



Maryland High School Assessments

Maryland High School Assessment and
Modified High School Assessment
2014 Technical Report

Algebra/Data Analysis
Biology
English
Government

Educational Testing Service
January 2015

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, 2014).

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CHAPTER I: HIGH SCHOOL ASSESSMENTS

Section 1. Introduction

The current Maryland High School Assessments (MD HSAs) consist of end-of-course tests in Algebra/Data Analysis, Biology, English, and Government. Prior to the Summer 2011 administration, the HSAs included a test in Government. From Summer 2011 to October 2012, the Government test was excluded from the MD HSAs. Starting in January 2013, the Government test was re-introduced into the MD HSAs. 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 2014 school year.

With the reinstatement of Government tests in January 2013, students entering 9th grade in the 2012-2013 school year or in a prior year (including students who entered 9th grade in 2011-2012, 2010-2011, or 2009-2010) have the option of earning a combined score of 1602 on all four MD HSAs or a combined score of 1208 on three MD HSAs (excluding Government) to be granted a Maryland High School Diploma.¹ Students entering 9th grade in 2013-14 and beyond will be required to pass all four HSAs, including Government, or obtain a combined score of 1602 to fulfill the graduation requirement.

All MD HSAs comprise 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. Starting in January 2014, Government tests include brief constructed-response (BCR) items which require students to write a short response. 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 and the BCR items are scored by raters. Since May 2009, the MD HSAs have been 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). Further mode comparability studies have not been conducted.

This report provides information about the October 2013 administration and the January, April, May, and Summer 2014 administrations. For the October 2013 administration, one form was administered. For the January 2014 administration, three forms were administered: two forms for the primary administration, and one form for the makeup administration. For the April 2014

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>.

administration, one form was administered. For the May 2014 administration, seven test forms were administered: five for the primary testing window (each has the same core set with different field test sets) and two for each of two makeup testing windows. For the Summer 2014 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 test takers' 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 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 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] (2014).

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 2014 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, three item types were included on the 2014 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;
- Brief constructed response (BCR)—an item type used in Government only, for which the students need to write a short response.

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, and each BCR is worth 4 points.

Table 2.1 Number of Operational Items by Item Type for Each MD HSA 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 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 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 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 Government Blueprint

	Number of Items	Total Points per Category
Expectation 1.1 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 English, 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 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 793 items were taken to the 2013 summer meetings for all content areas. Of these items 19 (2%) were rejected by the Content and Bias/Sensitivity Review Committee, while 372 (46.9 %) items were accepted with edits. In total the two committees accepted 774 items of the 793 items that were reviewed.

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 test takers, 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 2014 test forms were constructed using items from the Maryland item bank. The pool of items available for use in the construction of the 2014 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 II. Items flagged for poor fit were excluded from the item pool. Items flagged for substantial differential item functioning (DIF) against one of the focal groups are marked as such in the item bank and they are not used unless required to fulfill content specifications, and then, only after review and approval by MSDE. (See Section 7 for a more detailed account of these analyses and flagging criteria.)

Each test form was constructed to meet specific test blueprint specifications. Tables 2.2 through 2.5 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 2013 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 2014 Administration

Primary Week Form A	Primary Week Form B	Makeup 1 Form C
Common set—60% Unique items—40%	Same as Form A Same as Form A	Common set—60% 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 2014 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 2014 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% Unique items—20%	Half of items from primary week’s 40% 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 2014 Administration

Primary Week 1 Form P	Primary Week 2 Form Q
Common Set—60%	Common Set—60%
Unique items—40%	Unique items—40%
Field Test Section—Reuse of prior administration field test set	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, as shown in Table 2.11.

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

Content Area	OP Items	FT Items	% FT Items
Algebra	53	16	23%
Biology	76	23	23%
English	60	38	39%
Government	82	25	23%

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 statistical characteristics: p -values less than 0.10; item-total correlations of less than 0.15; very high omit rates (5% or more); 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 brief constructed response (BCR) items. Between summer 2009 and October 2013, BCR items were discontinued on the MD government HSAs and 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)*, (Educational Testing Service, 2009) for details on how new target TCCs were created.) However, starting in January 2014, BCR items were re-introduced to Government HSAs so the government target TCCs have been revised back to include BCR items in the calculation of TCCs and CSEMs.

The following general steps were completed during the test construction process:

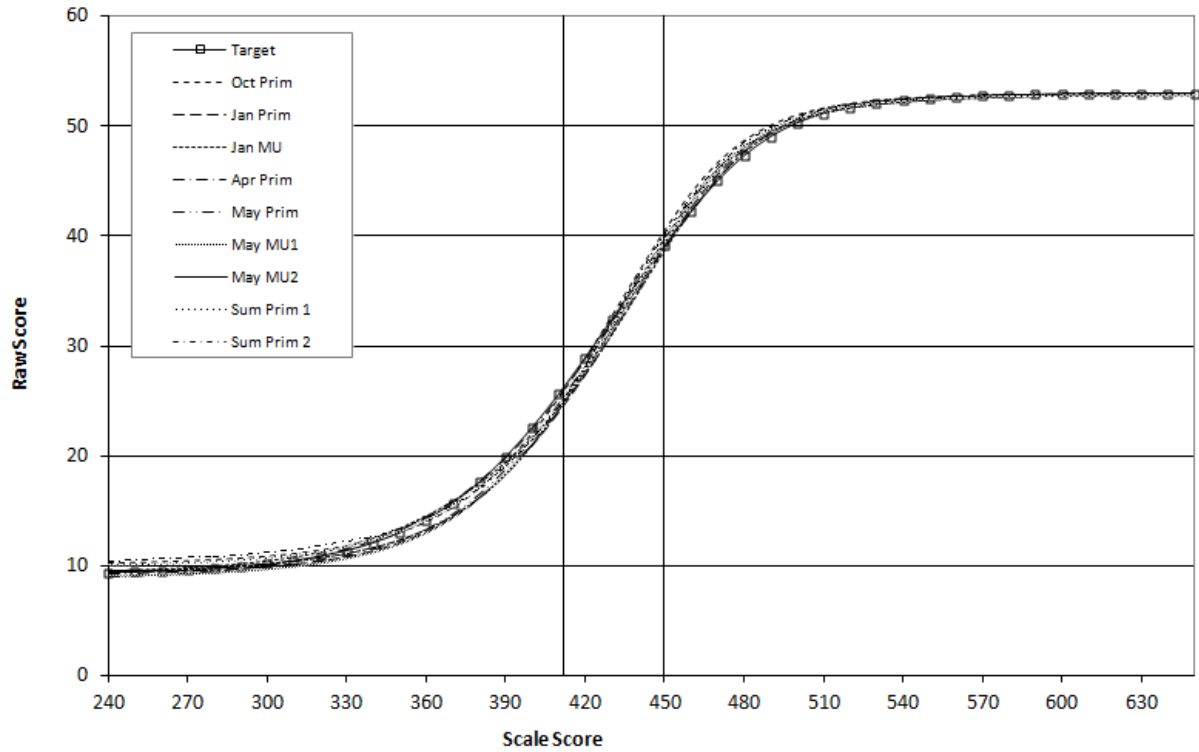
1. For each administration, all forms were constructed simultaneously in order to provide the best opportunity to construct parallel forms.
2. Items that matched the test blueprint were selected to match the target TCCs and CSEMs.

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 clueing³ or clanging.⁴
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 as well as SPR items for Algebra and BCR items for Government. 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 30-35 minutes. For English, the field test sets were estimated to be able to be completed by students in approximately 60 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 preequated 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. 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.)

³ 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.

⁴ Clanging occurs when an identical or similar 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.



Note: Maximum possible raw score is 53.

Figure 2.1 Test Characteristic Curves for the MD HSA 2014 Algebra Forms

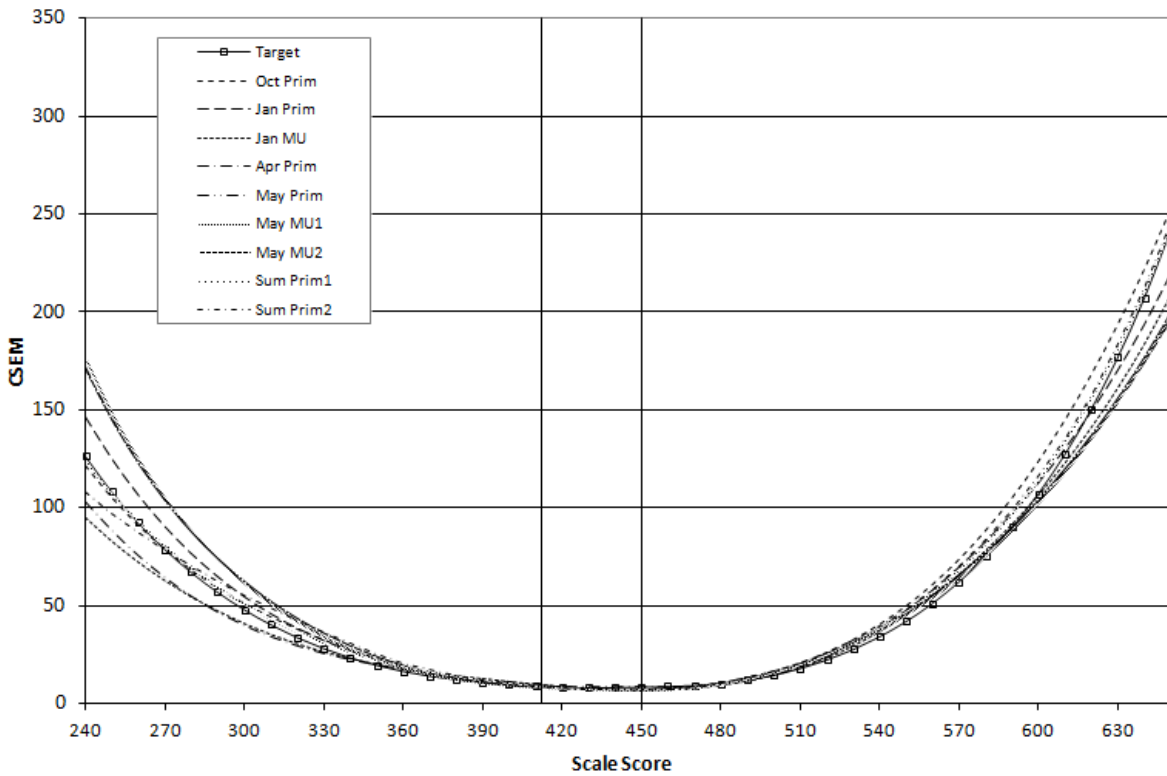
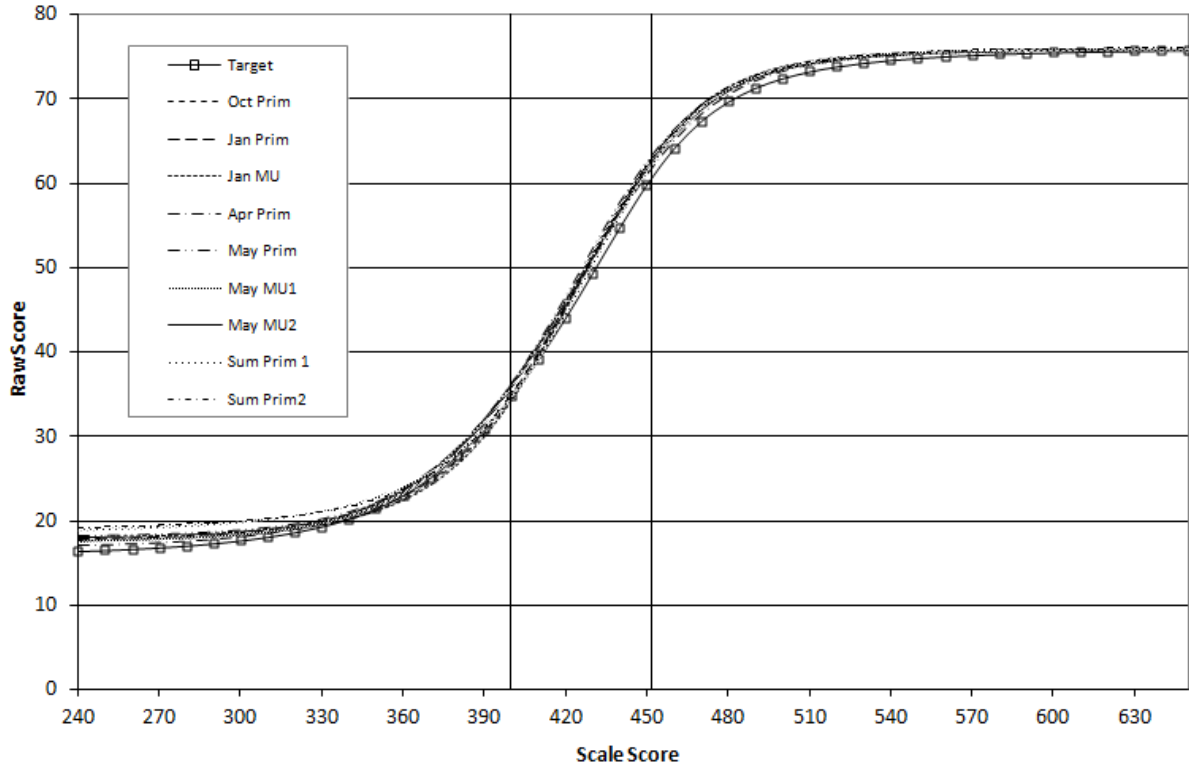


Figure 2.2 Conditional Standard Error of Measurement for the MD HSA 2014 Algebra Forms



Note: Maximum possible raw score is 76.

Figure 2.3 Test Characteristic Curves for the MD HSA 2014 Biology Forms

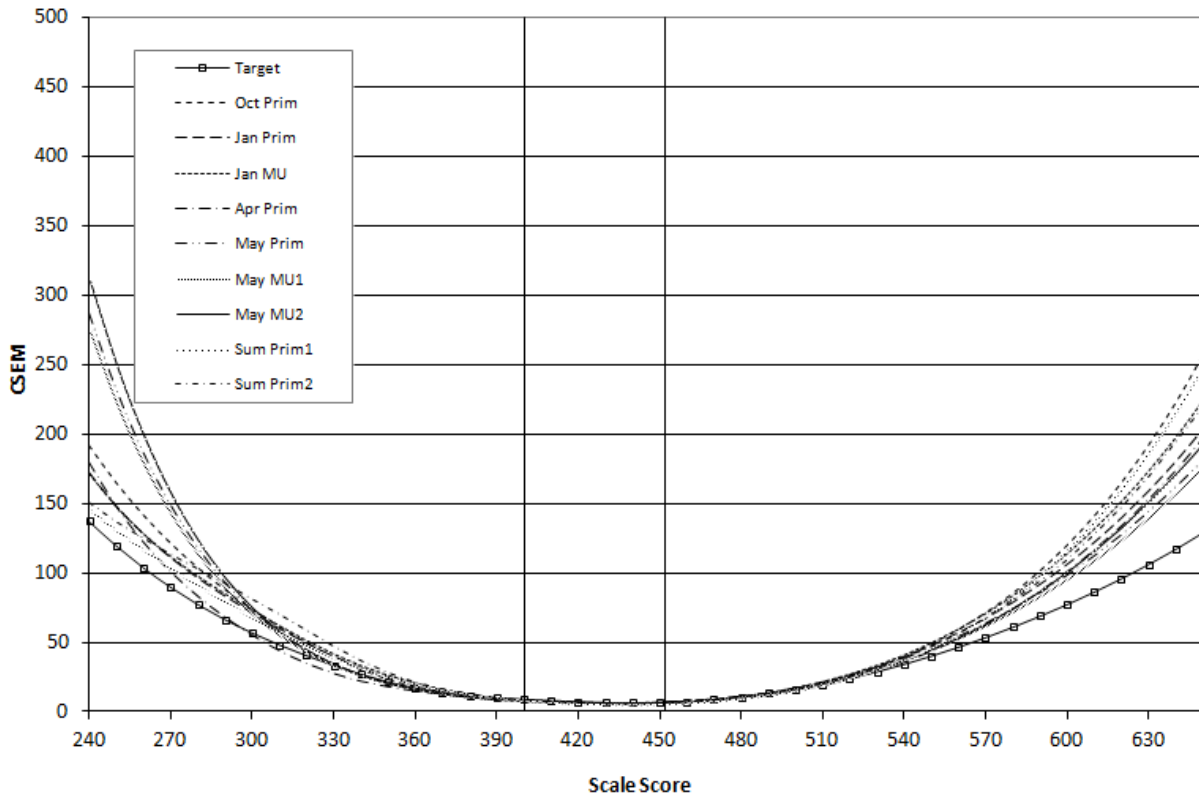
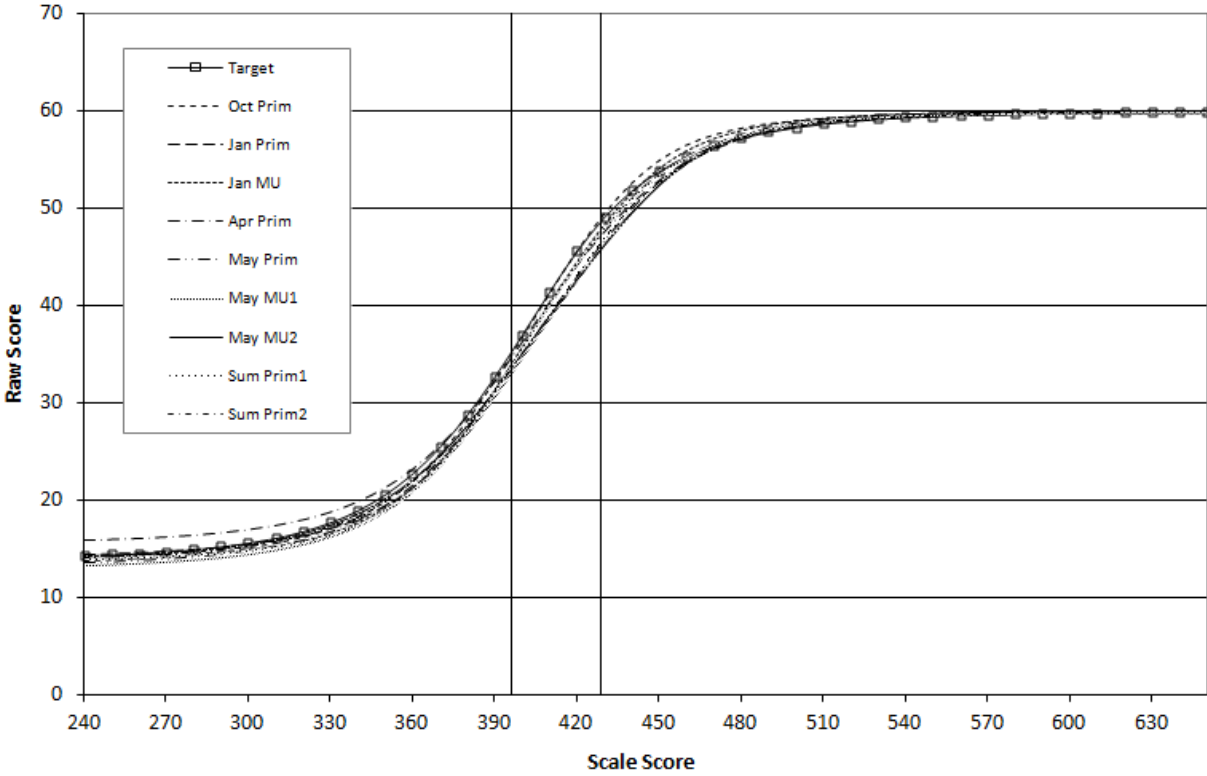


Figure 2.4 Conditional Standard Error Measurement for the MD HSA 2014 Biology Form



Note: Maximum possible raw score is 60.

Figure 2.5 Test Characteristic Curves for the MD HSA 2014 English Forms

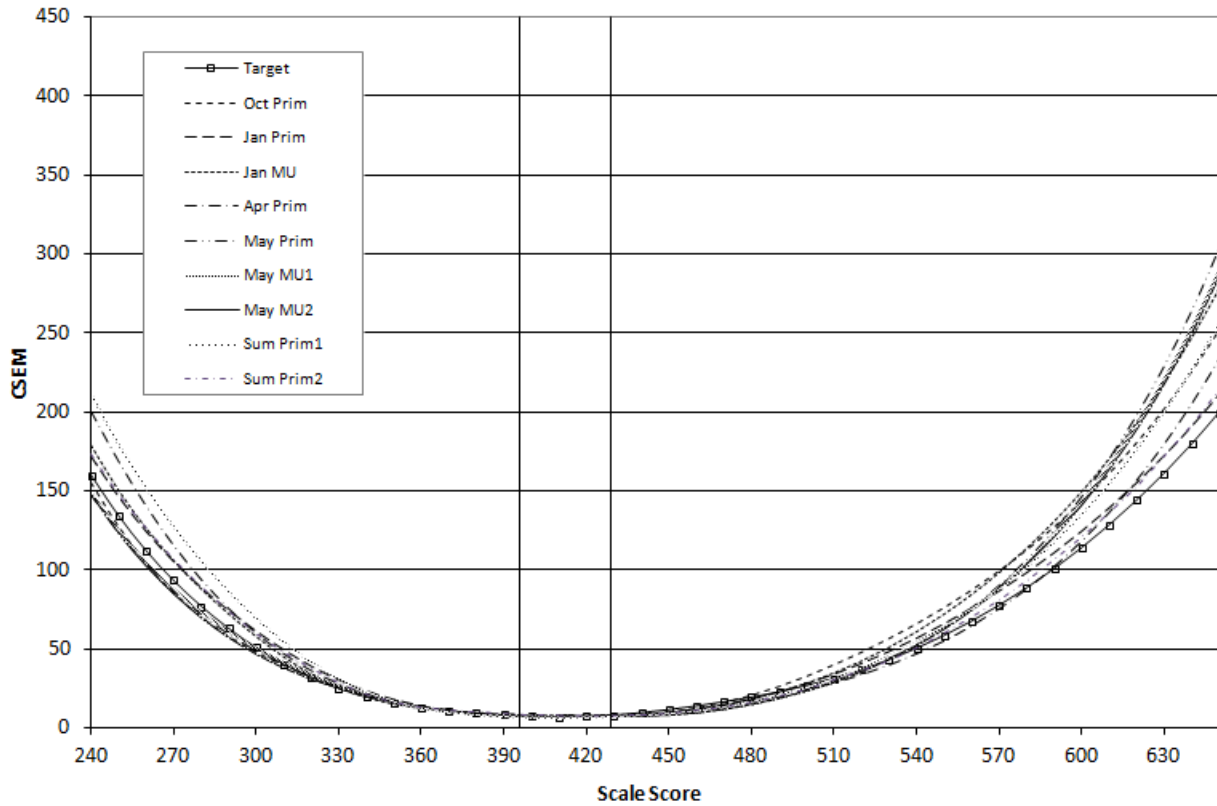
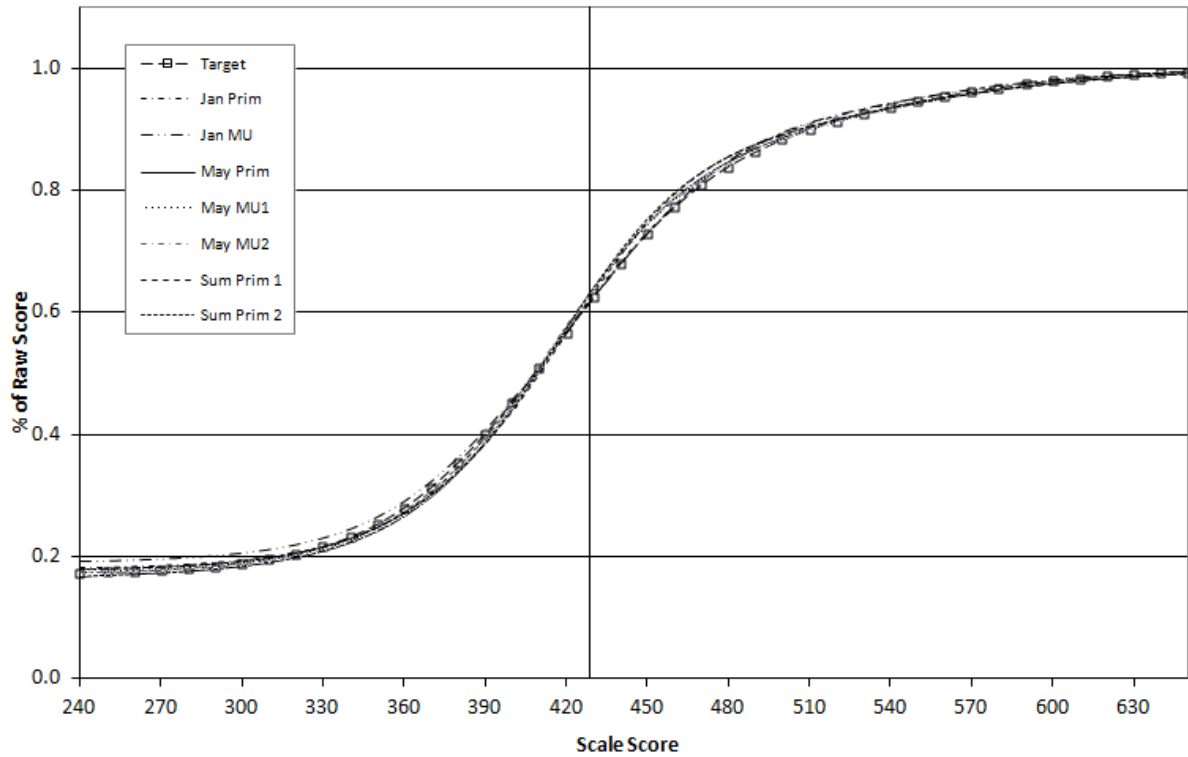


Figure 2.6 Conditional Standard Error of Measurement for the MD HSA 2014 English Forms



Note: Maximum possible raw score is 82.

Figure 2.7 Test Characteristic Curves for the MD HSA 2014 Government Forms

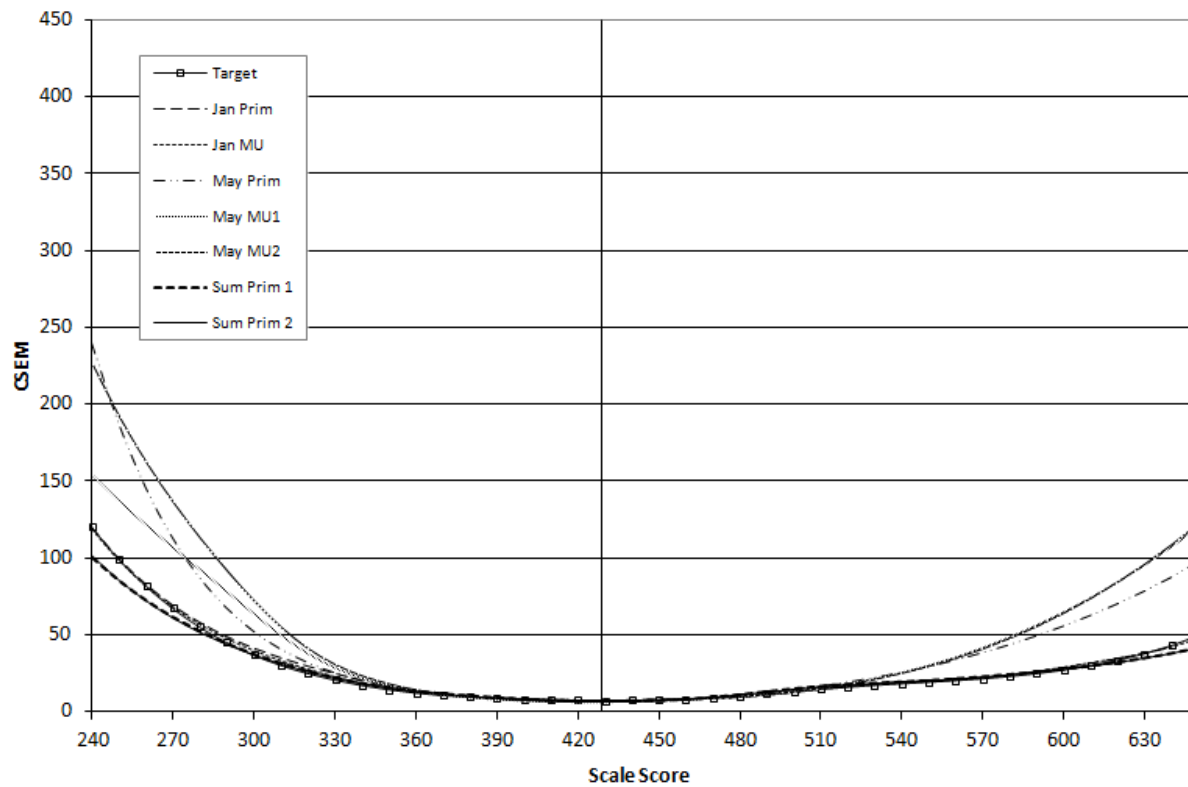


Figure 2.8 Conditional Standard Error of Measurement for the MD HSA 2014 Government Forms

Test Administration

For all MD HSA tests administered in 2014, 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 testing window. In April, only one form was administered. In May, the five primary and two makeup forms were spiraled over the three-week testing window. In the Summer administration, the two primary forms were spiraled over the two-week testing window. 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, 2014; 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, 2014, p. 14). 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 score interpretation is based (AERA, APA & NCME, 2014, p. 16). 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 6.6 through 6.23.

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 Content Area – Algebra & Biology

	Algebra					Biology						
	SS	1	2	3	4	SS	1	2	3	4	5	6
Overall SS	1					1						
Subscore 1	.77	1				.79	1					
Subscore 2	.83	.62	1			.72	.54	1				
Subscore 3	.79	.58	.61	1		.73	.54	.57	1			
Subscore 4	.73	.56	.59	.55	1	.74	.56	.54	.55	1		
Subscore 5	-	-	-	-	-	.72	.55	.54	.53	.54	1	
Subscore 6	-	-	-	-	-	.72	.54	.52	.52	.52	.52	1

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

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

	English					Government					
	SS	1	2	3	4	SS	1	2	3	4	5
Overall SS	1					1					
Subscore 1	.80	1				0.90	1				
Subscore 2	.74	.59	1			0.84	0.73	1			
Subscore 3	.71	.52	.50	1		0.81	0.70	0.67	1		
Subscore 4	.71	.51	.49	.50	1	0.81	0.68	0.63	0.63	1	
Subscore 5	-	-	-	-	-	0.79	0.69	0.66	0.63	0.60	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 to estimate item parameters and student scores. 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 be used to 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 provide evidence as to whether the unidimensional model-based IRT used to calibrate the MD HSA items is appropriate.

Confirmatory Factor Analyses of the May 2014 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 2014 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 five 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-squares 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 Confirmatory Factor Analyses Fit Statistics

Content	Admin	Forms	# of Factors	# of Items	n	df	χ^2 *	TLI	CFI	RMSEA
Algebra	May	D-H	1	53	60,256	1,325	41,802	0.97	0.98	0.023
Biology	May	D-H	1	76	51,281	2,774	44,720	0.98	0.98	0.017
English	May	D-H	1	60	49,387	1,710	47,360	0.96	0.96	0.023
Government	May	D-H	1	67	39,240	2,144	36,973	0.98	0.98	0.020

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 Operational Items Flagged for High Omit Rate

Content	October		January		April		May		Summer	
	SR	SPR	SR	SPR	SR	SPR	SR	SPR	SR	SPR
Algebra	0	0	0	2	0	1	0	2	0	3
Biology	0	--	0	--	0	--	0	--	0	--
English	0	--	0	--	0	--	0	--	0	--
Government	--	--	0	--	--	--	0	--	--	--

The percentage of students who respond to the last items in a test can also 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 percentages 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 2 percent to 7 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 scoring procedures. There are essentially two ways of scoring a test: number-correct (NC) or item-pattern (IP) scoring. NC scoring considers how many test items a student answered correctly in determining that student's total raw score. In contrast, the IP scoring method is based on an IRT model. IP scoring takes into account not only a student's total raw score, but also *which* test items the student answered correctly, as well as the psychometric characteristics of these items.

Test items are not equal in their characteristics. For example, some items are better at discriminating between students that know the tested content and those who do not; some items are more difficult; and low-ability students are more likely to guess correctly on some test items than on others.

Two students with exactly the same total raw score will get the same test score in NC scoring. It is very possible; however, that even though they have the same total raw score, the actual items they answered correctly were different, and their different sets of correctly answered items could have different item characteristics. In such a case, the students will very likely get different reported test scores in IP scoring even though they have the same total raw score. With IP scoring, a student who correctly answers a number of more difficult items will get a higher score than one who answers the same number of easier items. This would be applicable to both total test scores and subscore category scores reported using IP scoring.

Item-pattern scoring has been found to produce smaller standard errors of measurement (SEM) than number-correct scoring. The smaller the SEM, the more confidence we have about the accuracy of the test results. In addition, test reliability is higher with IP scoring than with NC scoring (Yen & Candell, 1991), which means that fewer questions are needed in IP scoring than NC scoring for equivalent scoring accuracy. For these reasons, both the HSA total test scores and test subscores are reported using IP scoring.

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. CSEMs are standard errors at individual score points, defined as

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

where $\hat{\theta}$ refers to the individual score point (location on the scale), $CSEM(\hat{\theta})$ refers to the conditional standard error of measurement at the score point, and $I(\hat{\theta})$ refers to the test information function value at that score point $\hat{\theta}$. 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 2003.⁵ The English cut scores were established during the standard-setting meeting held in October 2005 and one cut score was established for Biology and one was established for Government at the same time. 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

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

With the reinstatement of Government tests in January 2013, students entering 9th grade in the 2012-2013 school year or in a prior year (including students who entered 9th grade in 2011-2012, 2010-2011, or 2009-2010) have the option of earning a combined score of 1602 on all four MD HSAs or a combined score of 1208 on three MD HSAs (excluding Government) to be granted a Maryland High School Diploma.⁶ Students entering 9th grade in 2013-14 and beyond will be required to pass all four HSAs, including Government, or obtain a combined score of 1602 to fulfill the graduation requirement.

Year-to-Year Scale Maintenance

The MD HSAs for Algebra, Biology, and Government have been preequated since 2004; English has been preequated since 2005. In the preequated 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.

⁵ 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>.

⁶ 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.

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 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 (2004, p.313). 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

This section provides 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 6.6 to 6.23. The tables show that the overall reliability of the MD HSAs administered during the January and May sessions ranged from 0.80 to 0.94 for the primary forms, and from 0.79 to 0.94 for the makeup forms. The overall reliability results for the October forms ranged from 0.73 to 0.78. The overall reliability results for the April forms ranged from 0.70 to 0.81. The overall reliability results for the Summer forms ranged from 0.79 to 0.91.

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 nonrepresentative samples of students, such as repeat test takers, the point-biserials of some items may be lower in those samples, which leads to lower reliability coefficients when calculated 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 test takers 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 test takers 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 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 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 5.18 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 0.91 across all performance levels and from 0.86 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 0.75 to 0.87 across all performance levels and from 0.81 to 0.92 for the Proficient and Above classifications in Algebra, Biology, and English. In Government (January, May, and Summer forms), decision accuracy and consistency were calculated across all performance levels; decision accuracy values ranged from 0.90 to 0.94, decision consistency values ranged from 0.87 to 0.91.

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 Algebra October 2013 Form

	Placement Scores	Advanced	Proficient	Basic	Category Total*
Decision Accuracy	450–650	.00	.00	.00	.00
	412–449	.02	.09	.05	.16
	240–411	.02	.07	.75	.83
Estimated Proportion Correctly Classified*: Total = 0.84 , Proficient & Above = 0.86					
Decision Consistency	450–650	.00	.00	.00	.00
	412–449	.03	.07	.06	.16
	240–411	.03	.10	.71	.83
Estimated Proportion Consistently Classified*: Total = 0.78 , Proficient & Above = 0.81					

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

Table 5.2 Decision Accuracy and Consistency: MD HSA Algebra January 2014 Forms

	Placement Scores	Advanced	Proficient	Basic	Category Total*
January Primary					
Decision Accuracy	450–650	.02	.00	.00	.02
	412–449	.02	.11	.05	.18
	240–411	.01	.07	.73	.81
Estimated Proportion Correctly Classified*: Total = 0.85, Proficient & Above = 0.87					
Decision Consistency	450–650	.02	.00	.00	.02
	412–449	.04	.08	.06	.18
	240–411	.02	.09	.70	.81
Estimated Proportion Consistently Classified*: Total = 0.79 ; Proficient & Above = 0.83					
January Form C					
Decision Accuracy	450–650	.01	.00	.00	.02
	412–449	.02	.09	.05	.16
	240–411	.01	.06	.76	.82
Estimated Proportion Correctly Classified*: Total = 0.86 ; Proficient & Above = 0.88					
Decision Consistency	450–650	.02	.00	.00	.02
	412–449	.03	.07	.06	.16
	240–411	.02	.09	.72	.82
Estimated Proportion Consistently Classified*: Total = 0.81, Proficient & Above = 0.84					

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

Table 5.3 Decision Accuracy and Consistency: MD HSA Algebra April 2014 Form

	Placement Scores	Advanced	Proficient	Basic	Category Total*
Decision Accuracy	450–650	.00	.00	.00	.00
	412–449	.00	.03	.03	.06
	240–411	.01	.05	.88	.93
Estimated Proportion Correctly Classified*: Total = 0.91, Proficient & Above = 0.91					
Decision Consistency	450–650	.00	.00	.00	.00
	412–449	.00	.03	.03	.06
	240–411	.02	.08	.84	.93
Estimated Proportion Consistently Classified*: Total = 0.87, Proficient & Above = 0.87					

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

Table 5.4 Decision Accuracy and Consistency: MD HSA Algebra May 2014 Forms

	Placement Scores	Advanced	Proficient	Basic	Category Total*
May Primary					
Decision Accuracy	450–650	.17	.03	.00	.20
	412–449	.05	.26	.08	.39
	240–411	.00	.01	.40	.42
Estimated Proportion Correctly Classified*: Total = 0.83 , Proficient & Above = 0.91					
Decision Consistency	450–650	.16	.04	.00	.20
	412–449	.06	.22	.10	.39
	240–411	.00	.03	.39	.42
Estimated Proportion Consistently Classified*: Total = 0.77 , Proficient & Above = 0.87					
May Form X					
Decision Accuracy	450–650	.13	.02	.00	.15
	412–449	.04	.22	.07	.34
	240–411	.00	.02	.49	.51
Estimated Proportion Correctly Classified*: Total = 0.84, Proficient & Above = 0.91					
Decision Consistency	450–650	.12	.03	.00	.15
	412–449	.06	.19	.09	.34
	240–411	.00	.04	.47	.51
Estimated Proportion Consistently Classified*: Total = 0.78, Proficient & Above = 0.87					
May Form Y					
Decision Accuracy	450–650	.14	.03	.00	.16
	412–449	.04	.24	.07	.35
	240–411	.00	.02	.46	.48
Estimated Proportion Correctly Classified*: Total = 0.84, Proficient & Above = 0.90					
Decision Consistency	450–650	.13	.03	.00	.16
	412–449	.06	.20	.09	.35
	240–411	.00	.04	.44	.48
Estimated Proportion Consistently Classified*: Total = 0.78, Proficient & Above = 0.87					

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

Table 5.5 Decision Accuracy and Consistency: MD HSA Algebra Summer 2014 Forms

	Placement Scores	Advanced	Proficient	Basic	Category Total*
Summer Form P					
	450–650	.01	.00	.00	.01
Decision	412–449	.05	.12	.08	.24
Accuracy	240–411	.00	.04	.70	.75
Estimated Proportion Correctly Classified*: Total = 0.82, Proficient & Above = 0.87					
	450–650	.01	.00	.00	.01
Decision	412–449	.06	.09	.09	.24
Consistency	240–411	.01	.07	.67	.75
Estimated Proportion Consistently Classified*: Total = 0.77, Proficient & Above = 0.83					
Summer Form Q					
	450–650	.01	.00	.00	.01
Decision	412–449	.05	.13	.08	.26
Accuracy	240–411	.01	.05	.68	.73
Estimated Proportion Correctly Classified*: Total = 0.81, Proficient & Above = 0.87					
	450–650	.01	.00	.00	.01
Decision	412–449	.07	.10	.09	.26
Consistency	240–411	.02	.08	.64	.73
Estimated Proportion Consistently Classified*: Total = 0.75, Proficient & Above = 0.82					

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

Table 5.6 Decision Accuracy and Consistency: MD HSA Biology October 2013 Form

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	452–650	.01	.00	.00	.01
Decision	400–451	.00	.13	.04	.18
Accuracy	240–399	.01	.07	.74	.82
Estimated Proportion Consistently Classified*: Total = 0.87, Proficient & Above = 0.87					
	452–650	.01	.00	.00	.01
Decision	400–451	.01	.11	.06	.18
Consistency	240–399	.01	.10	.70	.82
Estimated Proportion Consistently Classified*: Total = 0.82, Proficient & Above = 0.83					

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

Table 5.7 Decision Accuracy and Consistency: MD HSA Biology January 2014 Forms

	Placement Scores	Advanced	Proficient	Basic	Category Total*
January Primary					
	452–650	.11	.01	.00	.11
Decision	400–451	.03	.24	.04	.31
Accuracy	240–399	.00	.04	.54	.58
Estimated Proportion Correctly Classified*: Total = 0.88, Proficient & Above = 0.92					
	452–650	.10	.01	.00	.11
Decision	400–451	.04	.21	.06	.31
Consistency	240–399	.00	.05	.52	.58
Estimated Proportion Consistently Classified*: Total = 0.83, Proficient & Above = 0.89					
January Form C					
	452–650	.09	.00	.00	.09
Decision	400–451	.03	.22	.04	.29
Accuracy	240–399	.00	.04	.58	.62
Estimated Proportion Correctly Classified*: Total = 0.89, Proficient & Above = 0.92					
	452–650	.08	.01	.00	.09
Decision	400–451	.04	.19	.06	.29
Consistency	240–399	.00	.06	.56	.62
Estimated Proportion Consistently Classified*: Total = 0.84, Proficient & Above = 0.89					

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

Table 5.8 Decision Accuracy and Consistency: MD HSA Biology April 2014 Form

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	452–650	.00	.01	.00	.01
Decision	400–451	.00	.09	.02	.11
Accuracy	240–399	.01	.06	.81	.88
Estimated Proportion Correctly Classified*: Total = 0.90, Proficient & Above = 0.91					
	452–650	.01	.01	.00	.01
Decision	400–451	.00	.08	.03	.11
Consistency	240–399	.01	.09	.77	.88
Estimated Proportion Consistently Classified*: Total = 0.86, Proficient & Above = 0.86					

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

Table 5.9 Decision Accuracy and Consistency: MD HSA Biology May 2014 Forms

	Placement Scores	Advanced	Proficient	Basic	Category Total*
May Primary					
	452–650	.20	.01	.00	.22
Decision	400–451	.07	.43	.04	.54
Accuracy	240–399	.00	.02	.22	.24
Estimated Proportion Correctly Classified*: Total = 0.86, Proficient & Above = 0.94					
	452–650	.19	.03	.00	.22
Decision	400–451	.08	.40	.05	.54
Consistency	240–399	.00	.03	.21	.24
Estimated Proportion Consistently Classified*: Total = 0.80, Proficient & Above = 0.92					
May Form X					
	452–650	.16	.03	.00	.18
Decision	400–451	.07	.43	.03	.53
Accuracy	240–399	.00	.03	.26	.29
Estimated Proportion Correctly Classified*: Total = 0.85, Proficient & Above = 0.94					
	452–650	.14	.04	.00	.18
Decision	400–451	.08	.40	.04	.53
Consistency	240–399	.00	.04	.25	.29
Estimated Proportion Consistently Classified*: Total = 0.79, Proficient & Above = 0.92					
May Form Y					
	452–650	.19	.02	.00	.21
Decision	400–451	.05	.43	.04	.52
Accuracy	240–399	.00	.03	.24	.27
Estimated Proportion Correctly Classified*: Total = 0.87, Proficient & Above = 0.94					
	452–650	.18	.03	.00	.21
Decision	400–451	.07	.40	.05	.52
Consistency	240–399	.00	.04	.23	.27
Estimated Proportion Consistently Classified*: Total = 0.81, Proficient & Above = 0.92					

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

Table 5.10 Decision Accuracy and Consistency: MD HSA Biology Summer 2014 Forms

	Placement Scores	Advanced	Proficient	Basic	Category Total*
Summer Form P					
	452–650	.01	.00	.00	.01
Decision	400–451	.02	.20	.08	.30
Accuracy	240–399	.00	.06	.63	.69
Estimated Proportion Correctly Classified*: Total = 0.84, Proficient & Above = 0.86					
	452–650	.01	.00	.00	.01
Decision	400–451	.04	.17	.10	.30
Consistency	240–399	.00	.09	.60	.69
Estimated Proportion Consistently Classified*: Total = 0.78, Proficient & Above = 0.81					
Summer Form Q					
	452–650	.03	.00	.00	.03
Decision	400–451	.04	.27	.10	.41
Accuracy	240–399	.00	.02	.53	.55
Estimated Proportion Correctly Classified*: Total = 0.84, Proficient & Above = 0.88					
	452–650	.03	.00	.00	.03
Decision	400–451	.06	.24	.11	.41
Consistency	240–399	.00	.05	.51	.55
Estimated Proportion Consistently Classified*: Total = 0.78, Proficient & Above = 0.84					

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

Table 5.11 Decision Accuracy and Consistency: MD HSA English October 2013 Form

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	429–650	.01	.00	.00	.01
Decision	396–428	.01	.13	.05	.19
Accuracy	240–395	.01	.07	.72	.80
Estimated Proportion Correctly Classified*: Total = 0.85, Proficient & Above = 0.87					
	429–650	.01	.00	.00	.01
Decision	396–428	.03	.10	.06	.19
Consistency	240–395	.02	.10	.69	.80
Estimated Proportion Consistently Classified*: Total = 0.79, Proficient & Above = 0.82					

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

Table 5.12 Decision Accuracy and Consistency: MD HSA English January 2014 Forms

	Placement Scores	Advanced	Proficient	Basic	Category Total*
January Primary					
	429–650	.08	.00	.00	.08
Decision	396–428	.04	.17	.07	.28
Accuracy	240–395	.00	.04	.60	.64
Estimated Proportion Correctly Classified*: Total = 0.84, Proficient & Above = 0.89					
	429–650	.07	.01	.00	.08
Decision	396–428	.06	.14	.08	.28
Consistency	240–395	.00	.06	.58	.64
Estimated Proportion Consistently Classified*: Total = 0.79, Proficient & Above = 0.86					
January Form C					
	429–650	.05	.00	.00	.05
Decision	396–428	.03	.15	.06	.24
Accuracy	240–395	.00	.05	.65	.71
Estimated Proportion Correctly Classified*: Total = 0.86, Proficient & Above = 0.89					
	429–650	.05	.00	.00	.05
Decision	396–428	.05	.13	.07	.24
Consistency	240–395	.01	.07	.63	.71
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 English April 2014 Form

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	429–650	.00	.00	.00	.00
Decision	396–428	.02	.04	.02	.08
Accuracy	240–395	.02	.05	.84	.92
Estimated Proportion Correctly Classified*: Total = 0.88, Proficient & Above = 0.91					
	429–650	.00	.00	.00	.00
Decision	396–428	.03	.02	.03	.08
Consistency	240–395	.03	.07	.82	.92
Estimated Proportion Consistently Classified*: Total = 0.84, Proficient & Above = 0.87					

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

Table 5.14 Decision Accuracy and Consistency: MD HSA English May 2014 Forms

	Placement Scores	Advanced	Proficient	Basic	Category Total*
May Primary					
	429–650	.21	.05	.00	.26
Decision	396–428	.05	.32	.08	.44
Accuracy	240–395	.00	.01	.29	.30
	Estimated Proportion Correctly Classified*: Total = 0.81, Proficient & Above = 0.91				
	429–650	.20	.06	.00	.26
Decision	396–428	.07	.27	.10	.44
Consistency	240–395	.00	.03	.27	.30
	Estimated Proportion Consistently Classified*: Total = 0.75, Proficient & Above = 0.87				
May Form X					
	429–650	.18	.04	.00	.22
	396–428	.04	.29	.08	.42
	240–395	.00	.02	.35	.36
	Estimated Proportion Correctly Classified*: Total = 0.82, Proficient & Above = 0.91				
	429–650	.17	.05	.00	.22
Decision	396–428	.06	.25	.10	.42
Consistency	240–395	.00	.03	.33	.36
	Estimated Proportion Consistently Classified*: Total = 0.75, Proficient & Above = 0.87				
May Form Y					
	429–650	.18	.04	.00	.23
Decision	396–428	.05	.30	.09	.44
Accuracy	240–395	.00	.01	.32	.33
	Estimated Proportion Correctly Classified*: Total = 0.81, Proficient & Above = 0.90				
	429–650	.17	.05	.00	.23
Decision	396–428	.07	.26	.11	.44
Consistency	240–395	.00	.03	.30	.33
	Estimated Proportion Consistently Classified*: Total = 0.73, Proficient & Above = 0.86				

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

Table 5.15 Decision Accuracy and Consistency: MD HSA English Summer 2014 Forms

	Placement Scores	Advanced	Proficient	Basic	Category Total*
Summer Form P					
	429–650	.01	.00	.00	.01
Decision	396–428	.06	.15	.08	.29
Accuracy	240–395	.00	.04	.66	.70
Estimated Proportion Correctly Classified*: Total = 0.81, Proficient & Above = 0.87					
	429–650	.01	.00	.00	.01
Decision	396–428	.07	.12	.09	.29
Consistency	240–395	.01	.07	.63	.70
Estimated Proportion Consistently Classified*: Total = 0.76, Proficient & Above = 0.83					
Summer Form Q					
	429–650	.02	.00	.00	.02
Decision	396–428	.05	.13	.07	.24
Accuracy	240–395	.01	.05	.68	.74
Estimated Proportion Correctly Classified*: Total = 0.83, Proficient & Above = 0.87					
	429–650	.02	.00	.00	.02
Decision	396–428	.06	.10	.08	.24
Consistency	240–395	.01	.08	.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 Government January 2014 Forms

	Placement Scores	Proficient	Basic	Category Total*
January Form A				
	394–650	.65	.06	.71
Decision	240–393	.02	.27	.29
Accuracy	Estimated Proportion Correctly Classified*: Total = 0.92			
	394–650	.63	.08	.71
Decision	240–393	.03	.26	.29
Consistency	Estimated Proportion Consistently Classified*: Total = 0.89			
January Form C				
	394–650	.62	.07	.70
Decision	240–395	.01	.29	.30
Accuracy	Estimated Proportion Correctly Classified*: Total = 0.91			
	394–650	.60	.10	.70
Decision	240–393	.03	.27	.30
Consistency	Estimated Proportion Consistently Classified*: Total = 0.88			

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

Table 5.17 Decision Accuracy and Consistency: MD HSA Government May 2014 Forms

		Placement Scores		Category Total*
		Proficient	Basic	
May Form D				
Decision Accuracy	394–650	.73	.05	.78
	240–393	.01	.21	.22
	Estimated Proportion Correctly Classified*: Total = 0.94			
Decision Consistency	394–650	.71	.07	.78
	240–393	.02	.20	.22
	Estimated Proportion Consistently Classified*: Total = 0.91			
May Form X				
Decision Accuracy	394–650	.70	.05	.75
	240–395	.01	.24	.25
	Estimated Proportion Correctly Classified*: Total = 0.94			
Decision Consistency	394–650	.68	.07	.75
	240–393	.02	.23	.25
	Estimated Proportion Consistently Classified*: Total = 0.91			
May Form Y				
Decision Accuracy	394–650	.71	.05	.77
	240–393	.01	.22	.23
	Estimated Proportion Correctly Classified*: Total=0.94			
Decision Consistency	394–650	.70	.07	.77
	240–393	.02	.21	.23
	Estimated Proportion Consistently Classified*:Total=0.91			

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

Table 5.18 Decision Accuracy and Consistency: MD HSA Government Summer 2014 Forms

		Placement Scores	Proficient	Basic	Category Total*
Summer Form P					
Decision Accuracy	394–650		.34	.03	.37
	240–393		.07	.57	.63
	Estimated Proportion Correctly Classified*: Total = 0.91				
Decision Consistency	394–650		.32	.05	.37
	240–393		.09	.55	.63
	Estimated Proportion Consistently Classified*: Total = 0.87				
Summer Form Q					
Decision Accuracy	394–650		.37	.06	.43
	240–395		.04	.53	.57
	Estimated Proportion Correctly Classified*: Total = 0.90				
Decision Consistency	394–650		.35	.07	.43
	240–393		.06	.51	.57
	Estimated Proportion Consistently Classified*: Total = 0.87				

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

Section 6. Student Characteristics

Summary Statistics

The results presented in Tables 6.1 and 6.3 to 6.5 are based on the combined results for students who took the tests in October 2013 and January, April, May, and Summer 2014. All results are based on the final Research files sent to MSDE. Scores in Table 6.1 are reported for all students and by grade. Table 6.2 reports the scores for all content areas by the October, January, April, May, and Summer administrations.

Table 6.1 MD HSA Means and Standard Deviations for 2013-2014 Overall and by Grade

		<i>N</i>	Mean	<i>SD</i>
Algebra	Overall Grade	105,981	402.6	47.6
	7	7,309	458.1	28.8
	8	25,134	428.6	35.5
	9	33,255	399.0	44.1
	10	19,763	379.9	42.4
	11	11,941	376.6	41.6
	12	7,023	372.6	43.3
Biology	Overall Grade	88,109	409.5	47.0
	9	27,668	431.3	40.6
	10	36,854	414.4	41.5
	11	15,127	381.2	43.3
	12	8,013	366.1	42.2
English	Overall Grade	89,015	395.8	39.3
	9	3,063	375.2	39.7
	10	57,787	409.1	33.5
	11	18,478	374.8	34.0
	12	9,287	362.5	41.3
Government	Overall Grade	53,984	417.6	39.8
	9	22,923	417.6	40.1
	10	26,207	419.4	37.7
	11	4,215	409.3	46.5
	12	451	390.2	52.4

Note. Government data is based on January, May, and Summer 2014 administrations only.

Table 6.2 MD HSA Mean Scale Scores by Administration

Content Area	October			January			April			May			Summer		
	<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>
Algebra	15,640	380.4	42.5	14,950	380.0	44.5	1,602	365.6	39.3	72,619	413.2	45.6	1,170	381.3	48.2
Biology	11,640	372.4	39.9	12,227	388.7	54.8	1,712	364.4	40.6	61,978	422.1	40.2	552	384.5	43.8
English	13,422	374.7	31.6	13,127	377.9	42.4	1,925	341.1	53.1	59,591	406.6	34.3	950	371.7	41.6
Government	-	-	-	5,470	412.0	43.1	-	-	-	48,284	418.3	39.3	230	385.5	40.4

The mean scale scores are presented for the years 2003 to 2014 by content area in Table 6.3. Table 6.4 presents the passing rates for these years.

Table 6.3 MD HSA Mean Scale Scores over Test Years

Content Area	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Algebra	408.3	411.9	409.5	421.5	421.2	420.5	414.3	408.1	410.9	408.7	409.5	402.6
Biology	400.8	406.2	404.7	415.0	414.5	414.7	409.0	408.7	406.9	410.7	409.2	409.5
English	--	--	--	393.0	412.0	404.3	399.7	398.2	396.8	398.3	395.0	395.8
Government	403.5	406.5	409.3	418.5	417.1	417.1	406.3	408.6	405.6	--	414.7	417.6

Note. The current English test was not administered prior to 2006. The Government test was not administered after the May 2011 administration. Starting in January 2013, Government was reintroduced into the HSAs.

Table 6.4 MD HSA Percentage Passing Rates (Proficient + Advanced) over Test Years

Content Area	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Algebra	53.1	59.3	54.5	66.6	63.3	62.0	53.3	46.6	49.1	50.3	49.4	44.5
Biology	54.3	62.0	58.4	67.8	70.1	68.4	60.0	59.1	57.9	60.9	60.0	61.4
English	--	--	--	60.1	70.6	61.0	55.3	54.8	54.0	55.0	53.8	54.8
Government	39.8	54.6	67.1	74.1	73.3	71.5	61.1	61.7	62.1	--	72.4	76.5

Note. The current English test was not administered prior to 2006. The Government test was not administered after the May 2011 administration. Starting in January 2013, Government was reintroduced into the HSAs.

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 6.5 presents the percentage of Algebra, Biology, and English students classified as Basic, Proficient, and Advanced, and the percentage of students classified as Basic and Proficient for Government, in 2014.

Table 6.5 MD HSA Performance Classification Rates in 2014 for Algebra, Biology, English, and Government

Content Area	Basic	Proficient	Advanced
Algebra	55.5	31.1	13.4
Biology	38.6	44.7	16.7
English	45.2	36.7	18.1
Government	23.5	76.5	--

Summary statistics for all students and for subgroups based on gender, special education programs, ethnicity, and English language fluency are presented in Tables 6.6 through 6.23. 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 test takers and for subgroups. Figures 6.1 through 6.4 show the distributions of total scale scores for each content area for the May 2014 administration.

