Maryland High School Assessment
2008 Technical Report

Algebra/Data Analysis
Biology
English
Government

Educational Testing Service
May 2009

Forward

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

Table of Contents

List of Tables

List of Tables (continued)

List of Figures

Introduction

The Maryland High School Assessments (MDHSAs) consisted of end-of-course tests in Algebra/Data Analysis, Biology, English, and Government. The MDHSAs are referred to as "end-of-course" tests because students take each test as they complete the appropriate coursework. In addition, results from the English and Algebra administrations are used in the Maryland State Department of Education (MSDE) Adequate Yearly Progress reports, required under the No Child Left Behind Act (NCLB) for the 2008 school year. In 2008, MSDE began using the Biology assessment to meet the NCLB high school science requirement.

Students entering 9th grade in the 2005-2006 school year and in subsequent school years are required to earn satisfactory scores on all four HSAs in order to earn a Maryland High School Diploma[1]. Information on the interpretation of scores was provided to students, parents, schools and other stakeholders via the MSDE website.

The MDHSAs consist of paper-and-pencil tests that contain selected-response (SR) items, which require students to choose between four short response options; brief constructed response (BCR) items, which require students to write a short response; and extended constructed response (ECR) items, which require students to write a longer response. In addition, Algebra/Data Analysis tests include items that require a student-produced response (SPR); students must grid in their responses on the answer document. The SR and SPR items are machine-scored; the BCR and ECR items are scored by raters. All items are based on content outlined in Maryland's Core Learning Goals[2] (CLG).

This report provides information about the October 2007, January 2008, May 2008, and Summer (July/August) 2008 administrations. Administering the HSAs in October occurred for the first time in 2007; one form was constructed for this administration. For the January 2008 administration, two forms were administered; one for the primary administration window and one for the make-up administration window. For the May 2008 administration, twelve test forms were constructed; ten for the primary administration window, and one for each of two make-up administration windows. For the Summer 2008 administration, two forms were constructed; one for the first week of testing and one for the second week of testing.

Each test form consisted of operational and field test items. Operational items were used to produce student scores. Field test items were scored along with the operational items, but examinees' scores on these items were not included in the computation of a total test score. Performance on the field test items was analyzed, and all flagged items were reviewed. Field test items that were approved by ETS content specialists and calibrated

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[1] More information on the testing requirement for graduation is available on the Maryland State Department of Education Web site at http://mdk12.org/assessments/high_school/index.html
[2] The HSA Core Learning Goals documents can be found on the Maryland School Improvement website at http://www.mdk12.org/assessments/standards/9-12.html

were then marked as available for use in the item bank. Items that are deemed unacceptable are marked as "Unavailable" and may be revised and re-field tested in the future. With the exception of items selected for public release, the operational items that are returned to the item bank must remain unused for at least one year to minimize item exposure.

The item response models used to calibrate the items in the MDHSA tests were the three-parameter logistic (3PL) model and the two-parameter partial credit (2PPC) model, also known as the generalized partial credit model (GPCM; see Section 5). These models were used to generate both total test scores and subscores. The total test scores were generated using item-pattern (IP) scoring, and the subscores were generated using raw score (RS) to scale score (SS) tables. Total test results in the scale score metric were reported to students. Subscores were not reported to students but were aggregated at the classroom level to provide teachers and administrators with additional information about student performance in each of the subscore categories.

Beginning with the 2004 administration, a pre-equated design was implemented; prior to 2004, scores were based on parameters that were estimated following the administration using a post-equated[3] design. In the pre-equated design, item parameters are not estimated following an administration; instead existing bank parameters are used to produce student scores. Using this design, scores can be calculated and assigned to students immediately after their answer documents have been processed.

All technical support and analyses were carried out in accordance with both the *ETS Standards for Quality and Fairness* (2002) and the *Standards for Educational and Psychological Testing*, issued jointly by the American Educational Research Association, American Psychological Association, and National Council on Measurement in Education (1999).

This technical report consists of five sections and two Appendices. Section 1 describes test development, form construction and administration details; Section 2 discusses the validity of the MDHSAs; Section 3 describes the scoring procedures and score types; Section 4 provides statistical summary results for each of the test forms administered; and Section 5 describes the analysis of the field test data including classical item analysis, differential item functioning, and item response theory calibration and scaling. Appendix A provides classical item statistics for each operational test item by form administered. Appendix B provides classical item statistics for each field-test item administered.

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[3] In the post-equated design, anchor items representative of the content and difficulty of the test forms were used to equate the test forms using a Stocking and Lord procedure (CTB/McGraw-Hill, December, 2003).

Section 1. Test Construction and Administration

Test Development

Planning

Planning for the test development process began with the creation of item development plans for each content area. ETS content leaders collaborated with their content counterparts at MSDE to create these plans. The item bank was reviewed to determine how well the available item pool matched the test form requirements set forth in the test form blueprint as defined by the Core Learning Goals and the 2007-2008 form construction templates provided by MSDE. Areas that contained low item counts were given priority when determining which indicators were to be addressed by the item writers. After these critical need areas were defined and addressed, any remaining items to be developed (as determined by the requirements set forth in the RFP) were distributed among the indicators in a fashion that would best ensure sufficient numbers of items would be available to use in the construction of forms for future administrations.

Test Specifications and Design

The basic test design was pre-determined by MSDE and provided to ETS in the form of the content specific "Test Specs – Test Form Matrix" document presented in Tables 1.2 to 1.5. This basic test design document provided information based on specified expectations and the distribution of the number of items by item type for each reporting category. How the specific items were placed throughout the forms was left to the collaborative efforts of the ETS and MSDE content specialists. Construction of the forms was based on test blueprints approved by MSDE.

Item Type

As noted in the introduction, there were four item types that were used in the MDHSA tests. Table 1.1 shows how these item types and associated points were distributed by content area. These item types include:

- selected response (SR) – multiple-choice format question with four answer options, each SR item is worth one point
- student produced response (SPR) – an item type used in Algebra only, for which the student works the problem and records the answer in an answer grid; each SPR item has a maximum score of 1
- brief constructed response (BCR) – a writing prompt for which the written response is not longer than a page (26 lines); each BCR item has a maximum score of 3
- extended constructed response (ECR) – a writing prompt for which the written response is no longer than two pages (52 lines); each ECR has a maximum score of 4.

Table 1.1 Number of Operational Items and Points by Item Type for each MDHSA Content Area

Content Area	Operational Items by Item Type					Points by Item Type				
	SR	SPR	BCR	ECR	Total	SR	SPR	BCR	ECR	Total
Algebra	26	6	3	3	38	26	6	9	12	53
Biology	48	-	7	-	55	48	-	28	-	76
English	46	-	2	2	50	46	-	6	8	60
Government	50	-	7	1	58	50	-	28	4	82

Item Writing

Item writers were employed to develop high quality test items that were aligned with Core Learning Goals. At least 50% of the item writers were Maryland educators, though for most content areas the percentage was closer to 100. The item writers were selected on the basis of their depth of content knowledge and familiarity with the MDHSA testing program. Many were experienced item-writers with the MDHSA program.

The item writers were trained on general item writing techniques as well as writing guidelines that were specific to the MDHSA program. Approximately one month after the initial item writer training, a follow-up training session was provided. The session was designed to evaluate how well their writing skills had developed to that point, to facilitate peer review of items, and to provide constructive feedback to guide the rest of their writing assignment.

Upon completion of their writing assignment, item writers submitted their items to ETS. The items that were accepted proceeded to the item review and revision process.

Item Review and Revision

All items underwent a series of editorial reviews in accordance with the following procedures:

- Items edited according to standard rules developed in conjunction with MSDE.
- Items reviewed for accuracy, organization, comprehension, style, usage, consistency and fairness/sensitivity.
- Item content reviewed to establish whether the item measured the intended Goal-Expectation-Indicator-Assessment Limit, with the Goal being the broadest category and Assessment Limit being the narrowest parameter of content being assessed. Assessment Limit is defined as the maximum domain from which test questions will be developed.

- Verification that copyright and/or trademark permissions had been obtained for any materials requiring permissions, for both field test and operational material.
- Internal reviews conducted and historical records established for all version changes.

After ETS performed the required internal reviews, items were submitted to MSDE for review. If the MSDE content specialist requested an original version of the item as submitted by the item writer, a copy was provided. Any associated stimulus material, graphic, and/or art was provided as well as information regarding the Goal-Expectation-Indicator-Assessment Limit that each question addressed.

MSDE content specialists performed a review of the items and provided feedback to ETS content specialists. The edits were incorporated into the items. MSDE and ETS content specialists met to conduct a side-by-side review of the items. Any final edits to the items were made. The items were then prepared for review by the Content and Bias/Sensitivity Review Committees. All constructed response items were also submitted to Measurement Incorporated (MI) for review.

The final round of reviews involved the Content Review and Bias/Fairness Review Committees. These committees were diverse groups of Maryland educators who reviewed each item to ensure that the content in each item: a) accurately reflected what was taught in Maryland schools; b) correctly matched the intended CLG indicator; and c) did not unfairly favor or disadvantage an individual or group.

Upon completion of this final round of review, MSDE and ETS content specialists conducted another side-by-side meeting to evaluate reviews by MI, the Content Review Committee, and the Bias/Fairness Review Committee and to reconcile the results of the various groups. The ETS content specialist then made the requested edits to the items and/or revisions to the accompanying graphics. The items that survived this process were then eligible for placement in the field test sections of the test forms.

Testing Accommodations

A number of special test forms are available to HSA examinees, including Large-print, Braille, and Kurzweil versions of the HSA developed for each content area. All three special versions of the test are available at each administration. Data from the special forms are included in the psychometric analyses.

Test Specifications

All of the 2008 test forms were constructed using items from the Maryland item bank. The pool of items available for use in the construction of the 2008 forms included all items that had been administered, calibrated and linked to the operational scale. For Algebra, Biology, and Government, the MDHSA operational scale was defined in 2003 and included items administered in 2002 and 2003. For English, the scale was re-defined

in 2005 when the English test was updated to become an end-of-course assessment for English 2. Items flagged for poor fit and items flagged for substantial differential item functioning (DIF) against one of the focal groups were excluded from the available item pool. Please refer to Section 5 for a more detailed account of these analyses and flagging criteria.

Each test form was constructed to meet specific test blueprints. Tables 1.2 through 1.5 indicate the distribution of items within each reporting category by item type and the number of score points associated with each item type. The forms for Algebra, Biology, and Government consisted of two sessions administered within a single sitting; the forms for English consisted of three sessions administered within a single sitting. Sessions were separated by a short break.

Rubrics for items can be found at the following locations:

http://www.mdk12.org/assessments/high_school/look_like/algebra/rubric.html

http://www.mdk12.org/assessments/high_school/look_like/biology/rubric.html

http://www.mdk12.org/assessments/high_school/look_like/english/rubric.html

http://www.mdk12.org/assessments/high_school/look_like/government/rubric.html

Table 1.2 Algebra Blueprint

ALGEBRA					
Reporting Category	**Number of Items**				**Total Points per Category**
	SR (1 pt)	**SPR** (1 pt)	**BCR** (3 pts)	**ECR** (4 pts)	
Expectation 1.1 The student will analyze a wide variety of patterns and functional relationships using the language of mathematics and appropriate technology	8	1	0	1	13
Expectation 1.2 The student will model and interpret real-world situations, using the language of mathematics and appropriate technology.	10	3	0	1	17
Expectation 3.1 The student will collect, organize, analyze, and present data.	4	2	2	0	12
Expectation 3.2 The student will apply the basic concepts of statistics and probability to predict possible outcomes of real-world situations.	4	0	1	1	11
TOTAL	26	6	3	3	53

Note: Information on the referenced indicators can be found in the Maryland Core Learning Goals. The HSA Core Learning Goals documents can be found on the Maryland School Improvement website at http://www.mdk12.org/assessments/standards/9-12.html

Table 1.3 Biology Blueprint

BIOLOGY				
Reporting Category	**Number of Items**			**Total Points per Category**
	SR (1 pt)	**BCR** (4 pts)	**ECR** (4 pt)	
Goal 1 Skills and Processes of Biology	8	2	0	16
Expectation 3.1 Structure and Function of Biological Molecules	8	1	0	12
Expectation 3.2 Structure and Function of Cells and Organisms	9	1	0	13
Expectation 3.3 Inheritance of Traits	9	1	0	13
Expectation 3.4 Mechanism of Evolutionary Change	5	1	0	9
Expectation 3.5 Interdependence of Organisms in the Biosphere	9	1	0	13
TOTAL	48	7	0	76

Note: Information on the referenced indicators can be found in the Maryland Core Learning Goals. The HSA Core Learning Goals documents can be found on the Maryland School Improvement website at http://www.mdk12.org/assessments/standards/9-12.html

Table 1.4 English Blueprint

ENGLISH				
Reporting Category	**Number of Items**			**Total Points per Category**
	SR (1 pt)	**BCR** (3 pts)	**ECR** (4 pt)	
1: Reading and Literature: Comprehension and Interpretation (RC) Includes the following indicators: 1.1.1; 1.1.2; 1.1.3; 1.2.1; 1.3.3; 3.2.2	13	1	0	16
2: Reading and Literature: Making Connections and Evaluation (RE) Includes the following indicators: 1.1.4; 1.2.2; 1.2.3; 1.2.4; 1.2.5; 1.3.5; 4.1.1; 4.2.1	11	1	0	14
3: Writing - Composing (WC) Includes the following indicators: 2.1.1; 2.1.4; 2.2.1; 2.2.2; 2.2.3; 2.2.5; 2.3.1; 2.3.3; 4.3.1	8	0	2	16
4: Language Usage and Conventions (WL) Includes the following indicators: 3.1.3; 3.1.4; 3.1.6; 3.1.8; 3.3.1; 3.3.2	14	0	0	14
TOTAL	46	2	2	60

Note: Information on the referenced indicators can be found in the Maryland Core Learning Goals for English. The HSA Core Learning Goals documents can be found on the Maryland School Improvement website at http://www.mdk12.org/assessments/standards/9-12.html.

Table 1.5 Government Blueprint

GOVERNMENT				
Reporting Category	**Number of Items**			**Total Points per Category**
	SR	**BCR**	**ECR[a]**	
	(1 pts)	(4 pts)	(4 pts)	
Expectation1.1 The student will demonstrate understanding of the structure and functions of government and politics in the United States	13	2	1 (alt w/E2)	21-25
Expectation 1.2 The student will evaluate how the United States government has maintained a balance between protecting rights and maintaining order.	11	2	1 (alt w/E1)	19-23
Goal 2 The student will demonstrate an understanding of the history, diversity, and commonality of the peoples of the nation and world, the reality of human interdependence, and the need for global cooperation, through a perspective that is both historical and multicultural.	8	1	0	12
Goal 3 The student will demonstrate an understanding of geographic concepts and processes to examine the role of culture, technology, and the environment in the location and distribution of human activities throughout history.	7	1	0	11
Goal 4 The student will demonstrate an understanding of the historical development and current status of economic principles, institutions, and processes needed to be effective citizens, consumers, and workers.	11	1	0	15
TOTAL	50	7	1	82

Note: Information on the referenced indicators can be found in the Maryland Core Learning Goals. The HSA Core Learning Goals documents can be found on the Maryland School Improvement website at http://www.mdk12.org/assessments/standards/9-12.html

[a] The ECR item on the Government assessment is aligned to and reported as either Expectation 1 or Expectation 2. Forms are developed to alternate between the two expectations across an assessment year.

Item Selection and Form Design

In order to conserve the item pool, each test form consisted of a common set of operational items shared across forms within an administration as well as a unique set of items. Within a given administration (i.e., October, January, May, Summer), approximately 60% of the operational items in each form were common across the test sections. The remaining items in the forms consisted of combinations of items that varied across forms. The guidelines used to construct the forms are provided in Tables 1.6 to 1.8. The exact composition of the forms varied slightly based on available items in the pool.

Table 1.6 Form Construction Specifications for the October 2007Administration

Primary Week Form R
Operational items – Re-use of intact Summer '06 Form (Alg, Bio, Gov), and a mix of '05-'06 forms (English)
Field Test Section – Reuse of '06 ('07 as needed for English) FT set(s) - no new development

Table 1.7 Form Construction Specifications for the January 2008 Administration

Primary Week Form A	Primary Week Form B	Make-Up #1 Form C
Common set – 80%	Common set – 80%	Common set – 80%
Unique Items from the pool – 20% (same items as in Form B)	Unique Items from the pool – 20% (same items as in Form A)	Unique items from the pool – 20%
Field Test Section – unique items	Field Test Section – unique items	Field Test Section – a reuse of one or a combination of the field test sets used in forms A-B, with a preference for form A; however, the actual selection of field test items was determined by the constraints imposed by the operational items

Table 1.8 Form Construction Specifications for the May 2008 Administration

Primary Week Forms D -N	Make-Up #1 Form X	Make-Up #2 Form Y
Common Set –60%	Common Set –60%	Common Set – 60%
Unique Items from the pool – 40% (the same items for all Forms D – N)	Half of items from primary week's 40% Unique items – 20%	Other half of items from primary week's 40% items – 20%
	Unique items from the pool – 20%	Unique items from the pool – 20%
Field Test Section – unique sets of items for Forms D through N	Field Test Section – a reuse of one or a combination of the field test sets used in forms D-N, with a preference for form D; however, the actual selection of field test items was determined by the constraints imposed by the operational items	Field Test Section – a reuse of one or a combination of the field test sets used in forms E-K, with a preference of using the same set used for form X; however, the actual selection of field test items was determined by the constraints imposed by the operational items

Table 1.9 Form Construction Specifications for the Summer 2008Administration

Primary Week #1 Form L	Primary Week #2 Form M
Common Set –60%	Common Set –60%
Unique Items from the pool – 40%	Unique Items from the pool – 40%
Field Test Section – items repeated from Jan 08 forms	Field Test Section – items repeated from Jan 08 forms

In addition to the operational items, embedded field test items were included with each version of the test form, resulting in multiple versions of a test form containing different sets of field test items. While the number of operational items remained the same for all administrations, the percentage of field test items per form was increased for the May and Summer 2008 administrations to increase the item bank. The percentage of field test items per form varied by content area and administration, as shown in Table 1.10.

Table 1.10 Number of Operational (OP) and Field Test (FT) Items by Administration and Content Area

	October 2007 and January 2008			May 2008 and Summer 2008		
Content Area	OP Items	FT Items	% FT Items	OP Items	FT Items	% FT Items
Algebra	38	10	21%	38	15	28%
Biology	55	16	23%	55	30	35%
English*	50	15-21	23-29%	50	31-32	38-39%
Government	58	6	9%	58	30	34%

*In the English test forms the number of field test items differed slightly over forms because the item sets varied in size.

The items being field tested were a combination of newly written items and/or previously administered items that had been revised due to content concerns or problematic item statistics. The items with problematic statistics were judged to be acceptable from a content perspective, but had one or more of the following characteristics: p-values less than 0.25; item-total correlations of less than 0.15; collapsed score levels for constructed response items (i.e., very few responses in the top score levels); very high omit rates; or SR items with a positive point-biserial correlation for one or more distractors. For administrations in which there were more than one Primary form (January and May), the forms were spiraled at the student level. Spiraling at the student level means that multiple forms of the test were packaged in order (e.g., D, E, F, etc.) and distributed to students according to this order. Spiraling at the student level helps ensure that all forms are randomly distributed throughout the state.

Forms were constructed using the test construction software associated with the customer item bank. The goal was to match the test characteristic curves (TCC) and the conditional standard error of measurement curves (CSEM) with the "target" form defined as the base form used to set the operational scale. For Algebra, Biology, and Government, the base form was developed in 2003, for English the base form was developed in 2005. The TCC and CSEM curves were graphically displayed using item parameters associated with the operational items.

The general steps completed during the test construction process were:

1. For each administration, all forms were constructed simultaneously in order to provide the best opportunity to construct parallel forms.
2. First the common set of items was selected. Then items that matched the test blueprint were selected to match the target TCC and CSEM curves.

3. Test developers were careful to ensure that the item selections met all content specifications, including matching items to the test blueprint, distribution of keys, and avoidance of clueing[4] or clanging[5].
4. After the operational items were selected for the test forms, the field test sets were constructed. While the field test sets were not constructed to meet any psychometric criteria, they were constructed to meet content criteria. For Algebra, Biology, and Government, the field test sets were estimated to be completed by students in approximately 30 minutes. For English, the field test sets were estimated to be completed by students in approximately 40 minutes due to the additional time required to read the passages and stimuli. Field test sets consisted of SR items in all content areas. In addition, the sets consisted of SPR, BCR, and ECR in Algebra, BCR items in Biology, and either BCR or ECR items in English and Government. The field test items were embedded in the test according to a variety of content and template criteria, including, but not limited to, coverage of the reporting categories and assessment limits, cognitive balance, key balance/distribution, and clueing/clanging within the field test set and among the surrounding operational items.

Figures 1.1 to 1.8 show the plots of the TCCs and CSEMs for the target form and forms developed for each content area. It is important to note that the TCCs and CSEMs are based on pre-equated item parameters and therefore are theoretical curves calculated prior to administration of the tests. In general the TCCs and CSEMs closely matched the target curves. The TCC plots indicate that all forms for each content area were within the acceptable range of the target curve for the full range of scale score values. Where forms varied in difficulty, differences between forms were less than 5% of the total scale score, across the scale score range for Algebra, Biology and English. Four of the Government forms had differences slightly greater than 5% at the high end of the scale (500 to 530). As expected, the CSEM plots indicate that the CSEMs for each content area were lowest in the middle range of scale scores (375 to 475). Figures 1.9 through 1.12 contain the scale score distributions for the May 2008 administration by content area. These histograms have been included to aid interpretation of the CSEM plots by showing that the majority of students score in the middle range, where the CSEMs are smallest.

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[4] Clueing refers to information within a passage, stimulus, item, graphic, or other test component that allows respondents to select/construct the correct answer to one or more items in an assessment without the knowledge and/or skill targeted by the item.

[5] Clanging occurs when an identical or resembling word(s) appears in both the item stem and one or more item distractors. Also, if two or more items that are near each other share common key words, even if the item content does not clue, the items are said to clang because the interpretation of the word in one item can affect the interpretation of another item.

Figure 1.1 Test Characteristic Curves for the 2008 Algebra Forms
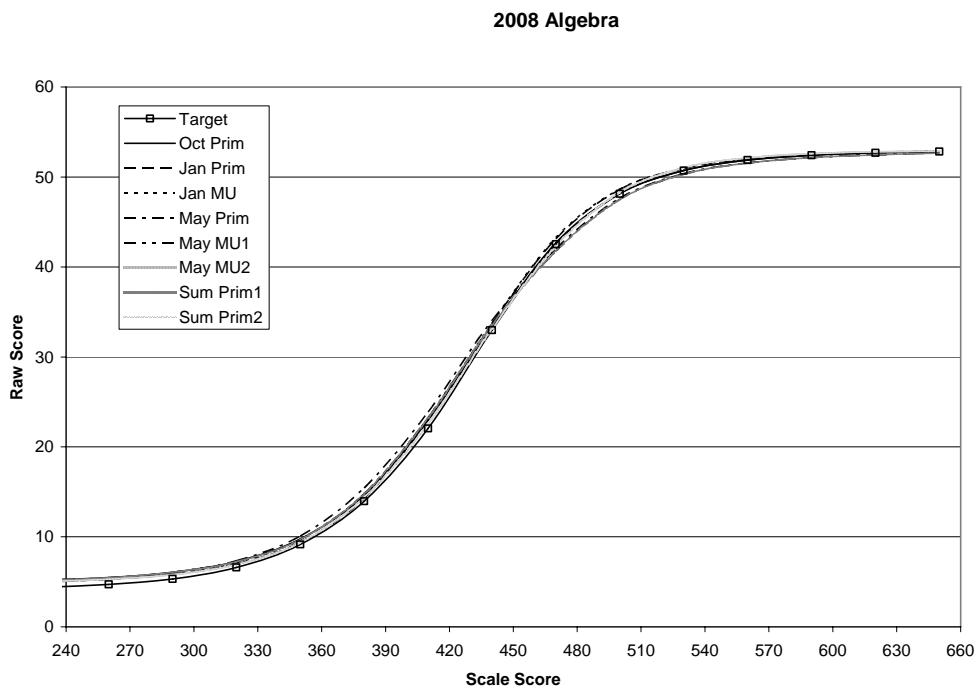
2008 Algebra

Note: Maximum possible raw score is 53.
Algebra Cut Scores: Proficient 412, Advanced 450

Figure1.2 Conditional Standard Error of Measurement for the 2008 Algebra Forms
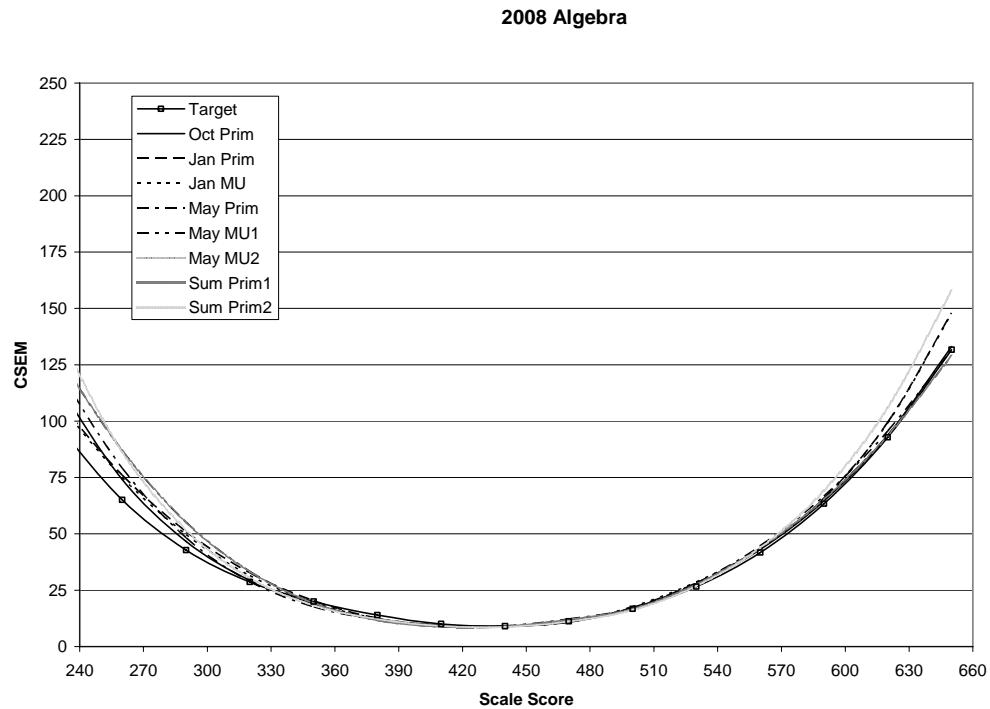
2008 Algebra

Note: Observed standard deviations for Algebra ranged from 27.1 to 38.1.
Algebra Cut Scores: Proficient 412, Advanced 450

Figure1.3 Test Characteristic Curves for the 2008 Biology Forms
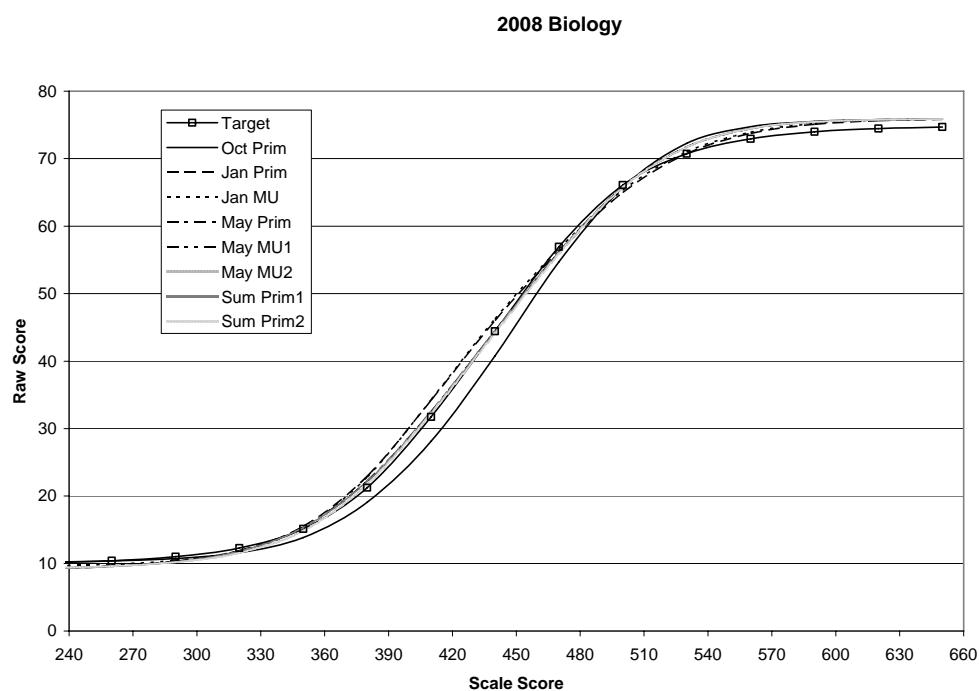
2008 Biology

Note: Maximum possible raw score is 76.
Biology Cut Scores: Proficient 400, Advanced 452

Figure1.4 Conditional Standard Error Measurement for the 2008 Biology Form
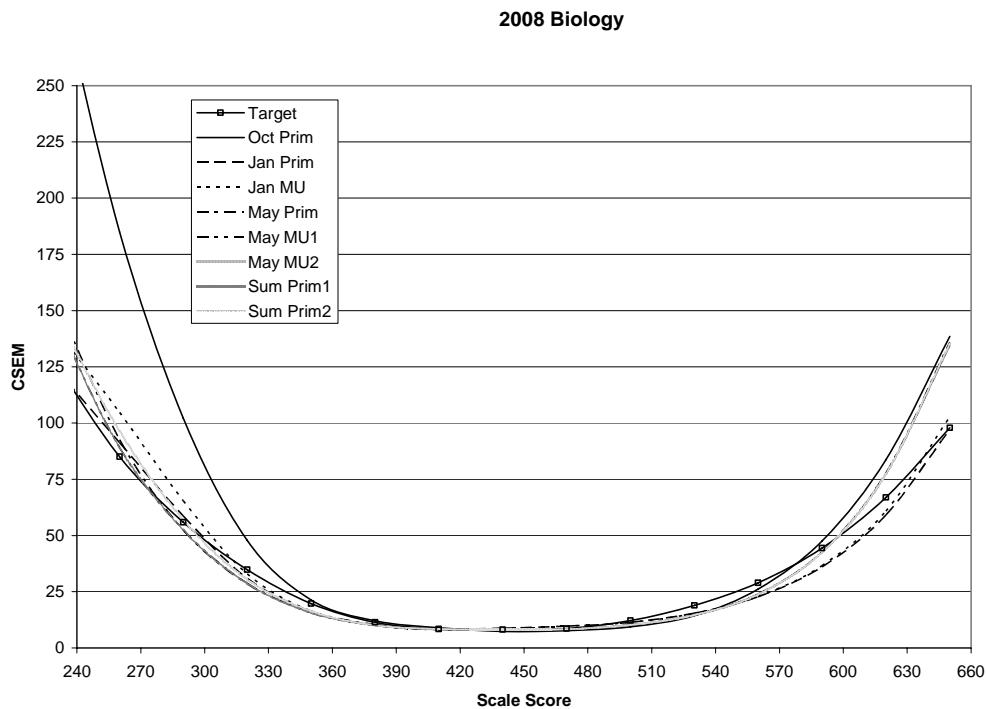
2008 Biology

Note: Observed standard deviations for Biology ranged from 30.0 to 41.9.
Biology Cut Scores: Proficient 400, Advanced 452

Figure1.5 Test Characteristic Curves for the 2008 English Forms
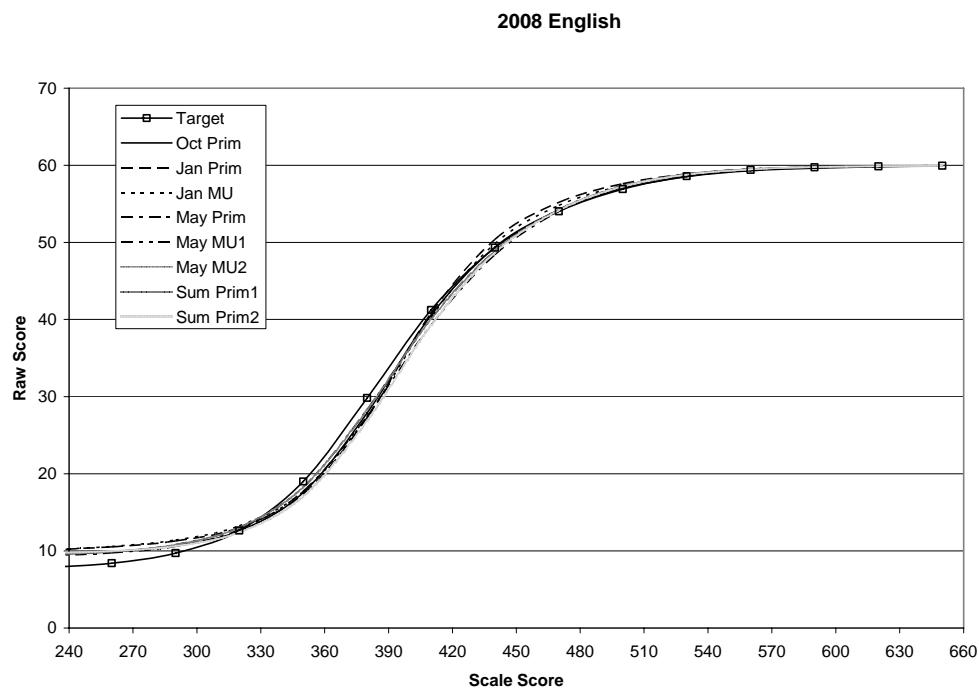
2008 English

Note: Maximum possible raw score is 60.
English Cut Scores: Proficient 396, Advanced 429

Figure1.6 Conditional Standard Error of Measurement for the 2008 English Forms
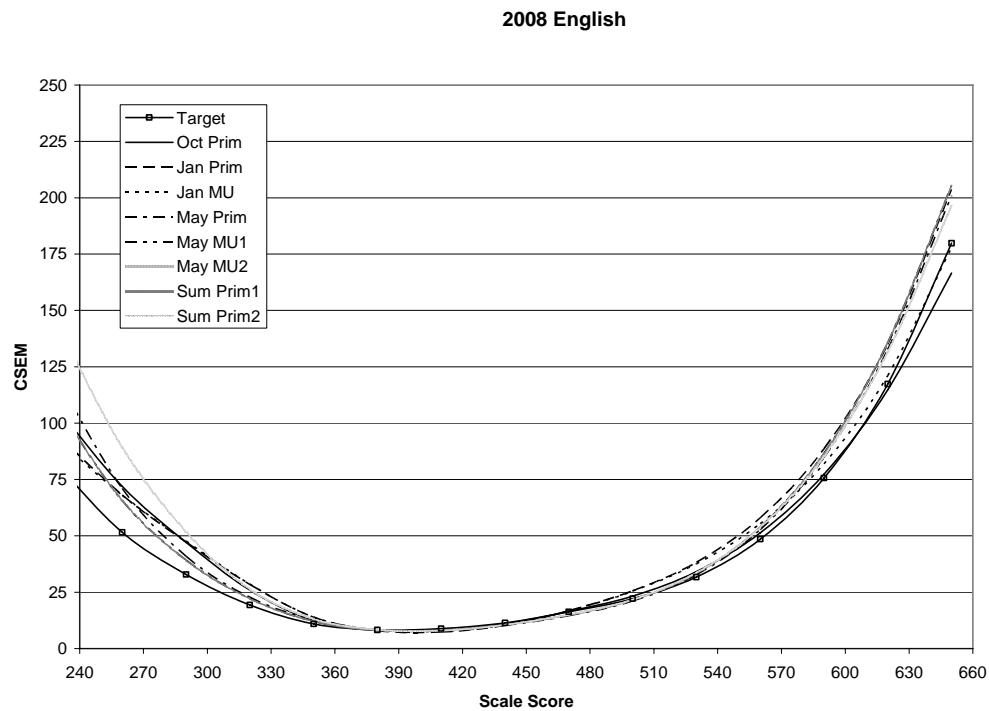
2008 English

Note: Observed standard deviations for English ranged from 25.6 to 37.0.
English Cut Scores: Proficient 396, Advanced 429

Figure1.7 Test Characteristic Curves for the 2008 Government Forms
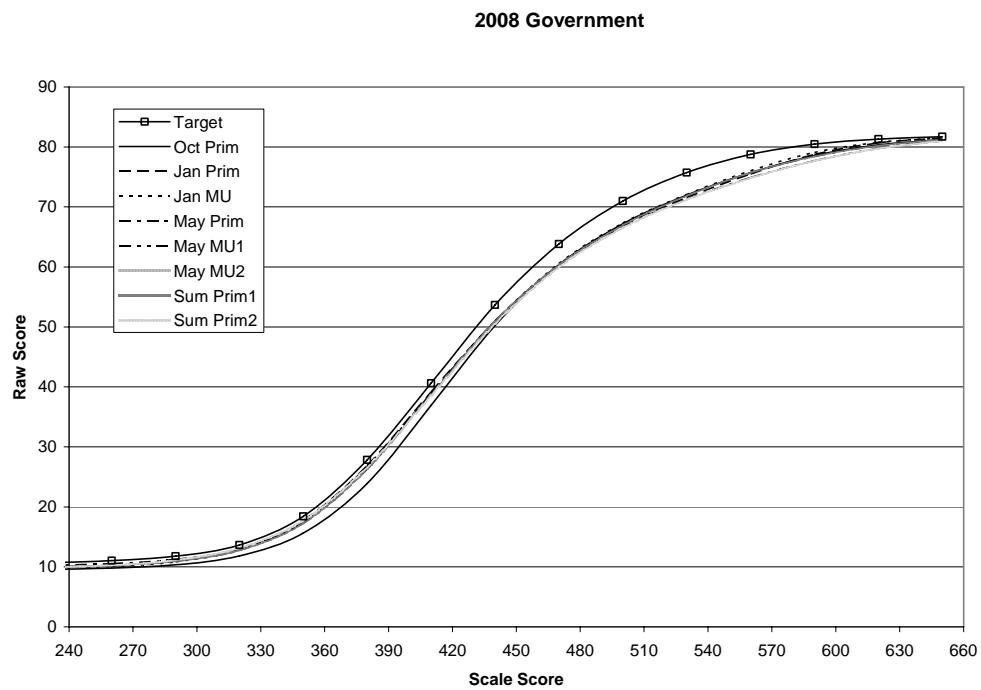
2008 Government

Note: Maximum possible raw score is 82.
Government Cut Score: Proficient 394

Figure1.8 Conditional Standard Error of Measurement for the 2008 Government Forms
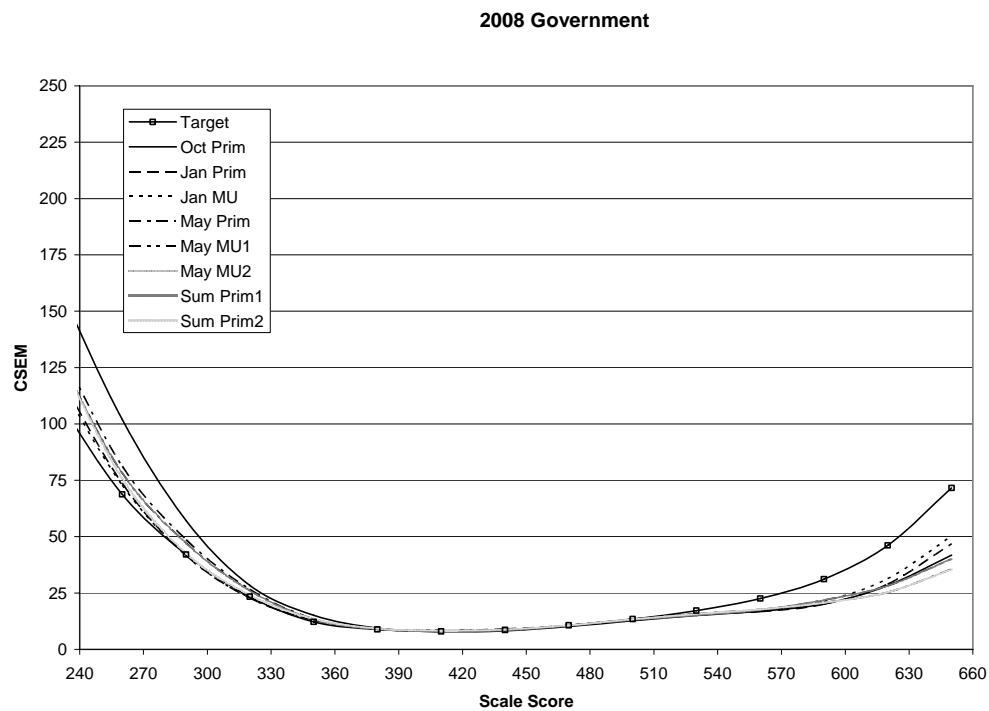
2008 Government

Note: Observed standard deviations for Government ranged from 23.9 to 40.9.
Government Cut Score: Proficient 394

Figure1.9 Histogram of Total Scale Scores for May 2008 Algebra

N	75,843
Kurtosis	3.36
Skewness	−0.75
Mean	427
Median	428
Std Deviation	37
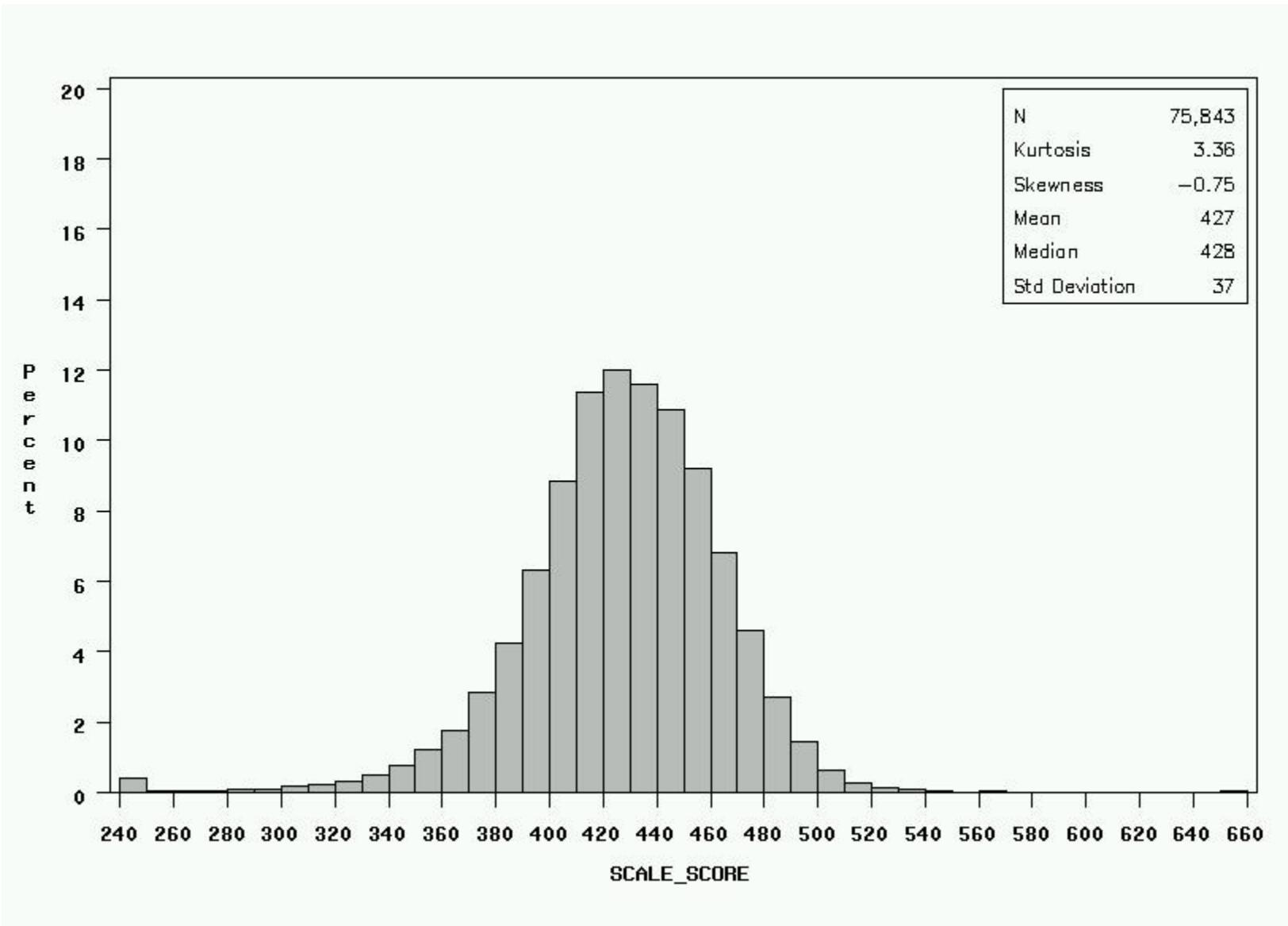
SCALE_SCORE

Figure1.10 Histogram of Total Scale Scores for May 2008 Biology

N	60,686
Kurtosis	1.77
Skewness	−0.57
Mean	419
Median	420
Std Deviation	35

Percent (y-axis): 0 to 20

SCALE_SCORE (x-axis): 240 260 280 300 320 340 360 380 400 420 440 460 480 500 520 540 560 580 600 620 640 660
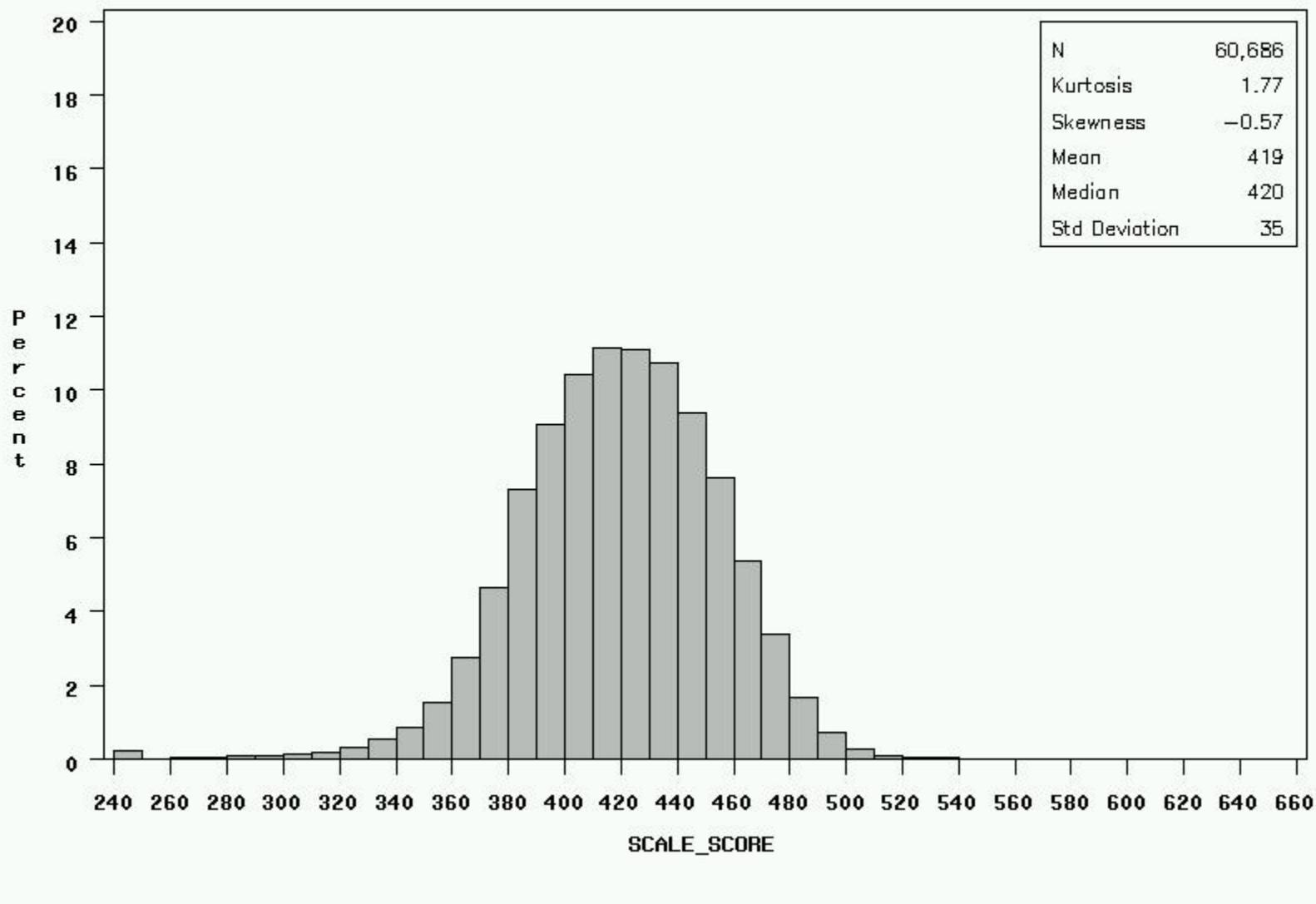
Figure1.11 Histogram of Total Scale Scores for May 2008 English

N	63,474
Kurtosis	3.78
Skewness	−0.08
Mean	408
Median	408
Std Deviation	35
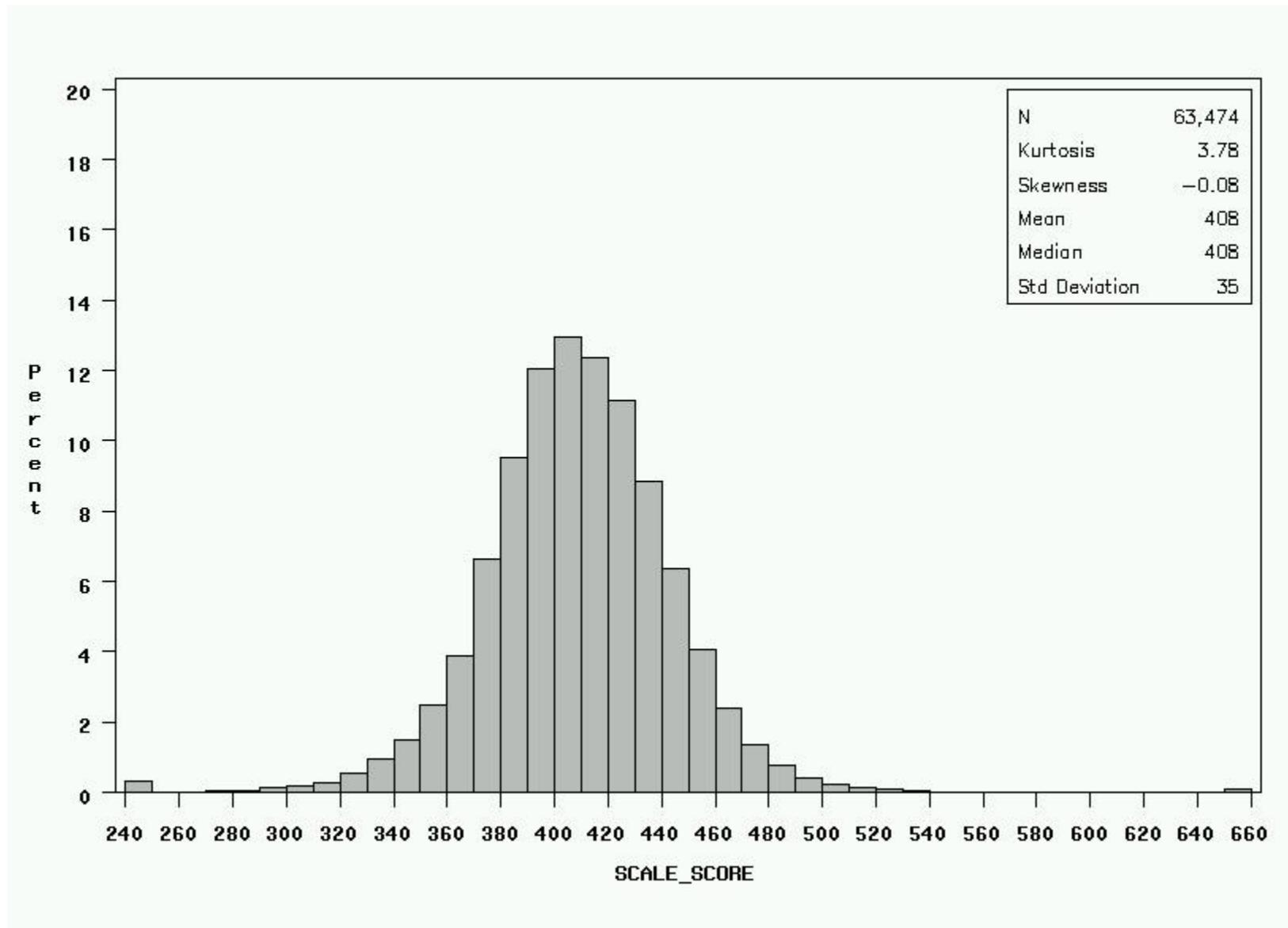
SCALE_SCORE

Figure1.12 Histogram of Total Scale Scores for May 2008 Government

N	64,376
Kurtosis	1.36
Skewness	−0.21
Mean	423
Median	423
Std Deviation	41

SCALE_SCORE
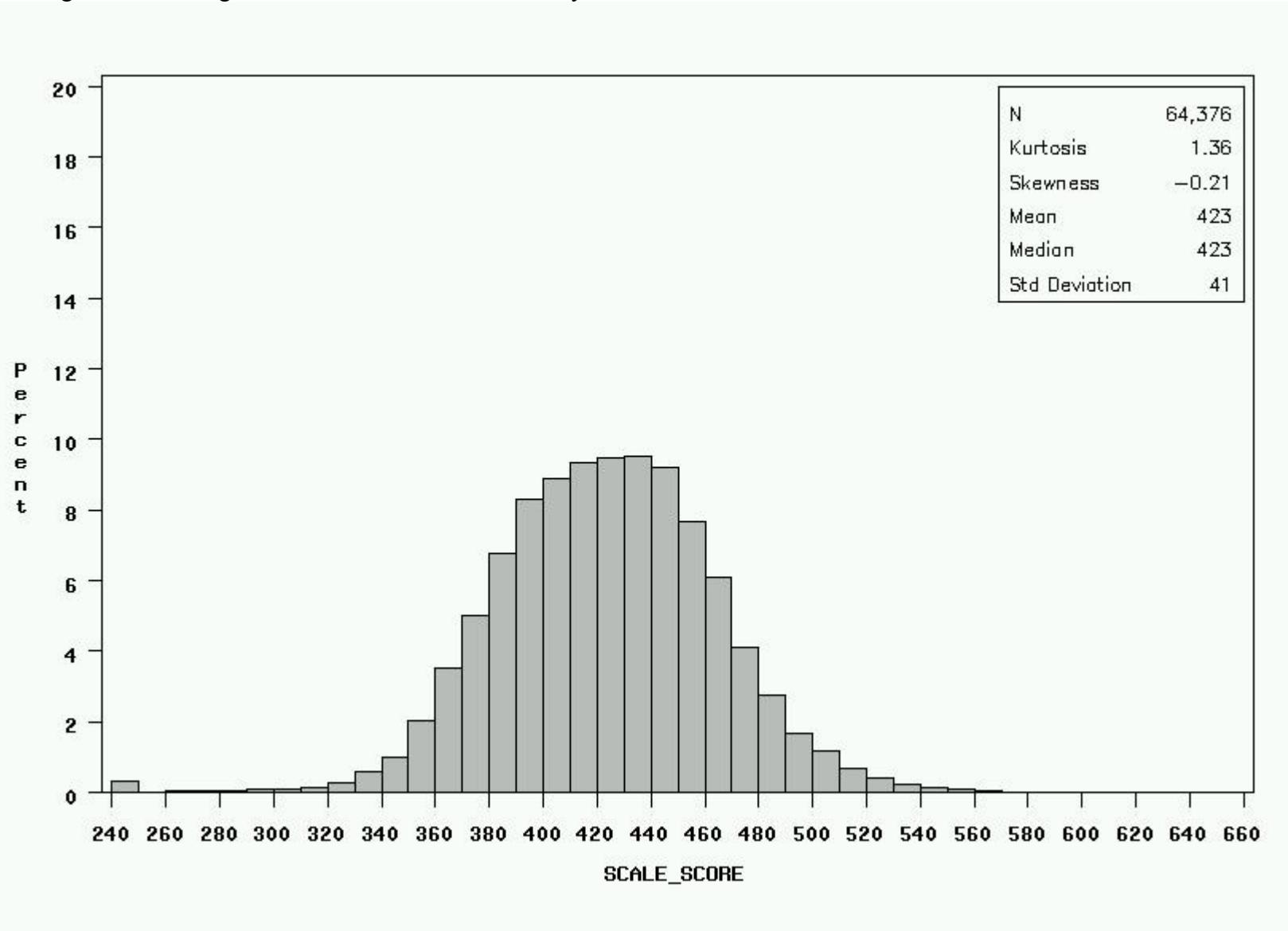
Test Administration

All HSA tests administered in October 2007, and in January, May, and Summer 2008 were paper-and-pencil tests, except in the case of the Kurzweil special form, which had an audio portion. Primary forms were administered during the first week of testing. For the January and May administrations, Make-up form 1 was administered during the second week. For the May administration only, Make-up Form 2 was administered in the third week of testing. All forms administered without accommodations have the following timing limits:

Table 1.11 Testing Timing Schedule in Minutes by Content

Content	Session One	Break	Session Two	Break	Session Three
Algebra	75	5-15	75	NA	NA
Biology	80	5-15	70	NA	NA
English	60	5	60	5	50
Government	85	5-15	70	NA	NA

If more than five percent of students omit an SR or SPR item, or more than 15% of students omit a CR item, the item is flagged as having a high omit rate. Table 1.12 shows omit rates for each content area by administration and item type. Relatively few SR items were flagged for omit rate. Most of the items flagged for omit rate were SPR and CR items, which tend to have higher omit rates in general, because students have to generate a response rather than choose one from available options. The tendency for SPR and CR items to have higher omit rates is consistent with findings from previous test years.

