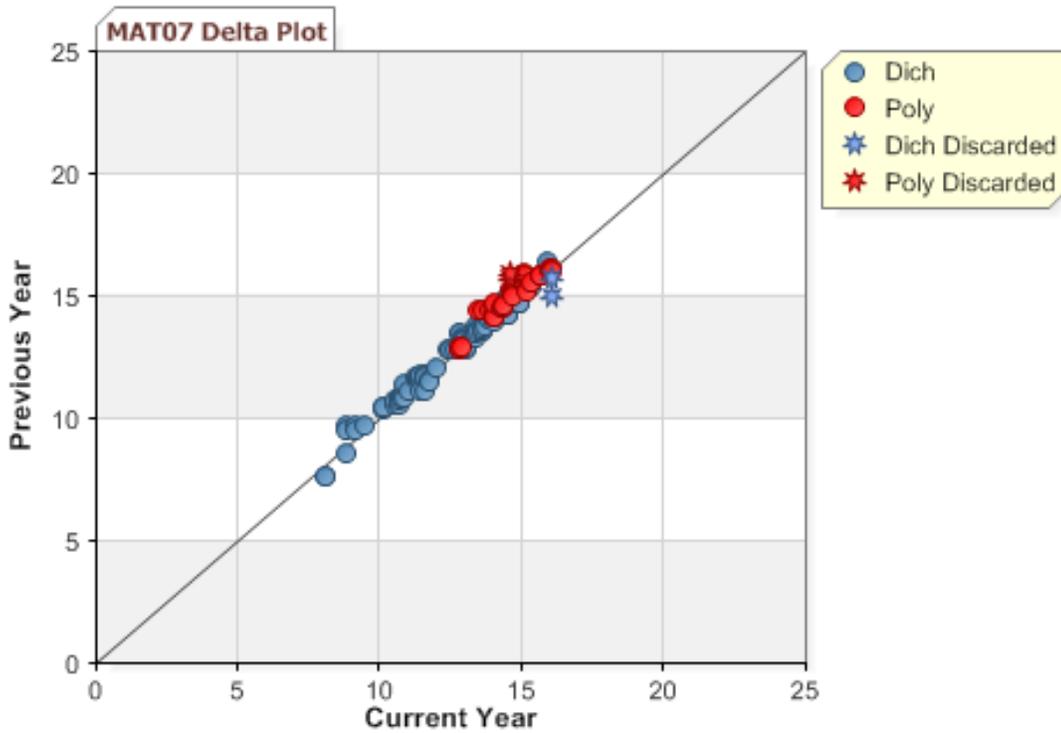


Table J-9. 2011–12 NECAP: Delta Analysis—Mathematics Grade 7

IREF	P		Delta		Discard	Std
	Old	New	Old	New		
120326	0.80	0.81	9.63	9.49	False	-0.85
120329	0.63	0.64	11.67	11.57	False	-0.85
120329	0.62	0.64	11.78	11.57	False	-0.59
120329	0.62	0.64	11.78	11.57	False	-0.59
120329	0.63	0.64	11.67	11.57	False	-0.85
120331	0.91	0.89	7.64	8.09	False	1.62
120331	0.91	0.89	7.64	8.09	False	1.62
120353	0.60	0.60	11.99	11.99	False	-0.37
120355	0.38	0.40	14.22	14.01	False	-0.64
120355	0.39	0.40	14.14	14.01	False	-0.92
120355	0.38	0.40	14.22	14.04	False	-0.76
120355	0.39	0.40	14.14	14.04	False	-0.80
120363	0.52	0.55	12.80	12.50	False	-0.20
120363	0.52	0.53	12.80	12.70	False	-0.81
120366	0.47	0.46	13.30	13.40	False	0.11
120366	0.47	0.47	13.30	13.30	False	-0.35
120367	0.37	0.44	14.38	13.65	False	1.68
120367	0.37	0.46	14.38	13.45	False	2.60
120379	0.43	0.46	13.71	13.40	False	-0.21
120379	0.43	0.43	13.71	13.71	False	-0.34
120380	0.45	0.44	13.50	13.60	False	0.11

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
120380	0.44	0.44	13.60	13.60	False	-0.34
120393	0.36	0.41	14.41	13.88	False	0.77
120409	0.45	0.45	13.50	13.50	False	-0.34
120409	0.45	0.44	13.50	13.60	False	0.11
120417	0.40	0.40	14.07	14.07	False	-0.33
120423	0.35	0.40	14.60	14.07	False	0.80
120423	0.34	0.40	14.70	14.07	False	1.29
120434	0.52	0.56	12.80	12.40	False	0.26
120435	0.63	0.66	11.67	11.35	False	-0.09
120435	0.63	0.67	11.67	11.24	False	0.41
120441	0.45	0.46	13.50	13.40	False	-0.80
120441	0.46	0.46	13.40	13.40	False	-0.34
120441	0.46	0.46	13.40	13.40	False	-0.34
120441	0.45	0.46	13.50	13.40	False	-0.80
120446	0.47	0.51	13.30	12.90	False	0.24
120446	0.47	0.48	13.30	13.20	False	-0.80
120450	0.75	0.76	10.30	10.17	False	-0.94
120467	0.81	0.83	9.49	9.18	False	-0.13
120467	0.80	0.83	9.63	9.18	False	0.52
120467	0.81	0.85	9.49	8.85	False	1.35
120467	0.80	0.85	9.63	8.85	False	2.00
120479	0.72	0.72	10.67	10.67	False	-0.39
120479	0.73	0.72	10.55	10.67	False	0.15
120479	0.73	0.73	10.55	10.55	False	-0.39
120479	0.72	0.73	10.67	10.55	False	-0.93
120484	0.40	0.41	14.01	13.91	False	-0.80
120484	0.40	0.41	14.01	13.91	False	-0.80
120484	0.40	0.40	14.01	14.01	False	-0.33
120484	0.40	0.40	14.01	14.01	False	-0.33
120492	0.35	0.37	14.60	14.38	False	-0.62
120492	0.35	0.37	14.60	14.38	False	-0.62
120492	0.35	0.37	14.54	14.38	False	-0.86
120492	0.35	0.37	14.54	14.38	False	-0.86
120495	0.32	0.36	14.87	14.43	False	0.37
120495	0.33	0.36	14.76	14.43	False	-0.12
120501	0.72	0.72	10.67	10.67	False	-0.39
120517	0.37	0.38	14.33	14.22	False	-0.80
120517	0.37	0.38	14.33	14.22	False	-0.80
120518	0.65	0.66	11.46	11.35	False	-0.87
120518	0.65	0.62	11.46	11.78	False	1.06
120518	0.64	0.62	11.57	11.78	False	0.58
120518	0.64	0.66	11.57	11.35	False	-0.57
120523	0.29	0.34	15.27	14.70	False	0.96
120523	0.29	0.34	15.27	14.65	False	1.20
120531	0.66	0.70	11.35	10.90	False	0.48
122346	0.63	0.65	11.67	11.46	False	-0.58
122346	0.64	0.65	11.57	11.46	False	-0.86
123631	0.52	0.52	12.80	12.85	False	-0.13
125286	0.68	0.70	11.13	10.90	False	-0.51

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
125286	0.68	0.69	11.13	11.02	False	-0.89
139923	0.37	0.39	14.33	14.12	False	-0.64
140000	0.38	0.35	14.22	14.54	False	1.11
140000	0.38	0.35	14.22	14.54	False	1.11
140014	0.31	0.34	14.98	14.65	False	-0.09
140014	0.31	0.33	14.98	14.76	False	-0.59
140025	0.31	0.22	14.98	16.09	True	4.66
140025	0.25	0.22	15.70	16.09	True	1.46
140223	0.31	0.33	14.96	14.73	False	-0.59
140241	0.31	0.34	15.04	14.70	False	-0.08
140259	0.68	0.65	11.13	11.46	False	1.10
140259	0.68	0.64	11.13	11.57	False	1.59
144733	0.32	0.32	14.87	14.87	False	-0.32
145151	0.41	0.40	13.91	14.01	False	0.13
145159	0.27	0.28	15.51	15.36	False	-0.93
145159	0.27	0.28	15.51	15.33	False	-0.79
145166	0.71	0.71	10.79	10.79	False	-0.39
145166	0.71	0.72	10.79	10.67	False	-0.92
145174	0.74	0.76	10.43	10.17	False	-0.39
145174	0.74	0.76	10.43	10.17	False	-0.39
146128	0.24	0.30	15.83	15.10	False	1.67
146128	0.24	0.30	15.89	15.10	False	1.96
150893	0.25	0.26	15.76	15.64	False	-0.87
150893	0.24	0.26	15.83	15.64	False	-0.75
150893	0.24	0.25	15.83	15.70	False	-0.88
150893	0.25	0.25	15.76	15.70	False	-0.59
169226	0.36	0.37	14.46	14.30	False	-0.87
169226	0.36	0.37	14.46	14.38	False	-0.69
169401	0.20	0.23	16.37	15.96	False	0.23
181112	0.71	0.71	10.79	10.79	False	-0.39
181112	0.71	0.70	10.79	10.90	False	0.14
181196	0.52	0.52	12.80	12.80	False	-0.35
181202	0.87	0.85	8.49	8.85	False	1.20
199900	0.34	0.31	14.65	14.98	False	1.18
199900	0.34	0.32	14.65	14.87	False	0.67
199900	0.34	0.31	14.65	14.98	False	1.18
199900	0.34	0.32	14.65	14.87	False	0.67
199905	0.35	0.36	14.54	14.43	False	-0.81
199905	0.35	0.36	14.54	14.43	False	-0.81
206092	0.52	0.49	12.80	13.10	False	1.00
206092	0.51	0.49	12.90	13.10	False	0.55
206107	0.31	0.32	14.98	14.87	False	-0.82
206107	0.31	0.32	14.98	14.87	False	-0.82
206112	0.36	0.37	14.43	14.33	False	-0.81
206112	0.36	0.37	14.43	14.33	False	-0.81
206112	0.36	0.37	14.43	14.33	False	-0.81
206112	0.36	0.37	14.43	14.33	False	-0.81
206144	0.64	0.65	11.57	11.46	False	-0.86
206144	0.62	0.65	11.78	11.46	False	-0.10

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
206213	0.51	0.51	12.90	12.90	False	-0.35
206213	0.51	0.52	12.90	12.85	False	-0.58
224796	0.46	0.52	13.40	12.80	False	1.14
224796	0.46	0.52	13.40	12.80	False	1.14
224856	0.24	0.34	15.89	14.65	True	3.98
224856	0.25	0.34	15.70	14.65	True	3.11
234445	0.48	0.50	13.20	13.00	False	-0.66
234445	0.48	0.51	13.20	12.90	False	-0.21
234445	0.48	0.50	13.20	13.00	False	-0.66
234445	0.48	0.51	13.20	12.90	False	-0.21
234459	0.27	0.32	15.45	14.87	False	1.01
256118	0.29	0.29	15.18	15.21	False	-0.18
256118	0.29	0.29	15.21	15.21	False	-0.31
256152	0.27	0.28	15.45	15.33	False	-0.85
256152	0.28	0.28	15.33	15.33	False	-0.31
269069	0.22	0.22	16.09	16.09	False	-0.30
269069	0.22	0.23	16.09	16.02	False	-0.60
269069	0.23	0.22	16.02	16.09	False	0.00
269069	0.23	0.23	16.02	16.02	False	-0.30

Table J-10. 2011–12 NECAP: Rescore Analysis—Mathematics Grade 7

<i>IREF</i>	<i>Max</i>	<i>Mean</i>		<i>St Dev</i>		<i>Effect Size</i>	<i>Discard</i>
		<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
206213	2	1.19	1.12	0.93	0.92	-0.07	No
145159	4	1.00	1.00	0.97	0.98	0.01	No
120492	2	0.71	0.74	0.84	0.84	0.04	No
269069	2	0.41	0.45	0.78	0.79	0.05	No
169226	4	1.29	1.32	1.35	1.35	0.02	No
120367	2	0.68	0.72	0.85	0.86	0.05	No
120355	4	1.47	1.45	1.08	1.08	-0.02	No
150893	2	0.44	0.43	0.79	0.79	-0.01	No
120523	2	0.57	0.67	0.84	0.87	0.12	No
140241	2	0.64	0.63	0.63	0.61	-0.02	No
120417	2	0.78	0.79	0.83	0.83	0.01	No
140223	4	1.27	1.29	1.42	1.40	0.01	No
120423	2	0.67	0.68	0.84	0.82	0.01	No
224856	2	0.53	0.56	0.85	0.87	0.03	No
120393	4	1.45	1.44	1.31	1.27	-0.01	No
146128	2	0.47	0.50	0.65	0.67	0.04	No
123631	2	0.98	1.00	0.85	0.84	0.03	No
256118	4	1.19	1.12	1.00	0.96	-0.06	No

Figure J-6. 2011–12 NECAP: Delta Plot—Mathematics Grade 8

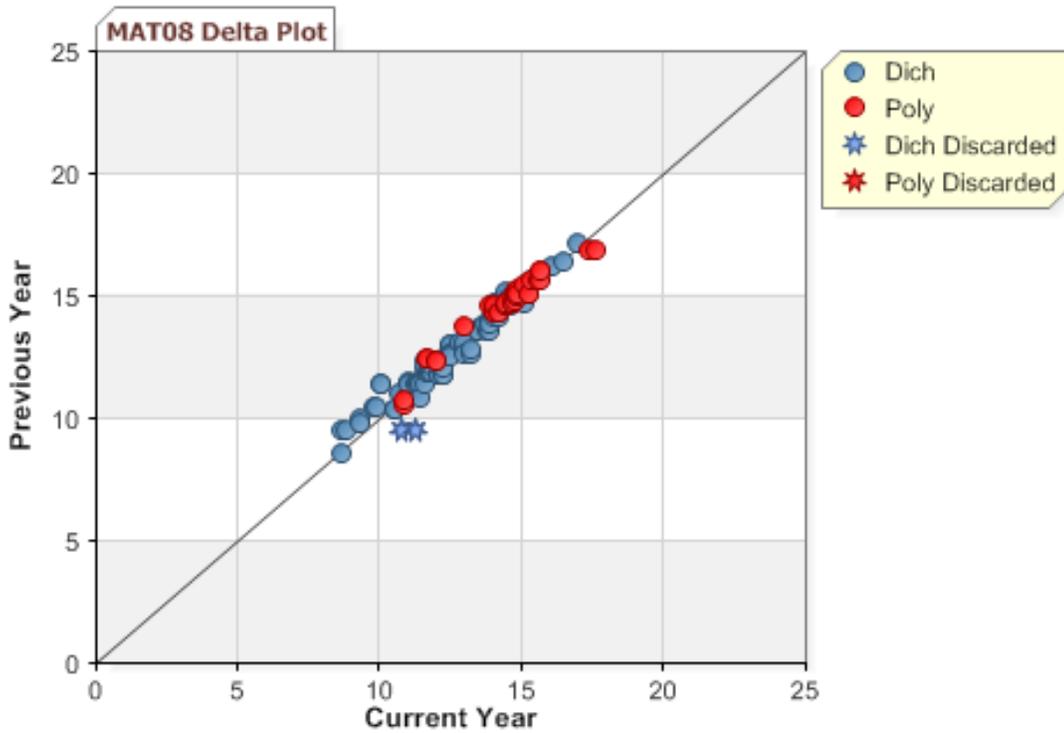


Table J-11. 2011–12 NECAP: Delta Analysis—Mathematics Grade 8

IREF	P		Delta		Discard	Std
	Old	New	Old	New		
199731	0.45	0.41	13.50	13.91	False	0.45
199783	0.38	0.40	14.27	14.01	False	-0.37
199783	0.38	0.39	14.27	14.17	False	-0.84
199783	0.37	0.40	14.33	14.01	False	-0.21
199783	0.37	0.39	14.33	14.17	False	-0.68
206242	0.34	0.34	14.70	14.70	False	-0.83
206242	0.34	0.34	14.65	14.70	False	-0.66
206324	0.56	0.63	12.45	11.67	False	1.10
206324	0.56	0.63	12.40	11.67	False	0.95
224853	0.34	0.40	14.65	14.01	False	0.77
224853	0.34	0.39	14.65	14.12	False	0.46
224853	0.36	0.40	14.43	14.01	False	0.11
224853	0.36	0.39	14.43	14.12	False	-0.20
224855	0.35	0.36	14.54	14.43	False	-0.83
224855	0.35	0.36	14.54	14.49	False	-0.98
224855	0.34	0.36	14.70	14.43	False	-0.33
224855	0.34	0.36	14.70	14.49	False	-0.49
224919	0.60	0.64	11.99	11.57	False	0.02
224919	0.57	0.64	12.29	11.57	False	0.96
224936	0.35	0.39	14.54	14.12	False	0.13
224936	0.35	0.40	14.54	14.01	False	0.44

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
233602	0.59	0.62	12.09	11.78	False	-0.30
233602	0.59	0.61	12.09	11.88	False	-0.62
233602	0.57	0.62	12.29	11.78	False	0.32
233602	0.57	0.61	12.29	11.88	False	0.00
233719	0.72	0.71	10.73	10.84	False	-0.32
233719	0.73	0.71	10.55	10.84	False	0.23
242392	0.41	0.41	13.91	13.91	False	-0.80
242392	0.41	0.41	13.91	13.91	False	-0.80
256438	0.33	0.34	14.76	14.65	False	-0.81
256438	0.33	0.35	14.76	14.54	False	-0.48
256438	0.33	0.34	14.76	14.65	False	-0.81
256438	0.33	0.35	14.76	14.54	False	-0.48
256511	0.75	0.73	10.30	10.55	False	0.09
256511	0.75	0.73	10.30	10.55	False	0.09
269046	0.25	0.26	15.70	15.57	False	-0.73
269098	0.35	0.40	14.54	14.07	False	0.29
269098	0.35	0.41	14.54	13.91	False	0.75
269296	0.35	0.35	14.54	14.54	False	-0.82
269296	0.35	0.34	14.54	14.65	False	-0.49
269361	0.54	0.55	12.60	12.50	False	-0.92
269361	0.54	0.55	12.60	12.50	False	-0.92
269361	0.50	0.55	13.00	12.50	False	0.31
269361	0.50	0.55	13.00	12.50	False	0.31
120875	0.49	0.52	13.10	12.80	False	-0.30
120889	0.70	0.69	10.90	11.02	False	-0.33
120889	0.70	0.69	10.90	11.02	False	-0.33
120895	0.70	0.69	10.90	11.02	False	-0.33
120895	0.70	0.69	10.90	11.02	False	-0.33
120895	0.71	0.69	10.79	11.02	False	0.02
120895	0.71	0.69	10.79	11.02	False	0.02
120896	0.59	0.59	12.09	12.09	False	-0.73
120906	0.44	0.45	13.60	13.50	False	-0.88
120912	0.66	0.64	11.35	11.57	False	-0.05
120917	0.74	0.78	10.43	9.91	False	0.24
120917	0.74	0.79	10.43	9.77	False	0.66
120919	0.66	0.67	11.35	11.24	False	-0.94
120919	0.66	0.65	11.35	11.46	False	-0.37
120921	0.81	0.86	9.49	8.68	False	1.09
120921	0.81	0.85	9.49	8.85	False	0.57
120927	0.61	0.62	11.88	11.78	False	-0.94
120927	0.61	0.61	11.88	11.88	False	-0.72
120932	0.66	0.77	11.35	10.04	False	2.66
120932	0.66	0.77	11.35	10.04	False	2.66
120933	0.71	0.65	10.79	11.46	False	1.35
120958	0.23	0.26	15.96	15.64	False	-0.13
120958	0.23	0.25	15.96	15.70	False	-0.32
120961	0.60	0.57	11.99	12.29	False	0.21
120961	0.60	0.57	11.99	12.29	False	0.21
120974	0.54	0.56	12.60	12.40	False	-0.62

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
120976	0.58	0.58	12.19	12.19	False	-0.73
120993	0.43	0.51	13.76	12.95	False	1.25
120998	0.42	0.43	13.81	13.71	False	-0.87
120998	0.42	0.41	13.81	13.91	False	-0.48
120999	0.49	0.50	13.10	13.00	False	-0.90
121004	0.54	0.48	12.60	13.20	False	1.07
121004	0.52	0.48	12.80	13.20	False	0.46
121004	0.52	0.50	12.80	13.00	False	-0.15
121004	0.54	0.50	12.60	13.00	False	0.47
121018	0.87	0.86	8.49	8.68	False	-0.03
121024	0.79	0.82	9.77	9.34	False	-0.02
121024	0.78	0.82	9.91	9.34	False	0.40
121025	0.69	0.72	11.02	10.67	False	-0.24
121031	0.57	0.60	12.35	11.99	False	-0.15
121031	0.57	0.60	12.35	12.04	False	-0.31
121038	0.32	0.35	14.87	14.54	False	-0.14
121038	0.32	0.34	14.87	14.65	False	-0.47
121040	0.81	0.67	9.49	11.24	True	4.66
121040	0.81	0.71	9.49	10.79	True	3.29
121040	0.81	0.67	9.49	11.24	True	4.66
121040	0.81	0.71	9.49	10.79	True	3.29
121059	0.30	0.36	15.10	14.43	False	0.87
121061	0.21	0.22	16.23	16.09	False	-0.67
121085	0.31	0.32	14.96	14.84	False	-0.79
121085	0.31	0.32	14.96	14.90	False	-0.96
121085	0.31	0.32	15.04	14.84	False	-0.53
121085	0.31	0.32	15.04	14.90	False	-0.70
121091	0.65	0.69	11.46	11.02	False	0.06
121091	0.65	0.66	11.46	11.35	False	-0.94
121091	0.66	0.66	11.35	11.35	False	-0.70
121091	0.66	0.69	11.35	11.02	False	-0.27
122522	0.62	0.57	11.78	12.29	False	0.84
122522	0.62	0.59	11.78	12.09	False	0.23
122522	0.62	0.57	11.78	12.29	False	0.84
122522	0.62	0.59	11.78	12.09	False	0.23
139777	0.31	0.29	15.04	15.27	False	-0.14
139777	0.31	0.29	15.04	15.27	False	-0.14
139782	0.39	0.40	14.12	14.01	False	-0.85
139782	0.39	0.38	14.12	14.22	False	-0.49
139813	0.28	0.30	15.39	15.10	False	-0.23
139827	0.30	0.33	15.13	14.82	False	-0.19
139843	0.34	0.30	14.65	15.10	False	0.52
139853	0.61	0.62	11.88	11.78	False	-0.94
139853	0.61	0.63	11.88	11.67	False	-0.62
139890	0.26	0.28	15.57	15.33	False	-0.38
145186	0.17	0.14	16.82	17.41	False	0.89
145186	0.17	0.13	16.82	17.60	False	1.46
145207	0.26	0.26	15.60	15.60	False	-0.86
145207	0.26	0.25	15.60	15.67	False	-0.67

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
145405	0.15	0.16	17.15	16.98	False	-0.54
146274	0.26	0.28	15.57	15.33	False	-0.38
146291	0.55	0.55	12.50	12.50	False	-0.74
146401	0.20	0.19	16.37	16.51	False	-0.45
146441	0.33	0.34	14.73	14.70	False	-0.91
146441	0.33	0.33	14.73	14.79	False	-0.66
146455	0.45	0.45	13.50	13.50	False	-0.78
169286	0.29	0.32	15.21	14.84	False	-0.01
199731	0.45	0.42	13.50	13.81	False	0.14

Table J-12. 2011–12 NECAP: Rescore Analysis—Mathematics Grade 8

<i>IREF</i>	<i>Max</i>	<i>Mean</i>		<i>St Dev</i>		<i>Effect Size</i>	<i>Discard</i>
		<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
145207	4	1.02	1.02	0.92	0.95	0.01	No
145186	2	0.27	0.26	0.66	0.67	-0.01	No
224855	2	0.71	0.70	0.57	0.55	-0.01	No
146441	4	1.38	1.39	1.30	1.30	0.01	No
269098	2	0.73	0.89	0.85	0.95	0.19	No
120958	2	0.47	0.46	0.80	0.79	-0.01	No
121085	4	1.12	1.13	1.39	1.36	0.01	No
121031	2	1.10	1.08	0.73	0.74	-0.03	No
199783	2	0.69	0.72	0.54	0.53	0.05	No
139813	2	0.46	0.53	0.70	0.72	0.09	No
120993	2	0.95	0.96	0.96	0.95	0.01	No
169286	4	1.05	1.05	1.23	1.22	0.00	No
139777	2	0.72	0.68	0.91	0.92	-0.04	No
233719	2	1.42	1.41	0.83	0.84	-0.02	No
206242	2	0.67	0.69	0.92	0.92	0.02	No
206324	2	1.19	1.27	0.81	0.80	0.10	No
139890	4	1.03	1.12	0.78	0.82	0.11	No

Figure J-7. 2011–12 NECAP: Delta Plot—Mathematics Grade 11

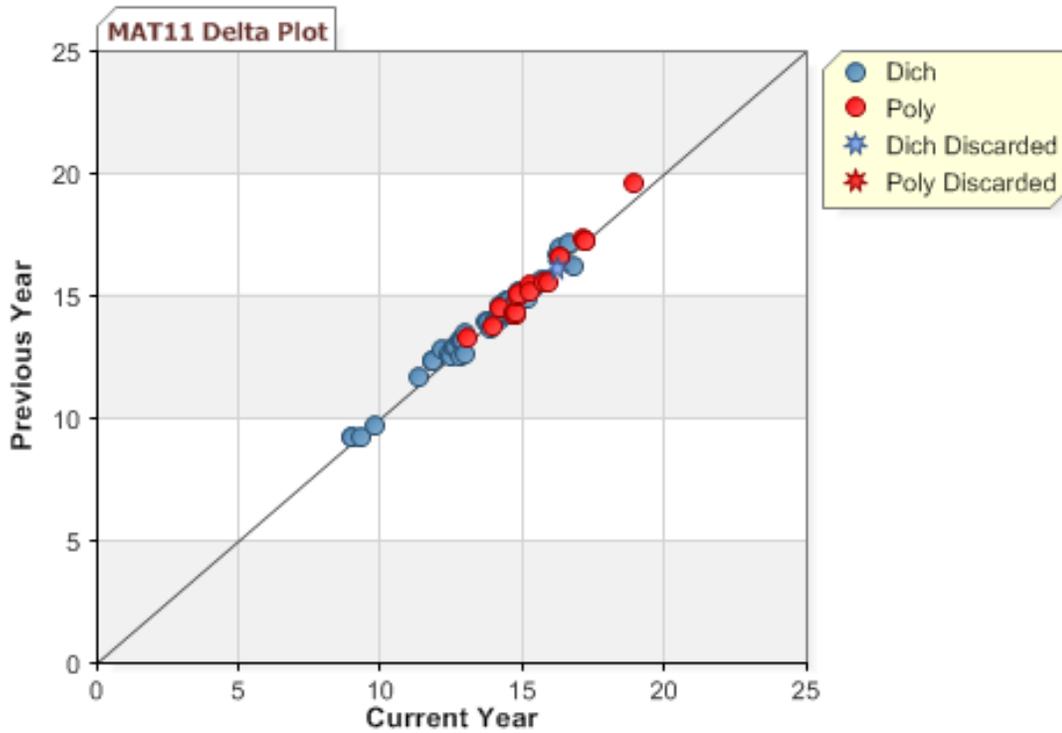


Table J-13. 2011–12 NECAP: Delta Analysis—Mathematics Grade 11

IREF	P		Delta		Discard	Std
	Old	New	Old	New		
119423	0.63	0.66	11.67	11.35	False	-0.18
119427	0.57	0.61	12.29	11.88	False	0.40
119439	0.52	0.58	12.80	12.19	False	1.57
119451	0.30	0.31	15.10	14.98	False	-0.98
119451	0.30	0.32	15.10	14.87	False	-0.33
119457	0.41	0.43	13.91	13.71	False	-0.60
119457	0.41	0.42	13.91	13.81	False	-1.18
119472	0.38	0.33	14.22	14.82	False	2.29
119472	0.38	0.34	14.22	14.70	False	1.65
119472	0.37	0.33	14.33	14.82	False	1.67
119472	0.37	0.34	14.33	14.70	False	1.04
119481	0.14	0.15	17.32	17.15	False	-0.37
119484	0.55	0.55	12.50	12.50	False	-0.90
119484	0.55	0.52	12.50	12.80	False	0.82
119492	0.80	0.79	9.63	9.77	False	0.23
119502	0.32	0.32	14.93	14.87	False	-1.33
119502	0.31	0.32	14.98	14.87	False	-1.00
119516	0.48	0.52	13.20	12.80	False	0.44
119516	0.48	0.52	13.20	12.80	False	0.44
119516	0.48	0.51	13.20	12.90	False	-0.13
119516	0.48	0.51	13.20	12.90	False	-0.13

continued

IREF	P		Delta		Discard	Std
	Old	New	Old	New		
119542	0.38	0.34	14.22	14.65	False	1.34
119543	0.36	0.38	14.49	14.22	False	-0.18
119546	0.43	0.40	13.71	13.99	False	0.57
119582	0.16	0.20	16.98	16.37	False	2.08
119589	0.15	0.15	17.19	17.19	False	-1.39
119589	0.15	0.15	17.19	17.19	False	-1.39
119621	0.28	0.29	15.39	15.27	False	-0.92
119621	0.30	0.29	15.16	15.27	False	-0.54
119627	0.57	0.61	12.29	11.88	False	0.40
119627	0.57	0.61	12.29	11.88	False	0.40
140028	0.22	0.21	16.09	16.23	False	-0.54
140086	0.83	0.82	9.18	9.34	False	0.37
140154	0.37	0.37	14.33	14.33	False	-1.12
141291	0.30	0.32	15.07	14.90	False	-0.66
144787	0.51	0.54	12.90	12.60	False	-0.16
145444	0.40	0.40	14.01	14.01	False	-1.08
145455	0.26	0.25	15.57	15.70	False	-0.55
145455	0.26	0.24	15.57	15.83	False	0.18
145459	0.51	0.53	12.90	12.70	False	-0.74
145465	0.32	0.29	14.87	15.21	False	0.78
145490	0.27	0.25	15.51	15.76	False	0.17
145490	0.27	0.23	15.51	15.96	False	1.28
145492	0.54	0.56	12.60	12.40	False	-0.76
145492	0.54	0.50	12.60	13.00	False	1.38
169507	0.83	0.84	9.18	9.02	False	-1.39
169507	0.83	0.84	9.18	9.02	False	-1.39
169512	0.33	0.36	14.76	14.43	False	0.19
169512	0.33	0.33	14.76	14.76	False	-1.17
169561	0.28	0.27	15.33	15.45	False	-0.55
169570	0.38	0.37	14.22	14.33	False	-0.50
169659	0.47	0.50	13.28	13.05	False	-0.55
169784	0.21	0.17	16.23	16.82	False	2.04
178080	0.18	0.21	16.66	16.23	False	1.04
259826	0.05	0.07	19.58	18.90	False	2.76
259842	0.46	0.50	13.40	13.00	False	0.47
259852	0.40	0.39	14.01	14.12	False	-0.49
259852	0.40	0.38	14.01	14.22	False	0.11
259873	0.40	0.39	14.01	14.12	False	-0.49
259874	0.15	0.18	17.15	16.66	False	1.38
259921	0.19	0.20	16.51	16.37	False	-0.64
259921	0.19	0.20	16.51	16.37	False	-0.64
259944	0.36	0.35	14.43	14.54	False	-0.51
259947	0.44	0.41	13.60	13.91	False	0.72
259989	0.35	0.36	14.54	14.43	False	-1.08
259989	0.35	0.38	14.54	14.22	False	0.13
259989	0.36	0.36	14.43	14.43	False	-1.13
259989	0.36	0.38	14.43	14.22	False	-0.49
270864	0.33	0.35	14.76	14.54	False	-0.42
270864	0.33	0.36	14.76	14.43	False	0.19

Table J-14. 2011–12 NECAP: Rescore Analysis—Mathematics Grade 11

IREF	Max	Mean		St Dev		Effect Size	Discard
		Old	New	Old	New		
145490	4	1.07	1.05	1.06	1.02	-0.01	No
119472	2	0.76	0.73	0.78	0.77	-0.04	No
259826	2	0.10	0.11	0.36	0.40	0.03	No
141291	4	1.44	1.36	1.44	1.37	-0.06	No
119543	2	0.81	0.77	0.96	0.96	-0.04	No
119502	2	0.64	0.63	0.68	0.69	-0.01	No
169659	4	2.00	1.97	1.59	1.58	-0.02	No
119481	2	0.33	0.33	0.62	0.63	0.01	No
119546	4	2.03	1.99	1.61	1.60	-0.03	No
119589	4	0.67	0.64	0.98	0.97	-0.03	No
259921	2	0.40	0.43	0.71	0.71	0.03	No

Figure J-8. 2011–12 NECAP: Delta Plot—Reading Grade 3

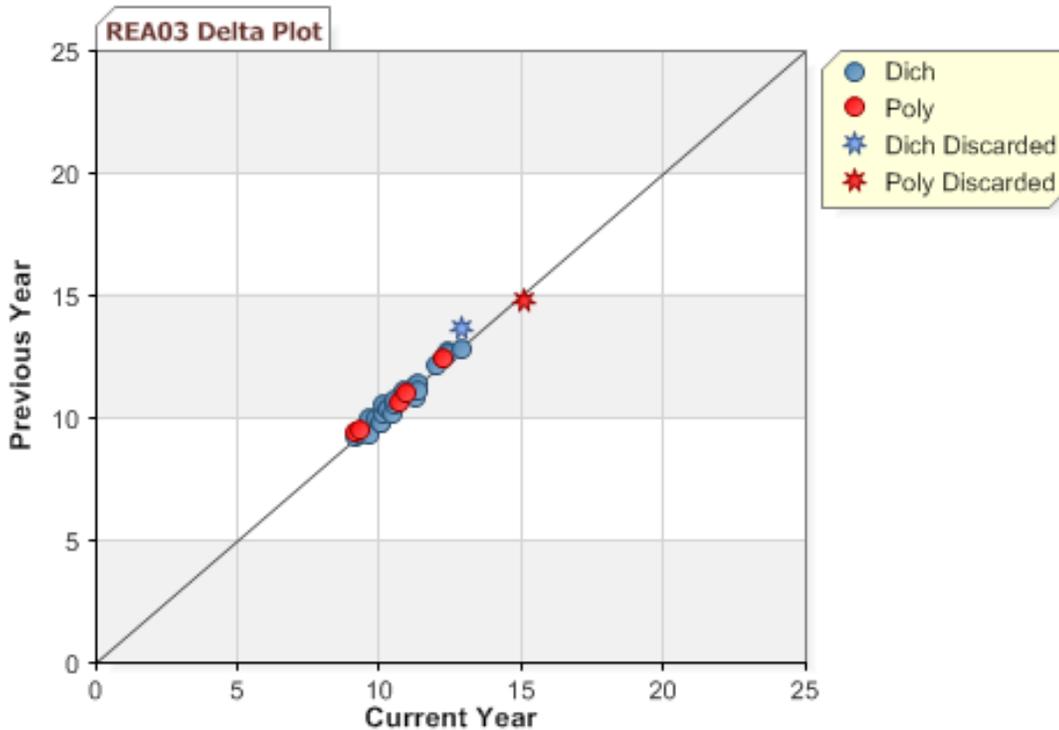


Table J-15. 2011–12 NECAP: Delta Analysis—Reading Grade 3

IREF	P		Delta		Discard	Std
	Old	New	Old	New		
117697	0.83	0.83	9.18	9.18	False	-1.01
117699	0.68	0.66	11.13	11.35	False	0.51
117700	0.67	0.67	11.24	11.24	False	-0.91
117701	0.56	0.57	12.40	12.29	False	-0.61

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
117702	0.79	0.77	9.77	10.04	False	0.76
117703	0.73	0.73	10.55	10.55	False	-0.95
117704	0.69	0.69	11.02	11.02	False	-0.92
117705	0.82	0.83	9.41	9.18	False	0.37
117706	0.56	0.58	12.45	12.24	False	0.04
117787	0.68	0.70	11.13	10.90	False	0.26
117789	0.73	0.76	10.55	10.17	False	1.23
117790	0.75	0.75	10.30	10.30	False	-0.96
117793	0.72	0.73	10.67	10.55	False	-0.41
117794	0.66	0.66	11.35	11.35	False	-0.91
117796	0.44	0.51	13.60	12.90	True	3.22
117797	0.53	0.56	12.70	12.40	False	0.67
117798	0.78	0.78	9.91	9.91	False	-0.98
117801	0.70	0.70	10.96	10.96	False	-0.93
117802	0.81	0.82	9.45	9.30	False	-0.15
128558	0.52	0.51	12.80	12.90	False	-0.19
147996	0.82	0.82	9.34	9.34	False	-1.01
148009	0.59	0.60	12.09	11.99	False	-0.59
148011	0.78	0.80	9.91	9.63	False	0.64
148012	0.69	0.70	11.02	10.90	False	-0.46
148019	0.73	0.72	10.58	10.67	False	-0.37
171325	0.76	0.74	10.17	10.43	False	0.66
171327	0.82	0.80	9.34	9.63	False	0.90
171329	0.79	0.77	9.77	10.04	False	0.76
171334	0.71	0.67	10.79	11.24	False	1.99
171335	0.33	0.30	14.79	15.13	False	1.44
171714	0.75	0.75	10.30	10.30	False	-0.96
171719	0.68	0.67	11.13	11.24	False	-0.20
171720	0.76	0.76	10.17	10.17	False	-0.96
171725	0.54	0.56	12.60	12.40	False	0.03

Table J-16. 2011–12 NECAP: Rescore Analysis—Reading Grade 3

<i>IREF</i>	<i>Max</i>	<i>Mean</i>		<i>St Dev</i>		<i>Effect Size</i>	<i>Discard</i>
		<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
171335	4	1.30	1.27	0.85	0.83	-0.04	No
117802	4	3.29	3.28	0.73	0.73	-0.01	No
117801	4	2.88	2.88	0.84	0.84	-0.01	No
148019	4	3.00	3.01	1.17	1.21	0.01	No
117705	4	3.26	3.26	1.07	1.07	0.00	No
117706	4	2.26	2.28	1.63	1.65	0.01	No

Figure J-9. 2011–12 NECAP: Delta Plot—Reading Grade 4

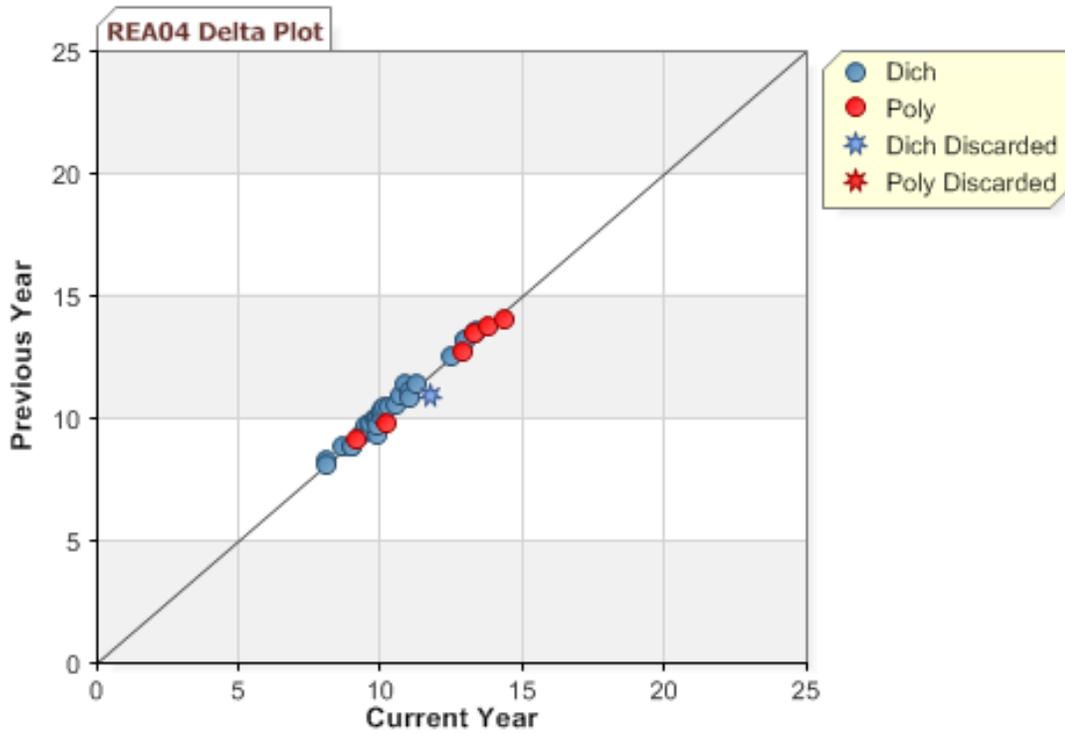


Table J-17. 2011–12 NECAP: Delta Analysis—Reading Grade 4

IREF	P		Delta		Discard	Std
	Old	New	Old	New		
148398	0.74	0.76	10.43	10.17	False	0.43
148411	0.82	0.78	9.34	9.91	False	2.24
171441	0.80	0.78	9.63	9.91	False	0.53
171459	0.80	0.81	9.63	9.49	False	-0.25
171462	0.74	0.75	10.43	10.30	False	-0.29
171473	0.40	0.36	14.01	14.41	False	0.78
171623	0.82	0.82	9.34	9.34	False	-1.02
171625	0.79	0.80	9.77	9.63	False	-0.26
171625	0.81	0.80	9.49	9.63	False	-0.21
171626	0.77	0.77	10.04	10.04	False	-1.03
171626	0.77	0.77	10.04	10.04	False	-1.03
171629	0.48	0.50	13.20	13.00	False	0.40
171630	0.70	0.62	10.90	11.78	True	3.81
171633	0.78	0.79	9.91	9.77	False	-0.27
171636	0.66	0.70	11.35	10.90	False	1.63
171641	0.66	0.67	11.35	11.24	False	-0.29
171642	0.83	0.83	9.14	9.14	False	-1.00
171664	0.43	0.42	13.76	13.83	False	-1.00
171904	0.85	0.84	8.85	9.02	False	-0.02
171908	0.55	0.55	12.50	12.50	False	-0.80
171911	0.78	0.78	9.91	9.91	False	-1.05

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
171911	0.78	0.78	9.91	9.91	False	-1.05
171970	0.75	0.77	10.30	10.04	False	0.45
171975	0.54	0.51	12.65	12.92	False	0.24
172194	0.88	0.89	8.30	8.09	False	-0.02
172219	0.89	0.89	8.09	8.09	False	-0.90
177161	0.85	0.84	8.85	9.02	False	-0.02
203668	0.45	0.46	13.50	13.40	False	-0.14
203670	0.48	0.50	13.20	13.00	False	0.40
203673	0.68	0.69	11.13	11.02	False	-0.29
203675	0.70	0.72	10.90	10.67	False	0.38
203678	0.46	0.47	13.40	13.30	False	-0.15
203684	0.46	0.47	13.40	13.35	False	-0.43
205951	0.79	0.76	9.81	10.21	False	1.20
232576	0.85	0.86	8.85	8.68	False	-0.15
232579	0.71	0.69	10.79	11.02	False	0.15
232585	0.73	0.73	10.55	10.55	False	-0.99

Table J-18. 2011–12 NECAP: Rescore Analysis—Reading Grade 4

<i>IREF</i>	<i>Max</i>	<i>Mean</i>		<i>St Dev</i>		<i>Effect Size</i>	<i>Discard</i>
		<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
171473	4	1.61	1.56	0.93	0.97	-0.05	No
205951	4	3.17	3.07	1.10	1.13	-0.09	No
203684	4	1.87	1.91	1.04	0.95	0.04	No
171975	4	2.23	2.14	1.32	1.26	-0.07	No
171642	4	3.34	3.33	0.83	0.83	-0.01	No
171664	4	1.68	1.76	1.06	1.05	0.08	No

Figure J-10. 2011–12 NECAP: Delta Plot—Reading Grade 5

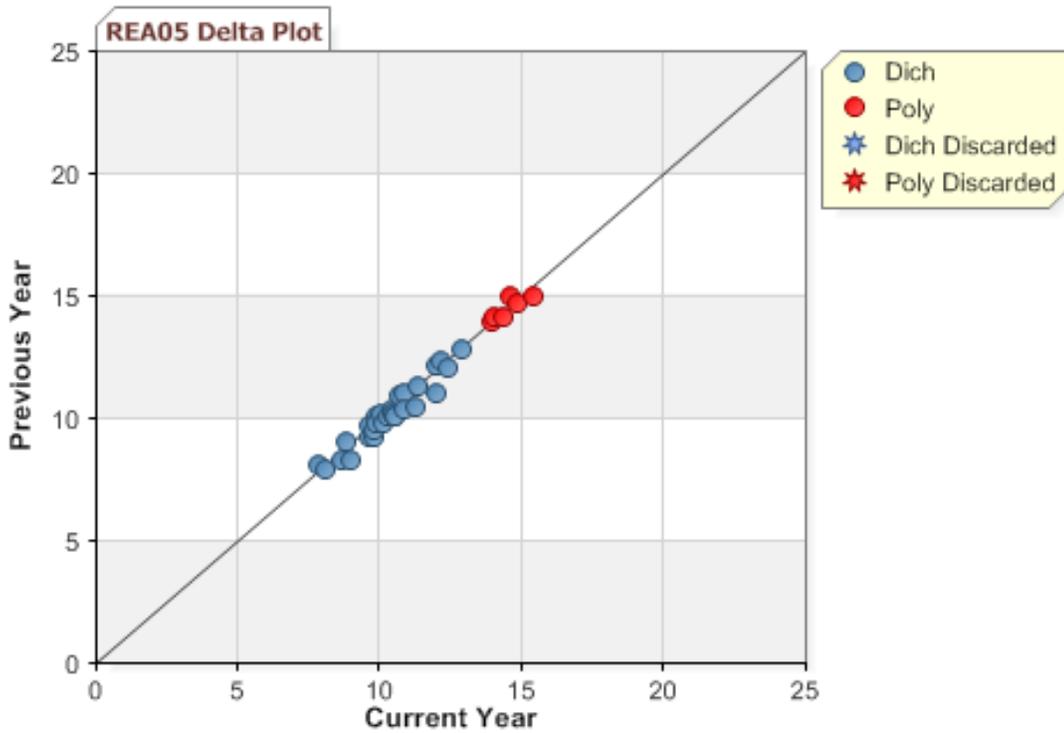


Table J-19. 2011–12 NECAP: Delta Analysis—Reading Grade 5

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
118170	0.89	0.90	8.09	7.87	False	1.17
118172	0.59	0.60	12.09	11.99	False	0.19
118175	0.90	0.89	7.87	8.09	False	-1.28
118176	0.69	0.70	11.02	10.90	False	0.34
118178	0.39	0.40	14.09	14.04	False	-0.26
118205	0.70	0.72	10.90	10.67	False	1.01
147820	0.81	0.79	9.49	9.77	False	-1.11
147825	0.77	0.73	10.04	10.55	False	0.16
147987	0.88	0.84	8.30	9.02	False	1.23
147992	0.83	0.80	9.18	9.63	False	-0.22
147999	0.76	0.77	10.17	10.04	False	0.49
148001	0.77	0.75	10.04	10.30	False	-1.23
148006	0.60	0.56	11.99	12.40	False	-0.22
148008	0.67	0.66	11.24	11.35	False	-0.94
148137	0.31	0.34	14.98	14.65	False	1.24
148158	0.34	0.32	14.70	14.84	False	-1.38
171306	0.83	0.79	9.18	9.77	False	0.57
171308	0.57	0.58	12.29	12.19	False	0.16
171313	0.75	0.74	10.30	10.43	False	-0.94
171317	0.79	0.78	9.77	9.91	False	-0.97
171320	0.41	0.41	13.96	13.94	False	-0.40

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
171482	0.84	0.85	9.02	8.85	False	0.80
171493	0.79	0.76	9.77	10.17	False	-0.45
171564	0.75	0.70	10.30	10.90	False	0.71
171637	0.76	0.74	10.17	10.43	False	-1.25
171639	0.80	0.80	9.63	9.63	False	-0.19
171655	0.52	0.51	12.80	12.90	False	-1.01
171656	0.88	0.86	8.30	8.68	False	-0.69
171666	0.77	0.73	10.04	10.55	False	0.16
171668	0.39	0.37	14.12	14.35	False	-1.01
171670	0.31	0.28	14.98	15.39	False	0.02
172065	0.77	0.78	10.04	9.91	False	0.52
172073	0.74	0.67	10.43	11.24	False	1.92
269423	0.69	0.60	11.02	11.99	False	2.84

Table J-20. 2011–12 NECAP: Rescore Analysis—Reading Grade 5

<i>IREF</i>	<i>Max</i>	<i>Mean</i>		<i>St Dev</i>		<i>Effect Size</i>	<i>Discard</i>
		<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
171320	4	1.72	1.72	1.01	1.00	0.00	No
148158	4	1.33	1.32	0.94	0.92	-0.01	No
148137	4	1.27	1.41	0.90	0.84	0.15	No
118178	4	1.51	1.55	0.92	0.93	0.04	No
171668	4	1.65	1.58	1.03	1.06	-0.07	No
171670	4	1.46	1.28	1.17	1.16	-0.15	No

Figure J-11. 2011–12 NECAP: Delta Plot—Reading Grade 6

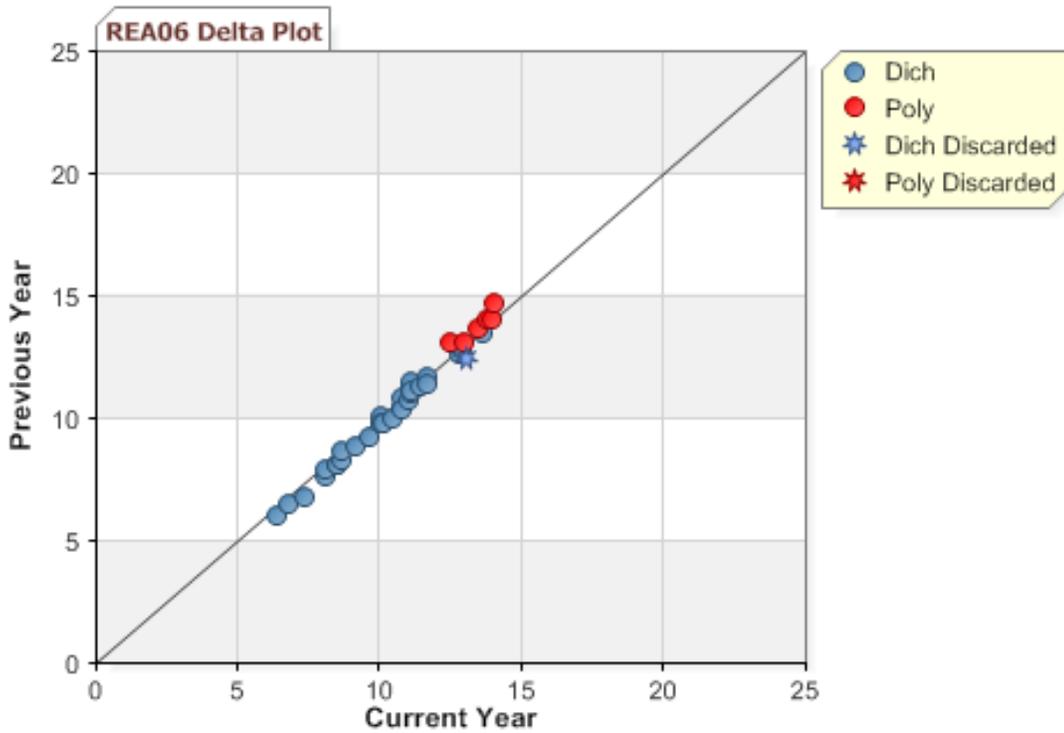


Table J-21. 2011–12 NECAP: Delta Analysis—Reading Grade 6

IREF	P		Delta		Discard	Std
	Old	New	Old	New		
118387	0.71	0.71	10.79	10.79	False	-0.12
171785	0.68	0.68	11.13	11.13	False	-0.30
171801	0.90	0.89	7.87	8.09	False	-0.13
171807	0.46	0.44	13.40	13.60	False	0.51
171818	0.67	0.65	11.24	11.46	False	-0.47
171823	0.40	0.42	14.04	13.78	False	-0.04
171853	0.74	0.71	10.43	10.79	False	0.06
171853	0.75	0.71	10.30	10.79	False	0.83
171857	0.56	0.49	12.40	13.10	True	3.34
171867	0.88	0.86	8.30	8.68	False	-0.87
171868	0.95	0.94	6.42	6.78	False	-0.33
171872	0.79	0.76	9.77	10.17	False	0.01
171873	0.96	0.95	6.00	6.42	False	-0.54
171882	0.79	0.77	9.77	10.04	False	-0.86
171882	0.77	0.77	10.04	10.04	False	0.25
171885	0.94	0.92	6.78	7.38	False	-0.17
171889	0.44	0.45	13.63	13.50	False	-0.71
171893	0.49	0.50	13.10	13.03	False	-0.78
172035	0.54	0.52	12.60	12.80	False	0.10
172042	0.63	0.63	11.67	11.67	False	-0.57
172042	0.66	0.63	11.35	11.67	False	0.28

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
172045	0.91	0.89	7.64	8.09	False	-0.69
172056	0.51	0.52	12.90	12.80	False	-0.52
172069	0.72	0.69	10.67	11.02	False	0.11
172074	0.85	0.83	8.85	9.18	False	-0.93
172081	0.89	0.87	8.09	8.49	False	-0.83
172081	0.89	0.87	8.09	8.49	False	-0.83
172094	0.65	0.68	11.46	11.13	False	1.73
172094	0.69	0.68	11.02	11.13	False	-0.99
172099	0.34	0.40	14.68	14.04	False	2.17
172103	0.40	0.41	13.99	13.94	False	-0.89
172111	0.83	0.80	9.18	9.63	False	0.04
172129	0.67	0.68	11.24	11.13	False	0.39
172131	0.78	0.74	9.91	10.43	False	0.84
172134	0.86	0.86	8.68	8.68	False	0.93
172140	0.49	0.55	13.08	12.52	False	2.40
172206	0.51	0.51	12.90	12.90	False	-1.09
172238	0.52	0.51	12.80	12.90	False	-0.47
172264	0.79	0.77	9.77	10.04	False	-0.86

Table J-22. 2011–12 NECAP: Rescore Analysis—Reading Grade 6

<i>IREF</i>	<i>Max</i>	<i>Mean</i>		<i>St Dev</i>		<i>Effect Size</i>	<i>Discard</i>
		<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
171823	4	1.64	1.72	0.81	0.90	0.10	No
172103	4	1.64	1.72	0.80	0.88	0.10	No
172099	4	1.43	1.63	0.95	0.92	0.21	No
172140	4	1.92	2.08	0.88	0.96	0.18	No
171893	4	1.85	2.00	0.99	1.04	0.14	No
171889	4	1.87	1.98	0.84	0.91	0.13	No

