Maryland High School Assessments

Maryland High School Assessment and Modified High School Assessment 2011 Technical Report

Algebra/Data Analysis
Biology
English
Government

Educational Testing Service
March 2012

Foreword

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).

Contents

List of Tables—High School Assessments

List of Tables—Modified High School Assessments

List of Figures—High School Assessments

List of Figures—Modified High School Assessments

CHAPTER I: HIGH SCHOOL ASSESSMENTS

Section 1. Introduction

The Maryland High School Assessments (MD HSAs) consist of end-of-course tests in Algebra/Data Analysis, Biology, English, and Government. May 2011 was the last administration of the Government HSA. The MD HSAs are referred to as "end-of-course" tests because students take each test as they complete the appropriate coursework. In addition, results from the Algebra/Data Analysis, Biology, and English administrations are used in the Maryland State Department of Education (MSDE) Adequate Yearly Progress (AYP) reports, required under the No Child Left Behind (NCLB) Act for the 2011 school year.

Beginning with students who entered ninth grade in the 2005–2006 school year, satisfactory scores on all four MD HSAs are required in order to earn a Maryland High School Diploma.[1] Information on the interpretation of scores is provided to students, parents, schools, and other stakeholders via the MSDE website.

All MD HSAs are comprised of selected-response (SR) items, which require students to choose between four short response options. In addition, Algebra/Data Analysis tests include items that require a student-produced response (SPR); students must grid in their responses on an answer document or key them in for the online version of the assessment. All MD HSA items are based on content outlined in Maryland's Core Learning Goals (CLGs).[2] The SR and SPR items are machine-scored. Beginning in May 2009, the MD HSAs are administered online as well as in paper-and-pencil format. Studies of the comparability of online and paper forms of the MD HSAs were conducted in 2009 and 2010. The 2009 report is provided in the 2009 HSA Technical Report in Appendix 1C. The 2010 results were provided to the MSDE (Educational Testing Service, October 29, 2010).

This report provides information about the October 2010 administration and the January, April, May, and Summer 2011 administrations. For the October 2010 administration, one form was administered. For the January 2011 administration, three forms were administered: two forms for the primary administration, and one form for the makeup administration. For the April 2011 administration, one form was administered. For the May 2011 administration, twelve test forms were administered: ten for the primary testing window and one for each of two makeup testing windows. For the Summer 2011 administration, two primary forms were administered: 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. The operational items were used to produce student scores. Field test items were scored along with the operational items, but examinees' scores on these items were not included in the computation of their total test scores. For the January and May administrations, performance on the field test items was analyzed, and

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[1] More information on the testing requirement for graduation is available on the Maryland State Department of Education website at http://mdk12.org/assessments/high_school/index.html.

[2] The HSA Core Learning Goals documents can be found on the Maryland School Improvement website at http://www.mdk12.org/assessments/standards/9-12.html.

all flagged items were reviewed. Field test items that were approved by ETS content specialists and calibrated were then marked as available for use in the item bank. Items that were deemed unacceptable were marked as "Unavailable" and may be revised and field tested again in the future. With the exception of items selected for public release, the operational items that are returned to the item bank must remain unused for at least one year to minimize item exposure.

The item response model used to calibrate the items on the MD HSAs is the three-parameter logistic (3PL) model. This model is used to generate both total test scores and subscores using item-pattern (IP) scoring. Total test results in the scale score metric are reported to students. Subscores are not reported to students but are aggregated at the classroom level to provide teachers and administrators with additional information about student performance in each of the subscore categories.

Pre-equated item parameters are used to generate student scores. When pre-equated item parameters are used, the parameters are not estimated following an administration; instead, existing bank parameters are used to produce student scores. Using this approach, scores can be calculated and assigned to students immediately after their answer documents have been processed. (Prior to 2004, students' scores were based on item parameters estimated after each the administration.)

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 [AERA], American Psychological Association [APA], and National Council on Measurement in Education [NCME] (1999).

The MD HSA chapter of this technical report consists of seven sections and two appendices.
- Section 1 provides an introduction to the MD HSA program.
- Section 2 describes the procedures used for test construction and administration.
- Section 3 discusses the validity of the MD HSAs.
- Section 4 delineates the scoring procedures and score types.
- Section 5 summarizes the results of the analyses of test reliability, decision consistency and decision accuracy.
- Section 6 provides summary statistics and descriptive information about student characteristics.
- Section 7 gives the results of the analysis of field test data, including classical item analysis, differential item functioning, and item calibration and scaling.
- Appendix 1A provides classical item statistics for each operational test item by form administered.
- Appendix 1B provides classical item statistics for each field test item administered.

Section 2. 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 (CLGs) and the 2010–2011 form construction templates provided by MSDE. Areas that contained low item counts were given priority when determining which indicators were to be addressed by the item writers. After these areas with critical need 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 for use in the construction of forms for future administrations.

Item Types

As noted in Section 1, two item types were included on the 2010-2011 MD HSA tests. These item types include the following:

- Selected response (SR)—questions in multiple-choice format with four answer options;
- Student-produced response (SPR)—an item type used in Algebra only, for which the student works the problem and records the solution in an answer grid.

Table 2.1 shows how these item types and associated points were distributed by content area. Each SR and SPR item is worth one point.

Table 2.1 Number of Operational Items by Item Type for Each MD HSA 2011 Content Area

Content Area	Operational Items by Item Type		
	SR	SPR	Total
Algebra	43	10	53
Biology	76	-	76
English	60	-	60
Government	82	-	82

Test Specifications and Design

MSDE predetermined the basic test design and provided it to ETS in the form of the content-specific "Test Specifications—Test Form Matrix" document. This basic test design document provides 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 ETS and MSDE content specialists. Construction of

the forms was based on test blueprints approved by MSDE. Blueprints for each content area are presented in Tables 2.2 to 2.5.

Table 2.2 MD HSA 2011 Algebra Blueprint

	Number of Items		Total Points per Category
	SR (1 pt)	SPR (1 pt)	
Expectation 1.1 Analyzing Pattern and Functions	11	2	13
Expectation 1.2 Modeling Real-World Situations	13	4	17
Expectation 3.1 Collecting, Organizing and Analyzing Data	8	4	12
Expectation 3.2 Using Data to Make Predictions	11	0	11
Total	43	10	53

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

Table 2.3 MD HSA 2011 Biology Blueprint

	Number of Items	Total Points per Category
Goal 1 Skills and Processes of Biology	16	16
Expectation 3.1 Structure and Function of Biological Molecules	12	12
Expectation 3.2 Structure and Function of Cells and Organisms	13	13
Expectation 3.3 Inheritance of Traits	13	13
Expectation 3.4 Mechanism of Evolutionary Change	9	9
Expectation 3.5 Interdependence of Organisms in the Biosphere	13	13
Total	76	76

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

Table 2.4 MD HSA 2011 English Blueprint

	Number of Items	Total Points per Category
1: Reading and Literature: Comprehension and Interpretation (RC) Includes indicators 1.1.1, 1.1.2, 1.1.3, 1.2.1, 1.3.3, 3.2.2	16	16
2: Reading and Literature: Making Connections and Evaluation (RE) Includes indicators 1.1.4, 1.2.2, 1.2.3, 1.2.4, 1.2.5, 1.3.5, 4.2.1	14	14
3: Writing: Composing (WC) Includes indicators 2.2.1, 2.2.2, 2.2.3, 2.2.5, 2.3.1, 2.3.3, 4.3.1	16	16
4: Writing: Language Usage and Conventions (WL) Includes indicators 3.1.3, 3.1.4, 3.1.6, 3.1.8, 3.3.1, 3.3.2	14	14
Total	60	60

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

Table 2.5 MD HSA 2011 Government Blueprint

	Number of Items	Total Points per Category
Expectation1.1 U.S. Government Structure, Functions and Principles	23	23
Expectation 1.2 Protecting Rights and Maintaining Order	21	21
Goal 2 Systems of Government and U.S. Foreign Policy	12	12
Goal 3 Impact of Geography on Governmental Policy	11	11
Goal 4 Economic Principles, Institutions and Processes	15	15
Total	82	82

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

Item Writing

Item writers were employed to develop high-quality test items that were aligned with the Core Learning Goals. Nearly all item writers were Maryland educators. Only a small portion of the total number of items written was developed by ETS content specialists. Item writers were selected on the basis of their depth of content knowledge and familiarity with the MD HSA program. Many were experienced MD HSA item writers.

Item writers were trained on general item writing techniques as well as writing guidelines that are specific to the MD HSA 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 the item writers' 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. Items that were accepted proceeded to the item review and revision process.

Item Review and Revision

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

- Items were edited according to standard rules developed in conjunction with MSDE.
- Items were reviewed for accuracy, organization, comprehension, style, usage, consistency, and fairness/sensitivity.
- Item content was reviewed to establish whether the item measured the intended Goal-Expectation-Indicator-Assessment Limit, with the Goal being the broadest category and Assessment Limit being the narrowest parameter of content being assessed.
- Copyright and/or trademark permissions were verified for any materials requiring permissions, for both field test and operational material.
- Internal reviews were conducted and historical records were established for all version changes.

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

MSDE content specialists performed a review of the items and provided feedback to ETS content specialists. The edits were incorporated into the items. MSDE and ETS content specialists then met to conduct a side-by-side review of the items. Any further edits to the items were made. Finally, the items were prepared for review by the Content and Bias/Sensitivity Review Committees.

The Content and Bias/Sensitivity Review Committees are diverse groups of Maryland educators who reviewed each item to ensure that its content (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 reviews, MSDE and ETS content specialists conducted another side-by-side meeting to evaluate the reviews and to reconcile the results of the various groups. ETS then made the requested edits to the items and/or revisions to the accompanying graphics. The items that survived this process were eligible for placement in the field test sections of the test forms.

Testing Accommodations

A number of alternate test formats are available to MD HSA examinees, including large-print, Braille, online audio, and Kurzweil versions of the MD HSA developed for each content area. All four alternate test formats are available at each administration. Data from these alternate formats are included in the psychometric analyses.

Test Specifications

All 2011 test forms were constructed using items from the Maryland item bank. The pool of items available for use in the construction of the 2011 forms included all items that had been administered, calibrated, and linked to the operational scale. For Algebra, Biology, and Government, the MD HSA operational scale was defined in 2003 and included items administered in 2002 and 2003. For English, the scale was redefined in 2005 when the English test was updated to become an end-of-course assessment for English 2. Items flagged for poor fit and items flagged for substantial differential item functioning (DIF) against one of the focal groups were excluded from the item pool. (See Section 7 for a more detailed account of these analyses and flagging criteria.)

Each test form was constructed to meet specific test blueprints. Tables 2.2 through 2.5 starting on page 13 indicate the distribution of items within each reporting category by item type and the number of score points associated with each item type.

Item Selection and Form Design

To conserve the item pool, when multiple forms were included in an administration, each test form consisted of a common set of operational items shared across forms within an administration, as well as a unique set of items. Within these administrations (i.e., January, May, and Summer), approximately 60 percent of the operational items in each form were common across the test sections. The remaining items in the forms consisted of combinations of items that varied across forms. The guidelines used to construct the forms are provided in Tables 2.6 to 2.10. The exact composition of the forms varied slightly based on available items in the pool.

Table 2.6 Form Construction Specifications for the MD HSA October 2010 Administration

Primary Week Form R
Operational and Field Test items—
Reuse of intact form from a prior administration

Table 2.7 Form Construction Specifications for the MD HSA January 2011 Administration

Primary Week Form A	Primary Week Form B	Makeup 1 Form C
Common set—60%	Same as Form A	Common set—60%
Unique items—40%	Same as Form A	Unique items—40%
Field Test Section—Unique items	Field Test Section—Unique items	Field Test Section—Reuse of field test set from Form A or B, or a combination of both

Table 2.8 Form Construction Specifications for the MD HSA April 2011 Administration

Form S
Operational and Field Test items—
Reuse of intact form from a prior administration

Table 2.9 Form Construction Specifications for the MD HSA May 2011 Administration

Primary Week Forms D–N	Makeup 1 Form X	Makeup 2 Form Y
Common Set—60%	Common Set—60%	Common Set—60%
Unique Items—40%	Half of items from primary week's 40% unique items—20%	Other half of items from primary week's 40% unique items—20%
	Unique items—20%	Unique items—20%
Field Test Section—Unique sets of items for Forms D–N	Field Test Section—Reuse of one or a combination of the field test sets used in forms D–N, with a preference for form D; however, the actual selection of field test items was determined by the constraints imposed by the operational items	Field Test Section—Reuse of one or a combination of the field test sets used in forms D-N, 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 2.10 Form Construction Specifications for the MD HSA Summer 2011 Administration[3]

Content Area	Primary Week 1 Form P	Primary Week 2 Form Q
Algebra and English	Common Set—60% Unique items—40% Field Test Section—Reuse of prior administration field test set	Common Set—60% Unique items—40% Field Test Section— Reuse of prior administration field test set
Biology	Reuse of intact form from a prior administration	Reuse of items from a prior administration with 40% Unique items Field Test Section— Reuse of prior administration field test set

In addition to the operational items, embedded field test items were included with each version of the test form, resulting in multiple versions of a test form containing different sets of field test items. The percentage of field test items per form varied by content area and administration, as shown in Table 2.11.

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[3] The Summer 2011 administration did not include Government.

Table 2.11 Number of Operational (OP) and Field Test (FT) Items by Administration and MD HSA 2011 Content Area

Content Area	OP Items	FT Items	% FT Items
Algebra	53	16	23%
Biology	76	23	23%
English*	60	38	39%
Eng - Oct	60	31	34%
Government	82	25	23%

* In the October 2011 English test form, the number of field test items differed because item sets varied in size.

Items being field tested were primarily newly written items, with a small number of previously administered items that had been revised due to content concerns or problematic item statistics. Items with problematic statistics were ones that were judged to be acceptable from a content perspective but had one or more of the following characteristics: p-values less than 0.10; item-total correlations of less than 0.15; very high omit rates; or SR items with a positive point-biserial correlation for one or more distractors. For administrations in which there was more than one primary form available at the same time (January and May), the forms were spiraled at the student level. Spiraling at the student level means that multiple forms of the test were packaged in order (e.g., D, E, F, etc.) and distributed to students according to this order. Spiraling at the student level helps ensure that all forms are randomly distributed throughout the state.

Forms were constructed using the test construction software associated with the customer item bank. The goal was to match the test characteristic curves (TCCs) and the conditional standard error of measurement (CSEM) curves with the "target" form defined as the base form used to set the operational scale. For Algebra, Biology, and Government, the base forms were originally developed in 2003; for English the base form was originally developed in 2005. These base forms contained constructed response (CR) items. However, in 2009, CR items were discontinued on the MD HSAs. Because of this change in test design, the target TCCs for the HSAs were revised so that they were no longer influenced by the characteristics of CR items. (Refer to ETS memorandum: *Considerations for Setting New Target Test Characteristic Curves for the Maryland High School Assessments (HSAs)*, 10/5/2009 for details on how new target TCCs were created.)

The following general steps were completed during the test construction process:
1. For each administration, all forms were constructed simultaneously in order to provide the best opportunity to construct parallel forms.
2. Items that matched the test blueprint were selected to match the target TCCs and CSEMs.

3. Test developers were careful to ensure that the item selections met all content specifications, including matching items to the test blueprint, distribution of keys, and avoidance of clueing[4] or clanging.[5]
4. After the operational items were selected for the test forms, the field test sets were constructed. Field test sets consisted of SR items in all content areas. 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 able to be completed by students in approximately 35 minutes. For English, the field test sets were estimated to be able to be completed by students in approximately 50 minutes due to the additional time required to read the passages and stimuli. The field test items were embedded in the test according to a variety of content and template criteria, including, but not limited to, coverage of the reporting categories and assessment limits, cognitive balance, key balance/distribution, and clueing/clanging within the field test set and among the surrounding operational items.

Figures 2.1 to 2.8 show the plots of the TCCs and CSEMs for the target form and forms developed for each content area. It is important to note that the TCCs and CSEMs shown in the plots are based on pre-equated item parameters and therefore are curves calculated prior to administration of the tests. In general, the TCCs and CSEMs were similar to the target curves. The TCC plots indicate that all forms for each content area were within or very close to the acceptable range of the target curve for the full range of scale score values. Note that in the April and October administrations, intact forms from previous administrations were used. Those forms were built to the previous target TCCs, so in some cases deviate more from the current target TCC than is typically seen. Where forms varied in difficulty, differences between forms were typically less than 5 percent of the total raw score across the score range, especially in the range of the cut scores. Where forms had differences slightly greater than 5 percent, these larger differences were typically seen at the very low end of the scale score range and at the high end of the scale. As expected, the CSEM plots indicate that the CSEMs for each content area were lowest in the middle range of scale scores, where the majority of student scores are located. (Please refer to figures 6.1 to 6.4 for histograms of student performance.)

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[4] Clueing refers to information within a passage, stimulus, item, graphic, or other test component that allows respondents to select/construct the correct answer to one or more items in an assessment without the knowledge and/or skill targeted by the item.
[5] Clanging occurs when an identical or resembling word(s) appears in both the item stem and one or more item distractors. Also, if two or more items that are near each other share common key words, even if the item content does not clue, the items are said to clang because the interpretation of the word in one item can affect the interpretation of another item.

Figure 2.1 Test Characteristic Curves for the MD HSA 2011 Algebra Forms
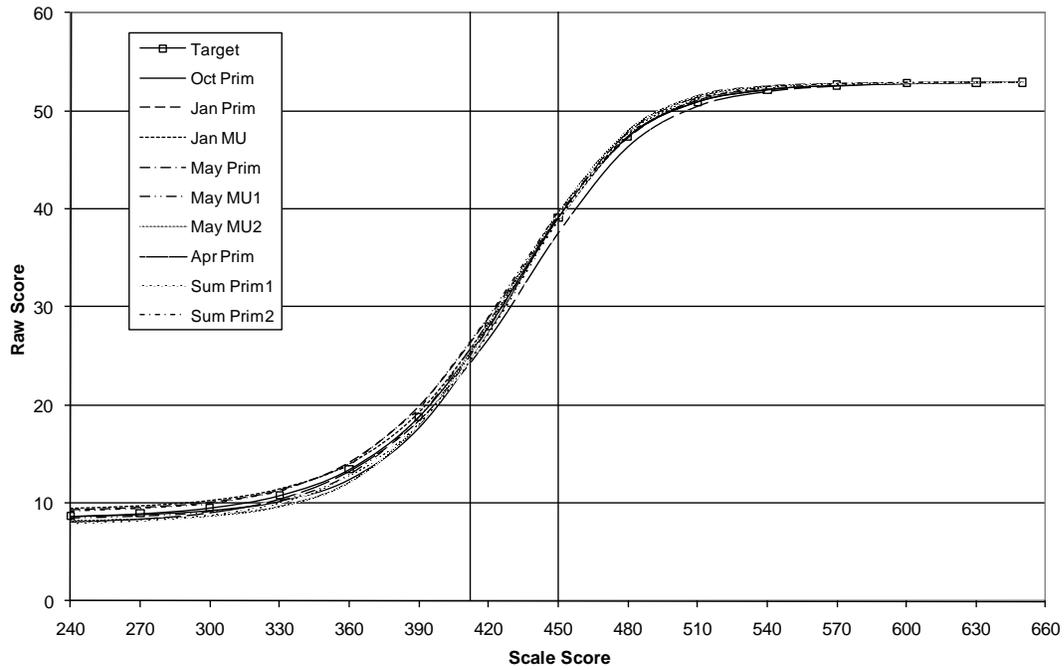
Note: Maximum possible raw score is 53.

Figure 2.2 Conditional Standard Error of Measurement for the MD HSA 2011 Algebra Forms
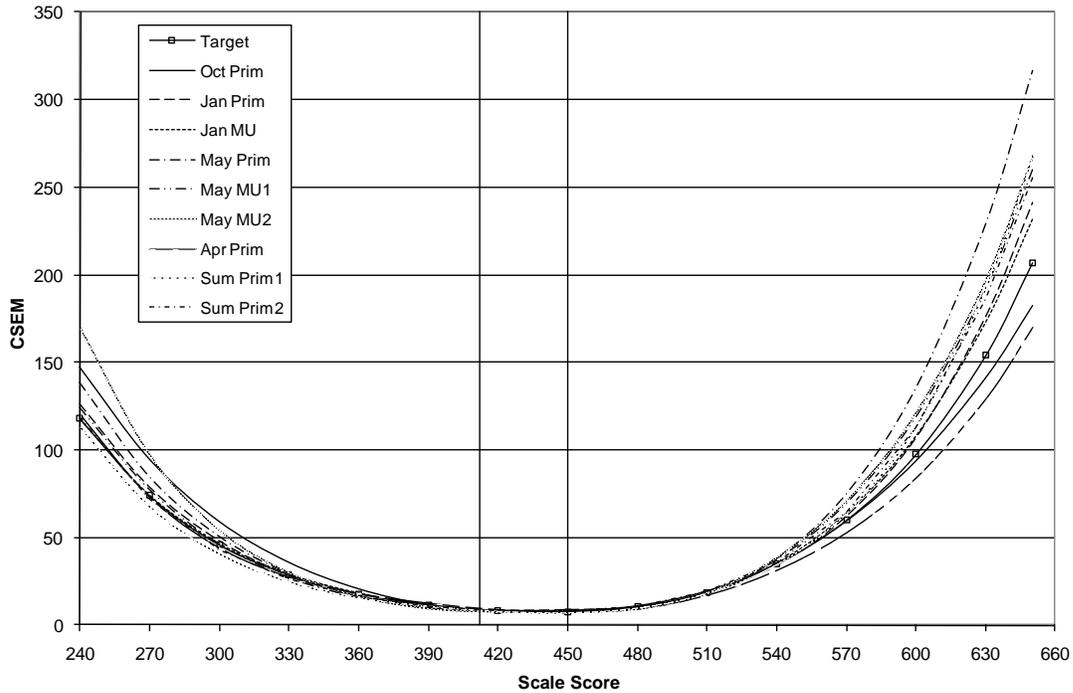
Figure 2.3 Test Characteristic Curves for the MD HSA 2011 Biology Forms
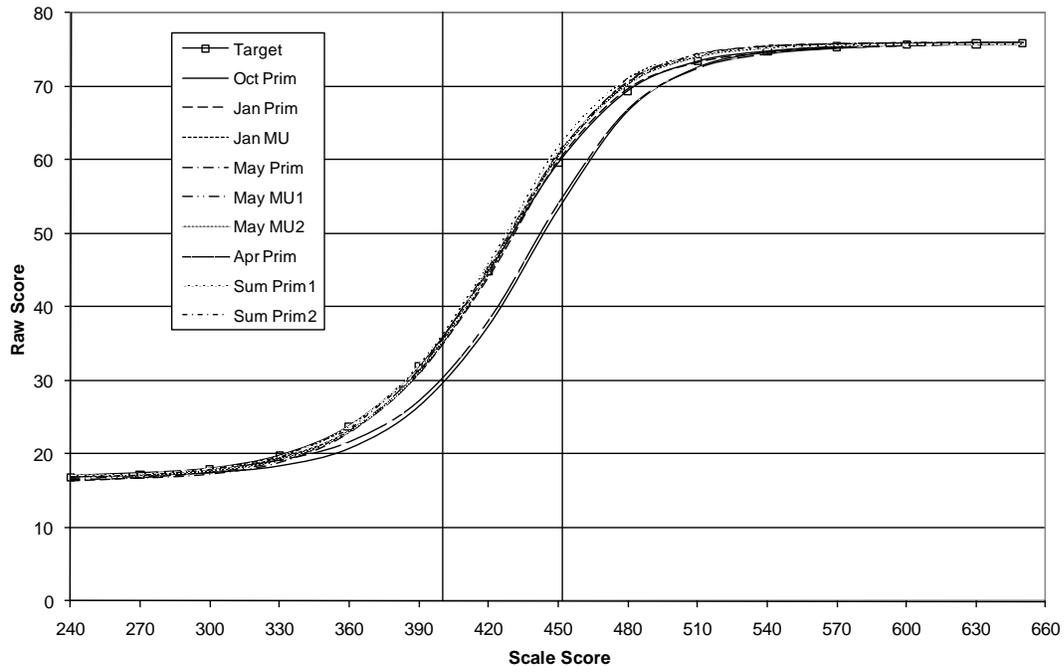
Note: Maximum possible raw score is 76.

Figure 2.4 Conditional Standard Error Measurement for the MD HSA 2011 Biology Form
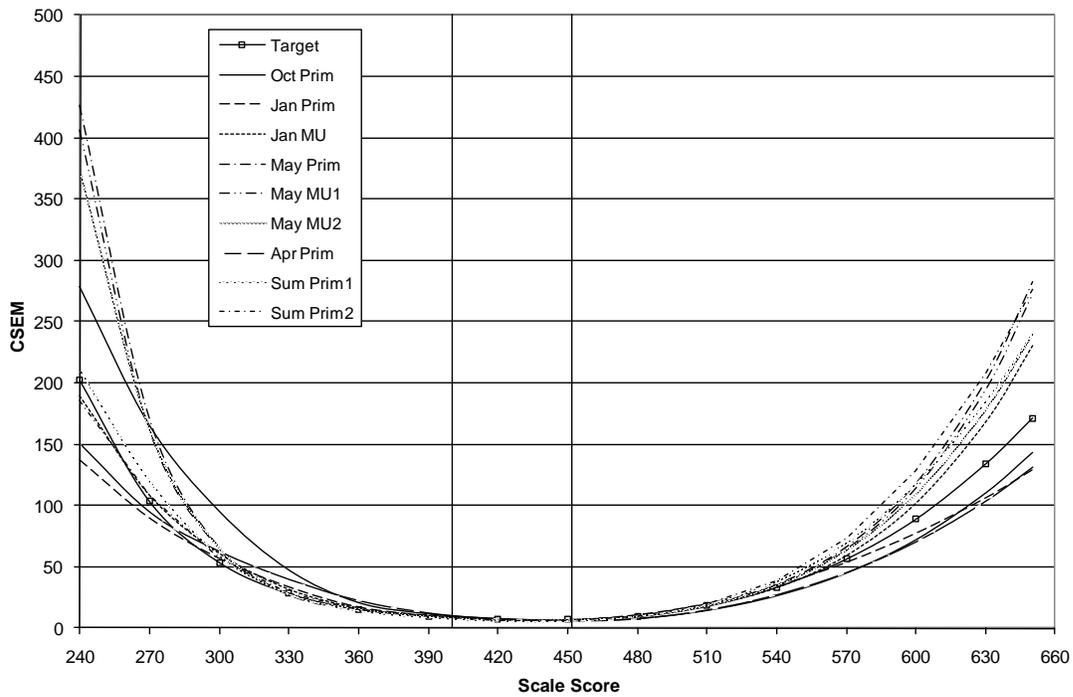
Figure 2.5 Test Characteristic Curves for the MD HSA 2011 English Forms
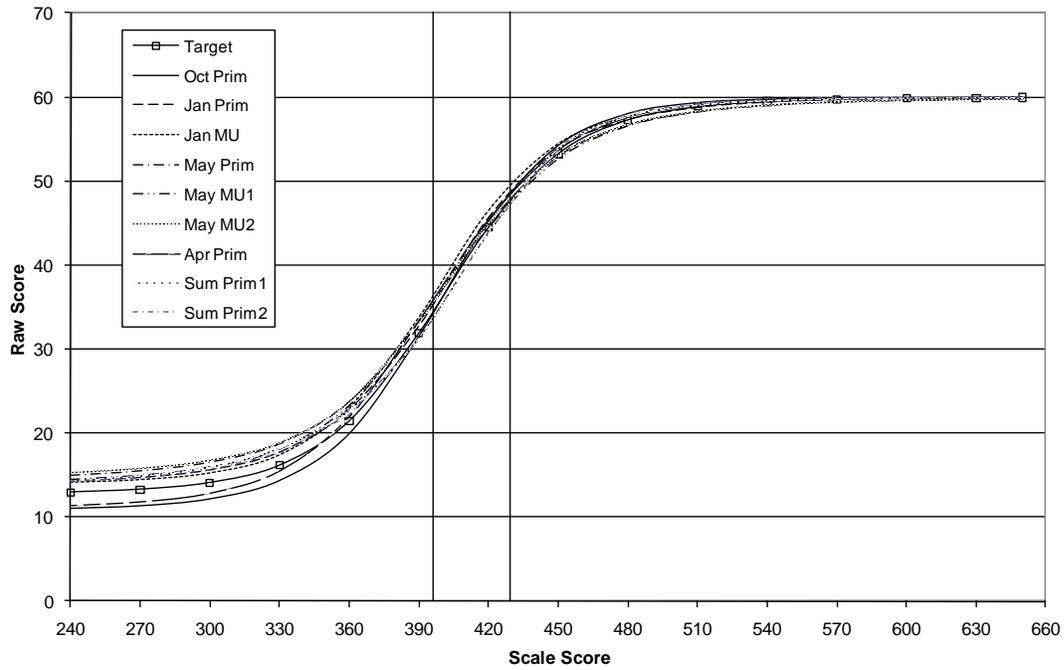
Note: Maximum possible raw score is 60.

Figure 2.6 Conditional Standard Error of Measurement for the MD HSA 2011 English Forms
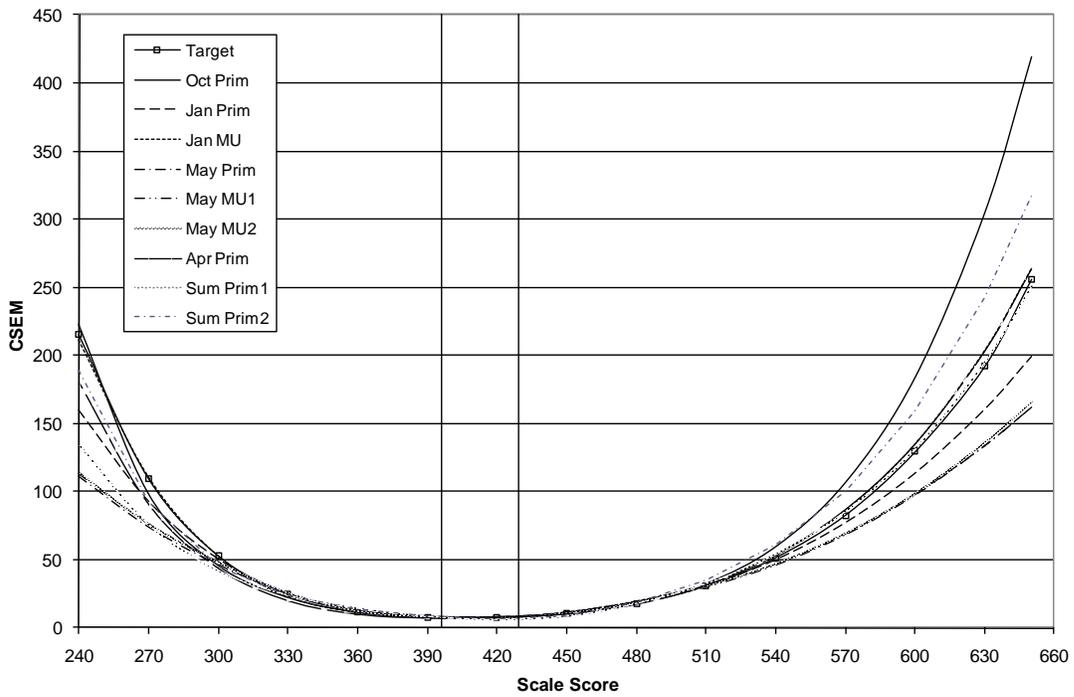
Figure 2.7 Test Characteristic Curves for the MD HSA 2011 Government Forms
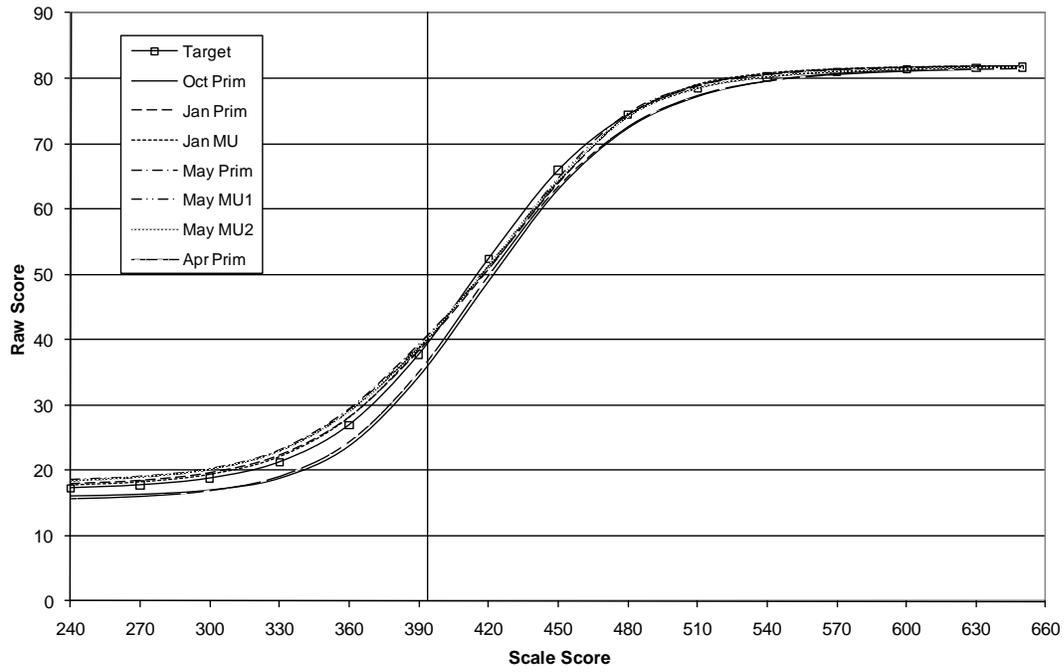
Note: Maximum possible raw score is 82.

Figure 2.8 Conditional Standard Error of Measurement for the MD HSA 2011 Government Forms
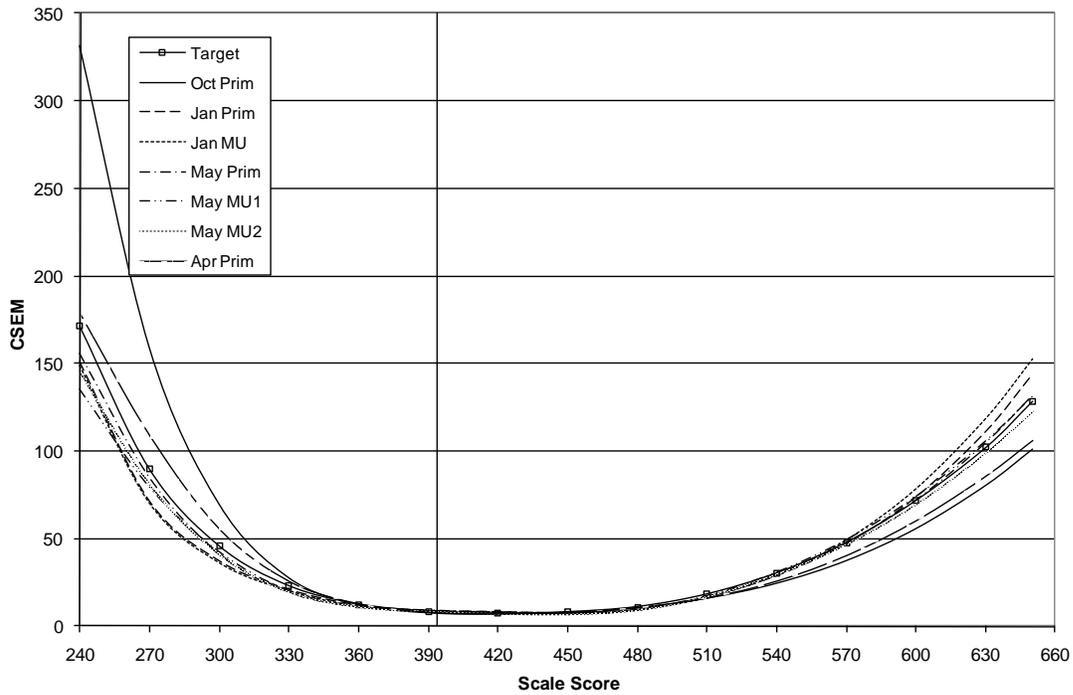
Test Administration

For all MD HSA tests administered in 2010-2011, both paper-and-pencil and online versions were available.

For all administrations, paper-and-pencil primary forms were given during the first week of testing. For the January and May administrations, Makeup Form 1 was offered during the second week. For the May administration only, Makeup Form 2 was administered in the third week of testing.

For the online versions in all administrations, the primary and makeup forms were spiraled equally throughout the testing window. In October only one form was administered. In January the two primary forms and one makeup form were spiraled over the two-week timeframe. In April, only one form was administered. In May the ten primary and two makeup forms were spiraled over a three-week timeframe. In Summer the two primary forms were spiraled over the two-week timeframe. All forms administered without extended time accommodations had timing limits indicated in Table 2.12.

Table 2.12 Test Timing Schedule in Minutes by MD HSA Content Area

Content Area	Session One	Break	Session Two	Break	Session Three
Algebra	50	5	50	5	50
Biology	45	5	45	5	45
English	50	5	55	5	50
Government	45	5	45	5	45

Section 3. Validity

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

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

Evidence Based on Analyses of Test Content

The MD HSAs are referred to as end-of-course tests because students take each test as they complete the appropriate coursework. Consequently items are developed to measure the knowledge and skills expected of students following completion of coursework. As discussed in Section 2, the development of test content for each MD HSA is overseen by a content expert who has a depth of knowledge and teaching experience related to the course in which the MD HSA is to be administered. Appropriate content leads who have similar qualifications review the test development work of these individuals.

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

Evidence Based on Analyses of Internal Test Structure

Analyses of the internal structure of a test typically involve studies of the relationship among test items and/or test components in the interest of establishing the degree to which the items or components appear to reflect the construct on which a test interpretation is based (AERA, APA & NCME, 1999, p. 13). The term construct is used here to refer to the characteristic that a test is

intended to measure; in the case of the MD HSAs, the characteristic of interest is the knowledge and skills defined by the test blueprint for each content area.

These test blueprints are derived from Maryland's Core Learning Goals for each course. The test blueprints are presented in Section 2 (see Tables 2.2 to 2.5); the CLGs can be found on the MSDE website at http://www.mdk12.org/assessments/high_school/index_a.html.

High total group internal consistencies as well as similar reliabilities between subgroups with roughly the same sample size provide additional evidence of validity. High reliability over items within a test implies that the test items within a domain are measuring the intended construct. Cronbach's alpha results for each administration for the overall population, as well as for subgroups can be found in Section 6 of this report, in Tables 6.5 through 6.24.

Another way to assess the internal structure of the test is through the evaluation of Pearson correlation matrices between the individual MD HSA subscores. If subscores within a content area are strongly related to each other, this is another indicator of validity. Tables 3.1 and 3.2 highlight the Pearson correlations found between subscores within each content area of the MD HSA tests. Results indicate that each subscore is significantly positively correlated with the total Scale Score as well as the individual subscores measured in each content area.

Table 3.1 Correlations between Subscores by MD HSA 2011 Content Area – Algebra & Biology

| | Algebra | | | | | Biology | | | | | | |
	SS	1	2	3	4	SS	1	2	3	4	5	6
Overall SS	1					1						
Subscore 1	.82	1				.78	1					
Subscore 2	.83	.65	1			.73	.57	1				
Subscore 3	.78	.60	.62	1		.77	.57	.57	1			
Subscore 4	.68	.52	.54	.54	1	.74	.57	.54	.54	1		
Subscore 5	-	-	-	-	-	.69	.53	.50	.50	.50	1	
Subscore 6	-	-	-	-	-	.76	.57	.56	.56	.54	.51	1

Note: All correlations significant at the p < .001 level.

Table 3.2 Correlations between Subscores by MD HSA 2011 Content Area – English & Government

| | English | | | | | Government | | | | | |
	SS	1	2	3	4	SS	1	2	3	4	5
Overall SS	1					1					
Subscore 1	.78	1				.85	1				
Subscore 2	.74	.56	1			.85	.68	1			
Subscore 3	.71	.49	.47	1		.74	.62	.60	1		
Subscore 4	.72	.51	.47	.50	1	.73	.63	.59	.54	1	
Subscore 5	-	-	-	-	-	.72	.58	.59	.54	.51	1

Note: All correlations significant at the p < .001 level.

Finally, the internal structure of the MD HSA tests can be assessed in relation to the degree to which these tests meet the requirements of the statistical models used throughout testing administrations. Confirmatory factor analyses (CFAs) for each test by content area can be conducted to examine the underlying domain structure of the MD HSA test. CFA is a useful statistical methodology as it can evaluate whether performance on items in each test reflects a single underlying characteristic or a set of distinct characteristics defined by the reporting categories for each content area. The findings from this type of analysis are helpful as they can establish whether the unidimensional model-based IRT used to calibrate the MD HSA items is appropriate.

Confirmatory Factor Analyses of the May 2011 Administration Data

To assess the dimensionality of the MD HSA tests, CFA's for each content area were conducted using test data from the primary forms of the May 2011 administration. The May administration was chosen for analysis because it is the largest and most representative administration of the MD HSAs. The May administration consisted of ten primary forms; data from operational items were combined across forms within the content areas of Algebra, Biology, English, and Government.

Mplus (Muthén & Muthén, 2007) was used to evaluate unidimensional, or one-factor, CFA models for each content area. As item level data on the MD HSA tests are dichotomous, methods available in *Mplus* that take into account the categorical nature of the data were used (see Muthén, 1998-2004).

Model parameter estimation was accomplished using a weighted least-square method with a mean and variance adjustment (*WLSMV*; Muthén, DuToit, & Spisic, 1997). This method leads to a consistent estimator of the model parameters and provides standard errors that are robust under model misspecification. For categorical data, this estimation method offers an alternative to full-weighted least squares (WLS) techniques that generally become computationally too demanding for models with more than a few observed variables (items).

Overall model fit for each CFA model by content area was examined using the scaled chi-square (χ^2) test of model fit in combination with supplemental fit indices. The Tucker-Lewis Index (TLI) compares the chi-square for the hypothesized model with that of the null or "independence" model, in which all correlations or covariances are zero. TLI values range from zero to 1.0, and values greater than 0.94 signify good fit (Hu & Bentler, 1999). The comparative fit index (CFI) and root mean square error of approximation (RMSEA) index both are based on noncentrality parameters. The CFI compares the covariance matrix predicted by the model with the observed covariance matrix, and the covariance matrix of the null model with the observed covariance matrix. A CFI value greater than 0.90 indicates acceptable model fit (Hu & Bentler, 1999). The RMSEA assesses the error in the hypothesized model predictions; values less than or equal to 0.06 indicate good fit (Hu & Bentler, 1999).

Table 3.3 shows the results of the analyses. The TLI, CFI, and RMSEA fit statistics indicated that the one-factor solutions fit the data well in all content areas. Though none of the χ^2 results indicated good fit using a criterion of $p > .05$, this was expected due to the extremely large sample sizes. These findings provide evidence that the tests for each content area measure a single dimension. This is a positive finding, given that IRT models assume unidimensionality.

Table 3.3 MD HSA 2011 Confirmatory Factor Analyses Fit Statistics

Content	Admin	Forms	# of Factors	# of Items	n	df	χ^{2*}	TLI	CFI	RMSEA
Algebra	May	D-H, J-N	1	53	70,511	1,325	65,267	**0.97**	**0.97**	**0.026**
Biology	May	D-H, J-N	1	76	55,919	2,774	60,848	**0.98**	**0.98**	**0.019**
English	May	D-H, J-N	1	60	56,107	1,710	35,850	**0.97**	**0.97**	**0.019**
Government	May	D-H, J-N	1	82	53,050	3,239	102,174	**0.95**	**0.95**	**0.024**

Note: Table entries that meet or exceed the criterion are in bold.
* $p < .0005$ for all χ^2

Speededness

If more than five percent of students omitted an SR or SPR item the item was flagged as having a high omit rate. Table 3.4 shows omit rates for each content area by administration and item type. As can be seen, several of the SPR items were flagged for having high omit rates. This pattern is consistent with findings from previous test years. Note that in general, SPR items tend to have higher omit rates because students have to generate a response rather than choose one from the available answer choices. None of the SR items were flagged.

Table 3.4 Number of MD HSA 2011 Operational Items Flagged for High Omit Rate

Content	October Item Types		January Item Types		April Item Types		May Item Types		Summer Item Types	
	SR	SPR	SR	SPR	SR	SPR	SR	SPR	SR	SPR
Algebra	0	4	0	2	0	8	0	0	0	4
Biology	0	--	0	--	0	--	0	--	0	--
English	0	--	0	--	0	--	0	--	0	--
Government	0	--	0	--	0	--	0	--	--	--

The percentage of students who respond to the last items in a test can be used to assess the degree to which a test is speeded. When speededness occurs, a test is measuring not only students' knowledge and skills as defined by the construct of interest but also the speed at which

the knowledge and skills are demonstrated, which is a second construct. In tests of achievement, it is desirable to find that speededness is not present in a test, which provides evidence that student scores on the test reflect only the intended construct. Evidence of speededness is provided by the finding that the omit rates at the end of a test are notably higher than those observed elsewhere in the test.

Appendix 1.A presents the percentage of students who omitted items on the MD HSA operational forms. Across all content areas and administrations, the percentage of students who did not respond to the last ten SR items of a test was less than 2 percent per item. The SPR items (Algebra only) had omit rates ranging from 0.2 percent to 7.0 percent when placed within the last ten items of a test form. The higher omission rates for the SPR items are typical for this item type because students are required to solve a problem and then record the answer in an answer grid, rather than choose from among four answer choices presented by SR items. For all item types the percentage of students who omitted items located within the last ten positions on an MD HSA test form was not greater than omit rates throughout the test.

In addition to the factor analyses and the information regarding speededness presented here and the validation documentation gathered and maintained by MSDE, other information in support of the uses and interpretations of MD HSA scores appears in the following sections:

- Section 4 provides detailed information concerning the scores that were reported for the MD HSAs and the cut scores for each content area.

- Section 5 provides information concerning the test characteristics based on classical test theory for the administrations of the MD HSAs.

- Section 6 presents information regarding student characteristics for the administrations of the MD HSAs.

- Section 7 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 4. Scoring Procedures

Scale Scores

The MD HSA reporting scale ranges from 240 to 650. For Algebra, Biology, and Government, the scale was established in 2003 and defined so that the scale scores had a mean of 400 and a standard deviation 40. In 2005 a scale for English was established that had the same range, mean, and standard deviation.

These scores represent ability estimates obtained using Item Response Theory (IRT, Yen & Fitzpatrick, 2006). (See IRT Calibration and Scaling in Section 7 for details about the three-parameter logistic model (3PL) used for the MD HSAs.) Students' total test scores and subscores are scale scores derived using the 3PL model and item-pattern (IP) scoring procedures. When 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 (Yen, 1984).

Conditional Standard Errors of Measurement

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

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

where CSEM($\hat{\theta}$) refers to the conditional standard error of measurement and I($\hat{\theta}$) refers to the test information function for $\hat{\theta}$. The test information function is the sum of corresponding information functions of the test items when optimal item weights are used. Item information functions depend on the item difficulty, discrimination, and conditional item score variance.

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).

Cut Scores

MSDE established the cut scores associated with each of the performance levels in the content areas other than English in 2003.[6] The English cut scores were established during the standard-setting meeting held in October 2005. One cut score was established for Biology and one was established for Government. Because Algebra and English results are used as the high school mathematics and English/language arts components of the Maryland accountability plan under NCLB, two cut scores were established for these content areas. To comply with NCLB requirements for secondary science, an Advanced cut score for Biology was established in 2008. These values are given in Table 4.1.

Table 4.1 MD HSA Cut Scores by Content Area

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

Beginning with the class of 2009, students must obtain either a passing score on each of the four MD HSAs or an overall combined score of 1602 as part of the requirements for a high school diploma. Passing status is achieved when a student's score meets or exceeds the Proficient cut score, as listed in Table 4.1. Students graduating prior to 2009 were not required to pass the MD HSAs but were required to take the tests.

Year-to-Year Scale Maintenance

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

To increase the item pool, the MD HSA embeds field test items in the operational test forms. The field test data for the January and May administration are calibrated with the operational items at that time. The calibrations are linked to the reporting scale using all operational items as anchors and the Stocking and Lord procedure (Stocking & Lord, 1983). Having all operational items serve as linking items ensures that the linking set is large enough to provide stable and reliable

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

results. Item bank parameter estimates are established at the time of the 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 and Brennan (1995). These guidelines are:

1. Items should appear in the same contexts and positions as when the item parameter estimates were established. Operational items are placed as close as possible to the same position they were in when parameters were estimated and within the same third of the total test form.
2. 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; MSDE must approve any deviations.
3. 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.

Section 5. Test Characteristics

Provided in this section is a discussion of the results of analyses of test reliability and decision consistency and accuracy for all MD HSA test forms administered.

Reliability

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

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

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

where n is the number of items, σ_i^2 is the variance of scores on the i-th item, and σ_x^2 is the variance of the total score (sum of scores on the individual items). Sample estimates are substituted for the population variances in this formula to provide reliability estimates.

The results for the reliability analyses of the total test score are presented with the summary statistics in Tables 6.5 to 6.23. The tables show that the overall reliability of the MD HSAs administered during the January and May sessions ranged from 0.83 to 0.94 for the primary forms, and from 0.81 to 0.94 for the makeup forms. The overall reliability results for the October forms ranged from 0.65 to 0.81. The overall reliability results for the April forms ranged from 0.66 to 0.92. The overall reliability results for the Summer forms ranged from 0.80 to 0.86.

Lower reliability coefficients are sometimes seen for the smaller administrations typically taken by repeat test-takers (October, April, and Summer). All forms are constructed to meet the same target specifications, one of which is to include only items that have point-biserials of at least 0.10. However, when items are administered to non-representative samples of students, the point-biserials of some items may be lower in those samples, which leads to lower reliability coefficients for those administrations.

Decision Accuracy and Decision Consistency

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

> Decision accuracy, or 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?

> Decision consistency, or 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 5.1 to 5.19 by content area for the October, January, April, 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 0.81 to 0.90 across all performance levels and from 0.85 to 0.94 for the Proficient and Above classifications in Algebra, Biology, and English. Decision consistency values, which describe the agreement between classifications based on two variables (scores on the form students have taken and a parallel form of the same test that is not administered to the students), ranged from 0.74 to 0.86 across all performance levels and from 0.78 to 0.91 for the Proficient and Above classifications in Algebra, Biology, and English.

Note that in all cases the decision accuracy indices are somewhat larger than the decision consistency indices. This is due to differences in the estimation procedures. The estimation procedure for decision accuracy includes a random component on one of the two variables, whereas in estimating decision consistency each variable includes a random component (Livingston & Lewis, 1995).

Table 5.1 Decision Accuracy and Consistency: MD HSA October 2010 Algebra Form

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	450–650	.00	.00	.00	.00
Decision	412–449	.00	.10	.06	.16
Accuracy	240–411	.01	.06	.76	.84
	Estimated Proportion Correctly Classified*: Total = 0.87 , Proficient & Above = 0.87				
	450–650	.00	.00	.00	.00
Decision	412–449	.01	.08	.06	.16
Consistency	240–411	.01	.10	.72	.84
	Estimated Proportion Consistently Classified*: Total = 0.81 , Proficient & Above = 0.82				

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

Table 5.2 Decision Accuracy and Consistency: MD HSA January 2011 Algebra Forms

	Placement Scores	Advanced	Proficient	Basic	Category Total*
January Primary					
	450–650	.03	.00	.00	.03
Decision	412–449	.03	.16	.07	.26
Accuracy	240–411	.00	.06	.64	.71
	Estimated Proportion Correctly Classified: Total*: = 0.84, Proficient & Above = 0.87				
	450–650	.03	.00	.00	.03
Decision	412–449	.05	.13	.08	.26
Consistency	240–411	.01	.09	.61	.71
	Estimated Proportion Consistently Classified*: Total = 0.78 ; Proficient & Above = 0.83				
January Form C					
	450–650	.02	.00	.00	.02
Decision	412–449	.04	.15	.07	.26
Accuracy	240–411	.00	.06	.66	.72
	Estimated Proportion Correctly Classified*: Total = 0.83, Proficient & Above = 0.87				
	450–650	.02	.00	.00	.02
Decision	412–449	.05	.12	.09	.26
Consistency	240–411	.01	.08	.63	.72
	Estimated Proportion Consistently Classified*: Total = 0.77, Proficient & Above = 0.82				

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

Table 5.3 Decision Accuracy and Consistency: MD HSA Algebra 2011 April Form

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	450–650	.00	.01	.00	.01
Decision	412–449	.00	.06	.04	.10
Accuracy	240–411	.01	.06	.82	.89
	Estimated Proportion Correctly Classified*: Total = 0.88, Proficient & Above = 0.89				
	450–650	.01	.00	.00	.01
Decision	412–449	.01	.05	.04	.10
Consistency	240–411	.02	.09	.78	.89
	Estimated Proportion Consistently Classified*: Total = 0.83, Proficient & Above = 0.84				

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

Table 5.4 Decision Accuracy and Consistency: MD HSA Algebra 2011 May Forms

	Placement Scores	Advanced	Proficient	Basic	Category Total*
May Primary					
	450–650	.24	.03	.00	.26
Decision	412–449	.05	.28	.04	.36
Accuracy	240–411	.00	.04	.33	.37
	Estimated Proportion Correctly Classified*: Total = 0.84 , Proficient & Above = 0.92				
	450–650	.22	.04	.00	.26
Decision	412–449	.07	.24	.05	.36
Consistency	240–411	.00	.05	.32	.37
	Estimated Proportion Consistently Classified*: Total = 0.78 , Proficient & Above = 0.89				
May Form X					
	450–650	.12	.03	.00	.15
Decision	412–449	.03	.26	.03	.32
Accuracy	240–411	.01	.07	.45	.53
	Estimated Proportion Correctly Classified*: Total = 0.83, Proficient & Above = 0.89				
	450–650	.11	.05	.00	.15
Decision	412–449	.05	.22	.05	.32
Consistency	240–411	.01	.08	.43	.53
	Estimated Proportion Consistently Classified*: Total = 0.76, Proficient & Above = 0.86				
May Form Y					
	450–650	.19	.04	.00	.23
Decision	412–449	.04	.27	.06	.37
Accuracy	240–411	.00	.02	.38	.40
	Estimated Proportion Correctly Classified*: Total = 0.84, Proficient & Above = 0.92				
	450–650	.18	.05	.00	.23
Decision	412–449	.05	.24	.08	.37
Consistency	240–411	.00	.04	.36	.40
	Estimated Proportion Consistently Classified*: Total = 0.78, Proficient & Above = 0.88				

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

Table 5.5 Decision Accuracy and Consistency: MD HSA Algebra 2011 Summer Forms

	Placement Scores	Advanced	Proficient	Basic	Category Total*
Summer Form P					
	450–650	.02	.00	.00	.02
Decision	412–449	.04	.20	.10	.34
Accuracy	240–411	.00	.03	.61	.64
	Estimated Proportion Correctly Classified*: Total = 0.83, Proficient & Above = 0.87				
	450–650	.02	.00	.00	.02
Decision	412–449	.06	.17	.11	.34
Consistency	240–411	.00	.06	.58	.64
	Estimated Proportion Consistently Classified*: Total = 0.77, Proficient & Above = 0.83				
Summer Form Q					
	450–650	.03	.00	.00	.03
Decision	412–449	.03	.14	.06	.22
Accuracy	240–411	.00	.05	.69	.75
	Estimated Proportion Correctly Classified*: Total = 0.85, Proficient & Above = 0.88				
	450–650	.03	.00	.00	.03
Decision	412–449	.04	.11	.07	.22
Consistency	240–411	.01	.08	.66	.75
	Estimated Proportion Consistently Classified*: Total = 0.80, Proficient & Above = 0.84				

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

Table 5.6 Decision Accuracy and Consistency: MD HSA Biology 2010 October Form

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	452–650	.00	.01	.00	.01
Decision	400–451	.00	.09	.06	.15
Accuracy	240–399	.01	.09	.75	.84
	Estimated Proportion Consistently Classified*: Total = 0.84, Proficient & Above = 0.85				
	452–650	.00	.00	.00	.01
Decision	400–451	.01	.08	.07	.15
Consistency	240–399	.02	.13	.69	.84
	Estimated Proportion Consistently Classified*: Total = 0.77, Proficient & Above = 0.78				

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

Table 5.7 Decision Accuracy and Consistency: MD HSA January 2011 Biology Forms

	Placement Scores	Advanced	Proficient	Basic	Category Total*
January Primary					
	452–650	.10	.01	.00	.11
Decision	400–451	.03	.26	.04	.33
Accuracy	240–399	.00	.04	.53	.56
	Estimated Proportion Correctly Classified*: Total = 0.88, Proficient & Above = 0.92				
	452–650	.09	.02	.00	.11
Decision	400–451	.04	.23	.06	.33
Consistency	240–399	.00	.05	.51	.56
	Estimated Proportion Consistently Classified*: Total = 0.83, Proficient & Above = 0.89				
January Form C					
	452–650	.05	.00	.00	.06
Decision	400–451	.02	.21	.03	.26
Accuracy	240–399	.01	.05	.62	.68
	Estimated Proportion Correctly Classified*: Total = 0.88, Proficient & Above = 0.90				
	452–650	.05	.01	.00	.06
Decision	400–451	.03	.19	.05	.26
Consistency	240–399	.01	.07	.60	.68
	Estimated Proportion Consistently Classified*: Total = 0.84, Proficient & Above = 0.87				

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

Table 5.8 Decision Accuracy and Consistency: MD HSA April 2011 Biology Form

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	452–650	.00	.00	.00	.01
Decision	400–451	.00	.08	.06	.14
Accuracy	240–399	.01	.07	.78	.85
	Estimated Proportion Correctly Classified*: Total = 0.85, Proficient & Above = 0.86				
	452–650	.01	.00	.00	.01
Decision	400–451	.01	.06	.07	.14
Consistency	240–399	.02	.11	.73	.85
	Estimated Proportion Consistently Classified*: Total = 0.79, Proficient & Above = 0.81				

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

Table 5.9 Decision Accuracy and Consistency: MD HSA May 2011 Biology Forms

	Placement Scores	Advanced	Proficient	Basic	Category Total*
May Primary					
	452–650	.17	.02	.00	.19
Decision	400–451	.05	.44	.03	.52
Accuracy	240–399	.00	.03	.25	.29
	Estimated Proportion Correctly Classified*: Total = 0.87, Proficient & Above = 0.94				
	452–650	.16	.03	.00	.19
Decision	400–451	.06	.41	.05	.52
Consistency	240–399	.00	.04	.25	.29
	Estimated Proportion Consistently Classified*: Total = 0.82, Proficient & Above = 0.91				
May Form X					
	452–650	.09	.04	.00	.12
Decision	400–451	.03	.40	.02	.45
Accuracy	240–399	.01	.05	.38	.43
	Estimated Proportion Correctly Classified*: Total = 0.86, Proficient & Above = 0.93				
	452–650	.08	.05	.00	.12
Decision	400–451	.05	.36	.04	.45
Consistency	240–399	.01	.06	.37	.43
	Estimated Proportion Consistently Classified*: Total = 0.80, Proficient & Above = 0.90				
May Form Y					
	452–650	.15	.03	.00	.17
Decision	400–451	.06	.45	.03	.53
Accuracy	240–399	.00	.04	.25	.29
	Estimated Proportion Correctly Classified*: Total = 0.85, Proficient & Above = 0.94				
	452–650	.13	.05	.00	.17
Decision	400–451	.08	.42	.04	.53
Consistency	240–399	.00	.04	.25	.29
	Estimated Proportion Consistently Classified*: Total = 0.79, Proficient & Above = 0.91				

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

Table 5.10 Decision Accuracy and Consistency: MD HSA Summer 2011 Biology Forms

	Placement Scores	Advanced	Proficient	Basic	Category Total*
Summer Form P					
	452–650	.00	.00	.00	.00
Decision	400–451	.01	.14	.05	.21
Accuracy	240–399	.01	.06	.72	.79
	Estimated Proportion Correctly Classified*: Total = 0.87, Proficient & Above = 0.88				
	452–650	.00	.00	.00	.00
Decision	400–451	.02	.12	.06	.21
Consistency	240–399	.01	.09	.69	.79
	Estimated Proportion Consistently Classified*: Total = 0.82, Proficient & Above = 0.84				
Summer Form Q					
	452–650	.01	.01	.00	.02
Decision	400–451	.02	.26	.09	.37
Accuracy	240–399	.00	.03	.58	.61
	Estimated Proportion Correctly Classified*: Total = 0.85, Proficient & Above = 0.88				
	452–650	.01	.01	.00	.02
Decision	400–451	.03	.23	.10	.37
Consistency	240–399	.00	.06	.55	.61
	Estimated Proportion Consistently Classified*: Total = 0.80, Proficient & Above = 0.84				

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

Table 5.11 Decision Accuracy and Consistency: MD HSA October 2010 English Form

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	429–650	.01	.00	.00	.01
Decision	396–428	.01	.14	.05	.21
Accuracy	240–395	.01	.06	.72	.79
	Estimated Proportion Correctly Classified*: Total = 0.87, Proficient & Above = 0.88				
	429–650	.01	.00	.00	.01
Decision	396–428	.02	.12	.06	.21
Consistency	240–395	.01	.09	.68	.79
	Estimated Proportion Consistently Classified*: Total = 0.81, Proficient & Above = 0.83				

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

Table 5.12 Decision Accuracy and Consistency: MD HSA January 2011 English Forms

	Placement Scores	Advanced	Proficient	Basic	Category Total*
January Primary					
	429–650	.09	.01	.00	.10
Decision	396–428	.04	.19	.06	.29
Accuracy	240–395	.00	.04	.56	.61
	Estimated Proportion Correctly Classified*: Total = 0.84, Proficient & Above = 0.89				
	429–650	.09	.02	.00	.10
Decision	396–428	.05	.16	.08	.29
Consistency	240–395	.00	.07	.54	.61
	Estimated Proportion Consistently Classified*: Total = 0.79, Proficient & Above = 0.86				
January Form C					
	429–650	.05	.01	.00	.07
Decision	396–428	.02	.19	.05	.25
Accuracy	240–395	.01	.06	.62	.69
	Estimated Proportion Correctly Classified*: Total = 0.86, Proficient & Above = 0.89				
	429–650	.05	.02	.00	.07
Decision	396–428	.03	.16	.06	.25
Consistency	240–395	.01	.08	.59	.69
	Estimated Proportion Consistently Classified*: Total = 0.80, Proficient & Above = 0.85				

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

Table 5.13 Decision Accuracy and Consistency: MD HSA April 2011 English Form

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	429–650	.01	.00	.00	.01
Decision	396–428	.00	.08	.03	.12
Accuracy	240–395	.01	.05	.81	.87
	Estimated Proportion Correctly Classified*: Total = 0.90, Proficient & Above = 0.90				
	429–650	.01	.00	.00	.01
Decision	396–428	.01	.07	.04	.12
Consistency	240–395	.01	.08	.78	.87
	Estimated Proportion Consistently Classified*: Total = 0.86, Proficient & Above = 0.86				

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

Table 5.14 Decision Accuracy and Consistency: MD HSA May 2011 English Forms

	Placement Scores	Advanced	Proficient	Basic	Category Total*
May Primary					
	429–650	.21	.05	.00	.25
Decision	396–428	.05	.30	.08	.43
Accuracy	240–395	.00	.02	.30	.31
	Estimated Proportion Correctly Classified*: Total = 0.81, Proficient & Above = 0.90				
	429–650	.20	.06	.00	.25
Decision	396–428	.07	.26	.10	.43
Consistency	240–395	.00	.03	.28	.31
	Estimated Proportion Consistently Classified*: Total = 0.74, Proficient & Above = 0.87				
May Form X					
	429–650	.15	.03	.00	.17
Decision	396–428	.05	.23	.08	.35
Accuracy	240–395	.00	.02	.45	.47
	Estimated Proportion Correctly Classified*: Total = 0.82, Proficient & Above = 0.90				
	429–650	.14	.04	.00	.17
Decision	396–428	.06	.19	.10	.35
Consistency	240–395	.00	.04	.43	.47
	Estimated Proportion Consistently Classified*: Total = 0.76, Proficient & Above = 0.86				
May Form Y					
	429–650	.22	.05	.00	.27
Decision	396–428	.04	.26	.08	.39
Accuracy	240–395	.00	.01	.33	.34
	Estimated Proportion Correctly Classified*: Total = 0.82, Proficient & Above = 0.91				
	429–650	.21	.06	.00	.27
Decision	396–428	.07	.22	.10	.39
Consistency	240–395	.00	.02	.32	.34
	Estimated Proportion Consistently Classified*: Total = 0.75, Proficient & Above = 0.87				

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

Table 5.15 Decision Accuracy and Consistency: MD HSA Summer 2011 English Forms

	Placement Scores	Advanced	Proficient	Basic	Category Total*
Summer Form P					
	429–650	.01	.00	.00	.01
Decision	396–428	.04	.12	.07	.23
Accuracy	240–395	.01	.05	.70	.76
	Estimated Proportion Correctly Classified*: Total = 0.83, Proficient & Above = 0.87				
	429–650	.01	.00	.00	.01
Decision	396–428	.06	.10	.08	.23
Consistency	240–395	.01	.08	.67	.76
	Estimated Proportion Consistently Classified*: Total = 0.77, Proficient & Above = 0.83				
Summer Form Q					
	429–650	.01	.00	.00	.01
Decision	396–428	.05	.13	.07	.25
Accuracy	240–395	.01	.05	.68	.74
	Estimated Proportion Correctly Classified*: Total = 0.83, Proficient & Above = 0.87				
	429–650	.01	.00	.00	.01
Decision	396–428	.06	.11	.08	.25
Consistency	240–395	.01	.07	.65	.74
	Estimated Proportion Consistently Classified*: Total = 0.77, Proficient & Above* = 0.83				

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

Table 5.16 Decision Accuracy and Consistency: MD HSA October 2010 Government Form

	Placement Scores	Proficient	Basic	Category Total*
Decision Accuracy	394–650	.16	.04	.20
	240–393	.07	.72	.80
	Estimated Proportion Correctly Classified*: Total = 0.88			
Decision Consistency	394–650	.15	.05	.20
	240–393	.11	.69	.80
	Estimated Proportion Consistently Classified*: Total = 0.84			

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

Table 5.17 Decision Accuracy and Consistency: MD HSA January 2011 Government Forms

	Placement Scores	Proficient	Basic	Category Total*
January Primary				
Decision Accuracy	394–650	.47	.01	.48
	240–393	.07	.45	.52
	Estimated Proportion Correctly Classified*: Total = 0.92			
Decision Consistency	394–650	.45	.03	.48
	240–393	.08	.44	.52
	Estimated Proportion Consistently Classified*: Total = 0.89			
January Form C				
Decision Accuracy	394–650	.44	.01	.45
	240–393	.08	.48	.55
	Estimated Proportion Correctly Classified*: Total = 0.92			
Decision Consistency	394–650	.42	.03	.45
	240–393	.09	.46	.55
	Estimated Proportion Consistently Classified*: Total = 0.89			

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

Table 5.18 Decision Accuracy and Consistency: April 2011 Government Form

	Placement Scores	Proficient	Basic	Category Total*
Decision Accuracy	394–650	.30	.00	.30
	240–393	.09	.61	.70
	Estimated Proportion Correctly Classified*: Total = 0.91			
Decision Consistency	394–650	.28	.01	.30
	240–393	.10	.60	.70
	Estimated Proportion Consistently Classified*: Total = 0.88			

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

Table 5.19 Decision Accuracy and Consistency: MD HSA May 2011 Government Forms

	Placement Scores	Proficient	Basic	Category Total*
May Primary				
Decision Accuracy	394–650	.72	.02	.75
	240–393	.03	.23	.25
	Estimated Proportion Correctly Classified*: Total = 0.95			
Decision Consistency	394–650	.71	.04	.75
	240–393	.03	.22	.25
	Estimated Proportion Consistently Classified*: Total = 0.93			
May Form X				
Decision Accuracy	394–650	.57	.06	.63
	240–393	.01	.35	.37
	Estimated Proportion Correctly Classified*: Total = 0.92			
Decision Consistency	394–650	.55	.08	.63
	240–393	.03	.34	.37
	Estimated Proportion Consistently Classified*: Total = 0.89			
May Form Y				
Decision Accuracy	394–650	.73	.03	.76
	240–393	.02	.22	.24
	Estimated Proportion Correctly Classified*: Total = 0.95			
Decision Consistency	394–650	.72	.04	.76
	240–393	.03	.21	.24
	Estimated Proportion Consistently Classified*: Total = 0.93			

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

Section 6. Student Characteristics

Summary Statistics

The mean scale scores by content area for the 2011 administrations are presented in Table 6.1. Scores for all content areas were higher on average for the May administration compared with the October, January, April, and Summer administrations.

Table 6.1 MD HSA 2011 Mean Scale Scores by Administration

Content Area	October			January			April			May			Summer		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Algebra	15,837	386.1	32.5	17,503	391.2	40.8	1,915	375.6	38.4	77,366	421.8	42.0	1,527	388.4	41.9
Biology	10,427	371.3	41.0	14,506	390.8	50.2	1,774	360.2	48.3	61,433	418.4	39.1	946	379.5	40.3
English	12,713	377.0	28.2	17,538	384.5	38.5	2,609	367.9	30.7	61,705	406.2	35.8	1,409	370.5	40.0
Government	9,971	371.7	34.3	15,825	392.7	42.7	1,657	379.6	41.8	58,430	415.6	40.7	--	--	--

Note: The Government test was not issued after the May 2011 administration.

The results presented in Tables 6.2 to 6.3 are based on the combined results for students who took the tests in October 2010 and January, April, May, and Summer 2011. The mean scale scores are presented for the years 2003 to 2011 by content area in Table 6.2. Table 6.3 presents the passing rates for these years.

Table 6.2 MD HSA Mean Scale Scores over Test Years 2003-2011

Content Area	2003	2004	2005	2006	2007	2008	2009	2010	2011
Algebra	408.3	411.9	409.5	421.5	421.2	420.5	414.3	408.1	410.9
Biology	400.8	406.2	404.7	415.0	414.5	414.7	409.0	408.7	406.9
English	--	--	--	393.0	412.0	404.3	399.7	398.2	396.8
Government	403.5	406.5	409.3	418.5	417.1	417.1	406.3	408.6	405.6

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

Table 6.3 MD HSA Percentage Passing Rates (Proficient + Advanced) over Test Years 2003-2011

Content Area	2003	2004	2005	2006	2007	2008	2009	2010	2011
Algebra	53.1	59.3	54.5	66.6	63.3	62.0	53.3	46.6	49.1
Biology	54.3	62.0	58.4	67.8	70.1	68.4	60.0	59.1	57.9
English	--	--	--	60.1	70.6	61.0	55.3	54.8	54.0
Government	39.8	54.6	67.1	74.1	73.3	71.5	61.1	61.7	62.1

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

The Algebra and English tests are used for the high school mathematics and English/language arts components of the MSDE Adequate Yearly Progress report as required under the NCLB Act. Beginning with the January 2008 administration, Biology has been used for the NCLB science component. Table 6.4 presents the percentage of Algebra, Biology, and English students classified as Basic, Proficient, and Advanced in 2011.

Table 6.4 MD HSA Performance Classification Rates in 2011 for Algebra, Biology, and English

Content Area	Basic	Proficient	Advanced
Algebra	50.9	31.2	17.9
Biology	42.1	43.3	14.7
English	46.0	36.0	18.0

Summary statistics for all students and for subgroups based on gender, special education programs, ethnicity, and English language fluency are presented in Tables 6.5 through 6.24. The tables include the number of students tested for whom valid scores were available, mean scale scores, and standard deviations of scale scores. In addition, raw score reliabilities are provided for the overall group of examinees and for subgroups. Figures 6.1 through 6.4 show the distributions of total scale scores for each content area for the May 2011 administration.

Table 6.5 Summary Statistics for MD HSA Algebra: October 2010 Form

		Primary Form R				
		Mean	SD	N	%	Alpha
Overall		386.1	32.5	15,837	100.0	0.73
Gender						
	Male	384.9	34.5	7,649	48.3	0.75
	Female	387.3	30.4	8,066	50.9	0.71
	Missing	385.9	28.8	122	0.8	0.74
Special Education						
	Yes	374.4	39.2	1,848	11.7	0.73
	No	387.6	31.2	13,602	85.9	0.73
	Exited	391.1	26.3	122	0.8	0.69
	Exited and placed in 504	*	*	18	0.1	*
	504	385.7	29.7	247	1.6	0.71
Ethnicity						
	American Indian	399.5	24.0	65	0.4	0.75
	Asian	397.5	31.9	288	1.8	0.85
	African American	383.4	32.6	10,223	64.6	0.70
	Hawaiian/Pacific Islander	*	*	38	0.2	*
	White	392.8	30.8	3,142	19.8	0.76
	Hispanic	386.6	32.8	1,686	10.6	0.71
	Missing	388.6	30.3	395	2.5	0.75
Limited English Proficient						
	Yes	381.2	36.9	670	4.2	0.73
	No	386.3	32.3	15,068	95.1	0.73
	Exited	395.3	27.8	99	0.6	0.78

* Statistics not reported for sample size less than 50 (N<50).
[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 6.6 Summary Statistics for MD HSA Algebra: January 2011 Forms

		Primary Forms A-B					Makeup Form C				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		391.8	40.6	13,991	100.0	0.83	388.4	41.4	3,512	100.0	0.81
Gender											
	Male	390.6	43.1	6,934	49.6	0.84	386.5	45.2	1,609	45.8	0.83
	Female	393.2	38.0	6,796	48.6	0.83	390.5	37.6	1,859	52.9	0.79
	Missing	391.3	40.6	261	1.9	0.83	*	*	44	1.3	*
Special Education											
	Yes	378.2	46.4	1,795	12.8	0.81	377.0	46.8	337	9.6	0.80
	No	394.0	39.3	11,741	83.9	0.83	390.0	40.4	3,028	86.2	0.81
	Exited	387.4	50.0	113	0.8	0.85	*	*	33	0.9	*
	Exited and placed in 504	*	*	13	0.1	*	*	*	6	0.2	*
	504	390.9	36.4	329	2.4	0.78	381.4	46.1	108	3.1	0.82
Ethnicity											
	American Indian	377.0	52.7	65	0.5	0.85	*	*	23	0.7	*
	Asian	402.3	37.3	247	1.8	0.88	397.7	35.4	56	1.6	0.80
	African American	383.9	39.6	7,633	54.6	0.76	382.2	41.6	2,038	58.0	0.76
	Hawaiian/ Pacific Islander	*	*	11	0.1	*	*	*	6	0.2	*
	White	407.4	38.2	4,076	29.1	0.86	400.5	38.7	990	28.2	0.84
	Hispanic	387.7	39.8	1,381	9.9	0.79	388.8	38.6	288	8.2	0.81
	Missing	394.1	40.3	578	4.1	0.84	386.2	47.6	111	3.2	0.84
Limited English Proficient											
	Yes	375.4	44.6	593	4.2	0.78	367.7	47.9	93	2.6	0.77
	No	392.5	40.4	13,277	94.9	0.83	389.0	41.0	3,394	96.6	0.81
	Exited	400.9	27.7	121	0.9	0.74	*	*	25	0.7	*

* Statistics not reported for sample size less than 50 (N<50).
[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 6.7 Summary Statistics for MD HSA Algebra: April 2011 Form

	Primary Form S				
	Mean	SD	N	%	Alpha
Overall	375.6	38.4	1,915	100.0	0.72
Gender					
Male	373.8	40.9	883	46.1	0.73
Female	376.7	36.5	981	51.2	0.71
Missing	385.1	26.0	51	2.7	0.62
Special Education					
Yes	367.5	46.1	174	9.1	0.79
No	376.9	36.9	1,698	88.7	0.71
Exited	*	*	9	0.5	*
Exited and placed in 504	*	*	3	0.2	*
504	*	*	31	1.6	*
Ethnicity					
American Indian	*	*	8	0.4	*
Asian	*	*	35	1.8	*
African American	373.7	38.7	1,396	72.9	0.71
Hawaiian/ Pacific Islander	*	*	2	0.1	*
White	377.4	48.5	125	6.5	0.83
Hispanic	380.5	33.7	269	14.0	0.68
Missing	383.5	26.2	80	4.2	0.64
Limited English Proficient					
Yes	374.1	31.9	134	7.0	0.62
No	375.5	39.0	1,763	92.1	0.72
Exited	*	*	18	0.9	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 6.8 Summary Statistics for MD HSA Algebra: May 2011 Forms

		Primary Forms D-H, J-N					Makeup 1 Form X					Makeup 2 Form Y				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		422.7	41.9	70,511	100.0	0.93	409.1	41.7	4,785	100.0	0.91	418.6	42.4	2,070	100.0	0.93
Gender																
	Male	422.4	43.8	35,438	50.3	0.93	409.1	43.9	2,351	49.1	0.92	418.4	43.2	1.036	50.0	0.93
	Female	423.3	39.6	34,786	49.3	0.93	409.7	39.0	2,396	50.1	0.91	418.9	41.7	1,028	49.7	0.93
	Missing	389.6	43.9	287	0.4	0.88	*	*	38	0.8	*	*	*	*	6	0.3	*
Special Education																
	Yes	393.5	43.2	5,290	7.5	0.90	388.9	47.0	299	6.2	0.90	391.4	44.6	112	5.4	0.88
	No	425.2	40.9	62,895	89.2	0.93	410.6	41.1	4,341	90.7	0.91	420.4	42.0	1,891	91.4	0.93
	Exited	423.0	34.1	478	0.7	0.92	*	*	29	0.6	*	*	*	*	15	0.7	*
	Exited and placed in 504	435.0	36.6	82	0.1	0.91	*	*	2	0.0	*	*	*	*	4	0.2	*
	504	419.9	40.1	1,766	2.5	0.92	406.7	35.0	114	2.4	0.90	*	*	48	2.3	*
Ethnicity																
	American Indian	416.9	39.7	252	0.4	0.91	*	*	25	0.5	*	*	*	*	16	0.8	*
	Asian	450.4	41.4	3,809	5.4	0.93	445.2	46.8	155	3.2	0.94	438.6	33.3	104	5.0	0.93
	African American	402.8	37.9	28,156	39.9	0.89	395.5	35.9	2,462	51.5	0.85	400.5	41.3	831	40.1	0.89
	Hawaiian/ Pacific Islander	410.9	41.1	102	0.1	0.92	*	*	9	0.2	*	*	*	*	1	0.0	*
	White	441.5	35.5	27,920	39.6	0.92	433.5	37.8	1,377	28.8	0.91	436.0	35.3	845	40.8	0.92
	Hispanic	412.4	38.9	7,835	11.1	0.91	400.5	37.0	592	12.4	0.89	410.5	39.7	196	9.5	0.90
	Missing	429.1	41.7	2,437	3.5	0.93	407.4	52.9	165	3.4	0.93	422.7	51.0	77	3.7	0.94
Limited English Proficient																
	Yes	396.5	44.1	2,824	4.0	0.91	387.7	39.5	120	2.5	0.89	395.2	48.5	59	2.9	0.93
	No	423.8	41.5	66,863	94.8	0.93	409.7	41.7	4,644	97.1	0.91	419.3	42.1	1,993	96.3	0.93
	Exited	425.9	34.4	824	1.2	0.91	*	*	21	0.4	*	*	*	*	18	0.9	*

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

[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 6.9 Summary Statistics for MD HSA Algebra: Summer 2011 Forms

		Primary 1 Form P					Primary 2 Form Q				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		392.2	39.9	749	100.0	0.85	384.7	43.4	778	100.0	0.84
Gender											
	Male	390.9	41.6	400	53.4	0.85	385.8	43.2	416	53.5	0.84
	Female	394.0	37.9	346	46.2	0.84	383.8	43.5	336	43.2	0.84
	Missing	*	*	3	0.4	*	*	*	26	3.3	*
Special Education											
	Yes	368.7	45.9	80	10.7	0.81	377.3	46.7	61	7.8	0.81
	No	395.3	37.9	649	86.6	0.85	385.2	43.5	690	88.7	0.84
	Exited	*	*	3	0.4	*	*	*	4	0.5	*
	Exited and placed in 504	*	*	0	0.0	*	*	*	0	0.0	*
	504	*	*	17	2.3	*	*	*	23	3.0	*
Ethnicity											
	American Indian	*	*	3	0.4	*	*	*	7	0.9	*
	Asian	*	*	10	1.3	*	*	*	12	1.5	*
	African American	388.7	40.1	350	46.7	0.83	381.0	42.6	517	66.5	0.81
	Hawaiian/ Pacific Islander	*	*	1	0.1	*	*	*	4	0.5	*
	White	392.8	40.7	265	35.4	0.87	394.6	43.1	130	16.7	0.84
	Hispanic	401.1	38.2	105	14.0	0.84	*	*	37	4.8	*
	Missing	*	*	15	2.0	*	381.6	40.1	71	9.1	0.84
Limited English Proficient											
	Yes	*	*	10	1.3	*	*	*	9	1.2	*
	No	392.4	39.7	734	98.0	0.85	384.3	43.3	767	98.6	0.83
	Exited	*	*	5	0.7	*	*	*	2	0.3	*

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

[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 service

Table 6.10 Summary Statistics for MD HSA Biology: October 2010 Form

		Primary Form R				
		Mean	SD	N	%	Alpha
Overall		371.3	41.0	10,427	100.0	0.65
Gender						
	Male	370.5	43.1	4,942	47.4	0.69
	Female	372.1	38.9	5,342	51.2	0.60
	Missing	369.4	44.1	143	1.4	0.63
Special Education						
	Yes	357.6	49.6	1,213	11.6	0.52
	No	373.3	39.2	8,981	86.1	0.66
	Exited	377.3	31.7	81	0.8	0.47
	Exited and placed in 504	*	*	6	0.1	*
	504	361.8	47.9	146	1.4	0.45
Ethnicity						
	American Indian	361.1	52.4	57	0.5	0.64
	Asian	379.4	38.8	234	2.2	0.79
	African American	367.8	41.0	6,912	66.3	0.50
	Hawaiian/ Pacific Islander	*	*	28	0.3	*
	White	382.2	40.0	1,806	17.3	0.82
	Hispanic	373.8	38.9	1,065	10.2	0.58
	Missing	374.1	40.6	325	3.1	0.60
Limited English Proficient						
	Yes	370.5	38.9	371	3.6	0.48
	No	371.3	41.2	9,992	95.8	0.65
	Exited	377.0	25.8	64	0.6	0.41

* Statistics not reported for sample size less than 50 (N < 50).
[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 6.11 Summary Statistics for MD HSA Biology: January 2011 Forms

		Primary Forms A-B					Makeup Form C				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		392.6	50.6	11,744	100.0	0.94	382.9	47.5	2,762	100.0	0.92
Gender											
	Male	392.7	54.0	5,772	49.1	0.94	382.7	50.8	1,363	49.3	0.92
	Female	393.1	46.9	5,862	49.9	0.93	383.7	43.9	1,369	49.6	0.91
	Missing	365.5	46.7	110	0.9	0.77	*	*	30	1.1	*
Special Education											
	Yes	368.4	53.9	808	6.9	0.90	365.4	46.6	518	18.8	0.82
	No	394.7	49.8	10,536	89.7	0.94	386.8	47.2	2,146	77.7	0.92
	Exited	390.4	45.7	134	1.1	0.92	*	*	15	0.5	*
	Exited and placed in 504	*	*	12	0.1	*	*	*	5	0.2	*
	504	385.6	53.3	254	2.2	0.93	387.2	38.1	78	2.8	0.91
Ethnicity											
	American Indian	*	*	43	0.4	*	*	*	11	0.4	*
	Asian	405.0	52.7	270	2.3	0.96	383.2	58.3	64	2.3	0.94
	African American	367.9	43.8	5,403	46.0	0.82	365.7	42.9	1,261	45.7	0.78
	Hawaiian/ Pacific Islander	*	*	7	0.1	*	*	*	0	0.0	*
	White	422.0	42.8	4,694	40.0	0.94	404.9	44.1	1,073	38.8	0.94
	Hispanic	385.4	42.7	960	8.2	0.91	375.5	43.6	256	9.3	0.86
	Missing	394.6	52.3	367	3.1	0.93	382.4	46.4	97	3.5	0.91
Limited English Proficient											
	Yes	361.5	43.6	274	2.3	0.82	357.2	45.8	94	3.4	0.70
	No	393.4	50.6	11,374	96.8	0.94	383.9	47.1	2,641	95.6	0.92
	Exited	395.3	36.4	96	0.8	0.90	*	*	27	1.0	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 6.12 Summary Statistics for MD HSA Biology: April 2011 Form

		Primary Form S				
		Mean	SD	N	%	Alpha
Overall		360.2	48.3	1,774	100.0	0.66
Gender						
	Male	359.6	50.0	826	46.6	0.70
	Female	360.5	46.9	937	52.8	0.62
	Missing	*	*	11	0.6	*
Special Education						
	Yes	357.6	48.3	140	7.9	0.59
	No	360.5	48.2	1,590	89.6	0.67
	Exited	*	*	12	0.7	*
	Exited and placed in 504	*	*	0	0.0	*
	504	*	*	32	1.8	*
Ethnicity						
	American Indian	*	*	6	0.3	*
	Asian	*	*	35	2.0	*
	African American	356.8	49.8	1,348	76.0	0.63
	Hawaiian/Pacific Islander	*	*	3	0.2	*
	White	376.2	44.6	132	7.4	0.79
	Hispanic	367.7	39.5	226	12.7	0.51
	Missing	*	*	24	1.4	*
Limited English Proficient						
	Yes	364.2	44.7	124	7.0	0.68
	No	359.6	48.7	1,627	91.7	0.66
	Exited	*	*	23	1.3	*

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

Table 6.13 Summary Statistics for MD HSA Biology: May 2011 Forms

		Primary Forms D-H, J-N					Makeup 1 Form X					Makeup 2 Form Y				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		419.3	38.7	55,919	100.0	0.94	404.9	42.6	3,386	100.0	0.94	417.7	38.9	2,128	100.0	0.94
Gender																
	Male	419.9	40.5	27,465	49.1	0.94	403.2	45.5	1,661	49.1	0.94	418.9	40.6	1,095	51.5	0.94
	Female	418.8	36.8	28,355	50.7	0.94	407.3	39.3	1,691	49.9	0.94	416.5	37.0	1,032	48.5	0.93
	Missing	385.8	39.8	99	0.2	0.90	*	*	34	1.0	*	*	*	1	0.0	*
Special Education																
	Yes	390.3	42.0	3,839	6.9	0.92	382.6	40.0	206	6.1	0.90	390.9	39.3	119	5.6	0.91
	No	421.7	37.5	50,377	90.1	0.94	406.6	42.3	3,071	90.7	0.94	420.0	38.1	1,924	90.4	0.94
	Exited	409.3	39.1	285	0.5	0.93	*	*	20	0.6	*	*	*	15	0.7	*
	Exited and placed in 504	422.5	32.8	56	0.1	0.92	*	*	4	0.1	*	*	*	4	0.2	*
	504	414.8	40.3	1,362	2.4	0.94	401.0	41.3	85	2.5	0.92	405.0	40.0	66	3.1	0.93
Ethnicity																
	American Indian	414.5	39.9	213	0.4	0.93	*	*	16	0.5	*	*	*	8	0.4	*
	Asian	443.8	36.2	3,360	6.0	0.94	436.1	39.4	146	4.3	0.94	443.0	30.6	115	5.4	0.92
	African American	400.3	35.4	21,573	38.6	0.91	388.7	38.7	1,613	47.6	0.90	399.8	39.7	759	35.7	0.92
	Hawaiian/ Pacific Islander	419.7	35.5	60	0.1	0.93	*	*	2	0.1	*	*	*	5	0.2	*
	White	434.6	33.9	23,304	41.7	0.93	423.4	39.5	1,175	34.7	0.94	428.6	34.3	974	45.8	0.93
	Hispanic	412.3	34.9	5,756	10.3	0.93	403.5	35.9	299	8.8	0.92	413.7	32.5	196	9.2	0.92
	Missing	427.2	39.1	1,653	3.0	0.95	406.7	48.5	135	4.0	0.95	429.7	39.0	71	3.3	0.95
Limited English Proficient																
	Yes	395.8	38.3	1,486	2.7	0.92	*	*	45	1.3	*	*	*	31	1.5	*
	No	420.0	38.5	53,922	96.4	0.94	405.1	42.6	3,313	97.8	0.94	418.0	38.9	2,084	97.9	0.94
	Exited	418.6	34.5	511	0.9	0.93	*	*	28	0.8	*	*	*	13	0.6	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 6.14 Summary Statistics for MD HSA Biology: Summer 2011 Forms