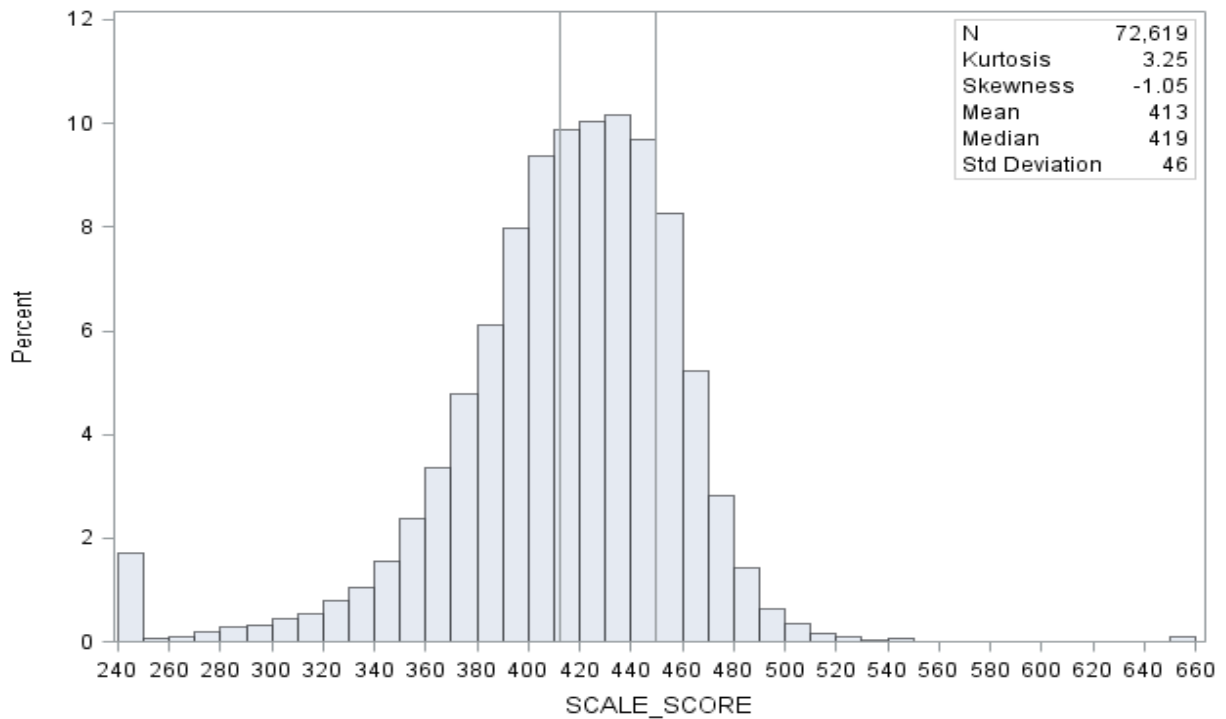


Figure 6.1 Histogram of Total Scale Scores for MD HSA May 2014 Algebra

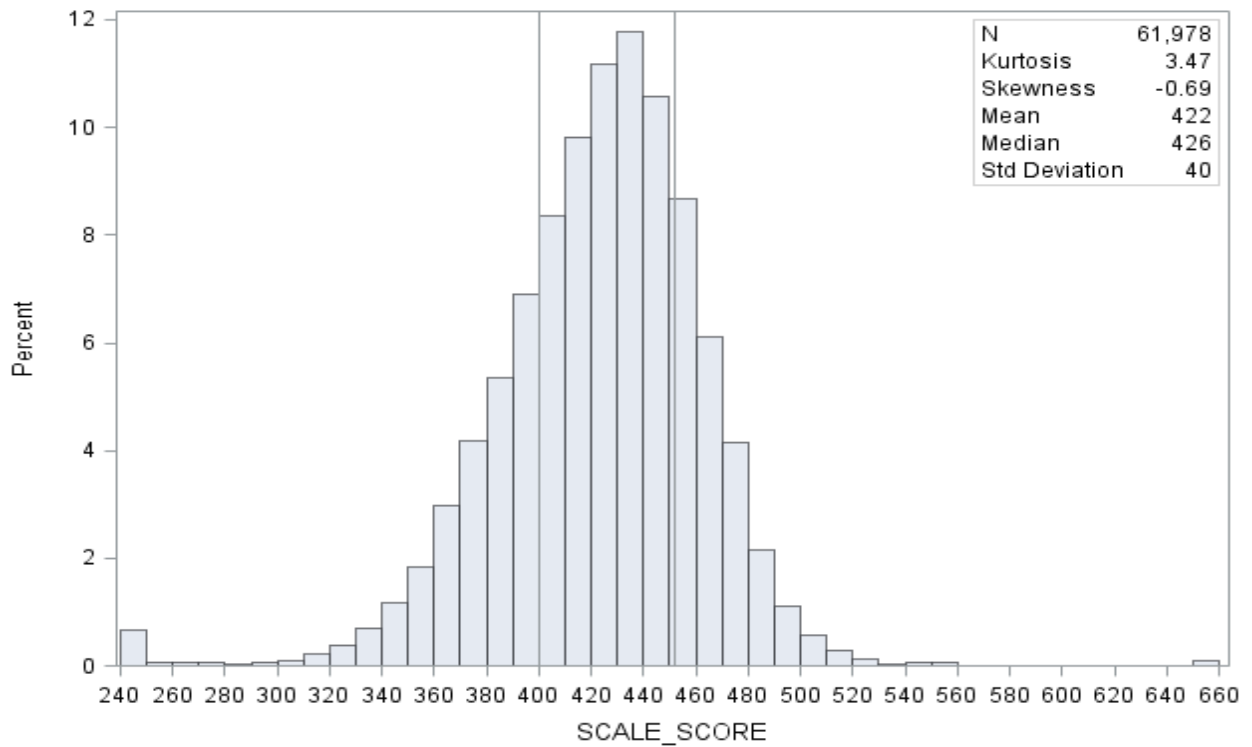


Figure 6.2 Histogram of Total Scale Scores for MD HSA May 2014 Biology

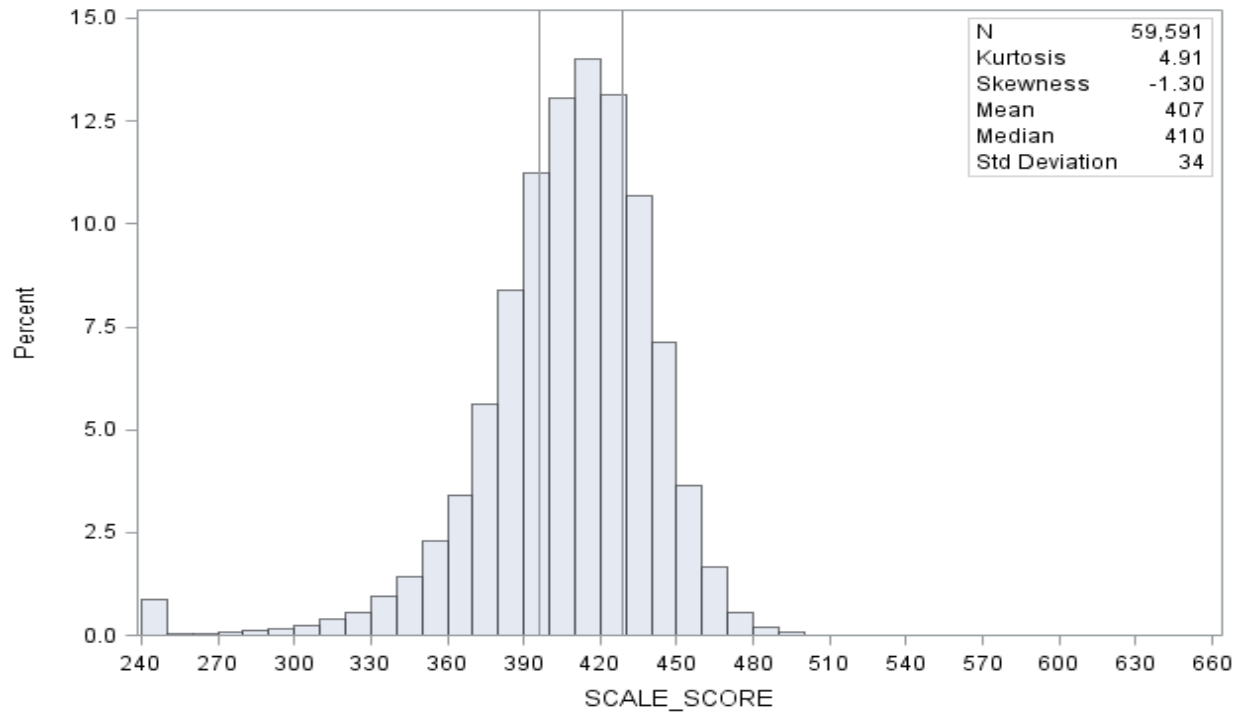


Figure 6.3 Histogram of Total Scale Scores for MD HSA May 2014 English

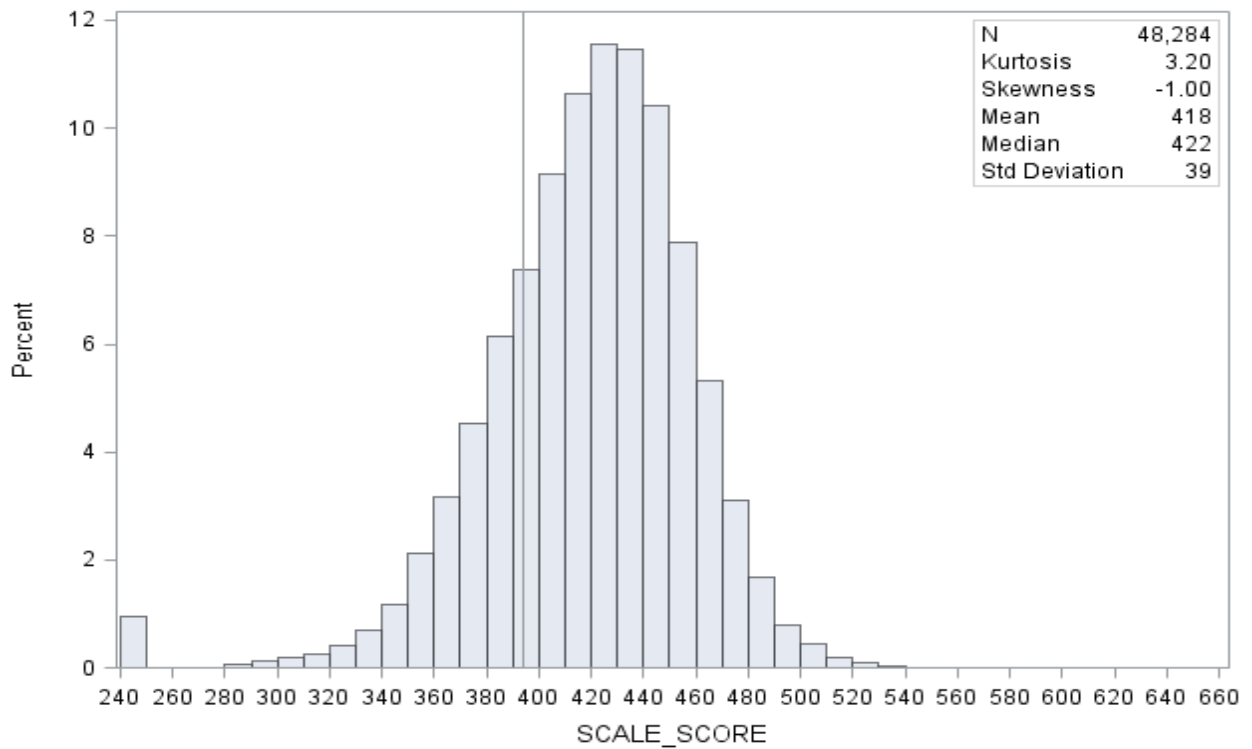


Figure 6.4 Histogram of Total Scale Scores for MD HSA May 2014 Government

Table 6.6 Summary Statistics for MD HSA Algebra: October 2014 Form

		Primary Form R				
		Mean	SD	N	%	Alpha
Overall		380.4	42.5	15,640	100.0	0.73
Gender	Male	378.4	43.7	7,899	50.5	0.75
	Female	382.5	41.1	7,690	49.2	0.71
	Missing	382.7	49.3	51	0.3	0.84
Grade	5	*	*	0	0.0	*
	6	*	*	0	0.0	*
	7	*	*	2	0.0	*
	8	*	*	38	0.2	*
	9	384.9	44.0	2,161	13.8	0.77
	10	381.4	41.9	5,588	35.7	0.72
	11	378.2	41.7	4,419	28.3	0.71
	12	378.7	42.8	3,350	21.4	0.73
	Missing	374.0	58.1	82	0.5	0.83
Special Education	Yes	360.9	51.5	2,712	17.3	0.71
	No	384.5	39.2	12,208	78.1	0.73
	Exited	393.2	30.8	135	0.9	0.70
	Exited and placed in 504 ^a	*	*	22	0.1	*
	504	382.8	39.5	563	3.6	0.73
Ethnicity	American Indian	380.6	41.7	55	0.4	0.69
	Asian	383.2	49.4	308	2.0	0.81
	African American	377.8	43.0	10,029	64.1	0.72
	Hawaiian/ Pacific Islander	*	*	21	0.1	*
	White	388.1	39.9	2,951	18.9	0.76
	Hispanic	381.5	40.6	1,894	12.1	0.70
	Missing	384.0	45.2	382	2.4	0.79
Limited English Proficient	Yes	370.6	47.3	940	6.0	0.72
	No	381.0	42.2	14,554	93.1	0.73
	Exited ^b	392.7	33.8	146	0.9	0.76

*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: January 2014 Forms

		Primary Forms A-B					Makeup Form C				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		381.1	45.0	10,006	100.0	0.80	377.9	43.5	4,944	100.0	0.79
Gender	Male	379.5	47.2	5,104	51.0	0.81	375.3	45.7	2,626	53.1	0.80
	Female	382.8	42.8	4,722	47.2	0.80	380.8	40.8	2,314	46.8	0.78
	Missing	381.1	33.8	180	1.8	0.70	*	*	4	0.1	*
Grade	5	*	*	0	0.0	*	*	*	0	0.0	*
	6	*	*	1	0.0	*	*	*	0	0.0	*
	7	*	*	0	0.0	*	*	*	0	0.0	*
	8	*	*	8	0.1	*	*	*	4	0.1	*
	9	398.3	44.2	2,831	28.3	0.87	394.7	45.0	1,254	25.4	0.87
	10	376.5	42.8	3,373	33.7	0.70	375.1	41.5	1,788	36.2	0.71
	11	373.4	43.4	2,249	22.5	0.65	371.5	40.3	1,154	23.3	0.64
	12	369.4	45.6	1,354	13.5	0.68	366.0	42.6	741	15.0	0.69
	Missing	380.0	34.4	190	1.9	0.69	*	*	3	0.1	*
Special Education	Yes	363.3	53.5	1,396	14.0	0.77	362.2	49.2	1,376	27.8	0.73
	No	383.7	42.7	8,013	80.1	0.80	383.4	39.5	3,317	67.1	0.79
	Exited	394.2	40.4	153	1.5	0.84	397.3	29.5	54	1.1	0.80
	Exited and placed in 504 ^a	*	*	32	0.3	*	*	*	18	0.4	*
	504	383.1	44.2	412	4.1	0.81	387.7	39.7	179	3.6	0.84
Ethnicity	American Indian	*	*	36	0.4	*	*	*	15	0.3	*
	Asian	384.5	47.5	180	1.8	0.82	375.9	49.1	89	1.8	0.83
	African American	373.1	44.7	5,431	54.1	0.70	370.1	42.1	2,807	56.8	0.69
	Hawaiian/ Pacific Islander	*	*	16	0.2	*	*	*	6	0.1	*
	White	396.8	42.0	2,835	28.3	0.85	395.5	41.4	1,330	26.9	0.85
	Hispanic	377.8	44.8	1,060	10.6	0.76	373.8	42.7	568	11.5	0.70
	Missing	385.1	38.1	466	4.7	0.78	387.7	41.0	129	2.6	0.82
	Limited English Proficient	Yes	357.9	53.2	512	5.1	0.66	360.3	46.5	311	6.3
No	382.2	44.2	9,388	93.8	0.81	379.0	43.2	4,589	92.8	0.79	
Exited ^b	391.7	38.4	106	11	0.82	*	*	44	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: April 2014 Form

		Primary Form S				
		Mean	SD	N	%	Alpha
Overall		365.6	39.3	1,602	100.0	0.70
Gender	Male	364.8	41.0	784	48.9	0.74
	Female	366.4	37.5	815	50.9	0.66
	Missing	*	*	3	0.2	*
Grade	5	*	*	0	0.0	*
	6	*	*	0	0.0	*
	7	*	*	0	0.0	*
	8	*	*	0	0.0	*
	9	*	*	1	0.1	*
	10	*	*	16	1.0	*
	11	364.5	35.5	112	7.0	0.63
	12	365.5	39.7	1,468	91.6	0.71
	Missing	*	*	5	0.3	*
Special Education	Yes	351.4	48.6	237	14.8	0.71
	No	368.5	36.4	1,324	82.6	0.70
	Exited	*	*	4	0.2	*
	Exited and placed in 504 ^a	*	*	1	0.1	*
	504	*	*	36	2.2	*
Ethnicity	American Indian	*	*	5	0.3	*
	Asian	*	*	20	1.2	*
	African American	362.8	39.6	1,225	76.5	0.69
	Hawaiian/ Pacific Islander	*	*	2	0.1	*
	White	376.2	39.8	123	7.7	0.78
	Hispanic	373.1	34.9	212	13.2	0.60
	Missing	*	*	15	0.9	*
Limited English Proficient	Yes	375.3	29.6	134	8.4	0.59
	No	364.6	40.0	1,461	91.2	0.71
	Exited ^b	*	*	7	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 6.9 Summary Statistics for MD HSA Algebra: May 2014 Forms

		Primary Forms D-H					Makeup 1 Form X					Makeup 2 Form Y				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		414.5	45.3	60,256	100.0	0.92	405.5	47.3	6,910	100.0	0.92	408.6	45.7	5,453	100.0	0.92
Gender	Male	411.9	47.9	30,064	49.9	0.92	404.6	48.2	3,522	51.0	0.92	406.8	47.2	2,818	51.7	0.92
	Female	416.8	42.6	29,299	48.6	0.92	406.2	46.5	3,358	48.6	0.92	410.6	43.9	2,633	48.3	0.91
	Missing	427.2	32.6	893	1.5	0.89	*	*	30	0.4	*	*	*	2	0.0	*
Grade	5	*	*	3	0.0	*	*	*	0	0.0	*	*	*	0	0.0	*
	6	470.5	38.3	229	0.4	0.87	*	*	17	0.2	*	*	*	8	0.1	*
	7	458.5	29.1	6,241	10.4	0.85	454.2	27.4	589	8.5	0.87	456.7	26.3	477	8.7	0.84
	8	428.9	35.3	21,448	35.6	0.90	426.8	36.2	1,919	27.8	0.90	428.3	35.4	1,644	30.1	0.90
	9	401.7	43.5	21,466	35.6	0.89	396.2	45.4	2,794	40.4	0.88	398.8	41.9	2,200	40.3	0.88
	10	382.1	42.2	6,922	11.5	0.80	376.1	44.2	978	14.2	0.78	379.9	42.6	764	14.0	0.79
	11	379.1	40.1	2,955	4.9	0.76	377.4	39.4	563	8.1	0.75	375.8	43.7	353	6.5	0.76
	12	360.1	57.2	65	0.1	0.80	*	*	5	0.1	*	*	*	3	0.1	*
	Missing	425.7	34.6	927	1.5	0.89	*	*	45	0.7	*	*	*	4	0.1	*
Special Education	Yes	374.5	51.5	6,534	10.8	0.87	370.3	51.9	531	7.7	0.85	370.0	53.5	479	8.8	0.87
	No	419.8	41.9	51,139	84.9	0.92	408.7	45.9	6,108	88.4	0.92	412.9	42.9	4,716	86.5	0.91
	Exited	409.0	43.1	505	0.8	0.91	403.8	37.7	57	0.8	0.89	407.0	51.5	55	1.0	0.89
	Exited and placed in 504 ^a	405.1	43.9	106	0.2	0.89	*	*	9	0.1	*	*	*	9	0.2	*
	504	411.0	42.2	1,972	3.3	0.91	402.5	43.5	205	3.0	0.91	400.8	43.1	194	3.6	0.90
Ethnicity	American Indian	405.0	42.6	179	0.3	0.90	*	*	21	0.3	*	*	*	17	0.3	*
	Asian	445.6	41.7	3,334	5.5	0.93	435.9	47.4	298	4.3	0.93	440.9	38.6	262	4.8	0.92
	African American	396.8	44.2	23,878	39.6	0.89	390.6	44.2	3,208	46.4	0.87	392.8	43.2	2,385	43.7	0.87
	Hawaiian/ Pacific Islander	410.9	38.6	95	0.2	0.90	*	*	11	0.2	*	*	*	6	0.1	*
	White	431.3	38.7	21,966	36.5	0.92	427.5	39.0	2,218	32.1	0.92	425.8	40.4	1,936	35.5	0.92
	Hispanic	404.2	44.0	7,729	12.8	0.90	392.2	52.0	821	11.9	0.90	400.4	44.9	676	12.4	0.89
	Missing	424.9	38.8	3,075	5.1	0.91	409.2	44.5	333	4.8	0.92	417.0	53.2	171	3.1	0.93
Limited English Proficient	Yes	385.0	49.6	2,707	4.5	0.88	374.9	52.8	231	3.3	0.89	380.4	52.5	227	4.2	0.90
	No	415.8	44.7	57,127	94.8	0.92	406.5	46.8	6,649	96.2	0.92	409.8	45.0	5,202	95.4	0.92
	Exited ^b	426.7	31.7	422	0.7	0.90	*	*	30	0.4	*	*	*	24	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 6.10 Summary Statistics for MD HSA Algebra: Summer 2014 Forms

		Primary 1 Form P					Primary 2 Form Q				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		377.9	48.6	368	100.0	0.80	382.8	47.9	802	100.0	0.80
Gender	Male	373.3	51.8	230	62.5	0.81	381.4	49.8	467	58.2	0.81
	Female	385.5	41.8	138	37.5	0.75	386.0	45.7	299	37.3	0.80
	Missing	*	*	0	0.0	*	*	*	36	4.5	*
Grade	5	*	*	0	0.0	*	*	*	0	0.0	*
	6	*	*	0	0.0	*	*	*	0	0.0	*
	7	*	*	0	0.0	*	*	*	0	0.0	*
	8	*	*	27	7.3	*	*	*	46	5.7	*
	9	371.9	50.9	117	31.8	0.76	384.0	47.8	431	53.7	0.81
	10	383.7	45.2	143	38.9	0.83	383.6	47.4	191	23.8	0.77
	11	369.5	51.0	72	19.6	0.74	385.1	45.2	64	8.0	0.75
	12	*	*	9	2.4	*	*	*	28	3.5	*
Special Education	Yes	358.3	57.0	78	21.2	0.81	363.2	57.3	99	12.3	0.75
	No	383.6	45.2	281	76.4	0.78	385.5	45.9	675	84.2	0.80
	Exited	*	*	1	0.3	*	*	*	1	0.1	*
	Exited and placed in 504 ^a	*	*	0	0.0	*	*	*	0	0.0	*
	504	*	*	8	2.2	*	*	*	27	3.4	*
Ethnicity	American Indian	*	*	1	0.3	*	*	*	3	0.4	*
	Asian	*	*	2	0.5	*	*	*	14	1.7	*
	African American	376.1	50.0	167	45.4	0.81	379.1	48.7	440	54.9	0.77
	Hawaiian/ Pacific Islander	*	*	4	1.1	*	*	*	2	0.2	*
	White	380.1	48.4	140	38.0	0.80	391.3	44.3	209	26.1	0.83
	Hispanic	*	*	45	12.2	*	385.7	48.4	67	8.4	0.78
	Missing	*	*	9	2.4	*	373.8	48.9	67	8.4	0.80
Limited English Proficient	Yes	*	*	17	4.6	*	*	*	11	1.4	*
	No	377.9	49.2	348	94.6	0.80	382.7	47.6	786	98.0	0.80
	Exited ^b	*	*	3	0.8	*	*	*	5	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 6.11 Summary Statistics for MD HSA Biology: October 2014 Form

		Primary Form R				
		Mean	SD	N	%	Alpha
Overall		372.4	39.9	11,640	100.0	0.78
Gender	Male	369.8	44.0	5,674	48.7	0.81
	Female	374.8	35.3	5,923	50.9	0.75
	Missing	*	*	43	0.4	*
Grade	5	*	*	0	0.0	*
	6	*	*	0	0.0	*
	7	*	*	0	0.0	*
	8	*	*	0	0.0	*
	9	358.8	49.4	332	2.9	0.81
	10	377.5	42.8	2,335	20.1	0.86
	11	373.2	38.5	5,049	43.4	0.75
	12	369.4	38.4	3,858	33.1	0.71
	Missing	368.5	39.2	66	0.6	0.72
Special Education	Yes	357.4	45.1	1,838	15.8	0.68
	No	375.3	38.1	9,346	80.3	0.79
	Exited	373.2	39.7	82	0.7	0.72
	Exited and placed in 504 ^a	*	*	11	0.1	*
	504	373.8	41.1	363	3.1	0.82
Ethnicity	American Indian	*	*	38	0.3	*
	Asian	375.4	46.3	294	2.5	0.85
	African American	369.7	38.8	7,451	64.0	0.71
	Hawaiian/ Pacific Islander	*	*	14	0.1	*
	White	381.8	40.9	2,151	18.5	0.87
	Hispanic	372.6	38.7	1,392	12.0	0.73
	Missing	370.9	44.4	300	2.6	0.82
Limited English Proficient	Yes	359.0	45.8	603	5.2	0.61
	No	373.0	39.5	10,916	93.8	0.78
	Exited ^b	384.3	30.7	121	1.0	0.82

*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: January 2014 Forms

		Primary Forms A-B					Makeup Form C				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		390.7	54.7	7,764	100.0	0.94	385.1	55.0	4,463	100.0	0.94
Gender	Male	389.1	57.7	3,841	49.5	0.95	383.2	57.6	2,258	50.6	0.94
	Female	392.6	51.7	3,868	49.8	0.94	387.3	52.1	2,168	48.6	0.94
	Missing	378.3	35.9	55	0.7	0.60	*	*	37	0.8	*
Grade	5	*	*	0	0.0	*	*	*	0	0.0	*
	6	*	*	1	0.0	*	*	*	0	0.0	*
	7	*	*	0	0.0	*	*	*	0	0.0	*
	8	*	*	0	0.0	*	*	*	0	0.0	*
	9	414.0	56.0	643	8.3	0.96	416.9	47.6	542	12.1	0.95
	10	413.5	51.9	3,147	40.5	0.95	403.4	54.3	1,543	34.6	0.95
	11	373.0	46.6	2,434	31.3	0.85	369.8	48.6	1,399	31.3	0.86
	12	361.9	47.3	1,479	19.0	0.71	360.2	50.0	941	21.1	0.77
	Missing	373.2	42.5	60	0.8	0.63	*	*	38	0.9	*
Special Education	Yes	358.0	56.6	778	10.0	0.86	356.0	55.1	898	20.1	0.83
	No	394.4	53.1	6,552	84.4	0.94	392.6	52.5	3,346	75.0	0.94
	Exited	407.3	41.6	134	1.7	0.94	398.7	48.9	55	1.2	0.94
	Exited and placed in 504 ^a	*	*	30	0.4	*	*	*	13	0.3	*
	504	384.4	59.4	270	3.5	0.94	383.5	53.7	151	3.4	0.94
Ethnicity	American Indian	*	*	26	0.3	*	*	*	8	0.2	*
	Asian	406.6	64.2	220	2.8	0.96	395.2	62.2	122	2.7	0.95
	African American	365.7	49.5	3,508	45.2	0.82	363.0	49.1	2,056	46.1	0.81
	Hawaiian/ Pacific Islander	*	*	8	0.1	*	*	*	5	0.1	*
	White	421.1	44.9	3,004	38.7	0.95	414.6	48.3	1,708	38.3	0.95
	Hispanic	379.2	48.8	750	9.7	0.91	369.6	52.2	420	9.4	0.88
	Missing	397.8	50.5	248	3.2	0.94	389.9	45.0	144	3.2	0.92
	Limited English Proficient	Yes	348.1	52.1	324	4.2	0.73	348.4	52.9	169	3.8
No	392.5	54.1	7,332	94.4	0.94	386.4	54.5	4,248	95.2	0.94	
Exited ^b	401.3	46.3	108	1.4	0.92	*	*	46	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 6.13 Summary Statistics for MD HSA Biology: April 2014 Form

		Primary Form S				
		Mean	SD	N	%	Alpha
Overall		364.4	40.6	1,712	100.0	0.81
Gender	Male	363.4	42.3	857	50.1	0.82
	Female	365.3	38.9	852	49.8	0.81
	Missing	*	*	3	0.2	*
Grade	5	*	*	0	0.0	*
	6	*	*	0	0.0	*
	7	*	*	0	0.0	*
	8	*	*	0	0.0	*
	9	*	*	3	0.2	*
	10	*	*	23	1.3	*
	11	364.6	40.1	117	6.8	0.78
	12	364.4	40.6	1,564	91.4	0.81
	Missing	*	*	5	0.3	*
Special Education	Yes	355.4	36.1	252	14.7	0.58
	No	366.0	40.9	1,418	82.8	0.82
	Exited	*	*	7	0.4	*
	Exited and placed in 504 ^a	*	*	1	0.1	*
	504	*	*	34	2.0	*
Ethnicity	American Indian	*	*	12	0.7	*
	Asian	*	*	40	2.3	*
	African American	359.8	39.2	1,224	71.5	0.76
	Hawaiian/ Pacific Islander	*	*	4	0.2	*
	White	380.4	47.7	198	11.6	0.91
	Hispanic	371.5	35.0	209	12.2	0.76
	Missing	*	*	25	1.5	*
Limited English Proficient	Yes	370.8	33.2	134	7.8	0.75
	No	363.6	41.1	1,567	91.5	0.82
	Exited ^b	*	*	11	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: May 2014 Forms

		Primary Forms D-H					Makeup 1 Form X					Makeup 2 Form Y				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		422.7	40.1	51,281	100.0	0.94	417.6	40.7	5,670	100.0	0.94	420.7	39.9	5,027	100.0	0.94
Gender	Male	422.8	41.4	25,697	50.1	0.94	417.9	42.3	2,818	49.7	0.94	420.9	42.1	2,449	48.7	0.94
	Female	422.7	38.7	25,489	49.7	0.94	417.5	38.9	2,836	50.0	0.94	420.7	37.7	2,576	51.2	0.94
	Missing	399.1	44.6	95	0.2	0.92	*	*	16	0.3	*	*	*	2	0.0	*
Grade	5	*	*	0	0.0	*	*	*	0	0.0	*	*	*	0	0.0	*
	6	*	*	1	0.0	*	*	*	0	0.0	*	*	*	0	0.0	*
	7	*	*	3	0.0	*	*	*	0	0.0	*	*	*	1	0.0	*
	8	454.4	24.8	89	0.2	0.88	*	*	16	0.3	*	*	*	4	0.1	*
	9	433.4	38.4	21,858	42.6	0.94	430.7	40.0	2,155	38.0	0.94	433.1	40.1	2,010	40.0	0.95
	10	418.7	37.8	24,234	47.3	0.93	414.8	36.8	2,866	50.5	0.93	417.2	35.6	2,477	49.3	0.93
	11	395.5	41.4	4,874	9.5	0.92	386.0	39.2	590	10.4	0.89	391.5	37.5	524	10.4	0.90
	12	379.7	33.5	96	0.2	0.80	*	*	18	0.3	*	*	*	7	0.1	*
Missing	398.6	42.5	126	0.2	0.92	*	*	25	0.4	*	*	*	4	0.1	*	
Special Education	Yes	387.4	45.2	4,239	8.3	0.92	385.4	46.3	412	7.3	0.92	385.2	43.5	369	7.3	0.91
	No	426.1	38.0	45,037	87.8	0.94	420.0	39.3	5,024	88.6	0.94	423.6	38.4	4,449	88.5	0.94
	Exited	412.8	36.1	299	0.6	0.92	*	*	40	0.7	*	*	*	41	0.8	*
	Exited and placed in 504 ^a	415.5	33.7	67	0.1	0.93	*	*	9	0.2	*	*	*	9	0.2	*
	504	422.3	38.7	1,639	3.2	0.94	422.1	36.3	185	3.3	0.93	423.8	33.8	159	3.2	0.94
Ethnicity	American Indian	418.1	37.2	165	0.3	0.94	*	*	17	0.3	*	*	*	15	0.3	*
	Asian	447.5	37.9	3,162	6.2	0.94	441.4	35.3	280	4.9	0.94	451.0	39.5	291	5.8	0.94
	African American	404.8	38.9	19,958	38.9	0.92	400.1	39.9	2,420	42.7	0.92	400.9	38.0	1,994	39.7	0.91
	Hawaiian/ Pacific Islander	416.0	39.8	70	0.1	0.93	*	*	5	0.1	*	*	*	4	0.1	*
	White	438.3	33.6	20,196	39.4	0.93	436.1	32.2	2,148	37.9	0.93	437.2	31.5	2,066	41.1	0.93
	Hispanic	414.5	37.5	5,789	11.3	0.93	410.4	38.2	548	9.7	0.93	412.6	39.6	506	10.1	0.93
	Missing	429.8	37.8	1,941	3.8	0.94	417.0	42.9	252	4.4	0.94	429.8	30.0	151	3.0	0.93
Limited English Proficient	Yes	390.8	44.5	1,291	2.5	0.92	383.5	37.5	101	1.8	0.90	382.7	36.6	116	2.3	0.89
	No	423.5	39.7	49,568	96.7	0.94	418.2	40.6	5,538	97.7	0.94	421.7	39.5	4,878	97.0	0.94
	Exited ^b	425.5	34.3	422	0.8	0.93	*	*	31	0.5	*	*	*	33	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 6.15 Summary Statistics for MD HSA Biology: Summer 2014 Forms

		Primary 1 Form P					Primary 2 Form Q				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		379.9	40.7	202	100.0	0.79	387.1	45.4	350	100.0	0.88
Gender	Male	375.8	45.4	109	54.0	0.82	383.5	50.5	203	58.0	0.89
	Female	384.7	34.1	93	46.0	0.76	392.3	36.7	145	41.4	0.86
	Missing	*	*	0	0.0	*	*	*	2	0.6	*
Grade	5	*	*	0	0.0	*	*	*	0	0.0	*
	6	*	*	0	0.0	*	*	*	0	0.0	*
	7	*	*	0	0.0	*	*	*	0	0.0	*
	8	*	*	0	0.0	*	*	*	1	0.3	*
	9	*	*	25	12.4	*	388.1	53.7	100	28.6	0.90
	10	383.3	36.3	94	46.5	0.75	392.6	37.4	135	38.6	0.85
	11	370.1	48.4	67	33.2	0.75	385.1	42.9	73	20.9	0.89
	12	*	*	16	7.9	*	*	*	34	9.7	*
	Missing	*	*	0	0.0	*	*	*	7	2.0	*
Special Education	Yes	*	*	44	21.8	*	*	*	43	12.3	*
	No	384.2	39.0	154	76.2	0.81	391.3	42.9	294	84.0	0.88
	Exited	*	*	0	0.0	*	*	*	3	0.9	*
	Exited and placed in 504 ^a	*	*	0	0.0	*	*	*	0	0.0	*
	504	*	*	4	2.0	*	*	*	10	2.9	*
Ethnicity	American Indian	*	*	0	0.0	*	*	*	1	0.3	*
	Asian	*	*	2	1.0	*	*	*	6	1.7	*
	African American	386.4	31.7	102	50.5	0.79	383.8	43.6	226	64.6	0.82
	Hawaiian/ Pacific Islander	*	*	1	0.5	*	*	*	0	0.0	*
	White	373.9	49.9	72	35.6	0.82	395.6	51.9	69	19.7	0.92
	Hispanic	*	*	20	9.9	*	*	*	26	7.4	*
	Missing	*	*	5	2.5	*	*	*	22	6.3	*
Limited English Proficient	Yes	*	*	1	0.5	*	*	*	2	0.6	*
	No	380.0	40.8	201	99.5	0.79	387.7	44.7	348	99.4	0.87
	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 6.16 Summary Statistics for MD HSA English: October 2014 Form

		Primary Form R				
		Mean	SD	N	%	Alpha
Overall		374.7	31.6	13,422	100.0	0.78
Gender	Male	372.1	34.0	7,734	57.6	0.79
	Female	378.5	27.3	5,606	41.8	0.77
	Missing	366.1	38.7	82	0.6	0.84
Grade	5	*	*	0	0.0	*
	6	*	*	0	0.0	*
	7	*	*	0	0.0	*
	8	*	*	1	0.0	*
	9	365.8	36.8	229	1.7	0.79
	10	368.3	37.0	1,400	10.4	0.80
	11	377.7	30.5	7,364	54.9	0.79
	12	372.3	30.5	4,323	32.2	0.76
	Missing	372.1	33.5	105	0.8	0.82
Special Education	Yes	362.5	37.6	2,241	16.7	0.77
	No	377.3	29.5	10,547	78.6	0.78
	Exited	377.6	23.5	122	0.9	0.67
	Exited and placed in 504 ^a	*	*	22	0.2	*
	504	374.3	33.2	490	3.7	0.80
Ethnicity	American Indian	*	*	44	0.3	*
	Asian	375.6	31.3	410	3.1	0.83
	African American	373.3	31.2	7,732	57.6	0.76
	Hawaiian/ Pacific Islander	*	*	20	0.1	*
	White	378.6	32.4	2,995	22.3	0.82
	Hispanic	374.2	30.8	1,859	13.9	0.76
	Missing	374.1	34.6	362	2.7	0.82
Limited English Proficient	Yes	362.0	31.1	821	6.1	0.65
	No	375.4	31.5	12,407	92.4	0.79
	Exited ^b	381.8	26.2	194	1.4	0.71

*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: January 2014 Forms

		Primary Forms A-B					Makeup Form C				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		378.8	43.4	9,154	100.0	0.89	375.9	39.7	3,973	100.0	0.88
Gender	Male	373.5	45.2	5,029	54.9	0.88	371.9	41.6	2,281	57.4	0.87
	Female	385.7	40.1	4,028	44.0	0.90	381.4	36.3	1,691	42.6	0.88
	Missing	367.4	41.1	97	1.1	0.78	*	*	1	0.0	*
Grade	5	*	*	0	0.0	*	*	*	0	0.0	*
	6	*	*	0	0.0	*	*	*	0	0.0	*
	7	*	*	0	0.0	*	*	*	0	0.0	*
	8	*	*	0	0.0	*	*	*	0	0.0	*
	9	363.3	46.5	212	2.3	0.86	371.4	38.9	92	2.3	0.83
	10	401.0	39.3	3,221	35.2	0.91	395.4	39.1	1,204	30.3	0.91
	11	370.3	38.8	3,558	38.9	0.80	369.2	36.9	1,741	43.8	0.80
	12	361.0	42.9	2,056	22.5	0.79	363.8	36.6	935	23.5	0.78
	Missing	368.4	38.7	107	1.2	0.77	*	*	1	0.0	*
Special Education	Yes	358.0	45.6	985	10.8	0.82	357.3	41.8	975	24.5	0.78
	No	381.6	42.4	7,624	83.3	0.89	382.0	37.1	2,805	70.6	0.88
	Exited	382.0	40.6	146	1.6	0.87	*	*	47	1.2	*
	Exited and placed in 504 ^a	*	*	33	0.4	*	*	*	12	0.3	*
	504	373.6	43.6	366	4.0	0.87	381.2	36.9	134	3.4	0.87
Ethnicity	American Indian	*	*	33	0.4	*	*	*	14	0.4	*
	Asian	379.7	44.7	265	2.9	0.91	369.6	41.6	105	2.6	0.86
	African American	367.0	41.4	3,956	43.2	0.83	365.7	37.6	1,937	48.8	0.80
	Hawaiian/ Pacific Islander	*	*	15	0.2	*	*	*	4	0.1	*
	White	394.2	41.9	3,457	37.8	0.91	392.4	37.5	1,369	34.5	0.90
	Hispanic	370.9	40.8	1,022	11.2	0.84	370.9	37.5	466	11.7	0.83
	Missing	382.5	39.4	405	4.4	0.88	381.9	40.2	78	2.0	0.90
	Limited English Proficient	Yes	348.4	42.1	448	4.9	0.70	358.2	36.0	236	5.9
No	380.2	43.1	8,532	93.2	0.89	377.0	39.8	3,692	92.9	0.88	
Exited ^b	388.0	28.9	174	1.9	0.82	*	*	45	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 6.18 Summary Statistics for MD HSA English: April 2014 Form

		Primary Form S				
		Mean	SD	N	%	Alpha
Overall		341.1	53.1	1,925	100.0	0.80
Gender	Male	334.6	54.8	1,067	55.4	0.79
	Female	349.1	49.7	856	44.5	0.80
	Missing	*	*	2	0.1	*
Grade	5	*	*	0	0.0	*
	6	*	*	0	0.0	*
	7	*	*	0	0.0	*
	8	*	*	0	0.0	*
	9	*	*	1	0.1	*
	10	*	*	23	1.2	*
	11	353.2	50.1	122	6.3	0.80
	12	340.1	53.3	1,772	92.1	0.79
	Missing	*	*	7	0.4	*
Special Education	Yes	326.0	55.5	275	14.3	0.75
	No	344.1	51.9	1,601	83.2	0.80
	Exited	*	*	6	0.3	*
	Exited and placed in 504 ^a	*	*	1	0.1	*
	504	*	*	42	2.2	*
Ethnicity	American Indian	*	*	7	0.4	*
	Asian	358.3	40.7	57	3.0	0.75
	African American	337.2	54.3	1,361	70.7	0.80
	Hawaiian/ Pacific Islander	*	*	6	0.3	*
	White	348.2	52.4	191	9.9	0.81
	Hispanic	350.5	48.2	286	14.9	0.78
	Missing	*	*	17	0.9	*
Limited English Proficient	Yes	346.4	43.8	220	11.4	0.71
	No	340.0	54.1	1,687	87.6	0.80
	Exited ^b	*	*	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 6.19 Summary Statistics for MD HSA English: May 2014 Forms

		Primary Forms D-H					Makeup 1 Form X					Makeup 2 Form Y				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		407.3	34.0	49,387	100.0	0.90	402.7	35.1	5,487	100.0	0.91	404.1	35.4	4,717	100.0	0.90
Gender	Male	402.8	36.5	25,005	50.6	0.90	397.7	37.0	2,800	51.0	0.90	398.8	38.1	2,420	51.3	0.90
	Female	412.0	30.5	24,289	49.2	0.90	408.0	32.3	2,675	48.8	0.91	409.7	31.3	2,291	48.6	0.89
	Missing	386.9	30.6	93	0.2	0.84	*	*	12	0.2	*	*	*	6	0.1	*
Grade	5	*	*	0	0.0	*	*	*	0	0.0	*	*	*	0	0.0	*
	6	*	*	0	0.0	*	*	*	0	0.0	*	*	*	0	0.0	*
	7	*	*	2	0.0	*	*	*	0	0.0	*	*	*	0	0.0	*
	8	*	*	1	0.0	*	*	*	0	0.0	*	*	*	0	0.0	*
	9	379.5	37.3	2,014	4.1	0.87	368.1	43.8	215	3.9	0.86	371.5	44.4	185	3.9	0.86
	10	412.0	31.4	42,824	86.7	0.90	408.3	32.6	4,575	83.4	0.90	409.4	32.5	3,987	84.5	0.89
	11	376.1	33.2	4,301	8.7	0.80	377.0	29.9	665	12.1	0.79	376.8	31.3	518	11.0	0.77
	12	352.7	47.3	119	0.2	0.83	*	*	17	0.3	*	*	*	17	0.4	*
	Missing	388.2	33.1	126	0.3	0.86	*	*	15	0.3	*	*	*	10	0.2	*
Special Education	Yes	373.0	41.5	4,127	8.4	0.87	370.6	37.6	365	6.7	0.85	372.5	42.5	330	7.0	0.86
	No	410.7	31.3	43,405	87.9	0.90	405.4	33.7	4,882	89.0	0.90	406.6	33.8	4,202	89.1	0.89
	Exited	392.5	33.6	262	0.5	0.89	*	*	39	0.7	*	*	*	30	0.6	*
	Exited and placed in 504 ^a	401.9	30.3	55	0.1	0.89	*	*	11	0.2	*	*	*	6	0.1	*
	504	406.4	33.6	1,538	3.1	0.90	400.2	35.0	190	3.5	0.89	404.3	29.9	149	3.2	0.89
Ethnicity	American Indian	400.3	39.2	151	0.3	0.90	*	*	21	0.4	*	*	*	11	0.2	*
	Asian	423.9	29.6	3,171	6.4	0.89	423.0	30.6	294	5.4	0.90	422.4	29.9	259	5.5	0.88
	African American	394.0	34.1	18,358	37.2	0.88	389.3	34.7	2,196	40.0	0.88	390.2	36.2	1,747	37.0	0.87
	Hawaiian/Pacific Islander	405.2	27.8	69	0.1	0.87	*	*	7	0.1	*	*	*	8	0.2	*
	White	418.3	30.3	20,239	41.0	0.89	414.5	30.6	2,179	39.7	0.90	415.0	30.6	2,032	43.1	0.88
	Hispanic	400.3	31.1	5,552	11.2	0.88	397.8	35.1	572	10.4	0.89	397.0	34.5	500	10.6	0.88
	Missing	412.2	32.1	1,847	3.7	0.90	407.0	34.3	218	4.0	0.90	408.8	34.3	160	3.4	0.91
Limited English Proficient	Yes	371.6	35.5	997	2.0	0.82	360.9	46.9	83	1.5	0.82	362.6	40.1	94	2.0	0.78
	No	408.1	33.7	47,942	97.1	0.90	403.4	34.6	5,361	97.7	0.91	405.0	34.9	4,577	97.0	0.89
	Exited ^b	402.1	22.4	448	0.9	0.82	*	*	43	0.8	*	*	*	46	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 6.20 Summary Statistics for MD HSA English: Summer 2014 Forms

		Primary 1 Form P					Primary 2 Form Q				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		372.8	40.8	427	100.0	0.83	370.8	42.3	523	100.0	0.83
Gender	Male	371.1	39.8	248	58.1	0.84	369.0	43.9	342	65.4	0.84
	Female	375.9	41.0	178	41.7	0.82	377.5	36.4	168	32.1	0.80
	Missing	*	*	1	0.2	*	*	*	13	2.5	*
Grade	5	*	*	0	0.0	*	*	*	0	0.0	*
	6	*	*	0	0.0	*	*	*	0	0.0	*
	7	*	*	0	0.0	*	*	*	0	0.0	*
	8	*	*	0	0.0	*	*	*	0	0.0	*
	9	360.8	45.7	82	19.2	0.78	*	*	33	6.3	*
	10	379.7	37.1	238	55.7	0.84	372.2	40.5	315	60.2	0.82
	11	367.4	42.6	87	20.4	0.82	373.0	43.2	122	23.3	0.84
	12	*	*	18	4.2	*	*	*	30	5.7	*
	Missing	*	*	2	0.5	*	*	*	23	4.4	*
Special Education	Yes	356.6	47.9	58	13.6	0.85	341.1	48.2	53	10.1	0.71
	No	375.0	39.2	361	84.5	0.83	373.9	40.5	453	86.6	0.82
	Exited	*	*	1	0.2	*	*	*	1	0.2	*
	Exited and placed in 504 ^a	*	*	0	0.0	*	*	*	0	0.0	*
	504	*	*	7	1.6	*	*	*	16	3.1	*
Ethnicity	American Indian	*	*	4	0.9	*	*	*	3	0.6	*
	Asian	*	*	10	2.3	*	*	*	21	4.0	*
	African American	374.6	39.4	172	40.3	0.81	365.9	43.3	291	55.6	0.81
	Hawaiian/ Pacific Islander	*	*	2	0.5	*	*	*	0	0.0	*
	White	373.9	38.6	111	26.0	0.87	379.4	41.3	140	26.8	0.85
	Hispanic	366.0	43.2	99	23.2	0.79	*	*	29	5.5	*
	Missing	*	*	29	6.8	*	*	*	39	7.5	*
Limited English Proficient	Yes	*	*	9	2.1	*	*	*	9	1.7	*
	No	373.1	40.6	414	97.0	0.84	370.6	42.5	510	97.5	0.83
	Exited ^b	*	*	4	0.9	*	*	*	4	0.8	*

*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 2014 Forms

		Primary Form A					Makeup Form C				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		413.1	42.9	3,761	100.0	0.94	409.6	43.5	1,709	100.0	0.94
Gender	Male	412.6	45.2	1,944	51.7	0.95	410.2	45.9	887	51.9	0.94
	Female	413.7	40.2	1,816	48.3	0.94	409.2	40.6	817	47.8	0.93
	Missing	*	*	1	0.0	*	*	*	5	0.3	*
Grade	5	*	*	0	0.0	*	*	*	0	0.0	*
	6	*	*	0	0.0	*	*	*	0	0.0	*
	7	*	*	0	0.0	*	*	*	0	0.0	*
	8	*	*	0	0.0	*	*	*	0	0.0	*
	9	426.1	37.0	2,106	56.0	0.93	422.9	38.8	965	56.5	0.93
	10	404.6	39.9	1,060	28.2	0.93	397.0	41.9	476	27.9	0.92
	11	383.5	49.5	416	11.1	0.93	388.1	40.8	185	10.8	0.90
	12	377.8	43.5	173	4.6	0.91	377.8	52.0	74	4.3	0.91
	Missing	*	*	6	0.2	*	*	*	9	0.5	*
Special Education	Yes	375.6	44.7	390	10.4	0.91	376.9	40.8	291	17.0	0.88
	No	417.7	41.0	3,107	82.6	0.94	416.7	41.5	1,274	74.5	0.93
	Exited	417.0	32.7	109	2.9	0.93	410.7	39.2	65	3.8	0.93
	Exited and placed in 504 ^a	*	*	28	0.7	*	*	*	13	0.8	*
	504	412.0	36.5	127	3.4	0.93	414.3	32.6	66	3.9	0.93
Ethnicity	American Indian	*	*	13	0.3	*	*	*	6	0.4	*
	Asian	428.8	46.3	103	2.7	0.95	*	*	30	1.8	*
	African American	381.5	41.4	1,097	29.2	0.90	383.7	46.6	503	29.4	0.91
	Hawaiian/ Pacific Islander	*	*	4	0.1	*	*	*	5	0.3	*
	White	428.4	34.6	2,183	58	0.93	423.5	35.8	964	56.4	0.93
	Hispanic	408.6	41.3	259	6.9	0.93	401.1	39.0	140	8.2	0.92
	Missing	418.4	33.6	102	2.7	0.93	412.2	32.2	61	3.6	0.92
	Limited English Proficient	Yes	370.1	42.9	57	1.5	0.82	373.1	44.1	52	3.0
No	413.6	42.7	3,645	96.9	0.94	410.7	43.2	1,629	95.3	0.94	
Exited ^b	423.7	30.2	59	1.6	0.92	*	*	28	1.6	*	

*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 6.22 Summary Statistics for MD HSA Government: May 2014 Forms

		Primary Form D					Makeup 1 Form X					Makeup 2 Form Y				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		418.6	39.1	39,240	100.0	0.94	416.7	40.9	4,710	100.0	0.94	417.5	40.0	4,334	100.0	0.94
Gender	Male	417.6	42.1	19,693	50.2	0.95	416.0	44.6	2,398	50.9	0.95	415.5	43.7	2,163	49.9	0.94
	Female	419.7	35.6	19,420	49.5	0.94	417.5	36.5	2,306	49.0	0.94	419.5	35.9	2,170	50.1	0.94
	Missing	414.7	42.1	127	0.3	0.94	*	*	6	0.1	*	*	*	1	0.0	*
Grade	5	*	*	0	0.0	*	*	*	0	0.0	*	*	*	0	0.0	*
	6	*	*	1	0.0	*	*	*	0	0.0	*	*	*	0	0.0	*
	7	*	*	0	0.0	*	*	*	0	0.0	*	*	*	0	0.0	*
	8	*	*	2	0.0	*	*	*	0	0.0	*	*	*	0	0.0	*
	9	417.2	40.4	15,694	40.0	0.94	415.1	40.3	2,034	43.2	0.94	414.6	39.4	1,986	45.8	0.94
	10	420.5	36.7	20,269	51.7	0.94	420.3	39.4	2,272	48.2	0.94	421.4	39.5	2,072	47.8	0.94
	11	414.7	44.8	2,965	7.6	0.95	405.4	48.3	367	7.8	0.95	410.2	42.9	266	6.1	0.95
	12	405.5	56.5	168	0.4	0.96	*	*	20	0.4	*	*	*	10	0.2	*
Missing	408.2	45.7	141	0.4	0.94	*	*	17	0.4	*	*	*	0	0.0	*	
Special Education	Yes	379.5	43.6	3,273	8.3	0.91	380.9	43.0	321	6.8	0.91	378.6	45.7	280	6.5	0.92
	No	422.5	36.6	34,388	87.6	0.94	419.5	39.5	4,200	89.2	0.94	420.5	38.3	3,868	89.2	0.94
	Exited	407.4	35.0	268	0.7	0.93	*	*	25	0.5	*	*	*	31	0.7	*
	Exited and placed in 504 ^a	411.1	30.4	79	0.2	0.92	*	*	7	0.1	*	*	*	7	0.2	*
	504	418.0	35.9	1,232	3.1	0.93	416.8	39.8	157	3.3	0.94	415.9	33.8	148	3.4	0.94
Ethnicity	American Indian	410.9	41.3	130	0.3	0.94	*	*	17	0.4	*	*	*	15	0.3	*
	Asian	437.4	35.6	2,071	5.3	0.94	441.3	41.1	247	5.2	0.94	440.6	35.1	255	5.9	0.93
	African American	403.3	38.6	14,942	38.1	0.93	400.5	39.2	1,818	38.6	0.93	401.6	38.6	1,601	36.9	0.93
	Hawaiian/ Pacific Islander	409.8	37.7	58	0.1	0.93	*	*	6	0.1	*	*	*	3	0.1	*
	White	432.0	33.8	16,610	42.3	0.93	430.5	35.9	1,981	42.1	0.94	429.5	35.6	1,931	44.6	0.93
	Hispanic	407.7	39.0	3,866	9.9	0.93	406.7	41.4	431	9.2	0.94	405.7	43.2	374	8.6	0.94
	Missing	426.3	35.2	1,563	4.0	0.94	421.1	37.2	210	4.5	0.94	426.7	34.0	155	3.6	0.93
Limited English Proficient	Yes	375.2	43.5	766	2.0	0.90	365.4	41.3	77	1.6	0.82	372.4	47.4	95	2.2	0.90
	No	419.5	38.5	38,277	97.5	0.94	417.6	40.4	4,604	97.7	0.94	418.5	39.3	4,218	97.3	0.94
	Exited ^b	419.0	30.0	197	0.5	0.91	*	*	29	0.6	*	*	*	21	0.5	*

*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: Summer 2014 Forms

		Primary 1 Form P					Primary 2 Form Q				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		384.1	34.4	52	100.0	0.91	385.9	42.1	178	100.0	0.91
Gender	Male	*	*	33	63.5	*	383.2	45.7	115	64.6	0.91
	Female	*	*	19	36.5	*	391.7	34.5	61	34.3	0.91
	Missing	*	*	0	0.0	*	*	*	2	1.1	*
Grade	5	*	*	0	0.0	*	*	*	0	0.0	*
	6	*	*	0	0.0	*	*	*	0	0.0	*
	7	*	*	0	0.0	*	*	*	0	0.0	*
	8	*	*	0	0.0	*	*	*	0	0.0	*
	9	*	*	20	38.5	*	385.3	36.5	118	66.3	0.89
	10	*	*	23	44.2	*	*	*	35	19.7	*
	11	*	*	8	15.4	*	*	*	8	4.5	*
	12	*	*	1	1.9	*	*	*	5	2.8	*
	Missing	*	*	0	0.0	*	*	*	12	6.7	*
Special Education	Yes	*	*	28	53.8	*	*	*	41	23.0	*
	No	*	*	22	42.3	*	389.6	35.2	129	72.5	0.90
	Exited	*	*	0	0.0	*	*	*	0	0.0	*
	Exited and placed in 504 ^a	*	*	0	0.0	*	*	*	0	0.0	*
	504	*	*	2	3.8	*	*	*	8	4.5	*
Ethnicity	American Indian	*	*	0	0.0	*	*	*	1	0.6	*
	Asian	*	*	0	0.0	*	*	*	1	0.6	*
	African American	*	*	23	44.2	*	376.8	44.9	108	60.7	0.90
	Hawaiian/ Pacific Islander	*	*	0	0.0	*	*	*	0	0.0	*
	White	*	*	23	44.2	*	*	*	44	24.7	*
	Hispanic	*	*	5	9.6	*	*	*	7	3.9	*
	Missing	*	*	1	1.9	*	*	*	17	9.6	*
Limited English Proficient	Yes	*	*	2	3.8	*	*	*	1	0.6	*
	No	384.1	35.1	50	96.2	0.91	385.8	42.2	176	98.9	0.91
	Exited ^b	*	*	0	0.0	*	*	*	1	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.