Figure J-12. 2011–12 NECAP: Delta Plot—Reading Grade 7

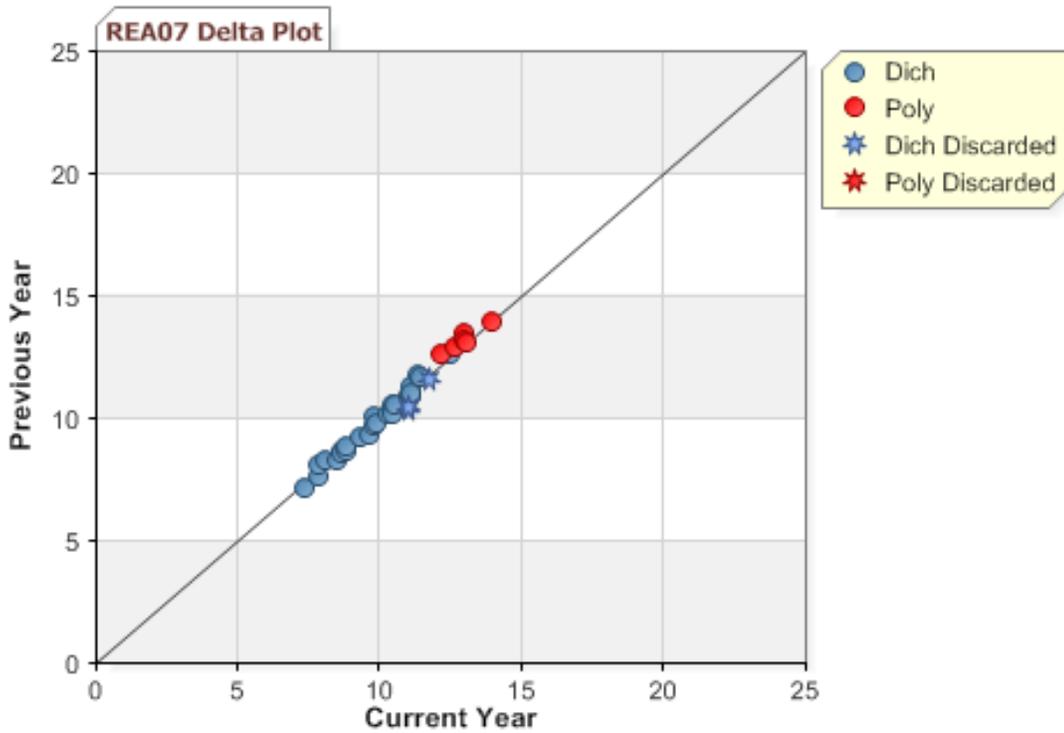


Table J-23. 2011–12 NECAP: Delta Analysis—Reading Grade 7

IREF	P		Delta		Discard	Std
	Old	New	Old	New		
147154	0.93	0.92	7.10	7.38	False	-0.53
147157	0.88	0.87	8.30	8.49	False	-0.79
147161	0.86	0.85	8.68	8.85	False	-0.81
147162	0.73	0.74	10.55	10.43	False	-0.14
147164	0.87	0.86	8.49	8.68	False	-0.80
147171	0.85	0.85	8.85	8.85	False	-0.49
147172	0.82	0.80	9.34	9.63	False	0.17
147174	0.62	0.66	11.78	11.35	False	1.57
147179	0.49	0.50	13.13	13.03	False	-1.00
147181	0.41	0.41	13.94	13.94	False	-0.54
147526	0.89	0.90	8.09	7.87	False	1.19
147539	0.91	0.90	7.64	7.87	False	-0.69
147546	0.64	0.62	11.57	11.78	False	0.23
147549	0.88	0.89	8.30	8.09	False	1.04
147555	0.55	0.58	12.55	12.17	False	1.04
147641	0.80	0.79	9.63	9.77	False	-0.78
147643	0.70	0.69	10.90	11.02	False	-0.61
147646	0.67	0.68	11.24	11.13	False	-0.41
147647	0.73	0.73	10.55	10.55	False	-0.96
147649	0.51	0.54	12.90	12.65	False	0.07
147666	0.86	0.86	8.68	8.68	False	-0.44

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
147686	0.54	0.55	12.60	12.50	False	-0.85
147690	0.76	0.75	10.17	10.30	False	-0.72
173246	0.75	0.74	10.30	10.43	False	-0.70
173246	0.76	0.74	10.17	10.43	False	0.12
173247	0.74	0.69	10.43	11.02	False	2.46
173247	0.75	0.69	10.30	11.02	True	3.26
173249	0.69	0.68	11.02	11.13	False	-0.59
173254	0.83	0.82	9.18	9.34	False	-0.81
173255	0.54	0.56	12.60	12.40	False	-0.17
173260	0.70	0.68	10.90	11.13	False	0.15
173260	0.70	0.68	10.90	11.13	False	0.15
173261	0.79	0.78	9.77	9.91	False	-0.77
173269	0.63	0.65	11.67	11.46	False	0.16
173286	0.46	0.50	13.45	12.97	False	1.44
173293	0.50	0.49	13.05	13.10	False	-0.44
173349	0.77	0.79	10.04	9.77	False	0.99

Table J-24. 2011–12 NECAP: Rescore Analysis—Reading Grade 7

<i>IREF</i>	<i>Max</i>	<i>Mean</i>		<i>St Dev</i>		<i>Effect Size</i>	<i>Discard</i>
		<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
147555	4	2.34	2.33	0.88	0.86	-0.02	No
173293	4	2.00	2.09	1.40	1.37	0.07	No
173286	4	1.82	2.13	0.99	1.06	0.31	No
147649	4	2.09	2.13	0.99	1.05	0.04	No
147179	4	1.94	1.91	1.11	1.13	-0.02	No
147181	4	1.87	1.81	1.19	1.13	-0.05	No

Figure J-13. 2011–12 NECAP: Delta Plot—Reading Grade 8

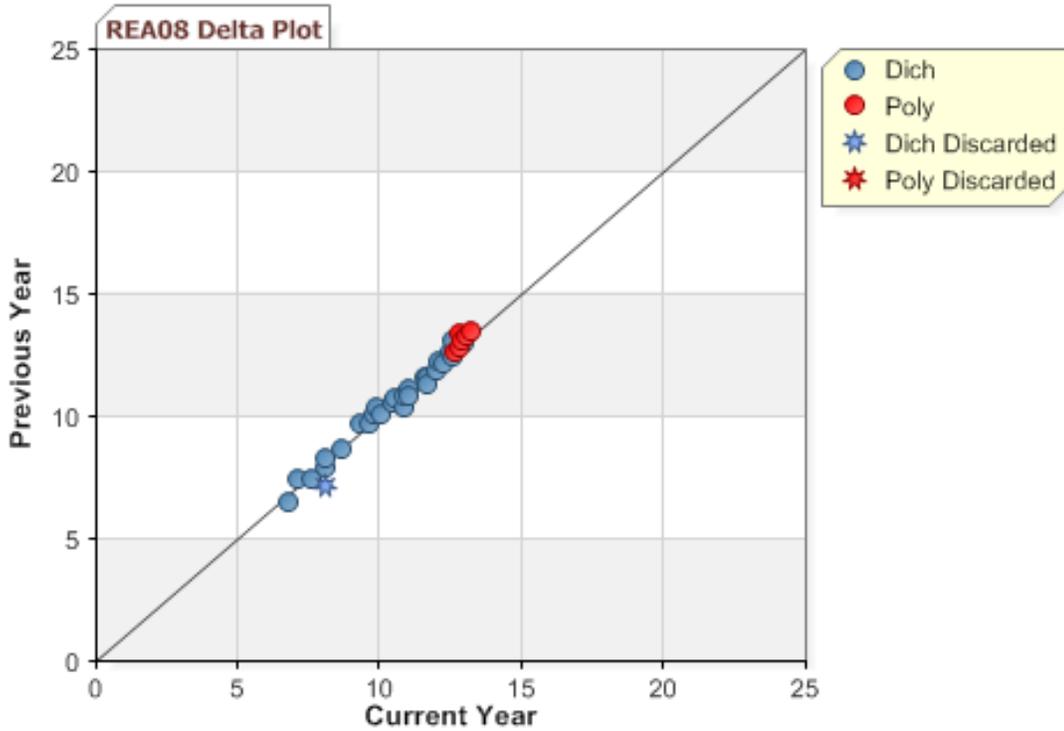


Table J-25. 2011–12 NECAP: Delta Analysis—Reading Grade 8

IREF	P		Delta		Discard	Std
	Old	New	Old	New		
118618	0.92	0.93	7.38	7.10	False	1.13
118619	0.71	0.69	10.79	11.02	False	0.02
118620	0.59	0.57	12.09	12.29	False	0.15
118622	0.88	0.89	8.30	8.09	False	0.52
118625	0.92	0.91	7.38	7.64	False	-0.54
118626	0.58	0.59	12.19	12.09	False	-0.86
118627	0.64	0.63	11.57	11.67	False	-0.50
118628	0.49	0.54	13.10	12.60	False	1.14
118629	0.49	0.51	13.10	12.92	False	-0.65
118630	0.54	0.53	12.60	12.67	False	-0.45
118749	0.68	0.69	11.13	11.02	False	-0.58
147600	0.75	0.78	10.30	9.91	False	1.11
147611	0.71	0.70	10.79	10.90	False	-0.61
172353	0.93	0.89	7.10	8.09	True	3.45
172356	0.77	0.77	10.04	10.04	False	-0.97
172359	0.80	0.82	9.63	9.34	False	0.73
172361	0.77	0.79	10.04	9.77	False	0.51
172373	0.52	0.52	12.77	12.82	False	-0.55
172442	0.90	0.89	7.87	8.09	False	-0.64
172446	0.61	0.60	11.88	11.99	False	-0.45
172450	0.86	0.86	8.68	8.68	False	-0.69

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
172451	0.95	0.94	6.42	6.78	False	-0.18
172468	0.46	0.48	13.43	13.23	False	-0.57
172653	0.67	0.63	11.24	11.67	False	1.22
172658	0.73	0.74	10.55	10.43	False	-0.41
172666	0.72	0.73	10.67	10.55	False	-0.45
172675	0.54	0.55	12.60	12.50	False	-0.95
172678	0.80	0.80	9.63	9.63	False	-0.89
172697	0.64	0.64	11.57	11.57	False	-1.08
172699	0.50	0.50	13.00	13.00	False	-0.78
172700	0.56	0.54	12.40	12.60	False	0.20
172704	0.48	0.50	13.25	13.05	False	-0.54
172709	0.47	0.52	13.33	12.80	False	1.23
172734	0.75	0.70	10.30	10.90	False	1.94

Table J-26. 2011–12 NECAP: Rescore Analysis—Reading Grade 8

<i>IREF</i>	<i>Max</i>	<i>Mean</i>		<i>St Dev</i>		<i>Effect Size</i>	<i>Discard</i>
		<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
172373	4	2.17	2.03	0.91	0.92	-0.15	No
172704	4	1.88	1.96	0.95	0.94	0.08	No
172468	4	1.97	1.81	0.97	1.04	-0.16	No
118629	4	2.06	2.20	0.87	0.91	0.16	No
118630	4	2.17	2.19	1.01	0.99	0.02	No

Figure J-14. 2011–12 NECAP: Delta Plot—Reading Grade 11

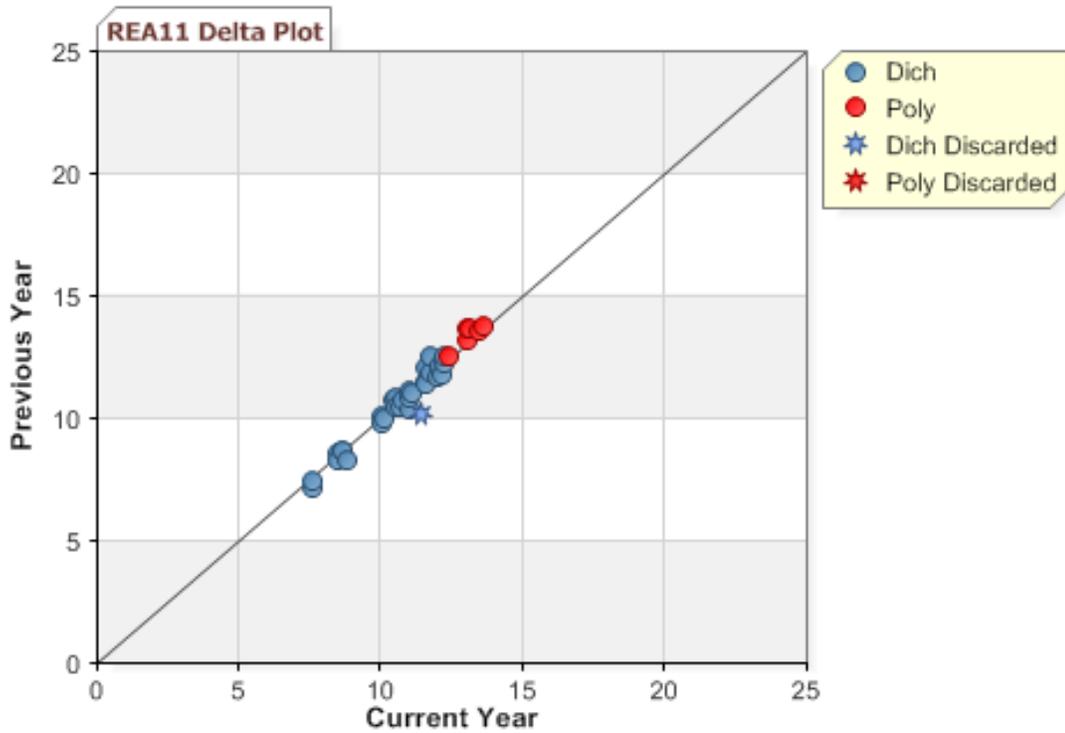


Table J-27. 2011–12 NECAP: Delta Analysis—Reading Grade 11

IREF	P		Delta		Discard	Std
	Old	New	Old	New		
118874	0.87	0.87	8.49	8.49	False	0.09
118876	0.74	0.72	10.43	10.67	False	-0.40
118878	0.69	0.68	11.02	11.13	False	-0.80
118880	0.71	0.73	10.79	10.55	False	0.46
118883	0.45	0.45	13.55	13.48	False	-0.87
147381	0.63	0.60	11.67	11.99	False	0.29
147382	0.68	0.69	11.13	11.02	False	-0.19
147383	0.71	0.69	10.79	11.02	False	-0.34
147385	0.72	0.71	10.67	10.79	False	-0.88
147388	0.44	0.49	13.60	13.10	False	0.80
147735	0.92	0.91	7.38	7.64	False	-0.71
147736	0.93	0.91	7.10	7.64	False	-0.07
147747	0.74	0.73	10.43	10.55	False	-0.93
147749	0.60	0.59	11.99	12.09	False	-0.55
147753	0.77	0.77	10.04	10.04	False	-0.37
147764	0.66	0.64	11.35	11.57	False	-0.24
147766	0.79	0.77	9.77	10.04	False	-0.47
147767	0.78	0.76	9.91	10.17	False	-0.46
147774	0.55	0.56	12.50	12.45	False	-0.88
147775	0.48	0.50	13.20	13.05	False	-0.64
147908	0.61	0.62	11.88	11.78	False	-0.45

continued

<i>IREF</i>	<i>P</i>		<i>Delta</i>		<i>Discard</i>	<i>Std</i>
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
147926	0.75	0.69	10.30	11.02	False	1.65
147929	0.72	0.74	10.67	10.43	False	0.52
172354	0.88	0.85	8.30	8.85	False	0.35
172355	0.58	0.57	12.19	12.29	False	-0.49
172355	0.55	0.57	12.50	12.29	False	-0.20
172358	0.62	0.58	11.78	12.19	False	0.77
172360	0.76	0.65	10.17	11.46	True	4.13
172363	0.59	0.59	12.09	12.09	False	-0.97
172366	0.88	0.87	8.30	8.49	False	-0.71
172372	0.86	0.86	8.68	8.68	False	0.04
172372	0.86	0.86	8.68	8.68	False	0.04
172375	0.60	0.64	11.99	11.57	False	0.91
172375	0.65	0.64	11.46	11.57	False	-0.69
172378	0.44	0.49	13.60	13.13	False	0.69
172380	0.43	0.43	13.68	13.68	False	-0.50
172855	0.55	0.62	12.50	11.78	False	2.08

Table J-28. 2011–12 NECAP: Rescore Analysis—Reading Grade 11

<i>IREF</i>	<i>Max</i>	<i>Mean</i>		<i>St Dev</i>		<i>Effect Size</i>	<i>Discard</i>
		<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
147774	4	1.96	1.98	1.17	1.20	0.01	No
147775	4	1.76	1.85	0.99	1.02	0.09	No
147388	4	1.61	1.86	0.97	1.01	0.26	No
172378	4	1.55	1.71	1.07	1.17	0.15	No
172380	4	1.68	1.64	0.97	0.93	-0.04	No
118883	4	1.68	1.70	1.00	1.00	0.02	No