		Primary 1 Form P					Primary 2 Form Q				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		371.4	41.8	380	100.0	0.82	384.9	38.3	566	100.0	0.86
Gender											
	Male	370.6	45.1	181	47.6	0.83	385.2	41.1	310	54.8	0.88
	Female	374.9	35.9	182	47.9	0.81	385.0	34.1	246	43.5	0.84
	Missing	*	*	17	4.5	*	*	*	10	1.8	*
Special Education											
	Yes	*	*	47	12.4	*	*	*	47	8.3	*
	No	372.7	41.8	326	85.8	0.81	385.5	38.0	505	89.2	0.86
	Exited	*	*	0	0.0	*	*	*	4	0.7	*
	Exited and placed in 504	*	*	0	0.0	*	*	*	1	0.2	*
	504	*	*	7	1.8	*	*	*	9	1.6	*
Ethnicity											
	American Indian	*	*	2	0.5	*	*	*	3	0.5	*
	Asian	*	*	5	1.3	*	*	*	7	1.2	*
	African American	369.9	40.7	192	50.5	0.83	381.6	39.4	397	70.1	0.85
	Hawaiian/ Pacific Islander	*	*	1	0.3	*	*	*	2	0.4	*
	White	378.1	39.0	131	34.5	0.77	394.8	34.7	98	17.3	0.89
	Hispanic	*	*	18	4.7	*	*	*	24	4.2	*
	Missing	*	*	31	8.2	*	*	*	35	6.2	*
Limited English Proficient											
	Yes	*	*	5	1.3	*	*	*	11	1.9	*
	No	371.3	42.1	375	98.7	0.82	384.6	38.6	554	97.9	0.86
	Exited	*	*	0	0.0	*	*	*	1	0.2	*

* Statistics not reported for sample size less than 50 (N < 50).
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 6.15 Summary Statistics for MD HSA English: October 2010 Form

		Primary Form R				
		Mean	SD	N	%	Alpha
Overall		377.0	28.2	12,713	100.0	0.81
Gender						
	Male	373.5	30.2	6,982	54.9	0.81
	Female	381.2	24.9	5,614	44.2	0.80
	Missing	387.4	24.9	117	0.9	0.82
Special Education						
	Yes	367.8	32.8	1,654	13.0	0.80
	No	378.6	27.1	10,770	84.7	0.80
	Exited	372.2	28.1	90	0.7	0.73
	Exited and placed in 504	*	*	7	0.1	*
	504	371.2	28.1	192	1.5	0.80
Ethnicity						
	American Indian	*	*	39	0.3	*
	Asian	378.6	27.3	376	3.0	0.84
	African American	376.1	27.7	7,781	61.2	0.79
	Hawaiian/ Pacific Islander	*	*	39	0.3	*
	White	378.7	31.0	2,692	21.2	0.84
	Hispanic	378.0	25.0	1,431	11.3	0.79
	Missing	379.8	29.3	355	2.8	0.83
Limited English Proficient						
	Yes	369.1	26.1	567	4.5	0.78
	No	377.4	28.3	12,035	94.7	0.81
	Exited	381.3	25.2	111	0.9	0.83

* Statistics not reported for sample size less than 50 (N < 50).
[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 6.16 Summary Statistics for MD HSA English: January 2011 Forms

	Primary Forms A-B					Makeup Form C				
	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall	384.8	39.5	14,912	100.0	0.90	383.3	32.4	2,626	100.0	0.88
Gender										
Male	379.5	41.3	7,988	53.6	0.89	379.7	33.0	1,441	54.9	0.87
Female	391.1	36.3	6,753	45.3	0.90	387.8	31.2	1,173	44.7	0.88
Missing	378.7	34.5	171	1.1	0.83	*	*	12	0.5	*
Special Education										
Yes	363.5	41.6	1,582	10.6	0.83	369.2	29.7	227	8.6	0.80
No	387.7	38.3	12,811	85.9	0.90	384.9	32.2	2,287	87.1	0.88
Exited	378.0	34.9	161	1.1	0.87	*	*	29	1.1	*
Exited and placed in 504	*	*	26	0.2	*	*	*	3	0.1	*
504	376.8	42.1	332	2.2	0.88	377.3	37.7	80	3.0	0.90
Ethnicity										
American Indian	377.3	47.7	62	0.4	0.90	*	*	17	0.6	*
Asian	388.9	36.0	410	2.7	0.89	384.5	25.1	71	2.7	0.85
African American	370.4	36.3	6,534	43.8	0.81	374.0	29.2	1,226	46.7	0.80
Hawaiian/Pacific Islander	*	*	22	0.1	*	*	*	1	0.0	*
White	401.9	37.4	5,934	39.8	0.91	395.0	34.3	989	37.7	0.90
Hispanic	378.3	34.6	1,423	9.5	0.86	380.6	26.0	259	9.9	0.84
Missing	385.0	38.0	527	3.5	0.89	389.3	34.4	63	2.4	0.90
Limited English Proficient										
Yes	362.5	34.8	509	3.4	0.77	369.8	25.0	81	3.1	0.78
No	385.5	39.6	14,232	95.4	0.90	383.8	32.6	2,511	95.6	0.88
Exited	385.6	25.0	171	1.1	0.83	*	*	34	1.3	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 6.17 Summary Statistics for MD HSA English: April 2011 Form

		Primary Form S				
		Mean	SD	N	%	Alpha
Overall		367.9	30.7	2,609	100.0	0.81
Gender						
	Male	365.2	32.8	1,392	53.4	0.82
	Female	370.5	27.3	1,162	44.5	0.79
	Missing	379.9	34.6	55	2.1	0.86
Special Education						
	Yes	365.4	30.8	213	8.2	0.80
	No	368.2	30.7	2,340	89.7	0.81
	Exited	*	*	16	0.6	*
	Exited and placed in 504	*	*	3	0.1	*
	504	*	*	37	1.4	*
Ethnicity						
	American Indian	*	*	8	0.3	*
	Asian	374.0	25.8	115	4.4	0.77
	African American	365.6	31.1	1,718	65.8	0.81
	Hawaiian/Pacific Islander	*	*	3	0.1	*
	White	370.4	37.6	234	9.0	0.87
	Hispanic	371.5	24.7	449	17.2	0.77
	Missing	378.6	30.2	82	3.1	0.84
Limited English Proficient						
	Yes	365.4	22.6	225	8.6	0.69
	No	368.0	31.4	2,351	90.1	0.82
	Exited	*	*	33	1.3	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 6.18 Summary Statistics for MD HSA English: May 2011 Forms

	Primary Forms D-H, J-N					Makeup 1 Form X					Makeup 2 Form Y				
	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall	407.0	35.1	56,107	100.0	0.90	393.7	41.4	3,579	100.0	0.91	405.0	39.7	2,019	100.0	0.91
Gender															
Male	402.5	37.2	28,476	50.8	0.90	389.3	42.7	1,871	52.3	0.90	397.8	43.6	999	49.5	0.91
Female	411.9	32.1	27,486	49.0	0.89	398.9	39.0	1,672	46.7	0.91	412.1	34.1	1,020	50.5	0.90
Missing	379.7	41.4	145	0.3	0.88	*	*	36	1.0	*	*	*	0	0.0	*
Special Education															
Yes	376.7	39.9	4,138	7.4	0.87	371.2	44.2	195	5.4	0.88	368.1	48.1	116	5.7	0.88
No	409.9	33.3	50,255	89.6	0.89	395.2	40.7	3,277	91.6	0.91	408.1	37.5	1,845	91.4	0.91
Exited	391.3	33.7	288	0.5	0.86	*	*	17	0.5	*	*	*	11	0.5	*
Exited and placed in 504	402.4	25.6	62	0.1	0.87	*	*	3	0.1	*	*	*	3	0.1	*
504	397.2	39.7	1,364	2.4	0.89	395.5	33.2	87	2.4	0.88	*	*	44	2.2	*
Ethnicity															
American Indian	405.5	34.0	248	0.4	0.89	*	*	19	0.5	*	*	*	8	0.4	*
Asian	422.4	31.7	3,363	6.0	0.89	395.6	52.6	217	6.1	0.94	424.2	35.0	150	7.4	0.90
African American	394.5	34.0	21,493	38.3	0.88	380.9	40.4	1,678	46.9	0.88	389.1	40.0	716	35.5	0.89
Hawaiian/ Pacific Islander	*	*	45	0.1	*	*	*	5	0.1	*	*	*	3	0.1	*
White	418.0	32.4	23,435	41.8	0.89	413.1	31.3	1,177	32.9	0.89	416.6	34.4	882	43.7	0.90
Hispanic	398.2	33.0	5,625	10.0	0.88	387.9	40.7	340	9.5	0.89	395.1	38.5	191	9.5	0.90
Missing	412.1	35.4	1,898	3.4	0.90	398.4	44.3	143	4.0	0.91	409.7	44.1	69	3.4	0.92
Limited English Proficient															
Yes	376.9	36.6	1,489	2.7	0.86	366.4	45.4	73	2.0	0.85	*	*	29	1.4	*
No	408.0	34.7	54,117	96.5	0.90	394.3	41.3	3,466	96.8	0.91	405.8	39.4	1,969	97.5	0.91
Exited	395.2	30.8	501	0.9	0.85	*	*	40	1.1	*	*	*	21	1.0	*

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

[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 6.19 Summary Statistics for MD HSA English: Summer 2011 Forms

		Primary 1 Form P					Primary 2 Form Q				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		370.1	39.4	696	100.0	0.80	370.8	40.5	713	100.0	0.82
Gender											
	Male	365.9	41.5	407	58.5	0.79	368.5	42.9	405	56.8	0.83
	Female	376.0	35.5	288	41.4	0.80	376.1	35.4	286	40.1	0.80
	Missing	*	*	1	0.1	*	*	*	22	3.1	*
Special Education											
	Yes	358.9	53.5	81	11.6	0.84	364.4	44.9	54	7.6	0.82
	No	371.5	36.7	588	84.5	0.78	370.9	40.1	639	89.6	0.82
	Exited	*	*	4	0.6	*	*	*	2	0.3	*
	Exited and placed in 504	*	*	1	0.1	*	*	*	0	0.0	*
	504	*	*	22	3.2	*	*	*	18	2.5	*
Ethnicity											
	American Indian	*	*	3	0.4	*	*	*	7	1.0	*
	Asian	*	*	11	1.6	*	*	*	13	1.8	*
	African American	369.8	37.5	350	50.3	0.79	367.6	39.5	454	63.7	0.79
	Hawaiian/ Pacific Islander	*	*	4	0.6	*	*	*	1	0.1	*
	White	369.6	44.2	204	29.3	0.82	383.8	38.9	147	20.6	0.85
	Hispanic	375.1	31.0	108	15.5	0.72	*	*	32	4.5	*
	Missing	*	*	16	2.3	*	359.2	44.7	59	8.3	0.78
Limited English Proficient											
	Yes	*	*	16	2.3	*	*	*	14	2.0	*
	No	370.4	39.3	675	97.0	0.79	371.2	40.6	694	97.3	0.82
	Exited	*	*	5	0.7	*	*	*	5	0.7	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 6.20 Summary Statistics for MD HSA Government: October 2010 Form

		Primary Form R				
		Mean	SD	N	%	Alpha
Overall		371.7	34.3	9,971	100.0	0.78
Gender						
	Male	369.3	37.3	4,820	48.3	0.81
	Female	373.9	31.1	5,079	50.9	0.75
	Missing	375.8	31.8	72	0.7	0.80
Special Education						
	Yes	360.5	38.3	1,272	12.8	0.72
	No	373.6	33.2	8,460	84.8	0.79
	Exited	364.8	35.3	92	0.9	0.73
	Exited and placed in 504	*	*	4	0.0	*
	504	364.4	37.8	143	1.4	0.70
Ethnicity						
	American Indian	*	*	27	0.3	*
	Asian	379.8	29.0	241	2.4	0.83
	African American	370.0	34.5	6,129	61.5	0.76
	Hawaiian/Pacific Islander	*	*	26	0.3	*
	White	373.8	35.5	2,222	22.3	0.82
	Hispanic	374.1	30.9	1,054	10.6	0.76
	Missing	378.9	33.9	272	2.7	0.85
Limited English Proficient						
	Yes	368.7	32.2	432	4.3	0.70
	No	371.8	34.4	9,454	94.8	0.78
	Exited	379.9	28.2	85	0.9	0.80

* Statistics not reported for sample size less than 50 (N <50).
[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 6.21 Summary Statistics for MD HSA Government: January 2011 Forms

		Primary Forms A-B					Makeup Form C				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		393.1	42.7	13,198	100.0	0.93	391.0	42.6	2,627	100.0	0.93
Gender											
	Male	392.7	45.2	6,611	50.1	0.93	390.4	46.0	1,332	50.7	0.93
	Female	393.8	39.8	6,453	48.9	0.92	391.7	38.8	1,280	48.7	0.92
	Missing	372.1	44.2	134	1.0	0.90	*	*	15	0.6	*
Special Education											
	Yes	369.8	42.1	1,498	11.4	0.87	374.4	36.3	220	8.4	0.87
	No	396.5	41.8	11,210	84.9	0.93	393.0	42.4	2,311	88.0	0.93
	Exited	391.7	42.6	150	1.1	0.91	*	*	27	1.0	*
	Exited and placed in 504	*	*	18	0.1	*	*	*	5	0.2	*
	504	381.9	39.7	322	2.4	0.90	379.8	50.7	64	2.4	0.93
Ethnicity											
	American Indian	385.5	51.7	53	0.4	0.93	*	*	13	0.5	*
	Asian	398.6	49.4	310	2.3	0.94	390.2	33.9	51	1.9	0.91
	African American	375.5	36.7	5,669	43.0	0.87	374.2	35.7	1,078	41.0	0.85
	Hawaiian/ Pacific Islander	*	*	21	0.2	*	*	*	1	0.0	*
	White	412.2	40.3	5,515	41.8	0.93	407.8	42.8	1,179	44.9	0.94
	Hispanic	385.8	38.3	1,105	8.4	0.90	381.9	37.1	229	8.7	0.90
	Missing	394.0	45.5	525	4.0	0.93	400.2	48.9	76	2.9	0.95
Limited English Proficient											
	Yes	372.9	35.4	382	2.9	0.84	366.5	36.5	72	2.7	0.84
	No	393.7	42.8	12,688	96.1	0.93	391.6	42.6	2,526	96.2	0.93
	Exited	394.2	35.4	128	1.0	0.90	*	*	29	1.1	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 6.22 Summary Statistics for MD HSA Government: April 2011 Form

		Primary Form S				
		Mean	SD	N	%	Alpha
Overall		379.6	41.8	1,657	100.0	0.92
Gender						
	Male	382.6	44.9	791	47.7	0.93
	Female	376.9	38.7	858	51.8	0.90
	Missing	*	*	8	0.5	*
Special Education						
	Yes	367.6	40.7	110	6.6	0.90
	No	381.0	41.8	1,506	90.9	0.92
	Exited	*	*	10	0.6	*
	Exited and placed in 504	*	*	0	0.0	*
	504	*	*	31	1.9	*
Ethnicity						
	American Indian	*	*	7	0.4	*
	Asian	397.5	39.7	86	5.2	0.93
	African American	373.5	37.6	1,078	65.1	0.89
	Hawaiian/ Pacific Islander	*	*	1	0.1	*
	White	410.6	54.7	197	11.9	0.96
	Hispanic	374.8	35.3	269	16.2	0.86
	Missing	*	*	19	1.1	*
Limited English Proficient						
	Yes	371.0	36.6	176	10.6	0.85
	No	380.5	42.4	1,465	88.4	0.92
	Exited	*	*	16	1.0	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 6.23 Summary Statistics for MD HSA Government: May 2011 Forms

		Primary Forms D-H, J-N					Makeup 1 Form X					Makeup 2 Form Y				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		416.2	40.2	53,050	100.0	0.93	404.7	46.5	3,423	100.0	0.94	417.3	40.8	1,957	100.0	0.93
Gender																
	Male	416.0	43.1	26,245	49.5	0.93	404.8	49.6	1,702	49.7	0.94	417.8	42.8	989	50.5	0.94
	Female	416.5	37.1	26,641	50.2	0.92	405.4	42.7	1,696	49.5	0.93	416.7	38.6	968	49.5	0.93
	Missing	405.1	37.7	164	0.3	0.91	*	*	25	0.7	*	*	*	0	0.0	*
Special Education																
	Yes	384.4	45.6	3,821	7.2	0.91	382.1	47.1	215	6.3	0.93	383.8	41.9	84	4.3	0.92
	No	419.1	38.4	47,585	89.7	0.92	406.7	45.9	3,093	90.4	0.94	419.1	40.2	1,804	92.2	0.93
	Exited	404.4	40.9	288	0.5	0.92	*	*	24	0.7	*	*	*	21	1.1	*
	Exited and placed in 504	412.1	42.7	58	0.1	0.92	*	*	5	0.1	*	*	*	3	0.2	*
	504	409.3	43.6	1,298	2.4	0.93	400.8	44.3	86	2.5	0.92	*	*	45	2.3	*
Ethnicity																
	American Indian	413.9	37.6	225	0.4	0.92	*	*	16	0.5	*	*	*	7	0.4	*
	Asian	436.6	34.7	3,365	6.3	0.92	428.3	41.0	175	5.1	0.94	435.6	37.1	132	6.7	0.92
	African American	399.8	38.6	20,392	38.4	0.91	389.3	45.7	1,514	44.2	0.92	399.4	40.7	665	34.0	0.91
	Hawaiian/ Pacific Islander	418.1	37.9	59	0.1	0.93	*	*	5	0.1	*	*	*	4	0.2	*
	White	429.2	36.9	22,049	41.6	0.92	421.2	42.8	1,231	36.0	0.94	426.6	38.4	914	46.7	0.93
	Hispanic	409.6	37.5	5,309	10.0	0.91	401.2	40.4	349	10.2	0.92	416.9	33.9	162	8.3	0.91
	Missing	426.4	37.3	1,651	3.1	0.93	407.1	46.0	133	3.9	0.94	429.5	35.4	73	3.7	0.93
Limited English Proficient																
	Yes	390.6	41.1	1,507	2.8	0.90	369.8	36.4	75	2.2	0.83	*	*	33	1.7	*
	No	417.0	40.0	51,031	96.2	0.93	405.4	46.5	3,319	97.0	0.94	418.1	40.5	1,902	97.2	0.93
	Exited	415.2	33.9	512	1.0	0.90	*	*	29	0.8	*	*	*	22	1.1	*

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

Figure 6.1 Histogram of Total Scale Scores for MD HSA May 2011 Algebra

N	77,366
Kurtosis	3.88
Skewness	-0.46
Mean	422
Median	424
Std Deviation	42
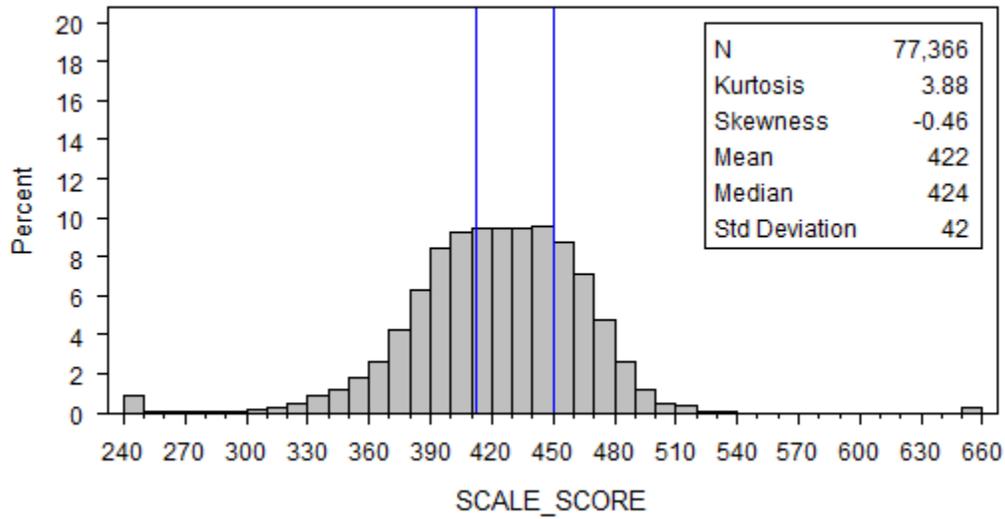
Figure 6.2 Histogram of Total Scale Scores for MD HSA May 2011 Biology

N	61,433
Kurtosis	2.32
Skewness	-0.45
Mean	418
Median	421
Std Deviation	39
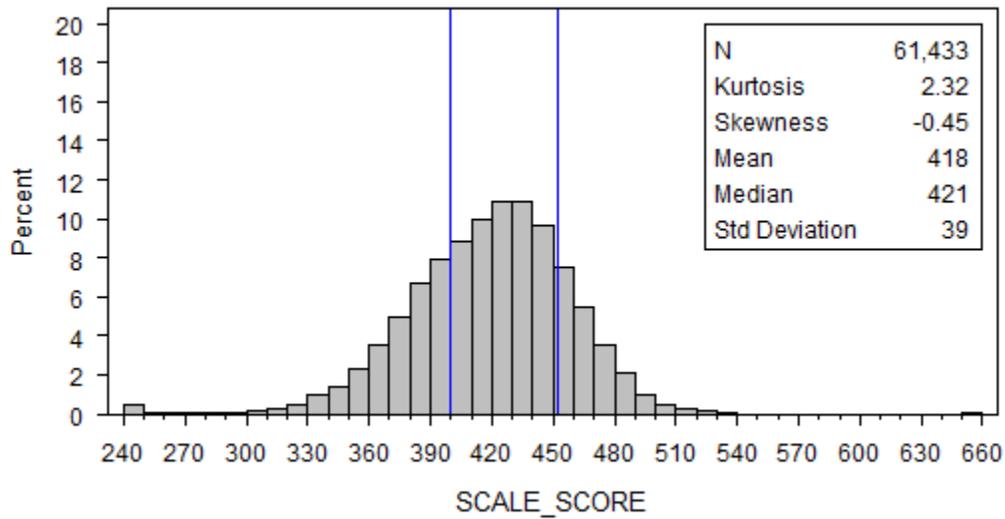
Figure 6.3 Histogram of Total Scale Scores for MD HSA May 2011 English

N	61,705
Kurtosis	4.47
Skewness	-1.16
Mean	406
Median	410
Std Deviation	36
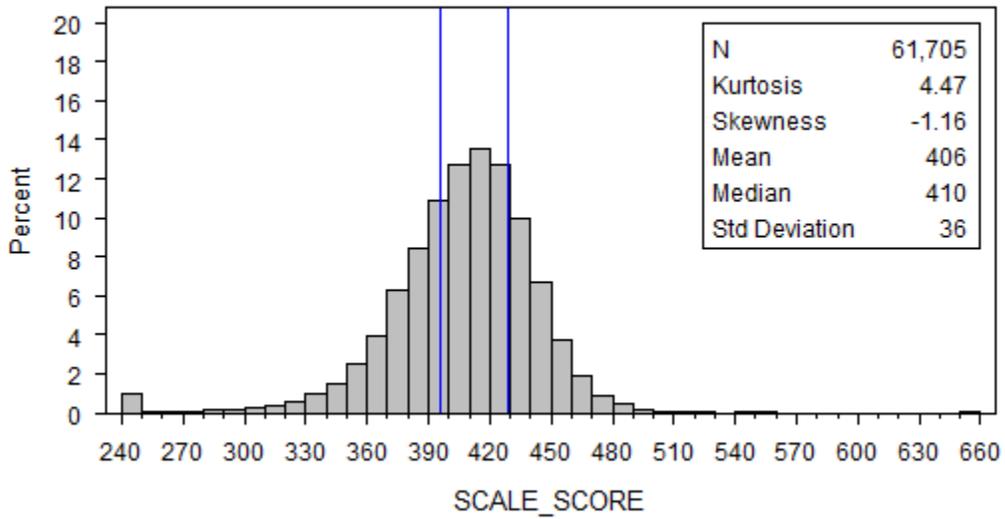
Figure 6.4 Histogram of Total Scale Scores for MD HSA May 2011 Government

N	58,430
Kurtosis	2.28
Skewness	-0.86
Mean	416
Median	420
Std Deviation	41
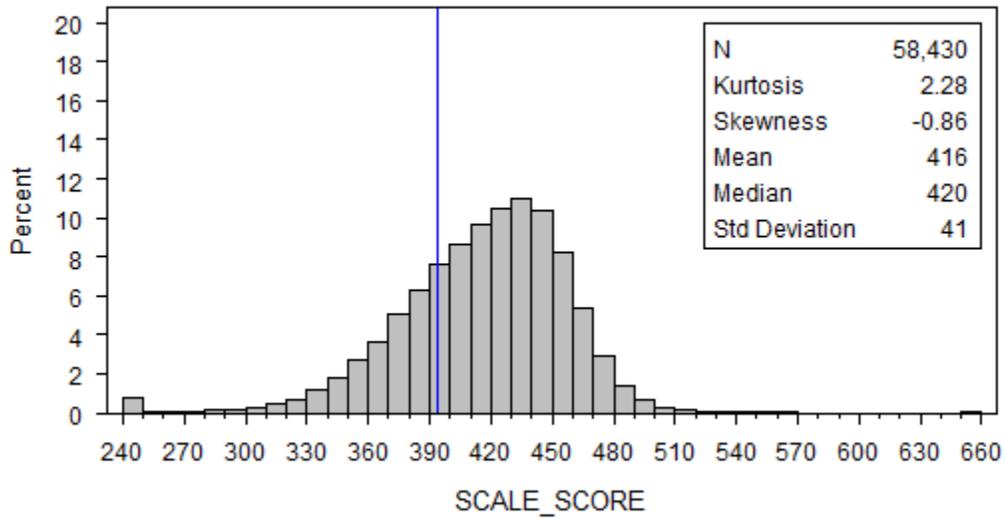
Demographic Characteristics

Demographic characteristics of the students that took the October, January, April, May, and Summer MD HSAs are described in Tables 6.25 to 6.28. All demographic results are based on the final Research files delivered to MSDE.

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 one field test version was included in the January administration to ensure sufficient sample sizes for the analyses of the field test items.

Due to the small numbers of students participating in the October, April, and Summer administrations, those forms did not contain new field test items. Instead, previously administered field test sections were embedded in these Summer forms to ensure that the test length was comparable.

Table 6.24 Demographic Information for MD HSA 2011 Algebra

		October Form		January Primary Forms		January Makeup Form		April Form		May Primary Forms		May Makeup Forms		Summer Forms	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%
Overall		15,837	100.0	13,991	100.0	3,512	100.0	1,915	100.0	70,511	100.0	6,855	100.0	1,527	100.0
Gender															
	Male	7,649	48.3	6,934	49.6	1,609	45.8	883	46.1	35,438	50.3	3,387	49.4	816	53.4
	Female	8,066	50.9	6,796	48.6	1,859	52.9	981	51.2	34,786	49.3	3,424	49.9	682	44.7
	Missing	122	0.8	261	1.9	44	1.3	51	2.7	287	0.4	44	0.6	29	1.9
Special Education															
	Yes	1,848	11.7	1,795	12.8	337	9.6	174	9.1	5,290	7.5	411	6.0	141	9.2
	No	13,602	85.9	11,741	83.9	3,028	86.2	1,698	88.7	62,895	89.2	6,232	90.9	1,339	87.7
	Exited	122	0.8	113	0.8	33	0.9	9	0.5	478	0.7	44	0.6	7	0.5
	Exited and placed in 504[a]	18	0.1	13	0.1	6	0.2	3	0.2	82	0.1	6	0.1	0	0.0
	504	247	1.6	329	2.4	108	3.1	31	1.6	1,766	2.5	162	2.4	40	2.6
Ethnicity															
	American Indian	65	0.4	65	0.5	23	0.7	8	0.4	252	0.4	41	0.6	10	0.7
	Asian	288	1.8	247	1.8	56	1.6	35	1.8	3,809	5.4	259	3.8	22	1.4
	African American	10,223	64.6	7,633	54.6	2,038	58.0	1,396	72.9	28,156	39.9	3,293	48.0	867	56.8
	Hawaiian/ Pacific Islander	38	0.2	11	0.1	6	0.2	2	0.1	102	0.1	10	0.1	5	0.3
	White	3,142	19.8	4,076	29.1	990	28.2	125	6.5	27,920	39.6	2,222	32.4	395	25.9
	Hispanic	1,686	10.6	1,381	9.9	288	8.2	269	14.0	7,835	11.1	788	11.5	142	9.3
	Missing	395	2.5	578	4.1	111	3.2	80	4.2	2,437	3.5	242	3.5	86	5.6
Limited English Proficient															
	Yes	670	4.2	593	4.2	93	2.6	134	7.0	2,824	4.0	179	2.6	19	1.2
	No	15,068	95.1	13,277	94.9	3,394	96.6	1,763	92.1	66,863	94.8	6,637	96.8	1,501	98.3
	Exited[b]	99	0.6	121	0.9	25	0.7	18	0.9	824	1.2	39	0.6	7	0.5

[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 6.25 Demographic Information for MD HSA 2011 Biology

		October Form		January Primary Forms		January Makeup Form		April Form		May Primary Forms		May Makeup Forms		Summer Forms	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%
Overall		10,427	100.0	11,744	100.0	2,762	100.0	1,774	100.0	55,919	100.0	5,514	100.0	946	100.0
Gender															
	Male	4,942	47.4	5,772	49.1	1,363	49.3	826	46.6	27,465	49.1	2,756	50.0	491	51.9
	Female	5,342	51.2	5,862	49.9	1,369	49.6	937	52.8	28,355	50.7	2,723	49.4	428	45.2
	Missing	143	1.4	110	0.9	30	1.1	11	0.6	99	0.2	35	0.6	27	2.9
Special Education															
	Yes	1,213	11.6	808	6.9	518	18.8	140	7.9	3,839	6.9	325	5.9	94	9.9
	No	8,981	86.1	10,536	89.7	2,146	77.7	1,590	89.6	50,377	90.1	4,995	90.6	831	87.8
	Exited	81	0.8	134	1.1	15	0.5	12	0.7	285	0.5	35	0.6	4	0.4
	Exited and placed in 504[a]	6	0.1	12	0.1	5	0.2	0	0.0	56	0.1	8	0.1	1	0.1
	504	146	1.4	254	2.2	78	2.8	32	1.8	1,362	2.4	151	2.7	16	1.7
Ethnicity															
	American Indian	57	0.5	43	0.4	11	0.4	6	0.3	213	0.4	24	0.4	5	0.5
	Asian	234	2.2	270	2.3	64	2.3	35	2.0	3,360	6.0	261	4.7	12	1.3
	African American	6,912	66.3	5,403	46.0	1,261	45.7	1,348	76.0	21,573	38.6	2,372	43.0	589	62.3
	Hawaiian/ Pacific Islander	28	0.3	7	0.1	0	0.0	3	0.2	60	0.1	7	0.1	3	0.3
	White	1,806	17.3	4,694	40.0	1,073	38.8	132	7.4	23,304	41.7	2,149	39.0	229	24.2
	Hispanic	1,065	10.2	960	8.2	256	9.3	226	12.7	5,756	10.3	495	9.0	42	4.4
	Missing	325	3.1	367	3.1	97	3.5	24	1.4	1,653	3.0	206	3.7	66	7.0
Limited English Proficient															
	Yes	371	3.6	274	2.3	94	3.4	124	7.0	1,486	2.7	76	1.4	16	1.7
	No	9,992	95.8	11,374	96.8	2,641	95.6	1,627	91.7	53,922	96.4	5,397	97.9	929	98.2
	Exited[b]	64	0.6	96	0.8	27	1.0	23	1.3	511	0.9	41	0.7	1	0.1

[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 6.26 Demographic Information for MD HSA 2011 English

		October Form		January Primary Forms		January Makeup Form		April Form		May Primary Forms		May Makeup Forms		Summer Forms	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%
Overall		12,713	100.0	14,912	100.0	2,626	100.0	2,609	100.0	56,107	100.0	5,598	100.0	1,409	100.0
Gender															
	Male	6,982	54.9	7,988	53.6	1,441	54.9	1,392	53.4	28,476	50.8	2,870	51.3	812	57.6
	Female	5,614	44.2	6,753	45.3	1,173	44.7	1,162	44.5	27,486	49.0	2,692	48.1	574	40.7
	Missing	117	0.9	171	1.1	12	0.5	55	2.1	145	0.3	36	0.6	23	1.6
Special Education															
	Yes	1,654	13.0	1,582	10.6	227	8.6	213	8.2	4,138	7.4	311	5.6	135	9.6
	No	10,770	84.7	12,811	85.9	2,287	87.1	2,340	89.7	50,255	89.6	5,122	91.5	1,227	87.1
	Exited	90	0.7	161	1.1	29	1.1	16	0.6	288	0.5	28	0.5	6	0.4
	Exited and placed in 504[a]	7	0.1	26	0.2	3	0.1	3	0.1	62	0.1	6	0.1	1	0.1
	504	192	1.5	332	2.2	80	3.0	37	1.4	1,364	2.4	131	2.3	40	2.8
Ethnicity															
	American Indian	39	0.3	62	0.4	17	0.6	8	0.3	248	0.4	27	0.5	10	0.7
	Asian	376	3.0	410	2.7	71	2.7	115	4.4	3,363	6.0	367	6.6	24	1.7
	African American	7,781	61.2	6,534	43.8	1,226	46.7	1,718	65.8	21,493	38.3	2,394	42.8	804	57.1
	Hawaiian/ Pacific Islander	39	0.3	22	0.1	1	0.0	3	0.1	45	0.1	8	0.1	5	0.4
	White	2,692	21.2	5,934	39.8	989	37.7	234	9.0	23,435	41.8	2,059	36.8	351	24.9
	Hispanic	1,431	11.3	1,423	9.5	259	9.9	449	17.2	5,625	10.0	531	9.5	140	9.9
	Missing	355	2.8	527	3.5	63	2.4	82	3.1	1,898	3.4	212	3.8	75	5.3
Limited English Proficient															
	Yes	567	4.5	509	3.4	81	3.1	225	8.6	1,489	2.7	102	1.8	30	2.1
	No	12,035	94.7	14,232	95.4	2,511	95.6	2,351	90.1	54,117	96.5	5,435	97.1	1,369	97.2
	Exited[b]	111	0.9	171	1.1	34	1.3	33	1.3	501	0.9	61	1.1	10	0.7

[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 6.27 Demographic Information for MD HSA 2011 Government

		October Form		January Primary Forms		January Makeup Form		April Form		May Primary Forms		May Makeup Forms		Summer Forms	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%
Overall		9,971	100.0	13,198	100.0	2,627	100.0	1,657	100.0	53,050	100.0	5,380	100.0	-	-
Gender															
	Male	4,820	48.3	6,611	50.1	1,332	50.7	791	47.7	26,245	49.5	2,691	50.0	-	-
	Female	5,079	50.9	6,453	48.9	1,280	48.7	858	51.8	26,641	50.2	2,664	49.5	-	-
	Missing	72	0.7	134	1.0	15	0.6	8	0.5	164	0.3	25	0.5	-	-
Special Education															-
	Yes	1,272	12.8	1,498	11.4	220	8.4	110	6.6	3,821	7.2	299	5.6	-	-
	No	8,460	84.8	11,210	84.9	2,311	88.0	1,506	90.9	47,585	89.7	4,897	91.0	-	-
	Exited	92	0.9	150	1.1	27	1.0	10	0.6	288	0.5	45	0.8	-	-
	Exited and placed in 504[a]	4	0.0	18	0.1	5	0.2	0	0.0	58	0.1	8	0.1	-	-
	504	143	1.4	322	2.4	64	2.4	31	1.9	1,298	2.4	131	2.4	-	-
Ethnicity														-	-
	American Indian	27	0.3	53	0.4	13	0.5	7	0.4	225	0.4	23	0.4	-	-
	Asian	241	2.4	310	2.3	51	1.9	86	5.2	3,365	6.3	307	5.7	-	-
	African American	6,129	61.5	5,669	43.0	1,078	41.0	1,078	65.1	20,392	38.4	2,179	40.5	-	-
	Hawaiian/ Pacific Islander	26	0.3	21	0.2	1	0.0	1	0.1	59	0.1	9	0.2	-	-
	White	2,222	22.3	5,515	41.8	1,179	44.9	197	11.9	22,049	41.6	2,145	39.9	-	-
	Hispanic	1,054	10.6	1,105	8.4	229	8.7	269	16.2	5,309	10.0	511	9.5	-	-
	Missing	272	2.7	525	4.0	76	2.9	19	1.1	1,651	3.1	206	3.8	-	-
Limited English Proficient															-
	Yes	432	4.3	382	2.9	72	2.7	176	10.6	1,507	2.8	108	2.0	-	-
	No	9,454	94.8	12,688	96.1	2,526	96.2	1,465	88.4	51,031	96.2	5,221	97.0	-	-
	Exited[b]	85	0.9	128	1.0	29	1.1	16	1.0	512	1.0	51	0.9	-	-

[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.

Section 7. Field Test Analyses

Following the receipt of the final score file from Pearson for the January and May administrations, the field test analyses for SR and SPR items were completed. The analyses consisted of four components: classical item analyses, differential item functioning (DIF), calibration, and scaling. All the analyses were completed using *GENASYS*, an ETS proprietary software program. The analysis procedures for each component are described in detail below. All valid records available were used as samples for the analyses, including those for 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 no item responses to the first five items were excluded from the analysis sample.

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 HSA 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.

Item-total correlation of the correct response option for SR and SPR items: 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 and SPR items, the item-total correlation is the point-biserial correlation. Values less than 0.20 are generally considered to have a weaker than desired relationship, therefore these items receive careful consideration by ETS staff and MSDE before including them on future forms. Items with negative correlations can indicate there are serious problems with the item content (e.g., multiple correct answers, unusually complex content), there is an incorrect key, or students have not been taught the content.

Proportion of students choosing each response option (SR items): This statistic indicates the percent of examinees selecting each answer choice, or option. 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.

Point-biserial correlation of incorrect response option (SR items) with the total raw score: These statistics describe the relationship between selecting an incorrect response option for a specific item and performance on the total test, including the item under study. Typically, the correlation between an incorrect answer and total test performance is weak or negative. Values are typically compared and contrasted with the discrimination index. When the magnitude of these point-biserial correlations for the incorrect answer is stronger relative to the correct answer, the item will be carefully reviewed for content-related problems. Alternatively, positive point-biserial correlations on incorrect options 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, at least 95 percent of them should attempt to answer each question. When a pattern of omit percentages exceeds 5 percent 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 percent for a single SR or SPR item, this could be an indication of an item/test layout problem. For example, students might accidentally skip an item that follows a lengthy stem.

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 2011 assessments:

- *Difficulty flag*: p-values less than 0.10 or greater than 0.90.
- *Discrimination flag*: Item-total correlation less than 0.10.
- *Distractor flag*: SR point-biserial correlation positive for incorrect option.
- *Omit flag*: Percent omitted is greater than 5 for SR and SPR items.

Distributions of p-values and item-total correlations for the field test items administered in January 2011 are shown in Tables 7.1 and 7.2, respectively. Corresponding results for the field test items administered in May 2011 are shown in Tables 7.3 and 7.4, respectively.

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 (see Table 7.5). These items have been identified for revision and possible additional field testing. Table 7.6 presents the number of items that were retained for further analyses and evaluation after being flagged for statistical reasons, including extreme p-values, low

item-total correlations, and/or high omit rates. Calibration results indicated the items were estimated reasonably, therefore they were not removed from scaling.

Table 7.1 Distribution of *P*-Values for the MD HSA 2011 January Field Test Items

P-Value	Percentage and Number of Items							
	Algebra[a]		Biology		English		Government	
	%	N	%	N	%	N	%	N
P < 0.25	34	11	4	2	8	6	0	0
0.25 ≤ P < 0.35	16	5	28	13	9	7	6	3
0.35 ≤ P < 0.45	13	4	20	9	21	16	16	8
0.45 ≤ P < 0.55	22	7	20	9	33	25	34	17
0.55 ≤ P < 0.65	13	4	15	7	18	14	18	9
0.65 ≤ P < 0.75	0	0	11	5	7	5	20	10
0.75 ≤ P < 0.85	0	0	2	1	4	3	6	3
P ≥ 0.85	3	1	0	0	0	0	0	0
Descriptive Statistics								
N Items	32		46		76		50	
Mean	0.36		0.45		0.48		0.53	
SD	0.19		0.16		0.14		0.14	
Min	0.08		0.12		0.10		0.28	
Max	0.86		0.80		0.79		0.82	

[a] SPR items included

Table 7.2 Distribution of Item-Total Correlations for the MD HSA 2011 January Field Test Items

| | Percentage and Number of Items | | | | | | | |
| | Algebra[a] | | Biology | | English | | Government | |
Correlation	%	N	%	N	%	N	%	N
R < 0.15	22	7	7	3	8	6	2	1
0.15 ≤ R < 0.25	9	3	11	5	21	16	4	2
0.25 ≤ R < 0.35	44	14	28	13	37	28	26	13
0.35 ≤ R < 0.45	25	8	37	17	29	22	48	24
0.45 ≤ R < 0.55	0	0	15	7	5	4	20	10
0.55 ≤ R < 0.65	0	0	2	1	0	0	0	0
0.65 ≤ R < 0.75	0	0	0	0	0	0	0	0
R ≥ 0.75	0	0	0	0	0	0	0	0
Descriptive Statistics								
N Items	32		46		76		50	
Mean	0.25		0.35		0.30		0.38	
SD	0.13		0.12		0.11		0.08	
Min	-0.07		0.08		-0.13		0.09	
Max	0.43		0.57		0.49		0.52	

[a] SPR items included

Table 7.3 Distribution of *P*-Values for the MD HSA 2011 May Field Test Items

| | Percentage and Number of Items | | | | | | | |
| | Algebra[a] | | Biology | | English | | Government | |
P-Value	%	N	%	N	%	N	%	N
P < 0.25	11	18	0	1	3	10	4	9
0.25 ≤ P < 0.35	12	19	3	8	7	27	3	8
0.35 ≤ P < 0.45	14	22	12	28	10	37	9	23
0.45 ≤ P < 0.55	11	18	22	50	16	59	14	35
0.55 ≤ P < 0.65	19	31	22	50	17	66	18	45
0.65 ≤ P < 0.75	16	26	22	51	23	89	22	56
0.75 ≤ P < 0.85	13	21	11	25	20	75	16	41
P ≥ 0.85[b]	3	5	7	17	4	17	13	33
Descriptive Statistics								
N Items	160		230		380		250	
Mean	0.52		0.60		0.60		0.63	
SD	0.21		0.15		0.17		0.18	
Min	0.07		0.24		0.07		0.14	
Max	0.97		0.95		0.91		0.95	

[a] SPR items included; [b] P-value > 0.90: 2 Algebra, 4 Biology, and 2 Government items

Table 7.4 Distribution of Item-Total Correlations for the MD HSA 2011 May Field Test Items

| Correlation | Percentage and Number of Items | | | | | | | |
| | Algebra[a] | | Biology | | English | | Government | |
	%	N	%	N	%	N	%	N
R < 0.15 [c]	6	9	3	6	9	35	4	11
0.15 ≤ R < 0.25	9	15	5	12	14	52	9	22
0.25 ≤ R < 0.35	18	28	18	42	28	107	21	53
0.35 ≤ R < 0.45	36	58	46	106	37	140	33	82
0.45 ≤ R < 0.55	23	37	23	52	12	46	30	75
0.55 ≤ R < 0.65	7	11	5	12	0	0	3	7
0.65 ≤ R < 0.75	1	2	0	0	0	0	0	0
R ≥ 0.75	0	0	0	0	0	0	0	0
Descriptive Statistics								
N Items	160		230		380		250	
Mean	0.38		0.40		0.33		0.38	
SD	0.14		0.10		0.12		0.12	
Min	-0.15		-0.08		-0.13		-0.06	
Max	0.68		0.60		0.55		0.60	

[a] SPR items included; [c] R < 0.10: 1 Algebra, 1 Biology, and 5 English items

Table 7.5 MD HSA 2011 Field Test Items Excluded from Calibration

Administration	Content	ItemID	Form	Sequence	Response Type	Reason
January	Algebra	322005	A	17	SR	RBis = -0.09
	Algebra	268746	A	32	SR	RBis = -0.01
	Algebra	263293	A	59	SR	RBis = 0.05
	Algebra	263284	B	62	SR	RBis = 0.07
	English	338835	A	59	SR	RBis = -0.24
	English	349429	B	26	SR	RBis = -0.06
	English	353422	B	74	SR	RBis = 0.06
May	Algebra	369133	F	30	SR	RBis = -0.23
	Algebra	361359	M	52	SR	RBis = -0.12
	Biology	373141	F	3	SR	RBis = 0.01
	Biology	338737	J	85	SR	RBis = -0.10
	English	349247	E	42	SR	RBis = -0.16
	English	338933	F	40	SR	MSDE Request
	English	374431	G	42	SR	RBis = -0.04
	English	374433	G	44	SR	RBis = 0.01
	English	373805	G	95	SR	RBis = -0.15
	English	369120	H	53	SR	RBis = 0.01
	English	323386	J	55	SR	RBis = 0.07
	English	373852	K	24	SR	RBis = 0.07
	English	332091	K	75	SR	RBis = 0.03
	English	331873	K	89	SR	RBis = -0.06
	English	331874	K	92	SR	RBis = -0.17
	English	369272	M	53	SR	RBis = 0.06
	English	369073	N	91	SR	RBis = 0.09
	English	369301	N	95	SR	RBis = -0.17
	Government	364345	E	60	SR	RBis = -0.06
	Government	279776	G	22	SR	RBis = -0.05
	Government	363231	M	60	SR	RBis = -0.08

Table 7.6 MD HSA 2011 Field Test Items with Statistical Flags Retained in Calibration

January	P-Value < 0.10	P-Value > 0.90	R_ITT < 0.10	Distractor Pt-Bis > 0	Omit Rate > 5%	C-Level DIF	Missing Response[a]	Total Flags	N Items[b]
Algebra	1	0	0	4	4	1	0	10	10
Biology	0	0	2	9	0	1	0	12	10
English	0	0	1	10	0	2	0	13	12
Government	0	0	1	2	0	1	0	4	3

May	P-Value < 0.10	P-Value > 0.90	R_ITT < 0.10	Distractor Pt-Bis > 0	Omit Rate > 5%	C-Level DIF	Missing Response[a]	Total Flags	N Items[b]
Algebra	3	3	2	19	8	2	0	37	34
Biology	0	4	1	19	0	2	0	26	25
English	0	2	7	53	0	16	0	78	71
Government	0	9	5	30	0	7	0	51	43

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

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 (e.g., Females, African Americans, Hispanics) have different probabilities of answering correctly. If the item is more difficult for an identifiable subgroup, the item may be measuring something different from the intended construct. However, it is important to recognize that DIF-flagged items might be related to actual differences in relevant knowledge or skill (item impact) or statistical Type I error. A subsequent review by MSDE and ETS content experts is conducted to investigate the source and meaning of evident differences.

ETS used the Mantel-Haenszel DIF detection method. As part of the Mantel-Haenszel procedure, the statistic described by Holland & Thayer (1988), known as MH D-DIF, was used[7]. This statistic is expressed as the difference between the focal and reference group

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

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

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 and 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 race and 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, conditional on the matching variable, the reference group has a lower mean item score than the focal group.

Among the items field-tested in January, one item each for Algebra, Biology, and Government, and two English items were flagged for C-level DIF. Among the items field tested in May, two items each for Algebra and Biology items, sixteen English items, and seven Government items were flagged for C-level DIF. These flags were recorded in the item bank. Flagged items are reviewed by ETS and MSDE content specialists as well as by ETS senior staff to determine their availability for future use.

IRT Calibration and Scaling

One purpose of item calibration and scaling is to create a common scale for expressing the difficulty estimates of all the items across all versions of a test. The resulting scale has a mean score of 0 and a standard deviation of 1. 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 known as a scale score), which can be more meaningfully interpreted by students, teachers, and other stakeholders.

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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):

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

As noted previously, the IRT model used to calibrate the MD HSA test items is the 3-parameter logistic (3PL) model. Item response theory expresses the probability that a student will achieve a certain score on an item (such as correct or incorrect) as a function of the item's statistical properties and the ability level (or proficiency level) of the student.

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

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

where
a_i is the slope parameter of item i, characterizing its discrimination;
b_i is the location parameter of item i, characterizing its difficulty; and
c_i is the lower asymptote parameter of item i, reflecting the chance that students with very low proficiency will select the correct answer, sometimes called the "pseudo-guessing" level.

A proprietary version of the *PARSCALE* computer program (Muraki & Bock, 1995) was used for all item calibration work. The resulting calibrations were then scaled to the bank estimates using Stocking and Lord's (1983) test characteristic curve (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, all items were calibrated using a sparse matrix design that places all items on a common scale. Essentially, this means that the data were set up using the following format. In the diagram below, X's represent items and spaces indicate 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 are 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 were reviewed to determine if any items failed to calibrate.

3. After the final calibration, parameter estimates were obtained. The items were then linked to the bank scale using the TCC method. Specifically, the banked

parameter estimates of the primary form operational 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, they were loaded into the item bank. Items that were not calibrated were listed as unavailable (see Table 7.5).

CHAPTER II: MODIFIED HIGH SCHOOL ASSESSMENTS

Section 8. Introduction

The Maryland Modified High School Assessments (MD Mod-HSAs) were introduced in May 2008. These assessments are a modified version of the MD HSAs designed for special education students with Individualized Education Programs (IEPs). Eligibility to take the MD Mod-HSAs is determined by a student's IEP and evidence of progress in learning course content.

The MD Mod-HSAs consist of end-of-course tests in Algebra/Data Analysis, Biology, English, and Government and assess the same skills as the MD HSAs. The MD Mod-HSAs may be taken in place of one or more of the MD HSAs.

Students who entered ninth grade in the 2005–2006 school year or subsequent school years are required to earn satisfactory scores on all four content areas measured by the MD Mod-HSAs or HSAs in order to earn a Maryland High School Diploma.[8] Results from the Algebra, Biology, and English administrations are used in the Maryland State Department of Education (MSDE) Adequate Yearly Progress (AYP) reports, required under the No Child Left Behind (NCLB) Act. Information on the interpretation of scores is provided to students, parents, schools, and other stakeholders via the MSDE website.

MD Mod-HSA items were derived from banked MD HSA items, with the question format simplified. For example, the MD Mod-HSAs contain selected response (SR) items that have three answer options instead of four, and the items have a reduced reading load and simplified graphics. All items are based on content outlined in Maryland's Core Learning Goals (CLGs).[9]

MD Mod-HSA forms are administered both online and in paper format. The goal is eventually to have most students test online, with only the special Braille, Kurzweil, and large-print forms administered on paper.

Detailed information regarding the development of MD Mod-HSA forms as well as descriptions of the methods used to align them to the MD HSA reporting scale are provided in the Maryland Modified High School Assessment 2008 Technical Report.[10]

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

[9] The MD HSA Core Learning Goals documents can be found on the Maryland School Improvement website at http://www.mdk12.org/assessments/standards/9-12.html.

[3] The report is available at http://marylandpublicschools.org/MSDE/divisions/planningresultstest/HSA+Technical+Reports.htm.

This chapter of the 2011 technical report provides information about the October 2010 administration and the January, April, May, and Summer (July/August) 2011 administrations of the MD Mod-HSAs.

The item response model used to calibrate the items in the MD Mod-HSAs was the three-parameter logistic (3PL) model. Currently, this model is used to estimate both total test scores and subscores. Both total test scores and subscores were estimated using item-pattern (IP) scoring. Total test results in the scale score metric are reported to students. Subscores are not reported to students but are aggregated at the classroom level to provide teachers and administrators with information about student performance in each of the subscore categories.

The MD Mod-HSA forms are constructed using pre-equated item parameters. When pre-equated item parameters are used, the parameters are not estimated following an administration; instead, existing bank parameters are used to produce student scores. Using this approach, 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 (AERA, APA, & NCME, 1999).

This chapter of the technical report consists of five other sections and one appendix. Section 9 describes the procedures used for test construction and administration. Section 10 discusses the validity of the MD Mod-HSAs. Section 11 describes the scoring procedures and score types. Section 12 summarizes the results of analyses of the test reliability, decision consistency and decision accuracy. Section 13 presents summary statistics and descriptive information about student characteristics. Appendix 2 provides classical item statistics for each operational form.

Section 9. Test Construction and Administration

Test Development

Planning

Planning for the test development process began with the creation of the MD Mod-HSA blueprints and item modification/development plans for each content area. MSDE content specialists collaborated with Maryland educators, both special education and content area experts, to develop a plan for modifying and developing content for the modified assessments. The MD HSA item bank was reviewed to determine how well the available item pool could be modified to meet the item requirements of the MD Mod-HSAs and blueprint requirements as identified across the Core Learning Goals. Items, passages, and stimuli identified as modifiable were revised according to item plans, using such modifications as reducing the number of response options from four to three, simplifying language and graphics, grouping text within longer passages, and repeating critical passage text within an item. When deficits in the pool of modifiable items were identified, MSDE and its collaborative partners developed additional items.

Test Specifications and Design

MSDE defined the basic test design and provided it to Educational Testing Service (ETS). The blueprints for the 50-item test design are presented below in the section on test specifications. The basic test design defined the reporting categories and the number of items in each reporting category. Decisions about the distribution of items throughout the forms were left to the collaborative efforts of ETS and MSDE content specialists. Construction of the operational forms was based on test blueprints approved by MSDE.

Item Type

The MD Mod-HSAs consist of selected response items only. Each of the four content areas—Algebra, Biology, English, and Government—contained 50 operational items worth a total of 50 score points.

Item Modification, Development, Review, and Revision

MSDE oversaw the initial item modification and development. MSDE content and special education specialists worked with Maryland educators to modify existing MD HSA items and to develop new items written specifically for the MD Mod-HSA program. These items underwent review and revision at MSDE prior to their submission to ETS for inclusion in the MD Mod-HSA item bank.

Once received by ETS, all items were uploaded into the item bank and all graphics and stimulus materials were revised as requested. At this point, all items underwent a series of editorial reviews in accordance with the following procedures:

- Items were edited according to standard rules developed in conjunction with MSDE.
- Items were reviewed for accuracy, organization, comprehension, style, usage, consistency, and fairness/sensitivity.
- Item content was reviewed to establish whether the item measured the intended Goal-Expectation-Indicator-Assessment Limit.
- Verification was made that copyright and/or trademark permissions had been obtained for any materials requiring permissions.
- Internal reviews were conducted and historical records established for all version changes.

After ETS performed the required internal reviews, item revision recommendations were submitted to MSDE for their review. 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 final review of the items and provided feedback to ETS content specialists. Suggested edits were incorporated into the items. The items were then prepared for a final round of reviews by the Content Review and Bias/Sensitivity Review Committees.

The committees, selected by MSDE, were composed of diverse groups of Maryland educators. The committees reviewed each item to ensure that the content (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. A total of 699 items were reviewed across all four content areas. Of these items, 8 (0.01%) were rejected by the Bias/Sensitivity Review Committee, while 159 (22.7%) were accepted with edits. In total, the two committees accepted a total of 532 (76.1%) of the 699 MD Mod-HSA test items.

Upon completion of this final round of reviews, MSDE and ETS content specialists conducted another side-by-side meeting to evaluate the reviews. The ETS content specialists 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 MD Mod-HSA forms.

Test Specifications

Tables 9.1 through 9.4 identify each reporting category and the number of items in each category for the four content area MD Mod-HSA tests.

Table 9.1 MD Mod-HSA 2011 Algebra Blueprint

Reporting Category	Number of items
Expectation 1.1 Analyzing Pattern and Functions	13
Expectation 1.2 Modeling Real-World Situations	16
Expectation 3.1 Collecting, Organizing, and Analyzing Data	11
Expectation 3.2 Using Data to Make Predictions	10
Total	50

Note: Information about the referenced expectations can be found in the Maryland Core Learning Goals for Algebra on the Maryland School Improvement website at http://www.mdk12.org/assessments/ standards/9-12.html

Table 9.2 MD Mod-HSA 2011 Biology Blueprint

Reporting Category	Number of items
Goal 1 Skills and Processes of Biology	11
Expectation 3.1 Structure and Function of Biological Molecules	8
Expectation 3.2 Structure and Function of Cells and Organisms	9
Expectation 3.3 Inheritance of Traits	8
Expectation 3.4 Mechanism of Evolutionary Change	6
Expectation 3.5 Interdependence of Organisms in the Biosphere	8
Total	50

Note: Information about the referenced goal and expectations can be found in the Maryland Core Learning Goals for Biology on the Maryland School Improvement website at http://www.mdk12.org/assessments/ standards/9-12.html

Table 9.3 MD Mod-HSA 2011 English Blueprint

Reporting Category	Number of Items
1: Reading and Literature: Comprehension and Interpretation Includes indicators 1.1.1; 1.1.2; 1.1.3; 1.2.1; 1.3.3; 3.2.2.	13
2: Reading and Literature: Making Connections and Evaluation Includes indicators 1.1.4; 1.2.2; 1.2.3; 1.2.4; 1.2.5; 1.3.5; 4.2.1.	13
3: Writing–Composing Includes indicators 2.2.1; 2.2.2; 2.2.3; 2.2.5; 2.3.1; 2.3.3; 4.3.1.	13
4: Writing—Language Usage and Conventions Includes indicators 3.1.3; 3.1.4; 3.1.6; 3.1.8; 3.3.1; 3.3.2.	11
Total	50

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

Table 9.4 MD Mod-HSA 2011 Government Blueprint

Reporting Category	Number of Items
Expectation1.1 U.S. Government Structure, Functions, and Principles	14
Expectation 1.2 Protecting Rights and Maintaining Order	12
Goal 2 Systems of Government and U.S. Foreign Policy	8
Goal 3 Impact of Geography on Governmental Policy	7
Goal 4 Economic Principles, Institutions and Processes	9
Total	50

Note: Information about the referenced expectations and goals can be found in the Maryland Core Learning Goals for Government on the Maryland School Improvement website at http://www.mdk12.org/assessments/standards/9-12.html

Figures 9.1 through 9.8 show the plots of the TCCs and CSEMs for the forms developed for each content area. It is important to note that the TCCs and CSEMs shown in the plots are based on preequated item parameters and therefore are curves calculated prior to

administration of the tests. As expected, the CSEM plots indicate that the CSEMs for each content area were lowest in the middle range of scale scores (approximately 375 to 475 for Algebra and Biology and 340 to 450 for English and Government). The majority of students score in the range where the CSEMs are smallest. (Refer to Section 13, figures 13.1 to 13.4 for histograms of student performance.)

Figure 9.1 Test Characteristic Curves for the MD Mod-HSA 2011 Algebra Forms
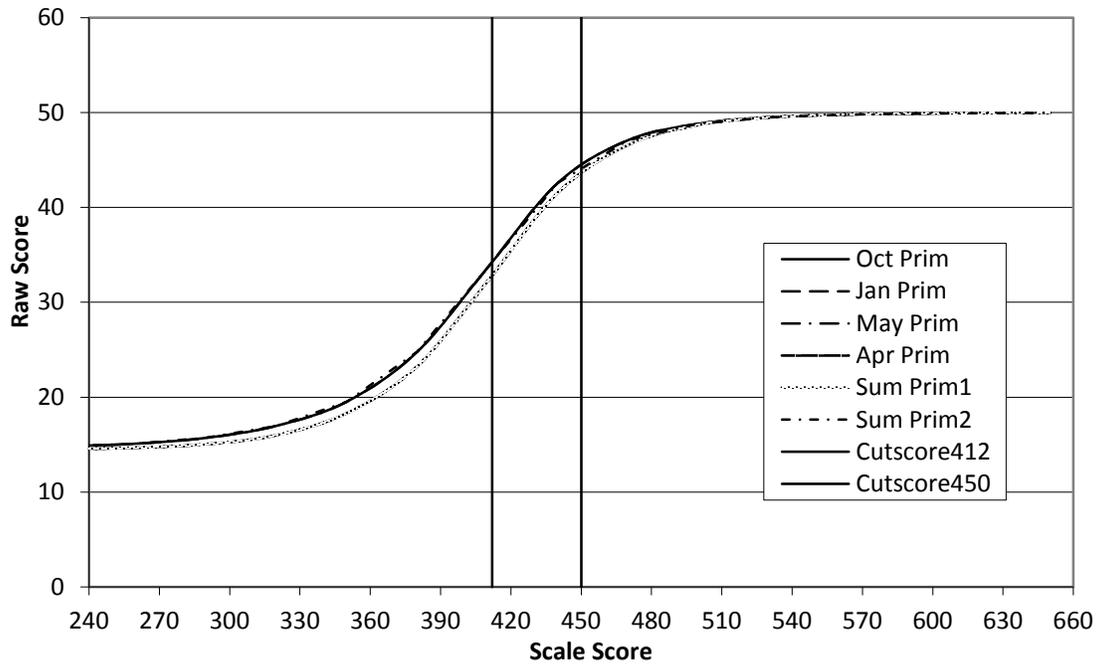
Note: Maximum possible raw score is 50.

Figure 9.2 Conditional Standard Errors of Measurement for the MD Mod-HSA 2011 Algebra Forms
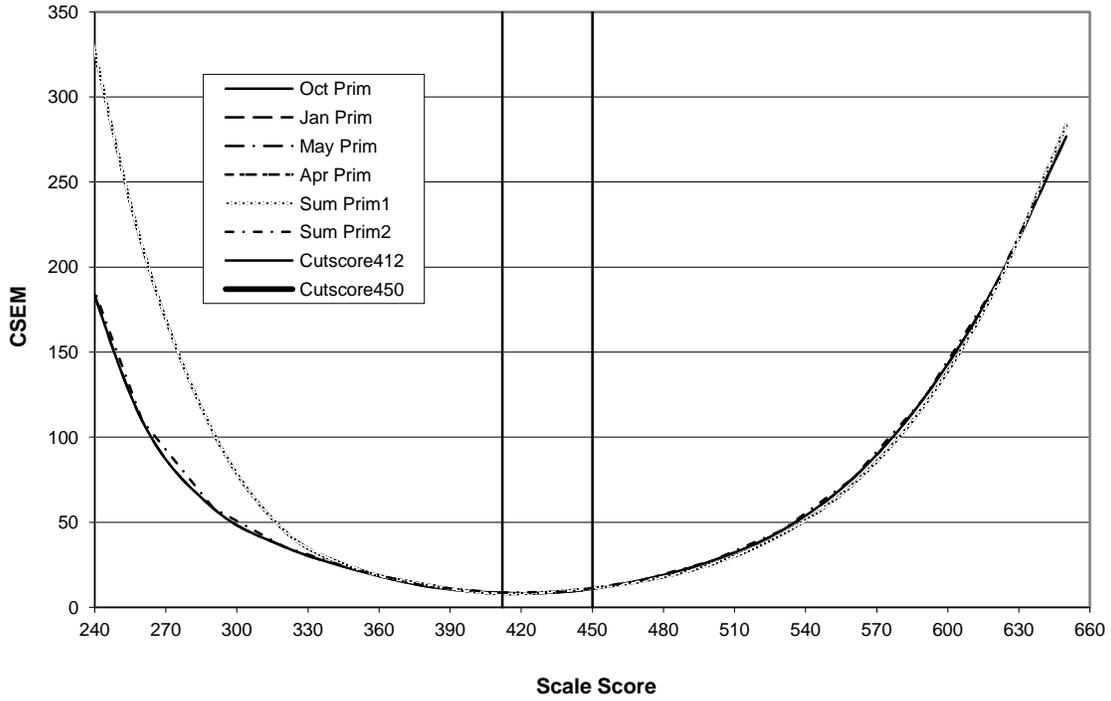
Figure 9.3 Test Characteristic Curves for the MD Mod-HSA 2011 Biology Forms
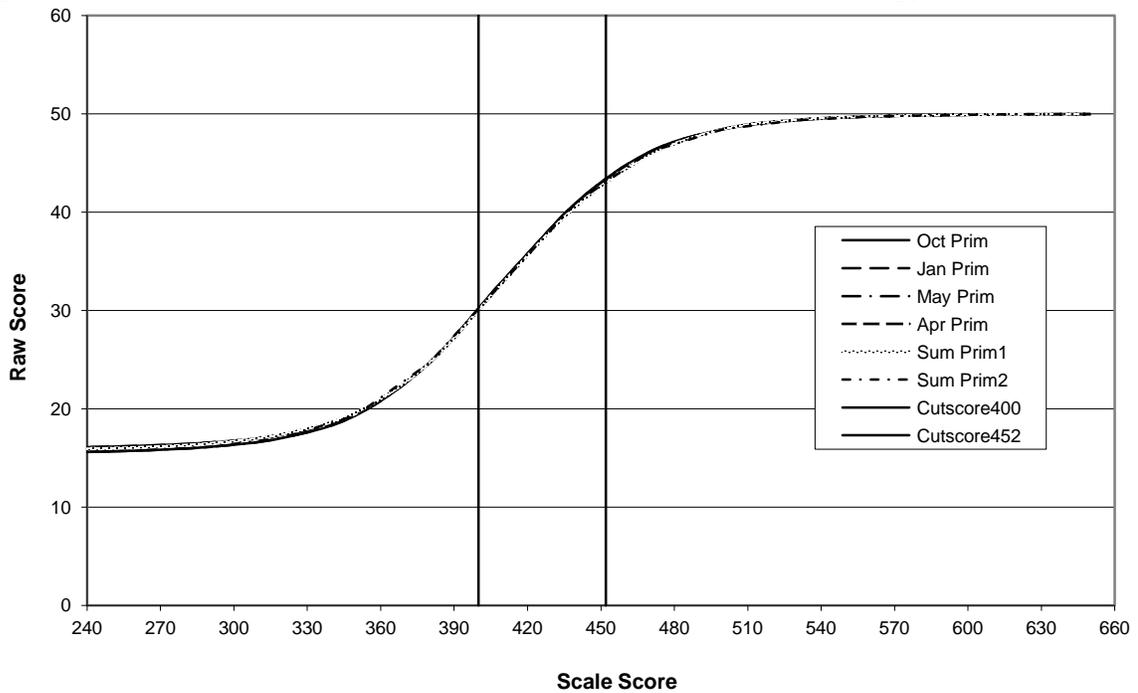
Note: Maximum possible raw score is 50.

Figure 9.4 Conditional Standard Errors of Measurement for the MD Mod-HSA 2011 Biology Forms
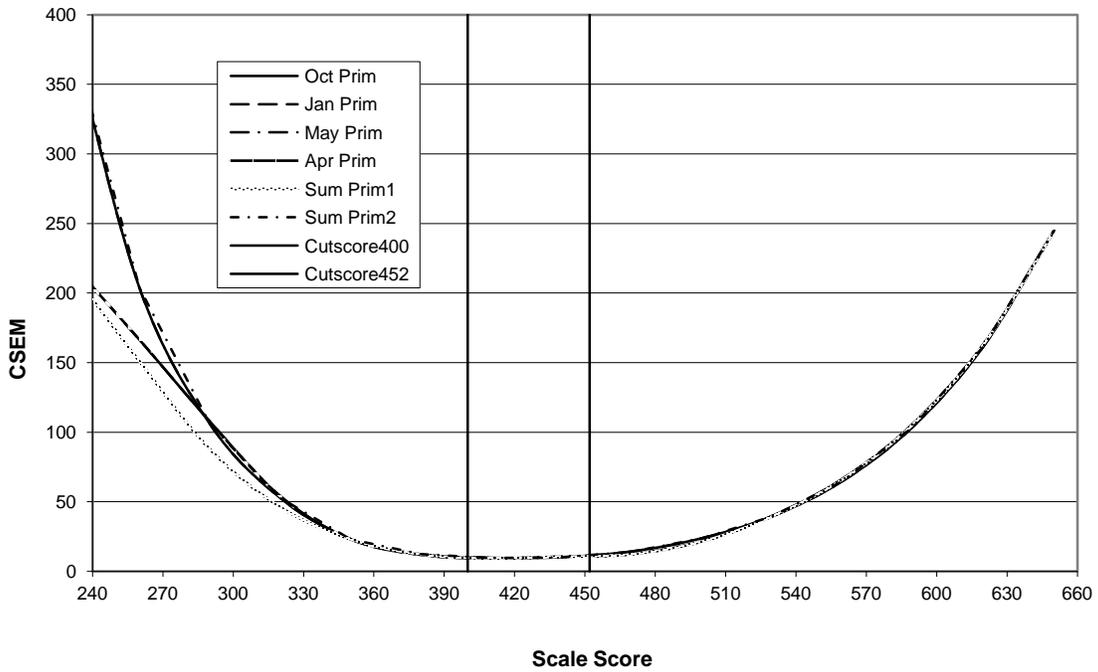
Figure 9.5 Test Characteristic Curves for the MD Mod-HSA 2011 English Forms
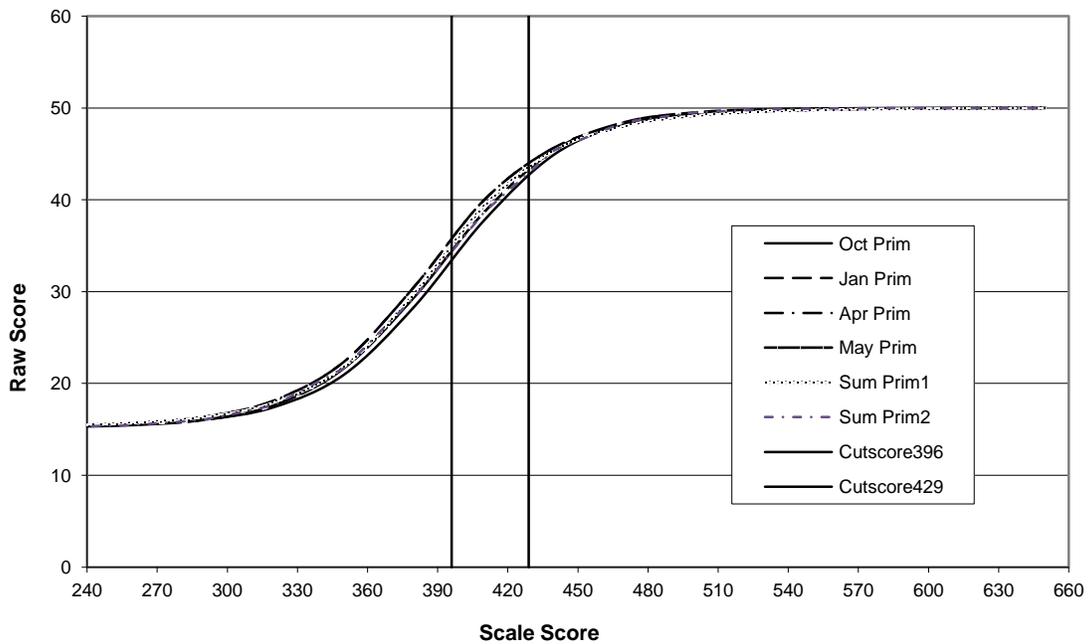
Note: Maximum possible raw score is 50.

Figure 9.6 Conditional Standard Errors of Measurement for the MD Mod-HSA 2011 English Forms
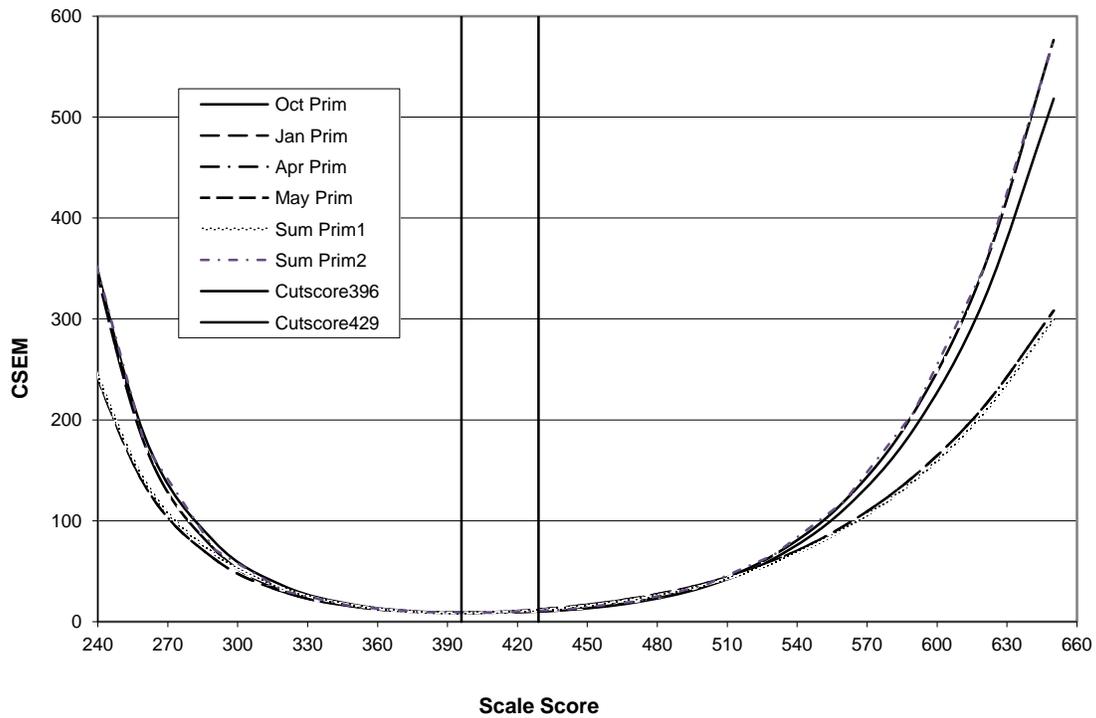
Figure 9.7 Test Characteristic Curves for the MD Mod-HSA 2011 Government Forms
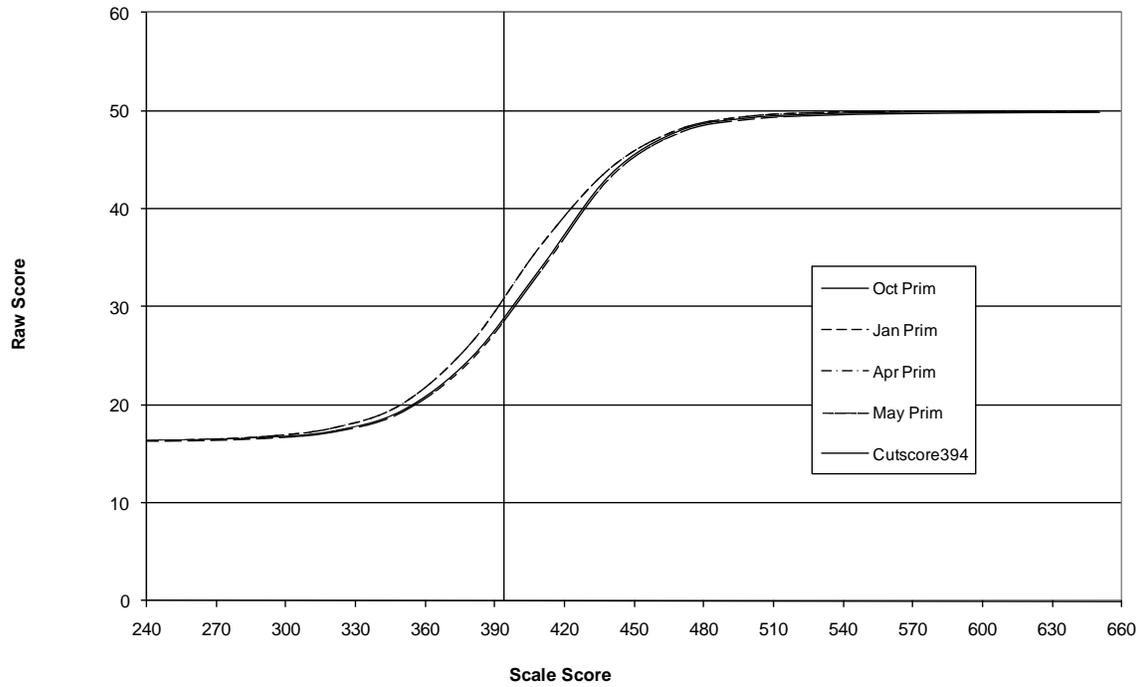
Note: Maximum possible raw score is 50.

Figure 9.8 Conditional Standard Errors of Measurement for the MD Mod-HSA 2011 Government Forms
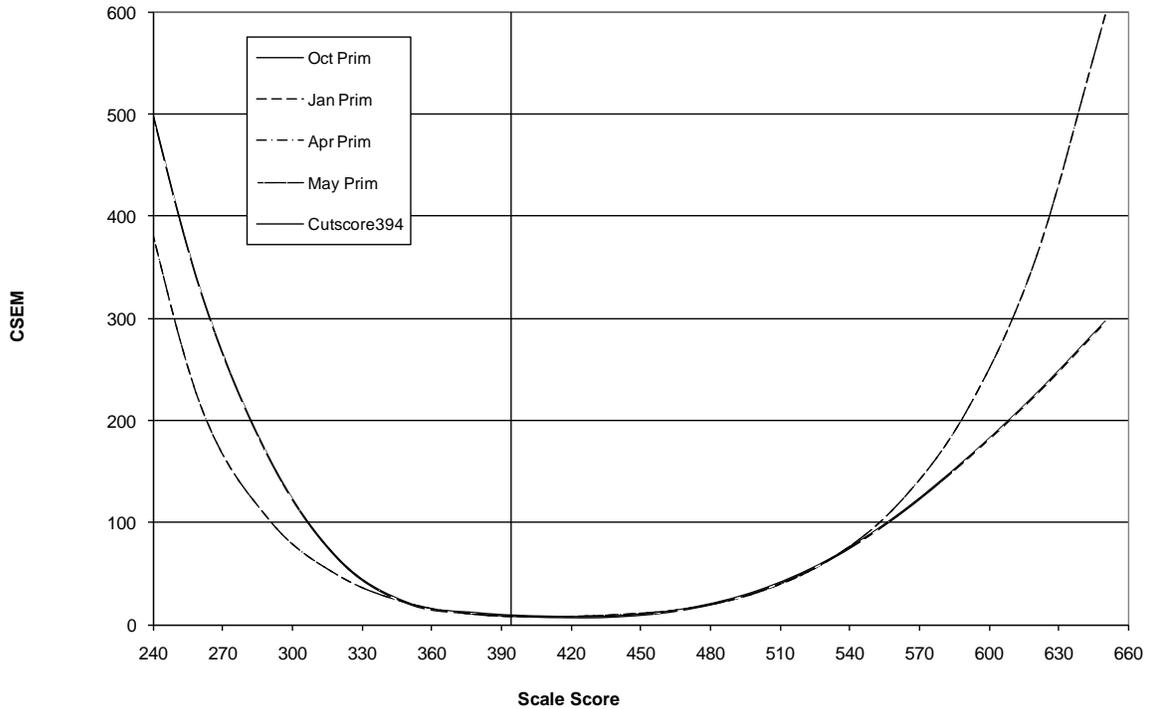
Test Administration

The MD Mod-HSA tests were administered both online and on paper in October 2010 and January, April, May, and Summer 2011. One paper and one online MD Mod-HSA form per content area was administered during each administration, with the exception of Summer 2011, where two paper and two online forms were administered.

The forms for Algebra, Biology, English, and Government consist of two sessions administered within a single sitting. Sessions are separated by a short break. All forms administered without accommodations have the timing limits shown in Table 9.5.

Table 9.5 MD Mod-HSA 2011 Testing Timing Schedule in Minutes by Content Area

Content Area	Session 1	Break	Session 2
Algebra	50	5	50
Biology	30	5	30
English	50	5	40
Government	30	5	30

Section 10. Validity

Validity is one of the most important attributes of assessment quality. Validity refers to the degree to which logical, empirical, and judgmental evidence supports each 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; Messick, 1989). Validity is not based on a single study or type of study but is 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 test results.

Students' scores on an MD Mod-HSA are inferred to reflect students' level of knowledge and skills in a content area. The scores are used to classify students in terms of their level of proficiency, based on cut scores established by the state.

Evidence Based on Analyses of Test Content

The Maryland Mod-HSAs are referred to as end-of-course tests because students take each test as they complete the appropriate coursework. Banked HSA items were selected and adapted for the MD Mod-HSAs to measure the knowledge and skills expected of students following completion of coursework.

The constructs measured by each MD Mod-HSA are described in detail in the Maryland high school curriculum standards, or Core Learning Goals. All ETS content staff working on item selection and development have been trained in the CLGs. The test blueprint documents presented in Section 9 (see Tables 9.1 to 9.4) were created in collaboration with committees of Maryland educators and were derived from the Maryland goals, expectations, and indicators.

The process of selecting and adapting banked MD HSA items for use as MD Mod-HSA items is summarized briefly in Section 9 and described in detail in the Maryland Modified High School Assessment 2008 Technical Report.[11] Banked items were 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 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 and cognitive ability of the students being tested.

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[11] Available at http://marylandpublicschools.org/MSDE/divisions/planningresultstest/HSA+Technical+Reports.htm.

Evidence Based on Analyses of Internal Test Structure

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

These test blueprints are derived from Maryland's Core Learning Goals for each course. The test blueprints are presented in Section 9 (see Tables 9.1 through 9.4); the CLGs can be found on the MSDE website at http://www.mdk12.org/assessments/high_school/index_a.html

High internal consistency, as is discussed in Section 12, constitutes evidence of validity as high reliability over items within a test implies that the test items within a domain are measuring a single construct. The internal structure of the test can also be assessed through the evaluation of correlation matrices between individual MD Mod-HSA subscores. Subscores that are strongly related to each other are indicators of construct validity. Tables 10.1 and 10.2 contain the Pearson correlations found between subscores within each content area of the MD Mod-HSA tests. Results indicate that each subscore is significantly positively correlated with the total Scale Score as well as the individual subscores measured in each content area.

Table 10.1 Correlations between MD Mod-HSA 2011 Subscores by Content Area – Algebra & Biology

| | Algebra | | | | | Biology | | | | | | |
	SS	1	2	3	4	SS	1	2	3	4	5	6
Overall SS	1					1						
Subscore 1	.73	1				.68	1					
Subscore 2	.67	.46	1			.50	.25	1				
Subscore 3	.75	.44	.42	1		.57	.29	.31	1			
Subscore 4	.43	.33	.32	.29	1	.54	.29	.28	.31	1		
Subscore 5	-	-	-	-	-	.40	.23	.22	.24	.23	1	
Subscore 6	-	-	-	-	-	.47	.27	.24	.30	.24	.24	1

Note: All correlations significant at the p < .001 level.

Table 10.2 Correlations between MD Mod-HSA 2011 Subscores by Content Area – English & Government

	English					Government					
	SS	1	2	3	4	SS	1	2	3	4	5
Overall SS	1					1					
Subscore 1	.66	1				.61	1				
Subscore 2	.72	.45	1			.61	.34	1			
Subscore 3	.68	.40	.40	1		.49	.31	.25	1		
Subscore 4	.56	.31	.34	.31	1	.50	.31	.30	.26	1	
Subscore 5	-	-	-	-	-	.66	.37	.40	.31	.30	1

Note: All correlations significant at the p < .001 level.

Evidence of the internal structure of an assessment also comes from evaluation of the dimensionality of the test — whether performance on items that compose each test reflects a single underlying characteristic or a set of distinct characteristics. Previous exploratory factor analytic (EFA) studies evaluating the dimensionality of the MD Mod-HSA operational forms have indicated a single underlying dimension[12]. To establish the validity of a single factor model over test content areas on the MD Mod-HSA, confirmatory factor analysis (CFA) can be used.

Confirmatory Factor Analyses of the May 2011 MD Mod-HSA Administration Data

To assess the dimensionality of the MD Mod-HSA tests, CFA's for each content area were conducted using test data from the primary form of the May 2011 administration. The May administration was chosen for analysis because it is the largest and most representative administration of the MD Mod-HSAs. The May administration consisted of one primary form; data from operational items were combined across forms within the content areas of Algebra, Biology, English, and Government.

Mplus (Muthén & Muthén, 2007) was used to evaluate unidimensional, or one-factor, CFA models for each content area. As item level data on the MD HSA tests are dichotomous, methods available in *Mplus* that take into account the categorical nature of the data were used (see Muthén, 1998-2004).

Model parameter estimation was accomplished using a weighted least-square method with a mean and variance adjustment (*WLSMV*; Muthén, DuToit, & Spisic, 1997). This method leads to a consistent estimator of the model parameters and provides standard errors that are robust under model misspecification. For categorical data, this estimation method offers an alternative to the full-weighted least square (WLS) technique that

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[12] When the Mod-HSA was created in 2008, EFA was conducted. Please refer to the Maryland Modified High School Assessment 2008 Technical Report for details.

generally becomes computationally too demanding for models with more than a few observed variables (items).

Overall model fit for each CFA model by content area was examined using the scaled chi-square (χ^2) test of model fit in combination with supplemental fit indices. The Tucker-Lewis Index (TLI) compares the chi-square for the hypothesized model with that of the null or "independence" model, in which all correlations or covariances are zero. TLI values range from zero to 1.0, and values around 0.94 signify good fit (Hu & Bentler, 1999). The comparative fit index (CFI) and root mean square error of approximation (RMSEA) index both are based on noncentrality parameters. The CFI compares the covariance matrix predicted by the model with the observed covariance matrix, and the covariance matrix of the null model with the observed covariance matrix. Higher CFI values indicate better model fit (Hu & Bentler, 1999). The RMSEA assesses the error in the hypothesized model predictions; values less than or equal to 0.06 indicate good fit (Hu & Bentler, 1999).

Table 10.3 shows the results of the analyses. Fit statistics indicated that the one-factor solutions generally fit the data well in all content areas. Although none of the χ^2 results indicated good fit given the criterion of $p > .05$, this was expected because of the large sample sizes. These findings provide evidence suggesting the tests for each content area measure a single underlying dimension. This is a positive finding, given that IRT models assume unidimensionality.

Table 10.3 MD Mod-HSA 2011 Confirmatory Factor Analyses Fit Statistics

Content	Forms	# of Factors	# of Items	n	df	χ^{2*}	TLI	CFI	RMSEA
Algebra	411/1011	1	50	3,895	1,175	2,985	0.92	**0.92**	**0.020**
Biology	411/1011	1	50	2,503	1,175	1,953	0.91	**0.91**	**0.016**
English	411/1011	1	50	2,815	1,175	2,129	0.93	**0.94**	**0.017**
Government	411/1011	1	50	2,465	1,175	2,134	0.91	**0.91**	**0.018**

Note: Table entries that meet or exceed the criterion are in bold.
* $p < .0005$ for all χ^2

Speededness

The percentage of students who respond to the last items in a test can be used to assess the degree to which a test is speeded. When speededness occurs, a test is measuring not only students' knowledge and skills as defined by the construct of interest but also the speed at which the knowledge and skills are demonstrated, which is a second construct. In tests of achievement, it is desirable to find that speededness is not present in a test, which provides evidence that student scores on the test reflect only the intended construct. Evidence of speededness is provided by the finding that the omit rates at the end of a test are notably higher than those observed elsewhere in the test.