Demographic Characteristics

Demographic characteristics of the students that took the October, January, April, May, and Summer MD HSAs are described in Tables 6.24 to 6.27. 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 two field test versions were included in the January administration to ensure sufficient sample sizes for the analyses of the field test items.

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

Table 6.24 Demographic Information for 2014 MD HSA Algebra

		October Form		January Primary Forms		January Makeup Form		April Form		May Primary Forms		May Makeup Forms		Summer Forms	
		<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Overall		15,640	100.0	10,006	100.0	4,944	100.0	1,602	100.0	60,256	100.0	12,363	100.0	1,170	100.0
Gender	Male	7,899	50.5	5,104	51.0	2,626	53.1	784	48.9	30,064	49.9	6,340	51.3	697	59.6
	Female	7,690	49.2	4,722	47.2	2,314	46.8	815	50.9	29,299	48.6	5,991	48.5	437	37.4
	Missing	51	0.3	180	1.8	4	0.1	3	0.2	893	1.5	32	0.3	36	4.5
Special Education	Yes	2,172	17.3	1,396	14.0	1,376	27.8	237	14.8	6,534	10.8	1,010	8.2	177	15.1
	No	12,208	78.1	8,013	80.1	3,317	67.1	1,324	82.6	51,139	84.9	10,824	87.6	956	81.7
	Exited	135	0.9	153	1.5	54	1.1	4	0.2	505	0.8	112	0.9	2	0.2
	Exited and placed in 504 ^a	22	0.1	32	0.3	18	0.4	1	0.1	106	0.2	18	0.1	0	0.0
	504	563	3.6	412	4.1	179	3.6	36	2.2	1,972	3.3	399	3.2	35	3.0
Ethnicity	American Indian	55	0.4	36	0.4	15	0.3	5	0.3	179	0.3	38	0.3	4	0.3
	Asian	308	2.0	180	1.8	89	1.8	20	1.2	3,334	5.5	560	4.5	16	1.4
	African American	10,029	64.1	5,413	54.1	2,807	56.8	1,225	76.5	23,878	39.6	5,593	45.2	607	51.9
	Hawaiian/ Pacific Islander	21	0.1	16	0.2	6	0.1	2	0.1	95	0.2	17	0.1	6	0.5
	White	2,951	18.9	2,835	28.3	1,330	26.9	123	7.7	21,966	36.5	4,154	33.6	349	29.8
	Hispanic	1,894	12.1	1,060	10.6	568	11.5	212	13.2	7,729	12.8	1,497	12.1	112	9.6
	Missing	382	2.4	466	4.7	129	2.6	15	0.9	3,075	5.1	504	4.1	76	6.5
Limited English Proficient	Yes	940	6.0	512	5.1	311	6.3	134	8.4	2,707	4.5	458	3.7	28	2.4
	No	14,554	93.1	9,388	93.8	4,589	92.8	1,461	91.2	57,127	94.8	11,851	95.9	1,134	96.9
	Exited ^b	146	0.9	106	1.1	44	0.9	7	0.4	422	0.7	54	0.4	8	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 6.25 Demographic Information for 2014 MD HSA Biology

		October Form		January Primary Forms		January Makeup Form		April Form		May Primary Forms		May Makeup Forms		Summer Forms	
		<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Overall		11,640	100.0	7,764	100.0	4,463	100.0	1,712	100.0	51,281	100.0	10,697	100.0	552	100.0
Gender	Male	5,674	48.7	3,841	49.5	2,258	50.6	857	50.1	25,697	50.1	5,267	49.2	312	56.5
	Female	5,923	50.9	3,868	49.8	2,168	48.6	852	49.8	25,489	49.7	5,412	50.6	238	43.1
	Missing	43	0.4	55	0.7	37	0.8	3	0.2	95	0.2	18	0.2	2	1.4
Special Education	Yes	1,838	15.8	778	10.0	898	20.1	252	14.7	4,239	8.3	781	7.3	87	15.8
	No	9,346	80.3	6,552	84.4	3,346	75.0	1,418	82.8	45,037	87.8	9,473	88.6	448	81.2
	Exited	82	0.7	134	1.7	55	1.2	7	0.4	299	0.6	81	0.8	3	0.5
	Exited and placed in 504 ^a	11	0.1	30	0.4	13	0.3	1	0.1	67	0.1	18	0.2	0	0.0
	504	363	3.1	270	3.5	151	3.4	34	2.0	1,639	3.2	344	3.2	14	2.5
Ethnicity	American Indian	38	0.3	26	0.3	8	0.2	12	0.7	165	0.3	32	0.3	1	0.2
	Asian	294	2.5	220	2.8	122	2.7	40	2.3	3,162	6.2	571	5.3	8	1.4
	African American	7,451	64.0	3,508	45.2	2,056	46.1	1,224	71.5	19,958	38.9	4,414	41.3	328	59.4
	Hawaiian/ Pacific Islander	14	0.1	8	0.1	5	0.1	4	0.2	70	0.1	9	0.1	1	0.2
	White	2,151	18.5	3,004	38.7	1,708	38.3	198	11.6	20,196	39.4	4,214	39.4	141	25.5
	Hispanic	1,392	12.0	750	9.7	420	9.4	209	12.2	5,789	11.3	1,054	9.9	46	8.3
	Missing	300	2.6	248	3.2	144	3.2	25	1.5	1,941	3.8	403	3.8	27	4.9
Limited English Proficient	Yes	603	5.2	324	4.2	169	3.8	134	7.8	1,291	2.5	217	2.0	3	0.5
	No	10,916	93.8	7,332	94.4	4,248	95.2	1,567	91.5	49,568	96.7	10,416	97.4	549	99.5
	Exited ^b	121	1.0	108	1.4	46	1.0	11	0.6	422	0.8	64	0.6	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 6.26 Demographic Information for 2014 MD HSA 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		13,422	100.0	9,154	100.0	3,973	100.0	1,925	100.0	49,387	100.0	10,204	100.0	950	100.0
Gender	Male	7,734	57.6	5,029	54.9	2,281	57.4	1,067	55.4	25,005	50.6	5,220	51.2	590	62.1
	Female	5,606	41.8	4,028	44.0	1,691	42.6	856	44.5	24,289	49.2	4,966	48.7	346	36.4
	Missing	82	0.6	97	1.1	1	0.0	2	0.1	93	0.2	18	0.2	14	1.5
Special Education	Yes	2,241	16.7	985	10.8	975	24.5	275	14.3	4,127	8.4	695	6.8	111	11.7
	No	10,547	78.6	7,624	83.3	2,805	70.6	1,601	83.2	43,405	87.9	9,084	89.0	814	85.7
	Exited	122	0.9	146	1.6	47	1.2	6	0.3	262	0.5	69	0.7	2	0.2
	Exited and placed in 504 ^a	22	0.2	33	0.4	12	0.3	1	0.1	55	0.1	17	0.2	0	0.0
	504	490	3.7	366	4.0	134	3.4	42	2.2	1,538	3.1	339	3.3	23	2.4
Ethnicity	American Indian	44	0.3	34	0.4	14	0.4	7	0.4	151	0.3	32	0.3	7	0.7
	Asian	410	3.1	265	2.9	105	2.6	57	3.0	3,171	6.4	553	5.4	31	3.3
	African American	7,732	57.6	3,956	43.2	1,937	48.8	1,361	70.7	18,358	37.2	3,943	38.6	463	48.7
	Hawaiian/ Pacific Islander	20	0.1	15	0.2	4	0.1	6	0.3	69	0.1	15	0.1	2	0.2
	White	2,995	22.3	3,457	37.8	1,369	34.5	191	9.9	20,239	41.0	4,211	41.3	251	26.4
	Hispanic	1,859	13.9	1,022	11.2	466	11.7	286	14.9	5,552	11.2	1,072	10.5	128	13.5
	Missing	362	2.7	405	4.4	78	2.0	17	0.9	1,847	3.7	378	3.7	68	7.2
Limited English Proficient	Yes	821	6.1	448	4.9	236	5.9	220	11.4	997	2.0	177	1.7	18	1.9
	No	12,407	92.4	8,532	93.2	3,692	92.9	1,687	87.6	47,942	97.1	9,938	97.4	924	97.3
	Exited ^b	194	1.4	174	1.9	45	1.1	18	0.9	448	0.9	89	0.9	8	0.8

^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 2014 MD HSA 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		-	-	3,761	100.0	1,709	100.0	-	-	39,240	100.0	9,044	100.0	230	100.0
Gender	Male	-	-	1,944	51.7	887	51.9	-	-	19,693	50.2	4,561	50.4	148	64.3
	Female	-	-	1,816	48.3	817	47.8	-	-	19,420	49.5	4,476	49.5	80	34.8
	Missing	-	-	1	0.0	5	0.3	-	-	127	0.3	7	0.1	2	0.9
Special Education	Yes	-	-	390	10.4	291	17.0	-	-	3,273	8.3	601	6.6	69	30.0
	No	-	-	3,107	82.6	1,274	74.5	-	-	34,388	87.6	8,068	89.2	151	65.7
	Exited	-	-	109	2.9	65	3.8	-	-	268	0.7	56	0.6	0	0.0
	Exited and placed in 504 ^a	-	-	28	0.7	13	0.8	-	-	79	0.2	14	0.2	0	0.0
	504	-	-	127	3.4	66	3.9	-	-	1,232	3.1	305	3.4	10	4.3
Ethnicity	American Indian	-	-	13	0.3	6	0.4	-	-	130	0.3	32	0.4	1	0.4
	Asian	-	-	103	2.7	30	1.8	-	-	2,071	5.3	502	5.6	1	0.4
	African American	-	-	1,097	29.2	503	29.4	-	-	14,942	38.1	3,419	37.8	131	57.0
	Hawaiian/ Pacific Islander	-	-	4	0.1	5	0.3	-	-	58	0.1	9	0.1	0	0.0
	White	-	-	2,183	58.0	964	56.4	-	-	16,610	42.3	3,912	43.3	67	29.1
	Hispanic	-	-	259	6.9	140	8.2	-	-	3,866	9.9	805	8.9	12	5.2
	Missing	-	-	102	2.7	61	3.6	-	-	1,563	4.0	365	4.0	18	7.8
Limited English Proficient	Yes	-	-	57	1.5	52	3.0	-	-	766	2.0	172	1.9	3	1.3
	No	-	-	3,645	96.9	1,629	95.3	-	-	38,277	97.5	8,822	97.5	226	98.3
	Exited ^b	-	-	59	1.6	28	1.6	-	-	197	0.5	50	0.6	1	0.4

^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), item response theory (IRT) 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 English language learners, 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 MD 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 test takers 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 proportion of test takers 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 a point-biserial correlation for an incorrect answer is strong relative to the correct answer, the item is 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.

Percentage 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 2012 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:* Percentage 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 2014 are shown in Tables 7.1 and 7.2, respectively. Corresponding results for the field test items administered in May 2014 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 well; therefore they were not removed from scaling.

Table 7.1 Distribution of p -Values for the MD HSA January 2014 Field Test Items

p -Value	Percentage and Number of Items							
	Algebra ^a		Biology		English		Government	
	%	N	%	N	%	N	%	N
$p < 0.25$	50	16	0	0	9	7	10	3
$0.25 \leq p < 0.35$	25	8	9	4	14	11	10	3
$0.35 \leq p < 0.45$	9	3	26	12	26	20	14	4
$0.45 \leq p < 0.55$	9	3	24	11	32	24	14	4
$0.55 \leq p < 0.65$	3	1	26	12	8	6	14	4
$0.65 \leq p < 0.75$	3	1	4	2	9	7	28	8
$0.75 \leq p < 0.85$	0	0	9	4	1	1	7	2
$p \geq 0.85^b$	0	0	2	1	0	0	3	1
Descriptive Statistics								
No. Items	32		46		76		29	
Mean	0.27		0.52		0.44		0.54	
SD	0.16		0.15		0.14		0.20	
Min	0.02		0.25		0.15		0.15	
Max	0.70		0.87		0.79		0.89	

^a SPR items included; ^b p -Value > 0.90: none

Table 7.2 Distribution of Item-Total Correlations for the MD HSA January 2014 Field Test Items

Correlation	Percentage and Number of Items							
	Algebra ^a		Biology		English		Government	
	%	N	%	N	%	N	%	N
$r < 0.15^c$	47	15	4	2	21	16	7	2
$0.15 \leq r < 0.25$	9	3	7	3	24	18	17	5
$0.25 \leq r < 0.35$	28	9	26	12	24	18	7	2
$0.35 \leq r < 0.45$	16	5	35	16	26	20	28	8
$0.45 \leq r < 0.55$	0	0	28	13	5	4	17	5
$0.55 \leq r < 0.65$	0	0	0	0	0	0	7	2
$0.65 \leq r < 0.75$	0	0	0	0	0	0	10	3
$r \geq 0.75$	0	0	0	0	0	0	7	2
Descriptive Statistics								
No. Items	32		46		76		29	
Mean	0.20		0.37		0.26		0.43	
SD	0.13		0.11		0.13		0.19	
Min	-0.03		0.11		-0.11		0.04	
Max	0.45		0.54		0.49		0.78	

^a SPR items included; ^c $r < 0.10$: 6 Algebra, 9 English, and 1 Government item

Table 7.3 Distribution of p -Values for the MD HSA May 2014 Field Test Items

p -Value	Percentage and Number of Items							
	Algebra ^a		Biology		English		Government	
	%	N	%	N	%	N	%	N
$p < 0.25$	16	13	2	2	4	8	1	1
$0.25 \leq p < 0.35$	18	14	4	4	8	15	14	10
$0.35 \leq p < 0.45$	20	16	5	6	10	19	14	10
$0.45 \leq p < 0.55$	23	18	19	22	16	31	14	10
$0.55 \leq p < 0.65$	11	9	20	23	20	38	26	18
$0.65 \leq p < 0.75$	9	7	24	27	26	49	14	10
$0.75 \leq p < 0.85$	3	2	22	25	15	28	16	11
$p \geq 0.85^b$	1	1	5	6	1	2	0	0
Descriptive Statistics								
No. Items	80		115		190		70	
Mean	0.43		0.63		0.58		0.55	
SD	0.17		0.15		0.17		0.17	
Min	0.12		0.21		0.14		0.24	
Max	0.85		0.93		0.87		0.83	

^a SPR items included; ^b p -value > 0.90 : 1 Biology

Table 7.4 Distribution of Item-Total Correlations for the MD HSA May 2014 Field Test Items

Correlation	Percentage and Number of Items							
	Algebra ^a		Biology		English		Government	
	%	N	%	N	%	N	%	N
$r < 0.15^c$	6	5	4	4	15	29	6	4
$0.15 \leq r < 0.25$	6	5	8	9	16	31	9	6
$0.25 \leq r < 0.35$	25	20	21	24	30	56	19	13
$0.35 \leq r < 0.45$	29	23	31	36	26	49	24	17
$0.45 \leq r < 0.55$	26	21	35	40	12	23	27	19
$0.55 \leq r < 0.65$	8	6	2	2	1	2	4	3
$0.65 \leq r < 0.75$	0	0	0	0	0	0	11	8
$r \geq 0.75$	0	0	0	0	0	0	0	0
Descriptive Statistics								
No. Items	80		115		190		70	
Mean	0.38		0.39		0.30		0.42	
SD	0.13		0.11		0.14		0.16	
Min	-0.04		0.03		-0.20		0.07	
Max	0.64		0.56		0.56		0.72	

^a SPR items included; ^c $r_{bis} < 0.10$: 3 Algebra, 1 Biology, 14 English, and 1 Government item

Table 7.5 MD HSA Field Test Items Excluded from Calibration

Administration	Content	ItemID	Form	Sequence	Response Type	Reason
January	Algebra	415183	A	12	SR	<i>rbis</i> = 0.01
	Algebra	415980	A	28	SR	<i>rbis</i> = 0.08
	Algebra	415255	B	9	SR	<i>rbis</i> = 0.05
	Algebra	416011	B	14	SR	<i>rbis</i> = 0.01
	Algebra	421342	B	45	SR	<i>rbis</i> = 0.09
	Algebra	422610	B	59	SR	<i>rbis</i> = -0.03
	English	421437	A	72	SR	<i>rbis</i> = 0.06
	English	421443	A	76	SR	<i>rbis</i> = 0.06
	English	392654	A	93	SR	<i>rbis</i> = -0.16
	English	423573	B	14	SR	<i>rbis</i> = 0.09
	English	423574	B	15	SR	<i>rbis</i> = 0.05
	English	422535	B	71	SR	<i>rbis</i> = 0.08
	English	422538	B	73	SR	<i>rbis</i> = 0.06
	English	392659	B	94	SR	<i>rbis</i> = 0.09
	English	395686	B	95	SR	<i>rbis</i> = 0.04
	Government	374691	A	42	SR	<i>rbis</i> = 0.06
	May	Algebra	423607	D	50	SR
Algebra		415199	E	30	SR	<i>rbis</i> = -0.03
Algebra		369151	F	30	SR	<i>rbis</i> = 0.05
Biology		416560	G	46	SR	<i>rbis</i> = 0.04
English		416263	D	10	SR	<i>rbis</i> = 0.06
English		422545	D	19	SR	<i>rbis</i> = -0.30
English		415207	D	79	SR	<i>rbis</i> = -0.20
English		415219	D	87	SR	<i>rbis</i> = -0.06
English		416242	E	9	SR	<i>rbis</i> = 0.08
English		416244	E	11	SR	DNU
English		416447	E	82	SR	<i>rbis</i> = 0.04
English		416448	E	83	SR	<i>rbis</i> = 0.08
English		416452	E	86	SR	<i>rbis</i> = 0.05
English		416255	F	12	SR	<i>rbis</i> = 0.01
English		449324	F	85	SR	<i>rbis</i> = 0.06
English		421365	F	90	SR	<i>rbis</i> = -0.01
English		415221	G	8	SR	<i>rbis</i> = 0.07
English	415226	G	12	SR	<i>rbis</i> = 0.00	
Government	374488	F	6	SR	<i>rbis</i> = 0.09	

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

January	<i>p</i> - Value < 0.10	P <i>p</i> Value > 0.90	R_ITT < 0.10	Distractor <i>r</i> _{bis} > 0	Omit Rate > 5%	C- Level DIF	Missing Response ^a	Total Flags	No. Items ^b
Algebra	4	0	3	6	4	1	0	18	13
Biology	0	0	0	5	0	0	0	5	5
English	0	0	2	18	0	3	0	23	21
Government	0	0	1	3	0	0	0	4	3

May	<i>p</i> - Value < 0.10	<i>p</i> - Value > 0.90	R_ITT < 0.10	Distractor <i>r</i> _{bis} > 0	Omit Rate > 5%	C- Level DIF	Missing Response ^a	Total Flags	No. Items ^b
Algebra	0	0	0	9	7	2	0	18	17
Biology	0	1	2	9	0	2	0	14	11
English	0	0	7	36	0	7	0	50	44
Government	0	0	0	10	0	0	0	10	10

^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 in which focal groups (e.g., Females, African Americans, Hispanics) of students with the same underlying level of ability have different probabilities than reference groups (e.g., Males, Whites) of answering correctly. If the item is more difficult for an identifiable focal 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

⁷ The formula for the estimate of constant odds ratio is

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

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 Algebra and three English items were flagged for C-level DIF. Among the items field tested in May, two items each for Algebra and Biology, and seven English items were flagged for C-level DIF. None of the 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 $+3$, which may be difficult to interpret. 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.

where

- R_{fm} = 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, 1988):

$$MH\ D - DIF = -2.35 \ln[\hat{\alpha}_{MH}] .$$

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 administered” 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 were calibrated, results were reviewed to determine if any items failed to calibrate appropriately.
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. From Summer 2011 to October 2012, the Government test was excluded from the MD Mod-HSAs. Starting in January 2013, the Government test was re-introduced into the MD Mod-HSAs. The MD Mod-HSAs may be taken in place of one or more of the MD HSAs.

With the reinstatement of Government tests in January 2013, students entering 9th grade in the 2012-2013 school year or in a prior year (including students who entered 9th grade in 2011-2012, 2010-2011, or 2009-2010) have the option of earning a combined score of 1602 on all four MD HSAs or a combined score of 1208 on three MD HSAs (excluding Government) to be granted a Maryland High School Diploma.⁸ Students entering 9th grade in 2013-14 and beyond are required to pass all four HSAs, including Government, or obtain a combined score of 1602 to fulfill the graduation requirement.

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.

⁸ 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.

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>.

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

This chapter of the 2014 technical report provides information about the October 2013 administration and the January, April, May, and Summer (July/August) 2014 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 preequated item parameter estimates. When preequated item parameter estimates are used, the parameters are not estimated following an administration; instead, existing bank parameter estimates 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, 2014).

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.

¹⁰ The report is available at <http://marylandpublicschools.org/MSDE/divisions/planningresultstest/HSA+Technical+Reports.html>.

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 content areas. Of these items 8 (0.01%) were rejected by the Bias/Sensitivity Review Committee, while 159 (22.7 %) items were accepted with edits. In total the two committees accepted a total of 532 (76.1%) items of the 699 MD Mod-HSA test items .

Upon completion of this final round of reviews, MSDE and ETS content specialists conducted another 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 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 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 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

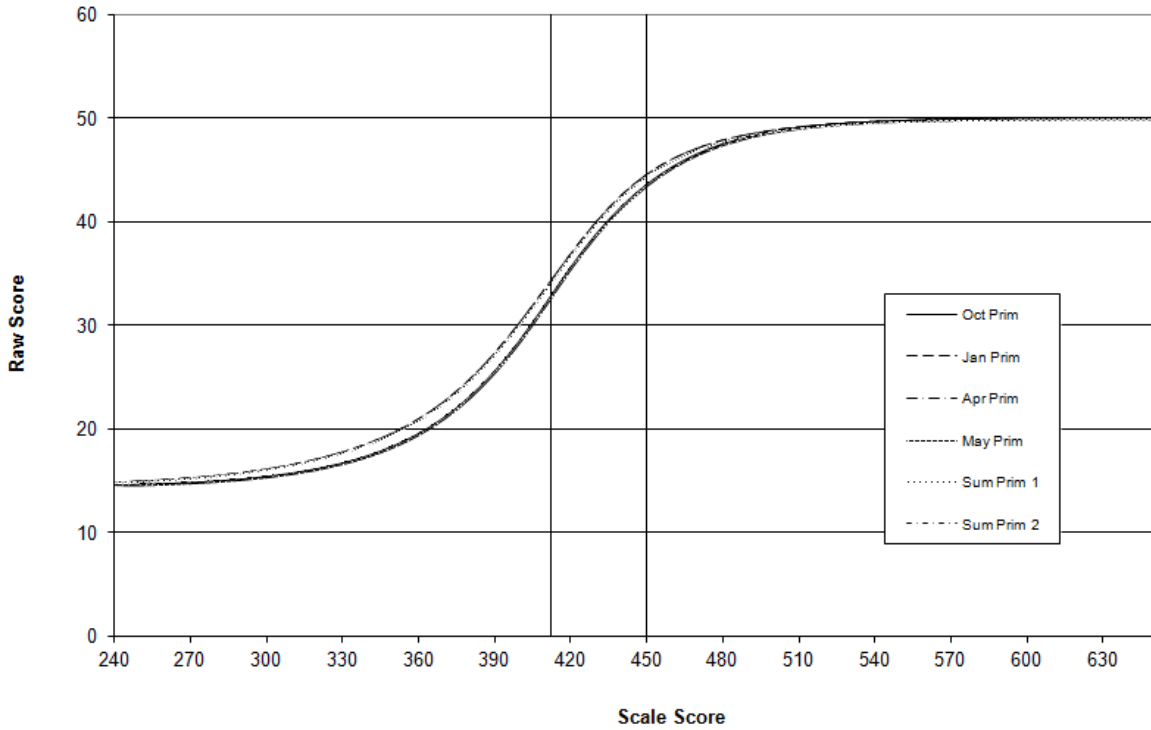
Note: Information about the referenced indicators can be found in the Maryland Core Learning Goals for English on the Maryland School Improvement website at <http://www.mdk12.org/assessments/standards/9-12.html>

Table 9.4 MD Mod-HSA Government Blueprint

Reporting Category	Number of Items
Expectation 1.1 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 parameter estimates 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 360 to 480 for Algebra and Biology, 350 to 490 for English, and 360 to 480 for 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.)



Note: Maximum possible raw score is 50.

Figure 9.1 Test Characteristic Curves for the MD Mod-HSA 2014 Algebra Forms

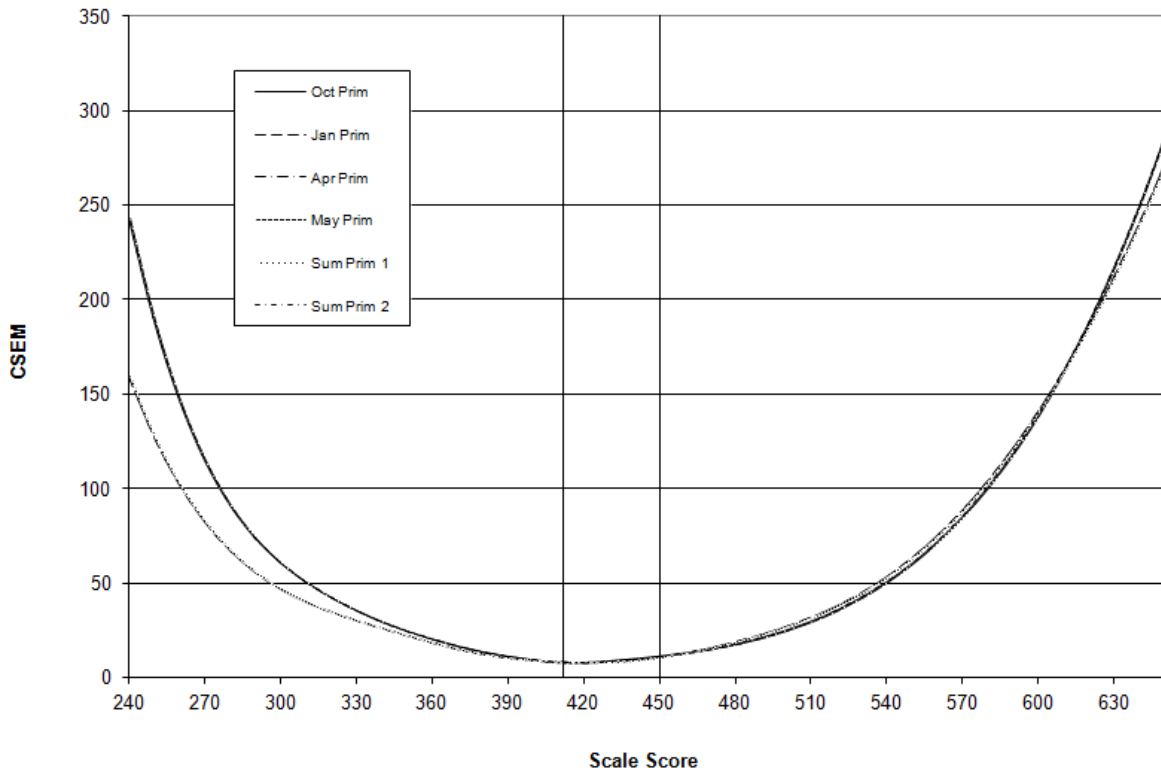
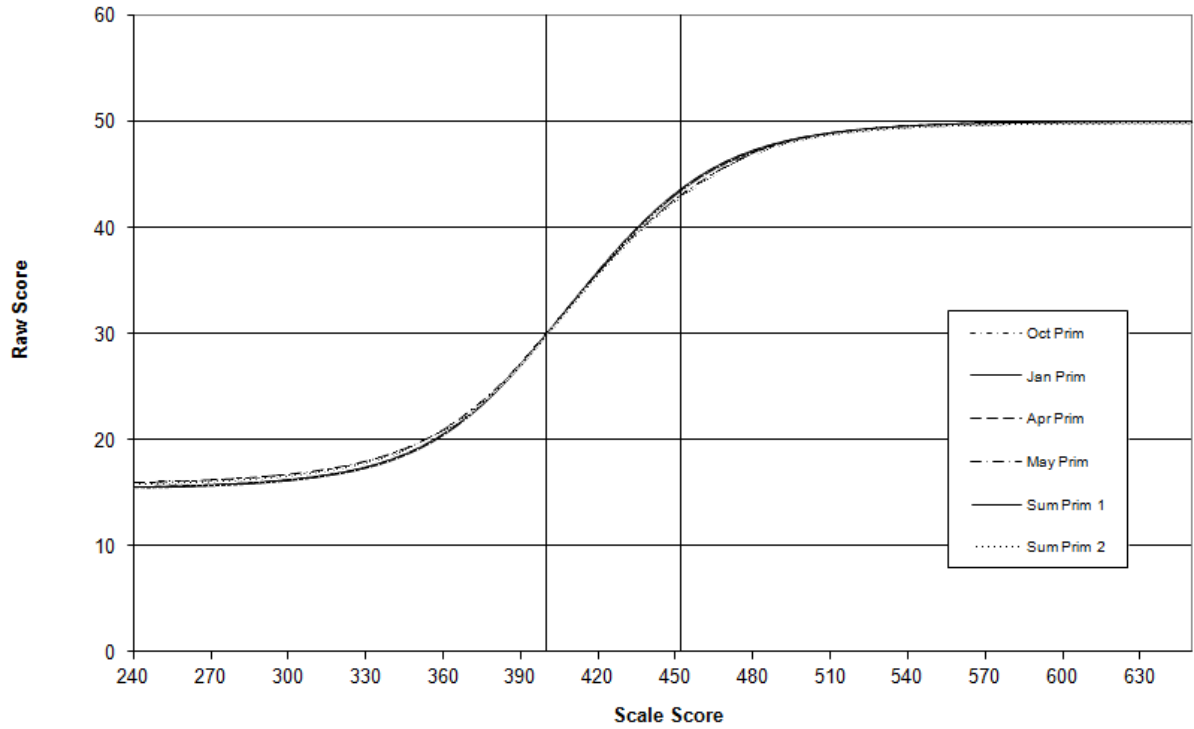


Figure 9.2 Conditional Standard Errors of Measurement for the MD Mod-HSA 2014 Algebra Forms



Note: Maximum possible raw score is 50.

Figure 9.3 Test Characteristic Curves for the MD Mod-HSA 2014 Biology Forms

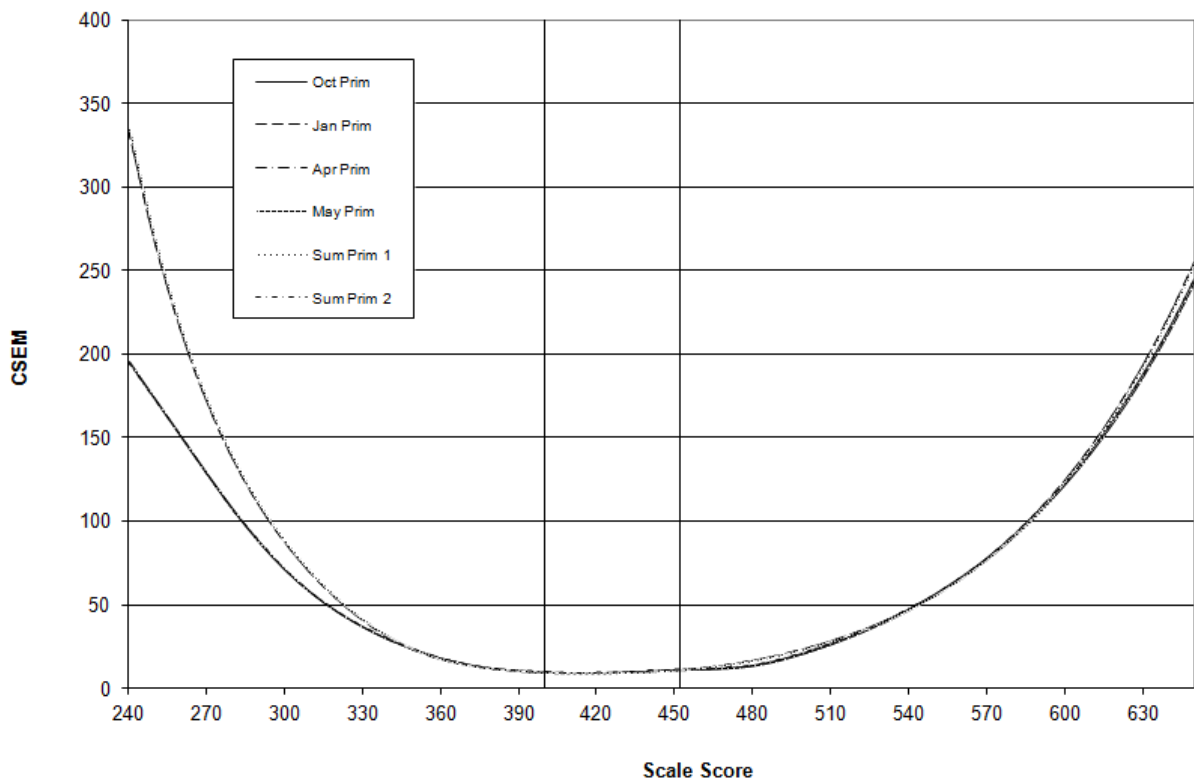
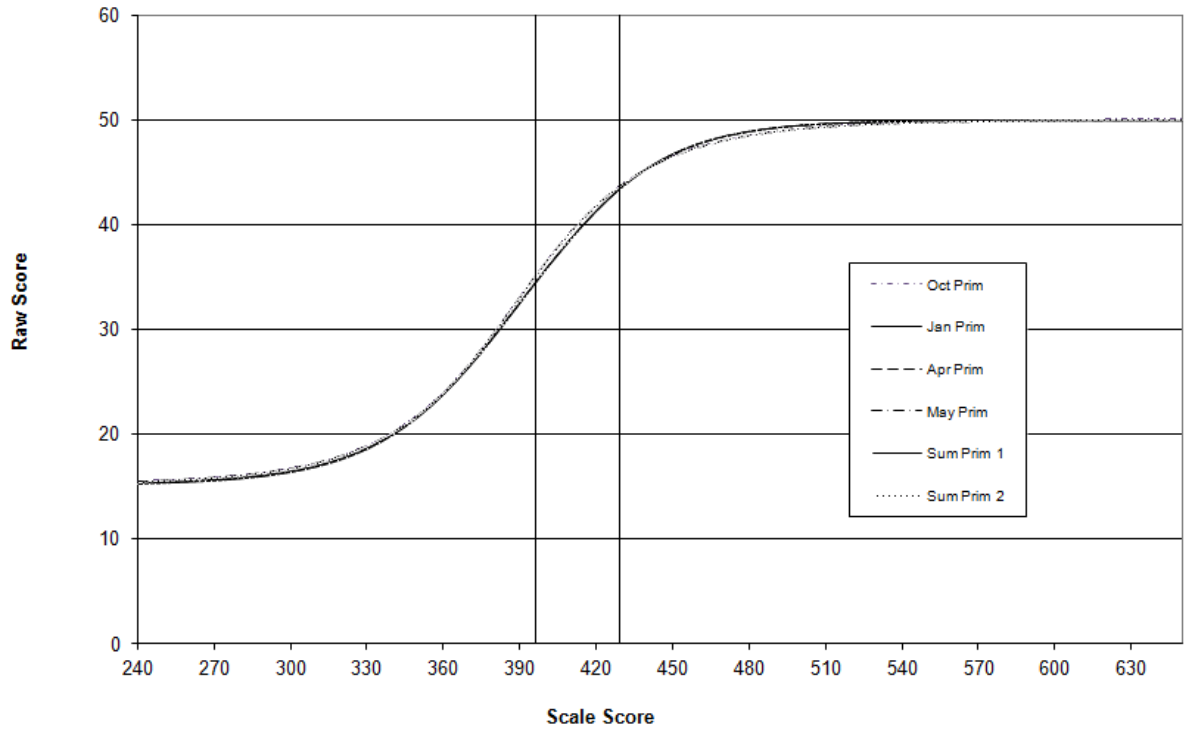


Figure 9.4 Conditional Standard Errors of Measurement for the MD Mod-HSA 2014 Biology Forms



Note: Maximum possible raw score is 50.

Figure 9.5 Test Characteristic Curves for the MD Mod-HSA 2014 English Forms

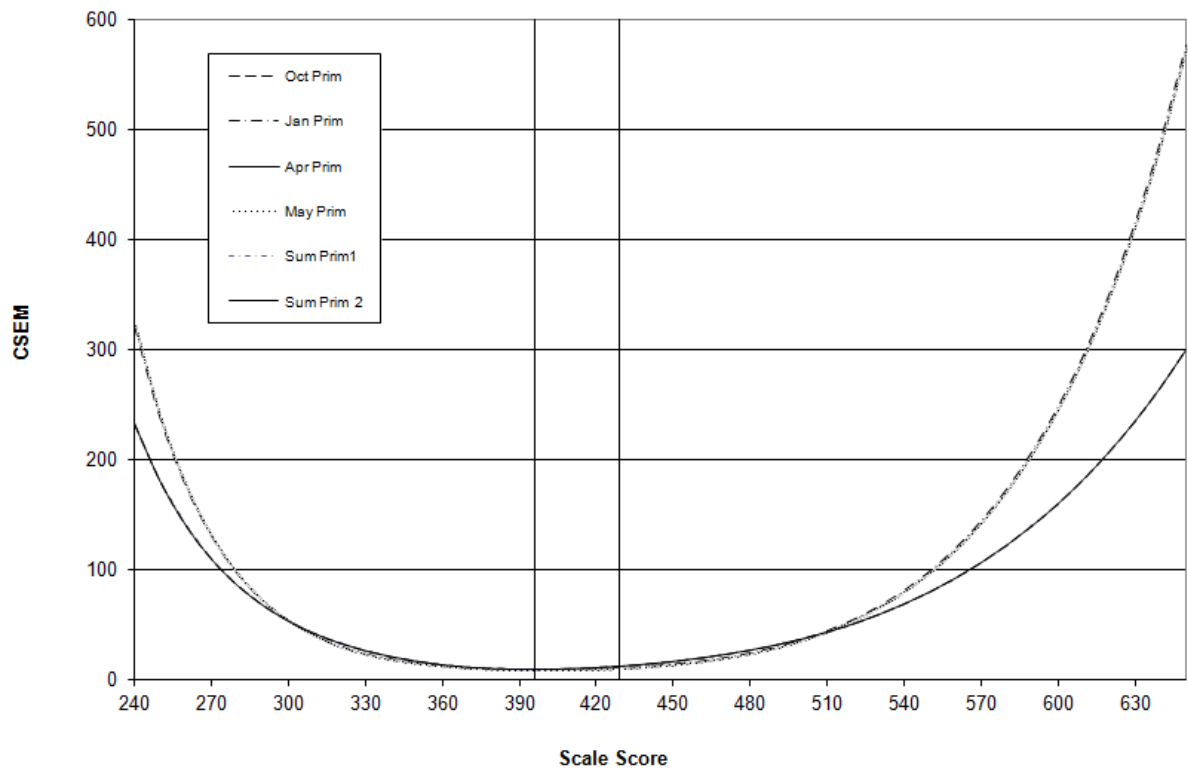
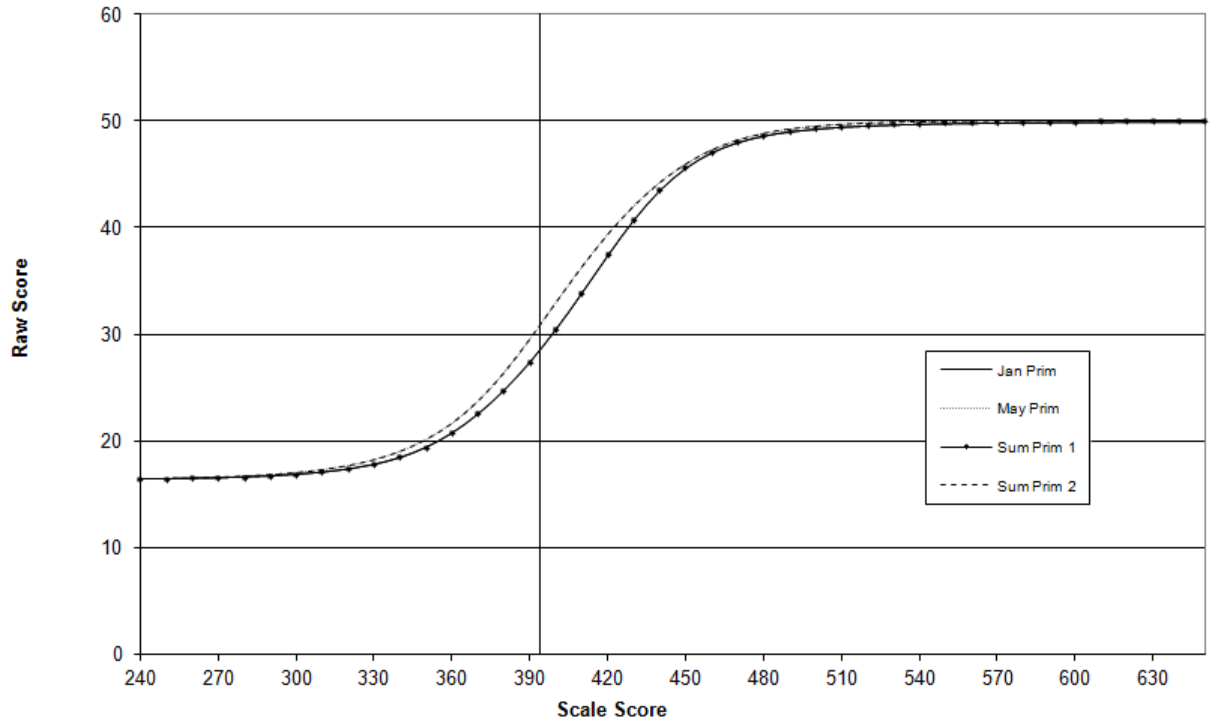


Figure 9.6 Conditional Standard Errors of Measurement for the MD Mod-HSA 2014 English Forms



Note: Maximum possible raw score is 50.

Figure 9.7 Test Characteristic Curves for the MD Mod-HSA 2014 Government Forms

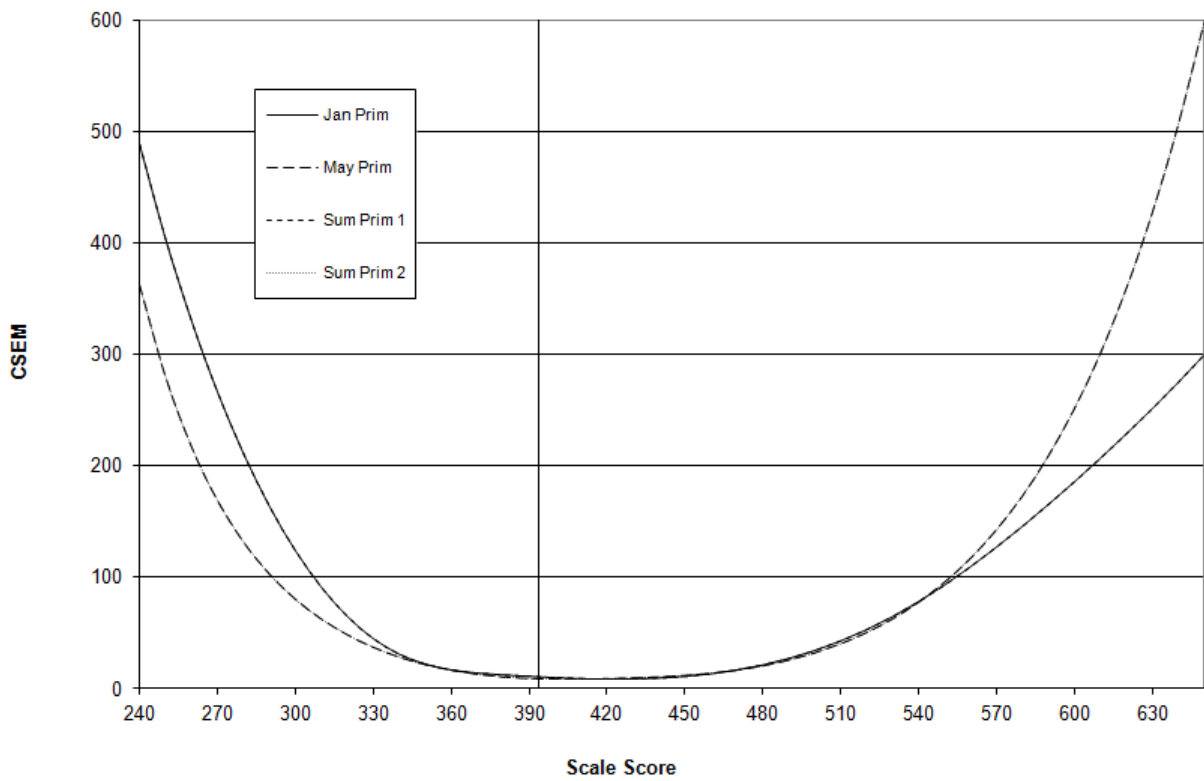


Figure 9.8 Conditional Standard Errors of Measurement for the MD Mod-HSA 2014 Government Forms

Test Administration

The MD Mod-HSA tests were administered both online and on paper in October 2013 and January, April, May, and Summer 2014. One paper and one online MD Mod-HSA form per content area was administered during each administration, with the exception of Summer 2014, when 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 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, 2014; 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, which includes but is not limited to the design, content specifications, item development, psychometric quality assessment, and making inferences from the test results.

Students' scores on the 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 MD 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 has 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.

¹¹Available at <http://marylandpublicschools.org/MSDE/divisions/planningresultstest/HSA+Technical+Reports.html>.

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, 2014, p. 16). 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 which 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 correlations 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 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 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	.61	1				.67	1					
Subscore 2	.57	.30	1			.39	.23	1				
Subscore 3	.75	.31	.31	1		.51	.25	.22	1			
Subscore 4	.36	.22	.23	.20	1	.48	.29	.23	.25	1		
Subscore 5	-	-	-	-	-	.45	.25	.19	.24	.23	1	
Subscore 6	-	-	-	-	-	.52	.26	.25	.24	.26	.22	1

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

Table 10.2 Correlations between MD Mod-HSA 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	.64	1				.63	1				
Subscore 2	.65	.42	1			.65	.38	1			
Subscore 3	.70	.35	.38	1		.56	.32	.34	1		
Subscore 4	.61	.31	.34	.38	1	.53	.25	.28	.25	1	
Subscore 5	-	-	-	-	-	.47	.30	.29	.27	.24	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 2014 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 2014 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-squares 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

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 Confirmatory Factor Analyses Fit Statistics

Content	Forms	# of Factors	# of Items	<i>n</i>	<i>df</i>	χ^2 *	TLI	CFI	RMSEA
Algebra	414	1	50	2,733	1,175	2,456	0.87	0.87	0.020
Biology	414	1	50	1,945	1,175	1,653	0.91	0.92	0.014
English	414	1	50	2,046	1,175	1,805	0.94	0.94	0.016
Government	414	1	50	962	1,175	1,384	0.94	0.94	0.014

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 percentages 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 2 percent for all content areas and sessions, with the exception of the summer forms. The summer administrations of English had omit rates as high as 4.3 percent for items 15 through 50. One summer administration of Biology (Form 514) had omit rates of up to 2.4 percent for items 24 through 45. One summer administration of Algebra (Form 614) had omit rates of 2.2 percent for one item. 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.

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

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 <http://www.marylandpublicschools.org/divisions/planningresultstest/maryland+standard+setting+technical+reports.htm>.

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

With the reinstatement of Government tests in January 2013, students entering 9th grade in the 2012-2013 school year or in a prior year (including students who entered 9th grade in 2011-2012, 2010-2011, or 2009-2010) have the option of earning a combined score of 1602 on all four MD HSAs or a combined score of 1208 on three MD HSAs (excluding Government) to be granted a Maryland High School Diploma.¹⁶ Students entering 9th grade in 2013-14 and beyond are required to pass all four HSAs, including Government, or obtain a combined score of 1602 to fulfill the graduation requirement. 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	--

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-D6164BDEA25C/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.

¹⁶ 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.

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 13.6 to 13.23 of Section 13. The tables show that the overall reliability coefficients for the MD Mod-HSA ranged from 0.56 to 0.82.

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 test takers 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 test takers 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.

The results are provided in Tables 12.1 through 12.18 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 0.86 to 0.91 across all performance levels and content areas and from 0.86 to 0.93 for the Proficient and Advanced classifications in Algebra, Biology, and English. In Government, decision accuracy values were calculated across all the performance levels only, and ranged from 0.88 to 0.93.

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 0.80 to 0.88 across all performance levels and content areas and from 0.80 to 0.90 for the Proficient and Advanced classifications in Algebra, Biology, and English. In Government, decision consistency values were calculated across all performance levels only, and ranged from 0.84 to 0.90.

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 Algebra October 2013

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	450–650	.00	.00	.00	.00
Decision	412–449	.00	.02	.02	.04
Accuracy	240–411	.02	.06	.88	.96
Estimated Proportion Correctly Classified*: Total = 0.90, Proficient & Above = 0.90					
	450–650	.00	.00	.00	.00
Decision	412–449	.00	.01	.03	.04
Consistency	240–411	.04	.09	.83	.96
Estimated Proportion Consistently Classified*: Total = 0.84, Proficient & Above = 0.84					

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

Table 12.2 Decision Accuracy and Consistency: MD Mod-HSA Algebra January 2014

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	450–650	.00	.00	.00	.00
Decision	412–449	.00	.04	.03	.08
Accuracy	240–411	.02	.05	.86	.92
Estimated Proportion Correctly Classified: Total*: = 0.90, Proficient & Above = 0.90					
	450–650	.00	.00	.00	.00
Decision	412–449	.01	.03	.03	.08
Consistency	240–411	.03	.08	.82	.92
Estimated Proportion Consistently Classified*: Total = 0.85, Proficient & Above = 0.86					

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

Table 12.3 Decision Accuracy and Consistency: MD Mod-HSA Algebra April 2014

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	450–650	.00	.00	.00	.00
Decision	412–449	.00	.04	.03	.07
Accuracy	240–411	.02	.06	.86	.93
Estimated Proportion Correctly Classified*: Total = 0.90, Proficient & Above = 0.90					
	450–650	.00	.00	.00	.00
Decision	412–449	.01	.03	.03	.07
Consistency	240–411	.03	.09	.82	.93
Estimated Proportion Consistently Classified*: Total = 0.86, Proficient & Above = 0.85					

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

Table 12.4 Decision Accuracy and Consistency: MD Mod-HSA Algebra May 2014

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	450–650	.00	.00	.00	.00
Decision	412–449	.00	.03	.02	.06
Accuracy	240–411	.02	.05	.87	.94
Estimated Proportion Correctly Classified*: Total = 0.90, Proficient & Above = 0.91					
	450–650	.00	.00	.00	.00
Decision	412–449	.01	.02	.03	.06
Consistency	240–411	.03	.08	.83	.94
Estimated Proportion Consistently Classified*: Total = 0.86, Proficient & Above = 0.87					

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

Table 12.5 Decision Accuracy and Consistency: MD Mod-HSA Algebra Summer 2014

	Placement Scores	Advanced	Proficient	Basic	Category Total*
Primary 1					
	450–650	.01	.00	.00	.01
Decision	412–449	.00	.02	.02	.04
Accuracy	240–411	.02	.05	.88	.95
Estimated Proportion Correctly Classified*: Total = 0.91, Proficient & Above = 0.92					
	450–650	.01	.00	.00	.01
Decision	412–449	.01	.01	.02	.04
Consistency	240–411	.03	.07	.85	.95
Estimated Proportion Consistently Classified*: Total = 0.88, Proficient & Above = 0.89					
Primary 2					
	450–650	.00	.00	.00	.00
Decision	412–449	.03	.06	.04	.12
Accuracy	240–411	.01	.04	.83	.88
Estimated Proportion Correctly Classified*: Total = 0.89, Proficient & Above = 0.91					
	450–650	.00	.00	.00	.00
Decision	412–449	.03	.04	.04	.12
Consistency	240–411	.02	.06	.81	.88
Estimated Proportion Consistently Classified*: Total = 0.85, Proficient & Above = 0.88					

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

Table 12.6 Decision Accuracy and Consistency: MD Mod-HSA Biology October 2013

	Placement Scores	Advanced	Proficient	Basic	Category Total*
Decision Accuracy	452–650	.00	.00	.00	.00
	400–451	.00	.03	.06	.08
	240–399	.00	.08	.83	.92
Estimated Proportion Consistently Classified*: Total = 0.86, Proficient & Above = 0.86					
Decision Consistency	452–650	.00	.00	.00	.00
	400–451	.00	.03	.05	.08
	240–399	.02	.12	.78	.92
Estimated Proportion Consistently Classified*: Total = 0.81, Proficient & Above = 0.81					

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

Table 12.7 Decision Accuracy and Consistency: MD Mod-HSA Biology January 2014

	Placement Scores	Advanced	Proficient	Basic	Category Total*
Decision Accuracy	452–650	.00	.00	.00	.00
	400–451	.00	.03	.04	.08
	240–399	.01	.08	.84	.92
Estimated Proportion Correctly Classified*: Total = 0.88, Proficient & Above = 0.88					
Decision Consistency	452–650	.00	.00	.00	.00
	400–451	.00	.02	.05	.08
	240–399	.02	.13	.77	.92
Estimated Proportion Consistently Classified*: Total = 0.80, Proficient & Above = 0.80					

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

Table 12.8 Decision Accuracy and Consistency: MD Mod-HSA Biology April 2014

	Placement Scores	Advanced	Proficient	Basic	Category Total*
Decision Accuracy	452–650	.00	.00	.00	.00
	400–451	.00	.03	.03	.05
	240–399	.01	.07	.87	.94
Estimated Proportion Correctly Classified*: Total = 0.89, Proficient & Above = 0.90					
Decision Consistency	452–650	.00	.00	.00	.00
	400–451	.00	.02	.03	.05
	240–399	.02	.11	.81	.94
Estimated Proportion Consistently Classified*: Total = 0.84, Proficient & Above = 0.84					

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

Table 12.9 Decision Accuracy and Consistency: MD Mod-HSA Biology May 2014

	Placement Scores	Advanced	Proficient	Basic	Category Total*
Decision Accuracy	452–650	.00	.00	.00	.00
	400–451	.00	.09	.06	.16
	240–399	.01	.06	.77	.84
Estimated Proportion Correctly Classified*: Total = 0.86, Proficient & Above = 0.87					
Decision Consistency	452–650	.00	.00	.00	.00
	400–451	.02	.08	.06	.16
	240–399	.02	.10	.72	.84
Estimated Proportion Consistently Classified*: Total = 0.80, Proficient & Above = 0.82					

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

Table 12.10 Decision Accuracy and Consistency: MD Mod-HSA Biology 2014 Summer

	Placement Scores	Advanced	Proficient	Basic	Category Total*
Primary 1					
Decision Accuracy	452–650	.00	.00	.00	.00
	400–451	.01	.06	.05	.12
	240–399	.01	.05	.82	.88
Estimated Proportion Correctly Classified*: Total = 0.88, Proficient & Above = 0.89					
Decision Consistency	452–650	.00	.00	.00	.00
	400–451	.02	.05	.05	.12
	240–399	.02	.09	.78	.88
Estimated Proportion Consistently Classified*: Total = 0.82, Proficient & Above = 0.84					
Primary 2					
Decision Accuracy	452–650	.00	.00	.00	.00
	400–451	.03	.09	.07	.19
	240–399	.00	.04	.77	.81
Estimated Proportion Correctly Classified*: Total = 0.86, Proficient & Above = 0.89					
Decision Consistency	452–650	.00	.00	.00	.00
	400–451	.04	.07	.07	.19
	240–399	.01	.06	.74	.81
Estimated Proportion Consistently Classified*: Total = 0.81, Proficient & Above = 0.85					

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

Table 12.11 Decision Accuracy and Consistency: MD Mod-HSA English October 2013

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	429–650	.00	.00	.00	.00
Decision	396–428	.01	.04	.03	.08
Accuracy	240–395	.02	.06	.84	.92
Estimated Proportion Correctly Classified*: Total = 0.88, Proficient & Above = 0.90					
	429–650	.00	.00	.00	.00
Decision	396–428	.02	.03	.03	.08
Consistency	240–395	.03	.08	.81	.92
Estimated Proportion Consistently Classified*: Total = 0.84, Proficient & Above = 0.86					

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

Table 12.12 Decision Accuracy and Consistency: MD Mod-HSA English January 2014

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	429–650	.00	.00	.00	.00
Decision	396–428	.00	.04	.03	.07
Accuracy	240–395	.02	.06	.85	.92
Estimated Proportion Correctly Classified*: Total = 0.89, Proficient & Above = 0.90					
	429–650	.00	.00	.00	.00
Decision	396–428	.01	.03	.03	.07
Consistency	240–395	.03	.09	.81	.92
Estimated Proportion Consistently Classified*: Total = 0.84, Proficient & Above = 0.86					

* Inconsistencies between cell entries and totals are due to rounding

Table 12.13 Decision Accuracy and Consistency: MD Mod-HSA English April 2014

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	429–650	.00	.00	.00	.00
Decision	396–428	.01	.03	.03	.06
Accuracy	240–395	.02	.05	.86	.93
Estimated Proportion Correctly Classified*: Total = 0.90, Proficient & Above = 0.91					
	429–650	.00	.00	.00	.00
Decision	396–428	.02	.02	.03	.06
Consistency	240–395	.03	.07	.83	.93
Estimated Proportion Consistently Classified*: Total = 0.86, Proficient & Above = 0.87					

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

Table 12.14 Decision Accuracy and Consistency: MD Mod-HSA English May 2014

	Placement Scores	Advanced	Proficient	Basic	Category Total*
	429–650	.00	.00	.00	.00
Decision	396–428	.01	.06	.03	.11
Accuracy	240–395	.02	.06	.82	.89
Estimated Proportion Correctly Classified*: Total = 0.88, Proficient & Above = 0.89					
	429–650	.00	.00	.00	.00
Decision	396–428	.02	.04	.04	.11
Consistency	240–395	.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 12.15 Decision Accuracy and Consistency: MD Mod-HSA English Summer 2014

	Placement Scores	Advanced	Proficient	Basic	Category Total*
Primary 1					
	429–650	.00	.00	.00	.00
Decision	396–428	.01	.02	.02	.06
Accuracy	240–395	.01	.04	.89	.94
Estimated Proportion Correctly Classified*: Total = 0.91, Proficient & Above = 0.93					
	429–650	.00	.00	.00	.00
Decision	396–428	.02	.02	.02	.06
Consistency	240–395	.02	.05	.87	.94
Estimated Proportion Consistently Classified*: Total = 0.88, Proficient & Above = 0.90					
Primary 2					
	429–650	.00	.00	.00	.00
Decision	396–428	.02	.03	.02	.07
Accuracy	240–395	.02	.05	.85	.93
Estimated Proportion Correctly Classified*: Total = 0.88, Proficient & Above = 0.90					
	429–650	.00	.00	.00	.00
Decision	396–428	.03	.02	.02	.07
Consistency	240–395	.03	.07	.82	.93
Estimated Proportion Consistently Classified*: Total = 0.84, Proficient & Above* = 0.87					

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

Table 12.16 Decision Accuracy and Consistency: MD Mod-HSA Government January 2014

	Placement Scores	Proficient	Basic	Category Total*
Decision Accuracy	394–650	.12	.04	.17
	240–393	.07	.77	.83
	Estimated Proportion Correctly Classified*: Total = 0.89			
Decision Consistency	394–650	.11	.05	.17
	240–393	.11	.73	.83
	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 Government May 2014

	Placement Scores	Proficient	Basic	Category Total*
Decision Accuracy	394–650	.12	.05	.17
	240–393	.06	.77	.83
	Estimated Proportion Correctly Classified*: Total = 0.89			
Decision Consistency	394–650	.12	.06	.17
	240–393	.10	.73	.83
	Estimated Proportion Consistently Classified*: Total = 0.85			

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

Table 12.18 Decision Accuracy and Consistency: MD Mod-HSA Government Summer 2014

	Placement Scores	Proficient	Basic	Category Total*
Primary 1				
Decision Accuracy	394–650	0.08	0.04	0.13
	240–393	0.02	0.85	0.88
	Estimated Proportion Correctly Classified*: Total = 0.93			
Decision Consistency	394–650	0.08	0.05	0.13
	240–393	0.05	0.82	0.88
	Estimated Proportion Consistently Classified*: Total = 0.90			
Primary 2				
Decision Accuracy	394–650	0.11	0.09	0.20
	240–393	0.03	0.77	0.80
	Estimated Proportion Correctly Classified*: Total = 0.88			
Decision Consistency	394–650	0.11	0.09	0.20
	240–393	0.07	0.73	0.80
	Estimated Proportion Consistently Classified*: Total = 0.84			

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

Section 13. Student Characteristics

Summary Statistics

The results presented in Tables 13.1 and 13.3 to 13.5 are based on the combined results for students who took the tests in October 2013 and January, April, May, and Summer 2014. Results from online and paper test takers were pooled for the analyses. All results are based on the final Research files sent to MSDE. Scores in Table 13.1 are reported for all students and by grade. Table 13.2 reports the scores for all content areas by the October, January, April, May, and Summer administrations.