An exception to this was the Summer 2008 administration of the English test, where eleven SR items had omit rates higher than 5%. There were two Primary forms administered in Summer 2008. Form P was administered to 1324 students; Form Q was administered to 74 students. All eleven items flagged for high omit rate were on Form Q. None of the eleven items were located at the end of a test session. Ten of the eleven items flagged had an omit rate of 5.4%, which means 4 students omitted each item. The remaining item had an omit rate of 6.8%, which means that 5 students omitted the item. Appendices A and B include omit rates for each operational item and field test item, respectively, administered in October 2007, January, May and Summer 2008.

Table 1.12 Number of Operational Items Flagged for High Omit Rate

	October			January			May			Summer		
	Item Types			Item Types			Item Types			Item Types		
	SR	SPR	CR	SR	SPR	CR	SR	SPR	CR	SR	SPR	CR
Algebra	0	4	3	3	6	3	0	4	1	2	9	4
Biology	0	--	5	0	--	2	0	--	0	0	--	2
English	0	--	0	0	--	0	0	--	0	11	--	2
Government	0	--	1	0	--	1	0	--	1	0	--	5

Section 2. Validity

Validity is one of the most important attributes of assessment quality. Validity refers to the degree to which logical, empirical, and judgmental evidence supports a proposed interpretation or use of a set of scores. Validity is a fundamental consideration when tests are developed and evaluated (AERA, APA, & NCME, 1999; Messick, 1989). Validity is not based on a single study or type of study, but involves an ongoing process of gathering evidence supporting the interpretation or use of the resulting test scores. The process begins with the test design and continues throughout the entire assessment process, including design, content specifications, item development, psychometric quality, and inferences made from the results.

Students' scores on an HSA are inferred to reflect students' level of knowledge and skills in a subject area. The scores are used to classify students in terms of their level of proficiency using cut scores established by the state.

Evidence Based on Analyses of Test Content

The MDHSAs are referred to as "end-of-course" tests because students take each test as they complete the appropriate coursework. Consequently items are developed to reflect the knowledge and skills expected of students following completion of coursework. The development of test content for each MDHSA is overseen by a content expert who has a depth of knowledge and teaching experience related to the course in which the MDHSA is to be administered. Appropriate content leads who have similar qualifications review the test development work of these individuals.

Evidence based on analyses of test content includes logical analyses that determine the degree to which the items in a test represent the content domain that the test is intended to measure (AERA, APA, & NCME, 1999, p.11). The test development process for the HSAs provides numerous opportunities for the client to review test content and make changes to ensure that the items measure the knowledge and skills of Maryland students according to course standards. Every item that is created is referenced to a particular instructional standard (i.e., goal, expectation, or indicator). During the internal ETS development process the specific reference is confirmed or changed to reflect changes to the item. When the item is sent to a committee of Maryland educators for a content review, the members of the committee make independent judgments about the match of the item content to the standard it is intended to measure, and evaluate the appropriateness for the age of students being tested. These judgments are tabulated and reviewed by the content experts who use the information to decide which items will advance to the field test stage of development.

Evidence Based on Analyses of Internal Test Structure

Analyses of the internal structure of a test typically involve studies of the relationship among test items and/or test components in the interest of establishing the degree to which the items or components appear to reflect the construct on which a test interpretation is based (AERA, APA & NCME, 1999, p.13). The term construct is used here to refer to the characteristic that a test is intended to measure; in the case of the HSAs the characteristic of interest is the knowledge and skills defined by the test blueprint for each subject area.

These test blueprints are derived from Maryland's Core Learning Goals for each course. The test blueprints are presented in Section 1 (see Tables 1.2 to 1.5); the Core Learning Goals can be found on the MSDE website at http://www.mdk12.org/assessments/high_school/index_a.html.

Confirmatory Factor Analyses

ETS carried out confirmatory factor analyses for the HSAs in the interest of investigating whether performance on the items in each test reflects a single underlying characteristic or a set of distinct characteristics defined by the reporting categories for each subject area. The findings from the analyses also could be used to establish whether the unidimensional model-based IRT used to calibrate the HSA items was appropriate.

Confirmatory factor analyses (CFAs) were conducted using test data from the primary forms of the May administration for the 2007-2008 school year. The May administration was chosen for analysis because it is the largest and most representative administration of the HSAs. The May administration consisted of 10 primary forms; data from operational items were combined across forms within the content areas of Algebra, Biology and Government. English forms were configured slightly differently, so that the data could not easily be combined within the May administration. Therefore the two May forms with the largest sample sizes (forms E and F) were analyzed separately.

Mplus (Muthén & Muthén, 2007) was used to calculate matrices consisting of polychoric correlations between the items included in each analysis. Mplus was also used to fit specified factor models to the data. For each CFA two models initially were fit to the data, a one-factor model, and a multi-factor model, where the factors were defined by the items in each reporting category. For example in MDHSA Biology, a six-factor model specified constructs measuring: 1) Skills and Processes of Biology, 2) Structure and Function of Biological Molecules, 3) Structure and Function of Cells and Organisms, 4) Inheritance of Traits, 5) Mechanism of Evolutionary Change, and 6) Interdependence of Organisms in the Biosphere. Four-factor models were specified for Algebra and English, and a five-factor model was specified for Government. The subscores within each content area were not assumed to be independent; consequently the covariance matrices of the latent factors were estimated. Listwise deletion of cases was employed for all analyses.

Parameter estimation was accomplished using a weighted least-square method with mean and variance adjustment (Muthén, DuToit, & Spisic, 1997). This method leads to a consistent estimator of the model parameters, and provides standard errors that are robust under model misspecification. For ordinal data, weighted least squares estimation offers an alternative to full-information maximum likelihood techniques. The latter becomes computationally too demanding for models with more than a few dimensions. Model fit can be assessed through the use of a scaled chi-square statistic. However, the degrees of freedom for the reference distribution of this statistic cannot be computed in the standard way. The correct degrees of freedom are in part determined by the data, and hence different degrees of freedom may be obtained when applying the same model to different data (Muthén, 1998-2004, p. 19-20).

Model-data fit was examined using the scaled chi-square (χ^2) test of model fit in combination with supplemental fit indices. The Tucker-Lewis Index (TLI) index compares the chi-square for the hypothesized model to that of the null or "independence" model, in which all correlations or covariances are zero. TLI values range from zero to 1.0; values greater than .94 signify good fit (Hu & Bentler, 1999). The comparative fit index (CFI) and root mean square error of approximation (RMSEA) index both are based on non-centrality parameters. The CFI compares the covariance matrix predicted by the model to the observed covariance matrix and the covariance matrix of the null model to the observed. A CFI value greater than .90 indicates acceptable model fit (Hu & Bentler, 1999). The RMSEA assesses the error in the hypothesized model predictions; values less than or equal to .06 indicate good fit (Hu & Bentler, 1999). The weighted root mean square residual (WRMR) is a relatively new fit index that is believed to be better suited to data that includes categorical variables; good model fit is indicated by values less than 0.90 (Finney & DiStefano, 2006).

To evaluate model fit, the one-factor and multi-factor fit statistics may be compared. In general, if fit statistics are adequate for the one factor model and improvement in fit statistics are small for the multi-factor model, then the results suggest that the data are essentially unidimensional.

In the analysis, the input polychoric correlation matrix was used to estimate the factor loadings between the indicators (items) and the latent factors (subscores). Also estimated were the correlations between the latent factors, the assumption being that the subscores are related. The collection of estimated correlations between the latent factors is referred to as the psi matrix.

The multi-factor models for each content area resulted in the estimation of non-positive definite psi matrices. This finding is due to linear dependencies between two or more latent factors as well as correlations of 1.0 or greater between some of the latent variables within each content area. The occurrence of non-positive definite psi matrices serves as an indication that the specified factor structure does not adequately fit the data.

Table 2.1 shows the results of the analyses. None of the χ^2 results indicated good fit, given the criterion of $p>.05$; this was expected because sample sizes were very large. The

WRMR did not indicate adequate fit for one-factor or multi-factor models for any of the content areas. The remaining fit statistics indicate that the one-factor solutions generally fit the data well in all subject areas. The one-factor CFI results for the English test forms were marginal but the findings based on the other fit indices indicated good fit with this model. These findings provide evidence that the tests for each content area measure a single dimension.

In an effort to overcome the issue of non-positive definite psi matrices for multi-factor models, a second set of analyses were conducted; the results are presented in Table 2.1. For the second set of analyses the number of factors was reduced for each content area until the psi matrix was found to be positive definite. For Algebra, Biology and English, the two most highly correlated subscores were combined to create a single factor. Subscores 1 and 2 were combined for both Algebra and English, while subscores 1 and 5 were combined for Biology. Combining subscores for these content areas resulted in positive definite psi matrices; however improvement was not noted in the fit indices. For Government it was necessary to combine the three most highly correlated subscores (subscores 1, 3 and 4) before a positive definite psi matrix was achieved. As with the other content areas, no improvement was observed among the fit statistics. (See Tables 1.2 – 1.5 for descriptions of subscores by content.)

Table 2.1 Confirmatory Factor Analyses Fit Statistics

Subject	Admin	Forms	# of Factors	# of Items	n	df	$\chi2^*$	TLI	CFI	RMSEA	WRMR
Algebra	May	D-H, J-N	1	36[†]	53,393	549	15,730	**0.99**	**0.97**	**0.023**	4.097
		D-H, J-N	4[**]	36[†]	53,393	544	13,914	**0.99**	**0.97**	**0.021**	3.849
		D-H, J-N	Reduced to 3	36[†]	53,393	546	13,942	**0.99**	**0.97**	**0.021**	3.856
Biology	May	D-H, J-N	1	55	54,982	1,259	43,939	**0.99**	**0.95**	**0.025**	4.773
		D-H, J-N	6[**]	55	54,982	1,249	40,044	**0.99**	**0.95**	**0.024**	4.549
		D-H, J-N	Reduced to 5	55	54,982	1,253	40,158	**0.99**	**0.95**	**0.024**	4.557
English	May	E	1	50	6,491	847	9,167	**0.97**	0.89	**0.039**	2.681
		E	4[**]	50	6,491	846	7,948	**0.97**	0.90	**0.036**	2.491
		E	Reduced to 3	50	6,491	847	8,011	**0.97**	0.90	**0.036**	2.503
		F	1	50	5,708	821	7,626	**0.96**	0.88	**0.038**	2.505
		F	4[**]	50	5,708	820	6,570	**0.97**	0.90	**0.035**	2.321
		F	Reduced to 3	50	5,708	821	6,614	**0.97**	0.90	**0.035**	2.330
Government	May	D-H, J-N	1	58	56,536	1,351	64,794	**0.99**	**0.94**	**0.029**	5.518
		D-H, J-N	5[**]	58	56,536	1,344	63,689	**0.99**	**0.94**	**0.029**	5.469
		D-H, J-N	Reduced to 3	58	56,536	1,349	64,299	**0.99**	**0.94**	**0.029**	5.496

Note: Table entries that meet or exceed the criterion are in bold font.

* $p < .0005$.

† During the May administration two Algebra items were excluded from scoring due to printing errors.

** Indicates the multi-factor CFA psi covariance matrix was not positive definite, signifying that at least one latent variable was a linear combination of the other latent variables representing subscores.

In addition to the factor analyses presented here and the validation documentation gathered and maintained by MSDE, other information in support of the MDHSAs appears in the following sections.

- Section 3 provides detailed information concerning the scores that were reported for the MDHSAs and the cut scores for each content area.

- Section 4 provides demographic information for the population of students who were administered the MDHSAs. Summary statistics at the test level are reported for the student population and for subgroups. In addition, score reliability analyses and measures of decision accuracy and consistency are provided for the student population.

- Section 5 includes documentation regarding the field test analyses. Descriptions of classical item analyses, differential item functioning, item response theory calibration and scaling are included. In addition, summary tables of item p-value and item-total correlation distributions are provided.

Section 3. Scoring Procedures and Score Types

Scale Scores

The MDHSA reporting scale ranges from 240 to 650. For Algebra, Biology, and Government, the scale was established in 2003 and defined so that the scores had a mean of 400 and a standard deviation 40. In 2005, the scale for English was established using the same range, mean, and standard deviation. These scores represent ability estimates obtained using Item Response Theory (IRT). (See Section 5 IRT Calibration and Scaling for details on the 3-parameter logistic [3PL] and generalized partial-credit [GPCM] IRT models used for the MDHSAs).

Scale scores based on maximum likelihood estimates (MLE) are reported for the total test scores. While the total test score is based on item-pattern (IP) scoring, the subscores are based on raw score to scale score (RS-SS) scoring tables[6].

When IP scoring using the 3PL model is used, the likelihood equation can have multiple maxima. Therefore, a numerical method was developed to find the scale score at the global maximum in the likelihood function. RS-SS scoring tables were obtained by taking the inverse of the TCC for items contributing to the associated subscores (Yen, 1984).

Conditional Standard Errors of Measurement

Corresponding conditional standard errors of measurement (CSEM) were produced for both types of scoring and were equal to the inverse of the square root of the test information function.

$$\text{CSEM}(\hat{\theta}) = \frac{1}{\sqrt{I(\hat{\theta})}},$$

where CSEM($\hat{\theta}$) refers to the conditional standard error of measurement and I($\hat{\theta}$) refers to the test information function for $\hat{\theta}$.

The test information function is the sum of corresponding information functions of the test items when optimal item weights are used. Item information functions depend on the item difficulty, discrimination and conditional item score variance. Thus, while polytomous items often have lower discriminations than selected response items (Fitzpatrick et al., 1996), they may convey more information because they have more score points.

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[6] For operational scoring, omitted responses on the HSA are assigned the lowest score; SR/SPR items are treated as incorrect and CR items are assigned an item score of 0.

Lowest and Highest Obtainable Test Scores

The maximum likelihood procedure under the 3PL model cannot produce reasonable scale score estimates for students with perfect scores or scores below the level expected by guessing. While maximum likelihood estimates are usually available for students with extreme scores other than zero or perfect, occasionally these estimates have very large CSEMs, and differences between these extreme values have little meaning. Therefore, scores were established for these students based on a rational procedure (refer to Appendix 3.C of the 2004 Technical Report). These values were called the lowest obtainable scale score (LOSS) and the highest obtainable scale score (HOSS). The same LOSS and HOSS values were used for RS-SS tables and the IP scoring. Starting with the summer 2005 administration, MSDE decided that the LOSS and HOSS values would be 240 and 650, respectively, for all content areas.

Cut Scores

The cut scores associated with each of the performance levels in the content areas other than English were established by MSDE in 2003[7]. The English cut scores were established during the standard setting meeting held in October of 2005. One cut score was established for Biology and one was established for Government. Because Algebra and English results are used as the high school mathematics and English/language arts components of the Maryland accountability plan under NCLB, two cut scores were established. To comply with NCLB requirements for secondary science, an Advanced cut score for Biology was established in 2008. These values are given in Table 3.1.

Table 3.1 MDHSA Cut Scores by Content Area

	Cut Score	
Content Area	Proficient	Advanced
Algebra	412	450
Biology	400	452
English	396	429
Government	394	

Beginning with the class of 2009, students must obtain either a passing score on all four HSAs or obtain a minimum score on each HSA and an overall combined score of 1602. Passing status is achieved when a student's score meets or exceeds the Proficient cut score, as listed in Table 3.1. The minimum score for Algebra/Data Analysis is 402, for

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[7] Technical documentation on the standard setting method used to establish the HSA cut scores is available on the Maryland State Department of Education web site at http://www.marylandpublicschools.org/msde/divisions/planningresultstest/maryland+standard+setting+technical+reports.htm.

Biology it is 391, for English it is 386, and for Government it is 387. Students graduating prior to 2009 were not required to pass the HSA tests, but they were required to take the tests.

Year-to-Year Scale Maintenance

The Maryland HSA tests for Algebra, Biology, and Government have been pre-equated since 2004; English has been pre-equated since 2005. In the pre-equated design, a pool of IRT calibrated items expressed on the reporting scale exists for test form construction. The item parameter estimates for new forms are obtained from the bank and are used to build test forms that are parallel across administrations. Student scores are produced with the new form bank-obtained item parameters, thereby linking scores from one administration to the other.

To increase the item pool, the MDHSA embeds field test items in the operational test forms. The field-test data for the January and May administration are calibrated with the operational items at that time. The calibrations are linked to the reporting scale using all operational non-CR items as anchors and the Stocking and Lord Procedure (Stocking & Lord, 1983). Having all operational non-CR items serve as linking items ensures that the linking set is both objectively scored and large enough to provide stable and reliable results. Item bank parameters are established at the time of field test and are not updated following each administration.

To ensure that items behave the same way across administrations, construction of new forms follows guidelines defined by Kolen & Brennan (1995). These guidelines are:
   a) Items should appear in the same contexts and positions as when the item parameters were established. Operational item are placed as close as possible to the same position when parameters were established and within the same 1/3 of the total test form.
   b) Operational items should appear in similar positions on the test. It may be problematic if an item is positioned in very different locations on the two forms, such as at the beginning of the test on one form and at the end of the test on another form. Operational items that appear in more than one form occupy consistent positions across forms; deviations must be approved by MSDE.
   c) The text is exactly the same in the old and new forms. Minor editorial changes and rearranging answer choices are discouraged; otherwise the items may function differently. All requests for minor editorial changes must undergo psychometric review to evaluate the implications for the response process.

Special Scoring of Algebra Primary Week Forms

On Form E of the May 2008 Algebra test the last two SR items were inadvertently omitted from the test booklet. After considering several options, MSDE determined that students who took Form E would be scored on the basis of the 36 operational items that appeared in their test books. An erratum was sent to the Local Educational Associations (LEAs) prior to the test administration. After receiving reports from LEAs of misunderstanding regarding implementation of the erratum, MSDE made a decision to score all primary week Algebra forms (D through H; J through N) excluding the last two items.

Section 4. Test-Level Analyses

Test-level analyses include demographic distributions, reliability analyses, summary statistics, and decision consistency and accuracy.

Demographic Distributions

All eligible students completed the MDHSAs. The demographic characteristics of the students are given in Tables 4.1 to 4.4 for the October 2007 administration, and the January, May, and Summer 2008 administrations of Algebra, Biology, English, and Government, respectively. The number of students participating in the May administration was greater than the number of students participating in the January administration. As a result, only two field test versions were included in the January administration to ensure sufficient sample sizes for the analyses of the field test items. Due to the small numbers of students participating in the October and Summer administrations, the October and Summer forms did not contain new field test items. Instead, previously administered field test sections were embedded in the October and Summer forms to ensure that the test length was comparable. All demographic results are based on updated participation files received from MSDE.

Table 4.1 Demographic Information for Algebra

		October Form		January Primary Forms		January Make-Up Form		May Primary Forms		May Make-Up Forms		Summer Forms	
		N	%	N	%	N	%	N	%	N	%	N	%
Overall		4,547	100.00	10,183	100.00	1,030	100.00	71,835	100.00	4,008	100.00	1,586	100.00
Gender													
	Male	2,203	48.45	5,099	50.07	494	47.96	35,917	50.00	2,039	50.87	887	55.93
	Female	2,344	51.55	5,084	49.93	536	52.04	35,913	49.99	1,969	49.13	697	43.95
	Missing	0	0.00	0	0.00	0	0.00	5	0.01	0	0.00	2	0.13
Special Education													
	Yes	626	13.77	185	1.82	13	1.26	0	0.00	0	0.00	0	0.00
	No	3,868	85.07	9,998	98.18	1,017	98.74	71,835	100.00	4,008	100.00	1,586	100.00
	504[a]	53	1.17	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Ethnicity													
	American Indian	14	0.31	52	0.51	8	0.78	264	0.37	28	0.70	11	0.69
	Asian/Pacific Islander	97	2.13	227	2.23	23	2.23	4,071	5.67	118	2.94	62	3.91
	African American	2,893	63.62	6,146	60.36	765	74.27	29,435	40.98	2,477	61.80	1,045	65.89
	White	1,282	28.19	2,977	29.23	191	18.54	31,954	44.48	1,107	27.62	326	20.55
	Hispanic	261	5.74	781	7.67	43	4.17	6,105	8.50	276	6.89	139	8.76
	Missing	0	0.00	0	0.00	0	0.00	6	0.01	2	0.05	3	0.19
Limited English Proficient													
	Yes	99	2.18	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	No	4,420	97.21	10,183	100.00	1,030	100.00	71,835	100.00	4,008	100.00	1,586	100.00
	Exited[b]	28	0.62	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

[a] A 504 plan is a legal document falling under the provisions of the Rehabilitation Act of 1973 that provides a program of instructional services to assist students with special needs who are in a regular education setting.
[b] LEP Exited indicates students who have exited English language acquisition services

Table 4.2 Demographic Information for Biology

		October Form		January Primary Forms		January Make-Up Form		May Primary Forms		May Make-Up Forms		Summer Forms	
		N	%	N	%	N	%	N	%	N	%	N	%
Overall		2,277	100.00	10,088	100.00	1,022	100.00	58,083	100.00	2,603	100.00	882	100.00
Gender													
	Male	1,118	49.10	5,078	50.34	500	48.92	28,635	49.30	1,292	49.64	481	54.54
	Female	1,159	50.90	5,010	49.66	522	51.08	29,448	50.70	1,311	50.36	400	45.35
	Missing	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.11
Special Education													
	Yes	329	14.45	142	1.41	11	1.08	0	0.00	0	0.00	0	0.00
	No	1,908	83.79	9,946	98.59	1,011	98.92	58,083	100.00	2,603	100.00	882	100.00
	504	40	1.76	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Ethnicity													
	American Indian	4	0.18	30	0.30	7	0.68	203	0.35	15	0.58	4	0.45
	Asian/Pacific Islander	63	2.77	280	2.78	14	1.37	3,492	6.01	95	3.65	20	2.27
	African American	1,359	59.68	3,856	38.22	694	67.91	23,107	39.78	1,358	52.17	567	64.29
	White	687	30.17	5,384	53.37	261	25.54	27,033	46.54	931	35.77	186	21.09
	Hispanic	164	7.20	538	5.33	46	4.50	4,248	7.31	204	7.84	104	11.79
	Missing	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	1	0.11
Limited English Proficient													
	Yes	38	1.67	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	No	2,224	97.67	10,088	100.00	1,022	100.00	58,083	100.00	2,603	100.00	882	100.00
	Exited	15	0.66	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

Table 4.3 Demographic Information for English

		October Form		January Primary Forms		January Make-Up Form		May Primary Forms		May Make-Up Forms		Summer Forms	
		N	%	N	%	N	%	N	%	N	%	N	%
Overall		3,371	100.00	10,017	100.00	1,107	100.00	60,336	100.00	3,138	100.00	1,398	100.00
Gender													
	Male	1,810	53.69	5,300	52.91	575	51.94	30,204	50.06	1,660	52.90	772	55.22
	Female	1,561	46.31	4,717	47.09	532	48.06	30,126	49.93	1,478	47.10	625	44.71
	Missing	0	0.00	0	0.00	0	0.00	6	0.01	0	0.00	1	0.07
Special Education													
	Yes	611	18.13	146	1.46	10	0.90	0	0.00	0	0.00	0	0.00
	No	2,710	80.39	9,871	98.54	1,097	99.10	60,336	100.00	3,138	100.00	1,398	100.00
	504	50	1.48	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Ethnicity													
	American Indian	12	0.36	41	0.41	6	0.54	188	0.31	24	0.76	9	0.64
	Asian/Pacific Islander	87	2.58	282	2.82	17	1.54	3,533	5.86	72	2.29	36	2.58
	African American	1,844	54.70	3,917	39.10	734	66.31	24,270	40.22	1,763	56.18	907	64.88
	White	1,245	36.93	5,136	51.27	304	27.46	27,965	46.35	1,035	32.98	302	21.60
	Hispanic	183	5.43	641	6.40	46	4.16	4,374	7.25	244	7.78	143	10.23
	Missing	0	0.00	0	0.00	0	0.00	6	0.01	0	0.00	1	0.07
Limited English Proficient													
	Yes	42	1.25	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	No	3,292	97.66	10,017	100.00	1,107	100.00	60,336	100.00	3,138	100.00	1,398	100.00
	Exited	37	1.10	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

Table 4.4 Demographic Information for Government

		October Form		January Primary Forms		January Make-Up Form		May Primary Forms		May Make-Up Forms		Summer Forms	
		N	%	N	%	N	%	N	%	N	%	N	%
Overall		3,220	100.00	12,279	100.00	1,483	100.00	61,304	100.00	3,072	100.00	977	100.00
Gender													
	Male	1,622	50.37	6,294	51.26	783	52.80	30,378	49.55	1,602	52.15	574	58.75
	Female	1,598	49.63	5,985	48.74	700	47.20	30,918	50.43	1,470	47.85	403	41.25
	Missing	0	0.00	0	0.00	0	0.00	8	0.01	0	0.00	0	0.00
Special Education													
	Yes	583	18.11	150	1.22	14	0.94	0	0.00	0	0.00	0	0.00
	No	2,603	80.84	12,129	98.78	1,469	99.06	61,304	100.00	3,072	100.00	977	100.00
	504	34	1.06	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Ethnicity													
	American Indian	5	0.16	61	0.50	13	0.88	225	0.37	19	0.62	12	1.23
	Asian/Pacific Islander	68	2.11	269	2.19	26	1.75	3,609	5.89	77	2.51	26	2.66
	African American	1,814	56.34	4,550	37.06	925	62.37	25,300	41.27	1,700	55.34	660	67.55
	White	1,164	36.15	6,786	55.27	452	30.48	27,712	45.20	1,066	34.70	219	22.42
	Hispanic	169	5.25	613	4.99	67	4.52	4,450	7.26	210	6.84	59	6.04
	Missing	0	0.00	0	0.00	0	0.00	8	0.01	0	0.00	1	0.10
Limited English Proficient													
	Yes	40	1.24	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
	No	3,160	98.14	12,279	100.00	1,483	100.00	61,304	100.00	3,072	100.00	977	100.00
	Exited	20	0.62	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

Reliability

The general concept of reliability concerns the precision of a test score. Of interest is quantifying the degree to which a score will vary from an average result obtained over many testing occasions due to random factors (Haertel, 2006). There are a variety of theories and methods that can be used to estimate reliability.

Classical test theory defines reliability as the proportion of total score variance that is true-score variance. Several different ways of estimating this proportion exist. One estimate of reliability that is commonly used is Cronbach's alpha (Cronbach, 1951), an internal consistency measure. It is derived from analysis of the consistency of performance over items within a test and provides a lower-bound estimate of a test's reliability. Cronbach's alpha can be expressed as

$$\alpha = \frac{n}{n-1}\left[1 - \frac{\sum_{i=1}^{n}\sigma_i^2}{\sigma_x^2}\right],$$

where n is the number of items, σ_i^2 is the variance of scores on the i-th item, and σ_x^2 is the variance of the total score (sum of scores on the individual items).

Since all four content areas contain mixed item types (dichotomous and polytomous items), it is more appropriate to report stratified alpha (Feldt & Brennan, 1989). Stratified alpha is a weighted average of Cronbach's alpha for item sets with different maximum score points or "strata." For the HSA tests, strata are defined by item type and, where applicable, score points within item type. The Biology, English and Government tests have three strata: one stratum comprises the SR items, one comprises the 3-point CR items, and the third comprises the 4-point CR items. For the Algebra tests, a fourth stratum is comprised of the SPR items.

The formula for calculating the stratified alpha is:

$$_{strat\alpha}\rho = 1 - \frac{\sum \sigma_{X_j}^2(1-\alpha_j)}{\sigma_X^2}$$

where $\sigma_{X_j}^2$ is the variance for strata j of the test, σ_X^2 is the total variance of the test, and α_j is the Cronbach's alpha for strata j of the test.

The results for the reliability analyses of the total test score are presented with the summary statistics in Tables 4.9 to 4.24. The tables show that the overall reliability of the MDHSAs administered during the January, May and Summer sessions ranged from 0.88 to 0.95 for the primary forms, and from 0.86 to 0.94 for the make-up forms. The overall reliability results for the October forms ranged from 0.77 to 0.85. It should be noted the score variance for the October administration is restricted (see Table 4.5), which would

have an impact on reliability estimates and could explain the lower values for October compared to the other administrations.

Summary Statistics

The mean scale scores by content area for the 2008 administrations are presented in Table 4.5. Scores for all content areas were higher on average for the May administration compared to the October, January and Summer administrations.

Table 4.5 Mean Scale Scores by Administration

	October			January			May			Summer		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Algebra	4,547	398.54	27.07	11,213	391.64	37.67	75,843	426.60	37.44	1,586	395.55	38.17
Biology	2,277	382.09	29.97	11,110	400.90	41.88	60,686	418.82	35.28	882	385.77	36.47
English	3,371	383.21	25.62	11,124	391.90	36.98	63,474	408.23	34.81	1,398	376.84	34.37
Government	3,220	388.51	23.93	13,762	400.18	40.67	64,376	422.67	40.86	977	383.27	39.54

The results presented in Tables 4.6 to 4.8 are based on the combined results for students who took the tests in October 2007, and January, May, and Summer 2008. The mean scale scores are presented for the years 2003 to 2008 by content area in Table 4.6. Table 4.7 presents the passing rates for these years.

Table 4.6 Comparison of Mean Scores

	2003	2004	2005	2006	2007	2008
Algebra	408.3	411.9	409.5	421.5	421.2	420.5
Biology	400.8	406.2	404.7	415.0	414.5	414.7
English	--	--	--	393.0	412.0	404.3
Government	403.5	406.5	409.3	418.5	417.1	417.1

Note: The current English test was not administered prior to 2006.

Table 4.7 Comparison of Percentage Passing Rates (Proficient + Advanced)

	2003	2004	2005	2006	2007	2008
Algebra	53.1	59.3	54.5	66.6	63.3	62.0
Biology	54.3	62.0	58.4	67.8	70.1	68.4
English	--	--	--	60.1	70.6	61.0
Government	39.8	54.6	67.1	74.1	73.3	71.5

Note: The current English test was not administered prior to 2006.

The Algebra and English tests are used for the high school mathematics and English/language arts components of the MSDE Adequate Yearly Progress report as required under the NCLB act. Beginning with the January 2008 administration, Biology

was used for the NCLB science component. Table 4.8 presents the percentage of Algebra, English and Biology students classified as Basic, Proficient, and Advanced in 2008.

Table 4.8 Performance Classification Rates in 2008 for Algebra, Biology and English

	Algebra	Biology	English
Basic	38.0	31.7	39.0
Proficient	40.2	52.0	38.3
Advanced	21.8	16.4	22.7

Summary statistics for all students and for subgroups based on gender, special education programs, ethnicity, and English language fluency are presented in Tables 4.9 through 4.24. The tables include the number of students tested for whom valid scores were available, mean scale scores, and standard deviations of scale scores. In addition, raw score reliabilities are provided for the overall group of examinees and for subgroups.

Table 4.9 Summary Statistics for Algebra: October Form

Algebra		Primary Form R				
		Mean	SD	N	%	Alpha
Overall		398.54	27.07	4,547	100.00	0.77
Gender						
	Male	396.73	29.47	2,203	48.45	0.80
	Female	400.24	24.50	2,344	51.55	0.74
	Missing	*	*	0	0.00	*
Special Education						
	Yes	387.20	35.78	626	13.77	0.81
	No	400.44	24.95	3,868	85.07	0.76
	504	394.19	23.79	53	1.17	0.69
Ethnicity						
	American Indian	*	*	14	0.31	*
	Asian/Pacific Islander	405.14	26.06	97	2.13	0.82
	African American	396.18	27.39	2,893	63.62	0.76
	White	403.02	26.24	1,282	28.19	0.79
	Hispanic	400.22	25.19	261	5.74	0.77
	Missing	*	*	0	0.00	*
Limited English Proficient						
	Yes	398.85	27.02	99	2.18	0.83
	No	398.50	27.13	4,420	97.21	0.77
	Exited	*	*	28	0.62	*

* Statistics not reported for sample size less than 50 (N<50)

Table 4.10 Summary Statistics for Algebra: January Forms

Algebra		Primary Forms A, B					Make-Up Form C				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		392.55	37.33	10,183	100.00	0.88	382.64	39.74	1,030	100.00	0.86
Gender											
	Male	390.13	41.63	5,099	50.07	0.90	376.79	45.17	494	47.96	0.87
	Female	394.98	32.28	5,084	49.93	0.87	388.03	33.11	536	52.04	0.85
	Missing	*	*	0	0.00	*	*	*	0	0.00	*
Special Education											
	Yes	352.71	56.79	185	1.82	0.89	*	*	13	1.26	*
	No	393.29	36.47	9,998	98.18	0.88	383.26	38.95	1,017	98.74	0.86
	504	*	*	0	0.00	*	*	*	0	0.00	*
Ethnicity											
	American Indian	393.96	36.62	52	0.51	0.88	*	*	8	0.78	*
	Asian/Pacific Islander	403.36	35.02	227	2.23	0.90	*	*	23	2.23	*
	African American	384.01	35.99	6,146	60.36	0.84	377.29	40.71	765	74.27	0.84
	White	409.97	34.94	2,977	29.23	0.90	400.52	32.91	191	18.54	0.84
	Hispanic	390.10	33.43	781	7.67	0.85	*	*	43	4.17	*
	Missing	*	*	0	0.00	*	*	*	0	0.00	*
Limited English Proficient											
	Yes	*	*	0	0.00	*	*	*	0	0.00	*
	No	392.55	37.33	10,183	100.00	0.88	382.64	39.74	1,030	100.00	0.86
	Exited	*	*	0	0.00	*	*	*	0	0.00	*

* Statistics not reported for sample size less than 50 (N<50)

Table 4.11 Summary Statistics for Algebra: May Forms

Algebra		Primary Forms D-H, J-N					Make-Up 1 Form X					Make-Up 2 Form Y				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		427.97	36.89	71,835	100.00	0.91	403.66	37.92	3,464	100.00	0.91	391.48	41.02	544	100.00	0.90
Gender																
	Male	427.23	39.44	35,917	50.00	0.92	402.39	40.81	1,763	50.89	0.91	391.46	45.22	276	50.74	0.91
	Female	428.72	34.12	35,913	49.99	0.91	404.97	34.65	1,701	49.11	0.90	391.50	36.28	268	49.26	0.89
	Missing	*	*	5	0.01	*	*	*	0	0.00	*	*	*	0	0.00	*
Special Education																
	Yes	*	*	0	0.00	*	*	*	0	0.00	*	*	*	0	0.00	*
	No	427.97	36.89	71,835	100.00	0.91	403.66	37.92	3,464	100.00	0.91	391.48	41.02	544	100.00	0.90
	504	*	*	0	0.00	*	*	*	0	0.00	*	*	*	0	0.00	*
Ethnicity												*	*			
	American Indian	424.38	36.77	264	0.37	0.91	*	*	25	0.72	*	*	*	3	0.55	*
	Asian/Pacific Islander	452.17	32.73	4,071	5.67	0.89	413.04	35.45	102	2.94	0.92	*	*	16	2.94	*
	African American	411.46	35.01	29,435	40.98	0.89	395.10	35.38	2,148	62.01	0.87	383.83	41.60	329	60.48	0.88
	White	441.77	32.13	31,954	44.48	0.89	422.53	38.50	937	27.05	0.92	405.68	37.57	170	31.25	0.91
	Hispanic	419.48	33.86	6,105	8.50	0.90	402.97	30.64	250	7.22	0.87	*	*	26	4.78	*
	Missing	*	*	6	0.01	*	*	*	2	0.06	*	*	*	0	0.00	*
Limited English Proficient																
	Yes	*	*	0	0.00	*	*	*	0	0.00	*	*	*	0	0.00	*
	No	427.97	36.89	71,835	100.00	0.91	403.66	37.92	3,464	100.00	0.91	391.48	41.02	544	100.00	0.90
	Exited	*	*	0	0.00	*	*	*	0	0.00	*	*	*	0	0.00	*

* Statistics not reported for sample size less than 50 (N<50)

Table 4.12 Summary Statistics for Algebra: Summer Forms

Algebra		Primary 1 Form P					Primary 2 Form Q				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		396.52	37.39	1,473	100.00	0.88	382.91	45.52	113	100.00	0.90
Gender											
	Male	394.15	41.66	821	55.74	0.89	379.02	47.97	66	58.41	0.89
	Female	399.46	31.01	650	44.13	0.86	*	*	47	41.59	*
	Missing	*	*	2	0.14	*	*	*	0	0.00	*
Special Education											
	Yes	*	*	0	0.00	*	*	*	0	0.00	*
	No	396.52	37.39	1,473	100.00	0.88	382.91	45.52	113	100.00	0.90
	504	*	*	0	0.00	*	*	*	0	0.00	*
Ethnicity											
	American Indian	*	*	11	0.75	*	*	*	0	0.00	*
	Asian/Pacific Islander	*	*	49	3.33	*	*	*	13	11.50	*
	African American	391.90	36.64	995	67.55	0.85	380.18	33.20	50	44.25	0.83
	White	405.41	38.80	302	20.50	0.90	*	*	24	21.24	*
	Hispanic	397.41	26.14	113	7.67	0.82	*	*	26	23.01	*
	Missing	*	*	3	0.20	*	*	*	0	0.00	*
Limited English Proficient											
	Yes	*	*	0	0.00	*	*	*	0	0.00	*
	No	396.52	37.39	1,473	100.00	0.88	382.91	45.52	113	100.00	0.90
	Exited	*	*	0	0.00	*	*	*	0	0.00	*

* Statistics not reported for sample size less than 50 (N<50)

Table 4.13 Summary Statistics for Biology: October Form

Biology		Primary Form R				
		Mean	SD	N	%	Alpha
Overall		382.09	29.97	2,277	100.00	0.78
Gender						
	Male	381.21	32.60	1,118	49.10	0.79
	Female	382.94	27.19	1,159	50.90	0.76
	Missing	*	*	0	0.00	*
Special Education						
	Yes	374.49	33.29	329	14.45	0.76
	No	383.36	29.18	1,908	83.79	0.78
	504	*	*	40	1.76	*
Ethnicity						
	American Indian	*	*	4	0.18	*
	Asian/Pacific Islander	393.13	32.27	63	2.77	0.86
	African American	379.08	29.32	1,359	59.68	0.72
	White	386.15	30.49	687	30.17	0.82
	Hispanic	385.34	29.28	164	7.20	0.82
	Missing	*	*	0	0.00	*
Limited English Proficient						
	Yes	*	*	38	1.67	*
	No	381.99	29.95	2,224	97.67	0.78
	Exited	*	*	15	0.66	*

* Statistics not reported for sample size less than 50 (N<50)

Table 4.14 Summary Statistics for Biology: January Forms

Biology		Primary Forms A, B					Make-Up Form C				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		403.47	41.01	10,088	100	0.94	375.48	41.90	1,022	100	0.91
Gender											
	Male	402.01	43.56	5,078	50.34	0.95	372.73	45.83	500	48.92	0.91
	Female	404.95	38.19	5,010	49.66	0.94	378.12	37.61	522	51.08	0.90
	Missing	*	*	0	0.00	*	*	*	0	0.00	*
Special Education											
	Yes	356.09	52.77	142	1.41	0.91	*	*	11	1.08	*
	No	404.15	40.42	9,946	98.59	0.94	375.81	41.74	1,011	98.92	0.91
	504	*	*	0	0.00	*	*	*	0	0.00	*
Ethnicity											
	American Indian	*	*	30	0.30	*	*	*	7	0.68	*
	Asian/Pacific Islander	413.63	45.49	280	2.78	0.95	*	*	14	1.37	*
	African American	377.32	34.41	3,856	38.22	0.87	365.18	40.04	694	67.91	0.85
	White	422.79	34.46	5,384	53.37	0.93	401.95	37.51	261	25.54	0.93
	Hispanic	392.40	35.18	538	5.33	0.92	*	*	46	4.50	*
	Missing	*	*	0	0.00	*	*	*	0	0.00	*
Limited English Proficient											
	Yes	*	*	0	0.00	*	*	*	0	0.00	*
	No	403.47	41.01	10,088	100.00	0.94	375.48	41.90	1,022	100.00	0.91
	Exited	*	*	0	0.00	*	*	*	0	0.00	*

* Statistics not reported for sample size less than 50 (N<50)

Table 4.15 Summary Statistics for Biology: May Forms

Biology		Primary Forms D-H, J-N					Make-Up 1 Form X					Make-Up 2 Form Y				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		420.01	34.57	58,083	100.00	0.93	393.59	40.55	2,200	100.00	0.93	385.54	37.60	403	100.00	0.91
Gender																
	Male	419.35	35.94	28,635	49.30	0.94	391.02	44.07	1,086	49.36	0.94	381.95	38.25	206	51.12	0.91
	Female	420.65	33.17	29,448	50.70	0.93	396.09	36.65	1,114	50.64	0.92	389.30	36.62	197	48.88	0.91
	Missing	*	*	0	0.00	*	*	*	0	0.00	*	*	*	0	0.00	*
Special Education																
	Yes	*	*	0	0.00	*	*	*	0	0.00	*	*	*	0	0.00	*
	No	420.01	34.57	58,083	100.00	0.93	393.59	40.55	2,200	100.00	0.93	385.54	37.60	403	100.00	0.91
	504	*	*	0	0.00	*	*	*	0	0.00	*	*	*	0	0.00	*
Ethnicity																
	American Indian	416.81	31.46	203	0.35	0.93	*	*	12	0.55	*	*	*	3	0.74	*
	Asian/Pacific Islander	441.13	31.71	3,492	6.01	0.93	429.32	41.06	87	3.95	0.96	*	*	8	1.99	*
	African American	403.25	32.07	23,107	39.78	0.91	379.59	37.44	1,110	50.45	0.88	378.64	35.37	248	61.54	0.88
	White	432.86	30.43	27,033	46.54	0.92	408.67	38.19	801	36.41	0.93	396.97	39.83	130	32.26	0.93
	Hispanic	412.12	31.18	4,248	7.31	0.92	396.27	33.32	190	8.64	0.91	*	*	14	3.47	*
	Missing	*	*	0	0.00	*	*	*	0	0.00	*	*	*	0	0.00	*
Limited English Proficient																
	Yes	*	*	0	0.00	*	*	*	0	0.00	*	*	*	0	0.00	*
	No	420.01	34.57	58,083	100.00	0.93	393.59	40.55	2,200	100.00	0.93	385.54	37.60	403	100.00	0.91
	Exited	*	*	0	0.00	*	*	*	0	0.00	*	*	*	0	0.00	*

* Statistics not reported for sample size less than 50 (N<50)

Table 4.16 Summary Statistics for Biology: Summer Forms

Biology		Primary 1 Form P					Primary 2 Form Q				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		386.59	35.71	866	100.00	0.90	*	*	16	100.00	*
Gender											
	Male	383.81	38.93	471	54.39	0.90	*	*	10	62.50	*
	Female	389.83	31.17	394	45.50	0.89	*	*	6	37.50	*
	Missing	*	*	1	0.12	*	*	*	0	0.00	*
Special Education											
	Yes	*	*	0	0.00	*	*	*	0	0.00	*
	No	386.59	35.71	866	100.00	0.90	*	*	16	100.00	*
	504	*	*	0	0.00	*	*	*	0	0.00	*
Ethnicity											
	American Indian	*	*	4	0.46	*	*	*	0	0.00	*
	Asian/Pacific Islander	*	*	20	2.31	*	*	*	0	0.00	*
	African American	380.72	37.21	557	64.32	0.89	*	*	10	62.50	*
	White	398.84	31.51	180	20.79	0.91	*	*	6	37.50	*
	Hispanic	389.84	26.94	104	12.01	0.88	*	*	0	0.00	*
	Missing	*	*	1	0.12	*	*	*	0	0.00	*
Limited English Proficient											
	Yes	*	*	0	0.00	*	*	*	0	0.00	*
	No	386.59	35.71	866	100.00	0.90	*	*	16	100.00	*
	Exited	*	*	0	0.00	*	*	*	0	0.00	*

* Statistics not reported for sample size less than 50 (N<50)

Table 4.17 Summary Statistics for English: October Form

English		Primary Forms A,B				
		Mean	SD	N	%	Alpha
Overall		383.21	25.62	3,371	100.00	0.84
Gender						
	Male	380.55	27.79	1,810	53.69	0.85
	Female	386.29	22.47	1,561	46.31	0.82
	Missing	*	*	0	0.00	*
Special Education						
	Yes	372.95	27.53	611	18.13	0.85
	No	385.53	24.67	2,710	80.39	0.82
	504	382.70	21.48	50	1.48	0.82
Ethnicity						
	American Indian	*	*	12	0.36	*
	Asian/Pacific Islander	387.14	20.77	87	2.58	0.81
	African American	382.48	25.30	1,844	54.70	0.83
	White	384.45	26.07	1,245	36.93	0.85
	Hispanic	379.94	27.59	183	5.43	0.85
	Missing	*	*	0	0.00	*
Limited English Proficient						
	Yes	*	*	42	1.25	*
	No	383.29	25.65	3,292	97.66	0.84
	Exited	*	*	37	1.10	*

* Statistics not reported for sample size less than 50 (N<50)

Table 4.18 Summary Statistics for English: January Forms

English		Primary Forms A,B					Make-Up Form C				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		393.81	36.39	10,017	100.00	0.93	374.62	37.78	1,107	100.00	0.89
Gender											
	Male	387.89	37.17	5,300	52.91	0.92	367.21	40.60	575	51.94	0.90
	Female	400.46	34.30	4,717	47.09	0.92	382.62	32.66	532	48.06	0.88
	Missing	*	*	0	0.00	*	*	*	0	0.00	*
Special Education											
	Yes	360.53	53.61	146	1.46	0.93	*	*	10	0.90	*
	No	394.30	35.84	9,871	98.54	0.93	374.84	37.71	1,097	99.10	0.89
	504	*	*	0	0.00	*	*	*	0	0.00	*
Ethnicity											
	American Indian	*	*	41	0.41	*	*	*	6	0.54	*
	Asian/Pacific Islander	397.87	38.69	282	2.82	0.92	*	*	17	1.54	*
	African American	376.33	31.13	3,917	39.10	0.88	369.94	37.39	734	66.31	0.87
	White	408.10	34.43	5,136	51.27	0.93	385.28	38.34	304	27.46	0.92
	Hispanic	384.98	31.08	641	6.40	0.89	*	*	46	4.16	*
	Missing	*	*	0	0.00	*	*	*	0	0.00	*
Limited English Proficient											
	Yes	*	*	0	0.00	*	*	*	0	0.00	*
	No	393.81	36.39	10,017	100.00	0.93	374.62	37.78	1,107	100.00	0.89
	Exited	*	*	0	0.00	*	*	*	0	0.00	*

* Statistics not reported for sample size less than 50 (N<50)

Table 4.19 Summary Statistics for English: May Forms

English		Primary Forms D-H, J-N					Make-Up 1 Form X					Make-Up 2 Form Y				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		409.57	34.19	60,336	100.00	0.92	383.61	36.38	2,633	100.00	0.92	376.60	36.45	505	100.00	0.90
Gender																
	Male	403.65	34.79	30,204	50.06	0.92	377.32	39.22	1,390	52.79	0.92	369.07	40.42	270	53.47	0.90
	Female	415.51	32.50	30,126	49.93	0.91	390.65	31.46	1,243	47.21	0.91	385.24	29.04	235	46.53	0.89
	Missing	*	*	6	0.01	*	*	*	0	0.00	*	*	*	0	0.00	*
Special Education																
	Yes	*	*	0	0.00	*	*	*	0	0.00	*	*	*	0	0.00	*
	No	409.57	34.19	60,336	100.00	0.92	383.61	36.38	2,633	100.00	0.92	376.60	36.45	505	100.00	0.90
	504	*	*	0	0.00	*	*	*	0	0.00	*	*	*	0	0.00	*
Ethnicity																
	American Indian	408.11	31.44	188	0.31	0.91	*	*	20	0.76	*	*	*	4	0.79	*
	Asian/Pacific Islander	426.73	36.22	3,533	5.86	0.92	395.67	40.83	63	2.39	0.94	*	*	9	1.78	*
	African American	396.03	29.81	24,270	40.22	0.90	377.13	33.26	1,467	55.72	0.89	373.20	36.04	296	58.61	0.89
	White	420.78	32.93	27,965	46.35	0.91	394.30	39.64	865	32.85	0.94	382.08	37.68	170	33.66	0.92
	Hispanic	399.28	31.43	4,374	7.25	0.91	380.61	31.54	218	8.28	0.90	*	*	26	5.15	*
	Missing	*	*	6	0.01	*	*	*	0	0.00	*	*	*	0	0.00	*
Limited English Proficient																
	Yes	*	*	0	0.00	*	*	*	0	0.00	*	*	*	0	0.00	*
	No	409.57	34.19	60,336	100.00	0.92	383.61	36.38	2,633	100.00	0.92	376.60	36.45	505	100.00	0.90
	Exited	*	*	0	0.00	*	*	*	0	0.00	*	*	*	0	0.00	*

* Statistics not reported for sample size less than 50 (N<50)

Table 4.20 Summary Statistics for English: Summer Forms

English		Primary 1 Form P					Primary 2 Form Q				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		377.77	33.13	1,323	100.00	0.90	360.40	49.05	75	100.00	0.92
Gender											
	Male	372.55	36.17	728	55.03	0.90	*	*	44	58.67	*
	Female	384.25	27.62	594	44.90	0.88	*	*	31	41.33	*
	Missing	*	*	1	0.08	*	*	*	0	0.00	*
Special Education											
	Yes	*	*	0	0.00	*	*	*	0	0.00	*
	No	377.77	33.13	1,323	100.00	0.90	360.40	49.05	75	100.00	0.92
	504	*	*	0	0.00	*	*	*	0	0.00	*
Ethnicity											
	American Indian	*	*	9	0.68	*	*	*	0	0.00	*
	Asian/Pacific Islander	*	*	33	2.49	*	*	*	3	4.00	*
	African American	375.05	32.64	875	66.14	0.89	*	*	32	42.67	*
	White	384.03	35.69	287	21.69	0.91	*	*	15	20.00	*
	Hispanic	381.42	29.19	118	8.92	0.89	*	*	25	33.33	*
	Missing	*	*	1	0.08	*	*	*	0	0.00	*
Limited English Proficient											
	Yes	*	*	0	0.00	*	*	*	0	0.00	*
	No	377.77	33.13	1,323	100.00	0.90	360.40	49.05	75	100.00	0.92
	Exited	*	*	0	0.00	*	*	*	0	0.00	*

* Statistics not reported for sample size less than 50 (N<50)

Table 4.21 Summary Statistics for Government: October Form

Gov		Primary Form R				
		Mean	SD	N	%	Alpha
Overall		388.51	23.93	3,220	100.00	0.85
Gender						
	Male	387.33	27.57	1,622	50.37	0.87
	Female	389.71	19.50	1,598	49.63	0.82
	Missing	*	*	0	0.00	*
Special Education						
	Yes	381.02	24.93	583	18.11	0.82
	No	390.17	23.43	2,603	80.84	0.85
	504	*	*	34	1.06	*
Ethnicity						
	American Indian	*	*	5	0.16	*
	Asian/Pacific Islander	392.24	25.01	68	2.11	0.87
	African American	388.28	22.65	1,814	56.34	0.83
	White	388.69	24.72	1,164	36.15	0.86
	Hispanic	387.89	30.56	169	5.25	0.87
	Missing	*	*	0	0.00	*
Limited English Proficient						
	Yes	*	*	40	1.24	*
	No	388.51	24.01	3,160	98.14	0.85
	Exited	*	*	20	0.62	*

* Statistics not reported for sample size less than 50 (N<50)

Table 4.22 Summary Statistics for Government: January Forms

Gov		Primary Forms A,B					Make-Up Form C				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		402.90	40.17	12,279	100.00	0.94	377.70	37.69	1,483	100.00	0.91
Gender											
	Male	400.47	42.76	6,294	51.26	0.95	374.21	41.59	783	52.80	0.92
	Female	405.45	37.08	5,985	48.74	0.94	381.60	32.37	700	47.20	0.90
	Missing	*	*	0	0.00	*	*	*	0	0.00	*
Special Education											
	Yes	347.57	51.83	150	1.22	0.92	*	*	14	0.94	*
	No	403.58	39.53	12,129	98.78	0.94	377.64	37.60	1,469	99.06	0.91
	504	*	*	0	0.00	*	*	*	0	0.00	*
Ethnicity											
	American Indian	396.36	39.73	61	0.50	0.94	*	*	13	0.88	*
	Asian/Pacific Islander	419.95	42.63	269	2.19	0.96	*	*	26	1.75	*
	African American	382.08	35.35	4,550	37.06	0.91	370.23	34.98	925	62.37	0.88
	White	417.11	37.26	6,786	55.27	0.94	391.79	40.19	452	30.48	0.94
	Hispanic	393.34	32.56	613	4.99	0.92	383.21	29.76	67	4.52	0.88
	Missing	*	*	0	0.00	*	*	*	0	0.00	*
Limited English Proficient											
	Yes	*	*	0	0.00	*	*	*	0	0.00	*
	No	402.90	40.17	12,279	100.00	0.94	377.70	37.69	1,483	100.00	0.91
	Exited	*	*	0	0.00	*	*	*	0	0.00	*

* Statistics not reported for sample size less than 50 (N<50)

Table 4.23 Summary Statistics for Government: May Forms

Gov		Primary Forms D-H, J-N					Make-Up 1 Form X					Make-Up 2 Form Y				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		424.23	40.18	61,304	100.00	0.95	392.13	42.51	2,463	100.00	0.94	388.92	38.54	609	100.00	0.93
Gender																
	Male	423.27	41.13	30,378	49.55	0.95	387.74	45.40	1,290	52.38	0.95	386.33	42.79	312	51.23	0.94
	Female	425.19	39.16	30,918	50.43	0.94	396.97	38.53	1,173	47.62	0.94	391.64	33.34	297	48.77	0.91
	Missing	*	*	8	0.01	*	*	*	0	0.00	*	*	*	0	0.00	*
Special Education																
	Yes	*	*	0	0.00	*	*	*	0	0.00	*	*	*	0	0.00	*
	No	424.23	40.18	61,304	100.00	0.95	392.13	42.51	2,463	100.00	0.94	388.92	38.54	609	100.00	0.93
	504	*	*	0	0.00	*	*	*	0	0.00	*	*	*	0	0.00	*
Ethnicity																
	American Indian	416.39	41.78	225	0.37	0.95	*	*	13	0.53	*	*	*	6	0.99	*
	Asian/Pacific Islander	449.30	40.53	3,609	5.89	0.95	414.09	50.46	67	2.72	0.96	*	*	10	1.64	*
	African American	408.52	35.60	25,300	41.27	0.93	383.84	38.14	1,370	55.62	0.93	382.72	37.58	330	54.19	0.91
	White	436.70	38.67	27,712	45.20	0.95	403.10	46.22	850	34.51	0.95	398.49	38.77	216	35.47	0.94
	Hispanic	416.10	36.46	4,450	7.26	0.94	396.60	37.00	163	6.62	0.93	*	*	47	7.72	*
	Missing	*	*	8	0.01	*	*	*	0	0.00	*	*	*	0	0.00	*
Limited English Proficient																
	Yes	*	*	0	0.00	*	*	*	0	0.00	*	*	*	0	0.00	*
	No	424.23	40.18	61,304	100.00	0.95	392.13	42.51	2,463	100.00	0.94	388.92	38.54	609	100.00	0.93
	Exited	*	*	0	0.00	*	*	*	0	0.00	*	*	*	0	0.00	*

* Statistics not reported for sample size less than 50 (N<50)

Table 4.24. Summary Statistics for Government: Summer Forms

Gov		Primary 1 Form P					Primary 2 Form Q				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		384.45	38.36	942	100.00	0.92	*	*	35	100.00	*
Gender											
	Male	382.52	41.56	551	58.49	0.93	*	*	23	65.71	*
	Female	387.15	33.21	391	41.51	0.90	*	*	12	34.29	*
	Missing	*	*	0	0.00	*	*	*	0	0.00	*
Special Education											
	Yes	*	*	0	0.00	*	*	*	0	0.00	*
	No	384.45	38.36	942	100.00	0.92	*	*	35	100.00	*
	504	*	*	0	0.00	*	*	*	0	0.00	*
Ethnicity											
	American Indian	*	*	12	1.27	*	*	*	0	0.00	*
	Asian/Pacific Islander	*	*	26	2.76	*	*	*	0	0.00	*
	African American	381.62	37.73	640	67.94	0.91	*	*	20	57.14	*
	White	387.95	38.59	208	22.08	0.92	*	*	11	31.43	*
	Hispanic	392.00	32.78	55	5.84	0.92	*	*	4	11.43	*
	Missing	*	*	1	0.11	*	*	*	0	0.00	*
Limited English Proficient											
	Yes	*	*	0	0.00	*	*	*	0	0.00	*
	No	384.45	38.36	942	100.00	0.92	*	*	35	100.00	*
	Exited	*	*	0	0.00	*	*	*	0	0.00	*

* Statistics not reported for sample size less than 50 (N<50)

Decision Accuracy and Consistency

The accuracy of decisions based on specified cut scores was assessed for Reliability of Classification using the computer program RELCLASS, which is ETS proprietary software. RELCLASS provides two statistics that describe the reliability of classifications based on test scores (Livingston & Lewis, 1995). More specifically, information from an administration of one form is used to estimate the following:

1) Decision Accuracy describes the extent to which examinees are classified in the same way as they would be on the basis of the average of all possible forms of a test. Decision accuracy answers the question: How does the actual classification of test takers, based on their single-form scores, agree with the classification that would be made on the basis of their true scores, if their true scores were somehow known?