Appendix 2A presents the percentage of students who omitted items on the MD Mod-HSA operational forms. The percentage of students who did not respond to the last ten items of a test was less than 1 percent for all content areas and sessions, with the exception of the summer forms. The summer administrations of Algebra had omit rates as high as 4.2 percent for items 13 through 50. One summer administration of Biology (Form 611) had omit rates of up to 3.1 percent for items 14 through 50. One summer administration of English (Form 511) had omit rates of 1.9 percent for several items. With those exceptions, the item level omit rates for the last ten items are quite low and are comparable to the omit rates for all items. This provides evidence that students had sufficient time to complete the entire test.

Further, if more than 5 percent of students omit a selected response item at any point in the test, the item is flagged as having a high omit rate. No MD Mod-HSA items were flagged for high omit rate in any content area for any administration.

Other information in support of the uses and interpretations of the MD Mod-HSA scores appears in the following sections:

- Section 11 provides detailed information concerning the scores that were reported and the cut scores for each content area.

- Section 12 provides information concerning test characteristics based on classical test theory.

- Section 13 presents information regarding student characteristics for the MD Mod-HSA administrations.

Section 11. Scoring Procedures

Scale Scores

The MD Mod-HSA reporting scale ranges from 240 to 650. This scale was aligned to the MD HSA scale, which was established in 2003. Scale scores describing both total test and subscore performance on the MD Mod-HSA are maximum likelihood estimates obtained using item-pattern (IP) scoring and the parameters estimated for the items in each operational test form.

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.

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 conditional standard errors of measurement (CSEMs), and differences between these extreme values have little meaning. Therefore, scores were established for these students based on the procedure used for the MD HSA (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). Starting with the summer 2005 administration of the MD HSA, MSDE decided that the LOSS and HOSS values would be 240 and 650, respectively, for all content areas. Since the MD Mod-HSA is on the same scale as the MD HSA, the same LOSS and HOSS values were used.

Cut Scores

MSDE requested that the MD Mod-HSAs be aligned with the MD HSA scales so that the cut scores established for the MD HSAs could be applied to the MD Mod-HSAs. The MD HSA cut scores associated with each performance level in the non-English content areas were established by MSDE in 2003.[13] The MD HSA English cut scores were established during a standard setting held in October 2005.

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[13] Technical documentation on the standard-setting method used to establish MD HSA cut scores is available on the Maryland State Department of Education website at ttp://www.marylandpublicschools.org/ /divisions/planningresultstest/maryland+standard+setting+technical+reports.htm.

Two cut scores were established for the Algebra and English tests, enabling students to be classified as Basic, Proficient, or Advanced. Two cut scores were needed because the results for these tests are used as the high school mathematics and English/language arts components of Maryland's system of accountability under NCLB.[14] Prior to the 2007–2008 school year, Biology had only one cut-score. In 2007 an Advanced cut score was set for Biology, and the results are now used as components of the MSDE accountability system. There is only one cut score for the Government test; it is used to classify students as Basic or Proficient.

To verify that the cut scores established for the MD HSAs were appropriate for the MD Mod-HSAs, a standard setting was conducted in August 2008 using the MD Mod-HSA student results. The standard-setting panels, consisting of Maryland general and special educators, confirmed that the MD HSA cut scores were appropriate for the MD Mod-HSA.[15]

Students eligible to take an MD Mod-HSA and who entered grade 9 in or after the 2005–2006 academic year must pass MD Mod-HSAs or MD HSAs in all four content areas or achieve an overall combined score of 1602 as part of the requirements for graduation. The Proficient cut scores are used to determine Pass/Fail classifications. The cut scores by content area are given in Table 11.1.

Table 11.1 MD Mod-HSA Cut Scores by Content Area

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

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[14] Information regarding the system of accountability is available on the Maryland State Department of Education website at http://www.marylandpublicschools.org/NR/rdonlyres/0146EDA2-5F91-47DD-9A84-16164BDEA25C/18082/Acct_workbook_final_w_table_appendices_r_93008.doc.

[15] Information regarding the standard-setting process for the MD Mod-HSA is available at the MSDE website at http://www.marylandpublicschools.org/NR/rdonlyres/3253C1DD-CA2E-4E64-A066-D6F36EBADF9B/18003/ModHSA_SB_Final.ppt.

Section 12. Test Characteristics

Provided in this section is a discussion of the results of analyses of test reliability and decision consistency and decision accuracy for all test forms administered.

Reliability

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

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

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

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

Values for Cronbach's alpha were calculated for each test form, each test group, and selected subgroups, using the sample variances in place of the variances in the above expression. The results for the reliability analyses are presented along with other summary statistics in Tables 13.5 to 13.23 of Section 13. The tables show that the overall reliability coefficients for the MD Mod-HSA ranged from 0.61 to 0.80.

Decision Accuracy and Decision Consistency

The accuracy of decisions based on specified cut scores was assessed for reliability of classification using the ETS computer program *RELCLASS*, which 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:

> 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?

Decision consistency describes the extent to which examinees are classified in the same way 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 nonoverlapping, 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 test 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 test and performance-level classifications on an 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.

RELCLASS results were calculated using student scale scores derived from item-pattern score distributions for each form and content area. In four cases, the *RELCLASS* program would not converge due to the nature of the data (i.e., small sample sizes, skewed scale score distributions). The four cases were Algebra Form 611, Biology Form 511, and English Forms 511 and 611, all taken by the Summer populations. The output provided in those tables was obtained by setting *RELCLASS* to override the convergence error and report results.

The results are provided in Tables 12.1 through 12.20 by content area for the October, January, April, May, and Summer administrations. The tables show 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). Decision accuracy values ranged from 0.85 to 0.90 across all performance levels and content areas and from 0.86 to 0.90 for the Proficient and Advanced classifications in Algebra, Biology, and English.

Decision consistency values 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). Decision consistency values ranged from 0.79 to 0.87 across all performance levels and content areas and from 0.81 to 0.87 for the Proficient and Advanced classifications in Algebra, Biology, and English.

Note that in all cases the decision accuracy indices are somewhat larger than the decision consistency indices. This is due to differences in the estimation procedures. The estimation procedure for decision accuracy includes a random component on one of the two variables, whereas in estimating decision consistency each variable includes a random component (Livingston & Lewis, 1995).

Table 12.1 Decision Accuracy and Consistency: MD Mod-HSA October 2010 Algebra

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	450–650	.00	.00	.00	.00
Decision	412–449	.01	.05	.03	.09
Accuracy	240–411	.02	.06	.84	.91
	Estimated Proportion Correctly Classified*: Total = 0.88, Proficient & Above = 0.90				
	450–650	.00	.00	.00	.00
Decision	412–449	.02	.03	.03	.09
Consistency	240–411	.03	.08	.80	.91
	Estimated Proportion Consistently Classified*: Total = 0.84, Proficient & Above = 0.86				

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

Table 12.2 Decision Accuracy and Consistency: MD Mod-HSA January 2011 Algebra

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	450–650	.00	.00	.00	.00
Decision	412–449	.01	.04	.03	.07
Accuracy	240–411	.02	.05	.85	.93
	Estimated Proportion Correctly Classified: Total*: = 0.89, Proficient & Above = 0.90				
	450–650	.00	.00	.00	.00
Decision	412–449	.02	.03	.03	.07
Consistency	240–411	.03	.08	.82	.93
	Estimated Proportion Consistently Classified*: Total = 0.85; Proficient & Above = 0.87				

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

Table 12.3 Decision Accuracy and Consistency: MD Mod-HSA April 2011 Algebra

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	450–650	.00	.00	.00	.00
Decision	412–449	.01	.05	.03	.09
Accuracy	240–411	.02	.06	.84	.91
	Estimated Proportion Correctly Classified*: Total = 0.88, Proficient & Above = 0.90				
	450–650	.00	.00	.00	.00
Decision	412–449	.02	.03	.03	.09
Consistency	240–411	.03	.08	.81	.91
	Estimated Proportion Consistently Classified*: Total = 0.84, Proficient & Above = 0.86				

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

Table 12.4 Decision Accuracy and Consistency: MD Mod-HSA May 2011 Algebra

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	450–650	.00	.00	.00	.00
Decision	412–449	.01	.06	.04	.11
Accuracy	240–411	.02	.06	.82	.89
	Estimated Proportion Correctly Classified*: Total = 0.88, Proficient & Above = 0.89				
	450–650	.00	.00	.00	.00
Decision	412–449	.02	.04	.04	.11
Consistency	240–411	.02	.08	.78	.89
	Estimated Proportion Consistently Classified*: Total = 0.83, Proficient & Above = 0.86				

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

Table 12.5 Decision Accuracy and Consistency: MD Mod-HSA Summer 2011 Algebra

	Placement Scores	Advanced	Proficient	Basic	Category Total*
Summer Primary 1					
	450–650	.01	.00	.00	.01
Decision	412–449	.01	.05	.03	.08
Accuracy	240–411	.01	.05	.84	.91
	Estimated Proportion Correctly Classified*: Total = 0.90, Proficient & Above = 0.90				
	450–650	.01	.00	.00	.01
Decision	412–449	.02	.03	.03	.08
Consistency	240–411	.02	.08	.81	.91
	Estimated Proportion Consistently Classified*: Total = 0.85, Proficient & Above = 0.87				
Summer Primary 2					
	450–650	.00	.00	.00	.00
Decision	412–449	.00	.02	.03	.05
Accuracy	240–411	.02	.08	.86	.95
	Estimated Proportion Correctly Classified*: Total = 0.88, Proficient & Above = 0.88				
	450–650	.00	.00	.00	.00
Decision	412–449	.00	.02	.03	.05
Consistency	240–411	.03	.10	.81	.95
	Estimated Proportion Consistently Classified*: Total = 0.83, Proficient & Above = 0.83				

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

Table 12.6 Decision Accuracy and Consistency: MD Mod-HSA October 2010 Biology

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	452–650	.00	.00	.00	.00
Decision	400–451	.00	.04	.05	.09
Accuracy	240–399	.01	.07	.83	.91
	Estimated Proportion Consistently Classified*: Total = 0.87, Proficient & Above = 0.88				
	452–650	.00	.00	.00	.00
Decision	400–451	.00	.04	.05	.09
Consistency	240–399	.02	.11	.77	.91
	Estimated Proportion Consistently Classified*: Total = 0.81, Proficient & Above = 0.82				

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

Table 12.7 Decision Accuracy and Consistency: MD Mod-HSA January 2011 Biology

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	452–650	.00	.00	.00	.00
Decision	400–451	.00	.07	.05	.12
Accuracy	240–399	.01	.07	.81	.88
	Estimated Proportion Correctly Classified*: Total = 0.87, Proficient & Above = 0.87				
	452–650	.00	.00	.00	.00
Decision	400–451	.00	.06	.06	.12
Consistency	240–399	.02	.11	.76	.88
	Estimated Proportion Consistently Classified*: Total = 0.82, Proficient & Above = 0.82				

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

Table 12.8 Decision Accuracy and Consistency: MD Mod-HSA April 2011 Biology

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	452–650	.00	.00	.00	.00
Decision	400–451	.00	.06	.04	.10
Accuracy	240–399	.01	.07	.81	.90
	Estimated Proportion Correctly Classified*: Total = 0.88, Proficient & Above = 0.88				
	452–650	.00	.00	.00	.00
Decision	400–451	.00	.05	.05	.10
Consistency	240–399	.02	.11	.77	.90
	Estimated Proportion Consistently Classified*: Total = 0.82, Proficient & Above = 0.82				

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

Table 12.9 Decision Accuracy and Consistency: MD Mod-HSA May 2011 Biology

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	452–650	.00	.00	.00	.00
Decision	400–451	.01	.10	.06	.17
Accuracy	240–399	.01	.07	.75	.83
	Estimated Proportion Correctly Classified*: Total = 0.85, Proficient & Above = 0.86				
	452–650	.00	.00	.00	.00
Decision	400–451	.02	.08	.07	.17
Consistency	240–399	.02	.10	.71	.83
	Estimated Proportion Consistently Classified*: Total = 0.79, Proficient & Above = 0.81				

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

Table 12.10 Decision Accuracy and Consistency: MD Mod-HSA 2011 Summer Biology

	Placement Scores	Advanced	Proficient	Basic	Category Total*
Summer Primary 1					
	452–650	.00	.00	.00	.00
Decision	400–451	.01	.07	.04	.11
Accuracy	240–399	.02	.07	.79	.89
	Estimated Proportion Correctly Classified*: Total = 0.86, Proficient & Above = 0.87				
	452–650	.00	.00	.00	.00
Decision	400–451	.02	.05	.05	.11
Consistency	240–399	.03	.10	.75	.89
	Estimated Proportion Consistently Classified*: Total = 0.80, Proficient & Above = 0.82				
Summer Primary 2					
	452–650	.00	.00	.00	.00
Decision	400–451	.00	.08	.05	.13
Accuracy	240–399	.01	.08	.78	.87
	Estimated Proportion Correctly Classified*: Total = 0.86, Proficient & Above = 0.86				
	452–650	.00	.00	.00	.00
Decision	400–451	.01	.07	.06	.13
Consistency	240–399	.02	.12	.73	.87
	Estimated Proportion Consistently Classified*: Total = 0.80, Proficient & Above = 0.81				

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

Table 12.11 Decision Accuracy and Consistency: MD Mod-HSA October 2010 English

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	429–650	.00	.00	.00	.00
Decision	396–428	.01	.05	.03	.09
Accuracy	240–395	.02	.06	.83	.90
	Estimated Proportion Correctly Classified*: Total = 0.89, Proficient & Above = 0.89				
	429–650	.00	.00	.00	.00
Decision	396–428	.02	.04	.04	.09
Consistency	240–395	.03	.09	.79	.90
	Estimated Proportion Consistently Classified*: Total = 0.84, Proficient & Above = 0.85				

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

Table 12.12 Decision Accuracy and Consistency: MD Mod-HSA January 2011 English

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	429–650	.01	.00	.00	.01
Decision	396–428	.01	.06	.04	.11
Accuracy	240–395	.01	.06	.82	.88
	Estimated Proportion Correctly Classified*: Total = 0.88, Proficient & Above = 0.89				
	429–650	.01	.00	.00	.01
Decision	396–428	.02	.05	.04	.11
Consistency	240–395	.02	.08	.77	.88
	Estimated Proportion Consistently Classified*: Total = 0.83, Proficient & Above = 0.85				

* Inconsistencies between cell entries and totals are due to rounding

Table 12.13 Decision Accuracy and Consistency: MD Mod-HSA April 2011 English

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	429–650	.01	.00	.00	.01
Decision	396–428	.03	.08	.04	.15
Accuracy	240–395	.02	.06	.77	.84
	Estimated Proportion Correctly Classified*: Total = 0.86, Proficient & Above = 0.88				
	429–650	.01	.00	.00	.01
Decision	396–428	.04	.06	.05	.15
Consistency	240–395	.02	.08	.74	.84
	Estimated Proportion Consistently Classified*: Total = 0.81, Proficient & Above = 0.85				

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

Table 12.14 Decision Accuracy and Consistency: MD Mod-HSA May 2011 English

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	429–650	.01	.00	.00	.01
Decision	396–428	.02	.07	.04	.13
Accuracy	240–395	.02	.06	.79	.87
	Estimated Proportion Correctly Classified*: Total = 0.87, Proficient & Above = 0.89				
	429–650	.01	.00	.00	.01
Decision	396–428	.03	.05	.04	.13
Consistency	240–395	.02	.08	.76	.87
	Estimated Proportion Consistently Classified*: Total = 0.82, Proficient & Above = 0.85				

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

Table 12.15 Decision Accuracy and Consistency: MD Mod-HSA Summer 2011 English

	Placement Scores	Advanced	Proficient	Basic	Category Total*
Summer Form 5					
	429–650	.00	.00	.00	.00
Decision	396–428	.03	.05	.03	.11
Accuracy	240–395	.02	.05	.81	.89
	Estimated Proportion Correctly Classified*: Total = 0.86, Proficient & Above = 0.89				
	429–650	.00	.00	.00	.00
Decision	396–428	.04	.04	.04	.11
Consistency	240–395	.03	.07	.78	.89
	Estimated Proportion Consistently Classified*: Total = 0.82, Proficient & Above = 0.86				
Summer Form 6					
	429–650	.00	.00	.00	.00
Decision	396–428	.00	.02	.02	.04
Accuracy	240–395	.03	.09	.84	.96
	Estimated Proportion Correctly Classified*: Total = 0.87, Proficient & Above = 0.87				
	429–650	.00	.00	.00	.00
Decision	396–428	.00	.01	.03	.04
Consistency	240–395	.05	.11	.80	.96
	Estimated Proportion Consistently Classified*: Total = 0.82, Proficient & Above* = 0.82				

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

Table 12.16 Decision Accuracy and Consistency: MD Mod-HSA October 2010 Government

	Placement Scores	Proficient	Basic	Category Total*
Decision	394–650	.11	.05	.16
Accuracy	240–393	.07	.78	.84
	Estimated Proportion Correctly Classified*: Total = 0.89			
Decision	394–650	.10	.05	.16
Consistency	240–393	.11	.74	.84
	Estimated Proportion Consistently Classified*: Total = 0.84			

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

Table 12.17 Decision Accuracy and Consistency: MD Mod-HSA January 2011 Government

	Placement Scores	Proficient	Basic	Category Total*
Decision Accuracy	394–650	.09	.03	.12
	240–393	.06	.81	.88
	Estimated Proportion Correctly Classified*: Total = 0.90			
Decision Consistency	394–650	.08	.04	.12
	240–393	.10	.78	.88
	Estimated Proportion Consistently Classified*: Total = 0.86			

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

Table 12.18 Decision Accuracy and Consistency: MD Mod-HSA April 2011 Government

	Placement Scores	Proficient	Basic	Category Total*
Decision Accuracy	394–650	.11	.02	.13
	240–393	.07	.80	.87
	Estimated Proportion Correctly Classified*: Total = 0.91			
Decision Consistency	394–650	.10	.03	.13
	240–393	.10	.77	.87
	Estimated Proportion Consistently Classified*: Total = 0.87			

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

Table 12.19 Decision Accuracy and Consistency: MD Mod-HSA May 2011 Government

	Placement Scores	Proficient	Basic	Category Total*
Decision Accuracy	394–650	.16	.06	.22
	240–393	.06	.72	.78
	Estimated Proportion Correctly Classified*: Total = 0.88			
Decision Consistency	394–650	.15	.07	.22
	240–393	.09	.68	.78
	Estimated Proportion Consistently Classified*: Total = 0.83			

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

Section 13. Student Characteristics

Summary Statistics

Students' scale score means and standard deviations are presented in Table 13.1. Results from online and paper test-takers were pooled for the analyses. All results are based on the final Research files sent to MSDE.

Table 13.1 MD Mod-HSA 2011 Mean Scale Scores by Content Area and Test Administration

Content Area	October			January			April			May			Summer		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Algebra	2,487	362.0	49.4	2,444	357.4	50.9	582	360.9	50.5	3,895	365.6	48.8	217	364.0	46.6
Biology	1,748	359.1	43.6	1,741	361.7	42.5	446	360.1	44.5	2,503	365.6	45.1	174	359.8	49.7
English	2,054	357.4	39.9	2,070	359.6	39.6	578	362.3	42.0	2,815	360.0	41.4	179	353.0	46.0
Government*	1,758	354.3	49.0	1,731	350.2	48.3	360	350.7	51.4	2,465	359.1	50.7	-	-	-

*May 2011 was the last administration of the Government HSA.

The results presented in Tables 13.2 and 13.3 are based on the combined results for students who took the tests in October 2010 and January, April, May, and Summer 2011. The mean scale scores are presented for the years 2008 through 2011 by content area in Table 13.2. Table 13.3 presents the passing rates for these years.

Table 13.2 MD Mod-HSA 2011 Mean Scale Scores by Content Area and Test Year

Content Area	2008	2009	2010	2011
Algebra	360.1	363.2	360.5	362.3
Biology	360.2	365.0	366.0	362.3
English	353.2	360.2	359.6	359.2
Government*	357.2	359.2	355.9	354.8

*May 2011 was the last administration of the Government HSA.

Table 13.3 MD Mod-HSA 2011 Percentage Passing Rates (Proficient + Advanced) by Content Area and Test Year

Content Area	2008	2009	2010	2011
Algebra	9.8	9.2	8.8	9.4
Biology	16.1	14.5	13.8	13.2
English	10.4	12.2	12.6	12.0
Government*	19.9	20.3	17.1	17.2

*May 2011 was the last administration of the Government HSA.

The Algebra and English tests are used for the high school mathematics and English/language arts components of the MSDE Adequate Yearly Progress report as required under the NCLB Act. Beginning with the January 2008 administration, Biology was used for the NCLB science component. Table 13.4 presents the percentage of Algebra, English, and Biology students classified as Basic, Proficient, and Advanced in 2011. Figures 13.1 through 13.4 show the distribution of scale scores for the May 2011 administration for each content area.

Table 13.4 MD Mod-HSA 2011 Percentage of Students in Each Performance Category by Content Area

Content Area	Basic	Proficient	Advanced
Algebra	90.6	9.1	0.3
Biology	86.8	12.9	0.3
English	88.0	11.5	0.6
Government*	82.8	17.2	**

*May 2011 was the last administration of the Government HSA.
**Government does not have an Advanced cut-score.

Summary statistics for all students and for subgroups based on gender, special education programs, ethnicity, and English language fluency are presented in Tables 13.5 through 13.24. The tables include the number of students tested for whom valid scores were available, mean scale scores, and standard deviations of scale scores. In addition, raw score reliabilities are provided for the overall group of examinees and for subgroups.

Figure 13.1 Histogram of Total Scale Scores for MD Mod-HSA May 2011 Algebra

N	3,895
Kurtosis	0.93
Skewness	-1.19
Mean	366
Median	379
Std Deviation	49
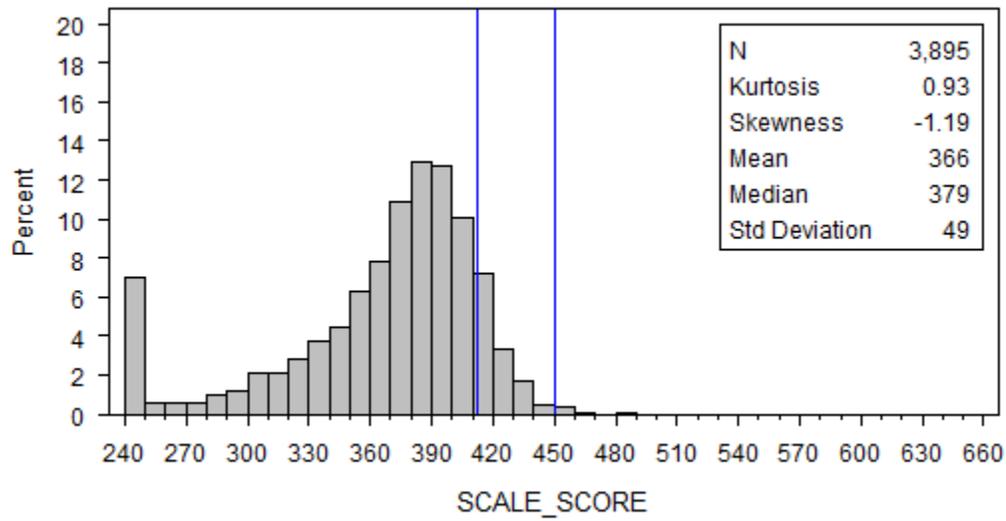
Figure 13.2 Histogram of Total Scale Scores for MD Mod-HSA May 2011 Biology

N	2,503
Kurtosis	1.96
Skewness	-1.42
Mean	366
Median	375
Std Deviation	45
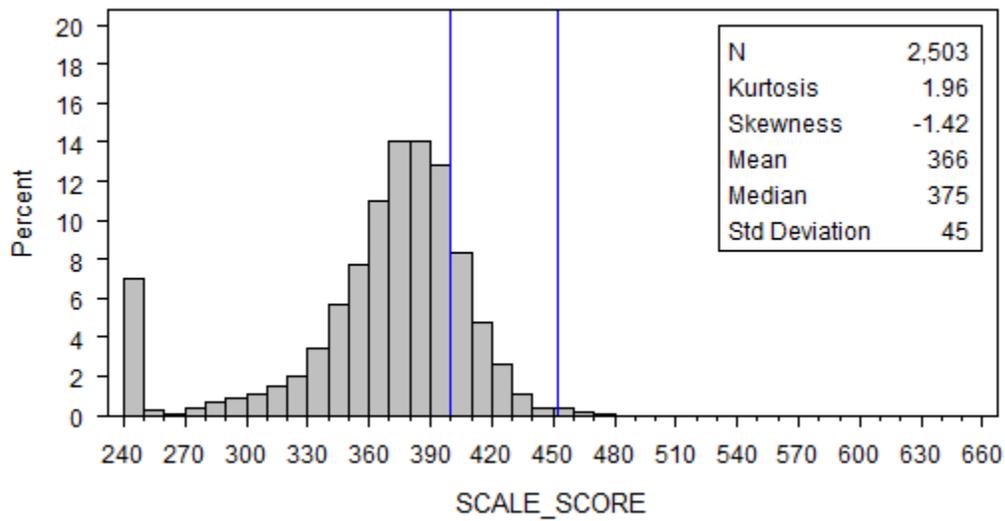
Figure 13.3 Histogram of Total Scale Scores for MD Mod-HSA May 2011 English

N	2,815
Kurtosis	3.47
Skewness	-1.11
Mean	360
Median	369
Std Deviation	41
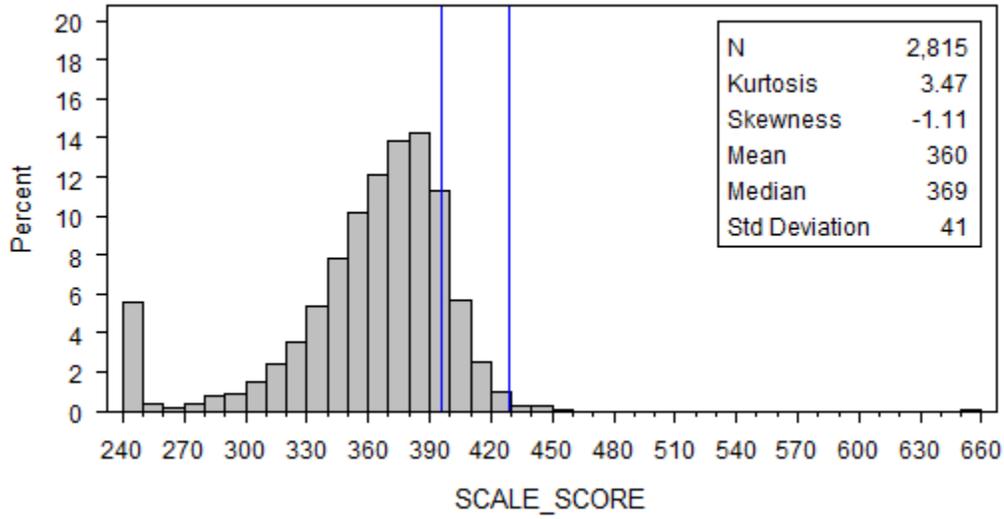
Figure 13.4 Histogram of Total Scale Scores for MD Mod-HSA May 2011 Government

N	2,465
Kurtosis	1.27
Skewness	-1.14
Mean	359
Median	370
Std Deviation	51
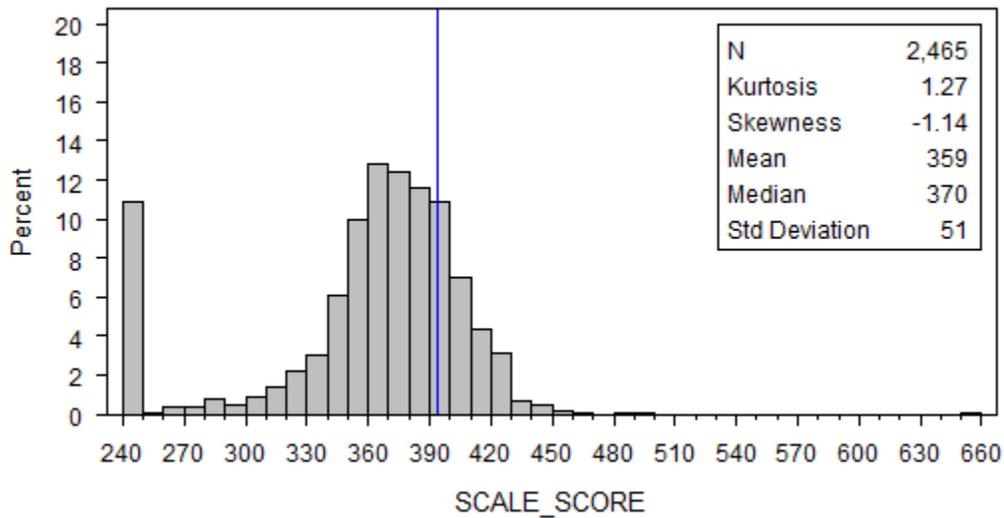
Table 13.5 Summary Statistics for MD Mod-HSA Algebra: October 2010 Form

		Form 111				
		Mean	SD	N	%	Alpha
Overall		362.0	49.4	2,487	100.0	0.75
Gender						
	Male	363.7	48.6	1,565	62.9	0.75
	Female	359.0	50.8	906	36.4	0.75
	Missing	*	*	16	0.6	*
Special Education						
	Yes	361.9	49.1	2,037	81.9	0.75
	No	362.7	50.7	447	18.0	0.77
	Exited	*	*	3	0.1	*
	Exited and placed in 504[a]	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity						
	American Indian	*	*	6	0.2	*
	Asian	*	*	30	1.2	*
	African American	356.8	51.3	1,614	64.9	0.74
	Hawaiian/Pacific Islander	*	*	6	0.2	*
	White	374.4	42.9	578	23.2	0.77
	Hispanic	367.0	45.5	208	8.4	0.74
	Missing	*	*	45	1.8	*
Limited English Proficient						
	Yes	*	*	14	0.6	*
	No	362.2	49.3	2,467	99.2	0.75
	Exited[b]	*	*	6	0.2	*

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

[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 13.6 Summary Statistics for MD Mod-HSA Algebra: January 2011 Form

		Form 211				
		Mean	SD	N	%	Alpha
Overall		357.4	50.9	2,444	100.0	0.75
Gender						
	Male	357.1	51.1	1,584	64.8	0.74
	Female	358.3	50.4	850	34.8	0.76
	Missing	*	*	10	0.4	*
Special Education						
	Yes	358.2	49.9	2,015	82.4	0.74
	No	353.5	55.3	427	17.5	0.78
	Exited	*	*	1	0.0	*
	Exited and placed in 504[a]	*	*	0	0.0	*
	504	*	*	1	0.0	*
Ethnicity						
	American Indian	*	*	8	0.3	*
	Asian	*	*	27	1.1	*
	African American	352.5	52.1	1,535	62.8	0.74
	Hawaiian/Pacific Islander	*	*	5	0.2	*
	White	368.0	45.8	605	24.8	0.75
	Hispanic	363.3	50.1	209	8.6	0.76
	Missing	351.4	53.3	55	2.3	0.74
Limited English Proficient						
	Yes	*	*	11	0.5	*
	No	357.4	50.8	2,428	99.3	0.75
	Exited[b]	*	*	5	0.2	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 13.7 Summary Statistics for MD Mod-HSA Algebra: April 2011 Form

		Form 311				
		Mean	SD	N	%	Alpha
Overall		360.9	50.5	582	100.0	0.77
Gender						
	Male	361.4	50.8	359	61.7	0.76
	Female	360.6	50.6	206	35.4	0.78
	Missing	*	*	17	2.9	*
Special Education						
	Yes	357.2	50.7	418	71.8	0.74
	No	370.4	48.8	163	28.0	0.82
	Exited	*	*	0	0.0	*
	Exited and placed in 504[a]	*	*	0	0.0	*
	504	*	*	1	0.2	*
Ethnicity						
	American Indian	*	*	0	0.0	*
	Asian	*	*	6	1.0	*
	African American	359.3	51.4	420	72.2	0.78
	Hawaiian/ Pacific Islander	*	*	2	0.3	*
	White	367.1	48.7	81	13.9	0.76
	Hispanic	359.7	50.6	52	8.9	0.68
	Missing	*	*	21	3.6	*
Limited English Proficient						
	Yes	*	*	3	0.5	*
	No	361.1	50.3	579	99.5	0.77
	Exited[b]	*	*	0	0.0	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 13.8 Summary Statistics for MD Mod-HSA Algebra: May 2011 Form

		Form 411				
		Mean	SD	N	%	Alpha
Overall		365.6	48.8	3,895	100.0	0.78
Gender						
	Male	366.1	49.5	2,459	63.1	0.78
	Female	364.6	47.9	1,394	35.8	0.76
	Missing	*	*	42	1.1	*
Special Education						
	Yes	366.1	48.1	3,365	86.4	0.77
	No	362.2	53.4	528	13.6	0.81
	Exited	*	*	0	0.0	*
	Exited and placed in 504[a]	*	*	0	0.0	*
	504	*	*	2	0.1	*
Ethnicity						
	American Indian	*	*	13	0.3	*
	Asian	*	*	48	1.2	*
	African American	359.8	50.4	2,282	58.6	0.76
	Hawaiian/Pacific Islander	*	*	4	0.1	*
	White	375.5	45.0	924	23.7	0.79
	Hispanic	371.1	45.3	508	13.0	0.77
	Missing	371.2	45.3	116	3.0	0.80
Limited English Proficient						
	Yes	*	*	33	0.8	*
	No	365.7	48.7	3,853	98.9	0.78
	Exited[b]	*	*	9	0.2	*

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

[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 13.9 Summary Statistics for MD Mod-HSA Algebra: Summer 2011 Forms

		Form 511					Form 611				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		360.9	49.8	119	100.0	0.77	367.7	42.3	98	100.0	0.72
Gender											
	Male	358.3	49.9	81	68.1	0.74	366.2	43.0	66	67.3	0.69
	Female	*	*	38	31.9	*	*	*	30	30.6	*
	Missing	*	*	0	0.0	*	*	*	2	2.0	*
Special Education											
	Yes	360.1	49.9	86	72.3	0.75	*	*	49	50.0	*
	No	*	*	33	27.7	*	*	*	49	50.0	*
	Exited	*	*	0	0.0	*	*	*	0	0.0	*
	Exited and placed in 504[a]	*	*	0	0.0	*	*	*	0	0.0	*
	504	*	*	0	0.0	*	*	*	0	0.0	*
Ethnicity											
	American Indian	*	*	0	0.0	*	*	*	0	0.0	*
	Asian	*	*	0	0.0	*	*	*	1	1.0	*
	African American	355.8	50.8	67	56.3	0.77	361.2	47.7	58	59.2	0.74
	Hawaiian/Pacific Islander	*	*	0	0.0	*	*	*	0	0.0	*
	White	*	*	37	31.1	*	*	*	32	32.7	*
	Hispanic	*	*	12	10.1	*	*	*	3	3.1	*
	Missing	*	*	3	2.5	*	*	*	4	4.1	*
Limited English Proficient											
	Yes	*	*	1	0.8	*	*	*	0	0.0	*
	No	360.6	49.9	118	99.2	0.78	367.7	42.3	98	100.0	0.72
	Exited[b]	*	*	0	0.0	*	*	*	0	0.0	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 13.10 Summary Statistics for MD Mod-HSA Biology: October 2010 Form

		Form 111				
		Mean	SD	N	%	Alpha
Overall		359.1	43.6	1,748	100.0	0.61
Gender						
	Male	359.7	44.2	1,110	63.5	0.62
	Female	357.8	42.8	620	35.5	0.59
	Missing	*	*	18	1.0	*
Special Education						
	Yes	359.1	43.8	1,438	82.3	0.62
	No	359.3	42.8	309	17.7	0.59
	Exited	*	*	1	0.1	*
	Exited and placed in 504[a]	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity						
	American Indian	*	*	5	0.3	*
	Asian	*	*	23	1.3	*
	African American	355.4	45.8	1,132	64.8	0.63
	Hawaiian/Pacific Islander	*	*	4	0.2	*
	White	368.5	37.6	390	22.3	0.57
	Hispanic	364.5	34.4	147	8.4	0.53
	Missing	*	*	47	2.7	*
Limited English Proficient						
	Yes	*	*	7	0.4	*
	No	359.1	43.7	1,736	99.3	0.61
	Exited[b]	*	*	5	0.3	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 13.11 Summary Statistics for MD Mod-HSA Biology: January 2011 Form

		Form 211				
		Mean	SD	N	%	Alpha
Overall		361.7	42.5	1,741	100.0	0.66
Gender						
	Male	362.4	42.7	1,106	63.5	0.68
	Female	360.2	42.2	627	36.0	0.61
	Missing	*	*	8	0.5	*
Special Education						
	Yes	362.6	41.4	1,423	81.7	0.65
	No	357.4	46.8	316	18.2	0.69
	Exited	*	*	1	0.1	*
	Exited and placed in 504[a]	*	*	0	0.0	*
	504	*	*	1	0.1	*
Ethnicity						
	American Indian	*	*	6	0.3	*
	Asian	*	*	17	1.0	*
	African American	357.3	44.3	1,139	65.4	0.65
	Hawaiian/Pacific Islander	*	*	1	0.1	*
	White	371.4	38.6	408	23.4	0.68
	Hispanic	366.3	33.9	142	8.2	0.52
	Missing	*	*	28	1.6	*
Limited English Proficient						
	Yes	*	*	8	0.5	*
	No	361.6	42.6	1,730	99.4	0.66
	Exited[b]	*	*	3	0.2	*

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

[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 13.12 Summary Statistics for MD Mod-HSA Biology: April 2011 Form

		Form 311				
		Mean	SD	N	%	Alpha
Overall		360.1	44.5	446	100.0	0.68
Gender						
	Male	359.5	45.8	284	63.7	0.68
	Female	360.9	42.8	157	35.2	0.70
	Missing	*	*	5	1.1	*
Special Education						
	Yes	357.6	46.7	368	82.5	0.70
	No	372.0	30.2	78	17.5	0.54
	Exited	*	*	0	0.0	*
	Exited and placed in 504[a]	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity						
	American Indian	*	*	0	0.0	*
	Asian	*	*	4	0.9	*
	African American	359.2	45.8	335	75.1	0.70
	Hawaiian/Pacific Islander	*	*	0	0.0	*
	White	365.0	43.6	68	15.2	0.67
	Hispanic	*	*	31	7.0	*
	Missing	*	*	8	1.8	*
Limited English Proficient						
	Yes	*	*	1	0.2	*
	No	360.2	44.6	445	99.8	0.68
	Exited[b]	*	*	0	0.0	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 13.13 Summary Statistics for MD Mod-HSA Biology: May 2011 Form

		Form 411				
		Mean	SD	N	%	Alpha
Overall		365.6	45.1	2,503	100.0	0.72
Gender						
	Male	366.5	45.3	1,614	64.5	0.73
	Female	363.9	45.0	873	34.9	0.70
	Missing	*	*	16	0.6	*
Special Education						
	Yes	365.7	44.4	2,150	85.9	0.71
	No	365.2	49.1	351	14.0	0.77
	Exited	*	*	0	0.0	*
	Exited and placed in 504[a]	*	*	0	0.0	*
	504	*	*	2	0.1	*
Ethnicity						
	American Indian	*	*	7	0.3	*
	Asian	*	*	32	1.3	*
	African American	359.7	46.8	1,489	59.5	0.68
	Hawaiian/Pacific Islander	*	*	4	0.2	*
	White	376.4	40.6	608	24.3	0.76
	Hispanic	370.7	42.0	291	11.6	0.71
	Missing	375.4	34.1	72	2.9	0.68
Limited English Proficient						
	Yes	*	*	17	0.7	*
	No	365.5	45.2	2,477	99.0	0.72
	Exited[b]	*	*	9	0.4	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 13.14 Summary Statistics for MD Mod-HSA Biology: Summer 2010 Forms

		Form 511					Form 611				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		354.5	54.9	96	100.0	0.71	366.2	41.9	78	100.0	0.66
Gender											
	Male	356.7	55.7	67	69.8	0.72	*	*	49	62.8	*
	Female	*	*	29	30.2	*	*	*	28	35.9	*
	Missing	*	*	0	0.0	*	*	*	1	1.3	*
Special Education											
	Yes	344.9	58.7	74	77.1	0.70	*	*	43	55.1	*
	No	*	*	22	22.9	*	*	*	35	44.9	*
	Exited	*	*	0	0.0	*	*	*	0	0.0	*
	Exited and placed in 504[a]	*	*	0	0.0	*	*	*	0	0.0	*
	504	*	*	0	0.0	*	*	*	0	0.0	*
Ethnicity											
	American Indian	*	*	0	0.0	*	*	*	0	0.0	*
	Asian	*	*	0	0.0	*	*	*	0	0.0	*
	African American	341.5	59.7	60	62.5	0.69	365.7	37.4	51	65.4	0.60
	Hawaiian/Pacific Islander	*	*	1	1.0	*	*	*	0	0.0	*
	White	*	*	29	30.2	*	*	*	21	26.9	*
	Hispanic	*	*	3	3.1	*	*	*	3	3.8	*
	Missing	*	*	3	3.1	*	*	*	3	3.8	*
Limited English Proficient											
	Yes	*	*	1	1.0	*	*	*	0	0.0	*
	No	354.2	55.1	95	99.0	0.71	366.2	41.9	78	100.0	0.66
	Exited[b]	*	*	0	0.0	*	*	*	0	0.0	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 13.15 Summary Statistics for MD Mod-HSA English: October 2010 Form

		Form 111				
		Mean	SD	N	%	Alpha
Overall		357.4	39.9	2,054	100.0	0.76
Gender						
	Male	356.2	41.0	1,355	66.0	0.76
	Female	359.7	37.4	686	33.4	0.75
	Missing	*	*	13	0.6	*
Special Education						
	Yes	357.1	40.1	1,716	83.5	0.75
	No	359.0	38.9	338	16.5	0.78
	Exited	*	*	0	0.0	*
	Exited and placed in 504[a]	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity						
	American Indian	*	*	8	0.4	*
	Asian	*	*	30	1.5	*
	African American	354.6	40.7	1,265	61.6	0.76
	Hawaiian/Pacific Islander	*	*	6	0.3	*
	White	361.7	38.7	528	25.7	0.75
	Hispanic	365.7	34.2	179	8.7	0.72
	Missing	*	*	38	1.9	*
Limited English Proficient						
	Yes	*	*	7	0.3	*
	No	357.4	39.9	2,041	99.4	0.76
	Exited[b]	*	*	6	0.3	*

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

[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 13.16 Summary Statistics for MD Mod-HSA English: January 2011 Form

		Form 211				
		Mean	SD	N	%	Alpha
Overall		359.6	39.6	2,070	100.0	0.76
Gender						
	Male	359.2	40.2	1,369	66.1	0.76
	Female	360.3	38.6	677	32.7	0.76
	Missing	*	*	24	1.2	*
Special Education						
	Yes	359.9	38.9	1,650	79.7	0.76
	No	358.2	42.3	420	20.3	0.79
	Exited	*	*	0	0.0	*
	Exited and placed in 504[a]	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity						
	American Indian	*	*	4	0.2	*
	Asian	*	*	22	1.1	*
	African American	358.0	40.1	1,285	62.1	0.77
	Hawaiian/Pacific Islander	*	*	5	0.2	*
	White	362.2	39.9	513	24.8	0.76
	Hispanic	362.4	35.7	187	9.0	0.74
	Missing	362.7	43.4	54	2.6	0.80
Limited English Proficient						
	Yes	*	*	5	0.2	*
	No	359.6	39.7	2,056	99.3	0.76
	Exited[b]	*	*	9	0.4	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 13.17 Summary Statistics for MD Mod-HSA English: April 2011 Form

		Form 311				
		Mean	SD	N	%	Alpha
Overall		362.3	42.0	578	100.0	0.80
Gender						
	Male	361.8	45.1	365	63.1	0.82
	Female	363.3	35.6	203	35.1	0.76
	Missing	*	*	10	1.7	*
Special Education						
	Yes	360.5	41.9	445	77.0	0.79
	No	368.5	41.8	133	23.0	0.82
	Exited	*	*	0	0.0	*
	Exited and placed in 504[a]	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity						
	American Indian	*	*	0	0.0	*
	Asian	*	*	11	1.9	*
	African American	360.4	40.3	411	71.1	0.80
	Hawaiian/Pacific Islander	*	*	1	0.2	*
	White	372.4	46.9	104	18.0	0.85
	Hispanic	*	*	39	6.7	*
	Missing	*	*	12	2.1	*
Limited English Proficient						
	Yes	*	*	2	0.3	*
	No	362.3	42.1	576	99.7	0.80
	Exited[b]	*	*	0	0.0	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 13.18 Summary Statistics for MD Mod-HSA English: May 2011 Form

		Form 411				
		Mean	SD	N	%	Alpha
Overall		360.0	41.4	2,815	100.0	0.78
Gender						
	Male	359.0	42.1	1,842	65.4	0.78
	Female	362.3	39.8	959	34.1	0.79
	Missing	*	*	14	0.5	*
Special Education						
	Yes	360.3	41.0	2,372	84.3	0.78
	No	358.7	43.9	441	15.7	0.80
	Exited	*	*	0	0.0	*
	Exited and placed in 504[a]	*	*	0	0.0	*
	504	*	*	2	0.1	*
Ethnicity						
	American Indian	*	*	7	0.2	*
	Asian	*	*	42	1.5	*
	African American	357.1	43.3	1,607	57.1	0.78
	Hawaiian/Pacific Islander	*	*	6	0.2	*
	White	364.6	38.5	740	26.3	0.78
	Hispanic	364.1	35.9	348	12.4	0.74
	Missing	361.4	43.8	65	2.3	0.80
Limited English Proficient						
	Yes	*	*	21	0.7	*
	No	360.0	41.5	2,787	99.0	0.78
	Exited[b]	*	*	7	0.2	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 13.19 Summary Statistics for MD Mod-HSA English: Summer 2011 Forms

		Form 511					Form 611				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		350.3	49.7	107	100.0	0.79	357.1	39.9	72	100.0	0.74
Gender											
	Male	349.6	49.6	74	69.2	0.80	*	*	42	58.3	*
	Female	*	*	33	30.8	*	*	*	27	37.5	*
	Missing	*	*	0	0.0	*	*	*	3	4.2	*
Special Education											
	Yes	352.7	46.6	70	65.4	0.74	*	*	40	55.6	*
	No	*	*	37	34.6	*	*	*	32	44.4	*
	Exited	*	*	0	0.0	*	*	*	0	0.0	*
	Exited and placed in 504[a]	*	*	0	0.0	*	*	*	0	0.0	*
	504	*	*	0	0.0	*	*	*	0	0.0	*
Ethnicity											
	American Indian	*	*	1	0.9	*	*	*	0	0.0	*
	Asian	*	*	2	1.9	*	*	*	0	0.0	*
	African American	343.9	53.4	57	53.3	0.78	*	*	40	55.6	*
	Hawaiian/Pacific Islander	*	*	1	0.9		*	*	0	0.0	*
	White	*	*	29	27.1	*	*	*	23	31.9	*
	Hispanic	*	*	13	12.1	*	*	*	4	5.6	*
	Missing	*	*	4	3.7	*	*	*	5	6.9	*
Limited English Proficient											
	Yes	*	*	1	0.9	*	*	*	0	0.0	*
	No	350.2	50.0	106	99.1	0.79	357.1	39.9	72	100.0	0.74
	Exited[b]	*	*	0	0.0	*	*	*	0	0.0	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 13.20 Summary Statistics for MD Mod-HSA Government: October 2010 Form

		Form 111				
		Mean	SD	N	%	Alpha
Overall		354.3	49.0	1,758	100.0	0.73
Gender						
	Male	354.3	49.6	1,094	62.2	0.73
	Female	354.0	48.1	650	37.0	0.72
	Missing	*	*	14	0.8	*
Special Education						
	Yes	354.7	48.3	1,455	82.8	0.72
	No	352.0	52.5	301	17.1	0.74
	Exited	*	*	2	0.1	*
	Exited and placed in 504[a]	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity						
	American Indian	*	*	3	0.2	*
	Asian	*	*	23	1.3	*
	African American	353.9	49.7	1,130	64.3	0.75
	Hawaiian/Pacific Islander	*	*	7	0.4	*
	White	357.2	46.3	424	24.1	0.68
	Hispanic	351.4	48.5	133	7.6	0.55
	Missing	*	*	38	2.2	*
Limited English Proficient						
	Yes	*	*	6	0.3	*
	No	354.4	48.9	1,746	99.3	0.73
	Exited[b]	*	*	6	0.3	*

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

[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 13.21 Summary Statistics for MD Mod-HSA Government: January 2011 Form

		Form 211				
		Mean	SD	N	%	Alpha
Overall		350.2	48.3	1,731	100.0	0.74
Gender						
	Male	351.3	49.5	1,088	62.9	0.75
	Female	348.3	46.2	635	36.7	0.71
	Missing	*	*	8	0.5	*
Special Education						
	Yes	351.2	46.9	1,410	81.5	0.73
	No	346.0	53.9	320	18.5	0.77
	Exited	*	*	0	0.0	*
	Exited and placed in 504[a]	*	*	0	0.0	*
	504	*	*	1	0.1	*
Ethnicity						
	American Indian	*	*	8	0.5	*
	Asian	*	*	17	1.0	*
	African American	348.3	50.2	1,051	60.7	0.76
	Hawaiian/Pacific Islander	*	*	4	0.2	*
	White	350.8	47.2	473	27.3	0.74
	Hispanic	362.2	35.5	141	8.1	0.65
	Missing	*	*	37	2.1	*
Limited English Proficient						
	Yes	*	*	10	0.6	*
	No	350.2	48.3	1,715	99.1	0.74
	Exited[b]	*	*	6	0.3	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 13.22 Summary Statistics for MD Mod-HSA Government: April 2011 Form

		Form 311				
		Mean	SD	N	%	Alpha
Overall		350.7	51.4	360	100.0	0.80
Gender						
	Male	353.2	52.5	233	64.7	0.82
	Female	346.9	48.4	126	35.0	0.76
	Missing	*	*	1	0.3	*
Special Education						
	Yes	349.7	51.5	303	84.2	0.80
	No	356.1	50.7	57	15.8	0.82
	Exited	*	*	0	0.0	*
	Exited and placed in 504[a]	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity						
	American Indian	*	*	0	0.0	*
	Asian	*	*	3	0.8	*
	African American	348.7	54.5	269	74.7	0.82
	Hawaiian/Pacific Islander	*	*	1	0.3	*
	White	354.9	39.1	54	15.0	0.66
	Hispanic	*	*	28	7.8	*
	Missing	*	*	5	1.4	*
Limited English Proficient						
	Yes	*	*	1	0.3	*
	No	350.5	51.4	359	99.7	0.80
	Exited[b]	*	*	0	0.0	*

* Statistics not reported for sample size less than 50 (N < 50).
[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 13.23 Summary Statistics for MD Mod-HSA Government: May 2011 Form

		Form 411				
		Mean	SD	N	%	Alpha
Overall		359.1	50.7	2,465	100.0	0.76
Gender						
	Male	358.3	52.6	1,571	63.7	0.77
	Female	360.7	47.0	876	35.5	0.74
	Missing	*	*	18	0.7	*
Special Education						
	Yes	358.4	50.7	2,126	86.2	0.75
	No	362.7	50.4	336	13.6	0.82
	Exited	*	*	0	0.0	*
	Exited and placed in 504[a]	*	*	0	0.0	*
	504	*	*	3	0.1	*
Ethnicity						
	American Indian	*	*	8	0.3	*
	Asian	*	*	35	1.4	*
	African American	355.5	52.0	1,453	58.9	0.76
	Hawaiian/Pacific Islander	*	*	5	0.2	*
	White	365.1	49.8	615	24.9	0.78
	Hispanic	361.4	44.3	286	11.6	0.70
	Missing	359.8	51.5	63	2.6	0.78
Limited English Proficient						
	Yes	*	*	14	0.6	*
	No	359.0	50.8	2,445	99.2	0.76
	Exited[b]	*	*	6	0.2	*

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

Demographic Characteristics

Summary statistics describing the demographic characteristics of the students who received scores on the MD Mod-HSAs are provided in Tables 13.24 through 13.27. Statistics are provided for the October 2010 and the January, April, May, and Summer 2011 administrations of Algebra, Biology, English, and Government. The results from online and paper test-takers were pooled for the analyses. All demographic results are based on the final Research file sent to MSDE.

Table 13.24 Demographic Information for MD Mod-HSA 2011 Algebra

	October Form		January Form		April Form		May Form		Summer Forms	
	N	%	N	%	N	%	N	%	N	%
Overall	2,487	100.0	2,444	100.0	582	100.0	3,895	100.0	217	100.0
Gender										
Male	1,565	62.9	1,584	64.8	359	61.7	2,459	63.1	147	67.7
Female	906	36.4	850	34.8	206	35.4	1,394	35.8	68	31.3
Missing	16	0.6	10	0.4	17	2.9	42	1.1	2	0.9
Special Education										
Yes	2,037	81.9	2,015	82.4	418	71.8	3,365	86.4	135	62.2
No	447	18.0	427	17.5	163	28.0	528	13.6	82	37.8
Exited	3	0.1	1	0.0	0	0.0	0	0.0	0	0.0
Exited and placed in 504[a]	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
504	0	0.0	1	0.0	1	0.2	2	0.1	0	0.0
Ethnicity										
American Indian	6	0.2	8	0.3	0	0.0	13	0.3	0	0.0
Asian	30	1.2	27	1.1	6	1.0	48	1.2	1	0.5
African American	1,614	64.9	1,535	62.8	420	72.2	2,282	58.6	125	57.6
Hawaiian/Pacific Islander	6	0.2	5	0.2	2	0.3	4	0.1	0	0.0
White	578	23.2	605	24.8	81	13.9	924	23.7	69	31.8
Hispanic	208	8.4	209	8.6	52	8.9	508	13.0	15	6.9
Missing	45	1.8	55	2.3	21	3.6	116	3.0	7	3.2
Limited English Proficient										
Yes	14	0.6	11	0.5	3	0.5	33	0.8	1	0.5
No	2,467	99.2	2,428	99.3	579	99.5	3,853	98.9	216	99.5
Exited[b]	6	0.2	5	0.2	0	0.0	9	0.2	0	0.0

[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 13.25 Demographic Information for MD Mod-HSA 2011 Biology

	October Form		January Form		April Form		May Form		Summer Forms	
	N	%	N	%	N	%	N	%	N	%
Overall	1,748	100.0	1,741	100.0	446	100.0	2,503	100.0	174	100.0
Gender										
Male	1,110	63.5	1,106	63.5	284	63.7	1,614	64.5	116	66.7
Female	620	35.5	627	36.0	157	35.2	873	34.9	57	32.8
Missing	18	1.0	8	0.5	5	1.1	16	0.6	1	0.6
Special Education										
Yes	1,438	82.3	1,423	81.7	368	82.5	2,150	85.9	117	67.2
No	309	17.7	316	18.2	78	17.5	351	14.0	57	32.8
Exited	1	0.1	1	0.1	0	0.0	0	0.0	0	0.0
Exited and placed in 504[a]	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
504	0	0.0	1	0.1	0	0.0	2	0.1	0	0.0
Ethnicity										
American Indian	5	0.3	6	0.3	0	0.0	7	0.3	0	0.0
Asian	23	1.3	17	1.0	4	0.9	32	1.3	0	0.0
African American	1,132	64.8	1,139	65.4	335	75.1	1,489	59.5	111	63.8
Hawaiian/Pacific Islander	4	0.2	1	0.1	0	0.0	4	0.2	1	0.6
White	390	22.3	408	23.4	68	15.2	608	24.3	50	28.7
Hispanic	147	8.4	142	8.2	31	7.0	291	11.6	6	3.4
Missing	47	2.7	28	1.6	8	1.8	72	2.9	6	3.4
Limited English Proficient										
Yes	7	0.4	8	0.5	1	0.2	17	0.7	1	0.6
No	1,736	99.3	1,730	99.4	445	99.8	2,477	99.0	173	99.4
Exited[b]	5	0.3	3	0.2	0	0.0	9	0.4	0	0.0

[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 13.26 Demographic Information for MD Mod-HSA 2011 English

	October Form		January Form		April Form		May Form		Summer Forms	
	N	%	N	%	N	%	N	%	N	%
Overall	2,054	100.0	2,070	100.0	578	100.0	2,815	100.0	179	100.0
Gender										
Male	1,355	66.0	1,369	66.1	365	63.1	1,842	65.4	116	64.8
Female	686	33.4	677	32.7	203	35.1	959	34.1	60	33.5
Missing	13	0.6	24	1.2	10	1.7	14	0.5	3	1.7
Special Education										
Yes	1,716	83.5	1,650	79.7	445	77.0	2,372	84.3	110	61.5
No	338	16.5	420	20.3	133	23.0	441	15.7	69	38.5
Exited	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Exited and placed in 504[a]	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
504	0	0.0	0	0.0	0	0.0	2	0.1	0	0.0
Ethnicity										
American Indian	8	0.4	4	0.2	0	0.0	7	0.2	1	0.6
Asian	30	1.5	22	1.1	11	1.9	42	1.5	2	1.1
African American	1,265	61.6	1,285	62.1	411	71.1	1,607	57.1	97	54.2
Hawaiian/Pacific Islander	6	0.3	5	0.2	1	0.2	6	0.2	1	0.6
White	528	25.7	513	24.8	104	18.0	740	26.3	52	29.1
Hispanic	179	8.7	187	9.0	39	6.7	348	12.4	17	9.5
Missing	38	1.9	54	2.6	12	2.1	65	2.3	9	5.0
Limited English Proficient										
Yes	7	0.3	5	0.2	2	0.3	21	0.7	1	0.6
No	2,041	99.4	2,056	99.3	576	99.7	2,787	99.0	178	99.4
Exited[b]	6	0.3	9	0.4	0	0.0	7	0.2	0	0.0

[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 13.27 Demographic Information for MD Mod-HSA 2011 Government*

	October Form		January Form		April Form		May Form	
	N	%	N	%	N	%	N	%
Overall	1,758	100.0	1,731	100.0	360	100.0	2,465	100.0
Gender								
Male	1,094	62.2	1,088	62.9	233	64.7	1,571	63.7
Female	650	37.0	635	36.7	126	35.0	876	35.5
Missing	14	0.8	8	0.5	1	0.3	18	0.7
Special Education								
Yes	1,455	82.8	1,410	81.5	303	84.2	2,126	86.2
No	301	17.1	320	18.5	57	15.8	336	13.6
Exited	2	0.1	0	0.0	0	0.0	0	0.0
Exited and placed in 504[a]	0	0.0	0	0.0	0	0.0	0	0.0
504	0	0.0	1	0.1	0	0.0	3	0.1
Ethnicity								
American Indian	3	0.2	8	0.5	0	0.0	8	0.3
Asian	23	1.3	17	1.0	3	0.8	35	1.4
African American	1,130	64.3	1,051	60.7	269	74.7	1,453	58.9
Hawaiian/Pacific Islander	7	0.4	4	0.2	1	0.3	5	0.2
White	424	24.1	473	27.3	54	15.0	615	24.9
Hispanic	133	7.6	141	8.1	28	7.8	286	11.6
Missing	38	2.2	37	2.1	5	1.4	63	2.6
Limited English Proficient								
Yes	6	0.3	10	0.6	1	0.3	14	0.6
No	1,746	99.3	1,715	99.1	359	99.7	2,445	99.2
Exited[b]	6	0.3	6	0.3	0	0.0	6	0.2

*May 2011 was the last administration of the Government Mod-HSA
[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.

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Appendix 1A. MD HSA Classical Item Statistics: Operational Forms

Table 1.A 1 Item Statistics, Operational Items: MD HSA 2011 Algebra—October Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
R	1	O	56769	SR	0.62	0.35	-0.13	0.35	-0.20	-0.17	0.3
R	2	L	67519	SR	0.51	0.36	-0.29	-0.19	0.36	0.01	0.3
R	3	L	106655	SR	0.32	0.19	-0.05	0.19	-0.08	-0.08	0.3
R	4	O	106621	SR	0.58	0.32	0.32	-0.18	-0.16	-0.12	0.2
R	5	L	79018	SR	0.19	0.15	-0.04	-0.07	0.15	-0.06	1.0
R	6	L	136686	SPR	0.47	0.41	0.41	-0.37			2.3
R	7	L	255067	SPR	0.37	0.28	0.28	-0.23			3.6
R	10	O	79123	SR	0.17	0.25	-0.09	-0.06	-0.06	0.25	1.1
R	11	L	51549	SR	0.37	0.10	-0.06	0.03	0.10	-0.09	0.4
R	12	L	255113	SR	0.45	0.16	0.02	0.16	-0.14	-0.08	0.7
R	13	O	54745	SR	0.52	0.19	-0.01	-0.17	-0.07	0.19	0.3
R	14	L	132822	SR	0.47	0.25	-0.11	-0.05	-0.21	0.25	0.5
R	17	O	132847	SPR	0.57	0.36	0.36	-0.32			2.7
R	18	O	135113	SPR	0.05	0.25	0.25	-0.06			7.4
R	20	L	79085	SR	0.63	0.32	-0.15	0.32	-0.15	-0.17	0.8
R	21	L	56562	SR	0.31	0.42	-0.22	-0.16	-0.06	0.42	1.1
R	22	O	67501	SR	0.55	0.26	-0.11	-0.10	0.26	-0.14	1.3
R	23	L	106618	SR	0.33	0.24	-0.11	-0.20	0.24	0.05	1.4
R	24	O	54690	SR	0.87	0.12	-0.07	0.12	-0.06	-0.07	0.2
R	26	O	215925	SR	0.50	0.33	-0.09	-0.14	-0.21	0.33	0.2
R	27	L	255108	SR	0.57	0.30	-0.13	0.30	-0.16	-0.13	0.4
R	29	O	215934	SPR	0.12	0.19	0.19	-0.11			12.7
R	30	L	255082	SPR	0.05	0.17	0.17	-0.04			5.9
R	32	O	56785	SR	0.16	0.28	-0.09	-0.12	-0.01	0.28	0.6
R	33	O	56649	SR	0.28	0.27	-0.05	-0.11	-0.14	0.27	0.6
R	35	L	106543	SR	0.31	0.28	0.28	-0.16	-0.04	-0.10	0.6
R	36	L	132823	SR	0.53	0.28	-0.11	-0.14	0.28	-0.14	0.4
R	37	O	51479	SR	0.37	0.25	-0.01	-0.16	-0.18	0.25	0.4
R	38	L	135112	SR	0.33	0.12	-0.05	-0.04	0.12	-0.03	0.5
R	40	O	106569	SPR	0.03	0.25	0.25	-0.04			6.2
R	41	L	54658	SR	0.17	0.19	-0.04	-0.02	-0.09	0.19	0.8
R	42	O	56764	SR	0.72	0.32	0.32	-0.17	-0.18	-0.14	0.6
R	43	O	211043	SR	0.21	0.15	0.00	0.15	-0.12	0.01	0.8
R	44	L	79037	SR	0.20	0.17	0.17	-0.04	-0.07	-0.03	1.2
R	46	L	211027	SR	0.44	0.29	-0.13	-0.12	0.29	-0.10	1.1
R	47	L	67474	SR	0.47	0.29	0.29	-0.14	-0.14	-0.08	0.6
R	48	L	211050	SR	0.29	0.20	0.03	-0.14	-0.14	0.20	0.5
R	49	O	50393	SPR	0.21	0.39	0.39	-0.30			4.4
R	50	L	50426	SPR	0.22	0.20	0.20	-0.12			4.1
R	51	L	51443	SPR	0.25	0.32	0.32	-0.24			3.2
R	52	L	79102	SR	0.27	0.10	-0.03	-0.05	0.10	-0.01	0.9
R	54	L	64684	SR	0.51	0.29	0.29	-0.15	-0.13	-0.12	0.5
R	55	O	211006	SR	0.13	0.19	-0.12	-0.09	0.04	0.19	0.9

Table 1.A 1 Item Statistics, Operational Items: MD HSA 2011 Algebra—October Primary

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
R	56	L	67464	SR	0.35	0.39	-0.23	-0.14	0.39	-0.04	0.5
R	57	O	56759	SR	0.33	0.34	0.34	-0.12	-0.17	-0.10	0.5
R	58	L	50371	SR	0.46	0.30	-0.15	0.30	-0.12	-0.10	1.0
R	59	O	43148	SR	0.39	0.26	-0.11	-0.09	0.26	-0.09	0.6
R	62	L	51398	SR	0.37	0.43	0.43	-0.19	-0.19	-0.09	0.6
R	64	L	67489	SR	0.37	0.14	-0.05	0.14	-0.01	-0.13	0.6
R	65	L	56799	SR	0.20	0.23	0.23	-0.08	-0.14	0.03	0.5
R	67	O	43154	SR	0.12	0.10	-0.03	-0.10	0.06	0.10	0.6
R	68	L	56750	SR	0.22	0.30	0.30	-0.03	-0.14	-0.12	0.6
R	69	L	54767	SR	0.41	0.31	0.31	-0.12	-0.14	-0.11	0.8
Mean					0.36	0.26	0.06	-0.07	-0.02	0.01	1.5
SD					0.18	0.09	0.20	0.16	0.17	0.16	2.2

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

Table 1.A2 Item Statistics, Operational Items: MD HSA 2011 Biology—October Primary

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
R	1	O	108599	SR	0.38	0.20	-0.10	-0.12	0.20	-0.02	0.1
R	2	L	52490	SR	0.59	0.25	-0.09	-0.14	0.25	-0.13	0.2
R	5	O	215944	SR	0.30	0.24	0.24	-0.12	-0.09	-0.05	0.1
R	6	O	215957	SR	0.45	0.21	0.21	-0.07	-0.13	-0.09	0.1
R	10	L	68263	SR	0.12	0.20	-0.09	-0.05	0.20	0.00	0.1
R	11	L	79475	SR	0.18	0.13	-0.05	-0.06	0.00	0.13	0.1
R	12	L	256489	SR	0.24	0.15	-0.03	0.15	-0.07	-0.04	0.1
R	13	L	256490	SR	0.40	0.21	-0.07	0.21	-0.10	-0.07	0.2
R	14	O	54987	SR	0.22	0.16	0.16	-0.07	-0.05	-0.02	0.1
R	15	L	136101	SR	0.67	0.25	-0.11	-0.17	0.25	-0.09	0.2
R	16	O	136097	SR	0.38	0.16	0.16	-0.04	-0.08	-0.08	0.2
R	17	O	55044	SR	0.43	0.26	-0.11	0.26	-0.17	-0.06	0.3
R	19	L	136123	SR	0.21	0.14	-0.05	0.14	-0.03	-0.05	0.3
R	20	L	136126	SR	0.57	0.17	-0.06	-0.10	0.17	-0.07	0.2
R	21	O	223426	SR	0.19	0.13	-0.11	0.01	0.13	-0.02	0.2
R	24	L	52559	SR	0.22	0.20	0.20	-0.05	-0.10	-0.03	0.2
R	25	L	251268	SR	0.35	0.14	0.14	0.01	-0.10	-0.10	0.3
R	26	L	251269	SR	0.46	0.22	-0.14	-0.07	0.22	-0.07	0.3
R	27	L	52419	SR	0.27	0.24	0.24	-0.12	-0.13	0.00	0.4
R	28	O	251264	SR	0.28	0.16	0.00	-0.15	0.16	-0.03	0.4
R	29	O	251265	SR	0.31	0.23	0.23	-0.14	-0.10	-0.04	0.4
R	30	O	79411	SR	0.24	0.18	-0.08	-0.05	-0.05	0.18	0.5

Table 1.A2 Item Statistics, Operational Items: MD HSA 2011 Biology—October Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
R	31	L	108541	SR	0.16	0.09	0.04	0.09	-0.07	-0.06	0.5
R	32	L	108518	SR	0.45	0.33	0.33	-0.14	-0.16	-0.11	0.6
R	33	O	52544	SR	0.33	0.27	0.27	-0.10	-0.12	-0.08	0.7
R	34	L	133449	SR	0.32	0.12	-0.07	0.12	-0.02	-0.03	0.3
R	35	L	133451	SR	0.28	0.07	-0.01	0.07	-0.13	0.07	0.3
R	36	O	52633	SR	0.31	0.06	0.02	-0.05	0.06	-0.07	0.2
R	39	O	52680	SR	0.41	0.17	-0.10	-0.02	0.17	-0.11	0.3
R	40	L	52409	SR	0.12	0.20	-0.05	0.20	-0.13	-0.06	0.2
R	41	L	135129	SR	0.36	0.24	-0.07	-0.12	-0.08	0.24	0.3
R	42	L	135130	SR	0.39	0.25	-0.10	-0.12	0.25	-0.08	0.3
R	43	O	68232	SR	0.19	0.09	0.06	-0.09	0.09	-0.06	0.2
R	45	O	256527	SR	0.33	0.27	0.27	-0.12	-0.12	-0.06	0.2
R	46	O	256525	SR	0.33	0.17	-0.01	-0.09	0.17	-0.09	0.3
R	47	L	108586	SR	0.46	0.26	0.26	-0.11	-0.15	-0.07	0.3
R	48	L	68153	SR	0.59	0.26	0.26	-0.14	-0.14	-0.10	0.3
R	49	L	68154	SR	0.29	0.16	-0.02	0.16	-0.09	-0.04	0.2
R	50	L	57000	SR	0.18	0.05	0.05	0.07	-0.10	-0.02	0.3
R	51	L	136093	SR	0.21	0.10	0.03	-0.08	0.10	-0.05	0.3
R	52	L	136094	SR	0.38	0.27	-0.08	0.27	-0.15	-0.10	0.2
R	53	O	68286	SR	0.18	0.15	0.15	0.00	-0.09	-0.03	0.2
R	57	O	56957	SR	0.15	0.16	0.04	0.16	-0.12	-0.04	0.3
R	58	L	108561	SR	0.69	0.31	-0.13	-0.15	-0.18	0.31	0.2
R	60	O	55075	SR	0.32	0.19	0.19	-0.03	-0.14	-0.08	0.3
R	61	X	55077	SR							
R	62	O	79489	SR	0.24	0.22	-0.05	-0.05	-0.11	0.22	0.5
R	63	L	65075	SR	0.53	0.31	-0.12	-0.14	-0.15	0.31	0.3
R	64	L	55084	SR	0.34	0.18	0.18	-0.11	-0.06	-0.04	0.3
R	65	L	55085	SR	0.27	0.19	0.19	-0.15	-0.03	-0.02	0.3
R	66	L	133435	SR	0.31	0.28	0.28	-0.09	-0.10	-0.10	0.4
R	67	L	52767	SR	0.09	0.21	-0.01	-0.07	0.21	-0.05	0.3
R	68	L	214567	SR	0.55	0.17	-0.07	-0.06	0.17	-0.09	0.4
R	69	L	214569	SR	0.42	0.25	-0.09	-0.14	-0.08	0.25	0.4
R	70	L	108559	SR	0.25	0.12	-0.06	0.12	-0.12	0.07	0.4
R	71	O	55260	SR	0.27	0.18	-0.12	-0.12	0.04	0.18	0.5
R	72	O	55263	SR	0.42	0.20	-0.06	-0.11	0.20	-0.05	0.4
R	73	O	67635	SR	0.26	0.15	-0.08	0.15	-0.02	-0.03	0.4
R	74	L	79291	SR	0.24	0.19	0.19	-0.03	-0.10	-0.03	0.5
R	75	L	79313	SR	0.24	0.19	-0.11	0.19	-0.07	0.00	0.4
R	76	L	79314	SR	0.24	0.16	-0.10	0.16	-0.03	-0.01	0.6
R	77	O	64720	SR	0.31	0.25	-0.07	-0.08	-0.11	0.25	0.4
R	78	L	65052	SR	0.15	0.07	-0.02	0.02	-0.05	0.07	0.4
R	81	O	64735	SR	0.34	0.15	0.02	-0.13	0.15	-0.02	0.4
R	82	O	256544	SR	0.40	0.25	-0.03	0.25	-0.13	-0.12	0.4

Table 1.A2 Item Statistics, Operational Items: MD HSA 2011 Biology—October Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
R	83	O	256545	SR	0.35	0.20	-0.07	-0.09	0.20	-0.06	0.5
R	85	L	136137	SR	0.27	0.20	0.03	0.20	-0.11	-0.11	0.4
R	86	L	136136	SR	0.44	0.28	-0.07	-0.15	-0.13	0.28	0.4
R	87	L	65058	SR	0.29	0.16	-0.02	0.16	-0.10	-0.04	0.4
R	89	O	57185	SR	0.26	0.20	0.20	-0.12	-0.10	0.02	0.5
R	91	L	253643	SR	0.29	0.20	-0.08	-0.05	-0.07	0.20	0.4
R	95	O	175497	SR	0.38	0.15	0.03	-0.10	0.15	-0.13	0.4
R	96	L	215987	SR	0.41	0.20	0.20	-0.07	-0.09	-0.08	0.4
R	97	L	215988	SR	0.31	0.15	-0.07	-0.06	0.15	-0.02	0.5
R	98	L	133436	SR	0.17	0.12	0.12	0.00	-0.06	-0.02	0.6
R	99	O	52476	SR	0.46	0.26	-0.07	0.26	-0.18	-0.08	0.5
Mean					0.33	0.19	0.02	-0.02	-0.02	-0.01	0.3
SD					0.13	0.06	0.13	0.12	0.13	0.11	0.1

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

Table 1.A3 Item Statistics, Operational Items: MD HSA 2011 English—October Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
R	7	O	96238	SR	0.63	0.31	-0.14	-0.13	-0.18	0.31	0.1
R	8	O	96240	SR	0.69	0.34	-0.16	-0.17	-0.19	0.34	0.1
R	9	O	96241	SR	0.53	0.34	-0.18	0.34	-0.22	-0.07	0.1
R	10	O	96242	SR	0.67	0.27	-0.17	0.27	-0.15	-0.08	0.1
R	11	O	96243	SR	0.56	0.18	-0.03	-0.13	0.18	-0.11	0.2
R	12	O	96244	SR	0.17	0.06	0.02	0.06	-0.13	0.03	0.1
R	13	O	256437	SR	0.60	0.33	-0.16	-0.16	-0.18	0.33	0.1
R	14	O	256439	SR	0.71	0.36	-0.18	-0.22	0.36	-0.17	0.1
R	15	O	256438	SR	0.45	0.29	0.29	-0.19	-0.10	-0.08	0.2
R	24	L	251157	SR	0.68	0.42	-0.19	-0.24	-0.20	0.42	0.4
R	25	L	256300	SR	0.67	0.41	-0.16	0.41	-0.24	-0.21	0.5
R	26	L	251145	SR	0.59	0.33	-0.18	0.33	-0.15	-0.14	0.6
R	28	O	130043	SR	0.44	0.33	-0.15	-0.21	-0.04	0.33	0.8
R	29	O	130044	SR	0.26	0.20	-0.09	-0.13	0.01	0.20	0.8
R	30	O	130047	SR	0.67	0.32	-0.09	0.32	-0.23	-0.15	0.8
R	31	O	130045	SR	0.59	0.25	-0.14	-0.12	0.25	-0.08	0.9
R	32	L	169262	SR	0.37	0.23	0.23	-0.18	-0.02	-0.10	0.3
R	33	L	169269	SR	0.50	0.26	-0.09	-0.22	0.26	-0.07	0.3
R	34	L	169264	SR	0.70	0.41	-0.23	0.41	-0.20	-0.18	0.3
R	35	L	169267	SR	0.23	0.08	-0.05	0.08	-0.20	0.13	0.4
R	36	L	169266	SR	0.58	0.30	-0.13	-0.21	0.30	-0.08	0.3

146

Table 1.A3 Item Statistics, Operational Items: MD HSA 2011 English—October Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
R	37	L	169268	SR	0.69	0.40	-0.18	-0.22	0.40	-0.19	0.3
R	38	L	169270	SR	0.30	0.17	-0.07	-0.12	0.01	0.17	0.3
R	46	L	243346	SR	0.31	0.26	-0.06	-0.18	-0.05	0.26	0.4
R	47	L	243345	SR	0.39	0.26	-0.12	0.26	-0.09	-0.09	0.4
R	48	L	218587	SR	0.31	0.28	-0.16	-0.08	-0.08	0.28	0.4
R	49	L	251071	SR	0.36	0.34	0.34	-0.10	-0.18	-0.12	0.5
R	50	L	218582	SR	0.31	0.22	-0.12	0.01	-0.17	0.22	0.5
R	51	L	218583	SR	0.32	0.29	-0.08	0.29	-0.14	-0.09	0.5
R	52	L	218584	SR	0.50	0.36	-0.13	0.36	-0.23	-0.10	0.4
R	53	L	218589	SR	0.28	0.09	0.07	0.09	-0.09	-0.03	0.6
R	54	L	214713	SR	0.36	0.22	0.22	-0.09	-0.18	0.04	0.6
R	55	L	214714	SR	0.47	0.22	-0.15	0.22	-0.04	-0.13	0.6
R	56	L	214715	SR	0.42	0.40	-0.17	-0.19	-0.13	0.40	0.8
R	57	L	214716	SR	0.27	0.21	0.21	-0.09	-0.07	-0.05	0.9
R	58	L	256291	SR	0.22	0.13	-0.01	-0.06	-0.02	0.13	1.0
R	59	L	130276	SR	0.34	0.16	0.00	-0.04	0.16	-0.17	1.0
R	60	L	130140	SR	0.27	0.19	0.00	-0.03	-0.16	0.19	1.2
R	61	L	96222	SR	0.30	0.13	-0.06	-0.07	0.13	0.00	1.3
R	63	O	256275	SR	0.44	0.22	-0.12	0.22	-0.19	0.04	0.4
R	64	O	256276	SR	0.80	0.31	-0.15	-0.19	0.31	-0.15	0.4
R	65	O	256277	SR	0.64	0.40	-0.15	-0.23	-0.22	0.40	0.4
R	66	L	169248	SR	0.33	0.36	-0.11	-0.14	-0.18	0.36	0.7
R	67	L	169250	SR	0.59	0.40	-0.18	-0.19	-0.19	0.40	0.5
R	68	L	169258	SR	0.67	0.34	0.34	-0.24	-0.13	-0.15	0.5
R	69	L	169254	SR	0.30	0.23	0.23	-0.06	-0.12	-0.06	0.5
R	70	L	169257	SR	0.48	0.37	-0.09	-0.21	-0.19	0.37	0.6
R	71	L	169249	SR	0.33	0.22	0.01	0.22	-0.11	-0.17	0.5
R	72	L	169251	SR	0.54	0.34	-0.12	-0.22	0.34	-0.17	0.4
R	73	L	169252	SR	0.33	0.23	-0.05	-0.13	-0.06	0.23	0.5
R	74	L	169256	SR	0.60	0.44	-0.22	0.44	-0.22	-0.18	0.5
R	75	L	169260	SR	0.58	0.46	-0.19	-0.21	-0.23	0.46	0.5
R	76	O	214705	SR	0.55	0.31	-0.17	-0.18	0.31	-0.06	0.5
R	77	O	214706	SR	0.39	0.37	-0.10	-0.18	-0.15	0.37	0.6
R	78	O	214707	SR	0.42	0.23	-0.14	0.23	-0.06	-0.08	0.5
R	79	O	214708	SR	0.29	0.21	0.21	-0.04	-0.07	-0.10	0.5
R	80	O	214709	SR	0.36	0.22	-0.09	0.22	-0.16	-0.01	0.6
R	81	O	214710	SR	0.27	0.16	0.16	-0.13	0.00	-0.04	0.6
R	82	O	96281	SR	0.39	0.27	-0.17	-0.07	0.27	-0.14	0.5
R	83	O	96280	SR	0.64	0.40	0.40	-0.21	-0.19	-0.17	0.5
Mean					0.46	0.28	-0.05	-0.02	-0.05	0.04	0.5
SD					0.16	0.09	0.16	0.21	0.18	0.21	0.3

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

Table 1.A4 Item Statistics, Operational Items: MD HSA 2011 Government—October Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
R	1	O	79602	SR	0.60	0.28	-0.09	0.28	-0.21	-0.11	0.1
R	2	O	64962	SR	0.39	0.29	-0.11	-0.17	-0.10	0.29	0.1
R	3	O	51772	SR	0.46	0.33	-0.13	-0.13	-0.18	0.33	0.1
R	4	L	79635	SR	0.31	0.24	0.24	-0.13	0.01	-0.13	0.0
R	5	L	223259	SR	0.26	0.11	-0.02	0.11	-0.05	-0.06	0.1
R	8	L	50912	SR	0.26	0.27	0.27	-0.10	-0.17	0.00	0.1
R	9	O	79560	SR	0.17	0.20	-0.06	-0.04	-0.08	0.20	0.2
R	10	O	108401	SR	0.42	0.14	-0.10	0.14	-0.04	-0.03	0.2
R	11	O	68746	SR	0.28	0.22	0.22	-0.10	-0.09	-0.05	0.3
R	12	L	55554	SR	0.26	0.25	0.25	-0.12	-0.10	-0.04	0.2
R	13	L	214483	SR	0.19	0.14	-0.08	-0.10	0.14	0.02	0.2
R	16	L	79543	SR	0.55	0.32	-0.16	0.32	-0.15	-0.13	0.2
R	17	L	55549	SR	0.32	0.18	0.18	-0.07	-0.13	-0.01	0.2
R	18	L	79610	SR	0.21	0.12	-0.06	-0.10	0.12	0.06	0.2
R	19	L	223257	SR	0.40	0.21	-0.05	-0.09	0.21	-0.11	0.1
R	20	L	55572	SR	0.31	0.19	0.01	0.19	-0.15	-0.07	0.3
R	21	L	137288	SR	0.57	0.30	-0.08	-0.22	0.30	-0.13	0.3
R	24	O	52201	SR	0.39	0.33	0.33	-0.11	-0.19	-0.17	0.3
R	25	O	52265	SR	0.52	0.29	-0.11	0.29	-0.16	-0.12	0.3
R	26	L	79654	SR	0.33	0.04	0.07	0.04	-0.15	0.01	0.4
R	27	L	51059	SR	0.22	0.06	0.06	0.06	-0.13	-0.01	0.4
R	28	L	58098	SR	0.48	0.31	-0.10	-0.16	-0.15	0.31	0.3
R	29	L	214578	SR	0.31	0.28	-0.08	-0.11	-0.11	0.28	0.4
R	32	L	51231	SR	0.68	0.31	-0.20	-0.13	0.31	-0.13	0.4
R	33	O	79739	SR	0.63	0.35	0.35	-0.17	-0.22	-0.12	0.4
R	34	L	132972	SR	0.27	0.16	-0.10	-0.09	0.16	0.03	0.4
R	35	L	79638	SR	0.30	0.17	0.17	-0.12	-0.12	0.04	0.5
R	36	L	79701	SR	0.27	0.25	-0.10	0.25	-0.05	-0.11	0.5
R	37	O	256355	SR	0.42	0.22	-0.07	0.22	-0.12	-0.07	0.2
R	38	O	55658	SR	0.38	0.14	0.14	-0.13	0.02	-0.05	0.3
R	39	O	65187	SR	0.23	0.14	0.05	-0.09	-0.09	0.14	0.3
R	40	L	51235	SR	0.35	0.21	0.02	-0.12	0.21	-0.16	0.3
R	41	O	223261	SR	0.61	0.40	-0.13	-0.25	-0.19	0.40	0.2
R	42	L	68573	SR	0.29	0.19	-0.01	0.19	-0.09	-0.09	0.3
R	45	L	68051	SR	0.39	0.17	-0.01	-0.12	0.17	-0.06	0.3
R	46	L	108430	SR	0.41	0.29	-0.10	0.29	-0.19	-0.06	0.3
R	47	O	55649	SR	0.41	0.29	-0.07	-0.16	0.29	-0.13	0.2
R	48	L	256365	SR	0.18	0.18	-0.06	-0.02	-0.07	0.18	0.3
R	49	L	51045	SR	0.25	0.31	-0.09	-0.08	-0.14	0.31	0.3
R	50	O	68054	SR	0.28	0.19	0.19	-0.12	0.01	-0.08	0.3
R	51	O	68701	SR	0.59	0.32	-0.14	-0.15	-0.16	0.32	0.2
R	54	O	58304	SR	0.33	0.33	-0.12	-0.11	-0.15	0.33	0.4
R	55	L	51721	SR	0.27	0.05	0.01	0.05	-0.02	-0.03	0.3
R	56	L	79679	SR	0.35	0.24	-0.13	-0.09	0.24	-0.04	0.2

Table 1.A4 Item Statistics, Operational Items: MD HSA 2011 Government—October Primary

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
R	57	O	52190	SR	0.36	0.14	-0.03	0.14	-0.05	-0.09	0.3
R	58	L	79737	SR	0.20	0.08	-0.11	0.08	-0.09	0.10	0.3
R	59	L	108350	SR	0.23	0.18	-0.08	-0.07	-0.03	0.18	0.3
R	62	L	137302	SR	0.26	0.14	0.14	0.04	-0.11	-0.06	0.4
R	63	O	65209	SR	0.47	0.37	-0.17	-0.19	-0.12	0.37	0.3
R	64	O	58251	SR	0.26	0.29	-0.11	-0.06	-0.11	0.29	0.3
R	65	L	108479	SR	0.40	0.26	-0.04	-0.13	0.26	-0.15	0.4
R	66	O	60448	SR	0.34	0.31	-0.05	-0.13	-0.16	0.31	0.4
R	70	L	79670	SR	0.24	0.15	0.15	-0.06	-0.08	0.00	0.4
R	71	L	68787	SR	0.37	0.17	0.00	0.17	-0.13	-0.06	0.4
R	72	O	79565	SR	0.46	0.16	-0.07	0.16	-0.07	-0.06	0.5
R	73	L	68726	SR	0.61	0.33	-0.18	0.33	-0.23	-0.06	0.3
R	74	O	68586	SR	0.51	0.34	-0.15	0.34	-0.20	-0.11	0.3
R	75	L	68023	SR	0.22	0.25	0.25	-0.12	-0.06	-0.05	0.3
R	76	L	79703	SR	0.54	0.36	-0.09	-0.18	-0.21	0.36	0.3
R	77	L	67996	SR	0.37	0.26	-0.04	-0.19	0.26	-0.06	0.3
R	78	O	52192	SR	0.54	0.40	-0.20	-0.21	0.40	-0.13	0.3
R	81	L	214481	SR	0.26	0.21	-0.14	0.21	-0.13	0.03	0.4
R	82	O	50925	SR	0.30	0.10	0.10	0.03	-0.14	-0.02	0.3
R	83	O	256414	SR	0.55	0.39	-0.14	-0.21	-0.18	0.39	0.3
R	84	L	215809	SR	0.16	0.08	0.06	0.08	-0.02	-0.13	0.3
R	85	O	137280	SR	0.37	0.24	-0.07	0.24	-0.11	-0.09	0.5
R	86	L	214580	SR	0.36	0.23	-0.03	-0.14	0.23	-0.09	0.4
R	89	O	79642	SR	0.23	0.05	-0.14	-0.13	0.15	0.05	0.3
R	90	L	79634	SR	0.25	0.12	-0.10	-0.17	0.12	0.11	0.5
R	91	L	64952	SR	0.32	0.05	-0.09	0.05	-0.12	0.10	0.3
R	92	L	52248	SR	0.38	0.13	-0.08	-0.08	0.13	0.00	0.3
R	93	L	214509	SR	0.27	0.25	0.25	-0.08	-0.08	-0.10	0.5
R	94	L	108444	SR	0.51	0.33	-0.15	0.33	-0.18	-0.11	0.4
R	97	O	256398	SR	0.72	0.37	-0.19	-0.20	0.37	-0.16	0.3
R	98	L	79746	SR	0.27	0.31	-0.07	-0.09	-0.15	0.31	0.4
R	99	L	65174	SR	0.18	0.10	0.10	0.13	-0.16	-0.10	0.4
R	100	L	256346	SR	0.27	0.12	-0.01	-0.11	0.00	0.12	0.5
R	101	L	108441	SR	0.52	0.37	0.37	-0.20	-0.18	-0.13	0.4
R	102	O	256404	SR	0.47	0.23	-0.13	-0.15	0.23	-0.02	0.4
R	105	L	132967	SR	0.30	0.27	-0.09	-0.13	-0.07	0.27	0.5
R	106	O	108342	SR	0.28	0.20	0.20	-0.08	-0.13	0.01	0.5
R	107	O	256344	SR	0.57	0.37	-0.16	-0.19	-0.15	0.37	0.5
Mean					0.37	0.23	-0.02	-0.03	-0.04	0.03	0.3
SD					0.13	0.10	0.14	0.16	0.16	0.17	0.1