Table 13.1 MD Mod-HSA Means and Standard Deviations for 2013-2014 Overall and by Grade

		<i>N</i>	Mean	<i>SD</i>
Algebra	Overall	6,971	359.6	47.4
	Grade			
	8	28*	345.9	47.2
	9	1,124	356.6	49.8
	10	2,143	359.1	47.3
	11	2,175	360.6	47.1
Biology	Overall	4,878	360.5	44.2
	Grade			
	9	297	353.4	47.9
	10	1,388	362.4	47.8
	11	1,854	361.5	42.1
	12	1,331	358.7	42.3
English	Overall	5,313	353.7	42.3
	Grade			
	9	157	345.4	45.6
	10	1,396	354.2	44.1
	11	2,282	354.6	41.0
	12	1,463	352.6	42.0
Government	Overall	1,113	355.2	48.3
	Grade			
	9	398	355.3	46.1
	10	456	357.5	48.7
	11	214	352.7	50.6
	12	37*	340.9	50.1

Note. Government data is based on January, May, and Summer 2014 administrations only.

*For this table, statistics are reported for $N < 50$.

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

Content Area	October			January			April			May			Summer		
	<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>	<i>N</i>	Mean	<i>SD</i>
Algebra	1,884	357.9	47.6	1,843	362.5	45.9	319	364.2	45.3	2,733	359.0	47.6	192	348.1	56.7
Biology	1,342	360.5	41.6	1,187	357.3	44.3	262	355.2	43.3	1,945	363.9	44.9	142	348.3	55.2
English	1,509	354.1	41.0	1,322	353.2	41.8	298	345.7	45.3	2,046	356.1	42.0	138	336.6	51.0
Government	-	-	-	120	352.5	54.2	-	-	-	962	356.2	47.1	31	335.8	55.9

The mean scale scores are presented for the years 2008 through 2014 by content area in Table 13.3. Table 13.4 presents the passing rates for these years.

Table 13.3 MD Mod-HSA Mean Scale Scores by Content Area and Test Year

Content Area	2008	2009	2010	2011	2012	2013	2014
Algebra	360.1	363.2	360.5	362.3	362.3	363.0	359.6
Biology	360.2	365.0	366.0	362.3	363.2	361.5	360.5
English	353.2	360.2	359.6	359.2	362.2	358.6	353.7
Government*	357.2	359.2	355.9	354.8	-	353.3	355.2

*Government HSA was discontinued from Summer 2011 to October 2012. Starting in January 2013, Government HSA was reintroduced into the MD HSAs.

Table 13.4 MD Mod-HSA Percentage Passing Rates (Proficient + Advanced) by Content Area and Test Year

Content Area	2008	2009	2010	2011	2012	2013	2014
Algebra	9.8	9.2	8.8	9.4	8.1	8.4	6.0
Biology	16.1	14.5	13.8	13.2	13.3	12.6	11.2
English	10.4	12.2	12.6	12.0	13.9	10.8	9.1
Government*	19.9	20.3	17.1	17.2	-	19.8	17.1

* Government HSA was discontinued from Summer 2011 to October 2012. Starting in January 2013, Government HSA was reintroduced into the MD HSAs.

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 2014. Figures 13.1 through 13.4 show the distribution of scale scores for the May 2014 administration for each content area.

Table 13.5 MD Mod-HSA Percentage of Students in Each Performance Category by Content Area

Content Area	Basic	Proficient	Advanced
Algebra	94.0	6.0	0.0
Biology	88.8	11.1	0.1
English	90.9	8.8	0.3
Government	82.9	17.1	

Summary statistics for all students and for subgroups based on gender, special education programs, ethnicity, and English language fluency are presented in Tables 13.6 through 13.23. 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 test takers and for subgroups.

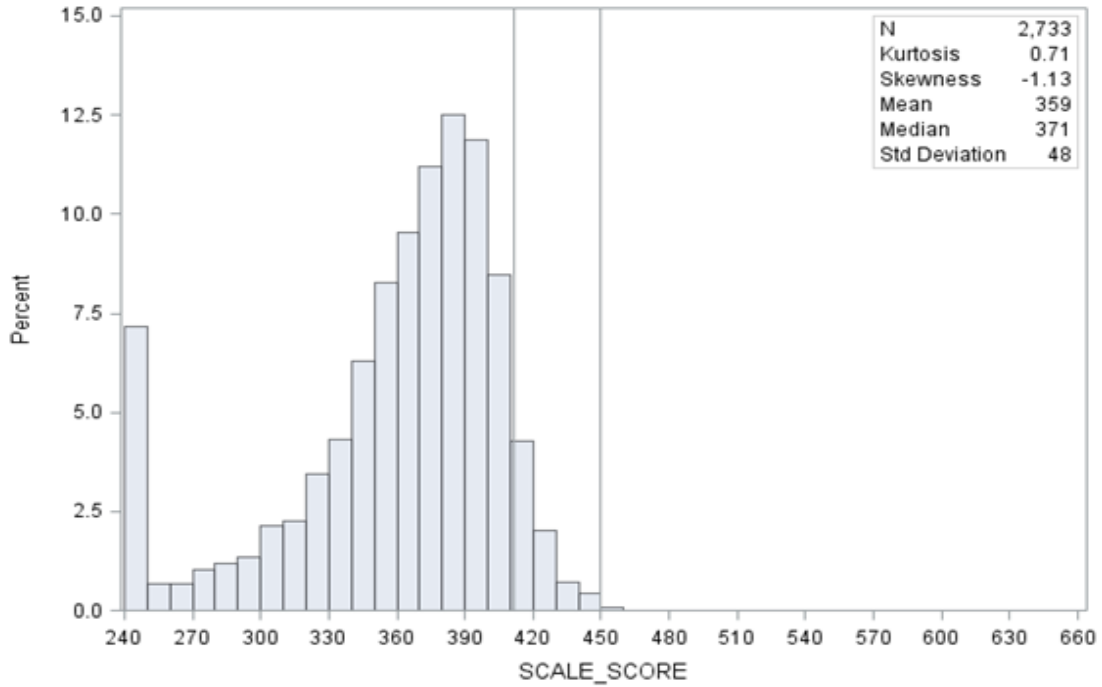


Figure 13.1 Histogram of Total Scale Scores for MD Mod-HSA May 2014 Algebra

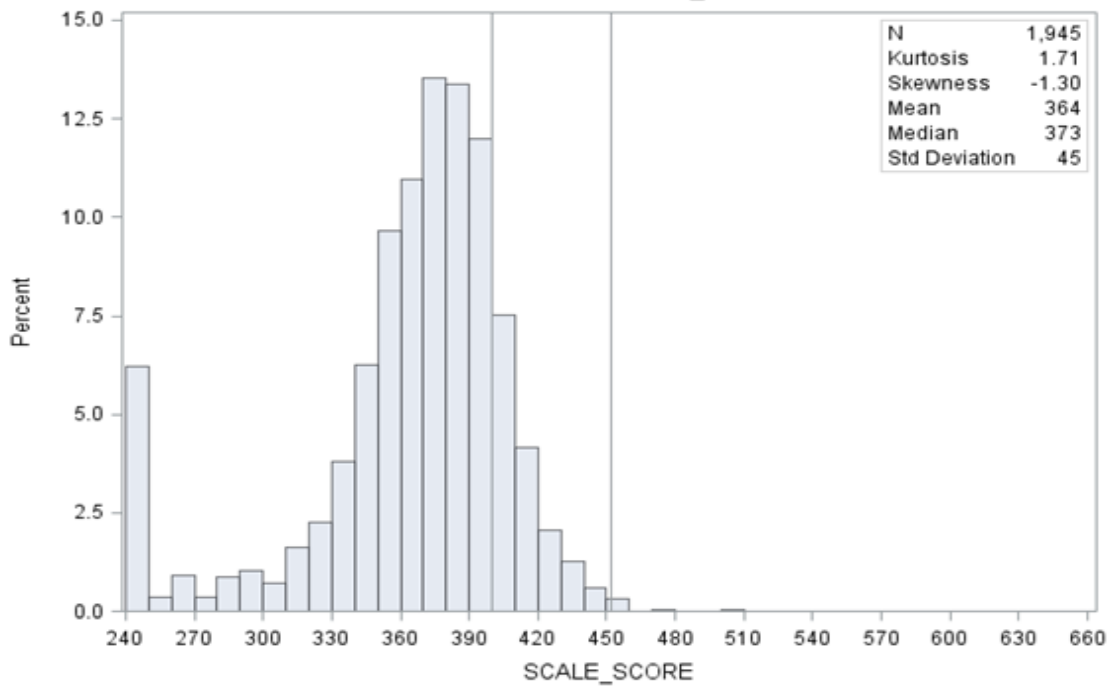


Figure 13.2 Histogram of Total Scale Scores for MD Mod-HSA May 2014 Biology

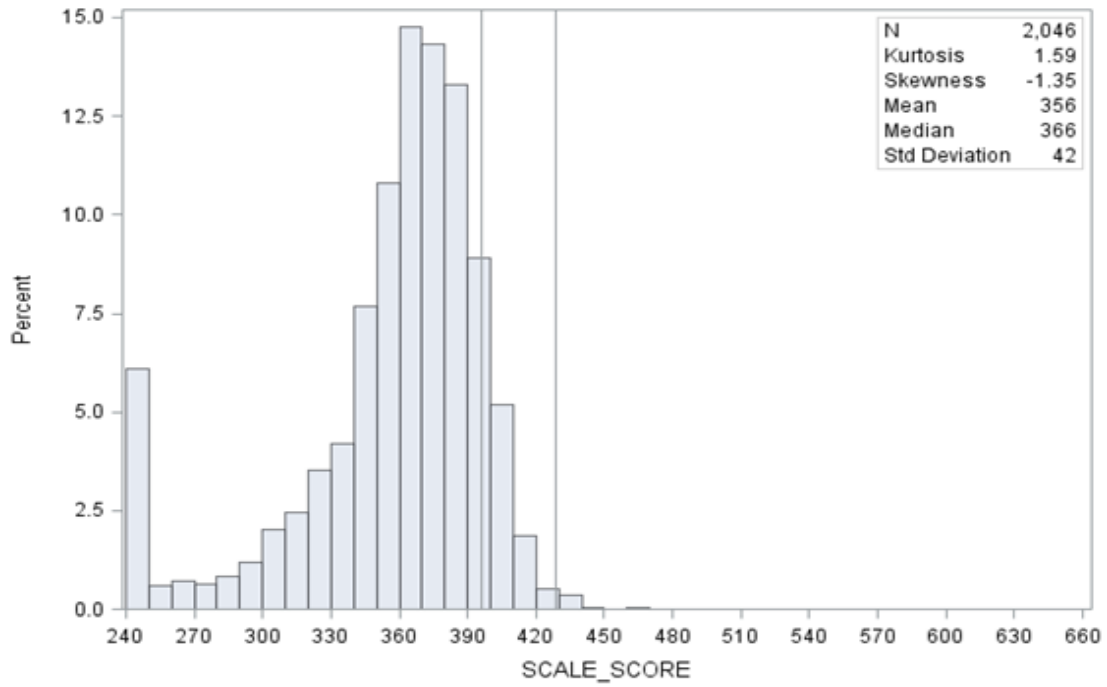


Figure 13.3 Histogram of Total Scale Scores for MD Mod-HSA May 2014 English

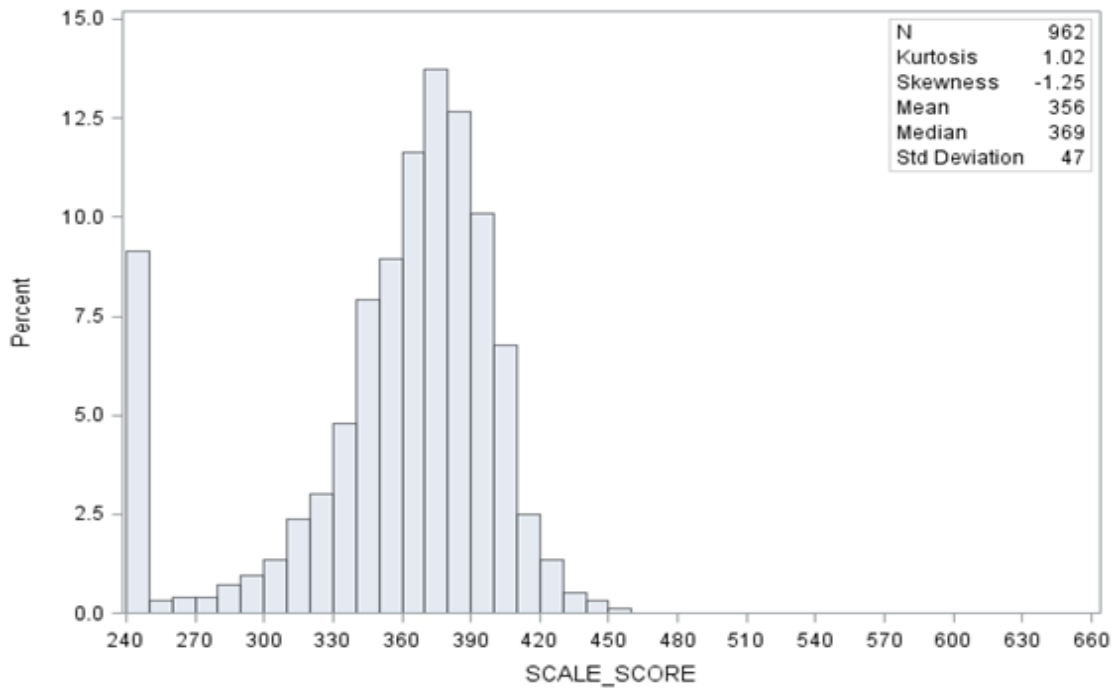


Figure 13.4 Histogram of Total Scale Scores for MD Mod-HSA May 2014 Government

Table 13.6 Summary Statistics for MD Mod-HSA Algebra: October 2013 Form

		Primary Form 114				
		Mean	SD	N	%	Alpha
Overall		357.9	47.6	1,884	100.0	0.69
Gender	Male	356.5	49.0	1,190	63.2	0.70
	Female	360.6	44.8	691	36.7	0.66
	Missing	*	*	3	0.2	*
Grade	8	*	*	0	0.0	*
	9	348.5	55.5	64	3.4	0.72
	10	357.3	47.4	529	28.1	0.69
	11	357.4	48.9	673	35.7	0.69
	12	359.9	45.4	614	32.6	0.68
	Missing	*	*	4	0.2	*
Special Education	Yes	357.4	47.4	1,686	89.5	0.68
	No	362.9	48.9	198	10.5	0.72
	Exited	*	*	0	0.0	*
	Exited and placed in 504 ^a	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity	American Indian	*	*	8	0.4	*
	Asian	*	*	29	1.5	*
	African American	352.3	49.2	1,128	59.9	0.67
	Hawaiian/ Pacific Islander	*	*	1	0.1	*
	White	366.4	44.2	472	25.1	0.69
	Hispanic	368.6	39.5	192	10.2	0.64
	Missing	363.9	50.9	54	2.9	0.71
Limited English Proficient	Yes	*	*	27	1.4	*
	No	358.1	47.5	1,846	98.0	0.69
	Exited ^b	*	*	11	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 13.7 Summary Statistics for MD Mod-HSA Algebra: January 2014 Form

		Primary Form 214				
		Mean	SD	N	%	Alpha
Overall		362.5	45.9	1,843	100.0	0.72
Gender	Male	362.7	46.6	1,156	62.7	0.73
	Female	362.3	44.7	683	37.1	0.71
	Missing	*	*	4	0.2	*
Grade	8	*	*	0	0.0	*
	9	352.5	46.8	100	5.4	0.72
	10	362.3	45.1	586	31.8	0.73
	11	363.6	47.0	647	35.1	0.72
	12	363.6	44.8	504	27.3	0.71
	Missing	*	*	6	0.3	*
Special Education	Yes	362.0	45.9	1,712	92.9	0.72
	No	368.5	46.1	131	7.1	0.80
	Exited	*	*	0	0.0	*
	Exited and placed in 504 ^a	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity	American Indian	*	*	8	0.4	*
	Asian	*	*	27	1.5	*
	African American	357.3	45.4	1,067	57.9	0.69
	Hawaiian/ Pacific Islander	*	*	0	0.0	*
	White	371.8	44.1	508	27.6	0.74
	Hispanic	365.6	48.1	181	9.8	0.75
	Missing	364.6	50.1	52	2.8	0.75
Limited English Proficient	Yes	*	*	24	1.3	*
	No	362.6	45.8	1,809	98.2	0.72
	Exited ^b	*	*	10	0.5	*

*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: April 2014 Form

		Primary Form 314				
		Mean	SD	N	%	Alpha
Overall		364.2	45.3	319	100.0	0.71
Gender	Male	364.4	44.2	200	62.7	0.65
	Female	363.4	47.6	116	36.4	0.79
	Missing	*	*	3	0.9	*
Grade	8	*	*	0	0.0	*
	9	*	*	2	0.6	*
	10	*	*	2	0.6	*
	11	*	*	13	4.1	*
	12	364.4	45.1	299	93.7	0.71
	Missing	*	*	3	0.9	*
Special Education	Yes	362.5	46.0	239	74.9	0.69
	No	369.3	42.9	80	25.1	0.75
	Exited	*	*	0	0.0	*
	Exited and placed in 504 ^a	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity	American Indian	*	*	1	0.3	*
	Asian	*	*	2	0.6	*
	African American	361.6	47.2	225	70.5	0.73
	Hawaiian/ Pacific Islander	*	*	0	0.0	*
	White	*	*	47	14.7	*
	Hispanic	*	*	38	11.9	*
	Missing	*	*	6	1.9	*
Limited English Proficient	Yes	*	*	5	1.6	*
	No	365.5	43.8	314	98.4	0.71
	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 13.9 Summary Statistics for MD Mod-HSA Algebra: May 2014 Form

		Primary Form 414				
		Mean	SD	N	%	Alpha
Overall		359.0	47.6	2,733	100.0	0.74
Gender	Male	357.8	48.4	1,790	65.5	0.75
	Female	361.5	45.9	930	34.0	0.73
	Missing	*	*	13	0.5	*
Grade	8	*	*	29	1.1	*
	9	357.7	49.4	928	34.0	0.78
	10	358.8	47.9	970	35.5	0.73
	11	362.0	44.1	764	28.0	0.70
	12	*	*	28	1.0	*
	Missing	*	*	14	0.5	*
Special Education	Yes	360.1	47.1	2,459	90.0	0.74
	No	349.8	50.2	272	10.0	0.71
	Exited	*	*	0	0.0	*
	Exited and placed in 504 ^a	*	*	0	0.0	*
	504	*	*	2	0.1	*
Ethnicity	American Indian	*	*	10	0.4	*
	Asian	363.5	50.1	53	1.9	0.80
	African American	352.8	48.2	1,507	55.1	0.70
	Hawaiian/ Pacific Islander	*	*	1	0.0	*
	White	368.7	45.5	706	25.8	0.78
	Hispanic	363.0	45.7	366	13.4	0.75
	Missing	365.4	44.9	90	3.3	0.77
Limited English Proficient	Yes	347.1	57.5	66	2.4	0.75
	No	359.2	47.3	2,659	97.3	0.74
	Exited ^b	*	*	8	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 13.10 Summary Statistics for MD Mod-HSA Algebra: Summer 2014 Forms

		Primary Form 514					Primary Form 614				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		341.2	58.8	99	100.0	0.76	355.4	53.6	93	100.0	0.82
Gender	Male	339.2	61.5	72	72.7	0.76	357.9	52.2	67	72.0	0.81
	Female	*	*	26	26.3	*	*	*	26	28.0	*
	Missing	*	*	1	1.0	*	*	*	0	0.0	*
Grade	8	*	*	0	0.0	*	*	*	0	0.0	*
	9	*	*	7	7.1	*	*	*	23	24.7	*
	10	*	*	29	29.3	*	*	*	27	29.0	*
	11	347.5	53.7	50	50.5	0.68	*	*	28	30.1	*
	12	*	*	12	12.1	*	*	*	15	16.1	*
	Missing	*	*	1	1.0	*	*	*	0	0.0	*
Special Education	Yes	336.1	60.4	82	82.8	0.76	*	*	31	33.3	*
	No	*	*	17	17.2	*	357.1	54.9	62	66.7	0.86
	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	*	*	1	1.0	*	*	*	2	2.2	*
	African American	*	*	37	37.4	*	349.0	55.5	63	67.7	0.79
	Hawaiian/ Pacific Islander	*	*	0	0.0	*	*	*	0	0.0	*
	White	344.8	58.1	54	54.5	0.77	*	*	21	22.6	*
	Hispanic	*	*	6	6.1	*	*	*	7	7.5	*
	Missing	*	*	1	1.0	*	*	*	0	0.0	*
	Limited English Proficient	*	*	0	0.0	*	*	*	0	0.0	*
No	No	341.2	58.8	99	100.0	0.76	354.9	53.7	92	98.9	0.82
	Exited ^b	*	*	0	0.0	*	*	*	1	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 13.11 Summary Statistics for MD Mod-HSA Biology: October 2013 Form

		Primary Form 114				
		Mean	SD	N	%	Alpha
Overall		360.5	41.6	1,342	100.0	0.56
Gender	Male	359.5	43.4	867	64.6	0.57
	Female	362.4	38.1	475	35.4	0.55
	Missing	*	*	0	0.0	*
Grade	8	*	*	0	0.0	*
	9	*	*	20	1.5	*
	10	348.2	51.8	179	13.3	0.60
	11	362.3	40.9	563	42.0	0.59
	12	362.7	38.0	580	43.2	0.53
	Missing	*	*	0	0.0	*
Special Education	Yes	360.5	41.1	1,236	92.1	0.55
	No	360.3	46.7	106	7.9	0.66
	Exited	*	*	0	0.0	*
	Exited and placed in 504 ^a	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity	American Indian	*	*	5	0.4	*
	Asian	*	*	25	1.9	*
	African American	357.2	42.4	826	61.5	0.53
	Hawaiian/ Pacific Islander	*	*	1	0.1	*
	White	365.8	42.5	317	23.6	0.63
	Hispanic	367.6	31.2	143	10.7	0.51
	Missing	*	*	25	1.9	*
Limited English Proficient	Yes	*	*	20	1.5	*
	No	360.4	41.7	1,318	98.2	0.57
	Exited ^b	*	*	4	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 13.12 Summary Statistics for MD Mod-HSA Biology: January 2014 Form

		Primary Form 214				
		Mean	SD	N	%	Alpha
Overall		357.3	44.3	1,187	100.0	0.59
Gender	Male	358.4	43.5	780	65.7	0.58
	Female	355.4	45.8	407	34.3	0.61
	Missing	*	*	0	0.0	*
Grade	8	*	*	0	0.0	*
	9	*	*	21	1.8	*
	10	352.3	47.9	212	17.9	0.67
	11	359.6	42.7	519	43.7	0.57
	12	357.2	44.5	435	36.6	0.57
	Missing	*	*	0	0.0	*
Special Education	Yes	357.6	44.0	1,138	95.9	0.58
	No	*	*	49	4.1	*
	Exited	*	*	0	0.0	*
	Exited and placed in 504 ^a	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity	American Indian	*	*	3	0.3	*
	Asian	*	*	20	1.7	*
	African American	351.5	45.6	718	60.5	0.53
	Hawaiian/ Pacific Islander	*	*	0	0.0	*
	White	370.4	37.5	283	23.8	0.64
	Hispanic	360.0	43.4	135	11.4	0.56
	Missing	*	*	28	2.4	*
Limited English Proficient	Yes	*	*	20	1.7	*
	No	357.5	44.5	1,159	97.6	0.59
	Exited ^b	*	*	8	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 13.13 Summary Statistics for MD Mod-HSA Biology: April 2014 Form

		Primary Form 314				
		Mean	SD	N	%	Alpha
Overall		355.2	43.3	262	100.0	0.63
Gender	Male	353.5	45.6	172	65.6	0.65
	Female	358.6	38.8	89	34.0	0.58
	Missing	*	*	1	0.4	*
Grade	8	*	*	0	0.0	*
	9	*	*	1	0.4	*
	10	*	*	2	0.8	*
	11	*	*	12	4.6	*
	12	354.3	44.2	246	93.9	0.63
	Missing	*	*	1	0.4	*
Special Education	Yes	355.3	40.2	194	74.0	0.58
	No	355.2	51.8	67	25.6	0.72
	Exited	*	*	1	0.4	*
	Exited and placed in 504 ^a	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity	American Indian	*	*	2	0.8	*
	Asian	*	*	2	0.8	*
	African American	353.3	45.6	171	65.3	0.63
	Hawaiian/ Pacific Islander	*	*	0	0.0	*
	White	*	*	44	16.8	*
	Hispanic	*	*	40	15.3	*
	Missing	*	*	3	1.1	*
Limited English Proficient	Yes	*	*	6	2.3	*
	No	355.4	43.4	254	96.9	0.62
	Exited ^b	*	*	2	0.8	*

*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: May 2014 Form

		Primary Form 414				
		Mean	SD	N	%	Alpha
Overall		363.9	44.9	1,945	100.0	0.72
Gender	Male	364.2	46.2	1,291	66.4	0.74
	Female	363.6	41.9	649	33.4	0.66
	Missing	*	*	5	0.3	*
Grade	8	*	*	0	0.0	*
	9	353.4	49.3	246	12.6	0.67
	10	367.8	45.4	955	49.1	0.75
	11	363.3	41.2	695	35.7	0.65
	12	*	*	43	2.2	*
	Missing	*	*	6	0.3	*
Special Education	Yes	364.3	45.0	1,795	92.3	0.72
	No	358.7	43.3	146	7.5	0.61
	Exited	*	*	1	0.1	*
	Exited and placed in 504 ^a	*	*	0	0.0	*
	504	*	*	3	0.2	*
Ethnicity	American Indian	*	*	4	0.2	*
	Asian	*	*	45	2.3	*
	African American	359.0	45.5	1,103	56.7	0.66
	Hawaiian/ Pacific Islander	*	*	1	0.1	*
	White	373.4	42.2	474	24.4	0.75
	Hispanic	365.6	42.3	263	13.5	0.73
	Missing	368.2	45.8	55	2.8	0.81
Limited English Proficient	Yes	*	*	38	2.0	*
	No	364.2	44.6	1,901	97.7	0.71
	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 13.15 Summary Statistics for MD Mod-HSA Biology: Summer 2014 Forms

		Primary Form 514					Primary Form 614				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		349.0	52.3	83	100.0	0.70	347.3	59.4	59	100.0	0.77
Gender	Male	351.0	52.0	58	69.9	0.72	*	*	42	71.2	*
	Female	*	*	25	30.1	*	*	*	15	25.4	*
	Missing	*	*	0	0.0	*	*	*	2	3.4	*
Grade	8	*	*	0	0.0	*	*	*	0	0.0	*
	9	*	*	6	7.2	*	*	*	3	5.1	*
	10	*	*	18	21.7	*	*	*	22	37.3	*
	11	*	*	46	55.4	*	*	*	19	32.2	*
	12	*	*	13	15.7	*	*	*	14	23.7	*
	Missing	*	*	0	0.0	*	*	*	1	1.7	*
Special Education	Yes	348.3	51.6	69	83.1	0.71	*	*	24	40.7	*
	No	*	*	14	16.9	*	*	*	35	59.3	*
	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	*	*	1	1.2	*	*	*	3	5.1	*
	African American	*	*	33	39.8	*	*	*	40	67.8	*
	Hawaiian/ Pacific Islander	*	*	0	0.0	*	*	*	0	0.0	*
	White	*	*	43	51.8	*	*	*	11	18.6	*
	Hispanic	*	*	6	7.2	*	*	*	4	6.8	*
	Missing	*	*	0	0.0	*	*	*	1	1.7	*
Limited English Proficient	Yes	*	*	1	1.2	*	*	*	0	0.0	*
	No	349.7	52.3	82	98.8	0.70	347.0	59.9	58	98.3	0.77
	Exited ^b	*	*	0	0.0	*	*	*	1	1.7	*

*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 13.16 Summary Statistics for MD Mod-HSA English: October 2013 Form

		Primary Form 114				
		Mean	SD	N	%	Alpha
Overall		354.1	41.0	1,509	100.0	0.74
Gender	Male	352.7	41.8	1,004	66.5	0.75
	Female	356.8	39.2	503	33.3	0.73
	Missing	*	*	2	0.1	*
Grade	8	*	*	0	0.0	*
	9	*	*	9	0.6	*
	10	349.8	42.2	136	9.0	0.73
	11	353.0	42.1	732	48.5	0.74
	12	356.3	39.3	629	41.7	0.75
	Missing	*	*	3	0.2	*
Special Education	Yes	354.1	41.1	1,363	90.3	0.75
	No	354.4	40.1	145	9.6	0.72
	Exited	*	*	1	0.1	*
	Exited and placed in 504 ^a	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity	American Indian	*	*	6	0.4	*
	Asian	*	*	28	1.9	*
	African American	350.5	42.6	872	57.8	0.74
	Hawaiian/ Pacific Islander	*	*	1	0.1	*
	White	359.0	40.7	386	25.6	0.76
	Hispanic	358.4	34.6	182	12.1	0.72
	Missing	*	*	34	2.3	*
Limited English Proficient	Yes	*	*	14	0.9	*
	No	353.9	41.2	1,486	98.5	0.74
	Exited ^b	*	*	9	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 13.17 Summary Statistics for MD Mod-HSA English: January 2014 Form

		Primary Form 214				
		Mean	SD	N	%	Alpha
Overall		353.2	41.8	1,322	100.0	0.73
Gender	Male	352.8	42.8	895	67.7	0.75
	Female	353.9	39.8	425	32.1	0.70
	Missing	*	*	2	0.2	*
Grade	8	*	*	0	0.0	*
	9	*	*	11	0.8	*
	10	346.3	43.5	144	10.9	0.71
	11	354.7	40.8	672	50.8	0.74
	12	353.2	42.6	493	37.3	0.73
	Missing	*	*	2	0.2	*
Special Education	Yes	352.4	42.0	1,225	92.7	0.73
	No	362.3	39.0	97	7.3	0.77
	Exited	*	*	0	0.0	*
	Exited and placed in 504 ^a	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity	American Indian	*	*	3	0.2	*
	Asian	*	*	24	1.8	*
	African American	348.4	43.7	760	57.5	0.71
	Hawaiian/ Pacific Islander	*	*	0	0.0	*
	White	359.9	39.9	349	26.4	0.76
	Hispanic	361.6	32.7	160	12.1	0.71
	Missing	*	*	26	2.0	*
Limited English Proficient	Yes	*	*	16	1.2	*
	No	353.1	41.9	1,301	98.4	0.73
	Exited ^b	*	*	5	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 13.18 Summary Statistics for MD Mod-HSA English: April 2014 Form

		Primary Form 314				
		Mean	SD	N	%	Alpha
Overall		345.7	45.3	298	100.0	0.74
Gender	Male	346.3	47.8	192	64.4	0.76
	Female	345.6	39.3	105	35.2	0.67
	Missing	*	*	1	0.3	*
Grade	8	*	*	0	0.0	*
	9	*	*	0	0.0	*
	10	*	*	1	0.3	*
	11	*	*	9	3.0	*
	12	346.4	45.1	287	96.3	0.74
	Missing	*	*	1	0.3	*
Special Education	Yes	345.2	44.7	230	77.2	0.72
	No	347.8	47.8	67	22.5	0.80
	Exited	*	*	1	0.3	*
	Exited and placed in 504 ^a	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity	American Indian	*	*	2	0.7	*
	Asian	*	*	4	1.3	*
	African American	344.1	46.3	202	67.8	0.73
	Hawaiian/ Pacific Islander	*	*	0	0.0	*
	White	348.5	45.5	53	17.8	0.75
	Hispanic	*	*	34	11.4	*
	Missing	*	*	3	1.0	*
Limited English Proficient	Yes	*	*	6	2.0	*
	No	346.2	45.2	292	98.0	0.74
	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 13.19 Summary Statistics for MD Mod-HSA English: May 2014 Form

		Primary Form 414				
		Mean	SD	N	%	Alpha
Overall		356.1	42.0	2,046	100.0	0.78
Gender	Male	354.3	43.4	1,374	67.2	0.78
	Female	359.7	38.7	665	32.5	0.77
	Missing	*	*	7	0.3	*
Grade	8	*	*	0	0.0	*
	9	344.8	46.2	129	6.3	0.77
	10	357.1	43.0	1,071	52.3	0.79
	11	357.0	39.8	805	39.3	0.76
	12	*	*	34	1.7	*
	Missing	*	*	7	0.3	*
Special Education	Yes	356.7	41.7	1,849	90.4	0.78
	No	350.5	43.9	197	9.6	0.76
	Exited	*	*	0	0.0	*
	Exited and placed in 504 ^a	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity	American Indian	*	*	5	0.2	*
	Asian	360.0	40.2	50	2.4	0.79
	African American	351.6	44.2	1,114	54.4	0.78
	Hawaiian/ Pacific Islander	*	*	1	0.0	*
	White	361.1	40.0	522	25.5	0.77
	Hispanic	362.8	34.8	295	14.4	0.73
	Missing	360.2	38.0	59	2.9	0.75
Limited English Proficient	Yes	*	*	39	1.9	*
	No	356.1	42.0	2,001	97.8	0.78
	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 13.20 Summary Statistics for MD Mod-HSA English: Summer 2014 Forms

		Primary Form 514					Primary Form 614				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		330.0	50.8	69	100.0	0.77	343.3	50.6	69	100.0	0.79
Gender	Male	328.5	49.9	51	73.9	0.76	*	*	47	68.1	*
	Female	*	*	17	24.6	*	*	*	21	30.4	*
	Missing	*	*	1	1.4	*	*	*	1	1.4	*
Grade	8	*	*	0	0.0	*	*	*	0	0.0	*
	9	*	*	3	4.3	*	*	*	5	7.2	*
	10	*	*	20	29.0	*	*	*	24	34.8	*
	11	*	*	37	53.6	*	*	*	27	39.1	*
	12	*	*	8	11.6	*	*	*	12	17.4	*
	Missing	*	*	1	1.4	*	*	*	1	1.4	*
Special Education	Yes	327.9	50.0	58	84.1	0.77	*	*	27	39.1	*
	No	*	*	11	15.9	*	*	*	42	60.9	*
	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	*	*	1	1.4	*	*	*	1	1.4	*
	African American	*	*	26	37.7	*	*	*	41	59.4	*
	Hawaiian/ Pacific Islander	*	*	0	0.0	*	*	*	0	0.0	*
	White	*	*	39	56.5	*	*	*	22	31.9	*
	Hispanic	*	*	1	1.4	*	*	*	5	7.2	*
	Missing	*	*	2	2.9	*	*	*	0	0.0	*
Limited English Proficient	Yes	*	*	0	0.0	*	*	*	1	1.4	*
	No	330.0	50.8	69	100.0	0.77	342.6	50.6	68	98.6	0.78
	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 13.21 Summary Statistics for MD Mod-HSA Government: January 2014 Form

		Primary Form 214				
		Mean	SD	N	%	Alpha
Overall		352.5	54.2	120	100.0	0.75
Gender	Male	353.1	58.2	76	63.3	0.78
	Female	*	*	44	36.7	*
	Missing	*	*	0	0.0	*
Grade	8	*	*	0	0.0	*
	9	*	*	32	26.7	*
	10	*	*	35	29.2	*
	11	*	*	31	25.8	*
	12	*	*	22	18.3	*
	Missing	*	*	0	0.0	*
Special Education	Yes	351.9	56.2	101	84.2	0.77
	No	*	*	19	15.8	*
	Exited	*	*	0	0.0	*
	Exited and placed in 504 ^a	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity	American Indian	*	*	0	0.0	*
	Asian	*	*	2	1.7	*
	African American	342.9	55.9	59	49.2	0.74
	Hawaiian/Pacific Islander	*	*	0	0.0	*
	White	*	*	43	35.8	*
	Hispanic	*	*	11	9.2	*
	Missing	*	*	5	4.2	*
Limited English Proficient	Yes	*	*	0	0.0	*
	No	352.1	54.6	118	98.3	0.75
	Exited ^b	*	*	2	1.7	*

*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 13.22 Summary Statistics for MD Mod-HSA Government: May 2014 Form

		Primary Form 414				
		Mean	SD	N	%	Alpha
Overall		356.2	47.1	962	100.0	0.76
Gender	Male	356.6	48.8	654	68.0	0.77
	Female	355.5	43.2	300	31.2	0.70
	Missing	*	*	8	0.8	*
Grade	8	*	*	0	0.0	*
	9	355.2	46.2	353	36.7	0.74
	10	359.4	47.3	412	42.8	0.78
	11	351.8	48.0	177	18.4	0.72
	12	*	*	12	1.2	*
	Missing	*	*	8	0.8	*
Special Education	Yes	356.4	46.9	881	91.6	0.75
	No	353.8	49.2	81	8.4	0.78
	Exited	*	*	0	0.0	*
	Exited and placed in 504 ^a	*	*	0	0.0	*
	504	*	*	0	0.0	*
Ethnicity	American Indian	*	*	4	0.4	*
	Asian	*	*	20	2.1	*
	African American	351.5	48.6	534	55.5	0.73
	Hawaiian/ Pacific Islander	*	*	1	0.1	*
	White	364.0	43.9	245	25.5	0.79
	Hispanic	360.0	45.6	126	13.1	0.77
	Missing	*	*	32	3.3	*
Limited English Proficient	Yes	*	*	22	2.3	*
	No	356.2	47.2	937	97.4	0.76
	Exited ^b	*	*	3	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 13.23 Summary Statistics for MD Mod-HSA Government: Summer 2014 Forms

		Primary Form 514					Primary Form 614				
		Mean	SD	N	%	Alpha	Mean	SD	N	%	Alpha
Overall		*	*	16	100.0	*	*	*	15	100.0	*
Gender	Male	*	*	10	62.5	*	*	*	15	100.0	*
	Female	*	*	6	37.5	*	*	*	0	0.0	*
	Missing	*	*	0	0.0	*	*	*	0	0.0	*
Grade	8	*	*	0	0.0	*	*	*	0	0.0	*
	9	*	*	10	62.5	*	*	*	3	20.0	*
	10	*	*	2	12.5	*	*	*	7	46.7	*
	11	*	*	2	12.5	*	*	*	4	26.7	*
	12	*	*	2	12.5	*	*	*	1	6.7	*
	Missing	*	*	0	0.0	*	*	*	0	0.0	*
Special Education	Yes	*	*	16	100.0	*	*	*	11	73.3	*
	No	*	*	0	0.0	*	*	*	4	26.7	*
	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	*	*	5	31.3	*	*	*	9	60.0	*
	Hawaiian/ Pacific Islander	*	*	0	0.0	*	*	*	0	0.0	*
	White	*	*	10	62.5	*	*	*	4	26.7	*
	Hispanic	*	*	1	6.3	*	*	*	1	6.7	*
	Missing	*	*	0	0.0	*	*	*	1	6.7	*
Limited English Proficient	Yes	*	*	0	0.0	*	*	*	0	0.0	*
	No	*	*	16	100.0	*	*	*	15	100.0	*
	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.

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 2013 and the January, April, May, and Summer 2014 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 Algebra

		October Form		January Form		April Form		May Form		Summer Forms	
		<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Overall		1,884	100.0	1,843	100.0	319	100.0	2,733	100.0	192	100.0
Gender	Male	1,190	63.2	1,156	62.7	200	62.7	1,790	65.5	139	72.4
	Female	691	36.7	683	37.1	116	36.4	930	34.0	52	27.1
	Missing	3	0.2	4	0.2	3	0.9	13	0.5	1	0.5
Special Education	Yes	1,686	89.5	1,712	92.9	239	74.9	2,459	90.0	113	58.9
	No	198	10.5	131	7.1	80	25.1	272	10.0	79	41.1
	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	8	0.4	1	0.3	10	0.4	0	0.0
	Asian	29	1.5	27	1.5	2	0.6	53	1.9	3	1.6
	African American	1,128	59.9	1,067	57.9	225	70.5	1,507	55.1	100	52.1
	Hawaiian/ Pacific Islander	1	0.1	0	0.0	0	0.0	1	0.0	0	0.0
	White	472	25.1	508	27.6	47	14.7	706	25.8	75	39.1
	Hispanic	192	10.2	181	9.8	38	11.9	366	13.4	13	6.8
	Missing	54	2.9	52	2.8	6	1.9	90	3.3	1	0.5
Limited English Proficient	Yes	27	1.4	24	1.3	5	1.6	66	2.4	0	0.0
	No	1,846	98.0	1,809	98.2	314	98.4	2,659	97.3	191	99.5
	Exited ^b	11	0.6	10	0.5	0	0.0	8	0.3	1	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 13.25 Demographic Information for MD Mod-HSA Biology

		October Form		January Form		April Form		May Form		Summer Forms	
		<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Overall		1,342	100.0	1,187	100.0	262	100.0	1,945	100.0	142	100.0
Gender	Male	867	64.6	780	65.7	172	65.6	1,291	66.4	100	70.4
	Female	475	35.4	407	34.3	89	34.0	649	33.4	40	28.2
	Missing	0	0.0	0	0.0	1	0.4	5	0.3	2	1.4
Special Education	Yes	1,236	92.1	1,138	95.9	194	74.0	1,795	92.3	93	65.5
	No	106	7.9	49	4.1	67	25.6	146	7.5	49	34.5
	Exited	0	0.0	0	0.0	1	0.4	1	0.1	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	3	0.2	0	0.0
Ethnicity	American Indian	5	0.4	3	0.3	2	0.8	4	0.2	0	0.0
	Asian	25	1.9	20	1.7	2	0.8	45	2.3	4	2.8
	African American	826	61.5	718	60.5	171	65.3	1,103	56.7	73	51.4
	Hawaiian/ Pacific Islander	1	0.1	0	0.0	0	0.0	1	0.1	0	0.0
	White	317	23.6	283	23.8	44	16.8	474	24.4	54	38.0
	Hispanic	143	10.7	135	11.4	40	15.3	263	13.5	10	7.0
	Missing	25	1.9	28	2.4	3	1.1	55	2.8	1	0.7
Limited English Proficient	Yes	20	1.5	20	1.7	6	2.3	38	2.0	1	0.7
	No	1,318	98.2	1,159	97.6	254	96.9	1,901	97.7	140	98.6
	Exited ^b	4	0.3	8	0.7	2	0.8	6	0.3	1	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 13.26 Demographic Information for MD Mod-HSA English

		October Form		January Form		April Form		May Form		Summer Forms	
		<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Overall		1,509	100.0	1,322	100.0	298	100.0	2,046	100.0	138	100.0
Gender	Male	1,004	66.5	895	67.7	192	64.4	1,374	67.2	98	71.0
	Female	503	33.3	425	32.1	105	35.2	665	32.5	38	27.5
	Missing	2	0.1	2	0.2	1	0.3	7	0.3	2	1.4
Special Education	Yes	1,363	90.3	1,225	92.7	230	77.2	1,849	90.4	85	61.6
	No	145	9.6	97	7.3	67	22.5	197	9.6	53	38.4
	Exited	1	0.1	0	0.0	1	0.3	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	0	0.0	0	0.0
Ethnicity	American Indian	6	0.4	3	0.2	2	0.7	5	0.2	0	0.0
	Asian	28	1.9	24	1.8	4	1.3	50	2.4	2	1.4
	African American	872	57.8	760	57.5	202	67.8	1,114	54.4	67	48.6
	Hawaiian/ Pacific Islander	1	0.1	0	0.0	0	0.0	1	0.0	0	0.0
	White	386	25.6	349	26.4	53	17.8	522	25.5	61	44.2
	Hispanic	182	12.1	160	12.1	34	11.4	295	14.4	6	4.3
	Missing	34	2.3	26	2.0	3	1.0	59	2.9	2	1.4
Limited English Proficient	Yes	14	0.9	16	1.2	6	2.0	39	1.9	1	0.7
	No	1,486	98.5	1,301	98.4	292	98.0	2,001	97.8	137	99.3
	Exited ^b	9	0.6	5	0.4	0	0.0	6	0.3	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 Government

		October Form		January Form		April Form		May Form		Summer Forms	
		<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Overall		-	-	120	100.0	-	-	962	100.0	31	100.0
Gender	Male	-	-	76	63.3	-	-	654	68.0	25	80.6
	Female	-	-	44	36.7	-	-	300	31.2	6	19.4
	Missing	-	-	0	0.0	-	-	8	0.8	0	0.0
Special Education	Yes	-	-	101	84.2	-	-	881	91.6	27	87.1
	No	-	-	19	15.8	-	-	81	8.4	4	12.9
	Exited	-	-	0	0.0	-	-	0	0.0	0	0.0
	Exited and placed in 504 ^a	-	-	0	0.0	-	-	0	0.0	0	0.0
	504	-	-	0	0.0	-	-	0	0.0	0	0.0
Ethnicity	American Indian	-	-	0	0.0	-	-	4	0.4	0	0.0
	Asian	-	-	2	1.7	-	-	20	2.1	0	0.0
	African American	-	-	59	49.2	-	-	534	55.5	14	45.2
	Hawaiian/ Pacific Islander	-	-	0	0.0	-	-	1	0.1	0	0.0
	White	-	-	43	35.8	-	-	245	25.5	14	45.2
	Hispanic	-	-	11	9.2	-	-	126	13.1	2	6.5
	Missing	-	-	5	4.2	-	-	32	3.3	1	3.2
Limited English Proficient	Yes	-	-	0	0.0	-	-	22	2.3	0	0.0
	No	-	-	118	98.3	-	-	937	97.4	31	100.0
	Exited ^b	-	-	2	1.7	-	-	3	0.3	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.