APPENDIX K— α -PLOTS AND b -PLOTS

Figure K-1. 2011–12 NECAP: α -Plot—Mathematics Grade 3

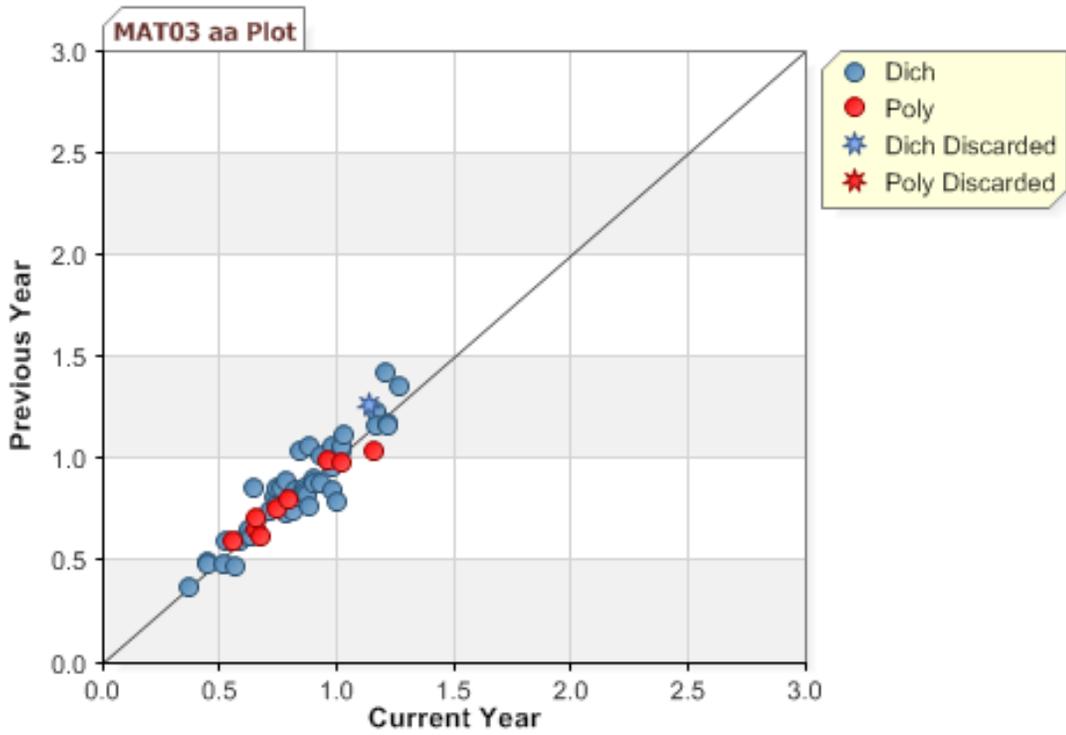


Figure K-2. 2011–12 NECAP: b -Plot—Mathematics Grade 3

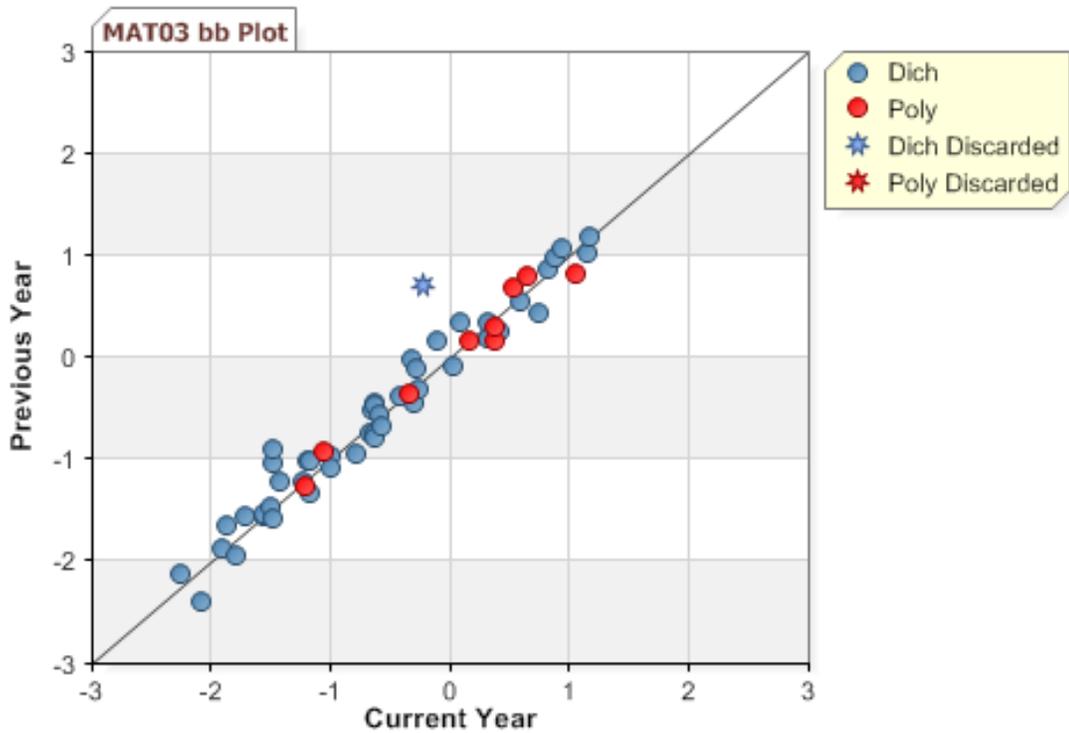


Figure K-3. 2011–12 NECAP: α -Plot—Mathematics Grade 4

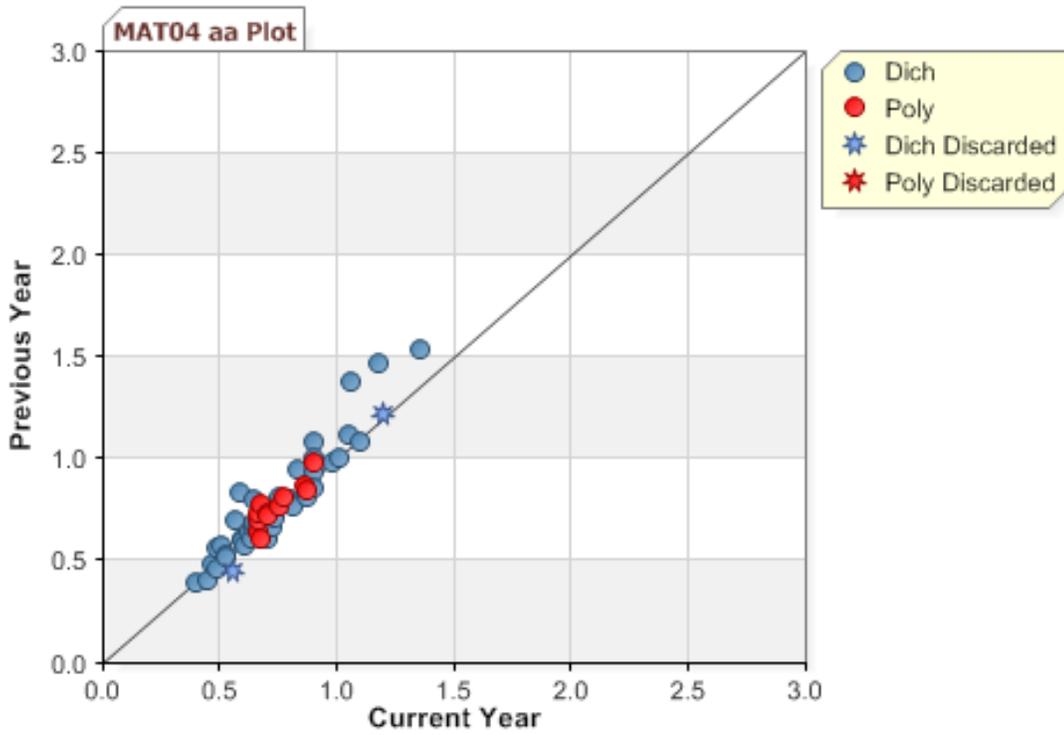


Figure K-4. 2011–12 NECAP: b -Plot—Mathematics Grade 4

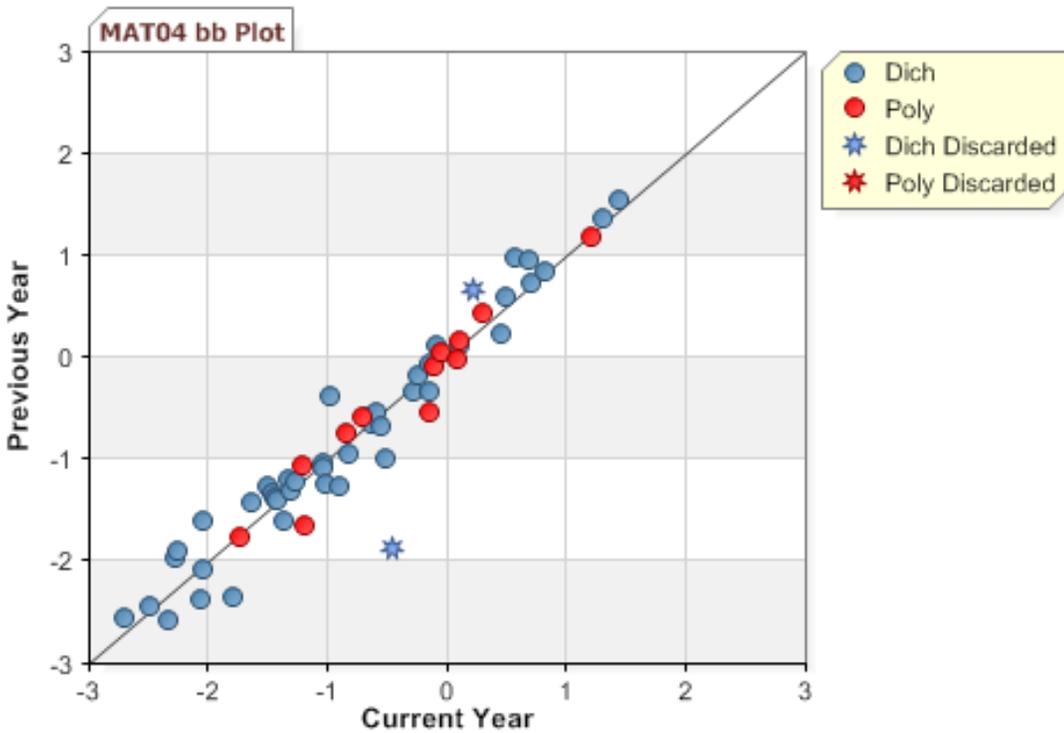


Figure K-5. 2011–12 NECAP: α -Plot—Mathematics Grade 5

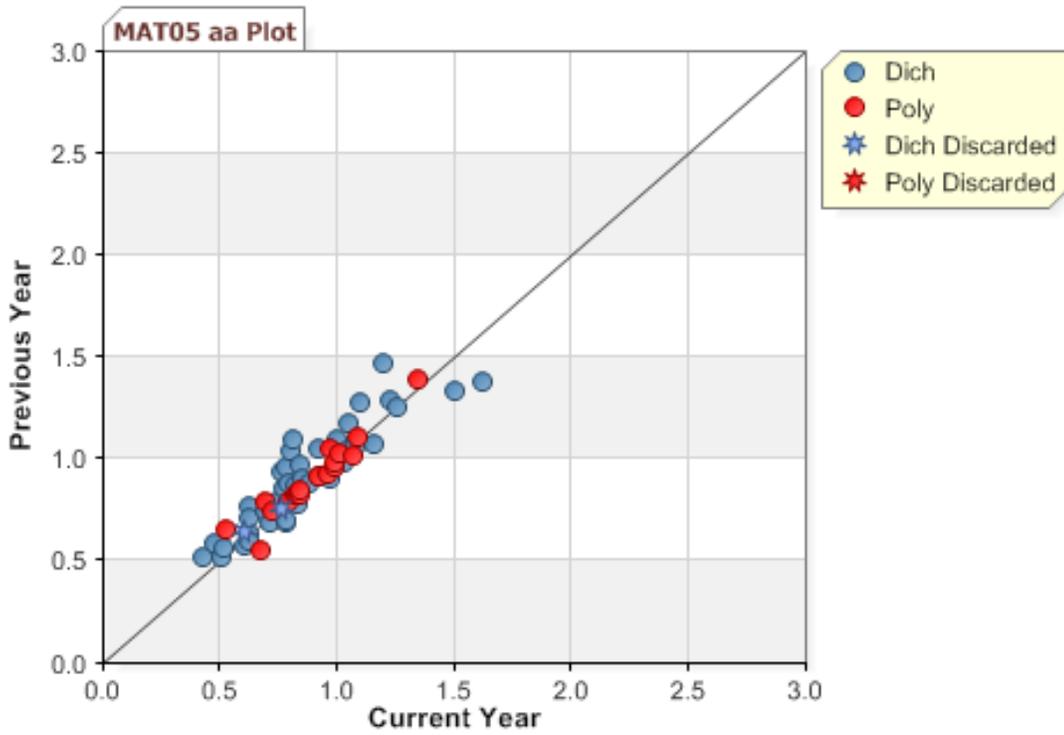


Figure K-6. 2011–12 NECAP: b -Plot—Mathematics Grade 5

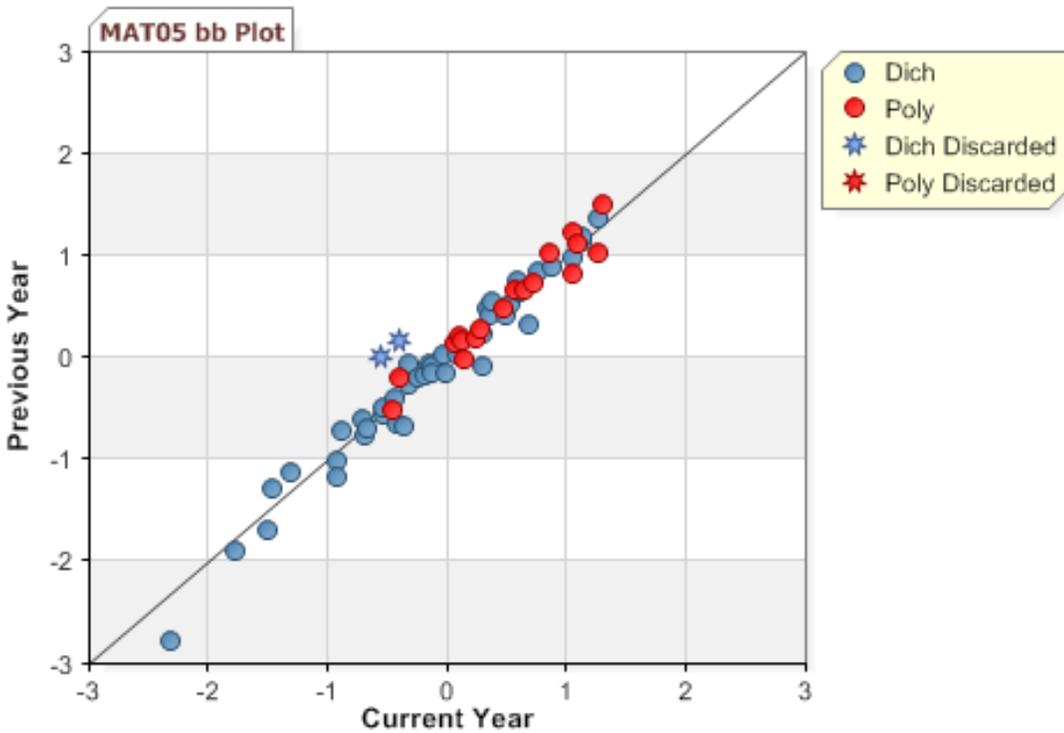


Figure K-7. 2011–12 NECAP: α -Plot—Mathematics Grade 6

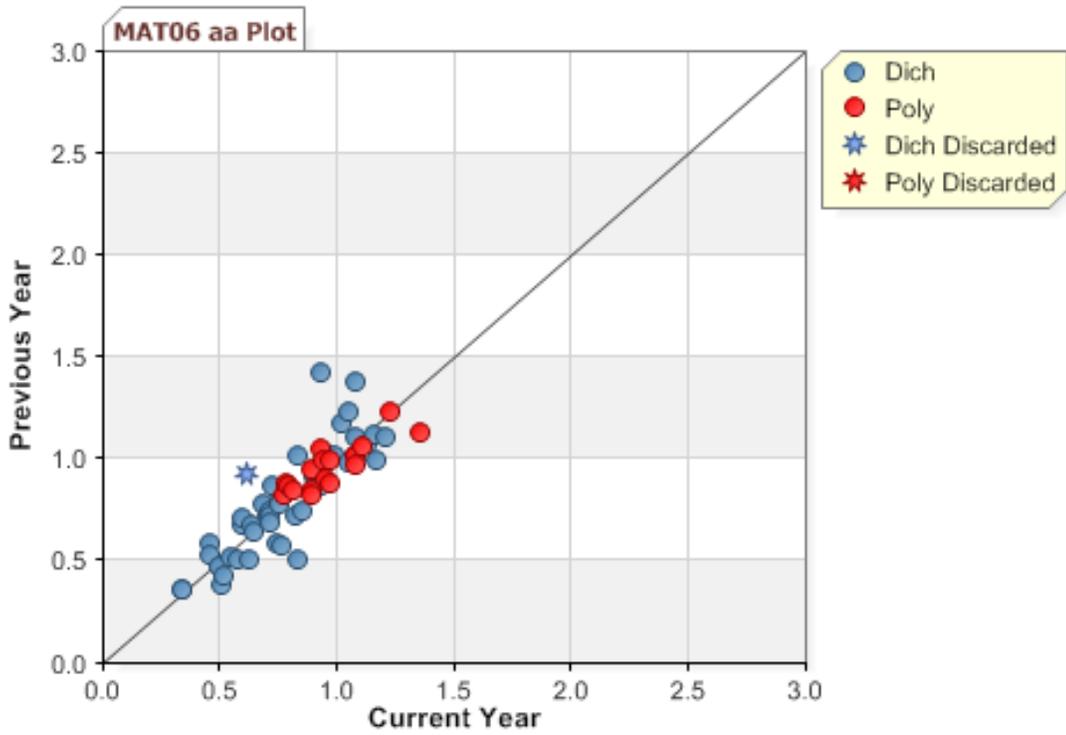


Figure K-8. 2011–12 NECAP: b -Plot—Mathematics Grade 6

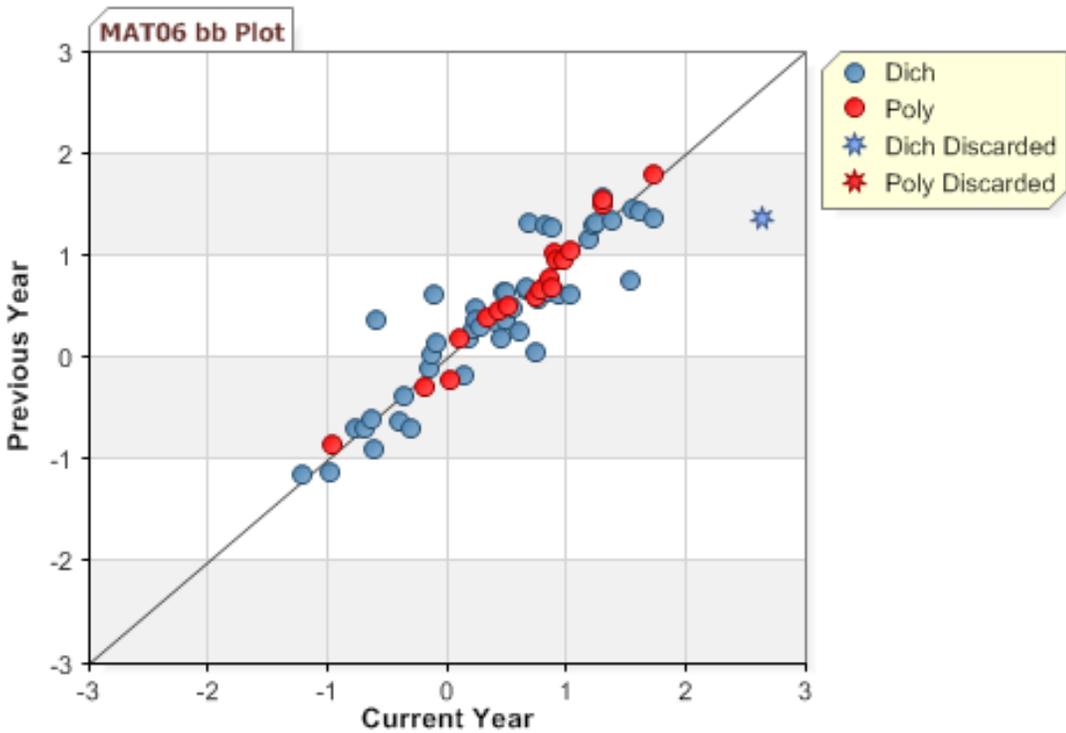


Figure K-9. 2011–12 NECAP: α -Plot—Mathematics Grade 7

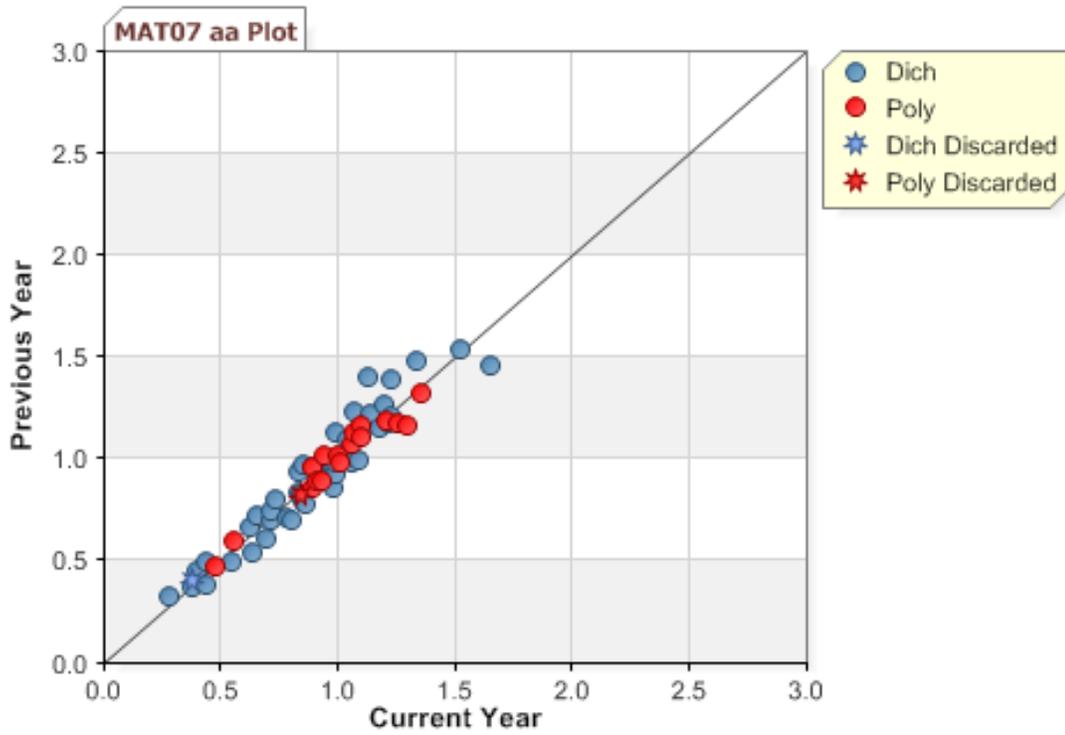


Figure K-10. 2011–12 NECAP: b -Plot—Mathematics Grade 7

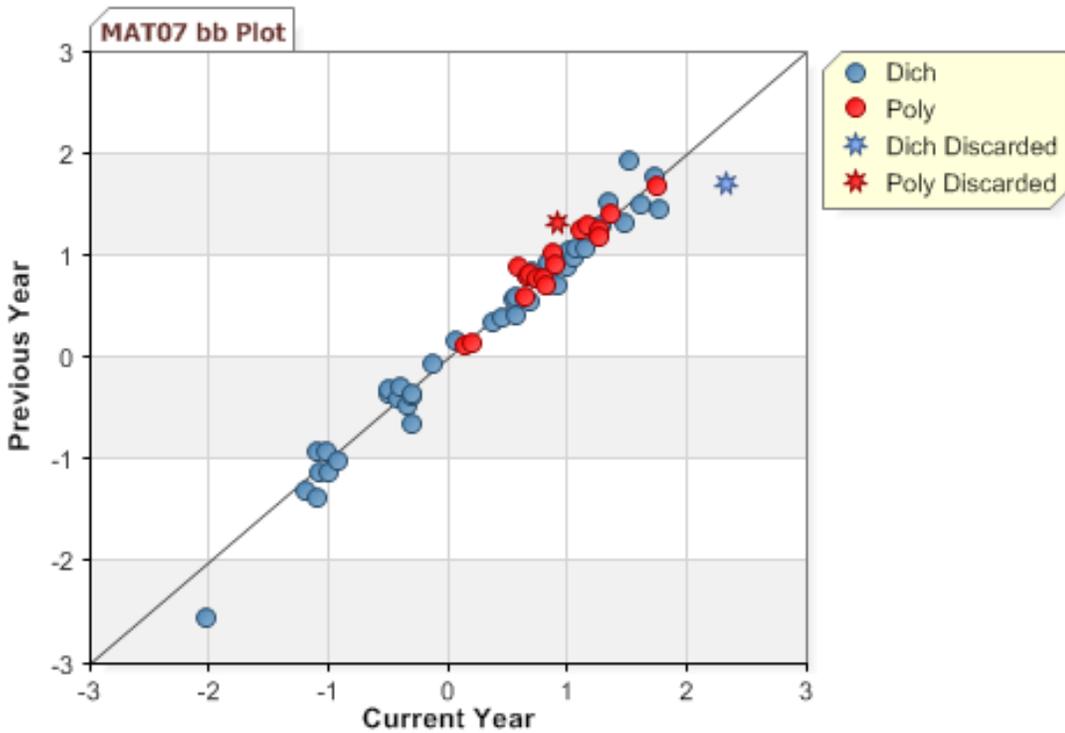


Figure K-11. 2011–12 NECAP: α -Plot—Mathematics Grade 8

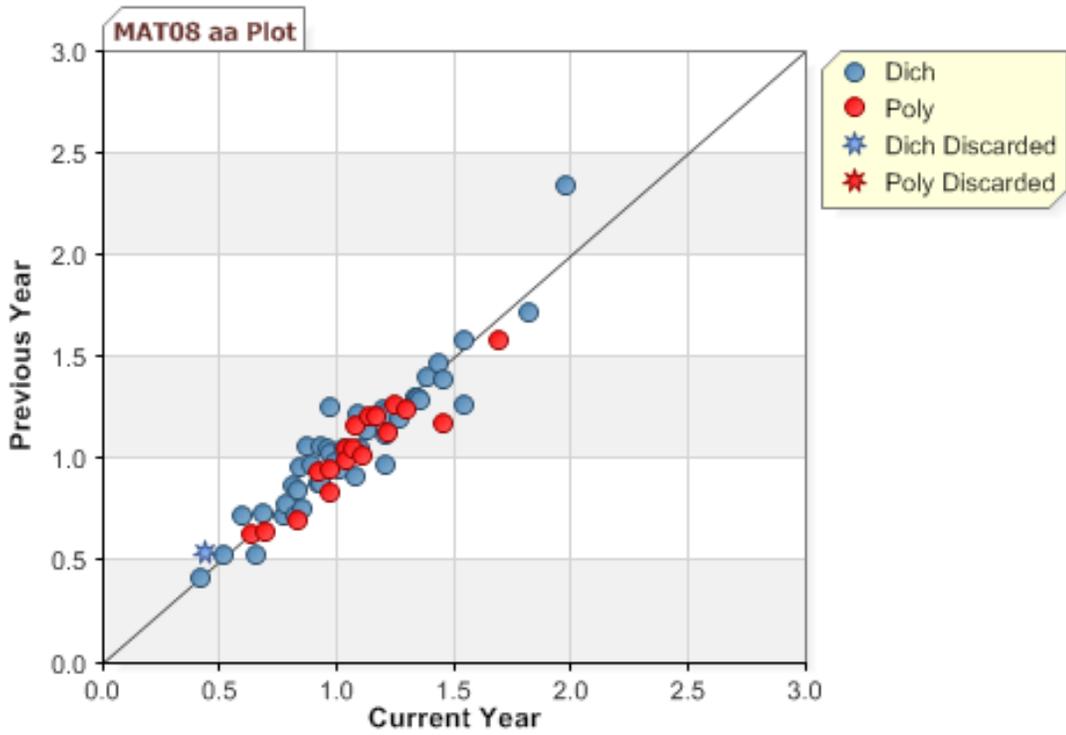


Figure K-12. 2011–12 NECAP: b -Plot—Mathematics Grade 8

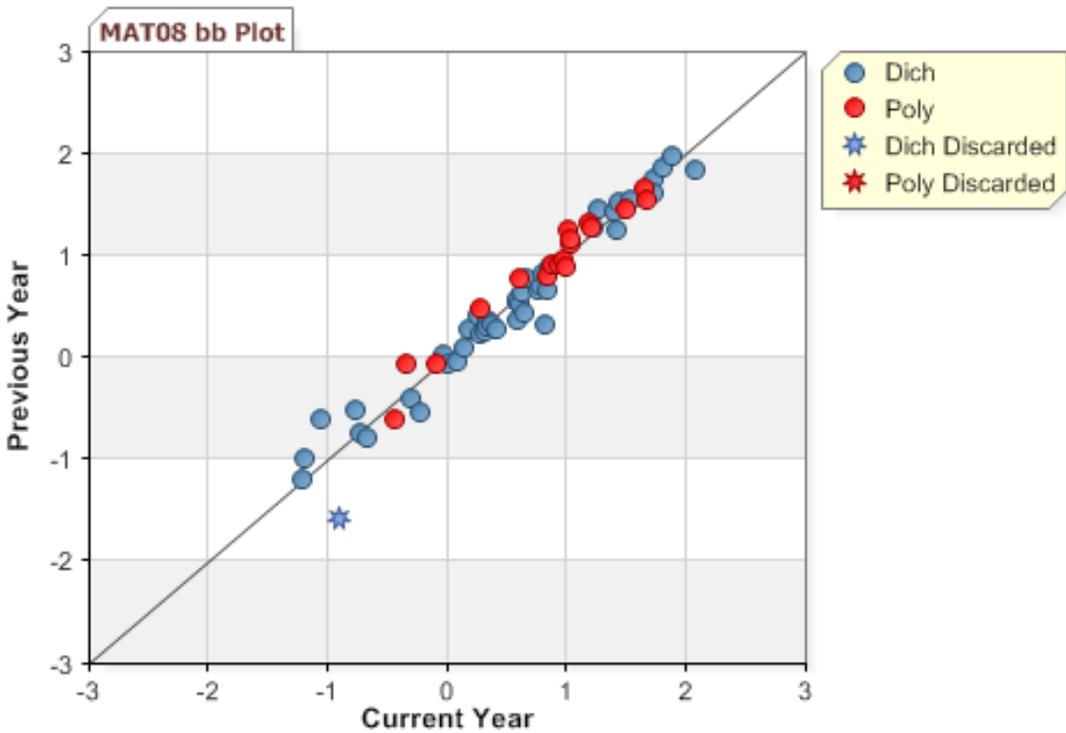


Figure K-13. 2011–12 NECAP: α -Plot—Mathematics Grade 11

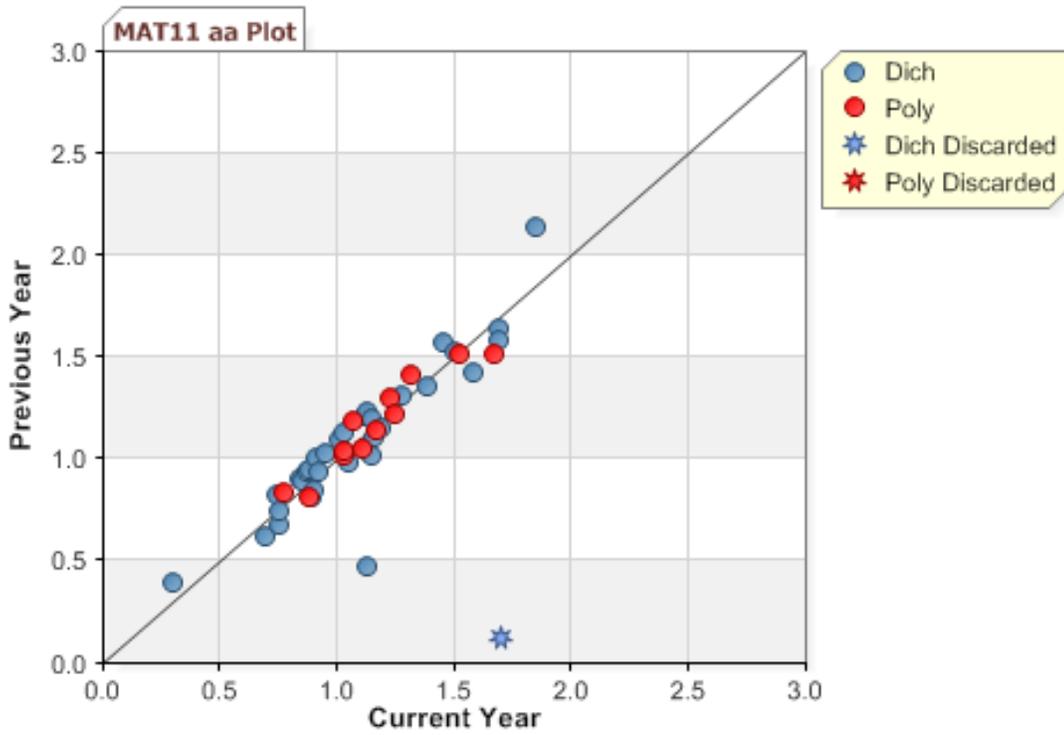


Figure K-14. 2011–12 NECAP: b -Plot—Mathematics Grade 11

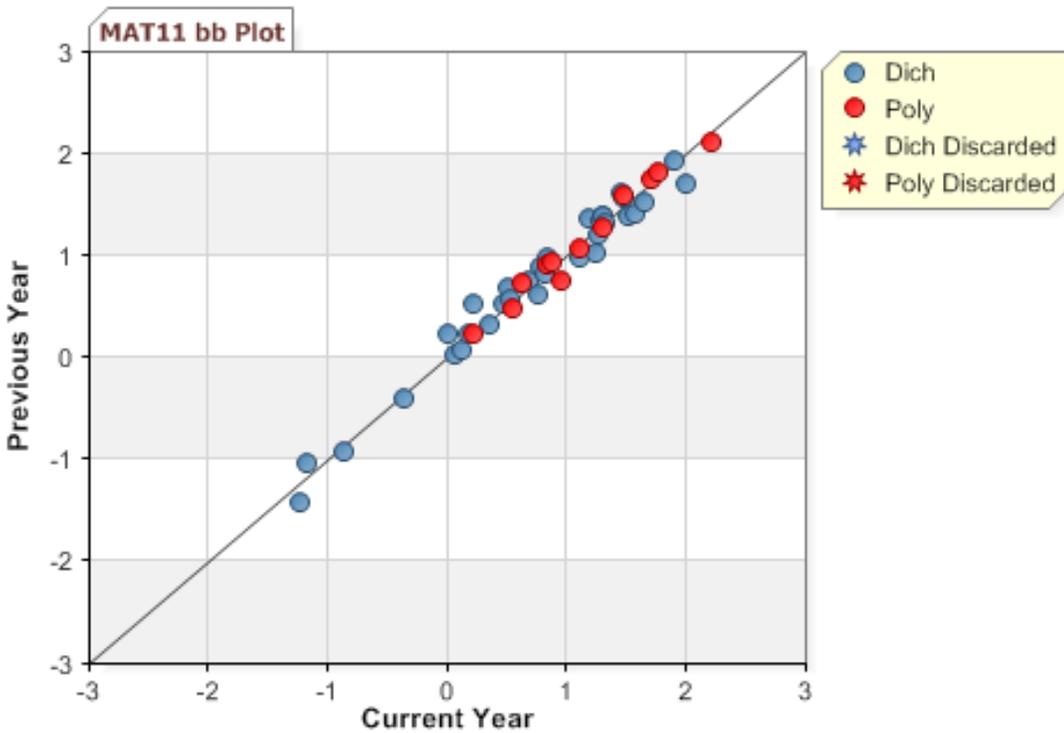


Figure K-15. 2011–12 NECAP: α -Plot—Reading Grade 3

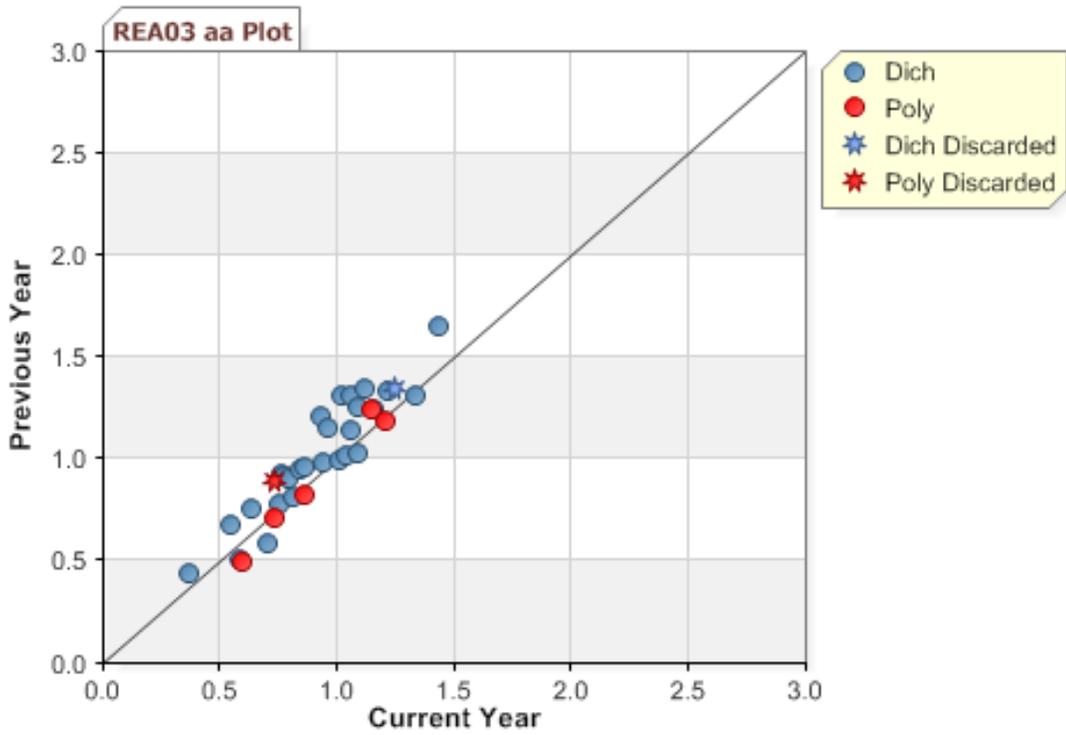


Figure K-16. 2011–12 NECAP: b -Plot—Reading Grade 3

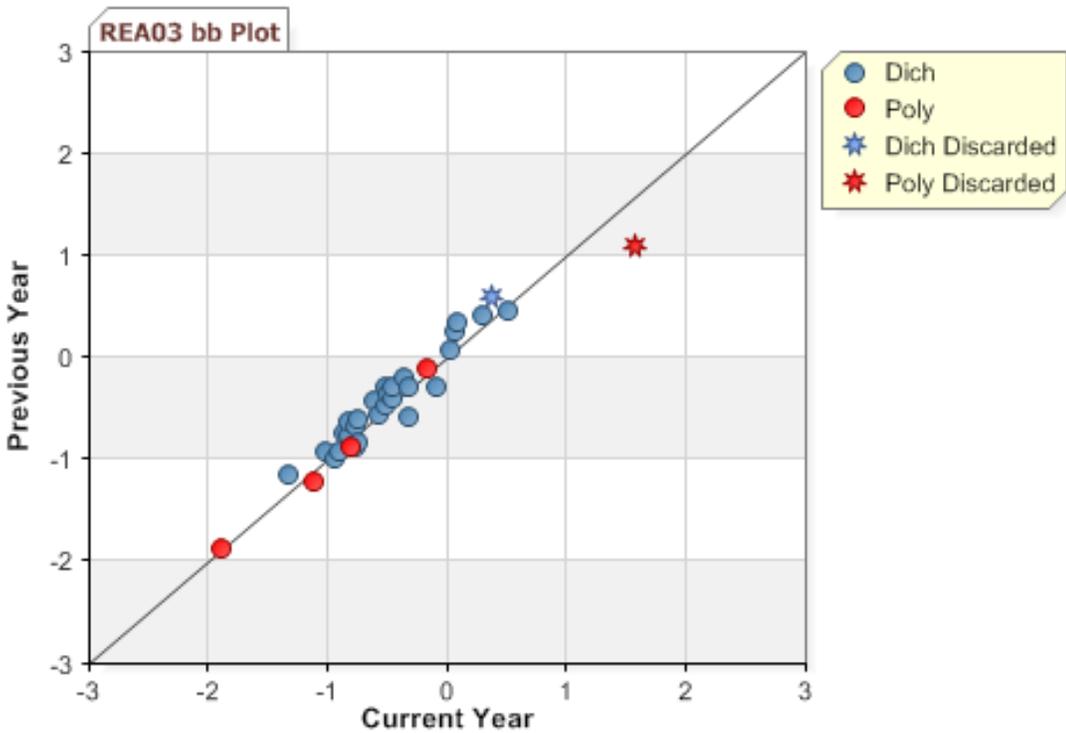


Figure K-17. 2011–12 NECAP: α -Plot—Reading Grade 4

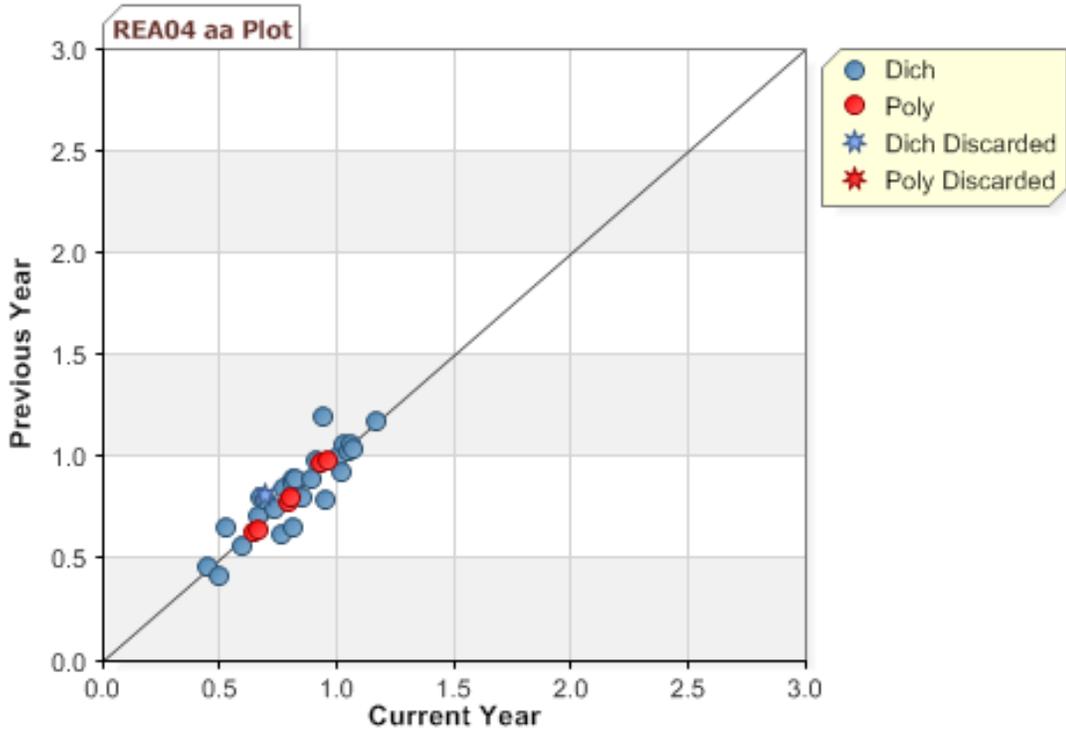


Figure K-18. 2011–12 NECAP: b -Plot—Reading Grade 4

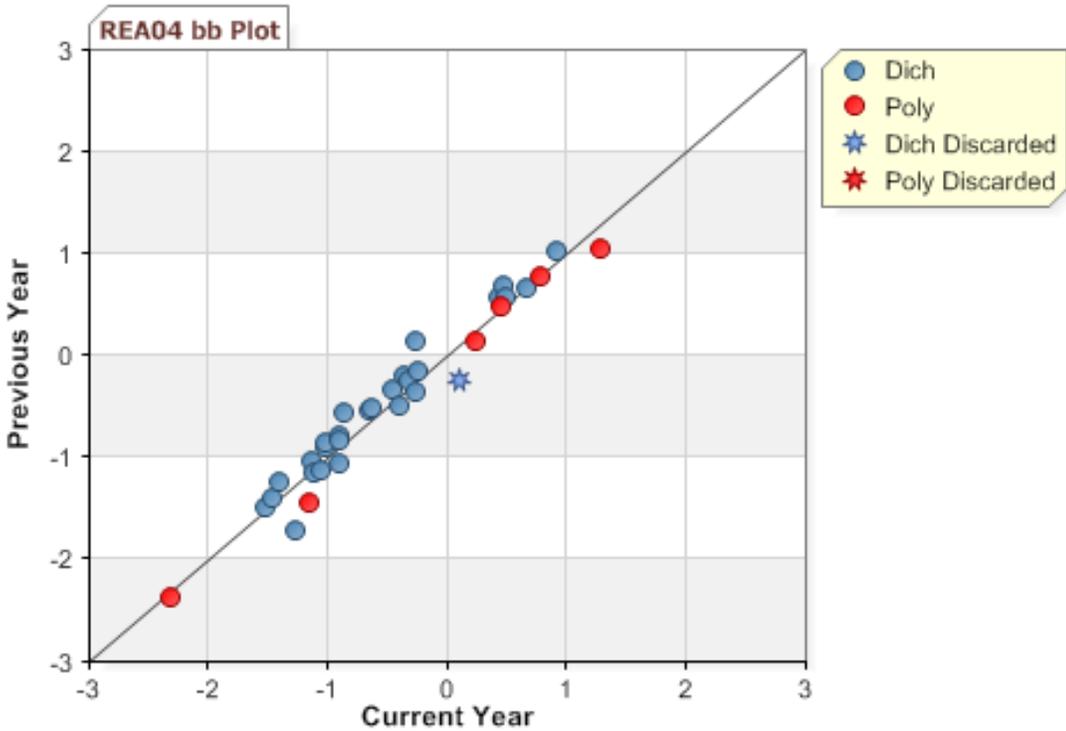


Figure K-19. 2011–12 NECAP: α -Plot—Reading Grade 5

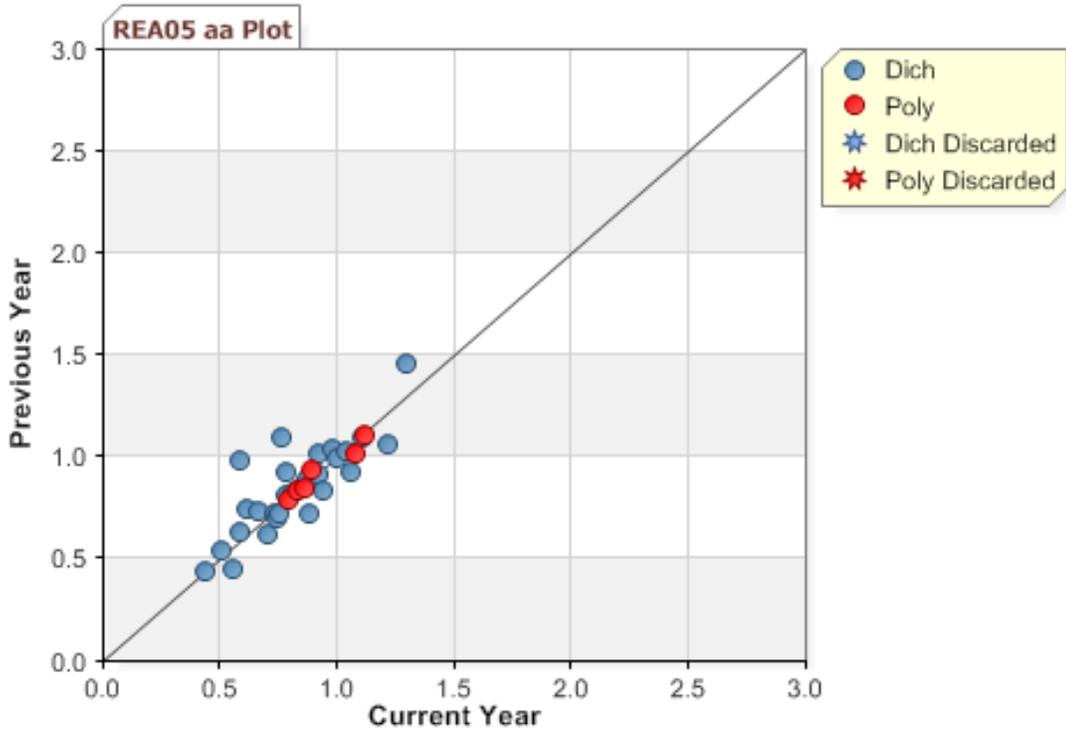


Figure K-20. 2011–12 NECAP: b -Plot—Reading Grade 5

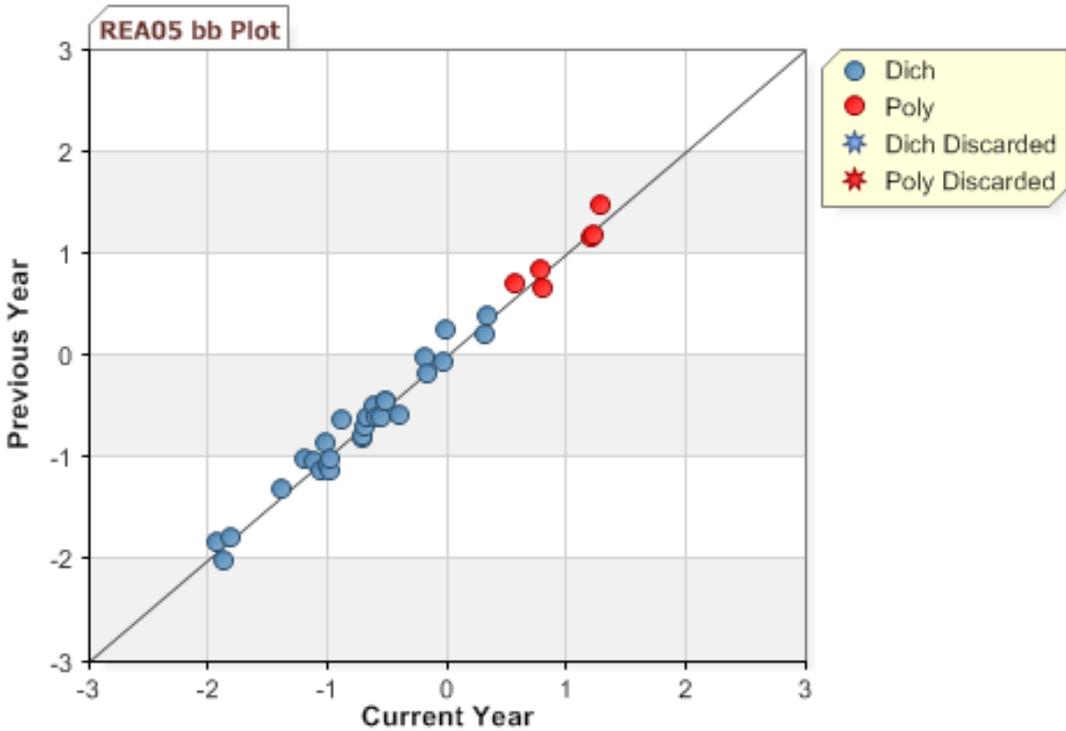


Figure K-21. 2011–12 NECAP: α -Plot—Reading Grade 6

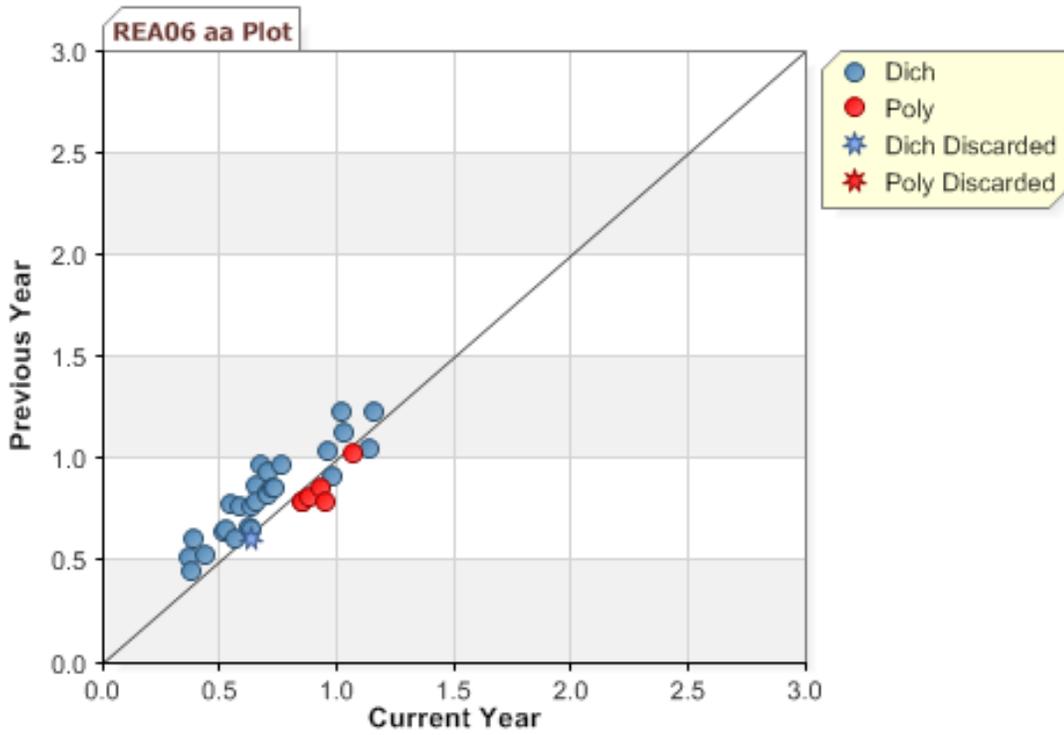


Figure K-22. 2011–12 NECAP: b -Plot—Reading Grade 6

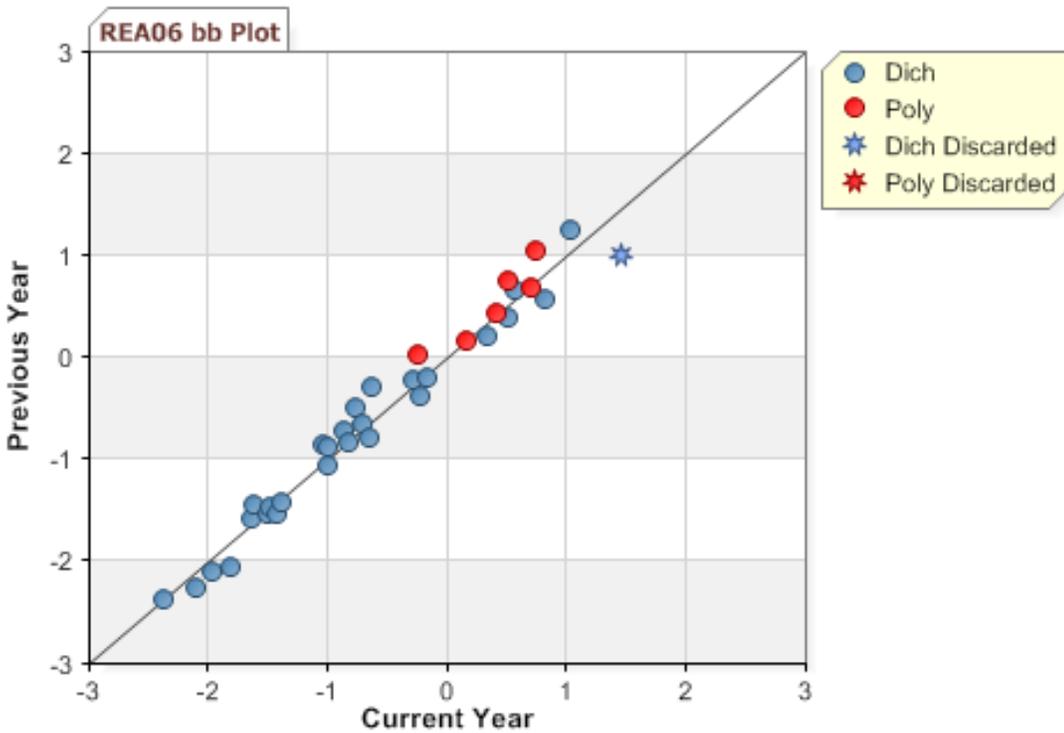


Figure K-23. 2011–12 NECAP: α -Plot—Reading Grade 7

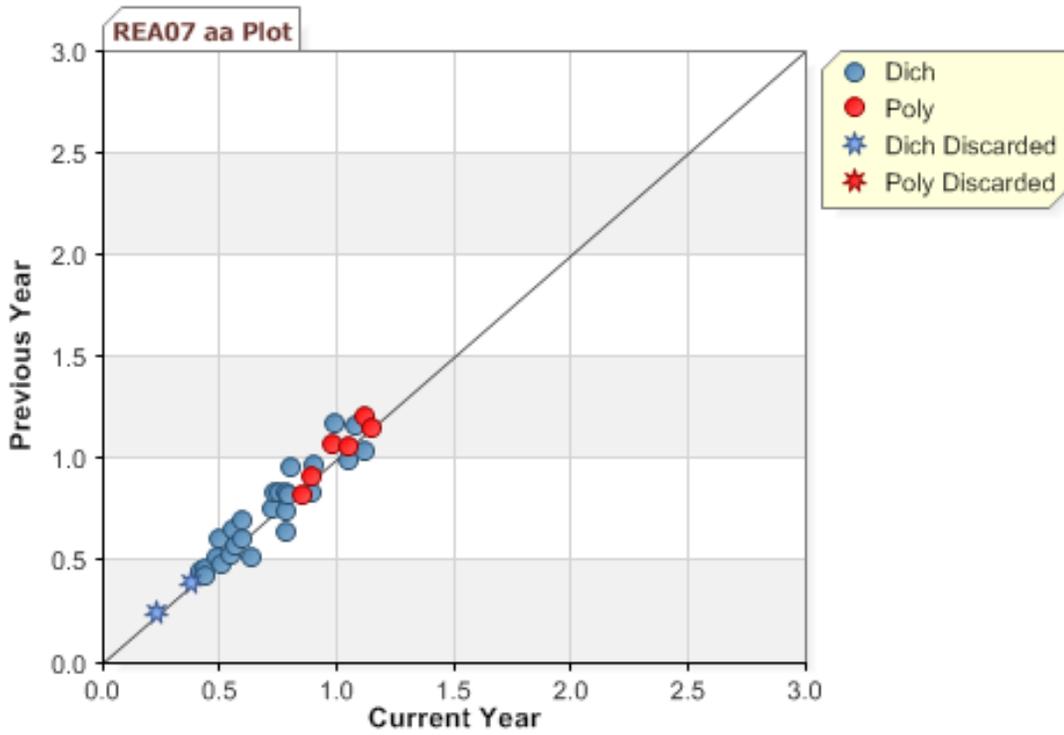


Figure K-24. 2011–12 NECAP: b -Plot—Reading Grade 7

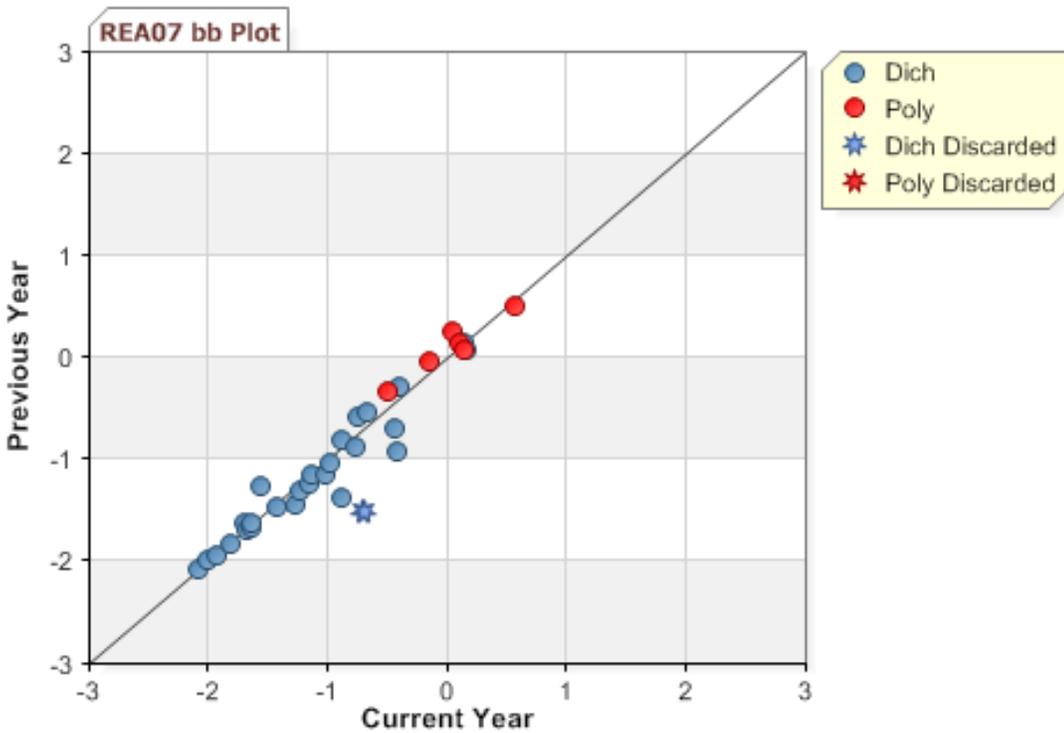


Figure K-25. 2011–12 NECAP: α -Plot—Reading Grade 8

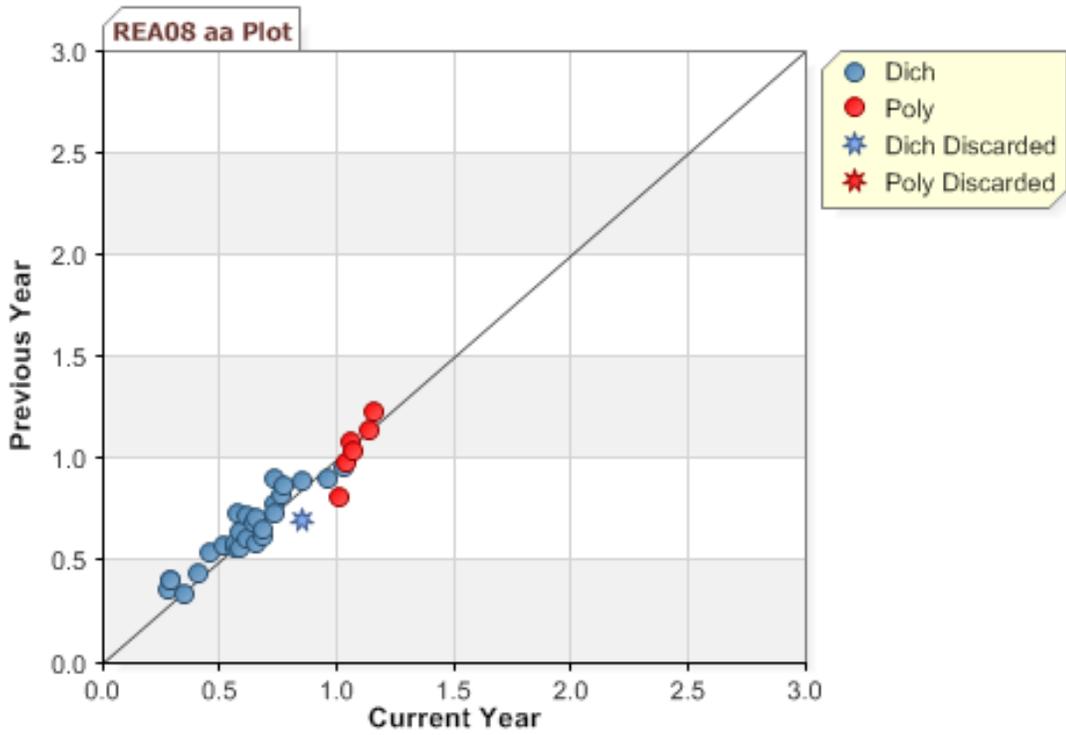


Figure K-26. 2011–12 NECAP: b -Plot—Reading Grade 8

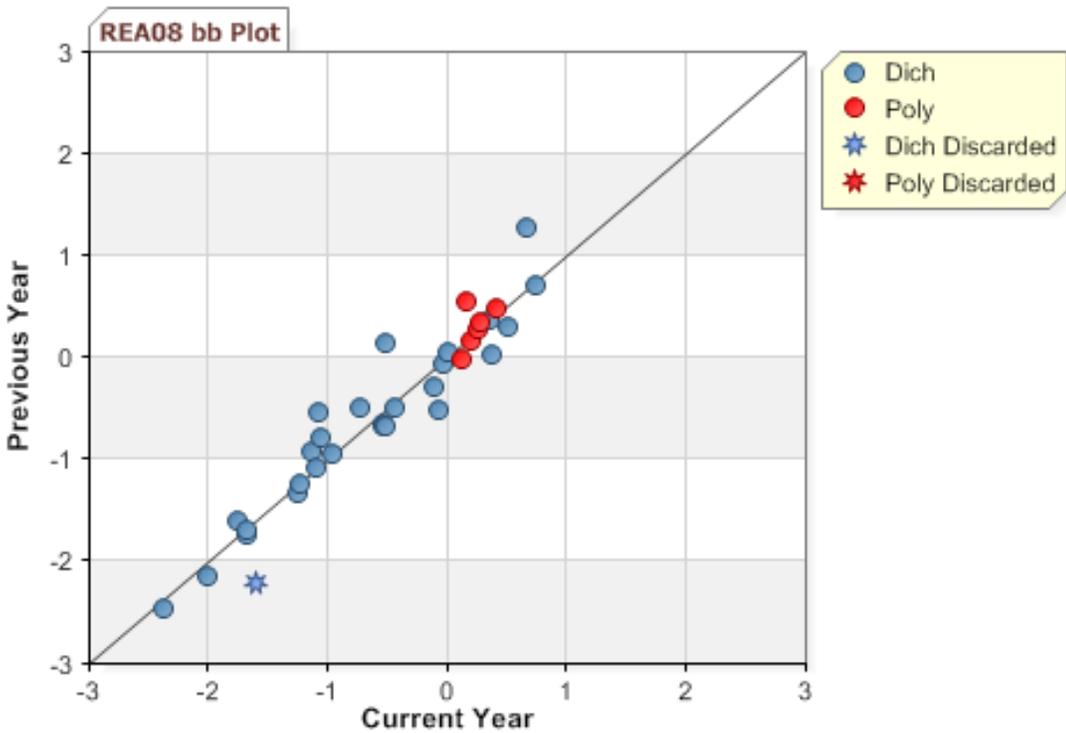


Figure K-27. 2011–12 NECAP: α -Plot—Reading Grade 11

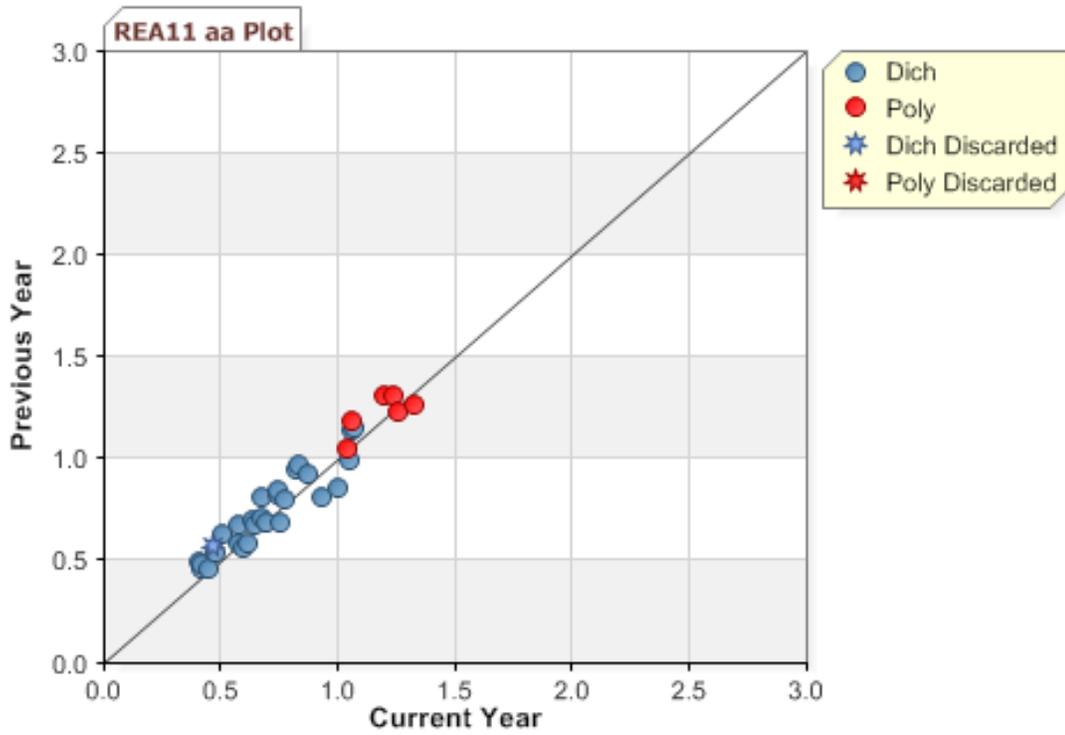
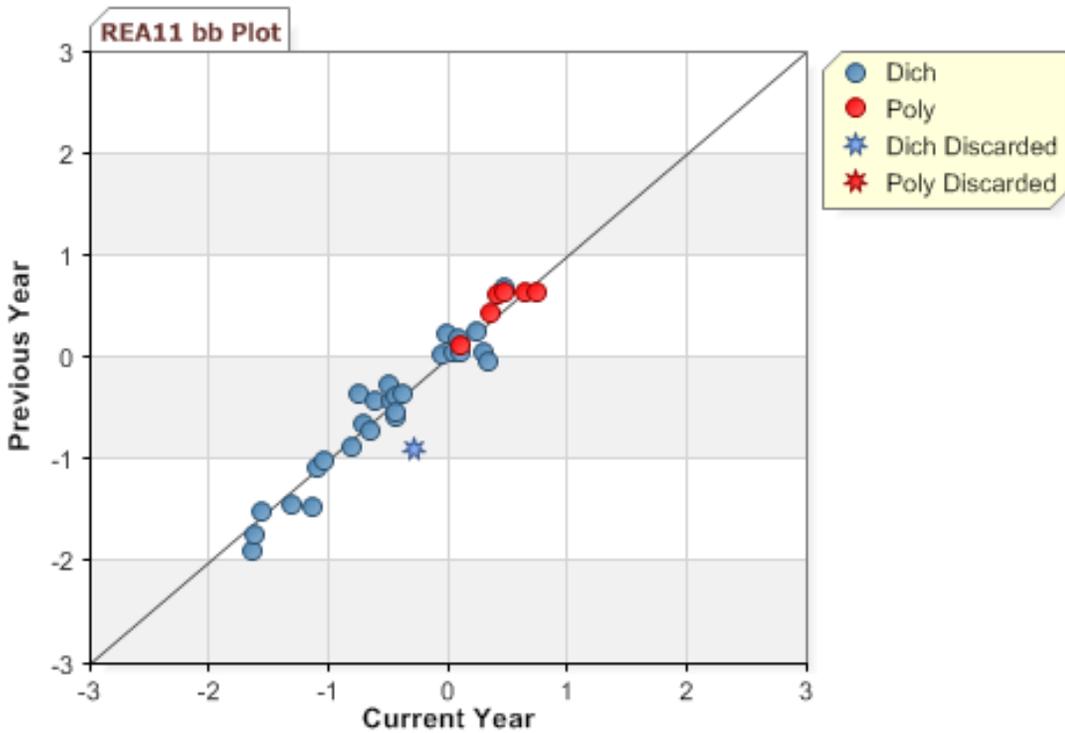


Figure K-28. 2011–12 NECAP: b -Plot—Reading Grade 11



APPENDIX L—PERFORMANCE LEVEL SCORE DISTRIBUTIONS

Table L-1. 2011–12 NECAP: Performance Level Distributions by Grade—Mathematics

Grade	Performance Level	Percent in Level		
		2011-12	2010-11	2009-10
03	4	21.40	21.48	19.29
	3	45.82	45.51	47.66
	2	18.94	20.09	18.98
	1	13.84	12.92	14.06
04	4	23.61	20.62	18.02
	3	45.82	45.29	48.82
	2	17.11	20.72	19.12
	1	13.46	13.37	14.03
05	4	20.24	18.93	20.31
	3	47.57	46.74	46.59
	2	16.03	16.95	15.86
	1	16.15	17.38	17.25
06	4	24.63	23.77	22.55
	3	42.48	41.99	42.75
	2	15.80	17.15	17.62
	1	17.09	17.08	17.08
07	4	23.24	18.89	20.24
	3	39.23	41.44	40.61
	2	17.93	19.66	19.17
	1	19.59	20.01	19.98
08	4	19.51	18.33	18.64
	3	43.08	42.15	42.39
	2	19.46	20.33	19.56
	1	17.95	19.19	19.42
11	4	2.54	2.67	2.23
	3	31.62	32.30	29.70
	2	26.08	28.30	28.14
	1	39.77	36.73	39.93

Table L-2. 2011–12 NECAP: Performance Level Distributions by Grade—Reading

Grade	Performance Level	Percent in Level		
		2011-12	2010-11	2009-10
03	4	20.87	14.45	16.82
	3	54.15	59.19	58.31
	2	15.77	16.83	15.76
	1	9.20	9.53	9.10
04	4	22.55	21.03	17.85
	3	50.78	50.05	52.42
	2	16.99	19.16	18.40
	1	9.67	9.76	11.33
05	4	19.05	19.67	17.82
	3	52.15	54.22	56.50
	2	19.91	18.45	17.81
	1	8.89	7.66	7.87
06	4	21.77	16.62	15.19
	3	53.54	57.27	55.82

continued

Grade	Performance Level	Percent in Level		
		2011-12	2010-11	2009-10
06	2	17.27	18.31	20.60
	1	7.41	7.80	8.38
07	4	16.49	13.80	13.50
	3	56.72	54.43	58.54
	2	18.06	22.16	19.99
	1	8.73	9.61	7.96
08	4	25.07	21.99	19.72
	3	53.87	53.34	52.40
	2	15.11	19.31	20.78
11	1	5.95	5.36	7.10
	4	30.30	26.50	22.97
	3	45.56	47.43	49.80
	2	14.87	17.04	17.50
	1	9.27	9.04	9.72

Table L-3. 2011–12 NECAP: Performance Level Distributions by Grade—Writing

Grade	Performance Level	Percent in Level		
		2011-12	2010-11	2009-10
05	4	8.90	12.49	
	3	40.41	39.62	
	2	39.06	39.81	
	1	11.63	8.08	
08	4	9.93	10.91	
	3	47.26	48.94	
	2	32.19	31.83	
	1	10.62	8.32	
11	4	4.26	1.06	6.95
	3	43.25	46.96	44.82
	2	44.04	45.58	41.23
	1	8.45	6.40	6.99

APPENDIX M—RAW TO SCALED SCORE LOOK-UP TABLES

Table M-1. 2011–12 NECAP: Raw to Scaled Score Correspondence—Mathematics Grade 3

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	300	10.0	1	300	10.0	1
1	300	10.0	1	300	10.0	1
2	300	10.0	1	300	10.0	1
3	300	10.0	1	300	10.0	1
4	300	10.0	1	300	10.0	1
5	300	10.0	1	300	10.0	1
6	300	10.0	1	300	10.0	1
7	302	8.8	1	303	8.8	1
8	307	7.0	1	308	6.9	1
9	310	5.9	1	311	5.9	1
10	312	5.2	1	314	5.1	1
11	314	4.7	1	316	4.6	1
12	316	4.4	1	318	4.2	1
13	318	4.1	1	320	3.9	1
14	319	3.8	1	321	3.7	1
15	321	3.6	1	322	3.5	1
16	322	3.5	1	323	3.3	1
17	323	3.3	1	324	3.2	1
18	324	3.2	1	325	3.1	1
19	325	3.1	1	326	3.0	1
20	326	3.0	1	327	2.9	1
21	327	2.9	1	328	2.8	1
22	328	2.8	1	329	2.7	1
23	329	2.8	1	330	2.7	1
24	329	2.7	1	331	2.6	1
25	330	2.7	1	331	2.6	1
26	331	2.7	1	332	2.5	2
27	331	2.6	1	333	2.5	2
28	332	2.6	2	334	2.5	2
29	333	2.6	2	334	2.5	2
30	334	2.5	2	335	2.4	2
31	335	2.5	2	336	2.4	2
32	335	2.5	2	336	2.4	2
33	336	2.5	2	337	2.4	2
34	337	2.5	2	338	2.4	2
35	338	2.5	2	338	2.4	2
36	338	2.5	2	339	2.4	2
37	339	2.5	2	339	2.4	2
38	339	2.5	2	341	2.4	3
39	341	2.6	3	341	2.4	3
40	341	2.6	3	342	2.4	3
41	342	2.6	3	343	2.4	3
42	343	2.6	3	343	2.5	3
43	344	2.6	3	344	2.5	3
44	344	2.7	3	345	2.5	3
45	345	2.7	3	346	2.5	3
46	346	2.7	3	346	2.6	3

continued

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
47	347	2.8	3	347	2.6	3
48	348	2.8	3	348	2.6	3
49	349	2.8	3	349	2.7	3
50	350	2.9	3	350	2.7	3
51	351	2.9	3	351	2.7	3
52	352	3.0	3	351	2.8	3
53	352	3.0	3	352	2.9	3
54	354	3.1	4	353	3.0	4
55	355	3.2	4	355	3.1	4
56	357	3.4	4	356	3.2	4
57	358	3.6	4	357	3.3	4
58	360	3.8	4	358	3.5	4
59	362	4.1	4	360	3.8	4
60	364	4.6	4	362	4.1	4
61	367	5.2	4	364	4.6	4
62	370	6.3	4	367	5.4	4
63	375	8.0	4	371	6.7	4
64	380	10.0	4	377	9.7	4
65	380	10.0	4	380	10.0	4

Table M-2. 2011–12 NECAP: Raw to Scaled Score Correspondence—Mathematics Grade 4

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	400	10.0	1	400	10.0	1
1	400	10.0	1	400	10.0	1
2	400	10.0	1	400	10.0	1
3	400	10.0	1	400	10.0	1
4	400	10.0	1	400	10.0	1
5	400	10.0	1	400	10.0	1
6	401	8.7	1	400	9.4	1
7	406	7.0	1	400	8.4	1
8	409	6.0	1	402	7.3	1
9	411	5.4	1	406	6.4	1
10	414	4.9	1	408	5.8	1
11	415	4.6	1	411	5.3	1
12	417	4.3	1	413	4.9	1
13	419	4.1	1	415	4.6	1
14	420	3.9	1	416	4.3	1
15	421	3.7	1	418	4.1	1
16	422	3.6	1	419	4.0	1
17	423	3.4	1	420	3.8	1
18	425	3.3	1	422	3.7	1
19	426	3.3	1	423	3.6	1
20	427	3.2	1	424	3.5	1
21	427	3.1	1	425	3.4	1
22	428	3.0	1	426	3.3	1

continued

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
23	429	3.0	1	427	3.3	1
24	430	2.9	1	428	3.2	1
25	430	2.9	1	429	3.2	1
26	432	2.9	2	430	3.1	1
27	433	2.8	2	430	3.1	1
28	433	2.8	2	432	3.1	2
29	434	2.8	2	433	3.1	2
30	435	2.8	2	434	3.0	2
31	436	2.8	2	435	3.0	2
32	436	2.8	2	436	3.0	2
33	437	2.8	2	436	3.0	2
34	438	2.7	2	437	3.0	2
35	439	2.7	2	438	3.0	2
36	439	2.7	2	439	3.0	2
37	440	2.7	3	439	3.0	2
38	441	2.8	3	441	3.0	3
39	442	2.8	3	442	2.9	3
40	442	2.8	3	443	2.9	3
41	443	2.8	3	443	2.9	3
42	444	2.8	3	444	2.9	3
43	445	2.8	3	445	2.9	3
44	446	2.8	3	446	2.9	3
45	446	2.9	3	447	2.9	3
46	447	2.9	3	448	2.9	3
47	448	2.9	3	449	3.0	3
48	449	3.0	3	450	3.0	3
49	450	3.0	3	451	3.0	3
50	451	3.0	3	452	3.0	3
51	452	3.1	3	453	3.0	3
52	453	3.1	3	454	3.1	3
53	454	3.2	3	455	3.1	4
54	455	3.3	4	456	3.2	4
55	456	3.4	4	457	3.2	4
56	457	3.5	4	459	3.3	4
57	459	3.6	4	460	3.5	4
58	460	3.8	4	462	3.7	4
59	462	4.0	4	463	3.9	4
60	464	4.3	4	465	4.3	4
61	466	4.8	4	468	4.8	4
62	469	5.6	4	471	5.7	4
63	473	7.0	4	476	7.3	4
64	480	10.0	4	480	10.0	4
65	480	10.0	4	480	10.0	4

Table M-3. 2011–12 NECAP: Raw to Scaled Score Correspondence—Mathematics Grade 5

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	500	10.0	1	500	10.0	1
1	500	10.0	1	500	10.0	1
2	500	10.0	1	500	10.0	1
3	500	10.0	1	500	10.0	1
4	500	10.0	1	500	10.0	1
5	500	10.0	1	500	10.0	1
6	500	10.0	1	500	10.0	1
7	503	10.0	1	506	9.1	1
8	509	7.7	1	511	7.2	1
9	513	6.4	1	514	6.1	1
10	516	5.7	1	517	5.4	1
11	518	5.2	1	519	4.9	1
12	520	4.8	1	521	4.5	1
13	522	4.5	1	523	4.2	1
14	524	4.3	1	524	4.0	1
15	525	4.1	1	526	3.8	1
16	527	3.9	1	527	3.6	1
17	528	3.8	1	528	3.5	1
18	529	3.6	1	529	3.4	1
19	530	3.5	1	530	3.3	1
20	531	3.4	1	531	3.2	1
21	532	3.3	1	532	3.1	1
22	533	3.3	2	532	3.1	1
23	534	3.2	2	534	3.0	2
24	535	3.1	2	535	2.9	2
25	536	3.1	2	535	2.9	2
26	537	3.0	2	536	2.8	2
27	538	2.9	2	537	2.8	2
28	539	2.9	2	538	2.8	2
29	539	2.8	2	538	2.7	2
30	540	2.8	3	539	2.7	2
31	541	2.8	3	539	2.7	2
32	542	2.7	3	541	2.6	3
33	542	2.7	3	541	2.6	3
34	543	2.7	3	542	2.6	3
35	544	2.6	3	543	2.6	3
36	545	2.6	3	543	2.6	3
37	545	2.6	3	544	2.5	3
38	546	2.6	3	545	2.5	3
39	547	2.5	3	545	2.5	3
40	547	2.5	3	546	2.5	3
41	548	2.5	3	547	2.5	3
42	549	2.5	3	547	2.5	3
43	549	2.5	3	548	2.5	3
44	550	2.5	3	549	2.5	3
45	551	2.5	3	549	2.5	3
46	552	2.5	3	550	2.5	3

continued

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
47	552	2.5	3	551	2.5	3
48	553	2.5	3	552	2.5	3
49	553	2.6	3	552	2.6	3
50	555	2.6	4	553	2.6	3
51	555	2.6	4	553	2.6	3
52	556	2.7	4	555	2.7	4
53	557	2.7	4	556	2.8	4
54	558	2.8	4	556	2.8	4
55	559	2.8	4	557	2.9	4
56	560	2.9	4	558	3.0	4
57	561	3.1	4	560	3.2	4
58	562	3.2	4	561	3.3	4
59	564	3.4	4	562	3.5	4
60	565	3.7	4	564	3.8	4
61	567	4.0	4	565	4.1	4
62	569	4.5	4	567	4.5	4
63	572	5.3	4	570	5.2	4
64	576	6.7	4	574	6.3	4
65	580	9.9	4	580	9.0	4
66	580	10.0	4	580	10.0	4

Table M-4. 2011–12 NECAP: Raw to Scaled Score Correspondence—Mathematics Grade 6

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	600	10.0	1	600	10.0	1
1	600	10.0	1	600	10.0	1
2	600	10.0	1	600	10.0	1
3	600	10.0	1	600	10.0	1
4	600	10.0	1	600	10.0	1
5	600	10.0	1	600	10.0	1
6	600	10.0	1	606	10.0	1
7	607	9.9	1	613	7.6	1
8	613	7.6	1	616	6.0	1
9	617	6.4	1	619	5.2	1
10	620	5.6	1	621	4.6	1
11	622	5.0	1	623	4.2	1
12	624	4.6	1	625	3.9	1
13	626	4.3	1	626	3.7	1
14	628	4.0	1	627	3.5	1
15	629	3.8	1	628	3.4	1
16	630	3.6	1	630	3.3	1
17	631	3.5	1	631	3.2	1
18	632	3.4	1	632	3.1	1
19	634	3.3	2	632	3.0	1
20	635	3.2	2	633	3.0	2
21	635	3.1	2	634	2.9	2

continued

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
22	636	3.0	2	635	2.8	2
23	637	3.0	2	636	2.8	2
24	638	2.9	2	637	2.8	2
25	639	2.9	2	637	2.7	2
26	639	2.8	2	638	2.7	2
27	640	2.8	3	639	2.7	2
28	641	2.8	3	639	2.6	2
29	642	2.7	3	640	2.6	3
30	643	2.7	3	641	2.6	3
31	643	2.7	3	642	2.6	3
32	644	2.7	3	642	2.6	3
33	645	2.6	3	643	2.5	3
34	645	2.6	3	644	2.5	3
35	646	2.6	3	644	2.5	3
36	647	2.6	3	645	2.5	3
37	647	2.5	3	646	2.5	3
38	648	2.5	3	646	2.5	3
39	649	2.5	3	647	2.5	3
40	649	2.5	3	648	2.5	3
41	650	2.5	3	648	2.5	3
42	651	2.5	3	649	2.5	3
43	651	2.5	3	650	2.5	3
44	652	2.5	3	650	2.5	3
45	652	2.5	3	651	2.5	3
46	652	2.5	3	652	2.6	3
47	654	2.5	4	652	2.6	3
48	655	2.5	4	653	2.6	4
49	655	2.5	4	654	2.7	4
50	656	2.6	4	655	2.7	4
51	657	2.6	4	656	2.8	4
52	658	2.7	4	657	2.8	4
53	659	2.7	4	658	2.9	4
54	660	2.8	4	658	3.0	4
55	661	2.9	4	659	3.1	4
56	662	3.0	4	661	3.3	4
57	663	3.1	4	662	3.4	4
58	664	3.3	4	663	3.6	4
59	665	3.5	4	665	3.9	4
60	667	3.8	4	666	4.2	4
61	669	4.1	4	668	4.7	4
62	671	4.6	4	671	5.3	4
63	673	5.3	4	674	6.3	4
64	677	6.6	4	679	7.9	4
65	680	9.5	4	680	10.0	4
66	680	10.0	4	680	10.0	4

Table M-5. 2011–12 NECAP: Raw to Scaled Score Correspondence—Mathematics Grade 7

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	700	10.0	1	700	10.0	1
1	700	10.0	1	700	10.0	1
2	700	10.0	1	700	10.0	1
3	700	10.0	1	700	10.0	1
4	700	10.0	1	700	10.0	1
5	700	10.0	1	702	10.0	1
6	700	10.0	1	711	9.2	1
7	711	8.2	1	716	7.0	1
8	716	6.3	1	719	5.8	1
9	719	5.3	1	722	5.0	1
10	722	4.8	1	724	4.4	1
11	724	4.4	1	726	4.1	1
12	726	4.1	1	727	3.8	1
13	727	3.8	1	729	3.5	1
14	729	3.6	1	730	3.4	1
15	730	3.4	1	731	3.2	1
16	731	3.3	1	732	3.1	1
17	732	3.2	1	733	3.0	1
18	733	3.0	1	734	2.9	2
19	734	2.9	2	735	2.8	2
20	735	2.8	2	736	2.8	2
21	736	2.8	2	737	2.7	2
22	737	2.7	2	737	2.6	2
23	738	2.6	2	738	2.6	2
24	739	2.6	2	739	2.6	2
25	739	2.5	2	739	2.5	2
26	739	2.5	2	740	2.5	3
27	741	2.4	3	741	2.5	3
28	741	2.4	3	742	2.4	3
29	742	2.4	3	742	2.4	3
30	743	2.3	3	743	2.4	3
31	743	2.3	3	744	2.4	3
32	744	2.3	3	744	2.4	3
33	744	2.3	3	745	2.3	3
34	745	2.3	3	746	2.3	3
35	746	2.3	3	746	2.3	3
36	746	2.3	3	747	2.3	3
37	747	2.3	3	747	2.3	3
38	748	2.3	3	748	2.3	3
39	748	2.3	3	749	2.3	3
40	749	2.3	3	749	2.3	3
41	749	2.3	3	750	2.3	3
42	750	2.3	3	751	2.4	3
43	751	2.4	3	751	2.4	3
44	751	2.4	3	751	2.4	3
45	752	2.4	4	753	2.4	4
46	753	2.4	4	753	2.4	4

continued

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
47	753	2.4	4	754	2.5	4
48	754	2.5	4	755	2.5	4
49	755	2.5	4	756	2.6	4
50	756	2.5	4	756	2.6	4
51	757	2.6	4	757	2.7	4
52	757	2.6	4	758	2.7	4
53	758	2.7	4	759	2.8	4
54	759	2.7	4	760	2.9	4
55	760	2.8	4	761	3.0	4
56	761	2.9	4	762	3.1	4
57	762	3.0	4	764	3.3	4
58	763	3.2	4	765	3.5	4
59	765	3.4	4	767	3.8	4
60	766	3.6	4	769	4.2	4
61	768	4.0	4	771	4.9	4
62	770	4.5	4	775	6.1	4
63	773	5.2	4	780	9.3	4
64	777	6.4	4	780	9.4	4
65	780	7.7	4			
66	780	7.7	4			

Table M-6. 2011–12 NECAP: Raw to Scaled Score Correspondence—Mathematics Grade 8

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	800	10.0	1	800	10.0	1
1	800	10.0	1	800	10.0	1
2	800	10.0	1	800	10.0	1
3	800	10.0	1	800	10.0	1
4	800	10.0	1	800	10.0	1
5	800	10.0	1	800	10.0	1
6	803	10.0	1	808	10.0	1
7	814	8.3	1	817	7.7	1
8	819	6.0	1	821	5.5	1
9	821	4.9	1	824	4.5	1
10	824	4.3	1	826	3.8	1
11	825	3.8	1	827	3.5	1
12	827	3.5	1	829	3.2	1
13	828	3.3	1	830	3.0	1
14	829	3.1	1	831	2.8	1
15	830	2.9	1	832	2.7	1
16	831	2.8	1	833	2.6	1
17	832	2.7	1	833	2.5	1
18	833	2.6	1	834	2.5	2
19	834	2.5	2	835	2.4	2
20	835	2.5	2	836	2.3	2
21	835	2.4	2	837	2.3	2

continued

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
22	836	2.4	2	837	2.3	2
23	837	2.3	2	838	2.2	2
24	837	2.3	2	839	2.2	2
25	838	2.3	2	839	2.2	2
26	839	2.2	2	839	2.1	2
27	839	2.2	2	840	2.1	3
28	839	2.2	2	841	2.1	3
29	841	2.2	3	842	2.1	3
30	841	2.2	3	842	2.1	3
31	842	2.1	3	843	2.1	3
32	842	2.1	3	843	2.0	3
33	843	2.1	3	844	2.0	3
34	843	2.1	3	845	2.0	3
35	844	2.1	3	845	2.0	3
36	845	2.1	3	846	2.0	3
37	845	2.1	3	846	2.0	3
38	846	2.0	3	847	2.0	3
39	846	2.0	3	847	2.0	3
40	847	2.0	3	848	2.1	3
41	847	2.0	3	849	2.1	3
42	848	2.0	3	849	2.1	3
43	849	2.0	3	850	2.1	3
44	849	2.0	3	850	2.1	3
45	850	2.0	3	851	2.1	3
46	850	2.0	3	852	2.2	4
47	851	2.0	3	852	2.2	4
48	851	2.0	3	853	2.2	4
49	852	2.0	4	854	2.3	4
50	853	2.0	4	855	2.3	4
51	853	2.1	4	855	2.4	4
52	854	2.1	4	856	2.4	4
53	855	2.1	4	857	2.5	4
54	855	2.2	4	858	2.6	4
55	856	2.2	4	859	2.7	4
56	857	2.3	4	860	2.8	4
57	858	2.4	4	861	3.0	4
58	859	2.5	4	862	3.1	4
59	860	2.7	4	864	3.3	4
60	861	2.9	4	865	3.6	4
61	863	3.1	4	867	3.9	4
62	864	3.4	4	869	4.4	4
63	867	3.9	4	872	5.4	4
64	870	4.5	4	878	7.7	4
65	874	6.1	4	880	9.5	4
66	880	10.0	4			

Table M-7. 2011–12 NECAP: Raw to Scaled Score Correspondence—Mathematics Grade 11

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	1100	10.0	1	1100	10.0	1
1	1100	10.0	1	1100	10.0	1
2	1100	10.0	1	1100	10.0	1
3	1100	10.0	1	1100	10.0	1
4	1108	10.0	1	1100	10.0	1
5	1116	6.3	1	1100	10.0	1
6	1120	4.6	1	1112	9.2	1
7	1122	3.8	1	1118	6.2	1
8	1124	3.3	1	1121	4.8	1
9	1126	3.0	1	1124	4.0	1
10	1127	2.7	1	1125	3.5	1
11	1128	2.6	1	1127	3.1	1
12	1129	2.4	1	1128	2.9	1
13	1130	2.3	1	1129	2.7	1
14	1131	2.2	1	1130	2.5	1
15	1132	2.2	1	1131	2.4	1
16	1133	2.1	1	1132	2.3	1
17	1133	2.0	1	1133	2.2	1
18	1134	2.0	2	1133	2.1	1
19	1135	1.9	2	1134	2.1	2
20	1135	1.9	2	1135	2.0	2
21	1136	1.9	2	1135	2.0	2
22	1137	1.8	2	1136	1.9	2
23	1137	1.8	2	1136	1.9	2
24	1138	1.8	2	1137	1.9	2
25	1138	1.7	2	1137	1.8	2
26	1139	1.7	2	1138	1.8	2
27	1139	1.7	2	1138	1.8	2
28	1139	1.7	2	1139	1.7	2
29	1140	1.7	3	1139	1.7	2
30	1141	1.6	3	1139	1.7	2
31	1141	1.6	3	1140	1.7	3
32	1142	1.6	3	1141	1.7	3
33	1142	1.6	3	1141	1.7	3
34	1143	1.6	3	1142	1.7	3
35	1143	1.6	3	1142	1.6	3
36	1144	1.6	3	1142	1.6	3
37	1144	1.6	3	1143	1.6	3
38	1145	1.6	3	1143	1.6	3
39	1145	1.6	3	1144	1.6	3
40	1145	1.5	3	1144	1.6	3
41	1146	1.5	3	1145	1.6	3
42	1146	1.6	3	1145	1.6	3
43	1147	1.6	3	1146	1.7	3
44	1147	1.6	3	1146	1.7	3
45	1148	1.6	3	1147	1.7	3
46	1148	1.6	3	1147	1.7	3

continued

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
47	1149	1.6	3	1148	1.7	3
48	1149	1.7	3	1148	1.7	3
49	1150	1.7	3	1149	1.8	3
50	1151	1.7	3	1149	1.8	3
51	1151	1.8	3	1150	1.9	3
52	1151	1.9	3	1150	1.9	3
53	1151	1.9	3	1151	2.0	3
54	1153	2.0	4	1151	2.1	3
55	1154	2.2	4	1153	2.2	4
56	1155	2.3	4	1153	2.3	4
57	1156	2.5	4	1154	2.5	4
58	1157	2.7	4	1155	2.7	4
59	1158	3.1	4	1157	2.9	4
60	1160	3.5	4	1158	3.3	4
61	1162	4.2	4	1160	3.8	4
62	1165	5.3	4	1163	4.6	4
63	1169	7.3	4	1168	6.6	4
64	1180	7.3	4	1180	7.6	4