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

Table 1.A5 Item Statistics, Operational Items: MD HSA 2011 Algebra—January Primary

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A-B	1	L	282372	SR	0.67	0.26	0.26	-0.24	-0.06	-0.06	0.1
A-B	2	L	263285	SR	0.64	0.42	-0.18	-0.21	-0.21	0.42	0.2
A-B	3	O	54732	SR	0.50	0.41	-0.22	0.41	-0.19	-0.14	0.1
A-B	5	O	56428	SR	0.36	0.46	0.46	-0.10	-0.17	-0.26	0.1
A-B	6	L	263309	SPR	0.20	0.42	0.42	-0.30			6.8
A-B	8	L	56633	SR	0.42	0.31	0.31	-0.17	-0.13	-0.10	0.4
A-B	9	O	56598	SR	0.41	0.25	-0.16	0.25	-0.10	-0.09	0.2
A-B	10	L	79011	SR	0.32	0.16	0.16	0.03	-0.14	-0.09	0.4
A-B	11	O	79107	SR	0.38	0.21	-0.04	-0.12	0.21	-0.10	0.7
A-B	12	O	282348	SR	0.18	0.12	0.09	-0.09	-0.14	0.12	0.7
A-B	14	L	43157	SR	0.34	0.30	-0.16	-0.02	-0.16	0.30	0.2
A-B	15	O	67532	SR	0.37	0.19	-0.06	-0.13	0.19	-0.03	0.3
A-B	16	O	79531	SR	0.39	0.26	0.26	-0.15	-0.13	-0.03	0.6
A-B	18	L	268822	SR	0.52	0.46	-0.29	-0.16	0.46	-0.14	0.6
A-B	19	L	275447	SPR	0.61	0.37	0.37	-0.32			3.9
A-B	20	L	275452	SPR	0.57	0.41	0.41	-0.36			3.5
A-B	21	O	56756	SR	0.56	0.37	0.37	-0.12	-0.19	-0.20	0.7
A-B	23	O	268732	SR	0.37	0.37	-0.13	-0.25	0.37	-0.05	0.8
A-B	24	L	260756	SR	0.76	0.32	-0.23	0.32	-0.14	-0.09	0.4
A-B	25	L	282351	SR	0.29	0.19	-0.14	0.19	-0.18	0.08	0.6
A-B	27	L	67538	SR	0.28	0.21	-0.09	-0.03	0.21	-0.14	0.3
A-B	29	L	282359	SPR	0.47	0.44	0.44	-0.38			2.8
A-B	30	L	106612	SPR	0.49	0.52	0.52	-0.46			3.1
A-B	31	O	51501	SR	0.69	0.35	-0.19	-0.17	0.35	-0.16	0.3
A-B	33	L	67544	SR	0.39	0.52	-0.20	-0.17	-0.24	0.52	0.4
A-B	34	O	56785	SR	0.18	0.31	-0.11	-0.11	-0.05	0.31	0.8
A-B	36	L	67463	SR	0.29	0.21	-0.13	-0.04	0.21	-0.14	0.4
A-B	37	L	275450	SR	0.30	0.55	-0.27	-0.22	-0.10	0.55	0.4
A-B	38	L	106542	SR	0.50	0.39	0.39	-0.19	-0.20	-0.11	0.6
A-B	39	O	51412	SR	0.48	0.32	-0.16	0.32	-0.22	-0.07	0.6
A-B	40	L	56694	SR	0.52	0.36	-0.16	-0.17	0.36	-0.13	0.6
A-B	41	L	282330	SPR	0.37	0.50	0.50	-0.42			5.0
A-B	42	O	67421	SPR	0.60	0.46	0.46	-0.39			3.4
A-B	45	O	268690	SR	0.19	0.22	0.22	-0.12	-0.12	0.08	0.7
A-B	46	L	263292	SR	0.29	0.11	0.06	0.11	-0.11	-0.10	0.8
A-B	47	O	79029	SR	0.85	0.28	-0.19	-0.16	0.28	-0.07	0.3
A-B	48	L	52331	SR	0.49	0.29	-0.15	0.29	-0.19	-0.05	0.5
A-B	49	L	56583	SR	0.37	0.29	-0.13	0.29	-0.07	-0.15	0.4
A-B	50	L	43154	SR	0.11	0.15	-0.04	-0.15	0.07	0.15	0.5
A-B	52	L	268724	SR	0.28	0.16	-0.13	0.03	0.16	-0.11	0.5
A-B	53	L	257147	SR	0.29	0.10	-0.14	-0.06	0.07	0.10	0.6
A-B	54	L	43186	SR	0.50	0.23	0.02	0.23	-0.23	-0.09	0.6
A-B	56	O	268669	SPR	0.65	0.44	0.44	-0.38			3.6

Table 1.A5 Item Statistics, Operational Items: MD HSA 2011 Algebra—January Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A-B	57	L	263283	SPR	0.08	0.35	0.35	-0.19			4.2
A-B	58	O	51525	SR	0.39	0.19	-0.15	-0.05	0.19	0.00	0.7
A-B	60	L	282366	SR	0.27	0.38	-0.15	-0.10	-0.16	0.38	0.6
A-B	61	O	51450	SR	0.40	0.26	-0.03	-0.19	0.26	-0.13	0.5
A-B	63	O	64700	SR	0.71	0.38	-0.15	-0.19	-0.21	0.38	0.5
A-B	65	L	268767	SPR	0.61	0.40	0.40	-0.34			5.3
A-B	66	O	54890	SR	0.48	0.27	-0.14	0.27	-0.22	0.03	0.5
A-B	67	L	282310	SR	0.24	0.18	0.18	-0.03	-0.14	0.00	0.6
A-B	68	L	260758	SR	0.36	0.23	-0.15	-0.14	0.23	0.01	0.7
A-B	69	O	54906	SR	0.55	0.39	-0.17	0.39	-0.19	-0.15	0.7
Mean					0.43	0.31	0.05	-0.08	-0.02	0.01	1.2
SD					0.17	0.12	0.26	0.22	0.21	0.20	1.5

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

Table 1.A6 Item Statistics, Operational Items: MD HSA 2011 Algebra—January Makeup

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	1	L	282372	SR	0.67	0.26	0.26	-0.24	-0.06	-0.06	0.1
C	2	L	263285	SR	0.64	0.42	-0.18	-0.21	-0.21	0.42	0.2
C	3	O	67490	SR	0.26	0.27	0.27	-0.05	-0.10	-0.14	0.2
C	5	O	79145	SR	0.35	0.34	-0.21	-0.22	0.07	0.34	0.3
C	6	L	263309	SPR	0.20	0.42	0.42	-0.30			6.8
C	8	L	56633	SR	0.42	0.31	0.31	-0.17	-0.13	-0.10	0.4
C	9	O	54849	SR	0.40	0.37	-0.14	0.37	-0.15	-0.16	0.6
C	10	L	79011	SR	0.32	0.16	0.16	0.03	-0.14	-0.09	0.4
C	11	O	54766	SR	0.58	0.46	-0.25	-0.22	0.46	-0.19	0.3
C	12	O	106657	SR	0.30	0.19	-0.11	-0.09	0.19	0.02	0.4
C	14	L	43157	SR	0.34	0.30	-0.16	-0.02	-0.16	0.30	0.2
C	15	O	260760	SR	0.41	0.35	-0.12	-0.18	0.35	-0.10	0.6
C	16	O	67522	SR	0.38	0.18	-0.04	0.18	-0.15	0.00	0.5
C	18	L	268822	SR	0.52	0.46	-0.29	-0.16	0.46	-0.14	0.6
C	19	L	275447	SPR	0.61	0.37	0.37	-0.32			3.9
C	20	L	275452	SPR	0.57	0.41	0.41	-0.36			3.5
C	21	O	106621	SR	0.48	0.36	0.36	-0.20	-0.15	-0.11	0.9
C	23	O	51503	SR	0.45	0.41	-0.25	0.41	-0.07	-0.17	1.4
C	24	L	260756	SR	0.76	0.32	-0.23	0.32	-0.14	-0.09	0.4
C	25	L	282351	SR	0.29	0.19	-0.14	0.19	-0.18	0.08	0.6
C	27	L	67538	SR	0.28	0.21	-0.09	-0.03	0.21	-0.14	0.3

Table 1.A6 Item Statistics, Operational Items: MD HSA 2011 Algebra—January Makeup

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	29	L	282359	SPR	0.47	0.44	0.44	-0.38			2.8
C	30	L	106612	SPR	0.49	0.52	0.52	-0.46			3.1
C	31	O	54745	SR	0.52	0.26	-0.02	-0.22	-0.09	0.26	0.5
C	33	L	67544	SR	0.39	0.52	-0.20	-0.17	-0.24	0.52	0.4
C	34	O	54705	SR	0.65	0.41	-0.20	-0.21	0.41	-0.18	0.6
C	36	L	67463	SR	0.29	0.21	-0.13	-0.04	0.21	-0.14	0.4
C	37	L	275450	SR	0.30	0.55	-0.27	-0.22	-0.10	0.55	0.4
C	38	L	106542	SR	0.50	0.39	0.39	-0.19	-0.20	-0.11	0.6
C	39	O	54815	SR	0.58	0.32	0.32	-0.19	-0.16	-0.13	0.6
C	40	L	56694	SR	0.52	0.36	-0.16	-0.17	0.36	-0.13	0.6
C	41	L	282330	SPR	0.37	0.50	0.50	-0.42			5.0
C	42	O	106635	SPR	0.21	0.39	0.39	-0.29			3.7
C	45	O	56552	SR	0.55	0.32	0.32	-0.14	-0.18	-0.08	1.0
C	46	L	263292	SR	0.29	0.11	0.06	0.11	-0.11	-0.10	0.8
C	47	O	50443	SR	0.42	0.26	-0.12	-0.17	0.26	-0.02	0.8
C	48	L	52331	SR	0.49	0.29	-0.15	0.29	-0.19	-0.05	0.5
C	49	L	56583	SR	0.37	0.29	-0.13	0.29	-0.07	-0.15	0.4
C	50	L	43154	SR	0.11	0.15	-0.04	-0.15	0.07	0.15	0.5
C	52	L	268724	SR	0.28	0.16	-0.13	0.03	0.16	-0.11	0.5
C	53	L	257147	SR	0.29	0.10	-0.14	-0.06	0.07	0.10	0.6
C	54	L	43186	SR	0.50	0.23	0.02	0.23	-0.23	-0.09	0.6
C	56	O	263281	SPR	0.72	0.41	0.41	-0.36			2.6
C	57	L	263283	SPR	0.08	0.35	0.35	-0.19			4.2
C	58	O	67483	SR	0.24	0.15	0.15	-0.06	-0.09	0.04	0.7
C	60	L	282366	SR	0.27	0.38	-0.15	-0.10	-0.16	0.38	0.6
C	61	O	56823	SR	0.54	0.36	-0.16	0.36	-0.22	-0.11	0.6
C	63	O	51368	SR	0.26	0.12	0.12	-0.04	-0.03	-0.01	1.0
C	65	L	268767	SPR	0.61	0.40	0.40	-0.34			5.3
C	66	O	54721	SR	0.23	0.04	-0.06	0.01	0.04	0.05	0.9
C	67	L	282310	SR	0.24	0.18	0.18	-0.03	-0.14	0.00	0.6
C	68	L	260758	SR	0.36	0.23	-0.15	-0.14	0.23	0.01	0.7
C	69	O	56724	SR	0.33	0.25	0.08	0.25	-0.18	-0.19	0.8
Mean					0.41	0.31	0.05	-0.08	-0.01	0.00	1.2
SD					0.16	0.12	0.25	0.22	0.21	0.20	1.5

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

Table 1.A7 Item Statistics, Operational Items: MD HSA 2011 Biology—January Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A-B	1	O	133458	SR	0.53	0.50	-0.19	-0.24	-0.29	0.50	0.0
A-B	2	L	57003	SR	0.24	0.35	0.35	-0.17	0.07	-0.23	0.1
A-B	4	L	53708	SR	0.53	0.44	-0.16	-0.25	-0.22	0.44	0.1
A-B	5	L	53709	SR	0.34	0.44	-0.16	0.44	-0.19	-0.17	0.1
A-B	6	O	52735	SR	0.36	0.40	-0.21	-0.20	-0.06	0.40	0.1
A-B	7	O	52598	SR	0.45	0.38	-0.05	-0.27	-0.21	0.38	0.1
A-B	8	L	133027	SR	0.44	0.39	-0.17	0.39	-0.10	-0.23	0.1
A-B	9	L	133026	SR	0.49	0.41	-0.24	0.41	-0.24	-0.06	0.1
A-B	11	O	52423	SR	0.57	0.36	-0.20	-0.17	-0.20	0.36	0.1
A-B	12	L	55170	SR	0.66	0.41	-0.21	-0.24	0.41	-0.18	0.1
A-B	13	L	270991	SR	0.57	0.38	-0.14	-0.18	-0.22	0.38	0.1
A-B	14	L	270992	SR	0.59	0.42	-0.27	-0.16	-0.16	0.42	0.1
A-B	17	L	271088	SR	0.27	0.33	-0.19	0.33	-0.14	-0.04	0.2
A-B	18	L	271089	SR	0.47	0.47	0.47	-0.25	-0.18	-0.19	0.1
A-B	19	L	271124	SR	0.38	0.52	-0.07	-0.29	-0.28	0.52	0.1
A-B	20	L	68121	SR	0.58	0.38	0.38	-0.13	-0.23	-0.20	0.1
A-B	22	L	263167	SR	0.40	0.49	-0.19	-0.21	0.49	-0.24	0.2
A-B	23	L	263179	SR	0.49	0.55	-0.22	-0.27	-0.25	0.55	0.2
A-B	24	O	57173	SR	0.37	0.41	-0.20	-0.08	-0.23	0.41	0.2
A-B	25	L	297527	SR	0.78	0.34	-0.15	-0.19	0.34	-0.21	0.1
A-B	26	O	65064	SR	0.38	0.47	0.47	-0.33	-0.10	-0.10	0.2
A-B	30	O	79514	SR	0.44	0.31	-0.14	-0.23	0.31	-0.01	0.4
A-B	31	O	279586	SR	0.38	0.41	-0.16	-0.18	-0.17	0.41	0.4
A-B	32	L	133461	SR	0.66	0.33	0.33	-0.21	-0.17	-0.14	0.4
A-B	33	L	133462	SR	0.57	0.46	0.46	-0.23	-0.21	-0.21	0.4
A-B	34	O	52466	SR	0.71	0.52	-0.18	-0.27	-0.33	0.52	0.3
A-B	36	O	52551	SR	0.36	0.35	0.35	-0.29	0.03	-0.21	0.2
A-B	37	L	108499	SR	0.34	0.44	0.44	-0.29	-0.23	-0.02	0.2
A-B	38	O	108501	SR	0.55	0.47	-0.22	-0.28	0.47	-0.19	0.2
A-B	39	O	55056	SR	0.52	0.45	0.45	-0.28	-0.15	-0.18	0.3
A-B	40	O	52637	SR	0.35	0.45	-0.06	-0.22	-0.29	0.45	0.2
A-B	41	L	279621	SR	0.43	0.36	-0.10	0.36	-0.17	-0.18	0.2
A-B	42	L	279625	SR	0.58	0.38	-0.16	-0.17	0.38	-0.20	0.2
A-B	44	O	79474	SR	0.28	0.60	0.60	-0.20	-0.31	-0.15	0.3
A-B	45	L	136154	SR	0.67	0.44	0.44	-0.23	-0.26	-0.17	0.2
A-B	46	O	136157	SR	0.77	0.29	-0.17	0.29	-0.13	-0.16	0.2
A-B	47	L	56957	SR	0.32	0.47	-0.09	0.47	-0.30	-0.16	0.3
A-B	48	L	79441	SR	0.41	0.39	-0.23	0.39	-0.12	-0.14	0.3
A-B	49	O	279607	SR	0.58	0.49	-0.22	-0.28	-0.18	0.49	0.3
A-B	50	L	279603	SR	0.55	0.50	-0.15	-0.28	-0.27	0.50	0.3
A-B	52	O	52640	SR	0.57	0.45	-0.11	-0.25	0.45	-0.26	0.3
A-B	53	L	133484	SR	0.39	0.43	-0.20	-0.26	0.43	-0.08	0.2
A-B	54	L	133450	SR	0.55	0.44	0.44	-0.24	-0.19	-0.19	0.3
A-B	55	L	271104	SR	0.45	0.55	-0.18	-0.25	-0.27	0.55	0.2

153

Table 1.A7 Item Statistics, Operational Items: MD HSA 2011 Biology—January Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A-B	56	L	297095	SR	0.46	0.30	-0.21	0.30	-0.25	0.07	0.2
A-B	57	O	215938	SR	0.47	0.51	0.51	-0.23	-0.31	-0.09	0.3
A-B	58	L	215939	SR	0.54	0.40	-0.18	-0.23	0.40	-0.15	0.3
A-B	59	O	53446	SR	0.39	0.38	0.38	-0.25	-0.05	-0.19	0.3
A-B	60	L	55151	SR	0.49	0.41	-0.16	-0.20	0.41	-0.19	0.2
A-B	65	L	271150	SR	0.53	0.53	0.53	-0.27	-0.33	-0.13	0.4
A-B	66	L	271149	SR	0.43	0.36	-0.09	-0.15	-0.20	0.36	0.4
A-B	67	O	64728	SR	0.57	0.56	0.56	-0.32	-0.21	-0.26	0.4
A-B	68	O	64702	SR	0.45	0.48	0.48	-0.22	-0.21	-0.17	0.4
A-B	69	O	55212	SR	0.44	0.34	-0.19	-0.17	0.34	-0.05	0.8
A-B	70	L	55213	SR	0.32	0.30	-0.22	0.30	0.02	-0.22	0.5
A-B	72	O	279649	SR	0.66	0.25	-0.02	0.25	-0.24	-0.19	0.5
A-B	73	O	282425	SR	0.31	0.43	-0.06	0.43	-0.26	-0.16	0.5
A-B	74	L	108644	SR	0.63	0.48	0.48	-0.22	-0.24	-0.24	0.4
A-B	75	L	108672	SR	0.47	0.49	-0.21	-0.15	-0.27	0.49	0.4
A-B	76	O	271058	SR	0.20	0.13	-0.27	0.29	-0.24	0.13	0.5
A-B	77	L	65076	SR	0.59	0.48	-0.19	0.48	-0.29	-0.20	0.4
A-B	78	L	108542	SR	0.74	0.42	0.42	-0.25	-0.25	-0.14	0.4
A-B	79	L	55221	SR	0.54	0.55	-0.17	0.55	-0.25	-0.33	0.4
A-B	80	O	55222	SR	0.57	0.49	-0.19	-0.29	0.49	-0.22	0.5
A-B	83	O	65089	SR	0.36	0.30	-0.09	0.30	-0.09	-0.15	0.6
A-B	84	L	263129	SR	0.57	0.50	-0.20	-0.23	-0.25	0.50	0.4
A-B	85	L	263130	SR	0.36	0.31	-0.05	0.31	-0.12	-0.18	0.5
A-B	86	O	279638	SR	0.36	0.40	-0.04	-0.24	-0.22	0.40	0.5
A-B	90	L	279570	SR	0.61	0.37	0.37	-0.24	-0.17	-0.12	0.5
A-B	91	L	279572	SR	0.27	0.41	-0.14	-0.26	0.41	-0.04	0.4
A-B	92	O	64748	SR	0.48	0.53	0.53	-0.20	-0.28	-0.19	0.5
A-B	93	L	57185	SR	0.40	0.43	0.43	-0.26	-0.26	-0.03	0.4
A-B	94	L	52477	SR	0.72	0.29	0.29	-0.08	-0.22	-0.14	0.4
A-B	95	L	279541	SR	0.39	0.24	-0.10	-0.05	0.24	-0.18	0.5
A-B	96	L	279545	SR	0.37	0.51	0.51	-0.08	-0.30	-0.22	0.5
A-B	99	O	288200	SR	0.42	0.37	-0.16	-0.10	0.37	-0.19	0.6
Mean					0.48	0.42	0.03	-0.09	-0.09	0.00	0.3
SD					0.13	0.09	0.29	0.26	0.25	0.28	0.2

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

Table 1.A8 Item Statistics, Operational Items: MD HSA 2011 Biology—January Makeup

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	1	O	52485	SR	0.67	0.37	-0.18	-0.20	-0.17	0.37	0.1
C	2	L	57003	SR	0.24	0.35	0.35	-0.17	0.07	-0.23	0.1
C	4	L	53708	SR	0.53	0.44	-0.16	-0.25	-0.22	0.44	0.1
C	5	L	53709	SR	0.34	0.44	-0.16	0.44	-0.19	-0.17	0.1
C	6	O	271115	SR	0.49	0.30	-0.10	-0.18	0.30	-0.17	0.1
C	7	O	55253	SR	0.36	0.45	0.45	-0.20	-0.23	-0.09	0.1
C	8	L	133027	SR	0.44	0.39	-0.17	0.39	-0.10	-0.23	0.1
C	9	L	133026	SR	0.49	0.41	-0.24	0.41	-0.24	-0.06	0.1
C	11	O	52730	SR	0.18	0.13	0.16	-0.05	0.13	-0.24	0.1
C	12	L	55170	SR	0.66	0.41	-0.21	-0.24	0.41	-0.18	0.1
C	13	L	270991	SR	0.57	0.38	-0.14	-0.18	-0.22	0.38	0.1
C	14	L	270992	SR	0.59	0.42	-0.27	-0.16	-0.16	0.42	0.1
C	17	L	271088	SR	0.27	0.33	-0.19	0.33	-0.14	-0.04	0.2
C	18	L	271089	SR	0.47	0.47	0.47	-0.25	-0.18	-0.19	0.1
C	19	L	271124	SR	0.38	0.52	-0.07	-0.29	-0.28	0.52	0.1
C	20	L	68121	SR	0.58	0.38	0.38	-0.13	-0.23	-0.20	0.1
C	22	L	263167	SR	0.40	0.49	-0.19	-0.21	0.49	-0.24	0.2
C	23	L	263179	SR	0.49	0.55	-0.22	-0.27	-0.25	0.55	0.2
C	24	O	133041	SR	0.33	0.37	-0.12	-0.17	-0.13	0.37	0.2
C	25	L	297527	SR	0.78	0.34	-0.15	-0.19	0.34	-0.21	0.1
C	26	O	108516	SR	0.34	0.25	-0.09	0.25	-0.17	-0.02	0.1
C	30	O	52742	SR	0.38	0.40	-0.12	-0.12	0.40	-0.24	0.2
C	31	O	68236	SR	0.37	0.44	-0.19	-0.15	-0.19	0.44	0.4
C	32	L	133461	SR	0.66	0.33	0.33	-0.21	-0.17	-0.14	0.4
C	33	L	133462	SR	0.57	0.46	0.46	-0.23	-0.21	-0.21	0.4
C	34	O	133055	SR	0.55	0.45	0.45	-0.28	-0.20	-0.16	0.1
C	36	O	279653	SR	0.53	0.29	-0.11	-0.23	0.29	-0.02	0.2
C	37	L	108499	SR	0.34	0.44	0.44	-0.29	-0.23	-0.02	0.2
C	38	O	108495	SR	0.78	0.37	-0.18	0.37	-0.24	-0.17	0.2
C	39	O	133062	SR	0.37	0.52	-0.16	-0.20	-0.26	0.52	0.0
C	40	O	271105	SR	0.26	0.43	-0.02	-0.18	-0.25	0.43	0.1
C	41	L	279621	SR	0.43	0.36	-0.10	0.36	-0.17	-0.18	0.2
C	42	L	279625	SR	0.58	0.38	-0.16	-0.17	0.38	-0.20	0.2
C	44	O	68133	SR	0.71	0.32	-0.18	-0.16	-0.17	0.32	0.0
C	45	L	136154	SR	0.67	0.44	0.44	-0.23	-0.26	-0.17	0.2
C	46	O	136159	SR	0.55	0.38	-0.18	-0.19	-0.17	0.38	0.1
C	47	L	56957	SR	0.32	0.47	-0.09	0.47	-0.30	-0.16	0.3
C	48	L	79441	SR	0.41	0.39	-0.23	0.39	-0.12	-0.14	0.3
C	49	O	279605	SR	0.32	0.36	0.36	-0.21	-0.23	0.04	0.1
C	50	L	279603	SR	0.55	0.50	-0.15	-0.28	-0.27	0.50	0.3
C	52	O	214546	SR	0.27	0.31	-0.04	0.31	-0.19	-0.09	0.1
C	53	L	133484	SR	0.39	0.43	-0.20	-0.26	0.43	-0.08	0.2
C	54	L	133450	SR	0.55	0.44	0.44	-0.24	-0.19	-0.19	0.3
C	55	L	271104	SR	0.45	0.55	-0.18	-0.25	-0.27	0.55	0.2

155

Table 1.A8 Item Statistics, Operational Items: MD HSA 2011 Biology—January Makeup

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	56	L	297095	SR	0.46	0.30	-0.21	0.30	-0.25	0.07	0.2
C	57	O	215940	SR	0.34	0.38	-0.10	-0.14	-0.22	0.38	0.2
C	58	L	215939	SR	0.54	0.40	-0.18	-0.23	0.40	-0.15	0.3
C	59	O	79477	SR	0.26	0.32	0.32	-0.15	-0.08	-0.13	0.2
C	60	L	55151	SR	0.49	0.41	-0.16	-0.20	0.41	-0.19	0.2
C	65	L	271150	SR	0.53	0.53	0.53	-0.27	-0.33	-0.13	0.4
C	66	L	271149	SR	0.43	0.36	-0.09	-0.15	-0.20	0.36	0.4
C	67	O	279657	SR	0.26	0.55	-0.16	-0.23	-0.18	0.55	0.1
C	68	O	52707	SR	0.50	0.40	-0.15	-0.22	0.40	-0.17	0.2
C	69	O	55211	SR	0.59	0.41	-0.19	0.41	-0.23	-0.17	0.2
C	70	L	55213	SR	0.32	0.30	-0.22	0.30	0.02	-0.22	0.5
C	72	O	271029	SR	0.33	0.38	-0.22	-0.07	0.38	-0.13	0.1
C	73	O	68148	SR	0.27	0.32	0.32	-0.07	-0.14	-0.11	0.2
C	74	L	108644	SR	0.63	0.48	0.48	-0.22	-0.24	-0.24	0.4
C	75	L	108672	SR	0.47	0.49	-0.21	-0.15	-0.27	0.49	0.4
C	76	O	79461	SR	0.37	0.30	0.30	-0.04	-0.22	-0.17	0.1
C	77	L	65076	SR	0.59	0.48	-0.19	0.48	-0.29	-0.20	0.4
C	78	L	108542	SR	0.74	0.42	0.42	-0.25	-0.25	-0.14	0.4
C	79	L	55221	SR	0.54	0.55	-0.17	0.55	-0.25	-0.33	0.4
C	80	O	55220	SR	0.53	0.50	0.50	-0.24	-0.27	-0.17	0.2
C	83	O	279611	SR	0.42	0.28	-0.02	-0.17	0.28	-0.16	0.2
C	84	L	263129	SR	0.57	0.50	-0.20	-0.23	-0.25	0.50	0.4
C	85	L	263130	SR	0.36	0.31	-0.05	0.31	-0.12	-0.18	0.5
C	86	O	279639	SR	0.19	0.38	0.00	-0.13	-0.21	0.38	0.2
C	90	L	279570	SR	0.61	0.37	0.37	-0.24	-0.17	-0.12	0.5
C	91	L	279572	SR	0.27	0.41	-0.14	-0.26	0.41	-0.04	0.4
C	92	O	64985	SR	0.40	0.38	0.38	-0.19	-0.12	-0.16	0.2
C	93	L	57185	SR	0.40	0.43	0.43	-0.26	-0.26	-0.03	0.4
C	94	L	52477	SR	0.72	0.29	0.29	-0.08	-0.22	-0.14	0.4
C	95	L	279541	SR	0.39	0.24	-0.10	-0.05	0.24	-0.18	0.5
C	96	L	279545	SR	0.37	0.51	0.51	-0.08	-0.30	-0.22	0.5
C	99	O	279623	SR	0.56	0.40	-0.19	0.40	-0.21	-0.17	0.3
Mean					0.46	0.40	0.02	-0.06	-0.08	0.01	0.2
SD					0.14	0.08	0.27	0.25	0.24	0.27	0.1

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

Table 1.A9 Item Statistics, Operational Items: MD HSA 2011 English—January Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A-B	1	O	108747	SR	0.67	0.44	-0.20	-0.23	-0.24	0.44	0.0
A-B	2	O	108749	SR	0.35	0.16	0.03	0.16	-0.09	-0.20	0.1
A-B	3	O	108750	SR	0.54	0.49	0.49	-0.26	-0.25	-0.18	0.1
A-B	4	O	108748	SR	0.64	0.39	-0.16	0.39	-0.25	-0.19	0.0
A-B	5	O	108751	SR	0.35	0.31	-0.02	-0.19	-0.17	0.31	0.1
A-B	6	L	108850	SR	0.57	0.36	-0.21	-0.24	0.36	-0.07	0.1
A-B	7	L	108851	SR	0.62	0.34	-0.19	0.34	-0.20	-0.13	0.1
A-B	8	L	108853	SR	0.39	0.30	-0.08	0.30	-0.12	-0.16	0.2
A-B	9	L	108854	SR	0.67	0.26	-0.16	-0.22	0.26	-0.06	0.1
A-B	13	L	281334	SR	0.27	0.14	-0.15	0.07	0.14	-0.14	0.2
A-B	14	L	281335	SR	0.47	0.32	-0.16	0.32	-0.14	-0.13	0.2
A-B	15	L	281338	SR	0.62	0.37	-0.14	-0.17	-0.23	0.37	0.1
A-B	16	L	281339	SR	0.42	0.29	0.29	-0.12	-0.22	-0.08	0.2
A-B	17	L	281337	SR	0.36	0.37	0.37	-0.23	-0.20	-0.04	0.3
A-B	18	L	281336	SR	0.32	0.20	-0.06	0.20	0.00	-0.18	0.3
A-B	19	L	281341	SR	0.48	0.53	-0.27	-0.19	-0.24	0.53	0.3
A-B	20	L	281343	SR	0.70	0.25	-0.13	0.25	-0.14	-0.13	0.2
A-B	21	L	251149	SR	0.40	0.43	-0.07	0.43	-0.22	-0.22	0.3
A-B	22	L	256297	SR	0.61	0.31	-0.21	0.31	-0.20	-0.07	0.3
A-B	24	O	272875	SR	0.56	0.37	0.37	-0.16	-0.25	-0.13	0.4
A-B	27	L	96282	SR	0.35	0.41	-0.20	0.41	-0.19	-0.12	0.4
A-B	28	L	96283	SR	0.65	0.45	0.45	-0.22	-0.24	-0.21	0.4
A-B	29	L	96284	SR	0.43	0.36	-0.23	0.36	-0.15	-0.09	0.6
A-B	30	L	96285	SR	0.71	0.23	-0.13	0.23	-0.07	-0.16	0.6
A-B	31	L	96287	SR	0.55	0.25	-0.06	-0.21	0.25	-0.06	0.7
A-B	32	L	96286	SR	0.71	0.45	-0.23	-0.23	0.45	-0.21	0.7
A-B	33	O	209819	SR	0.55	0.36	-0.17	-0.20	0.36	-0.17	0.2
A-B	34	L	130291	SR	0.46	0.28	-0.17	0.28	-0.14	-0.05	0.2
A-B	35	O	318478	SR	0.52	0.40	-0.10	-0.18	-0.26	0.40	0.2
A-B	41	O	281764	SR	0.65	0.27	-0.16	-0.11	0.27	-0.15	0.2
A-B	42	O	281762	SR	0.47	0.40	0.40	-0.22	-0.16	-0.14	0.2
A-B	43	O	281763	SR	0.75	0.46	-0.23	-0.23	-0.26	0.46	0.2
A-B	44	O	218606	SR	0.36	0.24	-0.10	-0.25	0.24	0.05	0.5
A-B	45	O	218608	SR	0.58	0.46	-0.21	0.46	-0.22	-0.22	0.3
A-B	46	O	218607	SR	0.38	0.50	-0.20	-0.19	-0.21	0.50	0.4
A-B	47	O	218609	SR	0.70	0.42	0.42	-0.18	-0.23	-0.22	0.2
A-B	48	O	218611	SR	0.61	0.47	-0.17	-0.25	-0.25	0.47	0.3
A-B	49	O	218614	SR	0.60	0.42	0.42	-0.26	-0.31	-0.05	0.3
A-B	50	O	218613	SR	0.60	0.26	-0.08	0.26	-0.29	-0.02	0.3
A-B	68	L	130030	SR	0.90	0.33	-0.17	-0.20	0.33	-0.16	0.3
A-B	69	L	130031	SR	0.70	0.40	-0.25	-0.16	-0.22	0.40	0.3
A-B	78	O	285438	SR	0.56	0.51	0.51	-0.27	-0.26	-0.17	0.4
A-B	79	O	285433	SR	0.59	0.42	-0.23	0.42	-0.26	-0.12	0.4
A-B	80	O	285437	SR	0.64	0.46	-0.21	-0.26	0.46	-0.21	0.4

157

Table 1.A9 Item Statistics, Operational Items: MD HSA 2011 English—January Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A-B	81	O	285439	SR	0.52	0.46	-0.20	0.46	-0.23	-0.20	0.4
A-B	82	O	285434	SR	0.77	0.44	-0.19	-0.27	0.44	-0.21	0.4
A-B	83	O	285436	SR	0.69	0.47	-0.24	-0.23	-0.23	0.47	0.4
A-B	84	L	261671	SR	0.45	0.31	-0.24	-0.08	0.31	-0.08	0.5
A-B	85	L	261672	SR	0.74	0.41	-0.19	-0.17	-0.28	0.41	0.4
A-B	86	L	261673	SR	0.33	0.41	0.41	-0.19	-0.10	-0.20	0.5
A-B	87	L	261675	SR	0.42	0.33	-0.24	0.33	-0.11	-0.09	0.4
A-B	88	L	288687	SR	0.58	0.44	-0.15	-0.27	0.44	-0.21	0.5
A-B	89	L	288688	SR	0.50	0.30	-0.20	-0.20	0.00	0.30	0.5
A-B	90	L	288689	SR	0.36	0.44	-0.15	0.44	-0.17	-0.22	0.5
A-B	91	L	288691	SR	0.49	0.42	0.42	-0.20	-0.23	-0.11	0.5
A-B	92	L	261678	SR	0.56	0.35	-0.11	0.35	-0.24	-0.18	0.5
A-B	93	L	261679	SR	0.65	0.50	0.50	-0.25	-0.26	-0.22	0.5
A-B	96	L	256440	SR	0.53	0.48	-0.19	-0.27	0.48	-0.17	0.6
A-B	97	L	256441	SR	0.46	0.52	-0.23	-0.22	-0.25	0.52	0.5
A-B	98	L	256442	SR	0.58	0.38	-0.19	0.38	-0.23	-0.12	0.5
Mean					0.54	0.37	-0.05	-0.01	-0.07	-0.02	0.3
SD					0.13	0.09	0.25	0.27	0.24	0.25	0.2

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

Table 1.A10 Item Statistics, Operational Items: MD HSA 2011 English—January Makeup

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	1	O	96184	SR	0.52	0.40	-0.16	-0.28	0.40	-0.14	0.0
C	2	O	96185	SR	0.43	0.17	-0.04	-0.16	0.17	-0.06	0.0
C	3	O	96182	SR	0.44	0.34	-0.15	-0.16	0.34	-0.12	0.2
C	4	O	96183	SR	0.60	0.25	-0.17	0.25	-0.11	-0.14	0.0
C	5	O	96186	SR	0.70	0.36	0.36	-0.22	-0.18	-0.16	0.1
C	6	L	108850	SR	0.57	0.36	-0.21	-0.24	0.36	-0.07	0.1
C	7	L	108851	SR	0.62	0.34	-0.19	0.34	-0.20	-0.13	0.1
C	8	L	108853	SR	0.39	0.30	-0.08	0.30	-0.12	-0.16	0.2
C	9	L	108854	SR	0.67	0.26	-0.16	-0.22	0.26	-0.06	0.1
C	13	L	281334	SR	0.27	0.14	-0.15	0.07	0.14	-0.14	0.2
C	14	L	281335	SR	0.47	0.32	-0.16	0.32	-0.14	-0.13	0.2
C	15	L	281338	SR	0.62	0.37	-0.14	-0.17	-0.23	0.37	0.1
C	16	L	281339	SR	0.42	0.29	0.29	-0.12	-0.22	-0.08	0.2
C	17	L	281337	SR	0.36	0.37	0.37	-0.23	-0.20	-0.04	0.3
C	18	L	281336	SR	0.32	0.20	-0.06	0.20	0.00	-0.18	0.3

Table 1.A10 Item Statistics, Operational Items: MD HSA 2011 English—January Makeup

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	19	L	281341	SR	0.48	0.53	-0.27	-0.19	-0.24	0.53	0.3
C	20	L	281343	SR	0.70	0.25	-0.13	0.25	-0.14	-0.13	0.2
C	21	L	251149	SR	0.40	0.43	-0.07	0.43	-0.22	-0.22	0.3
C	22	L	256297	SR	0.61	0.31	-0.21	0.31	-0.20	-0.07	0.3
C	24	O	272873	SR	0.75	0.43	-0.21	0.43	-0.26	-0.20	0.2
C	27	L	96282	SR	0.35	0.41	-0.20	0.41	-0.19	-0.12	0.4
C	28	L	96283	SR	0.65	0.45	0.45	-0.22	-0.24	-0.21	0.4
C	29	L	96284	SR	0.43	0.36	-0.23	0.36	-0.15	-0.09	0.6
C	30	L	96285	SR	0.71	0.23	-0.13	0.23	-0.07	-0.16	0.6
C	31	L	96287	SR	0.55	0.25	-0.06	-0.21	0.25	-0.06	0.7
C	32	L	96286	SR	0.71	0.45	-0.23	-0.23	0.45	-0.21	0.7
C	33	O	96328	SR	0.70	0.40	0.40	-0.24	-0.22	-0.12	0.3
C	34	L	130291	SR	0.46	0.28	-0.17	0.28	-0.14	-0.05	0.2
C	35	O	209823	SR	0.83	0.41	-0.17	-0.27	0.41	-0.20	0.2
C	41	O	256268	SR	0.62	0.34	-0.22	0.34	-0.20	-0.12	0.2
C	42	O	256266	SR	0.43	0.41	-0.14	-0.20	-0.19	0.41	0.2
C	43	O	256267	SR	0.66	0.43	-0.22	-0.19	0.43	-0.23	0.1
C	44	O	96272	SR	0.62	0.44	-0.21	-0.26	0.44	-0.18	0.2
C	45	O	96273	SR	0.37	0.39	-0.09	-0.19	-0.17	0.39	0.2
C	46	O	96274	SR	0.71	0.33	-0.19	0.33	-0.23	-0.08	0.2
C	47	O	96275	SR	0.78	0.38	0.38	-0.20	-0.22	-0.17	0.2
C	48	O	96276	SR	0.61	0.43	-0.26	-0.21	0.43	-0.16	0.2
C	49	O	96277	SR	0.74	0.39	-0.22	0.39	-0.20	-0.18	0.2
C	50	O	96278	SR	0.48	0.19	-0.13	0.19	-0.01	-0.12	0.5
C	68	L	130030	SR	0.90	0.33	-0.17	-0.20	0.33	-0.16	0.3
C	69	L	130031	SR	0.70	0.40	-0.25	-0.16	-0.22	0.40	0.3
C	78	O	108752	SR	0.71	0.48	0.48	-0.24	-0.30	-0.17	0.4
C	79	O	108754	SR	0.54	0.37	-0.15	-0.15	0.37	-0.21	0.5
C	80	O	108757	SR	0.41	0.40	-0.20	-0.14	-0.19	0.40	0.4
C	81	O	108756	SR	0.38	0.36	-0.20	0.36	-0.20	-0.01	0.4
C	82	O	108753	SR	0.64	0.38	-0.21	0.38	-0.18	-0.19	0.5
C	83	O	108755	SR	0.46	0.34	-0.10	-0.17	0.34	-0.19	0.4
C	84	L	261671	SR	0.45	0.31	-0.24	-0.08	0.31	-0.08	0.5
C	85	L	261672	SR	0.74	0.41	-0.19	-0.17	-0.28	0.41	0.4
C	86	L	261673	SR	0.33	0.41	0.41	-0.19	-0.10	-0.20	0.5
C	87	L	261675	SR	0.42	0.33	-0.24	0.33	-0.11	-0.09	0.4
C	88	L	288687	SR	0.58	0.44	-0.15	-0.27	0.44	-0.21	0.5
C	89	L	288688	SR	0.50	0.30	-0.20	-0.20	0.00	0.30	0.5
C	90	L	288689	SR	0.36	0.44	-0.15	0.44	-0.17	-0.22	0.5
C	91	L	288691	SR	0.49	0.42	0.42	-0.20	-0.23	-0.11	0.5
C	92	L	261678	SR	0.56	0.35	-0.11	0.35	-0.24	-0.18	0.5
C	93	L	261679	SR	0.65	0.50	0.50	-0.25	-0.26	-0.22	0.5
C	96	L	256440	SR	0.53	0.48	-0.19	-0.27	0.48	-0.17	0.6

Table 1.A10 Item Statistics, Operational Items: MD HSA 2011 English—January Makeup

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	97	L	256441	SR	0.46	0.52	-0.23	-0.22	-0.25	0.52	0.5
C	98	L	256442	SR	0.58	0.38	-0.19	0.38	-0.23	-0.12	0.5
Mean					0.55	0.36	-0.08	0.01	-0.02	-0.06	0.3
SD					0.14	0.08	0.22	0.27	0.26	0.21	0.2

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

Table 1.A11 Item Statistics, Operational Items: MD HSA 2011 Government—January Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A-B	1	L	68093	SR	0.93	0.24	-0.12	0.24	-0.17	-0.11	0.0
A-B	2	L	51210	SR	0.90	0.30	0.30	-0.13	-0.22	-0.14	0.0
A-B	3	O	279841	SR	0.53	0.52	-0.16	-0.26	-0.28	0.52	0.1
A-B	4	L	256377	SR	0.36	0.30	-0.05	0.30	-0.12	-0.19	0.1
A-B	5	O	263983	SR	0.54	0.30	0.30	-0.22	-0.12	-0.06	0.1
A-B	6	O	51766	SR	0.44	0.35	-0.09	-0.22	0.35	-0.13	0.1
A-B	10	L	68489	SR	0.69	0.42	0.42	-0.14	-0.27	-0.22	0.1
A-B	11	L	79752	SR	0.24	0.16	0.16	-0.13	-0.09	0.07	0.2
A-B	12	O	79574	SR	0.56	0.33	-0.16	-0.16	0.33	-0.14	0.1
A-B	13	L	60463	SR	0.27	0.23	0.10	-0.22	0.23	-0.23	0.2
A-B	14	O	68619	SR	0.42	0.33	-0.13	-0.18	0.33	-0.16	0.1
A-B	15	O	79692	SR	0.38	0.44	0.44	-0.27	-0.13	-0.16	0.1
A-B	16	L	79636	SR	0.74	0.35	-0.18	0.35	-0.18	-0.17	0.1
A-B	17	O	79591	SR	0.41	0.42	0.01	-0.15	0.42	-0.33	0.1
A-B	21	L	256386	SR	0.74	0.41	0.41	-0.23	-0.25	-0.17	0.2
A-B	22	L	55703	SR	0.38	0.22	-0.08	0.22	-0.13	-0.06	0.2
A-B	23	O	108355	SR	0.67	0.51	0.51	-0.30	-0.26	-0.21	0.2
A-B	24	L	52288	SR	0.62	0.54	0.54	-0.28	-0.32	-0.17	0.2
A-B	25	L	302857	SR	0.30	0.31	-0.14	-0.01	-0.20	0.31	0.2
A-B	26	L	296512	SR	0.45	0.48	-0.16	-0.21	0.48	-0.27	0.2
A-B	27	L	296513	SR	0.30	0.21	0.21	-0.05	-0.10	-0.06	0.2
A-B	28	L	279837	SR	0.38	0.13	-0.22	0.14	0.13	-0.11	0.3
A-B	29	L	279812	SR	0.15	0.12	-0.01	-0.06	0.12	-0.02	0.3
A-B	30	O	68754	SR	0.56	0.49	-0.22	-0.22	-0.25	0.49	0.3
A-B	31	O	214491	SR	0.63	0.46	-0.25	0.46	-0.26	-0.16	0.3
A-B	32	L	68694	SR	0.28	0.49	0.49	-0.21	-0.27	-0.08	0.3
A-B	33	O	68753	SR	0.66	0.39	0.39	-0.15	-0.26	-0.20	0.5
A-B	36	L	55558	SR	0.76	0.40	-0.18	0.40	-0.25	-0.19	0.4
A-B	37	L	296502	SR	0.56	0.54	-0.28	-0.28	-0.20	0.54	0.2
A-B	38	L	296503	SR	0.75	0.49	0.49	-0.27	-0.28	-0.20	0.2

Table 1.A11 Item Statistics, Operational Items: MD HSA 2011 Government—January Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A-B	42	L	51168	SR	0.61	0.52	-0.20	-0.28	-0.27	0.52	0.2
A-B	43	L	55718	SR	0.29	0.37	0.37	-0.23	-0.11	-0.04	0.2
A-B	44	O	302867	SR	0.55	0.28	-0.24	-0.10	0.28	-0.04	0.2
A-B	45	O	79628	SR	0.67	0.48	-0.21	-0.29	0.48	-0.21	0.2
A-B	46	L	257168	SR	0.45	0.37	-0.06	-0.30	0.37	-0.09	0.2
A-B	47	L	51152	SR	0.77	0.44	-0.22	-0.26	-0.22	0.44	0.2
A-B	48	O	53648	SR	0.44	0.42	0.42	-0.20	-0.16	-0.18	0.2
A-B	49	O	55531	SR	0.38	0.27	0.27	-0.17	-0.14	-0.03	0.2
A-B	50	O	65173	SR	0.79	0.46	-0.27	-0.24	0.46	-0.20	0.2
A-B	51	O	51798	SR	0.49	0.39	-0.19	0.39	-0.25	-0.15	0.2
A-B	55	L	271833	SR	0.24	0.17	-0.33	0.17	0.10	0.09	0.2
A-B	56	O	257157	SR	0.33	0.29	-0.16	0.29	-0.15	-0.01	0.2
A-B	57	O	58407	SR	0.58	0.33	-0.13	0.33	-0.19	-0.16	0.2
A-B	58	L	271842	SR	0.49	0.38	-0.08	-0.17	-0.24	0.38	0.2
A-B	59	L	108456	SR	0.50	0.41	-0.12	0.41	-0.28	-0.14	0.3
A-B	60	L	79585	SR	0.68	0.49	-0.22	0.49	-0.28	-0.22	0.2
A-B	61	O	79549	SR	0.39	0.34	-0.26	0.07	-0.25	0.34	0.2
A-B	62	L	68780	SR	0.41	0.27	-0.19	-0.22	0.27	0.04	0.4
A-B	63	L	296582	SR	0.46	0.49	-0.17	-0.24	-0.21	0.49	0.4
A-B	64	L	297426	SR	0.37	0.40	0.00	-0.29	-0.18	0.40	0.2
A-B	65	O	108393	SR	0.62	0.39	-0.09	0.39	-0.26	-0.22	0.3
A-B	66	O	279794	SR	0.60	0.36	-0.23	-0.12	0.36	-0.22	0.2
A-B	67	L	261594	SR	0.41	0.27	-0.15	0.01	0.27	-0.24	0.3
A-B	68	L	65209	SR	0.60	0.48	-0.22	-0.26	-0.22	0.48	0.3
A-B	72	L	223269	SR	0.65	0.47	0.47	-0.23	-0.22	-0.23	0.4
A-B	73	L	283081	SR	0.84	0.39	-0.18	0.39	-0.27	-0.15	0.3
A-B	74	O	68720	SR	0.70	0.49	-0.25	0.49	-0.26	-0.23	0.3
A-B	75	O	65214	SR	0.35	0.46	-0.22	0.46	-0.15	-0.21	0.3
A-B	76	L	302859	SR	0.38	0.29	-0.22	-0.16	0.01	0.29	0.3
A-B	77	L	108395	SR	0.73	0.41	-0.17	0.41	-0.28	-0.17	0.3
A-B	81	L	257026	SR	0.37	0.29	-0.08	0.29	-0.23	-0.04	0.3
A-B	82	L	271817	SR	0.37	0.43	-0.13	-0.20	-0.18	0.43	0.3
A-B	83	O	271824	SR	0.62	0.45	-0.21	-0.26	-0.20	0.45	0.3
A-B	84	O	68072	SR	0.37	0.40	-0.10	-0.24	0.40	-0.14	0.4
A-B	85	O	257007	SR	0.30	0.39	-0.20	0.39	-0.21	0.01	0.3
A-B	86	L	67987	SR	0.55	0.49	-0.23	-0.27	0.49	-0.18	0.4
A-B	87	O	65180	SR	0.52	0.51	-0.19	-0.23	-0.25	0.51	0.4
A-B	88	L	279842	SR	0.38	0.41	-0.03	-0.25	-0.25	0.41	0.4
A-B	89	O	296468	SR	0.68	0.51	-0.25	-0.28	0.51	-0.22	0.4
A-B	90	L	279755	SR	0.27	0.20	-0.01	0.20	-0.10	-0.09	0.5
A-B	91	L	257003	SR	0.33	0.29	-0.08	-0.23	-0.02	0.29	0.4
A-B	92	L	263964	SR	0.36	0.32	-0.11	-0.20	-0.06	0.32	0.4
A-B	93	O	271798	SR	0.39	0.31	-0.15	-0.12	0.31	-0.10	0.4

Table 1.A11 Item Statistics, Operational Items: MD HSA 2011 Government—January Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A-B	96	L	296501	SR	0.47	0.47	-0.28	-0.16	-0.18	0.47	0.4
A-B	97	L	256344	SR	0.67	0.50	-0.20	-0.31	-0.21	0.50	0.4
A-B	98	O	64814	SR	0.56	0.44	0.44	-0.21	-0.25	-0.14	0.4
A-B	99	L	263987	SR	0.56	0.33	-0.13	0.33	-0.17	-0.17	0.5
A-B	100	L	257000	SR	0.34	0.31	-0.07	-0.13	0.31	-0.16	0.5
A-B	104	L	296504	SR	0.68	0.50	-0.25	-0.27	0.50	-0.23	0.5
A-B	105	L	296505	SR	0.19	0.16	-0.01	0.02	-0.16	0.16	0.6
A-B	106	O	79611	SR	0.54	0.51	-0.22	-0.25	-0.23	0.51	0.5
A-B	107	L	135585	SR	0.67	0.51	0.51	-0.24	-0.30	-0.21	0.5
Mean					0.51	0.38	-0.04	-0.05	-0.06	0.01	0.3
SD					0.17	0.11	0.25	0.26	0.26	0.27	0.1

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

Table 1.A12 Item Statistics, Operational Items: MD HSA 2011 Government—January Makeup

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	1	L	68093	SR	0.93	0.24	-0.12	0.24	-0.17	-0.11	0.0
C	2	L	51210	SR	0.90	0.30	0.30	-0.13	-0.22	-0.14	0.0
C	3	O	58100	SR	0.52	0.36	-0.17	-0.19	0.36	-0.14	0.1
C	4	L	256377	SR	0.36	0.30	-0.05	0.30	-0.12	-0.19	0.1
C	5	O	50997	SR	0.32	0.31	-0.07	-0.21	0.31	-0.09	0.2
C	6	O	283280	SR	0.58	0.37	-0.16	-0.21	0.37	-0.16	0.1
C	10	L	68489	SR	0.69	0.42	0.42	-0.14	-0.27	-0.22	0.1
C	11	L	79752	SR	0.24	0.16	0.16	-0.13	-0.09	0.07	0.2
C	12	O	68542	SR	0.51	0.39	-0.27	0.39	-0.19	-0.13	0.2
C	13	L	60463	SR	0.27	0.23	0.10	-0.22	0.23	-0.23	0.2
C	14	O	279811	SR	0.37	0.12	-0.14	0.03	0.12	-0.05	0.2
C	15	O	296477	SR	0.44	0.40	0.40	-0.23	-0.24	-0.06	0.2
C	16	L	79636	SR	0.74	0.35	-0.18	0.35	-0.18	-0.17	0.1
C	17	O	283092	SR	0.51	0.36	-0.20	-0.19	0.36	-0.18	0.2
C	21	L	256386	SR	0.74	0.41	0.41	-0.23	-0.25	-0.17	0.2
C	22	L	55703	SR	0.38	0.22	-0.08	0.22	-0.13	-0.06	0.2
C	23	O	55471	SR	0.33	0.37	0.37	-0.16	-0.21	-0.04	0.4
C	24	L	52288	SR	0.62	0.54	0.54	-0.28	-0.32	-0.17	0.2
C	25	L	302857	SR	0.30	0.31	-0.14	-0.01	-0.20	0.31	0.2
C	26	L	296512	SR	0.45	0.48	-0.16	-0.21	0.48	-0.27	0.2
C	27	L	296513	SR	0.30	0.21	0.21	-0.05	-0.10	-0.06	0.2
C	28	L	279837	SR	0.38	0.13	-0.22	0.14	0.13	-0.11	0.3
C	29	L	279812	SR	0.15	0.12	-0.01	-0.06	0.12	-0.02	0.3

Table 1.A12 Item Statistics, Operational Items: MD HSA 2011 Government—January Makeup

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	30	O	283098	SR	0.45	0.52	0.52	-0.26	-0.19	-0.20	0.4
C	31	O	79622	SR	0.65	0.31	-0.15	0.31	-0.21	-0.11	0.4
C	32	L	68694	SR	0.28	0.49	0.49	-0.21	-0.27	-0.08	0.3
C	33	O	68745	SR	0.74	0.48	0.48	-0.27	-0.27	-0.19	0.3
C	36	L	55558	SR	0.76	0.40	-0.18	0.40	-0.25	-0.19	0.4
C	37	L	296502	SR	0.56	0.54	-0.28	-0.28	-0.20	0.54	0.2
C	38	L	296503	SR	0.75	0.49	0.49	-0.27	-0.28	-0.20	0.2
C	42	L	51168	SR	0.61	0.52	-0.20	-0.28	-0.27	0.52	0.2
C	43	L	55718	SR	0.29	0.37	0.37	-0.23	-0.11	-0.04	0.2
C	44	O	256352	SR	0.61	0.44	-0.22	-0.22	-0.25	0.44	0.4
C	45	O	68505	SR	0.71	0.51	-0.25	-0.27	-0.24	0.51	0.4
C	46	L	257168	SR	0.45	0.37	-0.06	-0.30	0.37	-0.09	0.2
C	47	L	51152	SR	0.77	0.44	-0.22	-0.26	-0.22	0.44	0.2
C	48	O	283114	SR	0.43	0.35	-0.08	0.35	-0.26	-0.09	0.5
C	49	O	132968	SR	0.41	0.50	-0.18	-0.20	-0.22	0.50	0.5
C	50	O	60459	SR	0.80	0.41	-0.15	0.41	-0.24	-0.22	0.5
C	51	O	302871	SR	0.55	0.48	-0.24	-0.17	-0.23	0.48	0.5
C	55	L	271833	SR	0.24	0.17	-0.33	0.17	0.10	0.09	0.2
C	56	O	242071	SR	0.50	0.54	-0.24	-0.23	-0.24	0.54	0.5
C	57	O	51020	SR	0.54	0.43	-0.17	-0.25	0.43	-0.19	0.4
C	58	L	271842	SR	0.49	0.38	-0.08	-0.17	-0.24	0.38	0.2
C	59	L	108456	SR	0.50	0.41	-0.12	0.41	-0.28	-0.14	0.3
C	60	L	79585	SR	0.68	0.49	-0.22	0.49	-0.28	-0.22	0.2
C	61	O	68599	SR	0.51	0.44	-0.24	0.44	-0.21	-0.15	0.6
C	62	L	68780	SR	0.41	0.27	-0.19	-0.22	0.27	0.04	0.4
C	63	L	296582	SR	0.46	0.49	-0.17	-0.24	-0.21	0.49	0.4
C	64	L	297426	SR	0.37	0.40	0.00	-0.29	-0.18	0.40	0.2
C	65	O	64811	SR	0.39	0.46	-0.19	0.46	-0.25	-0.10	0.5
C	66	O	135586	SR	0.50	0.40	-0.22	0.40	-0.18	-0.13	0.4
C	67	L	261594	SR	0.41	0.27	-0.15	0.01	0.27	-0.24	0.3
C	68	L	65209	SR	0.60	0.48	-0.22	-0.26	-0.22	0.48	0.3
C	72	L	223269	SR	0.65	0.47	0.47	-0.23	-0.22	-0.23	0.4
C	73	L	283081	SR	0.84	0.39	-0.18	0.39	-0.27	-0.15	0.3
C	74	O	51244	SR	0.68	0.39	-0.17	-0.24	0.39	-0.19	0.4
C	75	O	261578	SR	0.36	0.39	-0.19	-0.12	-0.14	0.39	0.5
C	76	L	302859	SR	0.38	0.29	-0.22	-0.16	0.01	0.29	0.3
C	77	L	108395	SR	0.73	0.41	-0.17	0.41	-0.28	-0.17	0.3
C	81	L	257026	SR	0.37	0.29	-0.08	0.29	-0.23	-0.04	0.3
C	82	L	271817	SR	0.37	0.43	-0.13	-0.20	-0.18	0.43	0.3
C	83	O	51744	SR	0.69	0.46	0.46	-0.27	-0.25	-0.15	0.5
C	84	O	51198	SR	0.29	0.23	-0.18	-0.17	0.23	0.09	0.5
C	85	O	283266	SR	0.53	0.42	0.42	-0.19	-0.24	-0.19	0.5
C	86	L	67987	SR	0.55	0.49	-0.23	-0.27	0.49	-0.18	0.4

Table 1.A12 Item Statistics, Operational Items: MD HSA 2011 Government—January Makeup

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	87	O	64788	SR	0.74	0.41	0.41	-0.17	-0.25	-0.20	0.5
C	88	L	279842	SR	0.38	0.41	-0.03	-0.25	-0.25	0.41	0.4
C	89	O	271813	SR	0.67	0.50	-0.21	-0.30	0.50	-0.21	0.5
C	90	L	279755	SR	0.27	0.20	-0.01	0.20	-0.10	-0.09	0.5
C	91	L	257003	SR	0.33	0.29	-0.08	-0.23	-0.02	0.29	0.4
C	92	L	263964	SR	0.36	0.32	-0.11	-0.20	-0.06	0.32	0.4
C	93	O	257002	SR	0.35	0.45	-0.18	-0.09	0.45	-0.23	0.5
C	96	L	296501	SR	0.47	0.47	-0.28	-0.16	-0.18	0.47	0.4
C	97	L	256344	SR	0.67	0.50	-0.20	-0.31	-0.21	0.50	0.4
C	98	O	108346	SR	0.56	0.49	-0.19	0.49	-0.27	-0.19	0.6
C	99	L	263987	SR	0.56	0.33	-0.13	0.33	-0.17	-0.17	0.5
C	100	L	257000	SR	0.34	0.31	-0.07	-0.13	0.31	-0.16	0.5
C	104	L	296504	SR	0.68	0.50	-0.25	-0.27	0.50	-0.23	0.5
C	105	L	296505	SR	0.19	0.16	-0.01	0.02	-0.16	0.16	0.6
C	106	O	223268	SR	0.44	0.38	-0.26	-0.22	-0.01	0.38	0.6
C	107	L	135585	SR	0.67	0.51	0.51	-0.24	-0.30	-0.21	0.5
Mean					0.51	0.38	-0.03	-0.05	-0.07	0.02	0.3
SD					0.18	0.11	0.25	0.26	0.25	0.27	0.1

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

Table 1.A13 Item Statistics, Operational Items: MD HSA 2011 Algebra—April Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
S	1	L	54880	SR	0.49	0.22	-0.13	-0.11	-0.13	0.22	0.0
S	2	L	54730	SR	0.46	0.19	-0.07	-0.18	0.19	-0.07	0.1
S	3	L	56768	SR	0.25	0.25	-0.09	-0.12	0.25	-0.04	0.1
S	4	O	56828	SR	0.63	0.31	-0.16	0.31	-0.17	-0.15	0.2
S	6	L	56557	SR	0.29	0.12	0.12	-0.04	-0.09	0.00	0.3
S	7	L	106626	SR	0.37	0.18	-0.08	-0.05	0.18	-0.12	0.4
S	8	L	255081	SPR	0.09	0.27	0.27	-0.16			4.8
S	10	O	79039	SPR	0.22	0.28	0.28	-0.21			10.4
S	12	L	52337	SR	0.41	0.22	-0.07	0.22	-0.10	-0.13	1.1
S	13	O	106579	SR	0.31	0.23	-0.07	-0.12	0.23	-0.05	0.6
S	15	O	51358	SR	0.16	0.19	0.01	-0.08	-0.09	0.19	0.5
S	16	L	51553	SR	0.38	0.24	-0.13	-0.13	0.24	-0.01	0.3
S	17	L	136685	SPR	0.17	0.38	0.38	-0.27			5.3
S	19	O	51425	SR	0.34	0.23	0.23	-0.03	-0.13	-0.14	0.3
S	20	L	54858	SR	0.33	0.30	-0.14	-0.16	0.30	-0.02	0.6

Table 1.A13 Item Statistics, Operational Items: MD HSA 2011 Algebra—April Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
S	21	O	106585	SR	0.08	0.05	-0.10	0.05	-0.03	0.08	0.4
S	22	L	56577	SR	0.30	0.26	-0.08	-0.16	-0.05	0.26	0.5
S	23	L	79091	SR	0.42	0.27	0.27	-0.17	-0.16	-0.01	0.6
S	24	L	56603	SR	0.62	0.31	-0.13	0.31	-0.21	-0.10	0.2
S	25	L	211005	SR	0.77	0.34	-0.18	-0.22	0.34	-0.11	0.3
S	26	O	51400	SR	0.55	0.26	-0.06	-0.19	0.26	-0.11	0.2
S	27	L	79147	SR	0.17	0.20	-0.03	-0.08	-0.07	0.20	1.0
S	29	O	54859	SR	0.34	0.26	-0.15	-0.08	0.26	-0.05	0.9
S	30	L	255079	SPR	0.03	0.40	0.40	-0.14			9.4
S	32	O	133391	SPR	0.48	0.43	0.43	-0.36			5.9
S	33	L	67546	SR	0.40	0.26	-0.04	-0.11	-0.15	0.26	0.3
S	34	O	56815	SR	0.30	0.11	-0.07	-0.03	0.11	-0.02	0.8
S	35	O	79041	SR	0.13	0.21	-0.18	-0.06	-0.01	0.21	0.5
S	37	L	133415	SR	0.13	0.06	0.06	-0.04	0.10	-0.09	0.5
S	38	L	79135	SR	0.13	0.10	-0.04	0.10	-0.12	0.04	0.4
S	39	L	79151	SR	0.53	0.38	-0.22	-0.13	-0.16	0.38	0.6
S	40	O	215917	SPR	0.26	0.36	0.36	-0.27			5.9
S	42	O	106624	SPR	0.09	0.42	0.42	-0.24			6.8
S	44	O	54822	SR	0.26	0.18	0.18	-0.12	-0.01	-0.04	0.8
S	46	O	135107	SR	0.16	0.11	-0.17	0.11	-0.10	0.15	0.8
S	47	O	67465	SR	0.50	0.27	-0.13	-0.15	0.27	-0.06	0.6
S	48	L	223433	SR	0.51	0.27	-0.12	-0.14	0.27	-0.08	0.5
S	49	O	56760	SR	0.38	0.22	-0.06	0.22	-0.14	-0.06	0.8
S	51	O	67434	SR	0.40	0.32	-0.15	-0.16	0.32	-0.08	0.7
S	52	L	211066	SR	0.45	0.26	-0.05	-0.11	-0.15	0.26	0.6
S	54	L	215930	SPR	0.03	0.36	0.36	-0.12			11.9
S	55	O	51494	SR	0.35	0.25	0.00	0.25	-0.19	-0.08	0.7
S	56	L	67445	SR	0.78	0.35	-0.13	0.35	-0.20	-0.20	0.4
S	57	L	54904	SR	0.64	0.32	-0.12	-0.14	0.32	-0.18	0.5
S	58	L	50370	SR	0.29	0.12	-0.09	0.12	-0.08	0.06	0.6
S	59	O	56693	SR	0.25	0.22	-0.09	-0.06	0.22	-0.04	1.2
S	60	L	51442	SPR	0.25	0.39	0.39	-0.30			4.8
S	62	O	56568	SPR	0.29	0.42	0.42	-0.32			7.0
S	63	L	54587	SR	0.32	0.17	-0.05	-0.01	-0.12	0.17	0.4
S	64	L	43160	SR	0.43	0.35	0.35	-0.16	-0.16	-0.11	0.6
S	66	L	56774	SR	0.37	0.22	-0.13	-0.07	0.22	-0.06	0.7
S	68	L	54907	SR	0.20	0.25	-0.07	-0.12	-0.04	0.25	0.5
S	69	O	56800	SR	0.28	0.25	0.25	-0.07	-0.10	-0.08	0.5
Mean					0.34	0.26	0.03	-0.07	0.03	0.01	1.8
SD					0.17	0.09	0.20	0.16	0.19	0.15	2.9

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

Table 1.A14 Item Statistics, Operational Items: MD HSA 2011 Biology—April Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
S	1	L	57055	SR	0.39	0.22	-0.08	0.22	-0.13	-0.05	0.2
S	2	O	55147	SR	0.18	0.11	-0.05	-0.03	0.11	-0.02	0.1
S	3	L	52527	SR	0.37	0.19	-0.04	-0.11	0.19	-0.07	0.3
S	4	L	52526	SR	0.72	0.18	-0.08	-0.09	0.18	-0.10	0.2
S	5	O	55118	SR	0.25	0.14	0.05	-0.09	-0.10	0.14	0.3
S	9	L	137253	SR	0.38	0.31	-0.12	-0.12	-0.13	0.31	0.0
S	10	L	137252	SR	0.43	0.28	0.28	-0.09	-0.18	-0.09	0.0
S	11	L	52673	SR	0.25	0.20	-0.10	0.20	-0.03	-0.10	0.0
S	12	O	214537	SR	0.36	0.15	-0.09	0.15	-0.13	0.04	0.2
S	13	L	67650	SR	0.23	0.15	-0.07	0.15	-0.03	-0.03	0.2
S	14	L	68266	SR	0.39	0.19	-0.06	-0.06	-0.11	0.19	0.5
S	15	L	215956	SR	0.28	0.12	-0.04	-0.01	0.12	-0.09	0.1
S	16	L	215943	SR	0.32	0.18	-0.06	0.18	0.00	-0.17	0.2
S	17	O	251258	SR	0.14	0.21	-0.08	-0.01	-0.08	0.21	0.3
S	18	O	79430	SR	0.43	0.23	0.23	-0.12	-0.08	-0.10	0.3
S	20	L	55195	SR	0.11	0.16	-0.03	-0.02	-0.06	0.16	0.2
S	21	L	55196	SR	0.30	0.20	0.20	-0.13	-0.13	0.00	0.2
S	22	L	68223	SR	0.44	0.28	0.28	-0.13	-0.14	-0.09	0.2
S	23	O	108554	SR	0.15	0.15	0.15	-0.07	-0.03	-0.03	0.2
S	28	O	68125	SR	0.32	0.24	-0.07	-0.07	-0.12	0.24	0.3
S	29	L	68235	SR	0.27	0.19	-0.06	0.19	-0.09	-0.03	0.2
S	30	O	218482	SR	0.21	0.20	-0.02	-0.14	-0.02	0.20	0.3
S	31	O	218483	SR	0.29	0.22	-0.06	0.22	-0.08	-0.09	0.2
S	32	O	79423	SR	0.14	0.10	-0.05	-0.06	0.02	0.10	0.3
S	33	O	52599	SR	0.41	0.22	-0.12	0.22	-0.09	-0.06	0.6
S	34	O	108645	SR	0.18	0.20	-0.10	0.20	-0.11	0.03	0.1
S	35	L	79305	SR	0.22	0.20	0.20	-0.08	-0.02	-0.11	0.5
S	36	L	79304	SR	0.35	0.20	0.20	-0.09	-0.09	-0.05	0.2
S	37	L	79319	SR	0.28	0.07	-0.02	-0.05	0.07	0.02	0.3
S	41	L	133021	SR	0.33	0.26	-0.05	-0.10	-0.14	0.26	0.3
S	42	L	133024	SR	0.23	0.19	-0.11	-0.06	-0.02	0.19	0.3
S	43	O	54965	SR	0.50	0.12	-0.12	0.12	-0.09	0.04	0.5
S	44	L	223438	SR	0.36	0.17	0.17	-0.05	-0.11	-0.05	0.3
S	45	L	223441	SR	0.12	0.16	-0.06	-0.11	0.07	0.16	0.3
S	47	O	52413	SR	0.50	0.22	0.22	-0.09	-0.11	-0.09	0.2
S	48	O	52434	SR	0.29	0.25	0.25	-0.04	-0.13	-0.10	0.4
S	49	L	65132	SR	0.12	0.09	-0.06	-0.08	0.07	0.09	0.3
S	50	O	215960	SR	0.38	0.23	0.23	-0.06	-0.17	-0.04	0.4
S	51	O	215965	SR	0.23	0.23	-0.06	-0.08	-0.08	0.23	0.3
S	52	L	65151	SR	0.22	0.12	0.09	-0.09	-0.12	0.12	0.3
S	53	L	136107	SR	0.47	0.22	-0.17	0.22	-0.14	0.01	0.3
S	54	L	136108	SR	0.18	0.13	0.13	0.07	-0.11	-0.11	0.2
S	55	L	67672	SR	0.43	0.30	0.30	-0.12	-0.14	-0.10	0.3
S	56	O	68131	SR	0.26	0.20	-0.02	-0.08	0.20	-0.10	0.3

Table 1.A14 Item Statistics, Operational Items: MD HSA 2011 Biology—April Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
S	60	L	108486	SR	0.50	0.21	0.21	-0.14	-0.09	-0.06	0.5
S	61	L	68141	SR	0.18	0.08	-0.12	0.00	0.08	0.04	0.4
S	62	L	68142	SR	0.30	0.24	0.24	-0.08	-0.10	-0.07	0.3
S	63	L	79509	SR	0.33	0.19	-0.10	-0.04	0.19	-0.09	0.5
S	64	L	67677	SR	0.34	0.27	-0.07	-0.12	-0.12	0.27	0.3
S	65	L	67678	SR	0.25	0.22	-0.10	-0.04	-0.08	0.22	0.5
S	66	O	65055	SR	0.30	0.19	-0.09	-0.07	0.19	-0.03	0.5
S	67	O	256543	SR	0.39	0.24	-0.11	0.24	-0.12	-0.02	0.7
S	68	O	256545	SR	0.37	0.21	-0.07	-0.07	0.21	-0.08	0.6
S	69	L	65069	SR	0.28	0.10	-0.01	-0.11	0.10	0.03	0.7
S	70	L	57098	SR	0.38	0.12	-0.06	0.12	-0.13	0.07	0.7
S	71	L	60564	SR	0.50	0.22	-0.11	0.22	-0.10	-0.06	0.7
S	72	L	60526	SR	0.23	0.19	-0.01	-0.12	0.19	-0.04	0.9
S	73	O	52771	SR	0.24	0.16	-0.05	-0.01	0.16	-0.07	0.7
S	74	L	52649	SR	0.34	0.21	-0.13	-0.14	0.01	0.21	0.6
S	75	L	52781	SR	0.51	0.27	-0.14	0.27	-0.10	-0.10	0.7
S	76	L	68149	SR	0.24	0.08	0.01	0.01	0.08	-0.09	0.7
S	77	O	68258	SR	0.60	0.33	0.33	-0.15	-0.18	-0.12	0.7
S	78	O	68259	SR	0.43	0.21	-0.06	-0.07	-0.11	0.21	0.7
S	79	L	67592	SR	0.37	0.12	-0.08	0.12	-0.12	0.08	0.6
S	80	L	67617	SR	0.47	0.26	-0.11	-0.12	0.26	-0.08	0.7
S	81	L	67618	SR	0.29	0.26	0.26	-0.13	-0.12	0.01	0.7
S	83	O	108629	SR	0.49	0.22	-0.06	-0.08	0.22	-0.12	0.9
S	84	L	108539	SR	0.26	0.10	-0.02	0.00	0.10	-0.05	0.7
S	85	O	60535	SR	0.20	0.14	0.04	0.14	-0.08	-0.07	0.7
S	86	O	214523	SR	0.30	0.18	-0.12	0.18	0.02	-0.08	0.7
S	87	L	108511	SR	0.30	0.16	-0.08	-0.11	0.16	0.04	0.7
S	88	O	223404	SR	0.65	0.28	-0.13	-0.17	0.28	-0.09	0.7
S	92	O	108548	SR	0.31	0.12	0.02	-0.08	0.12	-0.09	0.7
S	93	L	52591	SR	0.49	0.26	-0.14	0.26	-0.14	-0.06	0.6
S	94	L	57088	SR	0.37	0.19	-0.11	0.19	-0.11	0.03	0.7
S	99	O	57188	SR	0.34	0.25	0.25	-0.08	-0.08	-0.11	0.7
Mean					0.33	0.19	0.00	-0.01	-0.02	0.01	0.4
SD					0.12	0.06	0.14	0.13	0.12	0.12	0.2

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

Table 1.A15 Item Statistics, Operational Items: MD HSA 2011 English—April Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
S	1	L	130036	SR	0.25	0.13	-0.07	0.13	-0.05	-0.02	0.1
S	2	L	130033	SR	0.70	0.24	0.24	-0.07	-0.19	-0.11	0.0
S	3	L	130034	SR	0.25	0.24	0.24	-0.17	-0.04	-0.06	0.1
S	4	L	130037	SR	0.59	0.30	-0.10	-0.17	-0.15	0.30	0.3
S	5	L	130035	SR	0.51	0.33	-0.21	-0.21	-0.15	0.33	0.0
S	14	L	256425	SR	0.46	0.32	-0.14	0.32	-0.16	-0.14	0.3
S	15	L	256426	SR	0.54	0.40	-0.16	-0.19	-0.19	0.40	0.2
S	16	L	256427	SR	0.58	0.19	-0.19	-0.01	0.19	-0.18	0.3
S	17	L	139348	SR	0.30	0.36	-0.19	-0.23	-0.03	0.36	0.2
S	18	L	139350	SR	0.26	0.14	0.08	-0.14	0.14	-0.14	0.2
S	19	L	139349	SR	0.70	0.45	-0.24	0.45	-0.26	-0.19	0.2
S	20	L	139351	SR	0.37	0.35	0.35	-0.14	-0.18	-0.09	0.2
S	21	L	139341	SR	0.44	0.22	0.22	-0.11	-0.12	-0.05	0.3
S	22	L	139343	SR	0.56	0.27	-0.19	0.27	-0.16	-0.02	0.3
S	23	L	189037	SR	0.44	0.25	0.02	0.25	-0.23	-0.13	0.3
S	24	L	139344	SR	0.57	0.32	-0.15	-0.15	0.32	-0.16	0.4
S	25	L	256296	SR	0.36	0.24	0.24	-0.21	-0.14	0.03	0.4
S	26	L	251158	SR	0.58	0.32	-0.21	0.32	-0.18	-0.08	0.5
S	27	L	256302	SR	0.42	0.26	-0.14	-0.05	-0.14	0.26	0.6
S	33	O	108700	SR	0.32	0.19	-0.08	-0.14	0.19	0.03	0.4
S	34	O	108703	SR	0.43	0.28	-0.12	-0.10	0.28	-0.13	0.5
S	35	O	108702	SR	0.27	0.15	0.12	0.15	-0.19	-0.12	0.5
S	36	O	108704	SR	0.35	0.18	0.18	-0.09	-0.25	0.07	0.3
S	37	O	108701	SR	0.55	0.27	-0.16	-0.22	0.27	0.02	0.3
S	38	O	130959	SR	0.47	0.25	-0.13	0.25	-0.21	-0.03	0.3
S	39	L	130165	SR	0.53	0.37	-0.14	-0.23	0.37	-0.14	0.5
S	40	L	130166	SR	0.52	0.35	0.35	-0.08	-0.25	-0.16	0.3
S	41	L	130167	SR	0.54	0.42	-0.13	-0.23	-0.21	0.42	0.3
S	42	L	130274	SR	0.58	0.37	-0.19	0.37	-0.20	-0.13	0.5
S	43	O	95640	SR	0.23	0.20	0.20	-0.12	-0.09	0.03	0.5
S	44	O	95641	SR	0.51	0.30	-0.13	-0.13	0.30	-0.13	0.5
S	45	O	95642	SR	0.22	0.03	-0.11	0.15	0.03	-0.12	0.5
S	46	O	130269	SR	0.42	0.25	-0.21	0.03	0.25	-0.18	0.6
S	47	O	130272	SR	0.14	0.12	-0.12	-0.11	0.08	0.12	0.5
S	48	O	130273	SR	0.48	0.32	-0.12	-0.14	0.32	-0.14	0.5
S	49	O	130279	SR	0.44	0.23	-0.18	-0.15	0.23	0.03	0.4
S	50	O	130169	SR	0.52	0.34	-0.14	0.34	-0.18	-0.13	0.5
S	51	O	256282	SR	0.38	0.27	0.27	-0.02	-0.22	-0.12	0.5
S	52	L	130213	SR	0.57	0.40	0.40	-0.20	-0.27	-0.10	0.5
S	53	L	96103	SR	0.45	0.34	-0.14	-0.12	-0.15	0.34	0.4
S	54	L	95664	SR	0.57	0.43	0.43	-0.23	-0.19	-0.18	0.5
S	73	L	130955	SR	0.39	0.26	0.26	-0.01	-0.21	-0.15	0.5
S	74	L	132497	SR	0.51	0.26	-0.14	-0.07	0.26	-0.18	0.3
S	75	L	130956	SR	0.22	0.06	0.06	-0.12	-0.05	0.11	0.3

Table 1.A15 Item Statistics, Operational Items: MD HSA 2011 English—April Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
S	76	L	130971	SR	0.44	0.42	-0.12	-0.26	-0.14	0.42	0.4
S	77	L	130972	SR	0.44	0.38	-0.23	-0.12	-0.14	0.38	0.4
S	78	L	130973	SR	0.23	0.15	-0.13	0.15	0.12	-0.18	0.4
S	79	L	132496	SR	0.45	0.28	0.28	-0.08	-0.23	-0.07	0.3
S	80	L	130200	SR	0.41	0.28	0.28	-0.07	-0.20	-0.12	0.4
S	81	L	130974	SR	0.60	0.48	0.48	-0.27	-0.23	-0.16	0.5
S	82	L	130975	SR	0.38	0.19	-0.06	0.19	-0.15	0.00	0.6
S	85	O	96335	SR	0.34	0.28	-0.08	-0.09	-0.14	0.28	0.6
S	86	O	96336	SR	0.58	0.27	-0.16	0.27	-0.14	-0.07	0.5
S	87	O	175720	SR	0.47	0.32	-0.17	-0.13	0.32	-0.11	0.5
S	88	O	175721	SR	0.54	0.37	-0.24	0.37	-0.14	-0.15	0.5
S	89	O	175722	SR	0.66	0.38	0.38	-0.17	-0.25	-0.13	0.5
S	90	O	175723	SR	0.44	0.29	0.29	-0.19	-0.14	-0.03	0.8
S	91	O	175724	SR	0.34	0.34	-0.15	-0.18	-0.05	0.34	0.5
S	92	O	175725	SR	0.33	0.32	-0.18	0.32	-0.10	-0.07	0.5
S	93	O	175726	SR	0.57	0.32	-0.17	0.32	-0.15	-0.11	0.7
Mean					0.45	0.28	-0.01	-0.02	-0.06	-0.01	0.4
SD					0.13	0.09	0.21	0.20	0.19	0.19	0.2

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

Table 1.A16 Item Statistics, Operational Items: MD HSA 2011 Government—April Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
S	1	O	79686	SR	0.33	0.37	0.00	-0.23	0.37	-0.18	0.1
S	2	L	68033	SR	0.59	0.37	-0.19	0.37	-0.22	-0.12	0.1
S	3	O	79663	SR	0.32	0.37	-0.04	0.37	-0.20	-0.20	0.0
S	4	L	256403	SR	0.74	0.29	-0.17	0.29	-0.14	-0.15	0.0
S	5	L	135581	SR	0.47	0.30	0.30	-0.11	-0.20	-0.07	0.1
S	8	L	79573	SR	0.24	0.57	-0.12	-0.20	0.57	-0.24	0.1
S	9	O	55632	SR	0.60	0.36	-0.15	-0.24	0.36	-0.15	0.1
S	10	L	108482	SR	0.55	0.31	0.31	-0.14	-0.18	-0.10	0.1
S	11	L	108371	SR	0.35	0.27	-0.01	0.27	-0.20	-0.15	0.2
S	12	L	60431	SR	0.33	0.20	-0.16	-0.17	0.03	0.20	0.1
S	13	O	58137	SR	0.39	0.49	-0.15	-0.24	-0.21	0.49	0.2
S	16	L	58423	SR	0.40	0.38	0.38	-0.15	-0.20	-0.11	0.1
S	17	O	52228	SR	0.52	0.33	-0.19	-0.16	0.33	-0.11	0.1
S	18	L	50943	SR	0.55	0.34	-0.14	0.34	-0.16	-0.19	0.4
S	19	L	79729	SR	0.38	0.40	-0.08	-0.16	-0.23	0.40	0.2

Table 1.A16 Item Statistics, Operational Items: MD HSA 2011 Government—April Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
S	20	O	256412	SR	0.42	0.36	-0.14	-0.18	-0.17	0.36	0.1
S	21	O	68552	SR	0.34	0.41	0.41	-0.14	-0.14	-0.18	0.2
S	24	L	223252	SR	0.28	0.45	-0.12	-0.18	-0.16	0.45	0.2
S	25	O	68534	SR	0.48	0.31	-0.07	0.31	-0.23	-0.11	0.2
S	26	L	79587	SR	0.53	0.48	0.48	-0.21	-0.24	-0.21	0.2
S	27	O	68620	SR	0.45	0.42	-0.22	-0.17	0.42	-0.14	0.2
S	28	O	68639	SR	0.42	0.46	0.46	-0.13	-0.22	-0.23	0.2
S	29	O	137306	SR	0.42	0.28	-0.24	-0.23	0.28	0.12	0.3
S	32	O	51154	SR	0.28	0.25	0.25	-0.21	-0.22	0.15	0.3
S	33	L	58204	SR	0.18	0.11	0.11	-0.03	-0.04	-0.02	0.4
S	34	L	68555	SR	0.58	0.44	0.44	-0.24	-0.20	-0.17	0.1
S	35	L	137320	SR	0.28	0.38	-0.16	-0.11	-0.12	0.38	0.1
S	36	L	68686	SR	0.38	0.37	-0.17	-0.25	0.37	-0.05	0.2
S	37	L	223264	SR	0.68	0.38	-0.22	0.38	-0.23	-0.09	0.2
S	38	O	52262	SR	0.42	0.29	-0.10	-0.23	0.29	-0.05	0.2
S	39	L	79603	SR	0.24	0.24	0.00	0.24	-0.17	-0.07	0.4
S	40	L	79592	SR	0.21	-0.02	-0.07	-0.02	-0.18	0.18	0.2
S	41	O	55666	SR	0.40	0.48	-0.21	-0.21	-0.16	0.48	0.2
S	42	O	68768	SR	0.37	0.19	-0.03	-0.21	0.19	0.02	0.3
S	45	L	68759	SR	0.41	0.47	-0.12	-0.22	-0.24	0.47	0.2
S	46	L	108451	SR	0.32	0.32	-0.15	-0.19	0.32	-0.03	0.3
S	47	O	68512	SR	0.75	0.34	-0.14	0.34	-0.20	-0.18	0.2
S	48	O	68638	SR	0.36	0.26	0.26	-0.20	-0.09	0.01	0.3
S	49	O	51240	SR	0.33	0.47	0.47	-0.22	-0.21	-0.13	0.2
S	50	O	55505	SR	0.41	0.21	0.02	-0.15	0.21	-0.13	0.4
S	51	L	50894	SR	0.61	0.37	-0.18	-0.17	0.37	-0.18	0.2
S	54	O	68517	SR	0.41	0.48	-0.18	-0.21	0.48	-0.19	0.4
S	55	L	50836	SR	0.49	0.53	0.53	-0.29	-0.24	-0.16	0.2
S	56	L	79753	SR	0.30	0.42	-0.11	-0.16	-0.18	0.42	0.3
S	57	L	51115	SR	0.50	0.45	-0.18	-0.17	-0.23	0.45	0.2
S	58	L	241963	SR	0.37	0.27	-0.22	-0.17	0.27	0.05	0.2
S	59	L	108422	SR	0.35	0.39	-0.18	0.39	-0.23	-0.04	0.2
S	62	L	68059	SR	0.28	0.47	0.47	-0.19	-0.15	-0.15	0.4
S	63	L	51764	SR	0.48	0.36	-0.20	0.36	-0.12	-0.18	0.2
S	64	L	79719	SR	0.43	0.34	0.34	-0.13	-0.21	-0.09	0.2
S	65	O	68515	SR	0.57	0.42	-0.18	-0.25	0.42	-0.16	0.2
S	66	O	65207	SR	0.54	0.37	-0.16	0.37	-0.23	-0.12	0.2
S	70	O	68000	SR	0.43	0.27	-0.10	-0.09	0.27	-0.14	0.3
S	71	L	79621	SR	0.42	0.38	-0.13	0.38	-0.22	-0.14	0.3
S	72	L	68529	SR	0.45	0.42	-0.18	-0.17	0.42	-0.18	0.4
S	73	O	68531	SR	0.22	0.61	-0.20	-0.24	-0.12	0.61	0.5
S	74	O	68068	SR	0.34	0.32	-0.10	-0.11	0.32	-0.16	0.2
S	75	L	79710	SR	0.47	0.39	-0.19	-0.20	0.39	-0.11	0.3
S	76	O	79594	SR	0.56	0.50	-0.23	-0.23	-0.25	0.50	0.2

Table 1.A16 Item Statistics, Operational Items: MD HSA 2011 Government—April Primary