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

Table 1.A1 Item Statistics, Operational Items: MD HSA 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	79103	SR	0.35	0.35	0.35	-0.07	-0.11	-0.23	0.0
R	2	O	223238	SR	0.15	0.25	0.01	-0.18	-0.06	0.25	0.3
R	3	O	263299	SR	0.47	0.13	-0.08	0.13	-0.09	0.00	0.4
R	5	O	133393	SR	0.47	0.29	-0.14	-0.16	0.29	-0.08	0.2
R	6	O	263289	SPR	0.22	0.29	0.29	-0.23			3.6
R	8	O	268686	SPR	0.08	0.32	0.32	-0.22			2.8
R	9	O	319409	SR	0.35	0.12	-0.03	0.12	-0.10	0.01	0.3
R	11	O	132818	SR	0.26	0.09	0.06	-0.07	-0.10	0.09	0.3
R	12	O	282334	SR	0.72	0.36	-0.23	-0.12	0.36	-0.19	0.2
R	13	O	263280	SR	0.37	0.35	-0.14	-0.11	-0.15	0.35	0.3
R	14	O	257110	SR	0.62	0.33	-0.19	-0.19	0.33	-0.12	0.2
R	16	O	260759	SR	0.18	0.32	-0.09	-0.18	0.00	0.32	0.4
R	17	O	54863	SR	0.47	0.36	0.36	-0.15	-0.18	-0.16	0.3
R	18	O	215933	SPR	0.46	0.45	0.45	-0.41			3.4
R	19	O	268673	SPR	0.77	0.40	0.40	-0.36			2.0
R	20	O	348438	SR	0.53	0.25	-0.07	-0.20	0.25	-0.08	0.6
R	22	O	338630	SR	0.29	0.26	0.26	-0.01	-0.18	-0.12	0.9
R	23	O	79026	SR	0.32	0.36	-0.07	-0.19	-0.15	0.36	0.9
R	24	O	79030	SR	0.47	0.32	-0.09	-0.15	-0.18	0.32	0.4
R	25	O	51535	SR	0.33	0.13	0.13	-0.05	-0.02	-0.06	0.4
R	27	O	257122	SR	0.10	0.11	0.11	-0.12	-0.12	0.13	0.5
R	28	O	348318	SR	0.71	0.36	-0.22	-0.20	0.36	-0.12	0.3
R	30	O	322115	SPR	0.10	0.30	0.30	-0.22			2.4
R	31	O	263642	SPR	0.38	0.45	0.45	-0.40			2.4
R	33	O	79109	SR	0.22	0.22	-0.03	-0.14	-0.05	0.22	0.4
R	34	O	338677	SR	0.37	0.18	-0.05	0.18	-0.09	-0.06	0.7
R	35	O	79113	SR	0.55	0.12	-0.06	0.12	-0.05	-0.04	0.5
R	37	O	133413	SR	0.43	0.17	-0.04	-0.09	0.17	-0.07	0.7
R	38	O	328761	SR	0.36	0.15	-0.13	0.15	-0.02	-0.03	0.7
R	39	O	328778	SR	0.55	0.36	-0.15	-0.18	-0.15	0.36	0.5
R	40	O	223334	SR	0.30	0.15	0.15	0.01	-0.05	-0.10	0.7
R	41	O	79076	SR	0.41	0.36	-0.17	-0.17	-0.15	0.36	0.6
R	42	O	255083	SPR	0.39	0.42	0.42	-0.36			3.2
R	44	O	106576	SR	0.25	0.05	0.01	0.05	-0.09	0.05	0.8
R	45	O	328732	SR	0.30	0.13	-0.05	-0.08	0.13	0.00	0.9
R	46	O	319434	SR	0.49	0.33	-0.13	0.33	-0.18	-0.12	0.9
R	47	O	268656	SR	0.72	0.32	-0.16	0.32	-0.17	-0.14	0.4
R	48	O	133410	SR	0.40	0.14	-0.07	0.14	-0.12	0.02	0.5
R	50	O	223437	SR	0.33	0.20	0.01	-0.14	-0.08	0.20	0.5
R	51	O	257118	SPR	0.39	0.39	0.39	-0.34			3.0
R	53	O	319460	SPR	0.33	0.46	0.46	-0.39			3.7
R	54	O	255111	SR	0.60	0.36	-0.20	-0.19	0.36	-0.12	0.4
R	55	O	54557	SR	0.56	0.36	0.36	-0.14	-0.21	-0.14	0.5

Table 1.A1 Item Statistics, Operational Items: MD HSA 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	O	56453	SR	0.32	0.10	-0.04	0.10	-0.06	0.02	0.4
R	58	O	133416	SR	0.20	0.16	0.16	0.03	-0.10	-0.10	0.7
R	59	O	50385	SR	0.27	0.12	-0.15	0.05	0.12	-0.07	0.6
R	61	O	51447	SR	0.32	0.20	-0.10	0.20	-0.15	0.04	0.6
R	62	O	319437	SPR	0.29	0.39	0.39	-0.33			3.9
R	64	O	328762	SR	0.29	0.21	0.21	-0.07	-0.06	-0.08	0.6
R	66	O	268755	SR	0.32	0.17	-0.12	0.01	0.17	-0.10	0.6
R	67	O	56759	SR	0.19	0.23	0.23	-0.13	-0.02	-0.09	0.5
R	68	O	328718	SR	0.24	0.11	-0.08	-0.01	0.11	0.00	0.6
R	69	O	51402	SR	0.49	0.22	-0.07	0.22	-0.13	-0.07	0.7
Mean					0.38	0.26	0.06	-0.09	-0.02	0.01	1.0
SD					0.16	0.11	0.22	0.18	0.17	0.17	1.1

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

Table 1.A2 Item Statistics, Operational Items: MD HSA 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	192081	SR	0.61	0.23	-0.12	0.23	-0.14	-0.11	0.0
R	2	O	271115	SR	0.43	0.15	-0.03	-0.09	0.15	-0.10	0.1
R	3	O	108545	SR	0.33	0.33	-0.10	-0.21	-0.06	0.33	0.0
R	4	O	364188	SR	0.28	0.29	-0.03	0.29	-0.13	-0.14	0.1
R	5	O	364184	SR	0.38	0.21	-0.12	-0.08	0.21	-0.05	0.1
R	6	O	57029	SR	0.31	0.17	0.17	-0.14	0.00	-0.06	0.1
R	7	O	108521	SR	0.43	0.28	-0.12	0.28	-0.12	-0.14	0.1
R	10	O	52729	SR	0.56	0.25	0.25	-0.12	-0.12	-0.12	0.1
R	11	O	349079	SR	0.54	0.20	-0.06	0.20	-0.12	-0.08	0.1
R	12	O	271044	SR	0.78	0.23	-0.08	0.23	-0.15	-0.12	0.1
R	13	O	271046	SR	0.25	0.11	0.00	-0.11	-0.01	0.11	0.2
R	14	O	79490	SR	0.27	0.24	-0.08	0.24	-0.15	-0.01	0.2
R	17	O	282405	SR	0.21	0.22	0.22	-0.03	-0.16	-0.04	0.3
R	18	O	282400	SR	0.24	0.27	-0.09	-0.13	-0.05	0.27	0.3
R	19	O	323288	SR	0.41	0.30	-0.06	-0.18	-0.13	0.30	0.2
R	20	O	323287	SR	0.29	0.17	-0.06	0.17	-0.03	-0.11	0.2
R	21	O	52600	SR	0.29	0.28	0.28	-0.13	-0.10	-0.10	0.2
R	22	O	68277	SR	0.17	0.12	-0.08	-0.16	0.11	0.12	0.3
R	23	O	251274	SR	0.37	0.22	0.22	-0.03	-0.19	-0.05	0.3
R	24	O	251257	SR	0.42	0.33	-0.10	0.33	-0.16	-0.15	0.3
R	27	O	323340	SR	0.36	0.22	-0.18	0.03	-0.20	0.22	0.4
R	28	O	297093	SR	0.66	0.31	0.31	-0.19	-0.14	-0.12	0.4
R	29	O	218482	SR	0.18	0.19	0.01	-0.13	-0.03	0.19	0.5
R	30	O	218483	SR	0.30	0.20	-0.07	0.20	-0.14	0.00	0.5
R	31	O	271124	SR	0.25	0.27	0.02	-0.09	-0.22	0.27	0.5
R	33	O	279655	SR	0.30	0.18	-0.08	-0.07	0.18	-0.04	0.6
R	34	O	54988	SR	0.35	0.40	-0.11	-0.19	-0.14	0.40	0.2
R	35	O	52696	SR	0.71	0.17	-0.07	0.17	-0.05	-0.14	0.2
R	36	O	52634	SR	0.33	0.35	0.35	-0.15	-0.18	-0.05	0.2
R	39	O	108524	SR	0.30	0.24	-0.04	-0.12	-0.09	0.24	0.2
R	40	O	263180	SR	0.20	0.13	0.13	0.04	-0.13	-0.08	0.2
R	41	O	263181	SR	0.47	0.30	-0.15	-0.10	0.30	-0.15	0.1
R	42	O	79299	SR	0.33	0.25	-0.08	0.25	-0.19	-0.04	0.2
R	43	O	79300	SR	0.59	0.33	-0.13	-0.19	0.33	-0.14	0.2
R	44	O	373182	SR	0.28	0.27	0.27	-0.04	-0.14	-0.11	0.3
R	45	O	279612	SR	0.24	0.27	-0.09	-0.09	0.27	-0.08	0.2
R	46	O	271091	SR	0.43	0.30	0.30	-0.14	-0.12	-0.11	0.3
R	47	O	271094	SR	0.26	0.31	-0.13	-0.19	0.00	0.31	0.2
R	49	O	363022	SR	0.29	0.22	-0.10	0.22	-0.05	-0.11	0.2
R	50	O	369407	SR	0.46	0.24	-0.16	0.24	-0.15	-0.05	0.2
R	51	O	369461	SR	0.34	0.24	-0.11	-0.10	0.24	-0.07	0.2
R	52	O	338788	SR	0.20	0.16	0.13	-0.20	-0.11	0.16	0.3
R	53	O	352590	SR	0.46	0.21	0.01	0.21	-0.15	-0.13	0.3
R	57	O	52694	SR	0.31	0.13	-0.12	0.02	0.13	-0.05	0.3

Table 1.A2 Item Statistics, Operational Items: MD HSA 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	58	O	55149	SR	0.37	0.16	-0.12	0.00	-0.09	0.16	0.3
R	59	O	108518	SR	0.46	0.37	0.37	-0.18	-0.19	-0.10	0.3
R	60	O	364196	SR	0.36	0.25	0.25	-0.12	-0.13	-0.03	0.4
R	61	O	364197	SR	0.31	0.19	0.19	-0.14	-0.06	0.01	0.4
R	62	O	352581	SR	0.16	0.14	-0.05	0.14	-0.11	0.08	0.4
R	65	O	256543	SR	0.41	0.24	-0.11	0.24	-0.09	-0.11	0.5
R	66	O	256544	SR	0.39	0.23	-0.02	0.23	-0.14	-0.11	0.6
R	67	O	65142	SR	0.49	0.26	-0.05	-0.19	0.26	-0.10	0.2
R	68	O	65126	SR	0.42	0.30	0.30	-0.17	-0.13	-0.08	0.3
R	70	O	263119	SR	0.35	0.29	0.29	-0.09	-0.11	-0.12	0.3
R	71	O	263117	SR	0.61	0.39	0.39	-0.21	-0.19	-0.14	0.3
R	72	O	65132	SR	0.07	0.07	-0.02	-0.06	0.05	0.07	0.3
R	73	O	279622	SR	0.25	0.21	0.21	-0.10	-0.02	-0.08	0.3
R	74	O	53508	SR	0.58	0.34	0.34	-0.20	-0.15	-0.15	0.3
R	75	O	53488	SR	0.57	0.31	-0.17	-0.15	0.31	-0.11	0.3
R	76	O	323308	SR	0.31	0.26	-0.10	-0.11	0.26	-0.08	0.2
R	77	O	323306	SR	0.19	0.12	-0.01	0.12	-0.11	-0.01	0.3
R	79	O	263154	SR	0.32	0.13	-0.03	-0.13	0.13	0.03	0.3
R	80	O	64746	SR	0.33	0.21	-0.08	-0.10	0.21	-0.04	0.3
R	81	O	64744	SR	0.36	0.30	-0.12	0.30	-0.18	-0.04	0.3
R	82	O	65051	SR	0.53	0.36	-0.12	-0.20	-0.15	0.36	0.4
R	86	O	271136	SR	0.40	0.18	-0.08	-0.09	0.18	-0.03	0.4
R	87	O	271137	SR	0.27	0.18	0.02	0.18	-0.10	-0.09	0.4
R	88	O	67603	SR	0.56	0.26	0.26	-0.18	-0.06	-0.11	0.3
R	89	O	79495	SR	0.47	0.27	-0.15	-0.17	0.27	-0.02	0.3
R	92	O	338755	SR	0.72	0.37	-0.16	-0.20	-0.20	0.37	0.3
R	93	O	79438	SR	0.22	0.21	-0.05	-0.12	-0.03	0.21	0.4
R	95	O	136110	SR	0.36	0.15	-0.03	-0.14	0.15	0.01	0.4
R	96	O	136112	SR	0.30	0.11	0.11	-0.06	-0.06	0.02	0.4
R	97	O	271120	SR	0.39	0.22	-0.04	-0.12	0.22	-0.10	0.4
R	98	O	57185	SR	0.35	0.23	0.23	-0.16	-0.16	0.04	0.4
R	99	O	338769	SR	0.24	0.22	-0.12	-0.10	-0.02	0.22	0.5
Mean					0.37	0.24	0.02	-0.03	-0.03	0.00	0.3
SD					0.14	0.07	0.16	0.16	0.15	0.15	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 English—October Primary

Form	Pos_No	Anchor Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
R	1	O	130258	SR	0.67	0.21	0.21	-0.10	-0.16	-0.10	0.0
R	2	O	96120	SR	0.38	0.23	0.23	-0.09	-0.18	-0.03	0.0
R	3	O	96121	SR	0.54	0.30	-0.16	0.30	-0.17	-0.09	0.1
R	4	O	96122	SR	0.65	0.24	-0.11	-0.06	0.24	-0.19	0.0
R	5	O	96123	SR	0.36	0.19	-0.13	-0.16	0.19	0.01	0.1
R	9	O	318476	SR	0.70	0.30	-0.14	-0.24	0.30	-0.11	0.1
R	10	O	281365	SR	0.60	0.23	-0.05	0.23	-0.17	-0.14	0.1
R	11	O	281367	SR	0.50	0.28	0.28	-0.12	-0.16	-0.10	0.1
R	12	O	281363	SR	0.46	0.30	-0.05	-0.19	-0.16	0.30	0.2
R	13	O	281364	SR	0.51	0.23	-0.20	0.23	0.01	-0.19	0.1
R	14	O	281362	SR	0.15	0.14	-0.15	-0.15	0.11	0.14	0.1
R	15	O	281366	SR	0.18	0.16	0.07	-0.13	-0.17	0.16	0.2
R	16	O	281368	SR	0.23	0.03	-0.11	0.06	0.03	-0.02	0.1
R	18	O	272942	SR	0.64	0.43	-0.19	-0.22	-0.22	0.43	0.2
R	19	O	256307	SR	0.52	0.30	-0.17	-0.20	0.30	-0.05	0.3
R	20	O	256303	SR	0.65	0.36	-0.19	-0.18	0.36	-0.17	0.2
R	23	O	96021	SR	0.68	0.25	-0.11	-0.21	0.25	-0.05	0.3
R	24	O	96022	SR	0.52	0.32	-0.09	0.32	-0.14	-0.20	0.3
R	25	O	96024	SR	0.65	0.26	-0.13	-0.14	0.26	-0.11	0.3
R	26	O	96025	SR	0.30	0.22	-0.08	-0.10	0.22	-0.04	0.4
R	27	O	96356	SR	0.34	0.29	-0.11	-0.08	-0.18	0.29	0.6
R	28	O	96357	SR	0.42	0.21	-0.02	-0.10	0.21	-0.15	0.8
R	29	O	96358	SR	0.52	0.31	-0.15	-0.17	0.31	-0.10	0.9
R	30	O	96359	SR	0.30	0.22	0.22	-0.15	-0.01	-0.17	1.0
R	31	O	96360	SR	0.62	0.33	-0.14	-0.17	0.33	-0.17	1.1
R	32	O	96361	SR	0.35	0.25	-0.11	-0.09	-0.08	0.25	1.0
R	33	O	130255	SR	0.76	0.30	-0.15	-0.24	0.30	-0.11	0.1
R	34	O	130238	SR	0.73	0.34	0.34	-0.19	-0.20	-0.17	0.1
R	35	O	373839	SR	0.66	0.31	-0.17	0.31	-0.18	-0.11	0.1
R	53	O	332107	SR	0.68	0.22	-0.03	0.22	-0.19	-0.19	0.2
R	54	O	332106	SR	0.48	0.37	0.37	-0.15	-0.23	-0.10	0.3
R	55	O	332108	SR	0.41	0.26	-0.09	-0.12	0.26	-0.11	0.4
R	61	O	130217	SR	0.36	0.20	-0.06	0.20	-0.18	0.02	0.5
R	62	O	130218	SR	0.24	0.08	-0.13	-0.01	0.08	0.04	0.6
R	63	O	130219	SR	0.60	0.31	-0.14	-0.18	0.31	-0.12	0.5
R	64	O	130222	SR	0.56	0.28	-0.09	-0.14	0.28	-0.15	0.5
R	65	O	130220	SR	0.45	0.33	-0.16	0.33	-0.12	-0.17	0.6
R	66	O	130221	SR	0.56	0.35	-0.20	0.35	-0.22	-0.09	0.6
R	67	O	130226	SR	0.38	0.27	-0.08	-0.14	0.27	-0.10	0.6
R	68	O	251073	SR	0.29	0.27	0.00	-0.19	-0.11	0.27	0.2
R	69	O	251074	SR	0.42	0.24	-0.14	0.24	-0.07	-0.12	0.2
R	70	O	251077	SR	0.40	0.35	-0.11	-0.18	-0.14	0.35	0.2
R	71	O	251076	SR	0.33	0.06	0.00	0.06	0.00	-0.06	0.3
R	72	O	251075	SR	0.53	0.32	-0.07	0.32	-0.18	-0.18	0.3

Table 1.A3 Item Statistics, Operational Items: MD HSA 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	73	O	256288	SR	0.61	0.33	-0.15	0.33	-0.17	-0.14	0.2
R	74	O	264660	SR	0.25	0.14	0.14	0.09	-0.14	-0.10	0.3
R	75	O	264663	SR	0.75	0.40	-0.21	0.40	-0.22	-0.20	0.3
R	76	O	264665	SR	0.54	0.27	-0.19	-0.10	0.27	-0.08	0.2
R	77	O	264657	SR	0.22	0.22	-0.19	-0.09	0.04	0.22	0.3
R	78	O	264661	SR	0.20	0.16	0.16	-0.16	-0.06	0.06	0.3
R	79	O	288866	SR	0.42	0.39	-0.13	-0.13	-0.20	0.39	0.3
R	80	O	264658	SR	0.53	0.31	-0.13	-0.23	0.31	-0.06	0.3
R	81	O	264656	SR	0.29	0.20	0.20	-0.18	-0.02	0.00	0.4
R	82	O	264666	SR	0.43	0.23	-0.05	0.23	-0.15	-0.08	0.4
R	83	O	288873	SR	0.50	0.33	-0.20	-0.11	0.33	-0.15	0.3
R	84	O	281768	SR	0.47	0.25	-0.05	-0.21	-0.09	0.25	0.3
R	85	O	281770	SR	0.75	0.35	-0.20	-0.17	0.35	-0.19	0.3
R	96	O	264654	SR	0.48	0.42	-0.17	-0.18	-0.19	0.42	0.4
R	97	O	264652	SR	0.46	0.33	-0.15	-0.18	0.33	-0.08	0.5
R	98	O	264653	SR	0.37	0.29	0.29	-0.07	-0.16	-0.11	0.5
Mean					0.48	0.27	-0.06	-0.04	0.02	-0.03	0.3
SD					0.16	0.08	0.15	0.19	0.21	0.17	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 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	O	51380	SR	0.32	0.38	-0.15	-0.17	-0.12	0.38	0.3
A-B	2	L	211050	SR	0.24	0.17	0.06	-0.15	-0.14	0.17	0.1
A-B	3	L	395582	SR	0.23	0.12	0.00	-0.07	-0.06	0.12	0.1
A-B	5	L	260748	SR	0.33	0.17	-0.11	-0.08	0.17	-0.01	0.2
A-B	6	O	257114	SR	0.20	0.30	-0.10	-0.11	-0.06	0.30	0.5
A-B	7	O	362343	SPR	0.56	0.37	0.37	-0.35			1.4
A-B	8	O	366257	SPR	0.56	0.41	0.41	-0.39			1.5
A-B	10	O	223241	SR	0.40	0.36	-0.09	0.36	-0.13	-0.21	0.1
A-B	11	L	223435	SR	0.14	0.22	0.22	-0.10	-0.06	-0.03	0.3
A-B	13	O	275456	SR	0.22	0.26	-0.07	-0.10	-0.08	0.26	0.6
A-B	15	L	328776	SR	0.52	0.39	-0.11	0.39	-0.22	-0.21	0.2
A-B	16	L	67535	SR	0.26	0.20	0.05	-0.16	0.20	-0.09	0.4
A-B	17	O	255086	SPR	0.08	0.24	0.24	-0.15			4.7
A-B	19	L	255109	SR	0.27	0.31	-0.08	-0.15	-0.09	0.31	0.7
A-B	20	L	395564	SR	0.62	0.36	-0.14	0.36	-0.23	-0.15	0.4
A-B	22	L	79059	SR	0.32	0.24	-0.01	-0.14	0.24	-0.15	0.7
A-B	23	L	211049	SR	0.28	0.19	0.19	-0.08	-0.10	-0.01	0.8
A-B	24	O	392374	SR	0.72	0.31	-0.15	-0.22	0.31	-0.11	0.2
A-B	25	O	394808	SR	0.54	0.34	0.34	-0.23	-0.14	-0.10	0.5
A-B	26	O	400156	SR	0.32	0.20	-0.07	-0.09	-0.06	0.20	0.3
A-B	27	L	366248	SR	0.52	0.24	-0.13	0.24	-0.19	-0.07	0.3
A-B	29	O	106639	SPR	0.47	0.45	0.45	-0.42			2.0
A-B	31	O	215929	SPR	0.37	0.43	0.43	-0.38			3.0
A-B	32	L	397858	SR	0.35	0.19	-0.08	-0.10	0.19	-0.04	0.2
A-B	33	O	363912	SR	0.51	0.31	-0.09	0.31	-0.21	-0.12	0.3
A-B	34	L	54894	SR	0.17	0.24	0.24	-0.06	-0.11	-0.02	0.4
A-B	36	L	393677	SR	0.11	0.14	-0.12	-0.03	0.04	0.14	0.6
A-B	37	O	268736	SR	0.42	0.41	0.41	-0.14	-0.22	-0.16	0.5
A-B	38	L	392346	SR	0.20	0.06	0.08	0.06	-0.08	-0.08	0.5
A-B	39	L	363931	SPR	0.08	0.42	0.42	-0.28			7.2
A-B	41	O	54832	SR	0.46	0.48	-0.16	-0.27	-0.21	0.48	0.6
A-B	42	L	363910	SR	0.38	0.14	-0.11	-0.07	0.14	0.01	0.6
A-B	43	O	394830	SR	0.31	0.30	0.30	-0.12	-0.21	0.01	0.7
A-B	44	L	400163	SR	0.16	0.13	0.13	-0.11	-0.14	0.13	0.9
A-B	46	L	362271	SR	0.58	0.35	-0.12	0.35	-0.22	-0.16	1.0
A-B	47	O	211022	SR	0.41	0.34	0.34	-0.16	-0.20	-0.10	0.3
A-B	48	L	397904	SR	0.23	0.22	0.22	-0.16	0.01	-0.09	0.4
A-B	49	L	282379	SR	0.39	0.42	-0.18	-0.13	-0.23	0.42	0.3
A-B	50	L	348314	SR	0.63	0.29	-0.11	0.29	-0.22	-0.14	0.3
A-B	52	L	223246	SR	0.31	0.21	0.21	-0.18	-0.23	0.03	0.3
A-B	53	O	263295	SPR	0.51	0.45	0.45	-0.41			3.4

Table 1.A4 Item Statistics, Operational Items: MD HSA 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	54	L	132829	SPR	0.09	0.46	0.46	-0.33			5.5
A-B	56	O	394829	SR	0.59	0.33	-0.15	-0.17	0.33	-0.14	0.4
A-B	57	L	268763	SR	0.42	0.20	-0.05	0.20	-0.17	-0.01	0.5
A-B	58	L	211019	SR	0.47	0.39	0.39	-0.18	-0.19	-0.13	0.5
A-B	60	L	362362	SR	0.39	0.37	-0.07	-0.14	-0.22	0.37	0.5
A-B	61	O	64685	SR	0.38	0.37	-0.14	0.37	-0.20	-0.16	0.4
A-B	62	L	319442	SR	0.31	0.27	-0.10	-0.12	0.27	-0.06	0.6
A-B	63	L	257128	SPR	0.49	0.41	0.41	-0.37			3.2
A-B	65	O	257121	SPR	0.46	0.45	0.45	-0.40			3.5
A-B	66	O	392332	SR	0.26	0.09	-0.12	0.02	0.09	0.03	0.6
A-B	68	L	322011	SR	0.27	0.17	-0.03	-0.05	0.17	-0.09	0.8
A-B	69	L	395606	SR	0.39	0.34	0.34	-0.07	-0.20	-0.17	0.8
Mean					0.36	0.30	0.09	-0.09	-0.06	0.01	1.0
SD					0.15	0.11	0.23	0.22	0.17	0.18	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.A5 Item Statistics, Operational Items: MD HSA 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	O	366224	SR	0.48	0.29	-0.09	-0.18	-0.20	0.29	0.0
C	2	L	211050	SR	0.24	0.17	0.06	-0.15	-0.14	0.17	0.1
C	3	L	395582	SR	0.23	0.12	0.00	-0.07	-0.06	0.12	0.1
C	5	L	260748	SR	0.33	0.17	-0.11	-0.08	0.17	-0.01	0.2
C	6	O	282370	SR	0.47	0.20	-0.09	0.20	-0.11	-0.06	0.3
C	7	O	363941	SPR	0.63	0.35	0.35	-0.35			0.3
C	8	O	366215	SPR	0.50	0.39	0.39	-0.38			0.7
C	10	O	319473	SR	0.26	0.41	-0.13	-0.17	-0.12	0.41	0.2
C	11	L	223435	SR	0.14	0.22	0.22	-0.10	-0.06	-0.03	0.3
C	13	O	282464	SR	0.23	0.22	-0.03	-0.11	-0.06	0.22	0.3
C	15	L	328776	SR	0.52	0.39	-0.11	0.39	-0.22	-0.21	0.2
C	16	L	67535	SR	0.26	0.20	0.05	-0.16	0.20	-0.09	0.4
C	17	O	393673	SPR	0.03	0.25	0.25	-0.16			1.5
C	19	L	255109	SR	0.27	0.31	-0.08	-0.15	-0.09	0.31	0.7
C	20	L	395564	SR	0.62	0.36	-0.14	0.36	-0.23	-0.15	0.4
C	22	L	79059	SR	0.32	0.24	-0.01	-0.14	0.24	-0.15	0.7
C	23	L	211049	SR	0.28	0.19	0.19	-0.08	-0.10	-0.01	0.8
C	24	O	54619	SR	0.71	0.35	-0.11	-0.22	-0.19	0.35	0.1
C	25	O	260767	SR	0.35	0.11	-0.01	-0.17	0.11	0.03	0.1
C	26	O	392316	SR	0.37	0.35	-0.13	-0.13	-0.17	0.35	0.2
C	27	L	366248	SR	0.52	0.24	-0.13	0.24	-0.19	-0.07	0.3
C	29	O	392322	SPR	0.48	0.41	0.41	-0.39			0.8
C	31	O	106612	SPR	0.41	0.50	0.50	-0.48			1.1
C	32	L	397858	SR	0.35	0.19	-0.08	-0.10	0.19	-0.04	0.2
C	33	O	348358	SR	0.28	0.15	0.15	-0.18	-0.16	0.18	0.2
C	34	L	54894	SR	0.17	0.24	0.24	-0.06	-0.11	-0.02	0.4
C	36	L	393677	SR	0.11	0.14	-0.12	-0.03	0.04	0.14	0.6
C	37	O	268664	SR	0.33	0.44	0.44	-0.15	-0.19	-0.15	0.1
C	38	L	392346	SR	0.20	0.06	0.08	0.06	-0.08	-0.08	0.5
C	39	L	363931	SPR	0.08	0.42	0.42	-0.28			7.2
C	41	O	257126	SR	0.70	0.43	-0.08	-0.26	-0.28	0.43	0.2
C	42	L	363910	SR	0.38	0.14	-0.11	-0.07	0.14	0.01	0.6
C	43	O	51461	SR	0.71	0.40	-0.14	0.40	-0.23	-0.23	0.3
C	44	L	400163	SR	0.16	0.13	0.13	-0.11	-0.14	0.13	0.9
C	46	L	362271	SR	0.58	0.35	-0.12	0.35	-0.22	-0.16	1.0
C	47	O	52339	SR	0.35	0.30	0.30	-0.17	-0.13	-0.02	0.3
C	48	L	397904	SR	0.23	0.22	0.22	-0.16	0.01	-0.09	0.4
C	49	L	282379	SR	0.39	0.42	-0.18	-0.13	-0.23	0.42	0.3
C	50	L	348314	SR	0.63	0.29	-0.11	0.29	-0.22	-0.14	0.3
C	52	L	223246	SR	0.31	0.21	0.21	-0.18	-0.23	0.03	0.3
C	53	O	268767	SPR	0.58	0.43	0.43	-0.41			2.1
C	54	L	132829	SPR	0.09	0.46	0.46	-0.33			5.5
C	56	O	363954	SR	0.43	0.24	-0.01	0.24	-0.17	-0.12	0.3

Table 1.A5 Item Statistics, Operational Items: MD HSA 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	57	L	268763	SR	0.42	0.20	-0.05	0.20	-0.17	-0.01	0.5
C	58	L	211019	SR	0.47	0.39	0.39	-0.18	-0.19	-0.13	0.5
C	60	L	362362	SR	0.39	0.37	-0.07	-0.14	-0.22	0.37	0.5
C	61	O	363943	SR	0.55	0.30	-0.13	-0.17	0.30	-0.11	0.3
C	62	L	319442	SR	0.31	0.27	-0.10	-0.12	0.27	-0.06	0.6
C	63	L	257128	SPR	0.49	0.41	0.41	-0.37			3.2
C	65	O	366256	SPR	0.48	0.46	0.46	-0.43			1.5
C	66	O	397892	SR	0.30	0.28	0.28	-0.07	-0.12	-0.11	0.6
C	68	L	322011	SR	0.27	0.17	-0.03	-0.05	0.17	-0.09	0.8
C	69	L	395606	SR	0.39	0.34	0.34	-0.07	-0.20	-0.17	0.8
Mean					0.37	0.29	0.09	-0.10	-0.08	0.03	0.8
SD					0.17	0.11	0.22	0.21	0.16	0.19	1.3

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.A6 Item Statistics, Operational Items: MD HSA 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	L	68110	SR	0.85	0.31	0.31	-0.18	-0.22	-0.09	0.0
A-B	2	L	79415	SR	0.68	0.40	-0.18	-0.25	0.40	-0.18	0.1
A-B	3	O	263108	SR	0.54	0.46	-0.20	-0.27	0.46	-0.17	0.1
A-B	4	L	398070	SR	0.46	0.38	-0.21	0.38	-0.27	-0.05	0.1
A-B	5	L	398071	SR	0.73	0.39	-0.18	-0.22	-0.21	0.39	0.1
A-B	6	O	338713	SR	0.43	0.35	-0.25	-0.15	-0.08	0.35	0.1
A-B	7	L	338714	SR	0.54	0.41	0.41	-0.19	-0.23	-0.16	0.1
A-B	11	O	410104	SR	0.52	0.55	-0.27	-0.25	-0.22	0.55	0.1
A-B	12	O	65153	SR	0.55	0.39	-0.16	0.39	-0.20	-0.20	0.1
A-B	13	L	331287	SR	0.50	0.31	-0.16	-0.19	0.31	-0.06	0.2
A-B	14	O	331289	SR	0.53	0.55	0.55	-0.19	-0.33	-0.25	0.1
A-B	17	O	260076	SR	0.34	0.39	-0.12	-0.21	0.39	-0.13	0.2
A-B	18	O	108673	SR	0.34	0.43	-0.19	-0.17	-0.15	0.43	0.1
A-B	19	L	400665	SR	0.41	0.30	-0.16	0.30	-0.20	-0.06	0.2
A-B	20	L	400667	SR	0.47	0.35	-0.13	-0.23	0.35	-0.08	0.2
A-B	21	L	338693	SR	0.45	0.52	-0.21	-0.17	-0.27	0.52	0.3
A-B	22	L	338692	SR	0.48	0.51	0.51	-0.30	-0.21	-0.15	0.4
A-B	23	O	55136	SR	0.39	0.52	-0.07	-0.36	0.52	-0.17	0.2
A-B	25	L	256497	SR	0.58	0.29	-0.12	-0.17	-0.12	0.29	0.3
A-B	26	L	256489	SR	0.33	0.21	-0.08	0.21	-0.09	-0.06	0.4
A-B	27	O	263140	SR	0.34	0.58	-0.25	-0.22	0.58	-0.19	0.4
A-B	29	O	363012	SR	0.58	0.57	-0.26	-0.33	-0.22	0.57	0.5
A-B	30	O	364194	SR	0.35	0.32	-0.02	-0.08	0.32	-0.28	0.5
A-B	31	L	133060	SR	0.55	0.36	-0.27	-0.09	0.36	-0.13	0.5
A-B	32	L	57021	SR	0.39	0.40	-0.19	-0.08	-0.23	0.40	0.6
A-B	33	L	57020	SR	0.49	0.53	0.53	-0.25	-0.24	-0.21	0.8
A-B	34	O	68223	SR	0.67	0.46	0.46	-0.26	-0.25	-0.18	0.2
A-B	35	O	214524	SR	0.59	0.45	-0.23	0.45	-0.19	-0.23	0.2
A-B	37	L	136117	SR	0.42	0.53	0.53	-0.23	-0.27	-0.16	0.3
A-B	38	L	136119	SR	0.53	0.54	-0.23	-0.28	-0.23	0.54	0.2
A-B	39	L	393878	SR	0.61	0.41	-0.16	-0.18	-0.26	0.41	0.2
A-B	40	O	52522	SR	0.39	0.33	-0.14	0.33	-0.11	-0.15	0.2
A-B	43	O	331305	SR	0.42	0.53	0.53	-0.23	-0.25	-0.18	0.3
A-B	44	L	331304	SR	0.58	0.51	-0.22	0.51	-0.26	-0.23	0.3
A-B	45	L	323329	SR	0.49	0.40	-0.12	0.40	-0.23	-0.19	0.3
A-B	46	L	323330	SR	0.39	0.27	-0.19	-0.08	0.27	-0.08	0.4
A-B	47	L	366600	SR	0.51	0.56	0.56	-0.23	-0.32	-0.20	0.4
A-B	48	O	214549	SR	0.47	0.49	-0.21	-0.24	-0.18	0.49	0.3
A-B	49	L	349087	SR	0.77	0.32	-0.17	-0.17	-0.16	0.32	0.4
A-B	53	O	369418	SR	0.43	0.40	-0.19	-0.20	-0.11	0.40	0.4
A-B	54	L	392494	SR	0.40	0.61	0.61	-0.25	-0.31	-0.19	0.4
A-B	55	O	323298	SR	0.42	0.38	0.38	-0.11	-0.18	-0.18	0.4
A-B	56	L	323300	SR	0.65	0.49	-0.25	-0.27	0.49	-0.20	0.4
A-B	57	O	55012	SR	0.44	0.45	0.45	-0.20	-0.19	-0.22	0.4
A-B	58	L	79447	SR	0.44	0.39	-0.16	0.39	-0.15	-0.19	0.4

Table 1.A6 Item Statistics, Operational Items: MD HSA 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	59	L	320453	SR	0.37	0.43	0.43	-0.26	-0.15	-0.11	0.4
A-B	60	O	320451	SR	0.36	0.39	-0.22	-0.25	0.39	0.01	0.4
A-B	63	O	263162	SR	0.39	0.53	-0.18	0.53	-0.22	-0.22	0.4
A-B	64	L	263164	SR	0.34	0.44	-0.24	-0.12	-0.18	0.44	0.6
A-B	65	L	394905	SR	0.53	0.43	-0.19	-0.26	0.43	-0.11	0.6
A-B	66	O	392484	SR	0.50	0.49	0.49	-0.22	-0.25	-0.17	0.6
A-B	67	L	64720	SR	0.43	0.52	-0.16	-0.26	-0.23	0.52	0.4
A-B	68	L	373132	SR	0.46	0.46	-0.27	0.46	-0.19	-0.16	0.4
A-B	69	O	373134	SR	0.59	0.50	-0.24	-0.28	0.50	-0.18	0.4
A-B	70	L	65117	SR	0.62	0.47	-0.21	0.47	-0.24	-0.22	0.4
A-B	71	L	392450	SR	0.39	0.42	-0.17	-0.27	0.42	-0.02	0.4
A-B	72	L	323302	SR	0.45	0.60	0.60	-0.30	-0.25	-0.21	0.4
A-B	73	O	323303	SR	0.37	0.37	-0.20	0.37	-0.10	-0.17	0.3
A-B	76	L	282451	SR	0.54	0.45	-0.14	0.45	-0.30	-0.18	0.4
A-B	77	L	271148	SR	0.36	0.42	-0.19	-0.10	-0.23	0.42	0.4
A-B	78	L	279594	SR	0.65	0.44	-0.21	-0.21	-0.22	0.44	0.4
A-B	79	L	279596	SR	0.42	0.13	-0.18	0.13	-0.03	0.06	0.4
A-B	80	O	349029	SR	0.54	0.44	0.44	-0.25	-0.22	-0.16	0.4
A-B	81	L	349027	SR	0.35	0.33	-0.14	-0.19	0.33	-0.03	0.4
A-B	84	L	52543	SR	0.28	0.40	-0.10	0.40	-0.23	-0.13	0.5
A-B	85	O	400694	SR	0.62	0.42	-0.22	0.42	-0.24	-0.15	0.4
A-B	86	O	373147	SR	0.41	0.34	-0.09	-0.28	0.34	-0.05	0.4
A-B	90	L	133457	SR	0.35	0.45	-0.07	-0.26	-0.19	0.45	0.5
A-B	92	O	52476	SR	0.64	0.41	-0.15	0.41	-0.31	-0.13	0.5
A-B	93	L	363171	SR	0.64	0.45	-0.23	-0.26	0.45	-0.19	0.5
A-B	94	L	323284	SR	0.46	0.35	-0.05	0.35	-0.23	-0.17	0.5
A-B	95	L	323286	SR	0.56	0.43	-0.14	-0.26	0.43	-0.22	0.5
A-B	96	O	392461	SR	0.49	0.50	0.50	-0.24	-0.24	-0.23	0.5
A-B	97	O	282439	SR	0.63	0.44	-0.20	-0.23	-0.21	0.44	0.5
A-B	98	L	331302	SR	0.53	0.47	-0.14	0.47	-0.30	-0.18	0.5
A-B	99	L	332079	SR	0.51	0.53	0.53	-0.20	-0.23	-0.26	0.6
Mean					0.49	0.43	-0.02	-0.06	-0.06	-0.01	0.3
SD					0.11	0.09	0.29	0.28	0.28	0.27	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.A7 Item Statistics, Operational Items: MD HSA 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	L	68110	SR	0.85	0.31	0.31	-0.18	-0.22	-0.09	0.0
C	2	L	79415	SR	0.68	0.40	-0.18	-0.25	0.40	-0.18	0.1
C	3	O	392432	SR	0.55	0.43	-0.15	0.43	-0.20	-0.25	0.1
C	4	L	398070	SR	0.46	0.38	-0.21	0.38	-0.27	-0.05	0.1
C	5	L	398071	SR	0.73	0.39	-0.18	-0.22	-0.21	0.39	0.1
C	6	O	338712	SR	0.30	0.55	-0.03	0.55	-0.36	-0.16	0.1
C	7	L	338714	SR	0.54	0.41	0.41	-0.19	-0.23	-0.16	0.1
C	11	O	353194	SR	0.46	0.41	0.41	-0.17	-0.23	-0.16	0.1
C	12	O	108573	SR	0.41	0.48	-0.16	-0.16	-0.26	0.48	0.2
C	13	L	331287	SR	0.50	0.31	-0.16	-0.19	0.31	-0.06	0.2
C	14	O	331285	SR	0.57	0.42	-0.19	0.42	-0.22	-0.18	0.1
C	17	O	55247	SR	0.47	0.41	0.41	-0.18	-0.21	-0.16	0.1
C	18	O	108598	SR	0.33	0.29	0.29	-0.14	-0.21	-0.01	0.2
C	19	L	400665	SR	0.41	0.30	-0.16	0.30	-0.20	-0.06	0.2
C	20	L	400667	SR	0.47	0.35	-0.13	-0.23	0.35	-0.08	0.2
C	21	L	338693	SR	0.45	0.52	-0.21	-0.17	-0.27	0.52	0.3
C	22	L	338692	SR	0.48	0.51	0.51	-0.30	-0.21	-0.15	0.4
C	23	O	366578	SR	0.47	0.38	-0.27	-0.01	0.38	-0.21	0.3
C	25	L	256497	SR	0.58	0.29	-0.12	-0.17	-0.12	0.29	0.3
C	26	L	256489	SR	0.33	0.21	-0.08	0.21	-0.09	-0.06	0.4
C	27	O	223419	SR	0.39	0.32	-0.07	-0.24	0.32	-0.14	0.4
C	29	O	67659	SR	0.53	0.50	0.50	-0.34	-0.15	-0.17	0.4
C	30	O	52515	SR	0.49	0.34	-0.06	-0.21	0.34	-0.21	0.5
C	31	L	133060	SR	0.55	0.36	-0.27	-0.09	0.36	-0.13	0.5
C	32	L	57021	SR	0.39	0.40	-0.19	-0.08	-0.23	0.40	0.6
C	33	L	57020	SR	0.49	0.53	0.53	-0.25	-0.24	-0.21	0.8
C	34	O	52608	SR	0.44	0.41	-0.22	-0.25	0.41	-0.03	0.3
C	35	O	364180	SR	0.66	0.48	-0.22	-0.24	-0.25	0.48	0.2
C	37	L	136117	SR	0.42	0.53	0.53	-0.23	-0.27	-0.16	0.3
C	38	L	136119	SR	0.53	0.54	-0.23	-0.28	-0.23	0.54	0.2
C	39	L	393878	SR	0.61	0.41	-0.16	-0.18	-0.26	0.41	0.2
C	40	O	223425	SR	0.46	0.35	-0.16	0.35	-0.16	-0.14	0.3
C	43	O	331307	SR	0.54	0.44	-0.16	-0.25	0.44	-0.19	0.3
C	44	L	331304	SR	0.58	0.51	-0.22	0.51	-0.26	-0.23	0.3
C	45	L	323329	SR	0.49	0.40	-0.12	0.40	-0.23	-0.19	0.3
C	46	L	323330	SR	0.39	0.27	-0.19	-0.08	0.27	-0.08	0.4
C	47	L	366600	SR	0.51	0.56	0.56	-0.23	-0.32	-0.20	0.4
C	48	O	214530	SR	0.27	0.32	0.32	-0.15	-0.05	-0.16	0.4
C	49	L	349087	SR	0.77	0.32	-0.17	-0.17	-0.16	0.32	0.4
C	53	O	52409	SR	0.25	0.48	-0.28	0.48	-0.19	-0.11	0.5
C	54	L	392494	SR	0.40	0.61	0.61	-0.25	-0.31	-0.19	0.4
C	55	O	323299	SR	0.46	0.48	-0.20	0.48	-0.22	-0.21	0.5
C	56	L	323300	SR	0.65	0.49	-0.25	-0.27	0.49	-0.20	0.4

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

C	57	O	52445	SR	0.26	0.66	0.66	-0.26	-0.23	-0.17	0.5
C	58	L	79447	SR	0.44	0.39	-0.16	0.39	-0.15	-0.19	0.4
C	59	L	320453	SR	0.37	0.43	0.43	-0.26	-0.15	-0.11	0.4
C	60	O	320449	SR	0.21	0.53	0.14	-0.30	-0.24	0.53	0.5
C	63	O	263163	SR	0.61	0.32	-0.15	0.32	-0.13	-0.18	0.5
C	64	L	263164	SR	0.34	0.44	-0.24	-0.12	-0.18	0.44	0.6
C	65	L	394905	SR	0.53	0.43	-0.19	-0.26	0.43	-0.11	0.6
C	66	O	79436	SR	0.41	0.52	0.52	-0.21	-0.24	-0.18	0.6
C	67	L	64720	SR	0.43	0.52	-0.16	-0.26	-0.23	0.52	0.4
C	68	L	373132	SR	0.46	0.46	-0.27	0.46	-0.19	-0.16	0.4
C	69	O	373131	SR	0.45	0.54	-0.16	-0.16	0.54	-0.39	0.5
C	70	L	65117	SR	0.62	0.47	-0.21	0.47	-0.24	-0.22	0.4
C	71	L	392450	SR	0.39	0.42	-0.17	-0.27	0.42	-0.02	0.4
C	72	L	323302	SR	0.45	0.60	0.60	-0.30	-0.25	-0.21	0.4
C	73	O	323304	SR	0.33	0.52	-0.22	-0.17	-0.22	0.52	0.5
C	76	L	282451	SR	0.54	0.45	-0.14	0.45	-0.30	-0.18	0.4
C	77	L	271148	SR	0.36	0.42	-0.19	-0.10	-0.23	0.42	0.4
C	78	L	279594	SR	0.65	0.44	-0.21	-0.21	-0.22	0.44	0.4
C	79	L	279596	SR	0.42	0.13	-0.18	0.13	-0.03	0.06	0.4
C	80	O	349026	SR	0.38	0.28	-0.05	0.28	-0.18	-0.10	0.6
C	81	L	349027	SR	0.35	0.33	-0.14	-0.19	0.33	-0.03	0.4
C	84	L	52543	SR	0.28	0.40	-0.10	0.40	-0.23	-0.13	0.5
C	85	O	207713	SR	0.73	0.27	-0.15	-0.12	0.27	-0.13	0.5
C	86	O	65002	SR	0.42	0.45	-0.14	-0.21	-0.20	0.45	0.5
C	90	L	133457	SR	0.35	0.45	-0.07	-0.26	-0.19	0.45	0.5
C	92	O	108546	SR	0.48	0.51	-0.28	0.51	-0.23	-0.14	0.5
C	93	L	363171	SR	0.64	0.45	-0.23	-0.26	0.45	-0.19	0.5
C	94	L	323284	SR	0.46	0.35	-0.05	0.35	-0.23	-0.17	0.5
C	95	L	323286	SR	0.56	0.43	-0.14	-0.26	0.43	-0.22	0.5
C	96	O	338760	SR	0.52	0.43	-0.19	-0.20	-0.18	0.43	0.6
C	97	O	133435	SR	0.44	0.55	0.55	-0.26	-0.25	-0.17	0.5
C	98	L	331302	SR	0.53	0.47	-0.14	0.47	-0.30	-0.18	0.5
C	99	L	332079	SR	0.51	0.53	0.53	-0.20	-0.23	-0.26	0.6
Mean					0.48	0.43	-0.01	-0.03	-0.07	-0.01	0.4
SD					0.12	0.10	0.29	0.29	0.26	0.27	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 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	L	261656	SR	0.26	0.26	-0.09	-0.21	0.26	0.01	0.0
A-B	2	L	261652	SR	0.54	0.45	0.45	-0.20	-0.24	-0.20	0.0
A-B	3	L	261653	SR	0.66	0.42	-0.19	0.42	-0.24	-0.19	0.1
A-B	4	L	261654	SR	0.35	0.29	0.29	-0.06	-0.20	-0.08	0.0
A-B	5	L	261655	SR	0.56	0.49	-0.25	-0.18	-0.24	0.49	0.1
A-B	6	L	261657	SR	0.69	0.41	-0.20	0.41	-0.23	-0.20	0.1
A-B	7	L	349288	SR	0.52	0.25	-0.18	0.25	0.01	-0.17	0.1
A-B	8	L	349291	SR	0.49	0.35	-0.10	0.35	-0.13	-0.24	0.1
A-B	9	L	349294	SR	0.48	0.45	-0.18	-0.17	-0.26	0.45	0.1
A-B	10	L	349289	SR	0.74	0.37	0.37	-0.16	-0.18	-0.23	0.1
A-B	11	L	349296	SR	0.59	0.35	-0.10	-0.24	0.35	-0.16	0.1
A-B	12	L	349297	SR	0.43	0.41	0.41	-0.21	-0.15	-0.17	0.2
A-B	18	O	108766	SR	0.35	0.25	-0.13	-0.05	0.25	-0.10	0.2
A-B	19	O	108767	SR	0.58	0.33	0.33	-0.24	-0.18	-0.05	0.3
A-B	20	O	108765	SR	0.61	0.43	-0.15	0.43	-0.23	-0.23	0.5
A-B	29	O	272947	SR	0.59	0.37	-0.15	0.37	-0.28	-0.09	0.9
A-B	30	O	251156	SR	0.45	0.39	-0.13	-0.28	-0.10	0.39	1.1
A-B	32	O	272876	SR	0.60	0.47	0.47	-0.20	-0.24	-0.23	1.3
A-B	33	O	281315	SR	0.68	0.21	-0.10	-0.13	0.21	-0.11	0.3
A-B	34	O	281318	SR	0.33	0.35	0.35	-0.15	-0.21	-0.05	0.3
A-B	35	O	281320	SR	0.48	0.39	-0.19	0.39	-0.13	-0.18	0.3
A-B	36	O	281319	SR	0.34	0.28	-0.16	-0.22	0.28	-0.02	0.3
A-B	40	O	96044	SR	0.63	0.45	-0.16	0.45	-0.29	-0.24	0.3
A-B	41	L	95665	SR	0.76	0.45	-0.18	-0.28	0.45	-0.24	0.3
A-B	43	O	130263	SR	0.65	0.40	-0.19	-0.20	0.40	-0.19	0.3
A-B	44	O	109142	SR	0.44	0.27	0.04	0.27	-0.23	-0.16	0.5
A-B	45	O	109143	SR	0.60	0.51	-0.22	-0.26	-0.23	0.51	0.4
A-B	46	O	109144	SR	0.62	0.26	-0.18	-0.23	0.26	0.00	0.4
A-B	47	O	109148	SR	0.52	0.45	-0.19	0.45	-0.20	-0.20	0.5
A-B	48	O	109145	SR	0.49	0.48	-0.18	-0.18	-0.28	0.48	0.4
A-B	49	O	109146	SR	0.49	0.31	-0.19	-0.10	0.31	-0.12	0.6
A-B	50	O	109147	SR	0.55	0.50	-0.20	-0.27	-0.22	0.50	0.5
A-B	51	L	323391	SR	0.41	0.43	0.43	-0.14	-0.19	-0.19	0.5
A-B	52	L	323390	SR	0.40	0.17	-0.10	0.17	-0.18	0.10	0.6
A-B	53	L	323389	SR	0.45	0.41	-0.17	0.41	-0.25	-0.10	0.5
A-B	54	L	323388	SR	0.61	0.45	-0.17	0.45	-0.27	-0.20	0.5
A-B	55	L	323387	SR	0.47	0.38	-0.12	-0.27	-0.11	0.38	0.6
A-B	56	L	366266	SR	0.58	0.31	0.31	-0.28	-0.24	0.04	0.6
A-B	57	L	366269	SR	0.40	0.36	-0.25	-0.04	-0.16	0.36	0.5
A-B	58	L	366268	SR	0.50	0.45	-0.18	0.45	-0.25	-0.16	0.6
A-B	59	L	366271	SR	0.24	0.29	-0.08	-0.19	-0.01	0.29	0.6
A-B	60	L	366273	SR	0.46	0.30	-0.10	-0.17	0.30	-0.11	0.6
A-B	61	L	366275	SR	0.54	0.49	0.49	-0.25	-0.22	-0.20	0.7

Table 1.A8 Item Statistics, Operational Items: MD HSA 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	62	L	366279	SR	0.40	0.25	-0.09	-0.09	0.25	-0.11	0.7
A-B	63	L	366278	SR	0.37	0.20	-0.18	0.20	-0.09	0.01	0.7
A-B	64	L	366277	SR	0.47	0.27	-0.16	-0.01	0.27	-0.19	0.8
A-B	65	L	366270	SR	0.23	0.21	0.21	0.07	-0.21	-0.10	0.8
A-B	66	O	323266	SR	0.60	0.43	0.43	-0.26	-0.17	-0.16	0.4
A-B	67	O	323267	SR	0.58	0.45	-0.22	-0.23	0.45	-0.19	0.4
A-B	85	L	272938	SR	0.57	0.28	-0.13	-0.18	0.28	-0.06	0.6
A-B	86	L	272936	SR	0.37	0.32	-0.18	0.32	-0.13	-0.06	0.6
A-B	87	L	272939	SR	0.34	0.31	-0.10	-0.26	0.31	0.00	0.6
A-B	88	L	272935	SR	0.68	0.49	-0.25	0.49	-0.25	-0.22	0.6
A-B	89	L	272932	SR	0.64	0.50	-0.18	0.50	-0.28	-0.24	0.6
A-B	90	L	272933	SR	0.41	0.35	-0.21	-0.03	-0.21	0.35	0.6
A-B	91	L	272930	SR	0.39	0.23	-0.17	0.23	0.03	-0.19	0.6
A-B	92	L	272931	SR	0.39	0.30	-0.16	-0.16	0.30	-0.02	0.7
A-B	96	O	256460	SR	0.47	0.22	-0.13	0.22	0.01	-0.18	0.6
A-B	97	O	256461	SR	0.67	0.47	0.47	-0.26	-0.25	-0.16	0.7
A-B	98	O	256462	SR	0.57	0.52	0.52	-0.16	-0.27	-0.27	0.7
Mean					0.50	0.36	-0.03	0.00	-0.06	-0.04	0.5
SD					0.12	0.09	0.24	0.27	0.24	0.23	0.3

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 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	L	261656	SR	0.26	0.26	-0.09	-0.21	0.26	0.01	0.0
C	2	L	261652	SR	0.54	0.45	0.45	-0.20	-0.24	-0.20	0.0
C	3	L	261653	SR	0.66	0.42	-0.19	0.42	-0.24	-0.19	0.1
C	4	L	261654	SR	0.35	0.29	0.29	-0.06	-0.20	-0.08	0.0
C	5	L	261655	SR	0.56	0.49	-0.25	-0.18	-0.24	0.49	0.1
C	6	L	261657	SR	0.69	0.41	-0.20	0.41	-0.23	-0.20	0.1
C	7	L	349288	SR	0.52	0.25	-0.18	0.25	0.01	-0.17	0.1
C	8	L	349291	SR	0.49	0.35	-0.10	0.35	-0.13	-0.24	0.1
C	9	L	349294	SR	0.48	0.45	-0.18	-0.17	-0.26	0.45	0.1
C	10	L	349289	SR	0.74	0.37	0.37	-0.16	-0.18	-0.23	0.1
C	11	L	349296	SR	0.59	0.35	-0.10	-0.24	0.35	-0.16	0.1
C	12	L	349297	SR	0.43	0.41	0.41	-0.21	-0.15	-0.17	0.2
C	18	O	323392	SR	0.34	0.34	-0.04	0.34	-0.27	-0.19	0.3
C	19	O	323394	SR	0.56	0.40	-0.15	-0.23	0.40	-0.18	0.4
C	20	O	323393	SR	0.39	0.29	-0.09	-0.12	0.29	-0.19	0.4
C	29	O	251153	SR	0.45	0.38	-0.11	-0.22	0.38	-0.14	1.2
C	30	O	373864	SR	0.48	0.45	-0.16	-0.20	-0.24	0.45	1.3
C	32	O	256308	SR	0.39	0.34	0.34	-0.03	-0.20	-0.18	1.6
C	33	O	108857	SR	0.41	0.29	-0.17	-0.15	0.29	-0.07	0.3
C	34	O	108862	SR	0.43	0.45	0.45	-0.27	-0.18	-0.10	0.4
C	35	O	108861	SR	0.33	0.25	-0.04	-0.10	-0.12	0.25	0.4
C	36	O	108863	SR	0.44	0.31	0.31	-0.11	-0.11	-0.16	0.3
C	40	O	209815	SR	0.66	0.46	-0.24	-0.26	0.46	-0.18	0.3
C	41	L	95665	SR	0.76	0.45	-0.18	-0.28	0.45	-0.24	0.3
C	43	O	130256	SR	0.68	0.40	-0.23	0.40	-0.17	-0.22	0.3
C	44	O	96031	SR	0.41	0.25	-0.14	0.25	-0.05	-0.12	0.5
C	45	O	96032	SR	0.49	0.48	0.48	-0.20	-0.22	-0.20	0.5
C	46	O	96033	SR	0.81	0.41	-0.20	-0.28	0.41	-0.16	0.4
C	47	O	96034	SR	0.79	0.42	-0.25	0.42	-0.24	-0.15	0.4
C	48	O	96035	SR	0.59	0.29	0.29	-0.11	-0.24	-0.10	0.4
C	49	O	96036	SR	0.69	0.47	0.47	-0.26	-0.23	-0.20	0.4
C	50	O	96037	SR	0.44	0.39	-0.16	-0.20	0.39	-0.12	0.5
C	51	L	323391	SR	0.41	0.43	0.43	-0.14	-0.19	-0.19	0.5
C	52	L	323390	SR	0.40	0.17	-0.10	0.17	-0.18	0.10	0.6
C	53	L	323389	SR	0.45	0.41	-0.17	0.41	-0.25	-0.10	0.5
C	54	L	323388	SR	0.61	0.45	-0.17	0.45	-0.27	-0.20	0.5
C	55	L	323387	SR	0.47	0.38	-0.12	-0.27	-0.11	0.38	0.6
C	56	L	366266	SR	0.58	0.31	0.31	-0.28	-0.24	0.04	0.6
C	57	L	366269	SR	0.40	0.36	-0.25	-0.04	-0.16	0.36	0.5
C	58	L	366268	SR	0.50	0.45	-0.18	0.45	-0.25	-0.16	0.6
C	59	L	366271	SR	0.24	0.29	-0.08	-0.19	-0.01	0.29	0.6

Table 1.A9 Item Statistics, Operational Items: MD HSA 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	60	L	366273	SR	0.46	0.30	-0.10	-0.17	0.30	-0.11	0.6
C	61	L	366275	SR	0.54	0.49	0.49	-0.25	-0.22	-0.20	0.7
C	62	L	366279	SR	0.40	0.25	-0.09	-0.09	0.25	-0.11	0.7
C	63	L	366278	SR	0.37	0.20	-0.18	0.20	-0.09	0.01	0.7
C	64	L	366277	SR	0.47	0.27	-0.16	-0.01	0.27	-0.19	0.8
C	65	L	366270	SR	0.23	0.21	0.21	0.07	-0.21	-0.10	0.8
C	66	O	109126	SR	0.47	0.37	-0.11	-0.24	-0.14	0.37	0.6
C	67	O	109127	SR	0.51	0.37	-0.14	0.37	-0.17	-0.17	0.6
C	85	L	272938	SR	0.57	0.28	-0.13	-0.18	0.28	-0.06	0.6
C	86	L	272936	SR	0.37	0.32	-0.18	0.32	-0.13	-0.06	0.6
C	87	L	272939	SR	0.34	0.31	-0.10	-0.26	0.31	0.00	0.6
C	88	L	272935	SR	0.68	0.49	-0.25	0.49	-0.25	-0.22	0.6
C	89	L	272932	SR	0.64	0.50	-0.18	0.50	-0.28	-0.24	0.6
C	90	L	272933	SR	0.41	0.35	-0.21	-0.03	-0.21	0.35	0.6
C	91	L	272930	SR	0.39	0.23	-0.17	0.23	0.03	-0.19	0.6
C	92	L	272931	SR	0.39	0.30	-0.16	-0.16	0.30	-0.02	0.7
C	96	O	332115	SR	0.55	0.27	-0.17	-0.02	-0.22	0.27	0.7
C	97	O	332116	SR	0.48	0.42	-0.21	0.42	-0.19	-0.13	0.8
C	98	O	332117	SR	0.33	0.17	-0.10	0.09	0.17	-0.23	0.7
Mean					0.49	0.36	-0.03	0.00	-0.04	-0.06	0.5
SD					0.13	0.09	0.24	0.26	0.24	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.A10 Item Statistics, Operational Items: MD HSA 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	261588	SR	0.89	0.38	-0.20	-0.18	-0.25	0.38	0.0
A-B	2	L	52228	SR	0.70	0.45	-0.34	-0.13	0.45	-0.19	0.0
A-B	3	O	51766	SR	0.50	0.41	-0.13	-0.29	0.41	-0.12	0.1
A-B	4	L	348497	SR	0.85	0.39	-0.14	-0.20	0.39	-0.28	0.0
A-B	5	L	324405	SR	0.36	0.43	-0.32	-0.23	0.02	0.43	0.1
A-B	6	L	339088	SR	0.78	0.35	-0.09	0.35	-0.14	-0.30	0.1
A-B	7	O	214497	SR	0.53	0.56	0.56	-0.29	-0.15	-0.31	0.0
A-B	8	L	51145	SR	0.28	0.30	0.30	-0.16	-0.25	-0.02	0.2
A-B	9	L	51146	SR	0.21	0.07	-0.19	-0.12	0.11	0.07	0.1
A-B	10	L	108372	SR	0.52	0.52	0.52	-0.23	-0.31	-0.21	0.2
A-B	12	L	133472	SR	0.58	0.43	0.43	-0.30	-0.22	-0.13	0.3
A-B	13	L	279809	SR	0.27	0.18	-0.03	-0.07	-0.09	0.18	0.4
A-B	14	O	68558	SR	0.57	0.45	-0.21	-0.24	-0.18	0.45	0.2
A-B	15	O	108408	SR	0.66	0.53	-0.37	-0.25	0.53	-0.18	0.2
A-B	16	L	65163	CR	1.87						0.0
A-B	17	O	263981	SR	0.49	0.15	0.15	-0.08	-0.03	-0.19	0.6
A-B	18	O	214581	SR	0.51	0.54	-0.30	-0.25	0.54	-0.16	0.6
A-B	20	O	108365	SR	0.71	0.49	-0.23	-0.28	0.49	-0.24	0.8
A-B	22	L	132963	SR	0.46	0.18	0.00	-0.05	0.18	-0.12	2.0
A-B	24	O	261583	SR	0.51	0.34	0.34	-0.34	0.04	-0.20	2.6
A-B	25	L	214491	SR	0.70	0.49	-0.25	0.49	-0.26	-0.19	2.6
A-B	26	L	324397	SR	0.73	0.49	-0.26	0.49	-0.25	-0.23	0.3
A-B	27	L	324398	SR	0.68	0.47	0.47	-0.21	-0.30	-0.26	0.3
A-B	28	L	68505	SR	0.83	0.52	-0.31	-0.29	-0.22	0.52	0.3
A-B	29	L	324385	SR	0.70	0.52	-0.18	0.52	-0.37	-0.24	0.3
A-B	30	O	108432	SR	0.36	0.42	-0.23	-0.13	-0.18	0.42	0.3
A-B	31	O	68720	SR	0.80	0.54	-0.29	0.54	-0.26	-0.31	0.3
A-B	32	L	135590	CR	1.35						0.0
A-B	33	L	296582	SR	0.59	0.52	-0.18	-0.27	-0.27	0.52	0.4
A-B	34	O	348452	SR	0.77	0.56	-0.23	-0.33	-0.31	0.56	0.3
A-B	35	L	324401	SR	0.39	0.21	0.21	-0.07	-0.02	-0.13	0.7
A-B	37	L	242072	SR	0.52	0.38	-0.29	-0.14	0.38	-0.08	0.5
A-B	38	O	271800	SR	0.77	0.51	0.51	-0.26	-0.32	-0.23	0.4
A-B	39	L	283286	SR	0.46	0.44	0.44	-0.34	-0.03	-0.22	0.5
A-B	40	L	108386	CR	1.45						0.0
A-B	41	L	324403	SR	0.53	0.31	-0.25	0.02	-0.33	0.31	0.4
A-B	43	O	283109	SR	0.73	0.53	-0.27	0.53	-0.33	-0.21	0.5
A-B	44	O	79607	SR	0.61	0.52	-0.24	-0.28	-0.23	0.52	0.5
A-B	45	O	58339	SR	0.37	0.42	-0.07	-0.26	-0.15	0.42	0.6
A-B	47	O	79547	SR	0.65	0.58	-0.23	-0.26	-0.36	0.58	0.8
A-B	48	O	52210	SR	0.35	0.30	-0.28	-0.09	0.30	0.01	0.7

