Maryland High School Assessment
2007 Technical Report

Algebra/Data Analysis
Biology
English
Government

Educational Testing Service
March, 2008

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).

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Introduction

The 2007 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 2007 school year.

The MDHSAs consist of 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 (CLG).

The 2007 MDHSAs were administered in January, May and Summer (July/August). For the January and May administrations, three operational test forms were constructed; one for the primary administration window, and one for each of two make-up administrations. For the Summer 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. The 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. Instead, the performance on the field test items was analyzed and the calibrated items were placed into the item bank. With the exception of items selected for public release, all operational items are returned to the item bank where they must remain unused for at least two years 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[1] 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).

The 2007 technical report comprises 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 in 2007; 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 in 2007. Appendix B provides classical item statistics for each field-test item administered in 2007.

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[1] 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 forms 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 operational 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 operational 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. These item types were selected response (SR), student produced response (SPR), brief constructed response (BCR), and extended constructed response (ECR). Table 1.1 shows how these item types and associated points were distributed by content area.

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

Content Area	N Operational Items by Item Type					N Operational 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. Specific requirements of writing for the MDHSA program can be found in the "Guidelines for Item Writers" document.

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.
- Verification that copyright and/or trademark permissions had been obtained for any materials requiring permissions. For English passages used in 2007, the copyright verification occurred once a passage set was selected for use within a specific field test set.
- Internal reviews conducted and historical records established for all version changes.

After ETS performed the required internal reviews, items were submitted to MSDE for their review. If the MSDE content specialist requested a copy, an original version of the item as submitted by the item writer 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 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. The ETS content specialist then made any necessary final 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 operational forms.

Test Specifications

All of the 2007 operational test forms were constructed using items from the Maryland item bank. The pool of items available for use in the construction of the 2007 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 2002 and included items administered in 2002 and 2003. For English, the scale was re-defined in 2006 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 to 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:
Algebra   http://mdk12.org/rubrics/mathematics.
Biology   http://mdk12.org/rubrics/science
English   http://mdk12.org/rubrics/english
Government   http://mdk12.org/rubrics/socialstudies

Table 1.2 Algebra Blueprint

ALGEBRA					
Reporting Category	**Number of Items**				**Total Points per Category**
	SR	**SPR**	**BCR**	**ECR**	
	(1 pt)	(1 pt)	(3 pts)	(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

Table 1.3 Biology Blueprint

BIOLOGY				
Reporting Category	**Number of Items**			**Total Points per Category**
	SR	**BCR**	**ECR**	
	(1 pt)	(4 pts)	(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

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 (1 pts)	**BCR** (4 pts)	**ECR[a]** (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

[a] The ECR item on the Government assessment is aligned to and reported at 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 operational set of items consisted of a common set of items shared across forms within an administration and a unique set of items. Within a given administration (i.e., January, May, Summer), approximately 60% of the operational items in each form were common across the operational 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 January 2007 Administration

Primary Week Form A	Primary Week Form B	Make-Up #1 Form C	Make-Up #2 Form D
Common set – 60%	Common set – 60%	Common set – 60%	Common set – 60%
Unique Items from the pool – 40% (same as items in Form B)	Unique Items from the pool – 40% (same as items in Form A)	Half of the items from primary week's 40% – 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 items	Field Test Section – unique items	Field Test Section – same as Form A	Field Test Section – same as Form A

Table 1.7 Form Construction Specifications for the May 2007 Administration

Primary Week Forms E -K	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 for Forms E – K)	Half of items from primary week's 40% 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 E through K	Field Test Section – a reuse of one or a combination of the field test sets used in forms E-K, with a preference for form E; 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 1.8 Form Construction Specifications for the Summer 2007Administration

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 May 07 forms	Field Test Section – items repeated from May 07 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 an operational form containing different sets of field test items. 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 one best answer and a positive point-biserial correlation for one or more distractors. For the administration, different versions of the forms were spiraled at the student level.

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 in 2002. 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 operational 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[2] or clanging[3].
4. After the operational forms were selected, 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

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[2] 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.
[3] Clanging occurs when an identical or resembling word(s) appears in both the item stem and one or more item distractors.

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 operational test according to a variety of content and template criteria.

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. 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 raw score. The CSEM plots indicate that the CSEMs for each content area were lowest within the scale score range of 375 to 475.

Figure 1.1 Test Characteristic Curves for the 2007 Algebra Forms
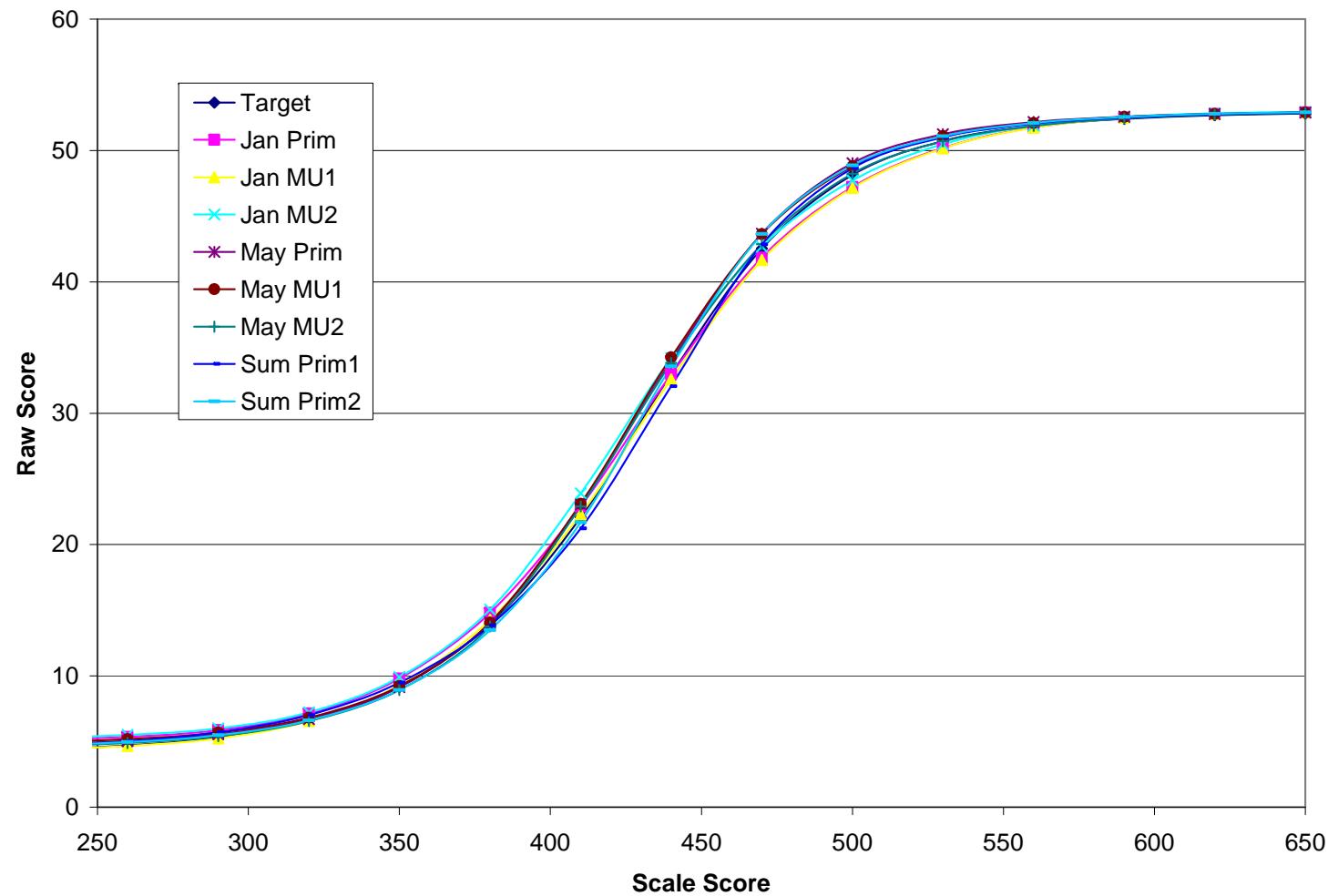
Note Algebra Cut Scores: Proficient 412, Advanced 450

Figure 1.2 Conditional Standard Error of Measurement for the 2007 Algebra Forms
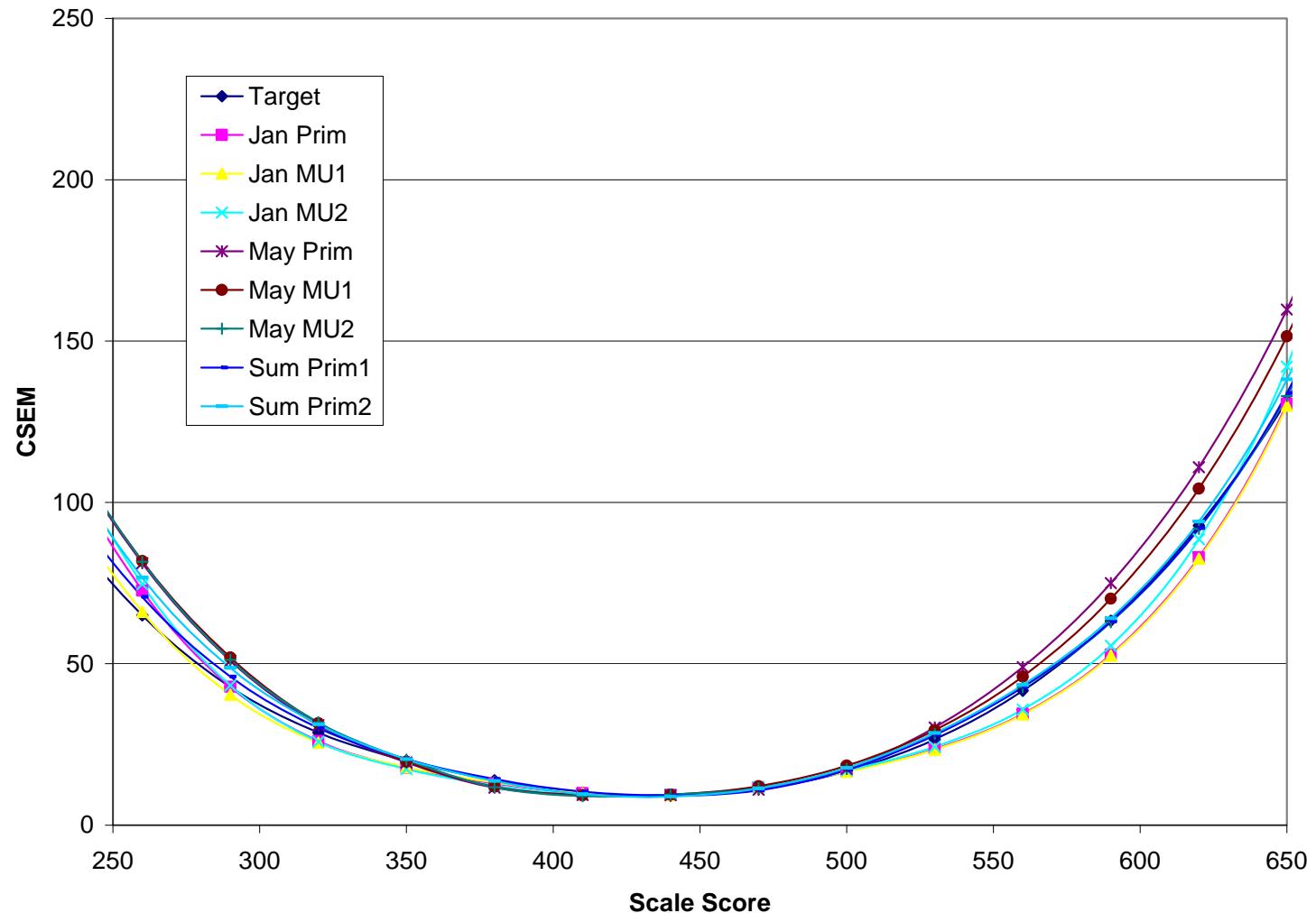
Note Algebra Cut Scores: Proficient 412, Advanced 450

Figure 1.3 Test Characteristic Curves for the 2007 Biology Forms
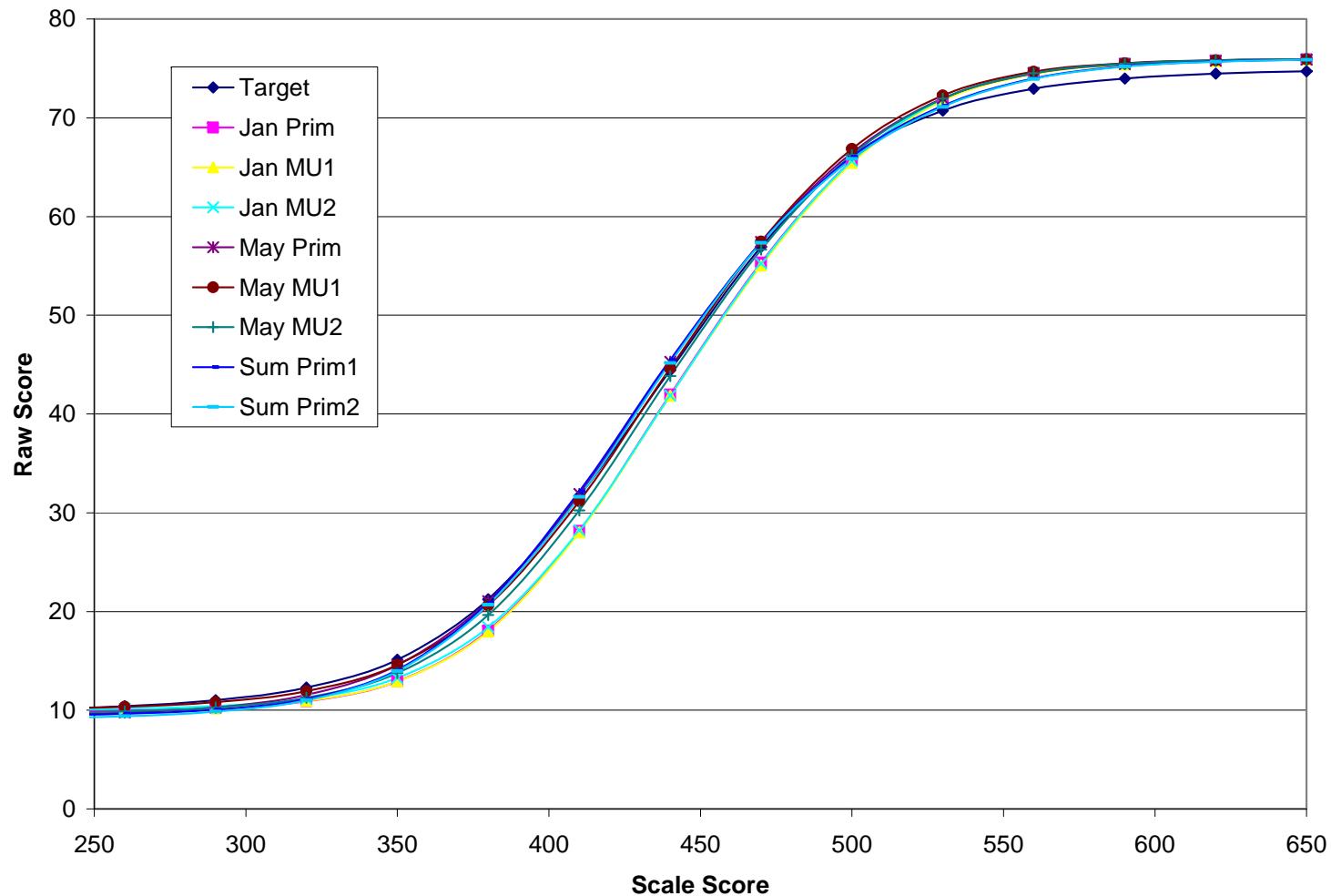
Note Biology Cut Score: Proficient 400

Figure 1.4 Conditional Standard Error of Measurement for the 2007 Biology Forms
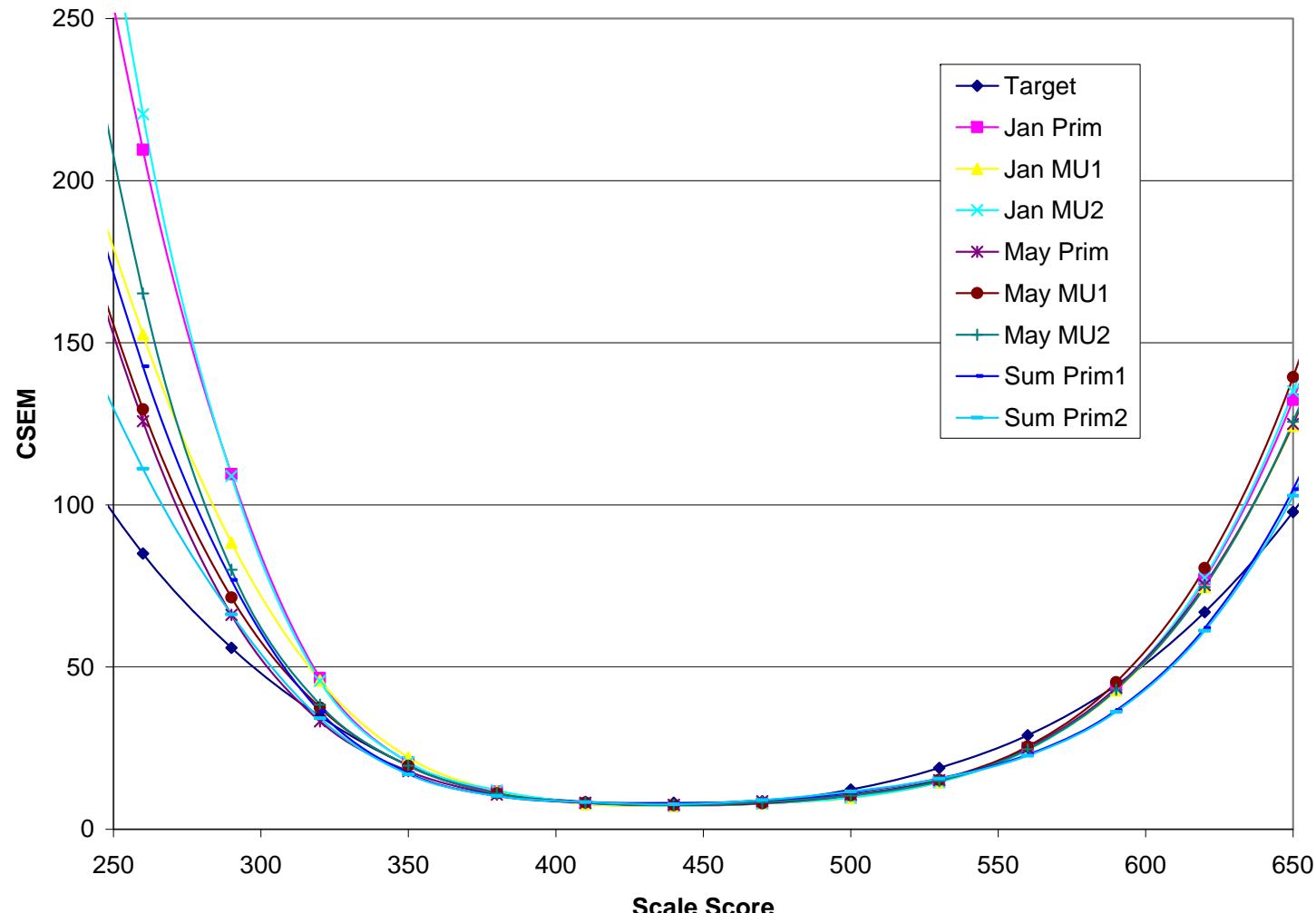
Note Biology Cut Score: Proficient 400

Figure 1.5 Test Characteristic Curves for the 2007 English Forms
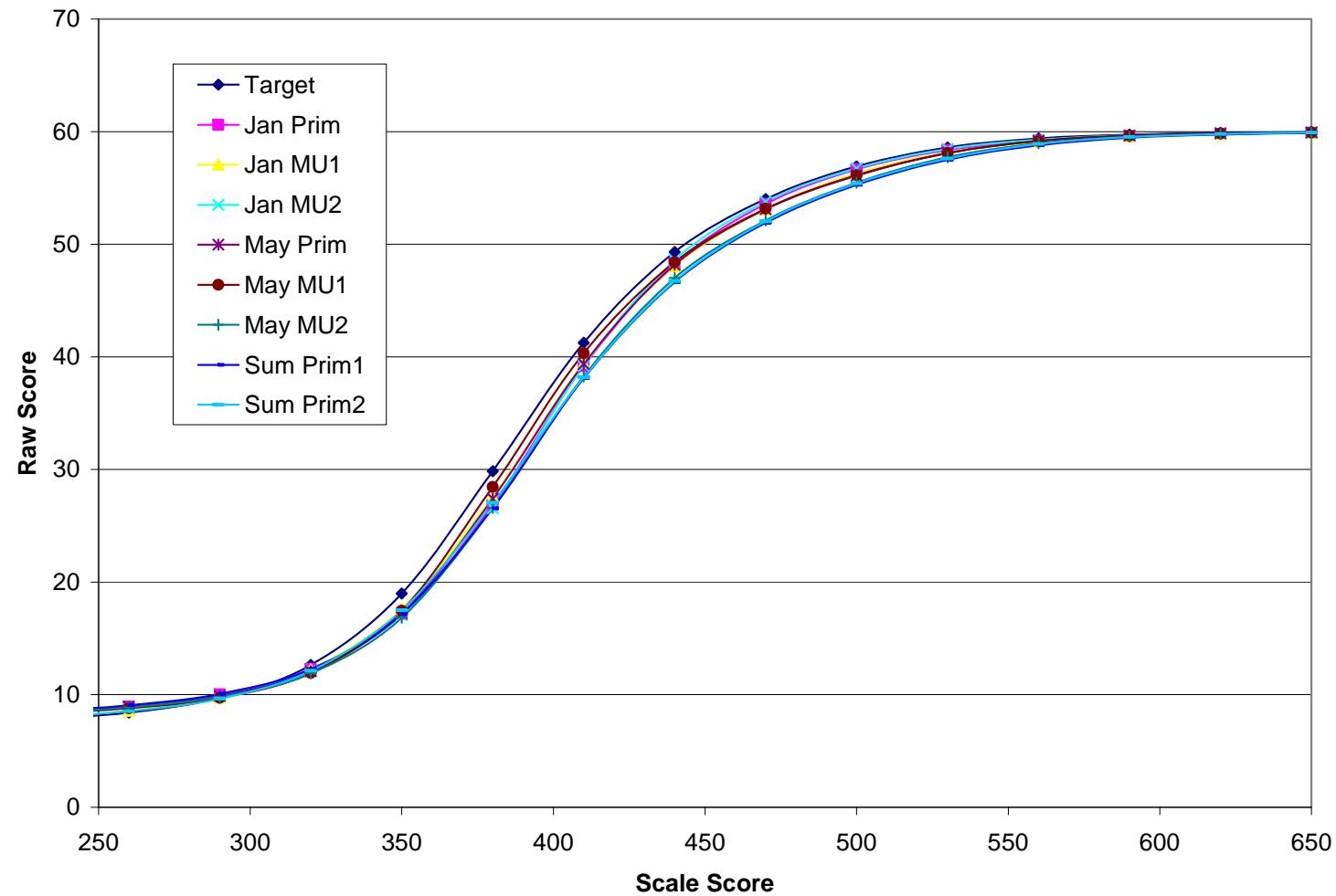
Note English Cut Scores: Proficient 396, Advanced 429

Figure 1.6 Conditional Standard Error of Measurement for the 2007 English Forms
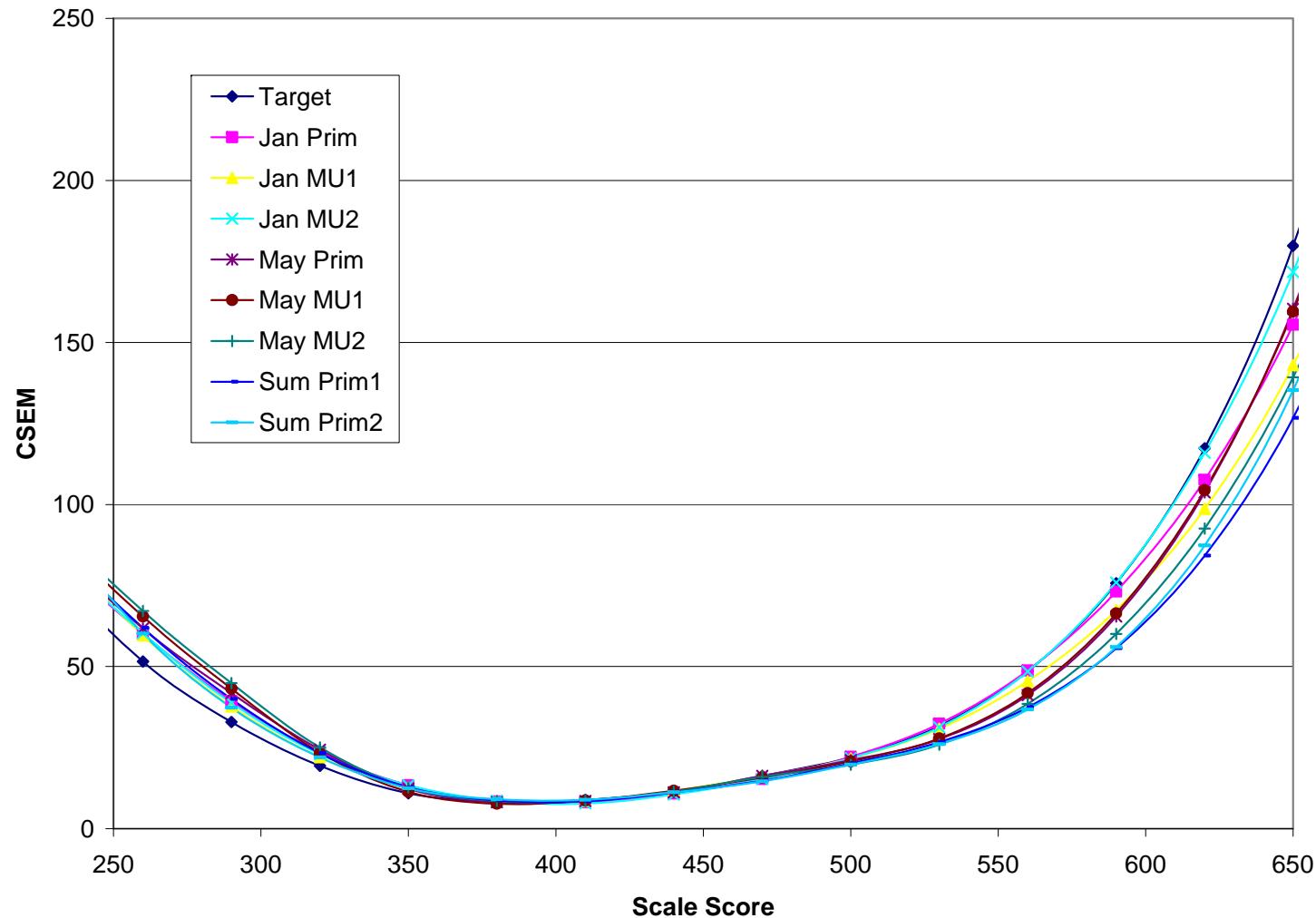
Note English Cut Scores: Proficient 396, Advanced 429

Figure 1.7 Test Characteristic Curves for the 2007 Government Forms
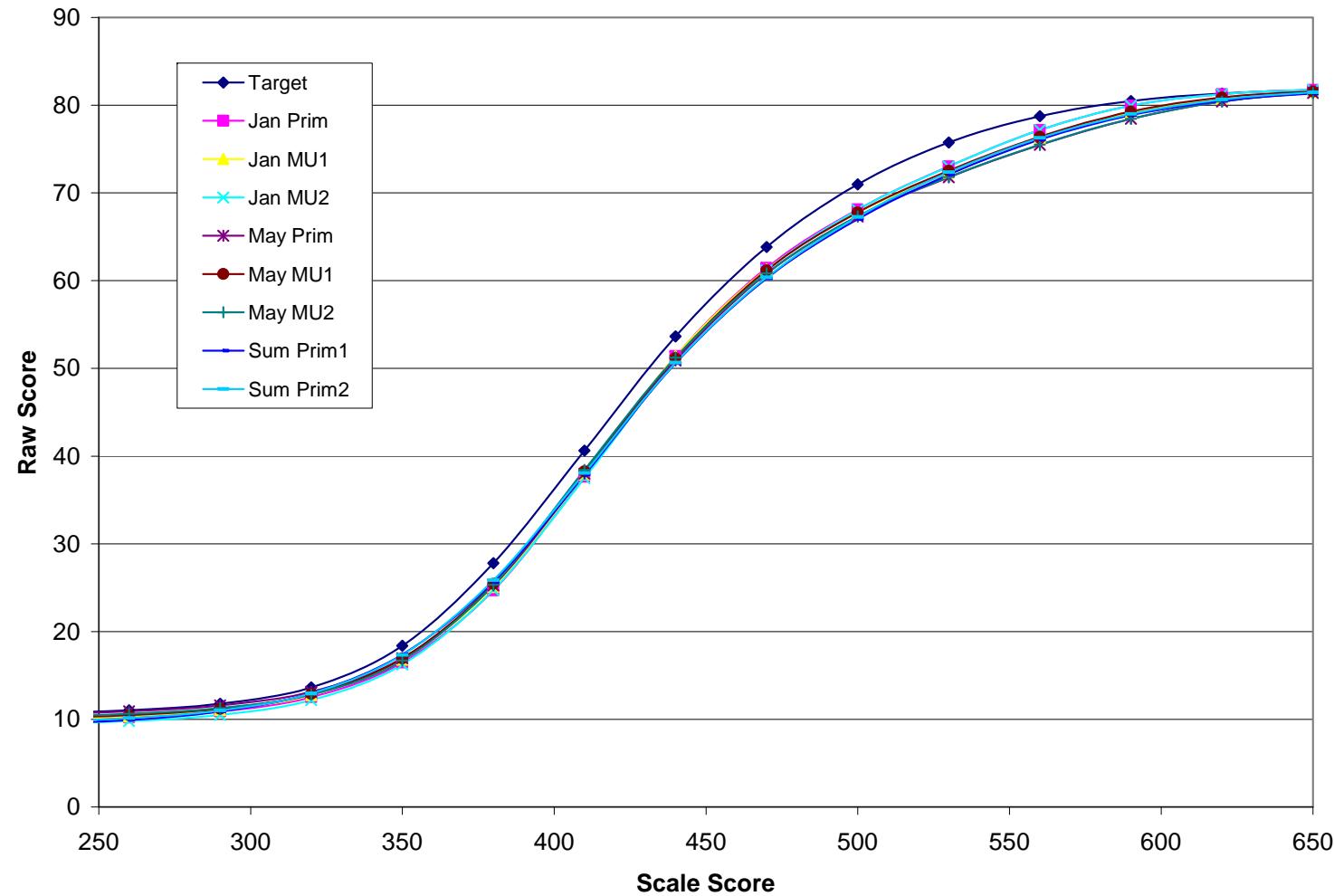
Note Government Cut Score: Proficient 394

Figure 1.8 Conditional Standard Error of Measurement for the 2007 Government Forms
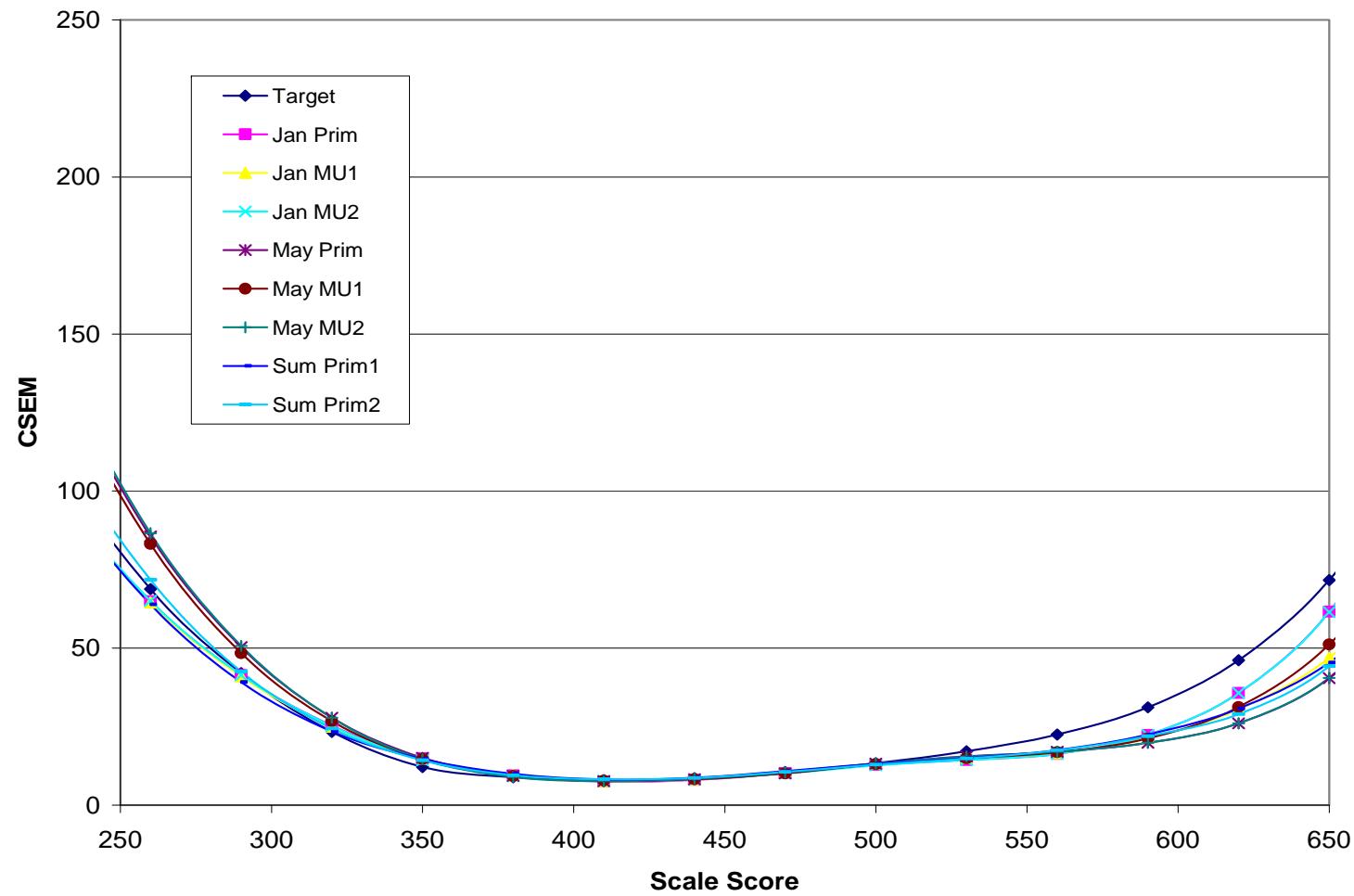
Note Government Cut Score: Proficient 394

Section 2. Validity

Validity is one of the most important attributes of assessment quality. Validity refers to the degree to which evidence supports a proposed interpretation or use of a set of scores, and it is one of the most fundamental considerations in developing and evaluating tests (AERA, APA, & NCME, 1999). 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.

The development of test content for each MDHSA was overseen by a content expert who had a depth of knowledge and teaching experience related to the course in which the MDHSA was to be administered. Appropriate content leads who had similar qualifications reviewed the test development work of these individuals.

The test development process provided numerous opportunities for the client to review test content and make changes to ensure that the items were valid measures of the knowledge and skills of Maryland students according to course standards. Every item that was created was referenced to a particular instructional standard (i.e., goal, expectation, or indicator). During the internal ETS development process the specific reference was confirmed or changed to reflect changes to the item. When the item went to a committee of Maryland educators for a content review, the members of the committee made independent judgments about the match of the item content to the standard it was intended to measure, and evaluated the appropriateness for the age of students being tested. These judgments were tabulated and reviewed by the content experts who used the information to decide which items would advance to the field test stage of development.

The constructs measured by each MDHSA are described in detail in the Maryland high school curriculum standards (Core Learning Goals). All ETS content staff working on item development has been trained in the Core Learning Goals. The test blueprint documents presented in Section 1 (see Tables 1.2 to 1.5) were created in collaboration with committees of Maryland educators and were derived from the Maryland goals, expectations, and indicators. The Learning Goals can be found on the MSDE website at http://www.mdk12.org.

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[4]. Algebra and English scores were used for Adequate Yearly Progress (AYP) as a component of the Maryland No Child Left Behind Accountability program. Information on the interpretation of scores was provided to students, parents, schools and other stakeholders via the MSDE website.

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[4] More information on state graduation requirements is available on the Maryland State Department of Education Web site at http://www.marylandpublicschools.org/MSDE/testing/hsa/.

In addition to the validation documentation gathered and maintained by MSDE, empirical information in support of the MDHSA follows:

- 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. It was established in 2003 and defined so that the scores had a mean of 400 and a standard deviation 40. 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[5].

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 (SEM) were produced for both types of scoring and were equal to the inverse of the square root of the test information function.

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

where $\text{SEM}(\hat{\theta})$ refers to the standard error of measurement, and $I(\hat{\theta})$ refers to the test information function.

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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[5] 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 non-English content areas were established by MSDE in 2003[6]. These values are given in Table 3.1. The English cut-scores were established during the standard setting meeting held in October of 2005. One cut-score was established for Biology and 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. Students who entered grade 9 in the 2005-2006 academic year and thereafter must pass all four HSAs or achieve an overall combined score of 1602. The Proficient cut-scores are used to determine Pass/Fail classifications.

Table 3.1 MDHSA 2007 Cut-Scores by Content Area

	Cut-score	
Content Area	Proficient	Advanced
Algebra	412	450
Biology	400	
English	396	429
Government	394	

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[6] 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.