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
S	77	L	68532	SR	0.49	0.45	0.45	-0.19	-0.25	-0.15	0.4
S	78	L	65205	SR	0.33	0.23	0.01	0.23	-0.15	-0.14	0.2
S	81	O	79624	SR	0.51	0.49	-0.17	-0.25	-0.23	0.49	0.4
S	82	L	256343	SR	0.50	0.32	0.32	-0.22	-0.07	-0.18	0.3
S	83	L	58343	SR	0.54	0.51	0.51	-0.22	-0.26	-0.21	0.2
S	84	L	58364	SR	0.45	0.29	-0.13	-0.21	0.29	-0.03	0.5
S	85	L	214493	SR	0.20	0.07	-0.19	-0.11	0.15	0.07	0.2
S	86	O	52252	SR	0.45	0.40	0.40	-0.23	-0.16	-0.12	0.4
S	89	O	79582	SR	0.48	0.45	-0.21	-0.22	-0.15	0.45	0.4
S	90	O	108406	SR	0.59	0.41	-0.17	0.41	-0.25	-0.15	0.4
S	91	O	214495	SR	0.51	0.51	0.51	-0.27	-0.27	-0.13	0.3
S	92	L	214500	SR	0.40	0.41	-0.10	-0.17	-0.23	0.41	0.3
S	93	L	68790	SR	0.24	0.23	0.03	-0.11	0.23	-0.19	0.4
S	94	O	79570	SR	0.54	0.41	-0.20	-0.21	0.41	-0.15	0.4
S	97	O	51118	SR	0.39	0.48	-0.19	-0.25	-0.14	0.48	0.4
S	98	L	50998	SR	0.45	0.38	-0.17	0.38	-0.20	-0.11	0.4
S	99	L	256505	SR	0.20	0.31	0.04	0.31	-0.22	-0.12	0.4
S	100	L	79658	SR	0.34	0.27	-0.11	-0.06	0.27	-0.15	0.4
S	101	O	58373	SR	0.25	0.26	0.26	-0.19	-0.12	0.06	0.3
S	102	L	50985	SR	0.51	0.45	0.45	-0.25	-0.19	-0.17	0.4
S	105	L	50910	SR	0.32	0.44	0.44	-0.09	-0.26	-0.13	0.4
S	106	L	214492	SR	0.28	0.23	-0.22	-0.15	0.23	0.12	0.4
S	107	O	51759	SR	0.51	0.32	-0.17	-0.15	0.32	-0.11	0.4
Mean					0.42	0.36	0.00	-0.07	-0.02	0.00	0.3
SD					0.12	0.11	0.25	0.22	0.25	0.24	0.1

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

Table 1.A17 Item Statistics, Operational Items: MD HSA 2011 Algebra—May Primary

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D-N	1	O	56582	SR	0.51	0.51	-0.14	-0.28	-0.26	0.51	0.3
D-N	2	L	79123	SR	0.46	0.59	-0.20	-0.32	-0.24	0.59	0.5
D-N	4	L	260773	SR	0.36	0.39	-0.13	-0.20	-0.13	0.39	0.5
D-N	5	L	260765	SPR	0.52	0.68	0.68	-0.61			4.1
D-N	6	O	268698	SPR	0.35	0.58	0.58	-0.51			3.3
D-N	8	L	268768	SR	0.38	0.41	-0.04	0.41	-0.28	-0.21	0.2
D-N	9	L	268764	SR	0.54	0.35	-0.08	0.35	-0.27	-0.19	0.2

Table 1.A17 Item Statistics, Operational Items: MD HSA 2011 Algebra—May Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D-N	11	L	215927	SR	0.61	0.47	-0.38	0.47	-0.15	-0.16	0.1
D-N	13	O	260767	SR	0.46	0.24	-0.07	-0.19	0.24	-0.07	0.2
D-N	14	L	79097	SR	0.61	0.51	-0.23	0.51	-0.34	-0.16	0.2
D-N	15	O	54796	SR	0.61	0.44	-0.28	-0.25	-0.13	0.44	0.3
D-N	16	L	257115	SR	0.54	0.42	-0.28	-0.20	0.42	-0.17	0.4
D-N	17	O	56735	SR	0.52	0.53	-0.13	0.53	-0.21	-0.38	0.4
D-N	18	L	106615	SPR	0.62	0.61	0.61	-0.57			2.4
D-N	20	L	56612	SR	0.73	0.39	0.39	-0.18	-0.22	-0.22	0.6
D-N	21	O	56648	SR	0.78	0.38	-0.19	-0.17	0.38	-0.23	0.7
D-N	22	L	56550	SR	0.70	0.51	-0.25	0.51	-0.22	-0.30	0.8
D-N	23	O	54619	SR	0.86	0.37	-0.13	-0.22	-0.23	0.37	0.8
D-N	24	L	282356	SR	0.89	0.39	-0.18	0.39	-0.26	-0.21	0.1
D-N	25	O	275446	SR	0.54	0.51	-0.25	-0.13	-0.34	0.51	0.3
D-N	26	L	263291	SR	0.47	0.32	0.32	-0.10	-0.27	-0.13	0.5
D-N	28	L	263282	SR	0.20	0.24	-0.15	-0.11	0.24	0.01	0.3
D-N	29	O	257109	SR	0.38	0.23	0.23	-0.19	-0.01	-0.10	0.3
D-N	31	L	132837	SR	0.69	0.42	-0.11	-0.18	0.42	-0.33	0.3
D-N	32	O	275453	SPR	0.59	0.44	0.44	-0.39			2.1
D-N	35	O	56409	SR	0.79	0.49	-0.23	-0.30	-0.26	0.49	0.2
D-N	36	L	67547	SR	0.60	0.53	-0.34	-0.20	-0.22	0.53	0.2
D-N	37	L	133417	SR	0.52	0.55	0.55	-0.22	-0.38	-0.17	0.3
D-N	38	O	67540	SR	0.45	0.49	-0.30	0.49	-0.19	-0.11	0.5
D-N	40	L	67410	SPR	0.68	0.49	0.49	-0.43			3.2
D-N	41	L	215928	SPR	0.63	0.54	0.54	-0.50			2.2
D-N	42	L	43189	SR	0.71	0.48	0.48	-0.44			2.4
D-N	44	O	211006	SR	0.32	0.49	-0.15	-0.27	-0.13	0.49	0.6
D-N	45	O	56792	SR	0.42	0.53	-0.37	0.53	-0.07	-0.19	0.5
D-N	46	L	67543	SR	0.52	0.38	-0.07	-0.21	-0.26	0.38	0.7
D-N	47	O	106620	SR	0.75	0.53	-0.38	0.53	-0.27	-0.14	0.2
D-N	48	O	51431	SR	0.74	0.47	0.47	-0.19	-0.31	-0.22	0.2
D-N	50	O	67473	SR	0.69	0.52	-0.16	0.52	-0.41	-0.21	0.2
D-N	51	L	133407	SR	0.50	0.31	0.31	-0.17	-0.29	-0.01	0.3
D-N	53	O	56782	SR	0.71	0.58	0.58	-0.33	-0.34	-0.21	0.4
D-N	54	O	56808	SR	0.26	0.39	-0.21	0.39	-0.18	-0.14	0.3
D-N	55	L	260761	SR	0.60	0.47	0.47	-0.18	-0.21	-0.29	0.4
D-N	57	L	257116	SPR	0.61	0.61	0.61	-0.56			2.6
D-N	58	O	257155	SPR	0.70	0.49	0.49	-0.44			2.8
D-N	59	O	67433	SR	0.40	0.37	-0.14	-0.22	0.37	-0.13	0.3
D-N	61	L	64250	SR	0.50	0.35	-0.15	-0.23	0.35	-0.08	0.5
D-N	62	O	43214	SR	0.36	0.34	0.34	-0.10	-0.14	-0.15	0.5
D-N	64	L	282375	SPR	0.75	0.45	0.45	-0.41			2.4
D-N	65	L	54720	SR	0.62	0.63	-0.19	-0.54	0.63	-0.10	0.3
D-N	66	L	275482	SR	0.55	0.47	0.47	-0.10	-0.29	-0.25	0.3
D-N	67	L	50440	SR	0.48	0.49	-0.14	-0.15	-0.34	0.49	0.3

172

Table 1.A17 Item Statistics, Operational Items: MD HSA 2011 Algebra—May Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D-N	68	L	56701	SR	0.38	0.39	-0.20	-0.22	0.39	-0.20	0.3
D-N	69	L	56812	SR	0.66	0.57	-0.18	-0.45	0.57	-0.18	0.4
Mean					0.56	0.46	0.06	-0.11	-0.09	-0.01	0.8
SD					0.15	0.10	0.34	0.34	0.29	0.30	1.0

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

Table 1.A18 Item Statistics, Operational Items: MD HSA 2011 Algebra—May Makeup 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	54728	SR	0.38	0.31	-0.17	0.31	-0.03	-0.24	0.1
X	2	L	79123	SR	0.46	0.59	-0.20	-0.32	-0.24	0.59	0.5
X	4	L	260773	SR	0.36	0.39	-0.13	-0.20	-0.13	0.39	0.5
X	5	L	260765	SPR	0.52	0.68	0.68	-0.61			4.1
X	6	O	268698	SPR	0.35	0.58	0.58	-0.51			3.3
X	8	L	268768	SR	0.38	0.41	-0.04	0.41	-0.28	-0.21	0.2
X	9	L	268764	SR	0.54	0.35	-0.08	0.35	-0.27	-0.19	0.2
X	11	L	215927	SR	0.61	0.47	-0.38	0.47	-0.15	-0.16	0.1
X	13	O	260767	SR	0.46	0.24	-0.07	-0.19	0.24	-0.07	0.2
X	14	L	79097	SR	0.61	0.51	-0.23	0.51	-0.34	-0.16	0.2
X	15	O	263298	SR	0.54	0.51	0.51	-0.30	-0.29	-0.09	0.5
X	16	L	257115	SR	0.54	0.42	-0.28	-0.20	0.42	-0.17	0.4
X	17	O	56597	SR	0.52	0.52	0.52	-0.27	-0.21	-0.22	0.8
X	18	L	106615	SPR	0.62	0.61	0.61	-0.57			2.4
X	20	L	56612	SR	0.73	0.39	0.39	-0.18	-0.22	-0.22	0.6
X	21	O	56648	SR	0.78	0.38	-0.19	-0.17	0.38	-0.23	0.7
X	22	L	56550	SR	0.70	0.51	-0.25	0.51	-0.22	-0.30	0.8
X	23	O	54619	SR	0.86	0.37	-0.13	-0.22	-0.23	0.37	0.8
X	24	L	282356	SR	0.89	0.39	-0.18	0.39	-0.26	-0.21	0.1
X	25	O	282383	SR	0.62	0.47	0.47	-0.22	-0.27	-0.18	0.6
X	26	L	263291	SR	0.47	0.32	0.32	-0.10	-0.27	-0.13	0.5
X	28	L	263282	SR	0.20	0.24	-0.15	-0.11	0.24	0.01	0.3
X	29	O	257109	SR	0.38	0.23	0.23	-0.19	-0.01	-0.10	0.3
X	31	L	132837	SR	0.69	0.42	-0.11	-0.18	0.42	-0.33	0.3
X	32	O	275453	SPR	0.59	0.44	0.44	-0.39			2.1
X	35	O	56409	SR	0.79	0.49	-0.23	-0.30	-0.26	0.49	0.2
X	36	L	67547	SR	0.60	0.53	-0.34	-0.20	-0.22	0.53	0.2
X	37	L	133417	SR	0.52	0.55	0.55	-0.22	-0.38	-0.17	0.3
X	38	O	282363	SR	0.84	0.41	0.41	-0.23	-0.22	-0.21	0.4
X	40	L	67410	SPR	0.68	0.49	0.49	-0.43			3.2

Table 1.A18 Item Statistics, Operational Items: MD HSA 2011 Algebra—May Makeup 1

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
X	41	L	215928	SPR	0.63	0.54	0.54	-0.50			2.2
X	42	L	43189	SPR	0.71	0.48	0.48	-0.44			2.4
X	44	O	79036	SR	0.17	0.26	-0.13	0.07	-0.17	0.26	0.8
X	45	O	56626	SR	0.35	0.41	-0.12	-0.08	-0.24	0.41	0.7
X	46	L	67543	SR	0.52	0.38	-0.07	-0.21	-0.26	0.38	0.7
X	47	O	56625	SR	0.56	0.34	-0.16	0.34	-0.13	-0.18	0.7
X	48	O	106631	SR	0.39	0.43	-0.22	-0.23	-0.09	0.43	0.5
X	50	O	67473	SR	0.69	0.52	-0.16	0.52	-0.41	-0.21	0.2
X	51	L	133407	SR	0.50	0.31	0.31	-0.17	-0.29	-0.01	0.3
X	53	O	133400	SR	0.61	0.31	-0.13	0.31	-0.17	-0.18	0.5
X	54	O	56808	SR	0.26	0.39	-0.21	0.39	-0.18	-0.14	0.3
X	55	L	260761	SR	0.60	0.47	0.47	-0.18	-0.21	-0.29	0.4
X	57	L	257116	SPR	0.61	0.61	0.61	-0.56			2.6
X	58	O	257155	SPR	0.70	0.49	0.49	-0.44			2.8
X	59	O	67433	SR	0.40	0.37	-0.14	-0.22	0.37	-0.13	0.3
X	61	L	64250	SR	0.50	0.35	-0.15	-0.23	0.35	-0.08	0.5
X	62	O	67487	SR	0.64	0.50	-0.26	-0.22	-0.23	0.50	0.8
X	64	L	282375	SPR	0.75	0.45	0.45	-0.41			2.4
X	65	L	54720	SR	0.62	0.63	-0.19	-0.54	0.63	-0.10	0.3
X	66	L	275482	SR	0.55	0.47	0.47	-0.10	-0.29	-0.25	0.3
X	67	L	50440	SR	0.48	0.49	-0.14	-0.15	-0.34	0.49	0.3
X	68	L	56701	SR	0.38	0.39	-0.20	-0.22	0.39	-0.20	0.3
X	69	L	56812	SR	0.66	0.57	-0.18	-0.45	0.57	-0.18	0.4
Mean					0.56	0.44	0.08	-0.13	0.56	0.44	0.9
SD					0.16	0.10	0.33	0.31	0.16	0.10	1.0

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

Table 1.A19 Item Statistics, Operational Items: MD HSA 2011 Algebra—May Makeup 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	56582	SR	0.51	0.51	-0.14	-0.28	-0.26	0.51	0.3
Y	2	L	79123	SR	0.46	0.59	-0.20	-0.32	-0.24	0.59	0.5
Y	4	L	260773	SR	0.36	0.39	-0.13	-0.20	-0.13	0.39	0.5
Y	5	L	260765	SPR	0.52	0.68	0.68	-0.61			4.1
Y	6	O	255075	SPR	0.25	0.36	0.36	-0.30			1.9
Y	8	L	268768	SR	0.38	0.41	-0.04	0.41	-0.28	-0.21	0.2
Y	9	L	268764	SR	0.54	0.35	-0.08	0.35	-0.27	-0.19	0.2
Y	11	L	215927	SR	0.61	0.47	-0.38	0.47	-0.15	-0.16	0.1

Table 1.A19 Item Statistics, Operational Items: MD HSA 2011 Algebra—May Makeup 2

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Y	13	O	51380	SR	0.57	0.54	-0.27	-0.23	-0.28	0.54	0.2
Y	14	L	79097	SR	0.61	0.51	-0.23	0.51	-0.34	-0.16	0.2
Y	15	O	54796	SR	0.61	0.44	-0.28	-0.25	-0.13	0.44	0.3
Y	16	L	257115	SR	0.54	0.42	-0.28	-0.20	0.42	-0.17	0.4
Y	17	O	56735	SR	0.52	0.53	-0.13	0.53	-0.21	-0.38	0.4
Y	18	L	106615	SPR	0.62	0.61	0.61	-0.57			2.4
Y	20	L	56612	SR	0.73	0.39	0.39	-0.18	-0.22	-0.22	0.6
Y	21	O	257146	SR	0.34	0.46	0.46	-0.02	-0.29	-0.21	0.8
Y	22	L	56550	SR	0.70	0.51	-0.25	0.51	-0.22	-0.30	0.8
Y	23	O	79133	SR	0.80	0.44	-0.21	-0.31	0.44	-0.17	0.9
Y	24	L	282356	SR	0.89	0.39	-0.18	0.39	-0.26	-0.21	0.1
Y	25	O	275446	SR	0.54	0.51	-0.25	-0.13	-0.34	0.51	0.3
Y	26	L	263291	SR	0.47	0.32	0.32	-0.10	-0.27	-0.13	0.5
Y	28	L	263282	SR	0.20	0.24	-0.15	-0.11	0.24	0.01	0.3
Y	29	O	132843	SR	0.55	0.36	0.36	-0.22	-0.22	-0.05	0.2
Y	31	L	132837	SR	0.69	0.42	-0.11	-0.18	0.42	-0.33	0.3
Y	32	O	54741	SPR	0.60	0.43	0.43	-0.40			1.2
Y	35	O	257108	SR	0.75	0.40	-0.25	-0.27	0.40	-0.12	0.1
Y	36	L	67547	SR	0.60	0.53	-0.34	-0.20	-0.22	0.53	0.2
Y	37	L	133417	SR	0.52	0.55	0.55	-0.22	-0.38	-0.17	0.3
Y	38	O	67540	SR	0.45	0.49	-0.30	0.49	-0.19	-0.11	0.5
Y	40	L	67410	SPR	0.68	0.49	0.49	-0.43			3.2
Y	41	L	215928	SPR	0.63	0.54	0.54	-0.50			2.2
Y	42	L	43189	SPR	0.71	0.48	0.48	-0.44			2.4
Y	44	O	211006	SR	0.32	0.49	-0.15	-0.27	-0.13	0.49	0.6
Y	45	O	56792	SR	0.42	0.53	-0.37	0.53	-0.07	-0.19	0.5
Y	46	L	67543	SR	0.52	0.38	-0.07	-0.21	-0.26	0.38	0.7
Y	47	O	106620	SR	0.75	0.53	-0.38	0.53	-0.27	-0.14	0.2
Y	48	O	51431	SR	0.74	0.47	0.47	-0.19	-0.31	-0.22	0.2
Y	50	O	79033	SR	0.75	0.39	-0.23	-0.15	0.39	-0.21	0.1
Y	51	L	133407	SR	0.50	0.31	0.31	-0.17	-0.29	-0.01	0.3
Y	53	O	56782	SR	0.71	0.58	0.58	-0.33	-0.34	-0.21	0.4
Y	54	O	56764	SR	0.83	0.38	0.38	-0.19	-0.22	-0.20	0.2
Y	55	L	260761	SR	0.60	0.47	0.47	-0.18	-0.21	-0.29	0.4
Y	57	L	257116	SPR	0.61	0.61	0.61	-0.56			2.6
Y	58	O	260750	SPR	0.58	0.57	0.57	-0.52			3.3
Y	59	O	67458	SR	0.41	0.37	-0.14	-0.02	-0.35	0.37	0.2
Y	61	L	64250	SR	0.50	0.35	-0.15	-0.23	0.35	-0.08	0.5
Y	62	O	43214	SR	0.36	0.34	0.34	-0.10	-0.14	-0.15	0.5
Y	64	L	282375	SPR	0.75	0.45	0.45	-0.41			2.4
Y	65	L	54720	SR	0.62	0.63	-0.19	-0.54	0.63	-0.10	0.3
Y	66	L	275482	SR	0.55	0.47	0.47	-0.10	-0.29	-0.25	0.3
Y	67	L	50440	SR	0.48	0.49	-0.14	-0.15	-0.34	0.49	0.3

Table 1.A19 Item Statistics, Operational Items: MD HSA 2011 Algebra—May Makeup 2

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Y	68	L	56701	SR	0.38	0.39	-0.20	-0.22	0.39	-0.20	0.3
Y	69	L	56812	SR	0.66	0.57	-0.18	-0.45	0.57	-0.18	0.4
Mean					0.57	0.46	0.07	-0.13	-0.09	-0.01	0.8
SD					0.15	0.09	0.35	0.32	0.30	0.30	0.9

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

Table 1.A20 Item Statistics, Operational Items: MD HSA 2011 Biology—May Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D-N	1	O	57028	SR	0.67	0.37	-0.22	0.37	-0.18	-0.16	0.0
D-N	2	O	108519	SR	0.81	0.32	-0.18	0.32	-0.19	-0.16	0.0
D-N	5	O	133419	SR	0.69	0.46	0.46	-0.24	-0.23	-0.24	0.0
D-N	6	L	133445	SR	0.54	0.35	-0.24	0.03	-0.23	0.35	0.1
D-N	7	O	57056	SR	0.56	0.43	-0.04	0.43	-0.19	-0.31	0.1
D-N	8	O	271100	SR	0.71	0.38	-0.15	-0.29	0.38	-0.12	0.0
D-N	9	L	271044	SR	0.90	0.30	-0.09	0.30	-0.24	-0.16	0.0
D-N	10	L	271046	SR	0.36	0.21	-0.15	-0.19	0.04	0.21	0.0
D-N	11	O	223413	SR	0.56	0.40	-0.16	0.40	-0.31	-0.09	0.1
D-N	13	O	67645	SR	0.87	0.41	-0.21	0.41	-0.23	-0.24	0.0
D-N	14	L	108675	SR	0.31	0.25	0.25	-0.01	-0.06	-0.21	0.1
D-N	15	L	108677	SR	0.36	0.28	0.28	-0.09	-0.19	-0.07	0.1
D-N	17	O	52544	SR	0.69	0.49	0.49	-0.22	-0.27	-0.26	0.1
D-N	18	L	108630	SR	0.60	0.41	-0.25	-0.21	-0.19	0.41	0.1
D-N	19	O	108637	SR	0.66	0.47	-0.26	0.47	-0.23	-0.23	0.1
D-N	20	O	282442	SR	0.61	0.42	-0.17	-0.27	0.42	-0.17	0.1
D-N	21	O	279690	SR	0.53	0.51	-0.18	-0.26	-0.25	0.51	0.1
D-N	25	L	52418	SR	0.78	0.44	-0.24	0.44	-0.28	-0.20	0.1
D-N	26	O	52493	SR	0.93	0.35	-0.19	-0.17	0.35	-0.22	0.1
D-N	27	L	54970	SR	0.34	0.39	0.01	-0.24	-0.20	0.39	0.1
D-N	28	L	54971	SR	0.59	0.47	0.47	-0.33	-0.18	-0.20	0.1
D-N	29	L	68172	SR	0.79	0.45	-0.26	-0.20	-0.24	0.45	0.1
D-N	30	O	52515	SR	0.61	0.48	-0.13	-0.32	0.48	-0.28	0.1
D-N	32	L	55177	SR	0.91	0.37	-0.18	-0.24	0.37	-0.19	0.1
D-N	33	L	55178	SR	0.39	0.43	-0.15	0.43	-0.11	-0.28	0.2
D-N	34	L	67659	SR	0.80	0.45	0.45	-0.34	-0.16	-0.18	0.1
D-N	36	L	271153	SR	0.41	0.52	0.52	-0.31	-0.22	-0.11	0.2
D-N	37	L	271159	SR	0.29	0.39	-0.10	0.39	-0.16	-0.16	0.1
D-N	38	L	223428	SR	0.77	0.42	-0.27	0.42	-0.26	-0.11	0.1
D-N	39	L	79464	SR	0.48	0.35	0.35	-0.14	-0.21	-0.14	0.1

Table 1.A20 Item Statistics, Operational Items: MD HSA 2011 Biology—May Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D-N	42	L	271022	SR	0.49	0.41	-0.17	-0.16	-0.21	0.41	0.1
D-N	43	L	271024	SR	0.63	0.46	-0.37	0.46	-0.27	-0.04	0.1
D-N	44	L	68247	SR	0.77	0.37	0.37	-0.16	-0.20	-0.22	0.1
D-N	46	O	52623	SR	0.67	0.51	0.51	-0.34	-0.28	-0.16	0.1
D-N	47	L	263180	SR	0.34	0.30	0.30	-0.09	-0.19	-0.18	0.1
D-N	48	L	263181	SR	0.75	0.48	-0.33	-0.19	0.48	-0.23	0.1
D-N	49	O	108524	SR	0.56	0.50	-0.21	-0.21	-0.28	0.50	0.1
D-N	52	O	65051	SR	0.78	0.46	-0.20	-0.28	-0.26	0.46	0.1
D-N	53	L	79324	SR	0.56	0.40	-0.15	0.40	-0.26	-0.16	0.1
D-N	54	L	79329	SR	0.63	0.52	0.52	-0.23	-0.20	-0.33	0.1
D-N	56	O	133058	SR	0.66	0.48	-0.24	0.48	-0.27	-0.21	0.1
D-N	57	O	52694	SR	0.54	0.46	-0.27	-0.24	0.46	-0.16	0.1
D-N	58	L	271075	SR	0.51	0.55	-0.24	-0.33	0.55	-0.22	0.1
D-N	59	L	271076	SR	0.40	0.37	0.37	0.01	-0.22	-0.31	0.1
D-N	60	L	271073	SR	0.49	0.46	0.46	-0.13	-0.35	-0.14	0.1
D-N	61	L	271074	SR	0.49	0.43	-0.19	-0.16	-0.26	0.43	0.1
D-N	62	L	55023	SR	0.92	0.31	-0.17	-0.20	0.31	-0.14	0.1
D-N	63	O	65070	SR	0.52	0.55	-0.30	-0.27	-0.19	0.55	0.1
D-N	64	L	53476	SR	0.64	0.44	-0.19	0.44	-0.24	-0.23	0.2
D-N	65	L	223445	SR	0.77	0.47	-0.22	0.47	-0.33	-0.17	0.1
D-N	66	L	223446	SR	0.65	0.54	-0.27	-0.26	-0.29	0.54	0.1
D-N	67	O	79414	SR	0.75	0.40	-0.13	-0.23	-0.29	0.40	0.1
D-N	68	O	288372	SR	0.65	0.45	0.45	-0.22	-0.24	-0.21	0.1
D-N	69	L	142012	SR	0.60	0.21	-0.26	0.21	-0.29	0.08	0.1
D-N	73	L	79489	SR	0.52	0.51	-0.18	-0.25	-0.28	0.51	0.1
D-N	74	O	57106	SR	0.63	0.52	-0.32	0.52	-0.33	-0.18	0.1
D-N	75	L	57121	SR	0.64	0.55	0.55	-0.28	-0.32	-0.22	0.1
D-N	76	L	57122	SR	0.63	0.41	-0.16	0.41	-0.23	-0.21	0.1
D-N	78	L	65143	SR	0.67	0.51	-0.34	-0.29	0.51	-0.14	0.1
D-N	79	L	264033	SR	0.40	0.39	-0.14	0.39	-0.20	-0.13	0.1
D-N	80	L	264040	SR	0.50	0.48	-0.20	-0.17	-0.27	0.48	0.1
D-N	81	O	64726	SR	0.60	0.49	0.49	-0.21	-0.30	-0.19	0.1
D-N	83	L	52468	SR	0.65	0.55	-0.30	0.55	-0.24	-0.27	0.1
D-N	84	O	52469	SR	0.62	0.50	-0.20	0.50	-0.27	-0.27	0.1
D-N	86	O	52651	SR	0.85	0.49	0.49	-0.28	-0.30	-0.22	0.1
D-N	87	O	65002	SR	0.57	0.49	-0.26	-0.20	-0.25	0.49	0.1
D-N	90	L	270999	SR	0.57	0.45	0.45	-0.32	-0.26	-0.02	0.1
D-N	91	O	271001	SR	0.28	0.31	0.31	-0.17	0.00	-0.24	0.1
D-N	92	L	214517	SR	0.71	0.51	-0.24	0.51	-0.26	-0.29	0.1
D-N	93	O	271120	SR	0.61	0.42	-0.23	-0.20	0.42	-0.19	0.1
D-N	94	L	286617	SR	0.49	0.38	-0.28	0.38	-0.10	-0.13	0.2
D-N	95	L	288373	SR	0.30	0.41	0.03	-0.23	-0.29	0.41	0.1
D-N	96	O	65108	SR	0.50	0.48	-0.14	-0.26	0.48	-0.24	0.1

Table 1.A20 Item Statistics, Operational Items: MD HSA 2011 Biology—May Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D-N	97	O	79503	SR	0.58	0.47	-0.24	-0.25	-0.19	0.47	0.1
D-N	98	L	263150	SR	0.62	0.46	0.46	-0.35	-0.16	-0.17	0.1
D-N	99	L	263149	SR	0.68	0.54	-0.27	-0.33	0.54	-0.24	0.2
Mean					0.60	0.43	-0.03	-0.02	-0.11	-0.04	0.1
SD					0.16	0.08	0.30	0.31	0.26	0.28	0.0

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

Table 1.A21 Item Statistics, Operational Items: MD HSA 2011 Biology—May Makeup 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	52404	SR	0.73	0.41	-0.31	0.41	-0.13	-0.17	0.1
X	2	O	108545	SR	0.59	0.55	-0.20	-0.39	-0.19	0.55	0.1
X	5	O	133419	SR	0.69	0.46	0.46	-0.24	-0.23	-0.24	0.0
X	6	L	133445	SR	0.54	0.35	-0.24	0.03	-0.23	0.35	0.1
X	7	O	57056	SR	0.56	0.43	-0.04	0.43	-0.19	-0.31	0.1
X	8	O	271100	SR	0.71	0.38	-0.15	-0.29	0.38	-0.12	0.0
X	9	L	271044	SR	0.90	0.30	-0.09	0.30	-0.24	-0.16	0.0
X	10	L	271046	SR	0.36	0.21	-0.15	-0.19	0.04	0.21	0.0
X	11	O	68170	SR	0.60	0.41	-0.32	-0.12	0.41	-0.13	0.1
X	13	O	67645	SR	0.87	0.41	-0.21	0.41	-0.23	-0.24	0.0
X	14	L	108675	SR	0.31	0.25	0.25	-0.01	-0.06	-0.21	0.1
X	15	L	108677	SR	0.36	0.28	0.28	-0.09	-0.19	-0.07	0.1
X	17	O	52544	SR	0.69	0.49	0.49	-0.22	-0.27	-0.26	0.1
X	18	L	108630	SR	0.60	0.41	-0.25	-0.21	-0.19	0.41	0.1
X	19	O	108634	SR	0.75	0.43	0.43	-0.22	-0.24	-0.22	0.1
X	20	O	282442	SR	0.61	0.42	-0.17	-0.27	0.42	-0.17	0.1
X	21	O	133431	SR	0.48	0.43	0.43	-0.32	-0.14	-0.10	0.2
X	25	L	52418	SR	0.78	0.44	-0.24	0.44	-0.28	-0.20	0.1
X	26	O	79444	SR	0.49	0.55	-0.29	0.55	-0.20	-0.24	0.2
X	27	L	54970	SR	0.34	0.39	0.01	-0.24	-0.20	0.39	0.1
X	28	L	54971	SR	0.59	0.47	0.47	-0.33	-0.18	-0.20	0.1
X	29	L	68172	SR	0.79	0.45	-0.26	-0.20	-0.24	0.45	0.1
X	30	O	52759	SR	0.49	0.36	0.36	-0.17	-0.24	-0.06	0.3
X	32	L	55177	SR	0.91	0.37	-0.18	-0.24	0.37	-0.19	0.1
X	33	L	55178	SR	0.39	0.43	-0.15	0.43	-0.11	-0.28	0.2
X	34	L	67659	SR	0.80	0.45	0.45	-0.34	-0.16	-0.18	0.1
X	36	L	271153	SR	0.41	0.52	0.52	-0.31	-0.22	-0.11	0.2
X	37	L	271159	SR	0.29	0.39	-0.10	0.39	-0.16	-0.16	0.1
X	38	L	223428	SR	0.77	0.42	-0.27	0.42	-0.26	-0.11	0.1

Table 1.A21 Item Statistics, Operational Items: MD HSA 2011 Biology—May Makeup 1

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
X	39	L	79464	SR	0.48	0.35	0.35	-0.14	-0.21	-0.14	0.1
X	42	L	271022	SR	0.49	0.41	-0.17	-0.16	-0.21	0.41	0.1
X	43	L	271024	SR	0.63	0.46	-0.37	0.46	-0.27	-0.04	0.1
X	44	L	68247	SR	0.77	0.37	0.37	-0.16	-0.20	-0.22	0.1
X	46	O	52623	SR	0.67	0.51	0.51	-0.34	-0.28	-0.16	0.1
X	47	L	263180	SR	0.34	0.30	0.30	-0.09	-0.19	-0.18	0.1
X	48	L	263181	SR	0.75	0.48	-0.33	-0.19	0.48	-0.23	0.1
X	49	O	108524	SR	0.56	0.50	-0.21	-0.21	-0.28	0.50	0.1
X	52	O	53479	SR	0.67	0.39	-0.16	0.39	-0.28	-0.20	0.1
X	53	L	79324	SR	0.56	0.40	-0.15	0.40	-0.26	-0.16	0.1
X	54	L	79329	SR	0.63	0.52	0.52	-0.23	-0.20	-0.33	0.1
X	56	O	282438	SR	0.49	0.44	-0.22	-0.20	-0.17	0.44	0.1
X	57	O	52694	SR	0.54	0.46	-0.27	-0.24	0.46	-0.16	0.1
X	58	L	271075	SR	0.51	0.55	-0.24	-0.33	0.55	-0.22	0.1
X	59	L	271076	SR	0.40	0.37	0.37	0.01	-0.22	-0.31	0.1
X	60	L	271073	SR	0.49	0.46	0.46	-0.13	-0.35	-0.14	0.1
X	61	L	271074	SR	0.49	0.43	-0.19	-0.16	-0.26	0.43	0.1
X	62	L	55023	SR	0.92	0.31	-0.17	-0.20	0.31	-0.14	0.1
X	63	O	67687	SR	0.56	0.52	-0.27	-0.25	0.52	-0.21	0.2
X	64	L	53476	SR	0.64	0.44	-0.19	0.44	-0.24	-0.23	0.2
X	65	L	223445	SR	0.77	0.47	-0.22	0.47	-0.33	-0.17	0.1
X	66	L	223446	SR	0.65	0.54	-0.27	-0.26	-0.29	0.54	0.1
X	67	O	79414	SR	0.75	0.40	-0.13	-0.23	-0.29	0.40	0.1
X	68	O	288372	SR	0.65	0.45	0.45	-0.22	-0.24	-0.21	0.1
X	69	L	142012	SR	0.60	0.21	-0.26	0.21	-0.29	0.08	0.1
X	73	L	79489	SR	0.52	0.51	-0.18	-0.25	-0.28	0.51	0.1
X	74	O	65152	SR	0.41	0.30	0.30	-0.39	0.15	-0.25	0.2
X	75	L	57121	SR	0.64	0.55	0.55	-0.28	-0.32	-0.22	0.1
X	76	L	57122	SR	0.63	0.41	-0.16	0.41	-0.23	-0.21	0.1
X	78	L	65143	SR	0.67	0.51	-0.34	-0.29	0.51	-0.14	0.1
X	79	L	264033	SR	0.40	0.39	-0.14	0.39	-0.20	-0.13	0.1
X	80	L	264040	SR	0.50	0.48	-0.20	-0.17	-0.27	0.48	0.1
X	81	O	64990	SR	0.86	0.30	0.30	-0.16	-0.18	-0.17	0.2
X	83	L	52468	SR	0.65	0.55	-0.30	0.55	-0.24	-0.27	0.1
X	84	O	52470	SR	0.67	0.48	-0.25	0.48	-0.27	-0.19	0.2
X	86	O	52651	SR	0.85	0.49	0.49	-0.28	-0.30	-0.22	0.1
X	87	O	65063	SR	0.53	0.44	0.44	-0.24	-0.17	-0.19	0.2
X	90	L	270999	SR	0.57	0.45	0.45	-0.32	-0.26	-0.02	0.1
X	91	O	271001	SR	0.28	0.31	0.31	-0.17	0.00	-0.24	0.1
X	92	L	214517	SR	0.71	0.51	-0.24	0.51	-0.26	-0.29	0.1
X	93	O	133045	SR	0.43	0.41	-0.11	0.41	-0.24	-0.21	0.4
X	94	L	286617	SR	0.49	0.38	-0.28	0.38	-0.10	-0.13	0.2
X	95	L	288373	SR	0.30	0.41	0.03	-0.23	-0.29	0.41	0.1
X	96	O	65108	SR	0.50	0.48	-0.14	-0.26	0.48	-0.24	0.1

Table 1.A21 Item Statistics, Operational Items: MD HSA 2011 Biology—May Makeup 1

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
X	97	O	79503	SR	0.58	0.47	-0.24	-0.25	-0.19	0.47	0.1
X	98	L	263150	SR	0.62	0.46	0.46	-0.35	-0.16	-0.17	0.1
X	99	L	263149	SR	0.68	0.54	-0.27	-0.33	0.54	-0.24	0.2
Mean					0.59	0.43	0.01	-0.04	-0.11	-0.05	0.1
SD					0.16	0.08	0.31	0.31	0.26	0.26	0.1

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

Table 1.A22 Item Statistics, Operational Items: MD HSA 2011 Biology—May Makeup 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	57028	SR	0.67	0.37	-0.22	0.37	-0.18	-0.16	0.0
Y	2	O	108519	SR	0.81	0.32	-0.18	0.32	-0.19	-0.16	0.0
Y	5	O	133444	SR	0.80	0.45	0.45	-0.26	-0.17	-0.30	0.0
Y	6	L	133445	SR	0.54	0.35	-0.24	0.03	-0.23	0.35	0.1
Y	7	O	57039	SR	0.64	0.28	-0.15	0.28	-0.10	-0.17	0.0
Y	8	O	57064	SR	0.55	0.52	0.52	-0.31	-0.28	-0.19	0.0
Y	9	L	271044	SR	0.90	0.30	-0.09	0.30	-0.24	-0.16	0.0
Y	10	L	271046	SR	0.36	0.21	-0.15	-0.19	0.04	0.21	0.0
Y	11	O	223413	SR	0.56	0.40	-0.16	0.40	-0.31	-0.09	0.1
Y	13	O	68163	SR	0.71	0.41	-0.22	-0.21	-0.24	0.41	0.0
Y	14	L	108675	SR	0.31	0.25	0.25	-0.01	-0.06	-0.21	0.1
Y	15	L	108677	SR	0.36	0.28	0.28	-0.09	-0.19	-0.07	0.1
Y	17	O	263106	SR	0.63	0.27	-0.12	0.27	-0.22	-0.09	0.1
Y	18	L	108630	SR	0.60	0.41	-0.25	-0.21	-0.19	0.41	0.1
Y	19	O	108637	SR	0.66	0.47	-0.26	0.47	-0.23	-0.23	0.1
Y	20	O	279618	SR	0.59	0.46	-0.15	-0.25	0.46	-0.29	0.0
Y	21	O	279690	SR	0.53	0.51	-0.18	-0.26	-0.25	0.51	0.1
Y	25	L	52418	SR	0.78	0.44	-0.24	0.44	-0.28	-0.20	0.1
Y	26	O	52493	SR	0.93	0.35	-0.19	-0.17	0.35	-0.22	0.1
Y	27	L	54970	SR	0.34	0.39	0.01	-0.24	-0.20	0.39	0.1
Y	28	L	54971	SR	0.59	0.47	0.47	-0.33	-0.18	-0.20	0.1
Y	29	L	68172	SR	0.79	0.45	-0.26	-0.20	-0.24	0.45	0.1
Y	30	O	52515	SR	0.61	0.48	-0.13	-0.32	0.48	-0.28	0.1
Y	32	L	55177	SR	0.91	0.37	-0.18	-0.24	0.37	-0.19	0.1
Y	33	L	55178	SR	0.39	0.43	-0.15	0.43	-0.11	-0.28	0.2
Y	34	L	67659	SR	0.80	0.45	0.45	-0.34	-0.16	-0.18	0.1
Y	36	L	271153	SR	0.41	0.52	0.52	-0.31	-0.22	-0.11	0.2
Y	37	L	271159	SR	0.29	0.39	-0.10	0.39	-0.16	-0.16	0.1
Y	38	L	223428	SR	0.77	0.42	-0.27	0.42	-0.26	-0.11	0.1

Table 1.A22 Item Statistics, Operational Items: MD HSA 2011 Biology—May Makeup 2

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Y	39	L	79464	SR	0.48	0.35	0.35	-0.14	-0.21	-0.14	0.1
Y	42	L	271022	SR	0.49	0.41	-0.17	-0.16	-0.21	0.41	0.1
Y	43	L	271024	SR	0.63	0.46	-0.37	0.46	-0.27	-0.04	0.1
Y	44	L	68247	SR	0.77	0.37	0.37	-0.16	-0.20	-0.22	0.1
Y	46	O	271101	SR	0.73	0.37	-0.24	-0.15	0.37	-0.17	0.1
Y	47	L	263180	SR	0.34	0.30	0.30	-0.09	-0.19	-0.18	0.1
Y	48	L	263181	SR	0.75	0.48	-0.33	-0.19	0.48	-0.23	0.1
Y	49	O	52621	SR	0.50	0.47	-0.23	0.47	-0.26	-0.17	0.1
Y	52	O	65051	SR	0.78	0.46	-0.20	-0.28	-0.26	0.46	0.1
Y	53	L	79324	SR	0.56	0.40	-0.15	0.40	-0.26	-0.16	0.1
Y	54	L	79329	SR	0.63	0.52	0.52	-0.23	-0.20	-0.33	0.1
Y	56	O	133058	SR	0.66	0.48	-0.24	0.48	-0.27	-0.21	0.1
Y	57	O	214552	SR	0.64	0.39	-0.23	-0.24	0.39	-0.11	0.2
Y	58	L	271075	SR	0.51	0.55	-0.24	-0.33	0.55	-0.22	0.1
Y	59	L	271076	SR	0.40	0.37	0.37	0.01	-0.22	-0.31	0.1
Y	60	L	271073	SR	0.49	0.46	0.46	-0.13	-0.35	-0.14	0.1
Y	61	L	271074	SR	0.49	0.43	-0.19	-0.16	-0.26	0.43	0.1
Y	62	L	55023	SR	0.92	0.31	-0.17	-0.20	0.31	-0.14	0.1
Y	63	O	65070	SR	0.52	0.55	-0.30	-0.27	-0.19	0.55	0.1
Y	64	L	53476	SR	0.64	0.44	-0.19	0.44	-0.24	-0.23	0.2
Y	65	L	223445	SR	0.77	0.47	-0.22	0.47	-0.33	-0.17	0.1
Y	66	L	223446	SR	0.65	0.54	-0.27	-0.26	-0.29	0.54	0.1
Y	67	O	60552	SR	0.79	0.36	-0.18	-0.25	0.36	-0.13	0.0
Y	68	O	65059	SR	0.51	0.16	0.16	-0.01	-0.17	-0.17	0.1
Y	69	L	142012	SR	0.60	0.21	-0.26	0.21	-0.29	0.08	0.1
Y	73	L	79489	SR	0.52	0.51	-0.18	-0.25	-0.28	0.51	0.1
Y	74	O	57106	SR	0.63	0.52	-0.32	0.52	-0.33	-0.18	0.1
Y	75	L	57121	SR	0.64	0.55	0.55	-0.28	-0.32	-0.22	0.1
Y	76	L	57122	SR	0.63	0.41	-0.16	0.41	-0.23	-0.21	0.1
Y	78	L	65143	SR	0.67	0.51	-0.34	-0.29	0.51	-0.14	0.1
Y	79	L	264033	SR	0.40	0.39	-0.14	0.39	-0.20	-0.13	0.1
Y	80	L	264040	SR	0.50	0.48	-0.20	-0.17	-0.27	0.48	0.1
Y	81	O	64726	SR	0.60	0.49	0.49	-0.21	-0.30	-0.19	0.1
Y	83	L	52468	SR	0.65	0.55	-0.30	0.55	-0.24	-0.27	0.1
Y	84	O	52469	SR	0.62	0.50	-0.20	0.50	-0.27	-0.27	0.1
Y	86	O	57113	SR	0.68	0.39	0.39	-0.19	-0.17	-0.25	0.1
Y	87	O	65002	SR	0.57	0.49	-0.26	-0.20	-0.25	0.49	0.1
Y	90	L	270999	SR	0.57	0.45	0.45	-0.32	-0.26	-0.02	0.1
Y	91	O	271000	SR	0.61	0.49	-0.25	0.49	-0.32	-0.13	0.1
Y	92	L	214517	SR	0.71	0.51	-0.24	0.51	-0.26	-0.29	0.1
Y	93	O	271120	SR	0.61	0.42	-0.23	-0.20	0.42	-0.19	0.1
Y	94	L	286617	SR	0.49	0.38	-0.28	0.38	-0.10	-0.13	0.2
Y	95	L	288373	SR	0.30	0.41	0.03	-0.23	-0.29	0.41	0.1
Y	96	O	271070	SR	0.64	0.50	0.50	-0.28	-0.23	-0.26	0.2

181

Table 1.A22 Item Statistics, Operational Items: MD HSA 2011 Biology—May Makeup 2

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Y	97	O	271053	SR	0.81	0.45	-0.23	0.45	-0.30	-0.20	0.1
Y	98	L	263150	SR	0.62	0.46	0.46	-0.35	-0.16	-0.17	0.1
Y	99	L	263149	SR	0.68	0.54	-0.27	-0.33	0.54	-0.24	0.2
Mean					0.61	0.42	-0.04	0.01	-0.11	-0.05	0.1
SD					0.15	0.09	0.29	0.32	0.26	0.27	0.0

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

Table 1.A23 Item Statistics, Operational Items: MD HSA 2011 English—May Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D-N	1	O	108712	SR	0.72	0.15	0.15	-0.02	-0.09	-0.14	0.0
D-N	2	O	108713	SR	0.71	0.34	-0.12	-0.21	0.34	-0.19	0.0
D-N	3	O	108714	SR	0.64	0.45	-0.21	-0.27	0.45	-0.18	0.1
D-N	4	O	109730	SR	0.73	0.44	-0.26	-0.23	0.44	-0.23	0.1
D-N	5	O	109731	SR	0.72	0.38	-0.18	-0.21	-0.20	0.38	0.1
D-N	6	O	215900	SR	0.76	0.30	-0.23	0.30	-0.16	-0.10	0.1
D-N	7	O	215901	SR	0.77	0.52	-0.31	-0.24	-0.26	0.52	0.1
D-N	8	O	215902	SR	0.50	0.31	-0.04	-0.21	-0.21	0.31	0.1
D-N	9	O	230788	SR	0.46	0.25	-0.24	0.25	-0.32	0.10	0.1
D-N	10	O	230789	SR	0.69	0.47	-0.23	-0.31	0.47	-0.20	0.1
D-N	11	O	215905	SR	0.81	0.28	-0.12	-0.22	0.28	-0.14	0.1
D-N	12	O	272944	SR	0.54	0.48	-0.23	-0.23	-0.21	0.48	0.1
D-N	13	O	285544	SR	0.77	0.53	-0.31	0.53	-0.26	-0.28	0.1
D-N	14	L	285545	SR	0.82	0.47	0.47	-0.30	-0.23	-0.24	0.1
D-N	16	L	281347	SR	0.65	0.24	-0.18	-0.20	0.24	-0.09	0.2
D-N	17	L	281345	SR	0.83	0.42	-0.20	-0.23	-0.24	0.42	0.1
D-N	18	L	281348	SR	0.39	0.31	-0.11	0.31	-0.14	-0.21	0.1
D-N	19	L	281349	SR	0.85	0.33	-0.22	-0.14	0.33	-0.16	0.1
D-N	25	L	96147	SR	0.84	0.23	0.23	-0.06	-0.21	-0.16	0.4
D-N	26	L	96148	SR	0.86	0.39	-0.19	-0.19	0.39	-0.23	0.4
D-N	27	L	96149	SR	0.75	0.49	0.49	-0.23	-0.29	-0.25	0.5
D-N	28	L	96150	SR	0.57	0.43	-0.23	-0.26	-0.10	0.43	0.5
D-N	29	L	96151	SR	0.42	0.32	-0.09	-0.16	-0.13	0.32	0.7
D-N	30	L	96152	SR	0.49	0.42	-0.13	0.42	-0.16	-0.25	0.9
D-N	31	L	96153	SR	0.46	0.29	0.29	-0.19	-0.27	0.02	0.9
D-N	32	L	96154	SR	0.66	0.29	-0.25	0.29	-0.02	-0.22	1.0
D-N	33	O	318477	SR	0.83	0.29	0.29	-0.26	-0.22	-0.03	0.1
D-N	34	L	251168	SR	0.62	0.22	-0.20	-0.21	0.02	0.22	0.1
D-N	35	O	209820	SR	0.88	0.37	-0.15	-0.20	-0.26	0.37	0.1

Table 1.A23 Item Statistics, Operational Items: MD HSA 2011 English—May Primary

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D-N	47	O	251243	SR	0.70	0.49	-0.24	0.49	-0.24	-0.26	0.1
D-N	48	O	251242	SR	0.76	0.44	-0.18	-0.24	0.44	-0.28	0.1
D-N	49	O	251244	SR	0.65	0.41	-0.25	-0.15	0.41	-0.23	0.1
D-N	61	L	281350	SR	0.60	0.38	-0.19	0.38	-0.20	-0.14	0.4
D-N	62	L	281353	SR	0.36	0.22	-0.28	-0.33	0.22	0.13	0.4
D-N	63	L	281356	SR	0.63	0.40	-0.18	-0.18	0.40	-0.22	0.4
D-N	64	L	281351	SR	0.58	0.41	-0.27	0.41	-0.16	-0.14	0.4
D-N	65	L	281355	SR	0.49	0.36	0.36	-0.16	-0.24	-0.05	0.5
D-N	66	L	281357	SR	0.76	0.57	-0.29	-0.27	-0.33	0.57	0.5
D-N	67	L	281359	SR	0.50	0.48	0.48	-0.17	-0.23	-0.24	0.5
D-N	68	O	257149	SR	0.84	0.39	0.39	-0.26	-0.24	-0.09	0.1
D-N	69	O	257151	SR	0.92	0.43	-0.26	0.43	-0.22	-0.23	0.1
D-N	70	O	257152	SR	0.85	0.50	-0.26	-0.30	-0.25	0.50	0.1
D-N	71	O	257154	SR	0.72	0.45	-0.15	-0.31	0.45	-0.23	0.1
D-N	72	O	257153	SR	0.59	0.50	0.50	-0.27	-0.25	-0.26	0.1
D-N	73	O	257150	SR	0.67	0.49	-0.24	-0.31	0.49	-0.20	0.1
D-N	76	L	108828	SR	0.83	0.42	-0.22	-0.23	0.42	-0.22	0.2
D-N	77	L	108831	SR	0.49	0.27	0.27	-0.05	-0.29	-0.22	0.2
D-N	78	L	130203	SR	0.45	0.24	0.24	-0.26	-0.04	-0.19	0.1
D-N	79	L	108830	SR	0.76	0.48	-0.23	-0.29	-0.24	0.48	0.1
D-N	80	L	130204	SR	0.66	0.45	0.45	-0.31	-0.15	-0.19	0.2
D-N	81	L	108835	SR	0.81	0.43	-0.24	0.43	-0.22	-0.24	0.1
D-N	82	L	108832	SR	0.74	0.53	0.53	-0.34	-0.26	-0.22	0.2
D-N	83	L	108829	SR	0.87	0.48	-0.24	-0.27	-0.28	0.48	0.2
D-N	84	L	171382	SR	0.46	0.44	0.44	-0.27	-0.24	-0.14	0.1
D-N	85	L	130205	SR	0.82	0.44	-0.22	0.44	-0.27	-0.22	0.2
D-N	86	L	256428	SR	0.68	0.22	0.22	-0.14	-0.16	-0.04	0.2
D-N	87	L	256429	SR	0.57	0.33	-0.15	0.33	-0.12	-0.20	0.1
D-N	88	L	256430	SR	0.42	0.35	-0.24	-0.13	0.35	-0.10	0.2
D-N	97	L	130305	SR	0.18	0.13	0.06	-0.21	-0.10	0.13	0.2
D-N	98	L	130304	SR	0.74	0.42	-0.12	0.42	-0.29	-0.26	0.3
Mean					0.66	0.38	-0.05	-0.08	-0.05	-0.04	0.2
SD					0.16	0.10	0.26	0.27	0.27	0.26	0.2

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

Table 1.A24 Item Statistics, Operational Items: MD HSA 2011 English—May Makeup 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	108712	SR	0.72	0.15	0.15	-0.02	-0.09	-0.14	0.0
X	2	O	108713	SR	0.71	0.34	-0.12	-0.21	0.34	-0.19	0.0
X	3	O	108714	SR	0.64	0.45	-0.21	-0.27	0.45	-0.18	0.1
X	4	O	109730	SR	0.73	0.44	-0.26	-0.23	0.44	-0.23	0.1
X	5	O	109731	SR	0.72	0.38	-0.18	-0.21	-0.20	0.38	0.1
X	6	O	215900	SR	0.76	0.30	-0.23	0.30	-0.16	-0.10	0.1
X	7	O	215901	SR	0.77	0.52	-0.31	-0.24	-0.26	0.52	0.1
X	8	O	215902	SR	0.50	0.31	-0.04	-0.21	-0.21	0.31	0.1
X	9	O	230788	SR	0.46	0.25	-0.24	0.25	-0.32	0.10	0.1
X	10	O	230789	SR	0.69	0.47	-0.23	-0.31	0.47	-0.20	0.1
X	11	O	215905	SR	0.81	0.28	-0.12	-0.22	0.28	-0.14	0.1
X	12	O	285622	SR	0.65	0.42	-0.21	-0.25	-0.17	0.42	0.1
X	13	O	285544	SR	0.77	0.53	-0.31	0.53	-0.26	-0.28	0.1
X	14	L	285545	SR	0.82	0.47	0.47	-0.30	-0.23	-0.24	0.1
X	16	L	281347	SR	0.65	0.24	-0.18	-0.20	0.24	-0.09	0.2
X	17	L	281345	SR	0.83	0.42	-0.20	-0.23	-0.24	0.42	0.1
X	18	L	281348	SR	0.39	0.31	-0.11	0.31	-0.14	-0.21	0.1
X	19	L	281349	SR	0.85	0.33	-0.22	-0.14	0.33	-0.16	0.1
X	25	L	96147	SR	0.84	0.23	0.23	-0.06	-0.21	-0.16	0.4
X	26	L	96148	SR	0.86	0.39	-0.19	-0.19	0.39	-0.23	0.4
X	27	L	96149	SR	0.75	0.49	0.49	-0.23	-0.29	-0.25	0.5
X	28	L	96150	SR	0.57	0.43	-0.23	-0.26	-0.10	0.43	0.5
X	29	L	96151	SR	0.42	0.32	-0.09	-0.16	-0.13	0.32	0.7
X	30	L	96152	SR	0.49	0.42	-0.13	0.42	-0.16	-0.25	0.9
X	31	L	96153	SR	0.46	0.29	0.29	-0.19	-0.27	0.02	0.9
X	32	L	96154	SR	0.66	0.29	-0.25	0.29	-0.02	-0.22	1.0
X	33	O	209818	SR	0.84	0.47	-0.21	-0.32	-0.23	0.47	0.1
X	34	L	251168	SR	0.62	0.22	-0.20	-0.21	0.02	0.22	0.1
X	35	O	96328	SR	0.78	0.47	0.47	-0.25	-0.27	-0.22	0.1
X	47	O	248196	SR	0.45	0.41	-0.21	-0.15	-0.17	0.41	0.2
X	48	O	248197	SR	0.77	0.52	-0.26	-0.29	0.52	-0.26	0.3
X	49	O	108762	SR	0.64	0.46	0.46	-0.20	-0.26	-0.23	0.2
X	61	L	281350	SR	0.60	0.38	-0.19	0.38	-0.20	-0.14	0.4
X	62	L	281353	SR	0.36	0.22	-0.28	-0.33	0.22	0.13	0.4
X	63	L	281356	SR	0.63	0.40	-0.18	-0.18	0.40	-0.22	0.4
X	64	L	281351	SR	0.58	0.41	-0.27	0.41	-0.16	-0.14	0.4
X	65	L	281355	SR	0.49	0.36	0.36	-0.16	-0.24	-0.05	0.5
X	66	L	281357	SR	0.76	0.57	-0.29	-0.27	-0.33	0.57	0.5
X	67	L	281359	SR	0.50	0.48	0.48	-0.17	-0.23	-0.24	0.5
X	68	O	261648	SR	0.65	0.55	-0.28	-0.25	-0.28	0.55	0.2
X	69	O	261649	SR	0.58	0.44	-0.21	0.44	-0.27	-0.14	0.2
X	70	O	261651	SR	0.71	0.55	-0.26	-0.29	-0.30	0.55	0.2
X	71	O	261662	SR	0.66	0.49	-0.27	-0.25	0.49	-0.21	0.2
X	72	O	261650	SR	0.57	0.46	-0.21	-0.24	0.46	-0.18	0.3

Table 1.A24 Item Statistics, Operational Items: MD HSA 2011 English—May Makeup 1

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
X	73	O	261661	SR	0.33	0.22	0.22	-0.14	0.04	-0.17	0.3
X	76	L	108828	SR	0.83	0.42	-0.22	-0.23	0.42	-0.22	0.2
X	77	L	108831	SR	0.49	0.27	0.27	-0.05	-0.29	-0.22	0.2
X	78	L	130203	SR	0.45	0.24	0.24	-0.26	-0.04	-0.19	0.1
X	79	L	108830	SR	0.76	0.48	-0.23	-0.29	-0.24	0.48	0.1
X	80	L	130204	SR	0.66	0.45	0.45	-0.31	-0.15	-0.19	0.2
X	81	L	108835	SR	0.81	0.43	-0.24	0.43	-0.22	-0.24	0.1
X	82	L	108832	SR	0.74	0.53	0.53	-0.34	-0.26	-0.22	0.2
X	83	L	108829	SR	0.87	0.48	-0.24	-0.27	-0.28	0.48	0.2
X	84	L	171382	SR	0.46	0.44	0.44	-0.27	-0.24	-0.14	0.1
X	85	L	130205	SR	0.82	0.44	-0.22	0.44	-0.27	-0.22	0.2
X	86	L	256428	SR	0.68	0.22	0.22	-0.14	-0.16	-0.04	0.2
X	87	L	256429	SR	0.57	0.33	-0.15	0.33	-0.12	-0.20	0.1
X	88	L	256430	SR	0.42	0.35	-0.24	-0.13	0.35	-0.10	0.2
X	97	L	130305	SR	0.18	0.13	0.06	-0.21	-0.10	0.13	0.2
X	98	L	130304	SR	0.74	0.42	-0.12	0.42	-0.29	-0.26	0.3
Mean					0.64	0.39	-0.05	-0.09	-0.05	-0.01	0.2
SD					0.16	0.11	0.27	0.26	0.27	0.28	0.2

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

Table 1.A25 Item Statistics, Operational Items: MD HSA 2011 English—May Makeup 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	130258	SR	0.79	0.28	0.28	-0.18	-0.18	-0.12	0.0
Y	2	O	96120	SR	0.62	0.42	0.42	-0.23	-0.23	-0.18	0.0
Y	3	O	96121	SR	0.78	0.49	-0.24	0.49	-0.28	-0.26	0.1
Y	4	O	96122	SR	0.76	0.35	-0.20	-0.17	0.35	-0.24	0.0
Y	5	O	96123	SR	0.49	0.27	-0.20	-0.11	0.27	-0.09	0.1
Y	6	O	246664	SR	0.76	0.52	-0.22	-0.28	-0.31	0.52	0.1
Y	7	O	246660	SR	0.65	0.34	-0.06	-0.31	-0.22	0.34	0.2
Y	8	O	246661	SR	0.76	0.49	0.49	-0.30	-0.24	-0.24	0.1
Y	9	O	246662	SR	0.62	0.46	-0.24	-0.23	0.46	-0.21	0.1
Y	10	O	250304	SR	0.73	0.48	-0.22	-0.29	0.48	-0.26	0.1
Y	11	O	246666	SR	0.62	0.33	-0.12	-0.30	0.33	-0.06	0.1
Y	12	O	272944	SR	0.54	0.48	-0.23	-0.23	-0.21	0.48	0.1
Y	13	O	256307	SR	0.78	0.48	-0.25	-0.28	0.48	-0.24	0.1
Y	14	L	285545	SR	0.82	0.47	0.47	-0.30	-0.23	-0.24	0.1

Table 1.A25 Item Statistics, Operational Items: MD HSA 2011 English—May Makeup 2

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Y	16	L	281347	SR	0.65	0.24	-0.18	-0.20	0.24	-0.09	0.2
Y	17	L	281345	SR	0.83	0.42	-0.20	-0.23	-0.24	0.42	0.1
Y	18	L	281348	SR	0.39	0.31	-0.11	0.31	-0.14	-0.21	0.1
Y	19	L	281349	SR	0.85	0.33	-0.22	-0.14	0.33	-0.16	0.1
Y	25	L	96147	SR	0.84	0.23	0.23	-0.06	-0.21	-0.16	0.4
Y	26	L	96148	SR	0.86	0.39	-0.19	-0.19	0.39	-0.23	0.4
Y	27	L	96149	SR	0.75	0.49	0.49	-0.23	-0.29	-0.25	0.5
Y	28	L	96150	SR	0.57	0.43	-0.23	-0.26	-0.10	0.43	0.5
Y	29	L	96151	SR	0.42	0.32	-0.09	-0.16	-0.13	0.32	0.7
Y	30	L	96152	SR	0.49	0.42	-0.13	0.42	-0.16	-0.25	0.9
Y	31	L	96153	SR	0.46	0.29	0.29	-0.19	-0.27	0.02	0.9
Y	32	L	96154	SR	0.66	0.29	-0.25	0.29	-0.02	-0.22	1.0
Y	33	O	318477	SR	0.83	0.29	0.29	-0.26	-0.22	-0.03	0.1
Y	34	L	251168	SR	0.62	0.22	-0.20	-0.21	0.02	0.22	0.1
Y	35	O	209820	SR	0.88	0.37	-0.15	-0.20	-0.26	0.37	0.1
Y	47	O	251243	SR	0.70	0.49	-0.24	0.49	-0.24	-0.26	0.1
Y	48	O	251242	SR	0.76	0.44	-0.18	-0.24	0.44	-0.28	0.1
Y	49	O	251244	SR	0.65	0.41	-0.25	-0.15	0.41	-0.23	0.1
Y	61	L	281350	SR	0.60	0.38	-0.19	0.38	-0.20	-0.14	0.4
Y	62	L	281353	SR	0.36	0.22	-0.28	-0.33	0.22	0.13	0.4
Y	63	L	281356	SR	0.63	0.40	-0.18	-0.18	0.40	-0.22	0.4
Y	64	L	281351	SR	0.58	0.41	-0.27	0.41	-0.16	-0.14	0.4
Y	65	L	281355	SR	0.49	0.36	0.36	-0.16	-0.24	-0.05	0.5
Y	66	L	281357	SR	0.76	0.57	-0.29	-0.27	-0.33	0.57	0.5
Y	67	L	281359	SR	0.50	0.48	0.48	-0.17	-0.23	-0.24	0.5
Y	68	O	257149	SR	0.84	0.39	0.39	-0.26	-0.24	-0.09	0.1
Y	69	O	257151	SR	0.92	0.43	-0.26	0.43	-0.22	-0.23	0.1
Y	70	O	257152	SR	0.85	0.50	-0.26	-0.30	-0.25	0.50	0.1
Y	71	O	257154	SR	0.72	0.45	-0.15	-0.31	0.45	-0.23	0.1
Y	72	O	257153	SR	0.59	0.50	0.50	-0.27	-0.25	-0.26	0.1
Y	73	O	257150	SR	0.67	0.49	-0.24	-0.31	0.49	-0.20	0.1
Y	76	L	108828	SR	0.83	0.42	-0.22	-0.23	0.42	-0.22	0.2
Y	77	L	108831	SR	0.49	0.27	0.27	-0.05	-0.29	-0.22	0.2
Y	78	L	130203	SR	0.45	0.24	0.24	-0.26	-0.04	-0.19	0.1
Y	79	L	108830	SR	0.76	0.48	-0.23	-0.29	-0.24	0.48	0.1
Y	80	L	130204	SR	0.66	0.45	0.45	-0.31	-0.15	-0.19	0.2
Y	81	L	108835	SR	0.81	0.43	-0.24	0.43	-0.22	-0.24	0.1
Y	82	L	108832	SR	0.74	0.53	0.53	-0.34	-0.26	-0.22	0.2
Y	83	L	108829	SR	0.87	0.48	-0.24	-0.27	-0.28	0.48	0.2
Y	84	L	171382	SR	0.46	0.44	0.44	-0.27	-0.24	-0.14	0.1
Y	85	L	130205	SR	0.82	0.44	-0.22	0.44	-0.27	-0.22	0.2
Y	86	L	256428	SR	0.68	0.22	0.22	-0.14	-0.16	-0.04	0.2
Y	87	L	256429	SR	0.57	0.33	-0.15	0.33	-0.12	-0.20	0.1
Y	88	L	256430	SR	0.42	0.35	-0.24	-0.13	0.35	-0.10	0.2

186

Table 1.A25 Item Statistics, Operational Items: MD HSA 2011 English—May Makeup 2

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Y	97	L	130305	SR	0.18	0.13	0.06	-0.21	-0.10	0.13	0.2
Y	98	L	130304	SR	0.74	0.42	-0.12	0.42	-0.29	-0.26	0.3
Mean					0.67	0.39	-0.02	-0.10	-0.04	-0.05	0.2
SD					0.16	0.10	0.28	0.26	0.28	0.26	0.2

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

Table 1.A26 Item Statistics, Operational Items: MD HSA 2011 Government—May Primary 1

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D-N	1	L	256350	SR	0.88	0.39	0.39	-0.21	-0.25	-0.19	0.0
D-N	2	L	79606	SR	0.78	0.29	-0.11	-0.20	0.29	-0.19	0.0
D-N	3	O	108408	SR	0.74	0.45	-0.34	-0.26	0.45	-0.13	0.1
D-N	4	L	279759	SR	0.49	0.47	0.47	-0.32	-0.20	-0.14	0.0
D-N	5	O	108468	SR	0.86	0.46	-0.26	0.46	-0.30	-0.20	0.0
D-N	8	O	51044	SR	0.75	0.45	0.45	-0.26	-0.25	-0.21	0.1
D-N	9	L	68544	SR	0.65	0.32	-0.15	0.32	-0.20	-0.12	0.1
D-N	10	L	51050	SR	0.26	0.31	-0.25	-0.21	0.31	0.13	0.0
D-N	11	L	271826	SR	0.88	0.41	-0.20	0.41	-0.26	-0.22	0.1
D-N	12	O	51131	SR	0.87	0.38	-0.19	-0.25	-0.18	0.38	0.0
D-N	13	L	214515	SR	0.50	0.26	-0.13	0.26	-0.17	-0.06	0.1
D-N	16	O	256384	SR	0.76	0.48	0.48	-0.29	-0.26	-0.21	0.1
D-N	17	L	296117	SR	0.45	0.25	-0.17	0.25	-0.08	-0.08	0.1
D-N	18	L	296118	SR	0.43	0.41	-0.21	-0.18	-0.12	0.41	0.1
D-N	19	O	68042	SR	0.47	0.44	-0.24	-0.27	0.44	-0.15	0.1
D-N	20	L	68618	SR	0.82	0.47	-0.29	-0.24	-0.24	0.47	0.1
D-N	21	L	279797	SR	0.49	0.33	0.33	-0.21	-0.22	-0.19	0.1
D-N	24	O	279792	SR	0.55	0.26	-0.09	-0.17	-0.14	0.26	0.2
D-N	25	L	296476	SR	0.89	0.35	-0.17	-0.21	0.35	-0.21	0.1
D-N	26	O	263979	SR	0.54	0.40	-0.15	-0.30	0.40	-0.17	0.1
D-N	27	L	50868	SR	0.75	0.43	-0.19	0.43	-0.24	-0.24	0.1
D-N	28	L	283123	SR	0.59	0.45	-0.26	-0.23	0.45	-0.19	0.1
D-N	29	O	261585	SR	0.66	0.42	-0.17	0.42	-0.20	-0.25	0.1
D-N	32	L	51145	SR	0.28	0.35	0.35	-0.19	-0.28	-0.02	0.2
D-N	33	L	279775	SR	0.52	0.28	-0.22	-0.10	0.28	-0.08	0.2
D-N	34	O	135577	SR	0.93	0.40	-0.24	0.40	-0.23	-0.21	0.2
D-N	35	L	302873	SR	0.52	0.34	0.34	-0.14	-0.21	-0.12	0.2
D-N	36	L	68562	SR	0.89	0.46	0.46	-0.23	-0.29	-0.24	0.2
D-N	37	L	51735	SR	0.75	0.48	-0.32	0.48	-0.28	-0.14	0.1
D-N	38	O	79625	SR	0.72	0.41	-0.19	0.41	-0.26	-0.20	0.1

Table 1.A26 Item Statistics, Operational Items: MD HSA 2011 Government—May Primary 1

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D-N	39	L	51788	SR	0.38	0.36	-0.08	0.36	-0.19	-0.18	0.2
D-N	40	L	279809	SR	0.27	0.23	-0.12	-0.02	-0.09	0.23	0.1
D-N	41	O	257022	SR	0.58	0.50	-0.20	-0.26	-0.26	0.50	0.1
D-N	42	L	223265	SR	0.59	0.28	0.28	-0.24	-0.02	-0.23	0.1
D-N	45	O	79666	SR	0.67	0.37	-0.16	-0.20	0.37	-0.22	0.1
D-N	46	L	58269	SR	0.80	0.36	-0.23	-0.22	-0.21	0.36	0.1
D-N	47	O	58309	SR	0.68	0.56	-0.21	-0.29	-0.34	0.56	0.1
D-N	48	O	279734	SR	0.67	0.48	0.48	-0.23	-0.24	-0.28	0.1
D-N	49	L	242072	SR	0.56	0.38	-0.31	-0.17	0.38	-0.08	0.1
D-N	50	O	108461	SR	0.42	0.32	-0.21	0.32	-0.25	-0.02	0.1
D-N	51	L	52190	SR	0.45	0.26	-0.02	0.26	-0.18	-0.14	0.1
D-N	54	L	79571	SR	0.44	0.49	0.49	-0.17	-0.21	-0.24	0.1
D-N	55	O	51726	SR	0.55	0.25	-0.06	-0.14	-0.21	0.25	0.1
D-N	56	L	279793	SR	0.62	0.37	-0.23	-0.24	-0.20	0.37	0.1
D-N	57	O	68791	SR	0.66	0.43	-0.18	-0.21	-0.24	0.43	0.1
D-N	58	L	51169	SR	0.47	0.23	-0.06	0.23	-0.26	0.01	0.1
D-N	59	O	133481	SR	0.56	0.43	-0.18	-0.24	-0.19	0.43	0.1
D-N	62	O	64807	SR	0.71	0.42	-0.21	-0.29	0.42	-0.15	0.1
D-N	63	L	60427	SR	0.58	0.33	-0.14	-0.11	0.33	-0.24	0.2
D-N	64	O	51170	SR	0.89	0.41	-0.22	0.41	-0.24	-0.23	0.1
D-N	65	O	283083	SR	0.76	0.43	-0.26	-0.21	0.43	-0.21	0.2
D-N	66	L	55676	SR	0.74	0.47	-0.26	-0.23	-0.29	0.47	0.1
D-N	70	L	52253	SR	0.39	0.15	0.03	0.15	0.00	-0.24	0.2
D-N	71	L	60460	SR	0.47	0.42	-0.11	-0.25	0.42	-0.23	0.2
D-N	72	L	261600	SR	0.90	0.42	-0.23	0.42	-0.26	-0.21	0.2
D-N	73	L	108439	SR	0.73	0.45	0.45	-0.25	-0.29	-0.15	0.1
D-N	74	L	302864	SR	0.73	0.54	-0.28	-0.28	-0.28	0.54	0.1
D-N	75	O	68584	SR	0.67	0.43	-0.13	-0.28	0.43	-0.23	0.1
D-N	76	L	50925	SR	0.35	0.17	0.17	0.01	-0.23	-0.09	0.1
D-N	77	L	283281	SR	0.45	0.38	-0.12	0.38	-0.25	-0.10	0.1
D-N	78	O	108389	SR	0.52	0.51	-0.26	-0.13	-0.33	0.51	0.2
D-N	81	L	261606	SR	0.88	0.47	0.47	-0.23	-0.29	-0.25	0.1
D-N	82	O	65192	SR	0.39	0.18	-0.15	-0.05	-0.01	0.18	0.2
D-N	83	O	58262	SR	0.93	0.33	0.33	-0.18	-0.20	-0.18	0.1
D-N	84	L	279784	SR	0.56	0.40	-0.15	-0.25	-0.18	0.40	0.1
D-N	85	O	58359	SR	0.85	0.54	-0.25	-0.28	-0.35	0.54	0.1
D-N	86	L	283091	SR	0.61	0.52	-0.32	-0.26	0.52	-0.18	0.1
D-N	89	L	279810	SR	0.44	0.38	-0.18	-0.27	0.38	-0.11	0.2
D-N	90	L	108347	SR	0.78	0.46	-0.25	0.46	-0.24	-0.26	0.2
D-N	91	O	68088	SR	0.88	0.48	0.48	-0.30	-0.29	-0.20	0.1
D-N	92	O	257004	SR	0.52	0.37	-0.19	-0.03	0.37	-0.33	0.2
D-N	93	L	296523	SR	0.39	0.40	-0.06	-0.17	-0.26	0.40	0.2

Table 1.A26 Item Statistics, Operational Items: MD HSA 2011 Government—May Primary 1

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D-N	94	L	296524	SR	0.37	0.23	-0.15	-0.02	-0.11	0.23	0.2
D-N	97	L	79657	SR	0.37	0.36	-0.23	-0.11	-0.30	0.36	0.1
D-N	98	O	271797	SR	0.47	0.31	-0.15	-0.11	-0.14	0.31	0.2
D-N	99	O	283111	SR	0.55	0.53	-0.29	0.53	-0.26	-0.22	0.2
D-N	100	O	283117	SR	0.32	0.25	-0.13	-0.20	0.02	0.25	0.2
D-N	101	L	297442	SR	0.76	0.49	-0.24	-0.29	-0.22	0.49	0.1
D-N	102	L	279758	SR	0.36	0.42	-0.27	-0.08	-0.22	0.42	0.2
D-N	105	L	108342	SR	0.54	0.49	0.49	-0.22	-0.27	-0.18	0.2
D-N	106	L	297130	SR	0.85	0.49	-0.25	-0.32	0.49	-0.22	0.2
D-N	107	L	257011	SR	0.91	0.40	0.40	-0.23	-0.23	-0.20	0.2
Mean					0.62	0.39	-0.06	-0.07	-0.07	0.00	0.1
SD					0.19	0.09	0.26	0.26	0.27	0.28	0.0

Table 1.A27 Item Statistics, Operational Items: MD HSA 2011 Government—May Makeup 1

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
X	1	L	256350	SR	0.88	0.39	0.39	-0.21	-0.25	-0.19	0.0
X	2	L	79606	SR	0.78	0.29	-0.11	-0.20	0.29	-0.19	0.0
X	3	O	108408	SR	0.74	0.45	-0.34	-0.26	0.45	-0.13	0.1
X	4	L	279759	SR	0.49	0.47	0.47	-0.32	-0.20	-0.14	0.0
X	5	O	256355	SR	0.64	0.42	-0.17	0.42	-0.25	-0.21	0.0
X	8	O	68734	SR	0.75	0.47	-0.23	0.47	-0.29	-0.21	0.1
X	9	L	68544	SR	0.65	0.32	-0.15	0.32	-0.20	-0.12	0.1
X	10	L	51050	SR	0.26	0.31	-0.25	-0.21	0.31	0.13	0.0
X	11	L	271826	SR	0.88	0.41	-0.20	0.41	-0.26	-0.22	0.1
X	12	O	51131	SR	0.87	0.38	-0.19	-0.25	-0.18	0.38	0.0
X	13	L	214515	SR	0.50	0.26	-0.13	0.26	-0.17	-0.06	0.1
X	16	O	51063	SR	0.76	0.51	0.51	-0.28	-0.27	-0.26	0.1
X	17	L	296117	SR	0.45	0.25	-0.17	0.25	-0.08	-0.08	0.1
X	18	L	296118	SR	0.43	0.41	-0.21	-0.18	-0.12	0.41	0.1
X	19	O	68042	SR	0.47	0.44	-0.24	-0.27	0.44	-0.15	0.1
X	20	L	68618	SR	0.82	0.47	-0.29	-0.24	-0.24	0.47	0.1
X	21	L	279797	SR	0.49	0.33	0.33	-0.21	-0.22	-0.19	0.1
X	24	O	133475	SR	0.52	0.29	-0.26	-0.26	0.29	0.04	0.0
X	25	L	296476	SR	0.89	0.35	-0.17	-0.21	0.35	-0.21	0.1
X	26	O	263979	SR	0.54	0.40	-0.15	-0.30	0.40	-0.17	0.1
X	27	L	50868	SR	0.75	0.43	-0.19	0.43	-0.24	-0.24	0.1
X	28	L	283123	SR	0.59	0.45	-0.26	-0.23	0.45	-0.19	0.1
X	29	O	261585	SR	0.66	0.42	-0.17	0.42	-0.20	-0.25	0.1
X	32	L	51145	SR	0.28	0.35	0.35	-0.19	-0.28	-0.02	0.2

Table 1.A27 Item Statistics, Operational Items: MD HSA 2011 Government—May Makeup 1

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
X	33	L	279775	SR	0.52	0.28	-0.22	-0.10	0.28	-0.08	0.2
X	34	O	271814	SR	0.73	0.50	-0.28	-0.22	-0.29	0.50	0.2
X	35	L	302873	SR	0.52	0.34	0.34	-0.14	-0.21	-0.12	0.2
X	36	L	68562	SR	0.89	0.46	0.46	-0.23	-0.29	-0.24	0.2
X	37	L	51735	SR	0.75	0.48	-0.32	0.48	-0.28	-0.14	0.1
X	38	O	79625	SR	0.72	0.41	-0.19	0.41	-0.26	-0.20	0.1
X	39	L	51788	SR	0.38	0.36	-0.08	0.36	-0.19	-0.18	0.2
X	40	L	279809	SR	0.27	0.23	-0.12	-0.02	-0.09	0.23	0.1
X	41	O	257022	SR	0.58	0.50	-0.20	-0.26	-0.26	0.50	0.1
X	42	L	223265	SR	0.59	0.28	0.28	-0.24	-0.02	-0.23	0.1
X	45	O	108423	SR	0.56	0.55	-0.22	-0.33	0.55	-0.23	0.2
X	46	L	58269	SR	0.80	0.36	-0.23	-0.22	-0.21	0.36	0.1
X	47	O	79640	SR	0.66	0.52	-0.27	-0.24	-0.28	0.52	0.1
X	48	O	279734	SR	0.67	0.48	0.48	-0.23	-0.24	-0.28	0.1
X	49	L	242072	SR	0.56	0.38	-0.31	-0.17	0.38	-0.08	0.1
X	50	O	108461	SR	0.42	0.32	-0.21	0.32	-0.25	-0.02	0.1
X	51	L	52190	SR	0.45	0.26	-0.02	0.26	-0.18	-0.14	0.1
X	54	L	79571	SR	0.44	0.49	0.49	-0.17	-0.21	-0.24	0.1
X	55	O	256998	SR	0.58	0.43	-0.19	-0.23	0.43	-0.22	0.2
X	56	L	279793	SR	0.62	0.37	-0.23	-0.24	-0.20	0.37	0.1
X	57	O	68791	SR	0.66	0.43	-0.18	-0.21	-0.24	0.43	0.1
X	58	L	51169	SR	0.47	0.23	-0.06	0.23	-0.26	0.01	0.1
X	59	O	58396	SR	0.54	0.52	-0.27	0.52	-0.22	-0.24	0.2
X	62	O	64807	SR	0.71	0.42	-0.21	-0.29	0.42	-0.15	0.1
X	63	L	60427	SR	0.58	0.33	-0.14	-0.11	0.33	-0.24	0.2
X	64	O	215822	SR	0.86	0.50	0.50	-0.28	-0.30	-0.23	0.2
X	65	O	50953	SR	0.69	0.52	-0.25	-0.30	0.52	-0.23	0.2
X	66	L	55676	SR	0.74	0.47	-0.26	-0.23	-0.29	0.47	0.1
X	70	L	52253	SR	0.39	0.15	0.03	0.15	0.00	-0.24	0.2
X	71	L	60460	SR	0.47	0.42	-0.11	-0.25	0.42	-0.23	0.2
X	72	L	261600	SR	0.90	0.42	-0.23	0.42	-0.26	-0.21	0.2
X	73	L	108439	SR	0.73	0.45	0.45	-0.25	-0.29	-0.15	0.1
X	74	L	302864	SR	0.73	0.54	-0.28	-0.28	-0.28	0.54	0.1
X	75	O	68584	SR	0.67	0.43	-0.13	-0.28	0.43	-0.23	0.1
X	76	L	50925	SR	0.35	0.17	0.17	0.01	-0.23	-0.09	0.1
X	77	L	283281	SR	0.45	0.38	-0.12	0.38	-0.25	-0.10	0.1
X	78	O	108389	SR	0.52	0.51	-0.26	-0.13	-0.33	0.51	0.2
X	81	L	261606	SR	0.88	0.47	0.47	-0.23	-0.29	-0.25	0.1
X	82	O	283088	SR	0.56	0.34	-0.22	-0.24	0.34	-0.07	0.2
X	83	O	67973	SR	0.81	0.45	-0.23	0.45	-0.27	-0.20	0.3
X	84	L	279784	SR	0.56	0.40	-0.15	-0.25	-0.18	0.40	0.1
X	85	O	271800	SR	0.74	0.53	0.53	-0.27	-0.30	-0.26	0.3
X	86	L	283091	SR	0.61	0.52	-0.32	-0.26	0.52	-0.18	0.1

Table 1.A27 Item Statistics, Operational Items: MD HSA 2011 Government—May Makeup 1

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
X	89	L	279810	SR	0.44	0.38	-0.18	-0.27	0.38	-0.11	0.2
X	90	L	108347	SR	0.78	0.46	-0.25	0.46	-0.24	-0.26	0.2
X	91	O	68088	SR	0.88	0.48	0.48	-0.30	-0.29	-0.20	0.1
X	92	O	257004	SR	0.52	0.37	-0.19	-0.03	0.37	-0.33	0.2
X	93	L	296523	SR	0.39	0.40	-0.06	-0.17	-0.26	0.40	0.2
X	94	L	296524	SR	0.37	0.23	-0.15	-0.02	-0.11	0.23	0.2
X	97	L	79657	SR	0.37	0.36	-0.23	-0.11	-0.30	0.36	0.1
X	98	O	51042	SR	0.39	0.41	-0.13	-0.12	-0.24	0.41	0.2
X	99	O	283111	SR	0.55	0.53	-0.29	0.53	-0.26	-0.22	0.2
X	100	O	302863	SR	0.68	0.57	0.57	-0.31	-0.28	-0.28	0.3
X	101	L	297442	SR	0.76	0.49	-0.24	-0.29	-0.22	0.49	0.1
X	102	L	279758	SR	0.36	0.42	-0.27	-0.08	-0.22	0.42	0.2
X	105	L	108342	SR	0.54	0.49	0.49	-0.22	-0.27	-0.18	0.2
X	106	L	297130	SR	0.85	0.49	-0.25	-0.32	0.49	-0.22	0.2
X	107	L	257011	SR	0.91	0.40	0.40	-0.23	-0.23	-0.20	0.2
Mean					0.61	0.41	-0.05	-0.06	-0.06	-0.03	0.1
SD					0.17	0.09	0.28	0.27	0.29	0.27	0.1

Table 1.A28 Item Statistics, Operational Items: MD HSA 2011 Government—May Makeup 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	256350	SR	0.88	0.39	0.39	-0.21	-0.25	-0.19	0.0
Y	2	L	79606	SR	0.78	0.29	-0.11	-0.20	0.29	-0.19	0.0
Y	3	O	108388	SR	0.61	0.48	-0.20	-0.29	-0.24	0.48	0.1
Y	4	L	279759	SR	0.49	0.47	0.47	-0.32	-0.20	-0.14	0.0
Y	5	O	108468	SR	0.86	0.46	-0.26	0.46	-0.30	-0.20	0.0
Y	8	O	51044	SR	0.75	0.45	0.45	-0.26	-0.25	-0.21	0.1
Y	9	L	68544	SR	0.65	0.32	-0.15	0.32	-0.20	-0.12	0.1
Y	10	L	51050	SR	0.26	0.31	-0.25	-0.21	0.31	0.13	0.0
Y	11	L	271826	SR	0.88	0.41	-0.20	0.41	-0.26	-0.22	0.1
Y	12	O	79698	SR	0.64	0.33	-0.31	-0.24	0.33	-0.03	0.0
Y	13	L	214515	SR	0.50	0.26	-0.13	0.26	-0.17	-0.06	0.1
Y	16	O	256384	SR	0.76	0.48	0.48	-0.29	-0.26	-0.21	0.1
Y	17	L	296117	SR	0.45	0.25	-0.17	0.25	-0.08	-0.08	0.1
Y	18	L	296118	SR	0.43	0.41	-0.21	-0.18	-0.12	0.41	0.1
Y	19	O	302870	SR	0.52	0.22	-0.07	-0.12	0.22	-0.11	0.0
Y	20	L	68618	SR	0.82	0.47	-0.29	-0.24	-0.24	0.47	0.1
Y	21	L	279797	SR	0.49	0.33	0.33	-0.21	-0.22	-0.19	0.1
Y	24	O	279792	SR	0.55	0.26	-0.09	-0.17	-0.14	0.26	0.2
Y	25	L	296476	SR	0.89	0.35	-0.17	-0.21	0.35	-0.21	0.1
Y	26	O	51225	SR	0.58	0.53	-0.22	-0.38	0.53	-0.23	0.0

Table 1.A28 Item Statistics, Operational Items: MD HSA 2011 Government—May Makeup 2

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Y	27	L	50868	SR	0.75	0.43	-0.19	0.43	-0.24	-0.24	0.1
Y	28	L	283123	SR	0.59	0.45	-0.26	-0.23	0.45	-0.19	0.1
Y	29	O	68748	SR	0.65	0.57	-0.28	0.57	-0.30	-0.30	0.1
Y	32	L	51145	SR	0.28	0.35	0.35	-0.19	-0.28	-0.02	0.2
Y	33	L	279775	SR	0.52	0.28	-0.22	-0.10	0.28	-0.08	0.2
Y	34	O	135577	SR	0.93	0.40	-0.24	0.40	-0.23	-0.21	0.2
Y	35	L	302873	SR	0.52	0.34	0.34	-0.14	-0.21	-0.12	0.2
Y	36	L	68562	SR	0.89	0.46	0.46	-0.23	-0.29	-0.24	0.2
Y	37	L	51735	SR	0.75	0.48	-0.32	0.48	-0.28	-0.14	0.1
Y	38	O	271796	SR	0.82	0.35	-0.19	-0.23	0.35	-0.18	0.1
Y	39	L	51788	SR	0.38	0.36	-0.08	0.36	-0.19	-0.18	0.2
Y	40	L	279809	SR	0.27	0.23	-0.12	-0.02	-0.09	0.23	0.1
Y	41	O	257021	SR	0.60	0.49	0.49	-0.19	-0.20	-0.30	0.1
Y	42	L	223265	SR	0.59	0.28	0.28	-0.24	-0.02	-0.23	0.1
Y	45	O	79666	SR	0.67	0.37	-0.16	-0.20	0.37	-0.22	0.1
Y	46	L	58269	SR	0.80	0.36	-0.23	-0.22	-0.21	0.36	0.1
Y	47	O	58309	SR	0.68	0.56	-0.21	-0.29	-0.34	0.56	0.1
Y	48	O	58304	SR	0.69	0.62	-0.25	-0.34	-0.34	0.62	0.2
Y	49	L	242072	SR	0.56	0.38	-0.31	-0.17	0.38	-0.08	0.1
Y	50	O	79659	SR	0.70	0.51	-0.22	-0.29	0.51	-0.29	0.2
Y	51	L	52190	SR	0.45	0.26	-0.02	0.26	-0.18	-0.14	0.1
Y	54	L	79571	SR	0.44	0.49	0.49	-0.17	-0.21	-0.24	0.1
Y	55	O	51726	SR	0.55	0.25	-0.06	-0.14	-0.21	0.25	0.1
Y	56	L	279793	SR	0.62	0.37	-0.23	-0.24	-0.20	0.37	0.1
Y	57	O	79607	SR	0.64	0.59	-0.31	-0.34	-0.22	0.59	0.2
Y	58	L	51169	SR	0.47	0.23	-0.06	0.23	-0.26	0.01	0.1
Y	59	O	133481	SR	0.56	0.43	-0.18	-0.24	-0.19	0.43	0.1
Y	62	O	50947	SR	0.67	0.53	0.53	-0.27	-0.34	-0.20	0.2
Y	63	L	60427	SR	0.58	0.33	-0.14	-0.11	0.33	-0.24	0.2
Y	64	O	51170	SR	0.89	0.41	-0.22	0.41	-0.24	-0.23	0.1
Y	65	O	283083	SR	0.76	0.43	-0.26	-0.21	0.43	-0.21	0.2
Y	66	L	55676	SR	0.74	0.47	-0.26	-0.23	-0.29	0.47	0.1
Y	70	L	52253	SR	0.39	0.15	0.03	0.15	0.00	-0.24	0.2
Y	71	L	60460	SR	0.47	0.42	-0.11	-0.25	0.42	-0.23	0.2
Y	72	L	261600	SR	0.90	0.42	-0.23	0.42	-0.26	-0.21	0.2
Y	73	L	108439	SR	0.73	0.45	0.45	-0.25	-0.29	-0.15	0.1
Y	74	L	302864	SR	0.73	0.54	-0.28	-0.28	-0.28	0.54	0.1
Y	75	O	108463	SR	0.50	0.48	0.48	-0.26	-0.23	-0.17	0.1
Y	76	L	50925	SR	0.35	0.17	0.17	0.01	-0.23	-0.09	0.1
Y	77	L	283281	SR	0.45	0.38	-0.12	0.38	-0.25	-0.10	0.1
Y	78	O	283363	SR	0.76	0.55	-0.27	-0.35	0.55	-0.24	0.1
Y	81	L	261606	SR	0.88	0.47	0.47	-0.23	-0.29	-0.25	0.1
Y	82	O	65192	SR	0.39	0.18	-0.15	-0.05	-0.01	0.18	0.2