Table M-8. 2011–12 NECAP: Raw to Scaled Score Correspondence—Reading Grade 3

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	300	10.0	1	300	10.0	1
1	300	10.0	1	300	10.0	1
2	300	10.0	1	300	10.0	1
3	300	10.0	1	300	10.0	1
4	300	10.0	1	300	10.0	1
5	300	10.0	1	300	10.0	1
6	300	10.0	1	302	9.6	1
7	300	10.0	1	307	7.9	1
8	301	10.0	1	311	6.8	1
9	306	9.1	1	314	6.0	1
10	311	7.7	1	317	5.4	1
11	314	6.6	1	319	4.9	1
12	317	5.9	1	321	4.4	1
13	319	5.3	1	323	4.1	1
14	321	4.8	1	324	3.8	1
15	323	4.4	1	325	3.6	1
16	325	4.0	1	327	3.5	1
17	326	3.7	1	328	3.3	1
18	327	3.5	1	329	3.2	1
19	329	3.3	1	330	3.1	1
20	330	3.2	1	331	3.1	2
21	331	3.1	2	332	3.0	2
22	332	3.0	2	333	3.0	2
23	333	3.0	2	334	2.9	2

continued

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
24	334	2.9	2	335	2.9	2
25	335	2.9	2	336	2.9	2
26	336	2.9	2	337	2.9	2
27	337	2.9	2	338	2.9	2
28	338	2.9	2	339	2.9	2
29	339	3.0	2	340	2.9	3
30	340	3.0	3	341	2.9	3
31	341	3.1	3	342	3.0	3
32	342	3.1	3	343	3.0	3
33	343	3.2	3	345	3.1	3
34	345	3.3	3	346	3.2	3
35	346	3.4	3	347	3.3	3
36	347	3.5	3	348	3.5	3
37	349	3.7	3	350	3.7	3
38	350	3.8	3	351	3.9	3
39	352	4.0	3	353	4.1	3
40	354	4.2	3	355	4.4	3
41	356	4.5	3	356	4.6	3
42	358	4.8	4	359	4.9	4
43	360	5.1	4	362	5.2	4
44	363	5.5	4	364	5.4	4
45	366	5.8	4	367	5.7	4
46	369	6.2	4	370	6.0	4
47	373	6.4	4	373	6.3	4
48	377	6.7	4	377	6.7	4
49	380	7.2	4	380	7.6	4
50	380	8.4	4	380	9.3	4
51	380	9.3	4	380	10.0	4
52	380	9.3	4	380	10.0	4

Table M-9. 2011–12 NECAP: Raw to Scaled Score Correspondence—Reading Grade 4

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	400	10.0	1	400	10.00	1
1	400	10.0	1	400	10.00	1
2	400	10.0	1	400	10.00	1
3	400	10.0	1	400	10.00	1
4	400	10.0	1	400	10.00	1
5	400	10.0	1	400	10.00	1
6	400	9.8	1	400	10.00	1
7	404	8.4	1	400	10.00	1
8	408	7.4	1	400	10.00	1
9	411	6.7	1	401	9.40	1
10	414	6.2	1	406	8.30	1
11	416	5.7	1	410	7.40	1
12	418	5.3	1	413	6.80	1

continued

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
13	420	5.0	1	416	6.20	1
14	422	4.7	1	418	5.70	1
15	423	4.4	1	420	5.30	1
16	425	4.2	1	422	4.90	1
17	426	4.0	1	423	4.60	1
18	427	3.8	1	425	4.40	1
19	429	3.7	1	426	4.20	1
20	430	3.5	1	428	4.00	1
21	431	3.4	2	429	3.80	1
22	432	3.4	2	430	3.70	1
23	433	3.3	2	431	3.60	2
24	434	3.2	2	432	3.50	2
25	435	3.2	2	434	3.40	2
26	436	3.1	2	435	3.30	2
27	437	3.1	2	436	3.30	2
28	438	3.1	2	437	3.20	2
29	439	3.1	2	438	3.20	2
30	440	3.1	3	439	3.20	2
31	441	3.1	3	439	3.20	2
32	442	3.1	3	441	3.30	3
33	443	3.2	3	442	3.30	3
34	444	3.2	3	443	3.40	3
35	446	3.3	3	444	3.40	3
36	447	3.4	3	446	3.50	3
37	448	3.5	3	447	3.70	3
38	449	3.6	3	448	3.80	3
39	451	3.8	3	450	4.00	3
40	452	4.0	3	452	4.20	3
41	454	4.2	3	453	4.50	3
42	456	4.5	4	455	4.80	3
43	458	4.7	4	458	5.20	4
44	460	5.1	4	460	5.70	4
45	463	5.4	4	463	6.30	4
46	466	5.9	4	467	7.10	4
47	469	6.3	4	471	8.00	4
48	473	6.7	4	476	9.00	4
49	477	7.3	4	480	9.80	4
50	480	8.3	4	480	10.00	4
51	480	9.5	4	480	10.00	4
52	480	9.5	4	480	10.00	4

Table M-10. 2011–12 NECAP: Raw to Scaled Score Correspondence—Reading Grade 5

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	500	10.0	1	500	10.0	1
1	500	10.0	1	500	10.0	1
2	500	10.0	1	500	10.0	1
3	500	10.0	1	500	10.0	1
4	500	10.0	1	500	9.8	1
5	504	10.0	1	506	7.3	1
6	510	7.4	1	510	6.1	1
7	514	6.0	1	513	5.3	1
8	516	5.2	1	515	4.8	1
9	519	4.6	1	517	4.5	1
10	520	4.2	1	519	4.2	1
11	522	3.9	1	521	4.0	1
12	524	3.7	1	523	3.9	1
13	525	3.5	1	524	3.7	1
14	526	3.3	1	525	3.6	1
15	527	3.2	1	527	3.6	1
16	528	3.1	1	528	3.5	1
17	529	3.1	1	529	3.4	1
18	531	3.0	2	530	3.4	2
19	532	3.0	2	532	3.3	2
20	533	2.9	2	533	3.3	2
21	534	2.9	2	534	3.3	2
22	535	2.9	2	535	3.3	2
23	536	2.9	2	536	3.2	2
24	537	3.0	2	537	3.2	2
25	538	3.0	2	538	3.2	2
26	539	3.0	2	539	3.2	2
27	539	3.1	2	540	3.2	3
28	541	3.1	3	541	3.3	3
29	542	3.2	3	543	3.3	3
30	543	3.2	3	544	3.3	3
31	544	3.3	3	545	3.4	3
32	546	3.4	3	546	3.4	3
33	547	3.5	3	548	3.5	3
34	548	3.6	3	549	3.6	3
35	550	3.8	3	550	3.7	3
36	551	3.9	3	552	3.8	3
37	553	4.1	3	553	3.9	3
38	555	4.2	3	555	4.0	3
39	557	4.4	4	557	4.1	4
40	559	4.5	4	559	4.2	4
41	561	4.7	4	560	4.4	4
42	563	4.8	4	562	4.5	4
43	565	5.0	4	564	4.6	4
44	568	5.1	4	567	4.7	4
45	570	5.3	4	569	4.8	4
46	573	5.4	4	571	4.9	4

continued

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
47	576	5.5	4	574	5.1	4
48	579	5.7	4	577	5.3	4
49	580	6.1	4	580	5.7	4
50	580	7.0	4	580	6.7	4
51	580	7.8	4	580	8.3	4
52	580	7.8	4	580	8.3	4

Table M-11. 2011–12 NECAP: Raw to Scaled Score Correspondence—Reading Grade 6

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	600	10.0	1	600	10.0	1
1	600	10.0	1	600	10.0	1
2	600	10.0	1	600	10.0	1
3	600	9.7	1	600	10.0	1
4	600	8.3	1	600	10.0	1
5	604	6.8	1	607	7.8	1
6	607	5.8	1	611	6.2	1
7	610	5.2	1	614	5.3	1
8	612	4.7	1	616	4.8	1
9	614	4.4	1	619	4.4	1
10	616	4.1	1	620	4.1	1
11	618	3.9	1	622	3.9	1
12	619	3.8	1	623	3.7	1
13	621	3.7	1	625	3.6	1
14	622	3.6	1	626	3.5	1
15	623	3.5	1	627	3.4	1
16	624	3.5	1	628	3.3	1
17	626	3.4	1	630	3.2	2
18	627	3.4	1	631	3.1	2
19	628	3.4	1	632	3.1	2
20	629	3.4	2	633	3.1	2
21	630	3.4	2	634	3.0	2
22	632	3.4	2	635	3.0	2
23	633	3.4	2	636	3.0	2
24	634	3.4	2	637	3.0	2
25	635	3.5	2	638	3.0	2
26	637	3.5	2	639	3.0	2
27	638	3.5	2	640	3.0	3
28	639	3.6	2	641	3.1	3
29	640	3.6	3	642	3.1	3
30	642	3.7	3	643	3.2	3
31	643	3.8	3	644	3.2	3
32	645	3.9	3	646	3.3	3
33	646	4.0	3	647	3.4	3
34	648	4.1	3	648	3.4	3
35	650	4.2	3	650	3.5	3

continued

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
36	651	4.4	3	651	3.6	3
37	653	4.5	3	652	3.8	3
38	655	4.5	3	654	3.9	3
39	657	4.6	3	656	4.0	3
40	659	4.6	4	658	4.1	3
41	661	4.6	4	659	4.2	4
42	664	4.7	4	661	4.4	4
43	666	4.8	4	664	4.5	4
44	668	4.8	4	666	4.7	4
45	670	4.9	4	668	4.8	4
46	673	5.0	4	671	5.0	4
47	676	5.0	4	674	5.1	4
48	678	5.2	4	677	5.3	4
49	680	5.7	4	680	5.6	4
50	680	6.6	4	680	6.3	4
51	680	8.8	4	680	8.3	4
52	680	8.8	4	680	8.9	4

Table M-12. 2011–12 NECAP: Raw to Scaled Score Correspondence—Reading Grade 7

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	700	10.0	1	700	10.0	1
1	700	10.0	1	700	10.0	1
2	700	10.0	1	700	10.0	1
3	700	10.0	1	700	10.0	1
4	700	9.2	1	700	10.0	1
5	705	7.1	1	703	8.1	1
6	708	6.0	1	707	6.6	1
7	711	5.2	1	711	5.7	1
8	713	4.8	1	713	5.1	1
9	715	4.4	1	715	4.7	1
10	717	4.2	1	717	4.4	1
11	719	4.0	1	719	4.2	1
12	720	3.8	1	721	4.1	1
13	722	3.7	1	722	3.9	1
14	723	3.7	1	724	3.8	1
15	724	3.6	1	725	3.8	1
16	726	3.6	1	727	3.7	1
17	727	3.5	1	728	3.7	1
18	728	3.5	1	729	3.6	2
19	729	3.5	2	731	3.6	2
20	730	3.5	2	732	3.6	2
21	732	3.5	2	733	3.6	2
22	733	3.5	2	734	3.6	2
23	734	3.5	2	736	3.6	2
24	735	3.5	2	737	3.6	2

continued

Raw Score	2012			2011		
	Scaled Score	Standard Error	Performance Level	Scaled Score	Standard Error	Performance Level
25	736	3.5	2	738	3.6	2
26	738	3.5	2	739	3.6	2
27	739	3.6	2	741	3.6	3
28	740	3.6	3	742	3.6	3
29	741	3.6	3	743	3.6	3
30	743	3.6	3	745	3.7	3
31	744	3.7	3	746	3.7	3
32	745	3.7	3	747	3.8	3
33	747	3.8	3	749	3.8	3
34	748	3.8	3	750	3.9	3
35	750	3.9	3	752	3.9	3
36	751	4.0	3	753	3.9	3
37	753	4.0	3	755	4.0	3
38	754	4.1	3	756	4.0	3
39	756	4.1	3	758	4.1	3
40	758	4.2	3	759	4.1	3
41	759	4.2	3	761	4.2	4
42	761	4.3	4	763	4.2	4
43	763	4.4	4	765	4.3	4
44	765	4.4	4	767	4.4	4
45	767	4.5	4	769	4.4	4
46	770	4.6	4	771	4.5	4
47	772	4.7	4	774	4.7	4
48	775	5.0	4	777	5.0	4
49	778	5.5	4	780	5.6	4
50	780	6.6	4	780	6.8	4
51	780	10.0	4	780	10.0	4
52	780	10.0	4	780	10.0	4

Table M-13. 2011–12 NECAP: Raw to Scaled Score Correspondence—Reading Grade 8

Raw Score	2012			2011		
	Scaled Score	Standard Error	Performance Level	Scaled Score	Standard Error	Performance Level
0	800	10.0	1	800	10.0	1
1	800	10.0	1	800	10.0	1
2	800	10.0	1	800	10.0	1
3	800	10.0	1	800	10.0	1
4	800	10.0	1	800	9.5	1
5	804	8.5	1	802	7.9	1
6	808	6.9	1	806	6.6	1
7	812	5.9	1	809	5.9	1
8	814	5.3	1	812	5.3	1
9	817	4.8	1	814	4.9	1
10	819	4.5	1	817	4.6	1
11	821	4.3	1	818	4.4	1
12	822	4.1	1	820	4.2	1
13	824	3.9	1	822	4.1	1

continued

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
14	825	3.8	1	823	4.0	1
15	827	3.7	1	825	3.9	1
16	827	3.7	1	826	3.8	1
17	829	3.6	2	827	3.8	1
18	830	3.6	2	829	3.7	2
19	832	3.6	2	830	3.7	2
20	833	3.5	2	831	3.7	2
21	834	3.5	2	833	3.6	2
22	835	3.5	2	834	3.6	2
23	837	3.5	2	835	3.6	2
24	838	3.5	2	836	3.6	2
25	839	3.5	2	837	3.6	2
26	840	3.5	3	839	3.6	2
27	841	3.5	3	839	3.6	2
28	842	3.6	3	841	3.6	3
29	844	3.6	3	842	3.6	3
30	845	3.6	3	844	3.6	3
31	846	3.7	3	845	3.7	3
32	848	3.7	3	846	3.7	3
33	849	3.8	3	848	3.8	3
34	850	3.8	3	849	3.9	3
35	852	3.8	3	851	4.0	3
36	853	3.9	3	852	4.1	3
37	855	3.9	3	854	4.1	3
38	856	3.9	3	856	4.2	3
39	858	4.0	3	857	4.3	3
40	860	4.1	4	859	4.4	4
41	861	4.1	4	861	4.4	4
42	863	4.2	4	863	4.5	4
43	865	4.2	4	865	4.6	4
44	867	4.3	4	867	4.7	4
45	869	4.4	4	870	4.9	4
46	871	4.5	4	872	5.0	4
47	874	4.6	4	875	5.1	4
48	876	4.9	4	878	5.3	4
49	879	5.4	4	880	5.7	4
50	880	6.3	4	880	6.6	4
51	880	9.2	4	880	9.1	4
52	880	10.0	4	880	9.1	4

Table M-14. 2011–12 NECAP: Raw to Scaled Score Correspondence—Reading Grade 11

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	1100	10.0	1	1100	10.0	1
1	1100	10.0	1	1100	10.0	1
2	1100	10.0	1	1100	10.0	1
3	1100	10.0	1	1100	10.0	1
4	1100	10.0	1	1100	10.0	1
5	1107	7.4	1	1103	8.4	1
6	1111	5.8	1	1108	6.5	1
7	1114	4.9	1	1111	5.4	1
8	1116	4.3	1	1114	4.8	1
9	1118	4.0	1	1116	4.4	1
10	1120	3.7	1	1118	4.1	1
11	1121	3.5	1	1120	3.9	1
12	1123	3.4	1	1121	3.7	1
13	1124	3.3	1	1123	3.6	1
14	1125	3.2	1	1124	3.5	1
15	1126	3.2	1	1125	3.5	1
16	1128	3.1	1	1127	3.5	1
17	1129	3.1	1	1128	3.4	1
18	1129	3.1	1	1129	3.4	1
19	1131	3.1	2	1130	3.4	2
20	1132	3.1	2	1132	3.4	2
21	1133	3.0	2	1133	3.4	2
22	1134	3.0	2	1134	3.4	2
23	1135	3.0	2	1135	3.4	2
24	1136	3.1	2	1136	3.4	2
25	1137	3.1	2	1138	3.4	2
26	1138	3.1	2	1139	3.4	2
27	1139	3.1	2	1140	3.4	3
28	1140	3.1	3	1141	3.4	3
29	1141	3.2	3	1143	3.5	3
30	1142	3.2	3	1144	3.5	3
31	1143	3.2	3	1145	3.6	3
32	1145	3.2	3	1147	3.6	3
33	1146	3.3	3	1148	3.6	3
34	1147	3.3	3	1149	3.6	3
35	1148	3.3	3	1151	3.6	3
36	1150	3.3	3	1152	3.7	3
37	1151	3.3	3	1153	3.7	3
38	1152	3.4	3	1155	3.7	4
39	1153	3.4	3	1157	3.7	4
40	1155	3.5	4	1158	3.8	4
41	1156	3.5	4	1160	3.8	4
42	1158	3.6	4	1162	3.9	4
43	1160	3.6	4	1163	3.9	4
44	1161	3.6	4	1165	4.0	4
45	1163	3.7	4	1167	4.0	4
46	1165	3.8	4	1169	4.1	4

continued

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
47	1167	3.9	4	1171	4.3	4
48	1169	4.1	4	1174	4.6	4
49	1172	4.6	4	1177	5.2	4
50	1175	5.5	4	1180	6.4	4
51	1180	8.2	4	1180	9.3	4
52	1180	10.0	4	1180	9.3	4

Table M-15. 2011–12 NECAP: Raw to Scaled Score Correspondence—Writing Grade 5

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	500	10.0	1	500	10.0	1
1	500	10.0	1	500	10.0	1
2	500	10.0	1	500	9.8	1
3	500	4.2	1	505	7.0	1
4	504	5.1	1	509	5.8	1
5	508	5.2	1	512	5.2	1
6	511	4.7	1	514	4.8	1
7	513	4.5	1	516	4.6	1
8	515	4.4	1	518	4.5	1
9	518	4.3	1	520	4.4	1
10	520	4.4	1	522	4.3	1
11	522	4.4	1	524	4.3	1
12	524	4.3	1	525	4.3	1
13	526	4.3	1	527	4.3	2
14	528	4.2	2	529	4.3	2
15	530	4.1	2	531	4.4	2
16	532	4.1	2	533	4.4	2
17	535	4.1	2	535	4.5	2
18	537	4.2	2	537	4.6	2
19	539	4.3	2	539	4.8	2
20	542	4.4	3	542	4.9	3
21	544	4.5	3	545	5.0	3
22	547	4.5	3	547	5.1	3
23	550	4.5	3	550	5.2	3
24	552	4.6	3	553	5.2	3
25	555	4.7	4	556	5.3	4
26	558	4.7	4	559	5.4	4
27	562	4.6	4	562	5.5	4
28	565	4.8	4	566	5.6	4
29	568	5.2	4	569	5.8	4
30	573	5.9	4	574	6.3	4
31	577	5.1	4	579	7.5	4
32	580	3.9	4	580	7.8	4
33	580	3.9	4	580	7.8	4
34	580	3.9	4	580	7.8	4

Table M-16. 2011–12 NECAP: Raw to Scaled Score Correspondence—Writing Grade 8

<i>Raw Score</i>	<i>2012</i>			<i>2011</i>		
	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>	<i>Scaled Score</i>	<i>Standard Error</i>	<i>Performance Level</i>
0	800	10.0	1	800	10.0	1
1	800	10.0	1	800	10.0	1
2	800	10.0	1	800	10.0	1
3	800	10.0	1	800	10.0	1
4	807	7.1	1	807	7.3	1
5	811	5.6	1	810	5.6	1
6	814	4.9	1	813	4.9	1
7	816	4.5	1	815	4.5	1
8	818	4.2	1	817	4.3	1
9	820	4.0	1	819	4.2	1
10	821	3.9	1	821	4.1	1
11	823	3.8	1	822	4.1	1
12	825	3.8	1	824	4.1	1
13	826	3.7	1	826	4.0	1
14	828	3.7	2	827	4.0	2
15	829	3.7	2	829	3.9	2
16	831	3.7	2	831	3.9	2
17	833	3.7	2	832	4.0	2
18	834	3.7	2	834	4.0	2
19	836	3.8	2	836	4.1	2
20	838	3.8	2	838	4.1	2
21	840	3.8	3	840	4.0	3
22	842	3.8	3	842	4.0	3
23	843	3.8	3	844	3.9	3
24	845	3.9	3	846	4.0	3
25	848	4.0	3	849	4.1	3
26	850	4.0	3	851	4.2	3
27	852	4.0	3	853	4.3	3
28	854	4.1	4	856	4.3	4
29	857	4.4	4	859	4.5	4
30	861	5.0	4	863	5.1	4
31	865	5.9	4	868	6.3	4
32	871	7.1	4	875	7.9	4
33	879	4.4	4	880	8.1	4
34	880	4.1	4	880	8.1	4