2) Decision Consistency describes the extent to which examinees are classified in the same way as they would be on the basis of a single form of a test other than the one for which data are available. Decision consistency answers the question: What is the agreement between the classifications based on two non-overlapping, equally difficult forms of the test?

RELCLASS estimates decision accuracy using an estimated joint distribution of reported performance level classifications on the current form of the exam and the performance level classifications based on an all-forms average (true score). RELCLASS estimates decision consistency using an estimated joint distribution of reported performance level classifications on the current form of the exam and performance level classifications on the alternate (parallel) form. In each case, the proportion of performance level classifications with exact agreement is the sum of the entries in the diagonal of the contingency table representing the joint distribution.

The results are provided in Tables 4.25 to 4.40 by content area for the October, January, May and Summer forms. The tables show that decision accuracy values, which describe the agreement between classifications based on an observable variable (scores on one form of a test) and classifications based on an unobservable variable (the test takers' true scores), ranged from 0.82 to 0.95 across all performance levels and from 0.85 to 0.94 for the Proficient and Above classifications in Algebra, Biology and English. Decision consistency values, which describe the agreement between classifications based on two variables (scores on the form students have taken and a parallel form of the same test that is not administered to the students), ranged from 0.76 to 0.93 across all performance levels and from 0.80 to 0.92 for the Proficient and Above classifications in Algebra, Biology and English.

Note that in all cases the decision accuracy indices are somewhat larger than the decision consistency indices. This is due to differences in the estimation procedures. The estimation procedure for decision accuracy includes a random component on one of the

two variables, whereas in estimating decision consistency each variable includes a random component (Livingston & Lewis, 1995).

Table 4.25 Decision Accuracy and Consistency: Algebra October Form

Algebra	Placement Scores	Advanced	Proficient	Basic	Category Total*
October Form R					
Decision Accuracy	450-650	0.00	0.00	0.00	0.01
	412-449	0.01	0.20	0.07	0.27
	240-411	0.01	0.07	0.64	0.72
	Estimated Proportion Correctly Classified*: Total = 0.84, Proficient & Above = 0.85				
Decision Consistency	450-650	0.01	0.00	0.00	0.01
	412-449	0.02	0.17	0.08	0.27
	240-411	0.01	0.11	0.61	0.72
	Estimated Proportion Consistently Classified*: Total = 0.78, Proficient & Above = 0.80				

*Inconsistencies between cell entries and totals are due to rounding.

Table 4.26 Decision Accuracy and Consistency: Algebra January Forms

Algebra	Placement Scores	Advanced	Proficient	Basic	Category Total*
January Primary					
Decision Accuracy	450-650	0.03	0.00	0.00	0.04
	412-449	0.02	0.18	0.04	0.24
	240-411	0.01	0.06	0.67	0.73
	Estimated Proportion Correctly Classified: Total = 0.87, Proficient & Above = 0.89				
Decision Consistency	450-650	0.03	0.00	0.00	0.04
	412-449	0.03	0.15	0.06	0.24
	240-411	0.01	0.08	0.64	0.73
	Estimated Proportion Consistently Classified*: Total = 0.82 ; Proficient & Above =0.86				
January Form C					
Decision Accuracy	450-650	0.02	0.00	0.00	0.02
	412-449	0.01	0.12	0.03	0.17
	240-411	0.01	0.06	0.75	0.82
	Estimated Proportion Correctly Classified*: Total = 0.88, Proficient & Above = 0.90				
Decision Consistency	450-650	0.02	0.00	0.00	0.02
	412-449	0.02	0.10	0.04	0.17
	240-411	0.01	0.08	0.72	0.82
	Estimated Proportion Consistently Classified*: Total = 0.84, Proficient & Above = 0.86				

* Inconsistencies between cell entries and totals are due to rounding.

Table 4.27 Decision Accuracy and Consistency: Algebra May Forms

Algebra	Placement Scores	Advanced	Proficient	Basic	Category Total*
May Primary					
Decision Accuracy	450-650	0.25	0.02	0.00	0.27
	412-449	0.08	0.33	0.04	0.44
	240-411	0.00	0.04	0.25	0.28
	Estimated Proportion Correctly Classified*: Total = 0.82, Proficient & Above = 0.92				
Decision Consistency	450-650	0.23	0.04	0.00	0.27
	412-449	0.10	0.29	0.06	0.44
	240-411	0.00	0.05	0.24	0.28
	Estimated Proportion Consistently Classified*: Total = 0.76, Proficient & Above = 0.90				
May Form X					
Decision Accuracy	450-650	0.08	0.01	0.00	0.09
	412-449	0.03	0.24	0.06	0.33
	240-411	0.00	0.04	0.53	0.58
	Estimated Proportion Correctly Classified*: Total = 0.85, Proficient & Above = 0.90				
Decision Consistency	450-650	0.07	0.02	0.00	0.09
	412-449	0.05	0.21	0.08	0.33
	240-411	0.00	0.06	0.51	0.58
	Estimated Proportion Consistently Classified*: Total = 0.80, Proficient & Above = 0.86				
May Form Y					
Decision Accuracy	450-650	0.04	0.00	0.00	0.04
	412-449	0.03	0.19	0.06	0.28
	240-411	0.00	0.04	0.64	0.68
	Estimated Proportion Correctly Classified*: Total = 0.87, Proficient & Above = 0.90				
Decision Consistency	450-650	0.04	0.00	0.00	0.04
	412-449	0.04	0.16	0.08	0.28
	240-411	0.00	0.06	0.62	0.68
	Estimated Proportion Consistently Classified*: Total = 0.82, Proficient & Above = 0.87				

* Inconsistencies between cell entries and totals are due to rounding.

Table 4.28 Decision Accuracy and Consistency: Algebra Summer Forms

Algebra	Placement Scores	Advanced	Proficient	Basic	Category Total*
Summer Form P					
Decision Accuracy	450-650	0.04	0.00	0.00	0.04
	412-449	0.03	0.20	0.06	0.29
	240-411	0.00	0.05	0.61	0.67
	Estimated Proportion Correctly Classified*: Total = 0.86, Proficient & Above = 0.89				
Decision Consistency	450-650	0.04	0.00	0.00	0.04
	412-449	0.04	0.17	0.07	0.29
	240-411	0.00	0.08	0.59	0.67
	Estimated Proportion Consistently Classified: Total = 0.80 , Proficient & Above = 0.85				
Summer Form Q					
Decision Accuracy	450-650	0.03	0.00	0.00	0.03
	412-449	0.04	0.15	0.06	0.26
	240-411	0.00	0.03	0.69	0.72
	Estimated Proportion Correctly Classified*: Total = 0.87, Proficient & Above = 0.91				
Decision Consistency	450-650	0.03	0.00	0.00	0.03
	412-449	0.05	0.13	0.07	0.26
	240-411	0.00	0.05	0.67	0.72
	Estimated Proportion Consistently Classified*: Total = 0.83 , Proficient & Above = 0.88				

* Inconsistencies between cell entries and totals are due to rounding.

Table 4.29 Decision Accuracy and Consistency: Biology October Form

Biology	Placement Scores	Proficient	Basic	Category Total*
October Form R				
Decision Accuracy	400-650	0.18	0.06	0.24
	240-399	0.07	0.69	0.75
	Estimated Proportion Correctly Classified*: Total = 0.87			
Decision Consistency	400-650	0.16	0.08	0.24
	240-399	0.11	0.65	0.75
	Estimated Proportion Consistently Classified*: Total = 0.81			

* Inconsistencies between cell entries and totals are due to rounding.

Table 4.30 Decision Accuracy and Consistency: Biology January Forms

Biology	Placement Scores	Advanced	Proficient	Basic	Category Total*
January Primary					
Decision Accuracy	452 - 650	0.07	0.04	0.00	0.12
	400 - 451	0.01	0.40	0.01	0.42
	240 - 399	0.01	0.05	0.40	0.47
	Estimated Proportion Correctly Classified: Total = 0.87, Proficient & Above = 0.92				
Decision Consistency	452 - 650	0.06	0.05	0.00	0.12
	400 - 451	0.03	0.37	0.02	0.42
	240 - 399	0.01	0.07	0.39	0.47
	Estimated Proportion Consistently Classified*: Total = 0.82, Proficient & Above = 0.89				
January Form C					
Decision Accuracy	452-650	0.02	0.00	0.00	0.02
	400-451	0.01	0.19	0.04	0.23
	240-399	0.01	0.05	0.70	0.75
	Estimated Proportion Correctly Classified*: Total = 0.90, Proficient & Above = 0.91				
Decision Consistency	452-650	0.02	0.00	0.00	0.02
	400-451	0.02	0.17	0.05	0.23
	240-399	0.01	0.07	0.68	0.75
	Estimated Proportion Consistently Classified*: Total = 0.86, Proficient & Above = 0.88				

* Inconsistencies between cell entries and totals are due to rounding.
Note: An Advanced Biology cut score was implemented starting with the January, 2008 administration.

Table 4.31 Decision Accuracy and Consistency: Biology May Forms

Biology	Placement Scores	Advanced	Proficient	Basic	Category Total*
May Primary					
Decision Accuracy	452-650	0.15	0.03	0.00	0.18
	400-451	0.04	0.49	0.03	0.55
	240-399	0.00	0.03	0.23	0.27
	Estimated Proportion Correctly Classified*: Total = 0.87, Proficient & Above = 0.94				
Decision Consistency	452-650	0.14	0.04	0.00	0.18
	400-451	0.06	0.46	0.04	0.55
	240-399	0.00	0.04	0.22	0.27
	Estimated Proportion Consistently Classified*: Total = 0.82, Proficient & Above = 0.92				
May Form X					
Decision Accuracy	452-650	0.06	0.01	0.00	0.07
	400-451	0.02	0.30	0.04	0.36
	240-399	0.00	0.04	0.53	0.57
	Estimated Proportion Correctly Classified*: Total = 0.88, Proficient & Above = 0.91				
Decision Consistency	452-650	0.05	0.01	0.00	0.07
	400-451	0.03	0.27	0.06	0.36
	240-399	0.00	0.06	0.51	0.57
	Estimated Proportion Consistently Classified*: Total = 0.84, Proficient & Above = 0.88				
May Form Y					
Decision Accuracy	452-650	0.02	0.00	0.00	0.02
	400-451	0.02	0.25	0.05	0.32
	240-399	0.00	0.05	0.61	0.66
	Estimated Proportion Correctly Classified*: Total = 0.89, Proficient & Above = 0.90				
Decision Consistency	452-650	0.02	0.00	0.00	0.02
	400-451	0.03	0.23	0.06	0.32
	240-399	0.00	0.07	0.59	0.66
	Estimated Proportion Consistently Classified*: Total = 0.84, Proficient & Above = 0.87				

* Inconsistencies between cell entries and totals are due to rounding.

Table 4.32 Decision Accuracy and Consistency: Biology Summer Forms

Biology	Placement Scores	Advanced	Proficient	Basic	Category Total*
Summer Form P					
Decision Accuracy	452-650	0.02	0.00	0.00	0.02
	400-451	0.02	0.27	0.06	0.34
	240-399	0.00	0.04	0.60	0.64
	Estimated Proportion Correctly Classified*: Total = 0.88, Proficient & Above = 0.90				
Decision Consistency	452-650	0.02	0.00	0.00	0.02
	400-451	0.02	0.24	0.07	0.34
	240-399	0.00	0.07	0.58	0.64
	Estimated Proportion Consistently Classified: Total = 0.84, Proficient & Above = 0.86				
Summer Form Q					
Decision Accuracy	452-650	-	-	-	-
	400-451	-	-	-	-
	240-399	-	-	-	-
	Estimated Proportion Correctly Classified*: Total = - , Proficient & Above = -				
Decision Consistency	452-650	-	-	-	-
	400-451	-	-	-	-
	240-399	-	-	-	-
	Estimated Proportion Consistently Classified*: Total = -, Proficient & Above = -				

* Inconsistencies between cell entries and totals are due to rounding.

- Statistics not reported for sample size less than 50 (N<50)

Table 4.33 Decision Accuracy and Consistency: English October Form

English	Placement Scores	Advanced	Proficient	Basic	Category Total*
October Form C					
Decision Accuracy	429-650	0.01	0.00	0.00	0.01
	396-428	0.01	0.20	0.06	0.27
	240-395	0.01	0.06	0.65	0.71
	Estimated Proportion Correctly Classified*: Total = 0.86, Proficient & Above = 0.88				
Decision Consistency	429-650	0.01	0.00	0.00	0.01
	396-428	0.02	0.17	0.07	0.27
	240-395	0.01	0.09	0.62	0.71
	Estimated Proportion Consistently Classified*: Total = 0.80, Proficient & Above = 0.83				

* Inconsistencies between cell entries and totals are due to rounding.

Table 4.34 Decision Accuracy and Consistency: English January Forms

English	Placement Scores	Advanced	Proficient	Basic	Category Total*
January Primary					
Decision Accuracy	429 - 650	0.13	0.02	0.00	0.14
	396 - 428	0.03	0.26	0.03	0.32
	240 - 395	0.01	0.06	0.46	0.53
	Estimated Proportion Correctly Classified*: Total = 0.85, Proficient & Above = 0.90				
Decision Consistency	429 - 650	0.12	0.02	0.00	0.14
	396 - 428	0.05	0.22	0.05	0.32
	240 - 395	0.01	0.07	0.45	0.53
	Estimated Proportion Consistently Classified*: Total = 0.79, Proficient & Above = 0.87				
January Form C					
Decision Accuracy	429-650	0.03	0.00	0.00	0.03
	396-428	0.03	0.15	0.04	0.21
	240-395	0.01	0.05	0.69	0.75
	Estimated Proportion Correctly Classified*: Total = 0.87 , Proficient & Above = 0.90				
Decision Consistency	429-650	0.03	0.00	0.00	0.03
	396-428	0.04	0.12	0.05	0.21
	240-395	0.01	0.08	0.67	0.75
	Estimated Proportion Consistently Classified*: Total = 0.82, Proficient & Above = 0.86				

* Inconsistencies between cell entries and totals are due to rounding.

Table 4.35 Decision Accuracy and Consistency: English May Forms

English	Placement Scores	Advanced	Proficient	Basic	Category Total*
May Primary					
Decision Accuracy	429-650	0.24	0.03	0.00	0.27
	396-428	0.05	0.31	0.05	0.41
	240-395	0.00	0.03	0.29	0.32
Estimated Proportion Correctly Classified*: Total = 0.83, Proficient & Above = 0.92					
Decision Consistency	429-650	0.23	0.04	0.00	0.27
	396-428	0.07	0.27	0.07	0.41
	240-395	0.00	0.05	0.27	0.32
Estimated Proportion Consistently Classified*: Total = 0.77 , Proficient & Above = 0.88					
May Form X					
Decision Accuracy	429-650	0.07	0.01	0.00	0.08
	396-428	0.03	0.20	0.05	0.28
	240-395	0.00	0.04	0.59	0.64
Estimated Proportion Correctly Classified*: Total = 0.87, Proficient & Above = 0.91					
Decision Consistency	429-650	0.07	0.01	0.00	0.08
	396-428	0.04	0.17	0.06	0.28
	240-395	0.00	0.06	0.57	0.64
Estimated Proportion Consistently Classified*: Total = 0.82 , Proficient & Above = 0.87					
May Form Y					
Decision Accuracy	429-650	0.05	0.00	0.00	0.05
	396-428	0.03	0.17	0.05	0.24
	240-395	0.00	0.04	0.66	0.71
Estimated Proportion Correctly Classified*: Total =0.88, Proficient & Above = 0.90					
Decision Consistency	429-650	0.04	0.00	0.00	0.05
	396-428	0.04	0.14	0.06	0.24
	240-395	0.00	0.07	0.64	0.71
Estimated Proportion Consistently Classified*: Total = 0.83 , Proficient & Above = 0.87					

* Inconsistencies between cell entries and totals are due to rounding.

Table 4.36 Decision Accuracy and Consistency: English Summer Forms

English	Placement Scores	Advanced	Proficient	Basic	Category Total*
Summer Form P					
Decision Accuracy	429-650	0.03	0.00	0.00	0.03
	396-428	0.03	0.18	0.06	0.27
	240-395	0.00	0.04	0.66	0.70
	Estimated Proportion Correctly Classified: Total = 0.87, Proficient & Above = 0.90				
Decision Consistency	429-650	0.03	0.00	0.00	0.03
	396-428	0.04	0.16	0.07	0.27
	240-395	0.00	0.06	0.64	0.70
	Estimated Proportion Consistently Classified: Total = 0.83, Proficient & Above = 0.87				
Summer Form Q					
Decision Accuracy	429-650	0.03	0.00	0.00	0.03
	396-428	0.05	0.10	0.04	0.19
	240-395	0.01	0.04	0.74	0.79
	Estimated Proportion Correctly Classified: Total = 0.87 , Proficient & Above = 0.92				
Decision Consistency	429-650	0.03	0.00	0.00	0.03
	396-428	0.05	0.09	0.05	0.19
	240-395	0.01	0.05	0.72	0.79
	Estimated Proportion Consistently Classified: Total = 0.84 , Proficient & Above* = 0.89				

* Inconsistencies between cell entries and totals are due to rounding.

Table 4.37 Decision Accuracy and Consistency: Government October Form

Government	Placement Scores	Proficient	Basic	Category Total*
October Form R				
Decision Accuracy	394-650	0.36	0.08	0.44
	240-393	0.05	0.51	0.56
	Estimated Proportion Correctly Classified*: Total = 0.87			
Decision Consistency	394-650	0.34	0.10	0.44
	240-393	0.07	0.49	0.56
	Estimated Proportion Consistently Classified*: Total = 0.83			

* Inconsistencies between cell entries and totals are due to rounding.

Table 4.38 Decision Accuracy and Consistency: Government January Forms

Government	Placement Scores	Proficient	Basic	Category Total*
January Primary				
Decision Accuracy	394 - 650	0.57	0.02	0.59
	240 - 393	0.05	0.36	0.41
	Estimated Proportion Correctly Classified*: Total = 0.93			
Decision Consistency	394 - 650	0.55	0.04	0.59
	240 - 393	0.06	0.35	0.41
	Estimated Proportion Consistently Classified*: Total = 0.91			
January Form C				
Decision Accuracy	394-650	0.27	0.03	0.31
	240-393	0.05	0.64	0.69
	Estimated Proportion Correctly Classified*: Total = 0.92			
Decision Consistency	394-650	0.26	0.05	0.31
	240-393	0.07	0.62	0.69
	Estimated Proportion Consistently Classified*: Total = 0.88			

* Inconsistencies between cell entries and totals are due to rounding.

Table 4.39 Decision Accuracy and Consistency: Government May Forms

Government	Placement Scores	Proficient	Basic	Category Total*
May Primary				
Decision Accuracy	394-650	0.76	0.03	0.78
	240-393	0.02	0.19	0.22
	Estimated Proportion Correctly Classified*: Total = 0.95			
Decision Consistency	394-650	0.74	0.04	0.78
	240-393	0.03	0.19	0.22
	Estimated Proportion Consistently Classified*: Total = 0.93			
May Form X				
Decision Accuracy	394-650	0.47	0.00	0.47
	240-393	0.07	0.46	0.53
	Estimated Proportion Correctly Classified*: Total = 0.93			
Decision Consistency	394-650	0.45	0.02	0.47
	240-393	0.08	0.45	0.53
	Estimated Proportion Consistently Classified*: Total = 0.90			
May Form Y				
Decision Accuracy	394-650	0.43	0.00	0.43
	240-393	0.10	0.47	0.57
	Estimated Proportion Correctly Classified*: Total = 0.90			
Decision Consistency	394-650	0.42	0.01	0.43
	240-393	0.10	0.47	0.57
	Estimated Proportion Consistently Classified*: Total = 0.88			

* Inconsistencies between cell entries and totals are due to rounding.

Table 4.40 Decision Accuracy and Consistency: Government Summer Forms

Government	Placement Scores	Proficient	Basic	Category Total*
Summer Form P				
Decision Accuracy	394-650	0.37	0.07	0.43
	240-393	0.03	0.54	0.57
	Estimated Proportion Correctly Classified: Total = 0.91			
Decision Consistency	394-650	0.35	0.08	0.43
	240-393	0.04	0.52	0.57
	Estimated Proportion Consistently Classified: Total = 0.87			
Summer Form Q				
Decision Accuracy	394-650	-	-	-
	240-393	-	-	-
	Estimated Proportion Correctly Classified*: Total = -			
Decision Consistency	394-650	-	-	-
	240-393	-	-	-
	Estimated Proportion Consistently Classified*: Total = -			

* Inconsistencies between cell entries and totals are due to rounding.
- Statistics not reported for sample size less than 50 (N<50)

Section 5. Field Test Analyses

Following the receipt of the final score file from Measurement Incorporated (MI), the field test analyses were completed. The analyses of the field test data consisted of four components: classical item analyses, differential item functioning (DIF), calibration, and scaling. All of the analyses were completed using GENASYS, which is an ETS proprietary software program. The analysis procedures for each component are described in detail. Samples used for the analyses included all valid records available, including students learning English as a second language, students with IEP or 504 plans, and students receiving accommodations. Only records invalidated by the test administrator, and records with five or fewer item responses were excluded from the analysis sample.

The field test analyses were conducted for the SR and SPR items from the January and May administrations. The CR items were not scored or calibrated because beginning in May 2009, the operational forms will contain only SR and SPR items. Therefore field test CR item parameters were not needed for future administrations.

Classical Item Analyses

Classical item analyses involve computing a set of statistics based on classical test theory for every item in each form. The statistics provide key information about the quality of the items from an empirical perspective. The statistics estimated for the MDHSA field test items, and associated criteria used to flag items for the content specialists' review, are described below.

Classical item difficulty ("p-value"):

This statistic indicates the mean item score expressed as a proportion of the maximum obtainable item score. For SR and SPR items, it is equivalent to the proportion of examinees in the sample that answered the item correctly. Desired p-values generally fall within the range of 0.25 to 0.90. Occasionally, items that fall outside this range can be justified for inclusion in an item bank based upon the quality and educational importance of the item content or the ability to measure students with very high or low achievement, especially if the students have not yet received instruction in the content.

The item-total correlation of the correct response option (for SR items) or the CR item score with the total raw score:

This statistic describes the relationship between performance on the specific item and performance on the total test including the item under study. It is sometimes referred to as a discrimination index. For SR items,

the item-total correlation is the point-biserial correlation. For CR items, the item-total correlation is the polyserial correlation. Values less than 0.15 were flagged for a weaker than desired relationship and deserve careful consideration by ETS staff and MSDE before including them on future forms. Items with negative correlations can indicate serious problems with the item content (e.g., multiple correct answers, unusually complex content), an incorrect key, or students have not been taught the content.

The proportion of students choosing each response option (SR items):

This statistic indicates the percent of examinees selecting each answer option. Item options not selected by any students or selected by a very low proportion of students indicate problems with plausibility of the option. Items that do not have all answer options functioning may be discarded or revised and field tested again.

The point-biserial correlation of incorrect response option (SR items) with the total raw score:

These statistics describe the relationship between selecting an incorrect response option for a specific item and performance on the total test including the item under study. Typically, the correlation between an incorrect answer and total test performance is weak or negative. Values are typically compared and contrasted with the discrimination index. When the magnitude of these point-biserial correlations for the incorrect answer is stronger, relative to the correct answer, the item will be carefully reviewed for content-related problems. Alternatively, positive point-biserial correlations on incorrect option choices may indicate that students have not had sufficient opportunity to learn the material.

Percent of students omitting an item:

This statistic is useful for identifying problems with test features such as testing time and item/test layout. Typically, it is assumed that if students have an adequate amount of testing time, 95% of students should attempt to answer each question. When a pattern of omit percentages exceeds 5% for a series of items at the end of a timed section, this may indicate that there was insufficient time for students to complete all items. For individual items, if the omit percentage is greater than 5% for a single SR or SPR item or 15% for a CR item[8], this could be an indication of an

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[8] Omit rates are typically greater for CR items than for SR/SPR items, therefore a higher omit percentage is used to signal a potential CR item/test layout problem.

item/test layout problem. For example, students might accidentally skip an item that follows a lengthy stem.

Frequency distribution of CR score points:

Observation of the distribution of scores is useful to identify how well the item is functioning. If no students are assigned the top score point, this may indicate that the item is not functioning with respect to the rubric, there are problems with the item content, or students have not been taught the content.

Summaries of p-values by content area for the field test items administered in January are found in Table 5.1. Summaries of item-total correlations by content area for the field test items administered in January are found in Table 5.2. Summaries of p-values and item-total correlations by content area for the field test items administered in May are found in Tabled 5.3 and 5.4, respectively. In addition, a series of flags was created to identify items with extreme values. Flagged items were subject to additional scrutiny prior to the inclusion of the items in the final calibrations. The following flagging criteria were applied to all items tested in the 2008 assessments:

- *Difficulty Flag*: P-values less than 0.25 or greater than 0.90.
- *Discrimination Flag*: Item-total correlation less than 0.15.
- *Distractor Flag*: SR point-biserial correlation positive for incorrect option.
- *Omit Flag*: Percent omitted is greater than 5 for SR and SPR items and 15 for CR items.
- *Collapsed Score Levels*: Operational CR items with no students obtaining the score point.

Following the classical item analyses, items with poor item statistics and items that were not scored as per MSDE's instructions were removed from further analyses. Refer to Table 5.5. These items have been identified for revision and possible re-field testing. Table 5.6 presents the number of items that, although flagged for statistical reasons including extreme p-values; low item-total correlations; and/or high omits rates; were retained for further analyses and evaluation. Calibration results indicated the items were estimated reasonably, and therefore were not removed from scaling.

Differential Item Functioning

Following the classical item analyses, differential item functioning (DIF) analyses were completed. One goal of test development is to assemble a set of items that provides an estimate of student ability that is as fair and accurate as possible for all groups within the population. DIF statistics are used to identify items whereby identifiable groups of students with the same underlying level of ability have different probabilities of answering correctly (e.g., females, African Americans, Hispanics). If the item is more difficult for an identifiable subgroup, the item may be measuring something different than the intended construct. However, it is important to recognize that DIF flagged items might be related to actual differences in relevant knowledge or skill (item impact) or statistical Type I error. A subsequent review by MSDE and ETS content experts is conducted to investigate the source and meaning of evident differences.

ETS used two DIF detection methods: the Mantel-Haenszel and standardization approaches. As part of the Mantel-Haenszel procedure, the statistic described by Holland & Thayer (1988), known as MH D-DIF, was used[9]. This statistic is expressed as the difference between the focal and reference group performance on an item after conditioning on total test score. Negative MH D-DIF statistics favor the reference group and positive values favor the focal group. The classification logic used for flagging items is based on a combination of absolute differences and significance testing. Items that are not significantly different based on the MH D-DIF ($p > 0.05$) are considered to have similar performance between the two studied groups; these items are considered to be functioning appropriately. For items where the statistical test indicates significant differences ($p < 0.05$), the effect size is used to determine the direction and severity of the DIF. The male and white groups were treated as the reference groups for gender and ethnicity, respectively; the female and other ethnic groups were considered the focal groups.

Based on their DIF statistics, items are classified into one of three categories and assigned values of A, B or C. Category A items contain negligible DIF, Category B

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[9] The formula for the estimate of constant odds ratio is:

$$\hat{\alpha}_{MH} = \frac{\left(\sum_m \dfrac{R_{rm} W_{fm}}{N_m} \right)}{\left(\sum_m \dfrac{R_{fm} W_{rm}}{N_m} \right)},$$

where,

R_{rm}	=	number in reference group at ability level m answering the item right,
W_{fm}	=	number in focal group at ability level m, answering the item wrong,
R_{fm}	=	number in focal group at ability level m answering the item right,
W_{rm}	=	number in reference group at ability level m, answering the item wrong,
N_m	=	total group at ability level m.

This can then be used in the following formula (Holland & Thayer, 1985):
$MH\,D\text{-}DIF = -2.35\,ln[\,\alpha_{MH}\,]\,.$

items exhibit slight or moderate DIF, and Category C items have moderate to large DIF. Negative values imply that conditional on the matching variable, the focal group has a lower mean item score than the reference group. In contrast a positive value implies that, conditional on the matching variable, the reference group has lower mean item score than the focal group.

For constructed response (CR) items, the MH D-DIF statistic is not calculated; instead the standardization procedure is used in conjunction with the Mantel chi-square statistic. Analogous flagging rules have been developed that are used to classify the CR items into A, B, or C DIF categories. The flagging criteria for constructed response items are:

A) If the Mantel Chi-square p-value > 0.05 and/or the Mantel Chi-square p-value < 0.05 and the Standardized Mean Difference $|SMD/SD| \leq 0.17$, the item is classified as A.

B) If the Mantel Chi-square p-value < 0.05 and $|SMD/SD|$ between 0.17 and 0.25 then the item is classified as B.

C) If the Mantel Chi-square p-value < 0.05 and $|SMD/SD| > 0.25$ then the item is classified as C.

Positive values favor the focal group and negative values favor the reference group.

None of the January field test items were flagged for DIF. For the May administration, forty-nine field test items were flagged for C-level DIF involving one or more of the identified focal groups (i.e., female, African American, American Indian, Asian, Hispanic). The numbers of items flagged for DIF were 7 Algebra items, 6 Biology items, 20 English items, and 16 Government items. These items are flagged in the item bank and will be reviewed by ETS and MSDE content specialists as well as ETS senior staff to determine their availability for future use.

IRT Calibration and Scaling

One purpose of item calibration and scaling is to create a common scale for expressing the difficulty estimates of all the items across all versions of a test. The resulting scale has a mean score of 0 and a standard deviation of 1. It should be noted that this scale is often referred to as the "theta" metric and is not used for reporting purposes because the values typically range from –3 to +3. Therefore, the scale is usually transformed to a reporting scale (also know as a scale score), which can be more meaningfully interpreted by students, teachers, and other stakeholders.

As noted previously, the IRT models used to calibrate the MDHSA test items were the 3-parameter logistic (3PL) model for SR items and the generalized partial credit model (GPCM) for CR items. Item response theory expresses the probability that a student will achieve a certain score on an item (such as correct or incorrect) as a function of the item's statistical properties and the ability level (or proficiency level) of the student.

The 3PL model relates the probability that a person with ability θ will respond correctly to item i as follows:

$$P_i(\theta) = c_i + \frac{1 - c_i}{1 + e^{-1.7a_i(\theta - b_i)}}$$

where:

a_i is the slope parameter of item i, characterizing its discrimination ;

b_i is the location parameter of item i, characterizing its difficulty; and

c_i is the lower asymptote parameter of item i, reflecting the chance that students with very low proficiency will select the correct answer, sometimes called the "pseudo-guessing" level.

The GPCM states that the probability that a person with ability θ will obtain a score of k on an item i_that has m score categories assigned score values ranging from 0 to m-1 can be expressed as

$$P_{ik}(\theta) = \frac{e^{Z_{ik}}}{1 + \sum_{k=1}^{m-1} e^{Z_{ik}}},$$

where

$$Z_{ik}(\theta) = 1.7a_i\theta - (\sum_{v=0}^{k} b_i - d_{iv}) = 1.7a_i\theta - \sum_{v=0}^{k} b_{iv}$$

$b_{i0} = 0,$ and

P_{ik} is the probability of obtaining a score of k on item i, and

d_{ik} is the parameter characterizing the relative difficulty of obtaining score k,

A proprietary version of the PARSCALE computer program (Muraki & Bock, 1995) was used for all item calibration work. This program estimates parameters for a generalized partial-credit model using procedures described by Muraki (1992). The resulting calibrations were then scaled to the bank estimates using Stocking and Lord's (1983) TCC method and the operational items as the anchor set.

The calibration and equating process is outlined in the steps below:

1. For each test, calibrate all items using a sparse matrix design that places all items on a common scale. Essentially, this means that the data was set up using the following format. In the diagram below X's represent items, spaces indicating missing data. For example, items included on version 2 but not on version 1, 3, 4 or 5 were treated as "not reached" for the purposes of the analyses and were denoted as "missing" in the diagram below.

Common	Unique 1	Unique 2	Unique 3	Unique 4	Unique 5
XXXXXXXX	XXXXXXXX				
XXXXXXXX		XXXXXXXX			
XXXXXXXX			XXXXXXXX		
XXXXXXXX				XXXXXXXX	
XXXXXXXX					XXXXXXXX

2. Once the items have been calibrated, results are reviewed to determine if any items failed to calibrate.

3. After the final calibration parameters were obtained, the items were then linked to the bank scale using the test characteristic curve method. Specifically, the banked parameters of the primary form operational non-CR items were used to place the field test items onto the operational reporting scale.

Once the items were calibrated and placed onto the operational scale, the items were loaded into the item bank. Items that were not calibrated were listed as unavailable (see Table 5.5).

Statistical Summary Tables

Table 5.1 Distribution of P-Values for the January Field Test Items

P-Value	Percentage and Number of Items							
	Algebra[a]		Biology		English		Government	
	%	N	%	N	%	N	%	N
P < 0.25	37.50	6	10.71	3	0.00	0	0.00	0
0.25 ≤ P < 0.35	12.50	2	17.86	5	9.38	3	20.00	2
0.35 ≤ P < 0.45	18.75	3	10.71	3	9.38	3	0.00	0
0.45 ≤ P < 0.55	18.75	3	35.71	10	18.75	6	50.00	5
0.55 ≤ P < 0.65	0.00	0	10.71	3	34.38	11	20.00	2
0.65 ≤ P < 0.75	12.50	2	7.14	2	21.88	7	10.00	1
0.75 ≤ P < 0.85	0.00	0	3.57	1	6.25	2	0.00	0
P ≥ 0.85	0.00	0	3.57	1	0.00	0	0.00	0
Descriptive Statistics								
N Items	16		25		32		10	
Mean	0.33		0.51		0.57		0.49	
SD	0.20		0.15		0.13		0.11	
Min	0.07		0.27		0.30		0.30	
Max	0.70		0.85		0.78		0.67	

[a] SPR items included

Table 5.2 Distribution of Item-Total Correlations for the January Field Test Items

Correlation	Percentage and Number of Items							
	Algebra[a]		Biology		English		Government	
	%	N	%	N	%	N	%	N
R < 0.15	12.50	2	17.86	5	0.00	0	0.00	0
0.15 ≤ R < 0.25	31.25	5	7.14	2	12.50	4	10.00	1
0.25 ≤ R < 0.35	43.75	7	10.71	3	25.00	8	50.00	5
0.35 ≤ R < 0.45	12.50	2	39.29	11	50.00	16	20.00	2
0.45 ≤ R < 0.55	0.00	0	25.00	7	12.50	4	20.00	2
0.55 ≤ R < 0.65	0.00	0	0.00	0	0.00	0	0.00	0
0.65 ≤ R < 0.75	0.00	0	0.00	0	0.00	0	0.00	0
R ≥ 0.75	0.00	0	0.00	0	0.00	0	0.00	0
Descriptive Statistics								
N Items	16		25		32		10	
Mean	0.25		0.37		0.36		0.35	
SD	0.10		0.13		0.08		0.10	
Min	0.01		0.02		0.18		0.19	
Max	0.41		0.53		0.49		0.52	

[a] SPR items included

Table 5.3 Distribution of P-Values for the May Field Test Items

| P-Value | Percentage and Number of Items | | | | | | | |
| | Algebra[a] | | Biology | | English | | Government | |
	%	N	%	N	%	N	%	N
P < 0.25	7.33	11	1.44	4	2.12	6	1.67	5
0.25 ≤ P < 0.35	12.67	19	5.42	15	4.95	14	5.67	17
0.35 ≤ P < 0.45	13.33	20	13.36	37	7.07	20	14.33	43
0.45 ≤ P < 0.55	22.67	34	22.38	62	13.43	38	14.00	42
0.55 ≤ P < 0.65	12.00	18	21.30	59	20.49	58	24.33	73
0.65 ≤ P < 0.75	18.67	28	19.13	53	22.97	65	19.67	59
0.75 ≤ P < 0.85	8.67	13	13.72	38	24.73	70	12.00	36
P ≥ 0.85[b]	4.67	7	3.25	9	4.24	12	8.33	25
Descriptive Statistics								
N Items	150		277		283		300	
Mean	0.52		0.58		0.63		0.60	
SD	0.19		0.16		0.16		0.17	
Min	0.13		0.18		0.12		0.13	
Max	0.92		0.92		0.95		0.92	

[a] SPR items included; [b] P-value > 0.90: 2 Algebra, 1 Biology , 3 English, and 2 Government items

Table 5.4 Distribution of Item-Total Correlations for the May Field Test Items

| Correlation | Percentage and Number of Items | | | | | | | |
| | Algebra[a] | | Biology | | English | | Government | |
	%	N	%	N	%	N	%	N
R < 0.15	1.33	2	4.33	12	6.71	19	4.33	13
0.15 ≤ R < 0.25	5.33	8	11.19	31	14.49	41	6.67	20
0.25 ≤ R < 0.35	19.33	29	21.30	59	30.04	85	20.33	61
0.35 ≤ R < 0.45	37.33	56	40.79	113	36.40	103	37.00	11
0.45 ≤ R < 0.55	25.33	38	21.30	59	12.01	34	29.33	88
0.55 ≤ R < 0.65	8.00	12	1.08	3	0.35	1	2.33	7
0.65 ≤ R < 0.75	3.33	5	0.00	0	0.00	0	0.00	0
R ≥ 0.75	0.00	0	0.00	0	0.00	0	0.00	0
Descriptive Statistics								
N Items	150		277		283		300	
Mean	0.42		0.36		0.33		0.38	
SD	0.12		0.11		0.11		0.12	
Min	0.01		-0.01		-0.16		-0.11	
Max	0.69		0.61		0.55		0.59	

[a] SPR items included

Table 5.5 Field Test Items Excluded from Calibration

Administration	Content	ItemID	Form	Sequence	Response Type	Reason
January						
	Algebra	106600	A	17	CR	MSDE requested Do Not Score
	Algebra	136696	A	29	SR	R_ITT=0.01
	Algebra	79530	A	30	CR	MSDE requested Do Not Score
	Algebra	79125	B	17	CR	MSDE requested Do Not Score
	Algebra	106538	B	30	CR	MSDE requested Do Not Score
	Biology	108678	A	11	CR	MSDE requested Do Not Score
	Biology	137272	A	13	SR	R_ITT=0.02
	Biology	108667	A	62	CR	MSDE requested Do Not Score
	Biology	215974	B	5	SR	MSDE requested Do Not Score
	Biology	215975	B	6	SR	MSDE requested Do Not Score
	Biology	135582	B	11	CR	MSDE requested Do Not Score
	Biology	215982	B	13	SR	MSDE requested Do Not Score
	Biology	223399	B	62	CR	MSDE requested Do Not Score
	English	251085	A	33	CR	MSDE requested Do Not Score
	English	251253	B	34	CR	MSDE requested Do Not Score
	Government	79557	A	29	CR	MSDE requested Do Not Score
	Government	79536	B	29	CR	MSDE requested Do Not Score
May						
	Algebra	135104	K	29	SR	R_ITT=0.06
	Algebra	211052	M	40	SR	R_ITT=0.01
	Biology	256540	E	4	SR	R_ITT=0.05
	Biology	256526	F	51	SR	R_ITT=-0.01
	Biology	133022	L	4	SR	R_ITT=0.01
	Biology	241125	M	51	SR	R_ITT=0.07
	English	246668	F	9	SR	R_ITT=0.05
	English	246671	F	12	SR	R_ITT=0.04
	English	215779	F	27	SR	R_ITT=0.07
	English	215794	G	9	SR	R_ITT=-0.01
	English	215798	G	10	SR	R_ITT=0.04
	English	214698	H	54	SR	R_ITT=0.02
	English	256306	K	23	SR	R_ITT=0.04
	English	215806	K	69	SR	R_ITT=0.04
	English	215770	L	27	SR	R_ITT=0.07
	English	256293	L	70	SR	R_ITT=-0.16
	English	223338	M	11	SR	R_ITT=0.06
	English	223331	M	31	SR	R_ITT=0.02

Administration	Content	ItemID	Form	Sequence	Response Type	Reason
	English	218610	N	30	SR	R_ITT=0.04
	Government	52194	E	14	SR	R_ITT=-0.08
	Government	79706	E	65	SR	R_ITT=-0.11
	Government	214579	M	39	SR	R_ITT=0.03
	Government	214503	N	4	SR	R_ITT=0.07

Table 5.6 Field Test Items with Statistical Flags Retained in Calibration

	P-Value	P-Value	R_ITT	Distractor Pt-Bis	Omit Rate	C-Level DIF	Missing Response[a]	Total Flags	N Items[b]
	< 0.25	> 0.90	< 0.15	> 0	> 5%				
January									
Algebra	6	0	1	3	4	0	0	14	7
Biology	0	0	1	4	0	0	0	5	4
English	0	0	0	1	0	0	0	1	1
Government	0	0	0	2	0	0	0	2	2
May									
Algebra	9	2	0	5	28[c]	7	0	51	43
Biology	3	1	8	28	0	6	0	46	36
English	1	3	6	28	0	20	0	58	50
Government	4	2	9	25	0	16	0	56	45

[a] SR option with 0 students; [b] Represents total number of unique items; [c] All SPR items.

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Appendix A. Classical Item Statistics: Operational Forms

Table A1. Summary Item Statistics - Operational Items
Algebra – October Primary

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
R	1	L	51474	SR	0.97	0.25	-0.06	0.25	-0.14	-0.19	0.0
R	2	L	56599	SR	0.67	0.28	-0.16	-0.18	0.28	-0.12	0.2
R	3	L	56658	SR	0.70	0.29	-0.20	0.29	-0.10	-0.13	0.4
R	5	L	54794	SR	0.30	0.27	0.27	-0.14	-0.03	-0.18	0.9
R	6	L	54776	CR	0.44	0.51					5.4
R	7	L	56632	SR	0.33	0.32	-0.07	-0.27	0.32	-0.05	0.3
R	8	L	51485	SR	0.34	0.21	-0.04	-0.05	-0.12	0.21	1.6
R	9	L	67556	SR	0.51	0.33	0.33	-0.22	-0.15	-0.04	0.7
R	11	L	54796	SR	0.49	0.28	-0.12	-0.14	-0.08	0.28	0.7
R	13	L	54560	SPR	0.39	0.44	0.44	-0.32			6.4
R	14	L	51489	SPR	0.76	0.39	0.39	-0.33			3.2
R	16	L	67461	SPR	0.68	0.39	0.39	-0.31			4.2
R	17	L	67498	CR	0.08	0.43					10.1
R	18	L	51455	SR	0.34	0.30	-0.15	0.30	-0.06	-0.09	1.4
R	19	L	56712	SR	0.47	0.34	-0.15	-0.17	0.34	-0.08	1.6
R	20	L	67501	SR	0.54	0.31	-0.12	-0.14	0.31	-0.12	2.0
R	21	L	54857	CR	0.18	0.50					16.4
R	22	L	51410	SR	0.72	0.33	-0.14	-0.15	-0.19	0.33	3.1
R	23	L	64689	SR	0.21	0.22	0.22	0.04	-0.15	-0.06	3.4
R	25	L	56741	SR	0.57	0.17	-0.16	0.17	-0.19	0.12	1.0
R	26	L	54692	SR	0.72	0.29	-0.15	-0.17	-0.15	0.29	0.5
R	27	L	56573	SR	0.40	0.25	-0.14	-0.06	0.25	-0.11	0.7
R	28	L	51555	SR	0.24	0.17	0.17	-0.11	0.01	-0.11	0.9
R	31	L	54710	SR	0.62	0.29	-0.14	-0.17	0.29	-0.10	0.8
R	33	L	56557	SR	0.24	0.09	0.09	-0.03	-0.08	0.06	0.9
R	35	L	56783	SR	0.43	0.23	-0.01	-0.13	-0.14	0.23	1.2
R	36	L	67557	CR	0.51	0.71					8.0
R	37	L	67410	SPR	0.60	0.42	0.42	-0.31			5.7
R	38	L	67411	SPR	0.08	0.26	0.26	-0.02			19.0
R	40	L	51490	SPR	0.69	0.41	0.41	-0.29			5.1
R	41	L	54896	CR	0.13	0.48					16.3
R	42	L	64684	SR	0.53	0.31	0.31	-0.13	-0.13	-0.10	2.2
R	43	L	56767	SR	0.39	0.14	0.14	-0.13	0.01	-0.05	2.4
R	44	L	54752	SR	0.45	0.24	-0.12	-0.06	0.24	-0.07	2.7
R	45	L	67466	CR	0.23	0.60					19.1
R	46	L	51387	SR	0.26	0.21	-0.03	-0.08	-0.05	0.21	3.6
R	47	L	56558	SR	0.44	0.24	0.24	-0.09	-0.09	-0.06	3.7
R	48	L	54707	SR	0.49	0.25	-0.12	0.25	-0.05	-0.14	3.8
Mean					0.45	0.28	0.07	-0.10	0.01	0.00	4.2
SD					0.21	0.08	0.22	0.17	0.19	0.16	5.3

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A2. Summary Item Statistics - Operational Items
Biology - October Primary

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
R	1	O	55013	SR	0.73	0.27	-0.17	0.27	-0.15	-0.09	0.1
R	2	O	52424	SR	0.52	0.21	-0.08	-0.11	-0.14	0.21	0.3
R	3	O	64744	SR	0.39	0.14	-0.11	0.14	-0.06	-0.02	0.7
R	4	O	64743	SR	0.76	0.29	0.29	-0.19	-0.12	-0.15	0.1
R	5	O	64745	SR	0.45	0.29	-0.14	0.29	-0.16	-0.06	0.2
R	6	L	68119	CR	0.30	0.50					5.2
R	7	O	52567	SR	0.16	0.20	0.20	0.00	-0.16	-0.06	0.4
R	8	O	67683	SR	0.36	0.25	-0.10	0.25	-0.18	0.01	0.5
R	11	O	55196	SR	0.39	0.27	0.27	-0.15	-0.18	-0.06	0.4
R	12	O	67671	SR	0.18	0.06	-0.06	-0.13	0.13	0.06	0.4
R	13	O	52485	SR	0.66	0.36	-0.17	-0.19	-0.17	0.36	0.3
R	15	L	68257	CR	0.18	0.54					9.4
R	16	O	56986	SR	0.35	0.25	0.25	-0.12	-0.10	-0.06	0.6
R	17	O	56987	SR	0.44	0.22	-0.16	0.22	-0.07	-0.06	0.7
R	18	O	52460	SR	0.48	0.17	-0.02	0.17	-0.19	-0.04	0.5
R	19	O	52506	SR	0.29	0.25	-0.04	-0.12	-0.09	0.25	0.7
R	20	O	52505	SR	0.35	0.25	-0.06	0.25	-0.14	-0.11	0.6
R	21	O	52504	SR	0.59	0.34	-0.12	-0.18	0.34	-0.17	0.6
R	22	L	52438	CR	0.10	0.57					17.1
R	26	O	64734	SR	0.16	0.15	0.06	-0.12	-0.04	0.15	1.2
R	27	O	56992	SR	0.38	0.31	-0.17	-0.11	-0.13	0.31	1.1
R	28	O	65128	SR	0.35	0.20	-0.05	0.20	-0.12	-0.04	1.4
R	29	O	64993	SR	0.30	0.08	-0.02	-0.02	0.08	-0.03	1.7
R	30	O	52651	SR	0.69	0.39	0.39	-0.20	-0.22	-0.16	1.5
R	31	L	52484	CR	0.13	0.52					19.4
R	34	O	67569	SR	0.29	0.10	-0.10	0.10	-0.06	0.07	3.4
R	35	O	67571	SR	0.27	0.25	0.25	-0.18	-0.04	-0.02	3.5
R	36	O	57055	SR	0.36	0.27	-0.12	0.27	-0.07	-0.12	3.7
R	37	O	57145	SR	0.55	0.22	-0.09	0.22	-0.13	-0.09	0.4
R	38	O	67860	SR	0.55	0.25	-0.12	0.25	-0.12	-0.10	0.7
R	39	O	68223	SR	0.57	0.37	0.37	-0.17	-0.19	-0.15	0.6
R	40	O	55076	SR	0.50	0.23	-0.14	0.23	-0.04	-0.12	0.5
R	41	O	55141	SR	0.31	0.13	0.13	-0.14	-0.04	0.02	0.4
R	42	L	52498	CR	0.05	0.52					16.7
R	43	O	57134	SR	0.36	0.33	-0.06	-0.16	-0.15	0.33	1.2
R	46	O	52750	SR	0.41	0.27	-0.13	0.27	-0.16	-0.04	1.2
R	47	O	52747	SR	0.40	0.23	0.01	-0.17	-0.18	0.23	1.2
R	48	L	64704	CR	0.07	0.46					22.8
R	49	O	65142	SR	0.55	0.26	-0.06	-0.15	0.26	-0.12	0.9
R	50	O	55149	SR	0.33	0.21	-0.15	0.02	-0.10	0.21	0.9
R	51	O	56965	SR	0.42	0.24	0.01	-0.21	-0.14	0.24	1.0
R	52	O	56963	SR	0.39	0.32	-0.15	0.32	-0.10	-0.12	1.1
R	53	O	54992	SR	0.40	0.22	-0.14	-0.05	0.22	-0.07	1.0