Table 1.A28 Item Statistics, Operational Items: MD HSA 2011 Government—May Makeup 2

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Y	83	O	58262	SR	0.93	0.33	0.33	-0.18	-0.20	-0.18	0.1
Y	84	L	279784	SR	0.56	0.40	-0.15	-0.25	-0.18	0.40	0.1
Y	85	O	58359	SR	0.85	0.54	-0.25	-0.28	-0.35	0.54	0.1
Y	86	L	283091	SR	0.61	0.52	-0.32	-0.26	0.52	-0.18	0.1
Y	89	L	279810	SR	0.44	0.38	-0.18	-0.27	0.38	-0.11	0.2
Y	90	L	108347	SR	0.78	0.46	-0.25	0.46	-0.24	-0.26	0.2
Y	91	O	65195	SR	0.66	0.34	-0.17	0.34	-0.27	-0.09	0.1
Y	92	O	256404	SR	0.61	0.31	-0.25	-0.30	0.31	-0.05	0.1
Y	93	L	296523	SR	0.39	0.40	-0.06	-0.17	-0.26	0.40	0.2
Y	94	L	296524	SR	0.37	0.23	-0.15	-0.02	-0.11	0.23	0.2
Y	97	L	79657	SR	0.37	0.36	-0.23	-0.11	-0.30	0.36	0.1
Y	98	O	271797	SR	0.47	0.31	-0.15	-0.11	-0.14	0.31	0.2
Y	99	O	257170	SR	0.67	0.59	0.59	-0.35	-0.32	-0.23	0.1
Y	100	O	283117	SR	0.32	0.25	-0.13	-0.20	0.02	0.25	0.2
Y	101	L	297442	SR	0.76	0.49	-0.24	-0.29	-0.22	0.49	0.1
Y	102	L	279758	SR	0.36	0.42	-0.27	-0.08	-0.22	0.42	0.2
Y	105	L	108342	SR	0.54	0.49	0.49	-0.22	-0.27	-0.18	0.2
Y	106	L	297130	SR	0.85	0.49	-0.25	-0.32	0.49	-0.22	0.2
Y	107	L	257011	SR	0.91	0.40	0.40	-0.23	-0.23	-0.20	0.2
Mean					0.62	0.40	-0.04	-0.09	-0.07	0.00	0.1
SD					0.18	0.11	0.28	0.26	0.28	0.28	0.1

Table 1.A29 Item Statistics, Operational Items: MD HSA 2011 Algebra—Summer Primary 1

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
P	1	L	135118	SR	0.43	0.46	-0.26	-0.24	0.46	-0.05	0.3
P	2	O	79095	SR	0.26	0.17	-0.06	-0.16	0.17	0.08	0.3
P	3	O	56817	SR	0.16	0.10	0.10	0.05	-0.08	-0.09	0.3
P	5	O	282303	SR	0.51	0.25	-0.17	0.25	-0.11	-0.04	0.0
P	6	L	67525	SPR	0.60	0.52	0.52	-0.47			2.1
P	8	L	257122	SR	0.15	0.20	0.20	-0.18	-0.10	0.09	0.3
P	9	L	282464	SR	0.23	0.17	0.00	-0.12	-0.04	0.17	0.3
P	10	L	268770	SR	0.45	0.40	0.40	-0.22	-0.19	-0.11	0.5
P	11	O	54795	SR	0.53	0.37	0.37	-0.13	-0.19	-0.17	0.4
P	12	L	263299	SR	0.44	0.18	-0.07	0.18	-0.10	-0.04	0.3
P	14	L	275468	SR	0.27	0.19	-0.03	-0.13	-0.04	0.19	0.5
P	15	O	260747	SR	0.18	0.25	-0.06	-0.08	-0.08	0.25	0.4
P	16	L	257117	SR	0.45	0.48	-0.10	0.48	-0.26	-0.24	0.5
P	18	O	106586	SR	0.40	0.32	0.32	-0.16	-0.14	-0.07	0.4
P	19	O	260753	SPR	0.46	0.50	0.50	-0.44			2.7
P	20	L	106616	SPR	0.30	0.51	0.51	-0.40			4.6

193

Table 1.A29 Item Statistics, Operational Items: MD HSA 2011 Algebra—Summer Primary 1

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
P	21	L	268675	SR	0.44	0.23	-0.13	0.23	-0.18	0.00	0.8
P	23	O	260742	SR	0.21	0.21	-0.16	0.21	-0.12	0.13	1.2
P	24	L	282334	SR	0.71	0.40	-0.26	-0.16	0.40	-0.18	0.2
P	25	O	54698	SR	0.37	0.44	0.44	-0.17	-0.25	-0.08	0.5
P	27	L	56443	SR	0.40	0.27	-0.05	-0.17	-0.10	0.27	0.5
P	29	L	106637	SPR	0.46	0.52	0.52	-0.44			3.6
P	30	L	263642	SPR	0.38	0.52	0.52	-0.42			4.5
P	31	L	56651	SR	0.65	0.43	-0.23	-0.29	0.43	-0.07	0.4
P	33	L	54809	SR	0.73	0.40	-0.17	-0.19	0.40	-0.26	0.3
P	34	O	260768	SR	0.26	0.24	0.24	-0.11	-0.03	-0.07	0.8
P	36	O	106545	SR	0.38	0.26	-0.01	-0.13	-0.18	0.26	0.7
P	37	L	133416	SR	0.22	0.24	0.24	-0.02	-0.08	-0.15	0.6
P	38	L	52343	SR	0.27	0.17	0.02	-0.17	-0.04	0.17	0.5
P	39	L	79023	SR	0.37	0.30	-0.13	0.30	-0.11	-0.11	0.3
P	41	O	257112	SPR	0.56	0.47	0.47	-0.43			2.3
P	42	L	255083	SPR	0.39	0.49	0.49	-0.39			5.1
P	44	O	106651	SR	0.50	0.42	-0.16	0.42	-0.24	-0.12	1.1
P	45	O	106604	SR	0.52	0.30	-0.17	0.30	-0.11	-0.10	0.8
P	46	O	54807	SR	0.39	0.46	-0.27	-0.16	-0.10	0.46	0.9
P	47	L	215911	SR	0.75	0.36	-0.24	0.36	-0.16	-0.10	0.8
P	48	O	51486	SR	0.55	0.16	0.02	0.16	-0.16	-0.08	0.8
P	49	O	54879	SR	0.28	0.29	0.29	0.03	-0.18	-0.11	0.8
P	50	O	54893	SR	0.47	0.35	-0.17	-0.16	-0.16	0.35	0.9
P	52	O	54751	SR	0.33	0.15	-0.13	-0.02	0.15	0.02	0.9
P	53	L	276433	SR	0.41	0.30	0.30	-0.20	-0.20	0.00	0.9
P	54	L	64699	SR	0.32	0.30	0.30	-0.07	-0.13	-0.11	0.7
P	56	L	257121	SPR	0.48	0.51	0.51	-0.42			4.5
P	57	L	282360	SPR	0.28	0.41	0.41	-0.31			5.3
P	58	L	51367	SR	0.45	0.36	-0.13	-0.12	-0.18	0.36	0.6
P	60	L	43215	SR	0.44	0.25	-0.11	-0.16	0.25	-0.04	0.8
P	61	O	260755	SR	0.39	0.35	-0.03	-0.19	-0.25	0.35	1.2
P	63	L	67485	SR	0.28	0.30	-0.14	-0.07	0.30	-0.11	0.9
P	65	L	263295	SPR	0.54	0.50	0.50	-0.41			4.8
P	66	O	67447	SR	0.58	0.16	0.00	-0.12	0.16	-0.03	1.1
P	67	L	268755	SR	0.32	0.15	-0.10	0.02	0.15	-0.08	0.7
P	68	L	56759	SR	0.27	0.31	0.31	-0.15	-0.08	-0.11	0.7
P	69	L	51576	SR	0.23	0.26	-0.10	0.26	-0.08	-0.05	0.7
Mean					0.40	0.33	0.09	-0.10	-0.04	0.01	0.01
SD					0.14	0.12	0.27	0.24	0.20	0.17	0.01

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

Table 1.A30 Item Statistics, Operational Items: MD HSA 2011 Algebra—Summer Primary 2

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Q	1	L	135118	SR	0.43	0.46	-0.26	-0.24	0.46	-0.05	0.3
Q	2	O	79103	SR	0.34	0.40	0.40	-0.10	-0.15	-0.22	0.1
Q	3	O	268692	SR	0.47	0.21	-0.08	0.21	-0.10	-0.07	0.4
Q	5	O	51535	SR	0.36	0.26	0.26	-0.12	-0.08	-0.10	0.1
Q	6	L	67525	SPR	0.60	0.52	0.52	-0.47			2.1
Q	8	L	257122	SR	0.15	0.20	0.20	-0.18	-0.10	0.09	0.3
Q	9	L	282464	SR	0.23	0.17	0.00	-0.12	-0.04	0.17	0.3
Q	10	L	268770	SR	0.45	0.40	0.40	-0.22	-0.19	-0.11	0.5
Q	11	O	67491	SR	0.33	0.28	-0.20	-0.05	-0.17	0.28	0.3
Q	12	L	263299	SR	0.44	0.18	-0.07	0.18	-0.10	-0.04	0.3
Q	14	L	275468	SR	0.27	0.19	-0.03	-0.13	-0.04	0.19	0.5
Q	15	O	79030	SR	0.61	0.41	-0.17	-0.21	-0.23	0.41	0.3
Q	16	L	257117	SR	0.45	0.48	-0.10	0.48	-0.26	-0.24	0.5
Q	18	O	211042	SR	0.38	0.16	0.03	0.16	-0.12	-0.09	0.3
Q	19	O	54789	SPR	0.45	0.44	0.44	-0.34			5.5
Q	20	L	106616	SPR	0.30	0.51	0.51	-0.40			4.6
Q	21	L	268675	SR	0.44	0.23	-0.13	0.23	-0.18	0.00	0.8
Q	23	O	79534	SR	0.35	0.16	0.00	0.16	-0.08	-0.13	0.8
Q	24	L	282334	SR	0.71	0.40	-0.26	-0.16	0.40	-0.18	0.2
Q	25	O	282382	SR	0.45	0.33	-0.13	-0.10	0.33	-0.20	1.0
Q	27	L	56443	SR	0.40	0.27	-0.05	-0.17	-0.10	0.27	0.5
Q	29	L	106637	SPR	0.46	0.52	0.52	-0.44			3.6
Q	30	L	263642	SPR	0.38	0.52	0.52	-0.42			4.5
Q	31	L	56651	SR	0.65	0.43	-0.23	-0.29	0.43	-0.07	0.4
Q	33	L	54809	SR	0.73	0.40	-0.17	-0.19	0.40	-0.26	0.3
Q	34	O	132818	SR	0.29	0.10	0.07	-0.05	-0.15	0.10	0.4
Q	36	O	133410	SR	0.38	0.26	-0.08	0.26	-0.20	-0.05	0.1
Q	37	L	133416	SR	0.22	0.24	0.24	-0.02	-0.08	-0.15	0.6
Q	38	L	52343	SR	0.27	0.17	0.02	-0.17	-0.04	0.17	0.5
Q	39	L	79023	SR	0.37	0.30	-0.13	0.30	-0.11	-0.11	0.3
Q	41	O	50425	SPR	0.72	0.40	0.40	-0.29			5.5
Q	42	L	255083	SPR	0.39	0.49	0.49	-0.39			5.1
Q	44	O	50385	SR	0.25	0.11	-0.18	0.11	0.11	-0.13	0.4
Q	45	O	51445	SR	0.44	0.29	0.29	-0.09	-0.10	-0.20	0.4
Q	46	O	64694	SR	0.32	0.17	-0.15	-0.07	0.01	0.17	0.4
Q	47	L	215911	SR	0.75	0.36	-0.24	0.36	-0.16	-0.10	0.8
Q	48	O	64695	SR	0.58	0.41	-0.21	-0.23	0.41	-0.12	0.8
Q	49	O	54771	SR	0.29	0.33	-0.15	-0.12	-0.07	0.33	0.4
Q	50	O	268763	SR	0.39	0.27	-0.04	0.27	-0.17	-0.09	0.9
Q	52	O	43153	SR	0.38	0.39	-0.20	-0.16	0.39	-0.10	0.5
Q	53	L	276433	SR	0.41	0.30	0.30	-0.20	-0.20	0.00	0.9
Q	54	L	64699	SR	0.32	0.30	0.30	-0.07	-0.13	-0.11	0.7
Q	56	L	257121	SPR	0.48	0.51	0.51	-0.42			4.5

Table 1.A30 Item Statistics, Operational Items: MD HSA 2011 Algebra—Summer Primary 2

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Q	57	L	282360	SPR	0.28	0.41	0.41	-0.31			5.3
Q	58	L	51367	SR	0.45	0.36	-0.13	-0.12	-0.18	0.36	0.6
Q	60	L	43215	SR	0.44	0.25	-0.11	-0.16	0.25	-0.04	0.8
Q	61	O	268753	SR	0.31	0.25	0.25	-0.02	-0.17	-0.09	0.5
Q	63	L	67485	SR	0.28	0.30	-0.14	-0.07	0.30	-0.11	0.9
Q	65	L	263295	SPR	0.54	0.50	0.50	-0.41			4.8
Q	66	O	56743	SR	0.60	0.45	-0.28	-0.19	0.45	-0.15	0.5
Q	67	L	268755	SR	0.32	0.15	-0.10	0.02	0.15	-0.08	0.7
Q	68	L	56759	SR	0.27	0.31	0.31	-0.15	-0.08	-0.11	0.7
Q	69	L	51576	SR	0.23	0.26	-0.10	0.26	-0.08	-0.05	0.7
Mean					0.41	0.32	0.07	-0.10	0.01	-0.02	1.3
SD					0.14	0.12	0.27	0.22	0.23	0.17	1.7

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

Table 1.A31 Item Statistics, Operational Items: MD HSA 2011 Biology—Summer Primary 1

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
P	1	O	52545	SR	0.49	0.12	0.06	-0.14	0.12	-0.07	0.0
P	2	L	54995	SR	0.39	0.16	-0.07	0.16	-0.02	-0.10	0.1
P	4	L	192095	SR	0.35	0.29	-0.04	-0.23	0.29	-0.11	0.1
P	5	L	133047	SR	0.17	0.16	0.16	-0.09	-0.11	-0.01	0.1
P	6	O	214548	SR	0.16	0.19	0.01	-0.07	-0.08	0.19	0.3
P	7	L	68216	SR	0.58	0.32	0.32	-0.23	-0.07	-0.16	0.1
P	8	L	136102	SR	0.35	0.34	-0.17	-0.16	0.34	-0.08	0.2
P	9	L	136103	SR	0.37	0.42	0.42	-0.09	-0.28	-0.12	0.1
P	11	O	52610	SR	0.36	0.35	-0.12	-0.18	-0.10	0.35	0.8
P	12	L	137270	SR	0.68	0.37	-0.20	-0.15	-0.19	0.37	0.2
P	13	O	137269	SR	0.45	0.26	-0.04	-0.13	0.26	-0.18	0.5
P	14	O	52428	SR	0.35	0.34	-0.13	0.34	-0.11	-0.11	0.5
P	17	O	79435	SR	0.45	0.34	0.34	-0.14	-0.15	-0.11	0.5
P	18	O	79417	SR	0.48	0.47	0.47	-0.16	-0.22	-0.20	0.8
P	19	L	136117	SR	0.30	0.24	0.24	-0.05	-0.17	-0.02	0.6
P	20	L	136119	SR	0.41	0.39	-0.23	-0.11	-0.15	0.39	0.5
P	22	O	68220	SR	0.46	0.29	0.29	-0.13	-0.04	-0.18	0.8
P	23	L	133012	SR	0.30	0.15	-0.15	-0.05	0.15	0.05	0.5
P	24	L	133013	SR	0.43	0.20	-0.20	-0.06	0.20	0.00	0.4
P	25	O	55044	SR	0.44	0.33	-0.12	0.33	-0.20	-0.04	1.3
P	26	L	133420	SR	0.50	0.39	-0.17	-0.18	-0.15	0.39	0.7
P	30	L	251265	SR	0.42	0.36	0.36	-0.24	-0.13	-0.09	1.1

Table 1.A31 Item Statistics, Operational Items: MD HSA 2011 Biology—Summer Primary 1

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
P	31	L	251264	SR	0.28	0.11	0.12	-0.22	0.11	-0.07	1.0
P	32	O	271116	SR	0.73	0.25	0.25	-0.15	-0.11	-0.12	1.8
P	33	O	55208	SR	0.48	0.22	-0.19	0.22	-0.02	-0.12	1.6
P	34	O	57054	SR	0.32	0.31	-0.13	-0.25	0.31	-0.04	0.5
P	36	L	277330	SR	0.42	0.35	-0.07	-0.17	-0.21	0.35	0.3
P	37	O	223409	SR	0.58	0.37	0.37	-0.18	-0.16	-0.13	0.8
P	38	L	133447	SR	0.59	0.38	-0.14	0.38	-0.23	-0.16	0.4
P	39	L	133448	SR	0.27	0.07	0.06	-0.11	0.07	-0.03	0.5
P	40	O	271143	SR	0.33	0.23	-0.09	-0.04	0.23	-0.10	0.8
P	41	L	271098	SR	0.34	0.25	0.01	-0.16	0.25	-0.18	0.4
P	42	O	108556	SR	0.37	0.22	-0.03	-0.09	-0.08	0.22	0.8
P	44	O	52693	SR	0.30	0.18	0.03	-0.12	0.18	-0.03	0.8
P	45	O	68234	SR	0.27	0.16	0.01	-0.11	0.00	0.16	0.8
P	46	L	65078	SR	0.61	0.46	-0.28	-0.20	0.46	-0.15	0.3
P	47	O	52764	SR	0.31	0.19	-0.14	0.10	0.19	-0.16	1.3
P	48	L	271091	SR	0.44	0.32	0.32	-0.11	-0.15	-0.12	0.6
P	49	L	271094	SR	0.31	0.41	-0.17	-0.24	-0.04	0.41	0.5
P	50	L	52568	SR	0.34	0.26	0.00	-0.17	0.26	-0.11	0.5
P	52	L	263117	SR	0.70	0.46	0.46	-0.26	-0.24	-0.18	0.4
P	53	L	263119	SR	0.35	0.34	0.34	-0.10	-0.16	-0.13	0.3
P	54	L	219937	SR	0.55	0.30	-0.08	-0.17	0.30	-0.17	0.4
P	55	L	219936	SR	0.34	0.22	0.22	-0.10	-0.21	0.07	0.5
P	56	L	271099	SR	0.37	0.29	-0.15	-0.17	-0.06	0.29	0.4
P	57	L	286698	SR	0.20	0.14	-0.06	-0.08	0.14	0.03	0.4
P	58	L	286699	SR	0.31	0.28	0.28	-0.08	-0.21	-0.07	0.4
P	59	O	53473	SR	0.34	0.16	-0.01	0.16	-0.09	-0.03	1.1
P	60	O	79412	SR	0.41	0.26	-0.05	-0.15	-0.06	0.26	0.8
P	65	L	137326	SR	0.40	0.42	0.42	-0.06	-0.23	-0.23	0.6
P	66	L	137328	SR	0.36	0.37	-0.07	0.37	-0.22	-0.12	0.8
P	67	O	136113	SR	0.20	0.02	0.02	0.08	-0.01	-0.08	0.8
P	68	L	263162	SR	0.41	0.30	-0.05	0.30	-0.16	-0.15	0.3
P	69	L	263164	SR	0.26	0.28	-0.24	0.01	-0.09	0.28	0.3
P	70	L	52541	SR	0.66	0.38	-0.13	0.38	-0.21	-0.21	0.4
P	72	O	67562	SR	0.53	0.22	-0.13	0.08	0.22	-0.21	1.3
P	73	O	65123	SR	0.51	0.28	-0.09	0.28	-0.19	-0.11	0.8
P	74	O	271144	SR	0.47	0.21	-0.06	-0.07	0.21	-0.09	0.8
P	75	L	271148	SR	0.37	0.29	-0.08	-0.01	-0.23	0.29	0.5
P	76	L	79496	SR	0.61	0.30	-0.12	0.30	-0.16	-0.13	0.3
P	77	O	52647	SR	0.33	0.21	-0.22	0.06	0.21	-0.04	0.8
P	78	L	64720	SR	0.32	0.29	-0.10	-0.05	-0.17	0.29	0.5
P	79	L	279596	SR	0.36	0.14	-0.18	0.14	0.02	-0.01	0.4
P	80	L	279598	SR	0.54	0.30	0.30	-0.17	-0.15	-0.06	0.3
P	83	O	79466	SR	0.64	0.32	-0.12	0.32	-0.17	-0.10	1.1
P	84	O	79409	SR	0.66	0.38	-0.19	-0.24	0.38	-0.09	0.8

Table 1.A31 Item Statistics, Operational Items: MD HSA 2011 Biology—Summer Primary 1

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
P	85	L	256515	SR	0.31	0.37	-0.10	-0.13	-0.17	0.37	0.5
P	86	L	256517	SR	0.65	0.37	-0.17	0.37	-0.21	-0.14	0.4
P	90	O	271136	SR	0.41	0.21	-0.05	-0.11	0.21	-0.05	0.8
P	91	L	271135	SR	0.29	0.28	-0.15	-0.12	-0.02	0.28	0.3
P	92	L	263176	SR	0.75	0.43	0.43	-0.21	-0.22	-0.23	0.3
P	93	L	263177	SR	0.22	0.08	0.02	0.08	-0.13	0.04	0.3
P	94	L	218467	SR	0.30	0.14	-0.04	0.14	-0.10	0.00	0.3
P	95	L	218466	SR	0.40	0.23	-0.07	-0.06	0.23	-0.14	0.4
P	96	O	279633	SR	0.38	0.33	0.33	-0.08	-0.09	-0.18	1.1
P	99	O	175497	SR	0.30	0.11	0.20	-0.08	0.11	-0.25	0.8
Mean					0.41	0.28	0.02	-0.04	-0.02	-0.02	0.6
SD					0.14	0.10	0.20	0.18	0.19	0.18	0.3

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

Table 1.A32 Item Statistics, Operational Items: MD HSA 2011 Biology—Summer Primary 2

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Q	1	O	133052	SR	0.63	0.43	-0.26	-0.16	-0.20	0.43	0.0
Q	2	L	54995	SR	0.39	0.16	-0.07	0.16	-0.02	-0.10	0.1
Q	4	L	192095	SR	0.35	0.29	-0.04	-0.23	0.29	-0.11	0.1
Q	5	L	133047	SR	0.17	0.16	0.16	-0.09	-0.11	-0.01	0.1
Q	6	O	55055	SR	0.28	0.05	0.07	-0.06	0.05	-0.09	0.4
Q	7	L	68216	SR	0.58	0.32	0.32	-0.23	-0.07	-0.16	0.1
Q	8	L	136102	SR	0.35	0.34	-0.17	-0.16	0.34	-0.08	0.2
Q	9	L	136103	SR	0.37	0.42	0.42	-0.09	-0.28	-0.12	0.1
Q	11	O	55247	SR	0.54	0.36	0.36	-0.13	-0.21	-0.16	0.2
Q	12	L	137270	SR	0.68	0.37	-0.20	-0.15	-0.19	0.37	0.2
Q	13	O	137330	SR	0.61	0.29	0.29	-0.25	-0.23	-0.01	0.0
Q	14	O	297092	SR	0.40	0.28	-0.05	-0.15	0.28	-0.15	0.4
Q	17	O	52600	SR	0.36	0.35	0.35	-0.14	-0.15	-0.13	0.5
Q	18	O	79418	SR	0.57	0.28	0.28	-0.22	-0.05	-0.16	0.2
Q	19	L	136117	SR	0.30	0.24	0.24	-0.05	-0.17	-0.02	0.6
Q	20	L	136119	SR	0.41	0.39	-0.23	-0.11	-0.15	0.39	0.5
Q	22	O	65119	SR	0.68	0.25	0.25	-0.11	-0.17	-0.10	0.2
Q	23	L	133012	SR	0.30	0.15	-0.15	-0.05	0.15	0.05	0.5
Q	24	L	133013	SR	0.43	0.20	-0.20	-0.06	0.20	0.00	0.4
Q	25	O	57072	SR	0.43	0.33	-0.06	-0.19	-0.16	0.33	0.5
Q	26	L	133420	SR	0.50	0.39	-0.17	-0.18	-0.15	0.39	0.7
Q	30	L	251265	SR	0.42	0.36	0.36	-0.24	-0.13	-0.09	1.1

Table 1.A32 Item Statistics, Operational Items: MD HSA 2011 Biology—Summer Primary 2

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Q	31	L	251264	SR	0.28	0.11	0.12	-0.22	0.11	-0.07	1.0
Q	32	O	55124	SR	0.61	0.34	-0.13	0.34	-0.20	-0.17	0.4
Q	33	O	52633	SR	0.31	-0.01	0.07	0.00	-0.01	-0.11	0.4
Q	34	O	55048	SR	0.60	0.26	-0.19	-0.12	0.26	-0.08	0.2
Q	36	L	277330	SR	0.42	0.35	-0.07	-0.17	-0.21	0.35	0.3
Q	37	O	260076	SR	0.23	0.23	0.04	-0.14	0.23	-0.16	0.0
Q	38	L	133447	SR	0.59	0.38	-0.14	0.38	-0.23	-0.16	0.4
Q	39	L	133448	SR	0.27	0.07	0.06	-0.11	0.07	-0.03	0.5
Q	40	O	271097	SR	0.51	0.31	-0.05	-0.12	-0.26	0.31	0.0
Q	41	L	271098	SR	0.34	0.25	0.01	-0.16	0.25	-0.18	0.4
Q	42	O	68277	SR	0.21	0.21	-0.20	-0.18	0.09	0.21	0.0
Q	44	O	282430	SR	0.37	0.25	-0.16	0.25	-0.14	0.01	0.0
Q	45	O	57183	SR	0.37	0.26	-0.17	-0.04	0.26	-0.13	0.2
Q	46	L	65078	SR	0.61	0.46	-0.28	-0.20	0.46	-0.15	0.3
Q	47	O	279652	SR	0.45	0.27	-0.12	0.27	-0.03	-0.19	0.0
Q	48	L	271091	SR	0.44	0.32	0.32	-0.11	-0.15	-0.12	0.6
Q	49	L	271094	SR	0.31	0.41	-0.17	-0.24	-0.04	0.41	0.5
Q	50	L	52568	SR	0.34	0.26	0.00	-0.17	0.26	-0.11	0.5
Q	52	L	263117	SR	0.70	0.46	0.46	-0.26	-0.24	-0.18	0.4
Q	53	L	263119	SR	0.35	0.34	0.34	-0.10	-0.16	-0.13	0.3
Q	54	L	219937	SR	0.55	0.30	-0.08	-0.17	0.30	-0.17	0.4
Q	55	L	219936	SR	0.34	0.22	0.22	-0.10	-0.21	0.07	0.5
Q	56	L	271099	SR	0.37	0.29	-0.15	-0.17	-0.06	0.29	0.4
Q	57	L	286698	SR	0.20	0.14	-0.06	-0.08	0.14	0.03	0.4
Q	58	L	286699	SR	0.31	0.28	0.28	-0.08	-0.21	-0.07	0.4
Q	59	O	214549	SR	0.41	0.42	-0.19	-0.15	-0.19	0.42	0.0
Q	60	O	79447	SR	0.48	0.31	-0.10	0.31	-0.15	-0.18	0.0
Q	65	L	137326	SR	0.40	0.42	0.42	-0.06	-0.23	-0.23	0.6
Q	66	L	137328	SR	0.36	0.37	-0.07	0.37	-0.22	-0.12	0.8
Q	67	O	108546	SR	0.49	0.37	-0.24	0.37	-0.16	-0.06	0.0
Q	68	L	263162	SR	0.41	0.30	-0.05	0.30	-0.16	-0.15	0.3
Q	69	L	263164	SR	0.26	0.28	-0.24	0.01	-0.09	0.28	0.3
Q	70	L	52541	SR	0.66	0.38	-0.13	0.38	-0.21	-0.21	0.4
Q	72	O	55013	SR	0.59	0.37	-0.16	0.37	-0.23	-0.16	0.0
Q	73	O	79459	SR	0.72	0.37	-0.24	-0.12	0.37	-0.25	0.0
Q	74	O	263153	SR	0.28	0.35	-0.21	-0.06	-0.12	0.35	0.0
Q	75	L	271148	SR	0.37	0.29	-0.08	-0.01	-0.23	0.29	0.5
Q	76	L	79496	SR	0.61	0.30	-0.12	0.30	-0.16	-0.13	0.3
Q	77	O	79507	SR	0.35	0.36	0.36	-0.02	-0.21	-0.22	0.0
Q	78	L	64720	SR	0.32	0.29	-0.10	-0.05	-0.17	0.29	0.5
Q	79	L	279596	SR	0.36	0.14	-0.18	0.14	0.02	-0.01	0.4
Q	80	L	279598	SR	0.54	0.30	0.30	-0.17	-0.15	-0.06	0.3
Q	83	O	64706	SR	0.55	0.31	-0.17	-0.10	0.31	-0.17	0.2
Q	84	O	67603	SR	0.62	0.21	0.21	-0.17	-0.08	-0.07	0.0

Table 1.A32 Item Statistics, Operational Items: MD HSA 2011 Biology—Summer Primary 2

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Q	85	L	256515	SR	0.31	0.37	-0.10	-0.13	-0.17	0.37	0.5
Q	86	L	256517	SR	0.65	0.37	-0.17	0.37	-0.21	-0.14	0.4
Q	90	O	271137	SR	0.36	0.21	0.06	0.21	-0.16	-0.15	0.2
Q	91	L	271135	SR	0.29	0.28	-0.15	-0.12	-0.02	0.28	0.3
Q	92	L	263176	SR	0.75	0.43	0.43	-0.21	-0.22	-0.23	0.3
Q	93	L	263177	SR	0.22	0.08	0.02	0.08	-0.13	0.04	0.3
Q	94	L	218467	SR	0.30	0.14	-0.04	0.14	-0.10	0.00	0.3
Q	95	L	218466	SR	0.40	0.23	-0.07	-0.06	0.23	-0.14	0.4
Q	96	O	65117	SR	0.47	0.31	-0.05	0.31	-0.15	-0.20	0.4
Q	99	O	271071	SR	0.38	0.15	-0.18	-0.04	0.15	0.02	0.4
Mean					0.43	0.29	0.00	-0.03	-0.05	-0.01	0.3
SD					0.14	0.10	0.21	0.19	0.19	0.20	0.2

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

Table 1.A33 Item Statistics, Operational Items: MD HSA 2011 English–Summer Primary 1

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
P	1	O	130081	SR	0.65	0.25	-0.07	-0.15	0.25	-0.14	0.0
P	2	O	130082	SR	0.20	0.27	0.27	-0.12	-0.14	-0.05	0.3
P	3	O	130083	SR	0.58	0.32	0.32	-0.15	-0.11	-0.19	0.4
P	4	O	130084	SR	0.68	0.36	-0.21	-0.19	0.36	-0.14	0.3
P	5	O	130085	SR	0.59	0.30	-0.11	-0.12	-0.18	0.30	0.1
P	6	O	223299	SR	0.16	0.15	-0.11	-0.03	-0.08	0.15	0.1
P	7	O	223300	SR	0.39	0.10	-0.05	-0.05	0.10	-0.01	0.4
P	8	O	223298	SR	0.67	0.31	-0.16	0.31	-0.21	-0.10	0.1
P	9	O	223301	SR	0.36	0.25	-0.13	0.25	-0.07	-0.11	0.3
P	13	L	318476	SR	0.67	0.36	-0.15	-0.26	0.36	-0.14	0.1
P	14	L	281365	SR	0.60	0.23	-0.02	0.23	-0.19	-0.14	0.4
P	15	L	281367	SR	0.45	0.23	0.23	-0.03	-0.18	-0.08	0.4
P	16	L	281363	SR	0.41	0.33	-0.02	-0.17	-0.21	0.33	0.4
P	17	L	281364	SR	0.51	0.25	-0.21	0.25	0.02	-0.17	0.6
P	18	L	281362	SR	0.12	0.17	-0.17	-0.10	0.09	0.17	0.7
P	19	L	281366	SR	0.18	0.20	0.05	-0.13	-0.16	0.20	0.5
P	20	L	281368	SR	0.30	0.14	-0.15	0.01	0.14	-0.05	0.5
P	21	O	251159	SR	0.66	0.43	0.43	-0.21	-0.27	-0.14	0.6
P	22	O	272878	SR	0.56	0.31	-0.10	-0.18	0.31	-0.14	0.4
P	24	O	251160	SR	0.56	0.30	-0.11	0.30	-0.18	-0.12	0.6
P	27	O	215780	SR	0.49	0.35	-0.15	-0.20	0.35	-0.13	1.0
P	28	O	215781	SR	0.52	0.29	0.29	-0.15	-0.12	-0.13	1.4

Table 1.A33 Item Statistics, Operational Items: MD HSA 2011 English–Summer Primary 1

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
P	29	O	230790	SR	0.46	0.20	-0.07	0.20	-0.09	-0.09	1.3
P	30	O	215778	SR	0.58	0.36	-0.13	-0.21	-0.16	0.36	1.3
P	31	O	243353	SR	0.60	0.28	-0.10	-0.18	0.28	-0.14	1.4
P	32	O	215782	SR	0.50	0.33	-0.16	-0.16	0.33	-0.13	1.6
P	33	O	130290	SR	0.52	0.23	0.23	-0.19	-0.05	-0.05	0.6
P	34	O	318479	SR	0.75	0.43	-0.18	-0.24	0.43	-0.20	0.7
P	35	O	251170	SR	0.47	0.36	0.36	-0.12	-0.16	-0.16	0.7
P	41	O	251081	SR	0.41	0.28	0.01	0.28	-0.24	-0.12	1.0
P	42	O	251082	SR	0.43	0.34	0.34	-0.13	-0.07	-0.23	0.7
P	43	O	251083	SR	0.52	0.34	-0.23	-0.09	-0.12	0.34	0.7
P	44	L	130217	SR	0.37	0.27	-0.04	0.27	-0.21	-0.04	0.5
P	45	L	130218	SR	0.30	0.14	-0.13	-0.05	0.14	0.02	0.6
P	46	L	130219	SR	0.58	0.34	-0.16	-0.14	0.34	-0.17	0.9
P	47	L	130222	SR	0.56	0.34	-0.13	-0.16	0.34	-0.17	0.5
P	48	L	130220	SR	0.50	0.38	-0.17	0.38	-0.17	-0.17	0.8
P	49	L	130221	SR	0.60	0.41	-0.21	0.41	-0.20	-0.16	0.6
P	50	L	130226	SR	0.40	0.34	-0.12	-0.13	0.34	-0.17	0.6
P	68	L	96160	SR	0.57	0.30	-0.17	-0.19	0.30	-0.04	1.1
P	69	L	96161	SR	0.80	0.33	-0.19	-0.18	0.33	-0.15	0.9
P	78	L	257138	SR	0.17	0.06	0.03	0.06	0.03	-0.12	0.8
P	79	L	257142	SR	0.61	0.39	-0.15	-0.20	0.39	-0.18	0.9
P	80	L	257143	SR	0.35	0.29	0.29	-0.14	-0.12	-0.03	0.9
P	81	L	257139	SR	0.63	0.44	-0.18	-0.25	-0.19	0.44	0.8
P	82	L	257140	SR	0.32	0.28	-0.21	0.28	-0.06	-0.16	0.8
P	83	L	257141	SR	0.27	0.28	-0.12	-0.14	-0.02	0.28	0.9
P	84	L	264660	SR	0.27	0.08	0.08	0.06	-0.08	-0.04	0.8
P	85	L	264663	SR	0.68	0.42	-0.18	0.42	-0.24	-0.16	0.8
P	86	L	264665	SR	0.52	0.33	-0.21	-0.09	0.33	-0.14	0.9
P	87	L	264657	SR	0.21	0.18	-0.17	-0.06	0.08	0.18	1.0
P	88	L	264661	SR	0.25	0.17	0.17	-0.14	-0.06	0.07	1.1
P	89	L	264658	SR	0.55	0.29	-0.10	-0.15	0.29	-0.11	1.0
P	90	L	264656	SR	0.31	0.17	0.17	-0.15	0.01	-0.01	1.0
P	91	L	264666	SR	0.40	0.21	-0.02	0.21	-0.13	-0.07	1.0
P	92	L	288873	SR	0.49	0.35	-0.20	-0.13	0.35	-0.10	1.3
P	93	L	264664	SR	0.41	0.41	-0.15	-0.20	-0.11	0.41	1.1
P	96	L	256434	SR	0.42	0.21	-0.02	-0.07	0.21	-0.13	1.1
P	97	L	256435	SR	0.24	0.05	-0.18	0.05	0.19	-0.09	1.2
P	98	L	256436	SR	0.63	0.37	-0.17	0.37	-0.19	-0.14	1.2
Mean					0.47	0.28	-0.05	-0.03	0.03	-0.04	0.7
SD					0.16	0.09	0.18	0.20	0.22	0.17	0.4

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

Table 1.A34 Item Statistics, Operational Items: MD HSA 2011 English–Summer Primary 2

Form	Pos_No	Anchor_Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Q	1	O	96235	SR	0.41	0.31	0.31	-0.18	-0.14	-0.06	0.3
Q	2	O	96234	SR	0.82	0.37	-0.20	0.37	-0.23	-0.16	0.1
Q	3	O	96233	SR	0.43	0.19	-0.08	-0.05	-0.11	0.19	0.0
Q	4	O	96236	SR	0.50	0.30	-0.17	-0.12	-0.18	0.30	0.0
Q	5	O	96237	SR	0.44	0.32	0.32	-0.12	-0.17	-0.12	0.1
Q	6	O	130061	SR	0.47	0.21	0.21	-0.15	-0.19	-0.01	0.1
Q	7	O	130062	SR	0.33	0.36	-0.15	-0.18	-0.07	0.36	0.0
Q	8	O	130063	SR	0.51	0.33	-0.13	-0.28	0.33	-0.14	0.0
Q	9	O	130201	SR	0.53	0.36	-0.14	-0.07	0.36	-0.26	0.0
Q	13	L	318476	SR	0.67	0.36	-0.15	-0.26	0.36	-0.14	0.1
Q	14	L	281365	SR	0.60	0.23	-0.02	0.23	-0.19	-0.14	0.4
Q	15	L	281367	SR	0.45	0.23	0.23	-0.03	-0.18	-0.08	0.4
Q	16	L	281363	SR	0.41	0.33	-0.02	-0.17	-0.21	0.33	0.4
Q	17	L	281364	SR	0.51	0.25	-0.21	0.25	0.02	-0.17	0.6
Q	18	L	281362	SR	0.12	0.17	-0.17	-0.10	0.09	0.17	0.7
Q	19	L	281366	SR	0.18	0.20	0.05	-0.13	-0.16	0.20	0.5
Q	20	L	281368	SR	0.30	0.14	-0.15	0.01	0.14	-0.05	0.5
Q	21	O	251153	SR	0.48	0.25	-0.16	-0.17	0.25	0.00	0.6
Q	22	O	272876	SR	0.60	0.40	0.40	-0.19	-0.21	-0.18	0.4
Q	24	O	272942	SR	0.58	0.47	-0.12	-0.24	-0.29	0.47	0.8
Q	27	O	264682	SR	0.40	0.23	0.23	-0.15	-0.05	-0.08	1.1
Q	28	O	264677	SR	0.30	0.22	-0.14	0.06	-0.16	0.22	1.7
Q	29	O	264678	SR	0.33	0.15	-0.10	-0.12	0.15	0.02	1.7
Q	30	O	264681	SR	0.50	0.36	0.36	-0.20	-0.19	-0.08	1.8
Q	31	O	264683	SR	0.33	0.28	-0.16	-0.09	0.28	-0.06	2.2
Q	32	O	264684	SR	0.45	0.28	-0.04	0.28	-0.23	-0.11	1.8
Q	33	O	130255	SR	0.77	0.40	-0.20	-0.30	0.40	-0.13	0.1
Q	34	O	130239	SR	0.76	0.45	-0.22	0.45	-0.25	-0.23	0.1
Q	35	O	130263	SR	0.62	0.34	-0.11	-0.18	0.34	-0.19	0.1
Q	41	O	261658	SR	0.27	0.08	0.19	-0.16	0.08	-0.20	0.1
Q	42	O	261659	SR	0.50	0.35	-0.20	0.35	-0.19	-0.08	0.4
Q	43	O	261660	SR	0.63	0.45	0.45	-0.20	-0.25	-0.20	0.4
Q	44	L	130217	SR	0.37	0.27	-0.04	0.27	-0.21	-0.04	0.5
Q	45	L	130218	SR	0.30	0.14	-0.13	-0.05	0.14	0.02	0.6
Q	46	L	130219	SR	0.58	0.34	-0.16	-0.14	0.34	-0.17	0.9
Q	47	L	130222	SR	0.56	0.34	-0.13	-0.16	0.34	-0.17	0.5
Q	48	L	130220	SR	0.50	0.38	-0.17	0.38	-0.17	-0.17	0.8
Q	49	L	130221	SR	0.60	0.41	-0.21	0.41	-0.20	-0.16	0.6
Q	50	L	130226	SR	0.40	0.34	-0.12	-0.13	0.34	-0.17	0.6
Q	68	L	96160	SR	0.57	0.30	-0.17	-0.19	0.30	-0.04	1.1
Q	69	L	96161	SR	0.80	0.33	-0.19	-0.18	0.33	-0.15	0.9
Q	78	L	257138	SR	0.17	0.06	0.03	0.06	0.03	-0.12	0.8
Q	79	L	257142	SR	0.61	0.39	-0.15	-0.20	0.39	-0.18	0.9
Q	80	L	257143	SR	0.35	0.29	0.29	-0.14	-0.12	-0.03	0.9

Table 1.A34 Item Statistics, Operational Items: MD HSA 2011 English–Summer Primary 2

Form	Pos_No	Anchor_ Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Q	81	L	257139	SR	0.63	0.44	-0.18	-0.25	-0.19	0.44	0.8
Q	82	L	257140	SR	0.32	0.28	-0.21	0.28	-0.06	-0.16	0.8
Q	83	L	257141	SR	0.27	0.28	-0.12	-0.14	-0.02	0.28	0.9
Q	84	L	264660	SR	0.27	0.08	0.08	0.06	-0.08	-0.04	0.8
Q	85	L	264663	SR	0.68	0.42	-0.18	0.42	-0.24	-0.16	0.8
Q	86	L	264665	SR	0.52	0.33	-0.21	-0.09	0.33	-0.14	0.9
Q	87	L	264657	SR	0.21	0.18	-0.17	-0.06	0.08	0.18	1.0
Q	88	L	264661	SR	0.25	0.17	0.17	-0.14	-0.06	0.07	1.1
Q	89	L	264658	SR	0.55	0.29	-0.10	-0.15	0.29	-0.11	1.0
Q	90	L	264656	SR	0.31	0.17	0.17	-0.15	0.01	-0.01	1.0
Q	91	L	264666	SR	0.40	0.21	-0.02	0.21	-0.13	-0.07	1.0
Q	92	L	288873	SR	0.49	0.35	-0.20	-0.13	0.35	-0.10	1.3
Q	93	L	264664	SR	0.41	0.41	-0.15	-0.20	-0.11	0.41	1.1
Q	96	L	256434	SR	0.42	0.21	-0.02	-0.07	0.21	-0.13	1.1
Q	97	L	256435	SR	0.24	0.05	-0.18	0.05	0.19	-0.09	1.2
Q	98	L	256436	SR	0.63	0.37	-0.17	0.37	-0.19	-0.14	1.2
Mean					0.46	0.29	-0.05	-0.03	0.02	-0.03	0.7
SD					0.16	0.10	0.18	0.21	0.23	0.18	0.5

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

Appendix 1B. MD HSA Classical Item Statistics: Field Test Items

Table 1.B1 Item Statistics, Field Test Items: MDHSA 2011 Algebra—January Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A	7402	263302	SR	0.49	0.28	-0.18	-0.14	0.28	-0.04	0.1
A	7402	321998	SPR	0.46	0.42	0.42	-0.36			3.5
A	7402	282344	SR	0.14	0.10	-0.04	0.10	-0.04	**0.00**	0.3
A	7402	322005	SR	0.26	**-0.07**	-0.07	-0.06	**0.08**	**0.05**	0.5
A	7402	319474	SR	0.49	0.35	-0.14	-0.15	-0.16	0.35	0.9
A	7402	211014	SR	0.37	0.28	-0.08	-0.10	-0.18	0.28	0.3
A	7402	106625	SPR	0.37	0.43	0.43	-0.35			4.3
A	7402	268746	SR	0.29	**-0.01**	**0.00**	-0.01	-0.06	**0.09**	0.4
A	7402	321987	SR	0.42	0.27	-0.07	0.27	-0.23	-0.02	0.5
A	7402	319461	SPR	0.17	0.42	0.42	-0.27			**8.2**
A	7402	268725	SR	0.22	0.31	-0.16	-0.16	0.31	-0.05	0.7
A	7402	319440	SR	0.48	0.27	-0.07	-0.17	0.27	-0.12	0.5
A	7402	106634	SPR	0.29	0.41	0.41	-0.33			3.6
A	7402	263293	SR	0.32	**0.04**	-0.08	0.04	0.00	**0.03**	0.6
A	7402	268823	SR	0.10	0.12	-0.07	**0.01**	-0.01	0.12	0.5
A	7402	348342	SPR	0.11	0.38	0.38	-0.23			**5.0**
B	10081	328764	SR	0.20	0.11	**0.08**	0.11	-0.16	-0.04	0.4
B	10081	338666	SPR	0.51	0.30	0.30	-0.24			3.4
B	10081	263296	SR	0.64	0.30	-0.15	-0.13	0.30	-0.16	0.4
B	10081	322004	SR	0.52	0.29	-0.17	-0.16	0.29	-0.11	0.4
B	10081	257125	SR	0.62	0.20	-0.05	-0.10	0.20	-0.12	0.7
B	10081	215926	SR	0.32	0.38	0.38	-0.11	-0.14	-0.16	0.4
B	10081	338643	SPR	0.40	0.30	0.30	-0.24			4.3
B	10081	321997	SR	0.60	0.27	-0.11	0.27	-0.17	-0.10	0.6
B	10081	348343	SR	0.86	0.28	-0.13	0.28	-0.15	-0.16	0.3
B	10081	328727	SPR	0.12	0.29	0.29	-0.15			**6.5**
B	10081	211012	SR	0.21	0.21	-0.10	**0.04**	-0.12	0.21	0.8
B	10081	348323	SR	0.51	0.29	0.29	-0.10	-0.19	-0.13	0.4
B	10081	215936	SPR	**0.08**	0.34	0.34	-0.22			2.8
B	10081	338674	SR	0.56	0.37	-0.20	-0.19	0.37	-0.09	0.6
B	10081	263284	SR	0.19	**0.05**	0.05	-0.10	**0.08**	-0.02	0.9
B	10081	328726	SPR	0.13	0.16	0.16	-0.04			**12.2**
Mean				0.36	0.25	0.07	-0.09	0.03	-0.01	2.0
SD				0.19	0.13	0.22	0.17	0.20	0.14	2.8

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

Table 1.B2 Item Statistics, Field Test Items: MDHSA 2011 Biology—January Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A	5645	79500	SR	0.31	0.21	**0.05**	-0.21	-0.10	0.21	0.2
A	5645	338747	SR	0.28	0.36	0.36	-0.26	-0.22	**0.04**	0.1
A	5645	331291	SR	0.57	0.42	-0.16	-0.22	-0.24	0.42	0.0
A	5645	331290	SR	0.57	0.40	0.40	-0.22	-0.24	-0.14	0.0
A	5645	279575	SR	0.12	0.16	**0.22**	-0.20	-0.20	0.16	0.1
A	5645	279676	SR	0.41	0.28	0.28	-0.09	-0.15	-0.12	0.2
A	5645	279997	SR	0.49	0.57	-0.23	-0.28	0.57	-0.23	0.3
A	5645	279679	SR	0.18	**0.08**	-0.19	**0.15**	-0.09	0.08	0.3
A	5645	323346	SR	0.41	0.47	0.47	-0.27	-0.17	-0.13	0.2
A	5645	338785	SR	0.31	0.17	0.17	-0.12	-0.10	**0.04**	0.3
A	8406	349087	SR	0.80	0.31	-0.17	-0.16	-0.16	0.31	0.2
A	5645	320452	SR	0.45	0.31	-0.11	0.31	-0.16	-0.11	0.5
A	5645	320454	SR	0.38	0.23	0.23	**0.05**	-0.22	-0.17	0.4
A	5645	332055	SR	0.53	0.41	-0.18	0.41	-0.19	-0.17	0.3
A	5645	332056	SR	0.66	0.44	-0.25	-0.18	0.44	-0.24	0.4
A	5645	331369	SR	0.64	0.44	-0.11	0.44	-0.30	-0.21	0.4
A	5645	323304	SR	0.38	0.52	-0.23	-0.19	-0.22	0.52	0.5
A	5645	323301	SR	0.41	0.40	-0.16	-0.12	-0.20	0.40	0.5
A	5645	349067	SR	0.39	0.30	-0.22	0.00	0.30	-0.18	0.6
A	5645	349065	SR	0.66	0.49	0.49	-0.25	-0.28	-0.18	0.5
A	5645	349068	SR	0.60	0.45	-0.21	0.45	-0.23	-0.21	0.6
A	5645	322197	SR	0.30	0.49	-0.12	-0.15	0.49	-0.24	0.6
A	5645	349142	SR	0.69	0.42	-0.22	-0.24	0.42	-0.16	0.5
B	8631	323349	SR	0.52	0.33	-0.23	-0.07	-0.15	0.33	0.1
B	8631	352584	SR	0.50	0.38	0.38	-0.12	-0.27	-0.12	0.1
B	8631	349096	SR	0.39	0.40	-0.11	0.40	-0.23	-0.15	0.2
B	8631	271087	SR	0.25	0.26	-0.06	-0.13	0.26	-0.06	0.2
B	8631	263178	SR	0.35	0.35	0.00	-0.31	-0.17	0.35	0.2
B	8631	279523	SR	0.30	**0.09**	-0.03	-0.20	0.09	**0.09**	0.3
B	8631	279577	SR	0.48	0.40	-0.16	0.40	-0.25	-0.13	0.2
B	8631	279579	SR	0.53	0.49	-0.16	0.49	-0.29	-0.21	0.3
B	8631	338779	SR	0.34	0.28	-0.11	-0.09	-0.16	0.28	0.2
B	8631	338738	SR	0.55	0.26	-0.03	0.26	-0.21	-0.18	0.2
B	5870	282424	SR	0.60	0.38	-0.24	-0.22	0.38	-0.09	0.2
B	8631	320451	SR	0.31	0.36	-0.18	-0.24	0.36	-0.01	0.2
B	8631	320449	SR	0.27	0.41	**0.09**	-0.25	-0.21	0.41	0.3
B	8631	320450	SR	0.28	0.14	-0.09	0.14	-0.11	**0.06**	0.3
B	8631	320453	SR	0.28	0.42	0.42	-0.22	-0.12	-0.12	0.4
B	8631	271123	SR	0.70	0.29	-0.19	-0.23	0.29	-0.07	0.3
B	8631	323293	SR	0.33	0.50	0.50	-0.20	-0.22	-0.14	0.5
B	8631	323291	SR	0.72	0.30	-0.18	0.30	-0.19	-0.08	0.4
B	8631	323302	SR	0.50	0.54	0.54	-0.29	-0.24	-0.19	0.4

Table 1.B2 Item Statistics, Field Test Items: MDHSA 2011 Biology—January Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
B	8631	323303	SR	0.33	0.32	-0.21	0.32	-0.05	-0.14	0.4
B	8631	323305	SR	0.38	0.24	-0.11	-0.06	0.24	-0.14	0.4
B	8631	338760	SR	0.45	0.45	-0.19	-0.17	-0.22	0.45	0.4
B	8631	271109	SR	0.57	0.32	-0.18	-0.12	0.32	-0.15	0.4
Mean				0.45	0.35	-0.01	-0.04	-0.05	-0.01	0.3
SD				0.16	0.12	0.25	0.25	0.25	0.22	0.2

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

Table 1.B3 Item Statistics, Field Test Items: MDHSA 2011 English—January Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A	7786	108766	SR	0.41	0.19	-0.12	-0.02	0.19	-0.09	0.1
A	7786	108767	SR	0.62	0.25	0.25	-0.22	-0.12	-0.04	0.1
A	7786	108765	SR	0.61	0.36	-0.11	0.36	-0.23	-0.19	0.2
A	7786	251152	SR	0.69	0.39	-0.22	-0.22	0.39	-0.12	0.3
A	7786	349419	SR	0.72	0.21	-0.06	0.21	-0.10	-0.20	0.4
A	7786	349427	SR	0.77	0.28	0.28	-0.18	-0.14	-0.16	0.3
A	7786	320959	SR	0.56	0.27	-0.06	0.27	-0.18	-0.13	0.2
A	7786	320960	SR	0.21	0.22	-0.20	-0.17	**0.10**	0.22	0.2
A	7786	320961	SR	0.36	0.32	-0.16	-0.07	-0.14	0.32	0.4
A	7786	320963	SR	0.38	0.17	**0.01**	-0.12	-0.08	0.17	0.2
A	7786	320966	SR	0.31	0.28	0.28	-0.16	-0.06	-0.12	0.2
A	7786	109110	SR	0.40	0.31	0.31	-0.12	-0.23	-0.06	0.3
A	7786	109113	SR	0.62	0.32	-0.15	-0.19	0.32	-0.12	0.4
A	7786	355148	SR	0.48	0.46	-0.30	-0.15	0.46	-0.18	0.4
A	7786	109114	SR	0.51	0.28	0.28	-0.04	-0.13	-0.22	0.3
A	7786	109112	SR	0.36	0.42	-0.16	-0.17	-0.17	0.42	0.4
A	7786	109111	SR	0.59	0.45	0.45	-0.18	-0.26	-0.19	0.4
A	7786	338834	SR	0.60	0.43	-0.23	0.43	-0.20	-0.20	0.4
A	7786	338832	SR	0.58	0.49	-0.18	-0.26	-0.25	0.49	0.4
A	7786	338835	SR	0.10	**-0.13**	-0.13	**0.27**	-0.11	-0.14	0.5
A	7786	338836	SR	0.43	0.38	0.38	-0.25	-0.27	**0.00**	0.5
A	7786	338925	SR	0.34	0.28	0.28	-0.01	-0.18	-0.15	0.7
A	7786	338837	SR	0.20	**0.08**	**0.16**	0.08	-0.10	-0.20	0.7
A	7786	338831	SR	0.46	0.26	-0.20	0.26	-0.04	-0.11	0.7
A	7786	338838	SR	0.54	0.27	0.27	-0.22	-0.06	-0.06	0.8
A	7786	338833	SR	0.71	0.40	-0.21	-0.19	0.40	-0.22	0.8
A	7786	338829	SR	0.50	0.35	-0.10	-0.24	-0.17	0.35	0.8
A	7786	338828	SR	0.49	0.30	-0.12	0.30	-0.20	-0.07	0.9
A	7786	338898	SR	0.22	0.18	**0.12**	-0.16	-0.17	0.18	0.5
A	7786	338893	SR	0.39	0.25	0.25	-0.13	-0.04	-0.18	0.4
A	7786	338899	SR	0.44	0.22	-0.15	0.22	-0.12	-0.01	0.4
A	7786	338895	SR	0.34	0.21	0.21	-0.13	-0.01	-0.09	0.6
A	7786	338894	SR	0.49	0.37	-0.07	-0.22	-0.19	0.37	0.5
A	7786	338900	SR	0.28	0.23	0.23	-0.18	-0.03	-0.14	0.5
A	7786	338901	SR	0.67	0.45	0.45	-0.23	-0.23	-0.21	0.4
A	7786	338902	SR	0.37	0.25	-0.10	0.25	-0.06	-0.13	0.4
A	7786	256974	SR	0.79	0.30	-0.12	-0.17	0.30	-0.18	0.6
A	7786	256975	SR	0.40	0.28	-0.11	0.28	-0.11	-0.12	0.6
B	9742	109089	SR	0.59	0.12	-0.08	-0.01	-0.15	0.12	0.0
B	9742	109091	SR	0.61	0.26	0.26	-0.09	-0.14	-0.16	0.1
B	9742	109090	SR	0.34	0.31	0.31	-0.23	-0.07	-0.14	0.1
B	9742	251156	SR	0.49	0.35	-0.15	-0.27	-0.09	0.35	0.3
B	9742	349420	SR	0.48	0.23	-0.16	-0.18	0.23	-0.03	0.3

Table 1.B3 Item Statistics, Field Test Items: MDHSA 2011 English—January Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
B	9742	349429	SR	0.22	**-0.04**	-0.14	-0.04	-0.17	**0.19**	0.3
B	9742	251179	SR	0.49	0.38	-0.22	0.38	-0.21	-0.16	0.2
B	9742	251175	SR	0.69	0.32	-0.18	-0.23	0.32	-0.06	0.2
B	9742	251181	SR	0.53	0.38	-0.18	-0.22	0.38	-0.13	0.1
B	9742	251177	SR	0.39	0.43	-0.19	0.43	-0.20	-0.18	0.3
B	9742	251180	SR	0.40	0.35	-0.08	0.35	-0.23	-0.12	0.2
B	9742	108774	SR	0.46	0.26	-0.23	-0.06	0.26	-0.10	0.2
B	9742	251396	SR	0.47	0.41	0.41	-0.24	-0.19	-0.11	0.2
B	9742	109737	SR	0.64	0.44	-0.19	0.44	-0.21	-0.24	0.3
B	9742	108776	SR	0.30	0.36	0.36	-0.17	-0.15	-0.10	0.3
B	9742	108775	SR	0.38	0.21	0.21	-0.18	-0.18	**0.10**	0.3
B	9742	108777	SR	0.47	0.45	-0.22	-0.22	-0.18	0.45	0.3
B	9742	331801	SR	0.50	0.23	-0.04	0.23	-0.15	-0.17	0.3
B	9742	331798	SR	0.52	0.24	-0.11	0.24	-0.06	-0.20	0.4
B	9742	331799	SR	0.56	0.43	-0.18	0.43	-0.24	-0.18	0.5
B	9742	331803	SR	0.48	0.38	-0.22	-0.26	-0.04	0.38	0.5
B	9742	331804	SR	0.61	0.38	-0.21	-0.19	0.38	-0.15	0.5
B	9742	331796	SR	0.53	0.34	-0.21	0.34	-0.12	-0.12	0.5
B	9742	332087	SR	0.52	0.39	-0.04	-0.24	-0.23	0.39	0.6
B	9742	332086	SR	0.50	0.38	0.38	-0.16	-0.19	-0.15	0.6
B	9742	332119	SR	0.52	0.44	-0.18	-0.20	-0.21	0.44	0.6
B	9742	332085	SR	0.24	0.13	0.13	-0.17	-0.14	**0.18**	0.7
B	9742	332118	SR	0.53	0.34	-0.16	-0.14	0.34	-0.20	0.8
B	9742	353425	SR	0.55	0.22	0.22	-0.02	-0.18	-0.13	0.2
B	9742	353423	SR	0.36	0.27	-0.13	**0.02**	-0.22	0.27	0.2
B	9742	353424	SR	0.50	0.23	-0.19	0.23	-0.01	-0.14	0.2
B	9742	353421	SR	0.43	0.16	**0.08**	0.16	-0.19	-0.12	0.3
B	9742	353422	SR	0.29	**0.04**	-0.21	**0.19**	0.04	-0.13	0.2
B	9742	353419	SR	0.61	0.28	-0.21	-0.22	0.28	**0.03**	0.4
B	9742	353420	SR	0.52	0.23	-0.04	-0.20	0.23	-0.18	0.3
B	9742	353418	SR	0.52	0.34	-0.11	-0.21	-0.19	0.34	0.3
B	9742	256985	SR	0.35	0.41	0.41	-0.17	-0.24	-0.08	0.4
B	9742	256986	SR	0.78	0.35	-0.18	0.35	-0.16	-0.20	0.4
Mean				0.48	0.30	-0.01	-0.03	-0.06	-0.02	0.4
SD				0.14	0.11	0.22	0.22	0.20	0.21	0.2

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

Table 1.B4 Item Statistics, Field Test Items: MDHSA 2011 Government—January Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A	9517	339064	SR	0.50	0.34	0.34	-0.20	-0.21	-0.08	0.1
A	9517	324424	SR	0.49	0.42	0.42	-0.23	-0.15	-0.18	0.1
A	9517	261602	SR	0.52	0.36	-0.25	-0.19	-0.07	0.36	0.1
A	9517	279790	SR	0.74	0.46	0.46	-0.27	-0.25	-0.18	0.1
A	9517	353544	SR	0.38	0.36	-0.18	-0.12	0.36	-0.21	0.1
A	9517	353531	SR	0.48	0.49	0.49	-0.21	-0.21	-0.22	0.1
A	9517	348539	SR	0.28	0.30	-0.14	-0.04	-0.14	0.30	0.4
A	9517	324406	SR	0.82	0.39	0.39	-0.24	-0.20	-0.18	0.3
A	9517	296481	SR	0.49	0.35	-0.16	0.35	-0.24	-0.04	0.2
A	9517	264005	SR	0.46	0.39	-0.20	0.39	-0.10	-0.20	0.2
A	9517	271811	SR	0.50	0.34	-0.16	0.34	-0.27	-0.08	0.3
A	9517	279737	SR	0.43	0.36	0.36	-0.23	-0.09	-0.20	0.3
A	9517	339039	SR	0.66	0.39	-0.22	-0.19	-0.15	0.39	0.3
A	9517	331381	SR	0.46	0.28	-0.13	-0.13	0.28	-0.14	0.3
A	9517	324411	SR	0.75	0.31	-0.16	-0.17	0.31	-0.16	0.3
A	9517	279828	SR	0.56	0.40	-0.22	0.40	-0.22	-0.12	0.3
A	9517	324400	SR	0.38	0.49	0.49	-0.23	-0.19	-0.14	0.4
A	9517	348548	SR	0.36	0.32	-0.13	-0.23	0.32	-0.01	0.4
A	9517	348526	SR	0.58	0.39	-0.21	-0.19	0.39	-0.13	0.3
A	9517	264024	SR	0.68	0.45	-0.20	-0.26	0.45	-0.22	0.3
A	9517	339083	SR	0.54	0.40	-0.16	0.40	-0.21	-0.17	0.4
A	9517	257171	SR	0.62	0.39	-0.15	-0.23	0.39	-0.18	0.4
A	9517	282268	SR	0.56	0.41	-0.18	-0.19	0.41	-0.19	0.5
A	9517	283061	SR	0.51	0.44	0.44	-0.24	-0.14	-0.21	0.5
A	9517	283128	SR	0.29	0.32	-0.21	-0.10	0.32	-0.09	0.5
B	6307	256989	SR	0.46	0.29	-0.16	0.29	-0.09	-0.14	0.1
B	6307	279764	SR	0.68	0.41	-0.24	-0.22	-0.15	0.41	0.1
B	6307	348546	SR	0.49	0.43	-0.20	-0.22	0.43	-0.19	0.1
B	6307	331386	SR	0.59	0.32	-0.18	0.32	-0.17	-0.10	0.2
B	6307	271794	SR	0.67	0.34	-0.20	-0.17	-0.16	0.34	0.2
B	6307	261571	SR	0.74	0.39	-0.25	0.39	-0.22	-0.14	0.1
B	6307	324398	SR	0.56	0.41	0.41	-0.16	-0.28	-0.19	0.5
B	6307	324397	SR	0.65	0.42	-0.23	0.42	-0.20	-0.19	0.4
B	6307	324384	SR	0.30	**0.09**	**0.21**	-0.26	0.09	-0.08	0.2
B	6307	331384	SR	0.80	0.35	0.35	-0.18	-0.18	-0.19	0.1
B	6307	339207	SR	0.46	0.18	-0.20	0.18	-0.12	-0.04	0.1
B	6307	283082	SR	0.62	0.43	0.43	-0.21	-0.23	-0.19	0.3
B	6307	331411	SR	0.57	0.52	-0.22	0.52	-0.25	-0.26	0.4
B	6307	339062	SR	0.69	0.45	0.45	-0.26	-0.25	-0.16	0.3
B	6307	348511	SR	0.48	0.35	-0.18	-0.18	0.35	-0.09	0.3
B	6307	353529	SR	0.62	0.46	0.46	-0.26	-0.27	-0.13	0.3

Table 1.B4 Item Statistics, Field Test Items: MDHSA 2011 Government—January Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
B	6307	263993	SR	0.48	0.43	-0.22	-0.18	0.43	-0.16	0.3
B	6307	348549	SR	0.37	0.43	-0.15	-0.25	0.43	-0.12	0.4
B	6307	263978	SR	0.66	0.43	0.43	-0.23	-0.23	-0.17	0.3
B	6307	279787	SR	0.47	0.47	-0.19	0.47	-0.30	-0.11	0.3
B	6307	353540	SR	0.71	0.48	0.48	-0.25	-0.25	-0.21	0.5
B	6307	279782	SR	0.35	0.49	0.49	-0.25	-0.23	-0.11	0.5
B	6307	279777	SR	0.41	0.30	-0.14	-0.03	0.30	-0.22	0.6
B	6307	321114	SR	0.36	0.23	0.23	-0.20	-0.18	**0.06**	0.5
B	6307	353536	SR	0.51	0.47	0.47	-0.27	-0.20	-0.14	0.6
Mean				0.53	0.38	0.04	-0.06	-0.03	-0.10	0.3
SD				0.14	0.08	0.30	0.26	0.26	0.16	0.1

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

Table 1.B5 Item Statistics, Field Test Items: MDHSA 2011 Algebra—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D	6955	362300	SR	0.44	0.46	-0.24	-0.25	0.46	-0.16	0.0
D	6955	363904	SR	0.76	0.41	0.41	-0.29	-0.19	-0.16	0.1
D	6955	363916	SR	0.29	0.18	**0.18**	-0.12	0.18	-0.29	0.1
D	6955	362349	SR	0.53	0.47	-0.19	-0.21	-0.25	0.47	0.2
D	6955	366257	SPR	0.73	0.46	0.46	-0.41			2.3
D	6955	362276	SR	0.86	0.40	-0.24	0.40	-0.23	-0.18	0.1
D	6955	362289	SR	0.31	0.34	**0.02**	0.34	-0.25	-0.18	0.5
D	6955	371781	SPR	0.83	0.28	0.28	-0.25			1.1
D	6955	371760	SPR	0.68	0.53	0.53	-0.49			2.4
D	6955	372570	SR	0.26	0.16	-0.23	0.16	-0.09	**0.08**	0.3
D	6955	366253	SR	0.58	0.68	-0.41	-0.26	-0.29	0.68	0.3
D	6955	363956	SR	0.65	0.50	-0.22	0.50	-0.28	-0.24	0.3
D	6955	363914	SR	0.48	0.36	-0.20	-0.19	0.36	-0.11	0.3
D	6955	361348	SPR	0.36	0.52	0.52	-0.42			**5.9**
D	6955	363905	SR	0.42	0.36	-0.15	-0.10	-0.22	0.36	0.4
D	6955	363933	SPR	0.26	0.53	0.53	-0.40			**6.3**
E	7015	362277	SR	0.33	0.31	-0.22	0.31	-0.02	-0.15	0.5
E	7015	366206	SR	0.43	0.27	-0.10	-0.14	0.27	-0.11	0.2
E	7015	362363	SR	0.70	0.57	-0.31	-0.38	0.57	-0.16	0.3
E	7015	361336	SR	0.78	0.44	-0.20	0.44	-0.19	-0.28	0.2
E	7015	362343	SPR	0.66	0.41	0.41	-0.36			3.0
E	7015	361332	SR	0.78	0.43	0.43	-0.23	-0.25	-0.19	0.2
E	7015	363908	SR	0.84	0.44	-0.27	0.44	-0.24	-0.19	0.2
E	7015	363929	SPR	**0.07**	0.29	0.29	-0.18			3.6
E	7015	366236	SPR	0.71	0.42	0.42	-0.36			3.0
E	7015	363928	SR	0.17	0.12	-0.08	**0.05**	0.12	-0.09	0.3
E	7015	362360	SR	0.17	0.23	**0.20**	-0.28	-0.20	0.23	0.5
E	7015	366246	SR	0.55	**0.09**	-0.12	**0.01**	0.09	-0.13	0.1
E	7015	372573	SR	0.71	0.37	-0.24	-0.15	-0.16	0.37	0.2
E	7015	371775	SPR	0.20	0.48	0.48	-0.35			**5.7**
E	7015	371764	SR	0.33	0.37	-0.20	-0.23	-0.01	0.37	0.2
E	7015	361343	SPR	0.20	0.45	0.45	-0.36			4.0
F	9091	363907	SR	0.36	0.27	-0.03	-0.24	0.27	-0.06	0.2
F	9091	366224	SR	0.64	0.38	-0.18	-0.18	-0.25	0.38	0.1
F	9091	362353	SR	0.59	0.31	-0.06	-0.12	0.31	-0.24	0.3
F	9091	369141	SR	0.88	0.37	-0.18	-0.20	-0.22	0.37	0.2
F	9091	363941	SPR	0.78	0.31	0.31	-0.28			1.5
F	9091	361356	SR	0.45	0.36	-0.23	-0.27	-0.09	0.36	0.2
F	9091	369133	SR	0.17	**-0.15**	-0.05	-0.15	**0.14**	**0.02**	0.2
F	9091	366255	SPR	0.30	0.54	0.54	-0.48			2.3
F	9091	362301	SPR	0.75	0.36	0.36	-0.33			1.5
F	9091	371772	SR	0.55	0.44	-0.18	-0.24	-0.19	0.44	0.4
F	9091	362282	SR	0.38	0.20	-0.14	0.20	-0.05	-0.05	0.5

Table 1.B5 Item Statistics, Field Test Items: MDHSA 2011 Algebra—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
F	9091	372569	SR	**0.92**	0.23	-0.12	0.23	-0.15	-0.10	0.2
F	9091	362278	SR	0.40	0.23	-0.07	-0.17	0.23	-0.05	0.7
F	9091	366259	SPR	0.62	0.44	0.44	-0.41			2.0
F	9091	366241	SR	0.79	0.40	-0.19	0.40	-0.23	-0.20	0.3
F	9091	362348	SPR	0.12	0.40	0.40	-0.28			3.7
G	6959	362356	SR	0.36	0.30	0.30	**0.00**	-0.17	-0.21	0.2
G	6959	363923	SR	0.64	0.42	-0.17	0.42	-0.23	-0.20	0.3
G	6959	372574	SR	0.79	0.34	-0.20	-0.15	-0.19	0.34	0.2
G	6959	363915	SR	0.64	0.43	-0.14	0.43	-0.30	-0.17	0.3
G	6959	363951	SPR	0.65	0.44	0.44	-0.37			3.7
G	6959	366198	SR	0.68	0.46	-0.22	-0.25	0.46	-0.22	0.2
G	6959	366244	SR	0.60	0.43	-0.12	-0.20	-0.28	0.43	0.3
G	6959	361342	SPR	0.57	0.49	0.49	-0.44			2.4
G	6959	361347	SPR	0.21	0.40	0.40	-0.29			4.7
G	6959	371767	SR	0.80	0.40	-0.20	-0.27	0.40	-0.15	0.5
G	6959	369159	SR	0.58	0.63	-0.26	-0.32	-0.31	0.63	0.6
G	6959	363903	SR	0.64	0.16	-0.06	0.16	-0.10	-0.09	0.3
G	6959	363921	SR	0.72	0.53	-0.25	-0.29	0.53	-0.26	0.5
G	6959	371774	SPR	0.35	0.57	0.57	-0.45			**6.0**
G	6959	366199	SR	0.43	0.48	-0.15	-0.23	-0.21	0.48	0.5
G	6959	366256	SPR	0.75	0.47	0.47	-0.42			2.3
H	6884	366220	SR	**0.97**	0.22	-0.16	0.22	-0.10	-0.11	0.0
H	6884	361360	SR	0.32	0.31	0.31	**0.08**	-0.18	-0.27	0.4
H	6884	361354	SR	0.81	0.30	-0.08	-0.16	-0.24	0.30	0.1
H	6884	366235	SR	0.38	0.33	-0.17	-0.13	-0.15	0.33	0.3
H	6884	366216	SPR	0.34	0.42	0.42	-0.36			3.0
H	6884	366250	SR	0.40	0.35	-0.08	-0.22	-0.18	0.35	0.2
H	6884	369138	SR	0.55	0.48	-0.18	0.48	-0.21	-0.28	0.3
H	6884	369135	SPR	0.37	0.54	0.54	-0.49			1.8
H	6884	362366	SPR	0.53	0.28	0.28	-0.24			2.0
H	6884	363948	SR	0.73	0.40	0.40	-0.16	-0.22	-0.25	0.4
H	6884	363925	SR	0.42	0.40	-0.17	-0.17	-0.15	0.40	0.4
H	6884	369156	SR	0.64	0.53	-0.35	-0.22	0.53	-0.20	0.5
H	6884	366252	SR	0.55	0.52	-0.26	0.52	-0.23	-0.23	0.4
H	6884	361338	SPR	0.59	0.63	0.63	-0.58			2.6
H	6884	362358	SR	0.55	0.58	-0.20	-0.25	-0.33	0.58	0.4
H	6884	362266	SPR	0.61	0.50	0.50	-0.46			2.3
J	6871	369145	SR	0.66	0.41	0.41	-0.19	-0.19	-0.24	0.1
J	6871	369162	SR	0.80	0.18	-0.12	0.18	-0.10	-0.06	0.1
J	6871	362272	SR	0.62	0.48	-0.24	-0.31	0.48	-0.14	0.2
J	6871	369149	SR	0.68	0.46	0.46	-0.27	-0.24	-0.17	0.3
J	6871	366258	SPR	0.52	0.55	0.55	-0.48			3.9
J	6871	362354	SR	0.74	0.38	-0.13	-0.23	0.38	-0.24	0.3

Table 1.B5 Item Statistics, Field Test Items: MDHSA 2011 Algebra—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
J	6871	366232	SR	0.30	0.12	-0.11	-0.11	0.12	0.00	0.1
J	6871	361337	SPR	0.81	0.21	0.21	-0.18			1.0
J	6871	362347	SPR	0.67	0.30	0.30	-0.27			1.4
J	6871	361355	SR	0.65	0.40	-0.35	-0.21	0.40	-0.04	0.4
J	6871	363935	SR	0.68	0.55	-0.34	-0.23	0.55	-0.25	0.5
J	6871	369154	SR	0.44	0.34	-0.27	0.34	-0.28	**0.10**	0.4
J	6871	363937	SR	0.61	0.12	-0.18	-0.18	0.12	**0.01**	0.2
J	6871	366218	SPR	0.41	0.60	0.60	-0.53			3.9
J	6871	362362	SR	0.64	0.53	-0.16	-0.35	-0.25	0.53	0.3
J	6871	363930	SPR	**0.09**	0.36	0.36	-0.23			2.8
K	6775	362293	SR	0.46	0.37	-0.25	0.37	-0.17	-0.04	0.3
K	6775	362283	SR	0.18	0.37	0.37	-0.22	-0.38	**0.26**	0.1
K	6775	362299	SR	0.66	0.50	-0.19	-0.20	-0.35	0.50	0.1
K	6775	361358	SR	0.55	0.42	-0.20	0.42	-0.15	-0.30	0.1
K	6775	366237	SPR	0.46	0.37	0.37	-0.31			3.0
K	6775	371769	SR	0.59	0.37	-0.13	0.37	-0.28	-0.15	0.3
K	6775	363912	SR	0.66	0.36	-0.07	0.36	-0.26	-0.23	0.2
K	6775	362286	SPR	0.29	0.37	0.37	-0.30			3.9
K	6775	362346	SPR	0.35	0.55	0.55	-0.50			1.9
K	6775	371766	SR	0.80	0.36	-0.20	0.36	-0.23	-0.14	0.2
K	6775	361353	SR	0.24	0.30	-0.13	-0.19	**0.04**	0.30	0.5
K	6775	363968	SR	0.47	0.39	-0.23	0.39	-0.13	-0.16	0.3
K	6775	363943	SR	0.76	0.38	-0.16	-0.23	0.38	-0.19	0.2
K	6775	366217	SPR	0.70	0.49	0.49	-0.45			1.6
K	6775	361351	SR	0.28	0.24	-0.07	-0.03	-0.25	0.24	0.3
K	6775	363932	SPR	**0.07**	0.31	0.31	-0.15			3.8
L	13497	363906	SR	0.80	0.29	0.29	-0.14	-0.16	-0.16	0.1
L	13497	369152	SR	0.39	0.15	-0.23	0.15	**0.05**	-0.02	0.3
L	13497	362287	SR	0.75	0.39	-0.33	-0.15	0.39	-0.10	0.1
L	13497	366212	SR	0.61	0.46	0.46	-0.22	-0.24	-0.24	0.2
L	13497	366215	SPR	0.61	0.42	0.42	-0.36			3.1
L	13497	366233	SR	**0.92**	0.31	-0.13	-0.20	0.31	-0.17	0.1
L	13497	366195	SR	0.30	0.21	-0.11	-0.11	0.21	**0.01**	0.5
L	13497	362345	SPR	0.58	0.60	0.60	-0.54			2.7
L	13497	363959	SPR	0.50	0.43	0.43	-0.36			4.5
L	13497	362291	SR	0.31	0.40	-0.09	-0.14	-0.21	0.40	0.4
L	13497	363965	SR	0.57	0.34	-0.16	0.34	-0.24	-0.07	0.5
L	13497	362364	SR	0.52	0.68	-0.40	-0.25	-0.25	0.68	0.4
L	13497	371778	SR	0.42	0.37	-0.16	-0.22	-0.13	0.37	0.4
L	13497	319423	SPR	0.50	0.58	0.58	-0.51			3.4
L	13497	363913	SR	0.24	0.11	0.11	**0.04**	-0.07	-0.08	0.5
L	13497	328758	SPR	0.10	0.44	0.44	-0.28			3.1
M	6671	363949	SR	0.73	0.37	-0.22	-0.22	0.37	-0.18	0.1

Table 1.B5 Item Statistics, Field Test Items: MDHSA 2011 Algebra—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
M	6671	366226	SR	0.54	0.28	-0.16	-0.17	0.28	-0.15	0.1
M	6671	366234	SR	0.56	0.27	0.27	-0.18	-0.24	**0.03**	0.1
M	6671	361345	SR	0.83	0.39	-0.19	-0.18	-0.26	0.39	0.2
M	6671	322012	SPR	0.22	0.48	0.48	-0.34			**6.3**
M	6671	366201	SR	0.76	0.45	-0.23	-0.25	0.45	-0.22	0.4
M	6671	369147	SR	0.78	0.27	-0.16	-0.19	0.27	-0.16	0.1
M	6671	366254	SPR	0.70	0.38	0.38	-0.35			1.9
M	6671	363931	SPR	0.26	0.52	0.52	-0.39			**6.6**
M	6671	371771	SR	0.39	0.28	-0.02	0.28	-0.29	0.00	0.5
M	6671	363967	SR	0.37	0.27	-0.10	-0.17	0.27	-0.03	0.7
M	6671	363927	SR	0.72	0.30	-0.25	0.30	-0.08	-0.13	0.4
M	6671	361359	SR	0.50	**-0.09**	**0.00**	-0.05	-0.09	**0.14**	0.1
M	6671	132820	SPR	0.73	0.63	0.63	-0.59			1.6
M	6671	363938	SR	0.28	0.21	-0.21	0.21	-0.20	**0.05**	0.3
M	6671	371761	SPR	0.48	0.55	0.55	-0.50			1.9
N	6524	366245	SR	0.68	0.45	-0.31	-0.27	0.45	-0.07	0.1
N	6524	362297	SR	0.28	0.28	0.28	-0.18	-0.22	**0.02**	0.1
N	6524	366213	SR	0.54	0.41	-0.24	-0.15	-0.21	0.41	0.2
N	6524	361341	SR	0.67	0.44	-0.22	-0.18	-0.28	0.44	0.2
N	6524	338668	SPR	0.34	0.53	0.53	-0.44			3.5
N	6524	362359	SR	0.48	0.36	-0.15	0.36	-0.29	-0.07	0.0
N	6524	362298	SR	0.63	0.36	-0.19	-0.11	-0.25	0.36	0.4
N	6524	372575	SPR	0.37	0.62	0.62	-0.52			**6.0**
N	6524	369134	SPR	0.23	0.50	0.50	-0.34			**11.5**
N	6524	366248	SR	0.60	0.22	-0.14	0.22	-0.25	-0.06	0.2
N	6524	369153	SR	0.47	0.49	-0.33	-0.19	0.49	-0.11	0.6
N	6524	366202	SR	0.45	0.21	-0.19	0.21	-0.04	-0.08	0.7
N	6524	363934	SR	0.56	0.49	-0.23	-0.17	-0.32	0.49	0.3
N	6524	348440	SPR	0.22	0.53	0.53	-0.47			2.1
N	6524	362279	SR	0.24	**0.10**	0.10	-0.19	-0.31	**0.29**	0.3
N	6524	366196	SPR	0.29	0.53	0.53	-0.47			2.5
Mean				0.52	0.38	0.07	-0.15	-0.04	0.03	1.2
SD				0.21	0.14	0.32	0.27	0.27	0.27	1.8

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

Table 1.B6 Item Statistics, Field Test Items: MDHSA 2011 Biology—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D	5695	369402	SR	0.44	0.36	-0.24	-0.07	-0.17	0.36	0.1
D	5695	369401	SR	0.58	0.42	-0.22	0.42	-0.21	-0.18	0.1
D	5695	352580	SR	**0.95**	0.22	-0.10	-0.11	0.22	-0.15	0.1
D	5695	366620	SR	0.84	0.33	-0.25	0.33	-0.18	-0.12	0.0
D	5695	349137	SR	0.64	0.49	0.49	-0.23	-0.30	-0.20	0.1
D	5695	349134	SR	0.58	0.34	-0.19	-0.19	0.34	-0.10	0.2
D	5695	349136	SR	0.27	0.36	-0.01	-0.28	-0.10	0.36	0.1
D	5695	279613	SR	0.62	0.42	0.42	-0.23	-0.23	-0.14	0.1
D	5695	323340	SR	0.59	0.41	-0.19	-0.25	-0.26	0.41	0.1
D	5695	369400	SR	0.55	0.42	-0.19	-0.28	0.42	-0.12	0.1
D	5695	369396	SR	0.56	0.46	-0.21	-0.23	-0.22	0.46	0.1
D	5695	352581	SR	0.49	0.52	-0.33	0.52	-0.31	-0.06	0.1
D	5695	373078	SR	0.58	0.30	-0.12	0.30	-0.18	-0.14	0.1
D	5695	373076	SR	0.74	0.34	-0.16	-0.18	-0.19	0.34	0.1
D	5695	362991	SR	0.77	0.49	0.49	-0.30	-0.29	-0.18	0.1
D	5695	364199	SR	0.40	0.42	-0.25	-0.26	-0.06	0.42	0.2
D	5695	364196	SR	0.60	0.35	0.35	-0.20	-0.19	-0.14	0.1
D	5695	364197	SR	0.47	0.47	0.47	-0.23	-0.19	-0.20	0.1
D	5695	363171	SR	0.75	0.43	-0.22	-0.27	0.43	-0.24	0.1
D	5695	369411	SR	0.37	0.25	-0.12	-0.18	0.25	-0.08	0.1
D	5695	349082	SR	0.90	0.38	-0.18	-0.23	-0.22	0.38	0.1
D	5695	373070	SR	0.67	0.47	-0.32	-0.21	0.47	-0.14	0.1
D	5695	373067	SR	0.50	0.38	-0.17	0.38	-0.16	-0.20	0.1
E	5434	373063	SR	0.36	0.19	-0.19	-0.07	**0.05**	0.19	0.0
E	5434	373062	SR	0.46	0.35	-0.04	0.35	-0.28	-0.17	0.1
E	5434	373176	SR	0.63	0.42	-0.12	-0.29	-0.21	0.42	0.1
E	5434	322199	SR	0.82	0.34	-0.09	-0.27	0.34	-0.17	0.0
E	5434	361377	SR	0.32	0.31	**0.01**	-0.22	-0.17	0.31	0.1
E	5434	361382	SR	0.73	0.49	-0.34	-0.24	0.49	-0.16	0.1
E	5434	361383	SR	0.52	0.36	-0.14	0.36	-0.24	-0.13	0.1
E	5434	331351	SR	0.81	0.43	-0.28	0.43	-0.20	-0.20	0.1
E	5434	279615	SR	0.52	0.57	-0.37	-0.19	-0.21	0.57	0.1
E	5434	364216	SR	0.50	0.43	-0.05	0.43	-0.29	-0.26	0.1
E	5434	364215	SR	0.60	0.47	-0.24	-0.19	-0.28	0.47	0.1
E	5434	354961	SR	0.74	0.37	-0.16	-0.27	0.37	-0.13	0.1
E	5434	369392	SR	0.46	0.46	0.46	-0.15	-0.26	-0.18	0.1
E	5434	369393	SR	0.44	0.39	-0.21	0.39	-0.09	-0.19	0.1
E	5434	338750	SR	0.55	0.47	-0.16	-0.28	-0.24	0.47	0.1
E	5434	369459	SR	0.70	0.40	-0.12	-0.27	0.40	-0.20	0.1
E	5434	369360	SR	0.49	0.39	-0.21	-0.19	0.39	-0.13	0.1
E	5434	369359	SR	0.48	0.36	-0.24	0.36	-0.12	-0.14	0.1
E	5434	322171	SR	0.60	0.48	0.48	-0.18	-0.25	-0.29	0.1
E	5434	381680	SR	0.73	0.43	-0.22	-0.26	0.43	-0.23	0.1