APPENDIX N—SCALED SCORE DISTRIBUTIONS

Figure N-1. 2011–12 NECAP: Cumulative Score Distribution—Mathematics Grade 3

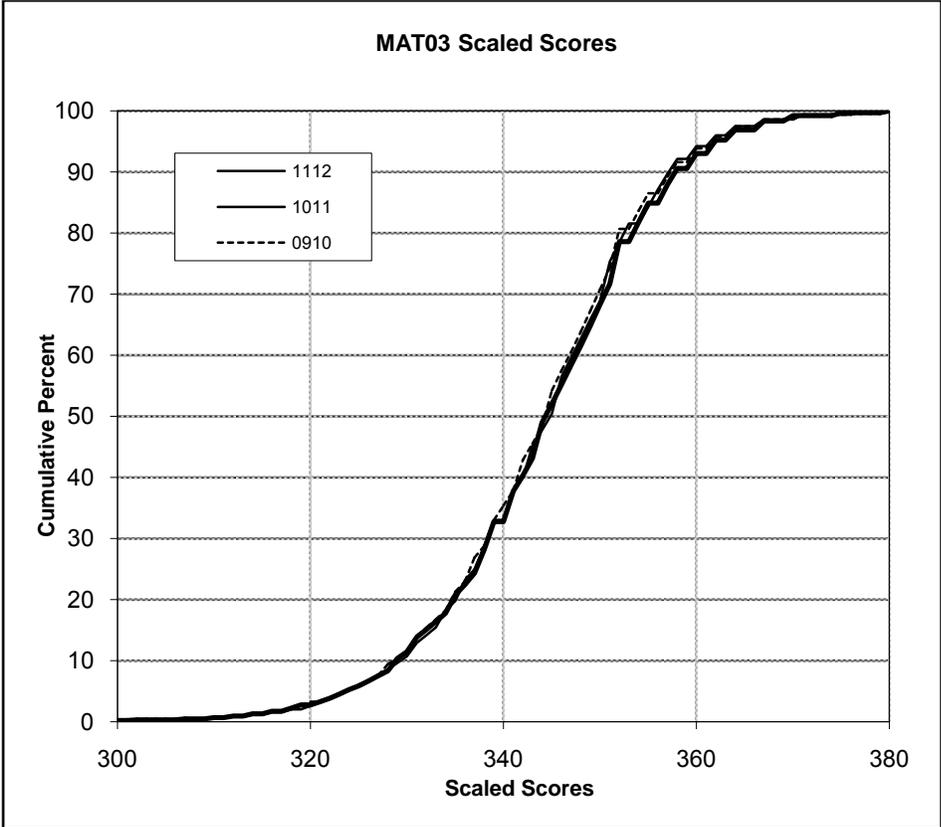


Figure N-2. 2011–12 NECAP: Cumulative Score Distribution—Mathematics Grade 4

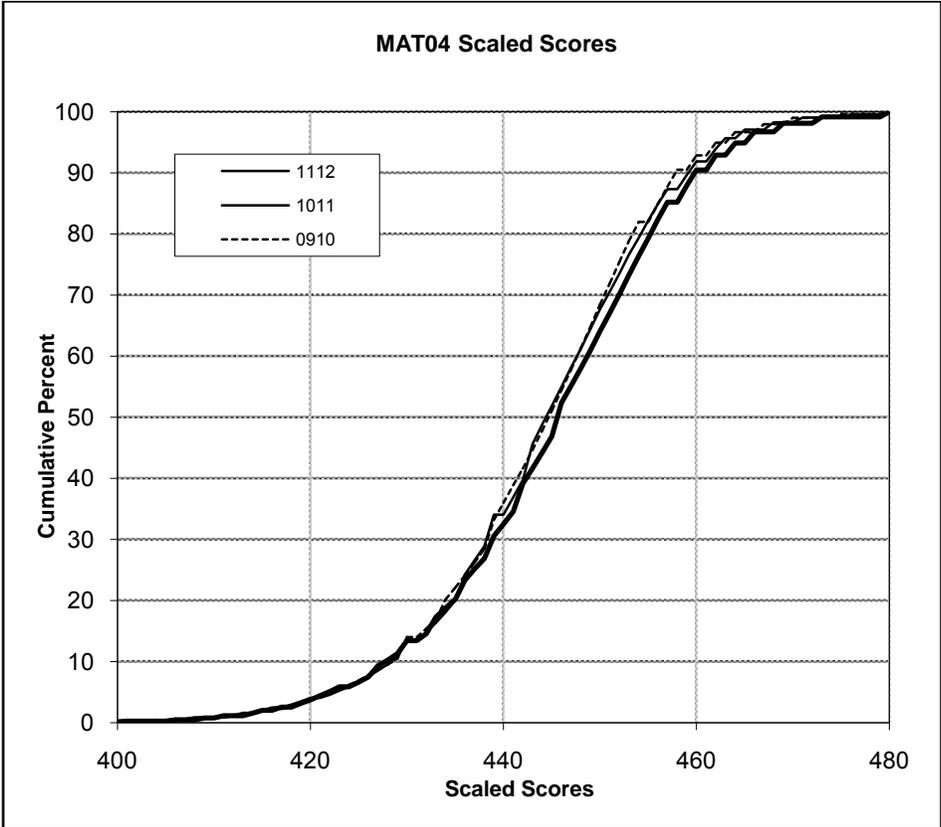


Figure N-3. 2011–12 NECAP: Cumulative Score Distribution—Mathematics Grade 5

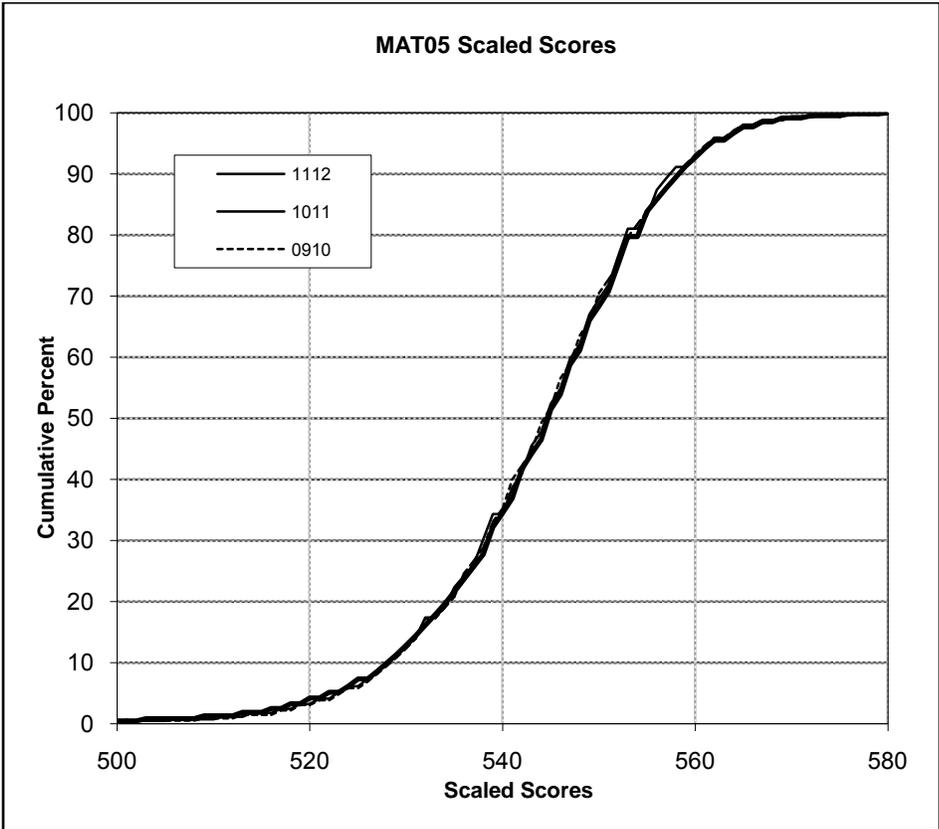


Figure N-4. 2011–12 NECAP: Cumulative Score Distribution—Mathematics Grade 6

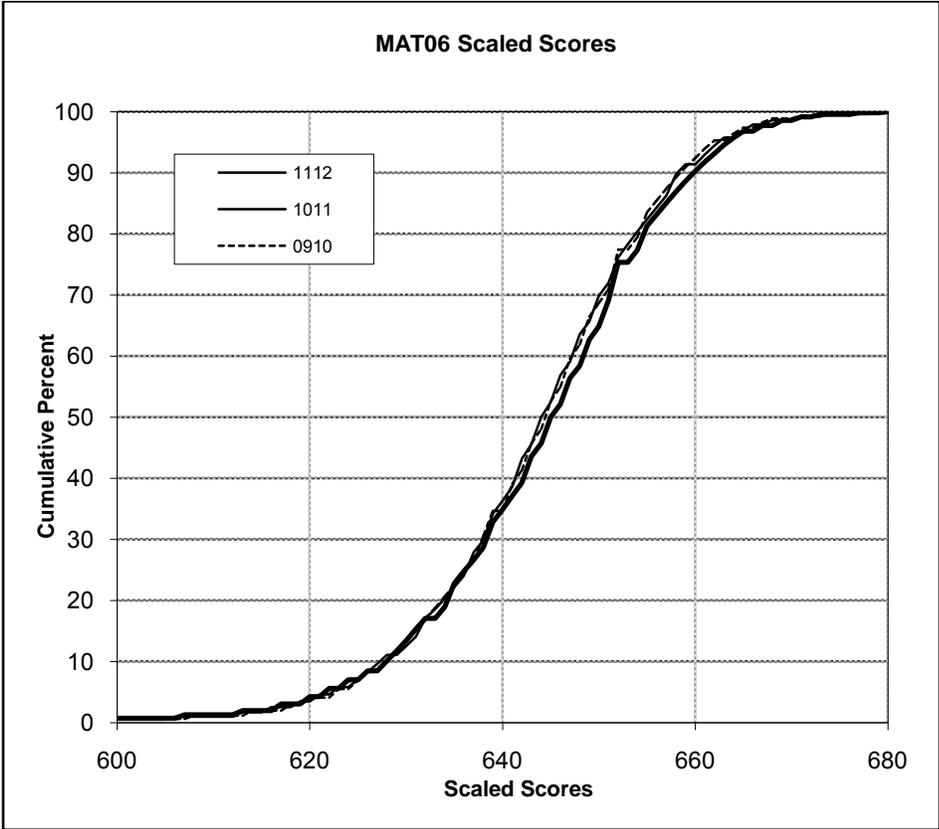


Figure N-5. 2011–12 NECAP: Cumulative Score Distribution—Mathematics Grade 7

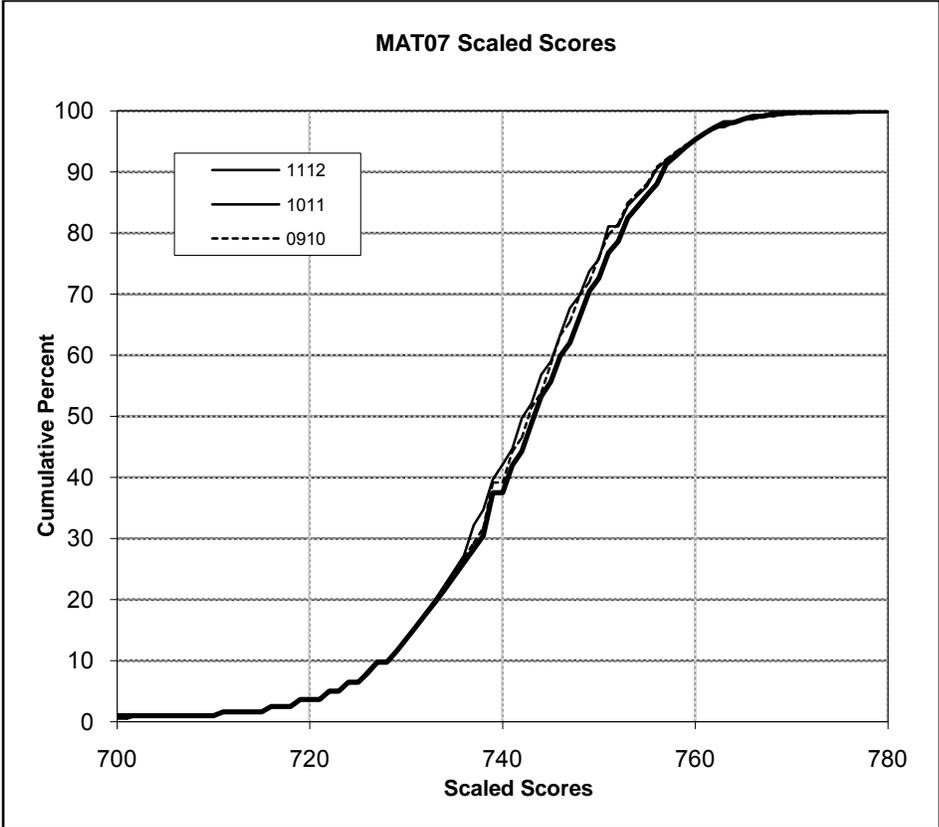


Figure N-6. 2011–12 NECAP: Cumulative Score Distribution—Mathematics Grade 8

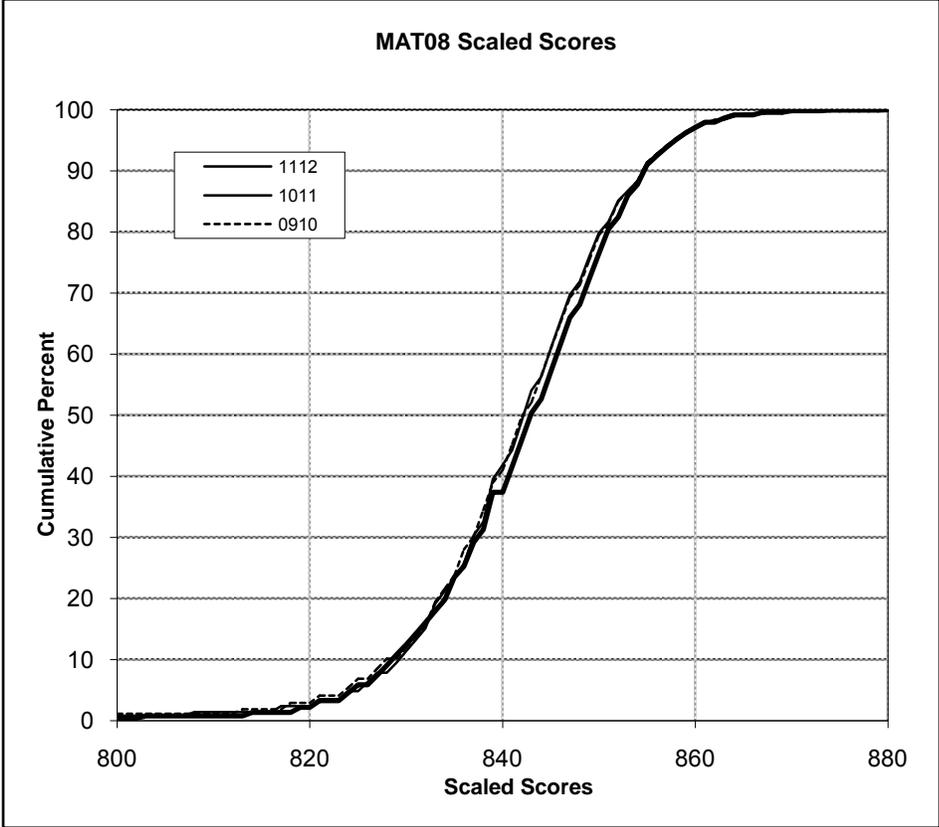


Figure N-7. 2011–12 NECAP: Cumulative Score Distribution—Mathematics Grade 11

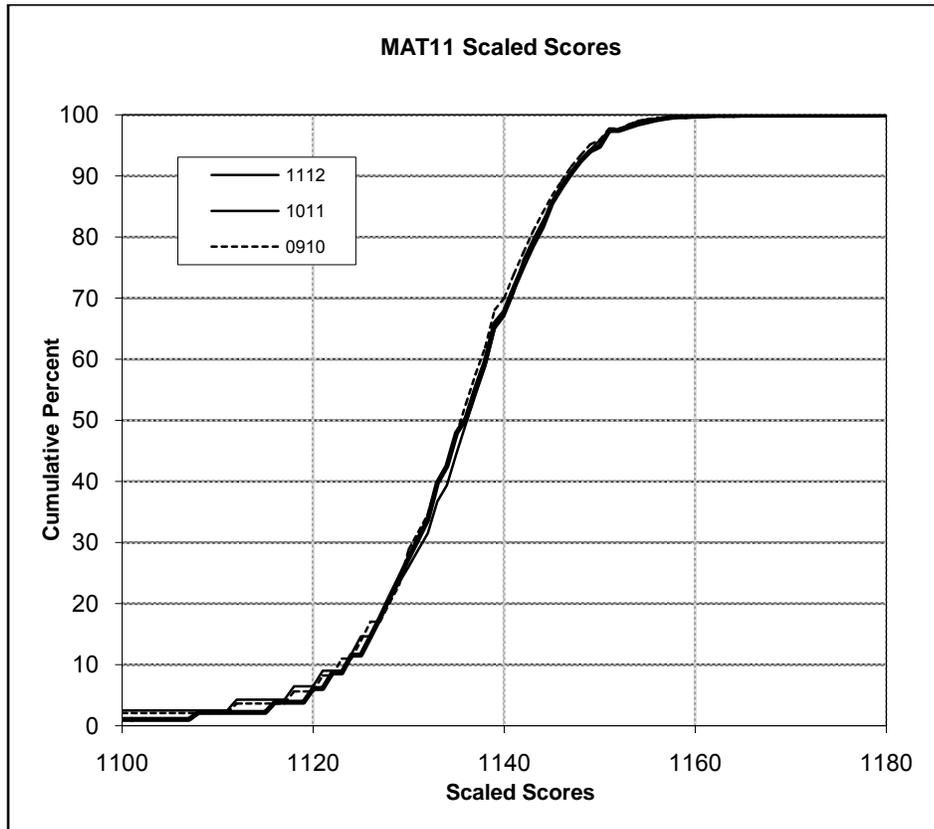


Figure N-8. 2011–12 NECAP: Cumulative Score Distribution—Reading Grade 3

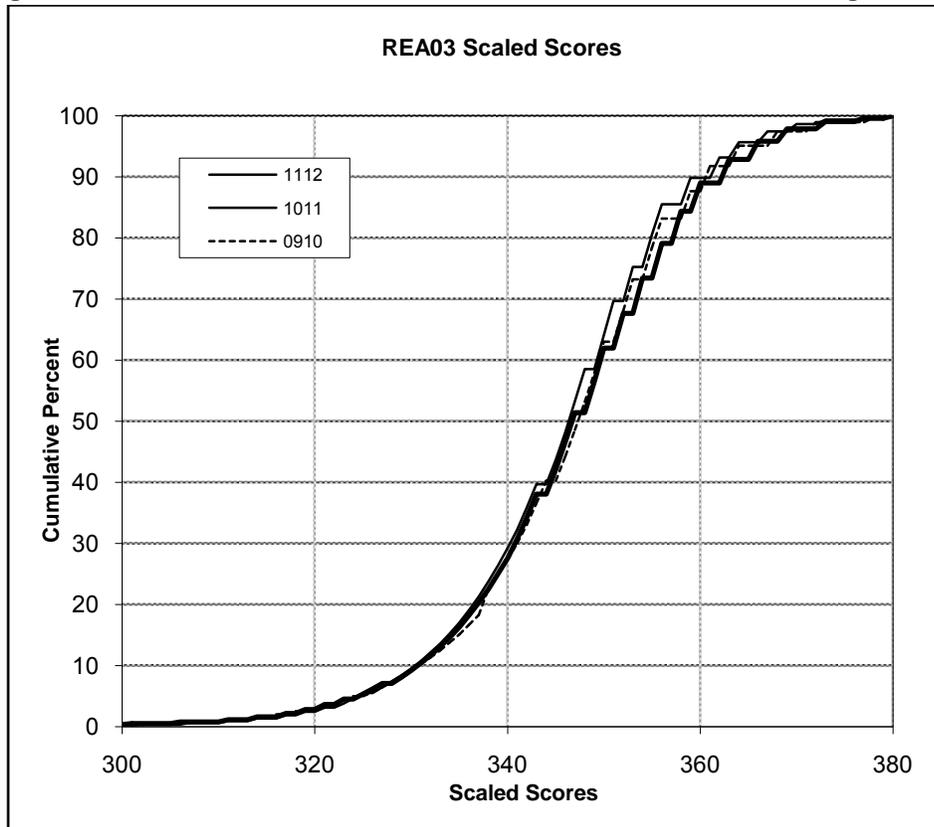


Figure N-9. 2011–12 NECAP: Cumulative Score Distribution—Reading Grade 4

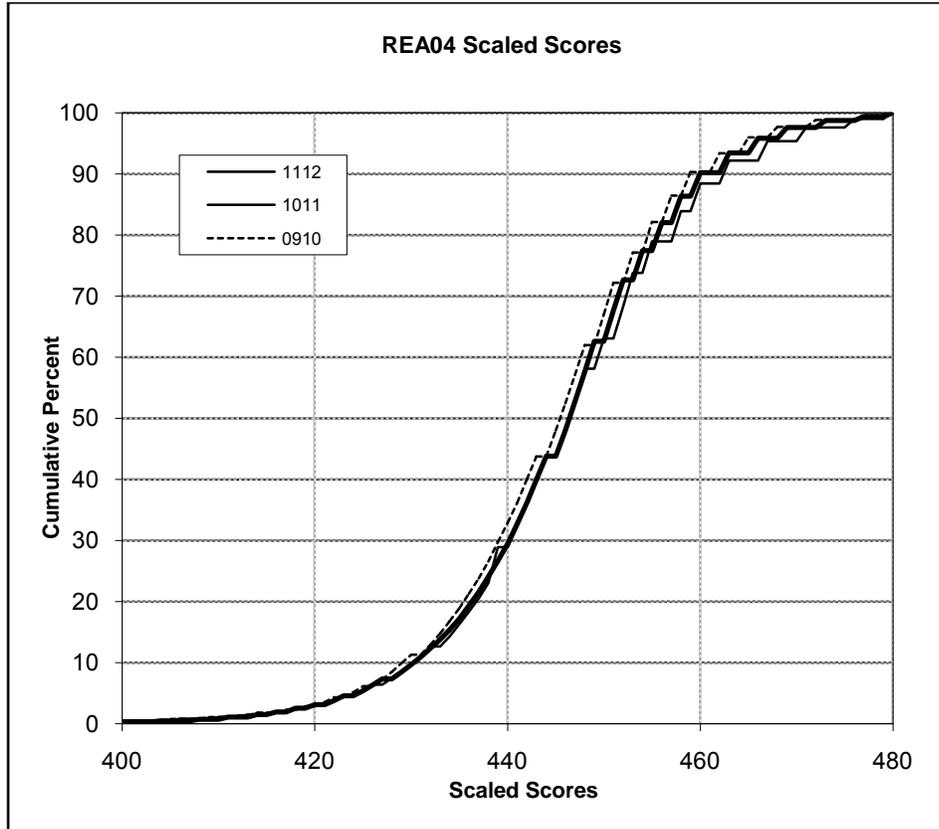


Figure N-10. 2011–12 NECAP: Cumulative Score Distribution—Reading Grade 5

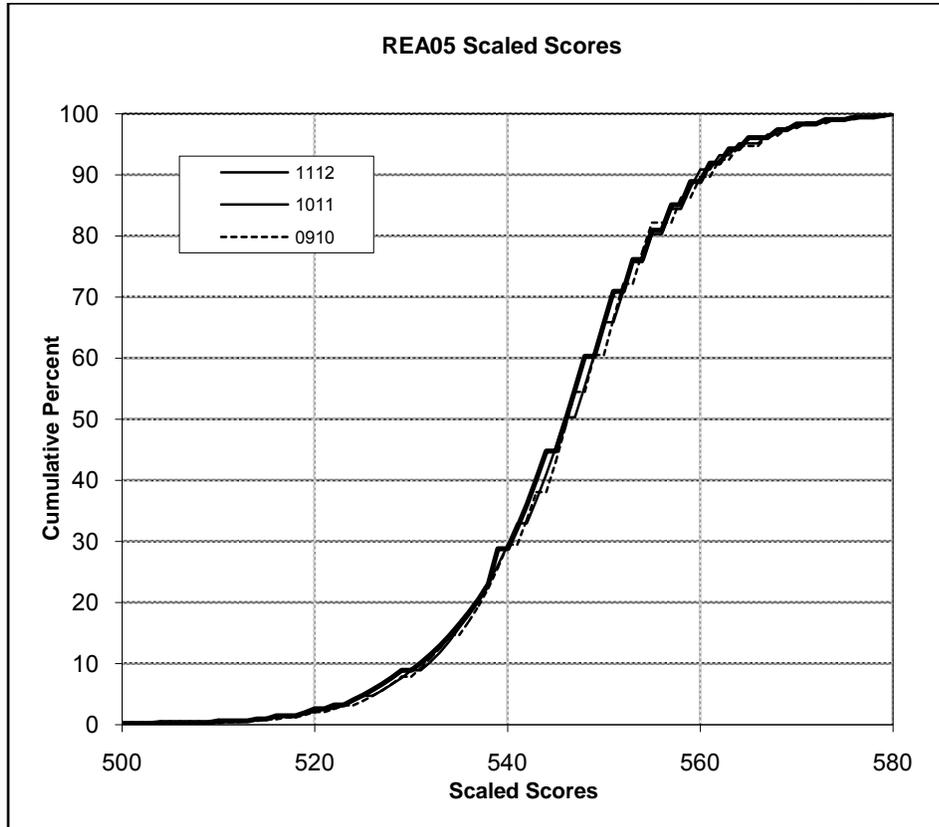


Figure N-11. 2011–12 NECAP: Cumulative Score Distribution—Reading Grade 6

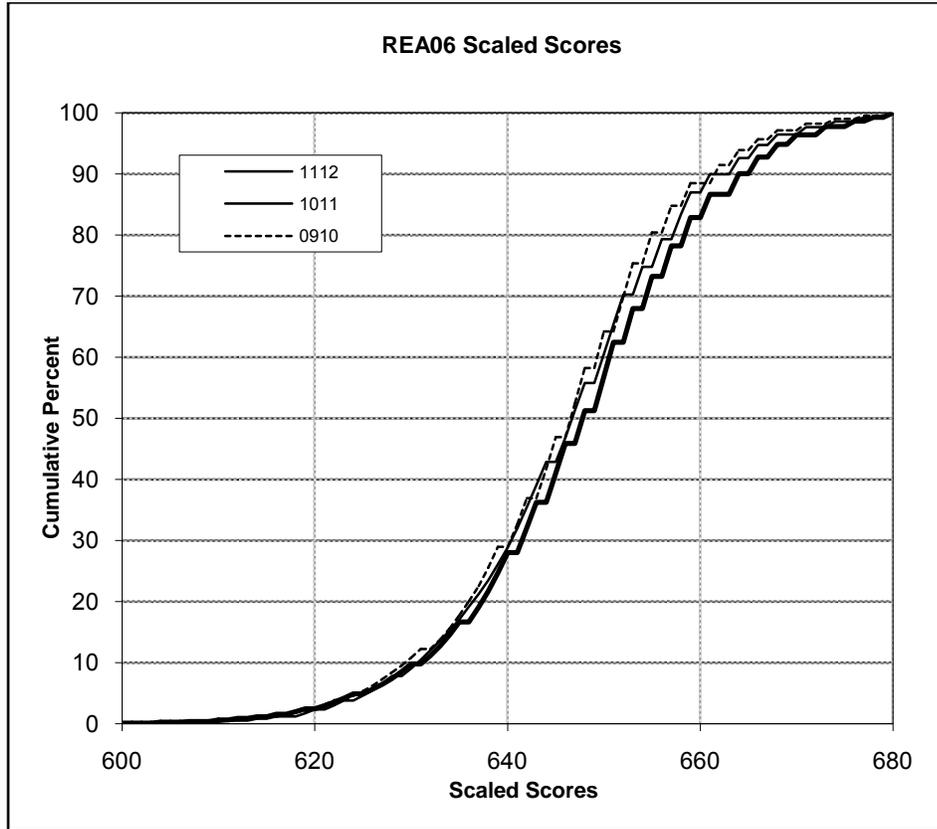


Figure N-12. 2011–12 NECAP: Cumulative Score Distribution—Reading Grade 7

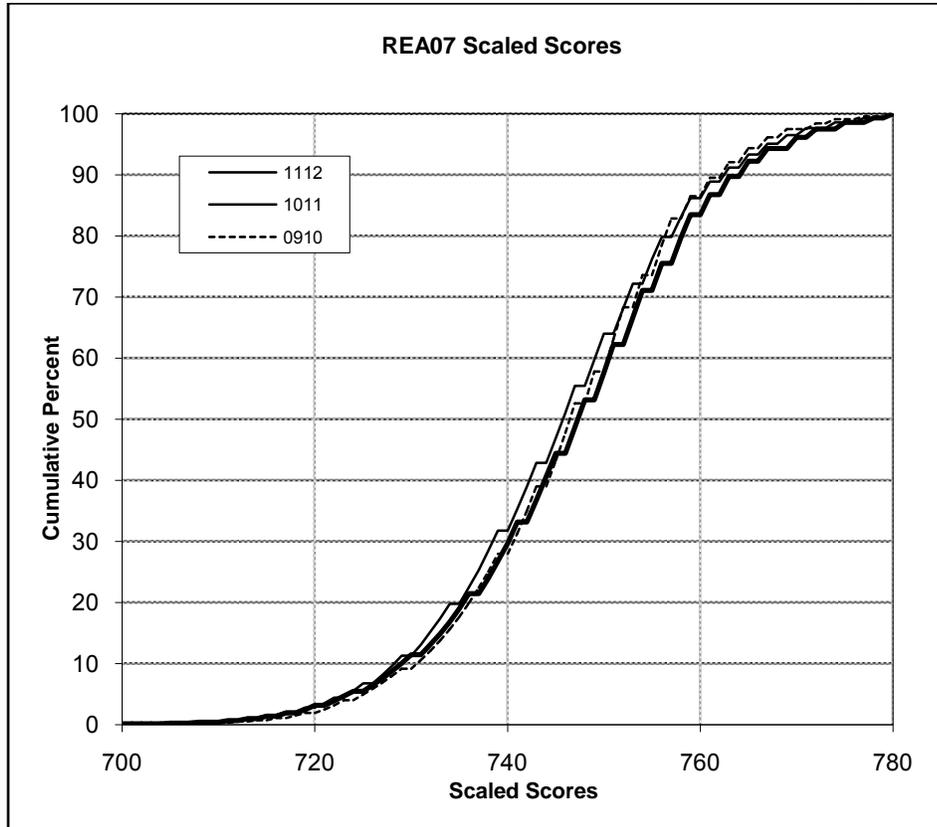


Figure N-13. 2011–12 NECAP: Cumulative Score Distribution—Reading Grade 8

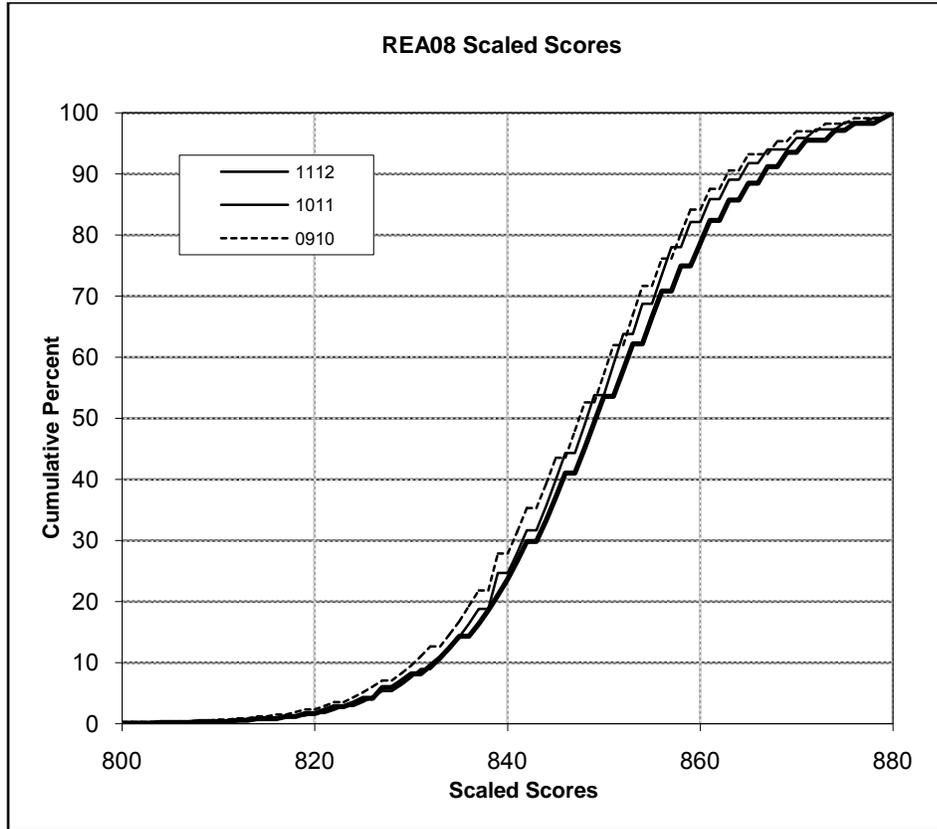


Figure N-14. 2011–12 NECAP: Cumulative Score Distribution—Reading Grade 11

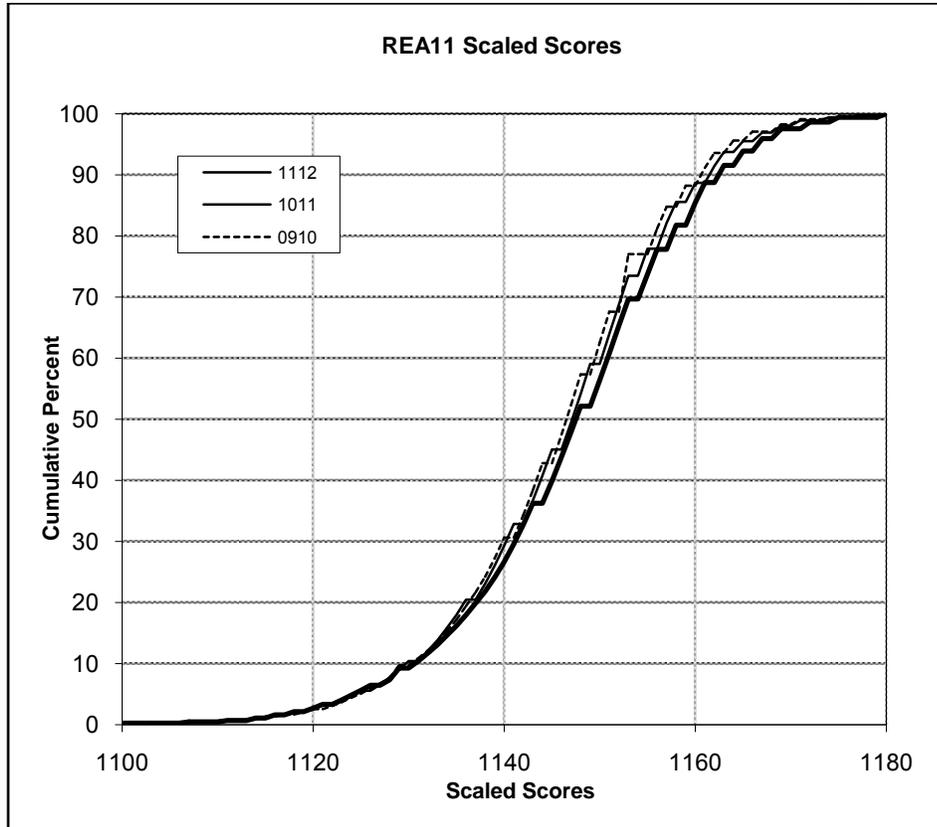


Figure N-15. 2011–12 NECAP: Cumulative Score Distribution—Writing Grade 5

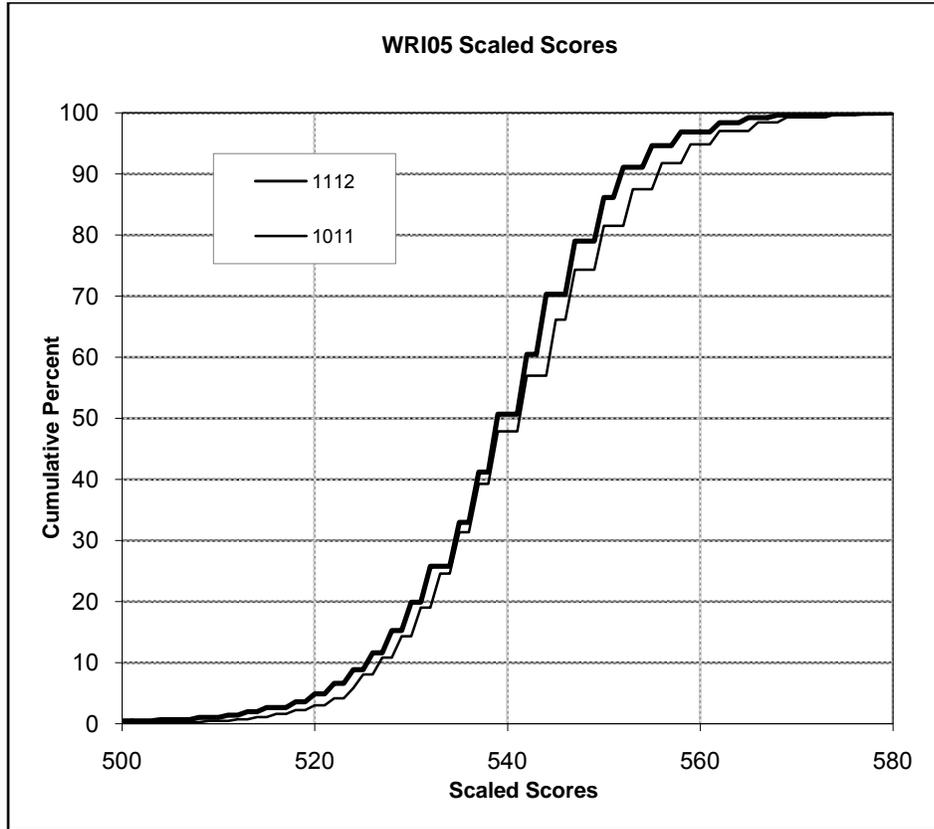


Figure N-16. 2011–12 NECAP: Cumulative Score Distribution—Writing Grade 8

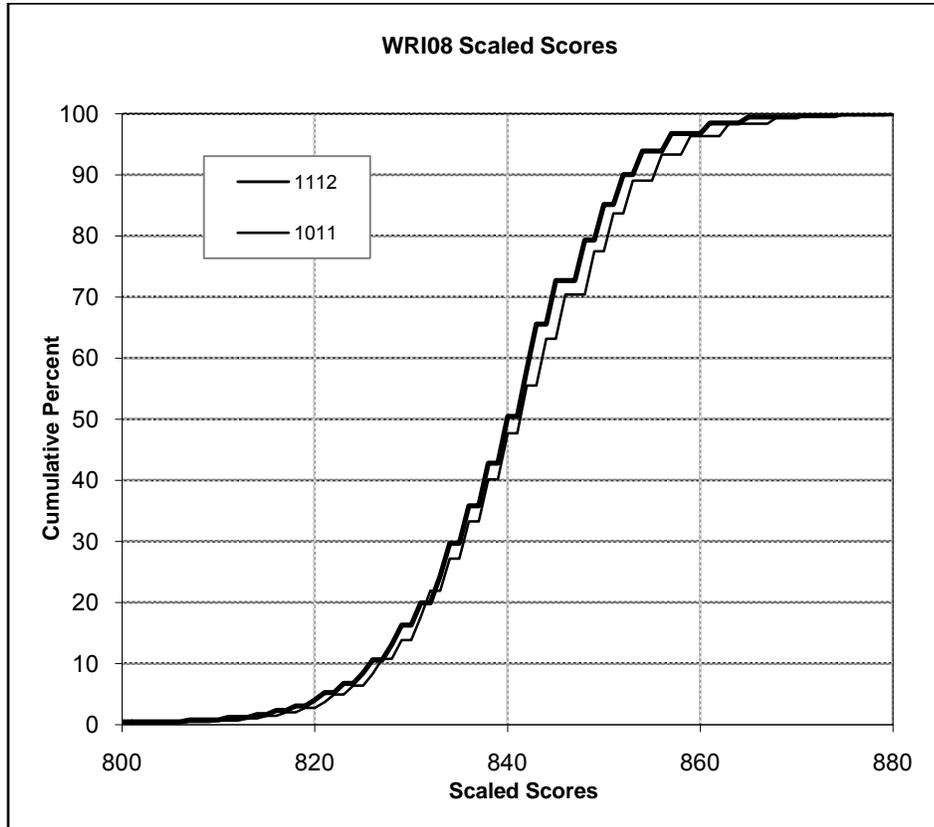


Figure N-17. 2011–12 NECAP: Cumulative Score Distribution—Writing Grade 11

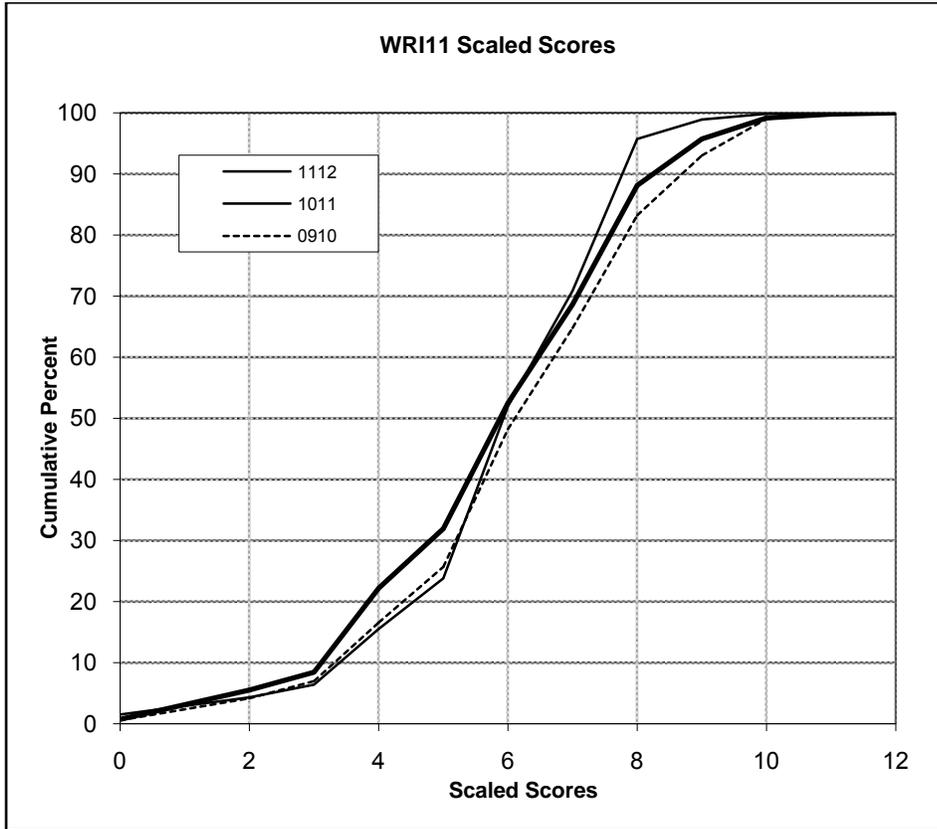


Table N-1. 2011–12 NECAP: Scaled Score Distribution—Mathematics Grade 3

<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>	<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
300	0.20	0.20	345	3.06	52.02
301	0.00	0.20	346	3.14	55.16
302	0.11	0.31	347	3.16	58.33
303	0.00	0.31	348	3.26	61.59
304	0.00	0.31	349	3.26	64.85
305	0.00	0.31	350	3.45	68.30
306	0.00	0.31	351	3.39	71.69
307	0.15	0.46	352	6.92	78.60
308	0.00	0.46	353	0.00	78.60
309	0.00	0.46	354	3.22	81.83
310	0.20	0.66	355	3.09	84.91
311	0.00	0.66	356	0.00	84.91
312	0.29	0.95	357	3.00	87.91
313	0.00	0.95	358	2.67	90.58
314	0.36	1.32	359	0.00	90.58
315	0.00	1.32	360	2.46	93.03
316	0.39	1.70	361	0.00	93.03
317	0.00	1.70	362	2.17	95.21
318	0.51	2.22	363	0.00	95.21
319	0.53	2.74	364	1.70	96.90
320	0.00	2.74	365	0.00	96.90
321	0.56	3.30	366	0.00	96.90
322	0.59	3.88	367	1.45	98.36
323	0.66	4.54	368	0.00	98.36
324	0.70	5.24	369	0.00	98.36
325	0.63	5.87	370	0.85	99.21
326	0.77	6.65	371	0.00	99.21
327	0.83	7.48	372	0.00	99.21
328	0.88	8.36	373	0.00	99.21
329	2.00	10.36	374	0.00	99.21
330	1.08	11.44	375	0.51	99.72
331	2.41	13.85	376	0.00	99.72
332	1.28	15.12	377	0.00	99.72
333	1.28	16.40	378	0.00	99.72
334	1.37	17.77	379	0.00	99.72
335	3.04	20.81	380	0.28	100.00
336	1.64	22.44			
337	1.90	24.35			
338	3.90	28.24			
339	4.54	32.79			
340	0.00	32.79			
341	4.99	37.78			
342	2.55	40.33			
343	2.81	43.15			
344	5.82	48.96			

Table N-2. 2011–12 NECAP: Scaled Score Distribution—Mathematics Grade 4

<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>	<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
400	0.14	0.14	445	2.70	46.86
401	0.11	0.26	446	5.47	52.33
402	0.00	0.26	447	2.78	55.11
403	0.00	0.26	448	2.90	58.01
404	0.00	0.26	449	2.96	60.97
405	0.00	0.26	450	3.09	64.07
406	0.20	0.46	451	3.04	67.11
407	0.00	0.46	452	3.00	70.11
408	0.00	0.46	453	3.18	73.29
409	0.31	0.77	454	3.10	76.39
410	0.00	0.77	455	2.94	79.33
411	0.38	1.15	456	3.09	82.42
412	0.00	1.15	457	2.80	85.22
413	0.00	1.15	458	0.00	85.22
414	0.42	1.57	459	2.75	87.97
415	0.48	2.05	460	2.54	90.50
416	0.00	2.05	461	0.00	90.50
417	0.51	2.56	462	2.45	92.95
418	0.00	2.56	463	0.00	92.95
419	0.60	3.17	464	1.98	94.93
420	0.61	3.77	465	0.00	94.93
421	0.65	4.43	466	1.79	96.72
422	0.68	5.11	467	0.00	96.72
423	0.78	5.89	468	0.00	96.72
424	0.00	5.89	469	1.42	98.13
425	0.78	6.67	470	0.00	98.13
426	0.80	7.48	471	0.00	98.13
427	1.85	9.33	472	0.00	98.13
428	0.92	10.25	473	1.05	99.18
429	1.03	11.28	474	0.00	99.18
430	2.18	13.46	475	0.00	99.18
431	0.00	13.46	476	0.00	99.18
432	1.15	14.61	477	0.00	99.18
433	2.71	17.32	478	0.00	99.18
434	1.42	18.74	479	0.00	99.18
435	1.47	20.21	480	0.82	100.00
436	3.14	23.35			
437	1.80	25.15			
438	1.73	26.87			
439	3.70	30.57			
440	1.96	32.53			
441	2.07	34.60			
442	4.58	39.19			
443	2.45	41.63			
444	2.53	44.16			

Table N-3. 2011–12 NECAP: Scaled Score Distribution—Mathematics Grade 5

<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>	<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
500	0.47	0.47	545	4.91	51.45
501	0.00	0.47	546	2.44	53.89
502	0.00	0.47	547	4.86	58.75
503	0.35	0.82	548	2.42	61.17
504	0.00	0.82	549	4.86	66.03
505	0.00	0.82	550	2.30	68.34
506	0.00	0.82	551	2.43	70.77
507	0.00	0.82	552	4.49	75.25
508	0.00	0.82	553	4.51	79.76
509	0.46	1.28	554	0.00	79.76
510	0.00	1.28	555	4.08	83.84
511	0.00	1.28	556	2.00	85.83
512	0.00	1.28	557	1.88	87.71
513	0.60	1.87	558	1.79	89.50
514	0.00	1.87	559	1.77	91.28
515	0.00	1.87	560	1.45	92.73
516	0.63	2.51	561	1.49	94.22
517	0.00	2.51	562	1.34	95.55
518	0.77	3.27	563	0.00	95.55
519	0.00	3.27	564	1.19	96.75
520	0.93	4.20	565	0.98	97.72
521	0.00	4.20	566	0.00	97.72
522	0.94	5.14	567	0.83	98.55
523	0.00	5.14	568	0.00	98.55
524	1.01	6.15	569	0.60	99.16
525	1.19	7.34	570	0.00	99.16
526	0.00	7.34	571	0.00	99.16
527	1.26	8.60	572	0.41	99.56
528	1.35	9.94	573	0.00	99.56
529	1.43	11.37	574	0.00	99.56
530	1.52	12.89	575	0.00	99.56
531	1.54	14.43	576	0.26	99.83
532	1.73	16.15	577	0.00	99.83
533	1.73	17.88	578	0.00	99.83
534	1.77	19.65	579	0.00	99.83
535	1.98	21.63	580	0.17	100.00
536	2.00	23.63			
537	2.09	25.72			
538	2.06	27.78			
539	4.41	32.19			
540	2.33	34.52			
541	2.41	36.93			
542	4.76	41.69			
543	2.46	44.15			
544	2.40	46.54			

Table N-4. 2011–12 NECAP: Scaled Score Distribution—Mathematics Grade 6

<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>	<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
600	0.73	0.73	645	4.33	50.05
601	0.00	0.73	646	2.10	52.15
602	0.00	0.73	647	4.27	56.42
603	0.00	0.73	648	2.03	58.45
604	0.00	0.73	649	4.28	62.73
605	0.00	0.73	650	2.18	64.90
606	0.00	0.73	651	4.24	69.14
607	0.55	1.28	652	6.23	75.37
608	0.00	1.28	653	0.00	75.37
609	0.00	1.28	654	2.04	77.42
610	0.00	1.28	655	3.91	81.33
611	0.00	1.28	656	1.93	83.26
612	0.00	1.28	657	1.85	85.11
613	0.70	1.99	658	1.81	86.92
614	0.00	1.99	659	1.76	88.68
615	0.00	1.99	660	1.63	90.31
616	0.00	1.99	661	1.53	91.84
617	1.09	3.08	662	1.36	93.20
618	0.00	3.08	663	1.37	94.57
619	0.00	3.08	664	1.23	95.80
620	1.19	4.27	665	1.02	96.82
621	0.00	4.27	666	0.00	96.82
622	1.35	5.62	667	0.94	97.76
623	0.00	5.62	668	0.00	97.76
624	1.41	7.03	669	0.84	98.60
625	0.00	7.03	670	0.00	98.60
626	1.47	8.50	671	0.58	99.18
627	0.00	8.50	672	0.00	99.18
628	1.57	10.08	673	0.39	99.57
629	1.71	11.78	674	0.00	99.57
630	1.68	13.46	675	0.00	99.57
631	1.86	15.33	676	0.00	99.57
632	1.77	17.09	677	0.27	99.85
633	0.00	17.09	678	0.00	99.85
634	1.86	18.95	679	0.00	99.85
635	3.84	22.79	680	0.15	100.00
636	2.01	24.81			
637	1.88	26.69			
638	2.00	28.68			
639	4.21	32.89			
640	2.06	34.95			
641	2.17	37.12			
642	2.13	39.26			
643	4.34	43.60			
644	2.13	45.73			

Table N-5. 2011–12 NECAP: Scaled Score Distribution—Mathematics Grade 7

<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>	<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
700	0.98	0.98	745	2.36	55.67
701	0.00	0.98	746	4.22	59.89
702	0.00	0.98	747	2.15	62.04
703	0.00	0.98	748	4.27	66.31
704	0.00	0.98	749	4.18	70.49
705	0.00	0.98	750	2.10	72.59
706	0.00	0.98	751	4.17	76.76
707	0.00	0.98	752	1.90	78.66
708	0.00	0.98	753	3.83	82.49
709	0.00	0.98	754	1.82	84.31
710	0.00	0.98	755	1.89	86.20
711	0.64	1.62	756	1.80	88.01
712	0.00	1.62	757	3.30	91.30
713	0.00	1.62	758	1.34	92.64
714	0.00	1.62	759	1.44	94.09
715	0.00	1.62	760	1.22	95.30
716	0.89	2.51	761	1.04	96.34
717	0.00	2.51	762	0.95	97.29
718	0.00	2.51	763	0.78	98.07
719	1.14	3.66	764	0.00	98.07
720	0.00	3.66	765	0.58	98.65
721	0.00	3.66	766	0.50	99.15
722	1.34	4.99	767	0.00	99.15
723	0.00	4.99	768	0.38	99.53
724	1.48	6.47	769	0.00	99.53
725	0.00	6.47	770	0.20	99.73
726	1.51	7.98	771	0.00	99.73
727	1.75	9.73	772	0.00	99.73
728	0.00	9.73	773	0.14	99.87
729	1.85	11.58	774	0.00	99.87
730	1.94	13.52	775	0.00	99.87
731	2.00	15.52	776	0.00	99.87
732	2.04	17.56	777	0.08	99.95
733	2.03	19.59	778	0.00	99.95
734	2.08	21.68	779	0.00	99.95
735	2.17	23.85	780	0.05	100.00
736	2.18	26.03			
737	2.27	28.30			
738	2.19	30.49			
739	7.04	37.52			
740	0.00	37.52			
741	4.48	42.01			
742	2.25	44.26			
743	4.56	48.82			
744	4.49	53.31			

Table N-6. 2011–12 NECAP: Scaled Score Distribution—Mathematics Grade 8

<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>	<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
800	0.42	0.42	845	4.50	57.14
801	0.00	0.42	846	4.41	61.55
802	0.00	0.42	847	4.43	65.98
803	0.37	0.80	848	2.15	68.13
804	0.00	0.80	849	4.20	72.33
805	0.00	0.80	850	4.13	76.45
806	0.00	0.80	851	4.03	80.49
807	0.00	0.80	852	1.96	82.44
808	0.00	0.80	853	3.54	85.99
809	0.00	0.80	854	1.77	87.76
810	0.00	0.80	855	3.24	91.00
811	0.00	0.80	856	1.52	92.52
812	0.00	0.80	857	1.36	93.88
813	0.00	0.80	858	1.22	95.10
814	0.55	1.35	859	1.09	96.19
815	0.00	1.35	860	0.97	97.16
816	0.00	1.35	861	0.84	98.00
817	0.00	1.35	862	0.00	98.00
818	0.00	1.35	863	0.66	98.66
819	0.83	2.18	864	0.50	99.16
820	0.00	2.18	865	0.00	99.16
821	1.09	3.26	866	0.00	99.16
822	0.00	3.26	867	0.44	99.60
823	0.00	3.26	868	0.00	99.60
824	1.30	4.56	869	0.00	99.60
825	1.34	5.90	870	0.24	99.84
826	0.00	5.90	871	0.00	99.84
827	1.55	7.45	872	0.00	99.84
828	1.63	9.08	873	0.00	99.84
829	1.77	10.85	874	0.11	99.95
830	1.61	12.46	875	0.00	99.95
831	1.76	14.22	876	0.00	99.95
832	1.82	16.03	877	0.00	99.95
833	1.91	17.95	878	0.00	99.95
834	1.84	19.79	879	0.00	99.95
835	3.71	23.50	880	0.05	100.00
836	1.79	25.28			
837	3.93	29.21			
838	2.08	31.29			
839	6.12	37.41			
840	0.00	37.41			
841	4.26	41.67			
842	4.32	46.00			
843	4.39	50.38			
844	2.25	52.64			

Table N-7. 2011–12 NECAP: Scaled Score Distribution—Mathematics Grade 11

<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>	<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
1100	1.06	1.06	1145	3.97	85.58
1101	0.00	1.06	1146	2.55	88.13
1102	0.00	1.06	1147	2.28	90.42
1103	0.00	1.06	1148	2.03	92.45
1104	0.00	1.06	1149	1.61	94.06
1105	0.00	1.06	1150	0.81	94.87
1106	0.00	1.06	1151	2.59	97.46
1107	0.00	1.06	1152	0.00	97.46
1108	1.14	2.20	1153	0.54	98.00
1109	0.00	2.20	1154	0.50	98.50
1110	0.00	2.20	1155	0.36	98.86
1111	0.00	2.20	1156	0.34	99.21
1112	0.00	2.20	1157	0.27	99.47
1113	0.00	2.20	1158	0.20	99.68
1114	0.00	2.20	1159	0.00	99.68
1115	0.00	2.20	1160	0.12	99.79
1116	1.65	3.85	1161	0.00	99.79
1117	0.00	3.85	1162	0.12	99.91
1118	0.00	3.85	1163	0.00	99.91
1119	0.00	3.85	1164	0.00	99.91
1120	2.22	6.08	1165	0.05	99.97
1121	0.00	6.08	1166	0.00	99.97
1122	2.59	8.67	1167	0.00	99.97
1123	0.00	8.67	1168	0.00	99.97
1124	2.92	11.59	1169	0.02	99.98
1125	0.00	11.59	1170	0.00	99.98
1126	3.02	14.61	1171	0.00	99.98
1127	3.04	17.65	1172	0.00	99.98
1128	3.33	20.98	1173	0.00	99.98
1129	3.21	24.18	1174	0.00	99.98
1130	3.29	27.47	1175	0.00	99.98
1131	3.10	30.57	1176	0.00	99.98
1132	3.19	33.76	1177	0.00	99.98
1133	6.01	39.77	1178	0.00	99.98
1134	2.74	42.51	1179	0.00	99.98
1135	5.40	47.91	1180	0.02	100.00
1136	2.42	50.33			
1137	4.88	55.21			
1138	4.36	59.57			
1139	6.27	65.84			
1140	1.95	67.79			
1141	3.80	71.60			
1142	3.67	75.27			
1143	3.38	78.65			
1144	2.96	81.61			

Table N-8. 2011–12 NECAP: Scaled Score Distribution—Reading Grade 3

<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>	<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
300	0.36	0.36	345	4.10	42.15
301	0.14	0.51	346	4.51	46.66
302	0.00	0.51	347	4.76	51.42
303	0.00	0.51	348	0.00	51.42
304	0.00	0.51	349	5.12	56.54
305	0.00	0.51	350	5.46	62.00
306	0.25	0.76	351	0.00	62.00
307	0.00	0.76	352	5.65	67.65
308	0.00	0.76	353	0.00	67.65
309	0.00	0.76	354	5.80	73.45
310	0.00	0.76	355	0.00	73.45
311	0.38	1.14	356	5.69	79.13
312	0.00	1.14	357	0.00	79.13
313	0.00	1.14	358	5.28	84.41
314	0.47	1.61	359	0.00	84.41
315	0.00	1.61	360	4.63	89.04
316	0.00	1.61	361	0.00	89.04
317	0.57	2.17	362	0.00	89.04
318	0.00	2.17	363	3.86	92.90
319	0.64	2.81	364	0.00	92.90
320	0.00	2.81	365	0.00	92.90
321	0.85	3.67	366	2.95	95.85
322	0.00	3.67	367	0.00	95.85
323	0.84	4.51	368	0.00	95.85
324	0.00	4.51	369	2.03	97.88
325	0.87	5.38	370	0.00	97.88
326	0.84	6.22	371	0.00	97.88
327	0.87	7.09	372	0.00	97.88
328	0.00	7.09	373	1.21	99.09
329	1.06	8.15	374	0.00	99.09
330	1.05	9.20	375	0.00	99.09
331	1.20	10.40	376	0.00	99.09
332	1.27	11.68	377	0.52	99.61
333	1.45	13.12	378	0.00	99.61
334	1.50	14.62	379	0.00	99.61
335	1.70	16.32	380	0.39	100.00
336	1.91	18.23			
337	2.08	20.31			
338	2.18	22.50			
339	2.48	24.98			
340	2.65	27.62			
341	3.18	30.81			
342	3.49	34.30			
343	3.76	38.06			
344	0.00	38.06			

Table N-9. 2011–12 NECAP: Scaled Score Distribution—Reading Grade 4

<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>	<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
400	0.31	0.31	445	0.00	43.83
401	0.00	0.31	446	4.21	48.04
402	0.00	0.31	447	4.67	52.70
403	0.00	0.31	448	4.89	57.59
404	0.18	0.49	449	5.02	62.61
405	0.00	0.49	450	0.00	62.61
406	0.00	0.49	451	5.06	67.68
407	0.00	0.49	452	5.01	72.69
408	0.25	0.73	453	0.00	72.69
409	0.00	0.73	454	4.76	77.45
410	0.00	0.74	455	0.00	77.45
411	0.35	1.08	456	4.60	82.04
412	0.00	1.08	457	0.00	82.04
413	0.00	1.08	458	4.30	86.34
414	0.43	1.51	459	0.00	86.34
415	0.00	1.51	460	3.87	90.21
416	0.42	1.93	461	0.00	90.21
417	0.00	1.93	462	0.00	90.21
418	0.61	2.54	463	3.22	93.43
419	0.00	2.54	464	0.00	93.43
420	0.61	3.15	465	0.00	93.43
421	0.00	3.15	466	2.38	95.82
422	0.66	3.82	467	0.00	95.82
423	0.76	4.58	468	0.00	95.82
424	0.00	4.58	469	1.78	97.59
425	0.83	5.41	470	0.00	97.59
426	0.95	6.36	471	0.00	97.59
427	0.99	7.35	472	0.00	97.59
428	0.00	7.35	473	1.18	98.77
429	1.13	8.48	474	0.00	98.77
430	1.19	9.67	475	0.00	98.77
431	1.25	10.92	476	0.00	98.77
432	1.41	12.33	477	0.69	99.45
433	1.47	13.79	478	0.00	99.45
434	1.61	15.41	479	0.00	99.45
435	1.80	17.20	480	0.55	100.00
436	2.13	19.33			
437	2.26	21.59			
438	2.48	24.08			
439	2.59	26.66			
440	2.82	29.49			
441	3.30	32.79			
442	3.38	36.16			
443	3.79	39.95			
444	3.87	43.83			

Table N-10. 2011–12 NECAP: Scaled Score Distribution—Reading Grade 5

<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>	<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
500	0.20	0.20	545	0.00	44.82
501	0.00	0.20	546	4.88	49.70
502	0.00	0.20	547	5.13	54.83
503	0.00	0.20	548	5.47	60.31
504	0.15	0.35	549	0.00	60.31
505	0.00	0.35	550	5.38	65.69
506	0.00	0.35	551	5.24	70.93
507	0.00	0.35	552	0.00	70.93
508	0.00	0.35	553	5.23	76.17
509	0.00	0.35	554	0.00	76.17
510	0.29	0.63	555	4.78	80.95
511	0.00	0.63	556	0.00	80.95
512	0.00	0.63	557	4.17	85.12
513	0.00	0.63	558	0.00	85.12
514	0.29	0.92	559	3.80	88.92
515	0.00	0.92	560	0.00	88.92
516	0.54	1.46	561	3.04	91.96
517	0.00	1.46	562	0.00	91.96
518	0.00	1.46	563	2.33	94.29
519	0.52	1.98	564	0.00	94.29
520	0.60	2.59	565	1.83	96.12
521	0.00	2.59	566	0.00	96.12
522	0.67	3.25	567	0.00	96.12
523	0.00	3.25	568	1.28	97.40
524	0.80	4.05	569	0.00	97.40
525	0.78	4.83	570	0.95	98.35
526	0.88	5.71	571	0.00	98.35
527	0.94	6.65	572	0.00	98.35
528	1.07	7.72	573	0.73	99.08
529	1.17	8.89	574	0.00	99.08
530	0.00	8.89	575	0.00	99.08
531	1.19	10.08	576	0.42	99.50
532	1.38	11.46	577	0.00	99.50
533	1.49	12.95	578	0.00	99.50
534	1.69	14.64	579	0.27	99.77
535	1.83	16.47	580	0.23	100.00
536	1.91	18.37			
537	2.18	20.56			
538	2.48	23.04			
539	5.76	28.80			
540	0.00	28.80			
541	3.45	32.25			
542	3.71	35.97			
543	4.27	40.23			
544	4.59	44.82			

Table N-11. 2011–12 NECAP: Scaled Score Distribution—Reading Grade 6

<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>	<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
600	0.13	0.13	645	4.81	41.04
601	0.00	0.13	646	4.86	45.89
602	0.00	0.13	647	0.00	45.89
603	0.00	0.13	648	5.35	51.24
604	0.13	0.26	649	0.00	51.24
605	0.00	0.26	650	5.59	56.83
606	0.00	0.26	651	5.62	62.45
607	0.12	0.39	652	0.00	62.45
608	0.00	0.39	653	5.55	68.00
609	0.00	0.39	654	0.00	68.00
610	0.24	0.63	655	5.26	73.26
611	0.00	0.63	656	0.00	73.26
612	0.26	0.89	657	4.96	78.23
613	0.00	0.89	658	0.00	78.23
614	0.28	1.17	659	4.62	82.85
615	0.00	1.17	660	0.00	82.85
616	0.38	1.55	661	3.84	86.69
617	0.00	1.55	662	0.00	86.69
618	0.43	1.97	663	0.00	86.69
619	0.49	2.46	664	3.36	90.04
620	0.00	2.46	665	0.00	90.04
621	0.52	2.98	666	2.73	92.78
622	0.54	3.53	667	0.00	92.78
623	0.64	4.17	668	2.08	94.85
624	0.73	4.90	669	0.00	94.85
625	0.00	4.90	670	1.59	96.44
626	0.76	5.66	671	0.00	96.44
627	0.80	6.46	672	0.00	96.44
628	0.95	7.41	673	1.31	97.75
629	1.13	8.54	674	0.00	97.75
630	1.26	9.80	675	0.00	97.75
631	0.00	9.80	676	0.90	98.66
632	1.34	11.13	677	0.00	98.66
633	1.64	12.77	678	0.62	99.28
634	1.85	14.61	679	0.00	99.28
635	2.03	16.65	680	0.72	100.00
636	0.00	16.65			
637	2.45	19.10			
638	2.64	21.74			
639	2.95	24.68			
640	3.36	28.04			
641	0.00	28.04			
642	4.07	32.11			
643	4.12	36.23			
644	0.00	36.23			

Table N-12. 2011–12 NECAP: Scaled Score Distribution—Reading Grade 7

<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>	<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
700	0.15	0.15	745	3.80	44.43
701	0.00	0.15	746	0.00	44.43
702	0.00	0.15	747	4.30	48.72
703	0.00	0.15	748	4.46	53.18
704	0.00	0.15	749	0.00	53.18
705	0.11	0.26	750	4.45	57.63
706	0.00	0.26	751	4.60	62.23
707	0.00	0.26	752	0.00	62.23
708	0.17	0.43	753	4.47	66.69
709	0.00	0.43	754	4.40	71.09
710	0.00	0.43	755	0.00	71.09
711	0.23	0.66	756	4.43	75.52
712	0.00	0.66	757	0.00	75.52
713	0.33	0.99	758	4.26	79.77
714	0.00	0.99	759	3.74	83.51
715	0.44	1.43	760	0.00	83.51
716	0.00	1.43	761	3.27	86.78
717	0.50	1.93	762	0.00	86.78
718	0.00	1.93	763	2.99	89.77
719	0.53	2.45	764	0.00	89.77
720	0.71	3.16	765	2.47	92.24
721	0.00	3.16	766	0.00	92.24
722	0.75	3.91	767	2.08	94.32
723	0.76	4.67	768	0.00	94.32
724	0.78	5.45	769	0.00	94.32
725	0.00	5.45	770	1.86	96.18
726	1.04	6.49	771	0.00	96.18
727	1.07	7.56	772	1.33	97.51
728	1.17	8.73	773	0.00	97.51
729	1.32	10.05	774	0.00	97.51
730	1.42	11.46	775	1.07	98.58
731	0.00	11.46	776	0.00	98.58
732	1.69	13.15	777	0.00	98.58
733	1.73	14.88	778	0.76	99.34
734	1.95	16.83	779	0.00	99.34
735	2.19	19.03	780	0.66	100.00
736	2.44	21.47			
737	0.00	21.47			
738	2.51	23.98			
739	2.81	26.79			
740	2.91	29.70			
741	3.46	33.17			
742	0.00	33.17			
743	3.62	36.78			
744	3.85	40.63			

Table N-13. 2011–12 NECAP: Scaled Score Distribution—Reading Grade 8

<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>	<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
800	0.13	0.13	845	3.73	37.09
801	0.00	0.13	846	3.94	41.03
802	0.00	0.13	847	0.00	41.03
803	0.00	0.13	848	4.10	45.14
804	0.08	0.22	849	4.26	49.39
805	0.00	0.22	850	4.21	53.60
806	0.00	0.22	851	0.00	53.60
807	0.00	0.22	852	4.34	57.94
808	0.12	0.34	853	4.27	62.21
809	0.00	0.34	854	0.00	62.21
810	0.00	0.34	855	4.37	66.58
811	0.00	0.34	856	4.28	70.86
812	0.21	0.55	857	0.00	70.86
813	0.00	0.55	858	4.07	74.93
814	0.30	0.85	859	0.00	74.93
815	0.00	0.85	860	3.80	78.73
816	0.00	0.85	861	3.70	82.43
817	0.36	1.21	862	0.00	82.43
818	0.00	1.21	863	3.29	85.72
819	0.47	1.68	864	0.00	85.72
820	0.00	1.68	865	2.79	88.51
821	0.57	2.25	866	0.00	88.51
822	0.56	2.81	867	2.71	91.22
823	0.00	2.81	868	0.00	91.22
824	0.58	3.38	869	2.36	93.57
825	0.81	4.19	870	0.00	93.57
826	0.00	4.19	871	1.96	95.53
827	1.76	5.95	872	0.00	95.53
828	0.00	5.95	873	0.00	95.53
829	1.08	7.03	874	1.62	97.15
830	1.16	8.19	875	0.00	97.15
831	0.00	8.19	876	1.16	98.31
832	1.29	9.47	877	0.00	98.31
833	1.39	10.86	878	0.00	98.31
834	1.62	12.48	879	0.85	99.16
835	1.82	14.30	880	0.84	100.00
836	0.00	14.30			
837	2.06	16.36			
838	2.25	18.62			
839	2.44	21.06			
840	2.64	23.70			
841	2.95	26.65			
842	3.21	29.86			
843	0.00	29.86			
844	3.50	33.36			

Table N-14. 2011–12 NECAP: Scaled Score Distribution—Reading Grade 11

<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>	<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
1100	0.26	0.26	1145	3.64	39.92
1101	0.00	0.26	1146	3.94	43.85
1102	0.00	0.26	1147	4.06	47.91
1103	0.00	0.26	1148	4.23	52.14
1104	0.00	0.26	1149	0.00	52.14
1105	0.00	0.26	1150	4.26	56.40
1106	0.00	0.26	1151	4.39	60.79
1107	0.18	0.45	1152	4.54	65.33
1108	0.00	0.45	1153	4.37	69.70
1109	0.00	0.45	1154	0.00	69.70
1110	0.00	0.45	1155	4.05	73.75
1111	0.25	0.70	1156	4.08	77.83
1112	0.00	0.70	1157	0.00	77.83
1113	0.00	0.70	1158	3.97	81.80
1114	0.42	1.12	1159	0.00	81.80
1115	0.00	1.12	1160	3.67	85.47
1116	0.48	1.61	1161	3.30	88.77
1117	0.00	1.61	1162	0.00	88.77
1118	0.53	2.14	1163	2.80	91.57
1119	0.00	2.14	1164	0.00	91.57
1120	0.60	2.73	1165	2.34	93.91
1121	0.63	3.36	1166	0.00	93.91
1122	0.00	3.36	1167	2.01	95.93
1123	0.71	4.07	1168	0.00	95.93
1124	0.77	4.85	1169	1.62	97.54
1125	0.76	5.61	1170	0.00	97.54
1126	0.85	6.46	1171	0.00	97.54
1127	0.00	6.46	1172	1.14	98.68
1128	0.91	7.37	1173	0.00	98.68
1129	1.90	9.27	1174	0.00	98.68
1130	0.00	9.27	1175	0.76	99.44
1131	1.14	10.41	1176	0.00	99.44
1132	1.30	11.70	1177	0.00	99.44
1133	1.35	13.06	1178	0.00	99.44
1134	1.57	14.63	1179	0.00	99.44
1135	1.56	16.18	1180	0.56	100.00
1136	1.78	17.96			
1137	1.93	19.89			
1138	1.93	21.82			
1139	2.32	24.14			
1140	2.55	26.69			
1141	2.88	29.58			
1142	3.21	32.79			
1143	3.49	36.28			
1144	0.00	36.28			

Table N-15. 2011–12 NECAP: Scaled Score Distribution—Writing Grade 5

<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>	<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
500	0.45	0.45	545	0.00	70.30
501	0.00	0.45	546	0.00	70.30
502	0.00	0.45	547	8.73	79.03
503	0.00	0.45	548	0.00	79.03
504	0.24	0.69	549	0.00	79.03
505	0.00	0.69	550	7.13	86.16
506	0.00	0.69	551	0.00	86.16
507	0.00	0.69	552	4.94	91.10
508	0.33	1.02	553	0.00	91.10
509	0.00	1.02	554	0.00	91.10
510	0.00	1.02	555	3.55	94.65
511	0.39	1.41	556	0.00	94.65
512	0.00	1.41	557	0.00	94.65
513	0.55	1.96	558	2.27	96.91
514	0.00	1.96	559	0.00	96.91
515	0.72	2.68	560	0.00	96.91
516	0.00	2.68	561	0.00	96.91
517	0.00	2.68	562	1.47	98.38
518	0.89	3.57	563	0.00	98.38
519	0.00	3.57	564	0.00	98.38
520	1.35	4.92	565	0.86	99.23
521	0.00	4.92	566	0.00	99.23
522	1.71	6.62	567	0.00	99.23
523	0.00	6.62	568	0.43	99.66
524	2.20	8.83	569	0.00	99.66
525	0.00	8.83	570	0.00	99.66
526	2.80	11.63	571	0.00	99.66
527	0.00	11.63	572	0.00	99.66
528	3.64	15.27	573	0.20	99.87
529	0.00	15.27	574	0.00	99.87
530	4.65	19.92	575	0.00	99.87
531	0.00	19.92	576	0.00	99.87
532	5.87	25.80	577	0.09	99.95
533	0.00	25.80	578	0.00	99.95
534	0.00	25.80	579	0.00	99.95
535	7.18	32.97	580	0.05	100.00
536	0.00	32.97			
537	8.23	41.21			
538	0.00	41.21			
539	9.48	50.68			
540	0.00	50.68			
541	0.00	50.68			
542	9.78	60.47			
543	0.00	60.47			
544	9.83	70.30			

Table N-16. 2011–12 NECAP: Scaled Score Distribution—Writing Grade 8

<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>	<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
800	0.49	0.49	845	7.11	72.70
801	0.00	0.49	846	0.00	72.70
802	0.00	0.49	847	0.00	72.70
803	0.00	0.49	848	6.63	79.33
804	0.00	0.49	849	0.00	79.33
805	0.00	0.49	850	5.85	85.18
806	0.00	0.49	851	0.00	85.18
807	0.30	0.79	852	4.89	90.07
808	0.00	0.79	853	0.00	90.07
809	0.00	0.79	854	3.86	93.93
810	0.00	0.79	855	0.00	93.93
811	0.39	1.18	856	0.00	93.93
812	0.00	1.18	857	2.87	96.80
813	0.00	1.18	858	0.00	96.80
814	0.51	1.69	859	0.00	96.80
815	0.00	1.69	860	0.00	96.80
816	0.63	2.33	861	1.72	98.52
817	0.00	2.33	862	0.00	98.52
818	0.76	3.09	863	0.00	98.52
819	0.00	3.09	864	0.00	98.52
820	0.99	4.08	865	0.95	99.47
821	1.18	5.26	866	0.00	99.47
822	0.00	5.26	867	0.00	99.47
823	1.49	6.75	868	0.00	99.47
824	0.00	6.75	869	0.00	99.47
825	1.73	8.48	870	0.00	99.47
826	2.14	10.62	871	0.47	99.94
827	0.00	10.62	872	0.00	99.94
828	2.52	13.14	873	0.00	99.94
829	3.17	16.31	874	0.00	99.94
830	0.00	16.31	875	0.00	99.94
831	3.62	19.93	876	0.00	99.94
832	0.00	19.93	877	0.00	99.94
833	4.47	24.40	878	0.00	99.94
834	5.28	29.67	879	0.04	99.98
835	0.00	29.67	880	0.02	100.00
836	6.19	35.86			
837	0.00	35.86			
838	6.95	42.81			
839	0.00	42.81			
840	7.67	50.48			
841	0.00	50.48			
842	7.69	58.17			
843	7.42	65.59			
844	0.00	65.59			

Table N-17. 2011–12 NECAP: Scaled Score Distribution—Writing Grade 11

<i>Scaled Score</i>	<i>Percentage</i>	<i>Cumulative Percentage</i>
0	0.73	0.73
2	4.79	5.51
3	2.93	8.45
4	13.76	22.21
5	9.73	31.94
6	20.55	52.49
7	16.18	68.67
8	19.46	88.14
9	7.61	95.74
10	3.43	99.17
11	0.62	99.79
12	0.21	100.00

APPENDIX O—CLASSICAL RELIABILITIES

Table O-1. 2011–12 NECAP: Subgroup Reliabilities—Mathematics

Grade	Description	Number of Students	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
03	All Students	43,414	65	42.68	12.52	0.93	3.33
	Male	22,399	65	42.72	12.63	0.93	3.33
	Female	20,998	65	42.63	12.41	0.93	3.33
	Gender Not Reported	17	65	30.12	13.69	0.93	3.54
	Hispanic or Latino	3,347	65	34.75	13.49	0.93	3.46
	American Indian or Alaskan Native	240	65	37.71	12.69	0.93	3.46
	Asian	1,076	65	43.54	13.48	0.94	3.28
	Black or African American	1,640	65	34.06	13.46	0.93	3.47
	Native Hawaiian or Pacific Islander	36	65	40.78	12.14	0.92	3.47
	White (non-Hispanic)	36,188	65	43.86	11.89	0.92	3.31
	Two or More Races (non-Hispanic)	856	65	40.94	13.07	0.93	3.38
	No Primary Race/Ethnicity Reported	31	65	35.19	14.74	0.94	3.50
	Currently receiving LEP services	2,060	65	31.28	13.48	0.93	3.50
	Former LEP student - monitoring year 1	139	65	46.69	10.32	0.90	3.19
	Former LEP student - monitoring year 2	19	65	47.42	12.00	0.93	3.13
	LEP: All Other Students	41,196	65	43.23	12.20	0.93	3.32
	Students with an IEP	5,750	65	32.13	13.73	0.93	3.54
	IEP: All Other Students	37,664	65	44.28	11.51	0.92	3.29
	Economically Disadvantaged Students	17,238	65	37.62	12.85	0.93	3.46
	SES: All Other Students	26,176	65	46.00	11.11	0.92	3.23
	Migrant Students	21	65	37.24	8.27	0.82	3.51
	Migrant: All Other Students	43,393	65	42.68	12.52	0.93	3.33
	Students receiving Title 1 Services	10,537	65	36.66	12.91	0.93	3.48
	Title 1: All Other Students	32,877	65	44.60	11.76	0.92	3.28
	Plan 504	298	65	42.14	12.23	0.92	3.38
	Plan 504: All Other Students	43,116	65	42.68	12.53	0.93	3.33
	04	All Students	43,806	65	42.36	13.49	0.93
Male		22,508	65	42.41	13.55	0.93	3.46
Female		21,289	65	42.32	13.42	0.93	3.45
Gender Not Reported		9	65				
Hispanic or Latino		3,297	65	34.30	14.48	0.94	3.54
American Indian or Alaskan Native		240	65	37.37	14.18	0.94	3.53
Asian		1,063	65	44.50	14.04	0.94	3.35
Black or African American		1,599	65	32.56	13.98	0.93	3.57
Native Hawaiian or Pacific Islander		36	65	40.22	16.23	0.95	3.45
White (non-Hispanic)		36,682	65	43.54	12.90	0.93	3.44
Two or More Races (non-Hispanic)		862	65	40.52	13.55	0.93	3.51
No Primary Race/Ethnicity Reported		27	65	32.89	16.58	0.95	3.54
Currently receiving LEP services		1,558	65	27.81	13.73	0.93	3.53
Former LEP student - monitoring year 1		419	65	40.12	12.01	0.91	3.54
Former LEP student - monitoring year 2		147	65	45.64	12.13	0.92	3.34
LEP: All Other Students		41,682	65	42.92	13.19	0.93	3.45
Students with an IEP		6,117	65	29.88	14.06	0.93	3.59
IEP: All Other Students		37,689	65	44.39	12.25	0.92	3.43
Economically Disadvantaged Students		17,461	65	36.84	13.71	0.93	3.57
SES: All Other Students		26,345	65	46.02	12.01	0.92	3.37

continued

Grade	Description	Number of Students	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
04	Migrant Students	17	65	33.06	17.82	0.96	3.53
	Migrant: All Other Students	43,789	65	42.37	13.49	0.93	3.46
	Students receiving Title 1 Services	10,039	65	35.50	13.59	0.93	3.58
	Title 1: All Other Students	33,767	65	44.40	12.77	0.93	3.41
	Plan 504	364	65	39.48	12.45	0.92	3.58
	Plan 504: All Other Students	43,442	65	42.39	13.49	0.93	3.46
05	All Students	44,289	66	36.52	13.72	0.92	3.86
	Male	22,784	66	36.30	13.92	0.92	3.84
	Female	21,503	66	36.76	13.49	0.92	3.88
	Gender Not Reported	2	66				
	Hispanic or Latino	3,277	66	29.00	13.12	0.91	3.88
	American Indian or Alaskan Native	264	66	29.83	13.67	0.92	3.90
	Asian	1,088	66	40.46	14.92	0.93	3.86
	Black or African American	1,640	66	27.85	13.19	0.92	3.83
	Native Hawaiian or Pacific Islander	39	66	31.79	13.31	0.91	3.88
	White (non-Hispanic)	37,154	66	37.54	13.37	0.92	3.85
	Two or More Races (non-Hispanic)	814	66	35.02	14.12	0.93	3.86
	No Primary Race/Ethnicity Reported	13	66	31.00	13.17	0.91	3.86
	Currently receiving LEP services	1,513	66	22.74	11.86	0.90	3.73
	Former LEP student - monitoring year 1	306	66	35.15	13.19	0.91	3.90
	Former LEP student - monitoring year 2	338	66	38.17	13.38	0.92	3.83
	LEP: All Other Students	42,132	66	37.02	13.53	0.92	3.86
	Students with an IEP	6,506	66	23.89	11.88	0.90	3.76
	IEP: All Other Students	37,783	66	38.70	12.81	0.91	3.84
Economically Disadvantaged Students	17,490	66	31.02	12.99	0.91	3.87	
SES: All Other Students	26,799	66	40.12	12.97	0.91	3.81	
06	Migrant Students	15	66	26.87	15.38	0.94	3.66
	Migrant: All Other Students	44,274	66	36.53	13.72	0.92	3.86
	Students receiving Title 1 Services	9,401	66	29.64	12.65	0.91	3.84
	Title 1: All Other Students	34,888	66	38.38	13.40	0.92	3.84
	Plan 504	434	66	33.19	12.44	0.90	3.86
	Plan 504: All Other Students	43,855	66	36.56	13.73	0.92	3.86
	All Students	44,130	66	34.48	14.62	0.92	4.05
	Male	22,922	66	34.54	14.82	0.93	4.03
	Female	21,203	66	34.41	14.40	0.92	4.06
	Gender Not Reported	5	66				
	Hispanic or Latino	3,085	66	26.16	13.37	0.91	3.91
	American Indian or Alaskan Native	237	66	27.65	14.32	0.92	3.98
Asian	967	66	39.54	15.08	0.93	4.00	
Black or African American	1,577	66	24.51	13.06	0.91	3.89	
Native Hawaiian or Pacific Islander	39	66	33.13	14.40	0.92	4.12	
White (non-Hispanic)	37,464	66	35.54	14.35	0.92	4.05	
Two or More Races (non-Hispanic)	745	66	32.18	14.83	0.93	4.06	
No Primary Race/Ethnicity Reported	16	66	34.38	15.51	0.92	4.28	
Currently receiving LEP services	1,280	66	19.16	11.57	0.90	3.61	
Former LEP student - monitoring year 1	232	66	31.49	13.46	0.91	4.06	
Former LEP student - monitoring year 2	221	66	33.19	12.90	0.90	4.09	
LEP: All Other Students	42,397	66	34.96	14.46	0.92	4.05	

continued

Grade	Description	Number of Students	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
06	Students with an IEP	6,799	66	20.61	11.59	0.90	3.68
	IEP: All Other Students	37,331	66	37.00	13.67	0.91	4.05
	Economically Disadvantaged Students	17,127	66	28.30	13.51	0.91	3.98
	SES: All Other Students	27,003	66	38.39	13.93	0.92	4.02
	Migrant Students	14	66	27.79	13.14	0.91	4.03
	Migrant: All Other Students	44,116	66	34.48	14.62	0.92	4.05
	Students receiving Title 1 Services	7,544	66	26.64	12.97	0.91	3.93
	Title 1: All Other Students	36,586	66	36.09	14.41	0.92	4.05
	Plan 504	488	66	33.47	12.95	0.90	4.04
	Plan 504: All Other Students	43,642	66	34.49	14.63	0.92	4.05
	All Students	44,630	66	32.41	14.02	0.92	3.85
	Male	23,094	66	32.50	14.16	0.93	3.83
	Female	21,529	66	32.32	13.88	0.92	3.87
	Gender Not Reported	7	66				
07	Hispanic or Latino	2,827	66	23.89	12.64	0.92	3.67
	American Indian or Alaskan Native	276	66	25.92	11.90	0.90	3.74
	Asian	944	66	36.17	15.44	0.94	3.91
	Black or African American	1,605	66	23.10	12.60	0.92	3.64
	Native Hawaiian or Pacific Islander	28	66	32.57	15.89	0.94	3.91
	White (non-Hispanic)	38,212	66	33.42	13.76	0.92	3.86
	Two or More Races (non-Hispanic)	724	66	30.44	14.46	0.93	3.84
	No Primary Race/Ethnicity Reported	14	66	28.79	14.22	0.93	3.84
	Currently receiving LEP services	1,184	66	17.96	10.61	0.90	3.41
	Former LEP student - monitoring year 1	144	66	33.52	12.40	0.90	3.91
	Former LEP student - monitoring year 2	196	66	27.87	13.55	0.92	3.82
	LEP: All Other Students	43,106	66	32.82	13.90	0.92	3.85
	Students with an IEP	6,885	66	18.99	10.58	0.89	3.45
	IEP: All Other Students	37,745	66	34.86	13.16	0.91	3.86
	Economically Disadvantaged Students	16,831	66	26.22	12.61	0.91	3.74
	SES: All Other Students	27,799	66	36.16	13.50	0.92	3.86
	Migrant Students	19	66	20.00	12.61	0.92	3.51
	Migrant: All Other Students	44,611	66	32.42	14.02	0.92	3.85
	Students receiving Title 1 Services	5,655	66	23.77	11.93	0.91	3.66
	Title 1: All Other Students	38,975	66	33.67	13.86	0.92	3.86
	Plan 504	604	66	30.32	13.19	0.92	3.79
	Plan 504: All Other Students	44,026	66	32.44	14.03	0.92	3.85
	08	All Students	46,432	66	34.12	14.56	0.93
Male		23,722	66	33.84	14.81	0.93	3.88
Female		22,700	66	34.42	14.29	0.93	3.89
Gender Not Reported		10	66	18.10	10.19	0.87	3.63
Hispanic or Latino		3,243	66	25.52	13.31	0.92	3.81
American Indian or Alaskan Native		274	66	27.81	13.84	0.92	3.84
Asian		1,019	66	38.12	15.86	0.94	3.84
Black or African American		1,674	66	24.84	13.23	0.92	3.79
Native Hawaiian or Pacific Islander		34	66	38.44	13.21	0.91	3.87
White (non-Hispanic)		39,450	66	35.20	14.27	0.93	3.89
Two or More Races (non-Hispanic)		719	66	32.32	14.76	0.93	3.90
No Primary Race/Ethnicity Reported		19	66	19.58	11.37	0.90	3.67

continued

Grade	Description	Number of Students	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
08	Currently receiving LEP services	1,256	66	18.96	11.35	0.90	3.55
	Former LEP student - monitoring year 1	70	66	32.97	13.97	0.92	3.92
	Former LEP student - monitoring year 2	165	66	26.84	15.45	0.94	3.84
	LEP: All Other Students	44,941	66	34.58	14.40	0.93	3.89
	Students with an IEP	7,180	66	19.40	10.61	0.89	3.57
	IEP: All Other Students	39,252	66	36.82	13.54	0.92	3.87
	Economically Disadvantaged Students	17,056	66	27.55	13.27	0.92	3.86
	SES: All Other Students	29,376	66	37.94	13.90	0.92	3.86
	Migrant Students	19	66	22.05	9.88	0.86	3.73
	Migrant: All Other Students	46,413	66	34.13	14.56	0.93	3.89
	Students receiving Title 1 Services	5,029	66	25.15	12.38	0.91	3.81
	Title 1: All Other Students	41,403	66	35.21	14.43	0.93	3.89
	Plan 504	602	66	32.77	13.62	0.92	3.89
	Plan 504: All Other Students	45,830	66	34.14	14.57	0.93	3.89
	All Students	31,711	64	23.89	13.61	0.94	3.46
	Male	16,146	64	24.49	14.04	0.94	3.47
	Female	15,546	64	23.29	13.12	0.93	3.44
Gender Not Reported	19	64	16.58	10.46	0.91	3.14	
Hispanic or Latino	2,500	64	15.85	10.36	0.91	3.10	
American Indian or Alaskan Native	109	64	17.15	9.57	0.89	3.14	
Asian	761	64	29.08	16.11	0.95	3.63	
Black or African American	1,248	64	15.21	9.76	0.90	3.04	
Native Hawaiian or Pacific Islander	35	64	22.03	10.07	0.88	3.44	
White (non-Hispanic)	26,616	64	24.98	13.54	0.93	3.49	
Two or More Races (non-Hispanic)	407	64	21.32	13.55	0.94	3.38	
No Primary Race/Ethnicity Reported	35	64	17.69	13.45	0.94	3.18	
11	Currently receiving LEP services	653	64	10.64	8.10	0.89	2.66
	Former LEP student - monitoring year 1	102	64	16.90	10.96	0.92	3.16
	Former LEP student - monitoring year 2	102	64	18.94	11.57	0.92	3.21
	LEP: All Other Students	30,854	64	24.21	13.57	0.93	3.47
	Students with an IEP	4,572	64	11.99	8.17	0.88	2.80
	IEP: All Other Students	27,139	64	25.90	13.32	0.93	3.52
	Economically Disadvantaged Students	8,734	64	17.65	11.14	0.92	3.19
	SES: All Other Students	22,977	64	26.27	13.71	0.93	3.53
	Migrant Students	4	64				
	Migrant: All Other Students	31,707	64	23.89	13.61	0.94	3.46
	Students receiving Title 1 Services	2,786	64	16.46	10.87	0.92	3.13
	Title 1: All Other Students	28,925	64	24.61	13.63	0.93	3.48
	Plan 504	236	64	23.80	12.42	0.92	3.49
	Plan 504: All Other Students	31,475	64	23.89	13.62	0.94	3.46