Year-to-Year Scale Maintenance

The Maryland HSA tests have been pre-equated since 2004. 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 administrations are delivered in the fall, and the field-test items 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 Analyses Carried Out to Support the January Biology Scoring

There were two issues with the January 2007 Biology test that required special consideration and analyses prior to operational scoring. The issues are described below. Courses of action were determined in consultation with MSDE.

Punnett Square Biology Item

For one brief constructed response (BCR) item, there was an inconsistency between the design of the answer space for this item when the banked item parameters were

established in 2003 and the design of the answer space when the item was used in the January 2007 tests. Specifically, the answer space omitted a box and the instructions to "Draw the Punnett square in the box" which appeared on the answer document when the item was field-tested and scaled. The item (#42, MD ID 64715) appeared on all four operational January forms (A, B, C, D).

MSDE wanted to maintain the item in their bank as it appeared prior to the misprint; that is, no item information would be updated in the bank. The question posed by MSDE for the January 2007 administration was whether the item bank parameters could be used in operational scoring, and if not, whether new the item should be omitted in determining student scores. To this end, ETS recalibrated the item, compared the banked parameters with those obtained from the recalibration, and evaluated the effects of the new parameters on students' scores.

The results of the study indicated that 1) the differences in item parameters did not exceed differences that could be attributed to sampling, and 2) replacing the bank parameters with the January 2007 parameters had very little impact on student scores. MSDE decided to score students using the bank item parameters.

Misalignment of Form C Test Book and Answer Document

An additional issue for operational scoring involved a misalignment of the session break between the test book and the answer document in Form C. Specifically, the test book labeled Session 1 as items 1 to 34 and Session 2 as items 35 to 71; the answer document labeled Session 1 as items 1 to 36 and Session 2 as items 37 to 71. The answer document was correctly labeled.

Since it was not known whether student performance was affected by the mislabeling, MSDE offered Form C examinees the opportunity to retake the exam using Form D. However, not all Form C examinees retested with Form D. MSDE decided the following would determine how students were scored:
1) Students who took Form C only received the higher of the Form C full form and Form C Session 1 scores.
2) Students who took Forms C and D received the highest of the Form D full form, the Form C full form, and the Form C Session 1 scores.

Item pattern scores were generated using the items that appeared in Session 1 of Form C. This session contained 23 selected response items and 4 constructed response items. These scores had more measurement error than the full forms because they were based on fewer items, and the content on which they were based was not representative of the test blueprint. Students who received an operational score based on the Form C Session 1 did not receive subscores. Results of the Form C scoring options are provided in Table 3.2. Because of the special scoring, Form C students were excluded from field test item analysis samples.

Table 3.2 Summary Results of Form C Special Scoring Options

Forms	Scale Scores	N	Mean	SD	Min	Max
C Only	Form C Full	448	357.7	50.5	240	470
	Form C Session 1	448	362.1	50.5	240	472
C and D	Form C Full	163	403.8	35.9	240	487
	Form C Session 1	163	405.6	33.8	240	483
	Form D Full	163	405.7	36.0	240	497

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 January, May, and Summer 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 Summer administration, the Summer forms did not contain new field test items. Instead, the May field test sections were embedded in the Summer forms to ensure that the test length was comparable.

Table 4.1 Demographic Information for Algebra

		January Primary Forms		January Make-Up Forms		May Primary Forms		May Make-Up Forms		Summer Forms	
		N	%	N	%	N	%	N	%	N	%
Overall		10,869	100.00	1,453	100.00	68,345	100.00	4,460	100.00	1,329	100.00
Gender											
	Male	5,511	50.70	729	50.17	33,845	49.52	2,323	52.09	747	56.21
	Female	5,357	49.29	723	49.76	34,498	50.48	2,137	47.91	582	43.79
	Missing	1	0.01	1	0.07	2	0.00	0	0.00	0	0.00
Special Education											
	Yes	1,557	14.33	233	16.04	6,736	9.86	626	14.04	208	15.65
	No	9,121	83.92	1,190	81.90	60,347	88.30	3,758	84.26	1,093	82.24
	504[a]	191	1.76	30	2.06	1,262	1.85	76	1.70	28	2.11
Ethnicity											
	American Indian	42	0.39	8	0.55	242	0.35	20	0.45	5	0.38
	Asian/Pacific Islander	312	2.87	29	2.00	3,920	5.74	145	3.25	40	3.01
	African American	6,501	59.81	1,060	72.95	26,882	39.33	2,458	55.11	851	64.03
	White	3,327	30.61	280	19.27	32,419	47.43	1,504	33.72	364	27.39
	Hispanic	686	6.31	75	5.16	4,878	7.14	333	7.47	69	5.19
	Missing	1	0.01	1	0.07	4	0.01	0	0.00	0	0.00
Limited English Proficient											
	Yes	294	2.70	15	1.03	1,789	2.62	103	2.31	21	1.58
	No	10,453	96.17	1,431	98.49	65,987	96.55	4,328	97.04	1,302	97.97
	Exited[b]	122	1.12	7	0.48	569	0.83	29	0.65	6	0.45

[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

		January Primary Forms		January Make-Up Forms		May Primary Forms		May Make-Up Forms		Summer Forms	
		N	%	N	%	N	%	N	%	N	%
Overall		7,362	100.00	844	100.00	49,882	100.00	2,374	100.00	470	100.00
Gender											
	Male	3,803	51.66	450	53.32	24,565	49.25	1,281	53.96	303	64.47
	Female	3,559	48.34	394	46.68	25,317	50.75	1,093	46.04	167	35.53
	Missing	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Special Education											
	Yes	802	10.89	99	11.73	4,477	8.98	348	14.66	82	17.45
	No	6,399	86.92	728	86.26	44,519	89.25	1,984	83.57	368	78.30
	504	161	2.19	17	2.01	886	1.78	42	1.77	20	4.26
Ethnicity											
	American Indian	21	0.29	2	0.24	163	0.33	18	0.76	2	0.43
	Asian/Pacific Islander	227	3.08	12	1.42	3,210	6.44	87	3.66	17	3.62
	African American	2,321	31.53	535	63.39	17,712	35.51	1,165	49.07	250	53.19
	White	4,454	60.50	246	29.15	25,587	51.30	931	39.22	170	36.17
	Hispanic	339	4.60	49	5.81	3,210	6.44	173	7.29	31	6.60
	Missing	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Limited English Proficient											
	Yes	114	1.55	16	1.90	956	1.92	46	1.94	6	1.28
	No	7,186	97.61	825	97.75	48,504	97.24	2,310	97.30	462	98.30
	Exited	62	0.84	3	0.36	422	0.85	18	0.76	2	0.43

Table 4.3 Demographic Information for English

		January Primary Forms		January Make-Up Forms		May Primary Forms		May Make-Up Forms		Summer Forms	
		N	%	N	%	N	%	N	%	N	%
Overall		6,563	100.00	605	100.00	55,390	100.00	2,576	100.00	1,128	100.00
Gender											
	Male	3,330	50.74	333	55.04	27,319	49.32	1,342	52.10	708	62.77
	Female	3,233	49.26	272	44.96	28,071	50.68	1,234	47.90	420	37.23
	Missing	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Special Education											
	Yes	577	8.79	59	9.75	5,224	9.43	354	13.74	166	14.72
	No	5,839	88.97	537	88.76	49,175	88.78	2,167	84.12	924	81.91
	504	147	2.24	9	1.49	991	1.79	55	2.14	38	3.37
Ethnicity											
	American Indian	18	0.27	3	0.50	182	0.33	14	0.54	3	0.27
	Asian/Pacific Islander	224	3.41	21	3.47	3,312	5.98	68	2.64	31	2.75
	African American	1,450	22.09	313	51.74	20,932	37.79	1,276	49.53	665	58.95
	White	4,522	68.90	218	36.03	27,324	49.33	1,051	40.80	349	30.94
	Hispanic	349	5.32	50	8.26	3,640	6.57	167	6.48	80	7.09
	Missing	0	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00
Limited English											
Proficient	Yes	142	2.16	19	3.14	756	1.36	37	1.44	22	1.95
	No	6,265	95.46	557	92.07	53,936	97.37	2,508	97.36	1,091	96.72
	Exited	156	2.38	29	4.79	698	1.26	31	1.20	15	1.33

Table 4.4 Demographic Information for Government

		January Primary Forms		January Make-Up Forms		May Primary Forms		May Make-Up Forms		Summer Forms	
		N	%	N	%	N	%	N	%	N	%
Overall		8,944	100.00	967	100.00	55,877	100.00	3,749	100.00	614	100.00
Gender											
	Male	4,621	51.67	500	51.71	27,720	49.61	1,889	50.39	339	55.21
	Female	4,323	48.33	467	48.29	28,157	50.39	1,860	49.61	275	44.79
	Missing	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Special Education											
	Yes	1,121	12.53	154	15.93	5,227	9.35	524	13.98	129	21.01
	No	7,633	85.34	796	82.32	49,801	89.13	3,153	84.10	465	75.73
	504	190	2.12	17	1.76	849	1.52	72	1.92	20	3.26
Ethnicity											
	American Indian	20	0.22	4	0.41	200	0.36	16	0.43	1	0.16
	Asian/Pacific Islander	233	2.61	11	1.14	3,440	6.16	129	3.44	11	1.79
	African American	2,612	29.20	596	61.63	21,763	38.95	1,858	49.56	350	57.00
	White	5,699	63.72	305	31.54	26,733	47.84	1,514	40.38	210	34.20
	Hispanic	380	4.25	51	5.27	3,741	6.70	232	6.19	42	6.84
	Missing	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Limited English Proficient											
	Yes	91	1.02	11	1.14	1,160	2.08	74	1.97	8	1.30
	No	8,786	98.23	948	98.04	54,184	96.97	3,648	97.31	603	98.21
	Exited	67	0.75	8	0.83	533	0.95	27	0.72	3	0.49

Reliability

Reliability describes the extent to which differences in test scores reflect true differences in the knowledge, ability, or skill being tested rather than fluctuations due to chance or factors other than those which were being tested. The variance in the distributions of test scores (i.e., the differences among individuals) is partly due to real differences in the knowledge, skill, or ability being tested (true-score variance) and partly due to random errors in the measurement process (error variance).

The number used to describe reliability is an estimate of the proportion of the total variance that is true variance. Several different ways of estimating this proportion exist. The estimates of reliability given in this report are internal-consistency measures, which were derived from analysis of the consistency of the performance of individuals on items within a test (internal-consistency reliability). Therefore, the estimates apply only to the test form being analyzed. They do not take into account form-to-form variation due to equating limitations or lack of parallelism, nor were they responsive to day-to-day variation due to, for example, state of health or testing environment. Reliability coefficients range from 0 to 1. The higher the reliability coefficient for a set of scores, the more likely individuals would be to obtain very similar scores if they took another form of the test.

The formula for the internal consistency reliability as measured by Cronbach's alpha (Cronbach, 1951) is reported below:

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

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:

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

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 4.16. The reliability results indicate that all of the MDHSAs were highly reliable: reliabilities ranged from 0.89 to 0.95 for the primary forms, and from 0.87 to 0.95 for the make-up forms.

Summary Statistics

The mean scale scores by content area for the January, May, and Summer 2007 administrations are presented in Table 4.5. Scores for all content areas were higher on average for the May administration compared to the January and Summer administrations.

Table 4.5 Mean Scale Scores by Administration

	January			May			Summer		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Algebra	12,322	394.98	35.73	72,805	426.24	41.39	1,329	389.87	42.87
Biology	8,206	403.69	48.52	52,256	416.50	37.07	470	382.98	43.90
English	7,168	405.83	37.90	57,966	413.42	35.80	1,128	379.29	39.46
Government	9,911	406.31	41.66	59,626	419.22	41.07	614	379.34	37.83

The 2007 data presented in Tables 4.6 to 4.8 are based on students who took the tests in January, May, and Summer. The mean scale scores are presented for the years 2003 to 2007 by content area in Table 4.6. For Algebra, Biology and Government, the mean scale scores are higher in 2006 and 2007 compared to the earlier years, and the 2006 and 2007 results are comparable. The mean scale scores for English indicate that student performance improved from 2006 to 2007.

Table 4.6 Comparison of Mean Scores

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

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

Table 4.7 presents the passing rates for the years 2003 to 2007 by content area. The passing rates for Algebra, Biology and Government are higher in 2006 and 2007 compared to the passing rates for 2003, 2004, and 2005. Comparing the results of 2006 and 2007, the passing rates are lower for Algebra and Government and higher for Biology and English in 2007.

Table 4.7 Comparison of Percentage Passing Rates

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

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. Table 4.8 presents the percentage of Algebra and English students classified as Basic, Proficient, and Advanced in 2007. As can be seen in the table, approximately 37 percent of Algebra students achieved the Basic performance level, whereas 63 percent achieved the Proficient or Advanced performance levels. Approximately 30 percent of the English students achieved the Basic performance level, whereas 70 percent achieved the Proficient or Advanced performance levels.

Table 4.8 Performance Classification Percentages in 2007 for Algebra and English

	Algebra	English
Basic	36.7	29.5
Proficient	38.3	41.0
Advanced	25.0	29.5

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 4.20 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. Information is presented for the January primary and make-up forms of the content area, followed by the May primary and make-up forms, and the Summer forms.

Results indicate that for each content area, students who took the January or May primary forms scored higher on average than students who took the January or May make-up forms or Summer forms. In addition, performance was higher on the primary and make-up forms administered in May compared to the forms administered in January. In all administrations and content areas, performance varied over subgroup. At the overall examinee level, score reliability coefficients ranged from 0.87 to 0.95.

Table 4.9 Summary Statistics for Algebra: January Forms

ALG		Primary Forms A, B					Make-Up 1 Form C					Make-Up 2 Form D				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		396.70	35.19	10869	100.00	0.89	383.25	37.30	1035	100.00	0.87	379.17	36.60	418	100.00	0.88
Gender																
	Male	396.27	38.30	5511	50.70		382.11	40.07	519	50.14		377.35	39.57	210	50.24	
	Female	397.16	31.65	5357	49.29		384.68	33.73	515	49.76		381.01	33.32	208	49.76	
	Missing	*	*	1	0.01		*	*	1	0.10		*	*	0	0.00	
Special Education																
	Yes	373.18	43.08	1557	14.33		357.24	41.56	173	16.71		348.95	38.34	60	14.35	
	No	400.55	32.02	9121	83.92		388.57	33.82	837	80.87		384.41	33.91	353	84.45	
	504	404.55	33.04	191	1.76		*	*	25	2.42		*	*	5	1.20	
Ethnicity																
	American Indian	*	*	42	0.39		*	*	7	0.68		*	*	1	0.24	
	Asian/Pacific Islander	415.11	35.66	312	2.87		*	*	18	1.74		*	*	11	2.63	
	African American	385.76	32.27	6501	59.81		378.20	35.34	735	71.01		376.21	33.52	325	77.75	
	White	416.39	31.92	3327	30.61		398.56	36.64	226	21.84		396.17	39.02	54	12.92	
	Hispanic	396.98	31.41	686	6.31		*	*	48	4.64		*	*	27	6.46	
	Missing	*	*	1	0.01		*	*	1	0.10		*	*	0	0.00	
Limited English Proficient																
	Yes	393.16	35.23	294	2.70		*	*	11	1.06		*	*	4	0.96	
	No	396.70	35.18	10453	96.17		383.11	37.17	1020	98.55		379.40	36.75	411	98.33	
	Exited	405.52	34.18	122	1.12		*	*	4	0.39		*	*	3	0.72	

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

Table 4.10 Summary Statistics for Algebra: May Forms

ALG		Primary Forms E-K					Make-Up 1 Form X					Make-Up 2 Form Y				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		427.86	40.43	68345	100.00	0.92	404.01	47.61	3556	100.00	0.92	391.27	46.18	904	100.00	0.91
Gender																
	Male	427.08	43.13	33845	49.52		400.99	52.37	1853	52.11		387.11	52.61	470	51.99	
	Female	428.63	37.54	34498	50.48		407.29	41.58	1703	47.89		395.77	37.55	434	48.01	
	Missing	*	*	2	0.00		*	*	0	0.00		*	*	0	0.00	
Special Education																
	Yes	386.36	52.51	6736	9.86		366.08	53.85	509	14.31		357.46	55.05	117	12.94	
	No	432.47	36.12	60347	88.30		410.27	43.57	2981	83.83		396.02	42.58	777	85.95	
	504	428.94	34.72	1262	1.85		413.67	33.23	66	1.86		*	*	10	1.11	
Ethnicity																
	American Indian	428.98	40.44	242	0.35		*	*	16	0.45		*	*	4	0.44	
	Asian/Pacific Islander	450.91	35.05	3920	5.74		426.03	46.86	112	3.15		*	*	33	3.65	
	African American	408.08	40.68	26882	39.33		392.95	46.45	1885	53.01		385.69	42.36	573	63.38	
	White	442.35	33.50	32419	47.43		419.16	45.42	1273	35.80		402.73	48.93	231	25.55	
	Hispanic	422.08	34.98	4878	7.14		401.70	42.19	270	7.59		387.94	60.66	63	6.97	
	Missing	*	*	4	0.01		*	*	0	0.00		*	*	0	0.00	
Limited English Proficient																
	Yes	408.20	42.65	1789	2.62		388.47	42.02	85	2.39		*	*	18	1.99	
	No	428.38	40.28	65987	96.55		404.32	47.79	3446	96.91		391.55	45.92	882	97.57	
	Exited	429.29	34.85	569	0.83		*	*	25	0.70		*	*	4	0.44	

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

Table 4.11 Summary Statistics for Algebra: Summer Forms

ALG		Primary 1 Form L					Primary 2 Form M				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		378.08	54.20	151	100.00	0.91	391.39	40.98	1178	100.00	0.89
Gender											
	Male	365.89	58.02	95	62.91		390.76	43.31	652	55.35	
	Female	398.75	39.60	56	37.09		392.16	37.92	526	44.65	
	Missing	*	*	0	0.00		*	*	0	0.00	
Special Education											
	Yes			40	26.49		367.62	44.33	168	14.26	
	No	393.27	45.13	105	69.54		395.22	39.23	988	83.87	
	504	*	*	6	3.97		*	*	22	1.87	
Ethnicity											
	American Indian	*	*	2	1.32		*	*	3	0.25	
	Asian/Pacific Islander	*	*	1	0.66		*	*	39	3.31	
	African American	369.75	52.17	65	43.05		384.53	40.67	786	66.72	
	White	384.46	55.23	81	53.64		406.84	35.57	283	24.02	
	Hispanic	*	*	2	1.32		391.75	30.29	67	5.69	
	Missing	*	*	0	0.00		*	*	0	0.00	
Limited English Proficient											
	Yes	*	*	0	0.00		*	*	21	1.78	
	No	378.08	54.20	151	100.00		391.41	40.68	1151	97.71	
	Exited	*	*	0	0.00		*	*	6	0.51	

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

Table 4.12 Summary Statistics for Biology: January Forms

BIO		Primary Forms A, B					Make-Up 1 Form C					Make-Up 2 Form D				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		407.38	47.00	7362	100.00	0.95	373.77	46.76	541	100.00	0.91	367.30	54.37	303	100.00	0.92
Gender																
	Male	404.98	51.13	3803	51.66		369.46	50.78	300	55.45		359.39	58.47	150	49.50	
	Female	409.95	41.99	3559	48.34		379.14	40.67	241	44.55		375.05	48.99	153	50.50	
	Missing	*	*	0	0.00		*	*	0	0.00		*	*	0	0.00	
Special Education																
	Yes	372.45	47.34	802	10.89		362.94	46.61	64	11.83		*	*	35	11.55	
	No	411.73	45.19	6399	86.92		375.04	46.91	466	86.14		371.88	52.38	262	86.47	
	504	408.78	43.00	161	2.19		*	*	11	2.03		*	*	6	1.98	
Ethnicity																
	American Indian	*	*	21	0.29		*	*	1	0.18		*	*	1	0.33	
	Asian/Pacific Islander	417.59	46.97	227	3.08		*	*	6	1.11		*	*	6	1.98	
	African American	372.68	46.00	2321	31.53		361.40	46.02	334	61.74		349.04	50.77	201	66.34	
	White	426.12	36.13	4454	60.50		398.02	40.61	164	30.31		406.67	40.99	82	27.06	
	Hispanic	391.83	40.58	339	4.60		*	*	36	6.65		*	*	13	4.29	
	Missing	*	*	0	0.00		*	*	0	0.00		*	*	0	0.00	
Limited English Proficient																
	Yes	379.57	36.78	114	1.55		*	*	12	2.22		*	*	4	1.32	
	No	407.94	47.06	7186	97.61		374.29	46.90	527	97.41		367.01	54.77	298	98.35	
	Exited	393.53	38.06	62	0.84		*	*	2	0.37		*	*	1	0.33	

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

Table 4.13 Summary Statistics for Biology: May Forms

BIO		Primary Forms E-K					Make-Up 1 Form X					Make-Up 2 Form Y				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		418.07	35.65	49882	100.00	0.93	384.54	49.32	1958	100.00	0.93	377.76	46.74	416	100.00	0.91
Gender																
	Male	417.08	38.14	24565	49.25		379.25	52.55	1044	53.32		370.14	52.38	237	56.97	
	Female	419.04	33.02	25317	50.75		390.58	44.62	914	46.68		387.84	35.72	179	43.03	
	Missing	*	*	0	0.00		*	*	0	0.00		*	*	0	0.00	
Special Education																
	Yes	382.81	43.51	4477	8.98		353.96	51.12	273	13.94		365.81	42.40	75	18.03	
	No	421.62	32.78	44519	89.25		389.29	47.16	1653	84.42		380.12	47.56	331	79.57	
	504	418.10	32.58	886	1.78		*	*	32	1.63		*	*	10	2.40	
Ethnicity																
	American Indian	414.72	31.13	163	0.33		*	*	16	0.82		*	*	2	0.48	
	Asian/Pacific Islander	437.16	31.50	3210	6.44		421.87	49.30	77	3.93		*	*	10	2.40	
	African American	399.48	34.96	17712	35.51		370.30	45.66	947	48.37		366.42	47.40	218	52.40	
	White	429.93	30.28	25587	51.30		399.51	48.21	766	39.12		391.67	42.81	165	39.66	
	Hispanic	407.26	33.81	3210	6.44		378.68	45.77	152	7.76		*	*	21	5.05	
	Missing	*	*	0	0.00		*	*	0	0.00		*	*	0	0.00	
Limited English Proficient																
	Yes	394.10	35.78	956	1.92		*	*	41	2.09		*	*	5	1.20	
	No	418.59	35.50	48504	97.24		384.84	49.46	1900	97.04		377.66	46.99	410	98.56	
	Exited	412.93	33.76	422	0.85		*	*	17	0.87		*	*	1	0.24	

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

Table 4.14. Summary Statistics for Biology: Summer Forms

BIO		Primary 1 Form L					Primary 2 Form M				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		372.57	54.78	106	100.00	0.91	386.02	39.76	364	100.00	0.91
Gender											
	Male	368.15	59.44	67	63.21		382.49	42.66	236	64.84	
	Female	*	*	39	36.79		392.52	32.95	128	35.16	
	Missing	*	*	0	0.00		*	*	0	0.00	
Special Education											
	Yes	*	*	29	27.36		363.11	41.62	53	14.56	
	No	383.04	50.63	68	64.15		389.82	38.42	300	82.42	
	504	*	*	9	8.49		*	*	11	3.02	
Ethnicity											
	American Indian	*	*	0	0.00		*	*	2	0.55	
	Asian/Pacific Islander	*	*	0	0.00		*	*	17	4.67	
	African American	354.34	57.02	50	47.17		380.61	39.99	200	54.95	
	White	389.87	47.68	54	50.94		388.87	37.11	116	31.87	
	Hispanic	*	*	2	1.89		*	*	29	7.97	
	Missing	*	*	0	0.00		*	*	0	0.00	
Limited English Proficient											
	Yes	*	*	0	0.00		*	*	6	1.65	
	No	372.57	54.78	106	100.00		385.67	39.92	356	97.80	
	Exited	*	*	0	0.00		*	*	2	0.55	

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

Table 4.15 Summary Statistics for English: January Forms

ENG		Primary Forms A,B					Make-Up 1 Form C					Make-Up 2 Form D				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		408.15	36.60	6563	100.00	0.93	382.52	42.74	488	100.00	0.93	372.50	39.77	117	100.00	0.92
Gender																
	Male	402.26	38.05	3330	50.74		374.85	45.49	273	55.94		369.57	35.66	60	51.28	
	Female	414.23	34.00	3233	49.26		392.27	36.83	215	44.06		375.60	43.80	57	48.72	
	Missing	*	*	0	0.00		*	*	0	0.00		*	*	0	0.00	
Special Education																
	Yes	369.83	38.39	577	8.79		*	*	49	10.04		*	*	10	8.55	
	No	411.95	34.30	5839	88.97		383.84	43.52	432	88.52		375.79	36.11	105	89.74	
	504	408.04	31.47	147	2.24		*	*	7	1.43		*	*	2	1.71	
Ethnicity																
	American Indian	*	*	18	0.27		*	*	3	0.61		*	*	0	0.00	
	Asian/Pacific Islander	403.28	37.45	224	3.41		*	*	16	3.28		*	*	5	4.27	
	African American	378.80	37.63	1450	22.09		367.58	39.88	241	49.39		365.19	35.07	72	61.54	
	White	419.37	29.85	4522	68.90		403.98	37.11	193	39.55		*	*	25	21.37	
	Hispanic	388.06	34.67	349	5.32		*	*	35	7.17		*	*	15	12.82	
	Missing	*	*	0	0.00		*	*	0	0.00		*	*	0	0.00	
Limited English Proficient																
	Yes	368.68	32.81	142	2.16		*	*	11	2.25		*	*	8	6.84	
	No	409.72	36.08	6265	95.46		383.98	41.75	460	94.26		373.78	42.15	97	82.91	
	Exited	381.38	29.66	156	2.38		*	*	17	3.48		*	*	12	10.26	

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

Table 4.16 Summary Statistics for English: May Forms

ENG		Primary Forms E-K					Make-Up 1 Form X					Make-Up 2 Form Y				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		414.41	35.18	55390	100.00	0.91	393.60	41.93	2089	100.00	0.93	386.00	41.19	487	100.00	0.93
Gender																
	Male	409.11	34.76	27319	49.32		385.40	45.31	1087	52.03		378.10	41.55	255	52.36	
	Female	419.57	34.83	28071	50.68		402.49	35.89	1002	47.97		394.68	39.07	232	47.64	
	Missing	*	*	0	0.00		*	*	0	0.00		*	*	0	0.00	
Special Education																
	Yes	378.93	35.96	5224	9.43		358.45	44.85	289	13.83		358.65	37.72	65	13.35	
	No	418.25	33.01	49175	88.78		399.71	38.40	1755	84.01		390.24	40.14	412	84.60	
	504	411.26	30.76	991	1.79		*	*	45	2.15		*	*	10	2.05	
Ethnicity																
	American Indian	409.21	30.37	182	0.33		*	*	13	0.62		*	*	1	0.21	
	Asian/Pacific Islander	430.31	38.36	3312	5.98		399.65	55.75	60	2.87		*	*	8	1.64	
	African American	400.00	30.78	20932	37.79		383.06	38.99	1009	48.30		377.76	38.07	267	54.83	
	White	425.15	33.81	27324	49.33		406.06	42.14	872	41.74		401.69	41.05	179	36.76	
	Hispanic	402.46	31.47	3640	6.57		388.41	32.86	135	6.46		*	*	32	6.57	
	Missing	*	*	0	0.00		*	*	0	0.00		*	*	0	0.00	
Limited English Proficient																
	Yes	377.94	27.50	756	1.36		*	*	30	1.44		*	*	7	1.44	
	No	415.18	35.02	53936	97.37		394.46	41.66	2033	97.32		386.97	40.64	475	97.54	
	Exited	394.37	27.61	698	1.26		*	*	26	1.24		*	*	5	1.03	

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

Table 4.17 Summary Statistics for English: Summer Forms

ENG		Primary 1 Form L					Primary 2 Form M				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		371.14	46.24	134	100.00	0.90	380.39	38.35	994	100.00	0.91
Gender											
	Male	358.52	49.67	89	66.42		375.13	41.51	619	62.27	
	Female	*	*	45	33.58		389.06	30.62	375	37.73	
	Missing	*	*	0	0.00		*	*	0	0.00	
Special Education											
	Yes	363.50	41.18	52	38.81		362.74	37.39	114	11.47	
	No	374.57	49.75	76	56.72		382.70	38.16	848	85.31	
	504	*	*	6	4.48		*	*	32	3.22	
Ethnicity											
	American Indian	*	*	0	0.00		*	*	3	0.30	
	Asian/Pacific Islander	*	*	0	0.00		*	*	31	3.12	
	African American	*	*	46	34.33		377.02	36.70	619	62.27	
	White	382.13	41.26	87	64.93		387.53	39.69	262	26.36	
	Hispanic	*	*	1	0.75		378.48	41.50	79	7.95	
	Missing	*	*	0	0.00		*	*	0	0.00	
Limited English Proficient											
	Yes	*	*	2	1.49		*	*	20	2.01	
	No	371.12	46.52	132	98.51		380.72	38.41	959	96.48	
	Exited	*	*	0	0.00		*	*	15	1.51	

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

Table 4.18 Summary Statistics for Government: January Forms

GOV		Primary Forms A,B					Make-Up 1 Form C					Make-Up 2 Form D				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		409.26	40.82	8944	100.00	0.95	382.83	38.06	726	100.00	0.92	367.54	41.29	241	100.00	0.92
Gender																
	Male	406.90	42.56	4621	51.67		378.83	42.51	362	49.86		363.98	44.65	138	57.26	
	Female	411.78	38.71	4323	48.33		386.82	32.62	364	50.14		372.30	35.95	103	42.74	
	Missing	*	*	0	0.00		*	*	0	0.00		*	*	0	0.00	
Special Education																
	Yes	375.14	38.08	1121	12.53		365.15	42.95	111	15.29				43	17.84	
	No	414.29	38.92	7633	85.34		385.95	36.44	605	83.33		372.77	40.09	191	79.25	
	504	408.63	33.83	190	2.12		*	*	10	1.38		*	*	7	2.90	
Ethnicity																
	American Indian	*	*	20	0.22		*	*	3	0.41		*	*	1	0.41	
	Asian/Pacific Islander	414.16	46.27	233	2.61		*	*	9	1.24		*	*	2	0.83	
	African American	384.27	36.27	2612	29.20		374.42	39.39	433	59.64		361.21	39.09	163	67.63	
	White	421.25	36.96	5699	63.72		397.47	32.21	244	33.61		380.61	45.73	61	25.31	
	Hispanic	398.50	41.59	380	4.25		*	*	37	5.10		*	*	14	5.81	
	Missing	*	*	0	0.00		*	*	0	0.00		*	*	0	0.00	
Limited English Proficient																
	Yes	382.22	31.09	91	1.02		*	*	8	1.10		*	*	3	1.24	
	No	409.68	40.78	8786	98.23		383.11	38.29	713	98.21		367.23	41.61	235	97.51	
	Exited	391.04	41.70	67	0.75		*	*	5	0.69		*	*	3	1.24	

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

Table 4.19 Summary Statistics for Government: May Forms

GOV		Primary Forms E-K					Make-Up 1 Form X					Make-Up 2 Form Y				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		420.78	40.38	55877	100.00	0.95	396.84	44.22	3185	100.00	0.95	391.62	43.63	564	100.00	0.94
Gender																
	Male	418.87	42.02	27720	49.61		391.88	48.03	1597	50.14		388.58	47.03	292	51.77	
	Female	422.66	38.59	28157	50.39		401.84	39.40	1588	49.86		394.88	39.48	272	48.23	
	Missing	*	*	0	0.00		*	*	0	0.00		*	*	0	0.00	
Special Education																
	Yes	383.39	41.71	5227	9.35		369.00	43.38	444	13.94		368.20	41.13	80	14.18	
	No	424.73	38.23	49801	89.13		401.33	42.64	2688	84.40		395.72	41.84	465	82.45	
	504	419.18	36.29	849	1.52		402.55	45.29	53	1.66				19	3.37	
Ethnicity																
	American Indian	413.42	37.73	200	0.36		*	*	14	0.44		*	*	2	0.35	
	Asian/Pacific Islander	444.86	41.79	3440	6.16		430.51	46.78	108	3.39		*	*	21	3.72	
	African American	403.23	35.76	21763	38.95		385.84	38.56	1555	48.82		382.29	36.77	303	53.72	
	White	433.06	38.47	26733	47.84		408.21	46.52	1315	41.29		403.01	47.68	199	35.28	
	Hispanic	413.38	34.58	3741	6.70		389.43	41.78	193	6.06		*	*	39	6.91	
	Missing	*	*	0	0.00		*	*	0	0.00		*	*	0	0.00	
Limited English Proficient																
	Yes	397.59	35.48	1160	2.08		377.29	52.03	68	2.14		*	*	6	1.06	
	No	421.32	40.37	54184	96.97		397.30	43.97	3095	97.17		391.84	43.48	553	98.05	
	Exited	416.64	35.24	533	0.95		*	*	22	0.69		*	*	5	0.89	

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

Table 4.20. Summary Statistics for Government: Summer Forms

GOV		Primary 1 Form L					Primary 2 Form M				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		373.82	37.00	133	100.00	0.91	380.77	37.95	480	100.00	0.92
Gender											
	Male	368.71	41.61	78	58.65		379.19	40.34	260	54.17	
	Female	381.07	28.04	55	41.35		382.65	34.91	220	45.83	
	Missing	*	*	0	0.00		*	*	0	0.00	
Special Education											
	Yes	361.10	42.47	52	39.10		355.59	44.36	76	15.83	
	No	381.41	31.22	71	53.38		385.72	34.57	394	82.08	
	504	*	*	10	7.52		*	*	10	2.08	
Ethnicity											
	American Indian	*	*	0	0.00		*	*	1	0.21	
	Asian/Pacific Islander	*	*	0	0.00		*	*	11	2.29	
	African American	368.20	35.51	56	42.11		376.33	37.77	294	61.25	
	White	380.53	35.86	73	54.89		385.79	38.04	136	28.33	
	Hispanic	*	*	4	3.01		*	*	38	7.92	
	Missing	*	*	0	0.00		*	*	0	0.00	
Limited English Proficient											
	Yes	*	*	0	0.00		*	*	8	1.67	
	No	373.82	37.00	133	100.00		381.03	37.85	469	97.71	
	Exited	*	*	0	0.00		*	*	3	0.63	

* 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 4.21 to 4.32 by content area for 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 0.89 to 0.93 for the Proficient and Above classification in Algebra 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 0.86 to 0.90 for the Proficient and Above classifications in Algebra 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 4.21 Decision Accuracy and Consistency: Algebra January Forms

Algebra	Placement Scores	Advanced	Proficient	Basic	Category Total*
January Primary					
Decision Accuracy	450-650	0.01	0.04	0.01	0.05
	412-449	0.00	0.25	0.02	0.27
	240-411	0.01	0.08	0.60	0.68
	Estimated Proportion Correctly Classified*: Total = 0.85, Proficient & Above = 0.89				
Decision Consistency	450-650	0.02	0.03	0.01	0.05
	412-449	0.01	0.22	0.05	0.27
	240-411	0.01	0.09	0.57	0.68
	Estimated Proportion Correctly Classified*: Total = 0.80, Proficient & Above = 0.84				
January Form C					
Decision Accuracy	450-650	0.02	0.00	0.00	0.02
	412-449	0.01	0.12	0.04	0.17
	240-411	0.01	0.05	0.75	0.80
	Estimated Proportion Correctly Classified*: Total = 0.90, Proficient & Above = 0.91				
Decision Consistency	450-650	0.02	0.00	0.00	0.02
	412-449	0.02	0.11	0.05	0.17
	240-411	0.01	0.07	0.73	0.80
	Estimated Proportion Correctly Classified*: Total = 0.85, Proficient & Above = 0.87				
January Form D					
Decision Accuracy	450-650	0.01	0.00	0.00	0.01
	412-449	0.01	0.11	0.04	0.16
	240-411	0.00	0.04	0.79	0.83
	Estimated Proportion Correctly Classified*: Total = 0.91, Proficient & Above = 0.92				
Decision Consistency	450-650	0.01	0.00	0.00	0.01
	412-449	0.02	0.09	0.05	0.16
	240-411	0.00	0.06	0.76	0.83
	Estimated Proportion Correctly Classified*: Total = 0.87, Proficient & Above = 0.89				

*Inconsistencies with category cell entries are due to rounding.

Table 4.22 Decision Accuracy and Consistency: Algebra May Forms

Algebra	Placement Scores	Advanced	Proficient	Basic	Category Total*
May Primary					
Decision Accuracy	450-650	0.25	0.05	0.00	0.30
	412-449	0.04	0.30	0.06	0.41
	240-411	0.00	0.01	0.28	0.29
	Estimated Proportion Correctly Classified*: Total = 0.83, Proficient & Above = 0.92				
Decision Consistency	450-650	0.24	0.06	0.00	0.30
	412-449	0.06	0.27	0.08	0.41
	240-411	0.00	0.03	0.26	0.29
	Estimated Proportion Correctly Classified*: Total = 0.77, Proficient & Above = 0.89				
May Form X					
Decision Accuracy	450-650	0.12	0.01	0.00	0.13
	412-449	0.05	0.23	0.07	0.35
	240-411	0.00	0.02	0.50	0.52
	Estimated Proportion Correctly Classified*: Total = 0.85, Proficient & Above = 0.90				
Decision Consistency	450-650	0.11	0.02	0.00	0.13
	412-449	0.06	0.20	0.09	0.35
	240-411	0.00	0.04	0.48	0.52
	Estimated Proportion Correctly Classified*: Total = 0.79, Proficient & Above = 0.87				
May Form Y					
Decision Accuracy	450-650	0.05	0.00	0.00	0.05
	412-449	0.04	0.17	0.05	0.27
	240-411	0.00	0.04	0.63	0.68
	Estimated Proportion Correctly Classified*: Total = 0.86, Proficient & Above = 0.90				
Decision Consistency	450-650	0.05	0.00	0.00	0.05
	412-449	0.05	0.15	0.07	0.27
	240-411	0.00	0.06	0.61	0.68
	Estimated Proportion Correctly Classified*: Total = 0.81, Proficient & Above = 0.86				

*Inconsistencies with category cell entries are due to rounding.