Table A2. Summary Item Statistics - Operational Items

Biology - October Primary

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
R	57	O	55164	SR	0.34	0.25	-0.12	0.25	-0.13	-0.03	1.1
R	58	O	55165	SR	0.19	0.26	0.26	-0.12	-0.05	-0.05	1.1
R	59	O	55163	SR	0.47	0.43	-0.18	-0.21	-0.15	0.43	1.1
R	60	O	52592	SR	0.44	0.22	-0.01	-0.13	0.22	-0.12	1.0
R	61	O	52593	SR	0.50	0.26	0.26	-0.11	-0.12	-0.08	1.3
R	63	O	60528	SR	0.26	0.12	-0.11	0.08	0.12	-0.10	1.7
R	64	L	67633	CR	0.08	0.54					25.7
R	67	O	68281	SR	0.35	0.34	0.34	-0.14	-0.12	-0.09	3.1
R	68	O	68282	SR	0.49	0.29	0.29	-0.08	-0.15	-0.11	3.0
R	69	O	68191	SR	0.18	0.24	-0.14	-0.06	0.01	0.24	3.2
R	70	O	65118	SR	0.50	0.34	0.34	-0.13	-0.17	-0.11	3.1
R	71	O	68150	SR	0.28	0.17	-0.12	-0.02	0.17	-0.02	3.1
Mean					0.37	0.25	0.01	0.00	-0.07	0.01	3.2
SD					0.17	0.08	0.18	0.18	0.13	0.16	5.8

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A3. Summary Item Statistics - Operational Items

English - October Primary

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
R	1	O	108706	CR	0.53	0.45					2.5
R	2	O	130038	SR	0.51	0.30	0.30	-0.13	-0.15	-0.15	0.1
R	3	O	130039	SR	0.47	0.28	-0.10	0.28	-0.19	-0.14	0.0
R	4	O	130292	SR	0.40	0.24	-0.03	-0.17	0.24	-0.20	0.0
R	5	O	130040	SR	0.70	0.31	0.31	-0.13	-0.20	-0.17	0.0
R	6	O	130041	SR	0.64	0.33	-0.14	-0.18	0.33	-0.16	0.0
R	7	O	96433	SR	0.75	0.35	-0.18	-0.21	0.35	-0.18	0.0
R	8	O	96434	SR	0.68	0.38	-0.23	-0.11	-0.29	0.38	0.0
R	9	O	96437	SR	0.39	0.31	-0.15	-0.26	-0.01	0.31	0.1
R	10	O	96436	SR	0.73	0.34	-0.22	0.34	-0.16	-0.17	0.0
R	11	O	96435	SR	0.53	0.31	-0.18	-0.17	-0.12	0.31	0.3
R	12	O	96438	SR	0.49	0.24	0.24	-0.20	-0.06	-0.11	0.2
R	13	O	96439	SR	0.49	0.28	-0.15	0.28	-0.14	-0.08	0.1
R	17	O	108700	SR	0.44	0.24	-0.13	-0.12	0.24	-0.05	0.7
R	18	O	108703	SR	0.41	0.21	-0.11	-0.07	0.21	-0.09	0.7
R	20	O	108701	SR	0.62	0.31	-0.21	-0.26	0.31	-0.03	0.7
R	21	O	130959	SR	0.50	0.25	-0.08	0.25	-0.25	-0.06	0.9
R	22	O	108705	CR	0.39	0.48					7.2
R	23	O	108688	CR	0.49	0.51					3.5
R	24	O	95560	SR	0.56	0.34	-0.15	-0.16	-0.15	0.34	0.3
R	25	O	95561	SR	0.74	0.37	-0.18	0.37	-0.23	-0.16	0.2
R	26	O	95562	SR	0.57	0.37	-0.16	-0.20	0.37	-0.16	0.4
R	27	O	95563	SR	0.77	0.39	-0.20	-0.24	0.39	-0.17	0.2
R	29	O	130948	SR	0.55	0.32	-0.15	0.32	-0.19	-0.10	0.2
R	30	O	130961	SR	0.79	0.36	-0.23	0.36	-0.18	-0.15	0.2
R	31	O	130949	SR	0.51	0.21	-0.11	-0.11	-0.05	0.21	0.2
R	32	O	108788	SR	0.65	0.42	-0.20	0.42	-0.26	-0.17	0.3
R	33	O	108785	SR	0.52	0.30	-0.05	-0.22	-0.19	0.30	0.5
R	35	O	108790	SR	0.53	0.34	-0.07	-0.22	-0.20	0.34	0.4
R	36	O	108787	SR	0.76	0.43	0.43	-0.25	-0.25	-0.17	0.4
R	40	O	130253	SR	0.58	0.41	0.41	-0.19	-0.20	-0.20	0.5
R	47	O	130218	SR	0.27	0.14	-0.12	-0.02	0.14	0.00	0.9
R	48	O	130219	SR	0.63	0.28	-0.12	-0.16	0.28	-0.12	0.6
R	49	O	130222	SR	0.57	0.29	-0.07	-0.15	0.29	-0.17	0.7
R	50	O	130220	SR	0.53	0.33	-0.18	0.33	-0.12	-0.17	0.6
R	51	O	130221	SR	0.53	0.34	-0.25	0.34	-0.21	-0.06	0.7
R	52	O	130226	SR	0.42	0.30	-0.09	-0.16	0.30	-0.12	0.8
R	53	O	130223	SR	0.42	0.21	0.21	-0.09	-0.07	-0.05	0.8
R	54	O	130227	SR	0.51	0.35	-0.10	-0.10	-0.23	0.35	0.7
R	55	O	130224	SR	0.40	0.25	-0.14	0.25	-0.11	-0.04	0.9
R	56	O	130228	CR	0.32	0.49					13.4
R	57	O	95664	SR	0.72	0.39	0.39	-0.27	-0.18	-0.10	0.8
R	58	O	95665	SR	0.79	0.45	-0.21	-0.23	0.45	-0.22	0.8

Table A3. Summary Item Statistics - Operational Items

English - October Primary

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
R	59	O	96106	SR	0.50	0.19	-0.15	-0.08	0.19	-0.02	1.1
R	60	O	96107	SR	0.75	0.32	0.32	-0.10	-0.17	-0.19	0.9
R	61	O	96108	SR	0.52	0.33	-0.12	0.33	-0.13	-0.15	1.0
R	62	O	96109	SR	0.54	0.30	0.30	-0.19	-0.19	-0.03	1.0
R	63	O	96110	SR	0.79	0.46	-0.21	0.46	-0.25	-0.22	1.1
R	64	O	130052	SR	0.61	0.28	-0.14	-0.15	0.28	-0.09	1.2
R	65	O	130051	SR	0.61	0.37	-0.14	-0.26	-0.14	0.37	1.3
Mean					0.56	0.32	-0.06	-0.03	-0.02	-0.04	1.0
SD					0.13	0.07	0.20	0.24	0.23	0.19	2.1

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A4. Summary Item Statistics - Operational Items
Government - October Primary

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
R	1	O	68719	SR	0.69	0.20	-0.09	-0.14	0.20	-0.08	0.1
R	2	O	51259	SR	0.85	0.38	-0.22	-0.25	0.38	-0.14	0.0
R	3	O	51180	SR	0.75	0.22	0.22	-0.14	-0.13	-0.09	0.1
R	4	O	50896	SR	0.48	0.14	-0.16	-0.15	0.14	0.01	0.2
R	6	O	51075	CR	0.29	0.58					4.8
R	7	O	55642	SR	0.58	0.29	-0.09	-0.16	0.29	-0.17	0.2
R	8	O	51800	SR	0.17	0.18	-0.09	-0.02	-0.04	0.18	0.2
R	9	O	55554	SR	0.29	0.25	0.25	-0.13	-0.08	-0.06	0.3
R	10	O	51765	SR	0.29	0.23	-0.09	0.23	-0.08	-0.07	0.3
R	11	O	53651	CR	0.24	0.54					7.2
R	12	O	55524	SR	0.57	0.29	-0.18	0.29	-0.09	-0.16	0.2
R	13	O	58147	SR	0.30	0.31	0.31	-0.13	-0.08	-0.13	0.3
R	14	O	68768	SR	0.28	0.09	-0.06	-0.10	0.09	0.07	0.4
R	15	O	64962	SR	0.46	0.35	-0.20	-0.17	-0.11	0.35	0.2
R	16	O	67998	CR	0.21	0.48					10.7
R	19	O	68759	SR	0.41	0.34	-0.09	-0.19	-0.13	0.34	0.7
R	20	O	51740	CR	0.32	0.52					6.3
R	21	O	51077	SR	0.34	0.35	0.35	-0.28	-0.15	-0.02	0.6
R	22	O	68756	SR	0.46	0.31	-0.21	-0.05	-0.17	0.31	0.8
R	23	O	55666	SR	0.30	0.30	-0.14	-0.17	-0.02	0.30	0.7
R	24	O	68725	SR	0.52	0.30	-0.11	0.30	-0.16	-0.12	0.7
R	25	O	68496	SR	0.33	0.22	-0.05	-0.15	-0.03	0.22	1.0
R	26	O	55589	SR	0.35	0.31	-0.13	-0.09	-0.14	0.31	0.8
R	27	O	50894	SR	0.62	0.30	-0.14	-0.16	0.30	-0.13	1.1
R	28	O	68693	CR	0.18	0.52					17.4
R	29	O	68608	SR	0.17	0.11	-0.17	0.09	0.11	0.00	2.5
R	30	O	64951	SR	0.45	0.36	-0.18	0.36	-0.15	-0.10	2.8
R	31	O	68578	SR	0.25	0.24	0.00	-0.10	-0.09	0.24	2.9
R	32	O	50984	SR	0.50	0.35	-0.19	-0.10	0.35	-0.14	2.7
R	33	O	55491	SR	0.36	0.22	0.22	-0.17	-0.04	-0.01	2.7
R	35	O	68701	SR	0.65	0.36	-0.16	-0.16	-0.21	0.36	0.7
R	36	O	68714	SR	0.58	0.28	0.28	-0.21	-0.06	-0.16	0.7
R	37	O	51087	SR	0.87	0.37	-0.21	-0.22	0.37	-0.14	0.7
R	38	O	68045	CR	0.18	0.60					12.3
R	39	O	68532	SR	0.47	0.29	0.29	-0.11	-0.14	-0.13	0.5
R	40	O	68020	SR	0.34	0.22	0.22	-0.17	-0.06	0.01	0.5
R	42	O	68541	SR	0.56	0.32	-0.18	-0.21	-0.08	0.32	0.6
R	43	O	58098	SR	0.53	0.34	-0.12	-0.17	-0.16	0.34	0.6
R	44	O	55599	SR	0.61	0.30	-0.10	0.30	-0.23	-0.10	0.5
R	45	O	51758	SR	0.61	0.25	-0.06	0.25	-0.18	-0.13	0.6
R	46	O	50893	SR	0.45	0.26	-0.09	0.26	-0.21	-0.04	0.6
R	47	O	51750	SR	0.43	0.30	-0.03	-0.15	0.30	-0.21	0.6
R	49	O	58388	SR	0.62	0.29	0.29	-0.20	-0.09	-0.11	0.7

Table A4. Summary Item Statistics - Operational Items
Government - October Primary

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
R	50	O	68656	SR	0.40	0.18	-0.02	-0.16	0.18	0.00	0.9
R	51	O	67983	SR	0.61	0.42	-0.23	-0.14	-0.22	0.42	0.8
R	52	O	67976	SR	0.54	0.37	0.37	-0.17	-0.19	-0.13	0.8
R	53	O	67965	CR	0.33	0.60					8.0
R	54	O	68544	SR	0.39	0.25	-0.08	0.25	-0.13	-0.05	1.1
R	55	O	68068	SR	0.20	0.08	-0.11	-0.02	0.08	0.05	1.1
R	56	O	64954	SR	0.50	0.31	-0.12	-0.15	0.31	-0.12	1.2
R	57	O	68708	SR	0.32	0.17	0.01	0.17	-0.11	-0.07	1.4
R	58	O	68635	CR	0.29	0.49					9.5
R	59	O	58292	SR	0.57	0.34	-0.20	-0.17	0.34	-0.08	2.0
R	60	O	68059	SR	0.23	0.18	0.18	-0.02	-0.11	-0.02	2.0
R	61	O	67970	SR	0.30	0.16	0.16	-0.15	-0.03	0.03	2.3
R	62	O	51257	SR	0.58	0.34	0.34	-0.20	-0.19	-0.07	2.0
R	63	O	68023	SR	0.24	0.23	0.23	-0.13	-0.03	-0.02	2.0
R	64	O	68782	SR	0.43	0.33	-0.14	-0.17	-0.10	0.33	2.1
Mean					0.43	0.27	-0.01	-0.07	-0.02	0.02	2.2
SD					0.17	0.08	0.19	0.17	0.18	0.18	3.4

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A5. Summary Item Statistics - Operational Items

Algebra - January Primary

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
AB	1	L	79020	SR	0.51	0.41	-0.25	0.41	-0.18	-0.10	0.5
AB	2	L	56613	SR	0.73	0.38	0.38	-0.23	-0.22	-0.14	0.1
AB	3	L	54784	SR	0.78	0.35	-0.18	0.35	-0.20	-0.18	0.3
AB	4	L	106557	SR	0.19	0.26	0.26	-0.09	-0.09	-0.04	1.1
AB	5	O	54825	SR	0.41	0.27	-0.15	0.27	-0.06	-0.15	0.8
AB	6	L	79070	CR	0.32	0.66					5.1
AB	9	O	54831	SR	0.17	0.21	-0.03	-0.04	-0.10	0.21	0.6
AB	11	L	106579	SR	0.41	0.32	-0.13	-0.18	0.32	-0.08	0.6
AB	12	L	67494	CR	0.16	0.69					15.3
AB	13	O	56588	SPR	0.39	0.41	0.41	-0.30			7.1
AB	14	L	51377	SPR	0.59	0.48	0.48	-0.39			4.7
AB	16	L	54817	SPR	0.22	0.48	0.48	-0.28			15.6
AB	19	L	54766	SR	0.55	0.48	-0.22	-0.24	0.48	-0.16	3.1
AB	20	L	54867	SR	0.29	0.37	0.00	0.37	-0.17	-0.23	3.6
AB	21	L	43203	CR	0.43	0.65					12.1
AB	22	L	51559	SR	0.19	0.20	-0.04	-0.05	-0.06	0.20	6.3
AB	23	L	79133	SR	0.63	0.37	-0.18	-0.23	0.37	-0.11	6.3
AB	24	L	79083	SR	0.33	0.26	0.26	-0.05	-0.11	-0.13	7.3
AB	25	L	54619	SR	0.78	0.36	-0.12	-0.21	-0.20	0.36	0.6
AB	26	L	79089	SR	0.59	0.44	-0.19	-0.21	0.44	-0.20	0.7
AB	27	L	56818	SR	0.58	0.44	-0.11	0.44	-0.22	-0.26	0.9
AB	28	L	52340	SR	0.58	0.46	0.46	-0.21	-0.30	-0.16	0.7
AB	31	O	43156	SR	0.50	0.47	-0.15	-0.22	-0.23	0.47	1.0
AB	33	O	54816	SR	0.35	0.34	-0.21	0.34	-0.10	-0.04	0.8
AB	34	O	56770	SR	0.33	0.52	-0.24	-0.15	-0.20	0.52	0.8
AB	35	L	79031	SR	0.70	0.27	-0.13	0.27	-0.11	-0.16	0.9
AB	36	L	50418	CR	0.50	0.60					10.8
AB	37	L	79074	SPR	0.27	0.51	0.51	-0.32			9.3
AB	38	L	50415	SPR	0.30	0.57	0.57	-0.39			9.5
AB	40	L	54708	SPR	0.15	0.41	0.41	-0.13			15.8
AB	41	L	67512	CR	0.17	0.62					27.0
AB	42	L	64696	SR	0.69	0.39	-0.14	-0.26	0.39	-0.11	2.2
AB	43	L	51366	SR	0.34	0.34	-0.07	-0.15	-0.12	0.34	2.3
AB	44	L	67404	SR	0.49	0.31	-0.16	-0.12	-0.07	0.31	2.6
AB	45	L	54903	CR	0.38	0.64					19.4
AB	46	L	67429	SR	0.38	0.33	0.00	-0.22	0.33	-0.13	3.9
AB	47	L	43135	SR	0.44	0.40	-0.16	0.40	-0.21	-0.06	4.0
AB	48	O	67428	SR	0.61	0.38	0.38	-0.18	-0.16	-0.13	4.1
Mean					0.43	0.42	0.05	-0.06	-0.03	-0.01	5.5
SD					0.18	0.13	0.28	0.26	0.24	0.23	6.3

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A6. Summary Item Statistics - Operational Items
Algebra - January Make-Up

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	1	L	79020	SR	0.51	0.41	-0.25	0.41	-0.18	-0.10	0.5
C	2	L	56613	SR	0.73	0.38	0.38	-0.23	-0.22	-0.14	0.1
C	3	L	54784	SR	0.78	0.35	-0.18	0.35	-0.20	-0.18	0.3
C	4	L	106557	SR	0.19	0.26	0.26	-0.09	-0.09	-0.04	1.1
C	5	O	56661	SR	0.46	0.24	-0.12	-0.17	0.24	-0.04	1.2
C	6	L	79070	CR	0.32	0.66					5.1
C	9	O	51358	SR	0.20	0.25	0.00	-0.06	-0.17	0.25	1.2
C	11	L	106579	SR	0.41	0.32	-0.13	-0.18	0.32	-0.08	0.6
C	12	L	67494	CR	0.16	0.69					15.3
C	13	O	106607	SPR	0.49	0.32	0.32	-0.21			5.3
C	14	L	51377	SPR	0.59	0.48	0.48	-0.39			4.7
C	16	L	54817	SPR	0.22	0.48	0.48	-0.28			15.6
C	19	L	54766	SR	0.55	0.48	-0.22	-0.24	0.48	-0.16	3.1
C	20	L	54867	SR	0.29	0.37	0.00	0.37	-0.17	-0.23	3.6
C	21	L	43203	CR	0.43	0.65					12.1
C	22	L	51559	SR	0.19	0.20	-0.04	-0.05	-0.06	0.20	6.3
C	23	L	79133	SR	0.63	0.37	-0.18	-0.23	0.37	-0.11	6.3
C	24	L	79083	SR	0.33	0.26	0.26	-0.05	-0.11	-0.13	7.3
C	25	L	54619	SR	0.78	0.36	-0.12	-0.21	-0.20	0.36	0.6
C	26	L	79089	SR	0.59	0.44	-0.19	-0.21	0.44	-0.20	0.7
C	27	L	56818	SR	0.58	0.44	-0.11	0.44	-0.22	-0.26	0.9
C	28	L	52340	SR	0.58	0.46	0.46	-0.21	-0.30	-0.16	0.7
C	31	O	52339	SR	0.41	0.33	0.33	-0.16	-0.14	-0.05	1.3
C	33	O	56694	SR	0.49	0.36	-0.10	-0.19	0.36	-0.15	1.5
C	34	O	54810	SR	0.42	0.38	-0.14	0.38	-0.13	-0.17	1.2
C	35	L	79031	SR	0.70	0.27	-0.13	0.27	-0.11	-0.16	0.9
C	36	L	50418	CR	0.50	0.60					10.8
C	37	L	79074	SPR	0.27	0.51	0.51	-0.32			9.3
C	38	L	50415	SPR	0.30	0.57	0.57	-0.39			9.5
C	40	L	54708	SPR	0.15	0.41	0.41	-0.13			15.8
C	41	L	67512	CR	0.17	0.62					27.0
C	42	L	64696	SR	0.69	0.39	-0.14	-0.26	0.39	-0.11	2.2
C	43	L	51366	SR	0.34	0.34	-0.07	-0.15	-0.12	0.34	2.3
C	44	L	67404	SR	0.49	0.31	-0.16	-0.12	-0.07	0.31	2.6
C	45	L	54903	CR	0.38	0.64					19.4
C	46	L	67429	SR	0.38	0.33	0.00	-0.22	0.33	-0.13	3.9
C	47	L	43135	SR	0.44	0.40	-0.16	0.40	-0.21	-0.06	4.0
C	48	O	67487	SR	0.43	0.46	-0.12	-0.17	-0.18	0.46	4.8
Mean					0.44	0.42	0.06	-0.07	0.00	-0.03	5.5
SD					0.18	0.13	0.27	0.25	0.26	0.21	6.2

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A7. Summary Item Statistics - Operational Items
Biology - January Primary

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
AB	1	L	52464	SR	0.91	0.19	-0.10	-0.12	-0.10	0.19	0.2
AB	2	L	68164	SR	0.90	0.32	-0.19	-0.19	0.32	-0.15	0.2
AB	3	L	52549	CR	0.13	0.69					7.5
AB	4	L	52483	SR	0.80	0.40	0.40	-0.23	-0.19	-0.23	0.1
AB	7	O	68160	SR	0.66	0.48	-0.30	-0.23	-0.19	0.48	0.2
AB	8	L	79486	SR	0.47	0.52	0.52	-0.28	-0.26	-0.13	0.3
AB	9	O	57012	SR	0.54	0.34	-0.14	-0.17	0.34	-0.22	0.2
AB	10	L	52710	SR	0.54	0.49	0.49	-0.23	-0.24	-0.22	0.4
AB	14	L	52601	SR	0.20	0.24	0.05	-0.14	-0.11	0.24	1.0
AB	15	L	52602	SR	0.28	0.20	-0.13	0.20	0.04	-0.13	1.1
AB	16	L	68112	CR	0.30	0.74					7.4
AB	17	L	108533	SR	0.45	0.36	-0.22	-0.09	0.36	-0.18	0.5
AB	18	L	108535	SR	0.45	0.27	-0.20	-0.18	0.27	0.02	0.6
AB	21	L	55145	SR	0.64	0.49	-0.21	0.49	-0.26	-0.23	0.7
AB	22	L	55003	SR	0.63	0.52	-0.26	-0.28	0.52	-0.22	0.7
AB	23	L	55001	SR	0.75	0.52	-0.27	0.52	-0.26	-0.26	0.7
AB	25	L	55202	CR	0.24	0.80					11.8
AB	27	O	52740	SR	0.41	0.29	-0.13	-0.01	-0.19	0.29	0.8
AB	28	L	55062	SR	0.64	0.54	-0.23	-0.25	-0.29	0.54	0.9
AB	29	L	55061	SR	0.71	0.42	-0.20	-0.21	0.42	-0.25	0.9
AB	30	L	55064	SR	0.54	0.39	-0.25	-0.29	0.39	-0.03	1.0
AB	33	L	52512	SR	0.51	0.37	-0.09	0.37	-0.28	-0.14	1.2
AB	34	L	79288	SR	0.51	0.55	0.55	-0.29	-0.29	-0.15	1.3
AB	35	L	79287	SR	0.54	0.52	-0.27	-0.22	-0.24	0.52	1.4
AB	36	L	52635	CR	0.30	0.82					15.3
AB	37	L	79405	SR	0.69	0.34	-0.20	-0.22	0.34	-0.06	0.5
AB	38	O	79422	SR	0.66	0.20	-0.18	-0.17	0.20	0.01	0.4
AB	39	L	52505	SR	0.53	0.52	-0.26	0.52	-0.26	-0.17	0.5
AB	40	L	52504	SR	0.71	0.46	-0.23	-0.26	0.46	-0.20	0.5
AB	41	L	52460	SR	0.59	0.37	-0.17	0.37	-0.24	-0.13	0.5
AB	42	L	67599	CR	0.16	0.70					13.0
AB	43	O	52619	SR	0.64	0.52	-0.18	-0.27	-0.30	0.52	0.4
AB	44	O	57069	SR	0.79	0.41	0.41	-0.21	-0.24	-0.19	0.5
AB	47	L	79309	SR	0.59	0.49	-0.25	-0.27	0.49	-0.20	0.5
AB	48	L	79310	SR	0.58	0.46	0.46	-0.23	-0.22	-0.19	0.6
AB	49	L	67673	SR	0.42	0.49	-0.26	-0.20	-0.14	0.49	0.5
AB	50	L	108528	SR	0.79	0.39	-0.21	0.39	-0.22	-0.17	0.5
AB	51	L	108530	SR	0.76	0.38	-0.18	-0.24	0.38	-0.15	0.5
AB	52	L	68187	SR	0.50	0.46	-0.23	0.46	-0.17	-0.22	0.6
AB	53	L	55215	SR	0.54	0.52	-0.21	-0.29	0.52	-0.19	0.6
AB	54	L	52539	SR	0.67	0.45	0.45	-0.26	-0.27	-0.14	0.6

Table A7. Summary Item Statistics - Operational Items
Biology - January Primary

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
AB	55	L	68304	CR	0.37	0.80					7.4
AB	56	O	52411	SR	0.43	0.40	-0.10	-0.19	0.40	-0.18	1.0
AB	57	O	64723	SR	0.65	0.48	0.48	-0.23	-0.22	-0.23	1.0
AB	58	L	68309	SR	0.64	0.41	-0.19	-0.26	0.41	-0.11	1.2
AB	59	L	68205	SR	0.73	0.54	-0.22	-0.26	-0.31	0.54	1.3
AB	60	L	68206	SR	0.66	0.43	-0.16	0.43	-0.23	-0.21	1.2
AB	61	O	79504	SR	0.49	0.37	-0.10	0.37	-0.18	-0.17	1.3
AB	65	O	94194	SR	0.58	0.53	-0.23	0.53	-0.24	-0.25	1.5
AB	66	L	60540	CR	0.17	0.80					21.4
AB	67	L	53487	SR	0.64	0.53	-0.21	-0.26	-0.26	0.53	1.4
AB	68	O	64707	SR	0.64	0.51	-0.20	0.51	-0.24	-0.26	1.3
AB	69	L	64982	SR	0.43	0.57	0.57	-0.32	-0.22	-0.14	1.5
AB	70	L	108572	SR	0.62	0.34	-0.26	0.34	-0.10	-0.10	1.5
AB	71	L	57133	SR	0.52	0.42	0.42	-0.10	-0.25	-0.19	2.4
Mean					0.55	0.47	-0.05	-0.04	-0.03	-0.04	2.2
SD					0.18	0.15	0.28	0.30	0.29	0.26	4.2

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A8. Summary Item Statistics - Operational Items
Biology - January Make-Up

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	1	L	52464	SR	0.91	0.19	-0.10	-0.12	-0.10	0.19	0.2
C	2	L	68164	SR	0.90	0.32	-0.19	-0.19	0.32	-0.15	0.2
C	3	L	52549	CR	0.13	0.69					7.5
C	4	L	52483	SR	0.80	0.40	0.40	-0.23	-0.19	-0.23	0.1
C	7	O	68264	SR	0.66	0.42	-0.19	-0.18	-0.25	0.42	0.3
C	8	L	79486	SR	0.47	0.52	0.52	-0.28	-0.26	-0.13	0.3
C	9	O	52599	SR	0.52	0.28	-0.15	0.28	-0.11	-0.12	0.3
C	10	L	52710	SR	0.54	0.49	0.49	-0.23	-0.24	-0.22	0.4
C	14	L	52601	SR	0.20	0.24	0.05	-0.14	-0.11	0.24	1.0
C	15	L	52602	SR	0.28	0.20	-0.13	0.20	0.04	-0.13	1.1
C	16	L	68112	CR	0.30	0.74					7.4
C	17	L	108533	SR	0.45	0.36	-0.22	-0.09	0.36	-0.18	0.5
C	18	L	108535	SR	0.45	0.27	-0.20	-0.18	0.27	0.02	0.6
C	21	L	55145	SR	0.64	0.49	-0.21	0.49	-0.26	-0.23	0.7
C	22	L	55003	SR	0.63	0.52	-0.26	-0.28	0.52	-0.22	0.7
C	23	L	55001	SR	0.75	0.52	-0.27	0.52	-0.26	-0.26	0.7
C	25	L	55202	CR	0.24	0.80					11.8
C	27	O	68122	SR	0.41	0.45	-0.18	0.45	-0.19	-0.15	1.5
C	28	L	55062	SR	0.64	0.54	-0.23	-0.25	-0.29	0.54	0.9
C	29	L	55061	SR	0.71	0.42	-0.20	-0.21	0.42	-0.25	0.9
C	30	L	55064	SR	0.54	0.39	-0.25	-0.29	0.39	-0.03	1.0
C	33	L	52512	SR	0.51	0.37	-0.09	0.37	-0.28	-0.14	1.2
C	34	L	79288	SR	0.51	0.55	0.55	-0.29	-0.29	-0.15	1.3
C	35	L	79287	SR	0.54	0.52	-0.27	-0.22	-0.24	0.52	1.4
C	36	L	52635	CR	0.30	0.82					15.3
C	37	L	79405	SR	0.69	0.34	-0.20	-0.22	0.34	-0.06	0.5
C	38	O	65078	SR	0.59	0.50	-0.27	-0.24	0.50	-0.16	1.4
C	39	L	52505	SR	0.53	0.52	-0.26	0.52	-0.26	-0.17	0.5
C	40	L	52504	SR	0.71	0.46	-0.23	-0.26	0.46	-0.20	0.5
C	41	L	52460	SR	0.59	0.37	-0.17	0.37	-0.24	-0.13	0.5
C	42	L	67599	CR	0.16	0.70					13.0
C	43	O	68284	SR	0.40	0.22	-0.04	0.22	-0.11	-0.09	1.3
C	44	O	52757	SR	0.50	0.42	0.42	-0.22	-0.15	-0.16	0.9
C	47	L	79309	SR	0.59	0.49	-0.25	-0.27	0.49	-0.20	0.5
C	48	L	79310	SR	0.58	0.46	0.46	-0.23	-0.22	-0.19	0.6
C	49	L	67673	SR	0.42	0.49	-0.26	-0.20	-0.14	0.49	0.5
C	50	L	108528	SR	0.79	0.39	-0.21	0.39	-0.22	-0.17	0.5
C	51	L	108530	SR	0.76	0.38	-0.18	-0.24	0.38	-0.15	0.5
C	52	L	68187	SR	0.50	0.46	-0.23	0.46	-0.17	-0.22	0.6
C	53	L	55215	SR	0.54	0.52	-0.21	-0.29	0.52	-0.19	0.6
C	54	L	52539	SR	0.67	0.45	0.45	-0.26	-0.27	-0.14	0.6
C	55	L	68304	CR	0.37	0.80					7.4
C	56	O	53476	SR	0.46	0.33	-0.13	0.33	-0.12	-0.09	2.3

Table A8. Summary Item Statistics - Operational Items

Biology - January Make-Up

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	57	O	64998	SR	0.30	0.32	0.01	-0.17	-0.14	0.32	2.3
C	58	L	68309	SR	0.64	0.41	-0.19	-0.26	0.41	-0.11	1.2
C	59	L	68205	SR	0.73	0.54	-0.22	-0.26	-0.31	0.54	1.3
C	60	L	68206	SR	0.66	0.43	-0.16	0.43	-0.23	-0.21	1.2
C	61	O	55014	SR	0.20	0.29	0.29	-0.04	-0.03	-0.17	2.7
C	65	O	65084	SR	0.35	0.35	-0.16	-0.21	0.00	0.36	3.3
C	66	L	60540	CR	0.17	0.80					21.4
C	67	L	53487	SR	0.64	0.53	-0.21	-0.26	-0.26	0.53	1.4
C	68	O	67603	SR	0.47	0.26	0.26	-0.18	0.05	-0.14	2.8
C	69	L	64982	SR	0.43	0.57	0.57	-0.32	-0.22	-0.14	1.5
C	70	L	108572	SR	0.62	0.34	-0.26	0.34	-0.10	-0.10	1.5
C	71	L	57133	SR	0.52	0.42	0.42	-0.10	-0.25	-0.19	2.4
Mean					0.52	0.46	-0.04	-0.04	-0.02	-0.04	2.4
SD					0.19	0.15	0.28	0.29	0.28	0.25	4.1

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A9. Summary Item Statistics - Operational Items

English - January Primary

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
AB	1	L	130197	CR	0.60	0.61					2.6
AB	2	O	130960	SR	0.64	0.44	-0.16	-0.28	-0.22	0.44	0.1
AB	3	O	130963	SR	0.74	0.36	0.36	-0.21	-0.22	-0.13	0.1
AB	4	O	130950	SR	0.57	0.46	0.46	-0.21	-0.29	-0.17	0.0
AB	5	O	130964	SR	0.53	0.51	-0.18	-0.30	0.51	-0.23	0.0
AB	7	L	96367	SR	0.78	0.36	0.36	-0.20	-0.20	-0.16	0.3
AB	8	L	96368	SR	0.72	0.47	-0.18	-0.21	-0.32	0.47	0.3
AB	9	L	96369	SR	0.70	0.39	-0.23	-0.18	0.39	-0.19	0.4
AB	10	L	96370	SR	0.66	0.36	-0.12	-0.21	-0.27	0.36	0.5
AB	11	L	96371	SR	0.57	0.43	-0.20	-0.24	0.43	-0.17	0.6
AB	12	L	96372	SR	0.70	0.48	-0.22	-0.25	-0.25	0.48	0.5
AB	13	L	96373	SR	0.63	0.41	-0.23	0.41	-0.29	-0.12	0.6
AB	14	L	96375	SR	0.63	0.42	-0.23	-0.20	0.42	-0.17	0.5
AB	18	L	130092	SR	0.65	0.38	-0.20	-0.24	0.38	-0.13	1.1
AB	19	L	130093	SR	0.65	0.36	-0.19	-0.21	0.36	-0.11	1.2
AB	20	L	135486	SR	0.69	0.50	-0.22	-0.26	-0.27	0.50	1.4
AB	21	L	130095	SR	0.51	0.38	-0.24	-0.27	-0.08	0.38	1.5
AB	22	L	130235	SR	0.74	0.45	-0.19	-0.28	0.45	-0.23	1.7
AB	23	L	130236	CR	0.45	0.65					8.2
AB	24	O	130962	CR	0.55	0.69					2.6
AB	25	L	130296	SR	0.54	0.44	-0.25	0.44	-0.20	-0.15	0.4
AB	26	L	130297	SR	0.60	0.35	0.35	-0.11	-0.14	-0.22	0.4
AB	27	L	130298	SR	0.70	0.40	0.40	-0.21	-0.22	-0.17	0.3
AB	34	L	96187	SR	0.56	0.49	0.49	-0.38	-0.13	-0.14	0.7
AB	35	L	96188	SR	0.62	0.26	-0.10	-0.09	0.26	-0.16	0.8
AB	36	L	96189	SR	0.56	0.32	-0.19	-0.15	0.32	-0.15	0.8
AB	37	L	96190	SR	0.65	0.43	0.43	-0.23	-0.27	-0.10	0.7
AB	38	O	96191	SR	0.88	0.40	-0.21	-0.21	-0.23	0.40	0.7
AB	46	L	108918	SR	0.55	0.44	-0.22	-0.24	0.44	-0.18	0.8
AB	47	L	108925	SR	0.75	0.45	-0.24	-0.24	0.45	-0.20	0.6
AB	48	L	108783	SR	0.56	0.46	-0.16	-0.27	-0.20	0.46	0.8
AB	49	L	108921	SR	0.51	0.42	-0.08	0.42	-0.25	-0.22	0.9
AB	50	L	108919	SR	0.56	0.51	-0.23	-0.23	-0.25	0.51	0.9
AB	52	L	108924	SR	0.53	0.43	-0.20	0.43	-0.22	-0.13	0.8
AB	53	L	109739	SR	0.61	0.42	0.42	-0.20	-0.21	-0.16	0.9
AB	54	L	108927	CR	0.36	0.75					8.8
AB	55	O	96329	SR	0.71	0.46	-0.20	0.46	-0.28	-0.19	0.8
AB	56	O	130264	SR	0.71	0.48	0.48	-0.25	-0.25	-0.21	0.8
AB	58	L	108718	SR	0.66	0.47	-0.20	-0.27	0.47	-0.20	1.1
AB	59	L	108717	SR	0.62	0.43	0.43	-0.25	-0.17	-0.21	1.0
AB	60	L	108719	SR	0.51	0.39	-0.16	0.39	-0.29	-0.08	1.1
AB	61	L	108716	SR	0.68	0.52	-0.23	-0.27	-0.25	0.52	1.1
AB	62	L	108715	SR	0.56	0.44	0.44	-0.22	-0.22	-0.15	1.1

Table A9. Summary Item Statistics - Operational Items

English - January Primary

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
AB	65	O	96056	SR	0.63	0.56	-0.24	-0.28	-0.26	0.56	1.3
AB	66	O	96057	SR	0.35	0.39	-0.15	0.39	-0.14	-0.18	1.2
AB	67	L	96227	SR	0.70	0.43	-0.20	0.43	-0.24	-0.18	1.6
AB	68	L	96228	SR	0.57	0.51	0.51	-0.24	-0.23	-0.21	1.6
AB	69	L	96229	SR	0.47	0.35	0.35	-0.23	-0.26	0.02	1.6
AB	70	L	96230	SR	0.61	0.54	-0.23	-0.26	-0.24	0.54	1.6
AB	71	L	130267	SR	0.30	0.34	-0.10	0.34	-0.20	-0.04	1.6
Mean					0.61	0.45	-0.02	-0.11	-0.06	0.00	1.2
SD					0.11	0.09	0.29	0.26	0.29	0.28	1.6

Note: Tabled item position number is based on Form A and varies somewhat on Form B.
Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration; P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A10. Summary Item Statistics - Operational Items
English - January Make-Up

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	1	L	130197	CR	0.60	0.61					2.6
C	2	O	96009	SR	0.59	0.33	-0.18	-0.19	0.33	-0.12	0.1
C	3	O	96010	SR	0.51	0.29	0.29	-0.03	-0.20	-0.23	0.0
C	4	O	96011	SR	0.65	0.45	-0.20	-0.18	-0.29	0.45	0.3
C	5	O	96012	SR	0.52	0.28	0.28	0.00	-0.21	-0.22	0.4
C	6	O	96013	SR	0.40	0.29	0.29	-0.18	-0.12	-0.04	0.5
C	7	L	96367	SR	0.78	0.36	0.36	-0.20	-0.20	-0.16	0.3
C	8	L	96368	SR	0.72	0.47	-0.18	-0.21	-0.32	0.47	0.3
C	9	L	96369	SR	0.70	0.39	-0.23	-0.18	0.39	-0.19	0.4
C	10	L	96370	SR	0.66	0.36	-0.12	-0.21	-0.27	0.36	0.5
C	11	L	96371	SR	0.57	0.43	-0.20	-0.24	0.43	-0.17	0.6
C	12	L	96372	SR	0.70	0.48	-0.22	-0.25	-0.25	0.48	0.5
C	13	L	96373	SR	0.63	0.41	-0.23	0.41	-0.29	-0.12	0.6
C	14	L	96375	SR	0.63	0.42	-0.23	-0.20	0.42	-0.17	0.5
C	18	L	130092	SR	0.65	0.38	-0.20	-0.24	0.38	-0.13	1.1
C	19	L	130093	SR	0.65	0.36	-0.19	-0.21	0.36	-0.11	1.2
C	20	L	135486	SR	0.69	0.50	-0.22	-0.26	-0.27	0.50	1.4
C	21	L	130095	SR	0.51	0.38	-0.24	-0.27	-0.08	0.38	1.5
C	22	L	130235	SR	0.74	0.45	-0.19	-0.28	0.45	-0.23	1.7
C	23	L	130236	CR	0.45	0.65					8.2
C	24	O	96304	CR	0.36	0.63					13.1
C	25	L	130296	SR	0.54	0.44	-0.25	0.44	-0.20	-0.15	0.4
C	26	L	130297	SR	0.60	0.35	0.35	-0.11	-0.14	-0.22	0.4
C	27	L	130298	SR	0.70	0.40	0.40	-0.21	-0.22	-0.17	0.3
C	35	L	96187	SR	0.56	0.49	0.49	-0.38	-0.13	-0.14	0.7
C	36	L	96188	SR	0.62	0.26	-0.10	-0.09	0.26	-0.16	0.8
C	37	L	96189	SR	0.56	0.32	-0.19	-0.15	0.32	-0.15	0.8
C	38	L	96190	SR	0.65	0.43	0.43	-0.23	-0.27	-0.10	0.7
C	46	L	108918	SR	0.55	0.44	-0.22	-0.24	0.44	-0.18	0.8
C	47	L	108925	SR	0.75	0.45	-0.24	-0.24	0.45	-0.20	0.6
C	48	L	108783	SR	0.56	0.46	-0.16	-0.27	-0.20	0.46	0.8
C	49	L	108921	SR	0.51	0.42	-0.08	0.42	-0.25	-0.22	0.9
C	50	L	108919	SR	0.56	0.51	-0.23	-0.23	-0.25	0.51	0.9
C	52	L	108924	SR	0.53	0.43	-0.20	0.43	-0.22	-0.13	0.8
C	53	L	109739	SR	0.61	0.42	0.42	-0.20	-0.21	-0.16	0.9
C	54	L	108927	CR	0.36	0.75					8.8
C	55	O	130238	SR	0.72	0.48	0.48	-0.26	-0.22	-0.18	2.3
C	56	O	130239	SR	0.77	0.50	-0.22	0.50	-0.27	-0.20	2.3
C	58	L	108718	SR	0.66	0.47	-0.20	-0.27	0.47	-0.20	1.1
C	59	L	108717	SR	0.62	0.43	0.43	-0.25	-0.17	-0.21	1.0
C	60	L	108719	SR	0.51	0.39	-0.16	0.39	-0.29	-0.08	1.1
C	61	L	108716	SR	0.68	0.52	-0.23	-0.27	-0.25	0.52	1.1
C	62	L	108715	SR	0.56	0.44	0.44	-0.22	-0.22	-0.15	1.1

111

Table A10. Summary Item Statistics - Operational Items

English - January Make-Up

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	65	O	96335	SR	0.35	0.32	-0.17	-0.06	-0.09	0.32	2.4
C	66	O	96336	SR	0.54	0.30	-0.13	0.30	-0.07	-0.12	2.3
C	67	L	96227	SR	0.70	0.43	-0.20	0.43	-0.24	-0.18	1.6
C	68	L	96228	SR	0.57	0.51	0.51	-0.24	-0.23	-0.21	1.6
C	69	L	96229	SR	0.47	0.35	0.35	-0.23	-0.26	0.02	1.6
C	70	L	96230	SR	0.61	0.54	-0.23	-0.26	-0.24	0.54	1.6
C	71	L	130267	SR	0.30	0.34	-0.10	0.34	-0.20	-0.04	1.6
Mean					0.59	0.43	-0.01	-0.09	-0.06	-0.01	1.5
SD					0.11	0.10	0.28	0.26	0.28	0.27	2.3

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A11. Summary Item Statistics - Operational Items
Government - January Primary

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
AB	1	L	50857	SR	0.52	0.37	0.37	-0.05	-0.32	-0.16	0.2
AB	2	L	51773	SR	0.79	0.47	-0.19	-0.29	-0.26	0.47	0.1
AB	3	L	53748	SR	0.78	0.41	0.41	-0.24	-0.24	-0.20	0.1
AB	5	L	68671	CR	0.38	0.70					2.8
AB	6	L	68609	SR	0.66	0.45	-0.22	-0.26	0.45	-0.19	0.2
AB	7	L	68035	SR	0.52	0.39	-0.13	-0.27	-0.14	0.39	0.2
AB	8	L	50995	SR	0.54	0.38	0.38	-0.06	-0.25	-0.27	0.2
AB	9	L	51776	SR	0.43	0.31	-0.05	-0.14	-0.24	0.31	0.5
AB	10	L	68096	CR	0.36	0.75					5.5
AB	11	L	68676	SR	0.62	0.35	-0.12	-0.23	0.35	-0.14	0.2
AB	13	O	51722	SR	0.50	0.46	-0.18	-0.21	-0.26	0.46	0.2
AB	14	O	58433	SR	0.58	0.47	-0.23	-0.21	-0.23	0.47	0.4
AB	15	L	68551	CR	0.35	0.74					7.5
AB	16	L	68612	SR	0.76	0.38	-0.21	-0.18	-0.24	0.38	0.3
AB	17	L	68554	SR	0.54	0.40	0.40	-0.19	-0.24	-0.14	0.3
AB	18	L	50793	SR	0.46	0.36	-0.24	-0.13	0.36	-0.08	0.5
AB	19	L	68742	SR	0.80	0.45	0.45	-0.25	-0.24	-0.22	0.4
AB	20	L	108429	SR	0.71	0.51	-0.23	-0.26	-0.29	0.51	0.8
AB	21	L	51236	CR	0.32	0.71					7.7
AB	22	L	58201	SR	0.48	0.47	-0.14	-0.19	-0.27	0.47	0.6
AB	23	L	51137	SR	0.79	0.45	-0.26	-0.24	0.45	-0.19	0.5
AB	24	L	108445	SR	0.32	0.30	0.30	-0.10	-0.18	-0.07	0.7
AB	25	L	108367	SR	0.68	0.46	-0.25	-0.26	-0.19	0.46	0.7
AB	27	L	79637	SR	0.55	0.37	-0.18	0.37	-0.25	-0.05	1.0
AB	28	L	51143	SR	0.69	0.46	0.46	-0.18	-0.29	-0.21	0.9
AB	30	L	68689	SR	0.81	0.43	-0.22	-0.20	-0.21	0.43	4.0
AB	31	L	68692	SR	0.73	0.47	-0.21	-0.28	0.47	-0.19	4.2
AB	32	L	68564	SR	0.52	0.47	-0.21	0.47	-0.19	-0.18	4.5
AB	33	L	68696	SR	0.43	0.31	0.00	0.31	-0.24	-0.12	4.7
AB	34	L	68506	SR	0.40	0.33	-0.22	-0.06	0.33	-0.10	4.8
AB	35	L	51221	SR	0.54	0.50	-0.18	-0.23	-0.27	0.50	0.5
AB	36	L	79711	SR	0.64	0.44	-0.28	-0.15	0.44	-0.21	0.5
AB	37	L	51008	SR	0.29	0.30	0.30	-0.22	-0.24	-0.04	0.5
AB	38	O	108477	SR	0.68	0.42	-0.20	-0.25	-0.22	0.42	0.4
AB	39	L	50952	CR	0.29	0.75					10.5
AB	40	L	68582	SR	0.66	0.42	0.42	-0.21	-0.20	-0.20	0.5
AB	41	L	53700	SR	0.54	0.45	-0.15	-0.26	0.45	-0.20	0.5
AB	42	L	68508	SR	0.29	0.34	0.34	0.00	-0.28	-0.16	0.7
AB	43	L	51083	SR	0.43	0.33	-0.17	-0.16	0.33	-0.06	0.8
AB	44	O	68646	SR	0.50	0.42	-0.19	0.42	-0.23	-0.14	0.7
AB	45	L	68718	SR	0.82	0.47	-0.25	0.47	-0.26	-0.21	0.8
AB	46	O	60424	CR	0.32	0.78					12.0
AB	47	L	51732	SR	0.89	0.36	0.36	-0.22	-0.18	-0.16	0.6

113

Table A11. Summary Item Statistics - Operational Items
Government - January Primary

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
AB	48	O	68591	SR	0.74	0.44	-0.20	-0.28	0.44	-0.16	0.7
AB	50	L	64787	SR	0.37	0.42	-0.11	0.42	-0.17	-0.20	0.9
AB	51	O	65188	SR	0.32	0.25	-0.10	0.25	-0.13	-0.03	0.8
AB	52	L	68647	CR	0.31	0.74					6.0
AB	53	O	68596	SR	0.53	0.54	-0.23	-0.25	-0.23	0.54	1.0
AB	54	L	64800	SR	0.59	0.51	-0.23	-0.25	0.51	-0.21	1.1
AB	55	O	51244	SR	0.72	0.44	-0.18	-0.25	0.44	-0.22	1.1
AB	56	O	65179	SR	0.55	0.43	-0.22	0.43	-0.14	-0.19	1.3
AB	58	L	65190	SR	0.78	0.51	-0.26	-0.26	-0.23	0.51	1.3
AB	59	L	68653	CR	0.33	0.76					13.4
AB	60	L	60452	SR	0.66	0.56	-0.20	-0.28	-0.30	0.56	1.1
AB	61	O	67967	SR	0.65	0.48	-0.19	-0.25	0.48	-0.22	1.0
AB	62	L	52221	SR	0.58	0.33	-0.19	0.33	-0.11	-0.13	1.2
AB	63	O	67986	SR	0.49	0.42	0.42	-0.30	-0.24	-0.03	1.2
AB	64	L	68088	SR	0.77	0.52	0.52	-0.26	-0.28	-0.23	1.3
Mean					0.56	0.46	-0.04	-0.10	-0.06	0.03	2.0
SD					0.17	0.13	0.27	0.24	0.29	0.29	3.0

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A12. Summary Item Statistics - Operational Items
Government - January Make-Up

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	1	L	50857	SR	0.52	0.37	0.37	-0.05	-0.32	-0.16	0.2
C	2	L	51773	SR	0.79	0.47	-0.19	-0.29	-0.26	0.47	0.1
C	3	L	53748	SR	0.78	0.41	0.41	-0.24	-0.24	-0.20	0.1
C	5	L	68671	CR	0.38	0.70					2.8
C	6	L	68609	SR	0.66	0.45	-0.22	-0.26	0.45	-0.19	0.2
C	7	L	68035	SR	0.52	0.39	-0.13	-0.27	-0.14	0.39	0.2
C	8	L	50995	SR	0.54	0.38	0.38	-0.06	-0.25	-0.27	0.2
C	9	L	51776	SR	0.43	0.31	-0.05	-0.14	-0.24	0.31	0.5
C	10	L	68096	CR	0.36	0.75					5.5
C	11	L	68676	SR	0.62	0.35	-0.12	-0.23	0.35	-0.14	0.2
C	13	O	51053	SR	0.57	0.40	-0.20	0.40	-0.17	-0.18	0.6
C	14	O	68598	SR	0.39	0.21	-0.01	-0.12	0.21	-0.12	0.6
C	15	L	68551	CR	0.35	0.74					7.5
C	16	L	68612	SR	0.76	0.38	-0.21	-0.18	-0.24	0.38	0.3
C	17	L	68554	SR	0.54	0.40	0.40	-0.19	-0.24	-0.14	0.3
C	18	L	50793	SR	0.46	0.36	-0.24	-0.13	0.36	-0.08	0.5
C	19	L	68742	SR	0.80	0.45	0.45	-0.25	-0.24	-0.22	0.4
C	20	L	108429	SR	0.71	0.51	-0.23	-0.26	-0.29	0.51	0.8
C	21	L	51236	CR	0.32	0.71					7.7
C	22	L	58201	SR	0.48	0.47	-0.14	-0.19	-0.27	0.47	0.6
C	23	L	51137	SR	0.79	0.45	-0.26	-0.24	0.45	-0.19	0.5
C	24	L	108445	SR	0.32	0.30	0.30	-0.10	-0.18	-0.07	0.7
C	25	L	108367	SR	0.68	0.46	-0.25	-0.26	-0.19	0.46	0.7
C	27	L	79637	SR	0.55	0.37	-0.18	0.37	-0.25	-0.05	1.0
C	28	L	51143	SR	0.69	0.46	0.46	-0.18	-0.29	-0.21	0.9
C	30	L	68689	SR	0.81	0.43	-0.22	-0.20	-0.21	0.43	4.0
C	31	L	68692	SR	0.73	0.47	-0.21	-0.28	0.47	-0.19	4.2
C	32	L	68564	SR	0.52	0.47	-0.21	0.47	-0.19	-0.18	4.5
C	33	L	68696	SR	0.43	0.31	0.00	0.31	-0.24	-0.12	4.7
C	34	L	68506	SR	0.40	0.33	-0.22	-0.06	0.33	-0.10	4.8
C	35	L	51221	SR	0.54	0.50	-0.18	-0.23	-0.27	0.50	0.5
C	36	L	79711	SR	0.64	0.44	-0.28	-0.15	0.44	-0.21	0.5
C	37	L	51008	SR	0.29	0.30	0.30	-0.22	-0.24	-0.04	0.5
C	38	O	50953	SR	0.44	0.36	-0.17	-0.17	0.36	-0.10	0.9
C	39	L	50952	CR	0.29	0.75					10.5
C	40	L	68582	SR	0.66	0.42	0.42	-0.21	-0.20	-0.20	0.5
C	41	L	53700	SR	0.54	0.45	-0.15	-0.26	0.45	-0.20	0.5
C	42	L	68508	SR	0.29	0.34	0.34	0.00	-0.28	-0.16	0.7
C	43	L	51083	SR	0.43	0.33	-0.17	-0.16	0.33	-0.06	0.8
C	44	O	68592	SR	0.29	0.22	0.05	-0.24	0.22	-0.06	1.1
C	45	L	68718	SR	0.82	0.47	-0.25	0.47	-0.26	-0.21	0.8
C	46	O	108361	CR	0.20	0.71					28.4
C	47	L	51732	SR	0.89	0.36	0.36	-0.22	-0.18	-0.16	0.6

Table A12. Summary Item Statistics - Operational Items
Government - January Make-Up

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	48	O	68531	SR	0.30	0.41	-0.13	-0.19	-0.10	0.41	1.1
C	50	L	64787	SR	0.37	0.42	-0.11	0.42	-0.17	-0.20	0.9
C	51	O	65189	SR	0.17	0.13	0.07	0.13	-0.06	-0.07	1.4
C	52	L	68647	CR	0.31	0.74					6.0
C	53	O	64797	SR	0.38	0.36	0.36	-0.19	-0.21	0.02	1.4
C	54	L	64800	SR	0.59	0.51	-0.23	-0.25	0.51	-0.21	1.1
C	55	O	60464	SR	0.32	0.30	0.03	0.30	-0.18	-0.14	1.8
C	56	O	50837	SR	0.28	0.32	-0.12	-0.11	0.32	-0.08	1.6
C	58	L	65190	SR	0.78	0.51	-0.26	-0.26	-0.23	0.51	1.3
C	59	L	68653	CR	0.33	0.76					13.4
C	60	L	60452	SR	0.66	0.56	-0.20	-0.28	-0.30	0.56	1.1
C	61	O	51118	SR	0.42	0.47	-0.23	-0.22	-0.12	0.47	1.8
C	62	L	52221	SR	0.58	0.33	-0.19	0.33	-0.11	-0.13	1.2
C	63	O	55676	SR	0.53	0.39	-0.08	-0.22	-0.22	0.39	1.7
C	64	L	68088	SR	0.77	0.52	0.52	-0.26	-0.28	-0.23	1.3
Mean					0.52	0.44	-0.02	-0.10	-0.05	0.02	2.4
SD					0.19	0.14	0.26	0.23	0.28	0.28	4.4

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration; P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A13. Summary Item Statistics - Operational Items
Algebra - May Primary