Table O-2. 2011–12 NECAP: Subgroup Reliabilities—Reading

Grade	Description	Number of Students	Raw Score			Alpha	Standard Error	
			Maximum	Mean	Standard Deviation			
03	All Students	43,360	52	34.25	8.75	0.89	2.88	
	Male	22,385	52	33.05	9.01	0.90	2.88	
	Female	20,958	52	35.54	8.27	0.88	2.86	
	Gender Not Reported	17	52	27.82	10.17	0.91	3.09	
	Hispanic or Latino	3,294	52	29.91	9.48	0.90	3.06	
	American Indian or Alaskan Native	240	52	31.83	8.95	0.89	2.97	
	Asian	1,052	52	34.93	9.08	0.90	2.90	
	Black or African American	1,625	52	29.81	9.75	0.90	3.05	
	Native Hawaiian or Pacific Islander	36	52	33.61	9.13	0.89	3.07	
	White (non-Hispanic)	36,228	52	34.85	8.44	0.89	2.84	
	Two or More Races (non-Hispanic)	854	52	33.81	8.98	0.90	2.90	
	No Primary Race/Ethnicity Reported	31	52	31.26	9.79	0.90	3.02	
	Currently receiving LEP services	1,952	52	26.54	9.75	0.90	3.15	
	Former LEP student - monitoring year 1	139	52	37.82	6.36	0.82	2.68	
	Former LEP student - monitoring year 2	19	52	37.05	7.96	0.87	2.83	
	LEP: All Other Students	41,250	52	34.60	8.54	0.89	2.86	
	Students with an IEP	5,734	52	24.98	9.85	0.90	3.09	
	IEP: All Other Students	37,626	52	35.66	7.64	0.86	2.82	
	Economically Disadvantaged Students	17,202	52	31.03	9.31	0.90	3.00	
	SES: All Other Students	26,158	52	36.37	7.66	0.87	2.77	
	Migrant Students	21	52	28.67	8.19	0.86	3.01	
	Migrant: All Other Students	43,339	52	34.25	8.75	0.89	2.88	
	Students receiving Title 1 Services	10,967	52	30.53	8.99	0.89	3.03	
	Title 1: All Other Students	32,393	52	35.51	8.30	0.89	2.81	
	Plan 504	297	52	34.26	7.92	0.87	2.87	
	Plan 504: All Other Students	43,063	52	34.25	8.76	0.89	2.88	
	04	All Students	43,741	52	34.16	9.12	0.89	3.05
		Male	22,479	52	32.82	9.23	0.89	3.07
Female		21,256	52	35.59	8.78	0.88	3.00	
Gender Not Reported		6	52					
Hispanic or Latino		3,239	52	29.26	9.84	0.89	3.25	
American Indian or Alaskan Native		239	52	30.40	9.63	0.89	3.15	
Asian		1,038	52	35.34	9.42	0.90	3.04	
Black or African American		1,588	52	29.04	10.05	0.90	3.25	
Native Hawaiian or Pacific Islander		36	52	32.89	9.50	0.90	3.03	
White (non-Hispanic)		36,713	52	34.83	8.78	0.88	3.01	
Two or More Races (non-Hispanic)		863	52	33.48	9.22	0.89	3.09	
No Primary Race/Ethnicity Reported		25	52	30.16	12.22	0.93	3.28	
Currently receiving LEP services		1,454	52	24.14	9.68	0.88	3.40	
Former LEP student - monitoring year 1		419	52	32.89	7.59	0.83	3.11	
Former LEP student - monitoring year 2		147	52	35.99	7.76	0.86	2.94	
LEP: All Other Students		41,721	52	34.52	8.91	0.88	3.03	
Students with an IEP		6,116	52	24.03	9.60	0.88	3.33	
IEP: All Other Students		37,625	52	35.81	7.89	0.86	2.96	
Economically Disadvantaged Students		17,424	52	30.52	9.52	0.89	3.19	
SES: All Other Students		26,317	52	36.57	7.98	0.87	2.92	

continued

Grade	Description	Number of Students	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
04	Migrant Students	17	52	27.18	10.50	0.90	3.32
	Migrant: All Other Students	43,724	52	34.17	9.12	0.89	3.05
	Students receiving Title 1 Services	10,343	52	29.82	9.22	0.88	3.22
	Title 1: All Other Students	33,398	52	35.51	8.66	0.88	2.98
	Plan 504	364	52	33.20	8.28	0.86	3.09
	Plan 504: All Other Students	43,377	52	34.17	9.13	0.89	3.04
05	All Students	44,243	52	31.06	8.68	0.89	2.89
	Male	22,772	52	29.53	8.75	0.89	2.87
	Female	21,469	52	32.69	8.30	0.88	2.89
	Gender Not Reported	2	52				
	Hispanic or Latino	3,215	52	26.74	9.42	0.89	3.08
	American Indian or Alaskan Native	262	52	25.87	9.56	0.90	3.01
	Asian	1,062	52	32.41	9.10	0.90	2.93
	Black or African American	1,635	52	26.19	9.68	0.90	3.06
	Native Hawaiian or Pacific Islander	39	52	31.87	7.64	0.84	3.04
	White (non-Hispanic)	37,200	52	31.67	8.34	0.88	2.86
	Two or More Races (non-Hispanic)	817	52	30.10	9.11	0.90	2.91
	No Primary Race/Ethnicity Reported	13	52	23.92	10.54	0.93	2.76
	Currently receiving LEP services	1,406	52	21.45	9.36	0.89	3.17
	Former LEP student - monitoring year 1	306	52	29.98	7.72	0.84	3.09
	Former LEP student - monitoring year 2	339	52	31.58	7.36	0.84	2.93
	LEP: All Other Students	42,192	52	31.39	8.49	0.88	2.88
	Students with an IEP	6,512	52	21.22	8.81	0.88	3.09
	IEP: All Other Students	37,731	52	32.76	7.44	0.86	2.83
	Economically Disadvantaged Students	17,457	52	27.77	9.02	0.89	3.00
	SES: All Other Students	26,786	52	33.21	7.73	0.87	2.80
06	Migrant Students	15	52	24.40	11.59	0.93	3.09
	Migrant: All Other Students	44,228	52	31.06	8.68	0.89	2.89
	Students receiving Title 1 Services	9,569	52	27.23	8.84	0.88	3.05
	Title 1: All Other Students	34,674	52	32.12	8.33	0.88	2.84
	Plan 504	434	52	29.40	7.87	0.86	2.92
	Plan 504: All Other Students	43,809	52	31.08	8.68	0.89	2.89
	All Students	44,117	52	33.04	8.31	0.88	2.83
	Male	22,909	52	31.58	8.34	0.89	2.78
	Female	21,202	52	34.63	7.98	0.87	2.84
	Gender Not Reported	6	52				
	Hispanic or Latino	3,028	52	28.95	9.13	0.89	2.99
	American Indian or Alaskan Native	237	52	29.86	8.51	0.88	2.98
	Asian	946	52	35.18	8.44	0.88	2.87
	Black or African American	1,558	52	28.12	9.62	0.90	3.02
Native Hawaiian or Pacific Islander	38	52	32.95	7.06	0.83	2.87	
White (non-Hispanic)	37,548	52	33.56	7.99	0.88	2.81	
Two or More Races (non-Hispanic)	745	52	31.95	8.79	0.89	2.87	
No Primary Race/Ethnicity Reported	17	52	34.18	9.42	0.91	2.86	
Currently receiving LEP services	1,174	52	23.08	9.63	0.89	3.12	
Former LEP student - monitoring year 1	233	52	32.21	7.32	0.84	2.94	
Former LEP student - monitoring year 2	221	52	32.43	6.92	0.82	2.97	
LEP: All Other Students	42,489	52	33.32	8.11	0.88	2.82	

continued

Grade	Description	Number of Students	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
06	Students with an IEP	6,828	52	23.61	8.52	0.88	2.99
	IEP: All Other Students	37,289	52	34.77	7.01	0.84	2.76
	Economically Disadvantaged Students	17,103	52	29.76	8.66	0.89	2.93
	SES: All Other Students	27,014	52	35.12	7.35	0.86	2.74
	Migrant Students	15	52	28.60	9.66	0.91	2.85
	Migrant: All Other Students	44,102	52	33.04	8.31	0.88	2.83
	Students receiving Title 1 Services	7,728	52	29.16	8.53	0.88	2.97
	Title 1: All Other Students	36,389	52	33.87	8.02	0.88	2.80
	Plan 504	488	52	32.26	6.64	0.83	2.74
	Plan 504: All Other Students	43,629	52	33.05	8.32	0.88	2.83
	All Students	44,522	52	32.56	9.25	0.89	3.06
	Male	23,026	52	30.95	9.22	0.89	3.00
	Female	21,489	52	34.29	8.96	0.88	3.04
	Gender Not Reported	7	52				
07	Hispanic or Latino	2,791	52	27.82	9.68	0.89	3.20
	American Indian or Alaskan Native	276	52	28.26	9.00	0.88	3.09
	Asian	914	52	35.29	9.06	0.89	3.00
	Black or African American	1,578	52	27.77	9.92	0.90	3.21
	Native Hawaiian or Pacific Islander	28	52	30.32	10.35	0.90	3.20
	White (non-Hispanic)	38,193	52	33.09	9.01	0.89	3.04
	Two or More Races (non-Hispanic)	728	52	31.80	9.29	0.89	3.09
	No Primary Race/Ethnicity Reported	14	52	33.64	9.60	0.89	3.21
	Currently receiving LEP services	1,072	52	22.42	9.27	0.87	3.30
	Former LEP student - monitoring year 1	144	52	33.70	7.48	0.84	3.01
	Former LEP student - monitoring year 2	196	52	30.43	8.65	0.87	3.17
	LEP: All Other Students	43,110	52	32.82	9.11	0.89	3.05
	Students with an IEP	6,873	52	22.13	8.75	0.87	3.13
	IEP: All Other Students	37,649	52	34.47	7.98	0.86	2.99
	Economically Disadvantaged Students	16,777	52	28.58	9.27	0.89	3.14
	SES: All Other Students	27,745	52	34.98	8.36	0.87	2.97
	Migrant Students	17	52	22.94	9.15	0.89	3.04
	Migrant: All Other Students	44,505	52	32.57	9.24	0.89	3.06
	Students receiving Title 1 Services	5,660	52	27.54	9.08	0.88	3.20
	Title 1: All Other Students	38,862	52	33.30	9.04	0.89	3.04
	Plan 504	603	52	31.25	8.25	0.87	3.03
	Plan 504: All Other Students	43,919	52	32.58	9.26	0.89	3.06
	08	All Students	46,376	52	32.71	9.21	0.89
Male		23,706	52	31.04	9.25	0.89	3.04
Female		22,661	52	34.45	8.84	0.88	3.06
Gender Not Reported		9	52				
Hispanic or Latino		3,201	52	27.79	9.41	0.88	3.20
American Indian or Alaskan Native		274	52	29.13	9.59	0.89	3.18
Asian		991	52	34.56	9.82	0.90	3.08
Black or African American		1,664	52	27.84	9.78	0.89	3.22
Native Hawaiian or Pacific Islander		33	52	35.88	8.26	0.86	3.13
White (non-Hispanic)		39,478	52	33.29	8.95	0.88	3.07
Two or More Races (non-Hispanic)		718	52	32.35	9.67	0.90	3.10
No Primary Race/Ethnicity Reported		17	52	28.35	8.45	0.87	3.09

continued

Grade	Description	Number of Students	Raw Score			Alpha	Standard Error	
			Maximum	Mean	Standard Deviation			
08	Currently receiving LEP services	1,150	52	22.34	9.03	0.87	3.30	
	Former LEP student - monitoring year 1	70	52	33.87	9.09	0.89	3.06	
	Former LEP student - monitoring year 2	166	52	27.86	10.20	0.90	3.23	
	LEP: All Other Students	44,990	52	32.99	9.05	0.88	3.08	
	Students with an IEP	7,207	52	22.81	8.67	0.87	3.15	
	IEP: All Other Students	39,169	52	34.53	8.08	0.86	3.01	
	Economically Disadvantaged Students	17,035	52	28.77	9.21	0.88	3.17	
	SES: All Other Students	29,341	52	34.99	8.41	0.87	3.01	
	Migrant Students	18	52	21.22	7.38	0.81	3.22	
	Migrant: All Other Students	46,358	52	32.71	9.21	0.89	3.09	
	Students receiving Title 1 Services	4,974	52	27.76	8.91	0.87	3.21	
	Title 1: All Other Students	41,402	52	33.30	9.07	0.89	3.07	
	Plan 504	603	52	31.96	7.95	0.86	3.02	
	Plan 504: All Other Students	45,773	52	32.72	9.23	0.89	3.10	
	11	All Students	31,927	52	33.46	9.87	0.90	3.08
		Male	16,253	52	31.65	10.00	0.90	3.09
Female		15,660	52	35.34	9.37	0.90	2.99	
Gender Not Reported		14	52	25.43	9.91	0.89	3.33	
Hispanic or Latino		2,480	52	28.34	10.24	0.89	3.34	
American Indian or Alaskan Native		110	52	30.85	9.96	0.90	3.18	
Asian		749	52	34.14	10.38	0.91	3.12	
Black or African American		1,261	52	28.13	10.34	0.90	3.31	
Native Hawaiian or Pacific Islander		36	52	34.11	8.06	0.85	3.10	
White (non-Hispanic)		26,858	52	34.19	9.57	0.90	3.04	
Two or More Races (non-Hispanic)		404	52	32.26	10.12	0.90	3.14	
No Primary Race/Ethnicity Reported		29	52	26.90	11.52	0.92	3.26	
Currently receiving LEP services		608	52	18.07	7.81	0.81	3.42	
Former LEP student - monitoring year 1		102	52	28.21	6.51	0.74	3.34	
Former LEP student - monitoring year 2		103	52	32.32	7.61	0.83	3.17	
LEP: All Other Students		31,114	52	33.78	9.68	0.90	3.06	
Students with an IEP	4,627	52	22.89	9.50	0.88	3.24		
IEP: All Other Students	27,300	52	35.25	8.75	0.88	2.98		
Economically Disadvantaged Students	8,834	52	29.00	10.19	0.90	3.26		
SES: All Other Students	23,093	52	35.16	9.19	0.89	2.99		
Migrant Students	3	52						
Migrant: All Other Students	31,924	52	33.46	9.87	0.90	3.08		
Students receiving Title 1 Services	2,719	52	28.90	10.06	0.89	3.32		
Title 1: All Other Students	29,208	52	33.88	9.75	0.90	3.06		
Plan 504	238	52	34.10	8.35	0.87	3.03		
Plan 504: All Other Students	31,689	52	33.45	9.88	0.90	3.08		

Table O-3. 2011–12 NECAP: Subgroup Reliabilities—Writing

Grade	Description	Number of Students	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
05	All Students	44,008	34	18.94	4.59	0.77	2.22
	Male	22,627	34	17.88	4.63	0.77	2.23
	Female	21,379	34	20.07	4.27	0.74	2.16
	Gender Not Reported	2	34				
	Hispanic or Latino	3,203	34	17.60	5.04	0.79	2.32
	American Indian or Alaskan Native	260	34	16.35	4.90	0.78	2.29
	Asian	1,055	34	20.17	4.73	0.79	2.16
	Black or African American	1,628	34	17.15	5.21	0.79	2.38
	Native Hawaiian or Pacific Islander	38	34	19.53	4.03	0.68	2.28
	White (non-Hispanic)	37,000	34	19.13	4.46	0.76	2.20
	Two or More Races (non-Hispanic)	811	34	18.55	4.88	0.79	2.24
	No Primary Race/Ethnicity Reported	13	34	17.54	5.17	0.70	2.85
	Currently receiving LEP services	1,397	34	15.15	5.39	0.78	2.50
	Former LEP student - monitoring year 1	304	34	19.09	3.85	0.69	2.16
	Former LEP student - monitoring year 2	337	34	19.91	3.79	0.71	2.06
	LEP: All Other Students	41,970	34	19.06	4.52	0.76	2.21
	Students with an IEP	6,452	34	13.97	4.78	0.75	2.41
	IEP: All Other Students	37,556	34	19.80	3.98	0.72	2.12
	Economically Disadvantaged Students	17,331	34	17.38	4.74	0.77	2.29
	SES: All Other Students	26,677	34	19.96	4.19	0.74	2.14
	Migrant Students	14	34	15.07	4.62	0.72	2.44
	Migrant: All Other Students	43,994	34	18.94	4.59	0.77	2.22
	Students receiving Title 1 Services	9,541	34	17.47	4.73	0.77	2.29
	Title 1: All Other Students	34,467	34	19.35	4.47	0.76	2.19
	Plan 504	434	34	17.64	4.10	0.71	2.21
Plan 504: All Other Students	43,574	34	18.96	4.59	0.77	2.22	
08	All Students	46,171	34	20.83	5.58	0.77	2.65
	Male	23,586	34	19.43	5.69	0.78	2.69
	Female	22,577	34	22.28	5.08	0.75	2.52
	Gender Not Reported	8	34				
	Hispanic or Latino	3,171	34	18.18	5.92	0.78	2.80
	American Indian or Alaskan Native	273	34	18.52	5.90	0.78	2.75
	Asian	990	34	22.23	5.76	0.80	2.58
	Black or African American	1,645	34	18.16	5.99	0.78	2.83
	Native Hawaiian or Pacific Islander	33	34	22.33	4.77	0.70	2.60
	White (non-Hispanic)	39,330	34	21.14	5.44	0.77	2.62
	Two or More Races (non-Hispanic)	713	34	20.56	5.65	0.78	2.66
	No Primary Race/Ethnicity Reported	16	34	17.69	6.11	0.72	3.26
	Currently receiving LEP services	1,137	34	14.83	6.22	0.76	3.02
	Former LEP student - monitoring year 1	70	34	21.74	5.06	0.72	2.69
	Former LEP student - monitoring year 2	162	34	18.01	6.13	0.80	2.77
	LEP: All Other Students	44,802	34	20.99	5.48	0.77	2.63
	Students with an IEP	7,117	34	14.66	5.41	0.73	2.83
	IEP: All Other Students	39,054	34	21.95	4.83	0.73	2.50
	Economically Disadvantaged Students	16,907	34	18.49	5.70	0.77	2.75
	SES: All Other Students	29,264	34	22.18	5.04	0.75	2.52

continued

Grade	Description	Number of Students	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
08	Migrant Students	18	34	16.11	3.74	0.54	2.54
	Migrant: All Other Students	46,153	34	20.83	5.58	0.77	2.65
	Students receiving Title 1 Services	4,933	34	18.09	5.62	0.76	2.75
	Title 1: All Other Students	41,238	34	21.15	5.49	0.77	2.63
	Plan 504	600	34	19.62	4.98	0.72	2.64
	Plan 504: All Other Students	45,571	34	20.84	5.59	0.78	2.65
11	All Students	31,859	12	6.26	2.07		
	Male	16,200	12	5.90	2.13		
	Female	15,644	12	6.64	1.93		
	Gender Not Reported	15	12	4.00	2.17		
	Hispanic or Latino	2,464	12	5.52	2.08		
	American Indian or Alaskan Native	109	12	5.88	2.04		
	Asian	749	12	6.67	2.11		
	Black or African American	1,251	12	5.48	2.01		
	Native Hawaiian or Pacific Islander	36	12	6.06	2.00		
	White (non-Hispanic)	26,814	12	6.37	2.04		
	Two or More Races (non-Hispanic)	406	12	6.01	2.09		
	No Primary Race/Ethnicity Reported	30	12	4.70	2.64		
	Currently receiving LEP services	603	12	3.85	1.89		
	Former LEP student - monitoring year 1	100	12	5.81	1.38		
	Former LEP student - monitoring year 2	102	12	5.89	1.76		
	LEP: All Other Students	31,054	12	6.31	2.05		
	Students with an IEP	4,594	12	4.34	1.89		
	IEP: All Other Students	27,265	12	6.59	1.91		
	Economically Disadvantaged Students	8,796	12	5.47	2.04		
	SES: All Other Students	23,063	12	6.57	2.00		
	Migrant Students	3	12				
	Migrant: All Other Students	31,856	12	6.26	2.07		
	Students receiving Title 1 Services	2,709	12	5.61	2.05		
	Title 1: All Other Students	29,150	12	6.33	2.06		
Plan 504	238	12	6.36	1.83			
Plan 504: All Other Students	31,621	12	6.26	2.07			

Table O-4. 2011–12 NECAP: Reliabilities by Reporting Category—Mathematics

Grade	Reporting Category	Number of Items	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
03	DP	8	10	5.92	2.30	0.71	1.23
	FA	9	10	7.03	2.10	0.66	1.23
	GM	8	10	5.64	2.37	0.62	1.46
	NO	30	35	24.09	7.12	0.88	2.42
04	DP	8	10	6.40	2.40	0.66	1.40
	FA	9	10	6.70	2.52	0.73	1.31
	GM	11	13	8.10	3.10	0.72	1.64
	NO	27	32	21.16	6.77	0.88	2.36

continued

Grade	Reporting Category	Number of Items	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
05	DP	6	10	4.51	2.65	0.62	1.64
	FA	9	13	7.69	2.76	0.63	1.67
	GM	9	13	7.65	2.83	0.65	1.68
	NO	24	30	16.68	6.90	0.86	2.59
06	DP	6	10	5.15	2.51	0.62	1.55
	FA	9	13	7.36	3.51	0.65	2.07
	GM	12	16	8.45	3.34	0.70	1.83
	NO	21	27	13.52	6.72	0.86	2.54
07	DP	6	10	4.61	2.46	0.61	1.54
	FA	15	20	10.68	4.47	0.78	2.09
	GM	12	16	6.70	3.97	0.74	2.03
	NO	15	20	10.42	4.54	0.81	2.00
08	DP	6	10	4.45	2.46	0.61	1.54
	FA	22	27	16.00	6.31	0.86	2.34
	GM	11	16	6.60	3.83	0.77	1.85
	NO	9	13	7.08	3.46	0.67	1.98
11	DP	6	10	3.89	2.19	0.61	1.36
	FA	20	25	10.14	5.37	0.85	2.06
	GM	15	20	6.78	4.85	0.84	1.93
	NO	5	9	3.08	2.40	0.62	1.48

Table O-5. 2011–12 NECAP: Reliabilities by Reporting Category—Reading

Grade	Reporting Category	Number of Items	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
03	LA	6	12	6.40	2.37	0.58	1.53
	LI	15	21	12.69	4.23	0.83	1.77
	TI	11	17	10.03	3.66	0.76	1.80
	TL	10	16	9.06	2.96	0.75	1.48
	WV	13	19	15.16	3.21	0.74	1.64
04	LA	9	15	8.40	2.94	0.71	1.57
	LI	14	20	13.84	3.95	0.77	1.88
	TI	11	17	11.24	3.56	0.76	1.73
	TL	12	18	11.00	3.34	0.73	1.72
	WV	11	17	11.93	3.34	0.71	1.78
05	LA	11	23	11.34	3.92	0.74	1.99
	LI	13	19	12.31	3.43	0.76	1.68
	TI	12	21	11.90	3.50	0.70	1.91
	TL	12	21	11.75	3.86	0.79	1.78
	WV	10	10	7.42	2.31	0.73	1.20
06	LA	13	19	12.26	3.29	0.75	1.64
	LI	11	23	12.78	4.04	0.76	1.97
	TI	12	21	12.35	3.66	0.74	1.88
	TL	12	21	12.69	3.68	0.77	1.77
	WV	10	10	8.00	1.89	0.65	1.11
07	LA	12	24	13.32	4.63	0.77	2.20
	LI	12	18	11.92	3.29	0.73	1.70

continued

Grade	Reporting Category	Number of Items	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
07	TI	12	21	12.63	4.13	0.75	2.06
	TL	12	21	12.61	3.84	0.76	1.88
	WV	10	10	7.32	2.23	0.70	1.22
08	LA	12	24	13.31	4.57	0.78	2.15
	LI	12	18	11.64	3.75	0.76	1.82
	TI	12	21	12.41	4.28	0.78	2.02
	TL	12	21	12.54	4.06	0.77	1.96
	WV	10	10	7.76	1.90	0.61	1.18
11	LA	10	25	14.60	5.25	0.84	2.09
	LI	14	17	11.54	3.45	0.76	1.70
	TI	12	21	12.92	4.32	0.79	1.98
	TL	12	21	13.22	4.27	0.79	1.98
	WV	10	10	7.31	2.21	0.69	1.23

Table O-6. 2011–12 NECAP: Reliabilities by Reporting Category—Writing

Grade	Reporting Category	Number of Items	Raw Score			Alpha	Standard Error
			Maximum	Mean	Standard Deviation		
05	ER	1	12	5.31	1.55		
	MC	10	10	8.22	1.96	0.69	1.09
	SR	3	12	5.41	2.13	0.77	1.03
08	ER	1	12	5.99	2.05		
	MC	10	10	7.64	2.14	0.69	1.20
	SR	3	12	7.20	2.40	0.77	1.14
11	PW	1	12	6.26	2.07		

APPENDIX P—INTERRATER AGREEMENT

Table P-1. 2011–12 NECAP: Item-Level Interrater Agreement Statistics by Grade—Mathematics

Grade	Item	Number of Score Categories	Number of Responses Scored Twice	Percent		Correlation	Percent of Third Scores
				Exact	Adjacent		
03	119687	2	868	99.42	0.58	0.99	0.00
	119688	3	870	95.52	4.14	0.95	0.34
	119886	2	869	99.42	0.58	0.99	0.00
	124462	2	869	97.47	2.53	0.95	0.00
	139580	2	871	97.36	2.64	0.94	0.00
	139598	3	851	89.31	10.34	0.87	0.35
	139603	3	868	94.70	5.30	0.95	0.00
	139653	3	872	94.04	5.85	0.96	0.11
	139673	3	872	98.17	1.83	0.98	0.00
	144611	2	852	97.07	2.93	0.93	0.00
	144617	2	867	99.42	0.58	0.98	0.00
	145249	2	866	99.42	0.58	0.99	0.00
	145256	2	849	99.65	0.35	0.99	0.00
	145504	3	855	91.11	8.77	0.93	0.12
	168416	3	869	98.16	1.61	0.98	0.23
	168602	2	865	88.67	11.33	0.77	0.00
	168613	3	874	96.45	3.55	0.97	0.00
	168709	2	870	98.85	1.15	0.97	0.00
	168763	3	878	94.42	5.47	0.89	0.11
	168766	3	862	93.16	6.84	0.93	0.00
04	120174	2	877	89.28	10.72	0.78	0.00
	120240	2	881	99.77	0.23	0.99	0.00
	120266	2	875	99.20	0.80	0.98	0.00
	120299	3	897	96.43	3.57	0.97	0.00
	120301	3	877	96.01	3.31	0.96	0.68
	124700	3	891	98.20	1.68	0.96	0.11
	139450	3	877	92.36	7.53	0.95	0.11
	139452	3	880	95.45	4.43	0.96	0.11
	139482	3	881	97.05	2.95	0.97	0.00
	139503	3	886	96.28	3.39	0.96	0.34
	144635	3	885	96.72	2.82	0.96	0.45
	144639	3	884	97.85	2.15	0.98	0.00
	145545	2	874	98.17	1.83	0.94	0.00
	145788	2	885	97.40	2.60	0.92	0.00
	145815	2	875	95.89	4.11	0.92	0.00
	168410	2	874	98.86	1.14	0.97	0.00
	168439	2	892	93.39	6.61	0.86	0.00
	168467	2	892	99.44	0.56	0.99	0.00
	168483	3	889	93.03	6.41	0.95	0.56
	169109	2	865	95.26	4.74	0.90	0.00
05	120675	5	897	90.75	8.70	0.95	0.56
	120740	3	868	86.29	13.13	0.88	0.58
	120744	3	900	89.11	10.11	0.92	0.78
	120781	2	884	97.96	2.04	0.96	0.00
	120814	3	865	90.98	7.98	0.90	1.04
	124832	2	893	99.10	0.90	0.98	0.00
	124858	5	892	91.70	7.40	0.97	0.90

continued

Grade	Item	Number of Score Categories	Number of Responses Scored Twice	Percent		Correlation	Percent of Third Scores
				Exact	Adjacent		
05	124925	3	918	93.36	6.21	0.94	0.44
	139374	3	871	97.47	2.53	0.94	0.00
	145575	2	893	99.10	0.90	0.98	0.00
	145880	2	881	94.89	5.11	0.89	0.00
	145964	3	869	84.93	13.92	0.87	1.15
	167762	5	909	87.90	11.22	0.96	0.88
	167811	2	895	99.44	0.56	0.98	0.00
	167851	5	924	82.58	16.34	0.93	1.08
	167878	2	886	98.31	1.69	0.96	0.00
06	119228	3	874	87.30	11.67	0.89	1.03
	119248	2	881	97.05	2.95	0.92	0.00
	119277	2	886	98.53	1.47	0.96	0.00
	119289	3	867	95.73	3.23	0.96	1.04
	119368	2	888	96.06	3.94	0.92	0.00
	119369	3	882	96.03	3.85	0.94	0.11
	125065	5	893	84.99	14.56	0.95	0.45
	125099	5	905	90.39	9.06	0.97	0.55
	125111	5	891	88.55	9.43	0.97	2.02
	139235	2	875	97.49	2.51	0.95	0.00
	139248	3	886	94.13	5.87	0.96	0.00
	139370	2	887	98.53	1.47	0.96	0.00
	139397	5	888	93.02	6.42	0.97	0.56
	144705	2	874	99.43	0.57	0.99	0.00
	145630	3	969	76.16	22.70	0.76	1.03
167963	3	880	83.98	14.32	0.86	1.82	
07	120391	5	905	81.22	14.48	0.92	4.31
	120469	2	879	94.99	5.01	0.90	0.00
	120475	5	908	83.04	15.64	0.92	1.21
	120477	3	879	91.35	8.65	0.94	0.00
	120487	2	884	99.32	0.68	0.98	0.00
	125216	5	894	90.04	7.83	0.93	2.13
	139971	2	879	99.09	0.91	0.98	0.00
	139980	3	893	93.28	6.61	0.94	0.11
	144749	3	869	85.62	13.69	0.89	0.69
	145144	3	872	98.39	1.61	0.99	0.00
	145380	5	890	84.38	14.49	0.94	1.12
	146208	2	882	96.03	3.97	0.92	0.00
	169224	2	892	97.87	2.13	0.95	0.00
	169252	3	883	94.45	5.10	0.96	0.45
	169486	3	889	80.65	18.56	0.86	0.79
169533	2	898	97.55	2.45	0.95	0.00	
08	120890	3	960	87.29	12.08	0.90	0.52
	120934	2	920	98.48	1.52	0.97	0.00
	120936	3	918	93.57	6.10	0.96	0.33
	120938	5	967	83.56	15.51	0.92	0.93
	120977	2	917	88.55	11.45	0.73	0.00
	120980	5	951	81.39	15.14	0.94	3.36
	120985	3	920	86.20	13.37	0.91	0.43

continued

Grade	Item	Number of Score Categories	Number of Responses Scored Twice	Percent		Correlation	Percent of Third Scores
				Exact	Adjacent		
08	121027	2	929	97.95	2.05	0.96	0.00
	121082	2	940	95.43	4.57	0.90	0.00
	125563	3	920	91.74	8.04	0.93	0.22
	125576	3	916	95.85	3.82	0.95	0.33
	139771	2	936	96.26	3.74	0.90	0.00
	139869	3	912	96.05	3.51	0.97	0.44
	139894	5	939	80.94	17.89	0.92	1.17
	145395	5	934	90.69	7.17	0.94	2.14
	152807	2	909	95.05	4.95	0.89	0.00
11	119464	2	627	99.52	0.48	0.99	0.00
	119494	2	568	97.36	2.64	0.92	0.00
	119504	3	558	94.27	5.20	0.89	0.54
	119603	2	605	98.35	1.65	0.95	0.00
	119605	2	609	99.01	0.99	0.98	0.00
	119620	3	584	97.09	2.57	0.96	0.34
	125740	2	575	99.83	0.17	0.99	0.00
	140089	2	595	99.33	0.67	0.99	0.00
	140203	2	603	99.83	0.17	1.00	0.00
	141266	2	630	96.98	3.02	0.94	0.00
	145461	2	599	98.66	1.34	0.97	0.00
	169516	2	615	99.67	0.33	0.99	0.00
	169553	5	605	95.37	3.80	0.98	0.83
	169588	2	623	97.91	2.09	0.96	0.00
	169599	3	574	94.60	5.23	0.97	0.17
	169657	5	654	85.17	13.15	0.90	1.53
	169711	3	620	97.42	2.58	0.97	0.00
	169719	3	584	95.38	4.28	0.96	0.34
	169739	5	599	87.65	11.52	0.91	0.83
	169800	5	615	89.92	8.78	0.91	1.30
178058	3	561	93.05	6.77	0.92	0.18	
178083	2	605	98.02	1.98	0.95	0.00	

Table P-2. 2011–12 NECAP: Item-Level Interrater Agreement Statistics by Grade—Reading

Grade	Item	Number of Score Categories	Number of Responses Scored Twice	Percent		Correlation	Percent of Third Scores
				Exact	Adjacent		
03	147875	5	880	98.64	1.25	0.99	0.11
	147889	5	895	65.14	32.18	0.67	2.57
	147990	5	884	72.17	26.47	0.78	1.36
	148155	5	880	80.80	18.64	0.91	0.57
	148163	5	876	98.74	1.26	0.99	0.00
	233382	5	903	64.34	32.89	0.82	2.77
04	117889	5	880	89.55	8.75	0.93	1.70
	117890	5	874	62.13	36.04	0.77	1.60
	117931	5	884	64.37	33.48	0.73	2.15
	117940	5	877	98.29	1.60	0.99	0.11
	117941	5	879	69.28	29.12	0.81	1.59
	171813	5	882	75.40	22.68	0.86	1.70
05	118072	5	917	62.60	34.46	0.76	2.84
	148680	5	894	64.99	32.89	0.73	2.01
	148698	5	935	70.37	28.56	0.78	1.07
	171812	5	892	65.58	32.74	0.68	1.68
	171930	5	904	62.72	33.52	0.78	3.32
	171934	5	915	60.00	36.50	0.79	3.50
06	118343	5	925	61.41	35.89	0.75	2.49
	118344	5	891	64.87	32.55	0.68	2.58
	148440	5	948	65.08	33.33	0.74	1.58
	148455	5	929	62.22	36.17	0.72	1.61
	148540	5	924	62.77	34.09	0.78	3.14
	148810	5	907	66.70	31.53	0.74	1.76
07	118532	5	935	65.67	32.09	0.81	2.25
	129218	5	929	60.39	37.46	0.82	2.15
	129219	5	925	58.70	38.70	0.81	2.59
	147606	5	933	63.34	33.44	0.78	3.00
	173106	5	935	66.74	30.91	0.76	2.35
	173107	5	915	69.07	28.63	0.78	2.30
08	118711	5	954	65.09	33.75	0.78	0.94
	147346	5	954	63.00	34.70	0.82	2.20
	147351	5	926	56.59	38.98	0.77	4.32
	172351	5	991	55.50	39.66	0.73	4.54
	172414	5	954	58.91	37.95	0.78	2.94
	172416	5	947	69.06	29.57	0.81	1.37
11	144040	5	654	63.46	33.49	0.79	3.06
	147484	5	656	65.24	33.38	0.80	1.37
	147488	5	647	61.21	36.63	0.78	1.85
	172437	5	677	59.53	38.11	0.76	2.07
	172845	5	649	63.94	34.67	0.80	1.39
	172846	5	633	57.82	38.70	0.78	3.48

Table P-3. 2011–12 NECAP: Item-Level Interrater Agreement Statistics by Grade—Writing

Grade	Item	Number of Score Categories	Number of Responses Scored Twice	Percent		Correlation	Percent of Third Scores
				Exact	Adjacent		
05	150153	5	900	65.89	33.22	0.77	0.89
	150157	5	906	61.15	36.42	0.71	2.43
	150202	5	907	68.25	31.20	0.74	0.55
	150251	7	43450	61.83	36.29	0.67	1.87
08	150435	5	940	64.79	33.09	0.79	2.13
	150788	7	45097	57.30	38.38	0.73	4.26
	150790	5	940	65.74	33.51	0.76	0.74
	150847	5	933	65.70	32.37	0.73	1.93
11	174398	7	31150	59.45	38.32	0.79	2.09

APPENDIX Q—DECISION ACCURACY AND CONSISTENCY RESULTS

**Table Q-1. 2011–12 NECAP: Summary of Decision Accuracy (and Consistency) Results
by Content Area and Grade—Overall and Conditional on Performance Level**

Content Area	Grade	Overall	Kappa	Conditional on Level			
				Substantially Below Proficient	Partially Proficient	Proficient	Proficient with Distinction
Mathematics	03	0.81 (0.74)	0.63	0.84 (0.77)	0.71 (0.62)	0.82 (0.76)	0.89 (0.80)
	04	0.81 (0.74)	0.63	0.83 (0.76)	0.69 (0.59)	0.82 (0.77)	0.90 (0.80)
	05	0.80 (0.73)	0.61	0.82 (0.75)	0.59 (0.48)	0.84 (0.79)	0.89 (0.78)
	06	0.79 (0.72)	0.61	0.80 (0.73)	0.58 (0.46)	0.82 (0.76)	0.90 (0.81)
	07	0.79 (0.71)	0.60	0.81 (0.75)	0.59 (0.48)	0.81 (0.74)	0.90 (0.81)
	08	0.81 (0.74)	0.63	0.82 (0.75)	0.67 (0.56)	0.83 (0.78)	0.89 (0.80)
	11	0.85 (0.79)	0.69	0.89 (0.86)	0.74 (0.64)	0.89 (0.83)	0.85 (0.68)
Reading	03	0.79 (0.71)	0.57	0.77 (0.65)	0.70 (0.60)	0.80 (0.75)	0.87 (0.75)
	04	0.78 (0.70)	0.56	0.78 (0.66)	0.69 (0.59)	0.79 (0.73)	0.87 (0.76)
	05	0.79 (0.71)	0.57	0.77 (0.64)	0.74 (0.66)	0.79 (0.73)	0.87 (0.75)
	06	0.78 (0.70)	0.55	0.76 (0.62)	0.71 (0.61)	0.78 (0.73)	0.87 (0.75)
	07	0.80 (0.72)	0.57	0.77 (0.65)	0.69 (0.59)	0.82 (0.78)	0.86 (0.73)
	08	0.81 (0.73)	0.58	0.76 (0.61)	0.69 (0.59)	0.82 (0.77)	0.88 (0.77)
	11	0.79 (0.71)	0.58	0.79 (0.68)	0.68 (0.57)	0.77 (0.71)	0.89 (0.81)
Writing	05	0.69 (0.58)	0.39	0.72 (0.55)	0.69 (0.62)	0.66 (0.56)	0.79 (0.56)
	08	0.70 (0.59)	0.40	0.71 (0.55)	0.66 (0.57)	0.70 (0.62)	0.81 (0.58)

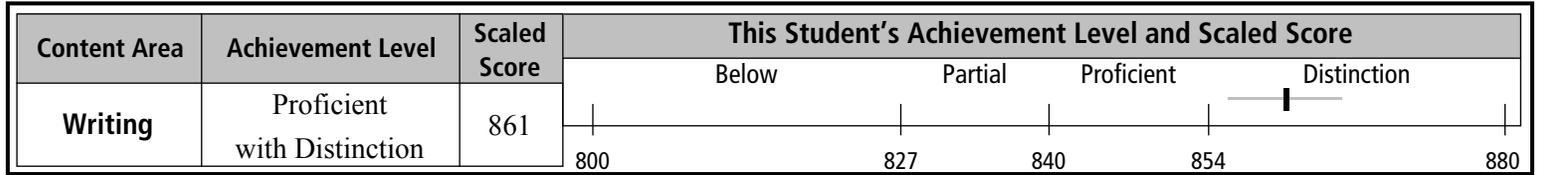
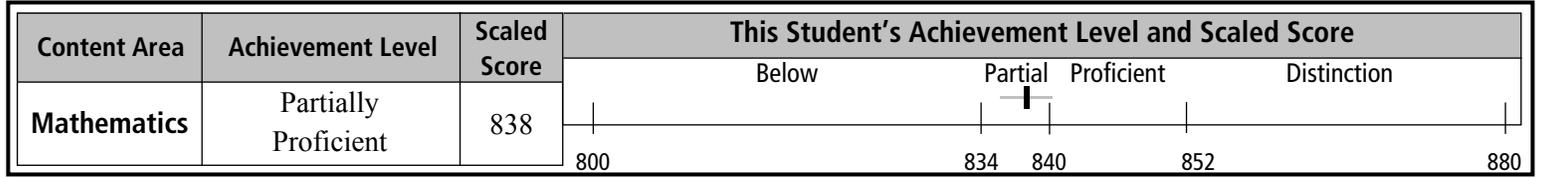
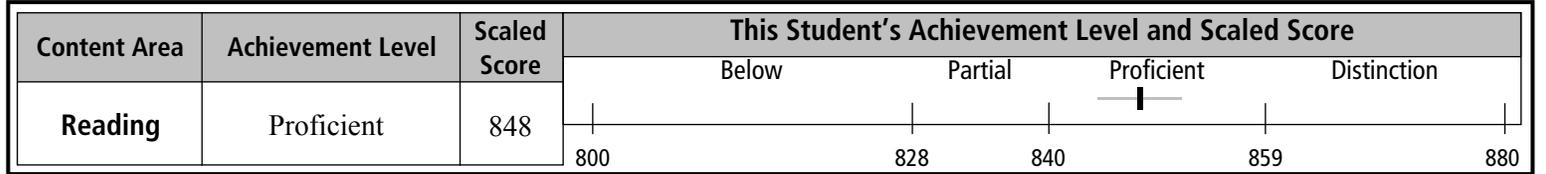
**Table Q-2. 2011–12 NECAP: Summary of Decision Accuracy (and Consistency) Results
by Content Area and Grade—Conditional on Cutpoint**

Content Area	Grade	<i>Substantially Below Proficient/Partially Proficient</i>			<i>Partially Proficient/Proficient</i>			<i>Proficient/Proficient with Distinction</i>		
		<i>Accuracy (consistency)</i>	<i>False Positive</i>	<i>False Negative</i>	<i>Accuracy (consistency)</i>	<i>False Positive</i>	<i>False Negative</i>	<i>Accuracy (consistency)</i>	<i>False Positive</i>	<i>False Negative</i>
Mathematics	03	0.96 (0.94)	0.02	0.02	0.92 (0.90)	0.04	0.03	0.93 (0.90)	0.05	0.02
	04	0.96 (0.94)	0.02	0.02	0.93 (0.90)	0.04	0.03	0.93 (0.90)	0.05	0.02
	05	0.95 (0.92)	0.03	0.03	0.92 (0.89)	0.04	0.03	0.93 (0.91)	0.04	0.02
	06	0.94 (0.91)	0.03	0.03	0.92 (0.89)	0.04	0.03	0.93 (0.90)	0.05	0.02
	07	0.93 (0.91)	0.04	0.03	0.92 (0.89)	0.05	0.03	0.93 (0.91)	0.04	0.02
	08	0.94 (0.92)	0.03	0.03	0.93 (0.90)	0.04	0.03	0.94 (0.92)	0.04	0.02
	11	0.92 (0.89)	0.04	0.03	0.94 (0.91)	0.04	0.03	0.99 (0.98)	0.01	0.00
Reading	03	0.97 (0.95)	0.01	0.02	0.91 (0.88)	0.05	0.04	0.91 (0.88)	0.06	0.03
	04	0.96 (0.95)	0.02	0.02	0.91 (0.88)	0.05	0.04	0.91 (0.88)	0.06	0.03
	05	0.97 (0.95)	0.01	0.02	0.91 (0.87)	0.05	0.04	0.92 (0.88)	0.06	0.03
	06	0.97 (0.95)	0.01	0.02	0.91 (0.87)	0.05	0.04	0.91 (0.87)	0.06	0.03
	07	0.96 (0.95)	0.02	0.02	0.91 (0.88)	0.05	0.04	0.92 (0.89)	0.06	0.02
	08	0.97 (0.96)	0.01	0.02	0.92 (0.89)	0.04	0.04	0.91 (0.87)	0.06	0.03
	11	0.96 (0.95)	0.02	0.02	0.92 (0.89)	0.04	0.04	0.91 (0.87)	0.06	0.03
Writing	05	0.93 (0.90)	0.03	0.04	0.84 (0.78)	0.09	0.06	0.92 (0.88)	0.06	0.02
	08	0.94 (0.91)	0.02	0.04	0.85 (0.80)	0.09	0.06	0.90 (0.87)	0.08	0.02

APPENDIX R—SAMPLE REPORTS

Student Tashe Carr	Grade 8	School Demonstration School 2	District Demonstration District A	State VT
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Fall 2011 - Beginning of Grade 8 NECAP Test Results



Interpretation of Graphic Display

The line (|) represents the student's score. The bar (————) surrounding the score represents the probable range of scores for the student if he or she were to be tested many times. This statistic is called the standard error of measurement. See the reverse side for the achievement level descriptions.

This Student's Achievement Level Compared to Other Beginning of Grade 8 Students by School, District, and State

	Reading				Mathematics				Writing			
	Student	School	District	State	Student	School	District	State	Student	School	District	State
Proficient with Distinction		32%	25%	29%		15%	15%	22%	✓	16%	12%	12%
Proficient	✓	42%	55%	50%		40%	48%	42%		32%	45%	47%
Partially Proficient		16%	12%	14%	✓	25%	21%	18%		37%	33%	30%
Substantially Below Proficient		11%	8%	7%		20%	15%	19%		16%	10%	12%

This Student's Performance in Content Area Subcategories

Reading		Possible Points	Student	Average Points Earned				Students at Beginning of Proficient	Mathematics		Possible Points	Student	Average Points Earned				Students at Beginning of Proficient
				School	District	State	Students at Beginning of Proficient						School	District	State	Students at Beginning of Proficient	
Word ID/ Vocabulary		10	4	7.2	7.5	7.7	5.7-8.1	Numbers and Operations		13	7	6.9	7.2	7.2	4.1-8.0		
Type of Text*	Literary	21	17	11.5	12.4	12.8	7.9-11.8	Geometry and Measurement		16	2	5.7	6.3	6.9	3.2-6.9		
	Informational	21	11	12.3	12.5	12.7	7.2-11.2	Functions and Algebra		27	13	15.2	15.8	16.0	12.3-17.0		
Level of Comprehension*	Initial Understanding	18	13	11.1	11.7	11.9	7.3-10.9	Data, Statistics, and Probability		10	3	4.0	3.9	4.3	2.2-5.3		
	Analysis and Interpretation	24	15	12.7	13.2	13.6	7.9-12.1										

Writing		Possible Points	Student	Average Points Earned			
				School	District	State	Students at Beginning of Proficient
Multiple Choice		10	9	7.2	7.4	7.4	6.8-9.1
Short Responses		12	11	6.9	7.2	7.4	5.9-8.2
Extended Response		12	10	5.9	6.1	6.2	6.0-6.0

*With the exception of Word ID/Vocabulary items, reading items are reported in two ways - Type of Text and Level of Comprehension.



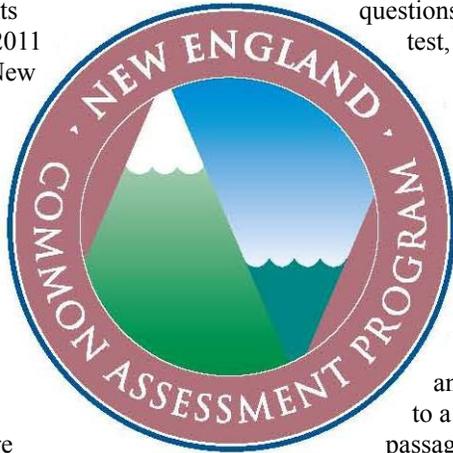
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Fall 2011 - Beginning of Grade 06 NECAP Tests Grade 06 Students in 2011-2012 Item Analysis Report — Mathematics

School: Demonstration School 1
 District: Demonstration District A
 State: Vermont
 Code: DEMOA-DEMO1

Released Item Number	Released Items															Total Test Results							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Subcategory Points Earned				Total Points Earned	Scaled Score	Achievement Level	
Content Strand	NO	NO	NO	GM	GM	GM	GM	DP	DP	DP	NO	GM	NO	NO	FA	Numbers & Operations	Geometry & Measurement	Functions & Algebra	Data, Statistics & Probability				
GE Code	5-1	5-3	5-4	5-1	5-3	5-6	5-7	5-1	5-1	5-5	5-3	5-7	5-2	5-4	5-3								
Depth of Knowledge Code	2	2	2	2	1	1	2	2	2	1	2	2	2	2	2								
Item Type	MC	MC	MC	MC	MC	MC	MC	MC	MC	MC	SA	SA	SA	SA	CR								
Correct MC Response	D	A	D	B	B	B	A	B	B	A													
Name/Student ID	Total Possible Points	1	1	1	1	1	1	1	1	1	1	1	2	2	4	27	16	13	10	66			
- No Name Provided -																0	0	0	0	0		N	
Barnes, Sawyer T	D064016															0	0	0	0	0		S	
Barrett, Sebrina	D064010	A	C	A	A	+	A	B	A	A	C	1	0	0	1	0	6	6	2	0	14	628	1
Chamberland, Matthew	D064027	+	D	+	C	+	+	+	A	+	+	0	0	0	2	2	22	10	7	6	45	652	3
Clark, Dilan A	D064014	B	D	C		C	A	+	A	A	B	0	1		2	4	9	6	9	1	25	639	2
Clifford, Sara	D064012	A	C	A	+	A	+	D	D	C	D	0	1	0	2	0	11	7	3	0	21	635	2
Edwards, Trey T	D064043	+	D	+	+	+	+	+	+	+	+	1	1	2	2	4	24	11	12	7	54	660	4
Eggleston, Rachel H	D064009	C	C	A	A	+	A	D	+	+	+	0	0	0	1	4	8	6	8	8	30	643	3
Garcia, Elias	D064003	+	+	+	+	+	+	+	+	+	+	1	1	2	2	4	27	16	12	9	64	677	4
Gardunopadi, Ketzali	D064030	A	B	+	D	C	A	B	A	C	C	0	0	0	0	0	2	0	4	0	6	600	1
Godair, Bryan M	D064045																0	0	0	0	0		E
Godes, Amanda M	D064018																0	0	0	0	0		N
Johnson, Cherrica	D064006	B	C	B	+	+	+	D	C	C	+	1	0	0	0	0	10	6	3	3	22	636	2
Joy, Abbott M	D064051	B	B	B	C	C	A	B	A	A	+	1	0	1	0	0	10	7	6	4	27	640	3
Landry, Latesha J	D064005		+		C	D	+	+	+	+		0	0		0		3	4	3	2	12	624	1
Larue, Trai L	D064036	+	+	A	D	+	D	D	+	+	C	1	0	0	2	4	19	9	13	4	45	652	3
Portillo, Gregorio K	D064049	+	+	+	D	C	A	+	A	C	+	0	0	0	0	0	7	4	3	1	15	629	1
Rabideau, Rosalie	D064028	B	D	A	D	C	+	+	+	C	C	0	0	2	2	3	18	7	9	5	39	649	3
Ramirez, Ohmie	D064032	+	+	A	D	+	D	+	C	C	+	1	1	1	0	4	12	9	12	7	40	649	3
Roy, Tristan	D064011	B	D	A	+	D	C	B	D	C	C	0	0	0	2	1	5	5	6	1	17	631	1
Ryals, Trevor M	D064046	A	D	A	+	+	D	+	C	C	+	1	1	0	2	0	10	10	4	4	28	641	3
Santos, Jessabel S	D064008	C	C	A	D	A	A	+	C	C	B	0	0	1	0	0	7	5	3	2	17	631	1
Savardiv, Mitchell	D064004	+	+	+	A	+	+	B	+	A	+	1	1	2	1	4	26	12	12	6	56	662	4
Sousa, Carissa I	D064048	+	+	A	D	+	+	+	+	A	+	0	1	2	2	2	19	11	7	6	43	651	3
Sproule, Jonathan V	D064047	B	+	A	C	C	D	+	+	+	+	1	1	1	1	3	20	7	10	8	45	652	3

About The New England Common Assessment Program



This report highlights results from the Fall 2011 Beginning of Grade New England Common Assessment Program (NECAP) tests. The NECAP tests are administered to students in Maine, New Hampshire, Rhode Island, and Vermont as part of each state's statewide assessment program.

NECAP test results are used primarily for school improvement and accountability.

Achievement level results are used in the state accountability system required under No Child Left Behind (NCLB). More detailed school and district results are used by schools to help improve curriculum and instruction. Individual student results are used to support information gathered through classroom instruction and assessments.

NECAP tests in reading and mathematics are administered to students in grades 3 through 8 and writing tests are administered to students in grades 5 and 8. The NECAP tests are designed to measure student performance on grade level expectations (GLE) developed and adopted by the four states. Specifically, the tests are designed to measure the content and skills that students are expected to have as they begin the school year in their current grade — in other words, the content and skills that students have learned through the end of the previous grade.

Each test contains a mix of multiple-choice and constructed-response questions. Constructed-response questions require students to develop their own answers to

questions. On the mathematics test, students may be required to provide the correct answer to a computation or word problem, draw or interpret a chart or graph, or explain how they solved a problem. On the reading test, students may be required to make a list or write a few paragraphs to answer a question related to a literary or informational passage. On the writing test, students are required to provide a single extended response of 1-3 pages and three shorter responses to questions measuring different types of writing.

This report contains a variety of school- and/or district-, and state-level assessment results for the NECAP tests administered at a grade level. Achievement level distributions and mean scaled scores are provided for all students tested as well as for subgroups of students classified by demographics or program participation. The report also contains comparative information on school and district performance on subtopics within each content area tested.

In addition to this report of grade level results, schools and districts will also receive Summary Reports, Item Analysis Reports, Released Item support materials, and student-level data files containing NECAP results. Together, these reports and data constitute a rich source of information to support local decisions in curriculum, instruction, assessment, and professional development. Over time, this information can also strengthen schools' and districts' evaluation of their ongoing improvement efforts.



Fall 2011 Beginning of Grade 5 NECAP Tests

Grade 4 Students in 2010-2011

School Results

School: Demonstration School 1

District: Demonstration District A

Code: DEMA-DEM1



Fall 2011 - Beginning of Grade 5 NECAP Tests

Grade 4 Students in 2010-2011

Grade Level Summary Report

School:	Demonstration School 1
District:	Demonstration District A
State:	Maine
Code:	DEMA-DEM1

PARTICIPATION in NECAP	Number									Percentage								
	School			District			State			School			District			State		
Students enrolled on or after October 1																		
Students tested	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing
With an approved accommodation																		
Current LEP Students																		
With an approved accommodation																		
IEP Students																		
With an approved accommodation																		
Students not tested in NECAP																		
State Approved																		
Alternate Assessment																		
First Year LEP																		
Withdrew After October 1																		
Enrolled After October 1																		
Special Consideration																		
Other																		

NECAP RESULTS

	School												District					State							
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	N	N	%	%	%	%	N	N	%	%	%	%	N
READING				35	6	17	15	43	6	17	8	23	542	65	18	46	18	17	544	13,422	15	53	23	9	545
MATH				35	3	9	19	54	2	6	11	31	541	66	15	47	9	29	542	13,437	16	48	18	18	543
WRITING				35	1	3	13	37	13	37	8	23	535	65	8	35	38	18	537	13,395	6	35	45	14	538

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

Note: Throughout this report, percentages may not total 100 since each percentage is rounded to the nearest whole number.

Note: Some numbers may have been left blank because fewer than ten (10) students were tested.



Fall 2011 - Beginning of Grade 5 NECAP Tests

Grade 4 Students in 2010-2011

Disaggregated Reading Results

School: Demonstration School 1
District: Demonstration District A
State: Maine
Code: DEMA-DEM1

REPORTING CATEGORIES	School												District						State						
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N		N	%	N	%	N	%	N	%			N	%	%	%			%	%	N	%	
All Students				35	6	17	15	43	6	17	8	23	542	65	18	46	18	17	544	13,422	15	53	23	9	545
Gender																									
Male				18	1	6	8	44	4	22	5	28	538	30	10	50	17	23	540	6,937	10	52	26	11	543
Female				17	5	29	7	41	2	12	3	18	546	35	26	43	20	11	546	6,485	21	54	19	6	547
Not Reported				0										0						0					
Race/Ethnicity																									
Hispanic or Latino				1										2						221	13	47	29	11	543
Not Hispanic or Latino																									
American Indian or Alaskan Native				2										2						117	6	40	38	15	539
Asian				2										3						239	21	55	15	9	547
Black or African American				2										3						390	5	35	29	31	537
Native Hawaiian or Pacific Islander				0										1						13	38	38	8	15	549
White				28	3	11	15	54	6	21	4	14	542	53	17	51	23	9	545	12,287	16	54	23	8	545
Two or more races				0										1						155	13	53	24	10	545
No Race/Ethnicity Reported				0										0						0					
LEP Status																									
Current LEP student				2										3						433	5	33	32	30	537
Former LEP student - monitoring year 1				0										1						21	38	62	0	0	554
Former LEP student - monitoring year 2				1										1						15	60	33	7	0	557
All Other Students				32	5	16	15	47	6	19	6	19	542	60	18	48	20	13	544	12,953	16	54	23	8	545
IEP																									
Students with an IEP				7										12	0	8	25	67	525	2,123	1	25	39	35	534
All Other Students				28	6	21	15	54	5	18	2	7	547	53	23	55	17	6	548	11,299	18	58	20	4	547
SES																									
Economically Disadvantaged Students				18	4	22	6	33	3	17	5	28	543	30	17	33	23	27	541	6,166	8	48	30	14	541
All Other Students				17	2	12	9	53	3	18	3	18	540	35	20	57	14	9	546	7,256	22	57	17	4	548
Migrant																									
Migrant Students				1										1						7					
All Other Students				34	6	18	15	44	6	18	7	21	542	64	19	47	19	16	544	13,415	15	53	23	9	545
Title I																									
Students Receiving Title I Services				8										12	17	0	42	42	531	2,641	5	41	40	14	540
All Other Students				27	5	19	15	56	3	11	4	15	546	53	19	57	13	11	547	10,781	18	56	19	8	546
504 Plan																									
Students with a 504 Plan				2										4						300	9	52	30	9	543
All Other Students				33	6	18	15	45	5	15	7	21	542	61	20	49	15	16	544	13,122	15	53	23	9	545

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

Note: Some numbers may have been left blank because fewer than ten (10) students were tested.