Table 4.23 Decision Accuracy and Consistency: Algebra Summer Form

Algebra	Placement Scores	Advanced	Proficient	Basic	Category Total*
Summer Form L					
Decision Accuracy	450-650	0.02	0.00	0.00	0.02
	412-449	0.07	0.15	0.08	0.30
	240-411	0.00	0.01	0.66	0.68
	Estimated Proportion Correctly Classified*: Total = 0.83, Proficient & Above = 0.91				
Decision Consistency	450-650	0.02	0.00	0.00	0.02
	412-449	0.08	0.13	0.09	0.30
	240-411	0.00	0.03	0.64	0.68
	Estimated Proportion Correctly Classified*: Total = 0.79 , Proficient & Above = 0.88				
Summer Form M					
Decision Accuracy	450-650	0.03	0.00	0.00	0.03
	412-449	0.04	0.18	0.06	0.29
	240-411	0.00	0.04	0.64	0.68
	Estimated Proportion Correctly Classified*: Total = 0.85, Proficient & Above = 0.89				
Decision Consistency	450-650	0.03	0.00	0.00	0.03
	412-449	0.06	0.16	0.08	0.29
	240-411	0.00	0.06	0.62	0.68
	Estimated Proportion Correctly Classified*: Total = 0.80 , Proficient & Above = 0.86				

*Inconsistencies with category cell entries are due to rounding.

Table 4.24 Decision Accuracy and Consistency: Biology January Forms

Biology	Placement Scores	Proficient	Basic	Category Total*
January Primary				
Decision Accuracy	400-650	0.55	0.06	0.61
	240-399	0.01	0.39	0.39
	Estimated Proportion Correctly Classified*: Total = 0.93			
Decision Consistency	400-650	0.53	0.08	0.61
	240-399	0.02	0.37	0.39
	Estimated Proportion Correctly Classified*: Total = 0.90			
January Form C				
Decision Accuracy	400-650	0.25	0.05	0.30
	240-399	0.03	0.67	0.70
	Estimated Proportion Correctly Classified*: Total = 0.92			
Decision Consistency	400-650	0.23	0.06	0.30
	240-399	0.05	0.65	0.70
	Estimated Proportion Correctly Classified*: Total = 0.89			
January Form D				
Decision Accuracy	400-650	0.21	0.02	0.22
	240-399	0.05	0.72	0.78
	Estimated Proportion Correctly Classified*: Total = 0.93			
Decision Consistency	400-650	0.20	0.03	0.22
	240-399	0.07	0.70	0.78
	Estimated Proportion Correctly Classified*: Total = 0.90			

*Inconsistencies with category cell entries are due to rounding.

Table 4.25 Decision Accuracy and Consistency: Biology May Forms

Biology	Placement Scores	Proficient	Basic	Category Total*
May Primary				
Decision Accuracy	400-650	0.68	0.06	0.74
	240-399	0.01	0.25	0.26
	Estimated Proportion Correctly Classified*: Total = 0.93			
Decision Consistency	400-650	0.67	0.07	0.74
	240-399	0.03	0.23	0.26
	Estimated Proportion Correctly Classified*: Total = 0.90			
May Form C				
Decision Accuracy	400-650	0.35	0.07	0.42
	240-399	0.01	0.57	0.58
	Estimated Proportion Correctly Classified*: Total = 0.92			
Decision Consistency	400-650	0.34	0.08	0.42
	240-399	0.03	0.55	0.58
	Estimated Proportion Correctly Classified*: Total = 0.89			
May Form D				
Decision Accuracy	400-650	0.27	0.05	0.32
	240-399	0.03	0.64	0.68
	Estimated Proportion Correctly Classified*: Total = 0.92			
Decision Consistency	400-650	0.26	0.07	0.32
	240-399	0.05	0.62	0.68
	Estimated Proportion Correctly Classified*: Total = 0.88			

*Inconsistencies with category cell entries are due to rounding.

Table 4.26 Decision Accuracy and Consistency: Biology Summer Forms

Biology	Placement Scores	Proficient	Basic	Category Total*
Summer Form L				
Decision Accuracy	400-650	0.27	0.06	0.32
	240-399	0.03	0.65	0.68
	Estimated Proportion Correctly Classified*: Total = 0.92			
Decision Consistency	400-650	0.25	0.07	0.32
	240-399	0.05	0.63	0.68
	Estimated Proportion Correctly Classified*: Total = 0.88			
Summer Form M				
Decision Accuracy	400-650	0.33	0.07	0.40
	240-399	0.02	0.58	0.60
	Estimated Proportion Correctly Classified*: Total = 0.91			
Decision Consistency	400-650	0.31	0.08	0.40
	240-399	0.04	0.56	0.60
	Estimated Proportion Correctly Classified*: Total = 0.87			

*Inconsistencies with category cell entries are due to rounding.

Table 4.27 Decision Accuracy and Consistency: English January Forms

English	Placement Scores	Advanced	Proficient	Basic	Category Total*
January Primary					
Decision Accuracy	429-650	0.27	0.01	0.00	0.28
	396-428	0.08	0.29	0.04	0.41
	240-395	0.00	0.04	0.27	0.31
	Estimated Proportion Correctly Classified*: Total = 0.83, Proficient & Above = 0.93				
Decision Consistency	429-650	0.24	0.04	0.00	0.28
	396-428	0.10	0.26	0.06	0.41
	240-395	0.00	0.05	0.26	0.31
	Estimated Proportion Correctly Classified*: Total = 0.76, Proficient & Above = 0.90				
January Form C					
Decision Accuracy	429-650	0.10	0.01	0.00	0.11
	396-428	0.04	0.20	0.07	0.32
	240-395	0.00	0.01	0.56	0.57
	Estimated Proportion Correctly Classified*: Total = 0.86, Proficient & Above = 0.91				
Decision Consistency	429-650	0.09	0.02	0.00	0.11
	396-428	0.05	0.18	0.09	0.32
	240-395	0.00	0.03	0.54	0.57
	Estimated Proportion Correctly Classified*: Total = 0.81 , Proficient & Above = 0.86				
January Form D					
Decision Accuracy	429-650	0.05	0.00	0.00	0.05
	396-428	0.03	0.15	0.04	0.22
	240-395	0.00	0.04	0.69	0.73
	Estimated Proportion Correctly Classified*: Total = 0.89 , Proficient & Above = 0.92				
Decision Consistency	429-650	0.05	0.00	0.00	0.05
	396-428	0.04	0.13	0.06	0.22
	240-395	0.00	0.05	0.67	0.73
	Estimated Proportion Correctly Classified*: Total = 0.85, Proficient & Above = 0.89				

*Inconsistencies with category cell entries are due to rounding.

Table 4.28 Decision Accuracy and Consistency: English May Forms

English	Placement Scores	Advanced	Proficient	Basic	Category Total*
May Primary					
Decision Accuracy	429-650	0.28	0.03	0.00	0.31
	396-428	0.06	0.31	0.06	0.42
	240-395	0.00	0.03	0.24	0.27
	Estimated Proportion Correctly Classified*: Total = 0.82, Proficient & Above = 0.91				
Decision Consistency	429-650	0.26	0.05	0.00	0.31
	396-428	0.08	0.26	0.08	0.42
	240-395	0.00	0.04	0.23	0.27
	Estimated Proportion Correctly Classified*: Total = 0.76 , Proficient & Above = 0.88				
May Form X					
Decision Accuracy	429-650	0.15	0.01	0.00	0.17
	396-428	0.05	0.24	0.07	0.35
	240-395	0.00	0.02	0.46	0.48
	Estimated Proportion Correctly Classified*: Total = 0.85, Proficient & Above = 0.91				
Decision Consistency	429-650	0.14	0.02	0.00	0.17
	396-428	0.06	0.20	0.08	0.35
	240-395	0.00	0.04	0.45	0.48
	Estimated Proportion Correctly Classified*: Total = 0.80 , Proficient & Above = 0.88				
May Form Y					
Decision Accuracy	429-650	0.11	0.01	0.00	0.12
	396-428	0.04	0.21	0.07	0.32
	240-395	0.00	0.02	0.54	0.56
	Estimated Proportion Correctly Classified*: Total =0.86, Proficient & Above = 0.91				
Decision Consistency	429-650	0.10	0.02	0.00	0.12
	396-428	0.05	0.18	0.08	0.32
	240-395	0.00	0.04	0.52	0.56
	Estimated Proportion Correctly Classified*: Total = 0.80 , Proficient & Above = 0.88				

*Inconsistencies with category cell entries are due to rounding.

Table 4.29 Decision Accuracy and Consistency: English Summer Forms

English	Placement Scores	Advanced	Proficient	Basic	Category Total*
Summer Form L					
Decision Accuracy	429-650	0.06	0.00	0.00	0.06
	396-428	0.04	0.14	0.06	0.24
	240-395	0.00	0.04	0.66	0.70
	Estimated Proportion Correctly Classified*: Total = 0.86, Proficient & Above = 0.91				
Decision Consistency	429-650	0.06	0.00	0.00	0.06
	396-428	0.05	0.12	0.07	0.24
	240-395	0.00	0.06	0.64	0.70
	Estimated Proportion Correctly Classified*: Total = 0.82, Proficient & Above = 0.87				
Summer Form M					
Decision Accuracy	429-650	0.06	0.00	0.00	0.06
	396-428	0.04	0.19	0.06	0.29
	240-395	0.00	0.04	0.61	0.65
	Estimated Proportion Correctly Classified*: Total = 0.86 , Proficient & Above = 0.90				
Decision Consistency	429-650	0.06	0.00	0.00	0.06
	396-428	0.05	0.16	0.08	0.29
	240-395	0.00	0.06	0.59	0.65
	Estimated Proportion Correctly Classified*: Total = 0.81 , Proficient & Above = 0.87				

*Inconsistencies with category cell entries are due to rounding.

Table 4.30 Decision Accuracy and Consistency: Government January Forms

Government	Placement Scores	Proficient	Basic	Category Total*
January Primary				
Decision Accuracy	394-650	0.63	0.02	0.66
	240-393	0.03	0.31	0.34
	Estimated Proportion Correctly Classified*: Total = 0.94			
Decision Consistency	394-650	0.62	0.04	0.66
	240-393	0.04	0.30	0.34
	Estimated Proportion Correctly Classified*: Total = 0.92			
January Form C				
Decision Accuracy	394-650	0.34	0.06	0.40
	240-393	0.03	0.57	0.60
	Estimated Proportion Correctly Classified*: Total = 0.92			
Decision Consistency	394-650	0.33	0.07	0.40
	240-393	0.05	0.55	0.60
	Estimated Proportion Correctly Classified*: Total = 0.88			
January Form D				
Decision Accuracy	394-650	0.23	0.01	0.24
	240-393	0.08	0.68	0.76
	Estimated Proportion Correctly Classified*: Total = 0.91			
Decision Consistency	394-650	0.21	0.03	0.24
	240-393	0.10	0.66	0.76
	Estimated Proportion Correctly Classified*: Total = 0.87			

*Inconsistencies with category cell entries are due to rounding.

Table 4.31 Decision Accuracy and Consistency: Government May Forms

Government	Placement Scores	Proficient	Basic	Category Total*
May Primary				
Decision Accuracy	394-650	0.73	0.04	0.77
	240-393	0.02	0.21	0.23
	Estimated Proportion Correctly Classified*: Total = 0.95			
Decision Consistency	394-650	0.72	0.05	0.77
	240-393	0.02	0.20	0.23
	Estimated Proportion Correctly Classified*: Total = 0.93			
May Form X				
Decision Accuracy	394-650	0.51	0.01	0.52
	240-393	0.06	0.42	0.48
	Estimated Proportion Correctly Classified*: Total = 0.93			
Decision Consistency	394-650	0.50	0.03	0.52
	240-393	0.07	0.41	0.48
	Estimated Proportion Correctly Classified*: Total = 0.91			
May Form Y				
Decision Accuracy	394-650	0.44	0.02	0.46
	240-393	0.05	0.49	0.54
	Estimated Proportion Correctly Classified*: Total = 0.93			
Decision Consistency	394-650	0.43	0.03	0.46
	240-393	0.07	0.47	0.54
	Estimated Proportion Correctly Classified*: Total = 0.90			

*Inconsistencies with category cell entries are due to rounding.

Table 4.32 Decision Accuracy and Consistency: Government Summer Forms

Government	Placement Scores	Proficient	Basic	Category Total*
Summer Form L				
Decision Accuracy	394-650	0.24	0.04	0.29
	240-393	0.04	0.68	0.71
	Estimated Proportion Correctly Classified*: Total = 0.92			
Decision Consistency	394-650	0.23	0.06	0.29
	240-393	0.06	0.65	0.71
	Estimated Proportion Correctly Classified*: Total = 0.88			
Summer Form M				
Decision Accuracy	394-650	0.32	0.06	0.38
	240-393	0.03	0.59	0.62
	Estimated Proportion Correctly Classified*: Total = 0.92			
Decision Consistency	394-650	0.31	0.07	0.38
	240-393	0.05	0.57	0.62
	Estimated Proportion Correctly Classified*: Total = 0.88			

*Inconsistencies with category cell entries are due to rounding.

Section 5. Field Test Analyses

Following the receipt of the final scored 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[7].

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 test 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,

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[7] In addition, as noted in Section 3, students with operational scores based on January Biology Form C were excluded from field test item analysis samples.

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 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 for SR items and Table 5.2 for CR items. Summaries of item-total correlations by content area for the field test items administered in January are found in Table 5.3 for the SR items and Table 5.4 for the CR items. Summaries of p-values by content area for the field test items administered in May are found in Table 5.5 for SR items and Table 5.6 for CR items. Summaries of item-total correlations by content area for the field test items administered in May are found in Table 5.7 for the SR items and Table 5.8 for the CR items. 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 2007 assessments:

- *Difficulty Flag*: P-values less than 0.25 or greater than 0.90.
- *Discrimination Flag*: Point-biserial correlation less than 0.15 for the correct answer.
- *Distractor Flag*: 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*: 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 5.9. These items have been identified for revision and possible re-field testing. Table 5.10 presents the number of items that, although flagged for statistical reasons including extreme p-values; low item-total correlations; and/or high omit 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. Subsequent review by content experts and bias/sensitivity committees is required to determine 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 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,

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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):
$MH\ D\text{-}DIF = -2.35\ ln[\ \alpha_{MH}\ ]\ .$

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| ≤ 0.17, the item is classified as A.

B) If the Mantel Chi-square p-value < 0.05 and |SMD/SD| > 0.17 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.

There were 17 items flagged for C-level DIF involving one or more of the identified focal groups (i.e., female, African American, American Indian, Asian, Hispanic). In January, the items flagged for C-category DIF included two Algebra items and two English items. In May, DIF-flagged items included one Algebra item, two Biology items, eight English items, and two Government items. These items are flagged in the bank, and will be reviewed and evaluated 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 fundamental equation of the 3PL model relates the probability that a person with ability θ will respond correctly to item j:

$$P(U_j = 1 \mid \theta) = P_j(\theta) = c_j + \frac{1 - c_j}{1 + e^{-1.7a_j(\theta - b_j)}}$$

where:

U_j is the response to item j, 1 if correct and 0 if incorrect;

a_j is the slope parameter of item j, characterizing its discrimination ;

b_j is the threshold parameter of item j, characterizing its difficulty; and

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

The parameters estimated for the 3PL model were discrimination (a), difficulty (b), and the pseudo-guessing level (c).

The GPCM is given by

$$P_{jk}(\theta) = \frac{\exp\left[\sum_{v=1}^{k} Z_{jv}(\theta)\right]}{\sum_{c=1}^{m_{jj}} \exp\left[\sum_{v=1}^{c} Z_{jv}(\theta)\right]},$$

where

$$Z_{jk}(\theta) = 1.7a_j(\theta - b_{jk}) = 1.7a_j(\theta - b_j + d_{jk}),$$

$$\sum_{k=2}^{m_j} d_k = 0,$$

P_{jk} is the probability of responding in the kth category from m_j+1 categories for item j,

θ is the ability level,

a_j is the item parameter characterizing the discrimination for item j,

b_{jk} is an item-category parameter for item j,

b_j is the item parameter characterizing the difficulty for item j, and

d_k is the category parameter characterizing the relative difficulty of categories 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 5.9).

Statistical Summary Tables

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

P-Value	Percent and Number of Items							
	Algebra[a]		Biology		English		Government	
	%	N	%	N	%	N	%	N
P < 0.25	31.25	5	0.00	0	0.00	0	8.33	2
0.25 ≤ P < 0.35	12.50	2	21.43	6	4.26	2	8.33	2
0.35 ≤ P < 0.45	12.50	2	14.29	4	4.26	2	4.17	1
0.45 ≤ P < 0.55	18.75	3	17.86	5	17.02	8	37.50	9
0.55 ≤ P < 0.65	12.50	2	32.14	9	34.04	16	8.33	2
0.65 ≤ P < 0.75	12.50	2	7.14	2	23.40	11	29.17	7
0.75 ≤ P < 0.85	0.00	0	7.14	2	12.77	6	4.17	1
P ≥ 0.85	0.00	0	0.00	0	4.26	2	0.00	0
Descriptive Statistics								
N Items	16		28		47		24	
Mean	0.39		0.50		0.61		0.53	
SD	0.19		0.15		0.14		0.17	
Min	0.09		0.25		0.25		0.17	
Max	0.72		0.80		0.88		0.76	

[a] GR items included

Table 5.2 Distribution of P-Values for the January Field Test CR Items

P-Value	Percent and Number of Items							
	Algebra		Biology		English		Government	
	%	N	%	N	%	N	%	N
P < 0.25	66.67	2	100.00	3	0.00	0	16.67	1
0.25 ≤ P < 0.35	33.33	1	0.00	0	0.00	0	33.33	2
0.35 ≤ P < 0.45	0.00	0	0.00	0	100.00	1	50.00	3
0.45 ≤ P < 0.55	0.00	0	0.00	0	0.00	0	0.00	0
0.55 ≤ P < 0.65	0.00	0	0.00	0	0.00	0	0.00	0
0.65 ≤ P < 0.75	0.00	0	0.00	0	0.00	0	0.00	0
0.75 ≤ P < 0.85	0.00	0	0.00	0	0.00	0	0.00	0
P ≥ 0.85	0.00	0	0.00	0	0.00	0	0.00	0
Descriptive Statistics								
N Items	3		3		1		6	
Mean	0.19		0.18		0.43		0.32	
SD	0.09		0.03		---		0.06	
Min	0.09		0.15		0.43		0.22	
Max	0.27		0.21		0.43		0.37	

Table 5.3 Distribution of Item-Total Correlations for the January Field Test SR Items

Correlation	Percent and Number of Items							
	Algebra[a]		Biology		English		Government	
	%	N	%	N	%	N	%	N
R < 0.15	12.50	2	0.00	0	6.38	3	4.17	1
0.15 ≤ R < 0.25	6.25	1	17.86	5	6.38	3	8.33	2
0.25 ≤ R < 0.35	37.50	6	25.00	7	14.89	7	20.83	5
0.35 ≤ R < 0.45	18.75	3	25.00	7	44.68	21	37.50	9
0.45 ≤ R < 0.55	25.00	4	25.00	7	23.40	11	25.00	6
0.55 ≤ R < 0.65	0.00	0	7.14	2	4.26	2	4.17	1
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		28		47		24	
Mean	0.34		0.38		0.39		0.36	
SD	0.14		0.11		0.12		0.13	
Min	0.04		0.20		0.08		-0.01	
Max	0.54		0.56		0.56		0.56	

[a] GR items included

Table 5.4 Distribution of Item-Total Correlations for January Field Test CR Items

Correlation	Percent and Number of Items							
	Algebra		Biology		English		Government	
	%	N	%	N	%	N	%	N
R < 0.15	0.00	0	0.00	0	0.00	0	0.00	0
0.15 ≤ R < 0.25	0.00	0	0.00	0	0.00	0	0.00	0
0.25 ≤ R < 0.35	0.00	0	0.00	0	0.00	0	0.00	0
0.35 ≤ R < 0.45	0.00	0	0.00	0	0.00	0	0.00	0
0.45 ≤ R < 0.55	33.33	1	0.00	0	0.00	0	0.00	0
0.55 ≤ R < 0.65	0.00	0	0.00	0	0.00	0	0.00	0
0.65 ≤ R < 0.75	66.67	2	33.33	1	100.00	1	83.33	5
R ≥ 0.75	0.00	0	66.67	2	0.00	0	16.67	1
Descriptive Statistics								
N Items	3		3		1		6	
Mean	0.59		0.77		0.69		0.70	
SD	0.12		0.04		---		0.03	
Min	0.45		0.72		0.69		0.67	
Max	0.66		0.80		0.69		0.75	

Table 5.5 Distribution of P-Values for the May Field Test SR Items

P-Value	Algebra[a]		Biology		English		Government	
	Percent and Number of Items							
	%	N	%	N	%	N	%	N
P < 0.25	2.08	1	3.57	3	3.03	4	5.56	4
0.25 ≤ P < 0.35	20.83	10	5.95	5	1.52	2	5.56	4
0.35 ≤ P < 0.45	8.33	4	13.10	11	7.58	10	4.17	3
0.45 ≤ P < 0.55	18.75	9	23.81	20	9.09	12	22.22	16
0.55 ≤ P < 0.65	16.67	8	21.43	18	18.18	24	19.44	14
0.65 ≤ P < 0.75	25.00	12	19.05	16	28.79	38	15.28	11
0.75 ≤ P < 0.85	8.33	4	8.33	7	24.24	32	16.67	12
P ≥ 0.85[b]	0.00	0	4.76	4	7.58	10	11.11	8
Descriptive Statistics								
N Items	48		84		132		72	
Mean	0.53		0.57		0.65		0.61	
SD	0.17		0.17		0.16		0.18	
Min	0.20		0.12		0.13		0.22	
Max	0.81		0.93		0.91		0.93	

[a] GR items included; [b] P-value > 0.90: 2 Biology items, 1 English item, 2 Government items

Table 5.6 Distribution of P-Values for the May Field Test CR Items

P-Value	Algebra		Biology		English		Government	
	Percent and Number of Items							
	%	N	%	N	%	N	%	N
P < 0.25	0.00	0	54.55	6	0.00	0	5.56	1
0.25 ≤ P < 0.35	36.36	4	45.45	5	0.00	0	33.33	6
0.35 ≤ P < 0.45	9.09	1	0.00	0	0.00	0	55.56	10
0.45 ≤ P < 0.55	27.27	3	0.00	0	100.00	5	5.56	1
0.55 ≤ P < 0.65	9.09	1	0.00	0	0.00	0	0.00	0
0.65 ≤ P < 0.75	18.18	2	0.00	0	0.00	0	0.00	0
0.75 ≤ P < 0.85	0.00	0	0.00	0	0.00	0	0.00	0
P ≥ 0.85	0.00	0	0.00	0	0.00	0	0.00	0
Descriptive Statistics								
N Items	11		11		5		18	
Mean	0.45		0.24		0.51		0.37	
SD	0.17		0.05		0.04		0.05	
Min	0.25		0.15		0.46		0.25	
Max	0.70		0.31		0.54		0.46	

Table 5.7 Distribution of Item-Total Correlations for the May Field Test SR Items

Correlation	Percent and Number of Items							
	Algebra[a]		Biology		English		Government	
	%	N	%	N	%	N	%	N
R < 0.15	8.33	4	9.52	8	6.77	9	2.78	2
0.15 ≤ R < 0.25	14.58	7	8.33	7	11.28	15	8.33	6
0.25 ≤ R < 0.35	18.75	9	27.38	23	24.06	32	23.61	17
0.35 ≤ R < 0.45	31.25	15	29.76	25	35.34	47	38.89	28
0.45 ≤ R < 0.55	18.75	9	23.81	20	21.80	29	26.39	19
0.55 ≤ R < 0.65	8.33	4	1.19	1	0.75	1	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	48		84		133		72	
Mean	0.36		0.35		0.35		0.38	
SD	0.13		0.12		0.12		0.10	
Min	0.05		0.07		-0.02		0.08	
Max	0.61		0.55		0.55		0.54	

[a] GR items included

Table 5.8 Distribution of Item-Total Correlations for May Field Test CR Items

Correlation	Percent and Number of Items							
	Algebra		Biology		English		Government	
	%	N	%	N	%	N	%	N
R < 0.15	0.00	0	0.00	0	0.00	0	0.00	0
0.15 ≤ R < 0.25	0.00	0	0.00	0	0.00	0	0.00	0
0.25 ≤ R < 0.35	0.00	0	0.00	0	0.00	0	0.00	0
0.35 ≤ R < 0.45	0.00	0	0.00	0	0.00	0	0.00	0
0.45 ≤ R < 0.55	9.09	1	0.00	0	0.00	0	0.00	0
0.55 ≤ R < 0.65	9.09	1	0.00	0	80.00	4	11.11	2
0.65 ≤ R < 0.75	54.55	6	72.73	8	20.00	1	77.78	14
R ≥ 0.75	27.27	3	27.27	3	0.00	0	11.11	2
Descriptive Statistics								
N Items	11		11		5		18	
Mean	0.69		0.71		0.61		0.69	
SD	0.08		0.04		0.04		0.05	
Min	0.53		0.65		0.57		0.57	
Max	0.77		0.77		0.67		0.76	

Table 5.9 Field Test Items Excluded from Calibration

Content	MD ID	Form	Sequence	Response Type	Reason
January					
Algebra	106573	B	6	CR	MSDE requested Do Not Score
	106602	B	22	SR	R = 0.05
Biology	108657	B	7	CR	MSDE requested Do Not Score
	108666	B	66	CR	No students achieving the highest score level
English	190872	A	74	CR	MSDE requested Do Not Score
Government	108385	A	45	CR	No students achieving the highest score level
	79749	B	25	SR	R = -0.01
May					
Algebra	132838	H	29	SR	R = 0.06
	106646	K	6	CR	MSDE requested Do Not Score
Biology	108657	F	4	CR	MSDE requested Do Not Score
	108666	F	66	CR	No students achieving the highest score level
English	108726	E	16	SR	R = -0.02
	175838	G	46	SR	R = 0.03
	175836	G	49	SR	R = 0.02
	108737	H	75	SR	R = 0.03

Table 5.10 Field Test Items with Statistical Flags Retained in Calibration

	P-Value	P-Value	R_ITT	Distractor Pt-Bis	Omit Rate	Omit Rate	C-Level DIF	Missing Response[a]	Total Flags	N Items[b]
	< 0.25	> 0.90	< 0.15	> 0	SR/SPR > 5%	CR > 15%				
January										
Algebra	6	0	1	3	3	2	2	0	17	9
Biology	1	0	0	7	0	1	0	0	9	8
English	0	0	3	4	9	0	2	0	18	14
Government	1	0	0	5	0	0	0	0	6	5
May										
Algebra	1	0	3	7	2	0	1	0	14	11
Biology	8	2	8	14	0	1	2	0	35	25
English	1	1	5	14	1	0	8	0	30	24
Government	5	2	2	8	0	0	2	0	19	14

[a] SR option or CR score point with 0 students; [b] Represents total number of unique items

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Appendix A. Classical Item Statistics: Operational Forms

Table A1. 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	67435	M	0.94	0.19	-0.10	-0.12	0.19	-0.09	0.1
	2	O	67506	M	0.89	0.28	-0.15	-0.17	-0.16	0.28	0.3
	3	O	56784	M	0.43	0.44	-0.09	0.44	-0.10	-0.34	0.7
	4	L	54695	M	0.25	0.33	-0.07	0.33	-0.14	-0.18	0.4
	7	O	56556	M	0.58	0.46	-0.31	-0.20	-0.14	0.46	0.4
	8	L	54759	M	0.34	0.35	0.35	-0.09	-0.13	-0.19	0.5
	9	L	67409	M	0.79	0.27	-0.12	-0.16	0.27	-0.16	0.3
	10	O	54711	M	0.49	0.42	-0.18	-0.19	-0.20	0.42	1.1
	12	L	67486	J	0.28	0.68					13.7
	13	O	54651	G	0.45	0.51	0.51	-0.44			4.3
	15	L	54882	G	0.68	0.47	0.47	-0.40			4.5
	16	L	51569	G	0.32	0.46	0.46	-0.32			7.9
	17	L	51391	J	0.17	0.66					22.9
	18	O	56584	M	0.48	0.30	-0.12	-0.18	0.30	-0.06	2.5
	19	O	51541	M	0.66	0.35	0.35	-0.23	-0.17	-0.09	2.3
	20	L	54760	M	0.31	0.38	-0.12	0.38	-0.15	-0.12	2.6
	21	O	56670	J	0.27	0.75					20.3
	23	L	54562	M	0.44	0.32	-0.07	-0.13	-0.17	0.32	4.6
	24	O	51408	M	0.49	0.33	-0.16	-0.14	-0.11	0.33	5.1
	25	O	56698	M	0.79	0.37	-0.19	-0.17	0.37	-0.22	0.5
	26	L	56719	M	0.61	0.39	-0.17	0.39	-0.25	-0.14	0.6
	27	L	54642	M	0.80	0.34	-0.16	-0.26	0.34	-0.12	0.6
	28	L	56825	M	0.29	0.27	-0.11	-0.09	0.27	-0.07	1.2
	31	L	51557	M	0.74	0.33	-0.14	0.33	-0.20	-0.17	0.4
	33	L	56720	M	0.40	0.23	-0.03	-0.21	0.23	-0.07	0.5
	35	O	51364	M	0.52	0.49	-0.25	-0.26	0.49	-0.13	0.9
	36	L	67529	J	0.30	0.66					12.9
	37	L	54819	G	0.65	0.43	0.43	-0.36			3.4
	39	L	51395	G	0.47	0.47	0.47	-0.41			3.3
	40	L	52327	G	0.30	0.37	0.37	-0.23			7.9
	41	L	50374	J	0.18	0.64					14.9
	42	O	43199	M	0.69	0.38	-0.12	-0.21	-0.19	0.38	1.7
	43	O	52345	M	0.49	0.41	0.41	-0.22	-0.18	-0.10	2.6
	44	O	56798	M	0.32	0.45	-0.21	-0.14	-0.12	0.45	2.4
	45	L	51575	J	0.24	0.69					19.2
	46	L	54775	M	0.31	0.35	-0.10	-0.18	0.35	-0.18	3.2
	47	L	51563	M	0.38	0.27	-0.12	-0.05	0.27	-0.12	3.4
	48	O	54671	M	0.50	0.30	-0.07	-0.15	-0.13	0.30	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; Item Type: M=SR, G=SPR, J=CR; 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

Algebra - January Make-Up 1

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	1	L	67435	M	0.94	0.19	-0.10	-0.12	0.19	-0.09	0.1
	2	O	54880	M	0.38	0.23	-0.18	-0.10	-0.07	0.23	0.0
	3	O	56784	M	0.43	0.44	-0.09	0.44	-0.10	-0.34	0.7
	4	L	54695	M	0.25	0.33	-0.07	0.33	-0.14	-0.18	0.4
	7	O	54898	M	0.57	0.39	-0.18	-0.20	-0.18	0.39	0.0
	8	L	54759	M	0.34	0.35	0.35	-0.09	-0.13	-0.19	0.5
	9	L	67409	M	0.79	0.27	-0.12	-0.16	0.27	-0.16	0.3
	10	O	54711	M	0.49	0.42	-0.18	-0.19	-0.20	0.42	1.1
	12	L	67486	J	0.28	0.68					13.7
	13	O	51508	G	0.59	0.51	0.51	-0.47			5.3
	15	L	54882	G	0.68	0.47	0.47	-0.40			4.5
	16	L	51569	G	0.32	0.46	0.46	-0.32			7.9
	17	L	51391	J	0.17	0.66					22.9
	18	O	56584	M	0.48	0.30	-0.12	-0.18	0.30	-0.06	2.5
	19	O	51427	M	0.58	0.43	0.43	-0.21	-0.21	-0.15	2.8
	20	L	54760	M	0.31	0.38	-0.12	0.38	-0.15	-0.12	2.6
	21	O	56670	J	0.27	0.75					20.3
	23	L	54562	M	0.44	0.32	-0.07	-0.13	-0.17	0.32	4.6
	24	O	52342	M	0.43	0.34	-0.15	0.34	-0.10	-0.15	4.7
	25	O	56698	M	0.79	0.37	-0.19	-0.17	0.37	-0.22	0.5
	26	L	56719	M	0.61	0.39	-0.17	0.39	-0.25	-0.14	0.6
	27	L	54642	M	0.80	0.34	-0.16	-0.26	0.34	-0.12	0.6
	28	L	56825	M	0.29	0.27	-0.11	-0.09	0.27	-0.07	1.2
	31	L	51557	M	0.74	0.33	-0.14	0.33	-0.20	-0.17	0.4
	33	L	56720	M	0.40	0.23	-0.03	-0.21	0.23	-0.07	0.5
	35	O	67544	M	0.33	0.44	-0.16	-0.15	-0.18	0.44	0.9
	36	L	67529	J	0.30	0.66					12.9
	37	L	54819	G	0.65	0.43	0.43	-0.36			3.4
	39	L	51395	G	0.47	0.47	0.47	-0.41			3.3
	40	L	52327	G	0.30	0.37	0.37	-0.23			7.9
	41	L	50374	J	0.18	0.64					14.9
	42	O	43218	M	0.47	0.42	-0.12	-0.11	-0.24	0.42	2.2
	43	O	52345	M	0.49	0.41	0.41	-0.22	-0.18	-0.10	2.6
	44	O	56798	M	0.32	0.45	-0.21	-0.14	-0.12	0.45	2.4
	45	L	51575	J	0.24	0.69					19.2
	46	L	54775	M	0.31	0.35	-0.10	-0.18	0.35	-0.18	3.2
	47	L	51563	M	0.38	0.27	-0.12	-0.05	0.27	-0.12	3.4
	48	O	54671	M	0.50	0.30	-0.07	-0.15	-0.13	0.30	3.4

Table A3. Summary Item Statistics - Operational Items

Algebra - January Make-Up 2

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D	1	L	67435	M	0.94	0.19	-0.10	-0.12	0.19	-0.09	0.1
	2	O	67506	M	0.89	0.28	-0.15	-0.17	-0.16	0.28	0.3
	3	O	56562	M	0.43	0.45	-0.37	-0.14	-0.04	0.45	0.3
	4	L	54695	M	0.25	0.33	-0.07	0.33	-0.14	-0.18	0.4
	7	O	56556	M	0.58	0.46	-0.31	-0.20	-0.14	0.46	0.4
	8	L	54759	M	0.34	0.35	0.35	-0.09	-0.13	-0.19	0.5
	9	L	67409	M	0.79	0.27	-0.12	-0.16	0.27	-0.16	0.3
	10	O	54863	M	0.52	0.36	0.36	-0.16	-0.22	-0.14	0.0
	12	L	67486	J	0.28	0.68					13.7
	13	O	54651	G	0.45	0.51	0.51	-0.44			4.3
	15	L	54882	G	0.68	0.47	0.47	-0.40			4.5
	16	L	51569	G	0.32	0.46	0.46	-0.32			7.9
	17	L	51391	J	0.17	0.66					22.9
	18	O	67434	M	0.52	0.34	-0.15	-0.15	0.34	-0.09	5.0
	19	O	51541	M	0.66	0.35	0.35	-0.23	-0.17	-0.09	2.3
	20	L	54760	M	0.31	0.38	-0.12	0.38	-0.15	-0.12	2.6
	21	O	43193	J	0.26	0.77					34.5
	23	L	54562	M	0.44	0.32	-0.07	-0.13	-0.17	0.32	4.6
	24	O	51408	M	0.49	0.33	-0.16	-0.14	-0.11	0.33	5.1
	25	O	51527	M	0.80	0.37	0.37	-0.25	-0.19	-0.15	0.0
	26	L	56719	M	0.61	0.39	-0.17	0.39	-0.25	-0.14	0.6
	27	L	54642	M	0.80	0.34	-0.16	-0.26	0.34	-0.12	0.6
	28	L	56825	M	0.29	0.27	-0.11	-0.09	0.27	-0.07	1.2
	31	L	51557	M	0.74	0.33	-0.14	0.33	-0.20	-0.17	0.4
	33	L	56720	M	0.40	0.23	-0.03	-0.21	0.23	-0.07	0.5
	35	O	51364	M	0.52	0.49	-0.25	-0.26	0.49	-0.13	0.9
	36	L	67529	J	0.30	0.66					12.9
	37	L	54819	G	0.65	0.43	0.43	-0.36			3.4
	39	L	51395	G	0.47	0.47	0.47	-0.41			3.3
	40	L	52327	G	0.30	0.37	0.37	-0.23			7.9
	41	L	50374	J	0.18	0.64					14.9
	42	O	43199	M	0.69	0.38	-0.12	-0.21	-0.19	0.38	1.7
	43	O	54746	M	0.49	0.37	-0.14	0.37	-0.16	-0.12	3.9
	44	O	43215	M	0.45	0.36	-0.14	-0.18	0.36	-0.06	3.7
	45	L	51575	J	0.24	0.69					19.2
	46	L	54775	M	0.31	0.35	-0.10	-0.18	0.35	-0.18	3.2
	47	L	51563	M	0.38	0.27	-0.12	-0.05	0.27	-0.12	3.4
	48	O	54864	M	0.45	0.49	0.49	-0.19	-0.22	-0.16	5.2