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D-N	1	L	54780	SR	0.82	0.35	-0.20	0.35	-0.17	-0.19	0.1
D-N	2	L	56828	SR	0.82	0.35	-0.16	0.35	-0.26	-0.15	0.1
D-N	3	L	51407	SR	0.83	0.37	-0.17	0.37	-0.21	-0.23	0.1
D-N	4	L	54782	SR	0.85	0.23	-0.04	-0.10	0.23	-0.21	0.2
D-N	6	L	79527	CR	0.55	0.72					3.1
D-N	7	L	54861	SR	0.32	0.35	-0.25	0.00	-0.13	0.35	0.2
D-N	8	O	51540	SR	0.50	0.63	0.63	-0.15	-0.49	-0.18	0.3
D-N	9	L	51380	SR	0.67	0.51	-0.27	-0.26	-0.24	0.51	0.3
D-N	10	O	79145	SR	0.51	0.43	-0.34	-0.29	0.01	0.43	0.3
D-N	12	L	54789	SPR	0.71	0.52	0.52	-0.48			2.3
D-N	13	O	51465	SPR	0.71	0.56	0.56	-0.49			2.8
D-N	15	L	67500	CR	0.31	0.81					8.1
D-N	16	L	79138	SR	0.57	0.36	0.36	-0.25	-0.12	-0.18	0.6
D-N	17	O	106577	SR	0.63	0.47	-0.30	-0.18	-0.20	0.47	0.5
D-N	19	O	54808	CR	0.60	0.73					3.4
D-N	20	O	56619	SPR	0.67	0.58	0.58	-0.51			3.8
D-N	24	L	79124	SR	0.53	0.64	-0.35	-0.27	-0.21	0.64	2.7
D-N	25	L	79114	SR	0.74	0.36	-0.13	-0.24	0.36	-0.15	2.6
D-N	26	L	79091	SR	0.82	0.42	0.42	-0.21	-0.35	-0.11	0.2
D-N	27	O	51452	SR	0.87	0.36	-0.24	0.36	-0.20	-0.12	0.2
D-N	28	L	56550	SR	0.72	0.46	-0.23	0.46	-0.19	-0.29	0.3
D-N	30	L	56735	SR	0.52	0.49	-0.11	0.49	-0.21	-0.35	0.2
D-N	34	O	67549	SPR	0.82	0.39	0.39	-0.34			2.4
D-N	35	L	56443	SR	0.59	0.40	-0.16	-0.21	-0.22	0.40	0.4
D-N	36	L	56675	SR	0.76	0.56	0.56	-0.37	-0.27	-0.21	0.4
D-N	38	O	51400	SR	0.78	0.40	-0.19	-0.28	0.40	-0.18	0.3
D-N	41	O	43155	SR	0.70	0.32	-0.06	0.32	-0.16	-0.25	0.8
D-N	42	O	51571	CR	0.67	0.60					2.9
D-N	43	L	67481	SPR	0.74	0.48	0.48	-0.43			2.5
D-N	44	L	67440	SPR	0.55	0.63	0.63	-0.52			6.6
D-N	46	O	50383	CR	0.35	0.73					8.3
D-N	47	L	67455	SR	0.52	0.29	-0.09	-0.20	0.29	-0.08	0.9
D-N	48	L	43153	SR	0.57	0.46	-0.21	-0.26	0.46	-0.16	0.6
D-N	49	O	51497	SR	0.68	0.46	0.46	-0.27	-0.25	-0.21	0.7
D-N	50	L	56696	CR	0.33	0.67					14.3
D-N	51	O	67558	SR	0.63	0.41	-0.18	-0.29	0.41	-0.10	1.5
Mean					0.64	0.49	0.06	-0.13	-0.07	-0.02	2.1
SD					0.15	0.14	0.36	0.31	0.27	0.30	3.0

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A14. Summary Item Statistics - Operational Items
Algebra - May Make-Up 1

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
X	1	L	54780	SR	0.82	0.35	-0.20	0.35	-0.17	-0.19	0.1
X	2	L	56828	SR	0.82	0.35	-0.16	0.35	-0.26	-0.15	0.1
X	3	L	51407	SR	0.83	0.37	-0.17	0.37	-0.21	-0.23	0.1
X	4	L	54782	SR	0.85	0.23	-0.04	-0.10	0.23	-0.21	0.2
X	6	L	79527	CR	0.55	0.72					3.1
X	7	L	54861	SR	0.32	0.35	-0.25	0.00	-0.13	0.35	0.2
X	8	O	56662	SR	0.54	0.43	0.43	-0.18	-0.15	-0.25	0.3
X	9	L	51380	SR	0.67	0.51	-0.27	-0.26	-0.24	0.51	0.3
X	10	O	54847	SR	0.27	0.42	-0.12	-0.27	0.42	-0.05	0.7
X	12	L	54789	SPR	0.71	0.52	0.52	-0.48			2.3
X	13	O	106616	SPR	0.51	0.57	0.57	-0.46			5.9
X	15	L	67500	CR	0.31	0.81					8.1
X	16	L	79138	SR	0.57	0.36	0.36	-0.25	-0.12	-0.18	0.6
X	17	O	51425	SR	0.50	0.37	0.37	-0.15	-0.22	-0.11	1.4
X	19	O	54808	CR	0.60	0.73					3.4
X	20	O	67527	SPR	0.29	0.58	0.58	-0.32			19.0
X	24	L	79124	SR	0.53	0.64	-0.35	-0.27	-0.21	0.64	2.7
X	25	L	79114	SR	0.74	0.36	-0.13	-0.24	0.36	-0.15	2.6
X	26	L	79091	SR	0.82	0.42	0.42	-0.21	-0.35	-0.11	0.2
X	27	O	51452	SR	0.87	0.36	-0.24	0.36	-0.20	-0.12	0.2
X	28	L	56550	SR	0.72	0.46	-0.23	0.46	-0.19	-0.29	0.3
X	30	L	56735	SR	0.52	0.49	-0.11	0.49	-0.21	-0.35	0.2
X	34	O	67471	SPR	0.62	0.54	0.54	-0.41			7.9
X	35	L	56443	SR	0.59	0.40	-0.16	-0.21	-0.22	0.40	0.4
X	36	L	56675	SR	0.76	0.56	0.56	-0.37	-0.27	-0.21	0.4
X	38	O	51400	SR	0.78	0.40	-0.19	-0.28	0.40	-0.18	0.3
X	41	O	79069	SR	0.39	0.33	-0.13	-0.05	-0.23	0.33	0.9
X	42	O	67482	CR	0.51	0.63					9.5
X	43	L	67481	SPR	0.74	0.48	0.48	-0.43			2.5
X	44	L	67440	SPR	0.55	0.63	0.63	-0.52			6.6
X	46	O	50383	CR	0.35	0.73					8.3
X	47	L	67455	SR	0.52	0.29	-0.09	-0.20	0.29	-0.08	0.9
X	48	L	43153	SR	0.57	0.46	-0.21	-0.26	0.46	-0.16	0.6
X	49	O	51497	SR	0.68	0.46	0.46	-0.27	-0.25	-0.21	0.7
X	50	L	56696	CR	0.33	0.67					14.3
X	51	O	67558	SR	0.63	0.41	-0.18	-0.29	0.41	-0.10	1.5
X	52	O	67419	SR	0.75	0.45	-0.20	-0.23	-0.23	0.45	2.3
X	53	L	56743	SR	0.70	0.47	-0.27	-0.20	0.47	-0.19	2.4
Mean					0.60	0.48	0.07	-0.14	-0.03	-0.03	2.9
SD					0.17	0.14	0.34	0.29	0.29	0.28	4.3

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration; P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

118

Table A15. Summary Item Statistics - Operational Items
Algebra - May Make-Up 2

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Y	1	L	54780	SR	0.82	0.35	-0.20	0.35	-0.17	-0.19	0.1
Y	2	L	56828	SR	0.82	0.35	-0.16	0.35	-0.26	-0.15	0.1
Y	3	L	51407	SR	0.83	0.37	-0.17	0.37	-0.21	-0.23	0.1
Y	4	L	54782	SR	0.85	0.23	-0.04	-0.10	0.23	-0.21	0.2
Y	6	L	79527	CR	0.55	0.72					3.1
Y	7	L	54861	SR	0.32	0.35	-0.25	0.00	-0.13	0.35	0.2
Y	8	O	51540	SR	0.50	0.63	0.63	-0.15	-0.49	-0.18	0.3
Y	9	L	51380	SR	0.67	0.51	-0.27	-0.26	-0.24	0.51	0.3
Y	10	O	79145	SR	0.51	0.43	-0.34	-0.29	0.01	0.43	0.3
Y	12	L	54789	SPR	0.71	0.52	0.52	-0.48			2.3
Y	13	O	51465	SPR	0.71	0.56	0.56	-0.49			2.8
Y	15	L	67500	CR	0.31	0.81					8.1
Y	16	L	79138	SR	0.57	0.36	0.36	-0.25	-0.12	-0.18	0.6
Y	17	O	106577	SR	0.63	0.47	-0.30	-0.18	-0.20	0.47	0.5
Y	19	O	50445	CR	0.33	0.65					12.5
Y	20	O	56619	SPR	0.67	0.58	0.58	-0.51			3.8
Y	24	L	79124	SR	0.53	0.64	-0.35	-0.27	-0.21	0.64	2.7
Y	25	L	79114	SR	0.74	0.36	-0.13	-0.24	0.36	-0.15	2.6
Y	26	L	79091	SR	0.82	0.42	0.42	-0.21	-0.35	-0.11	0.2
Y	27	O	56756	SR	0.60	0.47	0.47	-0.13	-0.28	-0.22	0.9
Y	28	L	56550	SR	0.72	0.46	-0.23	0.46	-0.19	-0.29	0.3
Y	30	L	56735	SR	0.52	0.49	-0.11	0.49	-0.21	-0.35	0.2
Y	34	O	67549	SPR	0.82	0.39	0.39	-0.34			2.4
Y	35	L	56443	SR	0.59	0.40	-0.16	-0.21	-0.22	0.40	0.4
Y	36	L	56675	SR	0.76	0.56	0.56	-0.37	-0.27	-0.21	0.4
Y	38	O	51372	SR	0.71	0.49	-0.18	0.49	-0.24	-0.27	1.1
Y	41	O	43155	SR	0.70	0.32	-0.06	0.32	-0.16	-0.25	0.8
Y	42	O	51571	CR	0.67	0.60					2.9
Y	43	L	67481	SPR	0.74	0.48	0.48	-0.43			2.5
Y	44	L	67440	SPR	0.55	0.63	0.63	-0.52			6.6
Y	46	O	43162	CR	0.12	0.74					27.9
Y	47	L	67455	SR	0.52	0.29	-0.09	-0.20	0.29	-0.08	0.9
Y	48	L	43153	SR	0.57	0.46	-0.21	-0.26	0.46	-0.16	0.6
Y	49	O	67483	SR	0.25	0.12	0.12	-0.04	-0.08	0.05	1.7
Y	50	L	56696	CR	0.33	0.67					14.3
Y	51	O	56800	SR	0.29	0.38	0.38	-0.10	-0.18	-0.10	1.8
Y	52	O	64690	SR	0.65	0.40	-0.26	-0.19	0.40	-0.13	1.8
Y	53	L	56743	SR	0.70	0.47	-0.27	-0.20	0.47	-0.19	2.4
Mean					0.60	0.48	0.07	-0.11	-0.08	-0.03	2.9
SD					0.18	0.15	0.35	0.31	0.27	0.29	5.3

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A16. Summary Item Statistics - Operational Items
Biology - May Primary

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D-N	1	L	56959	SR	0.83	0.28	-0.12	-0.18	-0.17	0.28	0.0
D-N	2	L	52733	SR	0.56	0.38	0.38	-0.22	-0.20	-0.17	0.2
D-N	5	L	53643	SR	0.42	0.39	-0.16	-0.13	-0.24	0.39	0.1
D-N	6	L	53644	SR	0.84	0.39	-0.32	0.39	-0.21	-0.12	0.1
D-N	7	L	53645	SR	0.56	0.41	-0.18	-0.20	0.41	-0.21	0.1
D-N	11	O	108519	SR	0.81	0.34	-0.16	0.34	-0.20	-0.19	0.1
D-N	12	O	68220	SR	0.69	0.50	0.50	-0.30	-0.21	-0.27	0.1
D-N	13	L	94196	CR	0.27	0.71					5.9
D-N	14	O	57028	SR	0.71	0.37	-0.20	0.37	-0.18	-0.19	0.1
D-N	15	L	55056	SR	0.58	0.37	0.37	-0.27	-0.11	-0.17	0.3
D-N	16	O	55230	SR	0.70	0.11	0.11	0.00	-0.21	-0.14	0.1
D-N	17	O	55229	SR	0.86	0.34	-0.17	-0.23	0.34	-0.16	0.1
D-N	19	O	68163	SR	0.74	0.41	-0.18	-0.21	-0.25	0.41	0.2
D-N	20	L	68214	CR	0.34	0.72					4.1
D-N	21	L	57014	SR	0.64	0.47	-0.28	0.47	-0.15	-0.25	0.1
D-N	27	O	79510	SR	0.75	0.25	-0.22	0.01	0.25	-0.22	0.2
D-N	28	L	68279	CR	0.42	0.76					4.0
D-N	29	O	52754	SR	0.90	0.29	-0.17	0.29	-0.19	-0.13	0.2
D-N	30	O	55119	SR	0.67	0.43	-0.18	0.43	-0.19	-0.31	0.3
D-N	31	O	52749	SR	0.83	0.41	0.41	-0.17	-0.28	-0.23	0.3
D-N	36	L	52628	CR	0.23	0.78					9.4
D-N	37	L	57046	SR	0.42	0.26	0.26	-0.05	-0.15	-0.10	0.7
D-N	38	L	57047	SR	0.70	0.53	-0.31	-0.25	0.53	-0.22	0.7
D-N	39	L	55083	SR	0.84	0.43	-0.23	-0.26	0.43	-0.19	0.8
D-N	40	L	55086	SR	0.31	0.33	-0.16	0.33	-0.23	-0.03	0.9
D-N	41	O	68295	SR	0.59	0.47	-0.19	-0.27	-0.22	0.47	0.9
D-N	42	L	57167	SR	0.62	0.49	0.49	-0.24	-0.28	-0.20	0.9
D-N	43	L	57168	SR	0.63	0.54	-0.23	0.54	-0.32	-0.25	1.0
D-N	44	O	68292	SR	0.59	0.44	-0.29	-0.22	-0.13	0.44	0.1
D-N	45	L	68296	SR	0.45	0.33	-0.17	-0.24	0.33	-0.04	0.2
D-N	46	L	68297	SR	0.83	0.48	-0.20	-0.34	-0.23	0.48	0.1
D-N	47	L	68298	SR	0.78	0.50	0.50	-0.36	-0.27	-0.13	0.1
D-N	52	L	52766	CR	0.27	0.71					4.5
D-N	53	L	68140	SR	0.82	0.47	0.47	-0.33	-0.22	-0.18	0.2
D-N	54	L	68143	SR	0.52	0.48	-0.16	0.48	-0.31	-0.17	0.2
D-N	55	L	68144	SR	0.85	0.36	0.36	-0.24	-0.19	-0.12	0.2
D-N	59	L	52462	CR	0.46	0.81					3.6
D-N	60	O	57070	SR	0.57	0.49	-0.27	-0.27	-0.19	0.49	0.2
D-N	61	O	79496	SR	0.84	0.34	-0.16	0.34	-0.23	-0.14	0.2
D-N	62	O	55213	SR	0.44	0.45	-0.21	0.45	-0.19	-0.28	0.3
D-N	63	L	55099	SR	0.87	0.40	-0.24	0.40	-0.20	-0.20	0.2
D-N	64	L	64730	SR	0.35	0.34	-0.18	0.34	-0.14	-0.08	0.4
D-N	65	L	64731	SR	0.47	0.44	0.44	-0.20	-0.21	-0.15	0.3

120

Table A16. Summary Item Statistics - Operational Items
Biology - May Primary

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D-N	66	O	67622	SR	0.85	0.34	-0.19	-0.21	-0.17	0.34	0.2
D-N	67	L	79414	SR	0.75	0.46	-0.17	-0.26	-0.30	0.46	0.2
D-N	71	O	65126	SR	0.73	0.47	0.47	-0.22	-0.22	-0.27	0.3
D-N	72	O	65141	SR	0.56	0.41	-0.24	-0.25	0.41	-0.07	0.3
D-N	73	O	68147	SR	0.57	0.52	-0.21	-0.22	-0.32	0.52	0.3
D-N	77	O	52720	SR	0.58	0.55	-0.25	-0.25	0.55	-0.29	0.4
D-N	78	O	52775	SR	0.73	0.52	-0.22	-0.34	-0.22	0.52	0.4
D-N	79	O	52776	SR	0.74	0.50	-0.26	-0.26	-0.26	0.50	0.4
D-N	80	L	65103	CR	0.30	0.77					7.5
D-N	83	L	53459	SR	0.50	0.44	-0.19	-0.15	-0.24	0.44	1.0
D-N	84	L	65117	SR	0.75	0.50	-0.24	0.50	-0.26	-0.26	1.2
D-N	85	L	64706	SR	0.67	0.39	-0.20	-0.15	0.39	-0.25	1.0
Mean					0.62	0.46	-0.06	-0.04	-0.10	-0.01	1.0
SD					0.18	0.14	0.27	0.30	0.25	0.29	1.9

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A17. Summary Item Statistics - Operational Items
Biology - May Make-Up 1

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
X	1	L	56959	SR	0.83	0.28	-0.12	-0.18	-0.17	0.28	0.0
X	2	L	52733	SR	0.56	0.38	0.38	-0.22	-0.20	-0.17	0.2
X	5	L	53643	SR	0.42	0.39	-0.16	-0.13	-0.24	0.39	0.1
X	6	L	53644	SR	0.84	0.39	-0.32	0.39	-0.21	-0.12	0.1
X	7	L	53645	SR	0.56	0.41	-0.18	-0.20	0.41	-0.21	0.1
X	11	O	108519	SR	0.81	0.34	-0.16	0.34	-0.20	-0.19	0.1
X	12	O	68220	SR	0.69	0.50	0.50	-0.30	-0.21	-0.27	0.1
X	13	L	94196	CR	0.27	0.71					5.9
X	14	O	55170	SR	0.70	0.40	-0.24	-0.23	0.40	-0.14	0.4
X	15	L	55056	SR	0.58	0.37	0.37	-0.27	-0.11	-0.17	0.3
X	16	O	55230	SR	0.70	0.11	0.11	0.00	-0.21	-0.14	0.1
X	17	O	55229	SR	0.86	0.34	-0.17	-0.23	0.34	-0.16	0.1
X	19	O	79408	SR	0.71	0.41	-0.21	-0.23	0.41	-0.18	0.3
X	20	L	68214	CR	0.34	0.72					4.1
X	21	L	57014	SR	0.64	0.47	-0.28	0.47	-0.15	-0.25	0.1
X	27	O	79521	SR	0.67	0.36	-0.23	0.36	-0.21	-0.10	0.6
X	28	L	68279	CR	0.42	0.76					4.0
X	29	O	52623	SR	0.56	0.49	0.49	-0.32	-0.24	-0.08	0.5
X	30	O	55119	SR	0.67	0.43	-0.18	0.43	-0.19	-0.31	0.3
X	31	O	52749	SR	0.83	0.41	0.41	-0.17	-0.28	-0.23	0.3
X	36	L	52628	CR	0.23	0.78					9.4
X	37	L	57046	SR	0.42	0.26	0.26	-0.05	-0.15	-0.10	0.7
X	38	L	57047	SR	0.70	0.53	-0.31	-0.25	0.53	-0.22	0.7
X	39	L	55083	SR	0.84	0.43	-0.23	-0.26	0.43	-0.19	0.8
X	40	L	55086	SR	0.31	0.33	-0.16	0.33	-0.23	-0.03	0.9
X	41	O	52513	SR	0.36	0.38	-0.17	-0.08	-0.21	0.38	1.5
X	42	L	57167	SR	0.62	0.49	0.49	-0.24	-0.28	-0.20	0.9
X	43	L	57168	SR	0.63	0.54	-0.23	0.54	-0.32	-0.25	1.0
X	44	O	68189	SR	0.43	0.42	0.42	-0.25	-0.08	-0.19	0.7
X	45	L	68296	SR	0.45	0.33	-0.17	-0.24	0.33	-0.04	0.2
X	46	L	68297	SR	0.83	0.48	-0.20	-0.34	-0.23	0.48	0.1
X	47	L	68298	SR	0.78	0.50	0.50	-0.36	-0.27	-0.13	0.1
X	52	L	52766	CR	0.27	0.71					4.5
X	53	L	68140	SR	0.82	0.47	0.47	-0.33	-0.22	-0.18	0.2
X	54	L	68143	SR	0.52	0.48	-0.16	0.48	-0.31	-0.17	0.2
X	55	L	68144	SR	0.85	0.36	0.36	-0.24	-0.19	-0.12	0.2
X	59	L	52462	CR	0.46	0.81					3.6
X	60	O	52445	SR	0.33	0.52	0.52	-0.22	-0.20	-0.12	0.9
X	61	O	108579	SR	0.86	0.43	-0.23	-0.25	0.43	-0.16	1.0
X	62	O	55213	SR	0.44	0.45	-0.21	0.45	-0.19	-0.28	0.3
X	63	L	55099	SR	0.87	0.40	-0.24	0.40	-0.20	-0.20	0.2
X	64	L	64730	SR	0.35	0.34	-0.18	0.34	-0.14	-0.08	0.4
X	65	L	64731	SR	0.47	0.44	0.44	-0.20	-0.21	-0.15	0.3

Table A17. Summary Item Statistics - Operational Items
Biology - May Make-Up 1

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
X	66	O	67622	SR	0.85	0.34	-0.19	-0.21	-0.17	0.34	0.2
X	67	L	79414	SR	0.75	0.46	-0.17	-0.26	-0.30	0.46	0.2
X	71	O	53510	SR	0.63	0.36	-0.17	0.36	-0.17	-0.16	1.3
X	72	O	64716	SR	0.74	0.32	-0.17	0.32	-0.21	-0.10	1.1
X	73	O	79468	SR	0.51	0.49	-0.18	-0.19	-0.25	0.49	1.2
X	77	O	52720	SR	0.58	0.55	-0.25	-0.25	0.55	-0.29	0.4
X	78	O	52775	SR	0.73	0.52	-0.22	-0.34	-0.22	0.52	0.4
X	79	O	52776	SR	0.74	0.50	-0.26	-0.26	-0.26	0.50	0.4
X	80	L	65103	CR	0.30	0.77					7.5
X	83	L	53459	SR	0.50	0.44	-0.19	-0.15	-0.24	0.44	1.0
X	84	L	65117	SR	0.75	0.50	-0.24	0.50	-0.26	-0.26	1.2
X	85	L	64706	SR	0.67	0.39	-0.20	-0.15	0.39	-0.25	1.0
Mean					0.60	0.46	-0.03	-0.04	-0.08	-0.05	1.1
SD					0.19	0.14	0.29	0.30	0.27	0.26	1.9

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A18. Summary Item Statistics - Operational Items
Biology - May Make-Up 2

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Y	1	L	56959	SR	0.83	0.28	-0.12	-0.18	-0.17	0.28	0.0
Y	2	L	52733	SR	0.56	0.38	0.38	-0.22	-0.20	-0.17	0.2
Y	5	L	53643	SR	0.42	0.39	-0.16	-0.13	-0.24	0.39	0.1
Y	6	L	53644	SR	0.84	0.39	-0.32	0.39	-0.21	-0.12	0.1
Y	7	L	53645	SR	0.56	0.41	-0.18	-0.20	0.41	-0.21	0.1
Y	11	O	65149	SR	0.44	0.35	-0.15	-0.19	0.35	-0.12	0.7
Y	12	O	52466	SR	0.70	0.50	-0.24	-0.26	-0.26	0.50	0.7
Y	13	L	94196	CR	0.27	0.71					5.9
Y	14	O	57028	SR	0.71	0.37	-0.20	0.37	-0.18	-0.19	0.1
Y	15	L	55056	SR	0.58	0.37	0.37	-0.27	-0.11	-0.17	0.3
Y	16	O	55192	SR	0.52	0.32	-0.23	-0.12	-0.10	0.32	0.7
Y	17	O	52551	SR	0.37	0.22	0.22	-0.18	0.07	-0.15	0.7
Y	19	O	68163	SR	0.74	0.41	-0.18	-0.21	-0.25	0.41	0.2
Y	20	L	68214	CR	0.34	0.72					4.1
Y	21	L	57014	SR	0.64	0.47	-0.28	0.47	-0.15	-0.25	0.1
Y	27	O	79510	SR	0.75	0.25	-0.22	0.01	0.25	-0.22	0.2
Y	28	L	68279	CR	0.42	0.76					4.0
Y	29	O	52754	SR	0.90	0.29	-0.17	0.29	-0.19	-0.13	0.2
Y	30	O	55200	SR	0.32	0.40	-0.20	-0.16	-0.08	0.40	1.2
Y	31	O	55124	SR	0.62	0.37	-0.13	0.37	-0.17	-0.20	1.5
Y	36	L	52628	CR	0.23	0.78					9.4
Y	37	L	57046	SR	0.42	0.26	0.26	-0.05	-0.15	-0.10	0.7
Y	38	L	57047	SR	0.70	0.53	-0.31	-0.25	0.53	-0.22	0.7
Y	39	L	55083	SR	0.84	0.43	-0.23	-0.26	0.43	-0.19	0.8
Y	40	L	55086	SR	0.31	0.33	-0.16	0.33	-0.23	-0.03	0.9
Y	41	O	68295	SR	0.59	0.47	-0.19	-0.27	-0.22	0.47	0.9
Y	42	L	57167	SR	0.62	0.49	0.49	-0.24	-0.28	-0.20	0.9
Y	43	L	57168	SR	0.63	0.54	-0.23	0.54	-0.32	-0.25	1.0
Y	44	O	68292	SR	0.59	0.44	-0.29	-0.22	-0.13	0.44	0.1
Y	45	L	68296	SR	0.45	0.33	-0.17	-0.24	0.33	-0.04	0.2
Y	46	L	68297	SR	0.83	0.48	-0.20	-0.34	-0.23	0.48	0.1
Y	47	L	68298	SR	0.78	0.50	0.50	-0.36	-0.27	-0.13	0.1
Y	52	L	52766	CR	0.27	0.71					4.5
Y	53	L	68140	SR	0.82	0.47	0.47	-0.33	-0.22	-0.18	0.2
Y	54	L	68143	SR	0.52	0.48	-0.16	0.48	-0.31	-0.17	0.2
Y	55	L	68144	SR	0.85	0.36	0.36	-0.24	-0.19	-0.12	0.2
Y	59	L	52462	CR	0.46	0.81					3.6
Y	60	O	57070	SR	0.57	0.49	-0.27	-0.27	-0.19	0.49	0.2
Y	61	O	79496	SR	0.84	0.34	-0.16	0.34	-0.23	-0.14	0.2
Y	63	L	55099	SR	0.87	0.40	-0.24	0.40	-0.20	-0.20	0.2
Y	64	L	64730	SR	0.35	0.34	-0.18	0.34	-0.14	-0.08	0.4
Y	65	L	64731	SR	0.47	0.44	0.44	-0.20	-0.21	-0.15	0.3
Y	67	L	79414	SR	0.75	0.46	-0.17	-0.26	-0.30	0.46	0.2

Table A18. Summary Item Statistics - Operational Items

Biology - May Make-Up 2

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Y	71	O	65126	SR	0.73	0.47	0.47	-0.22	-0.22	-0.27	0.3
Y	72	O	65141	SR	0.56	0.41	-0.24	-0.25	0.41	-0.07	0.3
Y	73	O	68147	SR	0.57	0.52	-0.21	-0.22	-0.32	0.52	0.3
Y	74	O	57159	SR	0.65	0.50	-0.30	0.50	-0.18	-0.18	1.2
Y	75	O	57158	SR	0.56	0.47	0.47	-0.27	-0.15	-0.16	1.5
Y	77	O	52774	SR	0.67	0.44	-0.26	-0.16	0.44	-0.18	1.2
Y	78	O	52718	SR	0.44	0.36	-0.12	0.36	-0.18	-0.16	1.5
Y	79	O	52719	SR	0.76	0.48	0.48	-0.19	-0.23	-0.25	1.2
Y	80	L	65103	CR	0.30	0.77					7.5
Y	83	L	53459	SR	0.50	0.44	-0.19	-0.15	-0.24	0.44	1.0
Y	84	L	65117	SR	0.75	0.50	-0.24	0.50	-0.26	-0.26	1.2
Y	85	L	64706	SR	0.67	0.39	-0.20	-0.15	0.39	-0.25	1.0
Mean					0.59	0.45	-0.05	-0.03	-0.09	-0.01	1.2
SD					0.18	0.14	0.28	0.29	0.25	0.28	1.9

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A19. Summary Item Statistics - Operational Items
English - May Primary

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D-N	1	O	130229	CR	0.65	0.66					0.9
D-N	2	O	130295	SR	0.86	0.31	-0.16	-0.18	-0.18	0.31	0.0
D-N	3	O	130299	SR	0.45	0.33	-0.01	-0.31	-0.17	0.33	0.1
D-N	4	O	130300	SR	0.93	0.32	-0.16	0.32	-0.20	-0.19	0.0
D-N	5	O	130254	SR	0.66	0.45	-0.31	-0.16	0.45	-0.23	0.1
D-N	7	O	130301	SR	0.58	0.45	-0.20	0.45	-0.20	-0.26	0.1
D-N	17	L	108806	SR	0.76	0.42	-0.21	-0.20	-0.27	0.42	0.6
D-N	18	L	108808	SR	0.55	0.19	-0.10	0.19	-0.07	-0.12	0.5
D-N	19	L	108779	SR	0.82	0.43	-0.25	-0.23	0.43	-0.21	0.6
D-N	20	L	130246	SR	0.57	0.45	-0.19	-0.31	-0.11	0.45	0.5
D-N	21	L	108810	SR	0.72	0.40	-0.23	-0.22	0.40	-0.19	0.7
D-N	22	L	108807	CR	0.50	0.69					4.8
D-N	26	O	135483	CR	0.61	0.65					1.7
D-N	32	L	130951	SR	0.58	0.37	-0.10	-0.31	-0.14	0.37	0.2
D-N	33	L	130952	SR	0.65	0.37	0.37	-0.17	-0.23	-0.18	0.2
D-N	34	L	130953	SR	0.85	0.41	-0.23	-0.20	-0.22	0.41	0.2
D-N	35	L	130954	SR	0.81	0.41	0.41	-0.20	-0.22	-0.24	0.2
D-N	36	O	130970	SR	0.58	0.37	-0.13	-0.22	-0.22	0.37	0.2
D-N	37	O	130109	SR	0.66	0.44	0.44	-0.18	-0.25	-0.20	0.2
D-N	38	O	130110	SR	0.66	0.53	0.53	-0.29	-0.32	-0.17	0.2
D-N	39	O	130111	SR	0.55	0.35	-0.19	-0.11	-0.27	0.35	0.3
D-N	40	O	108820	SR	0.77	0.41	-0.18	0.41	-0.26	-0.21	0.5
D-N	41	O	109744	SR	0.72	0.44	-0.21	-0.28	-0.16	0.44	0.5
D-N	42	O	108827	SR	0.81	0.40	-0.24	0.40	-0.23	-0.16	0.4
D-N	43	O	108824	SR	0.75	0.46	-0.25	-0.22	-0.26	0.46	0.6
D-N	44	O	130230	SR	0.46	0.35	-0.17	0.35	-0.09	-0.25	0.4
D-N	45	O	130231	SR	0.81	0.43	-0.25	-0.24	-0.20	0.43	0.5
D-N	46	O	130233	SR	0.34	0.31	-0.19	-0.23	-0.09	0.31	0.5
D-N	47	O	130232	SR	0.67	0.39	0.39	-0.26	-0.25	-0.08	0.7
D-N	48	O	130234	SR	0.82	0.51	0.51	-0.27	-0.28	-0.24	0.7
D-N	51	L	130255	SR	0.84	0.46	-0.23	-0.27	0.46	-0.23	0.9
D-N	52	L	96328	SR	0.79	0.50	0.50	-0.25	-0.29	-0.23	1.0
D-N	56	L	130172	SR	0.79	0.51	-0.29	-0.26	0.51	-0.24	0.4
D-N	57	L	130173	SR	0.84	0.41	0.41	-0.24	-0.24	-0.16	0.2
D-N	58	L	130174	SR	0.76	0.54	-0.21	0.54	-0.33	-0.27	0.3
D-N	59	L	130280	SR	0.71	0.46	0.46	-0.26	-0.31	-0.16	0.3
D-N	60	L	130175	SR	0.83	0.48	-0.18	0.48	-0.25	-0.31	0.3
D-N	61	L	130176	SR	0.86	0.46	0.46	-0.25	-0.29	-0.18	0.3
D-N	62	L	130177	SR	0.79	0.43	-0.21	-0.24	0.43	-0.22	0.4
D-N	63	L	130178	SR	0.75	0.43	0.43	-0.30	-0.19	-0.18	0.4
D-N	64	L	130179	CR	0.46	0.72					5.2
D-N	71	O	96160	SR	0.70	0.36	-0.15	-0.22	0.36	-0.15	0.5
D-N	72	O	96161	SR	0.89	0.34	-0.20	-0.22	0.34	-0.16	0.5

Table A19. Summary Item Statistics - Operational Items

English - May Primary

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D-N	73	L	108796	SR	0.54	0.49	-0.24	-0.26	0.49	-0.15	0.7
D-N	74	L	108797	SR	0.30	0.22	0.22	-0.13	-0.17	0.06	0.8
D-N	75	L	108799	SR	0.52	0.39	0.39	-0.16	-0.11	-0.24	0.8
D-N	76	L	108798	SR	0.66	0.46	0.46	-0.27	-0.27	-0.13	0.9
D-N	77	L	108800	SR	0.84	0.50	-0.23	-0.31	0.50	-0.22	1.0
D-N	78	L	108801	SR	0.72	0.50	0.50	-0.27	-0.27	-0.21	1.0
D-N	80	L	108803	SR	0.45	0.38	-0.14	-0.23	-0.13	0.38	1.2
Mean					0.68	0.43	0.01	-0.13	-0.07	-0.03	0.7
SD					0.15	0.10	0.30	0.25	0.28	0.27	1.0

Note: Tabled item position number is based on Form D and varies somewhat on Forms E-N.
Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A20. Summary Item Statistics - Operational Items
English - May Make-Up 1

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
X	1	O	130229	CR	0.65	0.66					0.9
X	2	O	130295	SR	0.86	0.31	-0.16	-0.18	-0.18	0.31	0.0
X	3	O	130299	SR	0.45	0.33	-0.01	-0.31	-0.17	0.33	0.1
X	4	O	130300	SR	0.93	0.32	-0.16	0.32	-0.20	-0.19	0.0
X	5	O	130254	SR	0.66	0.45	-0.31	-0.16	0.45	-0.23	0.1
X	7	O	130301	SR	0.58	0.45	-0.20	0.45	-0.20	-0.26	0.1
X	17	L	108806	SR	0.76	0.42	-0.21	-0.20	-0.27	0.42	0.6
X	18	L	108808	SR	0.55	0.19	-0.10	0.19	-0.07	-0.12	0.5
X	19	L	108779	SR	0.82	0.43	-0.25	-0.23	0.43	-0.21	0.6
X	20	L	130246	SR	0.57	0.45	-0.19	-0.31	-0.11	0.45	0.5
X	21	L	108810	SR	0.72	0.40	-0.23	-0.22	0.40	-0.19	0.7
X	22	L	108807	CR	0.50	0.69					4.8
X	26	O	96254	CR	0.47	0.64					4.8
X	32	L	130951	SR	0.58	0.37	-0.10	-0.31	-0.14	0.37	0.2
X	33	L	130952	SR	0.65	0.37	0.37	-0.17	-0.23	-0.18	0.2
X	34	L	130953	SR	0.85	0.41	-0.23	-0.20	-0.22	0.41	0.2
X	35	L	130954	SR	0.81	0.41	0.41	-0.20	-0.22	-0.24	0.2
X	36	O	130308	SR	0.56	0.42	-0.23	0.42	-0.23	-0.12	0.8
X	37	O	130271	SR	0.43	0.35	-0.15	-0.15	0.35	-0.13	0.9
X	38	O	130302	SR	0.72	0.48	-0.26	-0.24	0.48	-0.21	0.8
X	39	O	130165	SR	0.66	0.45	-0.20	-0.29	0.45	-0.11	1.0
X	40	O	130166	SR	0.60	0.44	0.44	-0.18	-0.29	-0.13	1.0
X	41	O	130167	SR	0.67	0.50	-0.15	-0.28	-0.29	0.50	1.0
X	42	O	130274	SR	0.69	0.48	-0.26	0.48	-0.30	-0.13	1.0
X	43	O	130168	SR	0.73	0.52	-0.27	-0.28	0.52	-0.18	1.1
X	44	O	130230	SR	0.46	0.35	-0.17	0.35	-0.09	-0.25	0.4
X	45	O	130231	SR	0.81	0.43	-0.25	-0.24	-0.20	0.43	0.5
X	46	O	130233	SR	0.34	0.31	-0.19	-0.23	-0.09	0.31	0.5
X	47	O	130232	SR	0.67	0.39	0.39	-0.26	-0.25	-0.08	0.7
X	48	O	130234	SR	0.82	0.51	0.51	-0.27	-0.28	-0.24	0.7
X	51	L	130255	SR	0.84	0.46	-0.23	-0.27	0.46	-0.23	0.9
X	52	L	96328	SR	0.79	0.50	0.50	-0.25	-0.29	-0.23	1.0
X	56	L	130172	SR	0.79	0.51	-0.29	-0.26	0.51	-0.24	0.4
X	57	L	130173	SR	0.84	0.41	0.41	-0.24	-0.24	-0.16	0.2
X	58	L	130174	SR	0.76	0.54	-0.21	0.54	-0.33	-0.27	0.3
X	59	L	130280	SR	0.71	0.46	0.46	-0.26	-0.31	-0.16	0.3
X	60	L	130175	SR	0.83	0.48	-0.18	0.48	-0.25	-0.31	0.3
X	61	L	130176	SR	0.86	0.46	0.46	-0.25	-0.29	-0.18	0.3
X	62	L	130177	SR	0.79	0.43	-0.21	-0.24	0.43	-0.22	0.4
X	63	L	130178	SR	0.75	0.43	0.43	-0.30	-0.19	-0.18	0.4
X	64	L	130179	CR	0.46	0.72					5.2
X	71	O	109108	SR	0.48	0.37	-0.07	-0.23	0.37	-0.14	1.3
X	72	O	109109	SR	0.61	0.44	0.44	-0.15	-0.24	-0.20	1.4

128

Table A20. Summary Item Statistics - Operational Items
English - May Make-Up 1

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
X	73	L	108796	SR	0.54	0.49	-0.24	-0.26	0.49	-0.15	0.7
X	74	L	108797	SR	0.30	0.22	0.22	-0.13	-0.17	0.06	0.8
X	75	L	108799	SR	0.52	0.39	0.39	-0.16	-0.11	-0.24	0.8
X	76	L	108798	SR	0.66	0.46	0.46	-0.27	-0.27	-0.13	0.9
X	77	L	108800	SR	0.84	0.50	-0.23	-0.31	0.50	-0.22	1.0
X	78	L	108801	SR	0.72	0.50	0.50	-0.27	-0.27	-0.21	1.0
X	80	L	108803	SR	0.45	0.38	-0.14	-0.23	-0.13	0.38	1.2
Mean					0.66	0.44	0.01	-0.13	-0.03	-0.06	0.9
SD					0.15	0.10	0.30	0.25	0.31	0.25	1.1

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A21. Summary Item Statistics - Operational Items

English - May Make-Up 2

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Y	1	O	130029	CR	0.44	0.56					5.2
Y	2	O	130269	SR	0.61	0.33	-0.22	-0.13	0.33	-0.16	0.2
Y	3	O	130272	SR	0.25	0.15	0.00	-0.02	-0.10	0.15	0.2
Y	4	O	130273	SR	0.64	0.37	-0.23	-0.19	0.37	-0.10	0.2
Y	5	O	130279	SR	0.51	0.37	-0.21	-0.19	0.37	-0.09	0.6
Y	6	O	130169	SR	0.72	0.34	-0.18	0.34	-0.17	-0.17	0.0
Y	18	L	108806	SR	0.76	0.42	-0.21	-0.20	-0.27	0.42	0.6
Y	19	L	108808	SR	0.55	0.19	-0.10	0.19	-0.07	-0.12	0.5
Y	20	L	108779	SR	0.82	0.43	-0.25	-0.23	0.43	-0.21	0.6
Y	21	L	130246	SR	0.57	0.45	-0.19	-0.31	-0.11	0.45	0.5
Y	22	L	108810	SR	0.72	0.40	-0.23	-0.22	0.40	-0.19	0.7
Y	23	L	108807	CR	0.50	0.69					4.8
Y	27	O	135483	CR	0.61	0.65					1.7
Y	34	L	130951	SR	0.58	0.37	-0.10	-0.31	-0.14	0.37	0.2
Y	35	L	130952	SR	0.65	0.37	0.37	-0.17	-0.23	-0.18	0.2
Y	36	L	130953	SR	0.85	0.41	-0.23	-0.20	-0.22	0.41	0.2
Y	37	L	130954	SR	0.81	0.41	0.41	-0.20	-0.22	-0.24	0.2
Y	38	O	130970	SR	0.58	0.37	-0.13	-0.22	-0.22	0.37	0.2
Y	39	O	130109	SR	0.66	0.44	0.44	-0.18	-0.25	-0.20	0.2
Y	40	O	130110	SR	0.66	0.53	0.53	-0.29	-0.32	-0.17	0.2
Y	41	O	130111	SR	0.55	0.35	-0.19	-0.11	-0.27	0.35	0.3
Y	42	O	108820	SR	0.77	0.41	-0.18	0.41	-0.26	-0.21	0.5
Y	43	O	109744	SR	0.72	0.44	-0.21	-0.28	-0.16	0.44	0.5
Y	44	O	108827	SR	0.81	0.40	-0.24	0.40	-0.23	-0.16	0.4
Y	45	O	108824	SR	0.75	0.46	-0.25	-0.22	-0.26	0.46	0.6
Y	46	O	130066	SR	0.58	0.37	-0.15	0.37	-0.19	-0.14	1.0
Y	47	O	130067	SR	0.34	0.32	-0.02	-0.24	0.32	-0.09	1.0
Y	48	O	130069	SR	0.32	0.38	-0.07	-0.17	-0.15	0.38	1.2
Y	50	O	130074	SR	0.47	0.37	-0.17	0.37	-0.34	0.04	1.4
Y	51	O	130199	SR	0.58	0.43	0.43	-0.19	-0.28	-0.07	1.6
Y	53	L	130255	SR	0.84	0.46	-0.23	-0.27	0.46	-0.23	0.9
Y	54	L	96328	SR	0.79	0.50	0.50	-0.25	-0.29	-0.23	1.0
Y	58	L	130172	SR	0.79	0.51	-0.29	-0.26	0.51	-0.24	0.4
Y	59	L	130173	SR	0.84	0.41	0.41	-0.24	-0.24	-0.16	0.2
Y	60	L	130174	SR	0.76	0.54	-0.21	0.54	-0.33	-0.27	0.3
Y	61	L	130280	SR	0.71	0.46	0.46	-0.26	-0.31	-0.16	0.3
Y	62	L	130175	SR	0.83	0.48	-0.18	0.48	-0.25	-0.31	0.3
Y	63	L	130176	SR	0.86	0.46	0.46	-0.25	-0.29	-0.18	0.3
Y	64	L	130177	SR	0.79	0.43	-0.21	-0.24	0.43	-0.22	0.4
Y	65	L	130178	SR	0.75	0.43	0.43	-0.30	-0.19	-0.18	0.4
Y	66	L	130179	CR	0.46	0.72					5.2
Y	72	O	96160	SR	0.70	0.36	-0.15	-0.22	0.36	-0.15	0.5
Y	73	O	96161	SR	0.89	0.34	-0.20	-0.22	0.34	-0.16	0.5

130

Table A21. Summary Item Statistics - Operational Items
English - May Make-Up 2

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Y	74	L	108796	SR	0.54	0.49	-0.24	-0.26	0.49	-0.15	0.7
Y	75	L	108797	SR	0.30	0.22	0.22	-0.13	-0.17	0.06	0.8
Y	76	L	108799	SR	0.52	0.39	0.39	-0.16	-0.11	-0.24	0.8
Y	77	L	108798	SR	0.66	0.46	0.46	-0.27	-0.27	-0.13	0.9
Y	78	L	108800	SR	0.84	0.50	-0.23	-0.31	0.50	-0.22	1.0
Y	79	L	108801	SR	0.72	0.50	0.50	-0.27	-0.27	-0.21	1.0
Y	81	L	108803	SR	0.45	0.38	-0.14	-0.23	-0.13	0.38	1.2
Mean					0.65	0.42	0.00	-0.12	-0.04	-0.04	0.9
SD					0.16	0.10	0.29	0.24	0.29	0.25	1.1

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A22. Summary Item Statistics - Operational Items
Government - May Primary

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D-N	1	L	68603	SR	0.94	0.23	-0.11	-0.16	0.23	-0.13	0.0
D-N	2	L	68673	SR	0.82	0.47	-0.26	-0.26	-0.25	0.47	0.1
D-N	3	L	55630	SR	0.74	0.48	0.48	-0.15	-0.12	-0.41	0.1
D-N	7	L	68095	SR	0.72	0.43	-0.20	-0.23	-0.24	0.43	0.3
D-N	8	L	55619	CR	0.48	0.61					1.4
D-N	9	L	51044	SR	0.74	0.43	0.43	-0.27	-0.24	-0.17	0.2
D-N	10	L	79663	SR	0.51	0.38	-0.05	0.38	-0.25	-0.33	0.2
D-N	11	L	51786	SR	0.59	0.44	-0.19	0.44	-0.28	-0.16	0.2
D-N	12	O	79747	SR	0.36	0.21	-0.09	0.21	-0.14	-0.01	0.3
D-N	15	L	60455	CR	0.46	0.71					2.4
D-N	16	L	51245	SR	0.60	0.50	-0.21	0.50	-0.31	-0.24	0.1
D-N	17	L	68741	SR	0.71	0.55	-0.31	0.55	-0.27	-0.25	0.3
D-N	20	L	68505	SR	0.85	0.50	-0.31	-0.27	-0.23	0.50	0.2
D-N	21	L	51134	SR	0.55	0.50	-0.32	-0.19	-0.18	0.50	0.3
D-N	22	L	68605	SR	0.87	0.50	-0.22	0.50	-0.32	-0.26	0.3
D-N	23	L	68685	CR	0.47	0.73					3.2
D-N	24	L	68745	SR	0.93	0.42	0.42	-0.26	-0.26	-0.16	0.2
D-N	25	L	51072	SR	0.68	0.33	-0.11	0.33	-0.27	-0.14	0.3
D-N	28	L	68559	SR	0.58	0.50	-0.22	0.50	-0.28	-0.20	0.4
D-N	29	L	68681	SR	0.76	0.41	0.41	-0.23	-0.19	-0.23	0.3
D-N	30	O	68556	SR	0.79	0.46	-0.23	-0.29	0.46	-0.22	0.3
D-N	31	L	108475	SR	0.75	0.47	-0.26	0.47	-0.27	-0.21	0.3
D-N	35	O	68629	CR	0.43	0.76					5.1
D-N	36	L	64959	SR	0.75	0.51	-0.23	-0.28	0.51	-0.25	1.2
D-N	37	O	68695	SR	0.67	0.46	-0.22	-0.25	0.46	-0.18	1.4
D-N	38	O	51139	SR	0.70	0.34	-0.15	-0.19	0.34	-0.18	1.3
D-N	42	L	58306	SR	0.74	0.30	-0.13	-0.23	-0.11	0.30	1.6
D-N	43	O	68511	SR	0.48	0.44	-0.23	-0.13	0.44	-0.17	1.8
D-N	44	L	58400	SR	0.90	0.33	-0.16	-0.18	-0.21	0.33	0.2
D-N	45	L	68643	SR	0.82	0.42	-0.26	-0.20	-0.23	0.42	0.3
D-N	46	L	55583	SR	0.72	0.37	0.37	-0.26	-0.17	-0.13	0.3
D-N	47	L	50874	SR	0.63	0.53	0.53	-0.34	-0.28	-0.13	0.4
D-N	50	L	52183	CR	0.40	0.76					6.2
D-N	51	L	58309	SR	0.68	0.55	-0.15	-0.26	-0.37	0.55	0.4
D-N	52	L	51172	SR	0.71	0.47	-0.27	-0.21	0.47	-0.22	0.5
D-N	53	O	58288	SR	0.62	0.49	-0.20	-0.21	0.49	-0.29	0.5
D-N	56	L	79640	SR	0.75	0.51	-0.28	-0.24	-0.28	0.51	0.4
D-N	57	L	50947	SR	0.71	0.51	0.51	-0.27	-0.31	-0.20	0.5
D-N	58	L	51723	SR	0.56	0.37	0.37	-0.19	-0.25	-0.06	0.6
D-N	59	L	68012	CR	0.31	0.81					9.1
D-N	60	O	68515	SR	0.80	0.45	-0.24	-0.27	0.45	-0.20	0.4
D-N	61	L	68709	SR	0.70	0.57	-0.28	-0.33	0.57	-0.24	0.4
D-N	62	O	55714	SR	0.84	0.48	-0.23	-0.31	0.48	-0.24	0.3

Table A22. Summary Item Statistics - Operational Items
Government - May Primary

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D-N	66	O	50887	SR	0.61	0.37	0.37	-0.14	-0.24	-0.12	0.5
D-N	67	O	58273	SR	0.88	0.46	-0.21	-0.28	-0.25	0.46	0.4
D-N	68	O	65214	SR	0.50	0.50	-0.25	0.50	-0.23	-0.25	0.6
D-N	69	L	64946	CR	0.37	0.75					6.8
D-N	70	O	68070	SR	0.54	0.40	-0.04	0.40	-0.36	-0.11	0.7
D-N	71	O	51744	SR	0.83	0.46	0.46	-0.25	-0.28	-0.19	0.6
D-N	75	L	68013	SR	0.57	0.51	-0.21	-0.30	-0.18	0.51	1.0
D-N	76	O	55612	SR	0.48	0.40	-0.16	-0.17	0.40	-0.16	1.1
D-N	77	L	52238	CR	0.27	0.83					7.2
D-N	81	O	64794	SR	0.66	0.52	-0.27	-0.18	-0.32	0.52	1.0
D-N	82	O	52279	SR	0.51	0.45	-0.23	0.45	-0.29	-0.14	1.1
D-N	85	L	65207	SR	0.71	0.41	-0.21	0.41	-0.23	-0.17	1.3
D-N	86	L	65204	SR	0.59	0.38	-0.11	-0.21	-0.27	0.38	1.3
D-N	87	O	60556	SR	0.57	0.49	-0.24	-0.22	-0.22	0.49	1.4
D-N	88	O	52266	SR	0.68	0.48	-0.24	-0.19	0.48	-0.28	1.4
Mean					0.65	0.48	-0.08	-0.06	-0.07	-0.01	1.2
SD					0.16	0.13	0.27	0.30	0.31	0.30	1.9

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration; P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A23. Summary Item Statistics - Operational Items
Government - May Make-Up 1

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
X	1	L	68603	SR	0.94	0.23	-0.11	-0.16	0.23	-0.13	0.0
X	2	L	68673	SR	0.82	0.47	-0.26	-0.26	-0.25	0.47	0.1
X	3	L	55630	SR	0.74	0.48	0.48	-0.15	-0.12	-0.41	0.1
X	7	L	68095	SR	0.72	0.43	-0.20	-0.23	-0.24	0.43	0.3
X	8	L	55619	CR	0.48	0.61					1.4
X	9	L	51044	SR	0.74	0.43	0.43	-0.27	-0.24	-0.17	0.2
X	10	L	79663	SR	0.51	0.38	-0.05	0.38	-0.25	-0.33	0.2
X	11	L	51786	SR	0.59	0.44	-0.19	0.44	-0.28	-0.16	0.2
X	12	O	79747	SR	0.36	0.21	-0.09	0.21	-0.14	-0.01	0.3
X	15	L	60455	CR	0.46	0.71					2.4
X	16	L	51245	SR	0.60	0.50	-0.21	0.50	-0.31	-0.24	0.1
X	17	L	68741	SR	0.71	0.55	-0.31	0.55	-0.27	-0.25	0.3
X	20	L	68505	SR	0.85	0.50	-0.31	-0.27	-0.23	0.50	0.2
X	21	L	51134	SR	0.55	0.50	-0.32	-0.19	-0.18	0.50	0.3
X	22	L	68605	SR	0.87	0.50	-0.22	0.50	-0.32	-0.26	0.3
X	23	L	68685	CR	0.47	0.73					3.2
X	24	L	68745	SR	0.93	0.42	0.42	-0.26	-0.26	-0.16	0.2
X	25	L	51072	SR	0.68	0.33	-0.11	0.33	-0.27	-0.14	0.3
X	28	L	68559	SR	0.58	0.50	-0.22	0.50	-0.28	-0.20	0.4
X	29	L	68681	SR	0.76	0.41	0.41	-0.23	-0.19	-0.23	0.3
X	30	O	68556	SR	0.79	0.46	-0.23	-0.29	0.46	-0.22	0.3
X	31	L	108475	SR	0.75	0.47	-0.26	0.47	-0.27	-0.21	0.3
X	35	O	108361	CR	0.28	0.78					25.8
X	36	L	64959	SR	0.75	0.51	-0.23	-0.28	0.51	-0.25	1.2
X	37	O	68695	SR	0.67	0.46	-0.22	-0.25	0.46	-0.18	1.4
X	38	O	51139	SR	0.70	0.34	-0.15	-0.19	0.34	-0.18	1.3
X	42	L	58306	SR	0.74	0.30	-0.13	-0.23	-0.11	0.30	1.6
X	43	O	51152	SR	0.63	0.53	-0.24	-0.25	-0.26	0.53	2.2
X	44	L	58400	SR	0.90	0.33	-0.16	-0.18	-0.21	0.33	0.2
X	45	L	68643	SR	0.82	0.42	-0.26	-0.20	-0.23	0.42	0.3
X	46	L	55583	SR	0.72	0.37	0.37	-0.26	-0.17	-0.13	0.3
X	47	L	50874	SR	0.63	0.53	0.53	-0.34	-0.28	-0.13	0.4
X	50	L	52183	CR	0.40	0.76					6.2
X	51	L	58309	SR	0.68	0.55	-0.15	-0.26	-0.37	0.55	0.4
X	52	L	51172	SR	0.71	0.47	-0.27	-0.21	0.47	-0.22	0.5
X	53	O	51017	SR	0.53	0.45	0.45	-0.19	-0.21	-0.17	1.1
X	56	L	79640	SR	0.75	0.51	-0.28	-0.24	-0.28	0.51	0.4
X	57	L	50947	SR	0.71	0.51	0.51	-0.27	-0.31	-0.20	0.5
X	58	L	51723	SR	0.56	0.37	0.37	-0.19	-0.25	-0.06	0.6
X	59	L	68012	CR	0.31	0.81					9.1
X	60	O	55713	SR	0.65	0.52	-0.26	-0.18	-0.30	0.52	1.1
X	61	L	68709	SR	0.70	0.57	-0.28	-0.33	0.57	-0.24	0.4
X	62	O	64817	SR	0.25	0.22	0.22	-0.05	-0.09	-0.05	1.2

Table A23. Summary Item Statistics - Operational Items
Government - May Make-Up 1