Fall 2011 - Beginning of Grade 5 NECAP Tests Grade 4 Students in 2010-2011 Disaggregated Mathematics Results

School:	Demonstration School 1
District:	Demonstration District A
State:	Maine
Code:	DEMA-DEM1

REPORTING CATEGORIES	School												District						State						
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N		N	N	%	N	%	N	%	N			%	N	%	%			%	%	N	%	
All Students				35	3	9	19	54	2	6	11	31	541	66	15	47	9	29	542	13,437	16	48	18	18	543
Gender																									
Male				18	0	0	10	56	0	0	8	44	536	31	10	48	10	32	540	6,948	17	47	18	18	543
Female				17	3	18	9	53	2	12	3	18	546	35	20	46	9	26	544	6,489	16	49	18	17	543
Not Reported				0										0						0					
Race/Ethnicity																									
Hispanic or Latino				1										2						224	12	38	21	29	539
Not Hispanic or Latino																									
American Indian or Alaskan Native				2										2						119	7	47	24	23	540
Asian				2										3						242	23	48	14	15	546
Black or African American				2										3						392	4	31	21	44	534
Native Hawaiian or Pacific Islander				0										1						13	23	54	8	15	546
White				28	1	4	18	64	2	7	7	25	542	54	13	52	11	24	543	12,292	17	49	18	16	543
Two or more races				0										1						155	19	45	18	18	543
No Race/Ethnicity Reported				0										0						0					
LEP Status																									
Current LEP student				2										4						443	3	33	20	44	534
Former LEP student - monitoring year 1				0										1						21	43	48	5	5	553
Former LEP student - monitoring year 2				1										1						15	47	33	7	13	555
All Other Students				32	2	6	19	59	2	6	9	28	541	60	13	52	10	25	543	12,958	17	48	18	17	543
IEP																									
Students with an IEP				7										12	0	8	17	75	527	2,131	3	24	24	49	532
All Other Students				28	3	11	19	68	2	7	4	14	546	54	19	56	7	19	545	11,306	19	52	17	12	545
SES																									
Economically Disadvantaged Students				18	2	11	8	44	1	6	7	39	540	30	7	40	10	43	538	6,179	8	43	23	26	539
All Other Students				17	1	6	11	65	1	6	4	24	542	36	22	53	8	17	545	7,258	23	52	14	10	546
Migrant																									
Migrant Students				1										1						7					
All Other Students				34	3	9	19	56	2	6	10	29	542	65	15	48	9	28	542	13,430	16	48	18	18	543
Title I																									
Students Receiving Title I Services				8										12	8	8	8	75	531	2,644	3	36	30	32	537
All Other Students				27	3	11	18	67	1	4	5	19	544	54	17	56	9	19	544	10,793	20	51	15	14	545
504 Plan																									
Students with a 504 Plan				2										4						300	10	45	24	20	541
All Other Students				33	3	9	19	58	2	6	9	27	542	62	16	50	8	26	543	13,137	17	48	18	17	543

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

Note: Some numbers may have been left blank because fewer than ten (10) students were tested.



Fall 2011 - Beginning of Grade 5 NECAP Tests

Grade 4 Students in 2010-2011

Writing Results

School: Demonstration School 1
 District: Demonstration District A
 State: Maine
 Code: DEMA-DEM1

Proficient with Distinction (Level 4)

Student's writing demonstrates an ability to respond to prompt/task with clarity and insight. Focus is well developed and maintained throughout response. Response demonstrates use of strong organizational structures. A variety of elaboration strategies is evident. Sentence structures and language choices are varied and used effectively. Response demonstrates control of conventions; minor errors may occur.
(Scaled Score 555–580)

Proficient (Level 3)

Student's writing demonstrates an ability to respond to prompt/task. Focus is clear and maintained throughout the response. Response is organized with a beginning, middle, and end with appropriate transitions. Details are sufficiently elaborated to support focus. Sentence structures and language use are varied. Response demonstrates control of conventions; errors may occur but do not interfere with meaning.
(Scaled Score 540–554)

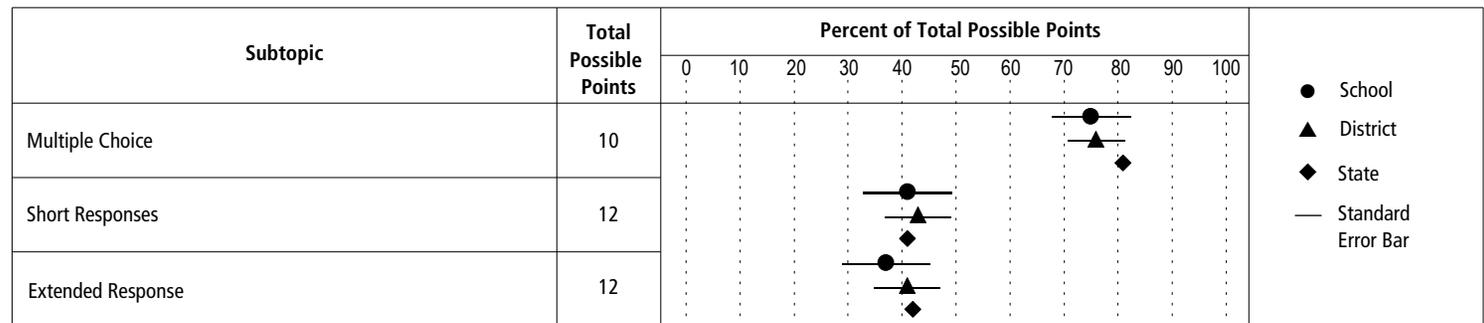
Partially Proficient (Level 2)

Student's writing demonstrates an attempt to respond to prompt/task. Focus may be present but not maintained. Organizational structure is inconsistent with limited use of transitions. Details may be listed and lack elaboration. Sentence structures and language use are unsophisticated and may be repetitive. Response demonstrates inconsistent control of conventions.
(Scaled Score 527–539)

Substantially Below Proficient (Level 1)

Student's writing demonstrates a minimal response to prompt/task. Focus is unclear or lacking. Little or no organizational structure is evident. Details are minimal and/or random. Sentence structures and language use are minimal or absent. Frequent errors in conventions may interfere with meaning.
(Scaled Score 500–526)

	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	
School													
2009-10													
2010-11				34	0	0	19	56	15	44	0	0	541
2011-12				35	1	3	13	37	13	37	8	23	535
Cumulative Total				69	1	1	32	46	28	41	8	12	538
District													
2009-10													
2010-11				64	1	2	30	47	31	48	2	3	539
2011-12				65	5	8	23	35	25	38	12	18	537
Cumulative Total				129	6	5	53	41	56	43	14	11	538
State													
2009-10													
2010-11				13,435	1,137	8	4,644	35	6,302	47	1,352	10	539
2011-12				13,395	770	6	4,635	35	6,069	45	1,921	14	538
Cumulative Total				26,830	1,907	7	9,279	35	12,371	46	3,273	12	539





Fall 2011 - Beginning of Grade 5 NECAP Tests

Grade 4 Students in 2010-2011

Disaggregated Writing Results

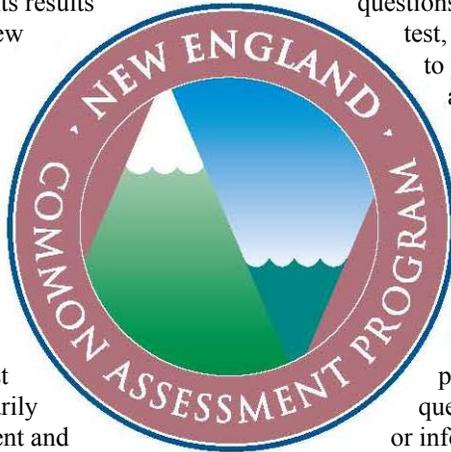
School: Demonstration School 1
 District: Demonstration District A
 State: Maine
 Code: DEMA-DEM1

REPORTING CATEGORIES	School												District						State						
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N		N	%	N	%	N	%	N	%			N	%	%	%			%	%	N	%	
All Students				35	1	3	13	37	13	37	8	23	535	65	8	35	38	18	537	13,395	6	35	45	14	538
Gender																									
Male				18	0	0	5	28	8	44	5	28	531	30	3	27	43	27	533	6,915	3	28	50	19	535
Female				17	1	6	8	47	5	29	3	18	539	35	11	43	34	11	540	6,480	9	42	41	9	541
Not Reported				0										0						0					
Race/Ethnicity																									
Hispanic or Latino				1										2						219	5	31	49	16	537
Not Hispanic or Latino																									
American Indian or Alaskan Native				2										2						117	1	21	50	29	532
Asian				2										3						238	8	40	39	13	540
Black or African American				2										3						387	2	24	42	33	531
Native Hawaiian or Pacific Islander				0										1						13	15	62	8	15	545
White				28	0	0	12	43	12	43	4	14	537	53	8	40	42	11	539	12,266	6	35	46	14	538
Two or more races				0										1						155	5	34	42	19	537
No Race/Ethnicity Reported				0										0						0					
LEP Status																									
Current LEP student				2										3						431	4	24	42	31	533
Former LEP student - monitoring year 1				0										1						20	5	55	35	5	542
Former LEP student - monitoring year 2				1										1						15	20	53	27	0	546
All Other Students				32	0	0	13	41	13	41	6	19	536	60	7	38	40	15	538	12,929	6	35	45	14	538
IEP																									
Students with an IEP				7										12	0	8	25	67	519	2,111	<1	8	43	48	527
All Other Students				28	1	4	13	46	11	39	3	11	540	53	9	42	42	8	541	11,284	7	40	46	8	540
SES																									
Economically Disadvantaged Students				18	1	6	5	28	6	33	6	33	534	30	3	27	40	30	533	6,150	3	26	50	21	535
All Other Students				17	0	0	8	47	7	41	2	12	536	35	11	43	37	9	540	7,245	8	42	41	9	540
Migrant																									
Migrant Students				1										1						6					
All Other Students				34	1	3	13	38	13	38	7	21	536	64	8	36	39	17	537	13,389	6	35	45	14	538
Title I																									
Students Receiving Title I Services				8										12	0	0	58	42	526	2,636	2	20	55	23	534
All Other Students				27	1	4	13	48	9	33	4	15	537	53	9	43	34	13	539	10,759	7	38	43	12	539
504 Plan																									
Students with a 504 Plan				2										4						299	2	24	57	17	535
All Other Students				33	1	3	13	39	13	39	6	18	536	61	8	38	39	15	537	13,096	6	35	45	14	538

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

Note: Some numbers may have been left blank because fewer than ten (10) students were tested.

About The New England Common Assessment Program



This report highlights results from the Fall 2011 New England Common Assessment Program (NECAP) tests. The NECAP tests are administered to students in New Hampshire, Rhode Island, and Vermont as part of each state's statewide assessment program. NECAP test results are used primarily for school improvement and accountability. Achievement level results are used in the state accountability system required under No Child Left Behind (NCLB). More detailed school and district results are used by schools to help improve curriculum and instruction. Individual student results are used to support information gathered through classroom instruction and assessments.

NECAP tests in reading and mathematics are administered to students in grades 3 through 8 and 11 and writing tests are administered to students in grades 5, 8, and 11. The NECAP grade 11 tests are designed to measure student performance on grade span expectations (GSE) developed and adopted by the three states. Specifically, the tests are designed to measure the content and skills that students are expected to have as they begin the school year in their current grade — in other words, the content and skills which students have learned through the end of the previous grade.

Each test contains a mix of multiple-choice and constructed-response questions. Constructed-response questions require students to develop their own answers to

questions. On the mathematics test, students may be required to provide the correct answer to a computation or word problem, draw or interpret a chart or graph, or explain how they solved a problem. On the reading test, students may be required to make a list or write a few paragraphs to answer a question related to a literary or informational passage. On the writing test, students are required to provide two extended responses of 1-3 pages.

This report contains a variety of school- and/or district-, and state-level assessment results for the NECAP tests administered at a grade level. Achievement level distributions and mean scaled scores are provided for all students tested as well as for subgroups of students classified by demographics or program participation. The report also contains comparative information on school and district performance on subtopics within each content area tested.

In addition to this report of grade 11 results, schools and districts will also receive Item Analysis Reports, Released Item support materials, and student-level data files containing NECAP results. Together, these reports and data constitute a rich source of information to support local decisions in curriculum, instruction, assessment, and professional development. Over time, this information can also strengthen school's and district's evaluation of their ongoing improvement efforts.



Fall 2011 Beginning of Grade 11 NECAP Tests

Grade 10 Students in 2010-2011

District Results

District: Demonstration District A

Code: DA



Fall 2011 - Beginning of Grade 11 NECAP Tests

Grade 10 Students in 2010-2011

Grade Level Summary Report

District: Demonstration District A
 State: Rhode Island
 Code: DA

PARTICIPATION in NECAP	Number									Percentage											
	School			District			State			School			District			State					
Students enrolled on or after October 1																					
Students tested	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing
With an approved accommodation																					
Current LEP Students																					
With an approved accommodation																					
IEP Students																					
With an approved accommodation																					
Students not tested in NECAP																					
State Approved																					
Alternate Assessment																					
First Year LEP																					
Withdrew After October 1																					
Enrolled After October 1																					
Special Consideration																					
Other																					

NECAP RESULTS

	District												State												
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Score
	N	N	N	N	N	%	N	%	N	%	N	%		N	%	%	%	%		N	%	%	%	%	
READING				78	20	26	28	36	20	26	10	13	1144	10,537	31	45	15	8	1148						
MATH				77	1	1	16	21	18	23	42	55	1132	10,578	2	28	26	44	1135						
WRITING				76	3	4	29	38	37	49	7	9	6.1	10,508	5	46	43	7	6.4						

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

Note: Throughout this report, percentages may not total 100 since each percentage is rounded to the nearest whole number.

Note: Some numbers may have been left blank because fewer than ten (10) students were tested.



Fall 2011 - Beginning of Grade 11 NECAP Tests

Grade 10 Students in 2010-2011

Disaggregated Reading Results

District: Demonstration District A
State: Rhode Island
Code: DA

REPORTING CATEGORIES	District												State												
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
					N	%	N	%	N	%	N	%													
All Students				78	20	26	28	36	20	26	10	13	1144	10,537	31	45	15	8	1148						
Gender																									
Male				42	8	19	11	26	14	33	9	21	1140	5,336	25	46	18	11	1146						
Female				33	11	33	15	45	6	18	1	3	1149	5,187	38	45	12	6	1150						
Not Reported				3									14	14	7	43	21	29	1138						
Race/Ethnicity																									
Hispanic or Latino				15	3	20	3	20	5	33	4	27	1139	1,934	13	46	23	18	1141						
Not Hispanic or Latino																									
American Indian or Alaskan Native				1									51	51	25	31	27	16	1143						
Asian				2									288	288	36	44	14	7	1149						
Black or African American				12	0	0	5	42	4	33	3	25	1135	875	12	44	26	18	1141						
Native Hawaiian or Pacific Islander				1									19	19	21	58	11	11	1146						
White				41	14	34	17	41	9	22	1	2	1148	7,175	39	45	11	5	1151						
Two or more races				1									173	173	24	49	15	13	1146						
No Race/Ethnicity Reported				5									22	22	9	36	18	36	1138						
LEP Status																									
Current LEP student				4									349	349	1	11	34	54	1129						
Former LEP student - monitoring year 1				1									24	24	0	54	42	4	1140						
Former LEP student - monitoring year 2				2									34	34	12	59	24	6	1144						
All Other Students				71	19	27	27	38	18	25	7	10	1145	10,130	32	47	14	7	1148						
IEP																									
Students with an IEP				18	0	0	5	28	8	44	5	28	1134	1,634	4	34	33	29	1136						
All Other Students				60	20	33	23	38	12	20	5	8	1147	8,903	36	47	12	5	1150						
SES																									
Economically Disadvantaged Students				32	3	9	12	38	9	28	8	25	1139	3,816	15	47	22	15	1142						
All Other Students				46	17	37	16	35	11	24	2	4	1148	6,721	40	44	11	5	1151						
Migrant																									
Migrant Students				0									0	0					0						
All Other Students				78	20	26	28	36	20	26	10	13	1144	10,537	31	45	15	8	1148						
Title I																									
Students Receiving Title I Services				23	2	9	7	30	9	39	5	22	1137	2,680	15	45	23	17	1142						
All Other Students				55	18	33	21	38	11	20	5	9	1147	7,857	37	45	12	6	1150						
504 Plan																									
Students with a 504 Plan				1									238	238	29	49	19	3	1148						
All Other Students				77	20	26	27	35	20	26	10	13	1144	10,299	31	45	15	9	1148						

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

Note: Some numbers may have been left blank because fewer than ten (10) students were tested.



Fall 2011 - Beginning of Grade 11 NECAP Tests

Grade 10 Students in 2010-2011

Mathematics Results

District: Demonstration District A
 State: Rhode Island
 Code: DA

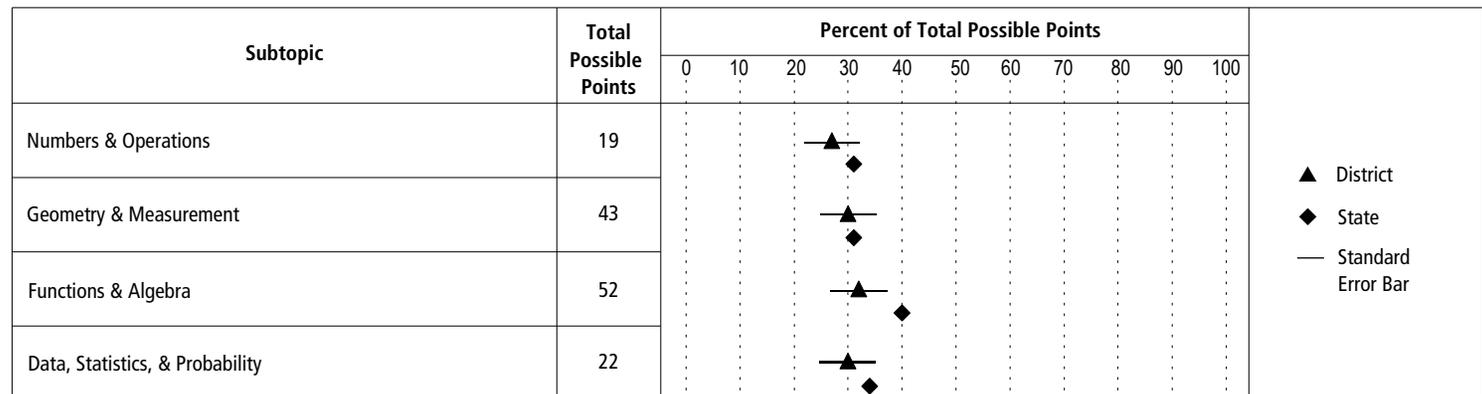
Proficient with Distinction (Level 4)
 Student's problem solving demonstrates logical reasoning with strong explanations that include both words and proper mathematical notation. Student's work exhibits a high level of accuracy, effective use of a variety of strategies, and an understanding of mathematical concepts within and across grade level expectations. Student demonstrates the ability to move from concrete to abstract representations.
(Scaled Score 1152–1180)

Proficient (Level 3)
 Student's problem solving demonstrates logical reasoning with appropriate explanations that include both words and proper mathematical notation. Student uses a variety of strategies that are often systematic. Computational errors do not interfere with communicating understanding. Student demonstrates conceptual understanding of most aspects of the grade level expectations.
(Scaled Score 1140–1151)

Partially Proficient (Level 2)
 Student's problem solving demonstrates logical reasoning and conceptual understanding in some, but not all, aspects of the grade level expectations. Many problems are started correctly, but computational errors may get in the way of completing some aspects of the problem. Student uses some effective strategies. Student's work demonstrates that he or she is generally stronger with concrete than abstract situations.
(Scaled Score 1134–1139)

Substantially Below Proficient (Level 1)
 Student's problem solving is often incomplete, lacks logical reasoning and accuracy, and shows little conceptual understanding in most aspects of the grade level expectations. Student is able to start some problems but computational errors and lack of conceptual understanding interfere with solving problems successfully.
(Scaled Score 1100–1133)

	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	
School													
2009-10													
2010-11													
2011-12													
Cumulative Total													
District													
2009-10				120	4	3	29	24	36	30	51	43	1135
2010-11				79	1	1	24	30	25	32	29	37	1136
2011-12				77	1	1	16	21	18	23	42	55	1132
Cumulative Total				276	6	2	69	25	79	29	122	44	1134
State													
2009-10				10,716	181	2	2,748	26	2,958	28	4,829	45	1134
2010-11				10,672	272	3	3,224	30	3,094	29	4,082	38	1135
2011-12				10,578	226	2	2,941	28	2,755	26	4,656	44	1135
Cumulative Total				31,966	679	2	8,913	28	8,807	28	13,567	42	1135





Fall 2011 - Beginning of Grade 11 NECAP Tests

Grade 10 Students in 2010-2011

Disaggregated Mathematics Results

District: Demonstration District A
 State: Rhode Island
 Code: DA

REPORTING CATEGORIES	District												State													
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	
	N	N	N	N	N	%	N	%	N	%	N	%	N	N	%	%	%	%	N	N	%	%	%	%	N	
All Students				77	1	1	16	21	18	23	42	55	1132	10,578	2	28	26	44	1135							
Gender																										
Male				41	1	2	7	17	8	20	25	61	1131	5,351	3	29	26	43	1135							
Female				33	0	0	8	24	10	30	15	45	1133	5,208	2	27	26	45	1134							
Not Reported				3										19	0	5	42	53	1129							
Race/Ethnicity																										
Hispanic or Latino				14	0	0	1	7	3	21	10	71	1126	1,955	<1	11	19	70	1129							
Not Hispanic or Latino																										
American Indian or Alaskan Native				1										51	0	6	25	69	1130							
Asian				2										291	5	40	24	32	1138							
Black or African American				12	0	0	0	0	2	17	10	83	1127	868	0	9	21	70	1129							
Native Hawaiian or Pacific Islander				1										18	0	17	39	44	1135							
White				41	0	0	13	32	11	27	17	41	1135	7,193	3	35	29	34	1137							
Two or more races				1										174	3	20	26	51	1133							
No Race/Ethnicity Reported				5										28	4	4	36	57	1129							
LEP Status																										
Current LEP student				6										380	<1	3	6	90	1123							
Former LEP student - monitoring year 1				1										24	0	13	13	75	1128							
Former LEP student - monitoring year 2				2										34	0	6	12	82	1130							
All Other Students				68	1	1	16	24	15	22	36	53	1133	10,140	2	29	27	42	1135							
IEP																										
Students with an IEP				16	0	0	0	0	1	6	15	94	1123	1,634	<1	4	12	84	1125							
All Other Students				61	1	2	16	26	17	28	27	44	1135	8,944	2	32	29	37	1136							
SES																										
Economically Disadvantaged Students				31	0	0	4	13	6	19	21	68	1129	3,829	<1	14	22	64	1131							
All Other Students				46	1	2	12	26	12	26	21	46	1134	6,749	3	36	28	33	1137							
Migrant																										
Migrant Students				0										0												
All Other Students				77	1	1	16	21	18	23	42	55	1132	10,578	2	28	26	44	1135							
Title I																										
Students Receiving Title I Services				22	0	0	1	5	4	18	17	77	1126	2,688	1	13	20	66	1130							
All Other Students				55	1	2	15	27	14	25	25	45	1135	7,890	3	33	28	37	1136							
504 Plan																										
Students with a 504 Plan				1										236	2	29	32	37	1136							
All Other Students				76	1	1	16	21	18	24	41	54	1132	10,342	2	28	26	44	1135							

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

Note: Some numbers may have been left blank because fewer than ten (10) students were tested.



Fall 2011 - Beginning of Grade 11 NECAP Tests

Grade 10 Students in 2010-2011

Writing Results

District: Demonstration District A
State: Rhode Island
Code: DA

Proficient with Distinction (Level 4)
 Student's writing demonstrates an ability to respond to prompt/task with clarity and insight. Focus is well developed and maintained throughout response. Response demonstrates use of strong organizational structures. A variety of elaboration strategies is evident. Sentence structures and language choices are varied and used effectively. Response demonstrates control of conventions; minor errors may occur.
(Raw Score 10–12)

Proficient (Level 3)
 Student's writing demonstrates an ability to respond to prompt/task. Focus is clear and maintained throughout the response. Response is organized with a beginning, middle, and end with appropriate transitions. Details are sufficiently elaborated to support focus. Sentence structures and language use are varied. Response demonstrates control of conventions; errors may occur but do not interfere with meaning.
(Raw Score 7–9)

Partially Proficient (Level 2)
 Student's writing demonstrates an attempt to respond to prompt/task. Focus may be present but not maintained. Organizational structure is inconsistent with limited use of transitions. Details may be listed and lack elaboration. Sentence structures and language use are unsophisticated and may be repetitive. Response demonstrates inconsistent control of conventions.
(Raw Score 4–6)

Substantially Below Proficient (Level 1)
 Student's writing demonstrates a minimal response to prompt/task. Focus is unclear or lacking. Little or no organizational structure is evident. Details are minimal and/or random. Sentence structures and language use are minimal or absent. Frequent errors in conventions may interfere with meaning.
(Raw Score 2–3)

	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Score
	N	N	N	N	N	%	N	%	N	%	N	%	
School													
2009-10													
2010-11													
2011-12													
Cumulative Total													
District													
2009-10				119	8	7	60	50	45	38	6	5	6.8
2010-11				77	0	0	44	57	29	38	4	5	6.4
2011-12				76	3	4	29	38	37	49	7	9	6.1
Cumulative Total				272	11	4	133	49	111	41	17	6	6.5
State													
2009-10				10,679	742	7	5,124	48	4,253	40	560	5	6.7
2010-11				10,594	119	1	5,269	50	4,680	44	526	5	6.4
2011-12				10,508	478	5	4,830	46	4,499	43	701	7	6.4
Cumulative Total				31,781	1,339	4	15,223	48	13,432	42	1,787	6	6.5

Types of Writing Reported in the Results Above	
2009-10	Procedure Writing a procedure is writing to explain a process or to inform an audience of how to do something. A procedure piece presents the steps of the process in a clear, logical, easy-to-follow manner; includes all necessary steps; and defines any terms the audience may not know.
2010-11	Reflective Essay A form of writing in which the writer explores and shares the meaning of a personal experience, belief, or idea.
2011-12	Persuasive Essay Persuasive writing is writing that aims at convincing people to accept a point of view, to change their minds about something or to act in a certain way. A persuasive essay is a form of writing in which a writer supports an opinion and tries to persuade an audience.



Fall 2011 - Beginning of Grade 11 NECAP Tests

Grade 10 Students in 2010-2011

Writing Results

District: Demonstration District A
 State: Rhode Island
 Code: DA

Average Score Comparison by Type of Writing[§]

Type of Writing	Tested	School					District					State				
		Number Tested	Mean Score	0	7	12	Number Tested	Mean Score	0	7	12	Number Tested	Mean Score	0	7	12
Persuasive Essay Persuasive writing is writing that aims at convincing people to accept a point of view, to change their minds about something or to act in a certain way. A persuasive essay is a form of writing in which a writer supports an opinion and tries to persuade an audience.	2011-12 (C)						76	6.1				10,508	6.4			
	2010-11						11	6.5				1,340	6.6			
Response to Literary Text Writing in which the writer analyzes plot/ideas/concepts, making inferences about content, characters, philosophy, theme, author's craft, or other elements within a piece of literature or informational text.	2011-12						11	6.6				1,304	6.4			
	2010-11						11	6.2				1,327	6.2			
Response to Informational Text Writing in which the writer analyzes plot/ideas/concepts, making inferences about content, characters, philosophy, theme, author's craft, or other elements within a piece of literature or informational text.	2011-12						6					1,330	6.0			
	2010-11						7					1,313	6.3			
Reflective Essay A form of writing in which the writer explores and shares the meaning of a personal experience, belief, or idea.	2011-12						11	6.3				1,317	6.7			
	2010-11 (C)						77	6.4				10,594	6.4			
Report Writing that results from gathering, investigating, and organizing facts and thoughts on a focused topic.	2011-12						5					1,317	6.7			
	2010-11						12	6.2				1,328	6.6			
Procedure Writing a procedure is writing to explain a process or to inform an audience of how to do something. A procedure piece presents the steps of the process in a clear, logical, easy-to-follow manner; includes all necessary steps; and defines any terms the audience may not know.	2011-12						16	6.4				1,300	6.6			
	2010-11 (NA)															

(C) This type of writing was administered to all students. (NA) This type of writing was not administered to students in 2010-11

The ● shows this year's score and the black bar (————) shows the range where most students in this sample scored.

The ▲ shows last year's score and the gray bar (————) shows the range where most students in this sample scored.

§ The range of 0 to 12 on the graphic display represents the possible score range for the writing prompt. The range of 0 to 12 is a result of adding the two scores assigned to the student's response from the 6-point scoring rubric.

The score of 7 represents the score required to be proficient.

Note: Some numbers may have been left blank because fewer than ten (10) students were tested.



Fall 2011 - Beginning of Grade 11 NECAP Tests

Grade 10 Students in 2010-2011

Writing Results

District: Demonstration District A
State: Rhode Island
Code: DA

Score Distribution							
Total Score	Score 1	Score 2			District		State
			N	%	N	%	%
12	6	6			0	0	<1
11	6	5			0	0	1
10	5	5			3	4	4
9	5	4			5	7	8
8	4	4			13	17	21
7	4	3			11	14	17
6	3	3			18	24	21
5	3	2			7	9	9
4	2	2			12	16	13
3	2	1			3	4	3
2	1	1			3	4	3
0	0	0			1	1	1

Scoring Rubric	
6	<ul style="list-style-type: none"> • purpose is clear throughout; strong focus/controlling idea OR strongly stated purpose focuses the writing • intentionally organized for effect • fully developed details; rich and/or insightful elaboration supports purpose • distinctive voice, tone, and style enhance meaning • consistent application of the rules of grade-level grammar, usage, and mechanics
5	<ul style="list-style-type: none"> • purpose is clear; focus/controlling idea is maintained throughout • well-organized and coherent throughout • details are relevant and support purpose; details are sufficiently elaborated • strong command of sentence structure; uses language to enhance meaning • consistent application of the rules of grade-level grammar, usage, and mechanics
4	<ul style="list-style-type: none"> • purpose is evident; focus/controlling idea may not be maintained • generally organized and coherent • details are relevant and mostly support purpose • well-constructed sentences; uses language well • may show inconsistent control of grade-level grammar, usage, and mechanics
3	<ul style="list-style-type: none"> • writing has a general purpose • some sense of organization; may have lapses in coherence • some relevant details support purpose • uses language adequately; may show little variety of sentence structures • may contain some serious errors in grammar, usage, and mechanics
2	<ul style="list-style-type: none"> • attempted or vague purpose; stays on topic • little evidence of organization; lapses in coherence • generalizes or lists details • lacks sentence control; uses language poorly • errors in grammar, usage, and mechanics are distracting
1	<ul style="list-style-type: none"> • lack of evident purpose; topic may not be clear • incoherent or underdeveloped organization • random information • rudimentary or deficient use of language • serious and persistent errors in grammar, usage, and mechanics throughout
0	Response is totally incorrect or irrelevant.

Score 1 and Score 2 represent two independent scores assigned to a student's response to the common writing prompt. The two scores added together equal the student's total score on the common writing prompt. If the two scores differ by more than one point, the student's response is scored a third time to resolve the difference.



Fall 2011 - Beginning of Grade 11 NECAP Tests

Grade 10 Students in 2010-2011

Disaggregated Writing Results

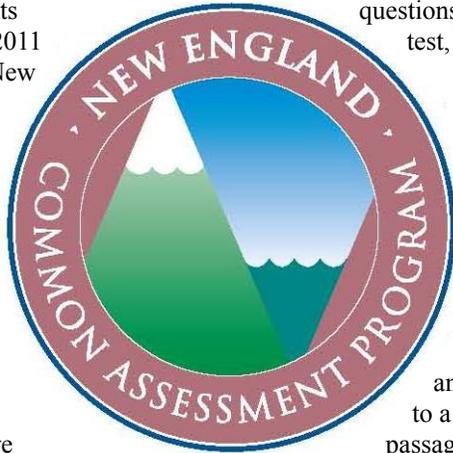
District: Demonstration District A
State: Rhode Island
Code: DA

REPORTING CATEGORIES	District											State													
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Score
	N	N	N		N	N	%	N	%	N	%	N			%	N	%	%			%	%	N	%	
All Students				76	3	4	29	38	37	49	7	9	6.1	10,508	5	46	43	7	6.4						
Gender																									
Male				40	0	0	8	20	27	68	5	13	5.3	5,312	3	40	47	9	6.1						
Female				33	3	9	18	55	10	30	2	6	6.9	5,181	6	52	38	4	6.8						
Not Reported				3										15	0	7	53	40	4.0						
Race/Ethnicity																									
Hispanic or Latino				14	0	0	4	29	5	36	5	36	4.9	1,921	1	33	52	14	5.6						
Not Hispanic or Latino																									
American Indian or Alaskan Native				0										50	2	38	50	10	5.8						
Asian				2										287	7	51	39	3	6.8						
Black or African American				12	0	0	3	25	8	67	1	8	5.4	870	2	29	57	12	5.5						
Native Hawaiian or Pacific Islander				1										19	0	37	58	5	5.7						
White				41	2	5	18	44	20	49	1	2	6.6	7,164	6	52	38	4	6.8						
Two or more races				1										174	6	33	55	7	6.1						
No Race/Ethnicity Reported				5										23	4	4	52	39	4.0						
LEP Status																									
Current LEP student				4										345	0	6	54	39	3.7						
Former LEP student - monitoring year 1				1										24	0	25	71	4	5.7						
Former LEP student - monitoring year 2				2										33	0	33	61	6	5.5						
All Other Students				69	3	4	28	41	32	46	6	9	6.2	10,106	5	47	42	6	6.5						
IEP																									
Students with an IEP				16	0	0	0	0	13	81	3	19	4.6	1,619	1	15	62	22	4.7						
All Other Students				60	3	5	29	48	24	40	4	7	6.5	8,889	5	52	39	4	6.7						
SES																									
Economically Disadvantaged Students				32	0	0	7	22	20	63	5	16	5.0	3,803	2	34	53	11	5.7						
All Other Students				44	3	7	22	50	17	39	2	5	6.9	6,705	6	53	37	4	6.8						
Migrant																									
Migrant Students				0										0											
All Other Students				76	3	4	29	38	37	49	7	9	6.1	10,508	5	46	43	7	6.4						
Title I																									
Students Receiving Title I Services				22	0	0	6	27	11	50	5	23	5.1	2,670	2	33	53	13	5.6						
All Other Students				54	3	6	23	43	26	48	2	4	6.5	7,838	6	50	39	5	6.7						
504 Plan																									
Students with a 504 Plan				1										238	2	47	44	6	6.4						
All Other Students				75	3	4	29	39	36	48	7	9	6.1	10,270	5	46	43	7	6.4						

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

Note: Some numbers may have been left blank because fewer than ten (10) students were tested.

About The New England Common Assessment Program



This report highlights results from the Fall 2011 Beginning of Grade New England Common Assessment Program (NECAP) tests. The NECAP tests are administered to students in Maine, New Hampshire, Rhode Island, and Vermont as part of each state's statewide assessment program.

NECAP test results are used primarily for school improvement and accountability. Achievement level results are used in the state accountability system required under No Child Left Behind (NCLB). More detailed school and district results are used by schools to help improve curriculum and instruction. Individual student results are used to support information gathered through classroom instruction and assessments.

NECAP tests in reading and mathematics are administered to students in grades 3 through 8 and writing tests are administered to students in grades 5 and 8. The NECAP tests are designed to measure student performance on grade level expectations (GLE) developed and adopted by the four states. Specifically, the tests are designed to measure the content and skills that students are expected to have as they begin the school year in their current grade — in other words, the content and skills that students have learned through the end of the previous grade.

Each test contains a mix of multiple-choice and constructed-response questions. Constructed-response questions require students to develop their own answers to

questions. On the mathematics test, students may be required to provide the correct answer to a computation or word problem, draw or interpret a chart or graph, or explain how they solved a problem. On the reading test, students may be required to make a list or write a few paragraphs to answer a question related to a literary or informational passage. On the writing test, students are required to provide a single extended response of 1-3 pages and three shorter responses to questions measuring different types of writing.

This report contains a variety of school- and/or district-, and state-level assessment results for the NECAP tests administered at a grade level. Achievement level distributions and mean scaled scores are provided for all students tested as well as for subgroups of students classified by demographics or program participation. The report also contains comparative information on school and district performance on subtopics within each content area tested.

In addition to this report of grade level results, schools and districts will also receive Summary Reports, Item Analysis Reports, Released Item support materials, and student-level data files containing NECAP results. Together, these reports and data constitute a rich source of information to support local decisions in curriculum, instruction, assessment, and professional development. Over time, this information can also strengthen schools' and districts' evaluation of their ongoing improvement efforts.



Fall 2011 Beginning of Grade 7 NECAP Tests

Grade 7 Students in 2011-2012

State Results

State: Rhode Island



Fall 2011 - Beginning of Grade 7 NECAP Tests

Grade 7 Students in 2011-2012

Grade Level Summary Report

State: Rhode Island

PARTICIPATION in NECAP	Number									Percentage								
	School			District			State			School			District			State		
Students enrolled on or after October 1							10,009									100		
Students tested	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing	Reading	Math	Writing
With an approved accommodation							9,779	9,819								98	98	
Current LEP Students							1,559	1,548								16	16	
With an approved accommodation							405	453								4	5	
IEP Students							96	145								24	32	
With an approved accommodation							1,463	1,464								15	15	
Students not tested in NECAP							979	978								67	67	
State Approved							230	190								2	2	
Alternate Assessment							94	96								41	51	
First Year LEP							82	82								87	85	
Withdrew After October 1							2	0								2	0	
Enrolled After October 1							1	3								1	3	
Special Consideration							2	3								2	3	
Other							7	8								7	8	
							136	94								59	49	

NECAP RESULTS

	State																								
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%		N	%	%	%	%		N	%	%	%	%	
READING	10,009	94	136	9,779	1,658	17	5,331	55	1,782	18	1,008	10	747												
MATH	10,009	96	94	9,819	1,992	20	3,545	36	1,813	18	2,469	25	741												
WRITING																									

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

Note: Throughout this report, percentages may not total 100 since each percentage is rounded to the nearest whole number.

Note: Some numbers may have been left blank because fewer than ten (10) students were tested.



Fall 2011 - Beginning of Grade 7 NECAP Tests

Grade 7 Students in 2011-2012

Disaggregated Reading Results

State: Rhode Island

REPORTING CATEGORIES	State																								
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	Score	N	%	%	%	%	Score	N	%	%	%	%	Score
All Students	10,009	94	136	9,779	1,658	17	5,331	55	1,782	18	1,008	10	747												
Gender																									
Male	5,225	67	87	5,071	595	12	2,821	56	1,005	20	650	13	745												
Female	4,777	27	49	4,701	1,062	23	2,506	53	776	17	357	8	749												
Not Reported	7	0	0	7																					
Race/Ethnicity																									
Hispanic or Latino	1,992	17	47	1,928	96	5	893	46	544	28	395	20	740												
Not Hispanic or Latino																									
American Indian or Alaskan Native	75	2	0	73	6	8	37	51	17	23	13	18	741												
Asian	275	2	11	262	52	20	150	57	43	16	17	6	749												
Black or African American	834	8	23	803	54	7	377	47	220	27	152	19	741												
Native Hawaiian or Pacific Islander	8	0	0	8																					
White	6,555	63	54	6,438	1,407	22	3,730	58	903	14	398	6	750												
Two or more races	259	2	1	256	40	16	138	54	49	19	29	11	746												
No Race/Ethnicity Reported	11	0	0	11	3	27	5	45	1	9	2	18	748												
LEP Status																									
Current LEP student	460	4	51	405	2	<1	73	18	149	37	181	45	730												
Former LEP student - monitoring year 1	21	0	0	21	0	0	16	76	4	19	1	5	746												
Former LEP student - monitoring year 2	86	0	0	86	2	2	32	37	33	38	19	22	737												
All Other Students	9,442	90	85	9,267	1,654	18	5,210	56	1,596	17	807	9	748												
IEP																									
Students with an IEP	1,576	83	30	1,463	15	1	378	26	488	33	582	40	732												
All Other Students	8,433	11	106	8,316	1,643	20	4,953	60	1,294	16	426	5	750												
SES																									
Economically Disadvantaged Students	4,434	41	80	4,313	251	6	2,150	50	1,162	27	750	17	741												
All Other Students	5,575	53	56	5,466	1,407	26	3,181	58	620	11	258	5	752												
Migrant																									
Migrant Students	0	0	0	0																					
All Other Students	10,009	94	136	9,779	1,658	17	5,331	55	1,782	18	1,008	10	747												
Title I																									
Students Receiving Title I Services	2,967	20	63	2,884	160	6	1,305	45	832	29	587	20	740												
All Other Students	7,042	74	73	6,895	1,498	22	4,026	58	950	14	421	6	750												
504 Plan																									
Students with a 504 Plan	218	0	2	216	38	18	128	59	34	16	16	7	748												
All Other Students	9,791	94	134	9,563	1,620	17	5,203	54	1,748	18	992	10	747												

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

Note: Some numbers may have been left blank because fewer than ten (10) students were tested.



Fall 2011 - Beginning of Grade 7 NECAP Tests

Grade 7 Students in 2011-2012

Mathematics Results

State: Rhode Island

Proficient with Distinction (Level 4)

Student's problem solving demonstrates logical reasoning with strong explanations that include both words and proper mathematical notation. Student's work exhibits a high level of accuracy, effective use of a variety of strategies, and an understanding of mathematical concepts within and across grade level expectations. Student demonstrates the ability to move from concrete to abstract representations.

(Scaled Score 752–780)

Proficient (Level 3)

Student's problem solving demonstrates logical reasoning with appropriate explanations that include both words and proper mathematical notation. Student uses a variety of strategies that are often systematic. Computational errors do not interfere with communicating understanding. Student demonstrates conceptual understanding of most aspects of the grade level expectations.

(Scaled Score 740–751)

Partially Proficient (Level 2)

Student's problem solving demonstrates logical reasoning and conceptual understanding in some, but not all, aspects of the grade level expectations. Many problems are started correctly, but computational errors may get in the way of completing some aspects of the problem. Student uses some effective strategies. Student's work demonstrates that he or she is generally stronger with concrete than abstract situations.

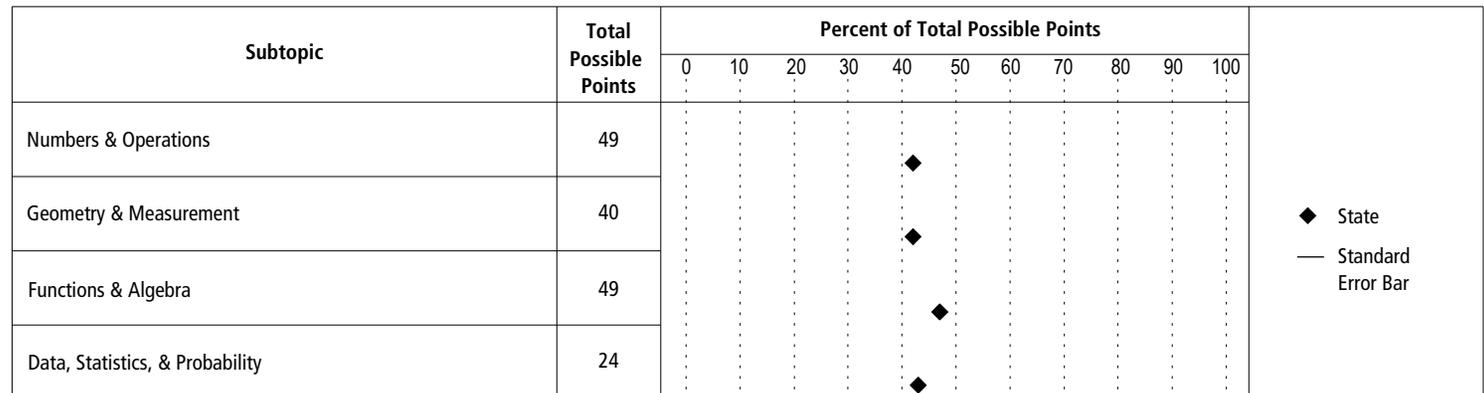
(Scaled Score 734–739)

Substantially Below Proficient (Level 1)

Student's problem solving is often incomplete, lacks logical reasoning and accuracy, and shows little conceptual understanding in most aspects of the grade level expectations. Student is able to start some problems but computational errors and lack of conceptual understanding interfere with solving problems successfully.

(Scaled Score 700–733)

	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	
School													
2009-10													
2010-11													
2011-12													
Cumulative Total													
District													
2009-10													
2010-11													
2011-12													
Cumulative Total													
State													
2009-10	11,077	103	70	10,904	1,779	16	4,113	38	2,247	21	2,765	25	741
2010-11	11,214	119	60	11,035	1,734	16	4,192	38	2,215	20	2,894	26	740
2011-12	10,009	96	94	9,819	1,992	20	3,545	36	1,813	18	2,469	25	741
Cumulative Total	32,300	318	224	31,758	5,505	17	11,850	37	6,275	20	8,128	26	741





Fall 2011 - Beginning of Grade 7 NECAP Tests

Grade 7 Students in 2011-2012

Disaggregated Mathematics Results

State: Rhode Island

REPORTING CATEGORIES	State																								
	Enrolled	NT Approved	NT Other	Tested	Level 4		Level 3		Level 2		Level 1		Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score	Tested	Level 4	Level 3	Level 2	Level 1	Mean Scaled Score
	N	N	N	N	N	%	N	%	N	%	N	%	Score	N	%	%	%	%	Score	N	%	%	%	%	Score
All Students	10,009	96	94	9,819	1,992	20	3,545	36	1,813	18	2,469	25	741												
Gender																									
Male	5,225	66	61	5,098	1,082	21	1,801	35	917	18	1,298	25	741												
Female	4,777	30	33	4,714	910	19	1,741	37	895	19	1,168	25	741												
Not Reported	7	0	0	7																					
Race/Ethnicity																									
Hispanic or Latino	1,992	18	24	1,950	122	6	524	27	439	23	865	44	734												
Not Hispanic or Latino																									
American Indian or Alaskan Native	75	2	0	73	3	4	29	40	14	19	27	37	736												
Asian	275	2	4	269	64	24	97	36	54	20	54	20	743												
Black or African American	834	8	13	813	47	6	224	28	176	22	366	45	734												
Native Hawaiian or Pacific Islander	8	0	0	8																					
White	6,555	63	51	6,441	1,708	27	2,587	40	1,076	17	1,070	17	744												
Two or more races	259	3	2	254	47	19	78	31	49	19	80	31	740												
No Race/Ethnicity Reported	11	0	0	11	1	9	4	36	3	27	3	27	736												
LEP Status																									
Current LEP student	460	3	4	453	4	1	41	9	72	16	336	74	726												
Former LEP student - monitoring year 1	21	0	0	21	2	10	9	43	5	24	5	24	741												
Former LEP student - monitoring year 2	86	0	0	86	6	7	21	24	22	26	37	43	734												
All Other Students	9,442	93	90	9,259	1,980	21	3,474	38	1,714	19	2,091	23	742												
IEP																									
Students with an IEP	1,576	83	29	1,464	40	3	186	13	261	18	977	67	729												
All Other Students	8,433	13	65	8,355	1,952	23	3,359	40	1,552	19	1,492	18	743												
SES																									
Economically Disadvantaged Students	4,434	41	50	4,343	319	7	1,270	29	1,031	24	1,723	40	736												
All Other Students	5,575	55	44	5,476	1,673	31	2,275	42	782	14	746	14	746												
Migrant																									
Migrant Students	0	0	0	0																					
All Other Students	10,009	96	94	9,819	1,992	20	3,545	36	1,813	18	2,469	25	741												
Title I																									
Students Receiving Title I Services	2,967	21	36	2,910	197	7	775	27	672	23	1,266	44	735												
All Other Students	7,042	75	58	6,909	1,795	26	2,770	40	1,141	17	1,203	17	744												
504 Plan																									
Students with a 504 Plan	218	0	2	216	40	19	84	39	53	25	39	18	743												
All Other Students	9,791	96	92	9,603	1,952	20	3,461	36	1,760	18	2,430	25	741												

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient

Note: Some numbers may have been left blank because fewer than ten (10) students were tested.



Fall 2011 NECAP Tests School Summary 2011-2012 Students

School: Demonstration School 1
District: Demonstration District A
State: New Hampshire
Code: DEM-DEA-DEMO1

Reading	Enrolled	NT Approved	NT Other	Tested	Achievement Level								Mean Score
	N	N	N	N	Level 4		Level 3		Level 2		Level 1		
					N	%	N	%	N	%	N	%	
Demonstration School 1	332	18	7	307	69	22	159	52	47	15	32	10	
Beginning of Grade 3	43	3	1	39	4	10	25	64	4	10	6	15	343
Beginning of Grade 4	49	3	1	45	11	24	25	56	6	13	3	7	446
Beginning of Grade 5	49	2	0	47	9	19	24	51	10	21	4	9	546
Beginning of Grade 6	50	1	1	48	14	29	24	50	5	10	5	10	650
Beginning of Grade 7	47	2	1	44	13	30	22	50	4	9	5	11	750
Beginning of Grade 8	51	4	1	46	9	20	23	50	12	26	2	4	848
Beginning of Grade 11	43	3	2	38	9	24	16	42	6	16	7	18	1144

Mathematics	Enrolled	NT Approved	NT Other	Tested	Achievement Level								Mean Score
	N	N	N	N	Level 4		Level 3		Level 2		Level 1		
					N	%	N	%	N	%	N	%	
Demonstration School 1	332	15	6	311	62	20	132	42	52	17	65	21	
Beginning of Grade 3	43	3	1	39	8	21	17	44	6	15	8	21	343
Beginning of Grade 4	49	2	0	47	12	26	22	47	2	4	11	23	445
Beginning of Grade 5	49	2	0	47	6	13	24	51	9	19	8	17	543
Beginning of Grade 6	50	0	1	49	12	24	24	49	6	12	7	14	645
Beginning of Grade 7	47	1	1	45	16	36	14	31	10	22	5	11	745
Beginning of Grade 8	51	4	1	46	6	13	21	46	12	26	7	15	842
Beginning of Grade 11	43	3	2	38	2	5	10	26	7	18	19	50	1134

Writing	Enrolled	NT Approved	NT Other	Tested	Achievement Level								Mean Score
	N	N	N	N	Level 4		Level 3		Level 2		Level 1		
					N	%	N	%	N	%	N	%	
Demonstration School 1	143	6	3	134	11	8	54	40	48	36	21	16	
Beginning of Grade 5	49	1	0	48	5	10	21	44	15	31	7	15	539
Beginning of Grade 8	51	3	1	47	3	6	23	49	12	26	9	19	839
Beginning of Grade 11	43	2	2	39	3	8	10	26	21	54	5	13	5.8

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient



Fall 2011 NECAP Tests District Summary 2010-2011 Students

District: Demonstration District A
State: New Hampshire
Code: DEM-DEA

Reading	Enrolled	NT Approved	NT Other	Tested	Achievement Level								Mean Score
	N	N	N		Level 4		Level 3		Level 2		Level 1		
					N	%	N	%	N	%	N	%	
Demonstration District A				578	121	21	301	52	92	16	64	11	
Beginning of Grade 3				75	14	19	46	61	8	11	7	9	346
Beginning of Grade 4				85	19	22	45	53	13	15	8	9	445
Beginning of Grade 5				86	19	22	44	51	16	19	7	8	547
Beginning of Grade 6				85	25	29	39	46	10	12	11	13	648
Beginning of Grade 7				84	14	17	43	51	17	20	10	12	746
Beginning of Grade 8				90	16	18	49	54	17	19	8	9	847
Beginning of Grade 11				73	14	19	35	48	11	15	13	18	1144

Mathematics	Enrolled	NT Approved	NT Other	Tested	Achievement Level								Mean Score
	N	N	N		Level 4		Level 3		Level 2		Level 1		
					N	%	N	%	N	%	N	%	
Demonstration District A				589	117	20	239	41	103	17	130	22	
Beginning of Grade 3				77	21	27	30	39	14	18	12	16	344
Beginning of Grade 4				87	21	24	42	48	10	11	14	16	446
Beginning of Grade 5				87	15	17	45	52	14	16	13	15	544
Beginning of Grade 6				89	21	24	40	45	8	9	20	22	644
Beginning of Grade 7				85	25	29	25	29	19	22	16	19	742
Beginning of Grade 8				90	11	12	38	42	24	27	17	19	841
Beginning of Grade 11				74	3	4	19	26	14	19	38	51	1133

Writing	Enrolled	NT Approved	NT Other	Tested	Achievement Level								Mean Score
	N	N	N		Level 4		Level 3		Level 2		Level 1		
					N	%	N	%	N	%	N	%	
Demonstration District A				252	22	9	102	40	90	36	38	15	
Beginning of Grade 5				87	9	10	41	47	25	29	12	14	540
Beginning of Grade 8				90	8	9	38	42	28	31	16	18	839
Beginning of Grade 11				75	5	7	23	31	37	49	10	13	5.8

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient



Fall 2011 NECAP Tests State Summary 2011-2012 Students

State: New Hampshire

Reading	Enrolled	NT Approved	NT Other	Tested	Achievement Level								Mean Score
	N	N	N	N	Level 4		Level 3		Level 2		Level 1		
					N	%	N	%	N	%	N	%	
New Hampshire	102,630	1,407	810	100,413	24,693	25	54,488	54	14,823	15	6,409	6	
Beginning of Grade 3	13,941	183	60	13,698	3,284	24	7,791	57	1,816	13	807	6	349
Beginning of Grade 4	14,236	198	43	13,995	3,625	26	7,398	53	2,026	14	946	7	448
Beginning of Grade 5	14,294	213	54	14,027	3,097	22	7,665	55	2,409	17	856	6	548
Beginning of Grade 6	14,655	191	71	14,393	3,545	25	7,930	55	2,105	15	813	6	649
Beginning of Grade 7	14,896	191	82	14,623	2,732	19	8,553	58	2,321	16	1,017	7	749
Beginning of Grade 8	15,237	218	79	14,940	4,037	27	8,210	55	2,009	13	684	5	851
Beginning of Grade 11	15,371	213	421	14,737	4,373	30	6,941	47	2,137	15	1,286	9	1148

Mathematics	Enrolled	NT Approved	NT Other	Tested	Achievement Level								Mean Score
	N	N	N	N	Level 4		Level 3		Level 2		Level 1		
					N	%	N	%	N	%	N	%	
New Hampshire	102,630	1,273	818	100,539	23,575	23	44,272	44	17,062	17	15,630	16	
Beginning of Grade 3	13,941	166	57	13,718	3,836	28	6,648	48	2,111	15	1,123	8	347
Beginning of Grade 4	14,236	181	36	14,019	4,085	29	6,638	47	1,982	14	1,314	9	448
Beginning of Grade 5	14,294	191	50	14,053	3,601	26	7,064	50	1,889	13	1,499	11	547
Beginning of Grade 6	14,655	178	70	14,407	4,219	29	6,258	43	2,076	14	1,854	13	647
Beginning of Grade 7	14,896	163	79	14,654	4,064	28	5,928	40	2,395	16	2,267	15	745
Beginning of Grade 8	15,237	197	78	14,962	3,402	23	6,769	45	2,656	18	2,135	14	844
Beginning of Grade 11	15,371	197	448	14,726	368	2	4,967	34	3,953	27	5,438	37	1136

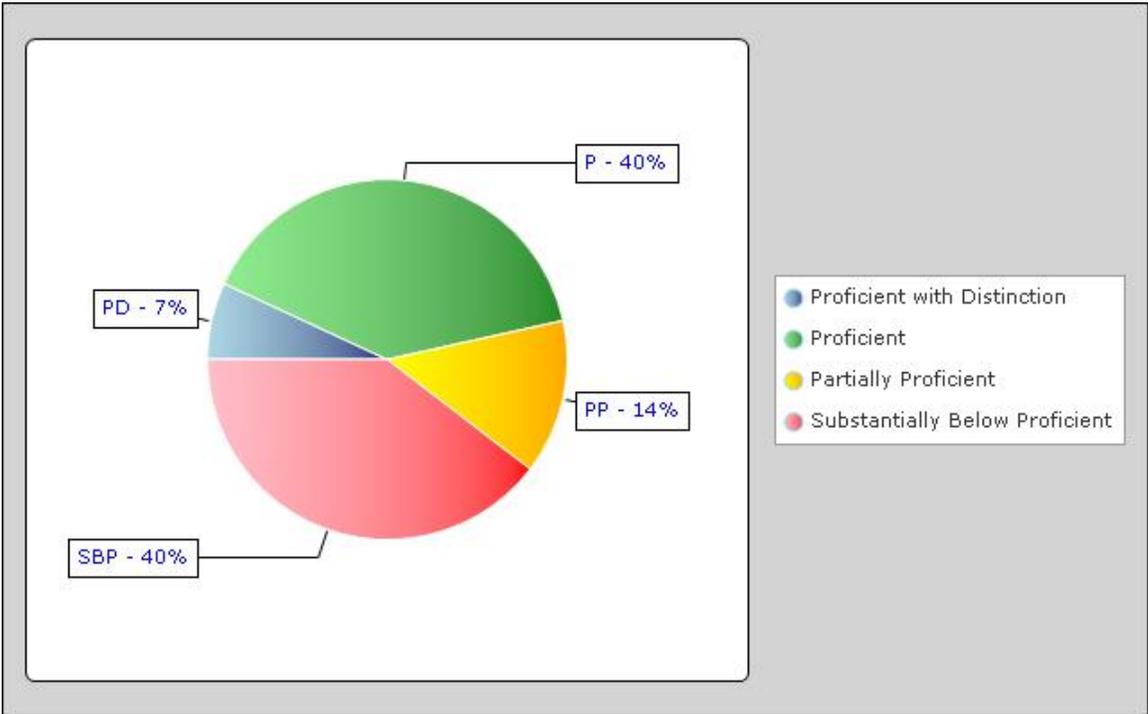
Writing	Enrolled	NT Approved	NT Other	Tested	Achievement Level								Mean Score
	N	N	N	N	Level 4		Level 3		Level 2		Level 1		
					N	%	N	%	N	%	N	%	
New Hampshire	44,902	650	655	43,597	3,717	9	19,832	45	16,353	38	3,695	8	
Beginning of Grade 5	14,294	215	72	14,007	1,497	11	6,218	44	5,144	37	1,148	8	541
Beginning of Grade 8	15,237	235	120	14,882	1,672	11	7,491	50	4,492	30	1,227	8	841
Beginning of Grade 11	15,371	200	463	14,708	548	4	6,123	42	6,717	46	1,320	9	6.2

Level 4 = Proficient with Distinction; Level 3 = Proficient; Level 2 = Partially Proficient; Level 1 = Substantially Below Proficient



<h1>Achievement Level Summary</h1>	District: Demonstration District A
	School: Demonstration School 1
	Grade: 11
	Date: 2/9/2012 11:56:38 AM

Mathematics



Achievement Level	Count	Percentage %*
Proficient with Distinction	3	7
Proficient	17	40
Partially Proficient	6	14
Substantially Below Proficient	17	40

*Percentages may not total exactly 100% due to applied rounding.