Table A4. 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	52416	M	0.74	0.34	-0.29	0.34	-0.11	-0.12	0.0
	2	O	68283	M	0.77	0.43	-0.31	-0.18	0.43	-0.19	0.1
	3	L	52604	M	0.58	0.52	0.52	-0.25	-0.30	-0.19	0.3
	4	L	52603	M	0.67	0.51	-0.25	-0.24	0.51	-0.27	0.2
	5	L	52605	M	0.48	0.54	-0.22	0.54	-0.23	-0.27	0.4
	6	O	79428	M	0.44	0.51	-0.19	-0.29	0.51	-0.17	0.2
	9	O	67695	M	0.62	0.42	-0.34	-0.03	0.42	-0.22	0.2
	11	L	64729	J	0.20	0.73					18.6
	12	L	67586	M	0.59	0.43	-0.22	0.43	-0.19	-0.21	0.4
	13	L	52474	M	0.65	0.46	-0.23	-0.25	0.46	-0.19	0.5
	14	O	64727	M	0.62	0.36	0.13	-0.31	0.36	-0.27	0.5
	15	O	79465	M	0.33	0.30	0.30	-0.01	-0.19	-0.13	0.6
	20	L	67682	J	0.31	0.80					11.5
	21	O	55073	M	0.70	0.28	-0.13	0.28	-0.12	-0.13	1.4
	22	L	53465	M	0.33	0.31	-0.16	0.31	-0.17	-0.03	1.5
	23	L	53466	M	0.42	0.48	-0.11	0.48	-0.24	-0.23	1.4
	24	O	57077	M	0.79	0.51	0.51	-0.29	-0.22	-0.23	1.6
	25	O	55129	M	0.29	0.45	-0.10	-0.12	-0.21	0.45	1.8
	26	O	52449	M	0.62	0.49	-0.17	-0.24	-0.25	0.49	2.0
	27	L	68270	J	0.27	0.84					13.1
	28	O	52454	M	0.52	0.47	-0.17	-0.30	-0.16	0.47	1.5
	29	O	52452	M	0.76	0.48	-0.20	-0.24	-0.26	0.48	1.6
	30	O	52451	M	0.91	0.38	-0.19	-0.19	0.38	-0.18	1.6
	31	L	67626	M	0.49	0.46	-0.12	-0.26	-0.17	0.46	2.0
	32	L	67627	M	0.34	0.35	-0.15	0.35	-0.06	-0.15	2.1
	33	L	67630	M	0.39	0.39	0.39	-0.22	-0.24	0.00	2.3
	34	L	67693	J	0.30	0.82					17.7
	35	O	57002	M	0.62	0.49	-0.20	0.49	-0.27	-0.22	2.1
	37	O	52679	M	0.69	0.48	0.48	-0.29	-0.22	-0.17	0.8
	38	O	68135	M	0.47	0.41	-0.16	-0.23	0.41	-0.11	1.0
	39	O	65140	M	0.73	0.49	0.49	-0.32	-0.23	-0.18	1.0
	40	L	55183	M	0.36	0.36	0.36	-0.06	-0.23	-0.11	1.1
	41	L	55184	M	0.42	0.35	-0.03	0.35	-0.19	-0.17	1.2
	42	L	64715	J	0.32	0.84					12.1
	43	L	68180	M	0.41	0.30	0.30	-0.22	0.06	-0.20	1.5
	44	L	68181	M	0.34	0.39	-0.05	0.39	-0.23	-0.17	1.6
	45	L	68127	M	0.46	0.53	-0.27	-0.18	-0.19	0.53	1.6
	46	L	68293	M	0.57	0.51	-0.24	-0.24	-0.21	0.51	1.7
	47	O	52612	M	0.61	0.56	-0.28	-0.25	0.56	-0.25	1.3
	48	O	65067	M	0.63	0.60	0.60	-0.40	-0.24	-0.15	1.7
	49	L	52731	J	0.28	0.77					13.1
	50	L	67667	M	0.38	0.25	-0.03	-0.25	-0.08	0.25	0.9

Table A4. 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
	51	L	67668	M	0.55	0.51	-0.17	0.51	-0.27	-0.23	0.9
	54	O	52755	M	0.48	0.41	-0.26	0.41	-0.13	-0.11	1.0
	55	O	55067	M	0.59	0.51	-0.22	-0.29	0.51	-0.19	1.0
	56	L	67621	J	0.24	0.83					18.5
	57	L	52572	M	0.51	0.68	0.68	-0.32	-0.29	-0.18	4.5
	58	L	52571	M	0.43	0.61	0.61	-0.19	-0.32	-0.18	4.5
	62	L	79416	M	0.77	0.50	-0.26	0.50	-0.28	-0.19	1.1
	63	O	54963	M	0.51	0.40	-0.12	-0.25	0.40	-0.19	0.9
	64	L	55011	M	0.57	0.59	-0.23	-0.29	-0.28	0.59	1.3
	65	L	55010	M	0.49	0.47	-0.22	-0.14	0.47	-0.24	1.3
	68	L	52615	M	0.50	0.45	-0.07	-0.25	0.45	-0.28	1.6
	69	L	52614	M	0.53	0.45	0.45	-0.17	-0.25	-0.17	1.6
	71	O	52653	M	0.54	0.47	-0.21	-0.19	0.47	-0.22	1.8

Table A5. Summary Item Statistics - Operational Items
Biology - January Make-Up 1

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	1	L	52416	M	0.74	0.34	-0.29	0.34	-0.11	-0.12	0.0
	2	O	68283	M	0.77	0.43	-0.31	-0.18	0.43	-0.19	0.1
	3	L	52604	M	0.58	0.52	0.52	-0.25	-0.30	-0.19	0.3
	4	L	52603	M	0.67	0.51	-0.25	-0.24	0.51	-0.27	0.2
	5	L	52605	M	0.48	0.54	-0.22	0.54	-0.23	-0.27	0.4
	6	O	68196	M	0.56	0.37	-0.26	-0.10	-0.14	0.37	0.8
	9	O	65076	M	0.56	0.37	-0.18	0.37	-0.26	-0.07	0.7
	11	L	64729	J	0.20	0.73					18.6
	12	L	67586	M	0.59	0.43	-0.22	0.43	-0.19	-0.21	0.4
	13	L	52474	M	0.65	0.46	-0.23	-0.25	0.46	-0.19	0.5
	14	O	64727	M	0.62	0.36	0.13	-0.31	0.36	-0.27	0.5
	15	O	60539	M	0.37	0.42	-0.13	-0.19	0.42	-0.18	1.0
	20	L	67682	J	0.31	0.80					11.5
	21	O	68224	M	0.28	0.18	-0.05	-0.04	0.18	-0.02	2.6
	22	L	53465	M	0.33	0.31	-0.16	0.31	-0.17	-0.03	1.5
	23	L	53466	M	0.42	0.48	-0.11	0.48	-0.24	-0.23	1.4
	24	O	57077	M	0.79	0.51	0.51	-0.29	-0.22	-0.23	1.6
	25	O	55129	M	0.29	0.45	-0.10	-0.12	-0.21	0.45	1.8
	26	O	52449	M	0.62	0.49	-0.17	-0.24	-0.25	0.49	2.0
	27	L	68270	J	0.27	0.84					13.1
	28	O	68260	M	0.34	0.30	-0.18	0.30	-0.05	-0.04	3.3
	29	O	68258	M	0.63	0.46	0.46	-0.21	-0.22	-0.13	3.1
	30	O	68259	M	0.48	0.36	-0.10	-0.13	-0.18	0.36	3.6
	31	L	67626	M	0.49	0.46	-0.12	-0.26	-0.17	0.46	2.0
	32	L	67627	M	0.34	0.35	-0.15	0.35	-0.06	-0.15	2.1
	33	L	67630	M	0.39	0.39	0.39	-0.22	-0.24	0.00	2.3
	34	L	67693	J	0.30	0.82					17.7
	35	O	57002	M	0.62	0.49	-0.20	0.49	-0.27	-0.22	2.1
	37	O	67685	M	0.29	0.11	0.02	0.11	-0.05	-0.01	2.6
	38	O	67562	M	0.56	0.27	-0.14	-0.04	0.27	-0.12	2.6
	39	O	65140	M	0.73	0.49	0.49	-0.32	-0.23	-0.18	1.0
	40	L	55183	M	0.36	0.36	0.36	-0.06	-0.23	-0.11	1.1
	41	L	55184	M	0.42	0.35	-0.03	0.35	-0.19	-0.17	1.2
	42	L	64715	J	0.32	0.84					12.1
	43	L	68180	M	0.41	0.30	0.30	-0.22	0.06	-0.20	1.5
	44	L	68181	M	0.34	0.39	-0.05	0.39	-0.23	-0.17	1.6
	45	L	68127	M	0.46	0.53	-0.27	-0.18	-0.19	0.53	1.6
	46	L	68293	M	0.57	0.51	-0.24	-0.24	-0.21	0.51	1.7
	47	O	57009	M	0.32	0.27	0.27	-0.04	-0.07	-0.08	4.4
	48	O	65067	M	0.63	0.60	0.60	-0.40	-0.24	-0.15	1.7
	49	L	52731	J	0.28	0.77					13.1
	50	L	67667	M	0.38	0.25	-0.03	-0.25	-0.08	0.25	0.9

Table A5. Summary Item Statistics - Operational Items
Biology - January Make-Up 1

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
	51	L	67668	M	0.55	0.51	-0.17	0.51	-0.27	-0.23	0.9
	54	O	52755	M	0.48	0.41	-0.26	0.41	-0.13	-0.11	1.0
	55	O	55067	M	0.59	0.51	-0.22	-0.29	0.51	-0.19	1.0
	56	L	67621	J	0.24	0.83					18.5
	57	L	52572	M	0.51	0.68	0.68	-0.32	-0.29	-0.18	4.5
	58	L	52571	M	0.43	0.61	0.61	-0.19	-0.32	-0.18	4.5
	62	L	79416	M	0.77	0.50	-0.26	0.50	-0.28	-0.19	1.1
	63	O	65065	M	0.36	0.39	-0.07	0.39	-0.21	-0.11	3.1
	64	L	55011	M	0.57	0.59	-0.23	-0.29	-0.28	0.59	1.3
	65	L	55010	M	0.49	0.47	-0.22	-0.14	0.47	-0.24	1.3
	68	L	52615	M	0.50	0.45	-0.07	-0.25	0.45	-0.28	1.6
	69	L	52614	M	0.53	0.45	0.45	-0.17	-0.25	-0.17	1.6
	71	O	52653	M	0.54	0.47	-0.21	-0.19	0.47	-0.22	1.8

Table A6. Summary Item Statistics - Operational Items

Biology - January Make-Up 2

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D	1	L	52416	M	0.74	0.34	-0.29	0.34	-0.11	-0.12	0.0
	2	O	57054	M	0.44	0.37	-0.12	-0.16	0.37	-0.22	0.0
	3	L	52604	M	0.58	0.52	0.52	-0.25	-0.30	-0.19	0.3
	4	L	52603	M	0.67	0.51	-0.25	-0.24	0.51	-0.27	0.2
	5	L	52605	M	0.48	0.54	-0.22	0.54	-0.23	-0.27	0.4
	6	O	54963	M	0.51	0.40	-0.12	-0.25	0.40	-0.19	0.9
	9	O	67695	M	0.62	0.42	-0.34	-0.03	0.42	-0.22	0.2
	11	L	64729	J	0.20	0.73					18.6
	12	L	67586	M	0.59	0.43	-0.22	0.43	-0.19	-0.21	0.4
	13	L	52474	M	0.65	0.46	-0.23	-0.25	0.46	-0.19	0.5
	14	O	67672	M	0.58	0.38	0.38	-0.16	-0.21	-0.17	0.3
	15	O	79465	M	0.33	0.30	0.30	-0.01	-0.19	-0.13	0.6
	20	L	67682	J	0.31	0.80					11.5
	21	O	55073	M	0.70	0.28	-0.13	0.28	-0.12	-0.13	1.4
	22	L	53465	M	0.33	0.31	-0.16	0.31	-0.17	-0.03	1.5
	23	L	53466	M	0.42	0.48	-0.11	0.48	-0.24	-0.23	1.4
	24	O	68188	M	0.35	0.33	-0.23	0.02	-0.18	0.33	1.3
	25	O	52501	M	0.46	0.45	-0.13	-0.26	-0.19	0.45	1.0
	26	O	52457	M	0.50	0.45	-0.17	-0.25	0.45	-0.21	1.8
	27	L	68270	J	0.27	0.84					13.1
	28	O	52454	M	0.52	0.47	-0.17	-0.30	-0.16	0.47	1.5
	29	O	52452	M	0.76	0.48	-0.20	-0.24	-0.26	0.48	1.6
	30	O	52451	M	0.91	0.38	-0.19	-0.19	0.38	-0.18	1.6
	31	L	67626	M	0.49	0.46	-0.12	-0.26	-0.17	0.46	2.0
	32	L	67627	M	0.34	0.35	-0.15	0.35	-0.06	-0.15	2.1
	33	L	67630	M	0.39	0.39	0.39	-0.22	-0.24	0.00	2.3
	34	L	67693	J	0.30	0.82					17.7
	35	O	67684	M	0.46	0.42	-0.18	-0.26	0.42	-0.04	1.5
	37	O	52679	M	0.69	0.48	0.48	-0.29	-0.22	-0.17	0.8
	38	O	68135	M	0.47	0.41	-0.16	-0.23	0.41	-0.11	1.0
	39	O	53449	M	0.47	0.42	-0.19	0.42	-0.22	-0.13	1.0
	40	L	55183	M	0.36	0.36	0.36	-0.06	-0.23	-0.11	1.1
	41	L	55184	M	0.42	0.35	-0.03	0.35	-0.19	-0.17	1.2
	42	L	64715	J	0.32	0.84					12.1
	43	L	68180	M	0.41	0.30	0.30	-0.22	0.06	-0.20	1.5
	44	L	68181	M	0.34	0.39	-0.05	0.39	-0.23	-0.17	1.6
	45	L	68127	M	0.46	0.53	-0.27	-0.18	-0.19	0.53	1.6
	46	L	68293	M	0.57	0.51	-0.24	-0.24	-0.21	0.51	1.7
	47	O	52612	M	0.61	0.56	-0.28	-0.25	0.56	-0.25	1.3
	48	O	52685	M	0.64	0.47	-0.24	0.47	-0.21	-0.20	1.3
	49	L	52731	J	0.28	0.77					13.1
	50	L	67667	M	0.38	0.25	-0.03	-0.25	-0.08	0.25	0.9

Table A6. Summary Item Statistics - Operational Items
Biology - January Make-Up 2

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
	51	L	67668	M	0.55	0.51	-0.17	0.51	-0.27	-0.23	0.9
	54	O	65119	M	0.59	0.37	0.37	-0.25	-0.15	-0.12	0.5
	55	O	67696	M	0.33	0.24	0.24	-0.20	-0.21	0.10	0.8
	56	L	67621	J	0.24	0.83					18.5
	57	L	52572	M	0.51	0.68	0.68	-0.32	-0.29	-0.18	4.5
	58	L	52571	M	0.43	0.61	0.61	-0.19	-0.32	-0.18	4.5
	62	L	79416	M	0.77	0.50	-0.26	0.50	-0.28	-0.19	1.1
	63	O	79428	M	0.44	0.51	-0.19	-0.29	0.51	-0.17	0.2
	64	L	55011	M	0.57	0.59	-0.23	-0.29	-0.28	0.59	1.3
	65	L	55010	M	0.49	0.47	-0.22	-0.14	0.47	-0.24	1.3
	68	L	52615	M	0.50	0.45	-0.07	-0.25	0.45	-0.28	1.6
	69	L	52614	M	0.53	0.45	0.45	-0.17	-0.25	-0.17	1.6
	71	O	67692	M	0.32	0.35	-0.08	0.35	-0.18	-0.12	1.3

Table A7. 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	O	96169	J	0.67	0.60					2.0
	2	O	96170	M	0.54	0.30	-0.10	0.30	-0.18	-0.15	0.1
	3	O	96171	M	0.67	0.51	-0.23	-0.28	-0.27	0.51	0.2
	4	O	96172	M	0.61	0.52	0.52	-0.28	-0.25	-0.23	0.2
	5	O	96173	M	0.71	0.43	-0.23	-0.25	-0.24	0.43	0.2
	6	O	96174	M	0.71	0.49	-0.28	0.49	-0.28	-0.19	0.2
	7	L	96255	M	0.80	0.43	0.43	-0.26	-0.24	-0.19	0.1
	8	L	96256	M	0.69	0.28	-0.05	-0.16	0.28	-0.29	0.3
	9	L	96258	M	0.57	0.36	-0.23	-0.16	0.36	-0.14	0.4
	10	L	96259	M	0.61	0.38	-0.26	-0.12	-0.28	0.38	0.6
	11	L	96260	M	0.67	0.37	-0.08	-0.26	-0.24	0.37	0.7
	12	L	132800	M	0.79	0.46	-0.30	-0.23	0.46	-0.22	0.6
	13	L	96262	M	0.55	0.42	-0.22	-0.14	-0.22	0.42	0.7
	14	O	95971	M	0.68	0.32	-0.16	0.32	-0.19	-0.11	1.0
	15	O	95972	M	0.79	0.55	0.55	-0.27	-0.31	-0.29	1.4
	16	O	95973	M	0.60	0.40	-0.13	-0.21	-0.21	0.40	1.7
	17	O	95974	M	0.78	0.60	0.60	-0.26	-0.37	-0.29	1.7
	18	O	95975	M	0.44	0.32	-0.15	-0.13	0.32	-0.11	1.8
	19	O	95976	J	0.51	0.72					10.6
	23	O	95969	J	0.55	0.71					4.3
	24	L	95978	M	0.73	0.54	-0.26	-0.30	0.54	-0.27	0.4
	25	L	95979	M	0.69	0.43	-0.18	-0.30	-0.18	0.43	0.4
	26	L	95980	M	0.82	0.45	-0.22	-0.27	0.45	-0.26	0.4
	27	L	96078	M	0.66	0.42	0.42	-0.21	-0.23	-0.17	0.4
	28	L	96079	M	0.90	0.43	-0.22	-0.24	0.43	-0.22	0.4
	29	L	96080	M	0.80	0.55	-0.29	0.55	-0.30	-0.27	0.4
	30	L	96111	M	0.75	0.47	0.47	-0.31	-0.22	-0.22	0.5
	31	L	96112	M	0.73	0.48	-0.30	0.48	-0.32	-0.15	0.5
	32	L	96113	M	0.72	0.42	-0.15	0.42	-0.29	-0.23	0.5
	33	L	96114	M	0.76	0.56	-0.28	-0.29	-0.31	0.56	0.5
	34	L	96115	M	0.66	0.55	-0.26	-0.23	-0.30	0.55	0.5
	49*	L	95996	M	0.63	0.45	-0.23	0.45	-0.29	-0.10	1.4
	50*	O	95997	M	0.40	0.28	0.28	-0.07	-0.20	-0.06	1.4
	51*	L	96205	M	0.66	0.50	-0.33	0.50	-0.26	-0.19	0.7
	52*	L	96206	M	0.80	0.50	-0.29	-0.29	0.50	-0.19	0.6
	53*	L	96207	M	0.68	0.42	-0.25	-0.26	0.42	-0.06	0.7
	54*	L	96208	M	0.68	0.33	0.33	-0.13	-0.22	-0.11	0.7
	55*	L	96209	M	0.81	0.46	-0.27	-0.29	0.46	-0.15	0.7
	56*	L	96210	M	0.84	0.52	0.52	-0.28	-0.29	-0.23	0.8
	57*	L	96211	M	0.76	0.32	0.32	-0.25	-0.11	-0.14	0.8
	58*	L	96212	M	0.73	0.46	0.46	-0.22	-0.27	-0.23	0.6
	59*	L	96213	M	0.75	0.51	-0.27	0.51	-0.23	-0.28	0.7

Table A7. 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
	60*	L	96214	J	0.51	0.70					6.2
	61*	O	95607	M	0.30	0.25	-0.09	-0.07	0.25	-0.08	0.8
	62*	O	95608	M	0.49	0.35	-0.26	0.35	-0.07	-0.30	0.8
	63*	O	95609	M	0.68	0.53	0.53	-0.29	-0.25	-0.20	0.9
	64*	O	95610	M	0.64	0.54	-0.25	-0.23	-0.26	0.54	0.9
	65*	O	95611	M	0.79	0.50	-0.26	-0.28	0.50	-0.20	1.0
	66*	O	96223	M	0.68	0.36	0.36	-0.10	-0.30	-0.16	1.1
	67*	O	96224	M	0.60	0.45	-0.17	-0.23	0.45	-0.20	1.3

* Tabled item position number is based on Form A and varies somewhat on Form B.

Table A8. Summary Item Statistics - Operational Items
English - January Make-Up 1

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	1	O	96337	J	0.49	0.70					8.8
	2	O	96067	M	0.55	0.20	-0.04	-0.16	0.20	-0.17	0.2
	3	O	96068	M	0.69	0.41	0.41	-0.22	-0.27	-0.12	0.0
	4	O	96069	M	0.26	0.30	0.09	-0.24	-0.26	0.30	0.0
	5	O	96070	M	0.67	0.36	-0.24	-0.17	0.36	-0.15	0.0
	6	O	96071	M	0.64	0.53	0.53	-0.27	-0.30	-0.21	0.4
	7	L	96255	M	0.80	0.43	0.43	-0.26	-0.24	-0.19	0.1
	8	L	96256	M	0.69	0.28	-0.05	-0.16	0.28	-0.29	0.3
	9	L	96258	M	0.57	0.36	-0.23	-0.16	0.36	-0.14	0.4
	10	L	96259	M	0.61	0.38	-0.26	-0.12	-0.28	0.38	0.6
	11	L	96260	M	0.67	0.37	-0.08	-0.26	-0.24	0.37	0.7
	12	L	132800	M	0.79	0.46	-0.30	-0.23	0.46	-0.22	0.6
	13	L	96262	M	0.55	0.42	-0.22	-0.14	-0.22	0.42	0.7
	14	O	95971	M	0.68	0.32	-0.16	0.32	-0.19	-0.11	1.0
	15	O	95972	M	0.79	0.55	0.55	-0.27	-0.31	-0.29	1.4
	16	O	95973	M	0.60	0.40	-0.13	-0.21	-0.21	0.40	1.7
	17	O	95974	M	0.78	0.60	0.60	-0.26	-0.37	-0.29	1.7
	18	O	95975	M	0.44	0.32	-0.15	-0.13	0.32	-0.11	1.8
	19	O	95976	J	0.51	0.72					10.6
	23	O	95969	J	0.55	0.71					4.3
	24	L	95978	M	0.73	0.54	-0.26	-0.30	0.54	-0.27	0.4
	25	L	95979	M	0.69	0.43	-0.18	-0.30	-0.18	0.43	0.4
	26	L	95980	M	0.82	0.45	-0.22	-0.27	0.45	-0.26	0.4
	27	L	96078	M	0.66	0.42	0.42	-0.21	-0.23	-0.17	0.4
	28	L	96079	M	0.90	0.43	-0.22	-0.24	0.43	-0.22	0.4
	29	L	96080	M	0.80	0.55	-0.29	0.55	-0.30	-0.27	0.4
	30	L	96111	M	0.75	0.47	0.47	-0.31	-0.22	-0.22	0.5
	31	L	96112	M	0.73	0.48	-0.30	0.48	-0.32	-0.15	0.5
	32	L	96113	M	0.72	0.42	-0.15	0.42	-0.29	-0.23	0.5
	33	L	96114	M	0.76	0.56	-0.28	-0.29	-0.31	0.56	0.5
	34	L	96115	M	0.66	0.55	-0.26	-0.23	-0.30	0.55	0.5
	49	L	95996	M	0.63	0.45	-0.23	0.45	-0.29	-0.10	1.4
	50	O	95997	M	0.40	0.28	0.28	-0.07	-0.20	-0.06	1.4
	51	L	96205	M	0.66	0.50	-0.33	0.50	-0.26	-0.19	0.7
	52	L	96206	M	0.80	0.50	-0.29	-0.29	0.50	-0.19	0.6
	53	L	96207	M	0.68	0.42	-0.25	-0.26	0.42	-0.06	0.7
	54	L	96208	M	0.68	0.33	0.33	-0.13	-0.22	-0.11	0.7
	55	L	96209	M	0.81	0.46	-0.27	-0.29	0.46	-0.15	0.7
	56	L	96210	M	0.84	0.52	0.52	-0.28	-0.29	-0.23	0.8
	57	L	96211	M	0.76	0.32	0.32	-0.25	-0.11	-0.14	0.8
	58	L	96212	M	0.73	0.46	0.46	-0.22	-0.27	-0.23	0.6
	59	L	96213	M	0.75	0.51	-0.27	0.51	-0.23	-0.28	0.7

Table A8. Summary Item Statistics - Operational Items
English - January Make-Up 1

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
	60	L	96214	J	0.51	0.70					6.2
	61	O	96039	M	0.61	0.59	-0.31	-0.20	-0.31	0.59	2.4
	62	O	96040	M	0.39	0.25	0.25	-0.32	0.05	0.02	2.4
	63	O	96041	M	0.70	0.49	-0.25	-0.29	0.49	-0.15	2.4
	64	O	96042	M	0.45	0.39	0.39	-0.15	-0.12	-0.16	2.4
	65	O	96043	M	0.51	0.49	-0.17	-0.28	0.49	-0.14	2.6
	66	O	96223	M	0.68	0.36	0.36	-0.10	-0.30	-0.16	1.1
	67	O	96224	M	0.60	0.45	-0.17	-0.23	0.45	-0.20	1.3

Table A9. Summary Item Statistics - Operational Items

English - January Make-Up 2

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D	1	O	96169	J	0.67	0.60					2.0
	2	O	96170	M	0.54	0.30	-0.10	0.30	-0.18	-0.15	0.1
	3	O	96171	M	0.67	0.51	-0.23	-0.28	-0.27	0.51	0.2
	4	O	96172	M	0.61	0.52	0.52	-0.28	-0.25	-0.23	0.2
	5	O	96173	M	0.71	0.43	-0.23	-0.25	-0.24	0.43	0.2
	6	O	96174	M	0.71	0.49	-0.28	0.49	-0.28	-0.19	0.2
	7	L	96255	M	0.80	0.43	0.43	-0.26	-0.24	-0.19	0.1
	8	L	96256	M	0.69	0.28	-0.05	-0.16	0.28	-0.29	0.3
	9	L	96258	M	0.57	0.36	-0.23	-0.16	0.36	-0.14	0.4
	10	L	96259	M	0.61	0.38	-0.26	-0.12	-0.28	0.38	0.6
	11	L	96260	M	0.67	0.37	-0.08	-0.26	-0.24	0.37	0.7
	12	L	132800	M	0.79	0.46	-0.30	-0.23	0.46	-0.22	0.6
	13	L	96262	M	0.55	0.42	-0.22	-0.14	-0.22	0.42	0.7
	14	O	96356	M	0.28	0.50	-0.17	-0.14	-0.29	0.50	1.8
	15	O	96358	M	0.57	0.49	-0.40	-0.18	0.49	-0.15	2.8
	16	O	96359	M	0.41	0.36	0.36	-0.06	-0.21	-0.20	2.8
	17	O	96360	M	0.59	0.62	-0.18	-0.31	0.62	-0.37	2.8
	18	O	96361	M	0.34	0.50	-0.23	-0.07	-0.26	0.50	4.6
	19	O	96362	J	0.31	0.68					23.9
	23	O	96081	J	0.38	0.54					14.7
	24	L	95978	M	0.73	0.54	-0.26	-0.30	0.54	-0.27	0.4
	25	L	95979	M	0.69	0.43	-0.18	-0.30	-0.18	0.43	0.4
	26	L	95980	M	0.82	0.45	-0.22	-0.27	0.45	-0.26	0.4
	27	L	96078	M	0.66	0.42	0.42	-0.21	-0.23	-0.17	0.4
	28	L	96079	M	0.90	0.43	-0.22	-0.24	0.43	-0.22	0.4
	29	L	96080	M	0.80	0.55	-0.29	0.55	-0.30	-0.27	0.4
	30	L	96111	M	0.75	0.47	0.47	-0.31	-0.22	-0.22	0.5
	31	L	96112	M	0.73	0.48	-0.30	0.48	-0.32	-0.15	0.5
	32	L	96113	M	0.72	0.42	-0.15	0.42	-0.29	-0.23	0.5
	33	L	96114	M	0.76	0.56	-0.28	-0.29	-0.31	0.56	0.5
	34	L	96115	M	0.66	0.55	-0.26	-0.23	-0.30	0.55	0.5
	49	L	95996	M	0.63	0.45	-0.23	0.45	-0.29	-0.10	1.4
	50	O	96383	M	0.40	0.44	-0.12	0.44	-0.33	-0.05	0.9
	51	L	96205	M	0.66	0.50	-0.33	0.50	-0.26	-0.19	0.7
	52	L	96206	M	0.80	0.50	-0.29	-0.29	0.50	-0.19	0.6
	53	L	96207	M	0.68	0.42	-0.25	-0.26	0.42	-0.06	0.7
	54	L	96208	M	0.68	0.33	0.33	-0.13	-0.22	-0.11	0.7
	55	L	96209	M	0.81	0.46	-0.27	-0.29	0.46	-0.15	0.7
	56	L	96210	M	0.84	0.52	0.52	-0.28	-0.29	-0.23	0.8
	57	L	96211	M	0.76	0.32	0.32	-0.25	-0.11	-0.14	0.8
	58	L	96212	M	0.73	0.46	0.46	-0.22	-0.27	-0.23	0.6
	59	L	96213	M	0.75	0.51	-0.27	0.51	-0.23	-0.28	0.7

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Table A9. Summary Item Statistics - Operational Items
English - January Make-Up 2

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
	60	L	96214	J	0.51	0.70					6.2
	61	O	95607	M	0.30	0.25	-0.09	-0.07	0.25	-0.08	0.8
	62	O	95608	M	0.49	0.35	-0.26	0.35	-0.07	-0.30	0.8
	63	O	95609	M	0.68	0.53	0.53	-0.29	-0.25	-0.20	0.9
	64	O	95610	M	0.64	0.54	-0.25	-0.23	-0.26	0.54	0.9
	65	O	95611	M	0.79	0.50	-0.26	-0.28	0.50	-0.20	1.0
	66	O	95999	M	0.42	0.28	-0.13	0.28	-0.06	-0.11	1.8
	67	O	96000	M	0.51	0.47	0.47	-0.04	-0.22	-0.29	1.8

Table A10. 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	O	68546	M	0.84	0.44	-0.23	0.44	-0.27	-0.21	0.1
	2	O	55570	M	0.87	0.41	-0.22	-0.23	-0.23	0.41	0.1
	3	O	68611	M	0.72	0.45	-0.22	-0.25	-0.25	0.45	0.2
	4	O	68733	M	0.60	0.53	-0.27	-0.26	0.53	-0.23	0.1
	5	L	68737	M	0.72	0.52	-0.28	0.52	-0.27	-0.25	0.2
	6	L	68607	J	0.44	0.74					3.9
	9	L	51769	M	0.51	0.47	0.47	-0.22	-0.22	-0.21	0.4
	10	L	51770	M	0.46	0.37	-0.16	-0.17	0.37	-0.15	0.4
	12	O	68610	M	0.55	0.48	-0.18	0.48	-0.24	-0.25	0.2
	13	O	68550	M	0.52	0.39	-0.24	-0.14	0.39	-0.16	0.2
	14	O	58344	M	0.74	0.43	-0.23	-0.26	0.43	-0.21	0.2
	15	L	50860	M	0.65	0.45	-0.22	0.45	-0.26	-0.19	0.4
	16	L	68104	J	0.33	0.76					8.8
	17	O	55617	M	0.52	0.47	-0.18	-0.31	0.47	-0.13	0.4
	18	L	55698	M	0.56	0.33	-0.19	0.33	-0.12	-0.24	0.4
	19	O	68764	M	0.62	0.54	-0.21	-0.27	0.54	-0.29	0.4
	20	O	55573	M	0.61	0.50	-0.25	-0.25	0.50	-0.25	0.5
	21	L	53753	J	0.34	0.77					8.7
	22	L	51064	M	0.67	0.46	-0.19	0.46	-0.31	-0.19	0.7
	23	L	68024	M	0.51	0.44	-0.22	-0.22	0.44	-0.14	0.7
	26	L	51147	M	0.76	0.53	-0.24	-0.29	0.53	-0.27	0.9
	27	L	68683	M	0.54	0.36	0.36	-0.08	-0.24	-0.22	0.9
	28	O	65159	J	0.36	0.82					12.7
	29	L	52268	M	0.74	0.47	-0.17	-0.29	0.47	-0.24	1.5
	30	O	58346	M	0.44	0.23	0.23	-0.09	-0.16	0.01	2.0
	33	L	64948	J	0.36	0.73					11.1
	34	O	68087	M	0.72	0.51	-0.32	0.51	-0.23	-0.19	2.7
	35	L	68659	M	0.45	0.34	-0.13	0.34	-0.11	-0.19	2.8
	36	L	68700	M	0.44	0.35	-0.11	0.35	-0.16	-0.13	3.3
	37	L	68512	M	0.86	0.36	-0.18	0.36	-0.24	-0.14	0.5
	38	L	51160	M	0.68	0.40	-0.25	0.40	-0.28	-0.06	0.5
	39	L	51093	M	0.70	0.35	-0.10	-0.21	0.35	-0.22	0.6
	40	L	64786	J	0.25	0.78					17.9
	41	L	51253	M	0.59	0.51	-0.24	-0.26	-0.25	0.51	0.5
	42	L	51096	M	0.78	0.43	-0.18	-0.28	0.43	-0.20	0.5
	46	L	51165	M	0.46	0.37	-0.16	0.37	-0.16	-0.13	0.5
	47	L	79688	M	0.58	0.32	-0.21	-0.15	0.32	-0.10	0.5
	48	L	58253	M	0.56	0.44	-0.26	-0.30	0.44	-0.15	0.6
	49	L	51784	M	0.60	0.57	-0.23	0.57	-0.29	-0.28	0.7
	53	O	51757	M	0.46	0.51	-0.18	-0.25	-0.21	0.51	0.7
	54	O	51749	M	0.46	0.41	-0.21	-0.09	-0.21	0.41	0.7
	55	L	68530	J	0.30	0.82					14.7

Table A10. 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
	56	O	68029	M	0.59	0.54	0.54	-0.26	-0.27	-0.26	0.7
	57	O	58163	M	0.63	0.46	-0.25	0.46	-0.20	-0.20	0.7
	58	L	55664	M	0.71	0.52	0.52	-0.26	-0.26	-0.25	0.7
	59	L	55665	M	0.70	0.45	-0.20	0.45	-0.24	-0.24	0.7
	60	L	68594	J	0.28	0.79					16.8
	63	L	58259	M	0.49	0.43	-0.22	-0.19	0.43	-0.13	0.9
	64	O	68027	M	0.61	0.43	0.43	-0.21	-0.28	-0.18	0.8
	65	L	67976	M	0.68	0.57	0.57	-0.31	-0.32	-0.20	1.0
	66	L	58325	M	0.53	0.44	-0.24	-0.19	0.44	-0.15	1.0
	67	O	68728	M	0.69	0.52	-0.22	-0.25	-0.29	0.52	1.0
	68	O	58237	M	0.51	0.47	-0.23	-0.17	-0.23	0.47	1.0
	69	L	68783	M	0.56	0.47	-0.21	-0.24	0.47	-0.19	1.1
	70	L	68588	M	0.52	0.57	-0.19	-0.27	-0.28	0.57	1.1
	71	L	51113	M	0.49	0.43	-0.19	-0.26	0.43	-0.10	1.2
	72	O	58332	M	0.82	0.50	-0.24	-0.29	0.50	-0.23	1.1
	73	O	51255	M	0.46	0.47	-0.15	-0.24	-0.22	0.47	1.3

Table A11. Summary Item Statistics - Operational Items

Government - January Make-Up 1

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	1	O	52191	M	0.66	0.40	-0.20	-0.18	-0.22	0.40	0.4
	2	O	68047	M	0.60	0.34	0.34	-0.21	-0.20	-0.11	0.3
	3	O	68611	M	0.72	0.45	-0.22	-0.25	-0.25	0.45	0.2
	4	O	68733	M	0.60	0.53	-0.27	-0.26	0.53	-0.23	0.1
	5	L	68737	M	0.72	0.52	-0.28	0.52	-0.27	-0.25	0.2
	6	L	68607	J	0.44	0.74					3.9
	9	L	51769	M	0.51	0.47	0.47	-0.22	-0.22	-0.21	0.4
	10	L	51770	M	0.46	0.37	-0.16	-0.17	0.37	-0.15	0.4
	12	O	68610	M	0.55	0.48	-0.18	0.48	-0.24	-0.25	0.2
	13	O	68618	M	0.69	0.42	-0.21	-0.20	-0.20	0.42	0.9
	14	O	68555	M	0.67	0.41	0.41	-0.22	-0.21	-0.16	0.9
	15	L	50860	M	0.65	0.45	-0.22	0.45	-0.26	-0.19	0.4
	16	L	68104	J	0.33	0.76					8.8
	17	O	55617	M	0.52	0.47	-0.18	-0.31	0.47	-0.13	0.4
	18	L	55698	M	0.56	0.33	-0.19	0.33	-0.12	-0.24	0.4
	19	O	51231	M	0.46	0.39	-0.22	-0.12	0.39	-0.14	1.0
	20	O	55573	M	0.61	0.50	-0.25	-0.25	0.50	-0.25	0.5
	21	L	53753	J	0.34	0.77					8.7
	22	L	51064	M	0.67	0.46	-0.19	0.46	-0.31	-0.19	0.7
	23	L	68024	M	0.51	0.44	-0.22	-0.22	0.44	-0.14	0.7
	26	L	51147	M	0.76	0.53	-0.24	-0.29	0.53	-0.27	0.9
	27	L	68683	M	0.54	0.36	0.36	-0.08	-0.24	-0.22	0.9
	28	O	68757	J	0.19	0.68					29.2
	29	L	52268	M	0.74	0.47	-0.17	-0.29	0.47	-0.24	1.5
	30	O	58346	M	0.44	0.23	0.23	-0.09	-0.16	0.01	2.0
	33	L	64948	J	0.36	0.73					11.1
	34	O	68087	M	0.72	0.51	-0.32	0.51	-0.23	-0.19	2.7
	35	L	68659	M	0.45	0.34	-0.13	0.34	-0.11	-0.19	2.8
	36	L	68700	M	0.44	0.35	-0.11	0.35	-0.16	-0.13	3.3
	37	L	68512	M	0.86	0.36	-0.18	0.36	-0.24	-0.14	0.5
	38	L	51160	M	0.68	0.40	-0.25	0.40	-0.28	-0.06	0.5
	39	L	51093	M	0.70	0.35	-0.10	-0.21	0.35	-0.22	0.6
	40	L	64786	J	0.25	0.78					17.9
	41	L	51253	M	0.59	0.51	-0.24	-0.26	-0.25	0.51	0.5
	42	L	51096	M	0.78	0.43	-0.18	-0.28	0.43	-0.20	0.5
	46	L	51165	M	0.46	0.37	-0.16	0.37	-0.16	-0.13	0.5
	47	L	79688	M	0.58	0.32	-0.21	-0.15	0.32	-0.10	0.5
	48	L	58253	M	0.56	0.44	-0.26	-0.30	0.44	-0.15	0.6
	49	L	51784	M	0.60	0.57	-0.23	0.57	-0.29	-0.28	0.7
	53	O	55658	M	0.40	0.25	0.25	-0.18	0.01	-0.15	0.9
	54	O	51749	M	0.46	0.41	-0.21	-0.09	-0.21	0.41	0.7
	55	L	68530	J	0.30	0.82					14.7