Table 1.A10 Item Statistics, Operational Items: MD HSA 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	50	L	64813	SR	0.58	0.44	0.44	-0.25	-0.14	-0.21	0.9
A-B	51	L	135586	SR	0.57	0.43	-0.26	0.43	-0.17	-0.16	0.9
A-B	53	L	52206	SR	0.54	0.51	-0.16	-0.22	-0.29	0.51	1.0
A-B	54	L	297429	SR	0.70	0.37	-0.33	-0.07	0.37	-0.19	0.5
A-B	55	L	296524	SR	0.39	0.23	-0.18	0.01	-0.09	0.23	0.5
A-B	56	O	108359	SR	0.61	0.31	-0.12	-0.22	0.31	-0.11	0.5
A-B	58	L	348542	SR	0.41	0.25	-0.07	-0.11	-0.09	0.25	0.6
A-B	59	L	79676	SR	0.66	0.41	-0.17	-0.27	0.41	-0.14	0.8
A-B	60	L	50980	CR	1.69						0.0
A-B	61	O	51761	SR	0.74	0.55	-0.29	0.55	-0.25	-0.29	0.6
A-B	62	L	68010	SR	0.61	0.47	-0.20	0.47	-0.22	-0.23	0.6
A-B	63	O	65210	SR	0.46	0.37	-0.13	-0.09	-0.25	0.37	0.7
A-B	64	L	363210	SR	0.71	0.57	-0.26	-0.29	-0.30	0.57	0.6
A-B	65	O	68531	SR	0.51	0.60	-0.29	-0.32	-0.19	0.60	0.7
A-B	67	L	264003	SR	0.69	0.53	-0.25	0.53	-0.28	-0.25	0.6
A-B	68	O	79750	SR	0.56	0.47	0.47	-0.24	-0.18	-0.21	0.5
A-B	69	L	283061	SR	0.62	0.52	0.52	-0.27	-0.21	-0.28	0.6
A-B	71	O	257162	SR	0.49	0.34	-0.17	-0.12	0.34	-0.14	0.6
A-B	72	O	58394	SR	0.61	0.54	-0.31	0.54	-0.26	-0.20	0.6
A-B	74	O	137307	SR	0.69	0.50	-0.29	-0.23	0.50	-0.23	0.7
A-B	75	O	108368	SR	0.45	0.45	0.45	-0.21	-0.25	-0.11	0.8
A-B	77	L	374609	SR	0.46	0.33	-0.27	0.33	-0.21	0.06	1.0
A-B	78	L	263987	SR	0.62	0.32	-0.10	0.32	-0.17	-0.20	1.0
A-B	80	L	257173	SR	0.66	0.46	-0.19	-0.28	0.46	-0.24	1.0
A-B	81	L	348495	SR	0.51	0.52	0.52	-0.29	-0.22	-0.18	1.1
Mean					0.64	0.43	-0.06	-0.06	-0.05	0.00	0.6
SD					0.29	0.12	0.29	0.29	0.28	0.30	0.5

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.A11 Item Statistics, Operational Items: MD HSA Government—January Makeup 1

Form	Pos_No	Anchor Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	1	L	261588	SR	0.89	0.38	-0.20	-0.18	-0.25	0.38	0.0
C	2	L	52228	SR	0.70	0.45	-0.34	-0.13	0.45	-0.19	0.0
C	3	O	257019	SR	0.43	0.49	-0.25	0.49	-0.20	-0.19	0.2
C	4	L	348497	SR	0.85	0.39	-0.14	-0.20	0.39	-0.28	0.0
C	5	L	324405	SR	0.36	0.43	-0.32	-0.23	0.02	0.43	0.1
C	6	L	339088	SR	0.78	0.35	-0.09	0.35	-0.14	-0.30	0.1
C	7	O	68496	SR	0.54	0.41	-0.19	-0.23	-0.16	0.41	0.2
C	8	L	51145	SR	0.28	0.30	0.30	-0.16	-0.25	-0.02	0.2
C	9	L	51146	SR	0.21	0.07	-0.19	-0.12	0.11	0.07	0.1
C	10	L	108372	SR	0.52	0.52	0.52	-0.23	-0.31	-0.21	0.2
C	12	L	133472	SR	0.58	0.43	0.43	-0.30	-0.22	-0.13	0.3
C	13	L	279809	SR	0.27	0.18	-0.03	-0.07	-0.09	0.18	0.4
C	14	O	363253	SR	0.68	0.51	-0.18	-0.26	-0.30	0.51	0.5
C	15	O	324395	SR	0.80	0.46	-0.24	-0.23	0.46	-0.23	0.5
C	16	L	65163	CR	1.87						0.0
C	17	O	58258	SR	0.38	0.40	-0.14	-0.12	-0.23	0.40	0.6
C	18	O	79562	SR	0.72	0.38	-0.19	-0.17	0.38	-0.19	0.7
C	20	O	257175	SR	0.79	0.51	-0.21	-0.32	0.51	-0.25	0.7
C	22	L	132963	SR	0.46	0.18	0.00	-0.05	0.18	-0.12	2.0
C	24	O	108355	SR	0.76	0.58	0.58	-0.31	-0.32	-0.26	1.9
C	25	L	214491	SR	0.70	0.49	-0.25	0.49	-0.26	-0.19	2.6
C	26	L	324397	SR	0.73	0.49	-0.26	0.49	-0.25	-0.23	0.3
C	27	L	324398	SR	0.68	0.47	0.47	-0.21	-0.30	-0.26	0.3
C	28	L	68505	SR	0.83	0.52	-0.31	-0.29	-0.22	0.52	0.3
C	29	L	324385	SR	0.70	0.52	-0.18	0.52	-0.37	-0.24	0.3
C	30	O	279798	SR	0.22	0.15	-0.19	-0.07	0.15	0.04	0.6
C	31	O	223263	SR	0.47	0.35	0.00	0.35	-0.24	-0.23	0.5
C	32	L	135590	CR	1.35						0.0
C	33	L	296582	SR	0.59	0.52	-0.18	-0.27	-0.27	0.52	0.4
C	34	O	215822	SR	0.89	0.49	0.49	-0.27	-0.28	-0.20	0.5
C	35	L	324401	SR	0.39	0.21	0.21	-0.07	-0.02	-0.13	0.7
C	37	L	242072	SR	0.52	0.38	-0.29	-0.14	0.38	-0.08	0.5
C	38	O	51017	SR	0.64	0.53	0.53	-0.25	-0.29	-0.22	0.6
C	39	L	283286	SR	0.46	0.44	0.44	-0.34	-0.03	-0.22	0.5
C	40	L	108386	CR	1.45						0.0
C	41	L	324403	SR	0.53	0.31	-0.25	0.02	-0.33	0.31	0.4
C	43	O	79672	SR	0.45	0.45	-0.06	-0.16	-0.32	0.45	0.6
C	44	O	368623	SR	0.33	-0.03	0.19	-0.03	-0.06	-0.14	0.8
C	45	O	279775	SR	0.50	0.28	-0.26	-0.03	0.28	-0.07	0.6
C	47	O	321097	SR	0.80	0.52	-0.28	0.52	-0.29	-0.22	0.7
C	48	O	108393	SR	0.65	0.36	-0.04	0.36	-0.20	-0.27	0.6

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

Form	Pos_No	Anchor Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
C	50	L	64813	SR	0.58	0.44	0.44	-0.25	-0.14	-0.21	0.9
C	51	L	135586	SR	0.57	0.43	-0.26	0.43	-0.17	-0.16	0.9
C	53	L	52206	SR	0.54	0.51	-0.16	-0.22	-0.29	0.51	1.0
C	54	L	297429	SR	0.70	0.37	-0.33	-0.07	0.37	-0.19	0.5
C	55	L	296524	SR	0.39	0.23	-0.18	0.01	-0.09	0.23	0.5
C	56	O	60433	SR	0.26	0.39	-0.29	-0.18	-0.02	0.39	0.5
C	58	L	348542	SR	0.41	0.25	-0.07	-0.11	-0.09	0.25	0.6
C	59	L	79676	SR	0.66	0.41	-0.17	-0.27	0.41	-0.14	0.8
C	60	L	50980	CR	1.69						0.0
C	61	O	223269	SR	0.75	0.51	0.51	-0.28	-0.23	-0.25	0.5
C	62	L	68010	SR	0.61	0.47	-0.20	0.47	-0.22	-0.23	0.6
C	63	O	261578	SR	0.51	0.37	-0.21	-0.11	-0.16	0.37	0.5
C	64	L	363210	SR	0.71	0.57	-0.26	-0.29	-0.30	0.57	0.6
C	65	O	348503	SR	0.46	0.37	0.37	-0.28	-0.09	-0.07	0.5
C	67	L	264003	SR	0.69	0.53	-0.25	0.53	-0.28	-0.25	0.6
C	68	O	370239	SR	0.49	0.50	-0.24	0.50	-0.27	-0.21	0.5
C	69	L	283061	SR	0.62	0.52	0.52	-0.27	-0.21	-0.28	0.6
C	71	O	79570	SR	0.70	0.54	-0.25	-0.27	0.54	-0.27	0.6
C	72	O	321107	SR	0.57	0.53	-0.25	-0.24	-0.24	0.53	0.8
C	74	O	137311	SR	0.60	0.48	-0.18	-0.32	0.48	-0.14	0.7
C	75	O	283266	SR	0.54	0.46	0.46	-0.16	-0.34	-0.20	0.8
C	77	L	374609	SR	0.46	0.33	-0.27	0.33	-0.21	0.06	1.0
C	78	L	263987	SR	0.62	0.32	-0.10	0.32	-0.17	-0.20	1.0
C	80	L	257173	SR	0.66	0.46	-0.19	-0.28	0.46	-0.24	1.0
C	81	L	348495	SR	0.51	0.52	0.52	-0.29	-0.22	-0.18	1.1
Mean					0.64	0.41	-0.03	-0.05	-0.07	-0.02	0.6
SD					0.30	0.12	0.29	0.28	0.27	0.28	0.5

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.A12 Item Statistics, Operational Items: MD HSA 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	362363	SR	0.32	0.27	-0.09	-0.15	0.27	-0.07	0.4
S	2	L	67490	SR	0.23	0.19	0.19	-0.02	-0.12	-0.05	0.1
S	3	O	54846	SR	0.58	0.28	-0.10	0.28	-0.21	-0.08	0.0
S	5	L	268768	SR	0.23	0.06	0.09	0.06	-0.15	0.01	0.3
S	6	O	321998	SPR	0.25	0.34	0.34	-0.30			2.0
S	7	L	268698	SPR	0.06	0.14	0.14	-0.08			2.8
S	9	O	363915	SR	0.42	0.14	-0.08	0.14	-0.07	-0.03	0.2
S	10	L	257125	SR	0.48	0.30	-0.11	-0.13	0.30	-0.16	0.3
S	11	L	215925	SR	0.41	0.29	-0.04	-0.13	-0.18	0.29	0.2
S	12	L	54861	SR	0.13	0.08	0.12	-0.03	-0.15	0.08	0.3
S	14	L	338675	SR	0.26	0.12	-0.05	-0.01	0.12	-0.09	0.4
S	15	L	363907	SR	0.24	0.10	0.04	-0.10	0.10	-0.04	0.4
S	16	O	322024	SR	0.32	0.32	0.32	-0.11	-0.08	-0.16	0.3
S	18	O	54900	SR	0.34	0.10	0.07	0.10	-0.16	-0.06	0.4
S	19	L	319474	SR	0.33	0.35	-0.12	-0.15	-0.12	0.35	0.4
S	20	O	79022	SPR	0.55	0.35	0.35	-0.32			2.3
S	22	O	321997	SR	0.48	0.25	-0.13	0.25	-0.13	-0.03	1.6
S	23	L	79123	SR	0.12	0.14	-0.01	-0.04	-0.03	0.14	1.4
S	24	L	132822	SR	0.33	0.32	-0.09	-0.06	-0.21	0.32	0.7
S	25	O	54766	SR	0.4	0.32	-0.17	-0.12	0.32	-0.06	0.6
S	27	L	362291	SR	0.11	0.06	-0.17	-0.04	0.13	0.06	0.8
S	28	L	133406	SPR	0.25	0.42	0.42	-0.35			4.0
S	29	O	136685	SPR	0.17	0.39	0.39	-0.31			3.3
S	31	O	268822	SR	0.42	0.25	-0.10	-0.11	0.25	-0.07	0.7
S	32	O	371767	SR	0.54	0.33	-0.10	-0.20	0.33	-0.15	0.6
S	34	L	51372	SR	0.56	0.39	-0.16	0.39	-0.23	-0.12	0.6
S	35	L	348343	SR	0.76	0.37	-0.19	0.37	-0.21	-0.15	0.6
S	37	O	54815	SR	0.49	0.22	0.22	-0.04	-0.18	-0.16	0.7
S	38	L	106548	SR	0.27	0.32	0.32	-0.05	-0.17	-0.09	0.7
S	40	O	362347	SPR	0.32	0.37	0.37	-0.31			2.6
S	41	O	64681	SPR	0.35	0.43	0.43	-0.36			3.4
S	42	L	275446	SR	0.18	0.22	-0.02	-0.02	-0.11	0.22	0.9
S	44	O	56551	SR	0.62	0.38	-0.25	-0.17	0.38	-0.10	1.1
S	45	L	260761	SR	0.28	0.25	0.25	-0.02	-0.12	-0.09	0.9
S	46	L	51365	SR	0.38	0.33	0.33	-0.11	-0.17	-0.08	1.2
S	47	O	106643	SR	0.44	0.22	-0.15	0.22	-0.07	0.03	0.9
S	48	L	66002	SR	0.24	0.09	0.09	-0.11	-0.03	0.10	0.9
S	50	O	79151	SR	0.31	0.36	-0.12	-0.12	-0.11	0.36	0.8
S	51	L	50370	SR	0.27	0.11	-0.13	0.11	0.00	0.04	0.8
S	52	L	366196	SPR	0.02	0.20	0.20	-0.01			2.8
S	53	O	363933	SPR	0.02	0.26	0.26	-0.08			5.8
S	55	L	54756	SR	0.31	0.27	0.00	-0.10	-0.14	0.27	0.8
S	56	O	67439	SR	0.32	0.37	-0.12	-0.16	-0.09	0.37	0.8

Table 1.A12 Item Statistics, Operational Items: MD HSA 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	57	L	348335	SR	0.3	-0.04	0.14	-0.04	0.02	-0.11	0.8
S	59	L	51368	SR	0.22	0.09	0.09	-0.07	-0.01	0.03	1.0
S	60	O	50368	SR	0.24	0.32	0.32	-0.07	-0.10	-0.12	0.9
S	61	L	67558	SR	0.34	0.24	-0.13	-0.10	0.24	0.00	1.1
S	62	O	257155	SPR	0.37	0.47	0.47	-0.40			4.0
S	64	O	56777	SR	0.31	0.13	-0.02	-0.11	0.13	0.04	1.1
S	65	L	43140	SR	0.4	0.12	0.01	-0.03	0.12	-0.10	0.9
S	67	L	54841	SR	0.2	0.19	0.06	-0.15	-0.06	0.19	1.1
S	68	L	363938	SR	0.32	0.12	-0.12	0.12	-0.16	0.15	0.9
S	69	L	56477	SR	0.42	0.24	-0.08	-0.10	0.24	-0.09	1.3
Mean					0.33	0.24	0.06	-0.07	-0.01	0.02	1.2
SD					0.15	0.12	0.20	0.17	0.18	0.16	1.2

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.A13 Item Statistics, Operational Items: MD HSA 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	366620	SR	0.65	0.26	-0.18	0.26	-0.12	-0.10	0.1
S	2	O	363005	SR	0.32	0.34	-0.14	-0.15	-0.13	0.34	0.0
S	3	O	55172	SR	0.33	0.26	-0.09	0.26	-0.12	-0.08	0.0
S	4	L	322201	SR	0.45	0.33	-0.19	-0.15	0.33	-0.07	0.0
S	7	O	52671	SR	0.22	0.30	0.03	-0.19	-0.10	0.30	0.0
S	9	L	251269	SR	0.45	0.18	-0.15	-0.01	0.18	-0.08	0.0
S	10	L	251268	SR	0.29	0.21	0.21	-0.04	-0.13	-0.08	0.1
S	11	L	54980	SR	0.52	0.35	-0.10	0.35	-0.23	-0.14	0.0
S	12	L	54981	SR	0.39	0.22	-0.10	-0.08	0.22	-0.09	0.0
S	14	L	55177	SR	0.72	0.32	-0.13	-0.17	0.32	-0.18	0.1
S	15	L	55178	SR	0.26	0.20	0.01	0.20	-0.16	-0.09	0.1
S	16	O	271064	SR	0.49	0.31	-0.18	-0.13	0.31	-0.10	0.1
S	17	O	271101	SR	0.54	0.23	-0.07	-0.10	0.23	-0.15	0.1
S	21	O	68163	SR	0.42	0.35	-0.13	-0.18	-0.14	0.35	0.1
S	22	O	52748	SR	0.33	0.24	0.24	-0.16	-0.02	-0.12	0.2
S	23	L	52750	SR	0.4	0.27	-0.13	0.27	-0.19	-0.01	0.2
S	24	L	54970	SR	0.24	0.14	0.01	-0.06	-0.08	0.14	0.2
S	25	L	54971	SR	0.37	0.23	0.23	-0.08	-0.08	-0.11	0.1
S	26	O	57055	SR	0.36	0.25	-0.09	0.25	-0.09	-0.11	0.3
S	27	O	79402	SR	0.18	0.19	-0.05	-0.03	-0.09	0.19	0.2
S	28	O	279574	SR	0.31	0.21	-0.16	0.21	-0.04	-0.05	0.2
S	30	L	369404	SR	0.31	0.18	-0.03	-0.13	0.18	-0.03	0.3
S	31	L	369401	SR	0.38	0.16	-0.13	0.16	-0.06	0.00	0.3
S	32	L	263112	SR	0.37	0.35	-0.07	0.35	-0.25	-0.08	0.2
S	33	L	52493	SR	0.65	0.33	-0.18	-0.16	0.33	-0.14	0.4
S	34	O	67663	SR	0.39	0.21	-0.14	0.21	-0.06	-0.03	0.3
S	35	O	52673	SR	0.32	0.26	-0.11	0.26	-0.08	-0.09	0.3
S	36	L	79411	SR	0.22	0.18	-0.09	-0.08	0.00	0.18	0.3
S	39	L	271023	SR	0.24	0.29	-0.02	-0.14	-0.11	0.29	0.3
S	40	O	271024	SR	0.47	0.24	-0.11	0.24	-0.14	-0.04	0.4
S	41	O	68193	SR	0.18	0.13	-0.12	0.05	0.13	-0.06	0.4
S	42	O	108513	SR	0.45	0.30	-0.14	-0.08	-0.16	0.30	0.3
S	43	L	108501	SR	0.4	0.37	-0.14	-0.15	0.37	-0.16	0.3
S	44	L	108499	SR	0.21	0.29	0.29	-0.09	-0.17	-0.01	0.3
S	46	O	279654	SR	0.23	0.04	-0.16	0.11	0.04	-0.04	0.4
S	47	L	264036	SR	0.38	0.31	-0.04	0.31	-0.19	-0.12	0.5
S	48	L	264044	SR	0.33	0.14	0.14	0.02	-0.16	0.00	0.4
S	49	O	322187	SR	0.18	0.29	-0.15	-0.02	-0.09	0.29	0.5
S	50	L	108510	SR	0.68	0.32	-0.15	-0.17	0.32	-0.14	0.3
S	52	L	369456	SR	0.63	0.37	0.37	-0.14	-0.22	-0.17	0.4
S	53	L	369457	SR	0.29	0.17	-0.08	-0.04	0.17	-0.05	0.4
S	54	L	251264	SR	0.28	0.17	0.03	-0.16	0.17	-0.05	0.4
S	55	L	251265	SR	0.3	0.28	0.28	-0.20	-0.12	0.01	0.4
S	56	L	53446	SR	0.26	0.28	0.28	-0.09	-0.06	-0.12	0.5

Table 1.A13 Item Statistics, Operational Items: MD HSA 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	58	O	52513	SR	0.28	0.28	-0.09	-0.04	-0.17	0.28	0.5
S	61	L	373112	SR	0.25	0.24	-0.02	-0.10	-0.10	0.24	0.6
S	62	L	373113	SR	0.29	0.29	0.29	-0.08	-0.12	-0.09	0.6
S	63	O	279560	SR	0.32	0.23	-0.02	0.23	-0.16	-0.07	0.6
S	64	L	279561	SR	0.2	0.25	-0.08	-0.11	-0.02	0.25	0.7
S	65	O	64734	SR	0.29	0.25	-0.05	-0.10	-0.09	0.25	0.5
S	66	O	381680	SR	0.48	0.30	-0.20	-0.08	0.30	-0.11	0.8
S	67	L	64716	SR	0.76	0.21	-0.13	0.21	-0.15	-0.03	0.5
S	68	O	331368	SR	0.36	0.28	-0.12	0.28	-0.16	-0.04	0.4
S	69	O	338757	SR	0.28	0.24	-0.11	-0.15	0.01	0.24	0.4
S	70	L	55164	SR	0.31	0.31	-0.09	0.31	-0.18	-0.07	0.5
S	71	L	55165	SR	0.19	0.20	0.20	-0.13	0.05	-0.13	0.5
S	73	O	331352	SR	0.48	0.27	-0.11	-0.16	0.27	-0.08	0.5
S	74	L	286617	SR	0.31	0.20	-0.03	0.20	-0.11	-0.11	0.5
S	75	L	288373	SR	0.11	0.14	0.03	0.03	-0.14	0.14	0.5
S	77	O	65076	SR	0.41	0.30	-0.12	0.30	-0.16	-0.08	0.4
S	78	L	68148	SR	0.21	0.17	0.17	0.00	-0.08	-0.05	0.6
S	82	O	65075	SR	0.43	0.39	-0.12	-0.19	-0.15	0.39	0.6
S	83	O	338766	SR	0.33	0.22	-0.05	-0.14	0.22	-0.03	0.5
S	84	O	52651	SR	0.49	0.41	0.41	-0.19	-0.20	-0.13	0.6
S	87	L	52468	SR	0.3	0.28	-0.03	0.28	-0.15	-0.10	0.6
S	88	L	52470	SR	0.44	0.25	-0.13	0.25	-0.07	-0.09	0.7
S	89	L	364191	SR	0.33	0.33	0.33	-0.14	-0.11	-0.11	0.6
S	90	L	364189	SR	0.39	0.29	-0.04	0.29	-0.19	-0.10	0.5
S	91	O	65125	SR	0.54	0.22	-0.14	-0.16	0.22	-0.04	0.5
S	93	L	263149	SR	0.27	0.24	-0.11	-0.12	0.24	0.00	0.7
S	94	L	263150	SR	0.29	0.27	0.27	-0.07	-0.11	-0.10	0.6
S	95	O	271053	SR	0.49	0.25	-0.14	0.25	-0.15	-0.02	0.6
S	96	L	271030	SR	0.28	0.16	-0.06	-0.08	0.16	0.00	0.6
S	97	L	349082	SR	0.63	0.35	-0.14	-0.17	-0.18	0.35	0.7
S	98	L	364172	SR	0.43	0.35	0.35	-0.11	-0.17	-0.14	0.6
S	99	L	364169	SR	0.48	0.27	-0.01	0.27	-0.20	-0.13	0.6
Mean					0.37	0.26	-0.02	0.01	-0.03	0.00	0.4
SD					0.14	0.07	0.16	0.18	0.17	0.15	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.A14 Item Statistics, Operational Items: MD HSA 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	130038	SR	0.18	0.12	0.12	-0.05	-0.17	0.09	0.1
S	2	L	130039	SR	0.31	0.27	0.01	0.27	-0.20	-0.16	0.1
S	3	L	130292	SR	0.29	0.23	0.05	-0.21	0.23	-0.17	0.1
S	4	L	130040	SR	0.52	0.35	0.35	-0.19	-0.17	-0.09	0.1
S	5	L	130041	SR	0.41	0.34	-0.10	-0.14	0.34	-0.18	0.2
S	6	O	323212	SR	0.42	0.32	-0.05	-0.15	-0.20	0.32	0.1
S	7	O	323209	SR	0.2	0.11	0.11	-0.10	-0.10	0.10	0.2
S	8	O	323208	SR	0.28	0.12	0.12	-0.10	-0.09	0.04	0.1
S	9	O	323210	SR	0.4	0.23	-0.01	-0.11	-0.15	0.23	0.1
S	10	O	323206	SR	0.31	0.20	-0.01	-0.05	-0.15	0.20	0.1
S	11	O	323207	SR	0.28	0.06	0.05	0.04	-0.17	0.06	0.1
S	12	O	323213	SR	0.38	0.21	-0.13	-0.08	0.21	-0.07	0.2
S	13	O	323211	SR	0.53	0.34	-0.20	-0.13	-0.16	0.34	0.2
S	17	L	369119	SR	0.55	0.28	-0.11	0.28	-0.21	-0.06	0.3
S	18	L	369121	SR	0.36	0.22	-0.11	-0.19	0.22	0.06	0.3
S	19	L	369122	SR	0.19	0.15	0.12	-0.17	-0.11	0.15	0.2
S	20	L	369123	SR	0.52	0.33	-0.08	-0.22	0.33	-0.14	0.4
S	22	L	373868	SR	0.55	0.40	-0.18	0.40	-0.25	-0.13	0.3
S	23	O	251145	SR	0.53	0.39	-0.19	0.39	-0.16	-0.18	0.4
S	24	O	251162	SR	0.53	0.43	-0.20	-0.14	-0.24	0.43	0.5
S	27	O	349206	SR	0.38	0.11	-0.09	0.02	0.11	-0.06	0.5
S	28	O	349207	SR	0.33	0.37	0.37	-0.15	-0.15	-0.10	0.4
S	29	O	349210	SR	0.36	0.25	-0.01	-0.04	-0.22	0.25	0.7
S	30	O	349205	SR	0.35	0.14	-0.01	-0.18	0.14	0.04	0.6
S	31	O	349203	SR	0.45	0.28	-0.18	-0.14	0.28	-0.06	0.8
S	32	O	349209	SR	0.47	0.33	-0.15	-0.14	0.33	-0.14	1.0
S	39	L	353425	SR	0.4	0.30	0.30	-0.10	-0.14	-0.11	0.4
S	40	L	353423	SR	0.35	0.33	-0.05	-0.10	-0.22	0.33	0.5
S	41	L	353424	SR	0.4	0.26	-0.10	0.26	-0.06	-0.16	0.4
S	42	L	353421	SR	0.43	0.14	-0.02	0.14	-0.19	0.05	0.5
S	43	L	353419	SR	0.5	0.34	-0.16	-0.15	0.34	-0.11	0.5
S	44	L	353420	SR	0.54	0.33	-0.05	-0.22	0.33	-0.21	0.5
S	45	L	353418	SR	0.41	0.36	-0.03	-0.23	-0.20	0.36	0.5
S	57	O	369115	SR	0.27	0.25	0.25	-0.12	-0.09	-0.02	0.6
S	58	O	369114	SR	0.62	0.35	-0.08	0.35	-0.21	-0.22	0.5
S	59	O	369113	SR	0.49	0.34	-0.12	-0.14	0.34	-0.18	0.7
S	65	O	373843	SR	0.53	0.46	-0.20	0.46	-0.21	-0.20	1.0
S	66	O	96328	SR	0.47	0.43	0.43	-0.19	-0.18	-0.17	0.9
S	67	O	209820	SR	0.54	0.47	-0.19	-0.24	-0.21	0.47	1.0
S	68	L	323373	SR	0.22	0.33	0.08	-0.19	-0.18	0.33	0.7
S	69	L	323372	SR	0.45	0.55	-0.20	-0.24	-0.23	0.55	0.6
S	70	L	323371	SR	0.57	0.32	-0.12	-0.12	0.32	-0.19	0.6
S	71	L	323374	SR	0.39	0.35	0.35	-0.16	-0.15	-0.08	0.7
S	72	L	323370	SR	0.45	0.38	-0.17	0.38	-0.20	-0.09	0.7

Table 1.A14 Item Statistics, Operational Items: MD HSA 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	73	L	323375	SR	0.29	0.27	0.27	-0.13	-0.07	-0.06	0.7
S	82	O	256985	SR	0.19	0.15	0.15	-0.21	-0.07	0.13	0.7
S	83	O	256986	SR	0.66	0.40	-0.14	0.40	-0.19	-0.23	0.6
S	84	L	338871	SR	0.27	0.07	0.13	0.07	-0.21	-0.01	0.7
S	85	L	338858	SR	0.27	0.04	-0.08	0.16	0.04	-0.15	0.6
S	86	L	338859	SR	0.4	0.16	-0.08	-0.04	0.16	-0.04	0.6
S	87	L	338863	SR	0.29	0.31	-0.06	-0.14	-0.11	0.31	0.9
S	88	L	338868	SR	0.49	0.22	-0.03	0.22	-0.10	-0.13	0.6
S	89	L	338864	SR	0.33	0.22	-0.17	-0.01	0.22	-0.06	0.7
S	90	L	338862	SR	0.45	0.33	-0.08	0.33	-0.11	-0.21	0.8
S	91	L	338867	SR	0.35	0.24	0.01	0.24	-0.13	-0.13	0.8
S	92	L	338869	SR	0.39	0.29	-0.03	-0.18	0.29	-0.11	0.6
S	93	L	338870	SR	0.32	0.32	0.32	-0.17	-0.06	-0.12	0.8
S	96	L	256428	SR	0.45	0.39	0.39	-0.13	-0.21	-0.12	0.8
S	97	L	256429	SR	0.35	0.12	-0.03	0.12	-0.05	-0.03	0.9
S	98	L	256430	SR	0.26	0.01	-0.04	0.02	0.01	0.04	1.0
Mean					0.40	0.27	0.00	-0.02	-0.04	0.00	0.5
SD					0.11	0.11	0.17	0.20	0.20	0.20	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.A15 Item Statistics, Operational Items: MD HSA 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-H	1	L	54845	SR	0.86	0.35	0.35	-0.15	-0.22	-0.20	0.0
D-H	2	L	268717	SR	0.39	0.45	0.45	-0.22	-0.13	-0.21	0.1
D-H	3	O	361341	SR	0.63	0.47	-0.22	-0.22	-0.28	0.47	0.1
D-H	4	L	397870	SR	0.26	0.37	-0.26	0.37	0.01	-0.15	0.1
D-H	6	O	282383	SR	0.70	0.47	0.47	-0.27	-0.24	-0.21	0.2
D-H	7	L	362300	SR	0.41	0.44	-0.23	-0.20	0.44	-0.19	0.1
D-H	9	L	54735	SR	0.52	0.41	0.41	-0.20	-0.19	-0.18	0.3
D-H	10	O	322012	SPR	0.18	0.46	0.46	-0.35			6.2
D-H	12	O	369132	SPR	0.54	0.39	0.39	-0.37			1.5
D-H	13	O	79138	SR	0.55	0.38	0.38	-0.26	-0.12	-0.21	0.2
D-H	14	L	275468	SR	0.44	0.43	-0.15	-0.20	-0.20	0.43	0.2
D-H	15	L	363901	SR	0.67	0.48	-0.23	-0.31	0.48	-0.18	0.2
D-H	16	L	133412	SR	0.67	0.57	0.57	-0.33	-0.27	-0.25	0.3
D-H	18	L	56735	SR	0.48	0.49	-0.15	0.49	-0.20	-0.31	0.3
D-H	19	L	135118	SR	0.60	0.60	-0.40	-0.30	0.60	-0.12	0.5
D-H	20	O	322123	SPR	0.52	0.54	0.54	-0.51			2.1
D-H	22	L	348327	SPR	0.45	0.63	0.63	-0.57			4.3
D-H	23	L	393659	SR	0.60	0.39	-0.14	0.39	-0.29	-0.12	2.3
D-H	24	L	319431	SR	0.70	0.48	0.48	-0.30	-0.26	-0.17	0.1
D-H	25	L	282382	SR	0.62	0.46	-0.23	-0.25	0.46	-0.18	0.6
D-H	26	L	136693	SR	0.27	0.34	-0.22	0.03	-0.21	0.34	0.2
D-H	28	L	393635	SR	0.45	0.34	-0.15	0.34	-0.14	-0.16	0.2
D-H	29	L	393656	SR	0.44	0.30	-0.20	0.30	-0.14	-0.05	0.5
D-H	31	O	268770	SR	0.50	0.50	0.50	-0.21	-0.32	-0.13	0.5
D-H	32	O	79114	SR	0.74	0.40	-0.16	-0.29	0.40	-0.13	0.1
D-H	33	L	338664	SPR	0.62	0.53	0.53	-0.50			1.6
D-H	35	L	319457	SPR	0.24	0.51	0.51	-0.41			5.6
D-H	36	O	211012	SR	0.36	0.44	-0.24	0.01	-0.30	0.44	0.3
D-H	37	O	132836	SR	0.75	0.37	-0.23	-0.20	0.37	-0.16	0.3
D-H	39	L	348322	SR	0.47	0.49	-0.23	-0.23	0.49	-0.19	0.6
D-H	40	O	56440	SR	0.71	0.42	-0.22	0.42	-0.21	-0.21	0.5
D-H	41	O	255074	SPR	0.55	0.53	0.53	-0.48			2.9
D-H	43	L	348340	SR	0.40	0.28	0.11	-0.20	-0.20	0.28	1.0
D-H	44	L	394831	SR	0.48	0.33	-0.19	0.33	-0.11	-0.12	1.2
D-H	46	O	363968	SR	0.39	0.36	-0.24	0.36	-0.09	-0.12	1.2
D-H	47	L	392349	SR	0.67	0.25	-0.11	0.25	-0.18	-0.11	0.2
D-H	48	O	106575	SR	0.64	0.41	-0.16	-0.30	0.41	-0.14	0.3
D-H	49	O	319436	SR	0.78	0.47	0.47	-0.33	-0.23	-0.15	0.3
D-H	51	L	395574	SR	0.38	0.47	-0.20	-0.11	-0.27	0.47	0.5
D-H	52	L	79102	SR	0.36	0.40	-0.15	-0.24	0.40	-0.08	0.4
D-H	54	O	393689	SR	0.37	0.38	0.38	-0.08	-0.23	-0.15	0.7
D-H	55	L	393642	SPR	0.54	0.63	0.63	-0.58			3.6
D-H	56	L	328754	SPR	0.32	0.50	0.50	-0.45			3.0

Table 1.A15 Item Statistics, Operational Items: MD HSA 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-H	57	L	257130	SR	0.78	0.38	-0.22	0.38	-0.20	-0.18	0.2
D-H	58	L	392310	SR	0.56	0.31	-0.15	-0.09	-0.20	0.31	0.3
D-H	60	O	395567	SR	0.38	0.30	-0.20	0.30	-0.26	0.05	0.4
D-H	61	O	223240	SR	0.63	0.55	0.55	-0.20	-0.30	-0.29	0.4
D-H	62	L	319414	SR	0.60	0.42	-0.16	-0.24	-0.24	0.42	0.5
D-H	63	O	392368	SPR	0.67	0.60	0.60	-0.56			2.6
D-H	65	O	275476	SR	0.72	0.47	-0.31	-0.27	0.47	-0.10	0.4
D-H	67	L	393658	SR	0.64	0.51	-0.28	-0.24	-0.23	0.51	0.7
D-H	68	O	397860	SR	0.66	0.41	-0.21	-0.27	0.41	-0.12	0.7
D-H	69	O	348319	SR	0.64	0.48	0.48	-0.19	-0.25	-0.26	0.8
Mean					0.54	0.44	0.09	-0.14	-0.04	-0.04	1.0
SD					0.16	0.09	0.35	0.29	0.30	0.24	1.4

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.A16 Item Statistics, Operational Items: MD HSA 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	L	54845	SR	0.86	0.35	0.35	-0.15	-0.22	-0.20	0.0
X	2	L	268717	SR	0.39	0.45	0.45	-0.22	-0.13	-0.21	0.1
X	3	O	361341	SR	0.63	0.47	-0.22	-0.22	-0.28	0.47	0.1
X	4	L	397870	SR	0.26	0.37	-0.26	0.37	0.01	-0.15	0.1
X	6	O	211029	SR	0.61	0.52	-0.22	-0.33	0.52	-0.21	0.3
X	7	L	362300	SR	0.41	0.44	-0.23	-0.20	0.44	-0.19	0.1
X	9	L	54735	SR	0.52	0.41	0.41	-0.20	-0.19	-0.18	0.3
X	10	O	392367	SPR	0.26	0.53	0.53	-0.46			3.0
X	12	O	363951	SPR	0.56	0.42	0.42	-0.38			2.1
X	13	O	79138	SR	0.55	0.38	0.38	-0.26	-0.12	-0.21	0.2
X	14	L	275468	SR	0.44	0.43	-0.15	-0.20	-0.20	0.43	0.2
X	15	L	363901	SR	0.67	0.48	-0.23	-0.31	0.48	-0.18	0.2
X	16	L	133412	SR	0.67	0.57	0.57	-0.33	-0.27	-0.25	0.3
X	18	L	56735	SR	0.48	0.49	-0.15	0.49	-0.20	-0.31	0.3
X	19	L	135118	SR	0.60	0.60	-0.40	-0.30	0.60	-0.12	0.5
X	20	O	394792	SPR	0.40	0.53	0.53	-0.46			3.5
X	22	L	348327	SPR	0.45	0.63	0.63	-0.57			4.3
X	23	L	393659	SR	0.60	0.39	-0.14	0.39	-0.29	-0.12	2.3
X	24	L	319431	SR	0.70	0.48	0.48	-0.30	-0.26	-0.17	0.1
X	25	L	282382	SR	0.62	0.46	-0.23	-0.25	0.46	-0.18	0.6
X	26	L	136693	SR	0.27	0.34	-0.22	0.03	-0.21	0.34	0.2
X	28	L	393635	SR	0.45	0.34	-0.15	0.34	-0.14	-0.16	0.2
X	29	L	393656	SR	0.44	0.30	-0.20	0.30	-0.14	-0.05	0.5
X	31	O	268770	SR	0.50	0.50	0.50	-0.21	-0.32	-0.13	0.5
X	32	O	79053	SR	0.73	0.43	-0.13	-0.29	0.43	-0.21	0.4
X	33	L	338664	SPR	0.62	0.53	0.53	-0.50			1.6
X	35	L	319457	SPR	0.24	0.51	0.51	-0.41			5.6
X	36	O	211012	SR	0.36	0.44	-0.24	0.01	-0.30	0.44	0.3
X	37	O	394840	SR	0.65	0.36	0.36	-0.12	-0.23	-0.18	0.5
X	39	L	348322	SR	0.47	0.49	-0.23	-0.23	0.49	-0.19	0.6
X	40	O	395579	SR	0.63	0.48	-0.33	-0.20	0.48	-0.14	0.8
X	41	O	255074	SPR	0.55	0.53	0.53	-0.48			2.9
X	43	L	348340	SR	0.40	0.28	0.11	-0.20	-0.20	0.28	1.0
X	44	L	394831	SR	0.48	0.33	-0.19	0.33	-0.11	-0.12	1.2
X	46	O	363968	SR	0.39	0.36	-0.24	0.36	-0.09	-0.12	1.2
X	47	L	392349	SR	0.67	0.25	-0.11	0.25	-0.18	-0.11	0.2
X	48	O	106575	SR	0.64	0.41	-0.16	-0.30	0.41	-0.14	0.3
X	49	O	363927	SR	0.68	0.40	-0.26	0.40	-0.17	-0.16	0.4
X	51	L	395574	SR	0.38	0.47	-0.20	-0.11	-0.27	0.47	0.5
X	52	L	79102	SR	0.36	0.40	-0.15	-0.24	0.40	-0.08	0.4
X	54	O	394825	SR	0.26	0.36	0.36	-0.13	-0.24	-0.01	0.4
X	55	L	393642	SPR	0.54	0.63	0.63	-0.58			3.6
X	56	L	328754	SPR	0.32	0.50	0.50	-0.45			3.0
X	57	L	257130	SR	0.78	0.38	-0.22	0.38	-0.20	-0.18	0.2

Table 1.A16 Item Statistics, Operational Items: MD HSA 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	58	L	392310	SR	0.56	0.31	-0.15	-0.09	-0.20	0.31	0.3
X	60	O	275461	SR	0.29	0.32	-0.12	0.32	-0.09	-0.12	0.5
X	61	O	223240	SR	0.63	0.55	0.55	-0.20	-0.30	-0.29	0.4
X	62	L	319414	SR	0.60	0.42	-0.16	-0.24	-0.24	0.42	0.5
X	63	O	392368	SPR	0.67	0.60	0.60	-0.56			2.6
X	65	O	275476	SR	0.72	0.47	-0.31	-0.27	0.47	-0.10	0.4
X	67	L	393658	SR	0.64	0.51	-0.28	-0.24	-0.23	0.51	0.7
X	68	O	43153	SR	0.46	0.43	-0.20	-0.25	0.43	-0.08	0.6
X	69	O	348319	SR	0.64	0.48	0.48	-0.19	-0.25	-0.26	0.8
Mean					0.52	0.44	0.07	-0.14	-0.02	-0.04	1.0
SD					0.15	0.09	0.35	0.29	0.31	0.24	1.2

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.A17 Item Statistics, Operational Items: MD HSA 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	L	54845	SR	0.86	0.35	0.35	-0.15	-0.22	-0.20	0.0
Y	2	L	268717	SR	0.39	0.45	0.45	-0.22	-0.13	-0.21	0.1
Y	3	O	319406	SR	0.52	0.33	0.04	-0.28	-0.21	0.33	0.1
Y	4	L	397870	SR	0.26	0.37	-0.26	0.37	0.01	-0.15	0.1
Y	6	O	282383	SR	0.70	0.47	0.47	-0.27	-0.24	-0.21	0.2
Y	7	L	362300	SR	0.41	0.44	-0.23	-0.20	0.44	-0.19	0.1
Y	9	L	54735	SR	0.52	0.41	0.41	-0.20	-0.19	-0.18	0.3
Y	10	O	322012	SPR	0.18	0.46	0.46	-0.35			6.2
Y	12	O	369132	SPR	0.54	0.39	0.39	-0.37			1.5
Y	13	O	363923	SR	0.57	0.47	-0.16	0.47	-0.26	-0.23	0.2
Y	14	L	275468	SR	0.44	0.43	-0.15	-0.20	-0.20	0.43	0.2
Y	15	L	363901	SR	0.67	0.48	-0.23	-0.31	0.48	-0.18	0.2
Y	16	L	133412	SR	0.67	0.57	0.57	-0.33	-0.27	-0.25	0.3
Y	18	L	56735	SR	0.48	0.49	-0.15	0.49	-0.20	-0.31	0.3
Y	19	L	135118	SR	0.60	0.60	-0.40	-0.30	0.60	-0.12	0.5
Y	20	O	322123	SPR	0.52	0.54	0.54	-0.51			2.1
Y	22	L	348327	SPR	0.45	0.63	0.63	-0.57			4.3
Y	23	L	393659	SR	0.60	0.39	-0.14	0.39	-0.29	-0.12	2.3
Y	24	L	319431	SR	0.70	0.48	0.48	-0.30	-0.26	-0.17	0.1
Y	25	L	282382	SR	0.62	0.46	-0.23	-0.25	0.46	-0.18	0.6
Y	26	L	136693	SR	0.27	0.34	-0.22	0.03	-0.21	0.34	0.2
Y	28	L	393635	SR	0.45	0.34	-0.15	0.34	-0.14	-0.16	0.2
Y	29	L	393656	SR	0.44	0.30	-0.20	0.30	-0.14	-0.05	0.5
Y	31	O	260760	SR	0.53	0.46	-0.20	-0.26	0.46	-0.17	0.5
Y	32	O	79114	SR	0.74	0.40	-0.16	-0.29	0.40	-0.13	0.1
Y	33	L	338664	SPR	0.62	0.53	0.53	-0.50			1.6
Y	35	L	319457	SPR	0.24	0.51	0.51	-0.41			5.6
Y	36	O	363967	SR	0.35	0.22	-0.06	-0.14	0.22	-0.03	0.6
Y	37	O	132836	SR	0.75	0.37	-0.23	-0.20	0.37	-0.16	0.3
Y	39	L	348322	SR	0.47	0.49	-0.23	-0.23	0.49	-0.19	0.6
Y	40	O	56440	SR	0.71	0.42	-0.22	0.42	-0.21	-0.21	0.5
Y	41	O	255071	SPR	0.42	0.58	0.58	-0.54			3.0
Y	43	L	348340	SR	0.40	0.28	0.11	-0.20	-0.20	0.28	1.0
Y	44	L	394831	SR	0.48	0.33	-0.19	0.33	-0.11	-0.12	1.2
Y	46	O	395583	SR	0.29	0.40	0.40	-0.21	-0.19	-0.01	1.5
Y	47	L	392349	SR	0.67	0.25	-0.11	0.25	-0.18	-0.11	0.2
Y	48	O	393685	SR	0.64	0.48	-0.17	-0.20	-0.32	0.48	0.3
Y	49	O	319436	SR	0.78	0.47	0.47	-0.33	-0.23	-0.15	0.3
Y	51	L	395574	SR	0.38	0.47	-0.20	-0.11	-0.27	0.47	0.5
Y	52	L	79102	SR	0.36	0.40	-0.15	-0.24	0.40	-0.08	0.4
Y	54	O	393689	SR	0.37	0.38	0.38	-0.08	-0.23	-0.15	0.7
Y	55	L	393642	SPR	0.54	0.63	0.63	-0.58			3.6
Y	56	L	328754	SPR	0.32	0.50	0.50	-0.45			3.0

Table 1.A17 Item Statistics, Operational Items: MD HSA 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	57	L	257130	SR	0.78	0.38	-0.22	0.38	-0.20	-0.18	0.2
Y	58	L	392310	SR	0.56	0.31	-0.15	-0.09	-0.20	0.31	0.3
Y	60	O	395567	SR	0.38	0.30	-0.20	0.30	-0.26	0.05	0.4
Y	61	O	328706	SR	0.68	0.40	-0.11	0.40	-0.23	-0.29	0.3
Y	62	L	319414	SR	0.60	0.42	-0.16	-0.24	-0.24	0.42	0.5
Y	63	O	132820	SPR	0.57	0.68	0.68	-0.65			1.7
Y	65	O	56691	SR	0.60	0.61	-0.18	-0.34	-0.32	0.61	0.6
Y	67	L	393658	SR	0.64	0.51	-0.28	-0.24	-0.23	0.51	0.7
Y	68	O	397860	SR	0.66	0.41	-0.21	-0.27	0.41	-0.12	0.7
Y	69	O	400158	SR	0.39	0.42	0.42	-0.23	-0.13	-0.15	1.0
Mean					0.52	0.44	0.08	-0.14	-0.05	-0.02	1.0
SD					0.16	0.10	0.34	0.31	0.29	0.26	1.4

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.A18 Item Statistics, Operational Items: MD HSA 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-H	1	L	108674	SR	0.95	0.30	-0.16	0.30	-0.15	-0.20	0.0
D-H	2	L	393868	SR	0.79	0.39	-0.21	-0.25	0.39	-0.19	0.1
D-H	3	L	55048	SR	0.74	0.26	-0.12	-0.15	0.26	-0.15	0.0
D-H	5	L	332047	SR	0.50	0.41	-0.20	-0.24	0.41	-0.21	0.0
D-H	6	L	332049	SR	0.68	0.44	-0.20	0.44	-0.24	-0.24	0.1
D-H	7	L	394844	SR	0.64	0.42	-0.20	-0.26	0.42	-0.23	0.0
D-H	8	O	394850	SR	0.66	0.38	-0.28	0.38	-0.09	-0.18	0.0
D-H	9	L	214536	SR	0.61	0.38	0.38	-0.19	-0.27	-0.19	0.1
D-H	13	L	137330	SR	0.77	0.23	0.23	-0.19	-0.16	-0.09	0.1
D-H	14	L	137269	SR	0.73	0.44	-0.32	-0.21	0.44	-0.14	0.1
D-H	15	O	349104	SR	0.49	0.40	-0.25	-0.19	-0.11	0.40	0.1
D-H	16	L	108553	SR	0.60	0.56	-0.31	-0.24	-0.28	0.56	0.1
D-H	19	L	357661	SR	0.63	0.42	-0.16	0.42	-0.32	-0.19	0.1
D-H	20	L	323323	SR	0.70	0.52	0.52	-0.27	-0.33	-0.19	0.1
D-H	21	O	55057	SR	0.68	0.48	0.48	-0.30	-0.32	-0.13	0.1
D-H	22	O	393882	SR	0.53	0.57	-0.23	-0.29	-0.30	0.57	0.1
D-H	23	L	223416	SR	0.60	0.58	-0.26	-0.28	-0.30	0.58	0.1
D-H	24	O	223414	SR	0.59	0.36	0.36	-0.10	-0.25	-0.23	0.1
D-H	25	L	361386	SR	0.76	0.51	0.51	-0.29	-0.28	-0.24	0.2
D-H	26	O	361390	SR	0.68	0.50	-0.23	-0.36	0.50	-0.16	0.2
D-H	27	L	338789	SR	0.62	0.43	-0.30	0.43	-0.20	-0.22	0.2
D-H	29	L	288370	SR	0.42	0.26	-0.10	-0.02	-0.18	0.26	0.2
D-H	30	L	394898	SR	0.47	0.37	-0.17	-0.16	0.37	-0.25	0.2
D-H	31	L	394901	SR	0.43	0.32	0.32	-0.15	-0.24	-0.01	0.3
D-H	32	L	392439	SR	0.48	0.44	-0.21	-0.17	0.44	-0.21	0.3
D-H	33	O	68172	SR	0.79	0.47	-0.25	-0.23	-0.26	0.47	0.3
D-H	34	O	108578	SR	0.87	0.41	0.41	-0.25	-0.23	-0.18	0.1
D-H	35	O	135004	SR	0.70	0.54	-0.25	-0.33	-0.25	0.54	0.1
D-H	37	L	136121	SR	0.41	0.45	-0.18	-0.26	0.45	-0.14	0.1
D-H	38	O	136122	SR	0.59	0.41	-0.25	0.41	-0.20	-0.17	0.1
D-H	39	O	79518	SR	0.67	0.44	-0.14	0.44	-0.32	-0.19	0.1
D-H	40	O	67675	SR	0.77	0.51	-0.24	-0.29	-0.27	0.51	0.1
D-H	41	O	332081	SR	0.60	0.42	-0.15	0.42	-0.25	-0.19	0.1
D-H	42	L	332080	SR	0.38	0.26	-0.08	-0.03	-0.21	0.26	0.1
D-H	43	O	57183	SR	0.58	0.47	-0.15	-0.25	0.47	-0.27	0.1
D-H	44	O	68195	SR	0.65	0.50	-0.30	-0.33	0.50	-0.08	0.1
D-H	48	L	331358	SR	0.71	0.43	-0.23	-0.30	-0.15	0.43	0.1
D-H	49	L	79424	SR	0.80	0.40	-0.10	0.40	-0.31	-0.22	0.1
D-H	50	O	65134	SR	0.54	0.51	-0.08	-0.40	-0.22	0.51	0.2
D-H	52	L	393831	SR	0.58	0.50	0.50	-0.19	-0.34	-0.16	0.1
D-H	53	O	393805	SR	0.50	0.28	-0.25	0.05	-0.31	0.28	0.1
D-H	56	L	394906	SR	0.69	0.47	0.47	-0.29	-0.24	-0.20	0.2
D-H	57	L	64701	SR	0.69	0.51	-0.22	-0.30	0.51	-0.25	0.1
D-H	58	L	393863	SR	0.78	0.50	-0.32	0.50	-0.29	-0.19	0.1