CONFIDENTIAL

Student Name
Brittany Darnell

Longitudinal Data Report

Year	Enrolled Grade	School Name	Administration	Test Name	Content Area	Score	Achievement Level
1011	07	Demonstration School 2	NECAP Fall 2010	Grade 07 Mathematics	mat	719	Substantially Below Proficient
1011	07	Demonstration School 2	NECAP Fall 2010	Grade 07 Reading	rea	725	Substantially Below Proficient
1112	07	Demonstration School 1	NECAP Fall 2011	Grade 07 Mathematics	mat	744	Proficient
1112	07	Demonstration School 1	NECAP Fall 2011	Grade 07 Reading	rea	747	Proficient

Note: This report returns as many years of NECAP data as are available for this student beginning with 08-09.

APPENDIX S—DECISION RULES

Data Analysis and Static Reporting Decision Rules
NECAP
Fall 11-12 Administration

This document specifies rules for data analysis and static reporting requirements. The final student level data set used for analysis and reporting is described in the “Data Processing Specifications.” This document is considered a draft until the NECAP State Departments of Education (DOE) signs off. If there are rules that need to be added or modified after said sign-off, DOE sign off will be obtained for each rule. Details of these additions and modifications will be in the Addendum section.

I. General Information

NECAP is administered in the fall and spring. This document incorporates fall and spring rules so that changes are carried to future administrations. In the fall, students are reported based on the current year fall school /district (referred to as testing school/district) and prior year spring school/district (referred to as teaching school/district). In the spring, students are reported based on the spring school/district (referred to as testing school/district). In the spring, students are not reported based on the teaching school. Rules pertaining to the teaching school/district can be ignored for spring administrations. For more information regarding discode, schcode, sprdiscode, sprschcode, senddiscode, and sprsenddiscode, please refer to the data processing specifications and demographic data specification.

This document is the official rules for the current reporting administration.

A. Fall Tests Administered:

Grade	Subject	Test Type	Test items used for Scaling
03	Reading	Operational	Common
03	Math	Operational	Common
04	Reading	Operational	Common
04	Math	Operational	Common
05	Reading	Operational	Common
05	Math	Operational	Common
05	Writing	Operational	Common
06	Reading	Operational	Common
06	Math	Operational	Common
07	Reading	Operational	Common
07	Math	Operational	Common
08	Reading	Operational	Common
08	Math	Operational	Common
08	Writing	Operational	Common
11	Reading	Operational	Common
11	Math	Operational	Common
11	Writing	Operational	Common

B. Spring Tests Administered

Grade	Subject	Test items used for Scaling	Item Reporting Categories (Subtopic and Subcategory Source)
04	Science	Common	Cat3
08	Science	Common	Cat3
11	Science	Common	Cat3

C. Reports Produced:

1. Student Report
 - a. Testing School District

- I. Parent Copy
 - II. School Copy
 - 2. Interactive Reporting (Only the data analysis requirements are outlined in this document)
 - a. Item Analysis
 - b. Achievement Level Summary
 - c. Item Information
 - d. Student Longitudinal
 - 3. Grade Level School/District/State Results
 - a. Testing School District
 - b. Teaching School District – District and School Levels only (Fall Only)
 - 4. School/District/State Summary (School Level is produced in the Fall Only)
 - a. Testing School District
 - b. Teaching School District – District and School Levels only (Fall Only)
 - 5. Writing Prompt CDs
- D. Files Produced:
- 1. Preliminary State Results
 - 2. State Student Released Item Data
 - 3. State Student Raw Data
 - 4. State Student Scored Data
 - 5. District Student Data
 - 6. School Student Data
 - 7. Common Item Information
 - 8. Grade Level Results Report Disaggregated and Historical Data
 - 9. State Standard Deviations and Average Scaled Scores
 - 10. Grade Level Results Report Participation Category Data
 - 11. Grade Level Results Report Subtopic Data
 - 12. Summary Results Data
 - 13. Released Item Percent Responses Data
 - 14. Invalidated Students Original Score
 - 15. Student Questionnaire Summary
 - 16. TCTA Questionnaire Raw Data
 - 17. TCTA Questionnaire Frequency Distribution
 - 18. Scaled Score Lookup
 - 19. Grade 11 Writing Score Distribution Results
 - 20. Grade 11 Writing Historical Subtopic Results
 - 21. Subtopic Average Points Earned (For Program Management)
 - 22. Item Stats for Inquiry Task Items (For Program Management)

23. Memo Shipping files (For Program Management)
24. Released Item Info File (For Program Management)
25. CD print file.

E. School Type:

Testing School Type: SchType	Source: ICORE SubTypeID	Description	States
Teaching School Type: sprSchType (Fall Only)			
PUB	1,12,13	Public School	ME, NH, RI, VT
CHA	11	Charter School	NH, RI
PSP	19	Public Special Purpose	ME
PSE	15	Public Special Education	ME
INS	7	Institution	VT
OTH	9	Other	VT
OOD	4	Out-of-District Private Providers	NH
OUT	8	Out Placement	RI
PSN	23	Private Special Purpose	ME
BIG	6	Private with >60% Publicly Funded	ME
PRI	3	Private School	RI, VT

School Type Impact on Data Analysis and Reporting				
Level	Testing		Teaching (Fall Only)	
	Impact on Analysis	Impact on Reporting	Impact on Analysis	Impact on Reporting
Student	n/a	Report students based on testing discode and schcode. District data will be blank for students tested at BIG, PSN, PRI, OOD, OUT, INS, or OTH schools. Always print tested year state data.	n/a	n/a
School	Do not exclude any students based on school type using testing school code for aggregations	Generate a report for each school with at least one student enrolled using the tested school aggregate denominator. District data will be blank for BIG, PSN, PRI, OOD, OUT, INS, or OTH schools. Always print tested year state data.	Exclude students who do not have a teaching school code.	Generate a report for each school with at least one student enrolled using the teaching school aggregate denominator. District data will be blank for BIG, PSN, PRI, OOD, OUT, INS, or OTH schools. Always print tested year state data.
District	For OUT, OOD,	Generate a report for each	For OUT, OOD,	Generate a report for each

	<p>BIG, and PSN schools, aggregate using the sending district.</p> <p>If OUT, OOD, BIG, or PSN student does not have a sending district, do not include in aggregations.</p> <p>Do not include students tested at PRI, INS, or OTH schools</p>	<p>district with at least one student enrolled using the tested district aggregate denominator.</p> <p>Always report tested year state data.</p>	<p>BIG, and PSN teaching schools, aggregate using the spring sending district.</p> <p>If OUT, OOD, BIG, or PSN teaching school student does not have a teaching sending district, do not include in aggregations.</p> <p>Do not include students taught at PRI, INS, or OTH schools</p>	<p>district with at least one student enrolled using the teaching district aggregate denominator.</p> <p>Always report tested year state data.</p>
State	Do not include students tested at PRI schools for NH and RI. Include all students for VT and ME.	Always report testing year state data.	n/a	n/a

F. Student Status

StuStatus	Description
1	Homeschooled
2	Privately Funded
3	Exchange Student
4	Excluded State
0	Publicly Funded

StuStatus impact on Data Analysis and Reporting		
Level	Impact on Analysis	Impact on Reporting
Student	n/a	<p>School and District data will be blank for students with a StuStatus value of 1,2 or 3.</p> <p>Always print tested year state data.</p> <p>For StuStatus values of 1, 2, and 3 print the description from the table above for the school and district names.</p>
School	Exclude all students with a StuStatus value of 1, 2 or 3.	Students with a StuStatus value of 1, 2 or 3 are excluded from Interactive Reporting.
District	Exclude all students with a StuStatus value of 1, 2 or 3.	n/a
State	Exclude all students with a StuStatus value of 1, 2, 3 or 4.	n/a.

G. Requirements To Report Aggregate Data(Minimum N)

Calculation Description	Rule
Number and Percent at each achievement level, mean score by disaggregated category and aggregate level	If the number of tested students included in the denominator is less than 10, then do not report.
Content Area Subcategories Average Points Earned based on common items only by aggregate level	If the number of tested students included in the denominator is less than 10, then do not report.
Aggregate data on Item Analysis report	No required minimum number of students
Number and Percent of students in a participation category by aggregate level	No required minimum number of students
Content Area Subtopic Percent of Total Possible Points and Standard Error Bar and Grade 11 Writing Distribution of Score Points Across Prompts	If any item was not administered to at least one tested student included in the denominator or the number of tested students included in the denominator is less than 10, then do not report
Content Area Cumulative Total Enrollment, Not tested, Tested, Number and Percent at each achievement level, mean score	<p>Suppress all cumulative total data if at least one reported year has fewer than 10 tested students.</p> <p>Fall: The reported years are 0809, 0910 and 1112 for grades 05 and 08 writing. The reported years are 0910, 1011, and 1112 for all other grades and subjects.</p> <p>Spring: The reported years are 0910, 1011, and 1112.</p>

H. Special Forms:

1. Form 00 is created for students whose matrix scores will be ignored for analysis. Such students include Braille or administration issues resolved by program management.

I. Other Information

1. NH, RI, and VT participate in NECAP testing for Grades 03-08 and 11. ME only participates in NECAP testing for Grades 03-08.
2. Grade 12 students are allowed to participate in the NECAP Grade 11 test under the following circumstances: RI students trying to improve prior NECAP score, and NH, RI, and VT students taking the NECAP Grade 11 test for the first time.
 - a. RI students trying to improve are identified as StuGrade=12 and Grade=11. They only receive a student report. They are not listed on a roster or included in any aggregations. Do not print tested school and district aggregate data on the student report.
 - b. For students taking NECAP for the first time the StuGrade in the student demographics file will be 11 and the remaining decision rules apply.
3. Plan504 data not available for NH and VT; therefore 504 Plan section will be suppressed for NH and VT.
4. To calculate Title1 data for writing using Title1rea variable.
5. Title 1 data are not available for VT; therefore Title 1 section will be suppressed for VT.
6. Title 1 Science data are not available for NH; therefore, Title 1 section will be suppressed for NH on Science specific reports. Title 1 Reading and Math data are available for NH and should not be suppressed.
7. Testing level is defined by the variables discode and schcode. Teaching level is defined by the variables sprdiscode and sprschcode. Every student will have testing district and school

codes. In the fall, some students will have a teaching school code and some students will have a teaching district code. In the spring, no students will have a teaching school/district.

8. A non-public district code is a district code associated with a school that is type BIG, PSN, PRI, OOD, OUT, INS, or OTH. Non-public testing sending district codes will be ignored. For example: For RI, senddiscode of 88 is ignored. For NH, senddiscode of 000 is ignored.
9. Only students with a testing school type of OUT, OOD, BIG, or PSN are allowed to have a testing sending district code. Testing sending district codes will be blanked for students at any other testing school types.
10. Only students with a teaching school type of OUT, OOD, BIG, or PSN are allowed to have a spring sending district code. Spring sending district codes will be blanked for students at any other teaching school types.
11. If students have a teaching district code and no teaching school, then ignore teaching district codes that are associated with schools that are BIG, PSN, PRI, OOD, OUT, INS, or OTH.

II. Student Participation / Exclusions

A. Test Attempt Rules by content area

1. Grade 11 writing was attempted if the common writing prompt is not scored blank 'B'. For all other grades and content areas test attempt can be determined as follows. A content area was attempted if any multiple choice item or non-field test open response item has been answered. (Use original item responses – see special circumstances section II.F)
2. A multiple choice item has been answered by a student if the response is A, B, C, D, or * (*=multiple responses)
3. An open response item has been answered if it is not scored blank 'B'

B. Session Attempt Rules by content area

1. A session was attempted if any multiple choice item or non-field test open response item has been answered in the session. (Use original item responses – see special circumstances section II.F)
2. Because of the test design for grade 11 writing, only determine if session 1 was attempted. Session 2 is ignored.

C. Not Tested Reasons by content area

1. Not Tested State Approved Alternate Assessment
 - a. If a student links to the demographic file has content area not tested status of "Not Tested State Approved Alternate Assessment" is identified as "Not Tested State Approved Alternate Assessment" for the content area.
 - b. If a student is identified as receiving an alternate assessment achievement level, then the student's record will be updated as outlined in the `NECAP1112StudentDemographicFileDescription.doc`.
2. Not Tested State Approved First Year LEP (reading and writing only)
 - a. If a student links to the demographic file has content area not tested status of "Not Tested State Approved First Year LEP" or does not link to the demographic file has content area "First Year LEP blank or partially blank reason" marked, then the student is identified as "Not Tested State Approved First Year LEP".
3. Not Tested State Approved Special Consideration
 - a. If a student links to the demographic data file has content area "Not Tested State Approved Special Consideration" indicated or does not link to the demographic data file and has content area "Special Consideration blank or

partially blank reason” marked, then the student is identified as ”Not Tested State Approved Special Consideration”.

4. Not Tested State Approved Withdrew After
 - a. If a student links to the demographic data file has content area not tested status of “Not Tested Withdrew After” and at least one content area session was not attempted or does not link to the demographic file has content area “Withdrew After blank or partially blank reason” marked and at least one content area session was not attempted, then the student is identified as “Not Tested State Approved Withdrew After”. For grade 11 writing, only use session 1 attempt status.
 5. Not Tested State Approved Enrolled After
 - a. If a student links to the demographic data file has content area not tested status of “Not Tested Enrolled After” and at least one content area session was not attempted or does not link to the demographic file has content area “Enrolled After blank or partially blank reason” marked and at least one content area session was not attempted, then the student is identified as “Not Tested State Approved Enrolled After”. For grade 11 writing, only use session 1 attempt status.
 6. Not Tested Other
 - a. If content area test was not attempted, the student is identified as “Not Tested Other”.
- D. Not Tested Reasons Hierarchy by content area: if more than one reason for not testing at a content area is identified then select the first category indicated in the order of the list below.
1. Not Tested State Approved Alternate Assessment
 2. Not Tested State Approved First Year LEP (reading and writing only)
 3. Not Tested State Approved Special Consideration
 4. Not Tested State Approved Enrolled After
 5. Not Tested State Approved Withdrew After
 6. Not Tested Other
- E. Special Circumstances by content area
1. Item invalidation flags are provided to the DOE during data processing test clean up. The item invalidation flag variables are initially set using the rules below. The final values used for reporting are provided back to Measured Progress by the DOE and used in reporting..
 - a. If reaaccomM2 is marked, then mark reaInvSes1, reaInvSes2, and reaInvSes3.
 - b. If reaaccomM3 is marked, then mark reaInvSes1, reaInvSes2 and reaInvSes3.
 - c. If mataccomM1 is marked then mark matInvSes1NC.
 - d. If mataccomM3 is marked, then mark matInvSes1, matInvSes2, and matInvSes3.
 - e. If wriaccomM3 is marked, then mark wriInvSes1 and wriInvSes2.
 - f. If sciaccomM1 is marked, then mark sciInvSes3.
 - g. If sciaccomM3 is marked, then mark sciInvSes1, sciInvSes2, and sciInvSes3.
 2. A student is identified as content area tested if the student does not have any content area not tested reasons identified. Tested students are categorized in one of the four tested participation statuses: “Tested Damaged SRB”, “Tested with Non-Standard Accommodations”, “Tested Incomplete”, and “Tested”.
 - a. Students with a common item response of ‘X’ are identified as “Tested Damaged SRB”.

- b. Students identified as content area tested, are not identified as “Tested Damaged SRB”, and have at least one of the content area invalidation session flags marked will be identified as “Tested with Non-Standard Accommodations”. Grade 11 writing use only session 1 invalidation flag.
 - c. Students identified as content area tested, are not identified as “Tested Damaged SRB”, and not identified as “Tested with Non-Standard Accommodations” and did not attempt all sessions in the test are considered to be “Tested Incomplete.”
 - d. All other tested students are identified as “Tested”.
3. For students identified as “Tested Damaged SRB”, the content area subcategories with at least one damaged item will not be reported. The school and district averages will be suppressed for the impacted subcategories on the student report. These students are excluded from all raw score aggregations (item, subcategory, and total raw score). They are included in participation, achievement level, and scaled score aggregations.
 4. For students identified as “Tested with Non-Standard Accommodations” the content area sessions item responses which are marked for invalidation will be treated as a non-response
 5. Students identified as tested in a content area will receive released item scores, scaled score, scale score bounds, achievement level, raw total score, subcategory scores, and writing annotations (where applicable).
 6. Students identified as not tested in a content area will not receive a scaled score, scaled score bounds, achievement level, writing annotations (where applicable). They will receive released item scores, raw total score, and subcategory scores.
 7. Item scores for students with an invalidation flag marked and have a not tested status will be blanked out based on the invalidation flag. For example, if the student is identified as “Not Tested: State Approved Alternate Assessment” and has ReaInvSes1 marked, then all reading session 1 item responses will be reported as a blank.

F. Student Participation Status Hierarchy by content area

1. Not Tested: State Approved Alternate Assessment
2. Not Tested: State Approved First Year LEP (reading and writing only)
3. Not Tested: State Approved Special Consideration
4. Not Tested: State Approved Enrolled After
5. Not Tested: State Approved Withdrew After
6. Not Tested: Other
7. Tested Damaged SRB
8. Tested with Non-Standard Accommodations
9. Tested Incomplete
10. Tested

G. Student Participation Summary

Participation Status	Description	Raw Score (*)	Scaled Score (&)	Ach. Level	Student Report Ach. Level Text	Roster Ach. Level Text
Z	Tested Damaged SRB(**)	✓	✓	✓	Substantially Below Proficient, Partially Proficient, Proficient, or Proficient with Distinction	1,2,3, or 4

A	Tested	✓	✓	✓	Substantially Below Proficient, Partially Proficient, Proficient, or Proficient with Distinction	1,2,3, or 4
B	Tested Incomplete(%)	✓	✓	✓	Substantially Below Proficient, Partially Proficient, Proficient, or Proficient with Distinction	1,2,3, or 4
C	Tested with Non-Standard Accommodations (%%)	✓	✓	✓	Substantially Below Proficient, Partially Proficient, Proficient, or Proficient with Distinction	1,2,3, or 4
D	Not Tested State Approved Alternate Assessment	✓			Alternate Assessment	A
E	Not Tested State Approved First Year LEP (Reading and Writing only)	✓			First Year LEP	L
F	Not Tested State Approved Enrolled After	✓			Fall: Enrolled After October 1 Spring: Enrolled After May 11	E
G	Not Tested State Approved Withdrew After	✓			Fall: Withdrew After October 1 Spring: Withdrew After May 11	W
H	Not Tested State Approved Special Consideration	✓			Special Consideration	S
I	Not Tested Other	✓			Not Tested	N

If a student has a participation status of Alternate Assessment for all subjects assessed at the grade level, a Parent Letter is not produced.

(*) Raw scores are not printed on student report for students with a not tested status.

(**) Raw scores for Tested damaged SRB students will be reported based on the set of non-damaged items. Subcategory scores will not be reported if it includes a damaged item.

(%) Tested incomplete students will be identified on the student report with a footnote.

(%%) Tested with Non-standard accommodations students will be identified on student report with a footnote. The invalidated items will be stored as a ‘-’ for item analysis.

(&) Grade 11 writing students do not receive a scaled score. The writing achievement level is determined by the total common writing prompt score.

III. Calculations

A. Rounding

1. All percents are rounded to the nearest whole number
2. All mean scaled scores are rounded to the nearest whole number
3. All mean raw scores are rounded to the nearest tenth.
4. Content Area Subcategories: Average Points Earned (student report): round to the nearest tenth.
5. Round non-multiple choice average item scores to the nearest tenth.

B. Students included in calculations based on participation status

1. For number and percent of students enrolled, tested, and not tested categories include all students not excluded by other decision rules.
 2. For number and percent at each achievement level, average scaled score, subtopic percent of total possible points and standard error, subtopic distribution across writing prompts, subcategories average points earned, percent/correct average score for each released item include all tested students not excluded by other decision rules.
 3. Students identified as Tested Damaged SRB are excluded from all raw score aggregations (item, subcategory, and total raw score). They are included in participation, achievement level, and scaled score aggregations.
- C. Raw scores
1. For all analyses, non-response for an item by a tested student is treated as a score of 0. Items identified as damaged (response of 'X') will be excluded for student identified as "Tested Damaged SRB".
 2. Content Area Total Points: Sum the points earned by the student for the common items.
- D. Item Scores
1. For all analysis, non-response for an item by a tested student is treated as a score of 0.
 2. For multiple choice released item data store a '+' for correct response, or A,B,C,D,* or blank
 3. For open response released items, store the student score. If the score is not numeric ('B'), then store it as blank.
 4. For students identified as content area tested with non-standard accommodations, then store the released item score as '-' for invalidated items.
 5. For all writing prompt scores, the final score of record is the sum of scorer 1 and scorer 2. If both scorers give the student a B, then the final score is B. If both scorers give the student an O or F, then the final score is 0.
- E. Scaling
1. Scale Form creation

Scaling is accomplished by defining the unique set of test forms for the grade/subject. This is accomplished as follows:

 - a. Translate each form and position into the unique item number assigned to the form/position.
 - b. Order the items by
 - I.* Type – multiple-choice, short-answer, constructed- response, extended-response, writing prompt.
 - II.* Form – common, then by ascending form number.
 - III.* Position
 - c. If an item number is on a form, then set the value for that item number to '1', otherwise set to '.'. Set the Exception field to '0' to indicate this is an original test form.
 - d. If an item number contains an 'X' (item is not included in scaling) then set the item number to '.'. Set the Exception field to '1' to indicate this is not an original test form.
 - e. Compress all of the item numbers together into one field in the order defined in step II to create the test for the student.
 - f. Select the distinct set of tests from the student data and order them by the exception field and the descending test field.

- g. Check to see if the test has already been assigned a scale form by looking in the tblScaleForm table. If the test exists then assign the existing scale form. Otherwise assign the next available scale form number. All scale form numbering starts at 01 and increments by 1 up to 99.
2. Scaled Score assignment
 - a. Psychometrics provides data analysis with a lookup table for each scale form. The lookup table contains the raw score and the resulting scaled score.
- F. SubTopic Item Scores
1. Identify the Subtopic
 - a. Fall:
 - I. The variable ContentFramework from the IABS export contains the data needed to calculate Content Strand, GLE code, subtopics, and subcategories.
 - i. The Content Strand is stored as Standard. Except for Writing, Standard and RepCat are calculated using the third portion of ContentFramework and Reporting Category GLE Codes.doc provided by PM. For Grade 11 writing, Standard and RepCat are calculated using Writing Grade 11 by Form and Genre.doc provided by PM. For Grades 05 and 08 writing use Writing Content Strand Info.xls provided by PM.
 - ii. The GLE Code is stored as TargetCode and is calculated by content area. For all content area remove leading zeros.
 - Reading: Concatenate the second and third portions of ContentFramework separated by a dash.
 - Math: Concatenate the second and fourth portions of ContentFramework separated by a dash.
 - Writing: For Grades 05 and 08 concatenate the second and third portions of ContentFramework separated by a dash.
 - Writing: For Grade 11 Writing PM provided a list of the appropriate target codes.
 - II. The variable Process Framework contains Depth of Knowledge code.
 - III. The variable type in IABS is the source for the Item Type, except the writing prompt item type is reported as “ER”.
 - IV. PM provided Data Analysis with 2010NECAP_IABS_ReleasedItemsMAT.xls, 2010NECAP_IABS_ReleasedItemsREA.xls, and 2010NECAP_IABS_ReleasedItemsWRI which contain the released item orders for Math, Reading, and Writing respectively.
 - b. Spring: NECAP science item information is stored in IABS, except for inquiry items.
 - I. Program management provided Data Analysis with “UPDATED Copy of NECAP1011SInquiryIREF.xls” which contains the item order, domain, assessment target, DOK, item type, and maximum possible points for the inquiry items. Inquiry items are administered in session 3.
 - i. Item numbers are created for inquiry items using the convention [2 Digit Grade][2 Digit Test Year][Inquiry Item Order] where 14 and 18 are the 2 digit grades for 4 and 8 respectively.
 - II. Program management provided Data Analysis with “IABS Export Codes for NECAP SCI Reporting.doc” which contains the crosswalk between IABS item information and reporting.

- b. For Students Tested with approved Accommodations, Current LEP Students Tested (LEP=1), and IEP Students Tested the denominator will be the number of students tested.
 - c. For Current LEP Students Tested with approved accommodations (LEP=1 the denominator will be the number of current LEP students tested.
 - d. For IEP Students Tested with approved accommodations the denominator will be the number of IEP students tested.
 - e. For Students Not Tested State Approved and Not Tested Other the denominator will be the number of students not tested.
 - f. For Students Not Tested Alternate Assessment, First Year LEP, Withdrew After October 1, Enrolled After October 1, and Special Considerations the denominator will be the number of students not tested state approved.
- J. Average Points Earned Students at Proficient Level (Range)
- 1. Select all students across the states with Y40 scaled score, where Y=grade. Average the content area subcategories across the students. Add and subtract one standard error of measurement to get the range and round to the nearest tenth.
 - 2. Grade 11 writing Average Points Earned Students at Proficient Level will be reported as '7'.
 - 3. For grades 05 and 08 writing prompt select all students across the states with the Y40 scaled score. Average the prompt scores across the students. Add and subtract one standard error to get the range and round to the nearest tenth.
- K. Writing Annotations
- 1. Students with a writing prompt score of 2-12 receive at least one, but up to five statements based on decision rules for annotations as outlined in Final Statements & Decision Rules for NECAP Writing Annotations.doc. Students with the common writing prompt score of F or O will also receive annotations of FF and OO respectively.

IV. Report Specific Rules

A. Student Report

- 1. Student header Information
 - a. If "FNAME" or "LNAME" is not missing then print "FNAME MI LNAME". Otherwise, print "No Name Provided".
 - b. Print the student's single digit tested grade
 - c. For school and district name do the following.
 - I. For students with a stustatus value of 0 or 4, print the abbreviated tested school and district ICORE name based on school type decision rules.
 - II. Otherwise, for the school and district names print the "Description" in the StuStatus table presented earlier in this document.
 - d. Print "ME", "NH", "RI", or "VT" for state.
- 2. Test Results by content area
 - a. Always display the cut scores in the graphic display.
 - a. For students identified as "Not Tested", print the not tested reason in the achievement level, leave scaled score and graphic display blank.
 - b. For students identified as tested for the content area then do the following
 - I. Print the complete achievement level name the student earned

- II. Print the scaled score the student earned
 - III. Print a vertical black bar for the student scaled score with gray horizontal bounds in the graphic display
 - IV. For students identified as “Tested with a non-standard accommodation” for a content area, print “**” after the content area earned achievement level and after student points earned for each subcategory.
 - V. For students identified as “Tested Incomplete” for a content area, place a section symbol after content area earned scaled score.
 - VI. Grade 11 writing graphic display will not have standard error bars. Also, if a student’s total points earned is 0 for writing, do not print the graphic display.
3. This Student’s Achievement Compared to Other Students by content area
 - a. For tested students, print a check mark in the appropriate achievement level in the content area student column. For not tested students leave student column blank
 - b. For percent of students with achievement level by school, district, and state print aggregate data based on student status, StuGrade, school type and minimum N rules.
 4. This Student’s Performance in Content Area Subcategories by content area
 - a. Always print total possible points and students at proficient average points earned range.
 - b. For students identified as not tested then leave student scores blank
 - c. For students identified as tested do the following
 - I. Print school, district, and state aggregate data for subcategories based on student status, StuGrade, school type and minimum N rules.
 - II. For students identified as “Tested Damaged SRB” do not report student, school, and district aggregate data for subcategories that have at least one damaged item. Print Points Possible and state aggregate data.
 - III. Otherwise, always print student subcategory scores
 - IV. If the student is identified as tested with a non-standard accommodation for the content area then place “**” after the student points earned for each subcategory.
 5. Writing Annotations
 - a. Beginning in 1112, writing annotations will not print on the student reports.
 6. Footer information
 - a. Footnotes
 - I. If the student received a participation status of “Tested with a non-standard accommodation” for any content area then print “**Student received no credit for parts of the test that were administered under non-standard conditions.”
 - II. If the student received a participations status of “Tested Incomplete” for any content area then print “^SThis score should be viewed with caution because the student did not complete all parts of the test.”
 - III. If both footnotes should appear, the print I. above II.
 - b. For NH the SAU, district, and school codes should appear at the bottom right of the page separated by ‘-’.
 - c. For ME, RI, and VT district and school codes should appear at the bottom right of the page separated by ‘-’.
- B. Grade Level School/District/State Results

1. Reports are run by testing state, testing district, testing school using the aggregate school and district codes described in the school type table.
2. Fall Only: Reports are also run by teaching district, and teaching school using the aggregate school and district codes described in the school type table.
3. Exclude students based on stugrade=12, student status, school type and participation status decision rules for aggregations.
4. The reports will be collated as follows:
 - a. Page 1 is the Title page.
 - b. Page 2 is the Participation Results
 - c. Page 3 is the Reading Historical and Subtopic Results
 - d. Page 4 is the Reading Disaggregated Results
 - e. Page 5 is the Math Historical and Subtopic Results
 - f. Page 6 is the Math Disaggregated Results
 - g. Page 7 is the Writing Historical and Subtopic Results (for Grades 05 and 08 only)
 - h. Page 8 is the Writing Disaggregated Results (for Grades 05 and 08 only)
 - i. Page 7 is the Writing Historical Results (for Grade 11 only)
 - j. Page 8 is the Writing Subtopic Results Page (for Grade 11 only)
 - k. Page 9 is the Writing Score Distribution Results (for Grade 11 only)
 - l. Page 10 is the Writing Disaggregated Results (for Grade 11 only)
5. Report Header Information
 - a. "Fall YYYY Beginning of Grade XX NECAP Tests" where XX is the single digit grade level and YYYY is the year, will print as the title.
 - b. Teaching level reports will have the following subtitle: "Grade XX-1 Students in (YYYY-1)-(YYYY)".
 - c. Testing level reports will have the following subtitle: "Grade XX Students in (YYYY)-(YYYY+1)".
 - d. Use abbreviated school and district name from ICORE based on school type decision rules.
 - e. Print "Maine", "New Hampshire", "Rhode Island", or "Vermont" to reference the state. The state graphic is printed on the first page.
 - f. For NH print SAU, district, and school codes separated by '-' for Code on first page for school level. Print SAU and district codes separated by '-' for the district level. Print the full state name for the state level.
 - g. For ME, RI, and VT print district and school codes separated by '-' for Code on first page for the school level. Print the district code for the district level. Print the full state name for the state level.
6. For achievement level and participation category data if the number of students in an achievement level or participation category does not equal 0, and the percent of students is 0 then format the percent as <1.
7. Report Section: Participation in NECAP
 - a. For testing level reports always print number and percent based on school type decision rules.

- b. For the teaching level reports leave the section blank.
 - 8. Report Section: NECAP Results by content area
 - a. For the testing level report always print based on minimum N-size and school type decision rules.
 - b. For the teaching level report leave Enrolled, NT Approved, and NT Other blank. Print Tested, number and percent at each achievement level, mean scaled score based on minimum N-size and school type decision rules.
 - 9. Report Section: Historical NECAP Results by content area
 - a. For tested level report always print current year, prior years, and cumulative total results based on minimum N-size and school type decision rules.
 - b. For teaching level report leave Enrolled, NT Approved, and NT Other blank. Print Tested, number and percent at each achievement level, mean scores based on minimum N-size and school type decision rules.
 - c. Bold current year data.
 - 10. Report Section: Subtopic Results by content area
 - a. For testing and teaching level reports always print based on minimum N-size and school type decision rules
 - 11. Report Section: Historical Score Comparison(Grade 11 Writing Only)
 - a. For testing and teaching level reports always print based on minimum N-size and school type decision rules
 - b. The subtopic associated with the current year common prompt will appear first. The other subtopics will appear in the following GE sort order.
 - I. Response to Literary Text
 - II. Response to Informational Text
 - III. Reflective Essay
 - IV. Report
 - V. Persuasive Essay
 - VI. Procedure
 - 12. Report Section: Common Prompt Score Distribution(Grade 11 Writing Only)
 - b. For testing and teaching level reports always print based on minimum N-size and school type decision rules
 - 13. Report Section: Disaggregated Results by content area
 - a. For testing level report always print based on minimum N-size and school type decision rules.
 - b. For teaching level report leave Enrolled, NT Approved, and NT Other blank. Print Tested, number and percent at each achievement level, mean scores based on minimum N-size and school type decision rules.
- C. School/District/State Summary(School Level is run in the Fall Only)
 - 1. Report Header Information
 - a. Use abbreviated school and district name from ICORE based on school type decision rules.
 - b. Print “Maine”, “New Hampshire”, “Rhode Island”, or “Vermont” to reference the state.

- c. For NH print SAU, district, and school codes separated by '-' for Code on first page for school level. Print SAU and district codes separated by '-' for the district level. Print the full state name for the state level.
 - d. For ME, RI, and VT print district and school codes separated by '-' for Code on first page for the school level. Print the district code for the district level. Print the full state name for the state level.
2. Reports are run by testing state, testing district, testing school (Fall Only) using the aggregate school and district codes described in the school type table
 3. Fall Only: Reports are also run by teaching district, and teaching school using the aggregate school and district codes described in the school type table.
 4. Exclude students based on StuGrade=12, student status, school type and participation status decision rules for aggregations.
 5. For achievement level and participation category data if the number of students in an achievement level or participation category does not equal 0, and the percent of students is 0 then format the percent as <1.
 6. For testing level report print entire aggregate group across grades tested and list grades tested results based on minimum N-size and school type decision rules. Mean scores across the grades is not calculated.
 7. For the teaching level report leave Enrolled, NT Approved, and NT Other blank. Print Tested, number and percent at each achievement level, mean scaled score based on minimum N-size and school type decision rules. Mean scores across the grades is not calculated.
 8. Printed Grade Column
 - a. For the all grades row, display the school, district, or state name.
 - b. For grades 3-8 and 11 rows print Beginning of Grade X.
- D. Writing Prompt CD
1. The booklet number associated with the writing prompt score will be stored in tblStuDemo.

V. Data Requirements Interactive Reporting

- A. Student Level
1. Refer to Sections II and III. D for decision rules on how student test data will be stored.
 2. Students will be loaded into the Interactive System based off of the Interactive flag in tblStuDemo. Students with Interactive flag set to 0 will not be loaded into the system. Students with Interactive set to 1 will be loaded.
 - a. Students with StuStatus value of 1, 2 or 3 or RI StuGrade=12 will have the Interactive flag set to 0.
 - b. All others will have Interactive=1.
 3. The Included flag will determine which students are included in school level aggregations. Students with Included=0 are excluded from all aggregations. Students with Included=2 will be included in Performance Level aggregations and excluded from raw score aggregations (item, subcategory, and total raw score). Students with Included=1 will be included in all school level aggregations.
 - a. Students with a Not Tested Participation Status, StuStatus=1, 2, or 3, or RI StuGrade=12 will have their Included flag set to 0.
 - b. Students who do fall into the above group and have Participation Status of Tested Damaged SRB will have their Included flag set to 2.

- c. All other students will have their Included flag set to 1.
- 4. Longitudinal Data
 - a. Only students with a valid StudentID and Interactive flag=1 will be loaded.
 - b. The complete achievement level name or not tested reason will be stored .
- B. Aggregate Level
 - 1. Data Analysis will compute Item Averages for the whole group only at the testing and teaching (Fall only) School and District Levels.
 - 2. Data Analysis will compute Item Averages for all of the filter combinations that exist at the State Level.
 - 3. Data Analysis will create a lookup table with all of the possible filter combinations. It will contain the variable Filter with length 5. Each position represents one of the filter variables. It will contain all the possible combinations of the values plus nulls for when variables are not selected. The first position will be Gender, second Ethnic, third IEP, fourth LEP, and fifth EconDis.
 - 4. Data Analysis will compute Item Averages, Achievement Level Summary, and Item Summary data for the filter combinations for a sample of schools for quality assurance review.
 - a. For this sample, percents will be rounded to the nearest whole number and open response average scores will be rounded to the nearest tenth.
 - b. For the Item Summary data, item responses other than A, B, C, and D will be counted in the IR column.

VI. Data File Rules

In the file names GR refers to the two digit grade (03-08, 11), YYYY refers to the year, DDDDD refers to the district code, and SS refers to two letter state code. Refer to the tables at the end of this section for filenames and layouts. Teaching level data files will be produced in the Fall Only.

- A. Preliminary State Results
 - 1. A PDF file will be created for each state containing preliminary state results for each grade and subject and will list historical state data for comparison.
 - 2. The file name will be SS Preliminary Results DATE.pdf
- B. State Student Released Item Data
 - 1. A CSV file will be created for each state for grades 3-8 and one for grade 11.
 - 2. One CSV file will be created for each state in the Spring.
 - 3. Accommodation Flags
 - a. If the student has at least 1 standard accommodation marked (excluding M) for a given subject then set [sub]STDaccom flag to '1'. Otherwise set it to '0'.
 - b. For each group of accommodations (S, T, P, R, and O) if a student has any accommodation in that group marked set [sub]Accom[group]='1'. Otherwise set it to '0'.
 - c. If a student has the M2 accommodation marked, then set [sub]AccomM2='1'. Otherwise set it to '0'.
 - d. If a student has the M3 accommodation marked, then set [sub]AccomM3='1'. Otherwise set it to '0'.
 - 4. Exclusion Rules

- a. NH: If the student has a testing school type of 'PRI' or StuStatus is 1,2 ,3,or 4 then exclude the student
 - b. RI: If testing school type is PRI and teaching school type is PRI or blank, then exclude the student.
 - c. VT: Do not exclude any students
 - d. ME: If the student has a StuStatus is 1,2 ,3,or 4 then exclude the student
- C. State Student Raw Data
- 1. A CSV file will be created for each state by grade span. The grade spans are 3-4, 5-8, and 11. In the spring, all grades will be combined.
 - 2. If the student has at least 1 standard accommodation marked (excluding M) for a given subject then set [sub]STDaccom flag to '1'. Otherwise set it to '0'.
 - 3. Exclusion Rules
 - a. NH: If the student has a testing school type of 'PRI' or StuStatus is 1,2, 3,or 4 then exclude the student
 - b. RI: If testing school type is PRI and teaching school type is PRI or blank, then exclude the student.
 - c. VT: Do not exclude any students
 - d. ME: If the student has a StuStatus is 1,2 ,3,or 4 then exclude the student.
- D. State Student Scored Data
- 1. A CSV file will be created for each state including all grades.
 - 2. Exclusion Rules
 - a. NH: If the student has a testing school type of 'PRI' or StuStatus is 1,2 3,or 4 then exclude the student
 - b. RI: If testing school type is PRI and teaching school type is PRI or blank, then exclude the student.
 - c. VT: Do not exclude any students
 - d. ME: If the student has a StuStatus is 1,2 ,3,or 4 then exclude the student.
- E. District Student Data
- 1. Testing and teaching CSV files will be created for each state and grade and district.
 - 2. Students with the Discode or SendDiscode will be in the district grade specific CSV file for the testing year.
 - 3. Fall Only: Students with a sprDiscode or sprSendDiscode will be in the district grade specific CSV file for the teaching year.
 - 4. For ME, NH, and RI only public school districts will receive district data files. (Districts with at least one school with schoolsubtypeID=1, 11, 19, or 15 in ICORE)
 - 5. Accommodation Flags
 - a. If the student has at least 1 standard accommodation marked (excluding M) for a given subject then set [sub]STDaccom flag to '1'. Otherwise set it to '0'.
 - b. For each group of accommodations (S, T, P, R, and O) if a student has any accommodation in that group marked set [sub]Accom[group]='1'. Otherwise set it to '0'.
 - c. If a student has the M2 accommodation marked, then set [sub]AccomM2='1'. Otherwise set it to '0'.

- d. If a student has the M3 accommodation marked, then set [sub]AccomM3='1'. Otherwise set it to '0'.
6. Exclusion Rules
 - a. NH & RI: If the student has a StuStatus value of 1,2, or 3 then exclude the student
 - b. VT: If the student has a StuStatus value of 1, then exclude the student.
 - c. ME: If the student has a StuStatus is 1, 2, or 3 then exclude the student.
- F. School Student Data
1. Testing and teaching CSV files will be created for each state and grade and school.
 2. Students with the SchCode will be in the school grade specific CSV file for the testing year.
 3. Fall Only: Students with the sprSchcode will be in the school grade specific CSV file for the teaching year.
 4. Accommodation Flags
 - a. If the student has at least 1 standard accommodation marked (excluding M) for a given subject then set [sub]STDaccom flag to '1'. Otherwise set it to '0'.
 - b. For each group of accommodations (S, T, P, R, and O) if a student has any accommodation in that group marked set [sub]Accom[group]='1'. Otherwise set it to '0'.
 - c. If a student has the M2 accommodation marked, then set [sub]AccomM2='1'. Otherwise set it to '0'.
 - d. If a student has the M3 accommodation marked, then set [sub]AccomM3='1'. Otherwise set it to '0'.
 5. Exclusion Rules
 - a. NH & RI: If the student has a StuStatus value of 1,2 or 3, then exclude the student
 - b. VT: If the student has a StuStatus value of 1, then exclude the student.
 - c. ME: If the student has a StuStatus is 1, 2, or 3 then exclude the student.
- G. Common Item Information
1. An excel file will be created containing item information for common items: grade, subject, released item number, item analysis heading data, raw data item name, item type, key, and point value.
- H. State Standard Deviations and Averages Scaled Scores
1. A csv file will be created for each state containing the standard deviations and average scale scores for disaggregated subgroups by subject.
 2. Exclude students based on state aggregation StuGrade, StuStatus, and SchType decision rules.
 3. Data will be suppressed based on minimum N-size and report type decision rules.
 4. Average scaled score will be rounded to the nearest whole number. Standard deviations will be rounded to the nearest tenth.
- I. Grade Level Results Report Disaggregated and Historical Data
1. Teaching and testing CSV files will be created for each state containing the grade level results disaggregated and historical data.
 2. Data will be suppressed based on minimum N-size and report type decision rules.
 3. Private schools are excluded from NH & RI files.
- J. Grade Level Results Report Participation Category Data

1. Testing CSV file will be created for each state containing the grade level results participation data.
 2. Private schools are excluded from NH & RI files.
- K. Grade Level Results Report Subtopic Data
1. Teaching and testing CSV files will be created for each state containing the grade level results subtopic.
 2. Data will be suppressed based on minimum N-size and report type decision rules.
 3. Private schools are excluded from NH & RI files.
- L. Summary Results Data
1. Teaching and testing CSV files will be created for each state containing the school, district and state summary data.
 2. Data will be suppressed based on minimum N-size and report type decision rules.
 3. Private schools are excluded from NH & RI files.
- M. Released Item Percent Responses Data
1. The CSV files will only contain state level aggregation for released items.
 2. CSV files will be created for each state and grade containing the released item analysis report state data.
- N. Invalidated Students Original Score
1. A CSV file will be created for each state including all grades.
 2. Original raw scores for students whose responses were invalidated for reporting will be provided.
 3. Exclusion Rules
 - a. NH: If the student has a testing school type of 'PRI' or StuStatus is 1,2, 3, or 4 then exclude the student
 - b. RI: If testing school type is PRI and teaching school type is PRI or blank, then exclude the student.
 - c. VT: Do not exclude any students
 - d. ME: If the student has a StuStatus is 1,2 ,3,or 4 then exclude the student.
- O. Student Questionnaire Summary
1. One CSV file will be created for each state containing percent of students at each response, percent of students at each achievement level, and average scaled score, by student questionnaire response.
 2. Only include students who are included in state level aggregations.
 3. Data will be suppressed based on minimum N-size and report type decision rules.
- P. TCTA Questionnaire Raw Data
1. One CSV file will be created for each state containing raw TC Questionnaire data.
 2. One CSV file will be created for each state containing raw TA Questionnaire data.
- Q. TCTA Questionnaire Frequency Distribution
1. One CSV file will be created for each state containing the distribution of responses of TC Questionnaire raw data.

2. One CSV file will be created for each state containing the distribution of responses of TA Questionnaire raw data.
- R. Scaled Score Lookup
1. One CSV file and one excel file will be created containing the scaled score lookup data.
- S. Grade 11 Writing Score Distribution Results
1. Testing CSV file will be created for each state containing the grade level results participation data.
 2. Private schools are excluded from NH & RI files.
- T. Grade 11 Writing Historical Subtopic Results
1. Testing CSV file will be created for each state containing the grade level results participation data.
 2. Private schools are excluded from NH & RI files.
- U. Subtopic Average Points Earned (For Program Management)
1. One excel file will be created containing four worksheets. The first worksheet contains the total possible points for each subtopic as reported on the item analysis report and the range for students who are just proficient. The remaining three worksheets contain state average subtopic scores as reported on the item analysis report.
 2. Program management uses this file to create a document which is provided to the schools.
- V. Item Stats for Inquiry Task Items (For Program Management)
1. Since Inquiry Task Items are not stored in IABS, one CSV file will be created containing item stats for Inquiry Task items.
 2. All three states are included in the calculations.
- W. Memo Shipping Files (For Program Management)
1. Provide PM in excel list of schools and districts that tested regardless of grade.
- X. CD Print File
- Y. Fall Table Data File Deliverables

Data File	Layout	File Name
Preliminary State Results	N/A	Included in Equating Report
State Student Released Item Data	NECAP1112FallStudentReleasedItemLayout.xls(one worksheet for grade 11 and one worksheet for 03-08)	NECAP1112FallStateStudentReleasedItem[GS].csv GS=0308 or 11
State Student Raw Data	NECAP1112FallStateStudentRawLayout.xls (one worksheet for each of the 4 unique test designs)	NECAP1112FallStateStudentRaw[GS].csv Gs=0304, 0508, or 11
State Student Scored Data	NECAP1112FallStateStudentScoredLayout.xls	NECAP1112FallStateStudentScored.csv
District Student Data	NECAP1112FallStudentReleasedItemLayout.xls(one worksheet for grade 11 and one worksheet for 03-08)	NECAP1112FallTestingDistrictSlice[GR]_[District Code].csv NECAP1112FallTeachingDistrictSlice[GR]_[District Code].csv
School Student Data	NECAP1112FallStudentReleasedItemLayout.xls(one worksheet for grade 11 and one worksheet for 03-08)	NECAP1112FallTestingSchoolSlice[GR]_[District Code][School Code].csv NECAP1112FallTeachingSchoolSlice[GR]_[District Code][School Code].csv

Common Item Information	NECAP1112FallCommonItemInformationLayout.xls	NECAP1112FallCommonItemInformation.xls
Grade Level Results Report Disaggregated and Historical Data	NECAP1112FallResultsReportDisaggregatedandHistoricalLayout.xls	NECAP1112FallResultsReportTestingDisaggregatedandHistorical.csv NECAP1112FallResultsReportTeachingDisaggregatedandHistorical.csv
State Standard Deviations and Average Scaled Scores	NECAP1112FallStateStandardDeviationsLayout.xls	NECAP1112FallStateStandardDeviations.csv
Grade Level Results Report Participation Category Data	NECAP1112FallResultsReportParticipationLayout.xls	NECAP1112FallResultsReportTestingParticipation.csv
Grade Level Results Report Subtopic Data	NECAP1112FallResultsReportSubtopicLayout.xls	NECAP1112FallResultsReportTestingSubtopic.csv NECAP1112FallResultsReportTeachingSubtopic.csv
Summary Results Data	NECAP1112FallSummaryResultsLayout.xls	NECAP1112FallSummaryResultsTesting.csv NECAP1112FallSummaryResultsTeaching.csv
Released Item Percent Responses Data	NECAP1112FallReleasedItemPercentResponsesLayout.xls	NECAP1112FallReleasedItemPercentResponses.csv
Invalidated Students Original Score	NECAP1112FallStateInvalidatedStudentOriginalScoreLayout.xls	NECAP1112FallStateInvalidatedStudentOriginalScore.csv
Student Questionnaire Summary	NECAP1112FallStudentQuestionnaireSummaryLayout.xls	NECAP1112FallStudentQuestionnaireSummary.csv
TCTA Questionnaire Raw Data	NECAP1112FallTCTAQuestionnaireRawLayout.xls NECAP1112FallTAQuestionnaireRawLayout.xls	NECAP1112FallTCTAQuestionnaireRaw.csv NECAP1112FallTAQuestionnaireRaw.csv
TCTA Questionnaire Frequency Distribution	NECAP1112FallTCTAQuestionnaireFreqLayout.xls	NECAP1112FallTCTAQuestionnaireFreq.csv
Scaled Score Lookup	NECAP1112FallScaleScoreLookupLayout.xls	NECAP1112FallScaleScoreLookup.xls NECAP1112FallScaleScoreLookup.csv
Grade 11 Writing Score Distribution Results	NECAP1112FallResultsReportGrade11WriScoreDistributionLayout.xls	NECAP1112FallResultsReportGrade11WriScoreDistributionTesting.xls NECAP1112FallResultsReportGrade11WriScoreDistributionTeaching.xls
Grade 11 Writing Historical Subtopic	NECAP1112FallResultsReportGrade11WriHistoricalSubtopicLayout.xls	NECAP1112FallResultsReportGrade11WriHistoricalSubtopicTesting.xls NECAP1112FallResultsReportGrade11WriHistoricalSubtopicTeaching.xls

Results		
Subtopic Average Points Earned (For Project Management)	N/A	NECAP1112FallSubtopicAvgPointsEarned.xls
Memo Shipping Files (For Program Management)	N/A	TBD
CD Print File	N/A	TBD

A. Spring Table Data File Deliverables

Data File	Layout	File Name
Preliminary State Results	N/A	Included in Equating Report
State Student Released Item Data	NECAP1112SpringStudentReleasedItemLayout.xls	NECAP1112SpringStateStudentReleasedItem.csv
State Student Raw Data	NECAP1112SpringStateStudentRawLayout.xls	NECAP1112SpringStateStudentRaw.csv
State Student Scored Data	NECAP1112SpringStateStudentScoredLayout.xls	NECAP1112SpringStateStudentScored.csv
District Student Data	NECAP1112SpringStudentReleasedItemLayout.xls	NECAP1112SpringDistrictSlice[GR]_[District Code].csv
School Student Data	NECAP1112SpringStudentReleasedItemLayout.xls	NECAP1112SpringSchoolSlice[GR]_[District Code][School Code].csv
Common Item Information	NECAP1112SpringCommonItemInformationLayout.xls	NECAP1112SpringCommonItemInformation.csv
State Standard Deviations and Average Scaled Scores	NECAP1112SpringStateStandardDeviationsLayout.xls	NECAP1112SpringStateStandardDeviations.csv
Grade Level Results Report Disaggregated and Historical Data	NECAP1112SpringResultsReport DisaggregatedandHistoricalLayout.xls	NECAP1112SpringResultsReportDisaggregatedandHistorical.csv
Grade Level Results Report Participation Category Data	NECAP1112SpringResultsReport ParticipationLayout.xls	NECAP1112SpringResultsReportParticipation.csv
Grade Level Results Report Subtopic Data	NECAP1112SpringResultsReport SubtopicLayout.xls	NECAP1112SpringResultsReportSubtopic.csv
Summary Results Data	NECAP1112SpringSummaryResultsLayout.xls	NECAP1112SpringSummaryResults.csv
Released Item Percent	NECAP1112SpringReleasedItemPercentResponsesLayout.xls	NECAP1112SpringReleasedItemPercentResponses.csv

Responses Data		
Invalidated Students Original Score	NECAP1112SpringStateInvalidatedStudent OriginalScoredLayout.xls	NECAP1112SpringStateInvalidatedStudent OriginalScored.csv
Student Questionnaire Summary	NECAP1112SpringStudentQuestionnaireSummaryLayout.xls	NECAP1112SpringStudentQuestionnaireSummary.csv
TCTA Questionnaire Raw Data	NECAP1112SpringTCQuestionnaireRawLayout.xls NECAP1112SpringTAQuestionnaireRawLayout.xls	NECAP1112SpringTCQuestionnaireRaw.csv NECAP1112SpringTAQuestionnaireRaw.csv
TCTA Questionnaire Frequency Distribution	NECAP1112SpringTCTAQuestionnaireFreqLayout.xls	NECAP1112SpringTCTAQuestionnaireFreq.csv
Scaled Score Lookup	NECAP1112SpringScaleScoreLookupLayout.xls	NECAP1112SpringScaleScoreLookup.xls NECAP1112SpringScaleScoreLookup.csv
Subtopic Average Points Earned (For Project Management)	N/A	NECAP1112SpringSubtopicAvgPointsEarned.xls
Item Stats for Inquiry Task Items (For Program Management)	N/A	NECAP1112SpringInquiryItemStats.csv
Memo Shipping Files (For Program Management)	N/A	TBD