Table A11. Summary Item Statistics - Operational Items
Government - January Make-Up 1

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
	56	O	51011	M	0.39	0.37	-0.22	-0.21	0.37	-0.03	0.9
	57	O	58163	M	0.63	0.46	-0.25	0.46	-0.20	-0.20	0.7
	58	L	55664	M	0.71	0.52	0.52	-0.26	-0.26	-0.25	0.7
	59	L	55665	M	0.70	0.45	-0.20	0.45	-0.24	-0.24	0.7
	60	L	68594	J	0.28	0.79					16.8
	63	L	58259	M	0.49	0.43	-0.22	-0.19	0.43	-0.13	0.9
	64	O	67966	M	0.54	0.41	-0.20	-0.15	-0.19	0.41	1.0
	65	L	67976	M	0.68	0.57	0.57	-0.31	-0.32	-0.20	1.0
	66	L	58325	M	0.53	0.44	-0.24	-0.19	0.44	-0.15	1.0
	67	O	58364	M	0.38	0.18	-0.14	-0.19	0.18	0.11	1.4
	68	O	68078	M	0.33	0.34	-0.23	0.00	0.34	-0.20	1.3
	69	L	68783	M	0.56	0.47	-0.21	-0.24	0.47	-0.19	1.1
	70	L	68588	M	0.52	0.57	-0.19	-0.27	-0.28	0.57	1.1
	71	L	51113	M	0.49	0.43	-0.19	-0.26	0.43	-0.10	1.2
	72	O	58332	M	0.82	0.50	-0.24	-0.29	0.50	-0.23	1.1
	73	O	51255	M	0.46	0.47	-0.15	-0.24	-0.22	0.47	1.3

Table A12. Summary Item Statistics - Operational Items
Government - January Make-Up 2

Form	Pos_No	Anchor _Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D	1	O	68546	M	0.84	0.44	-0.23	0.44	-0.27	-0.21	0.1
	2	O	55570	M	0.87	0.41	-0.22	-0.23	-0.23	0.41	0.1
	3	O	79667	M	0.46	0.37	0.37	-0.13	-0.17	-0.21	1.3
	4	O	68623	M	0.41	0.33	-0.27	-0.12	-0.02	0.33	0.9
	5	L	68737	M	0.72	0.52	-0.28	0.52	-0.27	-0.25	0.2
	6	L	68607	J	0.44	0.74					3.9
	9	L	51769	M	0.51	0.47	0.47	-0.22	-0.22	-0.21	0.4
	10	L	51770	M	0.46	0.37	-0.16	-0.17	0.37	-0.15	0.4
	12	O	68552	M	0.37	0.23	0.23	-0.18	-0.25	0.14	0.9
	13	O	68550	M	0.52	0.39	-0.24	-0.14	0.39	-0.16	0.2
	14	O	58344	M	0.74	0.43	-0.23	-0.26	0.43	-0.21	0.2
	15	L	50860	M	0.65	0.45	-0.22	0.45	-0.26	-0.19	0.4
	16	L	68104	J	0.33	0.76					8.8
	17	O	68746	M	0.18	0.22	0.22	-0.13	-0.23	0.16	1.3
	18	L	55698	M	0.56	0.33	-0.19	0.33	-0.12	-0.24	0.4
	19	O	68764	M	0.62	0.54	-0.21	-0.27	0.54	-0.29	0.4
	20	O	55718	M	0.35	0.17	0.17	-0.05	-0.21	0.06	0.9
	21	L	53753	J	0.34	0.77					8.7
	22	L	51064	M	0.67	0.46	-0.19	0.46	-0.31	-0.19	0.7
	23	L	68024	M	0.51	0.44	-0.22	-0.22	0.44	-0.14	0.7
	26	L	51147	M	0.76	0.53	-0.24	-0.29	0.53	-0.27	0.9
	27	L	68683	M	0.54	0.36	0.36	-0.08	-0.24	-0.22	0.9
	28	O	65159	J	0.36	0.82					12.7
	29	L	52268	M	0.74	0.47	-0.17	-0.29	0.47	-0.24	1.5
	30	O	51258	M	0.41	0.51	-0.12	-0.20	-0.21	0.51	4.3
	33	L	64948	J	0.36	0.73					11.1
	34	O	68527	M	0.33	0.25	-0.11	0.25	-0.03	-0.05	4.7
	35	L	68659	M	0.45	0.34	-0.13	0.34	-0.11	-0.19	2.8
	36	L	68700	M	0.44	0.35	-0.11	0.35	-0.16	-0.13	3.3
	37	L	68512	M	0.86	0.36	-0.18	0.36	-0.24	-0.14	0.5
	38	L	51160	M	0.68	0.40	-0.25	0.40	-0.28	-0.06	0.5
	39	L	51093	M	0.70	0.35	-0.10	-0.21	0.35	-0.22	0.6
	40	L	64786	J	0.25	0.78					17.9
	41	L	51253	M	0.59	0.51	-0.24	-0.26	-0.25	0.51	0.5
	42	L	51096	M	0.78	0.43	-0.18	-0.28	0.43	-0.20	0.5
	46	L	51165	M	0.46	0.37	-0.16	0.37	-0.16	-0.13	0.5
	47	L	79688	M	0.58	0.32	-0.21	-0.15	0.32	-0.10	0.5
	48	L	58253	M	0.56	0.44	-0.26	-0.30	0.44	-0.15	0.6
	49	L	51784	M	0.60	0.57	-0.23	0.57	-0.29	-0.28	0.7
	53	O	51757	M	0.46	0.51	-0.18	-0.25	-0.21	0.51	0.7
	54	O	51202	M	0.29	0.31	-0.11	-0.09	-0.07	0.31	1.7
	55	L	68530	J	0.30	0.82					14.7

Table A12. Summary Item Statistics - Operational Items
Government - January Make-Up 2

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
	56	O	68029	M	0.59	0.54	0.54	-0.26	-0.27	-0.26	0.7
	57	O	51200	M	0.40	0.33	-0.13	0.33	-0.17	-0.03	2.6
	58	L	55664	M	0.71	0.52	0.52	-0.26	-0.26	-0.25	0.7
	59	L	55665	M	0.70	0.45	-0.20	0.45	-0.24	-0.24	0.7
	60	L	68594	J	0.28	0.79					16.8
	63	L	58259	M	0.49	0.43	-0.22	-0.19	0.43	-0.13	0.9
	64	O	68027	M	0.61	0.43	0.43	-0.21	-0.28	-0.18	0.8
	65	L	67976	M	0.68	0.57	0.57	-0.31	-0.32	-0.20	1.0
	66	L	58325	M	0.53	0.44	-0.24	-0.19	0.44	-0.15	1.0
	67	O	68728	M	0.69	0.52	-0.22	-0.25	-0.29	0.52	1.0
	68	O	58237	M	0.51	0.47	-0.23	-0.17	-0.23	0.47	1.0
	69	L	68783	M	0.56	0.47	-0.21	-0.24	0.47	-0.19	1.1
	70	L	68588	M	0.52	0.57	-0.19	-0.27	-0.28	0.57	1.1
	71	L	51113	M	0.49	0.43	-0.19	-0.26	0.43	-0.10	1.2
	72	O	51094	M	0.35	0.44	-0.04	-0.14	-0.25	0.44	2.6
	73	O	52281	M	0.58	0.50	-0.26	-0.21	0.50	-0.18	2.6

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
E-K	1	O	56692	M	0.92	0.32	-0.23	0.32	-0.18	-0.12	0.1
	2	L	56700	M	0.85	0.46	-0.24	0.46	-0.32	-0.16	0.4
	3	L	67433	M	0.42	0.32	-0.14	-0.15	0.32	-0.13	0.3
	4	O	54557	M	0.89	0.41	0.41	-0.25	-0.25	-0.18	0.1
	5	L	56638	M	0.60	0.51	0.51	-0.11	-0.34	-0.28	0.2
	8	L	67530	M	0.63	0.37	0.37	-0.12	-0.20	-0.23	0.2
	9	L	56807	M	0.63	0.46	-0.22	-0.28	-0.21	0.46	0.2
	10	O	54645	M	0.60	0.37	0.37	-0.18	-0.20	-0.20	0.2
	11	L	54611	M	0.59	0.40	0.40	-0.22	-0.19	-0.16	0.4
	12	L	79111	J	0.67	0.82					4.2
	14	O	67509	G	0.80	0.40	0.40	-0.35			1.4
	15	L	43141	G	0.51	0.42	0.42	-0.33			4.9
	16	O	79078	G	0.77	0.48	0.48	-0.42			3.1
	17	L	51510	J	0.36	0.67					8.1
	20	L	54806	M	0.66	0.55	-0.32	-0.27	-0.18	0.55	1.4
	21	L	50446	J	0.64	0.77					4.6
	22	L	56649	M	0.46	0.47	-0.15	-0.25	-0.25	0.47	2.7
	23	O	56740	M	0.53	0.49	-0.26	-0.30	0.49	-0.01	3.1
	24	L	67534	M	0.72	0.50	-0.27	-0.19	-0.25	0.50	3.2
	25	L	56780	M	0.78	0.43	-0.22	0.43	-0.27	-0.18	0.2
	26	O	54814	M	0.95	0.35	-0.20	0.35	-0.19	-0.19	0.2
	27	L	56586	M	0.72	0.45	0.45	-0.20	-0.28	-0.18	0.4
	28	O	56733	M	0.74	0.47	-0.31	-0.24	0.47	-0.18	0.3
	32	O	51471	M	0.61	0.60	-0.23	-0.40	-0.23	0.60	0.5
	33	L	56689	M	0.68	0.47	-0.16	0.47	-0.21	-0.34	0.3
	34	L	54826	M	0.56	0.49	0.49	-0.24	-0.20	-0.27	0.3
	36	L	56646	J	0.44	0.65					13.0
	37	L	67431	G	0.80	0.58	0.58	-0.52			1.9
	38	O	51522	G	0.35	0.47	0.47	-0.36			10.4
	39	L	51440	G	0.66	0.41	0.41	-0.34			2.9
	41	L	56786	J	0.47	0.66					5.0
	42	O	50438	M	0.32	0.34	-0.18	-0.12	0.34	-0.04	1.2
	43	O	56506	M	0.76	0.52	-0.22	-0.36	0.52	-0.17	1.3
	44	O	43197	M	0.63	0.53	0.53	-0.16	-0.34	-0.28	1.5
	45	O	64697	J	0.43	0.75					15.5
	46	L	43164	M	0.72	0.27	-0.14	-0.15	0.27	-0.12	1.4
	47	L	54673	M	0.58	0.49	-0.25	-0.25	-0.19	0.49	1.6
	48	O	67403	M	0.32	0.37	0.37	0.02	-0.20	-0.23	1.8

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	O	56764	M	0.80	0.38	0.38	-0.24	-0.24	-0.12	0.4
	2	L	56700	M	0.85	0.46	-0.24	0.46	-0.32	-0.16	0.4
	3	L	67433	M	0.42	0.32	-0.14	-0.15	0.32	-0.13	0.3
	4	O	51562	M	0.66	0.45	-0.20	0.45	-0.30	-0.17	0.2
	5	L	56638	M	0.60	0.51	0.51	-0.11	-0.34	-0.28	0.2
	8	L	67530	M	0.63	0.37	0.37	-0.12	-0.20	-0.23	0.2
	9	L	56807	M	0.63	0.46	-0.22	-0.28	-0.21	0.46	0.2
	10	O	54645	M	0.60	0.37	0.37	-0.18	-0.20	-0.20	0.2
	11	L	54611	M	0.59	0.40	0.40	-0.22	-0.19	-0.16	0.4
	12	L	79111	J	0.67	0.82					4.2
	14	O	67509	G	0.80	0.40	0.40	-0.35			1.4
	15	L	43141	G	0.51	0.42	0.42	-0.33			4.9
	16	O	79078	G	0.77	0.48	0.48	-0.42			3.1
	17	L	51510	J	0.36	0.67					8.1
	20	L	54806	M	0.66	0.55	-0.32	-0.27	-0.18	0.55	1.4
	21	L	50446	J	0.64	0.77					4.6
	22	L	56649	M	0.46	0.47	-0.15	-0.25	-0.25	0.47	2.7
	23	O	50386	M	0.57	0.44	-0.24	-0.24	0.44	-0.08	3.9
	24	L	67534	M	0.72	0.50	-0.27	-0.19	-0.25	0.50	3.2
	25	L	56780	M	0.78	0.43	-0.22	0.43	-0.27	-0.18	0.2
	26	O	54814	M	0.95	0.35	-0.20	0.35	-0.19	-0.19	0.2
	27	L	56586	M	0.72	0.45	0.45	-0.20	-0.28	-0.18	0.4
	28	O	56577	M	0.54	0.48	-0.17	-0.29	-0.21	0.48	0.6
	32	O	51471	M	0.61	0.60	-0.23	-0.40	-0.23	0.60	0.5
	33	L	56689	M	0.68	0.47	-0.16	0.47	-0.21	-0.34	0.3
	34	L	54826	M	0.56	0.49	0.49	-0.24	-0.20	-0.27	0.3
	36	L	56646	J	0.44	0.65					13.0
	37	L	67431	G	0.80	0.58	0.58	-0.52			1.9
	38	O	51522	G	0.35	0.47	0.47	-0.36			10.4
	39	L	51440	G	0.66	0.41	0.41	-0.34			2.9
	41	L	56786	J	0.47	0.66					5.0
	42	O	56442	M	0.42	0.34	0.34	-0.06	-0.23	-0.06	2.5
	43	O	56506	M	0.76	0.52	-0.22	-0.36	0.52	-0.17	1.3
	44	O	51412	M	0.54	0.48	-0.22	0.48	-0.29	-0.13	2.6
	45	O	64697	J	0.43	0.75					15.5
	46	L	43164	M	0.72	0.27	-0.14	-0.15	0.27	-0.12	1.4
	47	L	54673	M	0.58	0.49	-0.25	-0.25	-0.19	0.49	1.6
	48	O	51436	M	0.38	0.21	-0.10	-0.04	0.21	-0.08	2.5

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	O	56692	M	0.92	0.32	-0.23	0.32	-0.18	-0.12	0.1
	2	L	56700	M	0.85	0.46	-0.24	0.46	-0.32	-0.16	0.4
	3	L	67433	M	0.42	0.32	-0.14	-0.15	0.32	-0.13	0.3
	4	O	54557	M	0.89	0.41	0.41	-0.25	-0.25	-0.18	0.1
	5	L	56638	M	0.60	0.51	0.51	-0.11	-0.34	-0.28	0.2
	8	L	67530	M	0.63	0.37	0.37	-0.12	-0.20	-0.23	0.2
	9	L	56807	M	0.63	0.46	-0.22	-0.28	-0.21	0.46	0.2
	10	O	51553	M	0.37	0.27	-0.21	-0.14	0.27	0.05	1.0
	11	L	54611	M	0.59	0.40	0.40	-0.22	-0.19	-0.16	0.4
	12	L	79111	J	0.67	0.82					4.2
	14	O	50424	G	0.57	0.46	0.46	-0.31			7.3
	15	L	43141	G	0.51	0.42	0.42	-0.33			4.9
	16	O	79081	G	0.62	0.47	0.47	-0.34			6.7
	17	L	51510	J	0.36	0.67					8.1
	20	L	54806	M	0.66	0.55	-0.32	-0.27	-0.18	0.55	1.4
	21	L	50446	J	0.64	0.77					4.6
	22	L	56649	M	0.46	0.47	-0.15	-0.25	-0.25	0.47	2.7
	23	O	56740	M	0.53	0.49	-0.26	-0.30	0.49	-0.01	3.1
	24	L	67534	M	0.72	0.50	-0.27	-0.19	-0.25	0.50	3.2
	25	L	56780	M	0.78	0.43	-0.22	0.43	-0.27	-0.18	0.2
	26	O	43200	M	0.41	0.50	-0.33	-0.17	0.50	-0.13	0.8
	27	L	56586	M	0.72	0.45	0.45	-0.20	-0.28	-0.18	0.4
	28	O	56733	M	0.74	0.47	-0.31	-0.24	0.47	-0.18	0.3
	32	O	51446	M	0.35	0.51	0.51	-0.22	-0.14	-0.21	1.7
	33	L	56689	M	0.68	0.47	-0.16	0.47	-0.21	-0.34	0.3
	34	L	54826	M	0.56	0.49	0.49	-0.24	-0.20	-0.27	0.3
	36	L	56646	J	0.44	0.65					13.0
	37	L	67431	G	0.80	0.58	0.58	-0.52			1.9
	38	O	52328	G	0.35	0.38	0.38	-0.23			12.6
	39	L	51440	G	0.66	0.41	0.41	-0.34			2.9
	41	L	56786	J	0.47	0.66					5.0
	42	O	50438	M	0.32	0.34	-0.18	-0.12	0.34	-0.04	1.2
	43	O	56587	M	0.67	0.50	0.50	-0.30	-0.16	-0.16	3.1
	44	O	43197	M	0.63	0.53	0.53	-0.16	-0.34	-0.28	1.5
	45	O	43143	J	0.20	0.60					27.3
	46	L	43164	M	0.72	0.27	-0.14	-0.15	0.27	-0.12	1.4
	47	L	54673	M	0.58	0.49	-0.25	-0.25	-0.19	0.49	1.6
	48	O	67403	M	0.32	0.37	0.37	0.02	-0.20	-0.23	1.8

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
E-K	1	O	68217	M	0.65	0.34	0.34	-0.26	-0.14	-0.10	0.3
	2	O	67646	M	0.69	0.39	0.39	-0.32	-0.17	-0.10	0.1
	3	O	52477	M	0.85	0.11	0.11	0.02	-0.17	-0.09	0.1
	5	L	67650	M	0.42	0.43	-0.27	0.43	-0.06	-0.19	0.1
	6	L	68266	M	0.61	0.35	-0.13	-0.18	-0.20	0.35	0.2
	7	O	79402	M	0.32	0.39	-0.09	-0.14	-0.21	0.39	0.4
	8	O	67681	M	0.52	0.40	-0.23	-0.23	-0.10	0.40	0.2
	9	O	55118	M	0.34	0.20	0.03	-0.18	-0.08	0.20	0.3
	10	L	52607	J	0.39	0.68					3.2
	15	L	54999	M	0.69	0.36	0.36	-0.16	-0.25	-0.13	0.2
	16	L	54998	M	0.78	0.50	0.50	-0.33	-0.16	-0.28	0.2
	17	O	67606	M	0.60	0.20	-0.08	-0.16	0.20	-0.07	0.2
	18	L	67642	M	0.74	0.41	-0.25	-0.22	0.41	-0.20	0.2
	19	L	67640	M	0.71	0.40	-0.15	-0.20	0.40	-0.28	0.5
	20	L	94184	J	0.43	0.80					4.0
	21	L	64711	M	0.59	0.56	-0.16	-0.11	0.56	-0.46	0.3
	22	L	64712	M	0.55	0.54	-0.40	0.54	-0.16	-0.18	0.3
	23	O	57003	M	0.43	0.46	0.46	-0.26	-0.08	-0.24	0.4
	24	O	52626	M	0.89	0.33	-0.13	-0.21	0.33	-0.20	0.3
	25	O	79460	M	0.76	0.45	0.45	-0.27	-0.26	-0.17	0.4
	26	L	52491	J	0.36	0.78					6.3
	30	O	79485	M	0.67	0.32	-0.21	0.32	-0.10	-0.22	0.7
	31	L	68226	J	0.24	0.81					14.5
	32	L	79325	M	0.63	0.36	-0.27	0.36	-0.13	-0.17	1.3
	33	L	79324	M	0.63	0.45	-0.15	0.45	-0.30	-0.17	1.4
	34	L	79327	M	0.52	0.48	-0.25	0.48	-0.20	-0.17	1.6
	35	O	52436	M	0.82	0.46	0.46	-0.25	-0.26	-0.18	1.5
	36	O	79431	M	0.78	0.51	-0.28	-0.27	0.51	-0.23	1.6
	37	L	57167	M	0.66	0.46	0.46	-0.21	-0.29	-0.18	0.3
	38	L	57168	M	0.69	0.50	-0.27	0.50	-0.29	-0.21	0.3
	42	L	57046	M	0.39	0.23	0.23	-0.01	-0.16	-0.09	0.5
	43	L	57047	M	0.71	0.54	-0.33	-0.25	0.54	-0.23	0.3
	44	O	68247	M	0.78	0.38	0.38	-0.20	-0.21	-0.20	0.3
	45	O	65044	M	0.81	0.43	-0.20	-0.26	0.43	-0.21	0.3
	46	L	68176	J	0.35	0.78					5.3
	47	O	65106	M	0.47	0.30	-0.25	-0.04	-0.11	0.30	0.4
	48	O	79495	M	0.77	0.47	-0.27	-0.28	0.47	-0.21	0.3
	49	O	52591	M	0.67	0.38	-0.23	0.38	-0.17	-0.19	0.3
	50	L	67564	M	0.70	0.49	-0.24	0.49	-0.27	-0.25	0.4
	51	L	67565	M	0.74	0.44	-0.23	-0.16	0.44	-0.31	0.3
	52	L	67566	M	0.45	0.40	-0.20	-0.24	-0.07	0.40	0.5
	54	L	52661	J	0.34	0.73					7.2

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
	55	O	55089	M	0.60	0.38	0.38	-0.19	-0.19	-0.17	0.4
	56	O	65059	M	0.53	0.22	0.22	-0.01	-0.21	-0.20	0.4
	60	O	79421	M	0.82	0.38	-0.26	0.38	-0.18	-0.21	0.4
	61	L	64737	J	0.31	0.77					13.2
	62	L	65082	M	0.82	0.47	0.47	-0.31	-0.23	-0.20	0.5
	63	L	68296	M	0.45	0.37	-0.19	-0.24	0.37	-0.05	0.6
	64	L	68297	M	0.79	0.53	-0.23	-0.33	-0.25	0.53	0.5
	65	L	67678	M	0.47	0.40	-0.22	-0.10	-0.25	0.40	0.6
	67	L	55230	M	0.69	0.19	0.19	-0.03	-0.23	-0.17	1.1
	68	L	55229	M	0.85	0.43	-0.22	-0.26	0.43	-0.19	1.1
	69	L	57138	M	0.78	0.44	-0.19	0.44	-0.25	-0.23	1.1
	70	L	57156	M	0.56	0.45	-0.21	0.45	-0.18	-0.24	1.2
	71	O	64722	M	0.72	0.47	-0.19	-0.30	0.47	-0.21	1.2

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	O	67645	M	0.77	0.40	-0.23	0.40	-0.23	-0.15	0.3
	2	O	65143	M	0.54	0.41	-0.22	-0.25	0.41	-0.13	0.6
	3	O	52477	M	0.85	0.11	0.11	0.02	-0.17	-0.09	0.1
	5	L	67650	M	0.42	0.43	-0.27	0.43	-0.06	-0.19	0.1
	6	L	68266	M	0.61	0.35	-0.13	-0.18	-0.20	0.35	0.2
	7	O	55037	M	0.55	0.29	-0.27	0.29	-0.07	-0.07	0.3
	8	O	54959	M	0.42	0.24	0.00	-0.26	0.24	-0.20	0.2
	9	O	57098	M	0.44	0.32	-0.17	0.32	-0.18	-0.07	0.4
	10	L	52607	J	0.39	0.68					3.2
	15	L	54999	M	0.69	0.36	0.36	-0.16	-0.25	-0.13	0.2
	16	L	54998	M	0.78	0.50	0.50	-0.33	-0.16	-0.28	0.2
	17	O	67606	M	0.60	0.20	-0.08	-0.16	0.20	-0.07	0.2
	18	L	67642	M	0.74	0.41	-0.25	-0.22	0.41	-0.20	0.2
	19	L	67640	M	0.71	0.40	-0.15	-0.20	0.40	-0.28	0.5
	20	L	94184	J	0.43	0.80					4.0
	21	L	64711	M	0.59	0.56	-0.16	-0.11	0.56	-0.46	0.3
	22	L	64712	M	0.55	0.54	-0.40	0.54	-0.16	-0.18	0.3
	23	O	55243	M	0.48	0.49	0.49	-0.32	-0.14	-0.21	0.9
	24	O	52687	M	0.43	0.46	-0.19	0.46	-0.20	-0.19	1.0
	25	O	79460	M	0.76	0.45	0.45	-0.27	-0.26	-0.17	0.4
	26	L	52491	J	0.36	0.78					6.3
	30	O	79485	M	0.67	0.32	-0.21	0.32	-0.10	-0.22	0.7
	31	L	68226	J	0.24	0.81					14.5
	32	L	79325	M	0.63	0.36	-0.27	0.36	-0.13	-0.17	1.3
	33	L	79324	M	0.63	0.45	-0.15	0.45	-0.30	-0.17	1.4
	34	L	79327	M	0.52	0.48	-0.25	0.48	-0.20	-0.17	1.6
	35	O	54964	M	0.39	0.41	-0.17	-0.19	-0.11	0.41	2.3
	36	O	79431	M	0.78	0.51	-0.28	-0.27	0.51	-0.23	1.6
	37	L	57167	M	0.66	0.46	0.46	-0.21	-0.29	-0.18	0.3
	38	L	57168	M	0.69	0.50	-0.27	0.50	-0.29	-0.21	0.3
	42	L	57046	M	0.39	0.23	0.23	-0.01	-0.16	-0.09	0.5
	43	L	57047	M	0.71	0.54	-0.33	-0.25	0.54	-0.23	0.3
	44	O	68247	M	0.78	0.38	0.38	-0.20	-0.21	-0.20	0.3
	45	O	55207	M	0.54	0.54	0.54	-0.25	-0.26	-0.18	1.5
	46	L	68176	J	0.35	0.78					5.3
	47	O	68249	M	0.42	0.30	-0.11	0.30	-0.10	-0.14	1.2
	48	O	79495	M	0.77	0.47	-0.27	-0.28	0.47	-0.21	0.3
	49	O	52591	M	0.67	0.38	-0.23	0.38	-0.17	-0.19	0.3
	50	L	67564	M	0.70	0.49	-0.24	0.49	-0.27	-0.25	0.4
	51	L	67565	M	0.74	0.44	-0.23	-0.16	0.44	-0.31	0.3
	52	L	67566	M	0.45	0.40	-0.20	-0.24	-0.07	0.40	0.5
	54	L	52661	J	0.34	0.73					7.2

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
	55	O	55089	M	0.60	0.38	0.38	-0.19	-0.19	-0.17	0.4
	56	O	65059	M	0.53	0.22	0.22	-0.01	-0.21	-0.20	0.4
	60	O	79421	M	0.82	0.38	-0.26	0.38	-0.18	-0.21	0.4
	61	L	64737	J	0.31	0.77					13.2
	62	L	65082	M	0.82	0.47	0.47	-0.31	-0.23	-0.20	0.5
	63	L	68296	M	0.45	0.37	-0.19	-0.24	0.37	-0.05	0.6
	64	L	68297	M	0.79	0.53	-0.23	-0.33	-0.25	0.53	0.5
	65	L	67678	M	0.47	0.40	-0.22	-0.10	-0.25	0.40	0.6
	67	L	55230	M	0.69	0.19	0.19	-0.03	-0.23	-0.17	1.1
	68	L	55229	M	0.85	0.43	-0.22	-0.26	0.43	-0.19	1.1
	69	L	57138	M	0.78	0.44	-0.19	0.44	-0.25	-0.23	1.1
	70	L	57156	M	0.56	0.45	-0.21	0.45	-0.18	-0.24	1.2
	71	O	79477	M	0.27	0.23	0.23	-0.16	0.03	-0.07	2.5

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	O	68217	M	0.65	0.34	0.34	-0.26	-0.14	-0.10	0.3
	2	O	67646	M	0.69	0.39	0.39	-0.32	-0.17	-0.10	0.1
	3	O	52716	M	0.23	0.02	-0.02	-0.13	0.02	0.12	0.0
	5	L	67650	M	0.42	0.43	-0.27	0.43	-0.06	-0.19	0.1
	6	L	68266	M	0.61	0.35	-0.13	-0.18	-0.20	0.35	0.2
	7	O	79402	M	0.32	0.39	-0.09	-0.14	-0.21	0.39	0.4
	8	O	67681	M	0.52	0.40	-0.23	-0.23	-0.10	0.40	0.2
	9	O	55118	M	0.34	0.20	0.03	-0.18	-0.08	0.20	0.3
	10	L	52607	J	0.39	0.68					3.2
	15	L	54999	M	0.69	0.36	0.36	-0.16	-0.25	-0.13	0.2
	16	L	54998	M	0.78	0.50	0.50	-0.33	-0.16	-0.28	0.2
	17	O	79487	M	0.27	0.18	-0.01	-0.14	0.18	-0.03	0.7
	18	L	67642	M	0.74	0.41	-0.25	-0.22	0.41	-0.20	0.2
	19	L	67640	M	0.71	0.40	-0.15	-0.20	0.40	-0.28	0.5
	20	L	94184	J	0.43	0.80					4.0
	21	L	64711	M	0.59	0.56	-0.16	-0.11	0.56	-0.46	0.3
	22	L	64712	M	0.55	0.54	-0.40	0.54	-0.16	-0.18	0.3
	23	O	57003	M	0.43	0.46	0.46	-0.26	-0.08	-0.24	0.4
	24	O	52626	M	0.89	0.33	-0.13	-0.21	0.33	-0.20	0.3
	25	O	65075	M	0.67	0.54	-0.23	-0.25	-0.28	0.54	1.2
	26	L	52491	J	0.36	0.78					6.3
	30	O	55156	M	0.57	0.43	-0.07	-0.25	-0.21	0.43	1.7
	31	L	68226	J	0.24	0.81					14.5
	32	L	79325	M	0.63	0.36	-0.27	0.36	-0.13	-0.17	1.3
	33	L	79324	M	0.63	0.45	-0.15	0.45	-0.30	-0.17	1.4
	34	L	79327	M	0.52	0.48	-0.25	0.48	-0.20	-0.17	1.6
	35	O	52436	M	0.82	0.46	0.46	-0.25	-0.26	-0.18	1.5
	36	O	79480	M	0.43	0.30	-0.18	0.30	-0.22	0.04	2.6
	37	L	57167	M	0.66	0.46	0.46	-0.21	-0.29	-0.18	0.3
	38	L	57168	M	0.69	0.50	-0.27	0.50	-0.29	-0.21	0.3
	42	L	57046	M	0.39	0.23	0.23	-0.01	-0.16	-0.09	0.5
	43	L	57047	M	0.71	0.54	-0.33	-0.25	0.54	-0.23	0.3
	44	O	68248	M	0.34	0.46	-0.03	-0.29	-0.13	0.46	3.6
	45	O	65044	M	0.81	0.43	-0.20	-0.26	0.43	-0.21	0.3
	46	L	68176	J	0.35	0.78					5.3
	47	O	65106	M	0.47	0.30	-0.25	-0.04	-0.11	0.30	0.4
	48	O	79508	M	0.59	0.44	0.44	-0.17	-0.22	-0.15	2.2
	49	O	67583	M	0.24	0.31	0.31	-0.04	-0.22	0.05	2.2
	50	L	67564	M	0.70	0.49	-0.24	0.49	-0.27	-0.25	0.4
	51	L	67565	M	0.74	0.44	-0.23	-0.16	0.44	-0.31	0.3
	52	L	67566	M	0.45	0.40	-0.20	-0.24	-0.07	0.40	0.5
	54	L	52661	J	0.34	0.73					7.2

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
	55	O	52586	M	0.54	0.34	0.34	-0.19	-0.07	-0.11	3.1
	56	O	68243	M	0.39	0.33	-0.05	0.33	-0.05	-0.17	2.9
	60	O	65066	M	0.31	0.23	-0.12	-0.16	0.11	0.23	2.9
	61	L	64737	J	0.31	0.77					13.2
	62	L	65082	M	0.82	0.47	0.47	-0.31	-0.23	-0.20	0.5
	63	L	68296	M	0.45	0.37	-0.19	-0.24	0.37	-0.05	0.6
	64	L	68297	M	0.79	0.53	-0.23	-0.33	-0.25	0.53	0.5
	65	L	67678	M	0.47	0.40	-0.22	-0.10	-0.25	0.40	0.6
	67	L	55230	M	0.69	0.19	0.19	-0.03	-0.23	-0.17	1.1
	68	L	55229	M	0.85	0.43	-0.22	-0.26	0.43	-0.19	1.1
	69	L	57138	M	0.78	0.44	-0.19	0.44	-0.25	-0.23	1.1
	70	L	57156	M	0.56	0.45	-0.21	0.45	-0.18	-0.24	1.2
	71	O	64722	M	0.72	0.47	-0.19	-0.30	0.47	-0.21	1.2

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
E-K	1	O	96066	J	0.65	0.59					1.7
	2	O	95953	M	0.62	0.28	0.28	-0.10	-0.31	-0.07	0.1
	4	O	95955	M	0.62	0.26	-0.14	-0.18	-0.15	0.26	0.1
	5	O	95956	M	0.70	0.37	-0.24	0.37	-0.15	-0.18	0.1
	6	O	95957	M	0.57	0.46	-0.27	-0.24	0.46	-0.20	0.2
	7	L	95581	M	0.89	0.38	-0.18	-0.21	0.38	-0.24	0.1
	8	L	95582	M	0.61	0.45	-0.25	-0.32	0.45	-0.08	0.2
	9	L	95583	M	0.87	0.48	-0.27	-0.32	-0.20	0.48	0.1
	10	L	95584	M	0.87	0.44	-0.29	0.44	-0.22	-0.21	0.1
	11	L	95585	M	0.61	0.37	-0.13	-0.19	-0.26	0.37	0.4
	12	L	95586	M	0.78	0.38	0.38	-0.28	-0.26	-0.13	0.3
	13	L	95587	M	0.75	0.39	-0.17	0.39	-0.22	-0.22	0.3
	14	L	95588	M	0.85	0.48	-0.26	-0.25	-0.29	0.48	0.4
	20	O	96245	M	0.55	0.42	-0.16	-0.17	-0.24	0.42	2.0
	21	O	96246	M	0.74	0.46	-0.18	-0.26	-0.27	0.46	1.9
	22	O	96247	M	0.66	0.42	0.42	-0.24	-0.22	-0.17	2.0
	23*	O	96248	M	0.71	0.53	-0.27	-0.28	0.53	-0.24	2.6
	24*	O	96249	M	0.73	0.49	0.49	-0.24	-0.25	-0.24	2.7
	25*	O	96250	J	0.53	0.68					7.9
	26*	O	96355	J	0.63	0.66					1.3
	27*	L	96201	M	0.67	0.36	-0.25	-0.09	0.36	-0.22	0.4
	28*	L	96202	M	0.69	0.22	0.22	-0.10	-0.17	-0.18	0.2
	29*	L	96203	M	0.84	0.44	-0.27	-0.25	0.44	-0.18	0.2
	30*	L	96301	M	0.64	0.45	-0.26	-0.19	0.45	-0.20	0.4
	31*	L	96302	M	0.66	0.39	0.39	-0.18	-0.21	-0.26	0.2
	32*	L	96303	M	0.74	0.42	0.42	-0.24	-0.21	-0.19	0.2
	33*	L	96164	M	0.80	0.42	-0.29	-0.28	0.42	-0.09	0.4
	34*	L	96165	M	0.65	0.45	-0.33	-0.17	-0.12	0.45	0.5
	35*	L	96166	M	0.78	0.45	-0.28	0.45	-0.23	-0.21	0.3
	36*	L	96167	M	0.47	0.37	-0.10	-0.30	-0.09	0.37	0.4
	37*	L	96168	M	0.73	0.40	0.40	-0.25	-0.14	-0.23	0.3
	51*	L	96270	M	0.57	0.25	-0.19	-0.13	-0.11	0.25	0.8
	52*	L	96271	M	0.86	0.40	0.40	-0.24	-0.25	-0.15	0.3
	53*	L	96272	M	0.85	0.44	-0.23	-0.26	0.44	-0.23	0.4
	54*	L	96273	M	0.59	0.46	-0.17	-0.26	-0.20	0.46	0.4
	55*	L	96275	M	0.83	0.38	0.38	-0.19	-0.20	-0.21	0.4
	56*	L	96274	M	0.83	0.36	-0.22	0.36	-0.26	-0.12	0.4
	57*	L	96276	M	0.76	0.45	-0.30	-0.22	0.45	-0.20	0.5
	58*	L	96277	M	0.84	0.42	-0.23	0.42	-0.22	-0.22	0.4
	59*	L	96278	M	0.53	0.21	-0.14	0.21	-0.01	-0.18	0.5
	60*	L	96279	J	0.53	0.68					3.9
	61*	O	96377	M	0.72	0.50	-0.22	-0.27	0.50	-0.27	0.5

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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
	62*	O	96378	M	0.82	0.44	-0.24	0.44	-0.24	-0.21	0.5
	63*	O	96379	M	0.72	0.35	0.35	-0.24	-0.16	-0.12	0.5
	64*	O	96380	M	0.61	0.34	0.34	-0.18	-0.21	-0.10	0.5
	65*	O	96381	M	0.68	0.45	0.45	-0.28	-0.28	-0.14	0.5
	66*	O	96104	M	0.84	0.50	-0.26	-0.28	0.50	-0.26	0.5
	67*	L	96105	M	0.75	0.45	0.45	-0.26	-0.23	-0.24	0.6
	70*	O	96116	M	0.84	0.51	0.51	-0.25	-0.32	-0.21	1.0
	71*	O	96117	M	0.48	0.40	-0.24	-0.12	-0.22	0.40	1.0

* Tabled item position number is based on Form E and varies somewhat on Forms F-K.