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
X	66	O	50887	SR	0.61	0.37	0.37	-0.14	-0.24	-0.12	0.5
X	67	O	68072	SR	0.38	0.35	-0.06	-0.23	0.35	-0.11	1.2
X	68	O	64788	SR	0.67	0.41	0.41	-0.16	-0.23	-0.21	1.3
X	69	L	64946	CR	0.37	0.75					6.8
X	70	O	68729	SR	0.37	0.49	-0.19	-0.25	-0.15	0.49	1.8
X	71	O	51744	SR	0.83	0.46	0.46	-0.25	-0.28	-0.19	0.6
X	75	L	68013	SR	0.57	0.51	-0.21	-0.30	-0.18	0.51	1.0
X	76	O	52289	SR	0.59	0.53	0.53	-0.22	-0.26	-0.21	2.4
X	77	L	52238	CR	0.27	0.83					7.2
X	81	O	64794	SR	0.66	0.52	-0.27	-0.18	-0.32	0.52	1.0
X	82	O	52279	SR	0.51	0.45	-0.23	0.45	-0.29	-0.14	1.1
X	85	L	65207	SR	0.71	0.41	-0.21	0.41	-0.23	-0.17	1.3
X	86	L	65204	SR	0.59	0.38	-0.11	-0.21	-0.27	0.38	1.3
X	87	O	60556	SR	0.57	0.49	-0.24	-0.22	-0.22	0.49	1.4
X	88	O	51752	SR	0.39	0.45	-0.19	-0.14	-0.18	0.45	2.4
Mean					0.62	0.48	-0.03	-0.08	-0.13	0.04	1.7
SD					0.17	0.14	0.30	0.28	0.25	0.32	3.7

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A24. Summary Item Statistics - Operational Items
Government - May Make-Up 2

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Y	1	L	68603	SR	0.94	0.23	-0.11	-0.16	0.23	-0.13	0.0
Y	2	L	68673	SR	0.82	0.47	-0.26	-0.26	-0.25	0.47	0.1
Y	3	L	55630	SR	0.74	0.48	0.48	-0.15	-0.12	-0.41	0.1
Y	7	L	68095	SR	0.72	0.43	-0.20	-0.23	-0.24	0.43	0.3
Y	8	L	55619	CR	0.48	0.61					1.4
Y	9	L	51044	SR	0.74	0.43	0.43	-0.27	-0.24	-0.17	0.2
Y	10	L	79663	SR	0.51	0.38	-0.05	0.38	-0.25	-0.33	0.2
Y	11	L	51786	SR	0.59	0.44	-0.19	0.44	-0.28	-0.16	0.2
Y	12	O	50855	SR	0.76	0.41	0.41	-0.29	-0.20	-0.12	0.3
Y	15	L	60455	CR	0.46	0.71					2.4
Y	16	L	51245	SR	0.60	0.50	-0.21	0.50	-0.31	-0.24	0.1
Y	17	L	68741	SR	0.71	0.55	-0.31	0.55	-0.27	-0.25	0.3
Y	20	L	68505	SR	0.85	0.50	-0.31	-0.27	-0.23	0.50	0.2
Y	21	L	51134	SR	0.55	0.50	-0.32	-0.19	-0.18	0.50	0.3
Y	22	L	68605	SR	0.87	0.50	-0.22	0.50	-0.32	-0.26	0.3
Y	23	L	68685	CR	0.47	0.73					3.2
Y	24	L	68745	SR	0.93	0.42	0.42	-0.26	-0.26	-0.16	0.2
Y	25	L	51072	SR	0.68	0.33	-0.11	0.33	-0.27	-0.14	0.3
Y	28	L	68559	SR	0.58	0.50	-0.22	0.50	-0.28	-0.20	0.4
Y	29	L	68681	SR	0.76	0.41	0.41	-0.23	-0.19	-0.23	0.3
Y	30	O	68502	SR	0.34	0.39	-0.13	-0.08	-0.21	0.39	0.8
Y	31	L	108475	SR	0.75	0.47	-0.26	0.47	-0.27	-0.21	0.3
Y	35	O	68629	CR	0.43	0.76					5.1
Y	36	L	64959	SR	0.75	0.51	-0.23	-0.28	0.51	-0.25	1.2
Y	37	O	51154	SR	0.37	0.29	0.29	-0.20	-0.22	0.11	2.0
Y	38	O	55613	SR	0.58	0.43	-0.17	-0.16	0.43	-0.26	2.3
Y	42	L	58306	SR	0.74	0.30	-0.13	-0.23	-0.11	0.30	1.6
Y	43	O	68511	SR	0.48	0.44	-0.23	-0.13	0.44	-0.17	1.8
Y	44	L	58400	SR	0.90	0.33	-0.16	-0.18	-0.21	0.33	0.2
Y	45	L	68643	SR	0.82	0.42	-0.26	-0.20	-0.23	0.42	0.3
Y	46	L	55583	SR	0.72	0.37	0.37	-0.26	-0.17	-0.13	0.3
Y	47	L	50874	SR	0.63	0.53	0.53	-0.34	-0.28	-0.13	0.4
Y	50	L	52183	CR	0.40	0.76					6.2
Y	51	L	58309	SR	0.68	0.55	-0.15	-0.26	-0.37	0.55	0.4
Y	52	L	51172	SR	0.71	0.47	-0.27	-0.21	0.47	-0.22	0.5
Y	53	O	58288	SR	0.62	0.49	-0.20	-0.21	0.49	-0.29	0.5
Y	56	L	79640	SR	0.75	0.51	-0.28	-0.24	-0.28	0.51	0.4
Y	57	L	50947	SR	0.71	0.51	0.51	-0.27	-0.31	-0.20	0.5
Y	58	L	51723	SR	0.56	0.37	0.37	-0.19	-0.25	-0.06	0.6
Y	59	L	68012	CR	0.31	0.81					9.1
Y	60	O	68515	SR	0.80	0.45	-0.24	-0.27	0.45	-0.20	0.4
Y	61	L	68709	SR	0.70	0.57	-0.28	-0.33	0.57	-0.24	0.4
Y	62	O	55714	SR	0.84	0.48	-0.23	-0.31	0.48	-0.24	0.3

Table A24. Summary Item Statistics - Operational Items
Government - May Make-Up 2

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Y	66	O	68509	SR	0.31	0.23	0.00	0.23	-0.19	-0.01	1.6
Y	67	O	58273	SR	0.88	0.46	-0.21	-0.28	-0.25	0.46	0.4
Y	68	O	65214	SR	0.50	0.50	-0.25	0.50	-0.23	-0.25	0.6
Y	69	L	64946	CR	0.37	0.75					6.8
Y	70	O	68070	SR	0.54	0.40	-0.04	0.40	-0.36	-0.11	0.7
Y	71	O	68595	SR	0.69	0.42	-0.24	0.42	-0.19	-0.14	1.8
Y	75	L	68013	SR	0.57	0.51	-0.21	-0.30	-0.18	0.51	1.0
Y	76	O	55612	SR	0.48	0.40	-0.16	-0.17	0.40	-0.16	1.1
Y	77	L	52238	CR	0.27	0.83					7.2
Y	81	O	64803	SR	0.39	0.42	0.42	-0.20	-0.16	-0.07	2.3
Y	82	O	64811	SR	0.40	0.37	-0.16	0.37	-0.19	-0.04	2.0
Y	85	L	65207	SR	0.71	0.41	-0.21	0.41	-0.23	-0.17	1.3
Y	86	L	65204	SR	0.59	0.38	-0.11	-0.21	-0.27	0.38	1.3
Y	87	O	51191	SR	0.32	0.28	-0.19	-0.03	-0.05	0.28	2.5
Y	88	O	52266	SR	0.68	0.48	-0.24	-0.19	0.48	-0.28	1.4
Mean					0.62	0.48	-0.06	-0.04	-0.08	-0.01	1.4
SD					0.18	0.13	0.27	0.30	0.29	0.29	1.9

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A25. Summary Item Statistics - Operational Items
Algebra - Summer Primary 1

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
P	1	L	54780	SR	0.69	0.29	-0.12	0.29	-0.16	-0.18	1.6
P	2	L	56828	SR	0.71	0.31	-0.17	0.31	-0.21	-0.14	1.4
P	3	L	51407	SR	0.75	0.35	-0.15	0.35	-0.21	-0.18	0.4
P	4	L	54782	SR	0.82	0.22	-0.02	-0.08	0.22	-0.20	0.8
P	6	L	79527	CR	0.42	0.67					9.3
P	7	L	54861	SR	0.20	0.26	-0.08	-0.01	-0.14	0.26	0.7
P	8	O	56662	SR	0.50	0.38	0.38	-0.17	-0.15	-0.19	0.7
P	9	L	51380	SR	0.47	0.43	-0.18	-0.22	-0.16	0.43	1.3
P	10	O	54847	SR	0.23	0.32	-0.10	-0.17	0.32	-0.05	1.1
P	12	L	54789	SPR	0.52	0.50	0.50	-0.39			6.9
P	13	O	106616	SPR	0.39	0.50	0.50	-0.36			10.0
P	15	L	67500	CR	0.14	0.68					21.8
P	16	L	79138	SR	0.45	0.31	0.31	-0.19	-0.09	-0.10	1.9
P	17	O	51425	SR	0.46	0.33	0.33	-0.16	-0.17	-0.06	2.1
P	19	O	54808	CR	0.38	0.65					11.1
P	20	O	67527	SPR	0.21	0.50	0.50	-0.25			24.5
P	24	L	79124	SR	0.25	0.47	-0.22	-0.12	-0.10	0.47	6.4
P	25	L	79114	SR	0.59	0.32	-0.12	-0.18	0.32	-0.12	5.8
P	26	L	79091	SR	0.66	0.42	0.42	-0.21	-0.28	-0.09	1.0
P	27	O	51452	SR	0.77	0.37	-0.21	0.37	-0.21	-0.10	1.0
P	28	L	56550	SR	0.53	0.35	-0.14	0.35	-0.09	-0.22	1.0
P	30	L	56735	SR	0.33	0.35	-0.08	0.35	-0.16	-0.16	1.0
P	34	O	67471	SPR	0.52	0.52	0.52	-0.36			11.3
P	35	L	56443	SR	0.42	0.34	-0.10	-0.17	-0.14	0.34	1.0
P	36	L	56675	SR	0.53	0.50	0.50	-0.24	-0.24	-0.17	1.6
P	38	O	51400	SR	0.63	0.32	-0.09	-0.24	0.32	-0.14	0.9
P	41	O	79069	SR	0.32	0.26	-0.12	0.00	-0.16	0.26	1.1
P	42	O	67482	CR	0.43	0.56					10.2
P	43	L	67481	SPR	0.51	0.51	0.51	-0.39			6.7
P	44	L	67440	SPR	0.26	0.55	0.55	-0.29			18.8
P	46	O	50383	CR	0.18	0.64					21.7
P	47	L	67455	SR	0.44	0.24	-0.10	-0.08	0.24	-0.08	1.7
P	48	L	43153	SR	0.40	0.32	-0.14	-0.18	0.32	-0.03	1.6
P	49	O	51497	SR	0.47	0.37	0.37	-0.13	-0.20	-0.16	1.5
P	50	L	56696	CR	0.16	0.61					28.3
P	51	O	67558	SR	0.50	0.33	-0.16	-0.17	0.33	-0.04	3.5
P	52	O	67419	SR	0.70	0.46	-0.23	-0.19	-0.25	0.46	3.6
P	53	L	56743	SR	0.65	0.46	-0.24	-0.20	0.46	-0.18	3.8
Mean					0.46	0.42	0.08	-0.10	-0.02	-0.01	6.0
SD					0.18	0.13	0.30	0.23	0.24	0.22	7.6

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A26. Summary Item Statistics - Operational Items
Algebra – Summer Primary 2

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Q	1	L	54780	SR	0.69	0.29	-0.12	0.29	-0.16	-0.18	1.6
Q	2	L	56828	SR	0.71	0.31	-0.17	0.31	-0.21	-0.14	1.4
Q	3	L	51407	SR	0.75	0.35	-0.15	0.35	-0.21	-0.18	0.4
Q	4	L	54782	SR	0.82	0.22	-0.02	-0.08	0.22	-0.20	0.8
Q	6	L	79527	CR	0.42	0.67					9.3
Q	7	L	54861	SR	0.20	0.26	-0.08	-0.01	-0.14	0.26	0.7
Q	8	O	51540	SR	0.24	0.51	0.51	0.01	-0.35	-0.10	1.8
Q	9	L	51380	SR	0.47	0.43	-0.18	-0.22	-0.16	0.43	1.3
Q	10	O	79145	SR	0.34	0.53	-0.22	-0.21	-0.13	0.53	1.8
Q	12	L	54789	SPR	0.52	0.50	0.50	-0.39			6.9
Q	13	O	51465	SPR	0.38	0.63	0.63	-0.43			9.8
Q	15	L	67500	CR	0.14	0.68					21.8
Q	16	L	79138	SR	0.45	0.31	0.31	-0.19	-0.09	-0.10	1.9
Q	17	O	106577	SR	0.40	0.49	-0.18	-0.21	-0.10	0.49	2.7
Q	19	O	50445	CR	0.28	0.73					12.5
Q	20	O	56619	SPR	0.31	0.51	0.51	-0.28			15.2
Q	24	L	79124	SR	0.25	0.47	-0.22	-0.12	-0.10	0.47	6.4
Q	25	L	79114	SR	0.59	0.32	-0.12	-0.18	0.32	-0.12	5.8
Q	26	L	79091	SR	0.66	0.42	0.42	-0.21	-0.28	-0.09	1.0
Q	27	O	56756	SR	0.60	0.41	0.41	-0.15	-0.23	-0.16	3.6
Q	28	L	56550	SR	0.53	0.35	-0.14	0.35	-0.09	-0.22	1.0
Q	30	L	56735	SR	0.33	0.35	-0.08	0.35	-0.16	-0.16	1.0
Q	34	O	67549	SPR	0.60	0.52	0.52	-0.42			7.1
Q	35	L	56443	SR	0.42	0.34	-0.10	-0.17	-0.14	0.34	1.0
Q	36	L	56675	SR	0.53	0.50	0.50	-0.24	-0.24	-0.17	1.6
Q	38	O	51372	SR	0.67	0.52	-0.28	0.52	-0.13	-0.24	2.7
Q	41	O	43155	SR	0.50	0.29	-0.12	0.29	-0.17	-0.06	4.5
Q	42	O	51571	CR	0.44	0.72					10.7
Q	43	L	67481	SPR	0.51	0.51	0.51	-0.39			6.7
Q	44	L	67440	SPR	0.26	0.55	0.55	-0.29			18.8
Q	46	O	43162	CR	0.13	0.76					19.6
Q	47	L	67455	SR	0.44	0.24	-0.10	-0.08	0.24	-0.08	1.7
Q	48	L	43153	SR	0.40	0.32	-0.14	-0.18	0.32	-0.03	1.6
Q	49	O	67483	SR	0.22	0.16	0.16	-0.05	-0.06	0.09	3.6
Q	50	L	56696	CR	0.16	0.61					28.3
Q	51	O	56800	SR	0.19	0.11	0.11	0.20	-0.11	-0.13	3.6
Q	52	O	64690	SR	0.61	0.48	-0.15	-0.29	0.48	-0.16	4.5
Q	53	L	56743	SR	0.65	0.46	-0.24	-0.20	0.46	-0.18	3.8
Mean					0.44	0.44	0.09	-0.07	-0.05	0.00	6.0
SD					0.19	0.16	0.31	0.26	0.23	0.25	6.8

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration; P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A27. Summary Item Statistics - Operational Items
Biology – Summer Primary 1

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
P	1	L	56959	SR	0.72	0.29	-0.11	-0.21	-0.14	0.29	0.0
P	2	L	52733	SR	0.40	0.16	0.16	0.03	-0.20	-0.13	0.2
P	5	L	53643	SR	0.27	0.25	-0.05	-0.01	-0.21	0.25	0.2
P	6	L	53644	SR	0.70	0.36	-0.25	0.36	-0.20	-0.11	0.2
P	7	L	53645	SR	0.36	0.25	-0.12	-0.06	0.25	-0.13	0.1
P	11	O	108519	SR	0.70	0.35	-0.13	0.35	-0.23	-0.17	0.2
P	12	O	68220	SR	0.49	0.42	0.42	-0.21	-0.13	-0.20	0.3
P	13	L	94196	CR	0.19	0.62					13.5
P	14	O	55170	SR	0.63	0.35	-0.21	-0.15	0.35	-0.15	0.6
P	15	L	55056	SR	0.51	0.40	0.40	-0.27	-0.08	-0.17	0.8
P	16	O	55230	SR	0.65	0.15	0.15	0.06	-0.22	-0.17	0.6
P	17	O	55229	SR	0.75	0.36	-0.22	-0.19	0.36	-0.12	0.6
P	19	O	79408	SR	0.67	0.34	-0.19	-0.15	0.34	-0.14	0.8
P	20	L	68214	CR	0.20	0.64					13.5
P	21	L	57014	SR	0.49	0.37	-0.18	0.37	-0.14	-0.12	1.2
P	27	O	79521	SR	0.57	0.35	-0.20	0.35	-0.20	-0.06	1.4
P	28	L	68279	CR	0.24	0.73					12.5
P	29	O	52623	SR	0.48	0.44	0.44	-0.29	-0.19	-0.04	1.6
P	30	O	55119	SR	0.53	0.39	-0.07	0.39	-0.16	-0.26	1.6
P	31	O	52749	SR	0.66	0.44	0.44	-0.16	-0.24	-0.20	1.7
P	36	L	52628	CR	0.10	0.68					21.9
P	37	L	57046	SR	0.33	0.14	0.14	-0.13	0.05	-0.07	2.2
P	38	L	57047	SR	0.51	0.44	-0.20	-0.21	0.44	-0.13	2.2
P	39	L	55083	SR	0.67	0.47	-0.20	-0.22	0.47	-0.23	2.6
P	40	L	55086	SR	0.22	0.09	0.03	0.09	-0.22	0.10	2.6
P	41	O	52513	SR	0.33	0.30	-0.13	0.00	-0.18	0.30	2.8
P	42	L	57167	SR	0.40	0.44	0.44	-0.12	-0.20	-0.16	2.6
P	43	L	57168	SR	0.39	0.39	-0.17	0.39	-0.09	-0.21	2.6
P	44	O	68189	SR	0.38	0.29	0.29	-0.21	0.00	-0.10	0.9
P	45	L	68296	SR	0.37	0.09	-0.14	-0.06	0.09	0.12	1.0
P	46	L	68297	SR	0.63	0.47	-0.20	-0.26	-0.21	0.47	1.0
P	47	L	68298	SR	0.55	0.48	0.48	-0.27	-0.20	-0.17	1.0
P	52	L	52766	CR	0.21	0.65					12.4
P	53	L	68140	SR	0.59	0.48	0.48	-0.26	-0.19	-0.16	1.6
P	54	L	68143	SR	0.38	0.39	-0.11	0.39	-0.21	-0.05	1.6
P	55	L	68144	SR	0.68	0.41	0.41	-0.20	-0.21	-0.11	1.6
P	59	L	52462	CR	0.24	0.73					11.2
P	60	O	52445	SR	0.21	0.38	0.38	-0.15	-0.13	-0.01	1.8
P	61	O	108579	SR	0.85	0.43	-0.20	-0.25	0.43	-0.13	1.5
P	62	O	55213	SR	0.35	0.23	-0.18	0.23	0.08	-0.14	1.6
P	63	L	55099	SR	0.72	0.46	-0.22	0.46	-0.22	-0.18	1.6
P	64	L	64730	SR	0.29	0.23	-0.09	0.23	-0.07	-0.01	1.7
P	65	L	64731	SR	0.32	0.30	0.30	-0.13	-0.05	-0.08	1.7

Table A27. Summary Item Statistics - Operational Items

Biology – Summer Primary 1

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
P	66	O	67622	SR	0.77	0.46	-0.21	-0.16	-0.25	0.46	1.6
P	67	L	79414	SR	0.59	0.48	-0.22	-0.24	-0.19	0.48	2.0
P	71	O	53510	SR	0.55	0.28	-0.13	0.28	-0.09	-0.12	1.6
P	72	O	64716	SR	0.76	0.36	-0.13	0.36	-0.21	-0.13	1.8
P	73	O	79468	SR	0.42	0.43	-0.19	-0.13	-0.15	0.43	2.1
P	77	O	52720	SR	0.36	0.45	-0.21	-0.14	0.45	-0.15	2.1
P	78	O	52775	SR	0.51	0.49	-0.16	-0.23	-0.18	0.49	2.1
P	79	O	52776	SR	0.48	0.49	-0.19	-0.20	-0.18	0.49	2.1
P	80	L	65103	CR	0.13	0.65					17.8
P	83	L	53459	SR	0.32	0.26	-0.01	-0.06	-0.12	0.26	2.8
P	84	L	65117	SR	0.52	0.39	-0.11	0.39	-0.18	-0.16	2.9
P	85	L	64706	SR	0.52	0.34	-0.16	-0.03	0.34	-0.20	2.7
Mean					0.47	0.39	-0.01	-0.01	-0.05	-0.02	3.2
SD					0.19	0.15	0.25	0.24	0.23	0.23	4.7

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A28. Summary Item Statistics - Operational Items
Biology – Summer Primary 2

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Q	1	L	56959	SR	*	*	*	*	*	*	*
Q	2	L	52733	SR	*	*	*	*	*	*	*
Q	5	L	53643	SR	*	*	*	*	*	*	*
Q	6	L	53644	SR	*	*	*	*	*	*	*
Q	7	L	53645	SR	*	*	*	*	*	*	*
Q	11	O	65149	SR	*	*	*	*	*	*	*
Q	12	O	52466	SR	*	*	*	*	*	*	*
Q	13	L	94196	CR	*	*	*	*	*	*	*
Q	14	O	57028	SR	*	*	*	*	*	*	*
Q	15	L	55056	SR	*	*	*	*	*	*	*
Q	16	O	55192	SR	*	*	*	*	*	*	*
Q	17	O	52551	SR	*	*	*	*	*	*	*
Q	19	O	68163	SR	*	*	*	*	*	*	*
Q	20	L	68214	CR	*	*	*	*	*	*	*
Q	21	L	57014	SR	*	*	*	*	*	*	*
Q	27	O	79510	SR	*	*	*	*	*	*	*
Q	28	L	68279	CR	*	*	*	*	*	*	*
Q	29	O	52754	SR	*	*	*	*	*	*	*
Q	30	O	55200	SR	*	*	*	*	*	*	*
Q	31	O	55124	SR	*	*	*	*	*	*	*
Q	36	L	52628	CR	*	*	*	*	*	*	*
Q	37	L	57046	SR	*	*	*	*	*	*	*
Q	38	L	57047	SR	*	*	*	*	*	*	*
Q	39	L	55083	SR	*	*	*	*	*	*	*
Q	40	L	55086	SR	*	*	*	*	*	*	*
Q	41	O	68295	SR	*	*	*	*	*	*	*
Q	42	L	57167	SR	*	*	*	*	*	*	*
Q	43	L	57168	SR	*	*	*	*	*	*	*
Q	44	O	68292	SR	*	*	*	*	*	*	*
Q	45	L	68296	SR	*	*	*	*	*	*	*
Q	46	L	68297	SR	*	*	*	*	*	*	*
Q	47	L	68298	SR	*	*	*	*	*	*	*
Q	52	L	52766	CR	*	*	*	*	*	*	*
Q	53	L	68140	SR	*	*	*	*	*	*	*
Q	54	L	68143	SR	*	*	*	*	*	*	*
Q	55	L	68144	SR	*	*	*	*	*	*	*
Q	59	L	52462	CR	*	*	*	*	*	*	*
Q	60	O	57070	SR	*	*	*	*	*	*	*
Q	61	O	79496	SR	*	*	*	*	*	*	*
Q	63	L	55099	SR	*	*	*	*	*	*	*
Q	64	L	64730	SR	*	*	*	*	*	*	*
Q	65	L	64731	SR	*	*	*	*	*	*	*
Q	67	L	79414	SR	*	*	*	*	*	*	*

Table A28. Summary Item Statistics - Operational Items
Biology – Summer Primary 2

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Q	71	O	65126	SR	*	*	*	*	*	*	*
Q	72	O	65141	SR	*	*	*	*	*	*	*
Q	73	O	68147	SR	*	*	*	*	*	*	*
Q	74	O	57159	SR	*	*	*	*	*	*	*
Q	75	O	57158	SR	*	*	*	*	*	*	*
Q	77	O	52774	SR	*	*	*	*	*	*	*
Q	78	O	52718	SR	*	*	*	*	*	*	*
Q	79	O	52719	SR	*	*	*	*	*	*	*
Q	80	L	65103	CR	*	*	*	*	*	*	*
Q	83	L	53459	SR	*	*	*	*	*	*	*
Q	84	L	65117	SR	*	*	*	*	*	*	*
Q	85	L	64706	SR	*	*	*	*	*	*	*

* Statistics not reported for sample size less than 50 (N<50)
Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A29. Summary Item Statistics - Operational Items
English - Summer Primary 1

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
P	1	O	130229	CR	0.53	0.50					3.0
P	2	O	130295	SR	0.80	0.34	-0.16	-0.24	-0.17	0.34	0.1
P	3	O	130299	SR	0.34	0.22	0.07	-0.19	-0.20	0.22	0.2
P	4	O	130300	SR	0.85	0.37	-0.24	0.37	-0.19	-0.17	0.1
P	5	O	130254	SR	0.48	0.31	-0.20	-0.06	0.31	-0.16	0.2
P	7	O	130301	SR	0.44	0.36	-0.15	0.36	-0.14	-0.18	0.3
P	17	L	108806	SR	0.59	0.34	-0.18	-0.10	-0.19	0.34	1.9
P	18	L	108808	SR	0.47	0.22	-0.05	0.22	-0.08	-0.16	1.8
P	19	L	108779	SR	0.68	0.42	-0.18	-0.24	0.42	-0.19	1.6
P	20	L	130246	SR	0.34	0.30	-0.05	-0.17	-0.09	0.30	2.1
P	21	L	108810	SR	0.56	0.33	-0.15	-0.22	0.33	-0.10	2.2
P	22	L	108807	CR	0.30	0.52					17.1
P	26	O	96254	CR	0.46	0.53					6.5
P	32	L	130951	SR	0.41	0.36	-0.14	-0.30	0.01	0.36	0.9
P	33	L	130952	SR	0.52	0.37	0.37	-0.10	-0.19	-0.20	1.1
P	34	L	130953	SR	0.74	0.46	-0.23	-0.21	-0.22	0.46	0.9
P	35	L	130954	SR	0.67	0.46	0.46	-0.17	-0.25	-0.21	1.1
P	36	O	130308	SR	0.50	0.40	-0.21	0.40	-0.21	-0.10	1.3
P	37	O	130271	SR	0.40	0.28	-0.08	-0.17	0.28	-0.08	1.2
P	38	O	130302	SR	0.69	0.48	-0.22	-0.25	0.48	-0.22	1.1
P	39	O	130165	SR	0.64	0.42	-0.23	-0.23	0.42	-0.06	1.7
P	40	O	130166	SR	0.59	0.42	0.42	-0.17	-0.26	-0.10	1.3
P	41	O	130167	SR	0.61	0.44	-0.14	-0.26	-0.20	0.44	1.4
P	42	O	130274	SR	0.64	0.44	-0.22	0.44	-0.26	-0.11	1.4
P	43	O	130168	SR	0.65	0.52	-0.24	-0.26	0.52	-0.21	1.4
P	44	O	130230	SR	0.32	0.23	-0.06	0.23	0.01	-0.18	1.5
P	45	O	130231	SR	0.66	0.49	-0.24	-0.31	-0.14	0.49	1.5
P	46	O	130233	SR	0.22	0.14	-0.19	-0.18	0.17	0.14	1.5
P	47	O	130232	SR	0.50	0.39	0.39	-0.16	-0.26	-0.06	1.7
P	48	O	130234	SR	0.65	0.49	0.49	-0.24	-0.25	-0.17	1.8
P	51	L	130255	SR	0.68	0.48	-0.22	-0.29	0.48	-0.17	2.6
P	52	L	96328	SR	0.57	0.48	0.48	-0.20	-0.23	-0.20	2.5
P	56	L	130172	SR	0.59	0.44	-0.19	-0.21	0.44	-0.16	1.7
P	57	L	130173	SR	0.69	0.42	0.42	-0.21	-0.20	-0.15	1.2
P	58	L	130174	SR	0.58	0.48	-0.21	0.48	-0.22	-0.19	1.4
P	59	L	130280	SR	0.51	0.38	0.38	-0.23	-0.17	-0.11	1.6
P	60	L	130175	SR	0.67	0.48	-0.22	0.48	-0.18	-0.27	1.3
P	61	L	130176	SR	0.72	0.51	0.51	-0.25	-0.26	-0.21	1.4
P	62	L	130177	SR	0.64	0.43	-0.19	-0.23	0.43	-0.15	1.6
P	63	L	130178	SR	0.62	0.42	0.42	-0.24	-0.11	-0.22	1.5
P	64	L	130179	CR	0.27	0.59					16.3
P	71	O	109108	SR	0.44	0.35	-0.05	-0.21	0.35	-0.10	2.2
P	72	O	109109	SR	0.57	0.47	0.47	-0.15	-0.26	-0.17	2.5

Table A29. Summary Item Statistics - Operational Items

English - Summer Primary 1

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
P	73	L	108796	SR	0.35	0.30	-0.14	-0.07	0.30	-0.06	2.4
P	74	L	108797	SR	0.23	0.14	0.14	-0.16	0.02	0.06	2.6
P	75	L	108799	SR	0.35	0.27	0.27	-0.25	-0.08	0.03	2.4
P	76	L	108798	SR	0.45	0.37	0.37	-0.10	-0.24	-0.07	2.6
P	77	L	108800	SR	0.66	0.48	-0.23	-0.23	0.48	-0.17	2.7
P	78	L	108801	SR	0.51	0.43	0.43	-0.20	-0.21	-0.09	2.8
P	80	L	108803	SR	0.29	0.24	-0.12	-0.19	0.08	0.24	2.8
Mean					0.41	0.39	-0.02	0.00	-0.04	0.02	3.9
SD					0.17	0.17	0.26	0.24	0.23	0.24	4.9

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A30. Summary Item Statistics - Operational Items
English - Summer Primary 2

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Q	1	O	130029	CR	0.46	0.73					8.1
Q	2	O	130269	SR	0.47	0.52	-0.31	-0.22	0.52	-0.22	0.0
Q	3	O	130272	SR	0.26	0.01	-0.13	-0.20	0.17	0.01	0.0
Q	4	O	130273	SR	0.47	0.32	-0.11	-0.19	0.32	-0.11	0.0
Q	5	O	130279	SR	0.46	0.51	-0.23	-0.14	0.51	-0.30	0.0
Q	6	O	130169	SR	0.59	0.28	-0.06	0.28	-0.15	-0.19	0.0
Q	18	L	108806	SR	0.59	0.34	-0.18	-0.10	-0.19	0.34	1.9
Q	19	L	108808	SR	0.47	0.22	-0.05	0.22	-0.08	-0.16	1.8
Q	20	L	108779	SR	0.68	0.42	-0.18	-0.24	0.42	-0.19	1.6
Q	21	L	130246	SR	0.34	0.30	-0.05	-0.17	-0.09	0.30	2.1
Q	22	L	108810	SR	0.56	0.33	-0.15	-0.22	0.33	-0.10	2.2
Q	23	L	108807	CR	0.30	0.52					17.1
Q	27	O	135483	CR	0.39	0.79					12.2
Q	34	L	130951	SR	0.41	0.36	-0.14	-0.30	0.01	0.36	0.9
Q	35	L	130952	SR	0.52	0.37	0.37	-0.10	-0.19	-0.20	1.1
Q	36	L	130953	SR	0.74	0.46	-0.23	-0.21	-0.22	0.46	0.9
Q	37	L	130954	SR	0.67	0.46	0.46	-0.17	-0.25	-0.21	1.1
Q	38	O	130970	SR	0.38	0.53	-0.11	-0.22	-0.27	0.53	1.4
Q	39	O	130109	SR	0.35	0.32	0.32	-0.15	-0.02	-0.14	2.7
Q	40	O	130110	SR	0.39	0.44	0.44	-0.36	-0.06	-0.10	2.7
Q	41	O	130111	SR	0.41	0.24	-0.02	0.04	-0.19	0.24	5.4
Q	42	O	108820	SR	0.51	0.43	-0.14	0.43	-0.23	-0.07	4.1
Q	43	O	109744	SR	0.42	0.49	-0.23	-0.21	-0.05	0.49	5.4
Q	44	O	108827	SR	0.55	0.28	-0.02	0.28	-0.17	-0.09	5.4
Q	45	O	108824	SR	0.55	0.49	-0.18	-0.18	-0.21	0.49	5.4
Q	46	O	130066	SR	0.47	0.34	-0.27	0.34	-0.08	-0.02	5.4
Q	47	O	130067	SR	0.24	0.27	0.00	-0.39	0.27	0.18	5.4
Q	48	O	130069	SR	0.31	0.39	-0.04	-0.24	-0.06	0.39	5.4
Q	50	O	130074	SR	0.38	0.42	-0.14	0.42	-0.17	-0.07	5.4
Q	51	O	130199	SR	0.47	0.38	0.38	-0.19	-0.15	-0.05	5.4
Q	53	L	130255	SR	0.68	0.48	-0.22	-0.29	0.48	-0.17	2.6
Q	54	L	96328	SR	0.57	0.48	0.48	-0.20	-0.23	-0.20	2.5
Q	58	L	130172	SR	0.59	0.44	-0.19	-0.21	0.44	-0.16	1.7
Q	59	L	130173	SR	0.69	0.42	0.42	-0.21	-0.20	-0.15	1.2
Q	60	L	130174	SR	0.58	0.48	-0.21	0.48	-0.22	-0.19	1.4
Q	61	L	130280	SR	0.51	0.38	0.38	-0.23	-0.17	-0.11	1.6
Q	62	L	130175	SR	0.67	0.48	-0.22	0.48	-0.18	-0.27	1.3
Q	63	L	130176	SR	0.72	0.51	0.51	-0.25	-0.26	-0.21	1.4
Q	64	L	130177	SR	0.64	0.43	-0.19	-0.23	0.43	-0.15	1.6
Q	65	L	130178	SR	0.62	0.42	0.42	-0.24	-0.11	-0.22	1.5
Q	66	L	130179	CR	0.27	0.59					16.3
Q	72	O	96160	SR	0.46	0.33	-0.07	-0.21	0.33	0.05	5.4
Q	73	O	96161	SR	0.74	0.46	-0.23	-0.28	0.46	-0.08	6.8

146

Table A30. Summary Item Statistics - Operational Items

English - Summer Primary 2

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Q	74	L	108796	SR	0.35	0.30	-0.14	-0.07	0.30	-0.06	2.4
Q	75	L	108797	SR	0.23	0.14	0.14	-0.16	0.02	0.06	2.6
Q	76	L	108799	SR	0.35	0.27	0.27	-0.25	-0.08	0.03	2.4
Q	77	L	108798	SR	0.45	0.37	0.37	-0.10	-0.24	-0.07	2.6
Q	78	L	108800	SR	0.66	0.48	-0.23	-0.23	0.48	-0.17	2.7
Q	79	L	108801	SR	0.51	0.43	0.43	-0.20	-0.21	-0.09	2.8
Q	81	L	108803	SR	0.29	0.24	-0.12	-0.19	0.08	0.24	2.8
Mean					0.53	0.39	0.02	-0.10	0.00	-0.04	2.3
SD					0.15	0.10	0.28	0.23	0.27	0.21	3.1

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A31. Summary Item Statistics - Operational Items
Government - Summer Primary 1

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
P	1	L	68603	SR	0.88	0.30	-0.20	-0.18	0.30	-0.13	0.2
P	2	L	68673	SR	0.68	0.45	-0.21	-0.25	-0.22	0.45	0.5
P	3	L	55630	SR	0.56	0.34	0.34	-0.17	-0.06	-0.23	0.5
P	7	L	68095	SR	0.59	0.36	-0.14	-0.19	-0.16	0.36	0.9
P	8	L	55619	CR	0.35	0.55					5.3
P	9	L	51044	SR	0.56	0.37	0.37	-0.22	-0.19	-0.09	0.6
P	10	L	79663	SR	0.36	0.32	-0.01	0.32	-0.17	-0.21	0.8
P	11	L	51786	SR	0.41	0.31	-0.06	0.31	-0.14	-0.18	0.8
P	12	O	79747	SR	0.30	0.11	-0.05	0.11	-0.06	0.03	1.0
P	15	L	60455	CR	0.32	0.62					8.8
P	16	L	51245	SR	0.41	0.33	-0.11	0.33	-0.26	-0.04	0.8
P	17	L	68741	SR	0.46	0.40	-0.17	0.40	-0.21	-0.09	1.1
P	20	L	68505	SR	0.67	0.50	-0.22	-0.26	-0.22	0.50	1.1
P	21	L	51134	SR	0.38	0.36	-0.11	-0.16	-0.11	0.36	1.0
P	22	L	68605	SR	0.69	0.55	-0.26	0.55	-0.29	-0.21	1.3
P	23	L	68685	CR	0.32	0.68					11.9
P	24	L	68745	SR	0.82	0.49	0.49	-0.27	-0.26	-0.21	1.0
P	25	L	51072	SR	0.53	0.35	-0.16	0.35	-0.24	-0.04	1.1
P	28	L	68559	SR	0.37	0.32	-0.11	0.32	-0.11	-0.09	1.5
P	29	L	68681	SR	0.59	0.48	0.48	-0.20	-0.19	-0.24	1.4
P	30	O	68556	SR	0.63	0.43	-0.19	-0.24	0.43	-0.15	1.1
P	31	L	108475	SR	0.54	0.43	-0.11	0.43	-0.31	-0.14	1.3
P	35	O	108361	CR	0.19	0.66					31.4
P	36	L	64959	SR	0.51	0.40	-0.15	-0.18	0.40	-0.13	2.5
P	37	O	68695	SR	0.45	0.37	-0.09	-0.18	0.37	-0.13	2.9
P	38	O	51139	SR	0.61	0.32	-0.19	-0.11	0.32	-0.13	2.5
P	42	L	58306	SR	0.61	0.40	-0.17	-0.22	-0.14	0.40	3.2
P	43	O	51152	SR	0.61	0.49	-0.18	-0.22	-0.24	0.49	3.2
P	44	L	58400	SR	0.80	0.42	-0.17	-0.22	-0.19	0.42	1.4
P	45	L	68643	SR	0.65	0.48	-0.25	-0.14	-0.26	0.48	1.7
P	46	L	55583	SR	0.56	0.31	0.31	-0.13	-0.12	-0.13	1.5
P	47	L	50874	SR	0.38	0.38	0.38	-0.10	-0.20	-0.12	1.9
P	50	L	52183	CR	0.22	0.61					18.9
P	51	L	58309	SR	0.45	0.48	-0.11	-0.19	-0.23	0.48	2.7
P	52	L	51172	SR	0.48	0.32	-0.19	-0.11	0.32	-0.04	3.0
P	53	O	51017	SR	0.53	0.48	0.48	-0.14	-0.19	-0.24	2.3
P	56	L	79640	SR	0.56	0.50	-0.23	-0.16	-0.22	0.50	2.8
P	57	L	50947	SR	0.47	0.43	0.43	-0.15	-0.24	-0.06	3.1
P	58	L	51723	SR	0.42	0.28	0.28	-0.10	-0.12	-0.02	3.0
P	59	L	68012	CR	0.12	0.66					22.3
P	60	O	55713	SR	0.61	0.48	-0.21	-0.15	-0.25	0.48	2.5
P	61	L	68709	SR	0.46	0.43	-0.20	-0.13	0.43	-0.15	2.3
P	62	O	64817	SR	0.23	0.22	0.22	-0.03	-0.06	-0.04	2.3

Table A31. Summary Item Statistics - Operational Items
Government - Summer Primary 1

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
P	66	O	50887	SR	0.48	0.35	0.35	-0.10	-0.12	-0.17	2.3
P	67	O	68072	SR	0.28	0.22	0.03	-0.14	0.22	-0.04	2.4
P	68	O	64788	SR	0.61	0.36	0.36	-0.11	-0.13	-0.22	2.2
P	69	L	64946	CR	0.21	0.61					17.6
P	70	O	68729	SR	0.35	0.36	-0.13	-0.21	-0.03	0.36	3.2
P	71	O	51744	SR	0.63	0.47	0.47	-0.17	-0.29	-0.11	3.1
P	75	L	68013	SR	0.33	0.34	-0.03	-0.15	-0.11	0.34	3.9
P	76	O	52289	SR	0.51	0.47	0.47	-0.15	-0.19	-0.19	3.9
P	77	L	52238	CR	0.11	0.70					19.9
P	81	O	64794	SR	0.43	0.47	-0.22	-0.11	-0.19	0.47	3.8
P	82	O	52279	SR	0.33	0.21	-0.19	0.21	-0.15	0.13	4.0
P	85	L	65207	SR	0.51	0.39	-0.17	0.39	-0.17	-0.10	4.3
P	86	L	65204	SR	0.43	0.38	0.02	-0.22	-0.22	0.38	4.5
P	87	O	60556	SR	0.35	0.34	-0.17	-0.16	0.00	0.34	4.6
P	88	O	51752	SR	0.33	0.39	-0.15	-0.09	-0.11	0.39	4.7
Mean					0.47	0.42	0.01	-0.05	-0.09	0.06	4.2
SD					0.17	0.12	0.26	0.22	0.21	0.27	6.1

Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table A32. Summary Item Statistics - Operational Items
Government - Summer Primary 2

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Q	1	L	68603	SR	*	*	*	*	*	*	*
Q	2	L	68673	SR	*	*	*	*	*	*	*
Q	3	L	55630	SR	*	*	*	*	*	*	*
Q	7	L	68095	SR	*	*	*	*	*	*	*
Q	8	L	55619	CR	*	*	*	*	*	*	*
Q	9	L	51044	SR	*	*	*	*	*	*	*
Q	10	L	79663	SR	*	*	*	*	*	*	*
Q	11	L	51786	SR	*	*	*	*	*	*	*
Q	12	O	50855	SR	*	*	*	*	*	*	*
Q	15	L	60455	CR	*	*	*	*	*	*	*
Q	16	L	51245	SR	*	*	*	*	*	*	*
Q	17	L	68741	SR	*	*	*	*	*	*	*
Q	20	L	68505	SR	*	*	*	*	*	*	*
Q	21	L	51134	SR	*	*	*	*	*	*	*
Q	22	L	68605	SR	*	*	*	*	*	*	*
Q	23	L	68685	CR	*	*	*	*	*	*	*
Q	24	L	68745	SR	*	*	*	*	*	*	*
Q	25	L	51072	SR	*	*	*	*	*	*	*
Q	28	L	68559	SR	*	*	*	*	*	*	*
Q	29	L	68681	SR	*	*	*	*	*	*	*
Q	30	O	68502	SR	*	*	*	*	*	*	*
Q	31	L	108475	SR	*	*	*	*	*	*	*
Q	35	O	68629	CR	*	*	*	*	*	*	*
Q	36	L	64959	SR	*	*	*	*	*	*	*
Q	37	O	51154	SR	*	*	*	*	*	*	*
Q	38	O	55613	SR	*	*	*	*	*	*	*
Q	42	L	58306	SR	*	*	*	*	*	*	*
Q	43	O	68511	SR	*	*	*	*	*	*	*
Q	44	L	58400	SR	*	*	*	*	*	*	*
Q	45	L	68643	SR	*	*	*	*	*	*	*
Q	46	L	55583	SR	*	*	*	*	*	*	*
Q	47	L	50874	SR	*	*	*	*	*	*	*
Q	50	L	52183	CR	*	*	*	*	*	*	*
Q	51	L	58309	SR	*	*	*	*	*	*	*
Q	52	L	51172	SR	*	*	*	*	*	*	*
Q	53	O	58288	SR	*	*	*	*	*	*	*
Q	56	L	79640	SR	*	*	*	*	*	*	*
Q	57	L	50947	SR	*	*	*	*	*	*	*
Q	58	L	51723	SR	*	*	*	*	*	*	*
Q	59	L	68012	CR	*	*	*	*	*	*	*
Q	60	O	68515	SR	*	*	*	*	*	*	*
Q	61	L	68709	SR	*	*	*	*	*	*	*
Q	62	O	55714	SR	*	*	*	*	*	*	*

Table A32. Summary Item Statistics - Operational Items
Government - Summer Primary 2

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Q	66	O	68509	SR	*	*	*	*	*	*	*
Q	67	O	58273	SR	*	*	*	*	*	*	*
Q	68	O	65214	SR	*	*	*	*	*	*	*
Q	69	L	64946	CR	*	*	*	*	*	*	*
Q	70	O	68070	SR	*	*	*	*	*	*	*
Q	71	O	68595	SR	*	*	*	*	*	*	*
Q	75	L	68013	SR	*	*	*	*	*	*	*
Q	76	O	55612	SR	*	*	*	*	*	*	*
Q	77	L	52238	CR	*	*	*	*	*	*	*
Q	81	O	64803	SR	*	*	*	*	*	*	*
Q	82	O	64811	SR	*	*	*	*	*	*	*
Q	85	L	65207	SR	*	*	*	*	*	*	*
Q	86	L	65204	SR	*	*	*	*	*	*	*
Q	87	O	51191	SR	*	*	*	*	*	*	*
Q	88	O	52266	SR	*	*	*	*	*	*	*

* Statistics not reported for sample size less than 50 (N<50)
Note: Anchor_Status: L=item is common across all forms in this administration, O=item is in 1 or more but not all forms in this administration;   P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Appendix B. Classical Item Statistics: Field Test Items

Table B1. Summary Item Statistics – Field Test Items
Algebra - January Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A	6317	7	106554	SR	0.46	0.24	-0.07	-0.18	0.24	-0.05	0.7
A	6317	8	133404	SR	0.31	0.31	-0.10	-0.14	-0.10	0.31	0.8
A	6317	10	79095	SR	0.28	0.20	**0.00**	-0.15	0.20	-0.06	0.4
A	6317	15	106560	SPR	**0.08**	0.38	0.38	-0.13			**27.6**
A	6317	18	106585	SR	**0.13**	0.23	-0.16	0.23	-0.03	**0.01**	2.7
A	6317	29	136696	SR	0.38	**0.01**	**0.01**	0.01	**0.02**	-0.05	0.8
A	6317	32	106651	SR	0.45	0.28	-0.13	0.28	-0.11	-0.11	1.3
A	6317	39	132831	SPR	**0.12**	0.35	0.35	-0.06			**18.9**
B	4888	7	79060	SR	0.70	0.22	0.22	-0.12	-0.12	-0.09	0.5
B	4888	8	79103	SR	0.43	0.41	0.41	-0.10	-0.13	-0.28	0.2
B	4888	10	106630	SR	0.37	0.17	-0.10	**0.05**	0.17	-0.17	0.5
B	4888	15	132846	SPR	**0.07**	0.26	0.26	-0.05			**16.4**
B	4888	18	79106	SR	0.53	0.26	-0.09	-0.13	0.26	-0.09	2.7
B	4888	29	79053	SR	0.66	0.32	-0.12	-0.20	0.32	-0.13	0.9
B	4888	32	106544	SR	**0.17**	**0.08**	**0.00**	-0.05	0.08	**0.00**	1.0
B	4888	39	133390	SPR	**0.11**	0.29	0.29	-0.07			**11.8**
Mean					0.33	0.25	0.07	-0.05	0.07	-0.06	5.4
SD					0.20	0.10	0.21	0.14	0.17	0.14	8.5

Note: Values in bold are outside of the accepted range. Statistics for items on multiple forms are listed under the first form on which the item appeared. P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table B2. Summary Item Statistics – Field Test Items
Biology - January Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A	6319	5	137246	SR	0.52	0.43	-0.11	0.43	-0.30	-0.18	0.2
A	6319	6	137267	SR	0.51	0.35	0.35	-0.16	-0.26	-0.03	0.3
A	6319	12	137271	SR	0.27	0.17	-0.17	0.17	-0.20	**0.10**	1.0
A	6319	13	137272	SR	0.43	**0.02**	-0.02	**0.11**	0.02	-0.13	1.1
A	6319	19	136121	SR	0.29	0.35	-0.12	-0.15	0.35	-0.12	0.7
A	6319	20	136127	SR	0.30	**0.14**	-0.06	0.14	-0.18	**0.09**	0.7
A	6319	24	136147	SR	0.82	0.27	-0.14	-0.15	0.27	-0.14	1.0
A	6319	26	136106	SR	0.50	0.32	0.32	-0.23	-0.23	**0.06**	0.9
A	6319	31	133484	SR	0.40	0.40	-0.16	-0.25	0.40	-0.05	1.2
A	6319	32	133450	SR	0.53	0.40	0.40	-0.23	-0.16	-0.14	1.2
A	6319	45	133037	SR	0.45	0.39	-0.05	-0.17	-0.27	0.39	0.7
A	6319	46	133064	SR	0.64	0.48	-0.14	-0.24	-0.29	0.48	0.7
A	6319	63	137326	SR	0.44	0.50	0.50	-0.03	-0.36	-0.24	1.5
A	6319	64	137328	SR	0.54	0.47	-0.17	0.47	-0.26	-0.17	1.6
B	4783	12	215981	SR	0.69	0.35	-0.17	-0.19	-0.19	0.35	0.7
B	4783	19	218482	SR	0.31	0.43	-0.09	-0.24	-0.13	0.43	0.7
B	4783	20	218483	SR	0.51	0.43	-0.18	0.43	-0.25	-0.15	0.6
B	4783	24	223452	SR	0.59	0.49	-0.20	-0.18	-0.34	0.49	0.8
B	4783	26	214537	SR	0.45	0.15	-0.16	0.15	-0.14	**0.08**	0.7
B	4783	31	223439	SR	0.51	0.51	-0.17	-0.27	0.51	-0.25	1.0
B	4783	32	223440	SR	0.34	0.28	0.28	-0.09	-0.13	-0.07	1.0
B	4783	45	214561	SR	0.85	0.38	-0.17	-0.20	0.38	-0.24	0.3
B	4783	46	214564	SR	0.50	0.52	-0.13	-0.34	-0.22	0.52	0.3
B	4783	63	223445	SR	0.69	0.44	-0.22	0.44	-0.26	-0.15	1.0
B	4783	64	223446	SR	0.56	0.53	-0.26	-0.24	-0.22	0.53	1.2
Mean					0.51	0.37	-0.04	-0.04	-0.10	0.06	0.9
SD					0.15	0.13	0.22	0.26	0.26	0.27	0.4

Note: Values in bold are outside of the accepted range. Statistics for items on multiple forms are listed under the first form on which the item appeared. P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table B3. Summary Item Statistics – Field Test Items
English - January Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A	10007	6	247868	SR	0.49	0.25	-0.07	0.25	-0.23	-0.02	0.1
A	5251	15	108739	SR	0.73	0.40	-0.21	-0.22	0.40	-0.18	0.6
A	5251	16	108740	SR	0.30	0.18	0.18	**0.00**	-0.21	-0.13	0.6
A	5251	17	108738	SR	0.50	0.40	-0.13	0.40	-0.19	-0.18	0.8
A	5251	28	251249	SR	0.73	0.37	-0.24	0.37	-0.16	-0.15	0.5
A	5251	29	251250	SR	0.65	0.43	0.43	-0.19	-0.22	-0.22	0.4
A	5251	30	251251	SR	0.61	0.39	-0.24	-0.14	-0.22	0.39	0.4
A	5251	31	251084	SR	0.58	0.41	-0.24	-0.16	-0.17	0.41	0.6
A	5251	32	251275	SR	0.39	0.23	0.23	-0.15	-0.01	-0.16	0.6
A	6358	39	251099	SR	0.34	0.20	-0.01	0.20	-0.19	-0.06	1.7
A	6358	40	251098	SR	0.59	0.31	-0.06	0.31	-0.23	-0.17	1.4
A	6358	41	251254	SR	0.63	0.37	-0.18	0.37	-0.16	-0.17	1.6
A	6358	42	251101	SR	0.49	0.35	0.35	-0.22	-0.16	-0.06	1.7
A	6358	43	251255	SR	0.60	0.37	-0.15	-0.14	-0.22	0.37	2.0
A	6358	44	251100	SR	0.56	0.43	-0.22	-0.18	0.43	-0.18	1.7
A	6358	45	251397	SR	0.40	0.41	0.41	-0.13	-0.18	-0.15	1.8
A	11114	51	247867	SR	0.34	0.31	-0.16	-0.17	-0.01	0.31	0.7
A	5251	57	209815	SR	0.73	0.47	-0.23	-0.25	0.47	-0.21	1.0
A	5251	63	109088	SR	0.73	0.33	0.33	-0.18	-0.20	-0.10	1.2
A	5251	64	109087	SR	0.64	0.36	-0.17	-0.10	0.36	-0.24	1.2
B	5863	15	108699	SR	0.45	0.24	-0.17	-0.12	-0.01	0.24	0.6
B	5863	16	108697	SR	0.42	0.25	-0.10	0.25	-0.22	**0.02**	1.0
B	5863	17	108698	SR	0.53	0.44	0.44	-0.23	-0.22	-0.15	0.8
B	5863	28	251093	SR	0.75	0.36	-0.23	-0.21	0.36	-0.12	0.5
B	5863	29	251094	SR	0.58	0.32	-0.08	0.32	-0.23	-0.15	0.5
B	5863	30	251095	SR	0.58	0.27	0.27	-0.19	-0.08	-0.12	0.5
B	5863	31	251096	SR	0.52	0.31	0.31	-0.14	-0.18	-0.08	0.5
B	5863	32	251252	SR	0.73	0.47	-0.21	-0.24	0.47	-0.25	0.5
B	5863	33	251097	SR	0.70	0.43	-0.21	0.43	-0.27	-0.15	0.5
B	5863	58	209818	SR	0.78	0.49	-0.24	-0.24	-0.27	0.49	1.0
B	5863	64	108711	SR	0.62	0.43	-0.20	-0.23	0.43	-0.17	1.3
B	5863	65	108710	SR	0.60	0.46	0.46	-0.13	-0.28	-0.23	1.3
Mean					0.57	0.36	-0.01	-0.03	-0.05	-0.05	0.9
SD					0.13	0.08	0.25	0.23	0.26	0.21	0.5

Note: Values in bold are outside of the accepted range. Statistics for items on multiple forms are listed under the first form on which the item appeared. P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table B4. Summary Item Statistics – Field Test Items
Government - January Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A	6425	4	108365	SR	0.67	0.40	-0.19	-0.23	0.40	-0.18	0.3
A	6425	12	108472	SR	0.58	0.33	0.33	-0.24	-0.24	-0.01	0.2
A	6425	26	108437	SR	0.47	0.52	0.52	-0.26	-0.22	-0.23	1.0
A	6425	49	79549	SR	0.45	0.30	-0.24	**0.06**	-0.24	0.30	0.7
A	6425	57	108393	SR	0.58	0.31	-0.01	0.31	-0.22	-0.19	1.3
B	7331	4	108433	SR	0.50	0.29	-0.13	0.29	-0.21	-0.07	0.1
B	7331	12	79748	SR	0.46	0.46	-0.22	0.46	-0.22	-0.15	0.2
B	7331	26	79603	SR	0.34	0.28	-0.10	0.28	-0.13	-0.08	0.8
B	7331	49	108479	SR	0.53	0.39	-0.11	-0.24	0.39	-0.17	0.9
B	7331	57	135596	SR	0.30	0.19	**0.03**	0.19	-0.21	-0.02	1.3
Mean					0.49	0.35	-0.01	0.06	-0.09	-0.08	0.7
SD					0.11	0.10	0.25	0.28	0.26	0.15	0.4