Table 1.B6 Item Statistics, Field Test Items: MDHSA 2011 Biology—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
E	5434	349080	SR	0.57	0.42	-0.24	-0.25	0.42	-0.15	0.1
E	5434	364161	SR	0.67	0.46	-0.22	-0.26	0.46	-0.21	0.2
E	5434	364160	SR	0.58	0.45	-0.27	-0.21	-0.18	0.45	0.1
F	6872	373141	SR	0.36	**0.01**	-0.08	-0.07	**0.10**	0.01	0.1
F	6872	373189	SR	0.50	0.41	-0.21	0.41	-0.10	-0.24	0.1
F	6872	364210	SR	0.85	0.33	-0.11	-0.30	0.33	-0.07	0.0
F	6872	366578	SR	0.54	0.44	-0.34	-0.09	0.44	-0.21	0.1
F	6872	338795	SR	0.73	0.50	-0.34	0.50	-0.24	-0.19	0.1
F	6872	338796	SR	0.77	0.43	-0.18	-0.22	-0.28	0.43	0.1
F	6872	338790	SR	0.73	0.42	-0.16	0.42	-0.32	-0.15	0.1
F	6872	349103	SR	0.74	0.47	0.47	-0.32	-0.18	-0.23	0.1
F	6872	297093	SR	0.81	0.45	0.45	-0.27	-0.24	-0.21	0.0
F	6872	332016	SR	0.31	0.43	-0.26	-0.03	-0.19	0.43	0.1
F	6872	332017	SR	0.44	0.39	-0.15	-0.19	0.39	-0.19	0.1
F	6872	366562	SR	0.29	0.22	-0.19	**0.06**	0.22	-0.11	0.2
F	6872	373096	SR	0.59	0.41	-0.20	0.41	-0.28	-0.16	0.1
F	6872	373095	SR	0.67	0.35	-0.17	-0.20	0.35	-0.15	0.1
F	6872	349081	SR	0.79	0.44	-0.22	0.44	-0.27	-0.23	0.1
F	6872	373136	SR	0.79	0.42	-0.25	-0.20	0.42	-0.22	0.1
F	6872	373138	SR	0.71	0.39	-0.22	0.39	-0.23	-0.15	0.1
F	6872	373139	SR	0.24	0.17	0.17	-0.22	**0.14**	-0.14	0.1
F	6872	338755	SR	0.85	0.42	-0.20	-0.21	-0.26	0.42	0.1
F	6872	338763	SR	0.53	0.34	-0.17	-0.22	-0.11	**0.34**	0.1
F	6872	338754	SR	0.55	0.55	-0.37	-0.19	0.55	-0.19	0.1
F	6872	364169	SR	0.72	0.31	-0.11	0.31	-0.26	-0.17	0.1
F	6872	364172	SR	0.79	0.42	0.42	-0.26	-0.24	-0.18	0.1
G	5523	373071	SR	0.47	0.13	-0.14	**0.05**	-0.14	0.13	0.1
G	5523	373074	SR	0.74	0.39	0.39	-0.30	-0.18	-0.13	0.1
G	5523	349086	SR	0.37	0.39	-0.14	-0.29	0.39	-0.08	0.0
G	5523	373150	SR	0.56	0.41	-0.32	-0.16	0.41	-0.13	0.0
G	5523	349072	SR	0.68	0.34	-0.15	-0.17	-0.20	0.34	0.1
G	5523	349073	SR	0.69	0.52	0.52	-0.19	-0.40	-0.16	0.1
G	5523	349076	SR	0.69	0.44	-0.25	-0.25	0.44	-0.18	0.1
G	5523	373182	SR	0.50	0.32	0.32	**0.04**	-0.36	-0.17	0.2
G	5523	349093	SR	0.41	0.15	-0.16	0.15	-0.16	**0.08**	0.0
G	5523	332015	SR	0.66	0.45	-0.19	0.45	-0.29	-0.20	0.1
G	5523	332012	SR	0.61	0.49	0.49	-0.24	-0.30	-0.19	0.1
G	5523	352875	SR	0.72	0.45	-0.29	-0.18	-0.22	0.45	0.0
G	5523	369456	SR	0.88	0.27	0.27	-0.16	-0.18	-0.10	0.2
G	5523	369457	SR	0.40	0.32	-0.14	-0.14	0.32	-0.12	0.1
G	5523	338730	SR	0.58	0.44	0.44	-0.23	-0.14	-0.30	0.0
G	5523	373090	SR	0.43	0.32	-0.10	-0.23	0.32	-0.12	0.1
G	5523	373092	SR	0.30	0.11	**0.11**	0.11	-0.19	-0.05	0.2

Table 1.B6 Item Statistics, Field Test Items: MDHSA 2011 Biology—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
G	5523	373088	SR	0.33	0.46	-0.24	-0.13	-0.15	0.46	0.1
G	5523	338753	SR	0.77	0.57	0.57	-0.37	-0.24	-0.27	0.0
G	5523	338767	SR	0.84	0.46	0.46	-0.24	-0.28	-0.22	0.0
G	5523	271103	SR	0.60	0.36	0.36	-0.10	-0.31	-0.19	0.1
G	5523	369366	SR	0.68	0.53	-0.21	-0.27	-0.31	0.53	0.1
G	5523	369363	SR	0.35	0.18	-0.20	0.18	**0.00**	-0.05	0.2
H	5431	373186	SR	0.51	0.17	-0.01	0.17	-0.27	-0.08	0.0
H	5431	373127	SR	0.43	0.25	-0.23	-0.23	0.25	**0.08**	0.1
H	5431	349095	SR	0.61	0.60	-0.40	-0.21	0.60	-0.25	0.1
H	5431	322200	SR	0.90	0.31	-0.15	0.31	-0.24	-0.11	0.0
H	5431	362999	SR	0.62	0.33	-0.20	-0.09	0.33	-0.23	0.1
H	5431	363004	SR	0.54	0.28	0.28	-0.11	-0.23	-0.09	0.1
H	5431	363003	SR	0.43	0.40	-0.28	0.40	-0.05	-0.20	0.1
H	5431	366600	SR	0.72	0.55	0.55	-0.22	-0.40	-0.20	0.1
H	5431	331358	SR	0.69	0.38	-0.18	-0.27	-0.13	0.38	0.0
H	5431	373106	SR	0.57	0.31	-0.28	0.31	-0.20	-0.02	0.0
H	5431	373108	SR	0.39	0.19	-0.19	-0.21	0.19	**0.08**	0.1
H	5431	286610	SR	0.64	0.40	-0.19	-0.30	0.40	-0.13	0.0
H	5431	366633	SR	0.52	0.60	-0.16	-0.46	-0.18	0.60	0.2
H	5431	366631	SR	0.42	0.28	0.28	-0.29	-0.19	**0.09**	0.1
H	5431	349085	SR	0.67	0.27	-0.08	-0.28	0.27	-0.03	0.1
H	5431	366628	SR	0.86	0.39	-0.18	-0.20	-0.25	0.39	0.0
H	5431	366629	SR	0.75	0.38	0.38	-0.17	-0.25	-0.18	0.1
H	5431	366627	SR	0.68	0.52	-0.22	0.52	-0.39	-0.13	0.1
H	5431	349099	SR	0.44	**0.10**	0.10	**0.22**	-0.27	-0.20	0.1
H	5431	338748	SR	0.79	0.23	**0.04**	-0.22	0.23	-0.24	0.1
H	5431	322174	SR	0.51	0.40	0.40	-0.14	-0.14	-0.30	0.1
H	5431	373079	SR	0.45	0.38	-0.06	-0.32	0.38	-0.11	0.1
H	5431	373080	SR	0.67	0.42	-0.16	-0.23	0.42	-0.25	0.2
J	5411	369439	SR	0.31	0.13	**0.07**	-0.12	0.13	-0.10	0.1
J	5411	369446	SR	0.79	0.54	-0.39	-0.21	-0.24	0.54	0.0
J	5411	353194	SR	0.57	0.44	0.44	-0.29	-0.21	-0.16	0.1
J	5411	363005	SR	0.71	0.51	-0.21	-0.39	-0.16	0.51	0.1
J	5411	349132	SR	0.59	0.37	-0.10	0.37	-0.21	-0.23	0.1
J	5411	349129	SR	0.87	0.40	-0.24	-0.24	0.40	-0.19	0.1
J	5411	349128	SR	0.39	0.31	0.31	-0.23	-0.22	**0.06**	0.2
J	5411	366590	SR	0.57	0.42	0.42	-0.29	-0.12	-0.23	0.2
J	5411	363022	SR	0.49	0.46	-0.15	0.46	-0.25	-0.27	0.0
J	5411	369461	SR	0.64	0.50	-0.22	-0.21	0.50	-0.31	0.2
J	5411	369407	SR	0.70	0.35	-0.19	0.35	-0.17	-0.21	0.0
J	5411	308584	SR	0.56	0.26	-0.13	0.26	-0.09	-0.16	0.1
J	5411	373112	SR	0.47	0.43	-0.16	-0.27	-0.14	0.43	0.2
J	5411	373113	SR	0.64	0.48	0.48	-0.18	-0.26	-0.26	0.1

Table 1.B6 Item Statistics, Field Test Items: MDHSA 2011 Biology—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
J	5411	369425	SR	0.63	0.41	0.41	-0.29	-0.20	-0.16	0.1
J	5411	373052	SR	0.49	0.38	-0.19	-0.16	0.38	-0.16	0.1
J	5411	373051	SR	0.64	0.38	-0.21	0.38	-0.28	-0.10	0.0
J	5411	373055	SR	0.50	0.42	0.42	-0.23	-0.25	-0.09	0.1
J	5411	338782	SR	0.68	0.27	0.27	-0.11	-0.22	-0.20	0.1
J	5411	323339	SR	0.83	0.41	-0.17	0.41	-0.28	-0.22	0.1
J	5411	338737	SR	0.39	**-0.08**	-0.08	-0.03	**0.09**	**0.01**	0.1
J	5411	364137	SR	0.62	0.39	0.39	-0.34	-0.28	-0.03	0.1
J	5411	364228	SR	0.68	0.49	-0.30	-0.23	0.49	-0.22	0.2
K	5403	373058	SR	0.54	0.37	0.37	-0.26	-0.12	-0.12	0.1
K	5403	373057	SR	0.35	0.41	-0.25	-0.22	0.41	-0.06	0.1
K	5403	322183	SR	0.49	0.56	-0.25	-0.30	-0.20	0.56	0.1
K	5403	322196	SR	0.65	0.26	-0.18	-0.03	-0.20	0.26	0.1
K	5403	338817	SR	0.73	0.42	0.42	-0.23	-0.27	-0.15	0.1
K	5403	338814	SR	0.48	0.39	-0.13	-0.28	0.39	-0.13	0.1
K	5403	338815	SR	0.47	0.43	-0.27	-0.14	-0.23	0.43	0.1
K	5403	349108	SR	0.47	0.45	-0.24	0.45	-0.21	-0.14	0.1
K	5403	338788	SR	0.35	0.47	-0.09	-0.17	-0.32	0.47	0.0
K	5403	366625	SR	0.76	0.47	0.47	-0.23	-0.23	-0.28	0.0
K	5403	366622	SR	0.44	0.56	-0.19	0.56	-0.26	-0.26	0.0
K	5403	363016	SR	0.76	0.38	-0.18	0.38	-0.21	-0.22	0.1
K	5403	364226	SR	0.54	0.29	-0.13	-0.21	-0.14	0.29	0.1
K	5403	364224	SR	0.67	0.40	-0.16	0.40	-0.32	-0.15	0.2
K	5403	323352	SR	0.88	0.41	0.41	-0.24	-0.21	-0.22	0.0
K	5403	364134	SR	0.42	0.26	-0.16	0.26	-0.16	-0.01	0.2
K	5403	364136	SR	0.48	0.34	-0.17	-0.15	-0.14	0.34	0.1
K	5403	364135	SR	0.54	0.34	0.34	-0.16	-0.17	-0.16	0.0
K	5403	338733	SR	0.65	0.48	-0.26	-0.29	0.48	-0.17	0.0
K	5403	108584	SR	0.53	0.45	-0.18	-0.24	-0.23	0.45	0.1
K	5403	338766	SR	0.51	0.39	-0.21	-0.20	0.39	-0.12	0.2
K	5403	364143	SR	0.51	0.32	0.32	-0.21	-0.12	-0.12	0.1
K	5403	364141	SR	0.56	0.33	-0.25	-0.10	-0.15	0.33	0.2
L	5384	373115	SR	0.48	0.52	0.52	-0.24	-0.26	-0.20	0.1
L	5384	373116	SR	0.81	0.45	-0.33	-0.13	-0.24	0.45	0.0
L	5384	385484	SR	0.86	0.23	0.23	-0.20	-0.07	-0.08	0.0
L	5384	263140	SR	0.59	0.56	-0.27	-0.29	0.56	-0.25	0.0
L	5384	366609	SR	0.64	0.28	-0.22	-0.19	0.28	-0.09	0.1
L	5384	366611	SR	0.50	0.46	-0.23	0.46	-0.17	-0.24	0.1
L	5384	366612	SR	0.77	0.52	-0.25	-0.28	-0.29	0.52	0.1
L	5384	108538	SR	0.74	0.47	0.47	-0.32	-0.19	-0.22	0.1
L	5384	366601	SR	0.79	0.42	0.42	-0.20	-0.24	-0.22	0.1
L	5384	364183	SR	0.89	0.36	-0.23	0.36	-0.20	-0.15	0.1
L	5384	364182	SR	0.44	0.28	0.28	-0.17	-0.06	-0.15	0.1

Table 1.B6 Item Statistics, Field Test Items: MDHSA 2011 Biology—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
L	5384	271108	SR	0.57	0.44	-0.14	0.44	-0.33	-0.18	0.1
L	5384	364174	SR	**0.91**	0.36	-0.18	-0.24	0.36	-0.18	0.1
L	5384	364176	SR	0.46	0.32	-0.32	-0.19	0.32	**0.05**	0.1
L	5384	338783	SR	0.49	0.31	0.31	-0.11	-0.20	-0.15	0.2
L	5384	373134	SR	0.78	0.46	-0.25	-0.30	0.46	-0.18	0.0
L	5384	373131	SR	0.69	0.58	-0.15	-0.15	0.58	-0.51	0.0
L	5384	373132	SR	0.67	0.45	-0.35	0.45	-0.17	-0.15	0.1
L	5384	364153	SR	0.55	0.42	-0.14	-0.26	-0.28	0.42	0.1
L	5384	366630	SR	0.74	0.39	-0.28	-0.21	-0.13	0.39	0.0
L	5384	338758	SR	0.58	0.36	-0.14	-0.19	0.36	-0.27	0.1
L	5384	369462	SR	0.61	0.43	-0.11	0.43	-0.29	-0.23	0.1
L	5384	369465	SR	0.40	0.37	0.37	-0.20	-0.12	-0.12	0.0
M	5341	369403	SR	0.47	0.37	-0.17	-0.16	0.37	-0.16	0.1
M	5341	369404	SR	0.50	0.40	-0.21	-0.21	0.40	-0.12	0.0
M	5341	369410	SR	0.86	0.39	0.39	-0.29	-0.22	-0.10	0.1
M	5341	338789	SR	0.61	0.39	-0.28	0.39	-0.16	-0.19	0.0
M	5341	338805	SR	0.57	0.33	-0.21	0.33	-0.08	-0.21	0.2
M	5341	338803	SR	0.63	0.42	0.42	-0.18	-0.24	-0.22	0.0
M	5341	338827	SR	0.51	0.42	-0.28	-0.08	-0.23	0.42	0.1
M	5341	108485	SR	0.84	0.48	-0.27	-0.26	-0.26	0.48	0.1
M	5341	271126	SR	0.87	0.38	-0.22	-0.23	-0.17	0.38	0.1
M	5341	369397	SR	0.44	0.41	0.41	-0.18	-0.16	-0.19	0.1
M	5341	369399	SR	0.58	0.43	-0.15	0.43	-0.27	-0.26	0.1
M	5341	366577	SR	0.81	0.31	-0.15	-0.10	-0.25	0.31	0.1
M	5341	364201	SR	0.70	0.36	0.36	-0.15	-0.22	-0.20	0.1
M	5341	364202	SR	0.66	0.59	-0.31	-0.31	-0.27	0.59	0.1
M	5341	369420	SR	0.69	0.50	-0.25	-0.32	0.50	-0.20	0.1
M	5341	373123	SR	**0.93**	0.34	-0.18	-0.23	0.34	-0.15	0.1
M	5341	373125	SR	**0.91**	0.33	-0.18	0.33	-0.21	-0.17	0.0
M	5341	373122	SR	0.69	0.43	-0.19	-0.24	-0.22	0.43	0.1
M	5341	364150	SR	0.69	0.37	-0.18	0.37	-0.17	-0.28	0.1
M	5341	352587	SR	0.88	0.44	-0.23	-0.26	-0.22	0.44	0.1
M	5341	279609	SR	0.50	0.42	-0.03	0.42	-0.30	-0.29	0.1
M	5341	364191	SR	0.72	0.46	0.46	-0.28	-0.28	-0.12	0.1
M	5341	364189	SR	0.71	0.42	-0.18	0.42	-0.30	-0.18	0.1
N	10850	364184	SR	0.65	0.49	-0.26	-0.25	0.49	-0.22	0.1
N	10850	364188	SR	0.66	0.56	-0.21	0.56	-0.30	-0.32	0.0
N	10850	338759	SR	0.80	0.43	-0.24	-0.28	0.43	-0.19	0.0
N	10850	363006	SR	0.46	0.43	-0.19	-0.26	0.43	-0.10	0.1
N	10850	338808	SR	0.47	0.38	-0.07	-0.25	0.38	-0.17	0.1
N	10850	338812	SR	0.67	0.47	-0.20	-0.17	-0.32	0.47	0.1
N	10850	338809	SR	0.61	0.42	-0.19	0.42	-0.26	-0.17	0.1
N	10850	279574	SR	0.45	0.37	-0.23	0.37	-0.13	-0.19	0.2

Table 1.B6 Item Statistics, Field Test Items: MDHSA 2011 Biology—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
N	10850	263112	SR	0.71	0.57	-0.20	0.57	-0.47	-0.12	0.1
N	10850	364214	SR	0.74	0.37	0.37	-0.29	-0.20	-0.11	0.1
N	10850	364213	SR	0.42	0.48	-0.11	-0.29	0.48	-0.19	0.1
N	10850	349101	SR	0.65	0.41	-0.13	0.41	-0.19	-0.28	0.1
N	10850	369391	SR	0.40	0.32	-0.20	-0.25	0.32	**0.04**	0.2
N	10850	369395	SR	0.67	0.50	-0.13	-0.31	-0.29	0.50	0.1
N	10850	331349	SR	0.64	0.50	-0.19	-0.27	-0.29	0.50	0.1
N	10850	373059	SR	0.57	0.47	0.47	-0.22	-0.25	-0.21	0.1
N	10850	373060	SR	0.28	0.36	-0.12	-0.18	-0.10	0.36	0.1
N	10850	373180	SR	0.53	0.50	-0.15	-0.33	-0.22	0.50	0.1
N	10850	338735	SR	0.61	0.54	-0.20	-0.33	-0.23	0.54	0.2
N	10850	263154	SR	0.50	0.35	-0.24	-0.21	0.35	-0.04	0.2
N	10850	331366	SR	0.46	0.51	-0.28	-0.20	-0.18	0.51	0.1
N	10850	369463	SR	0.63	0.47	-0.23	0.47	-0.28	-0.19	0.2
N	10850	369449	SR	0.47	0.52	-0.22	-0.19	-0.27	0.52	0.2
Mean				0.60	0.40	-0.05	-0.07	-0.05	-0.02	0.1
SD				0.15	0.10	0.26	0.27	0.28	0.27	0.0

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

Table 1.B7 Item Statistics, Field Test Items: MDHSA 2011 English—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D	11272	373868	SR	0.80	0.29	-0.17	0.29	-0.25	-0.08	0.1
D	11272	323392	SR	0.58	0.44	-0.28	0.44	-0.23	-0.20	0.2
D	11272	323394	SR	0.74	0.44	-0.22	-0.26	0.44	-0.21	0.2
D	11272	323393	SR	0.51	0.34	-0.10	-0.18	0.34	-0.23	0.2
D	11272	349421	SR	0.49	0.28	-0.06	-0.23	0.28	-0.08	0.3
D	11272	349436	SR	0.72	0.39	-0.19	-0.25	-0.20	0.39	0.2
D	11272	320953	SR	0.72	0.34	-0.13	0.34	-0.22	-0.18	0.2
D	11272	320951	SR	0.59	0.42	0.42	-0.21	-0.22	-0.22	0.1
D	11272	320954	SR	0.81	0.51	-0.29	-0.26	-0.27	0.51	0.1
D	11272	320957	SR	0.67	0.41	-0.26	-0.26	0.41	-0.14	0.1
D	11272	320955	SR	0.72	0.28	0.28	-0.24	-0.10	-0.06	0.1
D	11272	320952	SR	0.73	0.44	-0.17	-0.28	-0.25	0.44	0.1
D	11272	320958	SR	0.44	0.19	-0.16	-0.02	0.19	-0.10	0.3
D	11272	321004	SR	0.50	0.13	**0.11**	-0.21	0.13	-0.08	0.2
D	11272	320950	SR	0.75	0.38	-0.21	0.38	-0.20	-0.18	0.1
D	11272	320949	SR	0.81	0.46	-0.25	0.46	-0.26	-0.24	0.2
D	11272	320956	SR	0.52	0.34	0.34	-0.21	-0.17	-0.12	0.1
D	11272	285449	SR	0.21	0.12	**0.04**	**0.02**	0.12	-0.23	0.3
D	11272	285448	SR	0.85	0.50	-0.25	-0.25	-0.31	0.50	0.1
D	11272	285450	SR	0.48	0.20	**0.02**	-0.19	0.20	-0.14	0.2
D	11272	285442	SR	0.71	0.41	-0.21	0.41	-0.25	-0.18	0.2
D	11272	285444	SR	0.71	0.44	-0.26	-0.21	0.44	-0.22	0.3
D	11272	323260	SR	0.55	0.29	-0.09	0.29	-0.18	-0.12	0.3
D	11272	323261	SR	0.64	0.44	0.44	-0.18	-0.25	-0.21	0.2
D	11272	323262	SR	0.82	0.48	-0.26	-0.32	0.48	-0.17	0.3
D	11272	323263	SR	0.48	0.32	-0.03	0.32	-0.22	-0.19	0.2
D	11272	323264	SR	0.48	0.35	-0.25	0.35	-0.11	-0.09	0.3
D	11272	323265	SR	0.78	0.45	-0.24	-0.25	0.45	-0.24	0.3
D	11272	331898	SR	0.48	0.27	-0.24	**0.03**	-0.18	0.27	0.2
D	11272	331897	SR	0.71	0.45	-0.22	-0.26	0.45	-0.21	0.2
D	11272	281311	SR	0.54	0.21	-0.15	0.21	-0.07	-0.07	0.5
D	11272	281310	SR	0.36	0.22	0.22	0.00	-0.25	-0.08	0.4
D	11272	281308	SR	0.40	0.33	-0.10	-0.15	0.33	-0.14	0.4
D	11272	281309	SR	0.50	0.28	0.28	-0.20	-0.22	-0.07	0.3
D	11272	281306	SR	0.34	0.19	-0.15	**0.14**	-0.28	0.19	0.4
D	11272	281307	SR	0.54	0.36	0.36	-0.28	-0.20	-0.08	0.4
D	11272	281312	SR	0.32	0.35	-0.19	0.35	-0.08	-0.10	0.3
D	11272	281313	SR	0.30	0.29	-0.12	-0.01	-0.24	0.29	0.4
E	5519	272869	SR	0.58	0.20	-0.01	-0.10	0.20	-0.22	0.1
E	5519	251237	SR	0.70	0.42	0.42	-0.23	-0.24	-0.17	0.2
E	5519	251239	SR	0.71	0.32	-0.04	-0.22	-0.25	0.32	0.3
E	5519	251238	SR	0.76	0.43	0.43	-0.23	-0.24	-0.22	0.3
E	5519	349423	SR	0.72	0.34	-0.16	0.34	-0.23	-0.10	0.4

Table 1.B7 Item Statistics, Field Test Items: MDHSA 2011 English—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
E	5519	349457	SR	0.78	0.37	0.37	-0.23	-0.17	-0.16	0.3
E	5519	349241	SR	0.48	0.40	-0.20	-0.16	-0.17	0.40	0.2
E	5519	349242	SR	0.66	0.28	0.28	-0.16	-0.21	-0.21	0.1
E	5519	349246	SR	0.66	0.26	0.26	-0.16	-0.20	-0.04	0.1
E	5519	349249	SR	0.61	0.41	-0.25	-0.13	0.41	-0.21	0.1
E	5519	349245	SR	0.76	0.45	-0.15	-0.26	-0.28	0.45	0.1
E	5519	349244	SR	0.60	0.43	-0.25	-0.08	-0.27	0.43	0.1
E	5519	349247	SR	0.29	**-0.12**	-0.11	**0.31**	-0.15	-0.12	0.1
E	5519	349243	SR	0.84	0.40	0.40	-0.22	-0.21	-0.23	0.1
E	5519	349248	SR	0.57	0.29	0.29	-0.31	-0.01	-0.19	0.3
E	5519	349250	SR	0.62	0.27	0.27	-0.16	-0.15	-0.08	0.1
E	5519	349251	SR	0.68	0.40	-0.22	0.40	-0.18	-0.21	0.1
E	5519	175740	SR	0.79	0.40	0.40	-0.21	-0.23	-0.20	0.2
E	5519	175741	SR	0.71	0.34	-0.13	0.34	-0.18	-0.21	0.1
E	5519	175742	SR	0.39	0.19	-0.25	-0.21	0.19	-0.03	0.1
E	5519	175743	SR	0.79	0.37	-0.20	0.37	-0.24	-0.18	0.1
E	5519	175744	SR	0.78	0.46	0.46	-0.30	-0.24	-0.21	0.1
E	5519	323258	SR	0.56	0.32	-0.09	0.32	-0.23	-0.17	0.1
E	5519	323254	SR	0.56	**0.09**	**0.06**	-0.15	0.09	-0.10	0.2
E	5519	323255	SR	0.57	0.40	0.40	-0.23	-0.16	-0.17	0.2
E	5519	323256	SR	0.82	0.44	-0.21	-0.24	0.44	-0.25	0.2
E	5519	323259	SR	0.61	0.32	0.32	-0.15	-0.26	-0.07	0.3
E	5519	323257	SR	0.33	0.19	-0.12	**0.06**	-0.17	0.19	0.3
E	5519	332109	SR	0.38	0.37	-0.16	-0.11	0.37	-0.24	0.2
E	5519	332121	SR	0.59	0.32	-0.20	-0.08	-0.24	0.32	0.2
E	5519	323216	SR	0.35	0.27	-0.16	0.27	-0.04	-0.15	0.3
E	5519	323356	SR	0.77	0.34	-0.20	-0.21	0.34	-0.15	0.3
E	5519	323222	SR	0.56	0.40	0.40	-0.29	-0.06	-0.23	0.2
E	5519	323221	SR	0.58	0.37	0.37	-0.16	-0.21	-0.18	0.3
E	5519	323217	SR	0.36	0.27	-0.10	-0.08	-0.12	0.27	0.4
E	5519	323218	SR	0.24	0.20	**0.05**	-0.16	0.20	-0.09	0.3
E	5519	323219	SR	0.60	0.38	-0.18	-0.28	-0.13	0.38	0.3
E	5519	323220	SR	0.65	0.40	-0.23	-0.20	0.40	-0.15	0.3
F	7081	272945	SR	0.66	0.42	-0.19	0.42	-0.25	-0.20	0.1
F	7081	323367	SR	0.44	0.33	-0.29	**0.01**	0.33	-0.17	0.2
F	7081	323369	SR	0.33	0.21	0.21	-0.16	-0.16	**0.06**	0.3
F	7081	323368	SR	0.79	0.45	-0.21	-0.26	-0.23	0.45	0.2
F	7081	349425	SR	0.68	0.30	-0.10	0.30	-0.23	-0.18	0.3
F	7081	349460	SR	0.78	0.32	-0.17	-0.22	-0.16	0.32	0.2
F	7081	338938	SR	0.82	0.36	-0.18	-0.17	-0.24	0.36	0.0
F	7081	338932	SR	0.47	0.19	-0.12	-0.24	0.19	**0.04**	0.1
F	7081	338935	SR	0.60	0.31	-0.17	0.31	-0.24	-0.09	0.1
F	7081	338939	SR	0.51	0.27	-0.08	0.27	-0.09	-0.22	0.1

Table 1.B7 Item Statistics, Field Test Items: MDHSA 2011 English—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
F	7081	338933	SR	0.86	0.45	-0.22	-0.27	-0.26	0.45	0.0
F	7081	338936	SR	0.64	0.49	-0.27	-0.24	-0.26	0.49	0.1
F	7081	338937	SR	0.51	0.35	-0.25	-0.13	0.35	-0.10	0.0
F	7081	338934	SR	0.77	0.31	-0.10	-0.27	0.31	-0.12	0.1
F	7081	338940	SR	0.82	0.37	-0.21	-0.24	0.37	-0.18	0.1
F	7081	338941	SR	0.36	0.24	0.24	-0.16	-0.18	**0.03**	0.1
F	7081	338882	SR	0.63	0.47	0.47	-0.22	-0.30	-0.15	0.1
F	7081	251123	SR	0.31	0.23	**0.02**	-0.24	-0.07	0.23	0.2
F	7081	251121	SR	0.85	0.36	-0.19	-0.21	-0.19	0.36	0.1
F	7081	251122	SR	0.74	0.40	0.40	-0.17	-0.19	-0.27	0.1
F	7081	251124	SR	0.67	0.40	-0.19	-0.26	0.40	-0.14	0.1
F	7081	251125	SR	0.80	0.39	-0.19	-0.25	0.39	-0.19	0.1
F	7081	332100	SR	0.68	0.47	0.47	-0.27	-0.23	-0.23	0.1
F	7081	332097	SR	0.78	0.45	-0.24	-0.26	0.45	-0.20	0.1
F	7081	332099	SR	0.66	0.19	-0.24	0.19	**0.02**	-0.19	0.1
F	7081	332098	SR	0.79	0.47	-0.27	-0.25	-0.24	0.47	0.2
F	7081	332096	SR	0.59	0.51	-0.23	-0.31	-0.22	0.51	0.1
F	7081	332120	SR	0.66	0.44	-0.14	0.44	-0.26	-0.27	0.1
F	7081	323266	SR	0.74	0.45	0.45	-0.30	-0.21	-0.18	0.1
F	7081	323267	SR	0.73	0.48	-0.28	-0.26	0.48	-0.22	0.1
F	7081	323212	SR	0.68	0.52	-0.25	-0.27	-0.26	0.52	0.2
F	7081	323209	SR	0.29	0.25	0.25	-0.11	-0.23	**0.05**	0.1
F	7081	323208	SR	0.43	0.35	0.35	-0.13	-0.12	-0.19	0.1
F	7081	323210	SR	0.55	0.47	-0.18	-0.20	-0.26	0.47	0.2
F	7081	323206	SR	0.36	0.20	**0.06**	-0.08	-0.23	0.20	0.2
F	7081	323207	SR	0.37	0.24	-0.13	0.00	-0.18	0.24	0.2
F	7081	323213	SR	0.48	0.26	-0.11	-0.16	0.26	-0.07	0.2
F	7081	323211	SR	0.65	0.35	-0.20	-0.14	-0.21	0.35	0.2
G	5448	272946	SR	0.80	0.41	0.41	-0.21	-0.22	-0.23	0.1
G	5448	366350	SR	0.77	0.30	-0.17	0.30	-0.20	-0.11	0.1
G	5448	366349	SR	0.69	0.11	-0.06	-0.12	0.11	-0.04	0.1
G	5448	366348	SR	0.73	0.42	-0.23	-0.25	-0.17	0.42	0.1
G	5448	349434	SR	0.70	0.36	-0.14	0.36	-0.28	-0.23	0.2
G	5448	349461	SR	0.67	0.19	**0.04**	-0.17	0.19	-0.20	0.1
G	5448	373847	SR	0.87	0.34	-0.14	-0.27	0.34	-0.13	0.1
G	5448	374430	SR	0.88	0.21	0.21	-0.20	-0.10	-0.11	0.0
G	5448	374589	SR	0.45	0.27	0.27	-0.14	-0.07	-0.19	0.0
G	5448	374432	SR	0.41	0.25	-0.05	-0.19	-0.22	0.25	0.1
G	5448	374435	SR	0.80	0.39	-0.22	-0.22	0.39	-0.19	0.0
G	5448	374588	SR	0.58	0.28	-0.15	0.28	-0.22	-0.03	0.1
G	5448	374431	SR	0.33	**-0.03**	**0.17**	-0.20	-0.03	-0.09	0.1
G	5448	374434	SR	0.89	0.30	-0.17	0.30	-0.22	-0.13	0.0
G	5448	374433	SR	0.11	**0.01**	-0.18	-0.19	0.01	**0.18**	0.1

Table 1.B7 Item Statistics, Field Test Items: MDHSA 2011 English—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
G	5448	374436	SR	0.73	0.36	-0.19	0.36	-0.21	-0.17	0.1
G	5448	374437	SR	0.65	0.39	0.39	-0.16	-0.26	-0.22	0.0
G	5448	139358	SR	0.77	0.39	-0.26	0.39	-0.22	-0.14	0.1
G	5448	139356	SR	0.53	0.29	-0.17	-0.11	-0.12	0.29	0.0
G	5448	139355	SR	0.58	0.30	-0.13	0.30	-0.18	-0.15	0.1
G	5448	139357	SR	0.75	0.47	-0.24	-0.30	0.47	-0.19	0.1
G	5448	139359	SR	0.77	0.43	-0.27	-0.19	0.43	-0.21	0.1
G	5448	323373	SR	0.69	0.51	-0.28	-0.26	-0.24	0.51	0.1
G	5448	323372	SR	0.84	0.42	-0.21	-0.20	-0.28	0.42	0.1
G	5448	323371	SR	0.79	0.34	-0.26	-0.23	0.34	-0.05	0.1
G	5448	323374	SR	0.73	0.45	0.45	-0.21	-0.27	-0.22	0.1
G	5448	323370	SR	0.81	0.48	-0.22	0.48	-0.29	-0.26	0.1
G	5448	323375	SR	0.71	0.55	0.55	-0.29	-0.31	-0.24	0.1
G	5448	332110	SR	0.52	**0.09**	-0.03	-0.03	-0.13	0.09	0.1
G	5448	332111	SR	0.70	0.25	-0.25	-0.21	0.25	**0.00**	0.0
G	5448	373794	SR	0.72	0.33	-0.17	0.33	-0.27	-0.11	0.1
G	5448	373800	SR	0.74	0.38	0.38	-0.23	-0.19	-0.19	0.1
G	5448	373797	SR	0.31	0.17	-0.26	-0.13	0.17	**0.05**	0.1
G	5448	373795	SR	0.47	0.40	-0.06	-0.26	-0.27	0.40	0.1
G	5448	373802	SR	0.45	0.10	-0.20	-0.26	0.10	**0.23**	0.1
G	5448	373803	SR	0.65	0.30	-0.29	-0.04	-0.27	0.30	0.1
G	5448	373805	SR	0.22	**-0.11**	-0.11	**0.23**	-0.11	-0.16	0.1
G	5448	373804	SR	0.75	0.47	0.47	-0.22	-0.31	-0.20	0.2
H	5447	272947	SR	0.71	0.29	-0.17	0.29	-0.29	-0.04	0.0
H	5447	366359	SR	0.69	0.32	-0.12	-0.14	0.32	-0.22	0.1
H	5447	366357	SR	0.68	0.37	0.37	-0.23	-0.16	-0.19	0.0
H	5447	366358	SR	0.75	0.37	-0.16	-0.17	-0.24	0.37	0.1
H	5447	373833	SR	0.68	0.27	-0.20	-0.18	0.27	-0.08	0.1
H	5447	349462	SR	0.57	0.40	-0.19	-0.21	0.40	-0.17	0.2
H	5447	323230	SR	0.55	0.15	-0.05	-0.11	0.15	-0.05	0.2
H	5447	323234	SR	0.83	0.39	0.39	-0.26	-0.19	-0.18	0.0
H	5447	323359	SR	0.60	0.38	-0.20	0.38	-0.21	-0.15	0.0
H	5447	323227	SR	0.71	0.42	-0.22	0.42	-0.27	-0.14	0.1
H	5447	323232	SR	0.73	0.50	-0.21	-0.31	0.50	-0.25	0.1
H	5447	323360	SR	0.36	0.27	-0.13	-0.05	-0.13	0.27	0.0
H	5447	323358	SR	0.60	0.43	-0.24	-0.26	-0.15	0.43	0.1
H	5447	323231	SR	**0.91**	0.37	-0.16	-0.24	0.37	-0.20	0.0
H	5447	323226	SR	0.72	0.34	0.34	-0.32	-0.06	-0.16	0.0
H	5447	323223	SR	0.78	0.46	-0.21	-0.31	-0.22	0.46	0.1
H	5447	323233	SR	0.78	0.36	0.36	-0.23	-0.21	-0.16	0.0
H	5447	369119	SR	0.74	0.26	-0.11	0.26	-0.16	-0.13	0.2
H	5447	369121	SR	0.58	0.33	-0.11	-0.22	0.33	-0.14	0.1
H	5447	369122	SR	0.50	0.36	-0.17	-0.15	-0.18	0.36	0.1

Table 1.B7 Item Statistics, Field Test Items: MDHSA 2011 English—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
H	5447	369120	SR	**0.07**	**0.01**	0.01	-0.12	**0.21**	-0.19	0.1
H	5447	369123	SR	0.80	0.28	-0.20	-0.14	0.28	-0.09	0.1
H	5447	323247	SR	0.47	0.39	-0.24	-0.15	0.39	-0.11	0.1
H	5447	323381	SR	0.55	0.18	**0.01**	-0.14	0.18	-0.19	0.1
H	5447	323382	SR	0.52	0.17	0.17	-0.28	-0.17	**0.11**	0.1
H	5447	323383	SR	0.76	0.41	-0.22	0.41	-0.25	-0.21	0.1
H	5447	323384	SR	0.62	0.39	-0.19	-0.22	0.39	-0.17	0.1
H	5447	323385	SR	0.62	0.29	-0.20	0.29	-0.21	-0.08	0.1
H	5447	338921	SR	0.72	0.47	0.47	-0.36	-0.16	-0.20	0.1
H	5447	338922	SR	0.87	0.39	-0.22	-0.24	-0.20	0.39	0.0
H	5447	332088	SR	0.82	0.44	0.44	-0.26	-0.25	-0.19	0.2
H	5447	331810	SR	0.63	0.49	-0.26	-0.21	-0.24	0.49	0.1
H	5447	331812	SR	0.64	0.45	0.45	-0.24	-0.21	-0.23	0.1
H	5447	332089	SR	0.83	0.21	-0.21	-0.12	0.21	-0.06	0.1
H	5447	331814	SR	0.71	0.44	-0.28	0.44	-0.28	-0.16	0.2
H	5447	331811	SR	0.72	0.37	-0.18	-0.23	0.37	-0.20	0.2
H	5447	331813	SR	0.77	0.44	-0.20	-0.27	-0.25	0.44	0.1
H	5447	331817	SR	0.57	0.40	0.40	-0.23	-0.12	-0.26	0.2
J	5416	285537	SR	0.76	0.41	0.41	-0.28	-0.20	-0.16	0.1
J	5416	366365	SR	0.51	0.33	-0.13	0.33	-0.18	-0.12	0.2
J	5416	366364	SR	0.29	0.24	-0.09	-0.18	0.24	-0.03	0.1
J	5416	366363	SR	0.64	0.41	-0.23	0.41	-0.20	-0.20	0.1
J	5416	373838	SR	0.80	0.44	0.44	-0.26	-0.27	-0.21	0.1
J	5416	373850	SR	0.74	0.45	0.45	-0.23	-0.23	-0.24	0.3
J	5416	338871	SR	0.34	0.16	0.00	0.16	-0.11	-0.15	0.3
J	5416	338858	SR	0.33	0.14	-0.02	-0.07	0.14	-0.11	0.1
J	5416	338859	SR	0.59	0.32	-0.28	-0.06	0.32	-0.17	0.2
J	5416	338863	SR	0.75	0.51	-0.29	-0.21	-0.29	0.51	0.1
J	5416	338868	SR	0.71	0.29	-0.09	0.29	-0.19	-0.15	0.1
J	5416	338865	SR	0.44	0.19	-0.01	0.19	-0.25	-0.10	0.1
J	5416	338864	SR	0.63	0.32	-0.03	-0.20	0.32	-0.24	0.2
J	5416	338862	SR	0.60	0.23	-0.13	0.23	-0.07	-0.19	0.1
J	5416	338867	SR	0.67	0.37	-0.22	0.37	-0.15	-0.20	0.1
J	5416	338869	SR	0.70	0.42	-0.23	-0.24	0.42	-0.17	0.1
J	5416	338870	SR	0.71	0.40	0.40	-0.24	-0.21	-0.19	0.1
J	5416	331851	SR	0.87	0.34	-0.18	-0.16	-0.22	0.34	0.2
J	5416	331855	SR	0.42	0.28	0.28	-0.28	**0.03**	-0.11	0.2
J	5416	331860	SR	0.47	0.21	-0.06	-0.20	0.21	-0.14	0.2
J	5416	331863	SR	0.76	0.49	-0.29	-0.21	0.49	-0.25	0.3
J	5416	331861	SR	0.81	0.36	-0.16	0.36	-0.27	-0.16	0.2
J	5416	323386	SR	0.32	**0.05**	-0.22	-0.24	0.05	**0.21**	0.3
J	5416	323391	SR	0.65	0.47	0.47	-0.24	-0.25	-0.22	0.2
J	5416	323390	SR	0.47	0.28	-0.14	0.28	-0.23	**0.01**	0.3

Table 1.B7 Item Statistics, Field Test Items: MDHSA 2011 English—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
J	5416	323389	SR	0.59	0.43	-0.21	0.43	-0.27	-0.17	0.2
J	5416	323388	SR	0.77	0.43	-0.22	0.43	-0.27	-0.17	0.3
J	5416	323387	SR	0.60	0.38	-0.16	-0.30	-0.15	0.38	0.4
J	5416	338923	SR	0.66	0.17	-0.16	0.17	-0.05	-0.15	0.1
J	5416	338924	SR	0.50	0.24	-0.17	0.24	-0.05	-0.25	0.1
J	5416	349238	SR	0.71	0.27	-0.22	0.27	-0.14	-0.12	0.1
J	5416	349237	SR	0.75	0.37	-0.18	0.37	-0.26	-0.15	0.2
J	5416	349451	SR	0.26	0.21	-0.10	-0.24	0.21	**0.04**	0.1
J	5416	349235	SR	0.77	0.46	0.46	-0.26	-0.26	-0.20	0.2
J	5416	349699	SR	0.71	0.34	-0.19	-0.19	-0.19	0.34	0.1
J	5416	349239	SR	0.70	0.49	-0.24	0.49	-0.28	-0.27	0.2
J	5416	349236	SR	0.39	0.35	-0.05	-0.28	-0.12	0.35	0.2
J	5416	349240	SR	0.49	0.33	-0.05	0.33	-0.26	-0.11	0.2
K	5466	285538	SR	0.53	0.30	-0.13	0.30	-0.11	-0.22	0.1
K	5466	364051	SR	0.74	0.40	-0.20	0.40	-0.26	-0.20	0.2
K	5466	364050	SR	0.54	0.49	0.49	-0.32	-0.19	-0.14	0.2
K	5466	364049	SR	0.77	0.43	-0.25	-0.20	0.43	-0.21	0.2
K	5466	373843	SR	0.84	0.33	-0.17	0.33	-0.29	-0.06	0.2
K	5466	373852	SR	0.35	**0.05**	0.00	-0.16	0.05	**0.04**	0.3
K	5466	320991	SR	0.22	0.11	-0.13	-0.11	0.11	**0.13**	0.2
K	5466	320985	SR	0.82	0.36	-0.24	-0.11	-0.27	0.36	0.2
K	5466	320990	SR	0.23	0.14	-0.21	**0.09**	0.14	-0.08	0.2
K	5466	320992	SR	0.80	0.31	-0.20	-0.26	0.31	-0.06	0.2
K	5466	320988	SR	0.51	0.20	**0.15**	0.20	-0.27	-0.17	0.2
K	5466	320989	SR	0.35	0.20	-0.21	**0.00**	0.20	-0.19	0.2
K	5466	320994	SR	0.68	0.18	-0.10	0.18	-0.09	-0.09	0.2
K	5466	320993	SR	0.73	0.44	-0.18	-0.22	-0.31	0.44	0.2
K	5466	320995	SR	0.54	0.20	-0.20	0.20	**0.01**	-0.15	0.2
K	5466	320996	SR	0.78	0.47	0.47	-0.25	-0.23	-0.27	0.2
K	5466	320997	SR	0.69	0.43	0.43	-0.21	-0.26	-0.19	0.2
K	5466	373686	SR	0.75	0.34	-0.19	-0.19	0.34	-0.13	0.2
K	5466	373689	SR	0.27	0.21	0.21	-0.08	-0.01	-0.20	0.2
K	5466	373690	SR	0.50	0.45	-0.13	-0.28	0.45	-0.20	0.3
K	5466	373688	SR	0.37	0.32	-0.16	0.32	-0.13	-0.10	0.3
K	5466	373692	SR	0.79	0.44	0.44	-0.25	-0.21	-0.23	0.2
K	5466	323379	SR	0.50	0.38	0.38	-0.22	-0.05	-0.22	0.3
K	5466	323452	SR	0.71	0.29	-0.16	-0.28	0.29	-0.02	0.2
K	5466	323380	SR	0.67	0.51	-0.22	-0.26	-0.27	0.51	0.3
K	5466	323378	SR	0.86	0.45	-0.25	-0.25	0.45	-0.23	0.3
K	5466	323376	SR	0.80	0.42	-0.22	-0.23	-0.24	0.42	0.3
K	5466	323377	SR	0.81	0.40	-0.21	-0.21	0.40	-0.22	0.3
K	5466	332092	SR	0.83	0.42	-0.25	-0.25	-0.18	0.42	0.1
K	5466	332091	SR	0.55	**0.02**	-0.14	**0.21**	0.02	-0.17	0.2

Table 1.B7 Item Statistics, Field Test Items: MDHSA 2011 English—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
K	5466	331873	SR	0.27	**-0.05**	-0.14	-0.05	**0.23**	-0.15	0.2
K	5466	331869	SR	0.41	0.28	-0.29	-0.18	0.28	**0.01**	0.2
K	5466	331880	SR	0.35	0.11	-0.18	**0.03**	0.11	-0.05	0.2
K	5466	331874	SR	0.50	**-0.13**	-0.09	-0.13	-0.18	**0.31**	0.2
K	5466	331876	SR	0.53	0.24	-0.07	0.24	-0.24	-0.01	0.2
K	5466	331879	SR	0.83	0.44	-0.20	-0.24	-0.26	0.44	0.2
K	5466	331870	SR	0.46	0.23	0.23	-0.08	-0.20	-0.16	0.2
K	5466	332101	SR	0.77	0.39	-0.18	-0.26	0.39	-0.22	0.2
L	5381	285540	SR	0.84	0.42	-0.17	-0.26	0.42	-0.25	0.0
L	5381	369116	SR	0.72	0.47	-0.28	-0.27	0.47	-0.16	0.2
L	5381	369117	SR	0.61	0.36	-0.12	-0.27	0.36	-0.17	0.1
L	5381	369118	SR	0.37	**0.09**	**0.08**	-0.06	-0.23	0.09	0.1
L	5381	373848	SR	0.71	0.41	-0.22	-0.26	-0.21	0.41	0.2
L	5381	285620	SR	0.75	0.37	-0.18	-0.30	-0.10	0.37	0.2
L	5381	349222	SR	0.61	**0.08**	-0.02	-0.20	0.08	**0.05**	0.1
L	5381	349225	SR	0.87	0.42	-0.25	0.42	-0.25	-0.21	0.1
L	5381	349227	SR	0.33	0.18	-0.22	-0.06	0.18	-0.02	0.1
L	5381	349224	SR	0.74	0.43	-0.21	-0.27	0.43	-0.21	0.1
L	5381	349229	SR	0.88	0.42	0.42	-0.26	-0.25	-0.19	0.1
L	5381	349449	SR	0.78	0.54	-0.25	-0.29	-0.32	0.54	0.1
L	5381	349448	SR	0.81	0.41	-0.23	-0.19	0.41	-0.24	0.1
L	5381	349226	SR	0.89	0.34	-0.20	-0.20	-0.18	0.34	0.1
L	5381	349231	SR	0.37	0.19	-0.04	0.19	-0.23	-0.16	0.1
L	5381	349232	SR	0.59	0.43	-0.23	-0.26	0.43	-0.12	0.1
L	5381	349450	SR	0.79	0.38	-0.21	0.38	-0.23	-0.18	0.1
L	5381	320941	SR	0.49	0.41	0.41	-0.14	-0.28	-0.11	0.1
L	5381	320944	SR	0.62	0.46	0.46	-0.28	-0.23	-0.20	0.3
L	5381	320939	SR	0.76	0.41	-0.19	-0.19	-0.27	0.41	0.1
L	5381	320943	SR	0.27	0.22	**0.10**	-0.25	-0.20	0.22	0.1
L	5381	320948	SR	0.50	0.29	-0.15	0.29	-0.28	-0.03	0.1
L	5381	323362	SR	0.53	0.32	0.32	-0.17	-0.15	-0.11	0.1
L	5381	323364	SR	0.29	**0.09**	**0.10**	0.09	-0.31	**0.02**	0.3
L	5381	323363	SR	0.21	0.22	0.22	-0.13	-0.04	-0.21	0.2
L	5381	323246	SR	0.86	0.44	-0.25	-0.23	-0.23	0.44	0.1
L	5381	323245	SR	0.66	0.44	-0.21	-0.19	0.44	-0.26	0.1
L	5381	323361	SR	0.46	0.39	-0.10	-0.31	0.39	-0.06	0.2
L	5381	323365	SR	0.74	0.29	-0.12	0.29	-0.20	-0.19	0.1
L	5381	323366	SR	0.63	0.43	-0.18	-0.25	0.43	-0.23	0.1
L	5381	373744	SR	0.36	0.36	-0.18	-0.14	0.36	-0.12	0.1
L	5381	373738	SR	0.24	0.12	-0.04	0.12	**0.04**	-0.22	0.2
L	5381	373741	SR	0.51	0.30	**0.00**	-0.20	-0.27	0.30	0.2
L	5381	373735	SR	0.42	0.24	-0.24	-0.32	**0.17**	0.24	0.1
L	5381	373740	SR	0.38	0.11	0.11	-0.28	-0.28	**0.19**	0.1

Table 1.B7 Item Statistics, Field Test Items: MDHSA 2011 English—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
L	5381	373743	SR	0.32	0.13	0.13	-0.09	**0.02**	-0.08	0.2
L	5381	373736	SR	0.59	0.43	-0.24	0.43	-0.25	-0.15	0.2
L	5381	373746	SR	0.51	0.29	-0.12	-0.11	0.29	-0.15	0.2
M	5285	373865	SR	0.64	0.43	0.43	-0.23	-0.25	-0.19	0.2
M	5285	369115	SR	0.48	0.25	0.25	-0.30	-0.03	-0.06	0.3
M	5285	369114	SR	0.87	0.27	-0.17	0.27	-0.09	-0.15	0.2
M	5285	369113	SR	0.80	0.32	-0.21	-0.10	0.32	-0.23	0.2
M	5285	373834	SR	0.74	0.33	-0.18	0.33	-0.20	-0.16	0.3
M	5285	373864	SR	0.78	0.43	-0.20	-0.23	-0.25	0.43	0.3
M	5285	349270	SR	0.59	0.34	-0.20	-0.17	0.34	-0.14	0.1
M	5285	349452	SR	0.83	0.27	-0.15	-0.14	-0.20	0.27	0.1
M	5285	349262	SR	0.87	0.32	0.32	-0.17	-0.21	-0.13	0.1
M	5285	349265	SR	0.67	0.30	-0.20	-0.16	-0.12	0.30	0.1
M	5285	349271	SR	0.57	0.39	-0.24	-0.21	-0.07	0.39	0.2
M	5285	349269	SR	0.28	0.18	0.18	**0.03**	-0.17	-0.06	0.1
M	5285	349453	SR	0.32	0.13	-0.12	0.13	-0.23	**0.14**	0.1
M	5285	349264	SR	0.51	0.16	-0.17	-0.09	**0.03**	0.16	0.1
M	5285	349272	SR	0.48	0.25	-0.19	0.25	-0.10	-0.03	0.1
M	5285	349263	SR	0.45	0.42	0.42	-0.19	-0.21	-0.16	0.1
M	5285	349268	SR	0.82	0.37	0.37	-0.22	-0.25	-0.15	0.1
M	5285	369266	SR	0.27	**0.08**	-0.21	-0.12	**0.09**	0.08	0.2
M	5285	369270	SR	0.70	0.44	-0.26	-0.19	-0.23	0.44	0.2
M	5285	369275	SR	0.79	0.28	-0.23	-0.18	0.28	-0.13	0.1
M	5285	369272	SR	0.35	**0.05**	-0.20	-0.22	**0.18**	0.05	0.1
M	5285	369273	SR	0.71	0.29	-0.14	-0.17	0.29	-0.13	0.1
M	5285	214639	SR	0.73	0.31	-0.07	0.31	-0.19	-0.22	0.2
M	5285	214640	SR	0.29	0.28	-0.04	0.28	-0.09	-0.17	0.2
M	5285	214643	SR	0.63	0.49	-0.25	-0.26	-0.21	0.49	0.2
M	5285	214641	SR	0.65	0.47	0.47	-0.23	-0.23	-0.23	0.2
M	5285	355149	SR	0.53	0.30	-0.15	-0.08	-0.18	0.30	0.2
M	5285	214644	SR	0.64	0.34	-0.24	0.34	-0.14	-0.17	0.2
M	5285	366335	SR	0.70	0.46	0.46	-0.17	-0.34	-0.18	0.2
M	5285	366385	SR	0.69	0.39	-0.18	-0.18	0.39	-0.25	0.1
M	5285	366367	SR	0.63	0.28	0.28	-0.18	-0.13	-0.12	0.2
M	5285	366262	SR	0.46	0.26	-0.16	-0.06	0.26	-0.14	0.2
M	5285	366261	SR	0.42	0.10	-0.16	**0.08**	0.10	-0.09	0.2
M	5285	366368	SR	0.55	0.24	-0.08	-0.20	-0.13	0.24	0.2
M	5285	366263	SR	0.50	0.29	-0.08	0.29	-0.28	-0.11	0.3
M	5285	366369	SR	0.25	**0.10**	0.10	-0.24	**0.14**	-0.20	0.2
M	5285	366265	SR	0.61	0.50	-0.21	-0.32	0.50	-0.21	0.2
M	5285	366264	SR	0.78	0.43	0.43	-0.19	-0.28	-0.21	0.2
N	5316	256305	SR	0.55	0.43	-0.09	-0.15	-0.33	0.43	0.2

Table 1.B7 Item Statistics, Field Test Items: MDHSA 2011 English—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
N	5316	369110	SR	0.48	0.37	0.37	-0.23	-0.23	-0.07	0.4
N	5316	369112	SR	0.37	0.29	-0.21	-0.16	-0.14	0.29	0.3
N	5316	369111	SR	0.70	0.47	-0.26	-0.23	0.47	-0.22	0.4
N	5316	373839	SR	0.79	0.40	-0.27	0.40	-0.27	-0.09	0.3
N	5316	373876	SR	0.73	0.41	-0.24	-0.17	-0.22	0.41	0.4
N	5316	338943	SR	0.47	0.37	-0.18	-0.33	-0.06	0.37	0.4
N	5316	338948	SR	0.68	0.41	0.41	-0.23	-0.21	-0.19	0.2
N	5316	338947	SR	0.45	0.18	**0.01**	0.18	-0.15	-0.12	0.2
N	5316	338954	SR	0.43	0.20	-0.28	0.20	-0.02	**0.03**	0.2
N	5316	338949	SR	0.64	0.39	0.39	-0.14	-0.32	-0.16	0.2
N	5316	338955	SR	0.43	0.14	-0.03	**0.01**	0.14	-0.19	0.1
N	5316	338946	SR	0.42	0.28	-0.04	-0.07	-0.28	0.28	0.3
N	5316	338944	SR	**0.91**	0.18	-0.13	0.18	-0.11	-0.05	0.1
N	5316	338953	SR	0.58	0.27	-0.22	-0.13	0.27	-0.08	0.2
N	5316	338952	SR	0.65	0.52	0.52	-0.24	-0.34	-0.17	0.2
N	5316	338942	SR	0.46	0.26	-0.26	-0.15	0.26	0.00	0.2
N	5316	373820	SR	0.38	0.17	-0.21	**0.01**	0.17	-0.08	0.2
N	5316	373821	SR	0.54	0.28	-0.13	-0.07	-0.22	0.28	0.2
N	5316	373816	SR	0.64	0.34	-0.18	0.34	-0.23	-0.10	0.2
N	5316	373815	SR	0.74	0.54	-0.37	-0.24	-0.22	0.54	0.2
N	5316	373824	SR	0.55	0.29	-0.15	-0.02	-0.19	0.29	0.2
N	5316	366338	SR	0.57	0.20	**0.02**	0.20	-0.22	-0.15	0.1
N	5316	366339	SR	0.44	0.44	-0.19	-0.13	-0.25	0.44	0.2
N	5316	366386	SR	0.62	0.43	-0.17	-0.29	0.43	-0.20	0.3
N	5316	366341	SR	0.47	0.43	0.43	-0.25	-0.28	-0.14	0.2
N	5316	366342	SR	0.66	0.38	0.38	-0.21	-0.22	-0.12	0.4
N	5316	366340	SR	0.59	0.37	-0.19	0.37	-0.21	-0.13	0.3
N	5316	364115	SR	0.35	0.19	-0.11	**0.03**	-0.24	0.19	0.1
N	5316	364114	SR	0.51	0.42	0.42	-0.22	-0.18	-0.18	0.1
N	5316	369074	SR	0.48	0.28	-0.11	-0.06	-0.20	0.28	0.2
N	5316	369077	SR	0.73	0.41	-0.21	0.41	-0.20	-0.22	0.2
N	5316	369073	SR	0.32	**0.07**	-0.11	**0.08**	0.07	-0.08	0.2
N	5316	369071	SR	0.37	0.42	-0.13	-0.26	-0.15	0.42	0.2
N	5316	369070	SR	0.74	0.33	-0.22	-0.11	0.33	-0.20	0.2
N	5316	369075	SR	0.57	0.31	0.31	-0.25	-0.09	-0.13	0.2
N	5316	369301	SR	0.19	**-0.12**	-0.01	-0.12	**0.14**	-0.04	0.2
N	5316	369069	SR	0.62	0.44	0.44	-0.26	-0.20	-0.19	0.2
Mean				0.60	0.33	-0.04	-0.07	-0.05	-0.02	0.2
SD				0.17	0.12	0.24	0.23	0.25	0.23	0.1

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

Table 1.B8 Item Statistics, Field Test Items: MDHSA 2011 Government—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D	5382	348496	SR	0.51	0.24	-0.16	-0.08	-0.16	0.24	0.1
D	5382	271829	SR	0.77	0.32	-0.23	-0.13	-0.16	0.32	0.1
D	5382	271831	SR	0.77	0.42	0.42	-0.25	-0.23	-0.18	0.1
D	5382	324714	SR	0.43	0.33	-0.22	-0.06	0.33	-0.18	0.1
D	5382	363253	SR	0.67	0.53	-0.19	-0.28	-0.32	0.53	0.2
D	5382	381666	SR	0.83	0.45	0.45	-0.26	-0.28	-0.18	0.1
D	5382	331431	SR	0.61	0.40	-0.23	-0.32	0.40	-0.11	0.2
D	5382	348477	SR	0.72	0.45	-0.22	0.45	-0.26	-0.21	0.1
D	5382	368735	SR	0.81	0.49	0.49	-0.27	-0.27	-0.26	0.1
D	5382	361486	SR	0.61	0.49	-0.18	-0.23	-0.29	0.49	0.1
D	5382	364336	SR	0.59	0.37	0.37	-0.23	-0.20	-0.12	0.1
D	5382	353654	SR	0.68	0.46	-0.29	-0.31	0.46	-0.11	0.1
D	5382	361445	SR	0.45	0.30	-0.22	0.30	-0.13	-0.02	0.2
D	5382	361483	SR	0.58	0.52	0.52	-0.25	-0.31	-0.18	0.2
D	5382	368636	SR	0.59	0.42	-0.18	0.42	-0.20	-0.21	0.2
D	5382	363210	SR	0.73	0.56	-0.28	-0.27	-0.31	0.56	0.2
D	5382	368676	SR	0.70	0.33	-0.14	-0.16	0.33	-0.21	0.3
D	5382	374491	SR	0.76	0.48	0.48	-0.23	-0.24	-0.29	0.1
D	5382	370193	SR	0.68	0.58	0.58	-0.35	-0.28	-0.25	0.2
D	5382	374579	SR	0.70	0.42	-0.18	0.42	-0.28	-0.21	0.1
D	5382	364285	SR	0.67	0.31	0.31	-0.10	-0.20	-0.19	0.1
D	5382	374515	SR	0.26	**0.09**	-0.25	0.09	**0.14**	-0.22	0.1
D	5382	374609	SR	0.46	0.31	-0.29	0.31	-0.17	**0.02**	0.1
D	5382	368618	SR	0.47	0.30	0.30	-0.10	-0.17	-0.13	0.2
D	5382	374550	SR	0.49	0.34	-0.04	-0.27	-0.20	0.34	0.2
E	5188	283127	SR	0.75	0.49	-0.28	0.49	-0.25	-0.25	0.0
E	5188	279839	SR	0.63	0.30	0.30	-0.21	-0.18	-0.08	0.2
E	5188	324414	SR	**0.94**	0.21	0.21	-0.16	-0.14	-0.08	0.0
E	5188	324415	SR	0.89	0.17	-0.11	0.17	-0.11	-0.10	0.0
E	5188	339053	SR	0.63	0.41	0.41	-0.22	-0.27	-0.15	0.1
E	5188	108374	SR	0.56	0.32	-0.07	0.32	-0.23	-0.21	0.1
E	5188	324713	SR	0.40	0.35	**0.06**	0.35	-0.29	-0.21	0.1
E	5188	363190	SR	0.41	0.36	-0.10	-0.17	-0.21	0.36	0.1
E	5188	361430	SR	0.68	0.46	-0.21	-0.28	-0.24	0.46	0.1
E	5188	364295	SR	0.49	0.48	-0.24	-0.18	-0.28	0.48	0.2
E	5188	364278	SR	0.82	0.44	0.44	-0.21	-0.32	-0.17	0.1
E	5188	364277	SR	0.47	0.40	-0.17	-0.24	0.40	-0.13	0.2
E	5188	364345	SR	0.23	**-0.04**	**0.11**	-0.04	-0.06	-0.05	0.1
E	5188	368671	SR	0.41	0.14	**0.11**	0.14	-0.15	-0.11	0.1
E	5188	370270	SR	0.74	0.44	-0.20	-0.27	-0.23	0.44	0.2
E	5188	368615	SR	0.84	0.41	0.41	-0.24	-0.23	-0.21	0.1
E	5188	381741	SR	0.57	0.27	-0.02	0.27	-0.27	-0.08	0.2
E	5188	374566	SR	0.73	0.44	0.44	-0.27	-0.22	-0.19	0.1

Table 1.B8 Item Statistics, Field Test Items: MDHSA 2011 Government—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
E	5188	387361	SR	0.57	0.42	-0.09	-0.31	-0.24	0.42	0.1
E	5188	368619	SR	0.56	0.51	0.51	-0.23	-0.31	-0.17	0.2
E	5188	364297	SR	0.49	0.17	-0.12	-0.09	0.17	0.00	0.2
E	5188	370274	SR	0.59	0.48	-0.26	-0.22	0.48	-0.23	0.2
E	5188	374519	SR	0.42	0.40	0.40	-0.12	-0.29	-0.22	0.1
E	5188	370191	SR	0.42	0.34	-0.18	-0.06	0.34	-0.21	0.3
E	5188	370218	SR	0.14	0.18	-0.01	-0.21	0.18	**0.02**	0.3
F	6574	324405	SR	0.40	0.46	-0.34	-0.23	-0.02	0.46	0.0
F	6574	363177	SR	0.78	0.44	-0.21	-0.27	-0.22	0.44	0.0
F	6574	282262	SR	0.54	0.34	0.34	-0.22	-0.19	-0.07	0.1
F	6574	364291	SR	0.72	0.45	-0.17	-0.26	-0.27	0.45	0.1
F	6574	339055	SR	0.58	0.57	-0.22	-0.28	-0.32	0.57	0.2
F	6574	324715	SR	0.36	**0.08**	**0.12**	0.08	-0.22	**0.01**	0.1
F	6574	348468	SR	0.43	0.45	-0.32	0.45	-0.10	-0.15	0.2
F	6574	279750	SR	0.76	0.47	-0.21	-0.31	0.47	-0.22	0.1
F	6574	363242	SR	0.37	0.28	-0.05	0.28	-0.29	-0.10	0.2
F	6574	363205	SR	0.88	0.44	-0.27	-0.24	0.44	-0.20	0.1
F	6574	363260	SR	0.54	0.25	-0.21	-0.07	0.25	-0.18	0.1
F	6574	374674	SR	0.56	0.53	-0.27	-0.25	0.53	-0.22	0.2
F	6574	381674	SR	0.58	0.40	0.40	-0.18	-0.21	-0.17	0.2
F	6574	368571	SR	0.49	0.33	-0.11	-0.23	-0.25	0.33	0.1
F	6574	370261	SR	0.90	0.41	-0.22	0.41	-0.24	-0.22	0.1
F	6574	361447	SR	0.64	0.51	0.51	-0.24	-0.31	-0.20	0.2
F	6574	368567	SR	0.52	0.52	-0.18	0.52	-0.29	-0.22	0.2
F	6574	368640	SR	0.64	0.52	0.52	-0.29	-0.27	-0.21	0.1
F	6574	363239	SR	0.63	0.51	-0.22	-0.26	-0.27	0.51	0.2
F	6574	374524	SR	0.52	0.41	-0.20	-0.27	0.41	-0.12	0.3
F	6574	368622	SR	0.53	0.34	0.34	-0.29	-0.09	-0.20	0.2
F	6574	370206	SR	0.70	0.54	-0.26	0.54	-0.32	-0.24	0.2
F	6574	368662	SR	0.89	0.41	-0.21	0.41	-0.25	-0.21	0.1
F	6574	370228	SR	0.73	0.49	-0.27	-0.32	0.49	-0.17	0.2
F	6574	364319	SR	0.55	0.47	-0.23	0.47	-0.24	-0.20	0.2
G	5244	363264	SR	0.68	0.40	-0.20	-0.21	0.40	-0.19	0.1
G	5244	364298	SR	0.63	0.36	0.36	-0.18	-0.26	-0.09	0.0
G	5244	283102	SR	0.58	0.34	0.34	-0.11	-0.27	-0.13	0.1
G	5244	363266	SR	0.69	**0.08**	**0.06**	-0.19	0.08	-0.13	0.0
G	5244	279776	SR	0.34	**-0.04**	-0.16	-0.04	**0.20**	-0.11	0.0
G	5244	321090	SR	0.46	0.41	0.41	-0.11	-0.29	-0.22	0.0
G	5244	279829	SR	0.66	0.44	-0.24	0.44	-0.22	-0.20	0.1
G	5244	348493	SR	0.58	0.46	-0.29	-0.25	0.46	-0.10	0.1
G	5244	331421	SR	0.60	0.46	-0.19	-0.23	0.46	-0.24	0.1
G	5244	381722	SR	0.68	0.32	-0.11	0.32	-0.20	-0.18	0.2
G	5244	370257	SR	0.78	0.51	0.51	-0.29	-0.27	-0.27	0.1

Table 1.B8 Item Statistics, Field Test Items: MDHSA 2011 Government—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
G	5244	368633	SR	0.67	0.42	-0.14	0.42	-0.26	-0.23	0.1
G	5244	381729	SR	0.43	0.24	0.24	0.00	-0.15	-0.25	0.1
G	5244	364293	SR	0.66	0.43	-0.17	0.43	-0.29	-0.17	0.1
G	5244	381728	SR	0.80	0.33	-0.16	0.33	-0.20	-0.17	0.1
G	5244	363185	SR	0.41	0.38	-0.04	0.38	-0.27	-0.19	0.2
G	5244	370266	SR	0.22	0.19	-0.06	-0.09	0.19	-0.03	0.3
G	5244	364301	SR	0.69	0.47	-0.22	-0.25	-0.27	0.47	0.2
G	5244	364302	SR	0.49	0.33	0.33	-0.11	-0.23	-0.10	0.2
G	5244	368658	SR	0.81	0.50	0.50	-0.29	-0.30	-0.22	0.1
G	5244	368603	SR	0.76	0.54	-0.22	-0.33	-0.29	0.54	0.1
G	5244	368621	SR	0.71	0.49	-0.25	-0.24	-0.28	0.49	0.2
G	5244	374560	SR	0.88	0.42	-0.28	-0.22	0.42	-0.17	0.1
G	5244	370281	SR	0.75	0.51	-0.26	0.51	-0.33	-0.21	0.1
G	5244	368657	SR	0.56	0.36	-0.15	0.36	-0.28	-0.12	0.2
H	5196	348504	SR	0.64	0.45	-0.22	-0.17	-0.29	0.45	0.1
H	5196	256993	SR	0.87	0.38	0.38	-0.24	-0.20	-0.21	0.0
H	5196	381677	SR	0.48	0.29	-0.12	-0.18	0.29	-0.15	0.0
H	5196	339061	SR	**0.91**	0.33	-0.16	0.33	-0.18	-0.23	0.1
H	5196	339200	SR	0.79	0.39	-0.17	0.39	-0.28	-0.19	0.1
H	5196	364303	SR	0.73	0.48	-0.22	-0.22	-0.33	0.48	0.1
H	5196	283274	SR	0.68	0.22	-0.10	0.22	-0.18	-0.05	0.1
H	5196	339031	SR	0.69	0.48	-0.23	-0.23	-0.27	0.48	0.1
H	5196	361487	SR	0.69	0.38	0.38	-0.09	-0.29	-0.21	0.0
H	5196	361453	SR	0.74	0.44	-0.24	0.44	-0.28	-0.19	0.1
H	5196	363265	SR	0.80	0.46	0.46	-0.27	-0.26	-0.21	0.1
H	5196	368623	SR	0.49	0.14	**0.07**	0.14	-0.16	-0.14	0.2
H	5196	363182	SR	0.87	0.46	-0.27	-0.29	0.46	-0.20	0.0
H	5196	381750	SR	0.55	0.39	0.39	-0.17	-0.20	-0.18	0.2
H	5196	363213	SR	0.24	0.17	**0.12**	0.17	-0.22	-0.16	0.2
H	5196	368606	SR	0.90	0.47	-0.26	-0.27	0.47	-0.25	0.2
H	5196	361462	SR	0.60	0.16	0.16	-0.17	-0.14	**0.04**	0.1
H	5196	364300	SR	0.88	0.47	-0.25	0.47	-0.29	-0.23	0.1
H	5196	370276	SR	0.54	0.22	-0.18	**0.07**	0.22	-0.24	0.2
H	5196	374673	SR	0.77	0.38	-0.18	-0.22	0.38	-0.20	0.2
H	5196	370271	SR	0.28	0.30	**0.04**	0.30	-0.28	-0.21	0.2
H	5196	368668	SR	0.53	0.45	0.45	-0.28	-0.22	-0.08	0.2
H	5196	364323	SR	0.54	0.28	-0.27	0.28	-0.07	-0.11	0.2
H	5196	368736	SR	0.85	0.48	-0.26	-0.26	0.48	-0.24	0.2
H	5196	368656	SR	0.54	0.45	-0.23	-0.19	-0.20	0.45	0.2
J	5115	361488	SR	**0.92**	0.31	-0.15	-0.22	0.31	-0.16	0.0
J	5115	368564	SR	0.73	0.44	-0.23	-0.23	0.44	-0.22	0.0
J	5115	282260	SR	0.85	0.38	0.38	-0.23	-0.22	-0.16	0.0
J	5115	282271	SR	0.69	0.30	-0.18	0.30	-0.20	-0.18	0.1

Table 1.B8 Item Statistics, Field Test Items: MDHSA 2011 Government—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
J	5115	353546	SR	0.34	0.22	-0.19	**0.07**	0.22	-0.22	0.0
J	5115	283288	SR	0.67	0.50	0.50	-0.24	-0.35	-0.18	0.1
J	5115	348491	SR	0.43	0.43	0.43	-0.12	-0.23	-0.24	0.1
J	5115	263981	SR	0.44	0.17	0.17	-0.07	-0.06	-0.21	0.0
J	5115	361435	SR	0.89	0.44	0.44	-0.24	-0.29	-0.19	0.0
J	5115	361436	SR	0.40	**0.09**	-0.23	0.09	-0.34	**0.26**	0.1
J	5115	381665	SR	0.69	0.46	-0.28	-0.23	0.46	-0.18	0.1
J	5115	363261	SR	0.85	0.46	-0.24	-0.24	-0.28	0.46	0.0
J	5115	363222	SR	0.53	0.22	-0.23	0.22	-0.18	**0.06**	0.1
J	5115	363223	SR	0.49	0.35	0.35	-0.27	-0.17	**0.01**	0.1
J	5115	368609	SR	0.58	0.33	-0.16	0.33	-0.31	**0.01**	0.2
J	5115	368638	SR	0.80	0.44	0.44	-0.21	-0.26	-0.23	0.2
J	5115	381710	SR	0.35	0.47	-0.16	-0.17	-0.27	0.47	0.1
J	5115	364313	SR	0.81	0.45	-0.27	-0.26	0.45	-0.19	0.1
J	5115	363250	SR	0.78	0.41	-0.22	-0.26	-0.17	0.41	0.1
J	5115	283108	SR	0.50	0.27	**0.03**	-0.18	-0.25	0.27	0.1
J	5115	364348	SR	0.65	0.45	-0.25	-0.21	0.45	-0.21	0.1
J	5115	387362	SR	0.69	0.60	-0.24	-0.30	-0.36	0.60	0.1
J	5115	364292	SR	0.48	0.46	0.46	-0.29	-0.22	-0.10	0.1
J	5115	364294	SR	0.65	0.47	-0.24	0.47	-0.20	-0.24	0.2
J	5115	363194	SR	0.51	0.32	-0.06	-0.22	0.32	-0.21	0.1
K	5136	282274	SR	0.31	0.17	-0.21	**0.10**	-0.08	0.17	0.1
K	5136	282270	SR	0.56	0.51	0.51	-0.24	-0.34	-0.19	0.0
K	5136	283265	SR	0.87	0.39	0.39	-0.25	-0.24	-0.15	0.1
K	5136	374558	SR	0.61	0.29	-0.17	-0.18	-0.17	0.29	0.0
K	5136	348451	SR	0.57	0.35	0.35	-0.14	-0.28	-0.15	0.1
K	5136	279799	SR	0.59	0.35	-0.10	-0.19	0.35	-0.22	0.1
K	5136	361457	SR	0.72	0.51	-0.25	-0.33	0.51	-0.20	0.2
K	5136	361491	SR	0.84	0.50	-0.27	0.50	-0.29	-0.25	0.2
K	5136	361432	SR	0.20	**0.08**	0.08	**0.01**	-0.15	**0.07**	0.1
K	5136	361433	SR	0.60	0.52	-0.22	-0.28	-0.30	0.52	0.0
K	5136	363219	SR	0.77	0.54	-0.29	-0.27	-0.29	0.54	0.1
K	5136	361448	SR	0.38	0.36	-0.18	-0.04	-0.23	0.36	0.2
K	5136	361493	SR	0.70	0.50	-0.21	-0.30	0.50	-0.27	0.1
K	5136	361427	SR	0.67	0.43	-0.16	0.43	-0.29	-0.24	0.3
K	5136	361451	SR	0.73	0.48	-0.27	-0.28	-0.20	0.48	0.1
K	5136	370259	SR	0.67	0.49	-0.22	-0.26	0.49	-0.26	0.1
K	5136	381668	SR	0.76	0.38	-0.21	0.38	-0.22	-0.17	0.1
K	5136	370239	SR	0.57	0.46	-0.27	0.46	-0.21	-0.22	0.1
K	5136	374549	SR	**0.95**	0.32	-0.16	0.32	-0.19	-0.18	0.1
K	5136	364279	SR	0.31	0.41	-0.17	-0.11	-0.23	0.41	0.1
K	5136	364280	SR	0.48	0.32	-0.21	-0.15	0.32	-0.07	0.1
K	7092	368566	SR	0.62	0.46	0.46	-0.23	-0.32	-0.12	0.1

Table 1.B8 Item Statistics, Field Test Items: MDHSA 2011 Government—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
K	8554	353519	SR	0.22	0.15	-0.01	-0.32	0.15	**0.10**	0.1
K	5136	370201	SR	0.84	0.49	-0.28	-0.29	0.49	-0.23	0.1
K	5136	370286	SR	0.79	0.50	0.50	-0.31	-0.26	-0.24	0.2
L	5178	324719	SR	0.86	0.42	0.42	-0.27	-0.19	-0.22	0.0
L	5178	324720	SR	0.68	0.31	-0.19	-0.12	0.31	-0.15	0.1
L	5178	339056	SR	0.25	0.20	-0.10	**0.02**	0.20	-0.15	0.2
L	5178	364283	SR	0.90	0.36	-0.15	0.36	-0.27	-0.16	0.0
L	5178	370241	SR	0.55	0.49	-0.36	-0.27	-0.12	0.49	0.0
L	5178	364329	SR	0.88	0.37	-0.22	0.37	-0.21	-0.20	0.1
L	5178	381664	SR	0.39	0.27	-0.21	-0.29	0.27	**0.07**	0.1
L	5178	283269	SR	0.88	0.40	-0.21	-0.24	0.40	-0.22	0.1
L	5178	368681	SR	0.46	0.20	0.20	-0.09	-0.03	-0.19	0.1
L	5178	324725	SR	0.62	0.43	-0.23	0.43	-0.27	-0.16	0.1
L	5178	363230	SR	0.56	0.33	-0.13	0.33	-0.29	-0.06	0.1
L	5178	381682	SR	0.90	0.37	0.37	-0.20	-0.27	-0.14	0.1
L	5178	363211	SR	0.73	0.45	-0.22	-0.28	0.45	-0.21	0.2
L	5178	370199	SR	**0.91**	0.40	-0.20	0.40	-0.28	-0.18	0.1
L	5178	363189	SR	0.59	0.39	-0.23	0.39	-0.20	-0.12	0.2
L	5178	370265	SR	0.66	0.40	-0.25	-0.18	0.40	-0.19	0.1
L	5178	381675	SR	0.43	0.25	-0.24	-0.22	0.25	**0.06**	0.2
L	5178	271823	SR	0.85	0.51	-0.28	-0.31	-0.25	0.51	0.1
L	5178	370211	SR	0.79	0.24	-0.11	-0.25	0.24	-0.06	0.1
L	5178	348487	SR	0.78	0.46	0.46	-0.24	-0.26	-0.25	0.1
L	5178	363208	SR	0.71	0.36	-0.08	0.36	-0.27	-0.21	0.2
L	5178	381727	SR	0.48	0.16	**0.06**	0.16	-0.14	-0.17	0.2
L	5178	364314	SR	0.83	0.38	0.38	-0.17	-0.17	-0.28	0.1
L	5178	361429	SR	0.88	0.36	0.36	-0.16	-0.23	-0.20	0.1
L	5178	368613	SR	0.81	0.52	-0.25	-0.30	0.52	-0.28	0.2
M	5016	348497	SR	0.88	0.34	-0.13	-0.14	0.34	-0.27	0.0
M	5016	331409	SR	0.60	0.24	0.24	-0.16	-0.25	**0.02**	0.0
M	5016	297115	SR	**0.95**	0.32	-0.21	0.32	-0.20	-0.14	0.0
M	5016	381667	SR	0.69	0.50	-0.21	0.50	-0.33	-0.21	0.1
M	5016	348479	SR	0.60	0.38	-0.13	0.38	-0.26	-0.18	0.1
M	5016	363237	SR	0.81	0.47	-0.23	-0.32	0.47	-0.21	0.1
M	5016	364284	SR	0.17	0.35	0.35	-0.13	-0.23	**0.03**	0.1
M	5016	283115	SR	0.77	0.44	-0.28	-0.23	0.44	-0.22	0.1
M	5016	348473	SR	0.66	0.45	-0.22	-0.26	0.45	-0.19	0.0
M	5016	339052	SR	0.47	0.34	0.34	-0.19	-0.08	-0.19	0.1
M	5016	387527	SR	0.46	0.31	-0.14	0.31	-0.14	-0.13	0.0
M	5016	387364	SR	0.66	0.51	-0.26	-0.31	-0.25	0.51	0.0
M	5016	363231	SR	0.19	**-0.06**	**0.20**	-0.06	-0.10	-0.10	0.2
M	5016	370278	SR	0.72	0.48	-0.25	-0.29	0.48	-0.23	0.1
M	5016	361438	SR	0.57	0.40	-0.19	0.40	-0.22	-0.17	0.2

Table 1.B8 Item Statistics, Field Test Items: MDHSA 2011 Government—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
M	5016	370198	SR	**0.92**	0.36	-0.18	-0.24	0.36	-0.18	0.2
M	5016	364331	SR	0.70	0.46	-0.30	-0.24	0.46	-0.19	0.2
M	5016	339204	SR	0.75	0.47	-0.23	-0.24	-0.27	0.47	0.1
M	5016	368630	SR	0.50	0.29	0.29	-0.20	-0.05	-0.17	0.1
M	5016	368669	SR	0.73	0.56	0.56	-0.28	-0.28	-0.30	0.2
M	5016	387358	SR	0.78	0.55	-0.29	-0.26	-0.32	0.55	0.1
M	5016	263988	SR	0.73	0.42	0.42	-0.26	-0.21	-0.20	0.2
M	5016	364275	SR	0.64	0.44	-0.14	0.44	-0.29	-0.22	0.1
M	5016	279843	SR	0.71	0.56	0.56	-0.29	-0.31	-0.24	0.2
M	6972	370234	SR	0.77	0.52	0.52	-0.27	-0.30	-0.24	0.1
N	10329	348514	SR	0.79	0.36	-0.27	-0.17	0.36	-0.13	0.0
N	10329	282256	SR	**0.93**	0.31	0.31	-0.18	-0.19	-0.17	0.0
N	4955	348461	SR	0.72	0.30	0.30	-0.18	-0.16	-0.13	0.1
N	10329	385503	SR	**0.92**	0.38	0.38	-0.24	-0.21	-0.18	0.0
N	10329	381749	SR	0.55	0.27	-0.05	-0.19	0.27	-0.17	0.0
N	10329	368672	SR	0.27	0.28	**0.04**	-0.12	-0.21	0.28	0.2
N	10329	381671	SR	0.90	0.41	-0.24	-0.24	0.41	-0.18	0.1
N	4955	279815	SR	0.42	0.34	0.34	-0.16	-0.19	-0.07	0.1
N	10329	324441	SR	0.78	0.43	-0.18	-0.26	-0.24	0.43	0.2
N	10329	361443	SR	0.68	0.29	0.29	-0.19	-0.19	-0.09	0.1
N	10329	348552	SR	0.21	0.16	-0.07	-0.06	0.16	0.00	0.2
N	10329	381916	SR	0.80	0.46	-0.26	0.46	-0.30	-0.15	0.2
N	10329	368574	SR	0.45	0.23	0.23	-0.14	**0.03**	-0.22	0.2
N	10329	370262	SR	0.78	0.40	-0.24	0.40	-0.20	-0.20	0.2
N	10329	370282	SR	0.59	0.43	-0.20	-0.23	0.43	-0.19	0.2
N	10329	363258	SR	0.72	0.45	-0.18	-0.27	0.45	-0.24	0.2
N	10329	297437	SR	0.39	0.29	0.29	**0.02**	-0.25	-0.16	0.3
N	10329	364288	SR	0.73	0.46	-0.22	0.46	-0.30	-0.20	0.2
N	10329	363178	SR	0.38	0.41	-0.23	-0.13	-0.14	0.41	0.2
N	10329	348538	SR	0.40	0.37	-0.23	0.37	-0.15	-0.09	0.3
N	10329	348525	SR	0.88	0.45	-0.22	-0.23	-0.27	0.45	0.2
N	8373	264003	SR	0.82	0.52	-0.28	0.52	-0.30	-0.24	0.3
N	10329	363233	SR	0.65	0.44	-0.28	0.44	-0.30	-0.16	0.2
N	10329	257001	SR	0.80	0.49	-0.28	0.49	-0.28	-0.21	0.2
N	8373	297439	SR	0.46	0.28	-0.19	-0.19	0.28	-0.01	0.3
Mean				0.63	0.38	-0.02	-0.05	-0.07	-0.05	0.1
SD				0.18	0.12	0.27	0.27	0.28	0.25	0.1

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

Appendix 2A. MD Mod-HSA Classical Item Statistics: Operational Forms

Table 2.A1 Item Statistics: MD Mod-HSA 2011 Algebra—October

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
111	1	258090	0.60	0.37	-0.22	-0.24	0.37	0.0
	2	258095	0.72	0.39	0.39	-0.21	-0.29	0.1
	3	258166	0.75	0.31	-0.26	0.31	-0.14	0.1
	4	258312	0.48	0.34	0.34	-0.21	-0.21	0.1
	5	258173	0.53	0.28	-0.13	0.28	-0.20	0.0
	6	258115	0.43	0.31	0.31	-0.17	-0.17	0.2
	7	258223	0.29	0.09	-0.11	0.09	0.00	0.1
	8	258230	0.53	0.27	0.27	-0.24	-0.08	0.2
	9	258147	0.49	0.27	0.27	-0.13	-0.20	0.2
	10	261560	0.64	0.37	-0.22	0.37	-0.23	0.1
	11	258227	0.62	0.29	0.29	-0.12	-0.25	0.2
	12	258308	0.42	0.28	0.28	-0.12	-0.18	0.2
	13	258101	0.53	0.28	-0.21	0.28	-0.12	0.2
	14	258210	0.78	0.39	-0.27	0.39	-0.23	0.2
	15	258116	0.45	0.19	0.19	-0.13	-0.10	0.2
	16	258089	0.24	0.20	-0.09	0.20	-0.08	0.3
	17	261556	0.43	0.28	0.28	-0.25	-0.05	0.2
	18	258309	0.83	0.37	-0.23	-0.25	0.37	0.1
	19	258098	0.62	0.39	-0.24	-0.25	0.39	0.2
	20	258208	0.41	0.11	0.00	-0.11	0.11	0.2
	21	258161	0.57	0.48	0.48	-0.39	-0.17	0.1
	22	258159	0.42	0.25	-0.09	-0.17	0.25	0.2
	23	258184	0.55	0.32	-0.10	0.32	-0.26	0.2
	24	258136	0.54	0.31	-0.19	0.31	-0.17	0.2
	25	258102	0.48	0.27	-0.13	0.27	-0.17	0.2
	26	258226	0.40	0.27	-0.13	-0.15	0.27	0.2
	27	258188	0.67	0.29	-0.14	0.29	-0.23	0.2
	28	258174	0.45	0.22	-0.07	-0.16	0.22	0.2
	29	258209	0.65	0.24	-0.09	-0.22	0.24	0.2
	30	258154	0.42	0.47	-0.31	-0.19	0.47	0.1
	31	258113	0.58	0.35	-0.22	0.35	-0.19	0.2
	32	258198	0.37	0.18	-0.11	-0.07	0.18	0.1
	33	258120	0.47	0.38	-0.21	-0.23	0.38	0.1
	34	258169	0.45	0.19	-0.07	-0.13	0.19	0.2
	35	258119	0.44	0.29	0.29	-0.11	-0.23	0.1
	36	258160	0.42	0.25	0.25	-0.16	-0.10	0.2
	37	258241	0.57	0.33	-0.20	0.33	-0.19	0.1
	38	258130	0.49	0.25	0.25	-0.14	-0.15	0.2
	39	258131	0.24	0.02	0.02	0.07	-0.11	0.2
	40	258128	0.62	0.38	-0.23	0.38	-0.24	0.2
	41	258509	0.36	0.24	0.24	-0.22	-0.03	0.2