Table 1.A18 Item Statistics, Operational Items: MD HSA 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-H	59	L	393867	SR	0.53	0.47	-0.28	-0.15	-0.27	0.47	0.2
D-H	60	L	68209	SR	0.66	0.58	0.58	-0.28	-0.33	-0.26	0.2
D-H	61	O	68210	SR	0.72	0.51	-0.28	-0.30	0.51	-0.21	0.2
D-H	63	L	256493	SR	0.51	0.50	-0.27	0.50	-0.26	-0.15	0.3
D-H	64	O	256491	SR	0.51	0.44	0.44	-0.13	-0.28	-0.20	0.2
D-H	65	L	392482	SR	0.76	0.56	0.56	-0.31	-0.32	-0.25	0.3
D-H	66	L	52541	SR	0.84	0.46	-0.19	0.46	-0.24	-0.30	0.2
D-H	67	L	79496	SR	0.79	0.36	-0.19	0.36	-0.24	-0.15	0.1
D-H	68	O	52640	SR	0.71	0.43	-0.12	-0.30	0.43	-0.28	0.1
D-H	70	L	52705	SR	0.83	0.45	-0.22	-0.28	-0.22	0.45	0.1
D-H	71	O	320458	SR	0.78	0.33	-0.13	0.33	-0.26	-0.08	0.1
D-H	72	L	320456	SR	0.47	0.08	-0.19	0.04	0.08	-0.05	0.1
D-H	73	L	349067	SR	0.45	0.24	-0.25	0.03	0.24	-0.22	0.1
D-H	74	O	349068	SR	0.71	0.45	-0.21	0.45	-0.25	-0.25	0.1
D-H	75	L	79407	SR	0.81	0.55	0.55	-0.26	-0.40	-0.20	0.1
D-H	76	O	67692	SR	0.59	0.49	-0.22	0.49	-0.29	-0.22	0.1
D-H	80	L	64739	SR	0.65	0.42	-0.16	-0.24	0.42	-0.21	0.2
D-H	82	L	331294	SR	0.59	0.47	-0.23	0.47	-0.28	-0.16	0.2
D-H	83	O	331293	SR	0.54	0.57	-0.20	-0.30	-0.29	0.57	0.2
D-H	84	O	256531	SR	0.88	0.43	-0.28	-0.22	0.43	-0.21	0.1
D-H	85	L	256532	SR	0.48	0.32	-0.18	-0.18	0.32	-0.13	0.1
D-H	87	L	64985	SR	0.58	0.36	0.36	-0.19	-0.15	-0.23	0.1
D-H	88	O	322174	SR	0.47	0.44	0.44	-0.14	-0.24	-0.25	0.1
D-H	89	L	297534	SR	0.60	0.37	-0.20	-0.16	0.37	-0.24	0.1
D-H	90	O	297532	SR	0.59	0.50	-0.21	-0.25	0.50	-0.26	0.1
D-H	93	L	79468	SR	0.62	0.55	-0.21	-0.31	-0.26	0.55	0.2
D-H	94	O	253643	SR	0.50	0.44	-0.24	-0.25	-0.12	0.44	0.1
D-H	95	O	400663	SR	0.61	0.49	0.49	-0.28	-0.20	-0.23	0.2
D-H	96	L	400715	SR	0.73	0.50	-0.25	0.50	-0.30	-0.21	0.2
D-H	97	L	410081	SR	0.82	0.49	-0.25	-0.26	-0.28	0.49	0.2
D-H	98	O	323344	SR	0.66	0.48	-0.23	-0.29	-0.23	0.48	0.2
D-H	99	L	352586	SR	0.89	0.38	-0.30	0.38	-0.18	-0.11	0.2
Mean					0.64	0.43	-0.07	-0.06	-0.07	-0.03	0.1
SD					0.13	0.09	0.29	0.30	0.30	0.29	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.A19 Item Statistics, Operational Items: MD HSA 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	L	108674	SR	0.95	0.30	-0.16	0.30	-0.15	-0.20	0.0
X	2	L	393868	SR	0.79	0.39	-0.21	-0.25	0.39	-0.19	0.1
X	3	L	55048	SR	0.74	0.26	-0.12	-0.15	0.26	-0.15	0.0
X	5	L	332047	SR	0.50	0.41	-0.20	-0.24	0.41	-0.21	0.0
X	6	L	332049	SR	0.68	0.44	-0.20	0.44	-0.24	-0.24	0.1
X	7	L	394844	SR	0.64	0.42	-0.20	-0.26	0.42	-0.23	0.0
X	8	O	394846	SR	0.63	0.41	0.41	-0.18	-0.29	-0.13	0.1
X	9	L	214536	SR	0.61	0.38	0.38	-0.19	-0.27	-0.19	0.1
X	13	L	137330	SR	0.77	0.23	0.23	-0.19	-0.16	-0.09	0.1
X	14	L	137269	SR	0.73	0.44	-0.32	-0.21	0.44	-0.14	0.1
X	15	O	349104	SR	0.49	0.40	-0.25	-0.19	-0.11	0.40	0.1
X	16	L	108553	SR	0.60	0.56	-0.31	-0.24	-0.28	0.56	0.1
X	19	L	357661	SR	0.63	0.42	-0.16	0.42	-0.32	-0.19	0.1
X	20	L	323323	SR	0.70	0.52	0.52	-0.27	-0.33	-0.19	0.1
X	21	O	373161	SR	0.61	0.45	-0.22	-0.22	-0.21	0.45	0.1
X	22	O	338729	SR	0.34	0.50	-0.04	-0.42	-0.14	0.50	0.1
X	23	L	223416	SR	0.60	0.58	-0.26	-0.28	-0.30	0.58	0.1
X	24	O	223414	SR	0.59	0.36	0.36	-0.10	-0.25	-0.23	0.1
X	25	L	361386	SR	0.76	0.51	0.51	-0.29	-0.28	-0.24	0.2
X	26	O	361390	SR	0.68	0.50	-0.23	-0.36	0.50	-0.16	0.2
X	27	L	338789	SR	0.62	0.43	-0.30	0.43	-0.20	-0.22	0.2
X	29	L	288370	SR	0.42	0.26	-0.10	-0.02	-0.18	0.26	0.2
X	30	L	394898	SR	0.47	0.37	-0.17	-0.16	0.37	-0.25	0.2
X	31	L	394901	SR	0.43	0.32	0.32	-0.15	-0.24	-0.01	0.3
X	32	L	392439	SR	0.48	0.44	-0.21	-0.17	0.44	-0.21	0.3
X	33	O	279651	SR	0.76	0.44	-0.21	-0.26	0.44	-0.21	0.3
X	34	O	65119	SR	0.78	0.32	0.32	-0.16	-0.19	-0.17	0.1
X	35	O	135004	SR	0.70	0.54	-0.25	-0.33	-0.25	0.54	0.1
X	37	L	136121	SR	0.41	0.45	-0.18	-0.26	0.45	-0.14	0.1
X	38	O	136123	SR	0.44	0.45	-0.21	0.45	-0.21	-0.16	0.1
X	39	O	108485	SR	0.81	0.52	-0.27	-0.28	-0.28	0.52	0.1
X	40	O	67675	SR	0.77	0.51	-0.24	-0.29	-0.27	0.51	0.1
X	41	O	332081	SR	0.60	0.42	-0.15	0.42	-0.25	-0.19	0.1
X	42	L	332080	SR	0.38	0.26	-0.08	-0.03	-0.21	0.26	0.1
X	43	O	57183	SR	0.58	0.47	-0.15	-0.25	0.47	-0.27	0.1
X	44	O	68292	SR	0.59	0.52	-0.31	-0.29	-0.13	0.52	0.1
X	48	L	331358	SR	0.71	0.43	-0.23	-0.30	-0.15	0.43	0.1
X	49	L	79424	SR	0.80	0.40	-0.10	0.40	-0.31	-0.22	0.1
X	50	O	65134	SR	0.54	0.51	-0.08	-0.40	-0.22	0.51	0.2
X	52	L	393831	SR	0.58	0.50	0.50	-0.19	-0.34	-0.16	0.1
X	53	O	393805	SR	0.50	0.28	-0.25	0.05	-0.31	0.28	0.1
X	56	L	394906	SR	0.69	0.47	0.47	-0.29	-0.24	-0.20	0.2
X	57	L	64701	SR	0.69	0.51	-0.22	-0.30	0.51	-0.25	0.1
X	58	L	393863	SR	0.78	0.50	-0.32	0.50	-0.29	-0.19	0.1

Table 1.A19 Item Statistics, Operational Items: MD HSA 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	59	L	393867	SR	0.53	0.47	-0.28	-0.15	-0.27	0.47	0.2
X	60	L	68209	SR	0.66	0.58	0.58	-0.28	-0.33	-0.26	0.2
X	61	O	68208	SR	0.56	0.43	-0.17	-0.33	0.43	-0.14	0.1
X	63	L	256493	SR	0.51	0.50	-0.27	0.50	-0.26	-0.15	0.3
X	64	O	256492	SR	0.67	0.45	-0.21	-0.21	0.45	-0.29	0.2
X	65	L	392482	SR	0.76	0.56	0.56	-0.31	-0.32	-0.25	0.3
X	66	L	52541	SR	0.84	0.46	-0.19	0.46	-0.24	-0.30	0.2
X	67	L	79496	SR	0.79	0.36	-0.19	0.36	-0.24	-0.15	0.1
X	68	O	362979	SR	0.70	0.50	0.50	-0.37	-0.18	-0.22	0.0
X	70	L	52705	SR	0.83	0.45	-0.22	-0.28	-0.22	0.45	0.1
X	71	O	320457	SR	0.44	0.53	0.53	-0.29	-0.14	-0.25	0.0
X	72	L	320456	SR	0.47	0.08	-0.19	0.04	0.08	-0.05	0.1
X	73	L	349067	SR	0.45	0.24	-0.25	0.03	0.24	-0.22	0.1
X	74	O	349068	SR	0.71	0.45	-0.21	0.45	-0.25	-0.25	0.1
X	75	L	79407	SR	0.81	0.55	0.55	-0.26	-0.40	-0.20	0.1
X	76	O	67692	SR	0.59	0.49	-0.22	0.49	-0.29	-0.22	0.1
X	80	L	64739	SR	0.65	0.42	-0.16	-0.24	0.42	-0.21	0.2
X	82	L	331294	SR	0.59	0.47	-0.23	0.47	-0.28	-0.16	0.2
X	83	O	331293	SR	0.54	0.57	-0.20	-0.30	-0.29	0.57	0.2
X	84	O	256531	SR	0.88	0.43	-0.28	-0.22	0.43	-0.21	0.1
X	85	L	256532	SR	0.48	0.32	-0.18	-0.18	0.32	-0.13	0.1
X	87	L	64985	SR	0.58	0.36	0.36	-0.19	-0.15	-0.23	0.1
X	88	O	392472	SR	0.49	0.44	-0.24	0.44	-0.07	-0.31	0.2
X	89	L	297534	SR	0.60	0.37	-0.20	-0.16	0.37	-0.24	0.1
X	90	O	297532	SR	0.59	0.50	-0.21	-0.25	0.50	-0.26	0.1
X	93	L	79468	SR	0.62	0.55	-0.21	-0.31	-0.26	0.55	0.2
X	94	O	57132	SR	0.46	0.38	0.06	-0.25	0.38	-0.32	0.1
X	95	O	400663	SR	0.61	0.49	0.49	-0.28	-0.20	-0.23	0.2
X	96	L	400715	SR	0.73	0.50	-0.25	0.50	-0.30	-0.21	0.2
X	97	L	410081	SR	0.82	0.49	-0.25	-0.26	-0.28	0.49	0.2
X	98	O	282429	SR	0.50	0.59	-0.23	-0.28	-0.26	0.59	0.2
X	99	L	352586	SR	0.89	0.38	-0.30	0.38	-0.18	-0.11	0.2
Mean					0.63	0.44	-0.06	-0.08	-0.06	-0.02	0.1
SD					0.14	0.10	0.28	0.29	0.30	0.31	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.A20 Item Statistics, Operational Items: MD HSA 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	L	108674	SR	0.95	0.30	-0.16	0.30	-0.15	-0.20	0.0
Y	2	L	393868	SR	0.79	0.39	-0.21	-0.25	0.39	-0.19	0.1
Y	3	L	55048	SR	0.74	0.26	-0.12	-0.15	0.26	-0.15	0.0
Y	5	L	332047	SR	0.50	0.41	-0.20	-0.24	0.41	-0.21	0.0
Y	6	L	332049	SR	0.68	0.44	-0.20	0.44	-0.24	-0.24	0.1
Y	7	L	394844	SR	0.64	0.42	-0.20	-0.26	0.42	-0.23	0.0
Y	8	O	394850	SR	0.66	0.38	-0.28	0.38	-0.09	-0.18	0.0
Y	9	L	214536	SR	0.61	0.38	0.38	-0.19	-0.27	-0.19	0.1
Y	13	L	137330	SR	0.77	0.23	0.23	-0.19	-0.16	-0.09	0.1
Y	14	L	137269	SR	0.73	0.44	-0.32	-0.21	0.44	-0.14	0.1
Y	15	O	68224	SR	0.42	0.43	-0.16	-0.23	0.43	-0.14	0.1
Y	16	L	108553	SR	0.60	0.56	-0.31	-0.24	-0.28	0.56	0.1
Y	19	L	357661	SR	0.63	0.42	-0.16	0.42	-0.32	-0.19	0.1
Y	20	L	323323	SR	0.70	0.52	0.52	-0.27	-0.33	-0.19	0.1
Y	21	O	55057	SR	0.68	0.48	0.48	-0.30	-0.32	-0.13	0.1
Y	22	O	393882	SR	0.53	0.57	-0.23	-0.29	-0.30	0.57	0.1
Y	23	L	223416	SR	0.60	0.58	-0.26	-0.28	-0.30	0.58	0.1
Y	24	O	223410	SR	0.60	0.44	-0.26	-0.21	0.44	-0.16	0.1
Y	25	L	361386	SR	0.76	0.51	0.51	-0.29	-0.28	-0.24	0.2
Y	26	O	361387	SR	0.40	0.51	-0.13	-0.34	-0.18	0.51	0.1
Y	27	L	338789	SR	0.62	0.43	-0.30	0.43	-0.20	-0.22	0.2
Y	29	L	288370	SR	0.42	0.26	-0.10	-0.02	-0.18	0.26	0.2
Y	30	L	394898	SR	0.47	0.37	-0.17	-0.16	0.37	-0.25	0.2
Y	31	L	394901	SR	0.43	0.32	0.32	-0.15	-0.24	-0.01	0.3
Y	32	L	392439	SR	0.48	0.44	-0.21	-0.17	0.44	-0.21	0.3
Y	33	O	68172	SR	0.79	0.47	-0.25	-0.23	-0.26	0.47	0.3
Y	34	O	108578	SR	0.87	0.41	0.41	-0.25	-0.23	-0.18	0.1
Y	35	O	223429	SR	0.62	0.46	0.46	-0.26	-0.28	-0.11	0.1
Y	37	L	136121	SR	0.41	0.45	-0.18	-0.26	0.45	-0.14	0.1
Y	38	O	136122	SR	0.59	0.41	-0.25	0.41	-0.20	-0.17	0.1
Y	39	O	79518	SR	0.67	0.44	-0.14	0.44	-0.32	-0.19	0.1
Y	40	O	108586	SR	0.69	0.48	0.48	-0.28	-0.28	-0.19	0.1
Y	41	O	332082	SR	0.46	0.53	0.53	-0.22	-0.28	-0.19	0.1
Y	42	L	332080	SR	0.38	0.26	-0.08	-0.03	-0.21	0.26	0.1
Y	43	O	68241	SR	0.54	0.42	-0.11	-0.27	0.42	-0.29	0.1
Y	44	O	68195	SR	0.65	0.50	-0.30	-0.33	0.50	-0.08	0.1
Y	48	L	331358	SR	0.71	0.43	-0.23	-0.30	-0.15	0.43	0.1
Y	49	L	79424	SR	0.80	0.40	-0.10	0.40	-0.31	-0.22	0.1
Y	50	O	52637	SR	0.38	0.41	-0.11	-0.25	-0.23	0.41	0.1
Y	52	L	393831	SR	0.58	0.50	0.50	-0.19	-0.34	-0.16	0.1
Y	53	O	393804	SR	0.47	0.47	-0.23	0.47	-0.30	-0.13	0.1
Y	56	L	394906	SR	0.69	0.47	0.47	-0.29	-0.24	-0.20	0.2
Y	57	L	64701	SR	0.69	0.51	-0.22	-0.30	0.51	-0.25	0.1
Y	58	L	393863	SR	0.78	0.50	-0.32	0.50	-0.29	-0.19	0.1

Table 1.A20 Item Statistics, Operational Items: MD HSA 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	59	L	393867	SR	0.53	0.47	-0.28	-0.15	-0.27	0.47	0.2
Y	60	L	68209	SR	0.66	0.58	0.58	-0.28	-0.33	-0.26	0.2
Y	61	O	68210	SR	0.72	0.51	-0.28	-0.30	0.51	-0.21	0.2
Y	63	L	256493	SR	0.51	0.50	-0.27	0.50	-0.26	-0.15	0.3
Y	64	O	256491	SR	0.51	0.44	0.44	-0.13	-0.28	-0.20	0.2
Y	65	L	392482	SR	0.76	0.56	0.56	-0.31	-0.32	-0.25	0.3
Y	66	L	52541	SR	0.84	0.46	-0.19	0.46	-0.24	-0.30	0.2
Y	67	L	79496	SR	0.79	0.36	-0.19	0.36	-0.24	-0.15	0.1
Y	68	O	52640	SR	0.71	0.43	-0.12	-0.30	0.43	-0.28	0.1
Y	70	L	52705	SR	0.83	0.45	-0.22	-0.28	-0.22	0.45	0.1
Y	71	O	320458	SR	0.78	0.33	-0.13	0.33	-0.26	-0.08	0.1
Y	72	L	320456	SR	0.47	0.08	-0.19	0.04	0.08	-0.05	0.1
Y	73	L	349067	SR	0.45	0.24	-0.25	0.03	0.24	-0.22	0.1
Y	74	O	349065	SR	0.75	0.52	0.52	-0.27	-0.36	-0.19	0.1
Y	75	L	79407	SR	0.81	0.55	0.55	-0.26	-0.40	-0.20	0.1
Y	76	O	55216	SR	0.51	0.46	-0.25	-0.21	-0.15	0.46	0.1
Y	80	L	64739	SR	0.65	0.42	-0.16	-0.24	0.42	-0.21	0.2
Y	82	L	331294	SR	0.59	0.47	-0.23	0.47	-0.28	-0.16	0.2
Y	83	O	331295	SR	0.40	0.28	-0.12	-0.13	0.28	-0.09	0.2
Y	84	O	256534	SR	0.79	0.51	-0.29	-0.26	-0.25	0.51	0.1
Y	85	L	256532	SR	0.48	0.32	-0.18	-0.18	0.32	-0.13	0.1
Y	87	L	64985	SR	0.58	0.36	0.36	-0.19	-0.15	-0.23	0.1
Y	88	O	322174	SR	0.47	0.44	0.44	-0.14	-0.24	-0.25	0.1
Y	89	L	297534	SR	0.60	0.37	-0.20	-0.16	0.37	-0.24	0.1
Y	90	O	297533	SR	0.68	0.44	-0.24	-0.24	-0.24	0.44	0.2
Y	93	L	79468	SR	0.62	0.55	-0.21	-0.31	-0.26	0.55	0.2
Y	94	O	253643	SR	0.50	0.44	-0.24	-0.25	-0.12	0.44	0.1
Y	95	O	400662	SR	0.77	0.47	-0.25	0.47	-0.28	-0.21	0.2
Y	96	L	400715	SR	0.73	0.50	-0.25	0.50	-0.30	-0.21	0.2
Y	97	L	410081	SR	0.82	0.49	-0.25	-0.26	-0.28	0.49	0.2
Y	98	O	323344	SR	0.66	0.48	-0.23	-0.29	-0.23	0.48	0.2
Y	99	L	352586	SR	0.89	0.38	-0.30	0.38	-0.18	-0.11	0.2
Mean					0.63	0.43	-0.04	-0.07	-0.08	-0.03	0.1
SD					0.14	0.09	0.30	0.29	0.30	0.28	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.A21 Item Statistics, Operational Items: MD HSA 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-H	1	L	130230	SR	0.29	0.21	-0.12	0.21	0.00	-0.14	0.0
D-H	2	L	130231	SR	0.85	0.33	-0.23	-0.17	-0.15	0.33	0.0
D-H	3	L	130233	SR	0.35	0.28	-0.16	-0.18	-0.15	0.28	0.0
D-H	4	L	130232	SR	0.66	0.27	0.27	-0.25	-0.20	-0.02	0.0
D-H	5	L	130234	SR	0.86	0.43	0.43	-0.23	-0.25	-0.23	0.0
D-H	6	L	256283	SR	0.75	0.37	-0.19	-0.16	-0.22	0.37	0.0
D-H	15	O	251237	SR	0.75	0.45	0.45	-0.27	-0.25	-0.19	0.1
D-H	16	O	251239	SR	0.75	0.38	-0.09	-0.25	-0.28	0.38	0.1
D-H	17	O	251238	SR	0.76	0.44	0.44	-0.24	-0.25	-0.24	0.1
D-H	23	O	285537	SR	0.77	0.49	0.49	-0.33	-0.25	-0.20	0.1
D-H	25	O	251151	SR	0.70	0.33	-0.12	0.33	-0.20	-0.20	0.1
D-H	26	O	272944	SR	0.61	0.52	-0.27	-0.23	-0.26	0.52	0.1
D-H	27	L	223369	SR	0.58	0.49	0.49	-0.32	-0.19	-0.19	0.3
D-H	28	L	223303	SR	0.72	0.46	-0.22	-0.25	0.46	-0.29	0.3
D-H	29	L	223304	SR	0.41	0.33	-0.11	0.33	-0.20	-0.10	0.3
D-H	30	L	223305	SR	0.22	0.24	-0.05	-0.19	0.24	-0.02	0.3
D-H	31	L	223306	SR	0.31	0.48	-0.27	-0.27	-0.15	0.48	0.3
D-H	32	L	223307	SR	0.65	0.41	-0.26	-0.12	-0.27	0.41	0.4
D-H	33	O	130289	SR	0.82	0.47	0.47	-0.28	-0.29	-0.17	0.0
D-H	34	L	373837	SR	0.87	0.26	-0.20	-0.09	0.26	-0.18	0.0
D-H	36	O	130239	SR	0.89	0.40	-0.24	0.40	-0.22	-0.22	0.0
D-H	37	O	108844	SR	0.61	0.49	-0.15	0.49	-0.19	-0.39	0.1
D-H	38	O	108845	SR	0.20	0.24	-0.09	0.07	-0.21	0.24	0.1
D-H	39	O	108847	SR	0.50	0.49	-0.21	0.49	-0.30	-0.20	0.1
D-H	40	O	108848	SR	0.74	0.43	0.43	-0.18	-0.30	-0.27	0.1
D-H	41	O	108849	SR	0.83	0.41	-0.20	-0.14	0.41	-0.32	0.1
D-H	42	O	108846	SR	0.75	0.48	0.48	-0.33	-0.23	-0.20	0.1
D-H	43	O	130212	SR	0.69	0.44	-0.28	0.44	-0.22	-0.18	0.1
D-H	47	O	139358	SR	0.76	0.44	-0.25	0.44	-0.27	-0.17	0.1
D-H	48	O	139356	SR	0.53	0.33	-0.16	-0.13	-0.15	0.33	0.1
D-H	49	O	139355	SR	0.57	0.36	-0.13	0.36	-0.19	-0.20	0.1
D-H	50	O	139357	SR	0.77	0.51	-0.26	-0.31	0.51	-0.23	0.1
D-H	51	L	321010	SR	0.77	0.42	-0.25	-0.34	0.42	-0.07	0.1
D-H	52	L	321011	SR	0.44	0.35	0.02	-0.32	0.35	-0.27	0.1
D-H	53	L	321015	SR	0.50	0.47	-0.24	-0.26	-0.17	0.47	0.1
D-H	54	L	321014	SR	0.55	0.32	-0.22	0.32	-0.24	-0.04	0.1
D-H	55	L	321013	SR	0.61	0.46	-0.26	0.46	-0.25	-0.17	0.2
D-H	56	L	369041	SR	0.40	0.33	-0.17	-0.31	0.02	0.33	0.2
D-H	57	L	369044	SR	0.82	0.55	-0.29	-0.29	-0.31	0.55	0.1
D-H	58	L	369042	SR	0.81	0.22	-0.10	0.22	-0.04	-0.25	0.1
D-H	59	L	369045	SR	0.74	0.48	0.48	-0.17	-0.31	-0.28	0.1
D-H	60	L	369049	SR	0.58	0.34	-0.04	-0.15	-0.32	0.34	0.2
D-H	61	L	369046	SR	0.38	0.29	-0.23	-0.15	0.29	-0.14	0.2
D-H	62	L	369050	SR	0.73	0.44	-0.23	-0.22	0.44	-0.24	0.2

Table 1.A21 Item Statistics, Operational Items: MD HSA 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-H	63	L	369048	SR	0.41	0.41	-0.04	0.41	-0.29	-0.25	0.2
D-H	64	L	369052	SR	0.47	0.29	-0.15	-0.18	0.29	-0.04	0.2
D-H	65	L	369051	SR	0.36	0.23	0.05	0.23	-0.28	-0.21	0.3
D-H	66	L	349172	SR	0.27	0.36	-0.10	0.36	-0.28	0.06	0.1
D-H	67	L	349179	SR	0.52	0.35	-0.16	-0.26	-0.10	0.35	0.1
D-H	68	L	349176	SR	0.60	0.40	-0.17	-0.30	0.40	-0.12	0.1
D-H	69	L	349180	SR	0.75	0.39	-0.23	0.39	-0.26	-0.14	0.1
D-H	70	L	349181	SR	0.86	0.49	-0.22	-0.31	-0.27	0.49	0.1
D-H	71	L	349175	SR	0.71	0.47	-0.20	-0.22	-0.30	0.47	0.1
D-H	72	L	349447	SR	0.44	0.45	-0.12	-0.19	-0.27	0.45	0.1
D-H	73	L	349174	SR	0.79	0.47	-0.26	-0.28	0.47	-0.20	0.1
D-H	88	O	96160	SR	0.73	0.37	-0.16	-0.24	0.37	-0.18	0.2
D-H	89	O	96161	SR	0.88	0.27	-0.18	-0.22	0.27	-0.11	0.1
D-H	96	O	332112	SR	0.77	0.33	-0.15	0.33	-0.25	-0.21	0.2
D-H	97	O	332113	SR	0.87	0.43	0.43	-0.23	-0.30	-0.17	0.2
D-H	98	O	332114	SR	0.70	0.33	-0.21	-0.15	0.33	-0.15	0.3
Mean					0.63	0.39	-0.06	-0.06	-0.08	-0.02	0.1
SD					0.19	0.09	0.25	0.28	0.27	0.28	0.1

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.A22 Item Statistics, Operational Items: MD HSA 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	L	130230	SR	0.29	0.21	-0.12	0.21	0.00	-0.14	0.0
X	2	L	130231	SR	0.85	0.33	-0.23	-0.17	-0.15	0.33	0.0
X	3	L	130233	SR	0.35	0.28	-0.16	-0.18	-0.15	0.28	0.0
X	4	L	130232	SR	0.66	0.27	0.27	-0.25	-0.20	-0.02	0.0
X	5	L	130234	SR	0.86	0.43	0.43	-0.23	-0.25	-0.23	0.0
X	6	L	256283	SR	0.75	0.37	-0.19	-0.16	-0.22	0.37	0.0
X	15	O	96251	SR	0.43	0.28	0.28	-0.11	-0.08	-0.19	0.1
X	16	O	96252	SR	0.92	0.30	0.30	-0.15	-0.18	-0.19	0.1
X	17	O	96253	SR	0.68	0.52	-0.23	0.52	-0.29	-0.26	0.1
X	23	O	285537	SR	0.77	0.49	0.49	-0.33	-0.25	-0.20	0.1
X	25	O	251151	SR	0.70	0.33	-0.12	0.33	-0.20	-0.20	0.1
X	26	O	272944	SR	0.61	0.52	-0.27	-0.23	-0.26	0.52	0.1
X	27	L	223369	SR	0.58	0.49	0.49	-0.32	-0.19	-0.19	0.3
X	28	L	223303	SR	0.72	0.46	-0.22	-0.25	0.46	-0.29	0.3
X	29	L	223304	SR	0.41	0.33	-0.11	0.33	-0.20	-0.10	0.3
X	30	L	223305	SR	0.22	0.24	-0.05	-0.19	0.24	-0.02	0.3
X	31	L	223306	SR	0.31	0.48	-0.27	-0.27	-0.15	0.48	0.3
X	32	L	223307	SR	0.65	0.41	-0.26	-0.12	-0.27	0.41	0.4
X	33	O	130289	SR	0.82	0.47	0.47	-0.28	-0.29	-0.17	0.0
X	34	L	373837	SR	0.87	0.26	-0.20	-0.09	0.26	-0.18	0.0
X	36	O	130239	SR	0.89	0.40	-0.24	0.40	-0.22	-0.22	0.0
X	37	O	108844	SR	0.61	0.49	-0.15	0.49	-0.19	-0.39	0.1
X	38	O	108845	SR	0.20	0.24	-0.09	0.07	-0.21	0.24	0.1
X	39	O	108847	SR	0.50	0.49	-0.21	0.49	-0.30	-0.20	0.1
X	40	O	108848	SR	0.74	0.43	0.43	-0.18	-0.30	-0.27	0.1
X	41	O	108849	SR	0.83	0.41	-0.20	-0.14	0.41	-0.32	0.1
X	42	O	108846	SR	0.75	0.48	0.48	-0.33	-0.23	-0.20	0.1
X	43	O	130212	SR	0.69	0.44	-0.28	0.44	-0.22	-0.18	0.1
X	47	O	175740	SR	0.71	0.45	0.45	-0.25	-0.27	-0.18	0.1
X	48	O	175741	SR	0.69	0.42	-0.20	0.42	-0.20	-0.24	0.1
X	49	O	175742	SR	0.39	0.23	-0.24	-0.24	0.23	-0.07	0.1
X	50	O	175743	SR	0.79	0.40	-0.23	0.40	-0.24	-0.18	0.1
X	51	L	321010	SR	0.77	0.42	-0.25	-0.34	0.42	-0.07	0.1
X	52	L	321011	SR	0.44	0.35	0.02	-0.32	0.35	-0.27	0.1
X	53	L	321015	SR	0.50	0.47	-0.24	-0.26	-0.17	0.47	0.1
X	54	L	321014	SR	0.55	0.32	-0.22	0.32	-0.24	-0.04	0.1
X	55	L	321013	SR	0.61	0.46	-0.26	0.46	-0.25	-0.17	0.2
X	56	L	369041	SR	0.40	0.33	-0.17	-0.31	0.02	0.33	0.2
X	57	L	369044	SR	0.82	0.55	-0.29	-0.29	-0.31	0.55	0.1
X	58	L	369042	SR	0.81	0.22	-0.10	0.22	-0.04	-0.25	0.1
X	59	L	369045	SR	0.74	0.48	0.48	-0.17	-0.31	-0.28	0.1
X	60	L	369049	SR	0.58	0.34	-0.04	-0.15	-0.32	0.34	0.2
X	61	L	369046	SR	0.38	0.29	-0.23	-0.15	0.29	-0.14	0.2
X	62	L	369050	SR	0.73	0.44	-0.23	-0.22	0.44	-0.24	0.2

Table 1.A22 Item Statistics, Operational Items: MD HSA 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	63	L	369048	SR	0.41	0.41	-0.04	0.41	-0.29	-0.25	0.2
X	64	L	369052	SR	0.47	0.29	-0.15	-0.18	0.29	-0.04	0.2
X	65	L	369051	SR	0.36	0.23	0.05	0.23	-0.28	-0.21	0.3
X	66	L	349172	SR	0.27	0.36	-0.10	0.36	-0.28	0.06	0.1
X	67	L	349179	SR	0.52	0.35	-0.16	-0.26	-0.10	0.35	0.1
X	68	L	349176	SR	0.60	0.40	-0.17	-0.30	0.40	-0.12	0.1
X	69	L	349180	SR	0.75	0.39	-0.23	0.39	-0.26	-0.14	0.1
X	70	L	349181	SR	0.86	0.49	-0.22	-0.31	-0.27	0.49	0.1
X	71	L	349175	SR	0.71	0.47	-0.20	-0.22	-0.30	0.47	0.1
X	72	L	349447	SR	0.44	0.45	-0.12	-0.19	-0.27	0.45	0.1
X	73	L	349174	SR	0.79	0.47	-0.26	-0.28	0.47	-0.20	0.1
X	88	O	96281	SR	0.65	0.53	-0.21	-0.37	0.53	-0.21	0.1
X	89	O	96280	SR	0.82	0.45	0.45	-0.23	-0.24	-0.26	0.1
X	96	O	285608	SR	0.85	0.47	-0.18	0.47	-0.33	-0.24	0.2
X	97	O	285610	SR	0.53	0.44	-0.15	-0.24	0.44	-0.22	0.1
X	98	O	285611	SR	0.79	0.51	0.51	-0.26	-0.30	-0.25	0.2
Mean					0.62	0.40	-0.05	-0.04	-0.08	-0.04	0.1
SD					0.19	0.09	0.26	0.29	0.27	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.A23 Item Statistics, Operational Items: MD HSA 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	L	130230	SR	0.29	0.21	-0.12	0.21	0.00	-0.14	0.0
Y	2	L	130231	SR	0.85	0.33	-0.23	-0.17	-0.15	0.33	0.0
Y	3	L	130233	SR	0.35	0.28	-0.16	-0.18	-0.15	0.28	0.0
Y	4	L	130232	SR	0.66	0.27	0.27	-0.25	-0.20	-0.02	0.0
Y	5	L	130234	SR	0.86	0.43	0.43	-0.23	-0.25	-0.23	0.0
Y	6	L	256283	SR	0.75	0.37	-0.19	-0.16	-0.22	0.37	0.0
Y	15	O	251237	SR	0.75	0.45	0.45	-0.27	-0.25	-0.19	0.1
Y	16	O	251239	SR	0.75	0.38	-0.09	-0.25	-0.28	0.38	0.1
Y	17	O	251238	SR	0.76	0.44	0.44	-0.24	-0.25	-0.24	0.1
Y	23	O	285540	SR	0.79	0.46	-0.18	-0.30	0.46	-0.24	0.2
Y	25	O	272877	SR	0.73	0.47	-0.19	-0.21	-0.31	0.47	0.3
Y	26	O	272879	SR	0.70	0.41	0.41	-0.24	-0.16	-0.24	0.3
Y	27	L	223369	SR	0.58	0.49	0.49	-0.32	-0.19	-0.19	0.3
Y	28	L	223303	SR	0.72	0.46	-0.22	-0.25	0.46	-0.29	0.3
Y	29	L	223304	SR	0.41	0.33	-0.11	0.33	-0.20	-0.10	0.3
Y	30	L	223305	SR	0.22	0.24	-0.05	-0.19	0.24	-0.02	0.3
Y	31	L	223306	SR	0.31	0.48	-0.27	-0.27	-0.15	0.48	0.3
Y	32	L	223307	SR	0.65	0.41	-0.26	-0.12	-0.27	0.41	0.4
Y	33	O	373838	SR	0.81	0.47	0.47	-0.31	-0.28	-0.17	0.1
Y	34	L	373837	SR	0.87	0.26	-0.20	-0.09	0.26	-0.18	0.0
Y	36	O	130091	SR	0.73	0.46	-0.21	-0.26	0.46	-0.23	0.1
Y	37	O	320985	SR	0.80	0.44	-0.26	-0.17	-0.28	0.44	0.1
Y	38	O	320992	SR	0.79	0.39	-0.22	-0.29	0.39	-0.14	0.2
Y	39	O	320988	SR	0.47	0.30	0.11	0.30	-0.28	-0.23	0.1
Y	40	O	320989	SR	0.37	0.25	-0.21	0.01	0.25	-0.22	0.1
Y	41	O	320994	SR	0.62	0.22	-0.11	0.22	-0.12	-0.10	0.1
Y	42	O	320993	SR	0.63	0.46	-0.17	-0.18	-0.33	0.46	0.1
Y	43	O	320996	SR	0.75	0.52	0.52	-0.29	-0.24	-0.29	0.1
Y	47	O	139358	SR	0.76	0.44	-0.25	0.44	-0.27	-0.17	0.1
Y	48	O	139356	SR	0.53	0.33	-0.16	-0.13	-0.15	0.33	0.1
Y	49	O	139355	SR	0.57	0.36	-0.13	0.36	-0.19	-0.20	0.1
Y	50	O	139357	SR	0.77	0.51	-0.26	-0.31	0.51	-0.23	0.1
Y	51	L	321010	SR	0.77	0.42	-0.25	-0.34	0.42	-0.07	0.1
Y	52	L	321011	SR	0.44	0.35	0.02	-0.32	0.35	-0.27	0.1
Y	53	L	321015	SR	0.50	0.47	-0.24	-0.26	-0.17	0.47	0.1
Y	54	L	321014	SR	0.55	0.32	-0.22	0.32	-0.24	-0.04	0.1
Y	55	L	321013	SR	0.61	0.46	-0.26	0.46	-0.25	-0.17	0.2
Y	56	L	369041	SR	0.40	0.33	-0.17	-0.31	0.02	0.33	0.2
Y	57	L	369044	SR	0.82	0.55	-0.29	-0.29	-0.31	0.55	0.1
Y	58	L	369042	SR	0.81	0.22	-0.10	0.22	-0.04	-0.25	0.1
Y	59	L	369045	SR	0.74	0.48	0.48	-0.17	-0.31	-0.28	0.1
Y	60	L	369049	SR	0.58	0.34	-0.04	-0.15	-0.32	0.34	0.2
Y	61	L	369046	SR	0.38	0.29	-0.23	-0.15	0.29	-0.14	0.2
Y	62	L	369050	SR	0.73	0.44	-0.23	-0.22	0.44	-0.24	0.2

Table 1.A23 Item Statistics, Operational Items: MD HSA 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	63	L	369048	SR	0.41	0.41	-0.04	0.41	-0.29	-0.25	0.2
Y	64	L	369052	SR	0.47	0.29	-0.15	-0.18	0.29	-0.04	0.2
Y	65	L	369051	SR	0.36	0.23	0.05	0.23	-0.28	-0.21	0.3
Y	66	L	349172	SR	0.27	0.36	-0.10	0.36	-0.28	0.06	0.1
Y	67	L	349179	SR	0.52	0.35	-0.16	-0.26	-0.10	0.35	0.1
Y	68	L	349176	SR	0.60	0.40	-0.17	-0.30	0.40	-0.12	0.1
Y	69	L	349180	SR	0.75	0.39	-0.23	0.39	-0.26	-0.14	0.1
Y	70	L	349181	SR	0.86	0.49	-0.22	-0.31	-0.27	0.49	0.1
Y	71	L	349175	SR	0.71	0.47	-0.20	-0.22	-0.30	0.47	0.1
Y	72	L	349447	SR	0.44	0.45	-0.12	-0.19	-0.27	0.45	0.1
Y	73	L	349174	SR	0.79	0.47	-0.26	-0.28	0.47	-0.20	0.1
Y	88	O	96160	SR	0.73	0.37	-0.16	-0.24	0.37	-0.18	0.2
Y	89	O	96161	SR	0.88	0.27	-0.18	-0.22	0.27	-0.11	0.1
Y	96	O	332112	SR	0.77	0.33	-0.15	0.33	-0.25	-0.21	0.2
Y	97	O	332113	SR	0.87	0.43	0.43	-0.23	-0.30	-0.17	0.2
Y	98	O	332114	SR	0.70	0.33	-0.21	-0.15	0.33	-0.15	0.3
Mean					0.63	0.38	-0.07	-0.10	-0.05	0.00	0.2
SD					0.18	0.09	0.24	0.25	0.29	0.28	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.A24 Item Statistics, Operational Items: MD HSA Government—May Primary

Form	Pos_No	Anchor Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D	1	L	108338	SR	0.68	0.60	-0.19	-0.24	-0.45	0.60	0.0
D	2	L	360643	SR	0.61	0.33	-0.26	0.33	-0.08	-0.14	0.1
D	3	L	360644	SR	0.64	0.36	0.36	-0.20	-0.20	-0.21	0.1
D	4	L	55630	SR	0.75	0.49	0.49	-0.18	-0.13	-0.40	0.1
D	5	O	79564	SR	0.61	0.49	-0.27	-0.23	0.49	-0.28	0.1
D	7	L	55503	SR	0.39	0.38	-0.20	-0.24	0.38	-0.05	0.2
D	8	L	370241	SR	0.59	0.48	-0.38	-0.23	-0.11	0.48	0.1
D	9	L	51044	SR	0.75	0.45	0.45	-0.26	-0.25	-0.21	0.2
D	10	O	108473	SR	0.67	0.43	-0.17	-0.23	0.43	-0.25	0.1
D	11	L	60432	CR	1.88						0.0
D	12	L	58137	SR	0.71	0.57	-0.32	-0.32	-0.23	0.57	0.1
D	13	L	324431	SR	0.43	0.22	0.22	-0.03	-0.26	-0.13	0.1
D	14	L	256359	SR	0.70	0.43	-0.21	-0.26	0.43	-0.25	0.1
D	15	L	68103	SR	0.38	0.36	0.36	-0.13	-0.27	-0.12	0.2
D	17	L	133476	SR	0.78	0.43	0.43	-0.15	-0.30	-0.22	0.2
D	18	O	137309	SR	0.71	0.46	-0.23	-0.32	-0.15	0.46	0.3
D	19	O	283274	SR	0.65	0.20	-0.09	0.20	-0.18	-0.03	0.3
D	20	O	256415	SR	0.53	0.38	0.38	-0.08	-0.21	-0.30	0.4
D	21	L	279788	SR	0.45	0.33	0.33	-0.14	-0.27	-0.09	0.6
D	22	L	55619	CR	1.85						0.0
D	24	L	283114	SR	0.55	0.42	-0.15	0.42	-0.30	-0.15	2.6
D	25	O	108472	SR	0.63	0.39	0.39	-0.26	-0.29	-0.07	2.7
D	26	O	52190	SR	0.49	0.24	-0.03	0.24	-0.20	-0.10	0.1
D	27	L	256500	SR	0.56	0.50	-0.23	-0.19	0.50	-0.29	0.1
D	28	L	256503	SR	0.45	0.32	-0.05	-0.10	-0.25	0.32	0.1
D	29	L	264004	SR	0.69	0.39	-0.23	0.39	-0.19	-0.19	0.1
D	30	L	108381	SR	0.42	0.41	-0.18	-0.23	0.41	-0.12	0.2
D	31	O	133481	SR	0.57	0.39	-0.16	-0.23	-0.16	0.39	0.2
D	33	L	79613	CR	1.54						0.0
D	34	O	68580	SR	0.63	0.36	-0.15	-0.23	-0.13	0.36	0.2
D	35	O	108436	SR	0.67	0.32	-0.26	0.32	-0.15	-0.22	0.1
D	36	O	68756	SR	0.62	0.41	-0.26	-0.17	-0.24	0.41	0.1
D	38	L	331408	SR	0.69	0.44	-0.21	0.44	-0.29	-0.16	0.1
D	39	L	331440	SR	0.80	0.50	0.50	-0.25	-0.34	-0.21	0.1
D	40	O	214510	SR	0.62	0.55	-0.35	-0.20	-0.26	0.55	0.3
D	41	L	108399	CR	1.63						0.0
D	42	O	324728	SR	0.71	0.48	-0.28	-0.25	-0.19	0.48	0.2
D	44	L	108417	SR	0.69	0.56	-0.24	0.56	-0.37	-0.25	0.3
D	45	L	135589	SR	0.71	0.52	0.52	-0.35	-0.24	-0.19	0.3
D	46	L	132968	SR	0.50	0.46	-0.22	-0.16	-0.26	0.46	0.4
D	47	O	65201	SR	0.65	0.45	-0.20	-0.20	0.45	-0.26	0.3
D	48	O	137321	SR	0.80	0.56	-0.36	-0.27	-0.25	0.56	0.3
D	50	L	108410	SR	0.56	0.33	-0.25	-0.14	0.33	-0.06	0.4
D	52	O	279737	SR	0.61	0.44	0.44	-0.25	-0.18	-0.27	0.5

Table 1.A24 Item Statistics, Operational Items: MD HSA Government—May Primary

Form	Pos_No	Anchor Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D	53	L	279821	SR	0.61	0.46	-0.17	-0.25	0.46	-0.23	0.6
D	54	L	339197	SR	0.67	0.49	0.49	-0.23	-0.35	-0.15	0.2
D	55	L	339054	SR	0.68	0.47	-0.28	0.47	-0.24	-0.26	0.2
D	56	O	64951	SR	0.75	0.54	-0.30	0.54	-0.31	-0.22	0.2
D	58	L	108464	CR	1.23						0.0
D	59	O	108347	SR	0.78	0.39	-0.22	0.39	-0.18	-0.23	0.2
D	60	L	133485	SR	0.74	0.52	-0.23	-0.25	-0.33	0.52	0.2
D	62	O	263980	SR	0.82	0.43	-0.25	-0.21	0.43	-0.23	0.2
D	63	O	353536	SR	0.73	0.53	0.53	-0.30	-0.29	-0.23	0.2
D	64	L	261598	SR	0.83	0.51	0.51	-0.32	-0.22	-0.28	0.2
D	65	O	52261	SR	0.69	0.44	-0.26	-0.27	0.44	-0.18	0.3
D	67	O	283108	SR	0.55	0.34	-0.02	-0.20	-0.28	0.34	0.2
D	68	O	68086	SR	0.42	0.39	-0.16	-0.14	-0.18	0.39	0.2
D	69	L	256369	SR	0.65	0.50	-0.21	-0.31	0.50	-0.22	0.2
D	71	L	79754	SR	0.54	0.42	-0.23	0.42	-0.16	-0.22	0.2
D	72	L	271834	SR	0.46	0.39	-0.18	-0.06	-0.27	0.39	0.3
D	73	L	64803	SR	0.56	0.50	0.50	-0.30	-0.26	-0.12	0.3
D	75	L	79584	SR	0.38	0.21	0.09	-0.10	-0.24	0.21	0.3
D	76	O	108454	SR	0.36	0.28	0.28	-0.15	-0.09	-0.10	0.3
D	77	O	55711	SR	0.55	0.56	-0.14	-0.33	-0.30	0.56	0.3
D	78	O	108406	SR	0.79	0.41	-0.23	0.41	-0.26	-0.14	0.3
D	80	L	261568	SR	0.64	0.46	-0.26	0.46	-0.24	-0.17	0.4
D	81	L	108340	SR	0.63	0.59	-0.28	-0.37	0.59	-0.19	0.4
Mean					0.70	0.43	-0.04	-0.08	-0.09	-0.01	0.3
SD					0.30	0.09	0.30	0.27	0.29	0.30	0.4

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.A25 Item Statistics, Operational Items: MD HSA 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	108338	SR	0.68	0.60	-0.19	-0.24	-0.45	0.60	0.0
X	2	L	360643	SR	0.61	0.33	-0.26	0.33	-0.08	-0.14	0.1
X	3	L	360644	SR	0.64	0.36	0.36	-0.20	-0.20	-0.21	0.1
X	4	L	55630	SR	0.75	0.49	0.49	-0.18	-0.13	-0.40	0.1
X	5	O	79564	SR	0.61	0.49	-0.27	-0.23	0.49	-0.28	0.1
X	7	L	55503	SR	0.39	0.38	-0.20	-0.24	0.38	-0.05	0.2
X	8	L	370241	SR	0.59	0.48	-0.38	-0.23	-0.11	0.48	0.1
X	9	L	51044	SR	0.75	0.45	0.45	-0.26	-0.25	-0.21	0.2
X	10	O	214510	SR	0.62	0.55	-0.35	-0.20	-0.26	0.55	0.3
X	11	L	60432	CR	1.88						0.0
X	12	L	58137	SR	0.71	0.57	-0.32	-0.32	-0.23	0.57	0.1
X	13	L	324431	SR	0.43	0.22	0.22	-0.03	-0.26	-0.13	0.1
X	14	L	256359	SR	0.70	0.43	-0.21	-0.26	0.43	-0.25	0.1
X	15	L	68103	SR	0.38	0.36	0.36	-0.13	-0.27	-0.12	0.2
X	17	L	133476	SR	0.78	0.43	0.43	-0.15	-0.30	-0.22	0.2
X	18	O	271811	SR	0.65	0.40	-0.16	0.40	-0.27	-0.21	0.3
X	19	O	283274	SR	0.65	0.20	-0.09	0.20	-0.18	-0.03	0.3
X	20	O	256415	SR	0.53	0.38	0.38	-0.08	-0.21	-0.30	0.4
X	21	L	279788	SR	0.45	0.33	0.33	-0.14	-0.27	-0.09	0.6
X	22	L	55619	CR	1.85						0.0
X	24	L	283114	SR	0.55	0.42	-0.15	0.42	-0.30	-0.15	2.6
X	25	O	296495	SR	0.62	0.55	-0.22	-0.28	-0.27	0.55	1.7
X	26	O	79669	SR	0.59	0.49	0.49	-0.30	-0.23	-0.19	0.1
X	27	L	256500	SR	0.56	0.50	-0.23	-0.19	0.50	-0.29	0.1
X	28	L	256503	SR	0.45	0.32	-0.05	-0.10	-0.25	0.32	0.1
X	29	L	264004	SR	0.69	0.39	-0.23	0.39	-0.19	-0.19	0.1
X	30	L	108381	SR	0.42	0.41	-0.18	-0.23	0.41	-0.12	0.2
X	31	O	68754	SR	0.71	0.52	-0.22	-0.22	-0.34	0.52	0.1
X	33	L	79613	CR	1.54						0.0
X	34	O	296481	SR	0.63	0.40	-0.21	0.40	-0.26	-0.11	0.1
X	35	O	108436	SR	0.67	0.32	-0.26	0.32	-0.15	-0.22	0.1
X	36	O	68055	SR	0.88	0.48	-0.29	-0.24	0.48	-0.26	0.1
X	38	L	331408	SR	0.69	0.44	-0.21	0.44	-0.29	-0.16	0.1
X	39	L	331440	SR	0.80	0.50	0.50	-0.25	-0.34	-0.21	0.1
X	40	O	108473	SR	0.67	0.43	-0.17	-0.23	0.43	-0.25	0.1
X	41	L	108399	CR	1.63						0.0
X	42	O	324728	SR	0.71	0.48	-0.28	-0.25	-0.19	0.48	0.2
X	44	L	108417	SR	0.69	0.56	-0.24	0.56	-0.37	-0.25	0.3
X	45	L	135589	SR	0.71	0.52	0.52	-0.35	-0.24	-0.19	0.3
X	46	L	132968	SR	0.50	0.46	-0.22	-0.16	-0.26	0.46	0.4
X	47	O	135587	SR	0.28	0.22	-0.11	0.22	-0.05	-0.09	0.3
X	48	O	264010	SR	0.64	0.43	-0.09	-0.31	-0.26	0.43	0.2
X	50	L	108410	SR	0.56	0.33	-0.25	-0.14	0.33	-0.06	0.4
X	52	O	279737	SR	0.61	0.44	0.44	-0.25	-0.18	-0.27	0.5

Table 1.A25 Item Statistics, Operational Items: MD HSA 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	53	L	279821	SR	0.61	0.46	-0.17	-0.25	0.46	-0.23	0.6
X	54	L	339197	SR	0.67	0.49	0.49	-0.23	-0.35	-0.15	0.2
X	55	L	339054	SR	0.68	0.47	-0.28	0.47	-0.24	-0.26	0.2
X	56	O	64951	SR	0.75	0.54	-0.30	0.54	-0.31	-0.22	0.2
X	58	L	108464	CR	1.23						0.0
X	59	O	108463	SR	0.52	0.45	0.45	-0.24	-0.20	-0.18	0.1
X	60	L	133485	SR	0.74	0.52	-0.23	-0.25	-0.33	0.52	0.2
X	62	O	52253	SR	0.41	0.17	0.05	0.17	-0.03	-0.24	0.2
X	63	O	353536	SR	0.73	0.53	0.53	-0.30	-0.29	-0.23	0.2
X	64	L	261598	SR	0.83	0.51	0.51	-0.32	-0.22	-0.28	0.2
X	65	O	52261	SR	0.69	0.44	-0.26	-0.27	0.44	-0.18	0.3
X	67	O	263964	SR	0.38	0.25	-0.16	-0.25	0.07	0.25	0.3
X	68	O	297442	SR	0.75	0.47	-0.21	-0.29	-0.23	0.47	0.4
X	69	L	256369	SR	0.65	0.50	-0.21	-0.31	0.50	-0.22	0.2
X	71	L	79754	SR	0.54	0.42	-0.23	0.42	-0.16	-0.22	0.2
X	72	L	271834	SR	0.46	0.39	-0.18	-0.06	-0.27	0.39	0.3
X	73	L	64803	SR	0.56	0.50	0.50	-0.30	-0.26	-0.12	0.3
X	75	L	79584	SR	0.38	0.21	0.09	-0.10	-0.24	0.21	0.3
X	76	O	108478	SR	0.73	0.47	-0.17	0.47	-0.37	-0.18	0.3
X	77	O	55711	SR	0.55	0.56	-0.14	-0.33	-0.30	0.56	0.3
X	78	O	108406	SR	0.79	0.41	-0.23	0.41	-0.26	-0.14	0.3
X	80	L	261568	SR	0.64	0.46	-0.26	0.46	-0.24	-0.17	0.4
X	81	L	108340	SR	0.63	0.59	-0.28	-0.37	0.59	-0.19	0.4
Mean					0.69	0.43	-0.03	-0.06	-0.10	-0.02	0.3
SD					0.30	0.10	0.30	0.29	0.29	0.30	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.A26 Item Statistics, Operational Items: MD HSA 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	108338	SR	0.68	0.60	-0.19	-0.24	-0.45	0.60	0.0
Y	2	L	360643	SR	0.61	0.33	-0.26	0.33	-0.08	-0.14	0.1
Y	3	L	360644	SR	0.64	0.36	0.36	-0.20	-0.20	-0.21	0.1
Y	4	L	55630	SR	0.75	0.49	0.49	-0.18	-0.13	-0.40	0.1
Y	5	O	271814	SR	0.83	0.41	-0.20	-0.22	-0.27	0.41	0.0
Y	7	L	55503	SR	0.39	0.38	-0.20	-0.24	0.38	-0.05	0.2
Y	8	L	370241	SR	0.59	0.48	-0.38	-0.23	-0.11	0.48	0.1
Y	9	L	51044	SR	0.75	0.45	0.45	-0.26	-0.25	-0.21	0.2
Y	10	O	261569	SR	0.52	0.25	-0.10	0.25	-0.22	-0.01	0.1
Y	11	L	60432	CR	1.88						0.0
Y	12	L	58137	SR	0.71	0.57	-0.32	-0.32	-0.23	0.57	0.1
Y	13	L	324431	SR	0.43	0.22	0.22	-0.03	-0.26	-0.13	0.1
Y	14	L	256359	SR	0.70	0.43	-0.21	-0.26	0.43	-0.25	0.1
Y	15	L	68103	SR	0.38	0.36	0.36	-0.13	-0.27	-0.12	0.2
Y	17	L	133476	SR	0.78	0.43	0.43	-0.15	-0.30	-0.22	0.2
Y	18	O	137309	SR	0.71	0.46	-0.23	-0.32	-0.15	0.46	0.3
Y	19	O	296516	SR	0.50	0.33	0.33	-0.12	-0.12	-0.20	0.2
Y	20	O	348476	SR	0.81	0.44	-0.23	-0.24	0.44	-0.23	0.3
Y	21	L	279788	SR	0.45	0.33	0.33	-0.14	-0.27	-0.09	0.6
Y	22	L	55619	CR	1.85						0.0
Y	24	L	283114	SR	0.55	0.42	-0.15	0.42	-0.30	-0.15	2.6
Y	25	O	108472	SR	0.63	0.39	0.39	-0.26	-0.29	-0.07	2.7
Y	26	O	52190	SR	0.49	0.24	-0.03	0.24	-0.20	-0.10	0.1
Y	27	L	256500	SR	0.56	0.50	-0.23	-0.19	0.50	-0.29	0.1
Y	28	L	256503	SR	0.45	0.32	-0.05	-0.10	-0.25	0.32	0.1
Y	29	L	264004	SR	0.69	0.39	-0.23	0.39	-0.19	-0.19	0.1
Y	30	L	108381	SR	0.42	0.41	-0.18	-0.23	0.41	-0.12	0.2
Y	31	O	133481	SR	0.57	0.39	-0.16	-0.23	-0.16	0.39	0.2
Y	33	L	79613	CR	1.54						0.0
Y	34	O	68580	SR	0.63	0.36	-0.15	-0.23	-0.13	0.36	0.2
Y	35	O	339207	SR	0.52	0.29	-0.19	0.29	-0.07	-0.22	0.1
Y	36	O	68756	SR	0.62	0.41	-0.26	-0.17	-0.24	0.41	0.1
Y	38	L	331408	SR	0.69	0.44	-0.21	0.44	-0.29	-0.16	0.1
Y	39	L	331440	SR	0.80	0.50	0.50	-0.25	-0.34	-0.21	0.1
Y	40	O	68047	SR	0.77	0.51	0.51	-0.25	-0.27	-0.28	0.2
Y	41	L	108399	CR	1.63						0.0
Y	42	O	52263	SR	0.48	0.51	-0.20	-0.23	-0.25	0.51	0.3
Y	44	L	108417	SR	0.69	0.56	-0.24	0.56	-0.37	-0.25	0.3
Y	45	L	135589	SR	0.71	0.52	0.52	-0.35	-0.24	-0.19	0.3
Y	46	L	132968	SR	0.50	0.46	-0.22	-0.16	-0.26	0.46	0.4
Y	47	O	65201	SR	0.65	0.45	-0.20	-0.20	0.45	-0.26	0.3
Y	48	O	137321	SR	0.80	0.56	-0.36	-0.27	-0.25	0.56	0.3
Y	50	L	108410	SR	0.56	0.33	-0.25	-0.14	0.33	-0.06	0.4
Y	52	O	137280	SR	0.69	0.52	-0.25	0.52	-0.33	-0.20	0.2