Note: Values in bold are outside of the accepted range. Statistics for items on multiple forms are listed under the first form on which the item appeared. P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table B5. Summary Item Statistics – Field Test Items
Algebra - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D	7410	5	255110	SR	0.69	0.42	-0.26	0.42	-0.20	-0.18	0.6
D	7410	11	106621	SR	0.75	0.44	0.44	-0.22	-0.26	-0.21	0.2
D	7410	14	215933	SPR	0.76	0.45	0.45	-0.37			3.5
D	7410	18	215918	SR	0.68	0.37	-0.23	0.37	-0.19	-0.13	0.7
D	7410	21	255069	SPR	**0.17**	0.39	0.39	-0.17			**10.2**
D	7410	22	132821	SPR	0.65	0.51	0.51	-0.42			**5.6**
D	7410	23	215914	SR	0.66	0.36	-0.17	0.36	-0.20	-0.13	2.2
D	7410	29	79532	SR	0.66	0.38	0.38	-0.23	-0.20	-0.13	0.3
D	7410	31	223434	SR	0.53	0.22	-0.10	0.22	-0.20	-0.03	0.4
D	7410	32	255102	SPR	0.46	0.52	0.52	-0.45			3.3
D	7410	33	255082	SPR	0.27	0.42	0.42	-0.29			**5.2**
D	7410	37	255114	SR	0.42	0.31	-0.08	-0.26	0.31	-0.09	0.5
D	7410	39	215911	SR	0.89	0.31	-0.23	0.31	-0.20	-0.05	0.3
D	7410	40	223437	SR	0.66	0.44	-0.18	-0.21	-0.26	0.44	0.2
D	7410	45	255087	SPR	0.31	0.59	0.59	-0.47			4.5
E	8230	5	136689	SR	0.65	0.43	0.43	-0.32	-0.17	-0.12	0.4
E	8230	11	106657	SR	0.48	0.27	-0.17	-0.09	0.27	-0.09	0.3
E	8230	14	255072	SPR	0.70	0.52	0.52	-0.47			2.2
E	8230	18	79038	SR	0.55	0.29	-0.15	-0.16	0.29	-0.09	0.6
E	8230	21	215934	SPR	0.31	0.38	0.38	-0.22			**12.7**
E	8230	22	255105	SPR	0.36	0.61	0.61	-0.49			**6.1**
E	8230	23	255108	SR	0.73	0.42	-0.16	0.42	-0.27	-0.17	2.0
E	8230	29	136693	SR	0.30	0.28	-0.22	**0.08**	-0.19	0.28	0.6
E	8230	31	223337	SR	0.58	0.30	-0.15	0.30	-0.22	-0.16	0.3
E	8230	32	255088	SPR	**0.22**	0.49	0.49	-0.37			3.9
E	8230	33	255083	SPR	0.68	0.54	0.54	-0.47			2.7
E	8230	37	211043	SR	0.46	0.44	-0.32	0.44	-0.13	-0.09	0.4
E	8230	39	223436	SR	0.68	0.27	-0.16	0.27	-0.07	-0.18	0.4
E	8230	40	211066	SR	0.66	0.29	-0.13	-0.14	-0.15	0.29	0.4
E	8230	45	223242	SPR	**0.16**	0.39	0.39	-0.22			**13.1**
F	11238	5	223238	SR	0.41	0.54	-0.25	-0.31	-0.12	0.54	0.6
F	11238	11	223241	SR	0.54	0.47	-0.11	0.47	-0.22	-0.31	0.3
F	11238	14	255081	SPR	0.37	0.49	0.49	-0.38			4.8
F	11238	18	79107	SR	0.46	0.35	-0.11	-0.20	0.35	-0.12	1.8
F	11238	21	255106	SPR	0.41	0.69	0.69	-0.56			**6.9**
F	11238	22	255070	SPR	0.47	0.54	0.54	-0.39			**9.4**
F	11238	23	211025	SR	0.48	0.34	-0.09	0.34	-0.15	-0.17	2.9
F	11238	29	132837	SR	0.69	0.38	-0.10	-0.21	0.38	-0.26	0.4
F	11238	31	211057	SR	0.25	0.41	-0.04	-0.12	-0.28	0.41	0.4
F	11238	32	255089	SPR	0.40	0.67	0.67	-0.58			4.2
F	11238	33	223235	SPR	0.47	0.54	0.54	-0.40			**7.6**
F	11238	37	211050	SR	0.48	0.41	-0.15	-0.25	-0.21	0.41	0.5
F	11238	39	211006	SR	**0.23**	0.29	-0.11	-0.17	-0.03	0.29	1.2

Table B5. Summary Item Statistics – Field Test Items
Algebra - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
F	11238	40	223334	SR	0.39	0.29	0.29	-0.04	-0.16	-0.14	0.6
F	11238	45	106608	SPR	0.58	0.49	0.49	-0.37			**6.4**
G	7200	5	79123	SR	0.45	0.47	-0.17	-0.26	-0.16	0.47	0.9
G	7200	11	106650	SR	0.41	0.42	0.42	-0.14	-0.08	-0.29	0.4
G	7200	14	135117	SPR	0.79	0.27	0.27	-0.23			1.6
G	7200	18	211042	SR	0.41	0.17	-0.02	0.17	-0.13	-0.04	0.9
G	7200	21	255099	SPR	0.49	0.63	0.63	-0.54			4.9
G	7200	22	255086	SPR	0.29	0.46	0.46	-0.28			**8.9**
G	7200	23	136706	SR	0.75	0.36	-0.11	-0.12	-0.27	0.36	2.4
G	7200	29	106629	SR	0.42	0.39	-0.19	-0.05	0.39	-0.22	0.5
G	7200	31	79109	SR	0.40	0.35	-0.22	-0.10	-0.12	0.35	0.3
G	7200	32	215935	SPR	**0.19**	0.42	0.42	-0.29			**6.1**
G	7200	33	255073	SPR	0.26	0.43	0.43	-0.35			2.5
G	7200	37	135107	SR	0.34	0.42	-0.27	0.42	-0.25	-0.14	0.2
G	7200	39	215920	SR	0.86	0.44	-0.27	-0.23	0.44	-0.22	0.3
G	7200	40	132825	SR	0.51	0.28	-0.11	-0.22	0.28	-0.02	0.6
G	7200	45	255090	SPR	0.49	0.61	0.61	-0.51			**5.4**
H	7124	5	106648	SR	0.62	0.37	-0.20	-0.20	0.37	-0.12	1.0
H	7124	11	135110	SR	0.34	0.26	**0.03**	-0.23	-0.14	0.26	0.3
H	7124	14	255075	SPR	0.26	0.30	0.30	-0.19			4.4
H	7124	18	223245	SR	**0.91**	0.35	-0.16	-0.20	-0.21	0.35	0.5
H	7124	21	255084	SPR	0.48	0.55	0.55	-0.43			**7.6**
H	7124	22	133391	SPR	0.68	0.39	0.39	-0.29			**6.0**
H	7124	23	106586	SR	0.65	0.46	0.46	-0.22	-0.27	-0.19	2.1
H	7124	29	106553	SR	0.59	0.41	0.41	-0.24	-0.17	-0.16	0.8
H	7124	31	211011	SR	0.35	0.38	-0.18	**0.06**	-0.32	0.38	0.9
H	7124	32	255100	SPR	**0.13**	0.41	0.41	-0.23			**6.0**
H	7124	33	215931	SPR	0.72	0.49	0.49	-0.40			4.4
H	7124	37	211005	SR	0.88	0.28	-0.12	-0.20	0.28	-0.12	0.3
H	7124	39	106562	SR	0.76	0.43	-0.16	0.43	-0.20	-0.28	0.4
H	7124	40	106642	SR	0.48	0.40	-0.11	-0.20	-0.20	0.40	0.5
H	7124	45	255091	SPR	0.42	0.66	0.66	-0.57			3.9
J	7005	5	211051	SR	0.46	0.32	-0.05	-0.03	0.32	-0.29	0.4
J	7005	11	79117	SR	**0.22**	0.24	-0.15	0.24	-0.04	-0.05	0.3
J	7005	14	255085	SPR	0.50	0.57	0.57	-0.45			**5.2**
J	7005	18	223336	SR	0.54	0.46	-0.09	-0.23	-0.28	0.46	1.0
J	7005	21	255076	SPR	0.51	0.57	0.57	-0.48			**6.4**
J	7005	22	255092	SPR	0.49	0.60	0.60	-0.50			**5.5**
J	7005	23	79150	SR	0.27	0.33	-0.12	-0.04	-0.16	0.33	3.0
J	7005	29	215932	SR	0.59	0.41	0.41	-0.12	-0.26	-0.19	0.4
J	7005	31	79082	SR	0.57	0.32	-0.12	0.32	-0.24	-0.13	0.7
J	7005	32	223335	SPR	0.35	0.50	0.50	-0.43			2.7
J	7005	33	215928	SPR	0.65	0.46	0.46	-0.41			1.7
J	7005	37	106548	SR	0.65	0.47	0.47	-0.19	-0.26	-0.29	0.3

Table B5. Summary Item Statistics – Field Test Items

Algebra - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
J	7005	39	255111	SR	0.85	0.47	-0.25	-0.30	0.47	-0.21	0.4
J	7005	40	135114	SR	0.50	0.31	-0.24	-0.13	-0.03	0.31	0.4
J	7005	45	255101	SPR	0.56	0.68	0.68	-0.61			3.8
K	6969	5	79531	SR	0.61	0.36	0.36	-0.25	-0.20	-0.07	0.8
K	6969	11	132827	SR	0.69	0.35	-0.19	-0.24	0.35	-0.15	0.2
K	6969	14	255077	SPR	**0.20**	0.38	0.38	-0.18			**10.1**
K	6969	18	215927	SR	0.63	0.41	-0.35	0.41	-0.14	-0.15	0.6
K	6969	21	223232	SPR	0.35	0.37	0.37	-0.28			3.7
K	6969	22	255104	SPR	0.33	0.60	0.60	-0.49			**5.4**
K	6969	23	106541	SR	0.64	0.35	-0.14	-0.16	-0.20	0.35	1.9
K	6969	29	135104	SR	**0.22**	**0.06**	**0.03**	-0.11	**0.03**	0.06	0.5
K	6969	31	133407	SR	0.48	0.23	0.23	-0.14	-0.28	**0.07**	0.4
K	6969	32	106569	SPR	0.27	0.52	0.52	-0.43			3.2
K	6969	33	215924	SPR	0.90	0.44	0.44	-0.39			1.9
K	6969	37	106597	SR	0.61	0.53	-0.29	0.53	-0.27	-0.20	0.6
K	6969	39	79102	SR	0.44	0.40	-0.17	-0.25	0.40	-0.08	0.5
K	6969	40	79017	SR	0.26	0.24	-0.07	-0.14	0.24	-0.03	1.6
K	6969	45	255094	SPR	0.46	0.66	0.66	-0.58			3.8
L	6930	5	223236	SR	0.77	0.40	-0.15	-0.23	-0.23	0.40	0.2
L	6930	11	211029	SR	0.73	0.48	-0.22	-0.31	0.48	-0.20	0.8
L	6930	14	223233	SPR	0.81	0.27	0.27	-0.23			1.6
L	6930	18	223435	SR	0.33	0.41	0.41	-0.10	-0.24	-0.11	0.9
L	6930	21	255095	SPR	**0.18**	0.47	0.47	-0.34			4.6
L	6930	22	255078	SPR	0.29	0.55	0.55	-0.38			**10.0**
L	6930	23	255109	SR	0.56	0.45	-0.14	-0.22	-0.23	0.45	2.9
L	6930	29	133413	SR	0.62	0.27	-0.08	-0.17	0.27	-0.13	1.0
L	6930	31	106543	SR	0.67	0.49	0.49	-0.21	-0.27	-0.24	0.3
L	6930	32	215917	SPR	0.53	0.41	0.41	-0.33			3.2
L	6930	33	215929	SPR	0.69	0.54	0.54	-0.46			3.4
L	6930	37	223433	SR	0.81	0.43	-0.27	-0.22	0.43	-0.18	0.3
L	6930	39	106568	SR	0.68	0.51	0.51	-0.25	-0.30	-0.20	0.3
L	6930	40	223240	SR	0.78	0.48	0.48	-0.23	-0.28	-0.25	0.3
L	6930	45	255103	SPR	0.45	0.59	0.59	-0.49			4.2
M	6881	5	255113	SR	0.46	0.15	**0.06**	0.15	-0.22	-0.12	0.9
M	6881	11	211044	SR	0.59	0.16	-0.02	-0.16	0.16	-0.08	0.4
M	6881	14	255067	SPR	0.64	0.44	0.44	-0.38			3.0
M	6881	18	215925	SR	0.78	0.45	-0.23	-0.20	-0.27	0.45	0.6
M	6881	21	255097	SPR	0.39	0.63	0.63	-0.50			**5.8**
M	6881	22	79086	SPR	0.68	0.43	0.43	-0.33			**6.0**
M	6881	23	79059	SR	0.54	0.45	-0.26	-0.19	0.45	-0.17	2.7
M	6881	29	79151	SR	0.70	0.36	-0.17	-0.19	-0.18	0.36	0.7
M	6881	31	211026	SR	0.43	0.25	-0.15	0.25	-0.21	-0.01	0.2
M	6881	32	223244	SPR	0.67	0.38	0.38	-0.33			1.8
M	6881	33	255079	SPR	0.25	0.50	0.50	-0.36			**7.2**

Table B5. Summary Item Statistics – Field Test Items

Algebra - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
M	6881	37	106643	SR	0.73	0.47	-0.35	0.47	-0.25	-0.06	0.6
M	6881	39	211041	SR	0.50	0.40	-0.20	0.40	-0.17	-0.18	0.9
M	6881	40	211052	SR	**0.24**	**0.01**	**0.25**	-0.25	0.01	-0.11	0.4
M	6881	45	215930	SPR	0.31	0.53	0.53	-0.35			**9.2**
N	6793	5	255107	SR	0.55	0.50	-0.23	-0.24	-0.25	0.50	0.6
N	6793	11	211024	SR	0.44	0.28	-0.08	0.28	-0.11	-0.19	0.2
N	6793	14	132847	SPR	0.77	0.40	0.40	-0.36			2.0
N	6793	18	223234	SR	0.66	0.39	-0.24	-0.17	-0.17	0.39	0.5
N	6793	21	255098	SPR	0.54	0.60	0.60	-0.49			**6.5**
N	6793	22	255068	SPR	0.49	0.59	0.59	-0.48			**7.1**
N	6793	23	211049	SR	0.44	0.33	0.33	-0.17	-0.13	-0.08	2.1
N	6793	29	215913	SR	0.26	0.29	0.29	-0.11	-0.15	-0.05	0.4
N	6793	31	133417	SR	0.58	0.51	0.51	-0.19	-0.39	-0.13	0.3
N	6793	32	106612	SPR	0.79	0.53	0.53	-0.49			1.5
N	6793	33	106633	SPR	0.46	0.35	0.35	-0.29			2.4
N	6793	37	211027	SR	0.76	0.48	-0.21	-0.29	0.48	-0.24	0.7
N	6793	39	223246	SR	0.46	0.29	0.29	-0.16	-0.18	-0.18	0.3
N	6793	40	135124	SR	**0.92**	0.31	-0.19	-0.19	-0.16	0.31	0.3
N	6793	45	255080	SPR	0.50	0.37	0.37	-0.29			3.3
Mean					0.52	0.42	0.18	-0.18	-0.07	0.00	2.5
SD					0.19	0.12	0.33	0.26	0.25	0.25	2.8

Note: Values in bold are outside of the accepted range. Statistics for items on multiple forms are listed under the first form on which the item appeared. P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table B6. Summary Item Statistics – Field Test Items
Biology - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D	5945	3	215956	SR	0.43	0.24	-0.15	-0.08	0.24	-0.12	0.2
D	5945	4	215957	SR	0.69	0.36	0.36	-0.20	-0.25	-0.14	0.1
D	5945	8	133027	SR	0.52	0.40	-0.15	0.40	-0.13	-0.25	0.3
D	5945	9	133026	SR	0.61	0.44	-0.26	0.44	-0.26	-0.13	0.1
D	5945	10	214536	SR	0.63	0.38	0.38	-0.14	-0.24	-0.27	0.2
D	5945	18	253645	SR	0.80	0.34	-0.15	0.34	-0.15	-0.25	0.1
D	5945	22	215952	SR	0.80	0.38	-0.20	0.38	-0.25	-0.16	0.1
D	5945	23	215953	SR	0.49	0.43	-0.20	-0.23	-0.21	0.43	0.2
D	5945	24	215954	SR	0.68	0.27	0.27	-0.16	-0.07	-0.17	0.2
D	5945	25	218479	SR	0.53	0.46	0.46	-0.16	-0.31	-0.20	0.2
D	5945	26	218480	SR	0.57	0.54	-0.11	-0.39	-0.25	0.54	0.2
D	11812	32	214525	SR	0.44	0.36	0.36	-0.20	-0.27	-0.09	0.2
D	5945	33	136134	SR	0.40	0.22	-0.14	**0.00**	0.22	-0.17	0.5
D	5945	34	136135	SR	0.69	0.30	-0.17	-0.16	0.30	-0.15	0.3
D	5945	35	223431	SR	0.50	0.29	0.29	-0.09	-0.15	-0.19	0.4
D	5945	48	256480	SR	0.59	**0.08**	0.08	**0.06**	-0.24	-0.12	0.1
D	5945	49	256479	SR	0.86	0.45	-0.16	0.45	-0.24	-0.31	0.1
D	5945	50	256481	SR	0.61	0.39	-0.07	-0.12	-0.34	0.39	0.3
D	5945	51	223421	SR	0.83	0.38	0.38	-0.18	-0.29	-0.13	0.1
D	5945	56	215976	SR	0.85	0.35	-0.18	-0.17	-0.24	0.35	0.2
D	5945	57	215991	SR	0.42	0.46	-0.10	-0.32	-0.16	0.46	0.4
D	5945	58	260960	SR	0.86	0.42	-0.24	0.42	-0.23	-0.21	0.2
D	5945	68	214568	SR	0.53	0.46	0.46	-0.10	-0.36	-0.23	0.2
D	17070	69	214569	SR	0.64	0.36	-0.19	-0.27	-0.10	0.36	0.2
D	5945	70	214522	SR	0.37	0.40	-0.25	-0.07	-0.17	0.40	0.3
D	5945	74	256496	SR	0.65	0.33	-0.26	-0.22	0.33	-0.05	0.3
D	5945	75	256494	SR	0.38	0.43	-0.24	-0.13	0.43	-0.20	0.3
D	5945	76	256495	SR	0.70	0.44	0.44	-0.19	-0.27	-0.20	0.3
D	5945	81	256532	SR	0.42	0.30	-0.17	-0.15	0.30	-0.13	1.2
D	5945	82	256533	SR	0.29	**0.08**	**0.14**	**0.01**	-0.25	0.08	1.3
E	6633	3	256541	SR	0.56	0.27	-0.08	0.27	-0.20	-0.10	0.4
E	6633	4	256540	SR	0.57	**0.05**	-0.03	**0.00**	-0.09	0.05	0.0
E	6633	8	215943	SR	0.56	0.44	-0.10	0.44	-0.26	-0.32	0.0
E	6633	9	215942	SR	0.52	0.31	-0.28	**0.03**	-0.25	0.31	0.2
E	6633	10	215958	SR	0.83	0.40	-0.19	-0.26	0.40	-0.21	0.1
E	6633	18	214520	SR	0.84	0.40	-0.18	-0.24	-0.22	0.40	0.2
E	6633	22	136125	SR	0.77	0.43	-0.20	0.43	-0.27	-0.21	0.1
E	6633	23	136122	SR	0.50	0.38	-0.22	0.38	-0.19	-0.13	0.3
E	6633	24	136128	SR	**0.24**	**0.11**	-0.20	-0.21	0.11	**0.21**	0.2
E	6633	25	136119	SR	0.64	0.43	-0.15	-0.24	-0.25	0.43	0.2
E	6633	26	136117	SR	0.59	0.49	0.49	-0.22	-0.27	-0.21	0.3
E	6633	32	223438	SR	0.42	0.26	0.26	-0.05	-0.22	-0.10	0.4
E	6633	33	223442	SR	0.45	0.24	0.24	-0.16	-0.04	-0.09	0.4

Table B6. Summary Item Statistics – Field Test Items
Biology - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
E	6633	34	136093	SR	0.26	0.21	-0.04	-0.09	0.21	-0.13	0.5
E	6633	35	136094	SR	0.61	0.40	-0.18	0.40	-0.24	-0.17	0.5
E	12321	48	218468	SR	0.58	0.32	-0.18	-0.10	0.32	-0.19	0.4
E	6633	49	218478	SR	0.25	0.30	0.30	-0.22	-0.05	-0.18	0.2
E	6633	50	256525	SR	0.46	0.38	-0.10	-0.20	0.38	-0.21	0.3
E	6633	51	256527	SR	0.62	0.46	0.46	-0.29	-0.22	-0.17	0.3
E	6633	56	218462	SR	0.55	0.35	-0.13	-0.28	-0.10	0.35	0.3
E	6633	57	218463	SR	0.56	0.43	0.43	-0.21	-0.18	-0.24	0.3
E	6633	58	218464	SR	0.42	0.21	-0.20	-0.17	0.21	**0.07**	0.4
E	6633	68	256544	SR	0.64	0.39	-0.18	0.39	-0.23	-0.15	0.3
E	6633	69	256545	SR	0.54	0.36	-0.19	-0.22	0.36	-0.09	0.3
E	6633	70	256543	SR	0.65	0.42	-0.20	0.42	-0.24	-0.18	0.3
E	12533	74	256485	SR	0.74	0.42	-0.22	0.42	-0.30	-0.15	0.4
E	12533	75	256484	SR	0.39	**0.15**	-0.15	0.15	**0.10**	-0.15	0.6
E	12533	76	256487	SR	0.38	0.46	-0.21	-0.24	0.46	-0.13	0.4
E	6633	81	256483	SR	0.62	0.53	-0.22	-0.26	-0.30	0.53	1.3
E	6633	82	256482	SR	0.57	0.45	0.45	-0.31	-0.25	-0.04	1.4
F	5900	3	215944	SR	0.55	0.46	0.46	-0.25	-0.18	-0.23	0.2
F	5900	4	215955	SR	0.74	0.37	-0.17	0.37	-0.26	-0.15	0.1
F	5900	8	256488	SR	0.45	0.22	**0.08**	-0.22	0.22	-0.17	0.1
F	5900	9	256489	SR	0.45	0.29	-0.10	0.29	-0.17	-0.11	0.4
F	5900	10	223423	SR	0.90	0.16	-0.14	-0.09	-0.09	0.16	0.1
F	5900	18	223409	SR	0.85	0.29	0.29	-0.17	-0.16	-0.16	0.1
F	5900	22	251269	SR	0.71	0.33	-0.22	-0.17	0.33	-0.12	0.1
F	5900	23	251268	SR	0.45	0.23	0.23	-0.01	-0.18	-0.24	0.2
F	5900	24	256535	SR	0.64	0.42	-0.21	-0.25	-0.18	0.42	0.2
F	5900	25	256550	SR	0.32	0.37	-0.09	0.37	-0.23	-0.14	0.1
F	5900	26	256536	SR	0.76	0.44	0.44	-0.22	-0.28	-0.17	0.4
F	5900	32	223444	SR	0.52	0.28	-0.22	-0.14	-0.08	0.28	0.4
F	5900	33	223441	SR	0.39	0.45	-0.21	-0.14	-0.19	0.45	0.5
F	5900	34	251265	SR	0.63	0.54	0.54	-0.29	-0.23	-0.30	0.5
F	5900	35	251264	SR	0.40	0.29	-0.06	-0.24	0.29	-0.15	0.5
F	5900	48	215978	SR	0.67	0.38	-0.25	0.38	-0.10	-0.26	0.3
F	5900	49	260959	SR	0.73	0.32	-0.15	-0.15	0.32	-0.20	0.3
F	5900	50	256524	SR	0.74	0.51	-0.21	0.51	-0.29	-0.29	0.2
F	5900	51	256526	SR	**0.18**	**-0.01**	-0.17	-0.01	**0.23**	-0.19	0.4
F	5900	56	215938	SR	0.65	0.45	0.45	-0.21	-0.33	-0.11	0.3
F	11767	57	215939	SR	0.63	0.35	-0.14	-0.22	0.35	-0.19	0.3
F	5900	58	215940	SR	0.53	0.43	-0.22	-0.09	-0.25	0.43	0.3
F	5900	68	214517	SR	0.78	0.45	-0.21	0.45	-0.22	-0.27	0.2
F	5900	69	133048	SR	0.44	0.40	-0.06	-0.21	-0.25	0.40	0.2
F	5900	70	133049	SR	0.71	0.26	-0.09	0.26	-0.24	-0.16	0.3
F	5900	81	256531	SR	0.85	0.40	-0.27	-0.18	0.40	-0.16	0.9
F	5900	82	256534	SR	0.79	0.48	-0.24	-0.27	-0.24	0.48	0.9

Table B6. Summary Item Statistics – Field Test Items
Biology - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
G	5867	3	251260	SR	0.65	0.46	-0.24	0.46	-0.29	-0.20	0.1
G	5867	4	251261	SR	0.51	0.28	-0.14	0.28	-0.18	-0.09	0.2
G	5867	8	256497	SR	0.68	0.18	-0.07	-0.16	-0.07	0.18	0.1
G	5867	9	256490	SR	0.49	0.35	-0.12	0.35	-0.19	-0.16	0.4
G	5867	10	214545	SR	0.63	0.45	-0.20	-0.21	-0.26	0.45	0.2
G	11647	22	214524	SR	0.70	0.40	-0.17	0.40	-0.13	-0.29	0.1
G	5867	23	133018	SR	0.33	0.31	-0.11	0.31	-0.15	-0.09	0.2
G	5867	24	133020	SR	0.54	0.46	0.46	-0.31	-0.24	-0.05	0.3
G	5867	25	251258	SR	0.32	0.38	-0.11	-0.09	-0.25	0.38	0.3
G	5867	26	251259	SR	**0.23**	**0.13**	**0.19**	-0.15	-0.24	0.13	0.2
G	5867	32	256551	SR	0.54	0.31	-0.02	0.31	-0.19	-0.27	0.4
G	5867	33	256522	SR	0.40	0.35	-0.25	-0.20	0.35	-0.02	0.4
G	5867	34	256523	SR	0.63	0.40	-0.25	-0.11	0.40	-0.26	0.5
G	5867	35	214554	SR	0.25	0.18	0.18	-0.26	-0.26	**0.16**	0.4
G	5867	48	215947	SR	0.78	0.31	-0.08	0.31	-0.25	-0.23	0.1
G	5867	49	215945	SR	0.84	0.42	-0.23	-0.25	0.42	-0.22	0.1
G	5867	51	215941	SR	0.80	0.36	-0.24	-0.15	0.36	-0.17	0.2
G	11647	56	135597	SR	0.48	0.32	-0.14	-0.15	-0.12	0.32	0.3
G	11647	57	136144	SR	0.66	0.39	-0.16	0.39	-0.20	-0.20	0.3
G	11647	58	214550	SR	0.47	0.26	0.26	-0.24	-0.12	-0.03	0.2
G	5867	68	256539	SR	0.36	0.35	-0.17	0.35	-0.19	**0.00**	0.4
G	5867	69	256538	SR	0.58	0.36	-0.21	-0.20	0.36	-0.11	0.3
G	5867	70	256537	SR	0.45	0.27	0.27	-0.11	-0.26	-0.07	0.4
G	5867	74	256530	SR	0.46	0.37	-0.14	-0.15	0.37	-0.17	0.5
G	5867	75	256528	SR	0.75	0.47	0.47	-0.25	-0.28	-0.20	0.3
G	5867	76	256529	SR	0.72	0.48	-0.26	-0.25	-0.23	0.48	0.4
G	5867	81	215986	SR	0.39	0.39	0.39	-0.19	-0.14	-0.13	0.9
G	11647	82	215988	SR	0.45	0.32	-0.12	-0.15	0.32	-0.12	1.0
H	5780	3	214548	SR	0.34	0.42	-0.22	-0.19	-0.08	0.42	0.1
H	5780	4	214551	SR	0.65	0.35	0.35	-0.16	-0.14	-0.21	0.2
H	5780	8	251274	SR	0.61	0.44	0.44	-0.19	-0.28	-0.23	0.1
H	5780	9	251257	SR	0.75	0.45	-0.25	0.45	-0.20	-0.26	0.2
H	5780	10	253644	SR	0.47	0.53	-0.19	-0.26	-0.24	0.53	0.2
H	5780	18	223428	SR	0.79	0.45	-0.31	0.45	-0.26	-0.11	0.1
H	5780	23	256477	SR	0.69	0.50	0.50	-0.28	-0.31	-0.19	0.1
H	5780	24	256476	SR	0.54	0.36	-0.17	-0.24	-0.21	0.36	0.2
H	5780	25	256478	SR	0.48	0.36	-0.14	0.36	-0.16	-0.19	0.1
H	5780	26	256475	SR	0.48	0.46	-0.23	0.46	-0.16	-0.22	0.3
H	5780	32	214556	SR	0.73	0.49	-0.27	-0.25	0.49	-0.25	0.4
H	5780	33	214557	SR	0.81	0.42	-0.27	-0.21	-0.20	0.42	0.4
H	5780	34	223410	SR	0.65	0.42	-0.27	-0.20	0.42	-0.15	0.5
H	5780	35	223414	SR	0.67	0.36	0.36	-0.09	-0.25	-0.23	0.6
H	5780	51	241129	SR	0.59	0.20	-0.08	-0.05	-0.16	0.20	0.3
H	5780	56	215959	SR	0.37	0.26	**0.04**	-0.22	0.26	-0.15	0.3

163

Table B6. Summary Item Statistics – Field Test Items
Biology - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
H	5780	57	215960	SR	0.56	0.37	0.37	-0.13	-0.28	-0.13	0.3
H	5780	58	215965	SR	0.56	0.39	-0.08	-0.26	-0.19	0.39	0.3
H	5780	68	136105	SR	0.69	0.21	0.21	-0.20	-0.22	**0.01**	0.3
H	5780	69	136104	SR	0.45	0.22	-0.05	-0.20	0.22	-0.15	0.3
H	5780	70	214526	SR	0.39	0.33	0.33	-0.24	-0.04	-0.18	0.3
H	5780	74	136138	SR	0.88	0.42	-0.25	-0.23	0.42	-0.19	0.3
H	5780	75	136137	SR	0.61	0.40	-0.13	0.40	-0.27	-0.22	0.4
H	5780	76	136136	SR	0.67	0.34	-0.13	-0.22	-0.19	0.34	0.4
H	5780	81	215987	SR	0.53	0.23	0.23	-0.11	-0.12	-0.05	0.8
J	11343	3	192095	SR	0.55	0.40	-0.21	-0.26	0.40	-0.17	0.1
J	5718	4	133047	SR	0.29	0.24	0.24	-0.07	-0.13	-0.16	0.1
J	5718	8	253642	SR	0.73	0.52	0.52	-0.27	-0.33	-0.21	0.1
J	5718	9	223405	SR	0.54	0.37	-0.12	0.37	-0.17	-0.30	0.1
J	5718	10	223413	SR	0.57	0.40	-0.13	0.40	-0.32	-0.10	0.2
J	5718	18	223417	SR	0.41	0.24	0.24	-0.14	-0.17	-0.09	0.1
J	5718	22	136123	SR	0.41	0.39	-0.19	0.39	-0.14	-0.13	0.3
J	5718	23	136120	SR	0.60	0.45	0.45	-0.27	-0.26	-0.11	0.3
J	5718	24	136126	SR	0.63	**0.15**	-0.07	-0.01	0.15	-0.14	0.2
J	5718	25	223415	SR	0.74	0.46	-0.21	-0.30	-0.23	0.46	0.2
J	5718	26	223416	SR	0.62	0.55	-0.24	-0.25	-0.31	0.55	0.3
J	5718	32	214558	SR	0.56	0.38	**0.05**	-0.40	0.38	-0.14	0.5
J	5718	33	214559	SR	0.47	0.40	-0.14	-0.25	0.40	-0.14	0.6
J	5718	34	214560	SR	0.66	0.27	0.27	-0.18	-0.07	-0.13	0.7
J	5718	35	214533	SR	0.63	0.45	-0.20	-0.14	-0.30	0.45	0.7
J	5718	48	215966	SR	0.66	0.48	0.48	-0.27	-0.31	-0.19	0.1
J	5718	49	215968	SR	0.51	0.39	-0.11	-0.22	0.39	-0.19	0.2
J	5718	50	214546	SR	0.29	0.30	-0.03	0.30	-0.21	-0.10	0.3
J	5718	51	214552	SR	0.60	0.36	-0.21	-0.20	0.36	-0.11	0.3
J	5718	56	215962	SR	0.64	0.39	0.39	-0.13	-0.26	-0.22	0.3
J	5718	57	215972	SR	0.65	0.46	-0.26	0.46	-0.18	-0.23	0.4
J	5718	58	215963	SR	0.41	0.35	-0.13	0.35	-0.18	-0.12	0.5
J	5718	68	133050	SR	0.46	0.42	0.42	-0.16	-0.26	-0.10	0.3
J	5718	69	133051	SR	0.77	0.31	-0.19	0.31	-0.15	-0.16	0.3
J	5718	70	214531	SR	0.28	0.29	**0.14**	-0.38	-0.08	0.29	0.3
J	5718	74	136110	SR	0.57	0.41	-0.19	-0.28	0.41	-0.10	0.4
J	5718	75	136111	SR	0.46	0.20	0.20	-0.20	**0.03**	-0.04	0.4
J	5718	76	136112	SR	0.39	0.34	0.34	-0.14	-0.17	-0.09	0.6
J	5718	81	175495	SR	0.40	0.21	0.21	-0.08	-0.05	-0.10	0.8
J	5718	82	175497	SR	0.51	0.29	**0.00**	-0.27	0.29	-0.21	0.7
K	5688	3	223426	SR	0.39	0.24	-0.29	**0.00**	0.24	-0.15	0.1
K	5688	4	223424	SR	0.73	0.21	-0.09	0.21	-0.07	-0.15	0.0
K	5688	8	133419	SR	0.66	0.44	0.44	-0.24	-0.20	-0.22	0.1
K	5688	9	133444	SR	0.76	0.45	0.45	-0.22	-0.21	-0.28	0.1
K	5688	10	133445	SR	0.54	0.28	-0.20	**0.06**	-0.21	0.28	0.1

Table B6. Summary Item Statistics – Field Test Items

Biology - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
K	5688	18	214541	SR	0.53	0.37	-0.17	-0.20	0.37	-0.18	0.2
K	5688	22	223425	SR	0.57	0.35	-0.20	0.35	-0.16	-0.13	0.2
K	5688	23	214535	SR	0.59	0.53	-0.27	-0.27	0.53	-0.24	0.3
K	5688	24	255055	SR	**0.22**	0.27	**0.04**	-0.02	-0.24	0.27	0.3
K	5688	25	133461	SR	0.79	0.20	0.20	-0.15	-0.10	-0.11	0.3
K	5688	26	133462	SR	0.72	0.44	0.44	-0.22	-0.22	-0.23	0.3
K	11313	32	136132	SR	0.70	0.46	0.46	-0.24	-0.32	-0.15	0.4
K	5688	33	136133	SR	0.60	0.28	-0.04	-0.25	-0.13	0.28	0.4
K	5688	34	136159	SR	0.79	0.40	-0.20	-0.20	-0.24	0.40	0.5
K	5688	35	136157	SR	0.81	0.23	-0.18	0.23	-0.09	-0.12	0.5
K	5688	49	218474	SR	0.81	0.50	0.50	-0.28	-0.27	-0.26	0.2
K	5688	50	218477	SR	0.29	0.18	-0.04	-0.09	0.18	-0.07	0.4
K	5688	51	214530	SR	0.34	0.41	0.41	-0.27	-0.11	-0.10	0.3
K	5688	56	214719	SR	0.43	0.37	-0.04	0.37	-0.30	-0.15	0.4
K	5688	57	219942	SR	0.57	0.48	0.48	-0.32	-0.25	-0.07	0.4
K	5688	58	219940	SR	0.52	0.52	0.52	-0.21	-0.26	-0.23	0.4
K	13694	68	256493	SR	0.50	0.42	-0.28	0.42	-0.19	-0.07	0.5
K	5688	69	256491	SR	0.53	0.38	0.38	-0.11	-0.26	-0.15	0.3
K	5688	70	214523	SR	0.46	0.28	-0.15	0.28	-0.03	-0.26	0.3
K	19194	74	133045	SR	0.49	0.40	-0.15	0.40	-0.24	-0.18	0.4
K	13694	75	133433	SR	0.60	0.53	-0.19	-0.30	-0.26	0.53	0.5
K	13694	76	214532	SR	0.46	0.45	-0.22	-0.14	-0.25	0.45	0.5
K	5688	81	192082	SR	0.43	0.37	-0.09	0.37	-0.19	-0.19	0.6
K	5688	82	207713	SR	0.78	0.27	-0.15	-0.11	0.27	-0.15	0.7
L	5625	4	133022	SR	0.61	**0.01**	**0.08**	-0.11	-0.14	0.01	0.2
L	5625	8	277325	SR	0.39	0.33	-0.21	-0.23	0.33	**0.00**	0.4
L	5625	9	277326	SR	0.65	0.50	0.50	-0.26	-0.31	-0.19	0.1
L	13631	10	277327	SR	0.46	0.55	-0.20	-0.28	-0.24	0.55	0.2
L	5625	18	214547	SR	0.59	0.43	-0.23	-0.19	-0.21	0.43	0.1
L	5625	22	215979	SR	0.55	0.40	-0.06	-0.26	0.40	-0.27	0.0
L	5625	23	215980	SR	0.69	0.32	-0.06	-0.27	0.32	-0.19	0.1
L	5625	24	137270	SR	0.78	0.36	-0.18	-0.19	-0.22	0.36	0.1
L	5625	25	137330	SR	0.76	0.27	0.27	-0.21	-0.15	-0.12	0.0
L	5625	26	137269	SR	0.76	0.41	-0.31	-0.18	0.41	-0.14	0.0
L	5625	33	135598	SR	0.72	**0.09**	0.09	-0.16	**0.05**	-0.01	0.4
L	5625	34	223429	SR	0.60	0.39	0.39	-0.20	-0.25	-0.09	0.4
L	5625	35	223422	SR	0.77	0.36	-0.19	-0.23	0.36	-0.14	0.4
L	5625	48	218476	SR	0.52	0.55	-0.16	-0.34	-0.25	0.55	0.2
L	5625	49	218475	SR	0.66	0.45	-0.23	0.45	-0.26	-0.20	0.1
L	5625	50	214553	SR	0.60	0.40	-0.18	-0.27	0.40	-0.15	0.2
L	5625	51	241127	SR	0.37	0.21	-0.21	0.21	**0.05**	-0.14	0.3
L	5625	56	214733	SR	0.60	0.40	0.40	-0.23	-0.20	-0.18	0.4
L	5625	57	214736	SR	0.61	0.48	-0.25	0.48	-0.23	-0.22	0.2
L	5625	58	219936	SR	0.50	0.36	0.36	-0.15	-0.25	-0.13	0.3

Table B6. Summary Item Statistics – Field Test Items
Biology - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
L	11125	68	214567	SR	0.69	0.25	-0.17	-0.07	0.25	-0.16	0.2
L	5625	70	223412	SR	0.53	0.46	-0.27	-0.20	-0.15	0.46	0.2
L	5625	74	133038	SR	0.67	0.30	0.30	-0.19	-0.20	-0.05	0.2
L	5625	75	133036	SR	0.44	0.29	0.29	-0.13	-0.27	-0.04	0.2
L	5625	76	253643	SR	0.42	0.41	-0.20	-0.23	-0.10	0.41	0.2
L	5625	81	223404	SR	0.83	0.17	-0.07	-0.12	0.17	-0.08	0.7
L	5625	82	223427	SR	0.84	0.44	-0.18	-0.33	0.44	-0.17	0.6
M	5500	3	133052	SR	0.83	0.41	-0.26	-0.17	-0.24	0.41	0.1
M	5500	4	133055	SR	0.74	0.46	0.46	-0.29	-0.25	-0.19	0.1
M	5500	8	223449	SR	0.89	0.37	-0.20	-0.21	0.37	-0.20	0.1
M	5500	9	223450	SR	0.83	0.43	-0.24	-0.27	-0.19	0.43	0.0
M	5500	10	223451	SR	0.80	0.44	-0.24	0.44	-0.28	-0.18	0.1
M	5500	18	214555	SR	0.45	0.28	0.28	-0.09	-0.24	-0.14	0.2
M	5500	22	277328	SR	0.48	0.20	-0.01	-0.26	0.20	**0.01**	0.1
M	13506	23	277329	SR	0.68	0.55	0.55	-0.26	-0.28	-0.28	0.3
M	5500	24	135004	SR	0.65	0.51	-0.22	-0.34	-0.22	0.51	0.0
M	5500	25	133024	SR	0.44	0.45	-0.23	-0.16	-0.21	0.45	0.2
M	5500	26	133021	SR	0.66	0.42	-0.22	-0.24	-0.18	0.42	0.2
M	5500	32	223407	SR	0.57	0.61	-0.36	-0.32	-0.14	0.61	0.2
M	5500	33	223430	SR	0.43	0.18	-0.08	0.18	-0.19	**0.03**	0.3
M	5500	34	133058	SR	0.52	0.47	-0.24	0.47	-0.24	-0.15	0.4
M	5500	35	133060	SR	0.68	0.31	-0.25	-0.06	0.31	-0.16	0.3
M	5500	48	136151	SR	**0.92**	0.21	-0.11	-0.16	0.21	-0.08	0.1
M	5500	49	136154	SR	0.76	0.37	0.37	-0.20	-0.24	-0.16	0.2
M	5500	50	214549	SR	0.69	0.46	-0.26	-0.25	-0.18	0.46	0.2
M	5500	51	241125	SR	0.49	**0.07**	0.07	**0.20**	-0.17	-0.18	0.3
M	5500	56	219937	SR	0.68	0.31	-0.11	-0.21	0.31	-0.19	0.2
M	5500	57	219938	SR	0.71	0.44	-0.22	-0.20	0.44	-0.25	0.2
M	5500	58	219939	SR	0.77	0.44	-0.28	0.44	-0.15	-0.24	0.2
M	5500	74	218465	SR	0.71	0.47	0.47	-0.25	-0.29	-0.19	0.3
M	5500	75	218466	SR	0.48	0.22	-0.11	-0.03	0.22	-0.22	0.3
M	5500	76	218467	SR	0.47	0.35	-0.19	0.35	-0.13	-0.13	0.3
M	5500	81	133435	SR	0.76	0.52	0.52	-0.28	-0.30	-0.22	0.7
M	5500	82	192079	SR	0.45	0.45	0.45	-0.31	-0.08	-0.23	0.7
N	8006	3	133420	SR	0.71	0.53	-0.36	-0.23	-0.21	0.53	0.2
N	8006	4	133431	SR	0.45	0.36	0.36	-0.32	-0.08	-0.08	0.1
N	8006	8	241130	SR	0.54	0.49	-0.28	0.49	-0.10	-0.31	0.2
N	8006	10	133425	SR	0.77	0.42	-0.21	-0.18	-0.28	0.42	0.1
N	8006	18	223418	SR	0.42	0.24	**0.02**	0.24	-0.23	-0.12	0.2
N	8006	22	277330	SR	0.60	0.48	-0.16	-0.30	-0.24	0.48	0.2
N	8006	24	277331	SR	0.76	0.50	-0.25	-0.25	-0.28	0.50	0.3
N	8006	25	251273	SR	0.38	**0.10**	-0.20	**0.21**	-0.30	0.10	0.2
N	8006	26	251272	SR	0.78	0.33	-0.18	0.33	-0.26	-0.11	0.3
N	8006	32	223419	SR	0.51	0.33	-0.11	-0.26	0.33	-0.16	0.4

166

Table B6. Summary Item Statistics – Field Test Items
Biology - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
N	8006	33	214543	SR	0.64	0.47	-0.15	0.47	-0.31	-0.20	0.5
N	8006	34	133041	SR	0.45	0.42	-0.20	-0.17	-0.15	0.42	0.4
N	8006	35	133046	SR	0.52	0.42	0.42	-0.19	-0.22	-0.16	0.6
N	8006	48	133449	SR	0.38	0.31	-0.16	0.31	-0.14	-0.09	0.4
N	8006	49	133451	SR	0.33	0.22	-0.07	0.22	-0.29	**0.04**	0.4
N	8006	50	251270	SR	0.60	0.48	-0.21	-0.26	-0.21	0.48	0.4
N	8006	51	251271	SR	0.59	0.53	-0.24	-0.27	0.53	-0.24	0.5
N	8006	56	215961	SR	0.49	0.41	-0.21	-0.26	0.41	-0.11	0.4
N	8006	57	215964	SR	0.42	0.30	0.30	-0.19	-0.28	**0.00**	0.4
N	8006	58	215971	SR	0.56	0.35	-0.10	-0.20	-0.21	0.35	0.5
N	8006	69	256492	SR	0.69	0.49	-0.27	-0.24	0.49	-0.24	0.4
N	8006	70	214534	SR	0.48	0.36	0.36	-0.14	-0.19	-0.15	0.5
N	8006	81	133436	SR	0.29	0.34	0.34	-0.08	-0.16	-0.09	1.2
N	8006	82	214538	SR	0.68	0.45	-0.26	-0.27	0.45	-0.14	1.1
Mean					0.58	0.36	-0.01	-0.06	-0.07	-0.03	0.3
SD					0.16	0.11	0.26	0.25	0.25	0.25	0.2

Note: Values in bold are outside of the accepted range. Statistics for items on multiple forms are listed under the first form on which the item appeared. P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table B7. Summary Item Statistics – Field Test Items
English - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D	62917	6	256280	SR	0.51	0.20	0.20	-0.19	**0.07**	-0.16	0.1
D	8807	8	215784	SR	0.80	0.37	-0.23	-0.20	0.37	-0.16	0.3
D	8807	9	215785	SR	0.72	0.39	0.39	-0.24	-0.22	-0.15	0.3
D	8807	10	215789	SR	0.62	0.23	-0.16	-0.08	0.23	-0.11	0.3
D	8807	11	215786	SR	0.83	0.47	-0.28	-0.27	-0.21	0.47	0.2
D	8807	12	215792	SR	0.57	0.36	-0.16	-0.19	0.36	-0.17	0.2
D	8807	13	215791	SR	0.66	0.45	-0.27	-0.18	-0.23	0.45	0.2
D	8807	14	256419	SR	0.65	0.33	-0.17	-0.12	0.33	-0.18	0.3
D	8807	15	256420	SR	0.69	0.40	-0.17	-0.22	-0.21	0.40	0.4
D	8807	16	256421	SR	0.80	0.36	-0.26	0.36	-0.13	-0.19	0.4
D	8807	23	256300	SR	0.72	0.43	-0.14	0.43	-0.29	-0.21	3.5
D	8807	24	256297	SR	0.57	0.26	-0.19	0.26	-0.20	**0.00**	3.7
D	8807	25	256304	SR	0.35	0.26	-0.04	0.26	-0.11	-0.12	4.0
D	8807	27	223365	SR	0.83	0.41	-0.25	-0.23	-0.18	0.41	0.4
D	8807	28	223366	SR	0.55	0.35	0.35	-0.16	-0.20	-0.13	0.3
D	8807	29	223367	SR	0.51	0.29	-0.13	-0.05	-0.20	0.29	0.4
D	8807	30	223318	SR	0.81	0.38	-0.24	-0.19	-0.23	0.38	0.3
D	8807	31	223368	SR	0.77	0.39	-0.16	-0.26	0.39	-0.21	0.3
D	62917	49	256283	SR	0.67	0.37	-0.14	-0.15	-0.23	0.37	0.8
D	8807	50	251164	SR	0.58	0.36	0.36	-0.27	-0.07	-0.22	0.9
D	8807	53	214656	SR	0.64	0.29	-0.06	-0.24	0.29	-0.13	0.3
D	8807	54	214657	SR	0.57	**0.10**	**0.04**	-0.07	0.10	-0.13	0.3
D	8807	55	214810	SR	0.72	0.39	-0.19	0.39	-0.21	-0.19	0.3
D	8807	65	214695	SR	0.52	0.39	-0.10	0.39	-0.23	-0.18	0.5
D	8807	66	256289	SR	0.80	0.45	-0.24	0.45	-0.24	-0.24	0.5
D	8807	67	214694	SR	0.79	0.46	-0.23	-0.26	0.46	-0.20	0.5
D	8807	68	214692	SR	0.38	0.36	-0.19	-0.16	0.36	-0.05	0.9
D	8807	69	214693	SR	0.73	0.50	-0.22	0.50	-0.28	-0.24	0.6
D	8807	70	214696	SR	0.76	0.39	-0.17	0.39	-0.24	-0.22	0.6
D	63420	79	251394	SR	0.59	0.38	0.38	-0.13	-0.22	-0.20	1.1
E	7427	8	246664	SR	0.73	0.46	-0.23	-0.24	-0.26	0.46	0.1
E	7427	9	246660	SR	0.63	0.28	-0.03	-0.24	-0.23	0.28	0.2
E	7427	10	246663	SR	0.63	0.27	-0.10	-0.18	0.27	-0.15	0.1
E	7427	11	246661	SR	0.70	0.43	0.43	-0.24	-0.22	-0.20	0.1
E	7427	12	246662	SR	0.58	0.40	-0.20	-0.20	0.40	-0.18	0.1
E	7427	13	250304	SR	0.71	0.43	-0.20	-0.27	0.43	-0.22	0.2
E	7427	14	246666	SR	0.59	0.28	-0.09	-0.26	0.28	-0.05	0.1
E	7427	15	256422	SR	0.35	0.17	0.17	-0.01	-0.04	-0.17	0.2
E	7427	16	256423	SR	0.67	0.43	-0.16	-0.24	-0.26	0.43	0.3
E	7427	17	256424	SR	0.78	0.45	-0.27	0.45	-0.21	-0.21	0.3
E	7427	24	251151	SR	0.63	0.24	-0.07	0.24	-0.13	-0.11	1.8
E	7427	25	256308	SR	0.63	0.39	0.39	-0.11	-0.26	-0.21	2.0
E	7427	26	251150	SR	0.58	0.27	-0.17	-0.08	0.27	-0.11	2.0

168

Table B7. Summary Item Statistics – Field Test Items
English - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
E	7427	28	215898	SR	0.46	0.24	0.24	-0.16	-0.23	-0.07	0.2
E	7427	29	215896	SR	0.67	0.35	-0.19	0.35	-0.12	-0.19	0.2
E	7427	30	215894	SR	0.53	0.36	-0.15	-0.06	-0.31	0.36	0.2
E	7427	31	215895	SR	0.60	**0.11**	-0.20	-0.07	0.11	**0.03**	0.2
E	7427	32	215897	SR	0.66	0.41	-0.20	-0.21	0.41	-0.19	0.2
E	7427	33	215908	SR	0.77	0.45	0.45	-0.24	-0.27	-0.19	0.3
E	7427	52	251166	SR	0.74	0.49	-0.25	0.49	-0.28	-0.20	0.8
E	7427	55	214660	SR	0.64	0.40	0.40	-0.19	-0.23	-0.15	0.3
E	7427	56	214661	SR	0.69	0.42	-0.21	-0.18	0.42	-0.24	0.3
E	7427	57	214662	SR	0.44	0.34	-0.20	-0.10	0.34	-0.12	0.3
E	7427	67	243358	SR	0.47	0.40	0.40	-0.21	-0.20	-0.09	0.4
E	7427	68	243359	SR	0.82	0.31	0.31	-0.16	-0.22	-0.14	0.3
E	7427	69	243360	SR	0.67	0.55	-0.21	-0.27	-0.33	0.55	0.4
E	7427	70	214712	SR	0.80	0.41	-0.15	-0.22	0.41	-0.25	0.4
E	7427	71	214711	SR	0.76	0.46	-0.19	0.46	-0.26	-0.25	0.4
F	6090	8	246667	SR	0.76	0.21	-0.14	-0.10	-0.12	0.21	0.1
F	6090	9	246668	SR	**0.20**	**0.05**	0.05	-0.02	-0.17	**0.20**	0.2
F	6090	10	246669	SR	0.82	0.30	0.30	-0.12	-0.24	-0.14	0.1
F	6090	11	246670	SR	0.50	0.19	0.19	-0.08	-0.11	-0.09	0.1
F	6090	12	246671	SR	0.36	**0.04**	**0.12**	-0.13	0.04	-0.14	0.2
F	6090	13	256440	SR	0.78	0.45	-0.24	-0.29	0.45	-0.19	0.1
F	6090	14	256441	SR	0.74	0.43	-0.20	-0.28	-0.20	0.43	0.1
F	6090	15	256442	SR	0.76	0.32	-0.13	0.32	-0.21	-0.19	0.1
F	6090	16	256443	SR	0.43	0.28	-0.05	0.28	-0.24	-0.12	0.2
F	6090	23	256299	SR	0.77	0.35	0.35	-0.21	-0.21	-0.14	1.4
F	6090	24	251160	SR	0.74	0.37	-0.20	0.37	-0.24	-0.14	1.8
F	6090	25	251144	SR	0.30	0.27	-0.23	0.27	**0.04**	-0.07	2.0
F	6090	27	215779	SR	0.27	**0.07**	-0.03	**0.01**	0.07	-0.08	0.2
F	6090	28	215780	SR	0.82	0.42	-0.23	-0.18	0.42	-0.25	0.2
F	6090	29	215781	SR	0.72	0.22	0.22	-0.21	-0.11	-0.04	0.2
F	6090	30	230790	SR	0.69	0.29	-0.18	0.29	-0.12	-0.14	0.2
F	6090	31	215778	SR	0.81	0.25	-0.10	-0.14	-0.16	0.25	0.1
F	6090	32	243353	SR	0.73	0.16	**0.00**	-0.19	0.16	-0.10	0.2
F	6090	33	215782	SR	0.78	0.46	-0.21	-0.25	0.46	-0.26	0.1
F	6090	34	230791	SR	0.53	0.45	-0.22	-0.24	-0.15	0.45	0.2
F	6090	55	214672	SR	0.68	0.37	-0.13	-0.18	-0.24	0.37	0.2
F	6090	56	214674	SR	0.45	0.21	-0.12	0.21	-0.09	-0.06	0.3
F	6090	57	214675	SR	0.48	0.30	-0.17	-0.16	0.30	-0.15	0.2
F	6090	67	214647	SR	0.31	0.19	-0.18	**0.11**	-0.22	0.19	0.4
F	6090	68	214651	SR	0.54	0.37	-0.06	0.37	-0.32	-0.14	0.3
F	6090	69	214648	SR	0.62	0.44	0.44	-0.33	-0.17	-0.14	0.3
F	6090	70	214652	SR	0.61	0.42	-0.07	0.42	-0.34	-0.25	0.4
F	6090	71	214650	SR	0.56	0.46	0.46	-0.24	-0.22	-0.19	0.4
F	6090	72	214654	SR	0.65	0.42	-0.17	-0.18	-0.24	0.42	0.5