Table 2.A1 Item Statistics: MD Mod-HSA 2011 Algebra—October

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
111	42	258231	0.62	0.42	-0.22	-0.29	0.42	0.2
	43	258111	0.58	0.35	-0.24	0.35	-0.20	0.2
	44	258096	0.24	0.11	0.11	0.08	-0.21	0.2
	45	258125	0.39	0.16	-0.19	0.16	-0.01	0.2
	46	258144	0.35	0.13	0.13	0.01	-0.15	0.2
	47	261558	0.40	0.23	-0.12	0.23	-0.12	0.3
	48	261562	0.41	0.25	0.25	-0.17	-0.09	0.4
	49	258220	0.35	0.13	-0.04	-0.08	0.13	0.5
	50	258135	0.54	0.19	-0.13	0.19	-0.08	0.4
Mean			0.50	0.27	-0.01	0.00	-0.03	0.2
SD			0.13	0.10	0.22	0.23	0.22	0.1

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A2 Item Statistics: MD Mod-HSA 2011 Biology—October

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
111	1	258636	0.63	0.30	-0.20	0.30	-0.17	0.0
	2	258653	0.34	0.27	0.27	-0.05	-0.23	0.0
	3	258690	0.41	0.19	0.02	-0.21	0.19	0.1
	4	258702	0.57	0.32	-0.23	0.32	-0.16	0.1
	5	258662	0.33	0.24	-0.10	-0.14	0.24	0.1
	6	258659	0.32	0.08	0.08	-0.16	0.08	0.1
	7	258673	0.61	0.23	-0.12	-0.17	0.23	0.1
	8	258701	0.43	0.28	-0.23	0.28	-0.09	0.2
	9	258628	0.58	0.21	0.21	-0.15	-0.09	0.1
	10	258685	0.27	0.18	0.18	-0.13	-0.08	0.1
	11	261611	0.12	0.08	0.04	-0.09	0.08	0.2
	12	258615	0.47	0.11	-0.07	0.11	-0.05	0.2
	13	258683	0.65	0.35	-0.23	0.35	-0.20	0.3
	14	258641	0.46	0.15	-0.07	0.15	-0.09	0.1
	15	258676	0.41	0.13	-0.08	0.13	-0.06	0.2
	16	258607	0.62	0.25	-0.13	0.25	-0.20	0.2
	17	258645	0.53	0.37	-0.21	-0.22	0.37	0.2
	18	258666	0.56	0.21	-0.12	0.21	-0.14	0.3
	19	258675	0.46	0.15	-0.07	0.15	-0.09	0.2
	20	261609	0.60	0.18	-0.08	-0.16	0.18	0.1
	21	258665	0.26	0.19	0.19	-0.04	-0.12	0.2
	22	258682	0.46	0.15	-0.10	0.15	-0.06	0.1
	23	258648	0.39	0.27	-0.12	0.27	-0.16	0.4
	24	258614	0.39	0.32	-0.12	-0.21	0.32	0.1
	25	258680	0.42	0.29	-0.14	-0.16	0.29	0.2
	26	258681	0.40	0.10	-0.06	-0.04	0.10	0.3
	27	258642	0.51	0.13	-0.09	0.13	-0.06	0.2
	28	261623	0.65	0.24	-0.10	-0.23	0.24	0.1
	29	258649	0.29	0.11	0.11	-0.29	0.15	0.2
	30	258687	0.40	0.24	-0.13	0.24	-0.13	0.3
	31	258646	0.36	0.21	0.21	-0.19	-0.03	0.1
	32	261626	0.66	0.30	-0.24	-0.15	0.30	0.1
	33	258707	0.51	0.32	0.32	-0.22	-0.13	0.2
	34	258643	0.55	0.23	0.23	-0.15	-0.14	0.2
	35	258698	0.32	0.15	-0.09	-0.05	0.15	0.1
	36	258728	0.27	0.20	-0.11	-0.11	0.20	0.2
	37	258734	0.53	0.32	-0.18	-0.19	0.32	0.2
	38	258735	0.50	0.27	-0.20	0.27	-0.12	0.2
	39	258704	0.50	0.26	-0.13	0.26	-0.17	0.2
	40	258624	0.59	0.30	0.30	-0.23	-0.13	0.2
	41	258697	0.40	0.18	0.18	-0.13	-0.05	0.2
	42	258616	0.23	0.04	-0.14	0.04	0.12	0.2
	43	258617	0.41	0.14	0.14	-0.13	-0.02	0.1

Table 2.A2 Item Statistics: MD Mod-HSA 2011 Biology—October

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
111	44	258688	0.39	0.13	-0.10	-0.03	0.13	0.1
	45	258669	0.63	0.32	-0.18	-0.20	0.32	0.2
	46	261621	0.65	0.32	0.32	-0.20	-0.21	0.1
	47	258703	0.42	0.26	-0.12	0.26	-0.16	0.2
	48	258692	0.47	0.21	-0.09	-0.14	0.21	0.2
	49	258635	0.52	0.35	-0.23	-0.17	0.35	0.2
	50	261616	0.49	0.27	-0.15	-0.15	0.27	0.1
Mean			0.46	0.22	-0.04	-0.02	0.03	0.2
SD			0.13	0.08	0.16	0.19	0.18	0.1

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A3 Item Statistics: MD Mod-HSA 2011 English—October

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
111	1	259429	0.50	0.20	0.20	-0.13	-0.10	0.0
	2	259426	0.61	0.33	0.33	-0.20	-0.20	0.1
	3	259349	0.65	0.33	-0.21	0.33	-0.20	0.1
	4	259427	0.46	0.23	-0.10	0.23	-0.14	0.2
	5	259312	0.67	0.34	0.34	-0.25	-0.18	0.1
	6	259368	0.38	0.27	0.27	-0.15	-0.13	0.2
	7	259371	0.72	0.35	-0.24	-0.22	0.35	0.1
	8	259367	0.69	0.31	-0.25	0.31	-0.17	0.1
	9	259370	0.49	0.20	-0.21	0.20	-0.05	0.1
	10	259432	0.64	0.26	0.26	-0.19	-0.13	0.2
	11	259433	0.53	0.30	0.30	-0.19	-0.15	0.4
	12	259354	0.42	0.20	-0.10	-0.11	0.20	0.1
	13	259407	0.18	0.05	-0.13	0.05	0.10	0.2
	14	259335	0.39	0.22	-0.17	-0.08	0.22	0.5
	15	259410	0.70	0.34	-0.26	0.34	-0.15	0.2
	16	259413	0.49	0.26	-0.12	0.26	-0.22	0.1
	17	259411	0.45	0.23	-0.16	-0.10	0.23	0.2
	18	259414	0.37	0.21	-0.11	-0.10	0.21	0.2
	19	259338	0.40	0.18	0.18	-0.04	-0.14	0.3
	20	259339	0.65	0.32	-0.17	0.32	-0.26	0.2
	21	259340	0.76	0.41	-0.26	-0.26	0.41	0.2
	22	259362	0.63	0.38	0.38	-0.26	-0.20	0.3
	23	259436	0.31	0.16	0.16	-0.01	-0.17	0.3
	24	259347	0.42	0.26	0.26	-0.14	-0.13	0.3
	25	259424	0.60	0.32	-0.11	-0.28	0.32	0.4
	26	259423	0.50	0.23	-0.17	-0.09	0.23	0.4
	27	259425	0.50	0.22	-0.16	0.22	-0.08	0.5
	28	259422	0.41	0.19	-0.05	0.19	-0.14	0.5
	29	259445	0.63	0.31	-0.27	0.31	-0.08	0.3
	30	259374	0.41	0.32	-0.18	-0.17	0.32	0.3
	31	259450	0.39	0.28	-0.19	-0.10	0.28	0.4
	32	259376	0.61	0.40	-0.20	-0.29	0.40	0.5
	33	259310	0.59	0.34	-0.18	0.34	-0.21	0.5
	34	259365	0.58	0.34	-0.14	0.34	-0.25	0.6
	35	259449	0.63	0.27	0.27	-0.12	-0.22	0.4
	36	259441	0.30	0.20	0.20	-0.14	-0.02	0.7
	37	259443	0.56	0.26	-0.18	0.26	-0.11	0.5
	38	259437	0.44	0.26	0.26	-0.06	-0.21	0.6
	39	259457	0.49	0.26	0.26	-0.18	-0.09	0.7
	40	259330	0.69	0.37	-0.19	0.37	-0.26	0.5
	41	259458	0.38	0.26	0.26	-0.21	-0.04	0.5

Table 2.A3 Item Statistics: MD Mod-HSA 2011 English—October

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
111	42	259466	0.65	0.43	-0.21	-0.31	0.43	0.5
	43	259395	0.46	0.26	-0.05	0.26	-0.21	0.5
	44	259459	0.51	0.30	-0.15	-0.18	0.30	0.8
	45	259396	0.36	0.23	-0.12	-0.10	0.23	0.6
	46	259460	0.66	0.35	0.35	-0.24	-0.17	0.5
	47	259398	0.56	0.35	-0.25	0.35	-0.14	0.6
	48	259397	0.43	0.24	-0.18	-0.06	0.24	0.7
	49	259360	0.49	0.30	0.30	-0.21	-0.10	0.6
	50	259435	0.26	0.16	-0.04	-0.09	0.16	0.6
Mean			0.51	0.28	-0.02	-0.01	-0.01	0.4
SD			0.13	0.07	0.22	0.22	0.22	0.2

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A4 Item Statistics: MD Mod-HSA 2011 Government—October

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
111	1	258363	0.39	0.31	-0.23	-0.10	0.31	0.1
	2	258500	0.25	0.22	0.22	-0.06	-0.15	0.1
	3	258327	0.46	0.24	0.24	-0.10	-0.20	0.1
	4	258338	0.42	0.27	-0.14	0.27	-0.16	0.1
	5	258408	0.44	0.23	0.23	-0.19	-0.06	0.1
	6	258463	0.32	0.19	0.19	-0.11	-0.08	0.1
	7	258458	0.46	0.35	0.35	-0.14	-0.24	0.1
	8	258506	0.61	0.25	-0.11	-0.21	0.25	0.1
	9	258505	0.42	0.22	0.22	-0.13	-0.11	0.1
	10	258349	0.52	0.29	0.29	-0.22	-0.12	0.0
	11	258429	0.46	0.21	-0.09	-0.15	0.21	0.2
	12	258353	0.29	0.18	-0.07	0.18	-0.11	0.0
	13	258396	0.50	0.23	0.23	-0.09	-0.18	0.1
	14	258410	0.46	0.33	-0.17	-0.20	0.33	0.1
	15	258386	0.41	0.43	0.43	-0.24	-0.22	0.1
	16	258350	0.34	0.21	0.21	-0.11	-0.10	0.1
	17	258378	0.49	0.20	-0.08	-0.15	0.20	0.1
	18	258503	0.34	0.26	-0.15	-0.11	0.26	0.1
	19	258440	0.60	0.27	-0.16	0.27	-0.17	0.1
	20	258400	0.50	0.31	-0.23	-0.14	0.31	0.3
	21	258421	0.32	0.21	0.21	-0.13	-0.08	0.1
	22	258446	0.37	0.22	-0.17	0.22	-0.06	0.1
	23	258344	0.34	0.26	0.26	-0.12	-0.14	0.2
	24	258432	0.49	0.17	-0.08	-0.11	0.17	0.2
	25	258428	0.44	0.26	-0.11	-0.17	0.26	0.4
	26	258360	0.48	0.19	-0.10	0.19	-0.12	0.2
	27	258343	0.47	0.29	-0.15	0.29	-0.18	0.1
	28	258438	0.59	0.36	0.36	-0.23	-0.21	0.1
	29	258718	0.68	0.39	0.39	-0.28	-0.22	0.1
	30	258424	0.33	0.17	-0.05	0.17	-0.12	0.2
	31	258323	0.36	0.22	-0.10	0.22	-0.13	0.1
	32	258324	0.62	0.42	-0.24	-0.28	0.42	0.1
	33	258437	0.45	0.25	-0.10	-0.17	0.25	0.1
	34	258319	0.33	0.19	-0.16	0.19	-0.03	0.1
	35	258389	0.58	0.22	-0.10	0.22	-0.19	0.1
	36	258379	0.57	0.26	-0.13	-0.17	0.26	0.1
	37	258413	0.47	0.22	-0.07	0.22	-0.17	0.1
	38	258448	0.46	0.34	0.34	-0.25	-0.13	0.2
	39	258721	0.35	0.16	0.16	-0.06	-0.10	0.1
	40	258439	0.47	0.29	-0.16	0.29	-0.17	0.1
	41	258368	0.42	0.24	0.24	-0.22	-0.03	0.2
	42	258320	0.30	0.18	-0.05	0.18	-0.12	0.1
	43	258436	0.58	0.37	0.37	-0.26	-0.18	0.3

Table 2.A4 Item Statistics: MD Mod-HSA 2011 Government—October

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
111	44	258384	0.60	0.30	-0.22	0.30	-0.16	0.1
	45	258486	0.46	0.26	-0.13	0.26	-0.16	0.2
	46	258411	0.32	0.17	-0.13	-0.04	0.17	0.2
	47	258313	0.59	0.29	-0.20	0.29	-0.15	0.2
	48	258716	0.47	0.33	0.33	-0.17	-0.20	0.4
	49	258335	0.52	0.35	-0.17	-0.24	0.35	0.2
	50	258377	0.62	0.35	0.35	-0.19	-0.24	0.4
Mean			0.45	0.26	0.03	-0.03	-0.03	0.1
SD			0.10	0.07	0.22	0.20	0.20	0.1

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A5 Item Statistics: MD Mod-HSA 2011 Algebra—January

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
211	1	258190	0.35	0.25	-0.13	-0.13	0.25	0.0
	2	258164	0.42	0.27	-0.17	-0.12	0.27	0.1
	3	258224	0.35	0.29	0.01	0.29	-0.29	0.1
	4	258107	0.30	0.18	-0.07	-0.10	0.18	0.2
	5	258126	0.49	0.28	0.28	-0.18	-0.13	0.1
	6	258239	0.34	0.23	-0.10	0.23	-0.14	0.1
	7	258123	0.57	0.38	0.38	-0.26	-0.20	0.2
	8	258124	0.29	0.32	-0.14	-0.16	0.32	0.1
	9	258141	0.41	0.32	0.32	-0.20	-0.16	0.1
	10	258200	0.30	0.26	0.26	-0.02	-0.22	0.2
	11	258179	0.31	0.19	-0.08	-0.10	0.19	0.2
	12	258235	0.58	0.38	-0.26	0.38	-0.19	0.2
	13	258105	0.33	0.18	0.18	-0.22	0.04	0.4
	14	258236	0.48	0.27	-0.20	0.27	-0.12	0.2
	15	261559	0.35	0.13	0.13	-0.13	-0.02	0.3
	16	258211	0.56	0.45	-0.38	0.45	-0.13	0.2
	17	258209	0.65	0.27	-0.14	-0.21	0.27	0.2
	18	258182	0.61	0.41	-0.20	-0.29	0.41	0.2
	19	258238	0.27	0.32	-0.19	-0.10	0.32	0.2
	20	261561	0.50	0.32	0.32	-0.17	-0.19	0.2
	21	258132	0.49	0.28	-0.13	0.28	-0.18	0.2
	22	258158	0.53	0.36	-0.15	-0.25	0.36	0.2
	23	258145	0.56	0.32	-0.23	0.32	-0.15	0.3
	24	261563	0.33	0.18	0.00	-0.16	0.18	0.4
	25	258229	0.65	0.31	-0.20	0.31	-0.18	0.4
	26	258197	0.57	0.33	-0.27	0.33	-0.12	0.3
	27	258097	0.29	0.31	0.31	-0.10	-0.21	0.3
	28	258310	0.64	0.37	-0.20	-0.27	0.37	0.2
	29	258109	0.49	0.30	0.30	-0.17	-0.17	0.4
	30	258110	0.39	0.17	-0.02	0.17	-0.16	0.2
	31	258103	0.29	0.19	0.19	-0.18	0.01	0.4
	32	258108	0.48	0.15	-0.09	0.15	-0.07	0.3
	33	258196	0.58	0.23	-0.09	0.23	-0.19	0.3
	34	261564	0.48	0.34	0.34	-0.20	-0.18	0.3
	35	258153	0.37	0.19	0.19	-0.05	-0.14	0.3
	36	258122	0.77	0.32	-0.23	0.32	-0.17	0.3
	37	258240	0.62	0.29	-0.16	0.29	-0.20	0.3
	38	258157	0.22	0.12	0.12	-0.01	-0.08	0.4
	39	258091	0.25	0.19	-0.12	0.19	-0.04	0.2
	40	258118	0.48	0.30	0.30	-0.15	-0.21	0.3
	41	258225	0.56	0.25	-0.14	0.25	-0.15	0.3
	42	261557	0.37	0.17	0.17	-0.18	0.02	0.3
	43	258152	0.40	0.17	0.17	-0.13	-0.03	0.4

Table 2.A5 Item Statistics: MD Mod-HSA 2011 Algebra—January

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
211	44	258133	0.39	0.27	0.27	-0.20	-0.07	0.3
	45	258214	0.36	0.27	0.27	-0.11	-0.15	0.4
	46	258178	0.66	0.32	-0.17	-0.22	0.32	0.4
	47	258100	0.57	0.34	-0.25	0.34	-0.15	0.4
	48	258171	0.50	0.33	-0.18	0.33	-0.18	0.4
	49	258142	0.44	0.36	-0.16	-0.23	0.36	0.5
	50	258150	0.40	0.22	0.22	-0.01	-0.20	0.6
Mean			0.45	0.27	0.00	0.00	-0.03	0.3
SD			0.13	0.08	0.21	0.23	0.20	0.1

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A6 Item Statistics: MD Mod-HSA 2011 Biology—January

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
211	1	258627	0.77	0.25	-0.17	0.25	-0.16	0.1
	2	258733	0.53	0.10	0.10	-0.03	-0.10	0.1
	3	258684	0.48	0.14	0.03	-0.19	0.14	0.1
	4	258644	0.34	0.24	0.24	-0.15	-0.10	0.1
	5	258634	0.44	0.26	-0.17	0.26	-0.12	0.1
	6	261644	0.77	0.27	0.27	-0.17	-0.19	0.1
	7	261645	0.35	0.19	-0.03	-0.17	0.19	0.2
	8	258619	0.37	0.25	0.25	-0.16	-0.10	0.1
	9	258700	0.56	0.31	-0.20	-0.18	0.31	0.0
	10	258618	0.33	0.11	-0.03	-0.07	0.11	0.1
	11	261627	0.63	0.27	-0.19	0.27	-0.15	0.1
	12	258639	0.39	0.21	0.21	-0.09	-0.14	0.1
	13	258732	0.55	0.18	0.18	-0.17	-0.04	0.2
	14	258727	0.51	0.26	-0.20	0.26	-0.11	0.0
	15	258622	0.52	0.33	0.33	-0.23	-0.16	0.1
	16	258695	0.43	0.21	-0.11	0.21	-0.12	0.2
	17	258631	0.77	0.26	0.26	-0.20	-0.15	0.0
	18	258699	0.26	-0.03	-0.16	-0.03	0.18	0.1
	19	261607	0.65	0.18	-0.10	0.18	-0.12	0.1
	20	261624	0.44	0.28	-0.12	-0.19	0.28	0.2
	21	258612	0.61	0.27	-0.20	0.27	-0.13	0.2
	22	261610	0.40	0.30	-0.12	-0.19	0.30	0.2
	23	258714	0.29	0.34	0.34	-0.17	-0.15	0.2
	24	258725	0.62	0.26	-0.17	0.26	-0.15	0.2
	25	258664	0.58	0.31	-0.13	0.31	-0.23	0.3
	26	258638	0.31	0.19	-0.04	-0.13	0.19	0.5
	27	258650	0.45	0.28	-0.11	-0.18	0.28	0.3
	28	261614	0.63	0.34	0.34	-0.22	-0.19	0.5
	29	261622	0.83	0.26	-0.16	0.26	-0.16	0.5
	30	258705	0.27	0.19	-0.14	-0.02	0.19	0.5
	31	258678	0.61	0.33	-0.19	0.33	-0.19	0.6
	32	261642	0.43	0.26	0.26	-0.22	-0.03	0.3
	33	258654	0.62	0.25	-0.24	-0.06	0.25	0.5
	34	258670	0.34	0.17	-0.02	-0.12	0.17	0.5
	35	258660	0.44	0.28	-0.15	-0.15	0.28	0.5
	36	258637	0.50	0.29	-0.14	0.29	-0.17	0.5
	37	258640	0.55	0.25	-0.12	0.25	-0.16	0.5
	38	258674	0.48	0.22	-0.11	-0.12	0.22	0.5
	39	258697	0.42	0.23	0.23	-0.15	-0.08	0.5
	40	258616	0.23	0.06	-0.15	0.06	0.12	0.5
	41	258630	0.25	0.24	-0.09	-0.10	0.24	0.6
	42	261617	0.34	0.15	0.15	-0.01	-0.17	0.4

Table 2.A6 Item Statistics: MD Mod-HSA 2011 Biology—January

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
211	43	258726	0.41	0.19	0.19	-0.07	-0.12	0.5
	44	258730	0.49	0.27	0.27	-0.16	-0.14	0.4
	45	258657	0.23	0.10	-0.07	-0.01	0.10	0.5
	46	258651	0.45	0.40	0.40	-0.24	-0.18	0.7
	47	258712	0.40	0.26	-0.21	-0.07	0.26	0.6
	48	258731	0.31	0.21	-0.05	-0.13	0.21	0.6
	49	261608	0.50	0.36	-0.20	-0.20	0.36	0.5
	50	258693	0.36	0.28	0.28	-0.16	-0.11	0.6
Mean			0.47	0.24	0.00	-0.03	0.01	0.3
SD			0.15	0.08	0.20	0.19	0.18	0.2

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A7 Item Statistics: MD Mod-HSA 2011 English—January

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
211	1	259343	0.60	0.30	-0.18	-0.19	0.30	0.0
	2	259415	0.62	0.24	0.24	-0.23	-0.08	0.1
	3	259417	0.49	0.18	0.18	-0.14	-0.07	0.0
	4	259416	0.76	0.30	-0.11	0.30	-0.27	0.0
	5	259323	0.44	0.29	0.29	-0.17	-0.15	0.1
	6	259453	0.39	0.16	0.01	-0.23	0.16	0.1
	7	259382	0.62	0.30	-0.21	0.30	-0.17	0.1
	8	259452	0.38	0.18	-0.15	0.18	-0.07	0.2
	9	259465	0.38	0.18	0.18	-0.15	-0.05	0.1
	10	259351	0.42	0.17	-0.11	0.17	-0.08	0.0
	11	259430	0.72	0.19	-0.19	0.19	-0.06	0.1
	12	259431	0.67	0.34	0.34	-0.19	-0.23	0.1
	13	259318	0.61	0.37	0.37	-0.24	-0.21	0.1
	14	259319	0.33	0.12	-0.02	-0.11	0.12	0.0
	15	259320	0.69	0.35	-0.24	0.35	-0.21	0.1
	16	259419	0.61	0.25	-0.13	0.25	-0.18	0.1
	17	259421	0.59	0.28	0.28	-0.20	-0.13	0.0
	18	259463	0.36	0.16	0.16	-0.13	-0.03	0.1
	19	259345	0.52	0.36	-0.18	-0.23	0.36	0.2
	20	259325	0.56	0.34	-0.20	0.34	-0.20	0.2
	21	259385	0.59	0.32	-0.14	-0.23	0.32	0.2
	22	259390	0.58	0.30	-0.16	-0.18	0.30	0.3
	23	259383	0.52	0.27	-0.21	0.27	-0.08	0.3
	24	259386	0.44	0.37	-0.23	-0.16	0.37	0.5
	25	259388	0.51	0.25	0.25	-0.13	-0.16	0.3
	26	259389	0.36	0.27	-0.18	0.27	-0.09	0.4
	27	259438	0.46	0.19	-0.11	0.19	-0.10	0.2
	28	259439	0.50	0.22	-0.17	0.22	-0.10	0.2
	29	259437	0.46	0.26	0.26	-0.08	-0.21	0.2
	30	259332	0.61	0.24	-0.19	0.24	-0.09	0.6
	31	259403	0.39	0.26	-0.08	-0.19	0.26	0.4
	32	259401	0.41	0.26	0.26	-0.06	-0.22	0.4
	33	259402	0.42	0.36	-0.27	-0.10	0.36	0.4
	34	259399	0.73	0.37	-0.19	-0.26	0.37	0.5
	35	259400	0.54	0.33	-0.15	-0.26	0.33	0.4
	36	259404	0.59	0.25	0.25	-0.17	-0.12	0.4
	37	259461	0.68	0.36	-0.22	-0.22	0.36	0.5
	38	259446	0.57	0.35	-0.20	-0.20	0.35	0.5
	39	259447	0.54	0.28	-0.18	0.28	-0.15	0.4
	40	259448	0.55	0.34	-0.20	-0.19	0.34	0.4
	41	259358	0.54	0.38	-0.15	-0.27	0.38	0.4
	42	259434	0.41	0.15	-0.07	0.15	-0.14	0.5
	43	259391	0.57	0.36	-0.15	0.36	-0.26	0.5

Table 2.A7 Item Statistics: MD Mod-HSA 2011 English—January

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
211	44	259454	0.35	0.24	0.24	-0.16	-0.06	0.4
	45	259455	0.49	0.35	-0.23	-0.16	0.35	0.4
	46	259392	0.43	0.40	-0.19	-0.24	0.40	0.5
	47	259394	0.67	0.42	0.42	-0.24	-0.29	0.5
	48	259393	0.49	0.34	0.34	-0.23	-0.15	0.6
	49	259444	0.63	0.26	-0.13	0.26	-0.18	0.6
	50	259356	0.53	0.31	-0.23	-0.16	0.31	0.7
Mean			0.53	0.28	-0.03	-0.04	0.02	0.3
SD			0.11	0.08	0.21	0.22	0.23	0.2

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A8 Item Statistics: MD Mod-HSA 2011 Government—January

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
211	1	258401	0.54	0.38	-0.20	-0.25	0.38	0.1
	2	258459	0.72	0.27	-0.18	0.27	-0.16	0.2
	3	258402	0.45	0.26	-0.17	-0.15	0.26	0.2
	4	258406	0.67	0.31	-0.19	0.31	-0.19	0.1
	5	258347	0.47	0.25	0.25	-0.20	-0.11	0.2
	6	258328	0.51	0.36	0.36	-0.28	-0.14	0.1
	7	258422	0.44	0.33	-0.16	-0.20	0.33	0.1
	8	258357	0.30	0.27	-0.14	0.27	-0.12	0.3
	9	258452	0.42	0.31	0.31	-0.16	-0.20	0.2
	10	258330	0.44	0.30	0.30	-0.18	-0.15	0.2
	11	258454	0.41	0.35	-0.24	-0.16	0.35	0.1
	12	258364	0.65	0.36	-0.21	0.36	-0.24	0.2
	13	258361	0.52	0.32	0.32	-0.23	-0.12	0.3
	14	258336	0.44	0.22	-0.09	-0.15	0.22	0.2
	15	258376	0.46	0.32	0.32	-0.22	-0.13	0.2
	16	258419	0.25	0.13	-0.07	0.13	-0.03	0.2
	17	258425	0.54	0.24	-0.11	0.24	-0.18	0.2
	18	258715	0.69	0.28	-0.21	0.28	-0.13	0.2
	19	258473	0.46	0.27	-0.14	-0.14	0.27	0.3
	20	258478	0.27	0.03	0.09	0.03	-0.11	0.3
	21	258501	0.50	0.31	-0.14	-0.20	0.31	0.3
	22	258450	0.44	0.28	0.28	-0.12	-0.17	0.3
	23	258498	0.44	0.33	0.33	-0.12	-0.23	0.3
	24	258388	0.30	0.22	-0.17	0.22	-0.04	0.2
	25	258351	0.38	0.36	0.36	-0.31	-0.05	0.3
	26	258488	0.68	0.33	0.33	-0.27	-0.13	0.3
	27	258479	0.42	0.31	-0.14	0.31	-0.19	0.2
	28	258375	0.52	0.42	0.42	-0.28	-0.20	0.3
	29	258414	0.45	0.27	-0.13	0.27	-0.15	0.3
	30	258495	0.27	0.21	0.21	-0.11	-0.07	0.3
	31	258321	0.52	0.26	0.26	-0.12	-0.16	0.5
	32	258426	0.25	0.26	0.26	-0.17	-0.04	0.6
	33	258722	0.52	0.23	-0.16	0.23	-0.09	0.4
	34	258407	0.32	0.08	0.08	0.03	-0.11	0.5
	35	258412	0.58	0.39	0.39	-0.20	-0.25	0.4
	36	258369	0.47	0.30	-0.20	-0.13	0.30	0.5
	37	258483	0.48	0.29	0.29	-0.21	-0.12	0.3
	38	258719	0.60	0.37	0.37	-0.25	-0.17	0.5
	39	258345	0.22	0.04	0.10	0.04	-0.15	0.3
	40	258390	0.55	0.30	-0.18	0.30	-0.16	0.5
	41	258329	0.28	0.18	0.18	0.04	-0.21	0.3
	42	258409	0.62	0.12	-0.05	0.12	-0.09	0.3
	43	258434	0.37	0.19	-0.07	-0.11	0.19	0.5

Table 2.A8 Item Statistics: MD Mod-HSA 2011 Government—January

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
211	44	258391	0.56	0.33	0.33	-0.20	-0.18	0.4
	45	258316	0.43	0.13	-0.05	0.13	-0.07	0.5
	46	258404	0.47	0.33	0.33	-0.18	-0.18	0.4
	47	258468	0.50	0.31	0.31	-0.20	-0.14	0.5
	48	258491	0.38	0.24	-0.06	0.24	-0.18	0.6
	49	258341	0.50	0.27	0.27	-0.22	-0.10	0.6
	50	258502	0.33	0.21	0.21	-0.16	-0.02	0.6
Mean			0.46	0.27	0.08	-0.04	-0.06	0.3
SD			0.12	0.09	0.23	0.21	0.18	0.1

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A9 Item Statistics: MD Mod-HSA 2011 Algebra—April

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
311	1	258190	0.39	0.38	-0.16	-0.24	0.38	0.0
	2	258164	0.45	0.24	-0.16	-0.12	0.24	0.0
	3	258224	0.41	0.28	-0.02	0.28	-0.28	0.0
	4	258107	0.29	0.26	-0.03	-0.21	0.26	0.0
	5	258126	0.50	0.32	0.32	-0.19	-0.18	0.2
	6	258239	0.35	0.22	-0.07	0.22	-0.17	0.2
	7	258123	0.53	0.35	0.35	-0.24	-0.16	0.2
	8	258124	0.33	0.31	-0.12	-0.19	0.31	0.0
	9	258141	0.44	0.32	0.32	-0.19	-0.18	0.0
	10	258200	0.34	0.29	0.29	-0.13	-0.16	0.2
	11	258179	0.31	0.20	-0.07	-0.13	0.20	0.0
	12	258235	0.61	0.34	-0.25	0.34	-0.17	0.3
	13	258105	0.35	0.12	0.12	-0.19	0.04	0.2
	14	258236	0.52	0.22	-0.14	0.22	-0.14	0.0
	15	261559	0.35	0.16	0.16	-0.09	-0.07	0.2
	16	258211	0.61	0.41	-0.33	0.41	-0.17	0.2
	17	258209	0.63	0.23	-0.10	-0.21	0.23	0.0
	18	258182	0.65	0.44	-0.25	-0.30	0.44	0.0
	19	258238	0.27	0.28	-0.09	-0.17	0.28	0.2
	20	261561	0.54	0.36	0.36	-0.22	-0.20	0.3
	21	258132	0.54	0.31	-0.10	0.31	-0.25	0.2
	22	258158	0.54	0.38	-0.17	-0.28	0.38	0.2
	23	258145	0.55	0.35	-0.28	0.35	-0.13	0.3
	24	261563	0.30	0.14	0.02	-0.14	0.14	0.2
	25	258229	0.66	0.32	-0.19	0.32	-0.21	0.2
	26	258197	0.58	0.32	-0.23	0.32	-0.15	0.9
	27	258097	0.29	0.31	0.31	-0.08	-0.22	0.5
	28	258310	0.64	0.42	-0.24	-0.27	0.42	0.5
	29	258109	0.50	0.32	0.32	-0.18	-0.18	0.3
	30	258110	0.40	0.15	-0.03	0.15	-0.13	0.5
	31	258103	0.34	0.23	0.23	-0.23	0.00	0.5
	32	258108	0.53	0.19	-0.06	0.19	-0.14	0.5
	33	258196	0.57	0.29	-0.12	0.29	-0.23	0.3
	34	261564	0.48	0.30	0.30	-0.23	-0.09	0.5
	35	258153	0.41	0.25	0.25	-0.05	-0.21	0.7
	36	258122	0.78	0.32	-0.20	0.32	-0.20	0.3
	37	258240	0.64	0.37	-0.22	0.37	-0.24	0.3
	38	258157	0.26	0.15	0.15	-0.02	-0.10	0.5
	39	258091	0.24	0.16	-0.07	0.16	-0.06	0.3
	40	258118	0.53	0.30	0.30	-0.18	-0.19	0.2
	41	258225	0.55	0.27	-0.17	0.27	-0.16	0.5
	42	261557	0.36	0.25	0.25	-0.20	-0.04	0.2
	43	258152	0.43	0.21	0.21	-0.10	-0.13	0.2

Table 2.A9 Item Statistics: MD Mod-HSA 2011 Algebra—April

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
311	44	258133	0.42	0.27	0.27	-0.24	-0.05	0.2
	45	258214	0.36	0.32	0.32	-0.11	-0.21	0.2
	46	258178	0.69	0.39	-0.23	-0.26	0.39	0.2
	47	258100	0.58	0.30	-0.20	0.30	-0.16	0.2
	48	258171	0.52	0.36	-0.23	0.36	-0.18	0.2
	49	258142	0.46	0.35	-0.18	-0.22	0.35	0.2
	50	258150	0.46	0.23	0.23	-0.06	-0.20	0.2
Mean			0.47	0.29	0.01	-0.01	-0.03	0.2
SD			0.13	0.08	0.22	0.24	0.22	0.2

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A10 Item Statistics: MD Mod-HSA 2011 Biology—April

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
311	1	258627	0.79	0.21	-0.12	0.21	-0.16	0.0
	2	258733	0.52	0.15	0.15	-0.10	-0.07	0.0
	3	258684	0.48	0.19	-0.12	-0.09	0.19	0.0
	4	258644	0.35	0.25	0.25	-0.17	-0.08	0.2
	5	258634	0.47	0.33	-0.27	0.33	-0.11	0.0
	6	261644	0.78	0.25	0.25	-0.12	-0.22	0.0
	7	261645	0.35	0.25	-0.06	-0.19	0.25	0.0
	8	258619	0.33	0.22	0.22	-0.12	-0.10	0.0
	9	258700	0.57	0.31	-0.23	-0.16	0.31	0.2
	10	258618	0.32	0.13	-0.03	-0.10	0.13	0.0
	11	261627	0.62	0.33	-0.23	0.33	-0.18	0.0
	12	258639	0.41	0.33	0.33	-0.20	-0.16	0.0
	13	258732	0.51	0.16	0.16	-0.14	-0.03	0.2
	14	258727	0.50	0.24	-0.16	0.24	-0.12	0.0
	15	258622	0.48	0.31	0.31	-0.23	-0.12	0.0
	16	258695	0.46	0.23	-0.19	0.23	-0.08	0.0
	17	258631	0.80	0.31	0.31	-0.22	-0.20	0.0
	18	258699	0.23	0.00	-0.13	0.00	0.13	0.0
	19	261607	0.63	0.14	-0.10	0.14	-0.07	0.2
	20	261624	0.44	0.41	-0.27	-0.19	0.41	0.2
	21	258612	0.61	0.29	-0.15	0.29	-0.20	0.0
	22	261610	0.39	0.30	-0.12	-0.20	0.30	0.0
	23	258714	0.28	0.34	0.34	-0.23	-0.09	0.2
	24	258725	0.61	0.28	-0.25	0.28	-0.11	0.0
	25	258664	0.54	0.23	-0.13	0.23	-0.14	0.0
	26	258638	0.28	0.11	0.03	-0.13	0.11	0.2
	27	258650	0.46	0.26	-0.12	-0.16	0.26	0.4
	28	261614	0.63	0.31	0.31	-0.25	-0.16	0.2
	29	261622	0.83	0.29	-0.19	0.29	-0.17	0.2
	30	258705	0.24	0.20	-0.16	-0.01	0.20	0.2
	31	258678	0.65	0.29	-0.13	0.29	-0.21	0.2
	32	261642	0.41	0.29	0.29	-0.26	-0.02	0.2
	33	258654	0.65	0.21	-0.25	-0.02	0.21	0.4
	34	258670	0.33	0.10	-0.04	-0.04	0.10	0.4
	35	258660	0.44	0.31	-0.22	-0.12	0.31	0.2
	36	258637	0.48	0.33	-0.17	0.33	-0.19	0.2
	37	258640	0.58	0.18	-0.10	0.18	-0.11	0.2
	38	258674	0.44	0.24	-0.07	-0.19	0.24	0.7
	39	258697	0.42	0.25	0.25	-0.18	-0.08	0.2
	40	258616	0.21	0.10	-0.13	0.10	0.06	0.2
	41	258630	0.25	0.22	-0.11	-0.07	0.22	0.7
	42	261617	0.35	0.17	0.17	-0.04	-0.16	0.4
	43	258726	0.36	0.19	0.19	-0.13	-0.05	0.4

Table 2.A10 Item Statistics: MD Mod-HSA 2011 Biology—April

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
311	44	258730	0.46	0.33	0.33	-0.17	-0.18	0.7
	45	258657	0.21	0.14	-0.07	-0.04	0.14	0.4
	46	258651	0.43	0.42	0.42	-0.24	-0.19	0.4
	47	258712	0.42	0.27	-0.20	-0.10	0.27	0.4
	48	258731	0.31	0.11	-0.06	-0.03	0.11	0.4
	49	261608	0.53	0.36	-0.18	-0.23	0.36	0.4
	50	258693	0.35	0.34	0.34	-0.22	-0.12	0.4
Mean			0.46	0.24	0.00	-0.03	0.01	0.2
SD			0.16	0.09	0.21	0.19	0.19	0.2

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A11 Item Statistics: MD Mod-HSA 2011 English—April

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
311	1	259343	0.63	0.42	-0.22	-0.31	0.42	0.2
	2	259415	0.59	0.27	0.27	-0.25	-0.11	0.0
	3	259417	0.49	0.19	0.19	-0.15	-0.08	0.0
	4	259416	0.79	0.34	-0.19	0.34	-0.25	0.2
	5	259323	0.47	0.32	0.32	-0.18	-0.18	0.0
	6	259453	0.40	0.18	-0.08	-0.14	0.18	0.0
	7	259382	0.67	0.26	-0.20	0.26	-0.13	0.2
	8	259452	0.44	0.29	-0.21	0.29	-0.16	0.0
	9	259465	0.39	0.29	0.29	-0.27	-0.06	0.0
	10	259351	0.38	0.26	-0.17	0.26	-0.12	0.2
	11	259430	0.72	0.25	-0.23	0.25	-0.12	0.0
	12	259431	0.69	0.32	0.32	-0.22	-0.19	0.2
	13	259318	0.64	0.35	0.35	-0.24	-0.20	0.0
	14	259319	0.32	0.12	0.02	-0.18	0.12	0.2
	15	259320	0.73	0.38	-0.18	0.38	-0.30	0.0
	16	259419	0.61	0.31	-0.18	0.31	-0.20	0.2
	17	259421	0.56	0.31	0.31	-0.23	-0.13	0.7
	18	259463	0.36	0.20	0.20	-0.19	-0.01	0.5
	19	259345	0.51	0.39	-0.22	-0.22	0.39	0.3
	20	259325	0.60	0.35	-0.16	0.35	-0.26	0.3
	21	259385	0.58	0.35	-0.18	-0.23	0.35	0.3
	22	259390	0.58	0.35	-0.17	-0.24	0.35	0.3
	23	259383	0.48	0.32	-0.24	0.32	-0.10	0.5
	24	259386	0.47	0.39	-0.20	-0.23	0.39	0.3
	25	259388	0.55	0.33	0.33	-0.10	-0.29	0.3
	26	259389	0.39	0.34	-0.22	0.34	-0.14	0.3
	27	259438	0.48	0.29	-0.14	0.29	-0.18	0.3
	28	259439	0.50	0.24	-0.18	0.24	-0.11	0.3
	29	259437	0.53	0.28	0.28	-0.14	-0.19	0.5
	30	259332	0.62	0.23	-0.14	0.23	-0.12	0.5
	31	259403	0.38	0.24	-0.08	-0.16	0.24	0.5
	32	259401	0.43	0.24	0.24	-0.04	-0.22	0.3
	33	259402	0.44	0.36	-0.27	-0.11	0.36	0.3
	34	259399	0.74	0.42	-0.29	-0.23	0.42	0.3
	35	259400	0.56	0.34	-0.19	-0.22	0.34	0.3
	36	259404	0.58	0.34	0.34	-0.21	-0.19	0.5
	37	259461	0.71	0.34	-0.22	-0.20	0.34	0.3
	38	259446	0.62	0.32	-0.18	-0.19	0.32	0.7
	39	259447	0.56	0.25	-0.16	0.25	-0.12	0.3
	40	259448	0.58	0.34	-0.12	-0.28	0.34	0.5
	41	259358	0.54	0.43	-0.25	-0.24	0.43	0.3
	42	259434	0.45	0.19	-0.11	0.19	-0.12	0.3

Table 2.A11 Item Statistics: MD Mod-HSA 2011 English—April

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
	43	259391	0.57	0.33	-0.15	0.33	-0.23	0.3
311	44	259454	0.35	0.27	0.27	-0.19	-0.06	0.3
	45	259455	0.48	0.33	-0.26	-0.09	0.33	0.3
	46	259392	0.45	0.38	-0.20	-0.21	0.38	0.3
	47	259394	0.68	0.44	0.44	-0.26	-0.29	0.3
	48	259393	0.48	0.32	0.32	-0.15	-0.19	0.3
	49	259444	0.66	0.30	-0.14	0.30	-0.21	0.5
	50	259356	0.58	0.25	-0.18	-0.11	0.25	0.5
Mean			0.54	0.31	-0.04	-0.03	0.01	0.3
SD			0.11	0.07	0.23	0.24	0.25	0.2

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A12 Item Statistics: MD Mod-HSA 2011 Government—April

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
311	1	258401	0.56	0.50	-0.30	-0.29	0.50	0.0
	2	258459	0.71	0.26	-0.24	0.26	-0.09	0.3
	3	258402	0.47	0.29	-0.21	-0.13	0.29	0.0
	4	258406	0.67	0.28	-0.13	0.28	-0.22	0.0
	5	258347	0.55	0.33	0.33	-0.26	-0.17	0.0
	6	258328	0.50	0.37	0.37	-0.26	-0.17	0.0
	7	258422	0.45	0.41	-0.24	-0.22	0.41	0.0
	8	258357	0.34	0.31	-0.15	0.31	-0.17	0.0
	9	258452	0.46	0.35	0.35	-0.24	-0.17	0.3
	10	258330	0.45	0.40	0.40	-0.23	-0.22	0.0
	11	258454	0.40	0.40	-0.29	-0.16	0.40	0.3
	12	258364	0.61	0.39	-0.25	0.39	-0.24	0.0
	13	258361	0.53	0.34	0.34	-0.27	-0.13	0.0
	14	258336	0.44	0.32	-0.14	-0.21	0.32	0.0
	15	258376	0.46	0.31	0.31	-0.16	-0.19	0.0
	16	258419	0.27	0.23	-0.18	0.23	-0.04	0.0
	17	258425	0.59	0.29	-0.11	0.29	-0.25	0.0
	18	258715	0.67	0.22	-0.14	0.22	-0.18	0.0
	19	258473	0.49	0.31	-0.11	-0.25	0.31	0.0
	20	258478	0.27	0.23	-0.03	0.23	-0.19	0.0
	21	258501	0.52	0.33	-0.15	-0.23	0.33	0.0
	22	258450	0.45	0.33	0.33	-0.17	-0.21	0.0
	23	258498	0.43	0.38	0.38	-0.17	-0.25	0.3
	24	258388	0.37	0.33	-0.20	0.33	-0.14	0.0
	25	258351	0.40	0.43	0.43	-0.34	-0.11	0.0
	26	258488	0.68	0.32	0.32	-0.26	-0.14	0.0
	27	258479	0.43	0.29	-0.16	0.29	-0.17	0.0
	28	258375	0.52	0.40	0.40	-0.25	-0.21	0.0
	29	258414	0.54	0.32	-0.19	0.32	-0.19	0.0
	30	258495	0.30	0.20	0.20	-0.20	0.00	0.0
	31	258321	0.54	0.33	0.33	-0.19	-0.20	0.0
	32	258426	0.27	0.33	0.33	-0.19	-0.11	0.0
	33	258722	0.48	0.32	-0.24	0.32	-0.11	0.3
	34	258407	0.33	0.20	0.20	-0.01	-0.22	0.0
	35	258412	0.58	0.36	0.36	-0.18	-0.26	0.0
	36	258369	0.49	0.36	-0.19	-0.22	0.36	0.0
	37	258483	0.61	0.31	0.31	-0.20	-0.20	0.0
	38	258719	0.56	0.35	0.35	-0.17	-0.25	0.0
	39	258345	0.22	-0.07	0.13	-0.07	-0.09	0.0
	40	258390	0.50	0.33	-0.25	0.33	-0.14	0.0
	41	258329	0.29	0.11	0.11	0.06	-0.19	0.0
	42	258409	0.53	0.14	-0.03	0.14	-0.15	0.0
	43	258434	0.45	0.17	-0.10	-0.10	0.17	0.0

Table 2.A12 Item Statistics: MD Mod-HSA 2011 Government—April

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
311	44	258391	0.57	0.33	0.33	-0.19	-0.20	0.0
	45	258316	0.47	0.15	-0.03	0.15	-0.13	0.0
	46	258404	0.48	0.41	0.41	-0.26	-0.20	0.3
	47	258468	0.52	0.36	0.36	-0.22	-0.20	0.0
	48	258491	0.39	0.39	-0.13	0.39	-0.30	0.0
	49	258341	0.48	0.15	0.15	-0.17	-0.01	0.0
	50	258502	0.31	0.27	0.27	-0.18	-0.08	0.0
Mean			0.47	0.30	0.07	-0.04	-0.08	0.0
SD			0.11	0.10	0.26	0.24	0.21	0.1

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A13 Item Statistics: MD Mod-HSA 2011 Algebra—May

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
411	1	258090	0.61	0.37	-0.19	-0.26	0.37	0.1
	2	258095	0.74	0.37	0.37	-0.22	-0.26	0.1
	3	258166	0.75	0.35	-0.30	0.35	-0.16	0.0
	4	258312	0.50	0.37	0.37	-0.23	-0.22	0.2
	5	258173	0.52	0.31	-0.16	0.31	-0.20	0.1
	6	258115	0.45	0.36	0.36	-0.20	-0.20	0.2
	7	258223	0.32	0.08	-0.10	0.08	0.00	0.1
	8	258230	0.51	0.23	0.23	-0.22	-0.06	0.1
	9	258147	0.49	0.28	0.28	-0.13	-0.21	0.2
	10	261560	0.65	0.33	-0.21	0.33	-0.20	0.1
	11	258227	0.66	0.31	0.31	-0.17	-0.22	0.2
	12	258308	0.42	0.25	0.25	-0.08	-0.19	0.1
	13	258101	0.57	0.31	-0.22	0.31	-0.16	0.2
	14	258210	0.80	0.37	-0.26	0.37	-0.22	0.2
	15	258116	0.51	0.24	0.24	-0.15	-0.14	0.2
	16	258089	0.25	0.25	-0.11	0.25	-0.11	0.2
	17	261556	0.43	0.31	0.31	-0.27	-0.07	0.2
	18	258309	0.84	0.35	-0.23	-0.24	0.35	0.2
	19	258098	0.62	0.36	-0.23	-0.23	0.36	0.2
	20	258208	0.40	0.18	-0.02	-0.17	0.18	0.2
	21	258161	0.58	0.46	0.46	-0.39	-0.13	0.2
	22	258159	0.43	0.29	-0.11	-0.21	0.29	0.2
	23	258184	0.57	0.29	-0.12	0.29	-0.21	0.2
	24	258136	0.52	0.34	-0.19	0.34	-0.20	0.2
	25	258102	0.49	0.30	-0.15	0.30	-0.19	0.2
	26	258226	0.40	0.30	-0.13	-0.18	0.30	0.3
	27	258188	0.68	0.31	-0.17	0.31	-0.22	0.3
	28	258174	0.50	0.27	-0.11	-0.19	0.27	0.4
	29	258209	0.65	0.26	-0.11	-0.22	0.26	0.3
	30	258154	0.43	0.46	-0.28	-0.21	0.46	0.2
	31	258113	0.56	0.37	-0.23	0.37	-0.20	0.3
	32	258198	0.39	0.24	-0.16	-0.09	0.24	0.3
	33	258120	0.49	0.38	-0.23	-0.20	0.38	0.3
	34	258169	0.44	0.23	-0.10	-0.14	0.23	0.4
	35	258119	0.46	0.28	0.28	-0.10	-0.24	0.4
	36	258160	0.47	0.30	0.30	-0.18	-0.15	0.2
	37	258241	0.56	0.34	-0.19	0.34	-0.21	0.3
	38	258130	0.50	0.29	0.29	-0.16	-0.17	0.4
	39	258131	0.24	-0.01	-0.01	0.08	-0.08	0.3
	40	258128	0.63	0.37	-0.20	0.37	-0.24	0.3
	41	258509	0.39	0.23	0.23	-0.23	-0.02	0.4
	42	258231	0.62	0.43	-0.24	-0.28	0.43	0.3

Table 2.A13 Item Statistics: MD Mod-HSA 2011 Algebra—May

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
411	43	258111	0.61	0.36	-0.22	0.36	-0.24	0.3
	44	258096	0.26	0.11	0.11	0.11	-0.23	0.4
	45	258125	0.40	0.16	-0.20	0.16	0.00	0.3
	46	258144	0.38	0.19	0.19	0.01	-0.20	0.4
	47	261558	0.40	0.27	-0.13	0.27	-0.14	0.4
	48	261562	0.44	0.28	0.28	-0.18	-0.12	0.3
	49	258220	0.37	0.19	-0.10	-0.08	0.19	0.4
	50	258135	0.56	0.22	-0.14	0.22	-0.10	0.4
Mean			0.51	0.29	0.31	0.38	0.31	0.2
SD			0.13	0.09	0.15	0.18	0.17	0.1

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A14 Item Statistics: MD Mod-HSA 2011 Biology—May

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
411	1	258636	0.67	0.33	-0.23	0.33	-0.18	0.1
	2	258653	0.39	0.27	0.27	-0.05	-0.23	0.1
	3	258690	0.44	0.20	0.00	-0.21	0.20	0.0
	4	258702	0.59	0.35	-0.28	0.35	-0.15	0.0
	5	258662	0.38	0.32	-0.14	-0.18	0.32	0.2
	6	258659	0.31	0.12	0.12	-0.13	0.03	0.1
	7	258673	0.64	0.24	-0.11	-0.18	0.24	0.2
	8	258701	0.44	0.28	-0.26	0.28	-0.06	0.1
	9	258628	0.64	0.29	0.29	-0.21	-0.15	0.2
	10	258685	0.33	0.26	0.26	-0.09	-0.18	0.1
	11	261611	0.17	0.17	-0.07	-0.06	0.17	0.1
	12	258615	0.46	0.17	-0.11	0.17	-0.07	0.2
	13	258683	0.68	0.41	-0.27	0.41	-0.25	0.3
	14	258641	0.49	0.21	-0.11	0.21	-0.13	0.2
	15	258676	0.44	0.20	-0.14	0.20	-0.07	0.3
	16	258607	0.63	0.29	-0.12	0.29	-0.23	0.2
	17	258645	0.56	0.41	-0.23	-0.25	0.41	0.3
	18	258666	0.58	0.22	-0.10	0.22	-0.18	0.2
	19	258675	0.47	0.18	-0.08	0.18	-0.11	0.2
	20	261609	0.61	0.17	-0.05	-0.20	0.17	0.2
	21	258665	0.26	0.21	0.21	-0.07	-0.12	0.2
	22	258682	0.48	0.19	-0.11	0.19	-0.09	0.2
	23	258648	0.44	0.34	-0.16	0.34	-0.21	0.3
	24	258614	0.43	0.37	-0.20	-0.20	0.37	0.3
	25	258680	0.45	0.30	-0.11	-0.20	0.30	0.4
	26	258681	0.39	0.11	-0.03	-0.06	0.11	0.4
	27	258642	0.55	0.21	-0.07	0.21	-0.16	0.2
	28	261623	0.68	0.26	-0.12	-0.24	0.26	0.2
	29	258649	0.30	0.17	0.17	-0.29	0.09	0.2
	30	258687	0.46	0.22	-0.14	0.22	-0.11	0.3
	31	258646	0.41	0.28	0.28	-0.20	-0.10	0.2
	32	261626	0.69	0.31	-0.21	-0.18	0.31	0.3
	33	258707	0.52	0.35	0.35	-0.23	-0.17	0.2
	34	258643	0.55	0.18	0.18	-0.08	-0.14	0.2
	35	258698	0.33	0.18	-0.13	-0.03	0.18	0.2
	36	258728	0.28	0.24	-0.12	-0.14	0.24	0.4
	37	258734	0.59	0.34	-0.21	-0.19	0.34	0.4
	38	258735	0.52	0.28	-0.19	0.28	-0.13	0.4
	39	258704	0.56	0.32	-0.15	0.32	-0.23	0.2
	40	258624	0.57	0.37	0.37	-0.24	-0.19	0.2
	41	258697	0.44	0.19	0.19	-0.12	-0.08	0.3
	42	258616	0.22	0.03	-0.15	0.03	0.14	0.4

Table 2.A14 Item Statistics: MD Mod-HSA 2011 Biology—May

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
411	43	258617	0.46	0.17	0.17	-0.20	0.00	0.3
	44	258688	0.45	0.20	-0.13	-0.08	0.20	0.4
	45	258669	0.65	0.32	-0.19	-0.19	0.32	0.3
	46	261621	0.68	0.40	0.40	-0.24	-0.26	0.2
	47	258703	0.46	0.32	-0.19	0.32	-0.16	0.4
	48	258692	0.50	0.25	-0.07	-0.19	0.25	0.3
	49	258635	0.55	0.34	-0.25	-0.14	0.34	0.4
	50	261616	0.53	0.37	-0.24	-0.17	0.37	0.4
Mean			0.49	0.26	-0.04	-0.01	0.02	0.2
SD			0.13	0.08	0.19	0.22	0.21	0.1

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A15 Item Statistics: MD Mod-HSA 2011 English—May

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
411	1	259429	0.48	0.25	0.25	-0.19	-0.10	0.0
	2	259426	0.64	0.34	0.34	-0.21	-0.21	0.0
	3	259349	0.65	0.35	-0.24	0.35	-0.20	0.0
	4	259427	0.46	0.26	-0.10	0.26	-0.19	0.1
	5	259312	0.67	0.37	0.37	-0.26	-0.21	0.0
	6	259368	0.35	0.24	0.24	-0.17	-0.09	0.1
	7	259371	0.71	0.38	-0.27	-0.21	0.38	0.1
	8	259367	0.71	0.29	-0.25	0.29	-0.16	0.0
	9	259370	0.51	0.21	-0.21	0.21	-0.07	0.1
	10	259432	0.68	0.29	0.29	-0.15	-0.21	0.1
	11	259433	0.53	0.29	0.29	-0.15	-0.23	0.1
	12	259354	0.45	0.23	-0.15	-0.11	0.23	0.1
	13	259407	0.17	0.01	-0.15	0.01	0.14	0.2
	14	259335	0.40	0.25	-0.21	-0.10	0.25	0.3
	15	259410	0.71	0.38	-0.27	0.38	-0.22	0.0
	16	259413	0.50	0.26	-0.13	0.26	-0.21	0.1
	17	259411	0.49	0.31	-0.18	-0.18	0.31	0.2
	18	259414	0.41	0.26	-0.16	-0.12	0.26	0.2
	19	259338	0.41	0.20	0.20	-0.04	-0.18	0.2
	20	259339	0.64	0.34	-0.21	0.34	-0.24	0.2
	21	259340	0.77	0.39	-0.26	-0.26	0.39	0.4
	22	259362	0.65	0.41	0.41	-0.28	-0.23	0.3
	23	259436	0.34	0.16	0.16	0.00	-0.21	0.3
	24	259347	0.44	0.26	0.26	-0.18	-0.12	0.4
	25	259424	0.60	0.32	-0.13	-0.27	0.32	0.5
	26	259423	0.50	0.25	-0.16	-0.13	0.25	0.6
	27	259425	0.49	0.26	-0.18	0.26	-0.11	0.6
	28	259422	0.41	0.24	-0.10	0.24	-0.15	0.7
	29	259445	0.66	0.30	-0.27	0.30	-0.09	0.1
	30	259374	0.47	0.34	-0.22	-0.18	0.34	0.0
	31	259450	0.40	0.29	-0.20	-0.13	0.29	0.0
	32	259376	0.64	0.41	-0.23	-0.31	0.41	0.1
	33	259310	0.62	0.41	-0.27	0.41	-0.24	0.1
	34	259365	0.61	0.36	-0.17	0.36	-0.29	0.1
	35	259449	0.66	0.34	0.34	-0.22	-0.23	0.1
	36	259441	0.31	0.18	0.18	-0.15	-0.04	0.1
	37	259443	0.55	0.27	-0.15	0.27	-0.17	0.1
	38	259437	0.49	0.26	0.26	-0.08	-0.23	0.1
	39	259457	0.45	0.24	0.24	-0.21	-0.05	0.1
	40	259330	0.73	0.39	-0.26	0.39	-0.25	0.1
	41	259458	0.37	0.21	0.21	-0.20	-0.03	0.1

Table 2.A15 Item Statistics: MD Mod-HSA 2011 English—May

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
411	42	259466	0.67	0.46	-0.22	-0.36	0.46	0.2
	43	259395	0.46	0.30	-0.07	0.30	-0.27	0.1
	44	259459	0.52	0.35	-0.23	-0.18	0.35	0.2
	45	259396	0.40	0.24	-0.16	-0.11	0.24	0.2
	46	259460	0.67	0.37	0.37	-0.30	-0.16	0.1
	47	259398	0.59	0.33	-0.20	0.33	-0.20	0.1
	48	259397	0.45	0.27	-0.21	-0.10	0.27	0.1
	49	259360	0.51	0.30	0.30	-0.25	-0.10	0.1
	50	259435	0.25	0.19	-0.12	-0.06	0.19	0.2
Mean			0.53	0.29	-0.03	-0.02	-0.01	0.2
SD			0.13	0.08	0.23	0.24	0.24	0.2

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A16 Item Statistics: MD Mod-HSA 2011 Government—May

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
414	1	258363	0.41	0.38	-0.29	-0.11	0.38	0.0
	2	258500	0.28	0.26	0.26	-0.03	-0.24	0.0
	3	258327	0.48	0.26	0.26	-0.12	-0.21	0.0
	4	258338	0.41	0.30	-0.12	0.30	-0.20	0.1
	5	258408	0.42	0.28	0.28	-0.21	-0.09	0.1
	6	258463	0.34	0.24	0.24	-0.12	-0.13	0.1
	7	258458	0.49	0.33	0.33	-0.18	-0.20	0.0
	8	258506	0.62	0.32	-0.16	-0.23	0.32	0.0
	9	258505	0.46	0.25	0.25	-0.13	-0.16	0.0
	10	258349	0.54	0.30	0.30	-0.23	-0.12	0.1
	11	258429	0.47	0.27	-0.14	-0.17	0.27	0.1
	12	258353	0.28	0.15	0.01	0.15	-0.16	0.2
	13	258396	0.49	0.21	0.21	-0.09	-0.15	0.2
	14	258410	0.48	0.32	-0.20	-0.16	0.32	0.1
	15	258386	0.48	0.47	0.47	-0.28	-0.25	0.2
	16	258350	0.35	0.25	0.25	-0.14	-0.10	0.2
	17	258378	0.53	0.24	-0.11	-0.17	0.24	0.1
	18	258503	0.38	0.28	-0.14	-0.14	0.28	0.2
	19	258440	0.62	0.29	-0.17	0.29	-0.17	0.2
	20	258400	0.49	0.34	-0.28	-0.12	0.34	0.2
	21	258421	0.35	0.26	0.26	-0.13	-0.12	0.2
	22	258446	0.35	0.27	-0.20	0.27	-0.07	0.2
	23	258344	0.38	0.25	0.25	-0.11	-0.15	0.2
	24	258432	0.49	0.21	-0.13	-0.10	0.21	0.2
	25	258428	0.49	0.23	-0.11	-0.15	0.23	0.3
	26	258360	0.48	0.21	-0.08	0.21	-0.15	0.2
	27	258343	0.50	0.31	-0.16	0.31	-0.19	0.2
	28	258438	0.63	0.39	0.39	-0.25	-0.23	0.2
	29	258718	0.72	0.38	0.38	-0.29	-0.20	0.1
	30	258424	0.37	0.23	-0.06	0.23	-0.18	0.2
	31	258323	0.40	0.25	-0.11	0.25	-0.16	0.2
	32	258324	0.69	0.43	-0.25	-0.28	0.43	0.2
	33	258437	0.47	0.32	-0.13	-0.22	0.32	0.2
	34	258319	0.36	0.23	-0.15	0.23	-0.08	0.2
	35	258389	0.59	0.26	-0.15	0.26	-0.17	0.2
	36	258379	0.56	0.22	-0.08	-0.18	0.22	0.2
	37	258413	0.43	0.21	-0.12	0.21	-0.11	0.2
	38	258448	0.50	0.37	0.37	-0.26	-0.15	0.2
	39	258721	0.35	0.09	0.09	-0.03	-0.05	0.2
	40	258439	0.50	0.28	-0.16	0.28	-0.17	0.2
	41	258368	0.45	0.17	0.17	-0.16	-0.01	0.2
	42	258320	0.36	0.28	-0.07	0.28	-0.21	0.2
	43	258436	0.61	0.37	0.37	-0.27	-0.17	0.2

Table 2.A16 Item Statistics: MD Mod-HSA 2011 Government—May

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
414	44	258384	0.57	0.29	-0.17	0.29	-0.17	0.3
	45	258486	0.49	0.24	-0.10	0.24	-0.16	0.2
	46	258411	0.35	0.21	-0.12	-0.08	0.21	0.4
	47	258313	0.63	0.31	-0.21	0.31	-0.17	0.2
	48	258716	0.50	0.33	0.33	-0.13	-0.24	0.2
	49	258335	0.54	0.37	-0.19	-0.24	0.37	0.2
	50	258377	0.64	0.35	0.35	-0.19	-0.23	0.2
Mean			0.48	0.28	0.03	-0.03	-0.03	0.2
SD			0.10	0.07	0.23	0.21	0.21	0.1

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A17 Item Statistics: MD Mod-HSA 2011 Algebra—Summer Primary 1

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
511	1	258190	0.43	0.18	-0.08	-0.12	0.18	0.0
	2	258164	0.37	0.15	-0.07	-0.09	0.15	0.0
	3	258224	0.38	0.30	-0.05	0.30	-0.26	0.0
	4	258107	0.22	0.28	-0.09	-0.18	0.28	0.8
	5	258126	0.47	0.29	0.29	-0.22	-0.08	0.8
	6	258239	0.30	0.27	-0.06	0.27	-0.23	0.0
	7	258123	0.64	0.29	0.29	-0.19	-0.10	1.7
	8	258124	0.37	0.30	-0.04	-0.22	0.30	0.8
	9	258141	0.54	0.32	0.32	-0.35	-0.02	0.8
	10	258200	0.34	0.30	0.30	-0.10	-0.16	0.8
	11	258179	0.34	0.23	-0.16	-0.03	0.23	0.8
	12	258235	0.58	0.42	-0.19	0.42	-0.20	1.7
	13	258105	0.37	0.11	0.11	-0.09	0.06	3.4
	14	258236	0.44	0.00	0.12	0.00	0.06	2.5
	15	261559	0.38	0.16	0.16	-0.05	0.04	2.5
	16	258211	0.69	0.41	-0.23	0.41	-0.09	2.5
	17	258209	0.67	0.22	-0.07	-0.06	0.22	1.8
	18	258182	0.64	0.38	-0.19	-0.11	0.38	2.5
	19	258238	0.29	0.35	-0.08	-0.11	0.35	3.4
	20	261561	0.54	0.37	0.37	-0.12	-0.16	2.5
	21	258132	0.44	0.26	-0.06	0.26	-0.07	2.5
	22	258158	0.56	0.41	-0.11	-0.20	0.41	2.5
	23	258145	0.63	0.26	-0.12	0.26	-0.02	2.5
	24	261563	0.34	0.27	0.03	-0.15	0.27	2.5
	25	258229	0.69	0.32	-0.19	0.32	-0.04	2.5
	26	258197	0.50	0.33	-0.16	0.33	-0.03	3.4
	27	258097	0.29	0.32	0.32	0.00	-0.15	3.4
	28	258310	0.62	0.30	-0.07	-0.11	0.30	3.4
	29	258109	0.49	0.34	0.34	-0.17	-0.02	3.4
	30	258110	0.44	0.14	0.07	0.14	-0.04	3.4
	31	258103	0.29	0.19	0.19	-0.14	0.15	4.2
	32	258108	0.55	0.30	0.00	0.30	-0.16	3.4
	33	258196	0.49	0.14	0.02	0.14	0.02	3.4
	34	261564	0.45	0.36	0.36	-0.09	-0.13	3.4
	35	258153	0.39	0.42	0.42	-0.07	-0.20	3.4
	36	258122	0.75	0.37	-0.19	0.37	-0.07	3.4
	37	258240	0.61	0.33	-0.05	0.33	-0.17	3.4
	38	258157	0.22	0.18	0.18	-0.08	0.08	3.4
	39	258091	0.24	0.17	0.07	0.17	-0.05	3.4
	40	258118	0.47	0.39	0.39	-0.10	-0.19	3.4
	41	258225	0.60	0.29	-0.09	0.29	-0.06	3.4
	42	261557	0.39	0.16	0.16	0.05	-0.04	3.4
	43	258152	0.38	0.28	0.28	-0.16	0.05	3.4

Table 2.A17 Item Statistics: MD Mod-HSA 2011 Algebra—Summer Primary 1

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
511	44	258133	0.39	0.39	0.39	-0.22	-0.02	3.4
	45	258214	0.34	0.33	0.33	-0.06	-0.09	3.4
	46	258178	0.70	0.39	-0.09	-0.18	0.39	3.4
	47	258100	0.55	0.43	-0.20	0.43	-0.13	3.4
	48	258171	0.41	0.41	-0.15	0.41	-0.12	3.4
	49	258142	0.47	0.42	-0.13	-0.18	0.42	4.2
	50	258150	0.47	0.22	0.22	0.03	-0.10	4.2
Mean			0.46	0.29	0.06	0.03	0.02	2.7
SD			0.14	0.10	0.20	0.22	0.19	1.0

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A18 Item Statistics: MD Mod-HSA 2011 Algebra—Summer Primary 2

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
611	1	258090	0.59	0.33	-0.26	-0.14	0.33	0.0
	2	258095	0.77	0.22	0.22	-0.05	-0.26	0.0
	3	258166	0.80	0.12	-0.13	0.12	-0.04	0.0
	4	258312	0.45	0.21	0.21	-0.08	-0.17	0.0
	5	258173	0.56	0.10	0.10	0.10	-0.21	0.0
	6	258115	0.50	0.19	0.19	-0.04	-0.20	0.0
	7	258223	0.31	-0.08	-0.03	-0.08	0.10	0.0
	8	258230	0.56	0.19	0.19	-0.15	-0.06	1.0
	9	258147	0.49	0.26	0.26	-0.12	-0.20	0.0
	10	261560	0.74	0.36	-0.15	0.36	-0.35	0.0
	11	258227	0.61	0.39	0.39	-0.20	-0.20	1.0
	12	258308	0.50	0.34	0.34	-0.27	-0.12	1.0
	13	258101	0.43	0.24	-0.19	0.24	-0.01	1.0
	14	258210	0.78	0.48	-0.37	0.48	-0.13	1.0
	15	258116	0.49	0.23	0.23	-0.11	-0.10	1.0
	16	258089	0.28	0.31	-0.04	0.31	-0.19	1.0
	17	261556	0.44	0.23	0.23	-0.18	-0.01	1.0
	18	258309	0.88	0.34	-0.14	-0.20	0.34	1.0
	19	258098	0.61	0.50	-0.23	-0.31	0.50	1.0
	20	258208	0.40	-0.03	-0.02	0.14	-0.03	1.0
	21	258161	0.57	0.38	0.38	-0.30	-0.06	1.0
	22	258159	0.37	0.28	0.00	-0.24	0.28	1.0
	23	258184	0.46	0.10	0.05	0.10	-0.07	1.0
	24	258136	0.46	0.40	-0.17	0.40	-0.21	1.0
	25	258102	0.53	0.25	-0.08	0.25	-0.13	1.0
	26	258226	0.36	0.24	-0.20	0.02	0.24	1.0
	27	258188	0.65	0.38	-0.16	0.38	-0.24	1.0
	28	258174	0.45	0.32	-0.16	-0.14	0.32	1.0
	30	258154	0.42	0.40	-0.24	-0.11	0.40	1.0
	31	258113	0.55	0.39	-0.19	0.39	-0.19	1.0
	32	258198	0.41	0.26	-0.17	-0.04	0.26	1.0
	33	258120	0.46	0.37	-0.33	0.00	0.37	1.0
	34	258169	0.43	0.10	0.08	-0.09	0.10	1.0
	35	258119	0.43	0.07	0.07	0.13	-0.17	1.0
	36	258160	0.44	0.27	0.27	-0.06	-0.16	1.0
	37	258241	0.62	0.42	-0.26	0.42	-0.18	1.0
	38	258130	0.56	0.14	0.14	-0.01	-0.09	1.0
	39	258131	0.24	0.01	0.01	0.03	0.03	1.0
	40	258128	0.57	0.51	-0.23	0.51	-0.31	1.0
	41	258509	0.40	0.43	0.43	-0.20	-0.16	2.0
	42	258231	0.61	0.35	-0.24	-0.12	0.35	1.0
	43	258111	0.65	0.41	-0.20	0.41	-0.28	2.0
	44	258096	0.27	0.06	0.06	0.13	-0.15	2.0

Table 2.A18 Item Statistics: MD Mod-HSA 2011 Algebra—Summer Primary 2

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
611	45	258125	0.36	0.19	-0.19	0.19	0.01	2.0
	46	258144	0.42	0.19	0.19	0.09	-0.26	2.0
	47	261558	0.43	0.35	-0.12	0.35	-0.23	2.0
	48	261562	0.43	0.21	0.21	0.00	-0.18	2.0
	49	258220	0.33	0.19	-0.08	-0.07	0.19	2.0
	50	258135	0.47	0.12	0.01	0.12	-0.11	2.0
Mean			0.50	0.26	-0.01	0.05	-0.03	1.0
SD			0.14	0.14	0.21	0.22	0.22	0.6

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A19 Item Statistics: MD Mod-HSA 2011 Biology—Summer Primary 1

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
511	1	258627	0.76	0.29	-0.33	0.29	-0.01	0.0
	2	258733	0.47	0.11	0.11	0.04	-0.21	1.0
	3	258684	0.44	-0.04	-0.07	0.11	-0.04	0.0
	4	258644	0.35	0.30	0.30	-0.14	-0.17	0.0
	5	258634	0.42	0.40	-0.26	0.40	-0.17	0.0
	6	261644	0.78	0.30	0.30	-0.28	-0.11	0.0
	7	261645	0.28	0.25	-0.04	-0.20	0.25	0.0
	8	258619	0.34	0.27	0.27	0.00	-0.26	0.0
	9	258700	0.51	0.31	-0.13	-0.24	0.31	0.0
	10	258618	0.25	0.12	-0.04	-0.07	0.12	0.0
	11	261627	0.64	0.17	0.03	0.17	-0.23	0.0
	12	258639	0.31	-0.06	-0.06	0.02	0.03	0.0
	13	258732	0.52	0.13	0.13	-0.09	-0.06	0.0
	14	258727	0.47	0.27	-0.22	0.27	-0.04	1.0
	15	258622	0.53	0.22	0.22	-0.08	-0.10	1.0
	16	258695	0.45	0.34	-0.10	0.34	-0.15	2.1
	17	258631	0.78	0.57	0.57	-0.41	-0.16	2.1
	18	258699	0.25	0.13	-0.08	0.13	0.12	3.1
	19	261607	0.61	0.27	-0.15	0.27	-0.06	3.1
	20	261624	0.41	0.46	-0.25	-0.09	0.46	3.1
	21	258612	0.70	0.41	-0.22	0.41	-0.17	2.1
	22	261610	0.46	0.44	-0.09	-0.27	0.44	2.1
	23	258714	0.32	0.37	0.37	0.02	-0.26	3.1
	24	258725	0.61	0.28	-0.12	0.28	-0.10	2.1
	25	258664	0.68	0.48	-0.31	0.48	-0.22	3.1
	26	258638	0.32	0.18	0.06	-0.14	0.18	2.1
	27	258650	0.45	0.31	0.08	-0.28	0.31	2.1
	28	261614	0.63	0.43	0.43	-0.30	-0.11	2.1
	29	261622	0.67	0.36	-0.18	0.36	-0.14	2.1
	30	258705	0.28	0.14	-0.11	0.08	0.14	2.1
	31	258678	0.58	0.41	-0.12	0.41	-0.23	2.1
	32	261642	0.47	0.24	0.24	-0.20	0.09	2.1
	33	258654	0.58	0.36	-0.24	-0.08	0.36	2.1
	34	258670	0.30	0.02	0.23	-0.15	0.02	2.1
	35	258660	0.46	0.15	-0.03	-0.03	0.15	3.1
	36	258637	0.50	0.22	-0.02	0.22	-0.11	2.1
	37	258640	0.50	0.23	-0.05	0.23	-0.09	2.1
	38	258674	0.41	0.22	-0.01	-0.11	0.22	2.1
	39	258697	0.43	0.20	0.20	-0.06	-0.09	1.1
	40	258616	0.27	0.06	-0.07	0.06	0.10	1.1
	41	258630	0.28	0.21	-0.15	0.07	0.21	2.1
	42	261617	0.27	0.29	0.29	-0.09	-0.08	2.1
	43	258726	0.41	0.19	0.19	0.06	-0.13	3.1

Table 2.A19 Item Statistics: MD Mod-HSA 2011 Biology—Summer Primary 1

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
511	44	258730	0.52	0.18	0.18	-0.12	0.06	3.1
	45	258657	0.20	-0.06	-0.01	0.17	-0.06	2.1
	46	258651	0.48	0.30	0.30	-0.18	-0.03	2.1
	47	258712	0.39	0.35	-0.23	-0.04	0.35	2.1
	48	258731	0.31	0.32	-0.23	0.03	0.32	2.1
	49	261608	0.56	0.47	-0.19	-0.24	0.47	2.1
	50	258693	0.46	0.20	0.20	0.00	-0.11	2.1
Mean			0.46	0.26	0.01	0.02	0.02	1.7
SD			0.15	0.14	0.21	0.22	0.20	1.1

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A20 Item Statistics: MD Mod-HSA 2011 Biology—Summer Primary 2

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
611	1	258636	0.56	0.31	-0.17	0.31	-0.24	1.3
	2	258653	0.41	0.30	0.30	-0.11	-0.23	0.0
	3	258690	0.46	0.34	0.09	-0.43	0.34	0.0
	4	258702	0.55	0.40	-0.29	0.40	-0.19	0.0
	5	258662	0.29	0.19	0.01	-0.19	0.19	0.0
	6	258659	0.29	0.22	0.22	-0.22	0.01	0.0
	7	258673	0.67	0.44	-0.18	-0.37	0.44	0.0
	8	258701	0.51	0.08	-0.27	0.08	0.13	0.0
	9	258628	0.64	0.24	0.24	-0.28	-0.04	1.3
	10	258685	0.38	0.32	0.32	-0.18	-0.19	0.0
	11	261611	0.24	0.23	-0.16	-0.04	0.23	0.0
	12	258615	0.47	0.12	-0.22	0.12	0.06	0.0
	13	258683	0.76	0.27	-0.20	0.27	-0.15	0.0
	14	258641	0.55	0.15	-0.01	0.15	-0.16	0.0
	15	258676	0.45	0.02	0.02	0.02	-0.05	0.0
	16	258607	0.68	0.27	-0.04	0.27	-0.26	0.0
	17	258645	0.53	0.31	-0.16	-0.20	0.31	0.0
	18	258666	0.69	0.19	-0.20	0.19	0.01	0.0
	19	258675	0.45	0.05	-0.03	0.05	-0.02	0.0
	20	261609	0.60	0.35	-0.22	-0.22	0.35	0.0
	21	258665	0.29	0.35	0.35	-0.14	-0.22	0.0
	22	258682	0.56	0.20	-0.01	0.20	-0.19	1.3
	23	258648	0.46	0.26	-0.13	0.26	-0.14	1.3
	24	258614	0.31	0.15	-0.10	-0.01	0.15	1.3
	25	258680	0.37	0.13	0.02	-0.15	0.13	0.0
	26	258681	0.38	-0.04	-0.03	0.06	-0.04	0.0
	27	258642	0.55	0.29	0.02	0.29	-0.32	0.0
	28	261623	0.60	0.39	-0.22	-0.31	0.39	0.0
	29	258649	0.24	0.30	0.30	-0.33	0.03	0.0
	30	258687	0.37	0.22	-0.25	0.22	0.00	0.0
	31	258646	0.32	0.43	0.43	-0.21	-0.22	0.0
	32	261626	0.62	0.36	-0.17	-0.28	0.36	0.0
	33	258707	0.58	0.16	0.16	-0.16	-0.04	0.0
	34	258643	0.51	0.27	0.27	-0.08	-0.28	0.0
	35	258698	0.33	0.10	-0.20	0.08	0.10	0.0
	36	258728	0.26	0.17	0.00	-0.16	0.17	0.0
	37	258734	0.51	0.41	-0.28	-0.20	0.41	0.0
	38	258735	0.50	0.08	-0.07	0.08	-0.03	0.0
	39	258704	0.45	0.34	-0.19	0.34	-0.17	1.3
	40	258624	0.56	0.41	0.41	-0.14	-0.36	0.0
	43	258617	0.40	0.26	0.26	-0.23	-0.06	0.0
	44	258688	0.42	0.09	-0.10	0.00	0.09	0.0
	45	258669	0.71	0.13	0.01	-0.20	0.13	0.0

Table 2.A20 Item Statistics: MD Mod-HSA 2011 Biology—Summer Primary 2

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
611	46	261621	0.81	0.23	0.23	-0.35	0.02	0.0
	47	258703	0.62	0.23	-0.22	0.23	-0.05	0.0
	48	258692	0.50	0.24	-0.11	-0.17	0.24	0.0
	49	258635	0.53	0.39	-0.14	-0.31	0.39	0.0
	50	261616	0.51	0.26	-0.18	-0.13	0.26	0.0
Mean			0.49	0.24	-0.02	-0.05	0.03	0.2
SD			0.14	0.11	0.21	0.22	0.22	0.4

* Statistics not reported for sample size less than 50 (N < 50).
Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A21 Item Statistics: MD Mod-HSA 2011 English—Summer Primary 1

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
511	1	259343	0.59	0.41	-0.11	-0.40	0.41	0.0
	2	259415	0.56	0.24	0.24	-0.10	-0.18	0.9
	3	259417	0.48	0.17	0.17	-0.08	-0.13	0.0
	4	259416	0.65	0.42	-0.17	0.42	-0.27	0.9
	5	259323	0.41	0.27	0.27	-0.13	-0.08	1.9
	6	259453	0.42	0.09	0.14	-0.22	0.09	0.9
	7	259382	0.53	0.25	-0.29	0.25	0.09	1.9
	8	259452	0.32	0.19	-0.05	0.19	-0.07	0.9
	9	259465	0.37	0.24	0.24	-0.15	-0.04	0.9
	10	259351	0.42	0.28	-0.17	0.28	-0.07	0.9
	11	259430	0.64	0.29	-0.14	0.29	-0.12	1.9
	12	259431	0.69	0.35	0.35	-0.13	-0.23	0.9
	13	259318	0.53	0.53	0.53	-0.34	-0.21	1.9
	14	259319	0.33	0.14	0.02	-0.08	0.14	1.9
	15	259320	0.66	0.43	-0.36	0.43	-0.13	0.9
	16	259419	0.60	0.24	-0.14	0.24	-0.07	0.9
	17	259421	0.49	0.19	0.19	-0.07	-0.08	0.9
	18	259463	0.37	0.17	0.17	-0.15	0.03	1.9
	19	259345	0.54	0.21	0.00	-0.17	0.21	0.9
	20	259325	0.54	0.47	-0.25	0.47	-0.23	0.9
	21	259385	0.51	0.28	-0.22	-0.05	0.28	0.9
	22	259390	0.54	0.33	-0.13	-0.18	0.33	0.9
	23	259383	0.50	0.09	0.10	0.09	-0.16	0.9
	24	259386	0.41	0.31	-0.26	0.00	0.31	0.9
	25	259388	0.49	0.32	0.32	-0.07	-0.21	1.9
	26	259389	0.35	0.15	-0.06	0.15	-0.01	1.9
	27	259438	0.40	0.26	-0.06	0.26	-0.14	1.9
	28	259439	0.57	0.26	-0.14	0.26	-0.07	1.9
	29	259437	0.46	0.31	0.31	-0.15	-0.15	1.1
	30	259332	0.51	0.37	-0.22	0.37	-0.15	0.9
	31	259403	0.33	0.26	-0.13	-0.06	0.26	0.9
	32	259401	0.35	0.27	0.27	-0.15	-0.05	0.9
	33	259402	0.42	0.44	-0.25	-0.16	0.44	0.9
	34	259399	0.73	0.53	-0.30	-0.30	0.53	0.9
	35	259400	0.50	0.44	-0.20	-0.28	0.44	0.9
	36	259404	0.58	0.23	0.23	-0.17	-0.03	0.9
	37	259461	0.73	0.43	-0.20	-0.27	0.43	0.9
	38	259446	0.55	0.36	-0.10	-0.27	0.36	0.9
	39	259447	0.45	0.36	-0.18	0.36	-0.17	0.9
	40	259448	0.58	0.17	-0.03	-0.11	0.17	0.9
	41	259358	0.43	0.22	-0.09	-0.09	0.22	0.9
	42	259434	0.44	0.23	-0.08	0.23	-0.23	0.9
	43	259391	0.54	0.23	-0.17	0.23	-0.03	0.9

Table 2.A21 Item Statistics: MD Mod-HSA 2011 English—Summer Primary 1

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
511	44	259454	0.31	0.23	0.23	-0.10	-0.05	0.9
	45	259455	0.52	0.24	-0.09	-0.13	0.24	0.9
	46	259392	0.39	0.40	-0.19	-0.14	0.40	1.9
	47	259394	0.67	0.53	0.53	-0.29	-0.28	1.9
	48	259393	0.51	0.41	0.41	-0.24	-0.13	1.9
	49	259444	0.71	0.38	-0.20	0.38	-0.16	1.9
	50	259356	0.51	0.27	-0.11	-0.10	0.27	1.9
Mean			0.50	0.30	-0.01	-0.01	0.03	1.2
SD			0.11	0.11	0.23	0.23	0.23	0.5

Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.

Table 2.A22 Item Statistics: MD Mod-HSA 2011 English—Summer Primary 2

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
611	1	259429	0.46	0.40	0.40	-0.40	-0.06	0.0
	2	259426	0.56	0.08	0.08	0.06	-0.15	0.0
	3	259349	0.64	0.30	-0.07	0.30	-0.31	0.0
	4	259427	0.39	0.21	0.09	0.21	-0.31	0.0
	5	259312	0.61	0.51	0.51	-0.38	-0.25	0.0
	6	259368	0.39	0.05	0.05	-0.17	0.10	0.0
	7	259371	0.76	0.35	-0.17	-0.28	0.35	0.0
	8	259367	0.68	0.27	-0.37	0.27	-0.04	0.0
	9	259370	0.51	0.23	-0.30	0.23	-0.04	0.0
	10	259432	0.75	0.43	0.43	-0.19	-0.37	0.0
	11	259433	0.57	0.12	0.12	-0.02	-0.14	0.0
	12	259354	0.38	0.27	-0.10	-0.18	0.27	0.0
	13	259407	0.18	-0.04	-0.29	-0.04	0.31	0.0
	14	259335	0.35	0.29	-0.21	-0.15	0.29	0.0
	15	259410	0.75	0.33	-0.29	0.33	-0.14	0.0
	16	259413	0.54	0.23	-0.16	0.23	-0.15	0.0
	17	259411	0.44	0.23	-0.25	-0.07	0.23	0.0
	18	259414	0.35	0.34	-0.23	-0.13	0.34	0.0
	19	259338	0.35	0.23	0.23	0.08	-0.35	0.0
	20	259339	0.64	0.17	-0.09	0.17	-0.15	0.0
	21	259340	0.75	0.58	-0.37	-0.39	0.58	0.0
	22	259362	0.67	0.33	0.33	-0.19	-0.24	0.0
	23	259436	0.43	0.26	0.26	-0.21	-0.03	1.4
	24	259347	0.47	0.45	0.45	-0.45	-0.09	0.0
	25	259424	0.54	0.26	-0.13	-0.19	0.26	0.0
	26	259423	0.47	0.16	-0.10	-0.09	0.16	0.0
	27	259425	0.49	0.11	0.10	0.11	-0.23	0.0
	28	259422	0.39	0.06	0.00	0.06	-0.07	0.0
	29	259445	0.65	0.23	-0.23	0.23	-0.06	0.0
	30	259374	0.43	0.20	-0.06	-0.21	0.20	0.0
	31	259450	0.42	0.20	0.00	-0.20	0.20	0.0
	32	259376	0.58	0.44	-0.17	-0.43	0.44	0.0
	33	259310	0.65	0.49	-0.20	0.49	-0.41	0.0
	34	259365	0.56	0.27	-0.12	0.27	-0.22	0.0
	35	259449	0.53	0.32	0.32	-0.10	-0.32	0.0
	36	259441	0.32	0.29	0.29	-0.21	-0.09	0.0
	37	259443	0.46	0.02	-0.07	0.02	0.04	0.0
	39	259457	0.44	0.20	0.20	-0.16	-0.07	0.0
	40	259330	0.81	0.45	-0.18	0.45	-0.42	0.0
	41	259458	0.28	0.22	0.22	-0.27	0.07	0.0
	42	259466	0.67	0.43	-0.43	-0.17	0.43	0.0
	43	259395	0.43	0.25	-0.18	0.25	-0.09	0.0
	44	259459	0.42	0.42	-0.15	-0.32	0.42	0.0

Table 2.A22 Item Statistics: MD Mod-HSA 2011 English—Summer Primary 2

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
611	45	259396	0.31	0.28	-0.05	-0.22	0.28	0.0
	46	259460	0.63	0.40	0.40	-0.37	-0.12	0.0
	47	259398	0.53	0.23	-0.17	0.23	-0.11	0.0
	48	259397	0.43	0.34	-0.22	-0.16	0.34	0.0
	49	259360	0.54	0.33	0.33	-0.35	-0.03	0.0
	50	259435	0.19	0.16	-0.08	-0.05	0.16	1.4
Mean			0.51	0.27	-0.01	-0.06	0.01	0.1
SD			0.15	0.13	0.25	0.25	0.26	0.3

* Statistics not reported for sample size less than 50 (N < 50).
Note: P_Val = P-Value, R_ITT = item-total correlation, P_BIS1 to P_BIS3 = option-total correlation, %Omits = percent of omitted responses.