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	95952	J	0.58	0.65					4.4
	2	O	95959	M	0.86	0.40	-0.19	0.40	-0.27	-0.20	0.0
	4	O	95960	M	0.65	0.54	0.54	-0.26	-0.34	-0.20	0.0
	5	O	95961	M	0.20	0.21	-0.14	-0.05	-0.01	0.21	0.9
	6	O	95962	M	0.90	0.40	-0.22	-0.19	0.40	-0.27	0.0
	7	L	95581	M	0.89	0.38	-0.18	-0.21	0.38	-0.24	0.1
	8	L	95582	M	0.61	0.45	-0.25	-0.32	0.45	-0.08	0.2
	9	L	95583	M	0.87	0.48	-0.27	-0.32	-0.20	0.48	0.1
	10	L	95584	M	0.87	0.44	-0.29	0.44	-0.22	-0.21	0.1
	11	L	95585	M	0.61	0.37	-0.13	-0.19	-0.26	0.37	0.4
	12	L	95586	M	0.78	0.38	0.38	-0.28	-0.26	-0.13	0.3
	13	L	95587	M	0.75	0.39	-0.17	0.39	-0.22	-0.22	0.3
	14	L	95588	M	0.85	0.48	-0.26	-0.25	-0.29	0.48	0.4
	20	O	96245	M	0.55	0.42	-0.16	-0.17	-0.24	0.42	2.0
	21	O	96246	M	0.74	0.46	-0.18	-0.26	-0.27	0.46	1.9
	22	O	96247	M	0.66	0.42	0.42	-0.24	-0.22	-0.17	2.0
	23	O	96248	M	0.71	0.53	-0.27	-0.28	0.53	-0.24	2.6
	24	O	96249	M	0.73	0.49	0.49	-0.24	-0.25	-0.24	2.7
	25	O	96250	J	0.53	0.68					7.9
	26	O	96355	J	0.63	0.66					1.3
	27	L	96201	M	0.67	0.36	-0.25	-0.09	0.36	-0.22	0.4
	28	L	96202	M	0.69	0.22	0.22	-0.10	-0.17	-0.18	0.2
	29	L	96203	M	0.84	0.44	-0.27	-0.25	0.44	-0.18	0.2
	30	L	96301	M	0.64	0.45	-0.26	-0.19	0.45	-0.20	0.4
	31	L	96302	M	0.66	0.39	0.39	-0.18	-0.21	-0.26	0.2
	32	L	96303	M	0.74	0.42	0.42	-0.24	-0.21	-0.19	0.2
	33	L	96164	M	0.80	0.42	-0.29	-0.28	0.42	-0.09	0.4
	34	L	96165	M	0.65	0.45	-0.33	-0.17	-0.12	0.45	0.5
	35	L	96166	M	0.78	0.45	-0.28	0.45	-0.23	-0.21	0.3
	36	L	96167	M	0.47	0.37	-0.10	-0.30	-0.09	0.37	0.4
	37	L	96168	M	0.73	0.40	0.40	-0.25	-0.14	-0.23	0.3
	51	L	96270	M	0.57	0.25	-0.19	-0.13	-0.11	0.25	0.8
	52	L	96271	M	0.86	0.40	0.40	-0.24	-0.25	-0.15	0.3
	53	L	96272	M	0.85	0.44	-0.23	-0.26	0.44	-0.23	0.4
	54	L	96273	M	0.59	0.46	-0.17	-0.26	-0.20	0.46	0.4
	55	L	96275	M	0.83	0.38	0.38	-0.19	-0.20	-0.21	0.4
	56	L	96274	M	0.83	0.36	-0.22	0.36	-0.26	-0.12	0.4
	57	L	96276	M	0.76	0.45	-0.30	-0.22	0.45	-0.20	0.5
	58	L	96277	M	0.84	0.42	-0.23	0.42	-0.22	-0.22	0.4
	59	L	96278	M	0.53	0.21	-0.14	0.21	-0.01	-0.18	0.5
	60	L	96279	J	0.53	0.68					3.9
	61	O	96124	M	0.66	0.58	-0.27	-0.23	-0.29	0.58	1.7

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
	62	O	96125	M	0.64	0.48	-0.27	0.48	-0.27	-0.12	1.8
	63	O	96126	M	0.77	0.51	-0.29	-0.23	0.51	-0.20	2.0
	64	O	96127	M	0.59	0.43	0.43	-0.18	-0.17	-0.21	1.9
	65	O	96128	M	0.72	0.50	-0.19	-0.26	0.50	-0.25	1.9
	66	O	96104	M	0.84	0.50	-0.26	-0.28	0.50	-0.26	0.5
	67	L	96105	M	0.75	0.45	0.45	-0.26	-0.23	-0.24	0.6
	70	O	96116	M	0.84	0.51	0.51	-0.25	-0.32	-0.21	1.0
	71	O	96117	M	0.48	0.40	-0.24	-0.12	-0.22	0.40	1.0

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	96066	J	0.65	0.59					1.7
	2	O	95953	M	0.62	0.28	0.28	-0.10	-0.31	-0.07	0.1
	4	O	95955	M	0.62	0.26	-0.14	-0.18	-0.15	0.26	0.1
	5	O	95956	M	0.70	0.37	-0.24	0.37	-0.15	-0.18	0.1
	6	O	95957	M	0.57	0.46	-0.27	-0.24	0.46	-0.20	0.2
	7	L	95581	M	0.89	0.38	-0.18	-0.21	0.38	-0.24	0.1
	8	L	95582	M	0.61	0.45	-0.25	-0.32	0.45	-0.08	0.2
	9	L	95583	M	0.87	0.48	-0.27	-0.32	-0.20	0.48	0.1
	10	L	95584	M	0.87	0.44	-0.29	0.44	-0.22	-0.21	0.1
	11	L	95585	M	0.61	0.37	-0.13	-0.19	-0.26	0.37	0.4
	12	L	95586	M	0.78	0.38	0.38	-0.28	-0.26	-0.13	0.3
	13	L	95587	M	0.75	0.39	-0.17	0.39	-0.22	-0.22	0.3
	14	L	95588	M	0.85	0.48	-0.26	-0.25	-0.29	0.48	0.4
	20	O	96440	M	0.43	0.33	-0.01	-0.26	0.33	-0.17	2.1
	21	O	96441	M	0.38	0.46	-0.34	-0.23	-0.08	0.46	1.6
	22	O	96442	M	0.55	0.45	-0.20	-0.22	0.45	-0.21	1.9
	23	O	96443	M	0.64	0.50	-0.20	0.50	-0.34	-0.21	2.5
	24	O	96444	M	0.26	0.04	0.04	-0.21	-0.07	0.16	1.9
	25	O	96445	J	0.35	0.68					19.5
	26	O	96193	J	0.43	0.61					11.3
	27	L	96201	M	0.67	0.36	-0.25	-0.09	0.36	-0.22	0.4
	28	L	96202	M	0.69	0.22	0.22	-0.10	-0.17	-0.18	0.2
	29	L	96203	M	0.84	0.44	-0.27	-0.25	0.44	-0.18	0.2
	30	L	96301	M	0.64	0.45	-0.26	-0.19	0.45	-0.20	0.4
	31	L	96302	M	0.66	0.39	0.39	-0.18	-0.21	-0.26	0.2
	32	L	96303	M	0.74	0.42	0.42	-0.24	-0.21	-0.19	0.2
	33	L	96164	M	0.80	0.42	-0.29	-0.28	0.42	-0.09	0.4
	34	L	96165	M	0.65	0.45	-0.33	-0.17	-0.12	0.45	0.5
	35	L	96166	M	0.78	0.45	-0.28	0.45	-0.23	-0.21	0.3
	36	L	96167	M	0.47	0.37	-0.10	-0.30	-0.09	0.37	0.4
	37	L	96168	M	0.73	0.40	0.40	-0.25	-0.14	-0.23	0.3
	51	L	96270	M	0.57	0.25	-0.19	-0.13	-0.11	0.25	0.8
	52	L	96271	M	0.86	0.40	0.40	-0.24	-0.25	-0.15	0.3
	53	L	96272	M	0.85	0.44	-0.23	-0.26	0.44	-0.23	0.4
	54	L	96273	M	0.59	0.46	-0.17	-0.26	-0.20	0.46	0.4
	55	L	96275	M	0.83	0.38	0.38	-0.19	-0.20	-0.21	0.4
	56	L	96274	M	0.83	0.36	-0.22	0.36	-0.26	-0.12	0.4
	57	L	96276	M	0.76	0.45	-0.30	-0.22	0.45	-0.20	0.5
	58	L	96277	M	0.84	0.42	-0.23	0.42	-0.22	-0.22	0.4
	59	L	96278	M	0.53	0.21	-0.14	0.21	-0.01	-0.18	0.5
	60	L	96279	J	0.53	0.68					3.9
	61	O	96377	M	0.72	0.50	-0.22	-0.27	0.50	-0.27	0.5

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
	62	O	96378	M	0.82	0.44	-0.24	0.44	-0.24	-0.21	0.5
	63	O	96379	M	0.72	0.35	0.35	-0.24	-0.16	-0.12	0.5
	64	O	96380	M	0.61	0.34	0.34	-0.18	-0.21	-0.10	0.5
	65	O	96381	M	0.68	0.45	0.45	-0.28	-0.28	-0.14	0.5
	66	O	96103	M	0.56	0.52	-0.27	-0.19	-0.24	0.52	1.6
	67	L	96105	M	0.75	0.45	0.45	-0.26	-0.23	-0.24	0.6
	70	O	96385	M	0.55	0.45	-0.22	-0.16	0.45	-0.22	1.6
	71	O	96386	M	0.41	0.25	-0.03	-0.10	-0.16	0.25	1.6

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
E-K	1	L	58194	M	0.73	0.31	-0.21	0.31	-0.19	-0.11	0.1
	2	L	79636	M	0.82	0.29	-0.19	0.29	-0.15	-0.13	0.1
	3	L	79587	M	0.82	0.49	0.49	-0.19	-0.31	-0.29	0.1
	4	O	68094	M	0.51	0.48	0.48	-0.14	-0.29	-0.20	0.2
	5	O	68101	M	0.61	0.45	-0.28	-0.19	0.45	-0.20	0.2
	6	L	68036	J	0.47	0.75					2.5
	7	L	51122	M	0.70	0.40	-0.21	0.40	-0.28	-0.13	0.4
	8	O	79742	M	0.60	0.38	-0.18	-0.18	0.38	-0.19	0.5
	12	L	50997	M	0.49	0.38	-0.13	-0.27	0.38	-0.13	0.3
	13	L	50924	M	0.91	0.32	-0.16	0.32	-0.19	-0.17	0.1
	14	L	79543	M	0.80	0.51	-0.29	0.51	-0.27	-0.25	0.2
	15	L	79589	M	0.76	0.41	0.41	-0.21	-0.19	-0.24	0.2
	16	L	68743	J	0.41	0.78					5.2
	17	L	68495	M	0.55	0.46	0.46	-0.25	-0.32	-0.07	0.3
	18	L	79652	M	0.67	0.55	0.55	-0.26	-0.29	-0.29	0.3
	21	L	52235	J	0.40	0.78					7.4
	22	O	79610	M	0.44	0.45	-0.18	-0.20	0.45	-0.19	0.3
	23	L	68688	M	0.64	0.46	-0.19	-0.27	0.46	-0.21	0.4
	24	O	68748	M	0.64	0.52	-0.28	0.52	-0.25	-0.27	0.3
	25	O	58124	M	0.47	0.55	-0.23	-0.27	0.55	-0.22	0.4
	26	O	68510	M	0.73	0.55	-0.26	-0.28	-0.31	0.55	0.4
	27	O	52290	M	0.78	0.53	-0.25	0.53	-0.30	-0.27	0.4
	28	O	68585	J	0.40	0.79					8.9
	31	O	68566	M	0.51	0.35	-0.11	0.35	-0.24	-0.15	1.4
	32	L	58438	M	0.70	0.48	-0.20	-0.23	-0.26	0.48	1.5
	33	L	68493	J	0.40	0.79					10.8
	34	O	68576	M	0.69	0.46	-0.21	0.46	-0.29	-0.16	1.9
	35	O	52216	M	0.45	0.38	-0.20	-0.10	0.38	-0.21	2.0
	36	L	55652	M	0.64	0.53	0.53	-0.20	-0.28	-0.27	2.1
	37	O	65213	M	0.74	0.44	-0.23	0.44	-0.28	-0.16	0.3
	38	L	65173	M	0.90	0.42	-0.27	-0.22	0.42	-0.19	0.3
	39	L	68645	M	0.75	0.34	-0.13	0.34	-0.20	-0.19	0.4
	40	L	68635	J	0.46	0.75					3.9
	41	L	79690	M	0.63	0.39	-0.18	-0.26	0.39	-0.13	0.4
	42	O	52262	M	0.66	0.46	-0.25	-0.25	0.46	-0.19	0.4
	43	L	68539	M	0.39	0.32	0.32	-0.11	-0.23	-0.03	0.5
	44	L	79719	M	0.58	0.37	0.37	-0.13	-0.24	-0.17	0.4
	46	O	55504	M	0.79	0.40	0.40	-0.23	-0.19	-0.21	0.4
	49	L	58410	M	0.65	0.34	0.34	-0.15	-0.27	-0.22	0.4
	51	L	79615	M	0.69	0.13	0.09	-0.15	0.13	-0.20	0.4
	52	L	79678	M	0.56	0.47	-0.23	-0.29	0.47	-0.12	0.5
	55	L	68775	J	0.45	0.75					5.6

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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
	56	L	58157	M	0.87	0.49	-0.24	0.49	-0.28	-0.24	0.5
	57	O	79609	M	0.80	0.46	0.46	-0.26	-0.24	-0.20	0.5
	58	O	79710	M	0.69	0.35	-0.15	-0.20	0.35	-0.14	0.6
	59	L	68529	M	0.67	0.52	-0.23	-0.25	0.52	-0.27	0.7
	60	L	52234	J	0.45	0.76					7.2
	61	O	65211	M	0.60	0.46	-0.18	-0.22	-0.27	0.46	0.6
	62	O	68535	M	0.91	0.44	0.44	-0.24	-0.27	-0.17	0.6
	63	L	68537	M	0.41	0.45	0.45	-0.25	-0.23	-0.18	0.6
	64	O	60445	M	0.67	0.46	-0.16	0.46	-0.33	-0.19	0.7
	67	L	58357	M	0.69	0.32	0.32	-0.17	-0.23	-0.07	0.8
	68	L	58226	M	0.33	0.44	-0.09	-0.23	-0.26	0.44	0.8
	69	O	68533	M	0.65	0.32	-0.18	0.32	-0.16	-0.11	0.8
	70	L	55526	M	0.45	0.26	0.02	0.26	-0.17	-0.17	1.0
	71	L	64956	M	0.79	0.54	-0.27	-0.29	0.54	-0.27	0.9
	72	L	50840	M	0.51	0.51	-0.22	0.51	-0.27	-0.21	1.0
	73	O	51203	M	0.60	0.51	-0.25	-0.24	-0.21	0.51	1.0

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
Y	1	L	58194	M	0.73	0.31	-0.21	0.31	-0.19	-0.11	0.1
	2	L	79636	M	0.82	0.29	-0.19	0.29	-0.15	-0.13	0.1
	3	L	79587	M	0.82	0.49	0.49	-0.19	-0.31	-0.29	0.1
	4	O	68094	M	0.51	0.48	0.48	-0.14	-0.29	-0.20	0.2
	5	O	68092	M	0.78	0.45	-0.22	-0.24	-0.24	0.45	0.3
	6	L	68036	J	0.47	0.75					2.5
	7	L	51122	M	0.70	0.40	-0.21	0.40	-0.28	-0.13	0.4
	8	O	68032	M	0.39	0.47	-0.18	-0.19	-0.20	0.47	1.2
	12	L	50997	M	0.49	0.38	-0.13	-0.27	0.38	-0.13	0.3
	13	L	50924	M	0.91	0.32	-0.16	0.32	-0.19	-0.17	0.1
	14	L	79543	M	0.80	0.51	-0.29	0.51	-0.27	-0.25	0.2
	15	L	79589	M	0.76	0.41	0.41	-0.21	-0.19	-0.24	0.2
	16	L	68743	J	0.41	0.78					5.2
	17	L	68495	M	0.55	0.46	0.46	-0.25	-0.32	-0.07	0.3
	18	L	79652	M	0.67	0.55	0.55	-0.26	-0.29	-0.29	0.3
	21	L	52235	J	0.40	0.78					7.4
	22	O	79610	M	0.44	0.45	-0.18	-0.20	0.45	-0.19	0.3
	23	L	68688	M	0.64	0.46	-0.19	-0.27	0.46	-0.21	0.4
	24	O	68748	M	0.64	0.52	-0.28	0.52	-0.25	-0.27	0.3
	25	O	58124	M	0.47	0.55	-0.23	-0.27	0.55	-0.22	0.4
	26	O	68752	M	0.51	0.55	0.55	-0.25	-0.26	-0.20	0.7
	27	O	52290	M	0.78	0.53	-0.25	0.53	-0.30	-0.27	0.4
	28	O	65159	J	0.33	0.81					18.1
	31	O	52282	M	0.43	0.49	-0.27	-0.15	-0.14	0.49	2.4
	32	L	58438	M	0.70	0.48	-0.20	-0.23	-0.26	0.48	1.5
	33	L	68493	J	0.40	0.79					10.8
	34	O	68698	M	0.57	0.43	0.43	-0.24	-0.21	-0.11	3.2
	35	O	52216	M	0.45	0.38	-0.20	-0.10	0.38	-0.21	2.0
	36	L	55652	M	0.64	0.53	0.53	-0.20	-0.28	-0.27	2.1
	37	O	51772	M	0.54	0.53	-0.13	-0.26	-0.32	0.53	0.8
	38	L	65173	M	0.90	0.42	-0.27	-0.22	0.42	-0.19	0.3
	39	L	68645	M	0.75	0.34	-0.13	0.34	-0.20	-0.19	0.4
	40	L	68635	J	0.46	0.75					3.9
	41	L	79690	M	0.63	0.39	-0.18	-0.26	0.39	-0.13	0.4
	42	O	59845	M	0.41	0.23	-0.01	-0.12	0.23	-0.17	1.1
	43	L	68539	M	0.39	0.32	0.32	-0.11	-0.23	-0.03	0.5
	44	L	79719	M	0.58	0.37	0.37	-0.13	-0.24	-0.17	0.4
	46	O	55504	M	0.79	0.40	0.40	-0.23	-0.19	-0.21	0.4
	49	L	58410	M	0.65	0.34	0.34	-0.15	-0.27	-0.22	0.4
	51	L	79615	M	0.69	0.13	0.09	-0.15	0.13	-0.20	0.4
	52	L	79678	M	0.56	0.47	-0.23	-0.29	0.47	-0.12	0.5
	55	L	68775	J	0.45	0.75					5.6

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
	56	L	58157	M	0.87	0.49	-0.24	0.49	-0.28	-0.24	0.5
	57	O	58318	M	0.58	0.43	-0.20	-0.24	0.43	-0.14	1.3
	58	O	51052	M	0.48	0.29	0.29	-0.03	-0.14	-0.22	1.5
	59	L	68529	M	0.67	0.52	-0.23	-0.25	0.52	-0.27	0.7
	60	L	52234	J	0.45	0.76					7.2
	61	O	58284	M	0.58	0.46	-0.17	-0.27	0.46	-0.16	1.4
	62	O	68535	M	0.91	0.44	0.44	-0.24	-0.27	-0.17	0.6
	63	L	68537	M	0.41	0.45	0.45	-0.25	-0.23	-0.18	0.6
	64	O	60445	M	0.67	0.46	-0.16	0.46	-0.33	-0.19	0.7
	67	L	58357	M	0.69	0.32	0.32	-0.17	-0.23	-0.07	0.8
	68	L	58226	M	0.33	0.44	-0.09	-0.23	-0.26	0.44	0.8
	69	O	68533	M	0.65	0.32	-0.18	0.32	-0.16	-0.11	0.8
	70	L	55526	M	0.45	0.26	0.02	0.26	-0.17	-0.17	1.0
	71	L	64956	M	0.79	0.54	-0.27	-0.29	0.54	-0.27	0.9
	72	L	50840	M	0.51	0.51	-0.22	0.51	-0.27	-0.21	1.0
	73	O	51203	M	0.60	0.51	-0.25	-0.24	-0.21	0.51	1.0

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	58194	M	0.73	0.31	-0.21	0.31	-0.19	-0.11	0.1
	2	L	79636	M	0.82	0.29	-0.19	0.29	-0.15	-0.13	0.1
	3	L	79587	M	0.82	0.49	0.49	-0.19	-0.31	-0.29	0.1
	4	O	68039	M	0.55	0.50	-0.27	-0.22	-0.22	0.50	0.2
	5	O	68101	M	0.61	0.45	-0.28	-0.19	0.45	-0.20	0.2
	6	L	68036	J	0.47	0.75					2.5
	7	L	51122	M	0.70	0.40	-0.21	0.40	-0.28	-0.13	0.4
	8	O	79742	M	0.60	0.38	-0.18	-0.18	0.38	-0.19	0.5
	12	L	50997	M	0.49	0.38	-0.13	-0.27	0.38	-0.13	0.3
	13	L	50924	M	0.91	0.32	-0.16	0.32	-0.19	-0.17	0.1
	14	L	79543	M	0.80	0.51	-0.29	0.51	-0.27	-0.25	0.2
	15	L	79589	M	0.76	0.41	0.41	-0.21	-0.19	-0.24	0.2
	16	L	68743	J	0.41	0.78					5.2
	17	L	68495	M	0.55	0.46	0.46	-0.25	-0.32	-0.07	0.3
	18	L	79652	M	0.67	0.55	0.55	-0.26	-0.29	-0.29	0.3
	21	L	52235	J	0.40	0.78					7.4
	22	O	79714	M	0.48	0.34	-0.20	-0.15	0.34	-0.08	0.7
	23	L	68688	M	0.64	0.46	-0.19	-0.27	0.46	-0.21	0.4
	24	O	58251	M	0.51	0.57	-0.27	-0.24	-0.24	0.57	0.7
	25	O	68050	M	0.39	0.37	-0.21	0.37	-0.15	-0.09	0.9
	26	O	68510	M	0.73	0.55	-0.26	-0.28	-0.31	0.55	0.4
	27	O	55574	M	0.46	0.50	0.50	-0.25	-0.15	-0.23	0.7
	28	O	68585	J	0.40	0.79					8.9
	31	O	68566	M	0.51	0.35	-0.11	0.35	-0.24	-0.15	1.4
	32	L	58438	M	0.70	0.48	-0.20	-0.23	-0.26	0.48	1.5
	33	L	68493	J	0.40	0.79					10.8
	34	O	68576	M	0.69	0.46	-0.21	0.46	-0.29	-0.16	1.9
	35	O	51006	M	0.32	0.24	-0.10	0.01	0.24	-0.13	2.8
	36	L	55652	M	0.64	0.53	0.53	-0.20	-0.28	-0.27	2.1
	37	O	65213	M	0.74	0.44	-0.23	0.44	-0.28	-0.16	0.3
	38	L	65173	M	0.90	0.42	-0.27	-0.22	0.42	-0.19	0.3
	39	L	68645	M	0.75	0.34	-0.13	0.34	-0.20	-0.19	0.4
	40	L	68635	J	0.46	0.75					3.9
	41	L	79690	M	0.63	0.39	-0.18	-0.26	0.39	-0.13	0.4
	42	O	52262	M	0.66	0.46	-0.25	-0.25	0.46	-0.19	0.4
	43	L	68539	M	0.39	0.32	0.32	-0.11	-0.23	-0.03	0.5
	44	L	79719	M	0.58	0.37	0.37	-0.13	-0.24	-0.17	0.4
	46	O	51016	M	0.47	0.49	0.49	-0.25	-0.20	-0.15	0.9
	49	L	58410	M	0.65	0.34	0.34	-0.15	-0.27	-0.22	0.4
	51	L	79615	M	0.69	0.13	0.09	-0.15	0.13	-0.20	0.4
	52	L	79678	M	0.56	0.47	-0.23	-0.29	0.47	-0.12	0.5
	55	L	68775	J	0.45	0.75					5.6

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
	56	L	58157	M	0.87	0.49	-0.24	0.49	-0.28	-0.24	0.5
	57	O	79609	M	0.80	0.46	0.46	-0.26	-0.24	-0.20	0.5
	58	O	79710	M	0.69	0.35	-0.15	-0.20	0.35	-0.14	0.6
	59	L	68529	M	0.67	0.52	-0.23	-0.25	0.52	-0.27	0.7
	60	L	52234	J	0.45	0.76					7.2
	61	O	65211	M	0.60	0.46	-0.18	-0.22	-0.27	0.46	0.6
	62	O	68726	M	0.66	0.52	-0.30	0.52	-0.30	-0.12	1.6
	63	L	68537	M	0.41	0.45	0.45	-0.25	-0.23	-0.18	0.6
	64	O	60451	M	0.57	0.54	-0.26	-0.29	0.54	-0.12	1.6
	67	L	58357	M	0.69	0.32	0.32	-0.17	-0.23	-0.07	0.8
	68	L	58226	M	0.33	0.44	-0.09	-0.23	-0.26	0.44	0.8
	69	O	53701	M	0.64	0.58	0.58	-0.29	-0.27	-0.24	2.0
	70	L	55526	M	0.45	0.26	0.02	0.26	-0.17	-0.17	1.0
	71	L	64956	M	0.79	0.54	-0.27	-0.29	0.54	-0.27	0.9
	72	L	50840	M	0.51	0.51	-0.22	0.51	-0.27	-0.21	1.0
	73	O	58373	M	0.34	0.33	0.33	-0.21	-0.11	0.00	1.8

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
L	1	L	51405	M	0.71	0.31	-0.21	0.31	-0.17	-0.09	0.4
	2	O	54764	M	0.58	0.48	-0.28	-0.17	-0.23	0.48	0.0
	3	O	56611	M	0.49	0.46	-0.23	-0.15	-0.30	0.46	0.0
	4	O	56385	M	0.52	0.51	-0.21	-0.29	-0.21	0.51	0.0
	5	L	56428	M	0.43	0.45	0.45	-0.10	-0.21	-0.24	0.5
	8	O	51356	M	0.68	0.60	-0.35	-0.25	-0.30	0.60	0.7
	9	O	79050	M	0.27	0.29	-0.07	0.29	-0.01	-0.16	2.6
	10	L	54690	M	0.85	0.24	-0.16	0.24	-0.12	-0.12	0.3
	11	O	54837	M	0.71	0.34	-0.22	-0.18	0.34	-0.14	1.3
	12	L	50375	J	0.22	0.67					20.0
	14	L	56565	G	0.31	0.54	0.54	-0.34			11.4
	15	O	67495	G	0.28	0.47	0.47	-0.27			17.2
	16	L	50395	G	0.16	0.41	0.41	-0.14			11.9
	17	L	51379	J	0.21	0.67					27.2
	20	O	51513	M	0.38	0.33	0.33	-0.01	-0.25	-0.04	5.3
	21	L	50392	J	0.29	0.64					26.0
	22	O	51478	M	0.30	0.11	0.11	0.30	-0.32	-0.14	7.9
	23	L	56673	M	0.23	0.09	0.05	-0.05	0.09	-0.01	7.0
	24	L	54902	M	0.33	0.32	-0.19	0.04	-0.17	0.32	7.1
	25	O	51461	M	0.72	0.53	-0.27	0.53	-0.26	-0.16	2.6
	26	L	56552	M	0.49	0.33	0.33	-0.16	-0.14	-0.07	1.8
	27	O	54875	M	0.68	0.43	-0.31	0.43	-0.22	0.04	2.6
	28	L	66002	M	0.26	0.17	0.17	-0.10	-0.01	0.00	2.1
	32	O	56790	M	0.48	0.17	0.08	0.17	-0.29	0.05	3.3
	33	O	51367	M	0.50	0.45	-0.19	-0.15	-0.14	0.45	3.3
	34	L	52344	M	0.45	0.35	-0.21	0.35	-0.04	-0.18	2.6
	36	L	51457	J	0.27	0.70					18.6
	37	O	54884	G	0.66	0.49	0.49	-0.23			11.3
	38	L	50414	G	0.22	0.38	0.38	-0.12			17.3
	39	L	51570	G	0.26	0.49	0.49	-0.23			11.1
	41	L	51492	J	0.33	0.72					21.6
	42	L	67458	M	0.33	0.23	-0.03	0.08	-0.19	0.23	4.5
	43	L	67464	M	0.47	0.54	-0.27	-0.16	0.54	-0.12	4.7
	44	L	56766	M	0.30	0.25	-0.03	-0.10	0.25	0.00	5.1
	45	O	67456	J	0.25	0.80					32.5
	46	L	56776	M	0.51	0.35	-0.13	0.35	-0.18	-0.01	6.3
	47	L	43147	M	0.53	0.40	-0.23	-0.08	0.40	-0.14	6.4
	48	L	56465	M	0.53	0.40	-0.20	0.40	-0.13	-0.07	6.5

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
M	1	L	51405	M	0.71	0.31	-0.21	0.31	-0.17	-0.09	0.4
	2	O	67523	M	0.72	0.38	-0.22	0.38	-0.23	-0.14	0.3
	3	O	43163	M	0.68	0.37	-0.18	-0.17	-0.21	0.37	0.5
	4	O	56609	M	0.38	0.34	-0.15	-0.16	-0.08	0.34	0.9
	5	L	56428	M	0.43	0.45	0.45	-0.10	-0.21	-0.24	0.5
	8	O	56769	M	0.68	0.43	-0.18	0.43	-0.24	-0.22	0.4
	9	O	54747	M	0.59	0.48	-0.23	-0.23	0.48	-0.21	0.8
	10	L	54690	M	0.85	0.24	-0.16	0.24	-0.12	-0.12	0.3
	11	O	56715	M	0.69	0.39	0.39	-0.18	-0.17	-0.22	0.4
	12	L	50375	J	0.22	0.67					20.0
	14	L	56565	G	0.31	0.54	0.54	-0.34			11.4
	15	O	56542	G	0.17	0.44	0.44	-0.13			13.6
	16	L	50395	G	0.16	0.41	0.41	-0.14			11.9
	17	L	51379	J	0.21	0.67					27.2
	20	O	54907	M	0.33	0.41	-0.16	-0.17	-0.09	0.41	4.5
	21	L	50392	J	0.29	0.64					26.0
	22	O	67465	M	0.48	0.38	-0.19	-0.18	0.38	-0.03	6.4
	23	L	56673	M	0.23	0.09	0.05	-0.05	0.09	-0.01	7.0
	24	L	54902	M	0.33	0.32	-0.19	0.04	-0.17	0.32	7.1
	25	O	56789	M	0.60	0.30	-0.14	0.30	-0.15	-0.13	1.6
	26	L	56552	M	0.49	0.33	0.33	-0.16	-0.14	-0.07	1.8
	27	O	51574	M	0.69	0.46	0.46	-0.12	-0.24	-0.26	1.8
	28	L	66002	M	0.26	0.17	0.17	-0.10	-0.01	0.00	2.1
	32	O	54843	M	0.79	0.41	-0.22	0.41	-0.20	-0.16	1.9
	33	O	56714	M	0.42	0.44	-0.11	0.44	-0.17	-0.22	1.9
	34	L	52344	M	0.45	0.35	-0.21	0.35	-0.04	-0.18	2.6
	36	L	51457	J	0.27	0.70					18.6
	37	O	50425	G	0.71	0.44	0.44	-0.26			7.5
	38	L	50414	G	0.22	0.38	0.38	-0.12			17.3
	39	L	51570	G	0.26	0.49	0.49	-0.23			11.1
	41	L	51492	J	0.33	0.72					21.6
	42	L	67458	M	0.33	0.23	-0.03	0.08	-0.19	0.23	4.5
	43	L	67464	M	0.47	0.54	-0.27	-0.16	0.54	-0.12	4.7
	44	L	56766	M	0.30	0.25	-0.03	-0.10	0.25	0.00	5.1
	45	O	64687	J	0.33	0.77					21.1
	46	L	56776	M	0.51	0.35	-0.13	0.35	-0.18	-0.01	6.3
	47	L	43147	M	0.53	0.40	-0.23	-0.08	0.40	-0.14	6.4
	48	L	56465	M	0.53	0.40	-0.20	0.40	-0.13	-0.07	6.5

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
L	1	L	55001	M	0.86	0.28	-0.15	0.28	-0.17	-0.15	0.0
	2	L	55002	M	0.54	0.22	0.22	-0.20	-0.24	0.06	0.0
	3	L	55145	M	0.62	0.43	-0.18	0.43	-0.24	-0.21	0.4
	5	L	79293	M	0.50	0.32	-0.23	-0.28	-0.01	0.32	0.0
	6	L	79298	M	0.67	0.45	-0.21	0.45	-0.29	-0.19	0.2
	7	L	79295	M	0.74	0.46	-0.19	-0.26	-0.27	0.46	0.0
	8	L	79294	M	0.40	0.37	-0.26	-0.16	0.37	-0.21	0.2
	9	L	68162	J	0.24	0.70					12.3
	10	O	52724	M	0.44	0.40	-0.16	0.40	0.03	-0.15	4.7
	15	L	67689	J	0.19	0.64					22.1
	16	O	79469	M	0.21	0.16	0.07	-0.08	-0.05	0.16	1.9
	17	O	67574	M	0.54	0.48	0.48	-0.30	-0.08	-0.17	1.9
	18	O	52507	M	0.45	0.40	-0.29	-0.02	-0.12	0.40	1.9
	19	L	55062	M	0.56	0.56	-0.25	-0.24	-0.26	0.56	0.9
	20	L	55061	M	0.68	0.40	-0.23	-0.24	0.40	-0.15	0.6
	21	L	52597	J	0.16	0.79					19.4
	22	O	52613	M	0.67	0.54	0.54	-0.17	-0.28	-0.07	6.6
	23	L	67667	M	0.33	0.23	0.03	-0.19	-0.05	0.23	4.0
	24	L	67668	M	0.49	0.49	-0.15	0.49	-0.23	-0.13	4.3
	25	O	52545	M	0.42	0.46	-0.10	-0.13	0.46	-0.05	8.5
	26	L	67670	J	0.13	0.60					25.3
	30	O	56972	M	0.50	0.46	-0.36	-0.15	0.46	-0.02	1.9
	31	O	68225	M	0.40	0.16	0.16	0.14	0.02	-0.34	1.9
	32	L	52762	M	0.20	0.07	0.07	-0.20	0.20	-0.14	1.9
	33	L	52761	M	0.64	0.49	-0.29	-0.24	-0.19	0.49	1.9
	34	O	55135	M	0.31	0.26	0.04	-0.14	0.26	-0.20	1.9
	35	O	79430	M	0.56	0.42	0.42	-0.22	-0.10	-0.22	1.9
	36	O	52525	M	0.39	0.41	-0.15	0.41	-0.26	-0.03	1.9
	37	L	55075	M	0.41	0.22	0.22	-0.06	-0.23	0.00	0.2
	38	L	55142	M	0.61	0.56	-0.23	-0.27	-0.29	0.56	0.4
	42	L	68132	J	0.25	0.72					17.4
	43	O	55008	M	0.49	0.27	-0.27	-0.01	0.27	-0.08	0.9
	44	O	57023	M	0.32	0.30	-0.05	-0.19	0.30	0.04	1.9
	45	O	52455	M	0.62	0.31	-0.15	-0.04	0.31	-0.18	0.9
	46	L	52615	M	0.43	0.34	-0.04	-0.19	0.34	-0.21	0.4
	47	L	52614	M	0.43	0.32	0.32	-0.08	-0.16	-0.19	0.4
	48	L	52641	J	0.21	0.76					15.5
	49	O	79488	M	0.52	0.57	-0.22	-0.36	-0.17	0.57	0.9
	50	O	60534	M	0.51	0.31	0.02	0.31	-0.23	-0.25	0.9
	51	L	52781	M	0.52	0.41	-0.20	0.41	-0.17	-0.18	0.6
	52	L	52649	M	0.36	0.25	-0.23	-0.25	0.09	0.25	0.6
	54	O	65083	M	0.53	0.44	0.44	-0.26	-0.19	-0.10	0.9

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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
	55	O	65144	M	0.26	0.01	-0.08	0.10	0.01	-0.01	0.9
	56	L	68152	J	0.33	0.77					18.7
	60	O	57132	M	0.38	0.20	0.09	-0.11	0.20	-0.17	0.9
	61	L	67570	M	0.60	0.34	0.34	-0.06	-0.22	-0.23	1.1
	62	L	67568	M	0.52	0.35	0.35	-0.13	-0.17	-0.16	0.9
	63	L	52587	M	0.44	0.22	-0.05	-0.19	0.22	0.00	1.3
	64	L	52644	M	0.62	0.48	-0.23	-0.27	0.48	-0.19	0.9
	65	L	52643	M	0.39	0.27	-0.12	0.27	-0.18	0.01	1.1
	67	L	57130	M	0.68	0.51	0.51	-0.29	-0.22	-0.23	1.1
	68	L	57131	M	0.64	0.46	-0.28	0.46	-0.29	-0.07	1.3
	69	O	67688	M	0.43	0.36	-0.11	-0.21	-0.09	0.36	0.9
	70	O	67690	M	0.35	0.18	0.11	-0.15	-0.07	0.18	0.9
	71	O	64994	M	0.45	0.44	-0.28	0.44	-0.16	-0.05	0.9