169

Table B7. Summary Item Statistics – Field Test Items

English - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
G	6017	8	215793	SR	0.31	0.22	-0.19	**0.00**	0.22	-0.04	0.3
G	6017	9	215794	SR	**0.20**	**-0.01**	-0.10	-0.01	**0.06**	**0.04**	0.2
G	6017	10	215798	SR	**0.24**	**0.04**	**0.22**	-0.10	0.04	-0.23	0.2
G	6017	11	215801	SR	0.26	**0.13**	-0.22	**0.00**	**0.02**	0.13	0.3
G	6017	12	215802	SR	0.74	0.35	-0.22	0.35	-0.18	-0.17	0.2
G	6017	13	256425	SR	0.76	0.44	-0.27	0.44	-0.26	-0.15	0.1
G	6017	14	256426	SR	0.83	0.48	-0.28	-0.24	-0.26	0.48	0.2
G	6017	15	256427	SR	0.67	0.16	-0.15	-0.06	0.16	-0.14	0.3
G	6017	22	251154	SR	0.54	0.33	0.33	-0.11	-0.19	-0.12	1.9
G	6017	23	251145	SR	0.80	0.41	-0.22	0.41	-0.22	-0.19	2.0
G	6017	24	256302	SR	0.60	0.25	-0.12	-0.14	-0.07	0.25	2.4
G	6017	26	243346	SR	0.50	0.30	-0.17	-0.24	-0.04	0.30	0.1
G	6017	27	243345	SR	0.63	0.40	-0.19	0.40	-0.19	-0.22	0.1
G	6017	28	218584	SR	0.75	0.37	-0.17	0.37	-0.24	-0.16	0.1
G	6017	29	251071	SR	0.72	0.47	0.47	-0.30	-0.30	-0.10	0.1
G	6017	30	218582	SR	0.58	0.45	-0.21	-0.25	-0.23	0.45	0.2
G	6017	31	218583	SR	0.59	0.45	-0.20	0.45	-0.29	-0.14	0.2
G	6017	32	218589	SR	0.44	0.27	**0.06**	0.27	-0.28	-0.19	0.2
G	6017	33	218587	SR	0.57	0.32	-0.22	-0.03	-0.25	0.32	0.1
G	6017	54	214678	SR	0.75	0.50	-0.18	-0.30	-0.32	0.50	0.1
G	6017	55	214680	SR	0.68	0.36	-0.18	0.36	-0.22	-0.14	0.2
G	6017	56	214814	SR	0.64	0.25	-0.10	-0.02	0.25	-0.22	0.1
G	6017	66	214713	SR	0.52	0.34	0.34	-0.17	-0.24	-0.06	0.3
G	6017	67	214714	SR	0.66	0.31	-0.18	0.31	-0.15	-0.18	0.3
G	6017	68	214715	SR	0.74	0.50	-0.22	-0.25	-0.29	0.50	0.3
G	6017	69	214716	SR	0.57	0.47	0.47	-0.24	-0.23	-0.17	0.3
G	6017	70	256291	SR	0.37	0.28	-0.08	-0.09	-0.15	0.28	0.6
G	6017	71	214717	SR	0.44	0.33	-0.23	-0.25	-0.11	0.33	0.4
H	6003	8	223371	SR	0.78	0.36	-0.16	-0.24	0.36	-0.19	0.1
H	6003	9	223322	SR	0.53	0.43	-0.21	0.43	-0.15	-0.25	0.1
H	6003	10	223323	SR	0.44	0.21	-0.22	**0.11**	-0.26	0.21	0.1
H	6003	11	223325	SR	0.81	0.41	-0.25	-0.21	-0.23	0.41	0.2
H	6003	12	223326	SR	0.72	0.45	0.45	-0.32	-0.20	-0.17	0.1
H	6003	13	256428	SR	0.72	**0.15**	0.15	-0.11	-0.14	**0.01**	0.1
H	6003	14	256429	SR	0.58	0.27	-0.12	0.27	-0.11	-0.16	0.1
H	6003	15	256430	SR	0.46	0.29	-0.19	-0.08	0.29	-0.13	0.1
H	6003	22	251159	SR	0.76	0.42	0.42	-0.23	-0.24	-0.17	1.8
H	6003	23	251149	SR	0.58	0.42	-0.12	0.42	-0.22	-0.23	2.0
H	6003	24	256307	SR	0.76	0.40	-0.20	-0.24	0.40	-0.18	2.1
H	6003	26	218615	SR	0.84	0.21	**0.04**	0.21	-0.11	-0.27	0.1
H	6003	27	230793	SR	0.48	0.28	-0.17	0.28	-0.10	-0.11	0.2
H	6003	28	218592	SR	0.73	0.33	0.33	-0.23	-0.15	-0.18	0.1
H	6003	29	218593	SR	0.52	0.47	0.47	-0.18	-0.26	-0.22	0.1
H	6003	30	218594	SR	0.47	0.20	-0.20	-0.24	0.20	**0.02**	0.1

Table B7. Summary Item Statistics – Field Test Items
English - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
H	6003	31	218595	SR	0.68	0.47	-0.23	-0.20	-0.28	0.47	0.1
H	6003	32	230795	SR	0.61	0.37	-0.25	-0.16	0.37	-0.19	0.1
H	6003	33	218596	SR	0.37	0.41	-0.22	-0.09	-0.17	0.41	0.1
H	6003	54	214698	SR	**0.12**	**0.02**	-0.04	**0.03**	**0.00**	0.02	0.1
H	6003	55	214697	SR	0.54	0.33	-0.17	0.33	-0.27	-0.09	0.1
H	6003	56	214699	SR	0.58	0.45	-0.15	-0.28	-0.29	0.45	0.2
H	6003	66	214684	SR	0.72	0.39	-0.14	0.39	-0.29	-0.19	0.3
H	6003	67	214685	SR	0.75	0.37	-0.16	0.37	-0.26	-0.19	0.2
H	6003	68	214687	SR	0.57	0.33	-0.20	0.33	-0.28	-0.05	0.2
H	6003	69	256287	SR	0.83	0.31	-0.23	-0.14	0.31	-0.13	0.2
H	6003	70	214688	SR	0.65	0.47	-0.27	-0.20	0.47	-0.22	0.3
H	6003	71	214690	SR	0.69	0.44	-0.24	0.44	-0.19	-0.21	0.3
J	5924	8	223299	SR	0.30	0.19	-0.15	-0.09	-0.09	0.19	0.2
J	5924	9	223300	SR	0.58	0.30	-0.17	-0.11	0.30	-0.13	0.2
J	5924	10	223298	SR	0.77	0.27	-0.15	0.27	-0.24	-0.06	0.1
J	5924	11	223301	SR	0.57	0.41	-0.23	0.41	-0.22	-0.18	0.1
J	5924	12	256456	SR	**0.92**	0.38	-0.21	-0.25	-0.19	0.38	0.1
J	5924	13	256458	SR	0.82	0.40	-0.24	0.40	-0.25	-0.17	0.2
J	5924	14	256457	SR	0.58	0.31	-0.02	-0.24	0.31	-0.16	0.2
J	5924	15	256459	SR	0.70	0.35	-0.19	0.35	-0.20	-0.17	0.2
J	5924	22	251148	SR	0.54	0.42	-0.23	-0.27	0.42	-0.11	1.9
J	5924	23	251158	SR	0.71	0.30	-0.20	0.30	-0.17	-0.11	2.0
J	5924	24	256303	SR	0.78	0.41	-0.22	-0.17	0.41	-0.24	2.2
J	5924	26	223346	SR	0.82	0.27	-0.15	-0.19	0.27	-0.10	0.2
J	5924	27	223348	SR	0.76	0.35	-0.13	-0.27	-0.24	0.35	0.3
J	5924	28	223350	SR	0.70	0.40	-0.25	0.40	-0.18	-0.27	0.2
J	5924	29	223351	SR	0.51	**0.08**	0.08	**0.02**	-0.01	-0.17	0.3
J	5924	30	223353	SR	0.73	0.29	-0.24	0.29	-0.09	-0.13	0.2
J	5924	31	223354	SR	0.70	0.28	0.28	-0.18	-0.20	-0.05	0.3
J	5924	32	251102	SR	0.34	0.31	-0.16	0.31	-0.12	-0.20	0.3
J	5924	33	223357	SR	0.32	0.21	-0.17	-0.25	0.21	**0.12**	0.2
J	5924	54	214702	SR	0.49	0.25	-0.07	0.25	-0.23	-0.04	0.2
J	5924	55	214703	SR	0.82	0.48	0.48	-0.26	-0.27	-0.22	0.3
J	5924	56	214704	SR	0.61	0.32	-0.12	-0.12	0.32	-0.21	0.3
J	5924	66	214705	SR	0.78	0.37	-0.25	-0.22	0.37	-0.11	0.3
J	5924	67	214706	SR	0.71	0.51	-0.29	-0.25	-0.21	0.51	0.4
J	5924	68	214707	SR	0.68	0.44	-0.21	0.44	-0.21	-0.23	0.4
J	5924	69	214708	SR	0.52	0.34	0.34	-0.08	-0.17	-0.24	0.4
J	5924	70	214709	SR	0.60	0.44	-0.19	0.44	-0.28	-0.18	0.5
J	5924	71	214710	SR	0.47	0.34	0.34	-0.23	-0.16	-0.07	0.5
K	5889	8	223359	SR	0.75	0.30	-0.19	-0.18	0.30	-0.17	0.1
K	5889	9	223360	SR	0.50	0.26	-0.15	-0.10	-0.16	0.26	0.1
K	5889	10	223361	SR	0.83	0.31	-0.18	-0.17	-0.16	0.31	0.1
K	5889	11	223362	SR	0.60	0.37	-0.23	-0.24	0.37	-0.07	0.1

Table B7. Summary Item Statistics – Field Test Items
English - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
K	5889	12	223363	SR	**0.22**	0.19	-0.09	0.19	-0.15	**0.02**	0.1
K	5889	13	223364	SR	0.66	0.30	-0.08	-0.27	0.30	-0.12	0.2
K	5889	14	256453	SR	0.56	0.27	-0.11	-0.20	0.27	-0.09	0.3
K	5889	15	256454	SR	0.82	0.29	0.29	-0.11	-0.24	-0.10	0.2
K	5889	16	256455	SR	0.80	0.34	-0.21	0.34	-0.18	-0.16	0.3
K	5889	23	256306	SR	0.61	**0.04**	-0.18	**0.14**	0.04	-0.15	1.8
K	5889	24	251155	SR	0.58	0.34	-0.16	-0.17	-0.13	0.34	2.2
K	5889	25	256416	SR	0.73	0.43	-0.18	0.43	-0.22	-0.25	2.2
K	5889	27	223369	SR	0.62	0.43	0.43	-0.32	-0.16	-0.10	0.2
K	5889	28	223303	SR	0.75	0.38	-0.20	-0.19	0.38	-0.23	0.1
K	5889	29	223304	SR	0.48	0.29	-0.07	0.29	-0.17	-0.13	0.3
K	5889	30	223305	SR	0.29	0.19	-0.01	-0.16	0.19	-0.05	0.2
K	5889	31	223306	SR	0.37	0.39	-0.21	-0.24	-0.15	0.39	0.3
K	5889	32	223307	SR	0.67	0.32	-0.26	-0.03	-0.24	0.32	0.1
K	5889	51	251171	SR	0.72	0.46	-0.21	0.46	-0.27	-0.18	0.8
K	5889	54	214665	SR	0.55	0.36	-0.10	-0.23	-0.20	0.36	0.3
K	5889	55	214666	SR	0.71	0.45	0.45	-0.22	-0.29	-0.21	0.2
K	5889	56	214667	SR	0.34	0.34	-0.03	-0.07	0.34	-0.25	0.2
K	5889	66	215803	SR	0.85	0.43	-0.21	-0.29	0.43	-0.17	0.3
K	5889	67	215804	SR	0.80	0.48	0.48	-0.24	-0.29	-0.22	0.4
K	5889	68	230792	SR	0.62	0.16	-0.20	**0.03**	-0.15	0.16	0.4
K	5889	69	215806	SR	0.28	**0.04**	**0.13**	-0.02	-0.14	0.04	0.5
K	5889	70	256292	SR	0.79	0.47	-0.24	0.47	-0.27	-0.24	0.4
K	5889	71	215807	SR	0.82	0.43	0.43	-0.22	-0.23	-0.23	0.4
L	5808	8	215900	SR	0.75	0.25	-0.18	0.25	-0.13	-0.07	0.2
L	5808	9	215901	SR	0.75	0.49	-0.30	-0.21	-0.25	0.49	0.2
L	5808	10	215902	SR	0.51	0.22	**0.00**	-0.18	-0.17	0.22	0.3
L	5808	11	230788	SR	0.42	0.19	-0.23	0.19	-0.26	**0.13**	0.2
L	5808	12	230789	SR	0.68	0.39	-0.19	-0.24	0.39	-0.20	0.1
L	5808	13	215905	SR	0.84	0.23	-0.11	-0.19	0.23	-0.10	0.2
L	5808	14	256450	SR	0.63	0.30	-0.16	-0.07	-0.21	0.30	0.3
L	5808	15	256451	SR	0.73	0.30	0.30	-0.19	-0.08	-0.18	0.3
L	5808	16	256452	SR	**0.91**	0.40	-0.20	-0.24	0.40	-0.22	0.3
L	5808	23	256295	SR	0.55	0.39	-0.12	-0.22	-0.19	0.39	2.2
L	5808	24	251161	SR	0.81	0.31	0.31	-0.19	-0.15	-0.13	2.4
L	5808	25	251142	SR	0.76	0.39	-0.18	-0.20	0.39	-0.21	2.5
L	5808	27	215770	SR	0.39	**0.07**	**0.01**	0.07	-0.17	**0.04**	0.2
L	5808	28	215772	SR	0.60	0.24	-0.21	-0.02	-0.15	0.24	0.2
L	5808	29	215771	SR	0.78	0.15	-0.13	-0.11	0.15	-0.03	0.1
L	5808	30	230787	SR	0.71	0.16	-0.19	0.16	-0.16	-0.01	0.2
L	5808	31	215773	SR	0.90	0.39	-0.24	-0.25	0.39	-0.15	0.1
L	5808	32	215777	SR	0.76	0.27	0.27	-0.04	-0.23	-0.20	0.1
L	5808	33	215776	SR	0.69	0.16	-0.17	0.16	-0.21	**0.01**	0.1
L	5808	54	256275	SR	0.62	0.37	-0.19	0.37	-0.27	-0.12	0.2

172

Table B7. Summary Item Statistics – Field Test Items

English - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
L	5808	55	256276	SR	0.90	0.27	-0.15	-0.17	0.27	-0.15	0.1
L	5808	56	256277	SR	0.85	0.36	-0.18	-0.23	-0.22	0.36	0.2
L	5808	66	256294	SR	0.87	0.34	-0.20	-0.21	0.34	-0.14	0.3
L	5808	67	251223	SR	0.42	0.25	-0.07	-0.17	-0.06	0.25	0.4
L	5808	68	251224	SR	0.51	0.32	-0.15	-0.08	0.32	-0.20	0.4
L	5808	69	251225	SR	0.46	0.33	0.33	-0.09	-0.30	-0.01	0.4
L	5808	70	256293	SR	**0.15**	**-0.16**	-0.25	**0.27**	-0.16	-0.03	0.4
L	5808	71	251226	SR	0.60	0.44	-0.19	-0.25	0.44	-0.22	0.5
L	5808	72	251227	SR	0.77	0.43	-0.20	0.43	-0.24	-0.24	0.4
M	5801	8	223342	SR	0.59	0.18	-0.24	0.18	-0.06	-0.01	0.2
M	5801	9	223341	SR	0.82	0.38	-0.20	-0.23	0.38	-0.19	0.3
M	5801	10	223339	SR	**0.95**	0.30	-0.18	-0.17	0.30	-0.16	0.2
M	5801	11	223338	SR	0.34	**0.06**	0.06	-0.11	**0.09**	-0.22	0.3
M	5801	12	223344	SR	0.44	0.17	-0.05	-0.25	**0.07**	0.17	0.2
M	5801	13	223345	SR	0.70	0.25	-0.11	-0.19	0.25	-0.19	0.2
M	5801	14	256437	SR	0.76	0.34	-0.21	-0.18	-0.14	0.34	0.2
M	5801	15	256439	SR	0.87	0.40	-0.24	-0.23	0.40	-0.20	0.1
M	5801	16	256438	SR	0.57	0.33	0.33	-0.25	-0.11	-0.11	0.2
M	5801	23	251163	SR	0.72	0.49	-0.26	-0.19	-0.28	0.49	1.9
M	5801	24	251146	SR	0.44	0.26	0.26	-0.12	-0.10	-0.09	2.1
M	5801	25	251157	SR	0.78	0.41	-0.22	-0.20	-0.22	0.41	2.2
M	5801	27	223327	SR	0.68	0.46	-0.21	-0.31	0.46	-0.19	0.2
M	5801	28	223328	SR	0.83	0.37	-0.20	0.37	-0.21	-0.18	0.2
M	5801	29	223330	SR	0.49	0.24	0.24	-0.23	**0.02**	-0.21	0.4
M	5801	30	223329	SR	0.69	0.25	0.25	-0.18	-0.10	-0.13	0.2
M	5801	31	223331	SR	0.29	**0.02**	-0.18	0.02	-0.19	**0.16**	0.2
M	5801	32	223332	SR	0.57	0.35	0.35	-0.18	-0.25	-0.10	0.2
M	5801	33	223370	SR	0.72	0.29	-0.07	-0.20	0.29	-0.17	0.2
M	5801	54	256269	SR	0.62	0.45	0.45	-0.19	-0.28	-0.19	0.2
M	5801	55	256270	SR	0.64	0.44	-0.23	-0.22	-0.20	0.44	0.2
M	5801	56	256271	SR	0.70	0.44	-0.27	0.44	-0.22	-0.21	0.2
M	5801	66	251073	SR	0.63	0.47	-0.18	-0.27	-0.26	0.47	0.4
M	5801	67	251074	SR	0.69	0.45	-0.24	0.45	-0.27	-0.18	0.4
M	5801	68	251077	SR	0.74	0.44	-0.21	-0.19	-0.25	0.44	0.5
M	5801	69	251076	SR	0.36	0.19	-0.07	0.19	-0.04	-0.12	0.7
M	5801	70	251075	SR	0.71	0.34	-0.08	0.34	-0.24	-0.22	0.5
M	5801	71	256288	SR	0.77	0.39	-0.22	0.39	-0.20	-0.17	0.6
N	5654	8	223312	SR	0.48	0.23	0.23	-0.05	-0.15	-0.13	0.3
N	5654	9	223313	SR	0.54	0.27	-0.18	0.27	-0.19	**0.01**	0.3
N	5654	10	223314	SR	0.61	0.33	0.33	-0.19	-0.08	-0.26	0.2
N	5654	11	223315	SR	0.85	0.37	-0.20	0.37	-0.13	-0.26	0.2
N	5654	12	223316	SR	0.75	0.36	-0.20	-0.25	0.36	-0.13	0.1
N	5654	13	256434	SR	0.59	0.21	**0.04**	-0.17	0.21	-0.19	0.2
N	5654	14	256435	SR	0.31	0.20	-0.32	0.20	**0.05**	-0.10	0.2

173

Table B7. Summary Item Statistics – Field Test Items

English - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
N	5654	15	256436	SR	0.87	0.32	-0.16	0.32	-0.19	-0.17	0.2
N	5654	22	256296	SR	0.60	0.34	0.34	-0.17	-0.27	-0.10	1.7
N	5654	23	251153	SR	0.70	0.39	-0.16	-0.26	0.39	-0.17	1.9
N	5654	24	251162	SR	0.81	0.43	-0.20	-0.26	-0.21	0.43	1.9
N	5654	26	218606	SR	0.48	0.19	-0.09	-0.21	0.19	**0.01**	0.4
N	5654	27	218608	SR	0.75	0.43	-0.22	0.43	-0.24	-0.22	0.2
N	5654	28	218607	SR	0.54	0.46	-0.20	-0.15	-0.28	0.46	0.4
N	5654	29	218609	SR	0.86	0.35	0.35	-0.16	-0.19	-0.20	0.2
N	5654	30	218610	SR	0.43	**0.04**	-0.22	**0.12**	0.04	-0.13	0.3
N	5654	31	218611	SR	0.79	0.42	-0.16	-0.25	-0.24	0.42	0.2
N	5654	32	218614	SR	0.75	0.36	0.36	-0.25	-0.31	-0.11	0.2
N	5654	33	218613	SR	0.69	0.17	-0.09	0.17	-0.27	**0.02**	0.2
N	5654	54	256272	SR	0.40	**0.08**	-0.20	**0.14**	0.08	-0.18	0.2
N	5654	55	256273	SR	0.77	0.37	-0.22	-0.28	0.37	-0.09	0.2
N	5654	56	256274	SR	0.84	0.46	0.46	-0.25	-0.26	-0.23	0.2
N	5654	66	248197	SR	0.82	0.40	-0.17	-0.26	0.40	-0.23	0.4
N	5654	67	248196	SR	0.48	0.32	-0.15	-0.18	-0.10	0.32	0.4
N	5654	68	248198	SR	0.73	0.41	0.41	-0.20	-0.25	-0.19	0.4
N	5654	69	214670	SR	0.54	0.38	-0.09	0.38	-0.26	-0.19	0.4
N	5654	70	214811	SR	0.49	0.31	0.31	-0.10	-0.25	-0.23	0.4
Mean					0.63	0.33	-0.06	-0.03	-0.05	-0.03	0.5
SD					0.16	0.11	0.22	0.25	0.24	0.23	0.6

Note: Values in bold are outside of the accepted range. Statistics for items on multiple forms are listed under the first form on which the item appeared. P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses

Table B8. Summary Item Statistics – Field Test Items
Government - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D	9311	4	214515	SR	0.46	0.20	-0.08	0.20	-0.16	-0.04	0.3
D	9311	5	60458	SR	0.61	0.53	0.53	-0.20	-0.35	-0.24	0.2
D	9311	6	79558	SR	0.52	0.51	-0.27	-0.25	0.51	-0.17	0.1
D	9311	13	79669	SR	0.50	0.48	0.48	-0.26	-0.23	-0.18	0.3
D	9311	14	79608	SR	0.54	0.39	0.39	-0.14	-0.24	-0.17	0.3
D	9311	18	214483	SR	0.36	0.36	-0.13	-0.09	0.36	-0.19	0.5
D	9311	19	79701	SR	0.40	0.44	-0.19	0.44	-0.19	-0.16	0.4
D	9311	26	256362	SR	0.74	0.51	-0.21	-0.25	-0.32	0.51	0.4
D	9311	27	256407	SR	0.77	0.50	-0.24	-0.29	0.50	-0.25	0.5
D	9311	32	256365	SR	0.30	0.36	-0.19	-0.05	-0.16	0.36	0.7
D	9311	33	132971	SR	0.51	0.38	0.38	-0.11	-0.22	-0.17	0.7
D	9311	34	79625	SR	0.63	0.39	-0.18	0.39	-0.19	-0.19	0.7
D	9311	39	60429	SR	0.49	0.29	-0.22	-0.20	-0.03	0.29	1.6
D	9311	40	215814	SR	**0.21**	**0.14**	-0.11	-0.20	0.14	**0.12**	1.5
D	9311	41	79735	SR	0.58	0.43	-0.19	0.43	-0.26	-0.11	1.9
D	9311	48	223263	SR	0.48	0.38	-0.06	0.38	-0.26	-0.19	0.7
D	9311	49	108339	SR	0.42	0.33	-0.02	-0.05	-0.34	0.33	0.6
D	9311	54	79565	SR	0.57	0.28	-0.13	0.28	-0.17	-0.07	0.9
D	9311	55	215813	SR	0.71	0.43	-0.25	-0.18	-0.23	0.43	0.7
D	9311	63	108402	SR	0.40	0.30	-0.12	0.30	-0.16	-0.07	0.8
D	9311	64	256364	SR	0.44	0.29	-0.20	-0.28	**0.01**	0.29	0.7
D	9311	65	256370	SR	0.44	0.25	-0.25	-0.14	**0.04**	0.25	0.8
D	9311	72	256408	SR	0.53	0.46	-0.20	0.46	-0.20	-0.19	1.1
D	9311	73	79634	SR	0.32	0.16	-0.13	-0.25	0.16	**0.11**	1.2
D	9311	74	108370	SR	0.72	0.50	-0.28	0.50	-0.23	-0.20	1.2
D	9311	78	79559	SR	0.36	0.30	-0.03	-0.13	0.30	-0.17	1.2
D	9311	79	256353	SR	0.30	0.16	0.16	-0.25	-0.26	**0.16**	1.2
D	9311	80	79662	SR	0.58	0.50	-0.23	-0.19	-0.27	0.50	1.3
D	9311	83	214495	SR	0.66	0.58	0.58	-0.29	-0.32	-0.22	1.5
D	9311	84	137299	SR	0.38	0.33	-0.09	-0.15	0.33	-0.13	1.6
E	6999	4	256403	SR	0.81	0.33	-0.18	0.33	-0.22	-0.14	0.1
E	6999	5	241959	SR	0.36	0.16	-0.15	-0.16	0.16	-0.02	0.1
E	6999	6	79568	SR	0.64	0.55	-0.41	0.55	-0.23	-0.11	0.1
E	6999	13	79684	SR	0.45	0.38	0.38	-0.30	-0.18	-0.04	0.2
E	6999	14	52194	SR	0.28	**-0.08**	-0.22	**0.25**	-0.08	-0.08	0.3
E	6999	18	256500	SR	0.60	0.51	-0.19	-0.22	0.51	-0.31	0.1
E	6999	19	256502	SR	0.46	**0.09**	-0.17	0.09	**0.06**	-0.02	0.2
E	6999	26	256406	SR	0.90	0.39	-0.24	-0.19	-0.21	0.39	0.2
E	6999	27	256359	SR	0.67	0.41	-0.16	-0.26	0.41	-0.23	0.3
E	6999	32	256357	SR	0.36	**0.07**	0.07	-0.10	-0.07	**0.07**	0.3
E	6999	33	133476	SR	0.81	0.47	0.47	-0.23	-0.27	-0.26	0.3
E	6999	34	214583	SR	0.65	0.42	-0.21	0.42	-0.28	-0.12	0.6
E	6999	39	65175	SR	0.55	0.46	-0.22	0.46	-0.25	-0.16	1.1

175

Table B8. Summary Item Statistics – Field Test Items

Government - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
E	6999	40	79674	SR	0.69	0.43	-0.25	0.43	-0.26	-0.17	1.1
E	6999	41	132968	SR	0.52	0.44	-0.18	-0.18	-0.21	0.44	1.5
E	6999	48	132964	SR	0.58	0.45	-0.24	0.45	-0.24	-0.17	0.4
E	6999	49	256411	SR	0.42	0.28	-0.05	-0.18	0.28	-0.12	0.5
E	6999	54	223269	SR	0.79	0.43	0.43	-0.22	-0.21	-0.23	0.5
E	6999	55	79569	SR	0.51	0.39	-0.22	0.39	-0.18	-0.15	0.4
E	6999	63	79547	SR	0.65	0.49	-0.17	-0.27	-0.30	0.49	0.6
E	6999	64	108366	SR	0.63	0.46	-0.27	0.46	-0.28	-0.15	0.4
E	6999	65	79706	SR	**0.13**	**-0.11**	**0.40**	-0.21	-0.23	-0.11	0.5
E	6999	72	214500	SR	0.63	0.52	-0.21	-0.28	-0.26	0.52	0.7
E	6999	73	108368	SR	0.41	0.46	0.46	-0.18	-0.24	-0.14	1.2
E	6999	74	108348	SR	0.38	0.41	-0.20	-0.26	-0.10	0.41	1.0
E	6999	78	256398	SR	0.90	0.42	-0.23	-0.25	0.42	-0.17	0.8
E	6999	79	108441	SR	0.79	0.44	0.44	-0.24	-0.19	-0.24	0.9
E	6999	80	79687	SR	0.61	0.47	-0.21	0.47	-0.15	-0.29	1.0
E	6999	83	256409	SR	0.56	0.37	-0.25	-0.26	-0.10	0.37	1.1
E	6999	84	79658	SR	0.42	0.35	-0.19	-0.07	0.35	-0.17	1.1
F	6188	4	79602	SR	0.85	0.38	-0.20	0.38	-0.24	-0.19	0.1
F	6188	5	133472	SR	0.57	0.26	0.26	-0.25	-0.16	-0.03	0.3
F	6188	6	79702	SR	0.26	0.16	-0.17	-0.01	0.16	-0.03	0.2
F	6188	13	79692	SR	0.49	0.44	0.44	-0.28	-0.13	-0.22	0.1
F	6188	14	108419	SR	0.72	0.29	-0.21	-0.15	0.29	-0.09	0.3
F	6188	18	256386	SR	0.85	0.34	0.34	-0.19	-0.19	-0.18	0.1
F	6188	19	256415	SR	0.51	0.35	0.35	-0.10	-0.18	-0.27	0.3
F	6188	26	108397	SR	0.38	0.34	-0.13	-0.03	-0.21	0.34	0.3
F	6188	27	214487	SR	0.44	0.39	-0.15	-0.29	-0.10	0.39	0.3
F	6188	32	79647	SR	0.61	0.29	0.29	-0.20	-0.24	-0.04	0.4
F	6188	33	108357	SR	0.72	0.45	-0.14	-0.20	0.45	-0.31	0.4
F	6188	34	223265	SR	0.61	0.16	0.16	-0.18	**0.03**	-0.14	0.5
F	6188	39	79567	SR	0.54	0.49	-0.33	-0.12	-0.17	0.49	1.6
F	6188	40	256360	SR	0.44	0.29	-0.21	-0.06	0.29	-0.09	1.7
F	6188	41	241963	SR	0.46	0.27	-0.25	-0.18	0.27	-0.01	1.7
F	6188	48	65181	SR	0.50	0.35	-0.29	-0.15	-0.04	0.35	0.2
F	6188	49	65194	SR	0.63	0.43	-0.20	-0.21	0.43	-0.21	0.2
F	6188	54	137284	SR	0.89	0.45	0.45	-0.20	-0.26	-0.27	0.2
F	6188	55	79571	SR	0.39	0.45	0.45	-0.17	-0.19	-0.17	0.5
F	6188	63	256506	SR	0.55	0.24	-0.12	0.24	-0.22	**0.02**	0.2
F	6188	64	256340	SR	0.30	0.15	**0.05**	-0.08	-0.16	0.15	0.2
F	6188	65	108359	SR	0.61	0.27	-0.12	-0.18	0.27	-0.12	0.3
F	6188	72	79642	SR	0.29	0.15	-0.22	-0.18	**0.06**	0.15	0.4
F	6188	73	214489	SR	0.85	0.48	-0.26	0.48	-0.28	-0.23	0.7
F	6188	74	256343	SR	0.76	0.34	0.34	-0.21	-0.15	-0.23	0.4
F	6188	78	108469	SR	0.81	0.45	0.45	-0.23	-0.28	-0.22	0.6
F	6188	79	79657	SR	0.39	0.29	-0.20	-0.06	-0.27	0.29	0.6

Table B8. Summary Item Statistics – Field Test Items

Government - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
F	6188	80	108342	SR	0.57	0.41	0.41	-0.17	-0.20	-0.20	0.7
F	6188	83	214507	SR	0.64	0.37	-0.13	0.37	-0.19	-0.19	0.9
F	6188	84	132977	SR	0.70	0.40	-0.19	-0.24	0.40	-0.16	1.0
G	6139	4	223259	SR	0.36	0.17	-0.12	0.17	-0.07	**0.04**	0.1
G	6139	5	60557	SR	0.31	0.18	**0.04**	-0.15	-0.09	0.18	0.2
G	6139	6	256350	SR	0.88	0.40	0.40	-0.22	-0.23	-0.21	0.0
G	6139	13	79675	SR	0.32	0.34	-0.12	-0.19	-0.10	0.34	0.1
G	6139	14	108431	SR	0.59	0.53	-0.22	-0.22	0.53	-0.32	0.1
G	6139	18	223257	SR	0.66	0.33	-0.15	-0.14	0.33	-0.21	0.2
G	6139	19	256341	SR	0.59	0.33	-0.21	-0.16	0.33	-0.14	0.2
G	6139	26	256399	SR	0.29	0.26	-0.19	-0.02	0.26	-0.09	0.3
G	6139	27	214511	SR	0.56	0.28	-0.22	0.28	-0.15	-0.05	0.2
G	6139	32	79541	SR	0.63	0.44	0.44	-0.23	-0.31	-0.14	0.3
G	6139	33	214506	SR	0.35	0.17	**0.00**	-0.07	0.17	-0.14	0.3
G	6139	34	223256	SR	0.61	0.48	-0.17	0.48	-0.29	-0.30	0.5
G	6139	39	79708	SR	0.65	0.45	0.45	-0.25	-0.24	-0.19	1.5
G	6139	40	256347	SR	0.49	0.27	-0.19	0.27	-0.02	-0.20	1.6
G	6139	41	256503	SR	0.38	0.28	-0.06	-0.11	-0.14	0.28	1.6
G	6139	48	60459	SR	0.88	0.36	-0.13	0.36	-0.22	-0.23	0.2
G	6139	49	223260	SR	0.87	0.46	-0.32	-0.22	0.46	-0.18	0.2
G	6139	54	214577	SR	0.81	0.30	0.30	-0.13	-0.10	-0.24	0.3
G	6139	55	65196	SR	0.43	0.36	-0.14	0.36	-0.23	-0.16	0.3
G	6139	63	214513	SR	0.37	0.26	-0.19	**0.00**	-0.15	0.26	0.6
G	6139	64	108448	SR	0.55	0.42	-0.15	0.42	-0.24	-0.19	0.6
G	6139	65	256414	SR	0.85	0.49	-0.23	-0.28	-0.27	0.49	0.4
G	6139	72	214580	SR	0.66	0.51	-0.23	-0.26	0.51	-0.26	0.5
G	6139	73	108347	SR	0.76	0.43	-0.20	0.43	-0.20	-0.26	0.8
G	6139	74	256382	SR	0.80	0.47	-0.29	0.47	-0.23	-0.20	0.6
G	6139	78	65174	SR	0.32	0.27	0.27	-0.04	-0.26	-0.13	1.0
G	6139	79	242070	SR	0.54	**0.14**	-0.21	-0.01	0.14	**0.04**	1.1
G	6139	80	135595	SR	0.89	0.46	-0.20	0.46	-0.30	-0.20	1.1
G	6139	83	132967	SR	0.63	0.56	-0.28	-0.21	-0.28	0.56	1.3
G	6139	84	135585	SR	0.81	0.49	0.49	-0.26	-0.28	-0.20	1.3
H	6136	4	79562	SR	0.71	0.35	-0.23	-0.16	0.35	-0.13	0.2
H	6136	5	256368	SR	0.61	0.47	0.47	-0.12	-0.43	-0.10	0.1
H	6136	6	108408	SR	0.73	0.47	-0.35	-0.24	0.47	-0.15	0.2
H	6136	13	260954	SR	0.89	0.19	0.19	-0.16	-0.08	-0.12	0.2
H	6136	14	223252	SR	0.50	0.44	-0.17	-0.22	-0.19	0.44	0.3
H	6136	18	79574	SR	0.67	0.32	-0.16	-0.11	0.32	-0.19	0.3
H	6136	19	79743	SR	0.59	0.31	0.31	-0.16	-0.19	-0.09	0.3
H	6136	26	79718	SR	0.56	0.32	-0.21	-0.21	0.32	-0.06	0.4
H	6136	27	65177	SR	0.47	0.40	-0.14	0.40	-0.23	-0.14	0.3
H	6136	32	214496	SR	0.55	0.52	0.52	-0.17	-0.20	-0.34	0.4
H	6136	33	79648	SR	0.46	0.32	-0.14	-0.14	0.32	-0.11	0.6

Table B8. Summary Item Statistics – Field Test Items

Government - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
H	6136	34	79705	SR	0.65	0.44	-0.17	0.44	-0.27	-0.19	0.6
H	6136	39	79753	SR	0.44	0.39	-0.08	-0.19	-0.21	0.39	1.9
H	6136	40	256413	SR	0.56	0.58	0.58	-0.32	-0.25	-0.20	2.0
H	6136	41	256396	SR	0.85	0.46	-0.27	-0.23	0.46	-0.19	1.9
H	6136	48	242071	SR	0.73	0.54	-0.32	-0.26	-0.24	0.54	0.3
H	6136	49	137301	SR	0.90	0.41	0.41	-0.21	-0.22	-0.23	0.3
H	6136	54	135589	SR	0.70	0.51	0.51	-0.32	-0.25	-0.20	0.5
H	6136	55	256349	SR	0.65	0.44	-0.22	-0.24	0.44	-0.18	0.5
H	6136	63	132975	SR	0.42	0.35	0.35	-0.17	-0.10	-0.17	0.5
H	6136	64	256499	SR	**0.20**	0.31	-0.19	-0.01	0.31	-0.12	0.5
H	6136	65	256501	SR	0.55	0.51	0.51	-0.15	-0.36	-0.20	0.5
H	6136	72	256369	SR	0.67	0.48	-0.13	-0.30	0.48	-0.24	0.7
H	6136	73	256388	SR	0.64	0.45	0.45	-0.24	-0.21	-0.18	0.8
H	6136	74	214481	SR	0.48	0.44	-0.25	0.44	-0.18	-0.19	0.8
H	6136	78	108478	SR	0.77	0.43	-0.19	0.43	-0.32	-0.11	0.9
H	6136	79	214582	SR	0.65	0.52	0.52	-0.31	-0.21	-0.21	1.1
H	6136	80	256381	SR	0.40	**0.11**	**0.00**	-0.12	0.11	-0.03	1.1
H	6136	83	79627	SR	0.62	0.35	-0.22	0.35	-0.14	-0.15	1.4
H	6136	84	223268	SR	0.63	0.38	-0.31	-0.22	-0.02	0.38	1.3
J	6075	4	256380	SR	0.71	0.48	0.48	-0.21	-0.18	-0.35	0.1
J	6075	5	215810	SR	0.58	0.40	-0.24	0.40	-0.13	-0.26	0.2
J	6075	6	108372	SR	0.54	0.51	0.51	-0.22	-0.32	-0.21	0.1
J	6075	13	214497	SR	0.55	0.55	0.55	-0.27	-0.19	-0.30	0.1
J	6075	14	79729	SR	0.58	0.42	-0.14	-0.20	-0.27	0.42	0.2
J	6075	18	79698	SR	0.64	0.28	-0.31	-0.23	0.28	**0.05**	0.2
J	6075	19	214498	SR	0.89	0.40	0.40	-0.21	-0.19	-0.25	0.2
J	6075	26	242073	SR	0.89	0.43	-0.29	0.43	-0.22	-0.16	0.2
J	6075	27	79638	SR	0.44	0.19	0.19	-0.07	-0.08	-0.09	0.4
J	6075	32	79626	SR	0.46	0.27	0.27	-0.03	-0.20	-0.10	0.5
J	6075	33	108430	SR	0.63	0.46	-0.21	0.46	-0.28	-0.19	0.5
J	6075	34	256402	SR	0.41	0.18	0.18	-0.13	**0.03**	-0.16	0.5
J	6075	39	108436	SR	0.68	0.33	-0.25	0.33	-0.10	-0.22	1.5
J	6075	40	60558	SR	0.65	0.45	-0.26	-0.18	0.45	-0.19	1.5
J	6075	41	108459	SR	0.25	0.27	**0.09**	0.27	-0.18	-0.19	1.7
J	6075	48	214502	SR	0.80	0.34	-0.21	-0.14	-0.17	0.34	0.3
J	6075	49	108423	SR	0.64	0.58	-0.28	-0.35	0.58	-0.20	0.4
J	6075	54	223333	SR	0.81	0.47	-0.19	-0.32	-0.20	0.47	0.4
J	6075	55	214482	SR	0.66	0.40	-0.03	-0.27	-0.26	0.40	0.5
J	6075	63	256372	SR	0.30	**0.14**	0.14	**0.07**	-0.22	-0.04	0.5
J	6075	64	108444	SR	0.78	0.43	-0.20	0.43	-0.24	-0.21	0.4
J	6075	65	79579	SR	0.58	0.52	-0.21	-0.29	0.52	-0.23	0.6
J	6075	72	79582	SR	0.75	0.44	-0.26	-0.23	-0.18	0.44	0.8
J	6075	73	214509	SR	0.60	0.53	0.53	-0.21	-0.26	-0.26	1.1
J	6075	74	79594	SR	0.79	0.51	-0.25	-0.27	-0.26	0.51	0.8

Table B8. Summary Item Statistics – Field Test Items

Government - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
J	6075	78	215821	SR	**0.91**	0.41	-0.22	0.41	-0.25	-0.17	0.8
J	6075	79	256392	SR	0.70	0.48	0.48	-0.27	-0.23	-0.21	0.9
J	6075	80	256348	SR	0.75	0.48	-0.22	0.48	-0.30	-0.22	0.9
J	6075	83	108340	SR	0.60	0.59	-0.29	-0.34	0.59	-0.16	1.2
J	6075	84	79570	SR	0.76	0.49	-0.23	-0.26	0.49	-0.24	1.2
K	5971	4	215818	SR	0.63	0.39	-0.19	-0.24	0.39	-0.16	0.2
K	5971	5	256377	SR	0.42	0.26	-0.09	0.26	-0.05	-0.20	0.1
K	5971	6	79635	SR	0.56	0.40	0.40	-0.28	-0.07	-0.21	0.2
K	5971	13	108427	SR	0.44	0.52	-0.19	-0.35	0.52	-0.12	0.2
K	5971	14	223254	SR	0.88	0.31	-0.14	-0.15	0.31	-0.22	0.1
K	5971	18	256412	SR	0.57	0.30	-0.10	-0.20	-0.18	0.30	0.2
K	5971	19	52288	SR	0.76	0.52	0.52	-0.27	-0.34	-0.19	0.1
K	5971	26	256352	SR	0.81	0.42	-0.15	-0.31	-0.19	0.42	0.3
K	5971	27	132965	SR	0.83	0.47	-0.19	-0.29	-0.26	0.47	0.3
K	5971	32	256339	SR	0.35	0.36	-0.10	-0.07	-0.24	0.36	0.5
K	5971	33	79733	SR	0.60	0.32	-0.27	0.32	-0.26	-0.01	0.5
K	5971	34	256342	SR	0.51	0.32	0.32	-0.09	-0.22	-0.11	0.6
K	5971	39	79630	SR	0.67	0.48	-0.23	0.48	-0.27	-0.21	1.5
K	5971	40	215822	SR	0.90	0.44	0.44	-0.22	-0.24	-0.24	1.5
K	5971	41	79655	SR	0.68	0.41	-0.16	0.41	-0.25	-0.20	1.6
K	5971	48	79646	SR	0.58	0.39	-0.20	0.39	-0.28	-0.03	0.4
K	5971	49	79724	SR	0.50	0.41	-0.15	0.41	-0.12	-0.27	0.4
K	5971	54	79670	SR	0.49	0.48	0.48	-0.19	-0.27	-0.17	0.4
K	5971	55	79542	SR	0.69	0.40	-0.17	0.40	-0.18	-0.26	0.4
K	5971	63	79629	SR	0.53	0.39	0.39	-0.19	-0.21	-0.14	0.3
K	5971	64	79572	SR	0.52	0.35	-0.10	-0.19	-0.24	0.35	0.3
K	5971	65	215809	SR	0.34	0.45	-0.18	0.45	-0.18	-0.18	0.4
K	5971	72	108346	SR	0.77	0.51	-0.23	0.51	-0.28	-0.26	0.6
K	5971	73	108454	SR	0.38	0.33	0.33	-0.14	-0.15	-0.09	0.7
K	5971	74	256354	SR	0.73	0.42	-0.21	-0.21	-0.20	0.42	0.6
K	5971	78	79746	SR	0.61	0.48	-0.18	-0.21	-0.29	0.48	0.9
K	5971	79	256404	SR	0.54	0.39	-0.25	-0.26	0.39	-0.08	0.9
K	5971	80	256344	SR	0.84	0.47	-0.22	-0.31	-0.19	0.47	0.8
K	5971	83	79545	SR	0.66	0.48	-0.25	-0.21	-0.22	0.48	1.1
K	5971	84	214492	SR	0.36	0.24	-0.30	-0.17	0.24	**0.09**	1.1
L	5938	4	132969	SR	0.41	0.43	-0.24	0.43	-0.17	-0.16	0.1
L	5938	5	223258	SR	**0.92**	0.35	-0.18	-0.23	-0.18	0.35	0.1
L	5938	6	79686	SR	0.53	0.41	-0.04	-0.29	0.41	-0.25	0.2
L	5938	13	214479	SR	0.58	0.40	0.40	-0.22	-0.21	-0.15	0.3
L	5938	14	65216	SR	0.70	0.46	-0.08	-0.42	-0.16	0.46	0.4
L	5938	18	256394	SR	0.50	0.26	0.26	-0.12	-0.10	-0.12	0.3
L	5938	19	256383	SR	0.80	0.36	-0.24	0.36	-0.17	-0.18	0.3
L	5938	26	108405	SR	0.45	0.24	0.24	-0.15	-0.14	-0.01	0.4
L	5938	27	223264	SR	0.88	0.44	-0.26	0.44	-0.26	-0.17	0.3

179

Table B8. Summary Item Statistics – Field Test Items

Government - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
L	5938	32	242069	SR	0.70	0.42	0.42	-0.25	-0.25	-0.10	0.4
L	5938	33	79715	SR	0.75	0.41	-0.19	-0.16	0.41	-0.28	0.4
L	5938	34	242074	SR	0.52	0.38	-0.18	0.38	-0.11	-0.22	0.5
L	5938	39	65178	SR	0.67	0.43	-0.23	-0.20	-0.20	0.43	1.4
L	5938	40	79677	SR	0.56	0.42	-0.28	0.42	-0.26	-0.10	1.4
L	5938	41	79641	SR	0.47	0.42	-0.25	-0.20	-0.07	0.42	1.5
L	5938	48	256375	SR	0.63	0.47	-0.29	-0.19	0.47	-0.20	0.3
L	5938	49	256374	SR	0.56	0.42	0.42	-0.22	-0.24	-0.11	0.3
L	5938	54	79621	SR	0.58	0.37	-0.20	0.37	-0.19	-0.15	0.3
L	5938	55	223270	SR	0.85	0.38	-0.24	0.38	-0.19	-0.16	0.3
L	5938	63	52280	SR	0.69	0.32	-0.18	0.32	-0.22	-0.11	0.3
L	5938	64	60441	SR	0.71	0.40	-0.19	-0.24	-0.17	0.40	0.3
L	5938	65	256405	SR	0.70	0.34	-0.17	0.34	-0.16	-0.21	0.4
L	5938	72	108418	SR	0.81	0.57	-0.26	-0.34	-0.29	0.57	0.4
L	5938	73	108446	SR	0.79	0.53	-0.21	-0.29	0.53	-0.31	0.6
L	5938	74	214504	SR	0.53	0.47	-0.12	0.47	-0.16	-0.31	0.6
L	5938	78	215820	SR	0.72	0.50	-0.23	-0.31	-0.22	0.50	0.7
L	5938	79	256393	SR	0.87	0.42	-0.25	-0.23	0.42	-0.19	0.8
L	5938	80	256361	SR	0.53	0.29	0.29	-0.22	-0.13	-0.04	1.2
L	5938	83	79586	SR	0.67	0.41	-0.25	-0.20	0.41	-0.20	1.1
L	5938	84	108406	SR	0.74	0.38	-0.17	0.38	-0.24	-0.16	1.1
M	5864	4	108388	SR	0.55	0.44	-0.22	-0.27	-0.16	0.44	0.3
M	5864	5	223249	SR	0.42	0.50	-0.30	0.50	-0.23	-0.05	0.1
M	5864	6	79560	SR	0.41	0.46	-0.24	-0.18	-0.17	0.46	0.3
M	5864	13	214499	SR	0.56	0.36	-0.06	-0.29	0.36	-0.16	0.2
M	5864	14	256378	SR	0.78	0.33	-0.17	-0.21	-0.16	0.33	0.2
M	5864	18	256397	SR	**0.14**	0.17	-0.07	-0.10	0.17	-0.14	0.1
M	5864	19	256355	SR	0.71	0.39	-0.15	0.39	-0.23	-0.21	0.1
M	5864	26	214578	SR	0.67	0.54	-0.26	-0.26	-0.29	0.54	0.3
M	5864	27	241960	SR	0.60	0.29	-0.17	-0.10	-0.17	0.29	0.3
M	5864	32	215824	SR	0.61	0.49	-0.27	0.49	-0.26	-0.18	0.5
M	5864	33	52231	SR	0.43	**0.14**	**0.02**	0.14	-0.19	-0.14	0.3
M	5864	34	256371	SR	0.54	0.37	0.37	-0.23	-0.12	-0.17	0.4
M	5864	39	214579	SR	0.35	**0.03**	**0.24**	0.03	-0.25	-0.16	1.4
M	5864	40	215815	SR	0.82	0.40	-0.19	-0.19	0.40	-0.22	1.4
M	5864	41	108420	SR	0.28	0.15	-0.17	-0.13	**0.13**	0.15	1.6
M	5864	48	79546	SR	0.64	0.49	-0.14	0.49	-0.32	-0.24	0.3
M	5864	49	256366	SR	0.78	0.26	-0.08	-0.11	-0.23	0.26	0.2
M	5864	54	223261	SR	0.84	0.47	-0.24	-0.27	-0.24	0.47	0.4
M	5864	55	108414	SR	0.70	0.50	-0.29	0.50	-0.30	-0.15	0.4
M	5864	63	256401	SR	0.62	0.48	0.48	-0.22	-0.25	-0.24	0.4
M	5864	64	79624	SR	0.77	0.50	-0.26	-0.25	-0.26	0.50	0.4
M	5864	65	214493	SR	**0.24**	**0.15**	-0.18	-0.08	**0.02**	0.15	0.3
M	5864	72	256345	SR	0.70	0.42	0.42	-0.21	-0.25	-0.18	0.5

Table B8. Summary Item Statistics – Field Test Items
Government - May Forms

Form	N	Pos_No	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
M	5864	73	79590	SR	0.72	0.46	-0.25	-0.21	0.46	-0.22	0.7
M	5864	74	137307	SR	0.69	0.40	-0.31	-0.20	0.40	-0.15	0.5
M	5864	78	215825	SR	0.70	0.55	0.55	-0.23	-0.32	-0.26	0.6
M	5864	79	256346	SR	0.35	**0.14**	**0.05**	-0.18	-0.04	0.14	0.6
M	5864	80	79709	SR	0.65	0.53	0.53	-0.24	-0.32	-0.21	0.7
M	5864	83	79750	SR	0.60	0.43	0.43	-0.21	-0.18	-0.21	0.9
M	5864	84	79656	SR	0.36	0.43	-0.22	0.43	-0.23	-0.13	0.9
N	5722	4	214503	SR	0.72	**0.07**	-0.06	0.07	**0.03**	-0.12	0.1
N	5722	5	79575	SR	0.61	0.50	-0.23	-0.32	0.50	-0.17	0.1
N	5722	6	214485	SR	0.71	0.28	-0.04	-0.24	-0.18	0.28	0.2
N	5722	13	79668	SR	0.52	0.36	-0.14	-0.12	-0.23	0.36	0.2
N	5722	14	65184	SR	0.65	0.48	-0.22	-0.24	0.48	-0.27	0.2
N	5722	18	256395	SR	0.69	0.43	-0.27	-0.15	0.43	-0.25	0.2
N	5722	19	256384	SR	0.75	0.46	0.46	-0.31	-0.25	-0.18	0.3
N	5722	26	214491	SR	0.80	0.45	-0.26	0.45	-0.27	-0.18	0.1
N	5722	27	108381	SR	0.41	0.42	-0.18	-0.27	0.42	-0.09	0.2
N	5722	32	242072	SR	0.56	0.36	-0.32	-0.13	0.36	-0.07	0.5
N	5722	33	256400	SR	0.87	0.44	-0.21	0.44	-0.29	-0.19	0.4
N	5722	34	108432	SR	0.46	0.44	-0.24	-0.13	-0.22	0.44	0.7
N	5722	39	108398	SR	0.63	0.51	0.51	-0.23	-0.21	-0.29	1.9
N	5722	40	79607	SR	0.62	0.53	-0.25	-0.28	-0.21	0.53	1.9
N	5722	41	108461	SR	0.43	0.34	-0.19	0.34	-0.20	-0.04	2.2
N	5722	48	135587	SR	0.29	0.20	-0.12	0.20	-0.09	-0.03	0.3
N	5722	49	79676	SR	0.70	0.34	-0.19	-0.22	0.34	-0.12	0.4
N	5722	54	79704	SR	0.53	0.50	-0.17	-0.24	-0.25	0.50	0.4
N	5722	55	256390	SR	0.62	0.39	-0.17	-0.23	0.39	-0.17	0.4
N	5722	63	65195	SR	0.68	0.33	-0.18	0.33	-0.26	-0.08	0.4
N	5722	64	215811	SR	0.86	0.49	-0.24	-0.26	-0.28	0.49	0.3
N	5722	65	79754	SR	0.60	0.42	-0.24	0.42	-0.14	-0.23	0.4
N	5722	72	108421	SR	0.67	0.55	-0.24	0.55	-0.26	-0.30	0.7
N	5722	73	108344	SR	0.71	0.48	-0.24	-0.22	0.48	-0.25	0.6
N	5722	74	79649	SR	0.81	0.43	-0.22	-0.30	0.43	-0.13	0.8
N	5722	78	256505	SR	0.32	0.34	-0.01	0.34	-0.26	-0.14	0.8
N	5722	79	79551	SR	0.72	0.40	-0.16	0.40	-0.24	-0.22	0.9
N	5722	80	108356	SR	0.61	0.28	0.28	-0.06	-0.25	-0.11	1.0
N	5722	83	108471	SR	0.60	0.36	-0.21	-0.13	0.36	-0.22	1.1
N	5722	84	133473	SR	0.56	0.49	-0.18	-0.27	-0.21	0.49	1.3
Mean					0.60	0.38	-0.05	-0.03	-0.06	-0.03	0.6
SD					0.17	0.12	0.27	0.28	0.26	0.25	0.5

Note: Values in bold are outside of the accepted range. Statistics for items on multiple forms are listed under the first form on which the item appeared. P_Val=P-Value, R_ITT=item-total correlation, P_BIS1 – P_BIS4 =option-total correlation, %Omits=percent of omitted responses