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
M	1	L	55001	M	0.86	0.28	-0.15	0.28	-0.17	-0.15	0.0
	2	L	55002	M	0.54	0.22	0.22	-0.20	-0.24	0.06	0.0
	3	L	55145	M	0.62	0.43	-0.18	0.43	-0.24	-0.21	0.4
	5	L	79293	M	0.50	0.32	-0.23	-0.28	-0.01	0.32	0.0
	6	L	79298	M	0.67	0.45	-0.21	0.45	-0.29	-0.19	0.2
	7	L	79295	M	0.74	0.46	-0.19	-0.26	-0.27	0.46	0.0
	8	L	79294	M	0.40	0.37	-0.26	-0.16	0.37	-0.21	0.2
	9	L	68162	J	0.24	0.70					12.3
	10	O	52417	M	0.70	0.44	0.44	-0.23	-0.23	-0.11	2.7
	15	L	67689	J	0.19	0.64					22.1
	16	O	68275	M	0.39	0.33	-0.27	-0.03	0.33	-0.12	0.0
	17	O	65138	M	0.49	0.32	-0.12	0.32	-0.15	-0.17	0.0
	18	O	55050	M	0.45	0.35	-0.31	0.35	-0.19	-0.02	0.0
	19	L	55062	M	0.56	0.56	-0.25	-0.24	-0.26	0.56	0.9
	20	L	55061	M	0.68	0.40	-0.23	-0.24	0.40	-0.15	0.6
	21	L	52597	J	0.16	0.79					19.4
	22	O	56997	M	0.31	0.39	-0.18	-0.15	-0.01	0.39	3.3
	23	L	67667	M	0.33	0.23	0.03	-0.19	-0.05	0.23	4.0
	24	L	67668	M	0.49	0.49	-0.15	0.49	-0.23	-0.13	4.3
	25	O	65092	M	0.42	0.41	-0.07	-0.15	-0.18	0.41	4.1
	26	L	67670	J	0.13	0.60					25.3
	30	O	65150	M	0.51	0.38	-0.15	-0.20	0.38	-0.15	1.6
	31	O	64724	M	0.28	0.37	0.02	-0.15	-0.29	0.37	1.9
	32	L	52762	M	0.20	0.07	0.07	-0.20	0.20	-0.14	1.9
	33	L	52761	M	0.64	0.49	-0.29	-0.24	-0.19	0.49	1.9
	34	O	52624	M	0.36	0.47	-0.13	-0.24	-0.17	0.47	1.9
	35	O	55192	M	0.49	0.36	-0.23	-0.15	-0.12	0.36	1.9
	36	O	57123	M	0.54	0.27	-0.12	-0.16	0.27	-0.07	2.2
	37	L	55075	M	0.41	0.22	0.22	-0.06	-0.23	0.00	0.2
	38	L	55142	M	0.61	0.56	-0.23	-0.27	-0.29	0.56	0.4
	42	L	68132	J	0.25	0.72					17.4
	43	O	79446	M	0.27	-0.01	-0.01	0.05	-0.07	0.03	0.3
	44	O	57120	M	0.64	0.40	-0.17	-0.29	-0.14	0.40	0.3
	45	O	79406	M	0.44	0.39	-0.27	-0.23	0.39	-0.02	0.3
	46	L	52615	M	0.43	0.34	-0.04	-0.19	0.34	-0.21	0.4
	47	L	52614	M	0.43	0.32	0.32	-0.08	-0.16	-0.19	0.4
	48	L	52641	J	0.21	0.76					15.5
	49	O	68215	M	0.35	0.32	-0.18	-0.32	0.32	0.15	0.3
	50	O	79432	M	0.35	0.37	-0.14	-0.10	-0.22	0.37	0.5
	51	L	52781	M	0.52	0.41	-0.20	0.41	-0.17	-0.18	0.6
	52	L	52649	M	0.36	0.25	-0.23	-0.25	0.09	0.25	0.6
	54	O	65149	M	0.43	0.42	-0.17	-0.24	0.42	-0.14	0.5

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
	55	O	67613	M	0.21	0.29	0.02	-0.11	-0.15	0.29	0.3
	56	L	68152	J	0.33	0.77					18.7
	60	O	68145	M	0.47	0.37	0.37	-0.24	-0.09	-0.17	1.1
	61	L	67570	M	0.60	0.34	0.34	-0.06	-0.22	-0.23	1.1
	62	L	67568	M	0.52	0.35	0.35	-0.13	-0.17	-0.16	0.9
	63	L	52587	M	0.44	0.22	-0.05	-0.19	0.22	0.00	1.3
	64	L	52644	M	0.62	0.48	-0.23	-0.27	0.48	-0.19	0.9
	65	L	52643	M	0.39	0.27	-0.12	0.27	-0.18	0.01	1.1
	67	L	57130	M	0.68	0.51	0.51	-0.29	-0.22	-0.23	1.1
	68	L	57131	M	0.64	0.46	-0.28	0.46	-0.29	-0.07	1.3
	69	O	65129	M	0.47	0.42	-0.22	0.42	-0.26	-0.06	1.1
	70	O	53475	M	0.55	0.54	-0.21	0.54	-0.23	-0.27	1.4
	71	O	79441	M	0.41	0.23	-0.13	0.23	-0.06	-0.06	1.4

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
L	1	O	96232	J	0.48	0.74					9.7
	2	O	96235	M	0.52	0.33	0.33	-0.20	-0.10	-0.14	0.0
	3	O	96234	M	0.81	0.37	-0.21	0.37	-0.20	-0.20	0.0
	4	O	96233	M	0.42	0.24	-0.08	-0.04	-0.17	0.24	0.0
	5	O	96236	M	0.55	0.23	-0.29	-0.27	0.11	0.23	0.0
	6	O	96237	M	0.49	0.35	0.35	-0.20	-0.17	-0.10	0.0
	7	L	96238	M	0.62	0.45	-0.23	-0.14	-0.27	0.45	0.3
	8	L	96239	M	0.59	0.44	-0.20	-0.28	0.44	-0.15	0.5
	9	L	96240	M	0.71	0.47	-0.18	-0.26	-0.27	0.47	0.4
	10	L	96241	M	0.60	0.42	-0.19	0.42	-0.31	-0.10	0.7
	11	L	96242	M	0.67	0.40	-0.25	0.40	-0.21	-0.12	1.0
	12	L	96243	M	0.52	0.30	-0.02	-0.20	0.30	-0.19	1.2
	13	L	96244	M	0.19	0.05	0.04	0.05	-0.16	0.07	1.1
	20	O	96348	M	0.72	0.41	-0.21	-0.25	0.41	-0.15	2.2
	21	O	96349	M	0.52	0.39	-0.17	0.39	-0.27	-0.09	2.2
	22	O	96350	M	0.57	0.47	-0.10	0.47	-0.17	-0.37	2.2
	23	O	96351	M	0.32	0.26	-0.01	-0.21	-0.02	0.26	2.2
	24	O	96353	M	0.51	0.38	-0.06	-0.27	0.38	-0.10	3.7
	25	O	96354	J	0.26	0.71					23.1
	26	O	96081	J	0.37	0.69					17.2
	27	L	96251	M	0.45	0.26	0.26	-0.10	-0.10	-0.08	1.7
	28	L	96252	M	0.82	0.49	0.49	-0.28	-0.26	-0.17	1.4
	29	L	96253	M	0.55	0.39	-0.17	0.39	-0.16	-0.14	1.7
	39	L	96143	M	0.63	0.44	-0.16	-0.21	0.44	-0.17	3.7
	40	L	96144	M	0.56	0.52	-0.17	-0.25	-0.23	0.52	4.0
	41	L	96145	M	0.50	0.40	-0.06	-0.22	0.40	-0.20	4.1
	46	L	96164	M	0.54	0.38	-0.20	-0.15	0.38	-0.08	5.4
	47	L	96165	M	0.37	0.34	-0.04	-0.22	-0.10	0.34	5.8
	48	L	96166	M	0.56	0.46	-0.22	0.46	-0.17	-0.18	5.5
	49	L	96167	M	0.31	0.38	-0.03	-0.19	-0.12	0.38	5.7
	50	L	96168	M	0.53	0.44	0.44	-0.16	-0.15	-0.21	5.7
	51	O	96263	M	0.59	0.38	-0.20	0.38	-0.23	-0.07	0.7
	52	O	96264	M	0.46	0.29	0.29	-0.09	-0.16	-0.09	0.7
	53	O	96265	M	0.47	0.43	0.43	-0.12	-0.28	-0.13	0.7
	54	O	96266	M	0.78	0.54	-0.13	-0.30	0.54	-0.36	0.7
	55	O	96267	M	0.47	0.42	-0.13	0.42	-0.28	-0.12	0.7
	56	L	96046	M	0.54	0.31	-0.19	-0.12	0.31	-0.04	2.0
	57	L	96047	M	0.41	0.33	-0.12	-0.15	-0.05	0.33	2.0
	58	L	96048	M	0.43	0.24	-0.16	0.24	0.01	-0.10	1.9
	59	L	96049	M	0.50	0.43	-0.22	-0.18	-0.12	0.43	2.0
	60	L	96050	M	0.59	0.46	-0.14	-0.28	0.46	-0.19	2.1
	61	L	96051	M	0.38	0.25	0.07	-0.14	-0.23	0.25	2.2

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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
	62	L	96052	M	0.69	0.43	-0.17	-0.20	0.43	-0.17	2.0
	63	L	96053	M	0.18	-0.01	-0.01	0.19	-0.04	-0.12	2.2
	64	L	96054	M	0.54	0.39	-0.07	-0.22	0.39	-0.17	2.2
	65	L	96055	J	0.29	0.60					22.2
	66	O	96221	M	0.57	0.40	-0.20	0.40	-0.24	-0.08	2.2
	67	L	96382	M	0.81	0.54	-0.25	0.54	-0.27	-0.18	2.9
	70	L	96162	M	0.55	0.46	0.46	-0.19	-0.17	-0.15	4.3
	71	L	96163	M	0.33	0.33	-0.12	0.33	-0.10	-0.05	4.4

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
M	1	O	96118	J	0.56	0.52					6.7
	2	O	96338	M	0.56	0.33	-0.17	-0.22	-0.10	0.33	0.0
	3	O	96339	M	0.65	0.37	0.37	-0.31	-0.13	-0.13	0.0
	4	O	96340	M	0.72	0.39	-0.15	0.39	-0.31	-0.19	0.0
	5	O	96341	M	0.58	0.42	0.42	-0.18	-0.21	-0.21	0.1
	7	L	96238	M	0.62	0.45	-0.23	-0.14	-0.27	0.45	0.3
	8	L	96239	M	0.59	0.44	-0.20	-0.28	0.44	-0.15	0.5
	9	L	96240	M	0.71	0.47	-0.18	-0.26	-0.27	0.47	0.4
	10	L	96241	M	0.60	0.42	-0.19	0.42	-0.31	-0.10	0.7
	11	L	96242	M	0.67	0.40	-0.25	0.40	-0.21	-0.12	1.0
	12	L	96243	M	0.52	0.30	-0.02	-0.20	0.30	-0.19	1.2
	13	L	96244	M	0.19	0.05	0.04	0.05	-0.16	0.07	1.1
	17	O	95634	M	0.62	0.45	-0.19	-0.26	0.45	-0.16	2.7
	18	O	95635	M	0.47	0.31	-0.09	0.31	-0.26	-0.04	3.1
	19	O	132801	M	0.52	0.48	-0.23	-0.15	-0.30	0.48	3.4
	20	O	95637	M	0.65	0.45	-0.25	0.45	-0.23	-0.17	3.4
	21	O	95638	M	0.56	0.39	-0.22	0.39	-0.16	-0.20	3.2
	22	O	95639	J	0.30	0.65					24.2
	23	O	96135	J	0.47	0.61					10.9
	24	L	96251	M	0.45	0.26	0.26	-0.10	-0.10	-0.08	1.7
	25	L	96252	M	0.82	0.49	0.49	-0.28	-0.26	-0.17	1.4
	26	L	96253	M	0.55	0.39	-0.17	0.39	-0.16	-0.14	1.7
	38	L	96143	M	0.63	0.44	-0.16	-0.21	0.44	-0.17	3.7
	39	L	96144	M	0.56	0.52	-0.17	-0.25	-0.23	0.52	4.0
	40	L	96145	M	0.50	0.40	-0.06	-0.22	0.40	-0.20	4.1
	41	L	96164	M	0.54	0.38	-0.20	-0.15	0.38	-0.08	5.4
	42	L	96165	M	0.37	0.34	-0.04	-0.22	-0.10	0.34	5.8
	43	L	96166	M	0.56	0.46	-0.22	0.46	-0.17	-0.18	5.5
	44	L	96167	M	0.31	0.38	-0.03	-0.19	-0.12	0.38	5.7
	45	L	96168	M	0.53	0.44	0.44	-0.16	-0.15	-0.21	5.7
	46	L	96046	M	0.54	0.31	-0.19	-0.12	0.31	-0.04	2.0
	47	L	96047	M	0.41	0.33	-0.12	-0.15	-0.05	0.33	2.0
	48	L	96048	M	0.43	0.24	-0.16	0.24	0.01	-0.10	1.9
	49	L	96049	M	0.50	0.43	-0.22	-0.18	-0.12	0.43	2.0
	50	L	96050	M	0.59	0.46	-0.14	-0.28	0.46	-0.19	2.1
	51	L	96051	M	0.38	0.25	0.07	-0.14	-0.23	0.25	2.2
	52	L	96052	M	0.69	0.43	-0.17	-0.20	0.43	-0.17	2.0
	53	L	96053	M	0.18	-0.01	-0.01	0.19	-0.04	-0.12	2.2
	54	L	96054	M	0.54	0.39	-0.07	-0.22	0.39	-0.17	2.2
	55	L	96055	J	0.29	0.60					22.2
	56	O	96220	M	0.44	0.37	0.37	-0.14	-0.17	0.00	3.1
	57	L	96382	M	0.81	0.54	-0.25	0.54	-0.27	-0.18	2.9

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
	58	O	96384	M	0.57	0.39	0.39	-0.05	-0.22	-0.17	3.3
	60	O	95991	M	0.49	0.41	-0.06	0.41	-0.16	-0.20	3.3
	61	O	95992	M	0.58	0.50	-0.26	-0.25	-0.12	0.50	3.3
	62	O	95993	M	0.60	0.42	0.42	-0.11	-0.23	-0.19	3.3
	63	O	95994	M	0.57	0.50	0.50	-0.23	-0.21	-0.12	3.6
	64	O	95995	M	0.58	0.55	-0.23	0.55	-0.19	-0.24	3.4
	72	L	96162	M	0.55	0.46	0.46	-0.19	-0.17	-0.15	4.3
	73	L	96163	M	0.33	0.33	-0.12	0.33	-0.10	-0.05	4.4

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
L	1	L	68033	M	0.68	0.37	-0.19	0.37	-0.24	-0.12	0.2
	2	L	58197	M	0.38	0.40	-0.15	-0.16	-0.18	0.40	0.2
	3	L	50859	M	0.63	0.36	-0.20	0.36	-0.24	-0.11	0.2
	4	L	68674	M	0.62	0.36	-0.12	-0.11	-0.28	0.36	0.0
	5	L	58275	M	0.86	0.37	0.37	-0.20	-0.23	-0.18	0.0
	6	L	51047	J	0.14	0.54					19.4
	7	O	52201	M	0.48	0.31	0.31	-0.10	-0.21	-0.12	2.3
	8	O	55703	M	0.37	0.20	0.02	0.20	-0.18	-0.04	2.3
	12	O	79740	M	0.49	0.03	0.06	0.03	-0.11	0.02	0.0
	13	O	79745	M	0.29	0.23	0.10	0.23	-0.18	-0.17	0.8
	14	L	51774	M	0.46	0.38	-0.10	-0.19	-0.19	0.38	0.8
	15	L	79713	M	0.42	0.36	-0.14	0.36	-0.10	-0.21	0.7
	16	L	68615	J	0.25	0.63					10.0
	17	L	68616	M	0.66	0.34	-0.21	0.34	-0.18	-0.11	0.3
	18	L	79673	M	0.48	0.35	0.35	-0.15	-0.10	-0.21	0.8
	21	L	50928	J	0.22	0.55					13.9
	22	L	51168	M	0.55	0.49	-0.24	-0.21	-0.21	0.49	0.7
	23	O	79539	M	0.33	0.31	0.31	-0.04	-0.20	-0.13	0.8
	24	L	52196	M	0.35	0.20	-0.12	-0.02	0.20	-0.07	1.0
	25	L	68569	M	0.51	0.39	0.39	-0.15	-0.22	-0.14	1.0
	26	L	68563	M	0.33	0.15	0.07	-0.12	0.15	-0.12	1.1
	27	L	68051	M	0.40	0.31	-0.11	-0.19	0.31	-0.07	1.6
	28	O	68757	J	0.18	0.61					22.0
	31	O	68637	M	0.53	0.53	-0.13	0.53	-0.34	-0.20	1.5
	32	O	55600	M	0.36	0.23	0.01	-0.21	-0.09	0.23	1.5
	33	L	68763	J	0.16	0.70					24.7
	34	L	68573	M	0.32	0.23	0.00	0.23	-0.10	-0.12	2.3
	35	L	55649	M	0.48	0.34	-0.10	-0.18	0.34	-0.13	2.3
	36	O	58376	M	0.54	0.53	0.53	-0.11	-0.36	-0.18	2.3
	37	O	51010	M	0.55	0.42	0.42	-0.13	-0.24	-0.20	1.5
	38	O	50939	M	0.39	0.24	-0.14	0.24	0.04	-0.17	1.5
	39	L	51240	M	0.39	0.41	0.41	-0.21	-0.20	-0.09	2.0
	40	L	68786	J	0.24	0.66					18.5
	41	L	79672	M	0.31	0.31	-0.02	-0.11	-0.18	0.31	0.7
	42	L	68579	M	0.45	0.37	-0.04	0.37	-0.28	-0.19	0.5
	43	O	68762	M	0.40	0.44	-0.26	-0.06	-0.18	0.44	0.8
	44	O	79633	M	0.39	0.42	-0.10	-0.02	0.42	-0.39	0.8
	46	L	79583	M	0.76	0.43	-0.24	-0.17	-0.26	0.43	0.8
	49	L	55656	M	0.58	0.42	-0.18	0.42	-0.28	-0.14	0.8
	51	L	65176	M	0.69	0.42	-0.24	-0.22	0.42	-0.16	0.7
	52	L	79689	M	0.42	0.36	0.36	-0.12	-0.22	-0.10	0.5
	55	L	64796	J	0.14	0.65					27.5

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
	56	L	68586	M	0.59	0.48	-0.18	0.48	-0.29	-0.18	1.5
	57	O	65172	M	0.52	0.27	-0.20	-0.01	0.27	-0.12	1.5
	58	L	55587	M	0.66	0.51	0.51	-0.24	-0.26	-0.22	1.6
	59	L	51815	M	0.34	0.33	-0.19	-0.10	0.33	-0.04	2.5
	60	L	55525	J	0.23	0.65					21.6
	61	L	68789	M	0.44	0.37	-0.22	-0.04	-0.23	0.37	1.6
	62	L	51182	M	0.73	0.51	0.51	-0.30	-0.25	-0.20	1.6
	63	L	55700	M	0.58	0.41	-0.20	-0.28	0.41	-0.07	1.8
	64	O	68534	M	0.52	0.41	-0.24	0.41	-0.10	-0.21	0.8
	67	O	58314	M	0.43	0.40	-0.16	-0.11	0.40	-0.22	3.0
	68	O	60448	M	0.39	0.37	-0.05	-0.05	-0.33	0.37	1.5
	69	O	68010	M	0.49	0.34	-0.17	0.34	-0.14	-0.12	1.5
	70	O	67996	M	0.41	0.42	-0.15	-0.26	0.42	-0.12	1.5
	71	O	51024	M	0.52	0.43	-0.28	-0.20	0.43	-0.13	1.5
	72	L	68084	M	0.40	0.43	-0.09	-0.20	-0.19	0.43	1.8
	73	O	65183	M	0.36	0.33	0.33	-0.10	-0.15	-0.13	1.5

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
M	1	L	68033	M	0.68	0.37	-0.19	0.37	-0.24	-0.12	0.2
	2	L	58197	M	0.38	0.40	-0.15	-0.16	-0.18	0.40	0.2
	3	L	50859	M	0.63	0.36	-0.20	0.36	-0.24	-0.11	0.2
	4	L	68674	M	0.62	0.36	-0.12	-0.11	-0.28	0.36	0.0
	5	L	58275	M	0.86	0.37	0.37	-0.20	-0.23	-0.18	0.0
	6	L	51047	J	0.14	0.54					19.4
	7	O	50988	M	0.45	0.43	-0.05	-0.22	-0.26	0.43	1.5
	8	O	58423	M	0.44	0.38	0.38	-0.13	-0.25	-0.12	1.0
	12	O	50943	M	0.50	0.34	-0.16	0.34	-0.11	-0.20	0.6
	13	O	51046	M	0.36	0.48	0.48	-0.24	-0.17	-0.17	0.6
	14	L	51774	M	0.46	0.38	-0.10	-0.19	-0.19	0.38	0.8
	15	L	79713	M	0.42	0.36	-0.14	0.36	-0.10	-0.21	0.7
	16	L	68615	J	0.25	0.63					10.0
	17	L	68616	M	0.66	0.34	-0.21	0.34	-0.18	-0.11	0.3
	18	L	79673	M	0.48	0.35	0.35	-0.15	-0.10	-0.21	0.8
	21	L	50928	J	0.22	0.55					13.9
	22	L	51168	M	0.55	0.49	-0.24	-0.21	-0.21	0.49	0.7
	23	O	55469	M	0.52	0.41	-0.25	0.41	-0.23	-0.07	0.6
	24	L	52196	M	0.35	0.20	-0.12	-0.02	0.20	-0.07	1.0
	25	L	68569	M	0.51	0.39	0.39	-0.15	-0.22	-0.14	1.0
	26	L	68563	M	0.33	0.15	0.07	-0.12	0.15	-0.12	1.1
	27	L	68051	M	0.40	0.31	-0.11	-0.19	0.31	-0.07	1.6
	28	O	68585	J	0.17	0.69					30.4
	31	O	51233	M	0.70	0.54	-0.29	-0.27	0.54	-0.26	1.7
	32	O	58191	M	0.50	0.39	0.39	-0.16	-0.18	-0.17	1.9
	33	L	68763	J	0.16	0.70					24.7
	34	L	68573	M	0.32	0.23	0.00	0.23	-0.10	-0.12	2.3
	35	L	55649	M	0.48	0.34	-0.10	-0.18	0.34	-0.13	2.3
	36	O	51081	M	0.45	0.45	-0.17	0.45	-0.18	-0.18	2.5
	37	O	68639	M	0.52	0.39	0.39	-0.17	-0.17	-0.15	1.9
	38	O	68771	M	0.59	0.45	-0.20	0.45	-0.33	-0.10	1.9
	39	L	51240	M	0.39	0.41	0.41	-0.21	-0.20	-0.09	2.0
	40	L	68786	J	0.24	0.66					18.5
	41	L	79672	M	0.31	0.31	-0.02	-0.11	-0.18	0.31	0.7
	42	L	68579	M	0.45	0.37	-0.04	0.37	-0.28	-0.19	0.5
	43	O	55534	M	0.60	0.56	-0.25	-0.32	-0.23	0.56	1.5
	44	O	58377	M	0.54	0.49	-0.16	0.49	-0.27	-0.24	1.0
	46	L	79583	M	0.76	0.43	-0.24	-0.17	-0.26	0.43	0.8
	49	L	55656	M	0.58	0.42	-0.18	0.42	-0.28	-0.14	0.8
	51	L	65176	M	0.69	0.42	-0.24	-0.22	0.42	-0.16	0.7
	52	L	79689	M	0.42	0.36	0.36	-0.12	-0.22	-0.10	0.5
	55	L	64796	J	0.14	0.65					27.5

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
	56	L	68586	M	0.59	0.48	-0.18	0.48	-0.29	-0.18	1.5
	57	O	68779	M	0.29	0.25	-0.06	0.25	-0.06	-0.12	1.5
	58	L	55587	M	0.66	0.51	0.51	-0.24	-0.26	-0.22	1.6
	59	L	51815	M	0.34	0.33	-0.19	-0.10	0.33	-0.04	2.5
	60	L	55525	J	0.23	0.65					21.6
	61	L	68789	M	0.44	0.37	-0.22	-0.04	-0.23	0.37	1.6
	62	L	51182	M	0.73	0.51	0.51	-0.30	-0.25	-0.20	1.6
	63	L	55700	M	0.58	0.41	-0.20	-0.28	0.41	-0.07	1.8
	64	O	58296	M	0.47	0.44	-0.28	0.44	-0.20	-0.06	1.9
	67	O	58343	M	0.57	0.56	0.56	-0.25	-0.28	-0.19	2.5
	68	O	60450	M	0.38	0.30	0.30	-0.19	-0.19	0.08	2.5
	69	O	68000	M	0.46	0.33	-0.16	-0.12	0.33	-0.09	2.1
	70	O	68003	M	0.41	0.28	-0.19	-0.15	0.28	0.04	2.1
	71	O	51199	M	0.46	0.31	-0.19	-0.23	0.31	0.05	2.1
	72	L	68084	M	0.40	0.43	-0.09	-0.20	-0.19	0.43	1.8
	73	O	68075	M	0.37	0.29	0.29	-0.07	-0.10	-0.14	2.1

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	7211	5	106610	M	**0.09**	0.19	0.19	-0.16	**0.19**	-0.29	0.14
A	7211	6	188887	J	0.27	0.66					14.21
A	7211	11	106584	M	0.57	0.33	-0.17	-0.16	0.33	-0.16	0.51
A	7211	14	106613	G	**0.21**	0.48	0.48	-0.25			**12.88**
A	7211	22	106618	M	0.39	0.33	-0.15	-0.24	0.33	**0.04**	4.35
A	7211	29	106576	M	0.26	**0.15**	**0.02**	0.15	-0.09	-0.05	1.46
A	7211	30	106539	J	**0.21**	0.66					**23.15**
A	7211	32	106653	M	0.61	0.46	-0.22	0.46	-0.23	-0.21	1.04
A	7211	34	106609	M	0.66	0.44	-0.20	0.44	-0.22	-0.22	0.86
A	7211	38	43221	G	**0.17**	0.54	0.54	-0.27			**17.68**
B	5157	5	106632	M	**0.23**	0.26	0.26	-0.16	-0.15	-0.09	0.25
B	5157	11	79026	M	0.43	0.37	-0.06	-0.16	-0.24	0.37	1.22
B	5157	14	106615	G	0.46	0.51	0.51	-0.43			4.07
B	5157	22	106602	M	**0.18**	**0.04**	-0.13	**0.20**	0.04	-0.11	4.46
B	5157	29	106575	M	0.48	0.26	-0.10	-0.19	0.26	-0.03	1.34
B	5157	30	106556	J	**0.09**	0.45					**21.14**
B	5157	32	79063	M	0.72	0.43	0.43	-0.20	-0.21	-0.23	0.56
B	5157	34	79092	M	0.52	0.35	-0.20	-0.12	-0.14	0.35	0.66
B	5157	38	79043	G	0.32	0.35	0.35	-0.25			**10.01**

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.

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	4148	7	108669	J	**0.21**	0.80					14.63
A	4148	8	108590	M	0.55	0.25	-0.23	0.25	**0.00**	-0.18	0.24
A	4148	10	108505	M	0.80	0.31	-0.20	0.31	-0.15	-0.15	0.31
A	4148	16	108554	M	0.34	0.46	0.46	-0.13	-0.24	-0.13	0.77
A	4148	17	108640	M	0.45	0.36	-0.29	0.36	-0.23	**0.06**	0.63
A	4148	18	108638	M	0.47	0.22	**0.11**	-0.23	-0.18	0.22	0.58
A	4148	19	79506	M	0.62	0.51	-0.31	-0.26	0.51	-0.17	0.53
A	4148	36	108586	M	0.65	0.44	0.44	-0.21	-0.25	-0.18	1.88
A	4148	52	108636	M	0.62	0.48	-0.26	0.48	-0.22	-0.17	0.96
A	4148	53	108632	M	0.59	0.42	-0.05	0.42	-0.28	-0.26	1.01
A	4148	59	108550	M	0.47	0.25	-0.15	-0.04	0.25	-0.04	4.41
A	4148	60	79409	M	0.78	0.49	-0.23	-0.20	0.49	-0.19	4.53
A	4148	61	79427	M	0.25	0.20	0.20	**0.08**	-0.22	-0.07	1.13
A	4148	66	108660	J	**0.15**	0.79					**23.12**
A	4148	67	108568	M	0.61	0.54	0.54	-0.29	-0.25	-0.21	1.93
A	4148	70	108511	M	0.40	0.28	-0.21	-0.19	0.28	**0.07**	1.83
B	3514	8	108598	M	0.40	0.38	0.38	-0.17	-0.23	-0.10	0.14
B	3514	10	108553	M	0.52	0.56	-0.29	-0.23	-0.26	0.56	0.26
B	3514	16	79482	M	0.57	0.35	-0.18	0.35	-0.21	-0.09	0.28
B	3514	17	108581	M	0.32	0.24	**0.03**	-0.06	-0.23	0.24	0.40
B	3514	18	79437	M	0.62	0.49	0.49	-0.32	-0.27	-0.14	0.28
B	3514	19	108541	M	0.27	0.35	-0.11	0.35	-0.12	-0.19	0.34
B	3514	36	79439	M	0.29	0.35	-0.17	0.35	-0.13	-0.07	1.68
B	3514	52	79297	M	0.69	0.56	-0.29	-0.30	-0.26	0.56	0.65
B	3514	53	79296	M	0.57	0.48	0.48	-0.18	-0.32	-0.15	0.71
B	3514	59	108555	M	0.30	0.39	-0.14	-0.01	-0.18	0.39	3.41
B	3514	60	108492	M	0.37	0.31	0.31	-0.17	-0.18	**0.06**	4.01
B	3514	61	108490	M	0.53	0.21	-0.07	-0.22	0.21	-0.01	0.97
B	3514	66	108666	J	**0.19**	0.72					**19.18**
B	3514	67	108629	M	0.55	0.39	-0.12	-0.18	0.39	-0.20	1.37
B	3514	70	108539	M	0.36	0.26	-0.04	-0.05	0.26	-0.22	1.39

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.

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	4036	20	190862	M	0.73	0.45	0.45	-0.25	-0.26	-0.15	**7.01**
A	4036	21	190863	M	0.45	0.30	-0.22	0.30	-0.10	-0.04	**7.36**
A	4036	22	190864	M	0.48	0.36	0.36	-0.14	-0.10	-0.21	**7.83**
A	4036	35	191455	M	0.80	0.46	-0.22	-0.25	-0.26	0.46	0.55
A	4036	36	191456	M	0.80	0.45	0.45	-0.29	-0.21	-0.20	0.57
A	4036	37	191457	M	0.73	0.43	-0.18	0.43	-0.31	-0.17	1.02
A	4036	38	191458	M	0.61	0.44	0.44	-0.30	-0.28	-0.08	0.84
A	4036	39	191459	M	0.73	0.47	-0.19	0.47	-0.30	-0.23	0.94
A	4036	40	191460	M	0.68	0.43	-0.21	-0.16	0.43	-0.25	0.82
A	4036	41	191461	M	0.68	0.41	-0.25	-0.10	-0.25	0.41	1.07
A	4036	42	191462	M	0.88	0.53	0.53	-0.28	-0.30	-0.26	0.89
A	4036	43	191463	M	0.51	0.41	-0.21	-0.28	-0.11	0.41	0.94
A	4036	44	190874	M	0.55	0.51	-0.22	-0.21	-0.25	0.51	1.09
A	4036	45	190875	M	0.55	0.44	-0.21	0.44	-0.15	-0.25	1.19
A	4036	46	190876	M	0.63	0.47	-0.18	-0.26	0.47	-0.28	1.26
A	4036	47	190877	M	0.55	0.38	-0.20	-0.28	0.38	-0.06	1.19
A	4036	48	190878	M	0.71	0.48	-0.26	-0.23	0.48	-0.21	1.36
A	4036	68	190865	M	0.25	**0.09**	-0.01	**0.07**	-0.14	0.09	1.59
A	4036	69	190866	M	0.66	0.49	-0.25	-0.17	-0.28	0.49	1.76
A	4036	70	190867	M	0.59	0.33	0.00	0.33	-0.28	-0.25	1.73
A	4036	71	190868	M	0.64	0.46	-0.23	0.46	-0.19	-0.23	1.83
A	4036	72	190873	M	0.46	0.34	0.34	-0.26	-0.13	-0.02	1.96
A	4036	73	190869	M	0.46	0.23	-0.08	-0.03	0.23	-0.16	2.40
A	4036	75	190870	M	0.62	0.46	-0.25	-0.20	0.46	-0.17	**11.45**
A	4036	76	190871	M	0.47	0.45	0.45	-0.13	-0.22	-0.15	**11.65**
B	3121	20	190859	M	0.64	0.41	-0.20	-0.25	0.41	-0.16	**6.70**
B	3121	21	190861	M	0.60	0.27	-0.20	-0.08	0.27	-0.16	**7.24**
B	3121	22	190860	M	0.65	0.39	-0.12	0.39	-0.18	-0.27	**7.91**
B	3121	35	191342	M	0.57	0.44	-0.22	-0.20	-0.17	0.44	0.83
B	3121	36	191343	M	0.74	0.37	-0.28	-0.28	0.37	-0.04	0.67
B	3121	37	191344	M	0.78	0.44	-0.23	-0.23	0.44	-0.21	0.74
B	3121	38	191346	M	0.62	0.32	0.32	-0.20	-0.08	-0.15	0.70
B	3121	39	191345	M	0.31	**0.08**	-0.22	0.08	-0.21	**0.24**	0.77
B	3121	40	191347	M	0.63	0.42	-0.22	-0.17	0.42	-0.20	0.93
B	3121	41	191349	M	0.68	0.39	-0.17	-0.19	-0.22	0.39	0.80
B	3121	42	190853	M	0.76	0.55	-0.22	-0.30	-0.30	0.55	0.99
B	3121	43	190854	M	0.49	0.39	0.39	-0.09	-0.25	-0.21	1.22
B	3121	44	190855	M	0.87	0.51	-0.24	-0.28	-0.28	0.51	0.90
B	3121	45	190856	M	0.76	0.40	-0.26	0.40	-0.26	-0.07	0.99
B	3121	46	190858	M	0.63	0.51	-0.23	-0.31	-0.24	0.51	1.15
B	3121	47	190857	M	0.67	0.40	-0.10	-0.27	0.40	-0.22	1.25

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
B	3121	67	190811	M	0.51	**0.08**	-0.28	**0.15**	0.08	-0.12	1.76
B	3121	68	190814	M	0.44	0.18	0.18	**0.12**	-0.31	-0.17	1.92
B	3121	69	190834	M	0.60	0.30	0.30	-0.17	-0.07	-0.15	1.76
B	3121	70	190818	M	0.37	0.20	-0.01	0.20	-0.15	-0.01	1.83
B	3121	71	190822	M	0.77	0.56	-0.28	-0.25	0.56	-0.29	1.89
B	3121	72	190830	J	0.43	0.69					11.47
B	3121	73	190827	M	0.56	0.27	-0.17	0.27	-0.02	-0.12	**6.22**
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.											

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	5636	7	79606	M	0.74	0.25	-0.06	-0.22	0.25	-0.13	0.27
A	5636	8	108474	M	0.36	0.16	-0.16	0.16	-0.11	**0.08**	0.35
A	5636	11	65163	J	0.37	0.67					6.51
A	5636	24	108409	M	0.55	0.26	0.26	-0.23	-0.27	**0.03**	0.78
A	5636	25	79739	M	0.73	0.46	0.46	-0.22	-0.28	-0.20	0.76
A	5636	31	65187	M	0.31	0.24	**0.06**	-0.15	-0.15	0.24	2.18
A	5636	32	108379	M	0.72	0.35	-0.20	-0.14	-0.16	0.35	2.16
A	5636	43	79540	M	0.46	0.46	-0.19	-0.19	-0.24	0.46	0.57
A	5636	44	108413	M	0.52	0.45	-0.13	-0.30	0.45	-0.22	0.66
A	5636	45	108385	J	0.31	0.71					10.73
A	5636	50	108464	J	**0.22**	0.68					14.55
A	5636	51	108350	M	0.45	0.45	-0.21	-0.18	-0.19	0.45	0.80
A	5636	52	108456	M	0.54	0.38	-0.14	0.38	-0.25	-0.11	0.76
A	5636	61	108395	M	0.76	0.41	-0.16	0.41	-0.27	-0.17	0.76
A	5636	62	79703	M	0.72	0.56	-0.24	-0.27	-0.32	0.56	0.83
B	4274	7	79604	M	0.69	0.37	-0.26	-0.14	0.37	-0.17	0.30
B	4274	8	108447	M	0.47	0.38	0.38	-0.12	-0.17	-0.19	0.37
B	4274	11	79537	J	0.36	0.67					5.45
B	4274	24	108373	M	0.52	0.49	-0.26	-0.20	-0.25	0.49	0.58
B	4274	25	79749	M	**0.17**	**-0.01**	-0.05	-0.01	**0.02**	**0.06**	0.75
B	4274	31	108391	M	0.69	0.46	-0.23	0.46	-0.22	-0.20	1.80
B	4274	32	108358	M	0.69	0.47	-0.21	0.47	-0.25	-0.22	1.85
B	4274	43	79544	M	0.54	0.45	-0.21	-0.21	0.45	-0.19	0.51
B	4274	44	79679	M	0.45	0.40	-0.27	-0.12	0.40	-0.12	0.54
B	4274	45	108466	J	0.36	0.69					6.88
B	4274	50	108386	J	0.29	0.75					11.44
B	4274	51	108440	M	0.63	0.35	-0.14	-0.29	0.35	-0.10	0.40
B	4274	52	108458	M	0.27	0.26	**0.03**	-0.20	-0.14	0.26	0.44
B	4274	61	108410	M	0.46	0.31	-0.19	-0.14	0.31	-0.03	0.84
B	4274	62	79722	M	**0.24**	0.28	0.28	-0.25	-0.07	**0.10**	0.82

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.

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
E	17479	6	172301	J	0.27	0.68					6.80
E	17479	7	133395	M	0.75	0.30	-0.11	-0.18	0.30	-0.18	0.09
E	17479	13	135123	G	0.72	0.40	0.40	-0.35			2.20
E	17479	18	136694	M	0.73	0.27	-0.13	-0.07	-0.25	0.27	1.42
E	17479	19	136705	M	0.67	0.48	0.48	-0.30	-0.26	-0.10	1.76
E	17479	29	132839	M	0.45	0.23	-0.26	**0.06**	0.23	-0.14	0.50
E	17479	30	135111	J	0.51	0.77					7.27
E	17479	31	132843	M	0.48	0.30	0.30	-0.16	-0.18	-0.01	0.94
E	17479	35	133400	M	0.58	0.24	-0.08	0.24	-0.14	-0.19	0.46
E	17479	40	132840	G	0.73	0.61	0.61	-0.53			4.42
F	11343	6	106572	J	0.26	0.65					7.96
F	11343	7	133393	M	0.66	0.39	-0.22	-0.23	0.39	-0.12	0.11
F	11343	13	136685	G	0.58	0.49	0.49	-0.43			2.12
F	11343	18	132822	M	0.71	0.42	-0.18	-0.21	-0.26	0.42	1.09
F	11343	19	132819	M	0.33	0.39	0.39	-0.20	-0.11	-0.10	1.54
F	11343	29	132845	M	0.60	0.40	-0.17	-0.19	-0.21	0.40	0.45
F	11343	30	135108	J	0.40	0.73					5.52
F	11343	31	136691	M	0.66	0.39	-0.28	-0.19	0.39	-0.13	0.27
F	11343	35	133402	M	0.60	0.42	-0.16	0.42	-0.28	-0.17	0.43
F	11343	40	132829	G	0.41	0.59	0.59	-0.43			**11.06**
G	11157	6	135099	J	0.25	0.57					3.67
G	11157	7	136687	M	0.62	0.30	-0.11	0.30	-0.27	-0.06	0.08
G	11157	13	136686	G	0.71	0.50	0.50	-0.45			1.86
G	11157	18	136690	M	0.25	0.38	-0.20	-0.24	**0.06**	0.38	0.99
G	11157	19	136688	M	0.72	0.30	-0.13	-0.20	0.30	-0.08	1.50
G	11157	29	132848	M	0.32	**0.13**	-0.20	**0.16**	0.13	-0.20	0.56
G	11157	30	135097	J	0.68	0.75					3.77
G	11157	31	133410	M	0.56	0.27	-0.11	0.27	-0.18	-0.09	0.51
G	11157	35	133415	M	**0.20**	0.20	0.20	-0.13	**0.13**	-0.24	0.38
G	11157	40	132834	G	0.68	0.55	0.55	-0.43			4.80
H	11036	6	136702	J	0.26	0.53					3.16
H	11036	7	133411	M	0.49	0.32	0.32	-0.13	-0.16	-0.14	0.47
H	11036	13	135109	G	0.53	0.56	0.56	-0.50			2.47
H	11036	18	132824	M	0.55	**0.08**	-0.08	0.00	-0.03	0.08	1.16
H	11036	19	79097	M	0.66	0.47	-0.21	0.47	-0.32	-0.13	0.91
H	11036	29	132838	M	0.38	**0.05**	-0.03	-0.06	**0.03**	0.05	0.88
H	11036	30	106606	J	0.60	0.71					2.86
H	11036	31	132832	M	0.34	0.31	0.31	-0.08	-0.16	-0.12	0.34

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
H	11036	35	135112	M	0.49	0.22	-0.09	-0.05	0.22	-0.15	0.38
H	11036	40	133403	G	0.30	0.46	0.46	-0.33			4.59
J	10968	6	136682	J	0.54	0.71					2.22
J	10968	7	135121	M	0.44	0.26	-0.04	-0.17	0.26	-0.19	0.46
J	10968	13	133389	G	0.46	0.47	0.47	-0.36			**8.94**
J	10968	18	135106	M	0.31	0.20	-0.30	**0.17**	-0.24	0.20	1.29
J	10968	19	136703	M	0.60	0.38	-0.08	0.38	-0.25	-0.19	1.87
J	10968	29	132823	M	0.79	0.42	-0.22	-0.21	0.42	-0.22	0.39
J	10968	30	133392	J	0.50	0.76					5.30
J	10968	31	132835	M	0.25	**0.12**	**0.02**	-0.06	-0.08	0.12	0.36
J	10968	35	133416	M	0.45	0.44	0.44	-0.34	-0.11	-0.06	0.69
J	10968	40	132841	G	0.80	0.45	0.45	-0.38			2.53
K	10816	7	135118	M	0.71	0.58	-0.42	-0.29	0.58	-0.14	0.30
K	10816	13	135113	G	0.31	0.49	0.49	-0.37			4.73
K	10816	18	132818	M	0.33	0.24	**0.06**	-0.19	-0.16	0.24	1.25
K	10816	19	132836	M	0.81	0.36	-0.22	-0.19	0.36	-0.13	1.18
K	10816	29	135101	M	0.52	0.39	0.39	-0.12	-0.28	-0.12	0.49
K	10816	30	135119	J	0.70	0.70					2.27
K	10816	31	106545	M	0.47	0.41	-0.21	-0.13	-0.18	0.41	0.44
K	10816	35	136708	M	0.44	0.40	-0.20	-0.13	-0.15	0.40	0.78
K	10816	40	135096	G	0.29	0.20	0.20	-0.10			4.51

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.

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	11804	4	108669	J	**0.23**	0.74					10.51
E	11804	11	133439	M	0.28	0.29	-0.11	-0.11	0.29	-0.09	0.28
E	11804	12	137259	M	0.41	0.26	-0.04	0.26	-0.18	-0.09	0.28
E	11804	13	136102	M	0.56	0.49	-0.24	-0.30	0.49	-0.15	0.28
E	11804	14	136103	M	0.63	0.53	0.53	-0.16	-0.30	-0.30	0.29
E	11804	27	136096	M	0.40	0.28	0.28	-0.24	**0.00**	-0.12	0.86
E	11804	28	136097	M	0.37	0.17	0.17	**0.12**	-0.22	-0.14	0.88
E	11804	29	136098	M	0.59	0.45	-0.25	0.45	-0.22	-0.15	0.94
E	11804	39	108518	M	0.73	0.51	0.51	-0.25	-0.30	-0.23	0.55
E	11804	40	192091	M	**0.20**	**0.13**	0.13	-0.23	**0.06**	**0.03**	0.83
E	11804	41	192092	M	0.50	0.31	-0.04	-0.23	0.31	-0.20	0.71
E	11804	53	108509	M	0.33	0.22	**0.10**	-0.15	-0.26	0.22	0.67
E	11804	57	108558	M	0.46	0.25	-0.05	-0.17	0.25	-0.11	0.75
E	11804	58	108512	M	0.65	0.52	-0.26	0.52	-0.30	-0.16	0.71
E	11804	59	108591	M	0.51	0.37	-0.26	-0.05	-0.22	0.37	0.71
E	11804	66	133446	J	0.26	0.75					9.46
F	8297	11	133028	M	0.53	0.36	-0.11	-0.25	-0.16	0.36	0.19
F	8297	12	133029	M	0.72	0.52	0.52	-0.31	-0.26	-0.24	0.10
F	8297	13	108589	M	0.33	0.29	0.29	-0.12	-0.10	-0.11	0.31
F	8297	14	108647	M	0.57	0.33	-0.22	-0.24	0.33	-0.06	0.19
F	8297	27	136129	M	0.79	0.32	-0.13	0.32	-0.25	-0.11	0.36
F	8297	28	136130	M	0.42	0.39	-0.22	-0.23	0.39	-0.05	0.52
F	8297	29	108544	M	0.64	0.55	-0.31	0.55	-0.25	-0.24	0.60
F	8297	39	108524	M	0.50	0.48	-0.20	-0.20	-0.25	0.48	0.41
F	8297	40	133030	M	0.53	0.30	-0.21	0.30	-0.04	-0.18	0.46
F	8297	41	133031	M	0.62	0.20	-0.19	0.20	-0.04	-0.04	0.39
F	8297	53	108627	M	**0.18**	**0.14**	-0.20	**0.01**	**0.02**	0.14	0.55
F	8297	57	133443	M	0.83	0.36	-0.22	-0.23	0.36	-0.11	0.47
F	8297	58	192085	M	0.63	0.47	-0.19	0.47	-0.30	-0.18	0.43
F	8297	59	192093	M	0.60	0.46	-0.22	0.46	-0.24	-0.28	0.51
F	8297	66	108666	J	**0.23**	0.68					11.05
G	8198	4	137249	J	0.31	0.66					3.51
G	8198	11	192077	M	0.50	0.45	-0.10	-0.27	-0.32	0.45	0.10
G	8198	12	192084	M	0.53	0.26	-0.20	-0.10	-0.08	0.26	0.13
G	8198	13	137253	M	0.72	0.43	-0.21	-0.24	-0.21	0.43	0.17
G	8198	14	137252	M	0.71	0.45	0.45	-0.26	-0.24	-0.19	0.20
G	8198	27	133032	M	0.42	0.40	-0.17	0.40	-0.24	-0.04	0.59
G	8198	28	133033	M	**0.91**	0.40	0.40	-0.22	-0.24	-0.17	0.55
G	8198	29	192083	M	0.74	0.31	-0.23	-0.26	-0.09	0.31	0.59
G	8198	39	133434	M	0.32	**0.15**	**0.03**	-0.15	-0.05	0.15	0.39

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	8198	40	133441	M	0.77	0.51	0.51	-0.24	-0.23	-0.31	0.23
G	8198	41	133442	M	0.68	0.37	-0.28	-0.20	0.37	-0.10	0.30
G	8198	53	133456	M	0.45	0.30	-0.04	-0.18	-0.20	0.30	0.48
G	8198	57	133453	M	0.65	0.48	-0.11	0.48	-0.30	-0.26	0.48
G	8198	58	133454	M	0.64	0.52	0.52	-0.29	-0.23	-0.23	0.68
G	8198	59	136114	M	0.73	0.42	-0.30	-0.13	-0.23	0.42	0.49
G	8198	66	137233	J	**0.24**	0.65					8.01
H	8102	4	137248	J	0.27	0.70					2.58
H	8102	11	137260	M	0.51	**0.14**	-0.01	-0.23	0.14	-0.14	0.15
H	8102	12	137261	M	0.89	0.39	-0.20	-0.22	0.39	-0.22	0.11
H	8102	13	65153	M	0.71	0.40	-0.20	0.40	-0.22	-0.22	0.11
H	8102	14	108508	M	0.48	0.31	-0.27	**0.05**	-0.22	0.31	0.20
H	8102	27	133013	M	0.61	0.31	-0.24	-0.15	0.31	-0.11	0.73
H	8102	28	133012	M	0.38	0.21	-0.16	-0.18	0.21	**0.09**	0.79
H	8102	29	79429	M	0.51	0.41	0.41	-0.11	-0.16	-0.26	0.88
H	8102	39	133430	M	**0.12**	**0.07**	**0.18**	0.07	-0.19	-0.13	0.22
H	8102	40	133039	M	0.59	0.43	-0.28	-0.11	0.43	-0.22	0.23
H	8102	41	133040	M	0.56	0.32	**0.00**	-0.20	0.32	-0.25	0.25
H	8102	53	108583	M	0.52	0.35	-0.02	0.35	-0.19	-0.28	0.36
H	8102	57	135129	M	0.54	0.34	-0.19	-0.24	-0.05	0.34	0.35
H	8102	58	135433	M	0.57	0.33	-0.21	0.33	-0.24	-0.05	0.44
H	8102	59	135130	M	0.61	0.45	-0.19	-0.25	0.45	-0.20	0.42
H	8102	66	137236	J	0.25	0.77					10.55
J	7988	4	108654	J	**0.20**	0.72					7.70
J	7988	11	192081	M	0.83	0.42	-0.14	0.42	-0.22	-0.30	0.06
J	7988	12	135434	M	0.57	0.47	-0.28	-0.26	0.47	-0.12	0.29
J	7988	13	135436	M	0.50	0.25	-0.03	-0.19	-0.14	0.25	0.18
J	7988	14	133437	M	0.63	0.36	-0.19	-0.25	-0.13	0.36	0.11
J	7988	27	136101	M	0.83	0.26	-0.15	-0.18	0.26	-0.08	0.50
J	7988	28	136099	M	0.47	0.41	-0.19	0.41	-0.23	-0.10	0.66
J	7988	29	192080	M	**0.93**	0.26	-0.12	-0.16	-0.15	0.26	0.50
J	7988	39	133062	M	0.60	0.52	-0.22	-0.26	-0.26	0.52	0.31
J	7988	40	133447	M	0.80	0.43	-0.22	0.43	-0.25	-0.22	0.24
J	7988	41	133448	M	0.40	0.31	-0.07	-0.23	0.31	-0.09	0.26
J	7988	53	175493	M	0.53	0.45	-0.21	-0.21	-0.23	0.45	0.44
J	7988	57	192086	M	0.74	0.45	0.45	-0.26	-0.25	-0.19	0.23
J	7988	58	192087	M	0.69	0.48	-0.25	0.48	-0.24	-0.22	0.29
J	7988	59	192088	M	0.69	0.51	-0.21	-0.29	-0.26	0.51	0.40
J	7988	66	108658	J	**0.15**	0.68					**21.27**
K	7857	4	108659	J	**0.21**	0.71					6.90

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	7857	11	133426	M	0.43	0.15	-0.13	-0.04	0.15	-0.10	0.10
K	7857	12	137268	M	0.52	**0.09**	0.09	-0.01	-0.12	-0.01	0.18
K	7857	13	133059	M	0.70	0.42	-0.20	0.42	-0.25	-0.19	0.20
K	7857	14	133432	M	0.80	0.47	0.47	-0.23	-0.35	-0.14	0.09
K	7857	27	133014	M	0.42	**0.11**	-0.17	0.11	-0.18	**0.15**	0.66
K	7857	28	133015	M	0.65	0.49	-0.27	-0.24	-0.22	0.49	0.73
K	7857	29	133016	M	0.48	0.41	-0.15	-0.11	-0.25	0.41	0.79
K	7857	39	133054	M	0.46	0.27	**0.01**	-0.16	0.27	-0.26	0.39
K	7857	40	136107	M	0.71	0.37	-0.23	0.37	-0.11	-0.24	0.28
K	7857	41	136108	M	0.42	0.31	0.31	-0.08	-0.18	-0.26	0.23
K	7857	53	142012	M	0.58	0.24	-0.26	0.24	-0.28	**0.05**	0.41
K	7857	57	192089	M	0.34	**0.14**	-0.14	**0.04**	0.14	-0.11	0.33
K	7857	58	192090	M	0.38	0.30	-0.03	0.30	-0.19	-0.15	0.65
K	7857	59	192094	M	0.87	0.49	-0.26	-0.25	0.49	-0.28	0.24
K	7857	66	108588	J	0.30	0.77					5.96

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.

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	55843	3	186619	M	0.77	0.22	-0.10	-0.06	-0.18	0.22	0.05
E	11828	15	108725	M	0.74	0.42	-0.27	-0.13	-0.23	0.42	0.30
E	11828	16	108726	M	**0.13**	**-0.02**	**0.19**	-0.12	-0.02	-0.18	0.54
E	11828	17	209679	M	0.76	0.47	-0.22	0.47	-0.27	-0.24	0.55
E	11828	18	108729	M	0.67	0.38	-0.17	-0.22	0.38	-0.17	0.81
E	11828	19	108730	M	0.77	0.52	-0.26	0.52	-0.31	-0.25	0.87
E	20567	38	179996	M	0.69	0.33	-0.18	-0.18	-0.15	0.33	0.40
E	20567	39	179999	M	0.45	0.31	-0.15	-0.11	-0.22	0.31	0.44
E	20567	40	179998	M	0.67	0.34	-0.14	-0.21	0.34	-0.18	0.47
E	20567	41	180000	M	0.40	0.22	0.22	-0.22	0.00	-0.04	0.59
E	20567	42	180001	M	0.71	0.38	-0.18	-0.21	0.38	-0.16	0.57
E	20567	43	180002	M	0.43	0.22	-0.20	-0.10	**0.03**	0.22	0.56
E	20567	44	180003	M	0.70	0.34	-0.16	0.34	-0.25	-0.21	0.78
E	20567	45	180005	J	0.50	0.62					6.24
E	20567	46	180004	M	0.70	0.29	-0.03	-0.27	0.29	-0.19	1.52
E	11828	47	180009	M	0.80	0.42	-0.22	-0.20	-0.21	0.42	1.52
E	11828	48	179995	M	0.82	0.41	-0.22	-0.20	-0.22	0.41	1.69
E	11828	49	169242	M	0.49	0.22	0.22	-0.03	-0.17	-0.03	1.89
E	11828	50	169245	M	0.72	0.38	-0.07	0.38	-0.24	-0.23	1.98
E	11828	68	109126	M	0.64	0.40	-0.18	-0.26	-0.16	0.40	0.83
E	11828	69	109127	M	0.70	0.41	-0.17	0.41	-0.18	-0.23	0.84
E	11828	72	169231	M	0.67	0.48	-0.19	-0.28	-0.28	0.48	1.67
E	11828	73	169232	M	0.66	0.43	-0.27	0.43	-0.19	-0.18	1.76
E	11828	74	169233	M	0.67	0.45	-0.23	0.45	-0.31	-0.13	1.80
E	11828	75	169236	M	0.76	0.50	0.50	-0.26	-0.29	-0.20	1.74
E	11828	76	169237	M	0.61	0.38	-0.09	-0.25	-0.24	0.38	1.74
F	9230	15	209809	M	0.75	0.32	-0.18	-0.23	0.32	-0.10	0.38
F	9230	16	209810	M	0.68	0.41	-0.10	0.41	-0.23	-0.29	0.44
F	9230	17	209811	M	0.87	0.45	-0.27	0.45	-0.25	-0.20	0.47
F	9230	36	139348	M	0.71	0.52	-0.24	-0.27	-0.32	0.52	0.41
F	9230	37	139350	M	0.50	0.38	-0.20	-0.14	0.38	-0.24	0.39
F	9230	38	139349	M	**0.91**	0.40	-0.25	0.40	-0.26	-0.12	0.36
F	9230	39	139351	M	0.68	0.37	0.37	-0.16	-0.19	-0.18	0.51
F	9230	40	139341	M	0.64	0.30	0.30	-0.14	-0.23	-0.07	0.57
F	9230	41	139343	M	0.80	0.30	-0.15	0.30	-0.19	-0.13	0.42
F	9230	42	189037	M	0.65	0.43	-0.17	0.43	-0.30	-0.24	0.72
F	9230	43	139344	M	0.81	0.39	-0.23	-0.22	0.39	-0.18	0.56
F	9230	44	139346	J	0.54	0.57					3.84
F	9230	45	139345	M	**0.24**	**0.11**	**0.02**	-0.27	**0.08**	0.11	4.06
F	9230	61	209819	M	0.70	0.36	-0.22	-0.21	0.36	-0.15	0.41
F	9230	62	209816	M	0.54	0.24	0.24	-0.11	-0.23	-0.03	0.41

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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
F	9230	65	142260	M	0.60	0.20	-0.29	-0.27	0.20	**0.11**	0.87
F	9230	66	142265	M	0.73	0.35	-0.18	-0.15	0.35	-0.22	0.91
F	9230	67	142266	M	0.80	0.46	-0.33	0.46	-0.19	-0.21	0.87
F	9230	68	142263	M	0.80	0.45	-0.22	-0.25	-0.24	0.45	0.96
F	9230	69	142261	M	0.43	**0.13**	-0.12	**0.07**	0.13	-0.20	1.15
F	9230	70	142259	M	0.81	0.49	-0.29	0.49	-0.27	-0.20	1.04
F	9230	71	142268	M	0.61	0.33	0.33	-0.25	-0.12	-0.11	0.96
F	9230	74	109092	M	0.77	0.46	-0.27	-0.28	-0.17	0.46	1.29
F	9230	75	109151	M	0.70	0.29	-0.18	0.29	-0.14	-0.18	1.32
G	9050	15	108747	M	0.80	0.46	-0.24	-0.24	-0.26	0.46	0.49
G	9050	16	108749	M	0.46	**0.11**	**0.05**	0.11	-0.16	-0.18	0.56
G	9050	17	108750	M	0.71	0.52	0.52	-0.28	-0.32	-0.19	0.57
G	9050	18	108748	M	0.76	0.43	-0.18	0.43	-0.28	-0.21	0.74
G	9050	19	108751	M	0.51	0.39	-0.12	-0.20	-0.22	0.39	0.93
G	9050	38	139360	M	0.63	0.37	-0.19	-0.20	0.37	-0.16	0.61
G	9050	39	139363	M	0.64	0.30	0.30	-0.13	-0.15	-0.17	0.36
G	9050	40	139364	M	0.54	0.16	-0.18	-0.13	0.16	**0.05**	0.36
G	9050	41	139365	M	0.43	0.39	-0.15	-0.27	-0.17	0.39	0.34
G	9050	42	139362	M	0.55	**0.12**	-0.25	-0.28	0.12	**0.09**	0.45
G	9050	43	139371	J	0.54	0.62					4.80
G	9050	44	139370	M	0.58	0.38	0.38	-0.22	-0.19	-0.10	1.29
G	9050	45	175837	M	0.66	0.34	-0.23	-0.21	0.34	-0.09	1.72
G	9050	46	175838	M	**0.23**	**0.02**	0.02	-0.08	-0.15	**0.17**	1.73
G	9050	47	175839	M	0.58	0.26	**0.05**	-0.25	-0.20	0.26	1.77
G	9050	48	189036	M	0.57	0.19	-0.18	0.19	**0.02**	-0.13	1.98
G	9050	49	175836	M	**0.14**	**0.01**	-0.04	0.01	**0.17**	-0.22	1.94
G	9050	67	108720	M	0.29	0.24	0.24	-0.25	0.00	-0.06	0.56
G	9050	68	108721	M	0.59	0.21	-0.16	0.00	-0.18	0.21	0.54
G	9050	71	209825	M	0.54	0.21	**0.01**	-0.21	-0.22	0.21	1.26
G	9050	72	209826	M	0.72	0.34	-0.08	0.34	-0.30	-0.19	1.23
G	9050	73	209827	M	0.56	0.35	-0.07	0.35	-0.15	-0.26	1.36
G	9050	74	209828	M	0.73	0.44	-0.20	-0.21	-0.24	0.44	1.33
G	9050	75	209830	M	0.50	0.30	-0.14	-0.10	0.30	-0.12	1.51
G	9050	76	209829	M	0.74	0.38	0.38	-0.21	-0.22	-0.14	1.47
H	8882	15	108695	M	0.79	0.43	0.43	-0.23	-0.27	-0.17	0.57
H	8882	16	108694	M	0.47	0.20	-0.06	0.20	-0.06	-0.12	0.66
H	8882	17	108696	M	0.71	0.27	-0.11	0.27	-0.17	-0.13	0.78
H	8882	36	169261	M	0.77	0.49	0.49	-0.27	-0.31	-0.18	0.61
H	8882	37	169262	M	0.60	0.35	0.35	-0.15	-0.12	-0.22	0.66
H	8882	38	169269	M	0.74	0.37	-0.23	-0.22	0.37	-0.12	0.43
H	8882	39	169265	M	0.66	0.39	-0.21	-0.23	-0.13	0.39	0.52

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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	8882	40	169264	M	0.87	0.48	-0.28	0.48	-0.26	-0.21	0.47
H	8882	41	169267	M	0.41	0.35	-0.19	0.35	-0.24	-0.06	0.62
H	8882	42	169266	M	0.76	0.32	-0.14	-0.21	0.32	-0.13	0.68
H	8882	43	169268	M	0.87	0.45	-0.25	-0.27	0.45	-0.19	0.83
H	8882	44	169270	M	0.44	0.24	-0.14	-0.23	**0.02**	0.24	1.00
H	8882	45	169271	J	0.46	0.67					7.46
H	8882	46	180008	M	0.55	0.31	-0.14	0.31	-0.17	-0.03	**11.53**
H	8882	62	209821	M	0.61	0.28	-0.02	0.28	-0.17	-0.23	0.55
H	19083	65	169248	M	0.64	0.50	-0.27	-0.21	-0.25	0.50	1.14
H	8882	66	169250	M	0.82	0.48	-0.25	-0.24	-0.25	0.48	1.06
H	8882	67	169258	M	0.86	0.36	0.36	-0.22	-0.18	-0.15	0.96
H	8882	68	169254	M	0.55	0.44	0.44	-0.20	-0.20	-0.17	1.09
H	8882	69	169253	M	0.59	**0.13**	-0.23	0.13	**0.08**	-0.19	1.31
H	19083	70	169257	M	0.67	0.45	-0.15	-0.24	-0.27	0.45	1.36
H	8882	71	169260	M	0.83	0.52	-0.26	-0.25	-0.29	0.52	1.36
H	8882	74	108736	M	0.74	0.40	-0.24	-0.28	0.40	-0.09	1.86
H	8882	75	108737	M	0.35	**0.03**	**0.17**	-0.07	-0.23	0.03	1.90
J	10201	15	108741	M	0.88	0.39	-0.21	-0.25	0.39	-0.15	0.52
J	10201	16	108743	M	0.76	0.50	-0.28	0.50	-0.26	-0.23	0.65
J	10201	17	108744	M	0.71	0.30	-0.08	-0.24	0.30	-0.15	0.80
J	10201	18	108746	M	0.40	0.20	**0.03**	-0.22	-0.25	0.20	0.90
J	10201	19	108745	M	0.76	0.48	0.48	-0.27	-0.27	-0.20	0.89
J	10201	38	175720	M	0.66	0.33	-0.18	-0.19	0.33	-0.14	0.56
J	10201	39	175721	M	0.77	0.42	-0.19	0.42	-0.28	-0.18	0.49
J	10201	40	175722	M	0.86	0.26	0.26	-0.14	-0.18	-0.11	0.37
J	10201	41	175723	M	0.70	0.40	0.40	-0.14	-0.18	-0.27	0.40
J	10201	42	175724	M	0.65	0.43	-0.23	-0.28	-0.16	0.43	0.47
J	10201	43	175725	M	0.71	0.55	-0.29	0.55	-0.33	-0.22	0.55
J	10201	44	175728	J	0.53	0.59					3.73
J	10201	45	175726	M	0.82	0.41	-0.18	0.41	-0.23	-0.19	1.50
J	10201	46	175704	M	0.77	0.48	-0.24	-0.27	0.48	-0.20	1.66
J	10201	47	175705	M	0.40	0.32	0.32	-0.11	-0.09	-0.20	1.83
J	10201	48	175707	M	0.47	0.30	-0.11	-0.21	-0.12	0.30	1.87
J	10201	49	175708	M	0.75	0.30	-0.22	-0.26	0.30	-0.06	1.91
J	10201	70	169249	M	0.57	0.46	-0.17	0.46	-0.27	-0.20	1.04
J	10201	71	169251	M	0.71	0.44	-0.24	-0.23	0.44	-0.20	1.05
J	10201	72	169252	M	0.50	0.36	-0.20	-0.17	-0.09	0.36	1.36
J	10201	73	169256	M	0.78	0.51	-0.26	0.51	-0.26	-0.27	1.25
J	10201	75	169259	M	0.25	0.24	-0.22	**0.01**	0.24	-0.21	1.33
K	8739	15	229031	M	0.67	0.42	-0.26	-0.10	0.42	-0.26	0.40
K	8739	16	229032	M	0.78	0.47	0.47	-0.29	-0.29	-0.12	0.50

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	8739	17	229033	M	0.86	0.46	0.46	-0.26	-0.21	-0.27	0.53
K	8739	45	229241	M	0.62	0.29	-0.20	-0.09	0.29	-0.06	1.97
K	8739	46	229240	M	0.79	0.51	-0.32	0.51	-0.22	-0.23	1.83
K	8739	47	229239	M	0.69	0.49	-0.24	-0.25	-0.24	0.49	2.01
K	8739	48	209681	M	0.60	0.45	-0.21	0.45	-0.24	-0.14	2.29
K	8739	64	209823	M	0.90	0.41	-0.16	-0.28	0.41	-0.20	0.46
K	8739	65	209820	M	0.88	0.40	-0.17	-0.22	-0.24	0.40	0.45
K	8739	68	217623	M	0.57	0.25	0.25	-0.10	-0.11	-0.15	1.14
K	8739	69	217624	M	0.82	0.45	-0.21	0.45	-0.29	-0.19	1.09
K	8739	70	217625	M	0.68	0.44	-0.10	-0.27	-0.30	0.44	1.09
K	8739	71	217626	M	0.81	0.44	-0.27	0.44	-0.24	-0.20	1.04
K	8739	72	217627	M	0.77	0.46	-0.22	-0.25	0.46	-0.23	1.08
K	8739	75	108758	M	0.38	0.26	-0.09	0.26	-0.21	-0.01	1.44
K	8739	76	108759	M	0.56	0.31	-0.17	-0.08	-0.15	0.31	1.44

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.

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	10480	9	79661	M	0.87	0.37	0.37	-0.24	-0.17	-0.17	0.44
E	10480	10	133474	M	0.33	0.17	0.00	-0.17	0.17	-0.15	0.53
E	10480	11	79537	J	0.38	0.67					3.51
E	10480	19	108404	M	0.76	0.43	-0.18	0.43	-0.26	-0.23	0.29
E	10480	20	79550	M	0.49	0.45	-0.26	-0.17	0.45	-0.20	0.28
E	10480	29	132984	M	0.56	0.37	-0.17	-0.10	-0.23	0.37	1.15
E	10480	30	132981	M	0.57	0.40	-0.10	0.40	-0.29	-0.15	1.15
E	10480	45	108466	J	0.37	0.67					5.35
E	10480	47	79737	M	0.33	0.32	-0.15	0.32	-0.19	-0.05	0.54
E	10480	48	79593	M	0.62	0.51	-0.27	-0.28	-0.21	0.51	0.50
E	10480	50	108386	J	0.32	0.76					8.94
E	10480	53	79577	M	0.77	0.50	-0.20	-0.27	-0.28	0.50	0.57
E	10480	54	108417	M	0.67	0.52	-0.22	0.52	-0.32	-0.24	0.77
E	10480	65	133463	M	0.49	0.27	0.00	0.27	-0.25	-0.12	0.91
E	10480	66	135586	M	0.62	0.41	-0.24	0.41	-0.18	-0.15	0.82
F	12991	9	108401	M	0.54	0.29	-0.16	0.29	-0.15	-0.09	0.65
F	12991	10	133475	M	0.60	0.22	-0.19	-0.23	0.22	**0.03**	0.59
F	12991	11	65163	J	0.40	0.65					4.00
F	12991	19	137306	M	0.60	0.32	-0.28	-0.29	0.32	0.00	0.29
F	12991	20	108341	M	0.50	0.49	-0.26	-0.17	-0.23	0.49	0.34
F	12991	29	79734	M	0.54	0.40	-0.24	-0.16	0.40	-0.14	1.39
F	12991	30	79685	M	0.52	0.42	-0.14	0.42	-0.26	-0.13	1.52
F	12991	45	108385	J	0.34	0.70					7.61
F	18627	45	108385	J	0.33	0.70					8.56
F	12991	47	133483	M	0.82	0.49	0.49	-0.30	-0.28	-0.16	0.42
F	12991	48	79561	M	0.48	0.33	-0.24	-0.08	0.33	-0.13	0.47
F	12991	50	108464	J	**0.25**	0.68					11.14
F	12991	53	132980	M	**0.24**	0.22	**0.07**	-0.09	-0.18	0.22	0.75
F	12991	54	135584	M	0.25	0.26	0.26	**0.04**	-0.18	-0.09	0.65
F	12991	65	108389	M	0.53	0.47	-0.23	-0.11	-0.30	0.47	0.79
F	12991	66	137280	M	0.62	0.47	-0.20	0.47	-0.24	-0.22	0.94
G	9169	9	108390	M	0.87	0.39	-0.17	-0.19	0.39	-0.26	0.28
G	9169	10	79741	M	**0.24**	0.24	-0.10	0.24	**0.06**	-0.20	0.68
G	9169	11	135594	J	0.43	0.74					5.81
G	9169	19	137320	M	0.55	0.50	-0.30	-0.20	-0.20	0.50	0.29
G	9169	20	137288	M	0.78	0.35	-0.14	-0.24	0.35	-0.19	0.27
G	9169	29	133478	M	0.45	0.20	**0.04**	-0.14	-0.14	0.20	1.17
G	9169	30	79592	M	**0.23**	0.25	-0.18	0.25	-0.19	-0.01	1.20
G	9169	45	137324	J	0.46	0.62					3.02
G	9169	47	79578	M	0.73	0.48	0.48	-0.20	-0.32	-0.21	0.33

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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
G	9169	48	108349	M	0.57	0.30	-0.19	-0.07	0.30	-0.22	0.35
G	9169	50	65166	J	0.35	0.72					9.17
G	9169	53	79671	M	0.40	0.35	0.35	-0.19	-0.17	-0.09	0.48
G	9169	54	132966	M	0.66	0.45	-0.27	-0.24	-0.16	0.45	0.45
G	9169	65	60461	M	0.48	0.24	0.24	-0.19	-0.19	**0.00**	0.79
G	9169	66	79731	M	0.76	0.39	-0.17	-0.24	0.39	-0.18	0.63
H	9092	9	137331	M	0.71	0.40	-0.20	-0.20	-0.24	0.40	0.38
H	9092	10	108482	M	0.51	0.27	0.27	-0.10	-0.13	-0.12	0.74
H	9092	11	108411	J	0.39	0.76					4.10
H	9092	19	108355	M	0.80	0.45	0.45	-0.28	-0.23	-0.19	0.23
H	9092	20	108382	M	0.78	0.46	-0.20	0.46	-0.23	-0.29	0.22
H	9092	29	65185	M	0.88	0.41	-0.19	0.41	-0.24	-0.19	0.89
H	9092	30	132982	M	0.71	0.40	0.40	-0.21	-0.21	-0.18	0.95
H	9092	45	135590	J	0.28	0.67					9.87
H	9092	47	108378	M	0.89	0.41	-0.20	0.41	-0.29	-0.15	0.32
H	9092	48	108435	M	0.79	0.38	-0.23	-0.15	-0.25	0.38	0.33
H	9092	50	108360	J	0.34	0.66					4.19
H	9092	53	137302	M	0.33	0.25	0.25	-0.02	-0.29	-0.01	0.43
H	9092	54	108463	M	0.57	0.45	0.45	-0.24	-0.19	-0.21	0.56
H	9092	65	79650	M	0.53	0.36	-0.15	0.36	-0.13	-0.22	0.73
H	9092	66	137311	M	0.71	0.46	-0.22	-0.27	0.46	-0.19	0.66
J	8992	9	79660	M	0.90	0.32	-0.12	-0.17	0.32	-0.22	0.36
J	8992	10	52265	M	0.84	0.44	-0.25	0.44	-0.22	-0.22	0.48
J	8992	11	137292	J	0.43	0.57					3.09
J	8992	19	132963	M	0.54	**0.15**	-0.01	-0.05	0.15	-0.13	0.26
J	8992	20	137277	M	**0.91**	0.38	-0.25	0.38	-0.18	-0.18	0.18
J	8992	29	135577	M	**0.93**	0.31	-0.19	0.31	-0.16	-0.14	1.03
J	8992	30	137308	M	0.55	0.44	-0.20	0.44	-0.23	-0.24	1.11
J	8992	45	108453	J	0.38	0.66					6.68
J	8992	47	137315	M	0.38	0.43	0.43	-0.15	-0.12	-0.23	0.37
J	8992	48	108439	M	0.71	0.39	0.39	-0.17	-0.25	-0.15	0.39
J	8992	50	137293	J	0.40	0.68					5.87
J	8992	53	79730	M	0.83	0.43	-0.21	-0.23	0.43	-0.24	0.46
J	8992	54	133467	M	0.67	0.43	-0.21	0.43	-0.15	-0.28	0.59
J	8992	65	79651	M	0.82	0.43	0.43	-0.18	-0.27	-0.22	0.68
J	8992	66	79596	M	0.67	0.48	-0.13	0.48	-0.28	-0.28	0.67
K	8886	9	108371	M	0.46	0.32	-0.10	0.32	-0.23	-0.18	0.60
K	8886	10	135581	M	0.62	0.30	0.30	-0.17	-0.17	-0.09	0.56
K	8886	11	135591	J	0.37	0.66					7.64
K	8886	19	133469	M	0.46	0.36	-0.14	0.36	-0.34	**0.02**	0.27

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
K	8886	20	137309	M	0.71	0.47	-0.24	-0.31	-0.16	0.47	0.30
K	8886	29	108451	M	0.56	0.37	-0.11	-0.29	0.37	-0.11	0.99
K	8886	30	132972	M	0.42	0.27	-0.18	-0.06	0.27	-0.06	0.98
K	8886	45	108399	J	0.35	0.72					5.44
K	8886	47	79566	M	**0.22**	**0.08**	-0.19	0.08	-0.17	**0.17**	0.37
K	8886	48	133481	M	0.54	0.43	-0.14	-0.20	-0.23	0.43	0.56
K	8886	50	108336	J	0.35	0.74					6.09
K	8886	53	137321	M	0.78	0.54	-0.32	-0.27	-0.23	0.54	0.42
K	8886	54	135575	M	0.85	0.47	-0.23	0.47	-0.27	-0.23	0.52
K	8886	65	133485	M	0.71	0.49	-0.18	-0.28	-0.27	0.49	0.57
K	8886	66	52263	M	0.58	0.51	-0.20	-0.25	-0.24	0.51	0.70

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.