Table 1.A26 Item Statistics, Operational Items: MD HSA 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	53	L	279821	SR	0.61	0.46	-0.17	-0.25	0.46	-0.23	0.6
Y	54	L	339197	SR	0.67	0.49	0.49	-0.23	-0.35	-0.15	0.2
Y	55	L	339054	SR	0.68	0.47	-0.28	0.47	-0.24	-0.26	0.2
Y	56	O	283279	SR	0.69	0.53	0.53	-0.34	-0.24	-0.20	0.2
Y	58	L	108464	CR	1.23						0.0
Y	59	O	108347	SR	0.78	0.39	-0.22	0.39	-0.18	-0.23	0.2
Y	60	L	133485	SR	0.74	0.52	-0.23	-0.25	-0.33	0.52	0.2
Y	62	O	263980	SR	0.82	0.43	-0.25	-0.21	0.43	-0.23	0.2
Y	63	O	68595	SR	0.82	0.41	-0.19	0.41	-0.26	-0.20	0.2
Y	64	L	261598	SR	0.83	0.51	0.51	-0.32	-0.22	-0.28	0.2
Y	65	O	283363	SR	0.75	0.53	-0.25	-0.33	0.53	-0.24	0.2
Y	67	O	283108	SR	0.55	0.34	-0.02	-0.20	-0.28	0.34	0.2
Y	68	O	68086	SR	0.42	0.39	-0.16	-0.14	-0.18	0.39	0.2
Y	69	L	256369	SR	0.65	0.50	-0.21	-0.31	0.50	-0.22	0.2
Y	71	L	79754	SR	0.54	0.42	-0.23	0.42	-0.16	-0.22	0.2
Y	72	L	271834	SR	0.46	0.39	-0.18	-0.06	-0.27	0.39	0.3
Y	73	L	64803	SR	0.56	0.50	0.50	-0.30	-0.26	-0.12	0.3
Y	75	L	79584	SR	0.38	0.21	0.09	-0.10	-0.24	0.21	0.3
Y	76	O	108454	SR	0.36	0.28	0.28	-0.15	-0.09	-0.10	0.3
Y	77	O	257161	SR	0.40	0.36	-0.28	-0.13	-0.06	0.36	0.2
Y	78	O	257169	SR	0.79	0.56	-0.28	-0.30	-0.31	0.56	0.2
Y	80	L	261568	SR	0.64	0.46	-0.26	0.46	-0.24	-0.17	0.4
Y	81	L	108340	SR	0.63	0.59	-0.28	-0.37	0.59	-0.19	0.4
Mean					0.70	0.43	-0.03	-0.08	-0.10	0.00	0.3
SD					0.30	0.09	0.30	0.27	0.29	0.30	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.A27 Item Statistics, Operational Items: MD HSA 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	392350	SR	0.60	0.31	0.31	-0.17	-0.16	-0.11	0.0
P	2	L	369141	SR	0.79	0.38	-0.17	-0.21	-0.24	0.38	0.1
P	3	L	395570	SR	0.14	0.11	0.11	-0.05	-0.18	0.12	0.0
P	5	L	322004	SR	0.61	0.41	-0.29	-0.17	0.41	-0.16	0.0
P	6	O	395599	SR	0.35	0.13	0.13	0.03	-0.13	-0.06	0.0
P	7	O	223233	SPR	0.63	0.36	0.36	-0.34			1.6
P	8	O	106637	SPR	0.47	0.48	0.48	-0.45			0.8
P	10	L	106628	SR	0.61	0.32	-0.20	0.32	-0.18	-0.12	0.0
P	11	L	268751	SR	0.62	0.36	0.36	-0.20	-0.20	-0.12	0.2
P	13	O	54758	SR	0.52	0.34	-0.19	0.34	-0.17	-0.10	0.0
P	15	L	366212	SR	0.36	0.38	0.38	-0.14	-0.25	-0.11	0.2
P	16	O	268726	SPR	0.13	0.36	0.36	-0.31			1.1
P	17	O	275460	SPR	0.41	0.42	0.42	-0.37			1.4
P	19	O	268692	SR	0.46	0.10	0.02	0.10	-0.10	-0.08	0.3
P	20	L	394837	SR	0.16	0.14	0.14	0.04	-0.15	-0.02	0.7
P	22	O	393694	SR	0.50	0.43	-0.24	-0.17	-0.16	0.43	0.8
P	23	L	257117	SR	0.40	0.39	-0.10	0.39	-0.20	-0.18	0.9
P	24	L	322003	SR	0.51	0.39	-0.14	0.39	-0.22	-0.15	1.0
P	25	L	394813	SR	0.56	0.39	0.39	-0.21	-0.18	-0.15	0.8
P	26	L	51462	SR	0.47	0.30	-0.17	0.30	-0.08	-0.14	0.4
P	27	O	348345	SR	0.16	0.08	0.08	0.22	-0.22	-0.17	1.1
P	29	L	338647	SPR	0.07	0.28	0.28	-0.16			3.2
P	31	O	394827	SPR	0.66	0.55	0.55	-0.48			2.7
P	32	O	369147	SR	0.63	0.38	-0.23	-0.18	0.38	-0.17	1.1
P	33	L	67532	SR	0.33	0.17	-0.05	-0.12	0.17	0.01	0.7
P	34	O	268748	SR	0.26	0.48	-0.18	-0.20	-0.08	0.48	1.1
P	36	L	50379	SR	0.26	0.07	0.09	-0.05	0.07	-0.11	0.6
P	37	L	371771	SR	0.31	0.17	-0.08	0.17	-0.11	0.04	0.8
P	38	L	393682	SR	0.23	0.16	0.16	0.08	-0.12	-0.09	0.7
P	39	L	362345	SPR	0.23	0.50	0.50	-0.41			3.6
P	41	L	392356	SR	0.33	0.27	-0.17	-0.13	-0.03	0.27	1.1
P	42	L	362282	SR	0.33	0.05	-0.10	0.05	0.05	0.03	1.1
P	43	L	211006	SR	0.14	0.21	-0.20	-0.05	0.07	0.21	0.9
P	44	L	43155	SR	0.50	0.27	-0.03	0.27	-0.11	-0.19	1.5
P	46	O	319430	SR	0.43	0.34	0.34	-0.23	-0.08	-0.11	2.2
P	47	L	394811	SR	0.54	0.31	-0.01	-0.19	-0.24	0.31	0.7
P	48	O	52342	SR	0.43	0.34	-0.08	0.34	-0.12	-0.20	1.6
P	49	L	393649	SR	0.30	0.12	-0.02	0.12	-0.02	-0.05	1.0
P	50	L	338624	SR	0.26	0.16	0.16	-0.10	-0.05	-0.01	0.8
P	52	O	366253	SR	0.20	0.35	-0.08	-0.08	-0.10	0.35	1.6
P	53	O	319440	SR	0.39	0.44	-0.09	-0.23	0.44	-0.15	1.6
P	54	O	366218	SPR	0.12	0.24	0.24	-0.12			5.2
P	56	L	371778	SR	0.29	0.25	-0.08	-0.18	-0.01	0.25	0.9

Table 1.A27 Item Statistics, Operational Items: MD HSA 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	57	O	260762	SR	0.34	0.41	-0.13	-0.13	-0.14	0.41	1.6
P	58	O	132825	SR	0.32	0.10	0.00	0.06	0.10	-0.12	1.6
P	60	L	394838	SR	0.55	0.25	-0.14	0.25	-0.06	-0.12	1.1
P	61	L	260743	SR	0.30	0.27	-0.13	-0.03	-0.10	0.27	1.2
P	62	O	64695	SR	0.48	0.35	-0.08	-0.19	0.35	-0.12	2.2
P	63	O	395591	SPR	0.18	0.35	0.35	-0.21			5.2
P	65	O	268669	SPR	0.45	0.55	0.55	-0.46			4.6
P	66	L	397905	SR	0.41	0.19	-0.06	-0.16	0.19	0.02	0.9
P	68	L	56693	SR	0.28	0.20	-0.10	-0.04	0.20	-0.05	1.1
P	69	L	338654	SR	0.28	0.23	-0.13	0.23	-0.01	-0.12	1.1
Mean					0.38	0.29	0.06	-0.06	-0.04	0.01	1.3
SD					0.17	0.13	0.24	0.23	0.18	0.20	1.2

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.A28 Item Statistics, Operational Items: MD HSA 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	392350	SR	0.60	0.31	0.31	-0.17	-0.16	-0.11	0.0
Q	2	L	369141	SR	0.79	0.38	-0.17	-0.21	-0.24	0.38	0.1
Q	3	L	395570	SR	0.14	0.11	0.11	-0.05	-0.18	0.12	0.0
Q	5	L	322004	SR	0.61	0.41	-0.29	-0.17	0.41	-0.16	0.0
Q	6	O	362270	SR	0.31	0.17	-0.06	-0.11	-0.02	0.17	0.0
Q	7	O	135117	SPR	0.64	0.35	0.35	-0.32			1.0
Q	8	O	328728	SPR	0.41	0.48	0.48	-0.42			5.0
Q	10	L	106628	SR	0.61	0.32	-0.20	0.32	-0.18	-0.12	0.0
Q	11	L	268751	SR	0.62	0.36	0.36	-0.20	-0.20	-0.12	0.2
Q	13	O	56682	SR	0.48	0.40	-0.17	-0.20	0.40	-0.16	0.1
Q	15	L	366212	SR	0.36	0.38	0.38	-0.14	-0.25	-0.11	0.2
Q	16	O	263290	SPR	0.22	0.43	0.43	-0.35			3.7
Q	17	O	319438	SPR	0.41	0.57	0.57	-0.52			2.7
Q	19	O	268675	SR	0.38	0.16	-0.12	0.16	-0.21	0.09	0.7
Q	20	L	394837	SR	0.16	0.14	0.14	0.04	-0.15	-0.02	0.7
Q	22	O	79011	SR	0.32	0.13	0.13	0.11	-0.14	-0.18	0.6
Q	23	L	257117	SR	0.40	0.39	-0.10	0.39	-0.20	-0.18	0.9
Q	24	L	322003	SR	0.51	0.39	-0.14	0.39	-0.22	-0.15	1.0
Q	25	L	394813	SR	0.56	0.39	0.39	-0.21	-0.18	-0.15	0.8
Q	26	L	51462	SR	0.47	0.30	-0.17	0.30	-0.08	-0.14	0.4
Q	27	O	54705	SR	0.64	0.39	-0.24	-0.20	0.39	-0.15	0.2
Q	29	L	338647	SPR	0.07	0.28	0.28	-0.16			3.2
Q	31	O	223244	SPR	0.53	0.41	0.41	-0.35			3.5
Q	32	O	363908	SR	0.78	0.41	-0.23	0.41	-0.22	-0.20	0.5
Q	33	L	67532	SR	0.33	0.17	-0.05	-0.12	0.17	0.01	0.7
Q	34	O	263279	SR	0.41	0.30	0.30	-0.14	-0.09	-0.14	0.4
Q	36	L	50379	SR	0.26	0.07	0.09	-0.05	0.07	-0.11	0.6
Q	37	L	371771	SR	0.31	0.17	-0.08	0.17	-0.11	0.04	0.8
Q	38	L	393682	SR	0.23	0.16	0.16	0.08	-0.12	-0.09	0.7
Q	39	L	362345	SPR	0.23	0.50	0.50	-0.41			3.6
Q	41	L	392356	SR	0.33	0.27	-0.17	-0.13	-0.03	0.27	1.1
Q	42	L	362282	SR	0.33	0.05	-0.10	0.05	0.05	0.03	1.1
Q	43	L	211006	SR	0.14	0.21	-0.20	-0.05	0.07	0.21	0.9
Q	44	L	43155	SR	0.50	0.27	-0.03	0.27	-0.11	-0.19	1.5
Q	46	O	268744	SR	0.35	0.29	0.29	-0.15	-0.04	-0.13	0.9
Q	47	L	394811	SR	0.54	0.31	-0.01	-0.19	-0.24	0.31	0.7
Q	48	O	319417	SR	0.41	0.42	-0.26	-0.12	-0.11	0.42	0.2
Q	49	L	393649	SR	0.30	0.12	-0.02	0.12	-0.02	-0.05	1.0
Q	50	L	338624	SR	0.26	0.16	0.16	-0.10	-0.05	-0.01	0.8
Q	52	O	362364	SR	0.26	0.41	-0.18	-0.16	-0.07	0.41	0.2
Q	53	O	363956	SR	0.40	0.35	-0.11	0.35	-0.17	-0.13	0.4
Q	54	O	319423	SPR	0.19	0.41	0.41	-0.30			4.2
Q	56	L	371778	SR	0.29	0.25	-0.08	-0.18	-0.01	0.25	0.9

Table 1.A28 Item Statistics, Operational Items: MD HSA 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	O	366210	SR	0.43	0.34	-0.16	-0.11	0.34	-0.14	0.6
Q	58	O	268658	SR	0.26	0.18	-0.03	-0.14	0.18	0.00	0.5
Q	60	L	394838	SR	0.55	0.25	-0.14	0.25	-0.06	-0.12	1.1
Q	61	L	260743	SR	0.30	0.27	-0.13	-0.03	-0.10	0.27	1.2
Q	62	O	52344	SR	0.38	0.24	-0.14	0.24	-0.06	-0.09	1.0
Q	63	O	338683	SPR	0.04	0.28	0.28	-0.07			5.1
Q	65	O	328746	SPR	0.64	0.44	0.44	-0.38			3.1
Q	66	L	397905	SR	0.41	0.19	-0.06	-0.16	0.19	0.02	0.9
Q	68	L	56693	SR	0.28	0.20	-0.10	-0.04	0.20	-0.05	1.1
Q	69	L	338654	SR	0.28	0.23	-0.13	0.23	-0.01	-0.12	1.1
Mean					0.39	0.29	0.05	-0.06	-0.04	-0.01	1.2
SD					0.17	0.12	0.25	0.23	0.18	0.18	1.3

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.A29 Item Statistics, Operational Items: MD HSA 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	108519	SR	0.69	0.15	-0.16	0.15	-0.04	-0.02	0.0
P	2	L	133059	SR	0.51	0.38	-0.22	0.38	-0.12	-0.16	0.2
P	3	O	133419	SR	0.44	0.24	0.24	-0.07	-0.13	-0.11	0.0
P	4	L	133445	SR	0.40	0.22	-0.18	0.05	-0.09	0.22	0.2
P	5	O	68216	SR	0.61	0.31	0.31	-0.23	-0.09	-0.13	0.5
P	6	L	349118	SR	0.44	0.37	-0.05	0.37	-0.18	-0.23	0.2
P	9	L	52593	SR	0.55	0.28	0.28	-0.15	-0.15	-0.10	0.4
P	10	L	52594	SR	0.51	0.17	-0.18	-0.11	0.17	0.09	0.2
P	11	O	323349	SR	0.45	0.22	-0.10	-0.11	-0.08	0.22	0.5
P	12	O	395769	SR	0.30	0.18	0.18	0.10	-0.12	-0.21	1.0
P	13	L	338790	SR	0.60	0.30	-0.08	0.30	-0.18	-0.19	0.0
P	14	L	338796	SR	0.63	0.26	-0.15	-0.09	-0.16	0.26	0.2
P	16	L	54995	SR	0.37	0.21	-0.16	0.21	-0.05	-0.03	0.5
P	17	L	57018	SR	0.50	0.40	-0.21	0.40	-0.24	-0.09	0.4
P	18	L	363006	SR	0.29	0.13	0.05	-0.18	0.13	0.03	0.4
P	19	L	133015	SR	0.43	0.28	-0.04	-0.16	-0.22	0.28	0.7
P	20	L	133016	SR	0.30	0.29	-0.11	-0.13	-0.08	0.29	0.5
P	23	O	398165	SR	0.12	0.11	-0.21	0.05	0.06	0.11	1.0
P	24	L	398166	SR	0.61	0.27	-0.09	-0.14	0.27	-0.16	0.4
P	27	O	392471	SR	0.37	0.24	0.24	-0.08	-0.14	-0.02	1.0
P	28	O	214535	SR	0.33	0.22	-0.08	-0.21	0.22	0.00	1.0
P	29	O	331336	SR	0.37	0.17	0.17	-0.15	0.03	-0.05	1.5
P	30	L	331338	SR	0.21	0.10	-0.02	0.07	-0.15	0.10	0.9
P	31	O	395754	SR	0.28	0.07	0.02	0.07	0.02	-0.07	1.0
P	32	L	395752	SR	0.64	0.26	0.26	-0.22	-0.03	-0.07	0.5
P	33	O	67672	SR	0.54	0.27	0.27	-0.09	-0.07	-0.18	1.0
P	34	L	108599	SR	0.51	0.38	-0.25	-0.15	0.38	-0.08	0.2
P	35	L	79418	SR	0.62	0.35	0.35	-0.14	-0.13	-0.23	0.5
P	36	O	108637	SR	0.47	0.23	-0.09	0.23	-0.06	-0.12	0.5
P	37	L	108630	SR	0.36	0.25	-0.14	-0.17	-0.02	0.25	0.2
P	38	L	271097	SR	0.42	0.29	-0.08	-0.05	-0.22	0.29	0.4
P	39	O	271143	SR	0.35	0.15	0.01	-0.11	0.15	-0.04	0.5
P	43	O	67660	SR	0.46	0.34	-0.03	-0.06	-0.30	0.34	0.5
P	45	L	214533	SR	0.38	0.38	-0.14	-0.17	-0.14	0.38	0.5
P	46	L	52683	SR	0.30	0.22	-0.09	0.22	-0.21	0.01	0.2
P	47	L	52684	SR	0.24	0.32	-0.13	-0.07	-0.11	0.32	0.2
P	48	L	94193	SR	0.29	0.11	0.00	-0.04	0.11	-0.09	0.7
P	50	O	79429	SR	0.31	0.14	0.14	-0.06	0.05	-0.11	0.5
P	51	O	52687	SR	0.33	0.27	-0.13	0.27	-0.10	-0.02	0.5
P	52	L	55066	SR	0.41	0.34	-0.07	-0.20	-0.15	0.34	0.2
P	53	L	296119	SR	0.38	0.40	0.40	-0.12	-0.20	-0.15	0.4
P	54	L	296120	SR	0.62	0.34	-0.18	0.34	-0.16	-0.16	0.2
P	55	L	279652	SR	0.46	0.33	-0.11	0.33	-0.12	-0.19	0.5
P	57	L	286698	SR	0.23	0.20	-0.06	-0.11	0.20	-0.02	0.4

Table 1.A29 Item Statistics, Operational Items: MD HSA 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	58	L	286699	SR	0.26	0.22	0.22	-0.05	-0.15	-0.06	0.2
P	59	L	369425	SR	0.44	0.31	0.31	-0.19	-0.18	-0.03	0.4
P	60	O	338761	SR	0.40	0.39	-0.03	-0.26	-0.21	0.39	0.5
P	63	O	64987	SR	0.22	0.25	-0.10	0.01	-0.12	0.25	1.0
P	64	O	57123	SR	0.65	0.16	-0.13	-0.04	0.16	-0.05	0.5
P	65	L	398053	SR	0.36	0.32	0.32	-0.12	-0.15	-0.10	0.2
P	66	L	398077	SR	0.52	0.37	0.37	-0.19	-0.15	-0.16	0.2
P	67	O	363170	SR	0.51	0.32	-0.22	-0.10	0.32	-0.06	0.5
P	68	O	68247	SR	0.64	0.23	0.23	-0.07	-0.14	-0.07	0.5
P	69	O	256517	SR	0.70	0.30	-0.11	0.30	-0.18	-0.11	0.5
P	70	L	256515	SR	0.29	0.38	-0.09	-0.17	-0.13	0.38	0.4
P	72	O	322198	SR	0.51	0.18	-0.12	0.18	-0.18	0.01	1.0
P	73	O	394751	SR	0.31	0.24	0.24	-0.15	-0.17	0.06	1.0
P	74	L	394754	SR	0.47	0.31	-0.10	-0.13	0.31	-0.15	0.5
P	76	L	323338	SR	0.39	0.26	-0.04	-0.14	0.26	-0.15	0.5
P	77	O	65063	SR	0.41	0.27	0.27	-0.05	-0.21	-0.05	0.5
P	78	L	322143	SR	0.39	0.35	-0.03	-0.18	-0.19	0.35	0.7
P	79	L	322141	SR	0.37	0.31	-0.04	0.31	-0.15	-0.17	0.7
P	80	O	392661	SR	0.40	0.31	0.31	-0.21	-0.15	0.03	0.5
P	81	L	64992	SR	0.25	0.26	0.05	-0.22	0.26	-0.12	0.4
P	85	L	373090	SR	0.26	0.17	-0.04	-0.10	0.17	-0.02	0.7
P	86	L	373088	SR	0.20	0.28	-0.03	-0.10	-0.12	0.28	0.5
P	87	L	395761	SR	0.41	0.28	-0.13	-0.12	0.28	-0.08	0.5
P	88	O	395893	SR	0.48	0.37	-0.14	-0.15	-0.19	0.37	1.0
P	89	O	57113	SR	0.44	0.15	0.15	-0.16	-0.04	0.02	0.5
P	90	O	338782	SR	0.58	0.26	0.26	-0.08	-0.13	-0.15	0.5
P	92	O	392436	SR	0.34	0.15	0.11	0.15	-0.12	-0.14	1.5
P	95	L	263129	SR	0.43	0.28	-0.11	-0.12	-0.10	0.28	0.5
P	96	L	263130	SR	0.26	0.12	0.03	0.12	-0.04	-0.10	0.4
P	97	L	349142	SR	0.64	0.39	-0.25	-0.21	0.39	-0.11	0.4
P	98	L	394903	SR	0.66	0.39	-0.13	0.39	-0.26	-0.15	0.5
P	99	L	223404	SR	0.75	0.29	-0.16	-0.16	0.29	-0.12	0.7
Mean					0.43	0.26	0.00	-0.03	-0.05	0.01	0.5
SD					0.14	0.08	0.18	0.18	0.17	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.A30 Item Statistics, Operational Items: MD HSA 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	363011	SR	0.67	0.28	-0.27	0.28	-0.11	0.03	0.0
Q	2	L	133059	SR	0.51	0.38	-0.22	0.38	-0.12	-0.16	0.2
Q	3	O	133444	SR	0.61	0.37	0.37	-0.20	-0.15	-0.19	0.3
Q	4	L	133445	SR	0.40	0.22	-0.18	0.05	-0.09	0.22	0.2
Q	5	O	133420	SR	0.53	0.48	-0.33	-0.14	-0.15	0.48	0.6
Q	6	L	349118	SR	0.44	0.37	-0.05	0.37	-0.18	-0.23	0.2
Q	9	L	52593	SR	0.55	0.28	0.28	-0.15	-0.15	-0.10	0.4
Q	10	L	52594	SR	0.51	0.17	-0.18	-0.11	0.17	0.09	0.2
Q	11	O	133055	SR	0.58	0.26	0.26	-0.15	-0.14	-0.10	0.0
Q	12	O	223413	SR	0.42	0.38	-0.16	0.38	-0.29	-0.01	0.0
Q	13	L	338790	SR	0.60	0.30	-0.08	0.30	-0.18	-0.19	0.0
Q	14	L	338796	SR	0.63	0.26	-0.15	-0.09	-0.16	0.26	0.2
Q	16	L	54995	SR	0.37	0.21	-0.16	0.21	-0.05	-0.03	0.5
Q	17	L	57018	SR	0.50	0.40	-0.21	0.40	-0.24	-0.09	0.4
Q	18	L	363006	SR	0.29	0.13	0.05	-0.18	0.13	0.03	0.4
Q	19	L	133015	SR	0.43	0.28	-0.04	-0.16	-0.22	0.28	0.7
Q	20	L	133016	SR	0.30	0.29	-0.11	-0.13	-0.08	0.29	0.5
Q	23	O	398163	SR	0.41	0.38	-0.15	-0.18	-0.14	0.38	0.3
Q	24	L	398166	SR	0.61	0.27	-0.09	-0.14	0.27	-0.16	0.4
Q	27	O	108554	SR	0.20	0.31	0.31	0.02	-0.17	-0.11	0.6
Q	28	O	68285	SR	0.52	0.32	-0.12	0.32	-0.19	-0.12	0.3
Q	29	O	331337	SR	0.49	0.38	-0.16	-0.25	0.38	-0.12	0.6
Q	30	L	331338	SR	0.21	0.10	-0.02	0.07	-0.15	0.10	0.9
Q	31	O	395755	SR	0.51	0.23	-0.11	0.23	-0.14	-0.05	0.6
Q	32	L	395752	SR	0.64	0.26	0.26	-0.22	-0.03	-0.07	0.5
Q	33	O	392444	SR	0.56	0.33	-0.15	-0.20	0.33	-0.15	0.3
Q	34	L	108599	SR	0.51	0.38	-0.25	-0.15	0.38	-0.08	0.2
Q	35	L	79418	SR	0.62	0.35	0.35	-0.14	-0.13	-0.23	0.5
Q	36	O	108634	SR	0.65	0.30	0.30	-0.10	-0.11	-0.23	0.0
Q	37	L	108630	SR	0.36	0.25	-0.14	-0.17	-0.02	0.25	0.2
Q	38	L	271097	SR	0.42	0.29	-0.08	-0.05	-0.22	0.29	0.4
Q	39	O	271098	SR	0.31	0.40	-0.21	-0.13	0.40	-0.12	0.0
Q	43	O	331351	SR	0.75	0.30	-0.13	0.30	-0.23	-0.12	0.0
Q	45	L	214533	SR	0.38	0.38	-0.14	-0.17	-0.14	0.38	0.5
Q	46	L	52683	SR	0.30	0.22	-0.09	0.22	-0.21	0.01	0.2
Q	47	L	52684	SR	0.24	0.32	-0.13	-0.07	-0.11	0.32	0.2
Q	48	L	94193	SR	0.29	0.11	0.00	-0.04	0.11	-0.09	0.7
Q	50	O	297095	SR	0.35	0.15	-0.08	0.15	-0.13	0.03	0.0
Q	51	O	68236	SR	0.40	0.24	-0.01	-0.16	-0.15	0.24	0.0
Q	52	L	55066	SR	0.41	0.34	-0.07	-0.20	-0.15	0.34	0.2
Q	53	L	296119	SR	0.38	0.40	0.40	-0.12	-0.20	-0.15	0.4
Q	54	L	296120	SR	0.62	0.34	-0.18	0.34	-0.16	-0.16	0.2
Q	55	L	279652	SR	0.46	0.33	-0.11	0.33	-0.12	-0.19	0.5
Q	57	L	286698	SR	0.23	0.20	-0.06	-0.11	0.20	-0.02	0.4

Table 1.A30 Item Statistics, Operational Items: MD HSA 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	58	L	286699	SR	0.26	0.22	0.22	-0.05	-0.15	-0.06	0.2
Q	59	L	369425	SR	0.44	0.31	0.31	-0.19	-0.18	-0.03	0.4
Q	60	O	338733	SR	0.53	0.33	-0.17	-0.15	0.33	-0.13	0.0
Q	63	O	392489	SR	0.45	0.35	-0.17	-0.13	-0.15	0.35	0.3
Q	64	O	369420	SR	0.53	0.39	-0.19	-0.18	0.39	-0.19	0.0
Q	65	L	398053	SR	0.36	0.32	0.32	-0.12	-0.15	-0.10	0.2
Q	66	L	398077	SR	0.52	0.37	0.37	-0.19	-0.15	-0.16	0.2
Q	67	O	65082	SR	0.75	0.41	0.41	-0.27	-0.17	-0.19	0.3
Q	68	O	331365	SR	0.40	0.29	-0.14	0.29	-0.12	-0.11	0.6
Q	69	O	256549	SR	0.41	0.30	0.30	-0.18	0.00	-0.18	0.3
Q	70	L	256515	SR	0.29	0.38	-0.09	-0.17	-0.13	0.38	0.4
Q	72	O	142012	SR	0.49	0.29	-0.20	0.29	-0.23	0.04	0.6
Q	73	O	394750	SR	0.43	0.33	0.33	-0.16	-0.18	-0.09	0.3
Q	74	L	394754	SR	0.47	0.31	-0.10	-0.13	0.31	-0.15	0.5
Q	76	L	323338	SR	0.39	0.26	-0.04	-0.14	0.26	-0.15	0.5
Q	77	O	271155	SR	0.68	0.27	0.27	-0.20	-0.07	-0.14	0.3
Q	78	L	322143	SR	0.39	0.35	-0.03	-0.18	-0.19	0.35	0.7
Q	79	L	322141	SR	0.37	0.31	-0.04	0.31	-0.15	-0.17	0.7
Q	80	O	65048	SR	0.38	0.32	0.32	-0.11	-0.10	-0.20	0.6
Q	81	L	64992	SR	0.25	0.26	0.05	-0.22	0.26	-0.12	0.4
Q	85	L	373090	SR	0.26	0.17	-0.04	-0.10	0.17	-0.02	0.7
Q	86	L	373088	SR	0.20	0.28	-0.03	-0.10	-0.12	0.28	0.5
Q	87	L	395761	SR	0.41	0.28	-0.13	-0.12	0.28	-0.08	0.5
Q	88	O	395757	SR	0.41	0.23	-0.08	-0.08	0.23	-0.11	0.3
Q	89	O	55031	SR	0.41	0.43	-0.14	-0.26	-0.14	0.43	0.3
Q	90	O	369417	SR	0.61	0.40	0.40	-0.19	-0.18	-0.21	0.3
Q	92	O	288369	SR	0.39	0.30	-0.19	0.30	-0.15	-0.02	0.3
Q	95	L	263129	SR	0.43	0.28	-0.11	-0.12	-0.10	0.28	0.5
Q	96	L	263130	SR	0.26	0.12	0.03	0.12	-0.04	-0.10	0.4
Q	97	L	349142	SR	0.64	0.39	-0.25	-0.21	0.39	-0.11	0.4
Q	98	L	394903	SR	0.66	0.39	-0.13	0.39	-0.26	-0.15	0.5
Q	99	L	223404	SR	0.75	0.29	-0.16	-0.16	0.29	-0.12	0.7
Mean					0.45	0.30	-0.01	-0.03	-0.04	0.00	0.4
SD					0.14	0.08	0.20	0.21	0.20	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.A31 Item Statistics, Operational Items: MD HSA 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	L	130066	SR	0.64	0.19	-0.07	0.19	-0.05	-0.14	0.1
P	2	L	130067	SR	0.30	0.27	-0.13	-0.16	0.27	-0.04	0.1
P	3	L	130069	SR	0.33	0.18	-0.08	-0.07	-0.04	0.18	0.2
P	4	L	130074	SR	0.46	0.24	-0.12	0.24	-0.16	-0.05	0.1
P	5	L	130199	SR	0.71	0.34	0.34	-0.24	-0.20	-0.08	0.2
P	6	L	256286	SR	0.59	0.19	-0.09	-0.11	0.19	-0.08	0.1
P	7	L	321008	SR	0.36	0.17	0.17	-0.15	0.04	-0.16	0.3
P	8	L	320968	SR	0.63	0.25	-0.18	0.25	-0.08	-0.11	0.2
P	9	L	321007	SR	0.15	0.03	0.09	0.03	-0.01	-0.15	0.3
P	10	L	321005	SR	0.62	0.30	0.30	-0.23	-0.11	-0.14	0.1
P	11	L	320970	SR	0.44	0.29	-0.13	0.29	-0.11	-0.14	0.2
P	12	L	321006	SR	0.63	0.35	-0.19	-0.19	0.35	-0.13	0.2
P	18	O	96027	SR	0.39	0.27	-0.15	-0.18	-0.06	0.27	0.2
P	19	O	96028	SR	0.50	0.40	0.40	-0.23	-0.16	-0.13	0.2
P	20	O	96029	SR	0.36	0.19	0.19	-0.11	-0.03	-0.09	0.7
P	29	O	251143	SR	0.56	0.42	0.42	-0.28	-0.22	-0.12	0.9
P	30	O	256416	SR	0.64	0.37	-0.18	0.37	-0.19	-0.18	1.2
P	32	O	285622	SR	0.52	0.32	-0.13	-0.15	-0.14	0.32	1.6
P	33	O	130102	SR	0.45	0.38	0.38	-0.20	-0.12	-0.14	0.9
P	34	O	130103	SR	0.49	0.48	-0.22	-0.19	0.48	-0.21	0.5
P	35	O	130104	SR	0.51	0.52	-0.19	-0.28	-0.21	0.52	0.5
P	36	O	130105	SR	0.68	0.27	-0.18	-0.01	0.27	-0.16	0.5
P	40	O	130213	SR	0.61	0.43	0.43	-0.14	-0.30	-0.19	0.5
P	41	O	349416	SR	0.57	0.42	-0.19	-0.19	0.42	-0.17	0.5
P	43	L	96104	SR	0.68	0.39	-0.22	-0.17	0.39	-0.21	0.3
P	44	O	349700	SR	0.32	0.10	-0.09	0.00	0.10	0.02	0.5
P	45	O	349276	SR	0.57	0.46	0.46	-0.29	-0.19	-0.16	1.2
P	46	O	349278	SR	0.59	0.33	-0.07	-0.18	-0.20	0.33	0.7
P	47	O	349277	SR	0.29	0.22	0.02	0.01	-0.26	0.22	1.2
P	48	O	349275	SR	0.62	0.44	0.44	-0.17	-0.23	-0.22	0.7
P	49	O	349280	SR	0.49	0.36	0.36	-0.13	-0.17	-0.16	0.9
P	50	O	349279	SR	0.34	0.28	-0.15	0.28	-0.10	-0.03	0.5
P	51	L	320978	SR	0.39	0.18	-0.10	0.18	-0.05	-0.06	0.4
P	52	L	320979	SR	0.43	0.36	-0.26	-0.16	-0.08	0.36	0.4
P	53	L	320981	SR	0.44	0.36	-0.09	-0.17	0.36	-0.18	0.5
P	54	L	320983	SR	0.47	0.30	-0.16	-0.11	0.30	-0.13	0.4
P	55	L	320980	SR	0.25	0.21	-0.16	-0.15	0.07	0.21	0.5
P	56	L	130977	SR	0.42	0.39	0.39	-0.11	-0.22	-0.15	0.6
P	57	L	130978	SR	0.58	0.39	-0.26	0.39	-0.22	-0.03	0.8
P	58	L	130979	SR	0.49	0.35	0.35	-0.05	-0.19	-0.21	0.6
P	59	L	130982	SR	0.61	0.47	-0.28	0.47	-0.25	-0.16	0.6
P	60	L	130984	SR	0.54	0.52	-0.22	-0.27	-0.20	0.52	0.8
P	61	L	130985	SR	0.59	0.46	-0.13	-0.25	0.46	-0.25	0.9
P	62	L	130965	SR	0.52	0.29	-0.16	0.29	-0.21	-0.01	0.8

Table 1.A31 Item Statistics, Operational Items: MD HSA 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	63	L	130980	SR	0.37	0.26	-0.15	-0.13	0.26	-0.01	0.7
P	64	L	130966	SR	0.34	0.27	0.06	-0.20	-0.18	0.27	0.7
P	65	L	130967	SR	0.37	0.22	-0.01	0.22	-0.13	-0.10	1.1
P	66	O	108711	SR	0.53	0.33	-0.17	-0.19	0.33	-0.06	0.5
P	67	O	108710	SR	0.52	0.35	0.35	-0.02	-0.20	-0.27	0.7
P	85	L	364058	SR	0.35	0.25	-0.15	0.25	0.00	-0.17	1.1
P	86	L	364066	SR	0.62	0.45	-0.21	0.45	-0.20	-0.24	0.4
P	87	L	364062	SR	0.36	0.16	0.07	-0.14	0.16	-0.13	0.4
P	88	L	364064	SR	0.43	0.30	-0.18	0.30	-0.10	-0.09	0.6
P	89	L	364063	SR	0.40	0.22	-0.18	0.22	-0.14	0.03	0.5
P	90	L	364070	SR	0.47	0.32	0.32	-0.14	-0.15	-0.12	0.6
P	91	L	364071	SR	0.29	0.14	0.14	-0.13	0.10	-0.14	0.8
P	92	L	364069	SR	0.19	0.16	0.16	-0.11	-0.15	0.11	0.4
P	96	O	285597	SR	0.45	0.29	0.29	-0.09	-0.13	-0.12	0.5
P	97	O	285596	SR	0.44	0.32	-0.01	-0.19	-0.17	0.32	0.7
P	98	O	285598	SR	0.45	0.22	0.22	-0.10	-0.10	-0.06	0.7
Mean					0.47	0.31	0.01	-0.04	-0.03	-0.04	0.6
SD					0.13	0.11	0.23	0.21	0.21	0.19	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 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	L	130066	SR	0.64	0.19	-0.07	0.19	-0.05	-0.14	0.1
Q	2	L	130067	SR	0.30	0.27	-0.13	-0.16	0.27	-0.04	0.1
Q	3	L	130069	SR	0.33	0.18	-0.08	-0.07	-0.04	0.18	0.2
Q	4	L	130074	SR	0.46	0.24	-0.12	0.24	-0.16	-0.05	0.1
Q	5	L	130199	SR	0.71	0.34	0.34	-0.24	-0.20	-0.08	0.2
Q	6	L	256286	SR	0.59	0.19	-0.09	-0.11	0.19	-0.08	0.1
Q	7	L	321008	SR	0.36	0.17	0.17	-0.15	0.04	-0.16	0.3
Q	8	L	320968	SR	0.63	0.25	-0.18	0.25	-0.08	-0.11	0.2
Q	9	L	321007	SR	0.15	0.03	0.09	0.03	-0.01	-0.15	0.3
Q	10	L	321005	SR	0.62	0.30	0.30	-0.23	-0.11	-0.14	0.1
Q	11	L	320970	SR	0.44	0.29	-0.13	0.29	-0.11	-0.14	0.2
Q	12	L	321006	SR	0.63	0.35	-0.19	-0.19	0.35	-0.13	0.2
Q	18	O	130109	SR	0.48	0.37	0.37	-0.17	-0.13	-0.19	0.2
Q	19	O	130110	SR	0.37	0.35	0.35	-0.19	-0.12	-0.12	0.2
Q	20	O	130111	SR	0.37	0.21	-0.13	0.02	-0.19	0.21	0.2
Q	29	O	251158	SR	0.58	0.30	-0.20	0.30	-0.11	-0.14	1.9
Q	30	O	373876	SR	0.55	0.39	-0.22	-0.12	-0.20	0.39	1.9
Q	32	O	373881	SR	0.48	0.21	-0.07	-0.10	0.21	-0.10	2.1
Q	33	O	373686	SR	0.63	0.30	-0.09	-0.19	0.30	-0.16	0.2
Q	34	O	373689	SR	0.15	0.12	0.12	-0.09	0.09	-0.15	0.2
Q	35	O	373690	SR	0.28	0.32	-0.07	-0.16	0.32	-0.12	0.2
Q	36	O	373688	SR	0.26	0.06	-0.11	0.06	-0.02	0.05	0.2
Q	40	O	96103	SR	0.45	0.41	-0.27	-0.10	-0.16	0.41	0.2
Q	41	L	96104	SR	0.68	0.39	-0.22	-0.17	0.39	-0.21	0.3
Q	43	O	209822	SR	0.59	0.37	-0.19	0.37	-0.21	-0.14	0.2
Q	44	O	349384	SR	0.30	0.17	-0.09	0.17	0.02	-0.12	0.2
Q	45	O	349380	SR	0.56	0.27	-0.25	-0.08	0.27	-0.14	0.2
Q	46	O	349382	SR	0.54	0.28	0.28	-0.21	-0.20	0.00	0.2
Q	47	O	349383	SR	0.65	0.35	-0.16	-0.18	-0.17	0.35	0.8
Q	48	O	349391	SR	0.59	0.40	-0.16	-0.19	0.40	-0.22	0.2
Q	49	O	349390	SR	0.51	0.36	-0.08	0.36	-0.29	-0.12	0.2
Q	50	O	349388	SR	0.38	0.28	-0.09	0.28	-0.17	-0.07	0.6
Q	51	L	320978	SR	0.39	0.18	-0.10	0.18	-0.05	-0.06	0.4
Q	52	L	320979	SR	0.43	0.36	-0.26	-0.16	-0.08	0.36	0.4
Q	53	L	320981	SR	0.44	0.36	-0.09	-0.17	0.36	-0.18	0.5
Q	54	L	320983	SR	0.47	0.30	-0.16	-0.11	0.30	-0.13	0.4
Q	55	L	320980	SR	0.25	0.21	-0.16	-0.15	0.07	0.21	0.5
Q	56	L	130977	SR	0.42	0.39	0.39	-0.11	-0.22	-0.15	0.6
Q	57	L	130978	SR	0.58	0.39	-0.26	0.39	-0.22	-0.03	0.8
Q	58	L	130979	SR	0.49	0.35	0.35	-0.05	-0.19	-0.21	0.6
Q	59	L	130982	SR	0.61	0.47	-0.28	0.47	-0.25	-0.16	0.6
Q	60	L	130984	SR	0.54	0.52	-0.22	-0.27	-0.20	0.52	0.8
Q	61	L	130985	SR	0.59	0.46	-0.13	-0.25	0.46	-0.25	0.9
Q	62	L	130965	SR	0.52	0.29	-0.16	0.29	-0.21	-0.01	0.8

Table 1.A32 Item Statistics, Operational Items: MD HSA 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	63	L	130980	SR	0.37	0.26	-0.15	-0.13	0.26	-0.01	0.7
Q	64	L	130966	SR	0.34	0.27	0.06	-0.20	-0.18	0.27	0.7
Q	65	L	130967	SR	0.37	0.22	-0.01	0.22	-0.13	-0.10	1.1
Q	66	O	109092	SR	0.58	0.43	-0.22	-0.22	-0.17	0.43	0.4
Q	67	O	109151	SR	0.59	0.26	-0.18	0.26	-0.11	-0.16	0.2
Q	85	L	364058	SR	0.35	0.25	-0.15	0.25	0.00	-0.17	1.1
Q	86	L	364066	SR	0.62	0.45	-0.21	0.45	-0.20	-0.24	0.4
Q	87	L	364062	SR	0.36	0.16	0.07	-0.14	0.16	-0.13	0.4
Q	88	L	364064	SR	0.43	0.30	-0.18	0.30	-0.10	-0.09	0.6
Q	89	L	364063	SR	0.40	0.22	-0.18	0.22	-0.14	0.03	0.5
Q	90	L	364070	SR	0.47	0.32	0.32	-0.14	-0.15	-0.12	0.6
Q	91	L	364071	SR	0.29	0.14	0.14	-0.13	0.10	-0.14	0.8
Q	92	L	364069	SR	0.19	0.16	0.16	-0.11	-0.15	0.11	0.4
Q	96	O	285589	SR	0.47	0.38	-0.17	0.38	-0.15	-0.18	0.4
Q	97	O	285590	SR	0.28	0.19	0.19	-0.05	-0.08	-0.06	0.6
Q	98	O	285591	SR	0.64	0.46	-0.17	-0.29	0.46	-0.21	0.4
Mean					0.46	0.29	-0.05	0.00	-0.01	-0.04	0.5
SD					0.14	0.10	0.19	0.22	0.21	0.19	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.A33 Item Statistics, Operational Items: MD HSA Government–Summer Primary 1

Form	Pos_No	Anchor Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
P	1	L	279839	SR	0.55	0.21	0.21	-0.12	-0.04	-0.13	0.4
P	2	O	51206	SR	0.5	0.53	0.53	-0.49	-0.02	-0.11	0.0
P	3	L	108433	SR	0.32	0.26	0.03	0.26	-0.37	0.04	0.0
P	4	O	132969	SR	0.23	0.36	-0.25	0.36	-0.01	-0.08	0.0
P	5	L	279802	SR	0.3	0.28	0.28	-0.19	-0.16	0.06	0.0
P	6	O	279832	SR	0.5	0.35	0.35	-0.20	-0.21	-0.06	0.0
P	7	L	68618	SR	0.66	0.39	-0.18	-0.14	-0.26	0.39	0.0
P	8	O	108447	SR	0.27	0.36	0.36	-0.19	-0.21	-0.02	0.0
P	9	L	353530	SR	0.53	0.30	0.30	-0.17	-0.08	-0.17	0.0
P	10	L	324399	SR	0.62	0.45	-0.29	-0.20	-0.18	0.45	0.0
P	12	L	135594	CR	1.23						0.0
P	13	O	51245	SR	0.37	0.35	-0.03	0.35	-0.21	-0.18	0.0
P	14	O	348514	SR	0.56	0.44	-0.25	-0.27	0.44	-0.13	0.0
P	15	L	296494	SR	0.46	0.23	-0.08	-0.20	-0.02	0.23	0.0
P	16	L	296493	SR	0.54	0.21	-0.08	0.21	-0.17	-0.07	0.0
P	17	L	133469	SR	0.3	0.36	-0.18	0.36	-0.29	0.07	0.0
P	18	L	324701	SR	0.47	0.26	-0.11	-0.09	-0.17	0.26	0.0
P	20	O	223265	SR	0.65	0.23	0.23	-0.18	0.00	-0.12	1.9
P	21	L	271833	SR	0.3	0.23	-0.23	0.23	0.03	0.00	1.7
P	22	L	137292	CR	0.97						0.0
P	24	O	55531	SR	0.23	0.17	0.17	-0.08	-0.23	0.17	1.9
P	25	L	324406	SR	0.75	0.34	0.34	-0.20	-0.24	-0.10	0.9
P	26	O	51168	SR	0.4	0.53	-0.18	-0.32	-0.14	0.53	0.0
P	27	L	283103	SR	0.77	0.44	-0.18	-0.27	0.44	-0.25	0.0
P	28	O	331431	SR	0.25	0.12	-0.10	-0.23	0.12	0.21	0.0
P	29	L	108437	SR	0.42	0.42	0.42	-0.21	-0.10	-0.26	0.0
P	30	L	283083	SR	0.6	0.36	-0.21	-0.14	0.36	-0.18	0.0
P	31	L	52254	CR	0.81						0.0
P	32	L	279811	SR	0.32	0.28	-0.15	-0.05	0.28	-0.13	0.9
P	33	O	68739	SR	0.46	0.34	-0.19	0.00	-0.19	0.34	1.9
P	34	L	364295	SR	0.38	0.43	-0.16	-0.15	-0.22	0.43	0.4
P	35	O	68753	SR	0.62	0.58	0.58	-0.34	-0.13	-0.30	1.9
P	37	O	283115	SR	0.44	0.44	-0.33	-0.22	0.44	0.01	1.9
P	38	O	257016	SR	0.37	0.28	0.28	-0.28	-0.20	0.18	1.9
P	39	L	51740	CR	1.14						0.0
P	40	L	279745	SR	0.55	0.32	-0.13	0.32	-0.29	0.02	0.4
P	41	O	256411	SR	0.37	0.01	0.16	-0.16	0.01	-0.03	0.0
P	43	L	331398	SR	0.58	0.36	-0.24	0.36	-0.23	-0.01	0.4
P	44	L	331397	SR	0.33	0.46	0.46	-0.07	-0.31	-0.12	0.4
P	45	L	381710	SR	0.23	0.21	-0.16	0.04	-0.14	0.21	0.4
P	47	O	282265	SR	0.69	0.36	-0.15	0.36	-0.15	-0.24	0.0
P	48	L	52202	SR	0.47	0.51	-0.23	-0.26	0.51	-0.16	0.4
P	50	O	370282	SR	0.4	0.56	-0.32	-0.26	0.56	-0.15	0.0
P	51	O	51183	SR	0.44	0.18	0.18	0.05	-0.07	-0.21	0.0

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

Form	Pos_No	Anchor Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
P	53	L	261601	SR	0.53	0.35	-0.18	-0.15	0.35	-0.14	0.9
P	54	L	64814	SR	0.69	0.42	0.42	-0.25	-0.31	-0.05	0.4
P	55	L	363239	SR	0.44	0.40	-0.16	-0.18	-0.17	0.40	0.4
P	56	L	51244	SR	0.68	0.29	-0.12	-0.19	0.29	-0.15	0.9
P	58	L	296472	SR	0.34	0.23	0.06	-0.16	0.23	-0.17	0.4
P	59	L	296471	SR	0.41	0.36	0.02	0.36	-0.29	-0.23	0.4
P	60	O	257018	SR	0.46	0.55	-0.30	-0.23	0.55	-0.23	0.0
P	61	O	321084	SR	0.25	0.06	-0.20	-0.14	0.24	0.06	0.0
P	62	O	79579	SR	0.35	0.41	-0.20	-0.18	0.41	-0.10	1.9
P	63	L	64789	CR	0.7						0.0
P	64	O	283117	SR	0.31	0.22	-0.31	0.03	-0.01	0.22	0.0
P	65	L	296500	SR	0.46	0.39	0.39	-0.29	-0.25	-0.01	0.9
P	67	L	271798	SR	0.42	0.26	-0.15	-0.08	0.26	-0.11	0.9
P	68	O	55591	SR	0.62	0.56	-0.26	-0.25	-0.30	0.56	0.0
P	69	O	348537	SR	0.38	0.40	-0.19	-0.27	-0.01	0.40	0.0
P	71	L	282261	SR	0.42	0.44	-0.18	-0.22	-0.15	0.44	0.4
P	72	O	51029	SR	0.54	0.36	-0.04	-0.15	-0.29	0.36	0.0
P	74	L	296499	SR	0.54	0.28	0.28	-0.20	-0.19	0.01	0.4
P	75	L	279842	SR	0.34	0.31	0.04	-0.23	-0.14	0.31	0.9
P	77	L	256996	SR	0.41	0.34	0.34	-0.24	-0.15	-0.02	0.9
P	78	O	279843	SR	0.35	0.51	0.51	-0.33	-0.22	-0.03	0.0
P	80	L	51752	SR	0.33	0.42	-0.20	-0.14	-0.13	0.42	0.9
P	81	L	261592	SR	0.45	0.22	-0.17	0.22	-0.01	-0.11	1.3
Mean					0.49	0.34	0.00	-0.10	-0.03	0.04	0.5
SD					0.20	0.12	0.26	0.21	0.25	0.23	0.6

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

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

Form	Pos_No	Anchor Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Q	1	L	279839	SR	0.55	0.21	0.21	-0.12	-0.04	-0.13	0.4
Q	2	O	283062	SR	0.57	0.47	-0.16	-0.32	-0.17	0.47	0.0
Q	3	L	108433	SR	0.32	0.26	0.03	0.26	-0.37	0.04	0.0
Q	4	O	108401	SR	0.41	0.21	-0.07	0.21	-0.08	-0.11	0.0
Q	5	L	279802	SR	0.30	0.28	0.28	-0.19	-0.16	0.06	0.0
Q	6	O	283116	SR	0.41	0.29	-0.22	0.29	-0.17	-0.04	0.0
Q	7	L	68618	SR	0.66	0.39	-0.18	-0.14	-0.26	0.39	0.0
Q	8	O	79698	SR	0.47	0.25	-0.19	-0.17	0.25	0.02	0.0
Q	9	L	353530	SR	0.53	0.30	0.30	-0.17	-0.08	-0.17	0.0
Q	10	L	324399	SR	0.62	0.45	-0.29	-0.20	-0.18	0.45	0.0
Q	12	L	135594	CR	1.23						0.0
Q	13	O	353531	SR	0.51	0.42	0.42	-0.25	-0.24	-0.07	0.0
Q	14	O	283277	SR	0.17	0.04	-0.24	0.04	-0.17	0.32	0.0
Q	15	L	296494	SR	0.46	0.23	-0.08	-0.20	-0.02	0.23	0.0
Q	16	L	296493	SR	0.54	0.21	-0.08	0.21	-0.17	-0.07	0.0
Q	17	L	133469	SR	0.30	0.36	-0.18	0.36	-0.29	0.07	0.0
Q	18	L	324701	SR	0.47	0.26	-0.11	-0.09	-0.17	0.26	0.0
Q	20	O	108398	SR	0.40	0.50	0.50	-0.10	-0.26	-0.25	1.1
Q	21	L	271833	SR	0.30	0.23	-0.23	0.23	0.03	0.00	1.8
Q	22	L	137292	CR	0.97						0.0
Q	24	O	51798	SR	0.50	0.41	-0.21	0.41	-0.20	-0.23	0.0
Q	25	L	324406	SR	0.75	0.34	0.34	-0.20	-0.24	-0.10	0.9
Q	26	O	256412	SR	0.44	0.44	-0.07	-0.26	-0.23	0.44	0.6
Q	27	L	283103	SR	0.77	0.44	-0.18	-0.27	0.44	-0.25	0.0
Q	28	O	331411	SR	0.42	0.46	-0.21	0.46	-0.14	-0.23	0.0
Q	29	L	108437	SR	0.42	0.42	0.42	-0.21	-0.10	-0.26	0.0
Q	30	L	283083	SR	0.60	0.36	-0.21	-0.14	0.36	-0.18	0.0
Q	31	L	52254	CR	0.81						0.0
Q	32	L	279811	SR	0.32	0.28	-0.15	-0.05	0.28	-0.13	0.9
Q	33	O	108456	SR	0.46	0.35	-0.04	0.35	-0.18	-0.22	0.0
Q	34	L	364295	SR	0.38	0.43	-0.16	-0.15	-0.22	0.43	0.4
Q	35	O	283082	SR	0.45	0.33	0.33	-0.12	-0.16	-0.15	0.0
Q	37	O	68709	SR	0.52	0.41	-0.20	-0.18	0.41	-0.18	0.0
Q	38	O	214577	SR	0.72	0.20	0.20	-0.10	-0.11	-0.12	0.0
Q	39	L	51740	CR	1.14						0.0
Q	40	L	279745	SR	0.55	0.32	-0.13	0.32	-0.29	0.02	0.4
Q	41	O	133480	SR	0.50	0.35	-0.18	0.35	-0.10	-0.17	0.6
Q	43	L	331398	SR	0.58	0.36	-0.24	0.36	-0.23	-0.01	0.4
Q	44	L	331397	SR	0.33	0.46	0.46	-0.07	-0.31	-0.12	0.4
Q	45	L	381710	SR	0.23	0.21	-0.16	0.04	-0.14	0.21	0.4
Q	47	O	339021	SR	0.44	0.27	-0.16	-0.21	0.27	0.05	1.1
Q	48	L	52202	SR	0.47	0.51	-0.23	-0.26	0.51	-0.16	0.4
Q	50	O	339045	SR	0.39	0.29	-0.23	-0.04	0.29	-0.05	0.6
Q	51	O	263993	SR	0.40	0.35	-0.21	-0.19	0.35	0.04	0.6

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

Form	Pos_No	Anchor Status	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
Q	53	L	261601	SR	0.53	0.35	-0.18	-0.15	0.35	-0.14	0.9
Q	54	L	64814	SR	0.69	0.42	0.42	-0.25	-0.31	-0.05	0.4
Q	55	L	363239	SR	0.44	0.40	-0.16	-0.18	-0.17	0.40	0.4
Q	56	L	51244	SR	0.68	0.29	-0.12	-0.19	0.29	-0.15	0.9
Q	58	L	296472	SR	0.34	0.23	0.06	-0.16	0.23	-0.17	0.4
Q	59	L	296471	SR	0.41	0.36	0.02	0.36	-0.29	-0.23	0.4
Q	60	O	51020	SR	0.53	0.31	-0.12	-0.18	0.31	-0.14	0.6
Q	61	O	65192	SR	0.36	0.19	-0.16	0.01	-0.06	0.19	0.6
Q	62	O	64821	SR	0.65	0.48	0.48	-0.21	-0.27	-0.24	0.6
Q	63	L	64789	CR	0.70						0.0
Q	64	O	387362	SR	0.44	0.55	-0.14	-0.31	-0.25	0.55	0.6
Q	65	L	296500	SR	0.46	0.39	0.39	-0.29	-0.25	-0.01	0.9
Q	67	L	271798	SR	0.42	0.26	-0.15	-0.08	0.26	-0.11	0.9
Q	68	O	79611	SR	0.46	0.47	-0.17	-0.29	-0.14	0.47	0.6
Q	69	O	79551	SR	0.47	0.45	-0.13	0.45	-0.23	-0.22	0.6
Q	71	L	282261	SR	0.42	0.44	-0.18	-0.22	-0.15	0.44	0.4
Q	72	O	279763	SR	0.48	0.44	-0.14	-0.25	0.44	-0.19	0.6
Q	74	L	296499	SR	0.54	0.28	0.28	-0.20	-0.19	0.01	0.4
Q	75	L	279842	SR	0.34	0.31	0.04	-0.23	-0.14	0.31	0.9
Q	77	L	256996	SR	0.41	0.34	0.34	-0.24	-0.15	-0.02	0.9
Q	78	O	132977	SR	0.56	0.42	-0.29	-0.12	0.42	-0.18	1.1
Q	80	L	51752	SR	0.33	0.42	-0.20	-0.14	-0.13	0.42	0.9
Q	81	L	261592	SR	0.45	0.22	-0.17	0.22	-0.01	-0.11	1.3
Mean					0.51	0.34	-0.03	-0.05	-0.04	0.01	0.4
SD					0.19	0.10	0.24	0.23	0.24	0.23	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

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

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

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A	9831	417434	SR	0.28	0.21	0.21	-0.03	-0.17	-0.04	0.1
A	9831	417543	SR	0.21	0.08	0.18	0.08	-0.22	-0.06	0.1
A	9831	415183	SR	0.23	0.00	0.10	0.02	0.00	-0.14	0.3
A	9831	423606	SR	0.27	0.08	0.08	0.05	-0.10	-0.05	0.3
A	9831	415190	SPR	0.07	0.39	0.39	-0.26			6.0
A	9831	421325	SR	0.23	0.13	-0.06	0.13	-0.03	-0.04	0.5
A	9831	415980	SR	0.28	0.06	0.00	-0.11	0.06	0.08	0.2
A	9831	319459	SPR	0.03	0.26	0.26	-0.08			6.6
A	9831	415187	SR	0.52	0.11	0.11	-0.02	-0.09	-0.05	0.4
A	9831	415189	SPR	0.37	0.35	0.35	-0.31			3.7
A	9831	415994	SR	0.47	0.25	-0.13	-0.11	0.25	-0.11	0.7
A	9831	421341	SR	0.55	0.28	-0.10	-0.17	0.28	-0.12	0.3
A	9831	211038	SPR	0.16	0.37	0.37	-0.29			4.2
A	9831	415972	SR	0.70	0.27	-0.13	0.27	-0.17	-0.10	0.4
A	9831	415288	SPR	0.02	0.26	0.26	-0.09			2.5
A	9831	415201	SR	0.19	0.08	-0.09	0.03	-0.03	0.08	0.7
B	5106	417451	SR	0.43	0.29	-0.09	0.29	-0.15	-0.15	0.2
B	5106	415255	SR	0.29	0.04	0.04	0.03	-0.01	-0.09	0.2
B	5106	415276	SR	0.24	0.37	-0.13	-0.11	-0.14	0.37	0.2
B	5106	416011	SR	0.37	0.01	0.12	-0.06	0.01	-0.14	0.3
B	5106	421334	SPR	0.26	0.30	0.30	-0.27			1.5
B	5106	416002	SR	0.26	0.12	-0.10	0.07	-0.16	0.12	0.7
B	5106	408228	SR	0.17	0.12	0.12	-0.12	0.03	-0.03	0.4
B	5106	415973	SPR	0.03	0.23	0.23	-0.12			4.5
B	5106	421311	SR	0.22	0.11	0.11	0.05	-0.03	-0.09	0.4
B	5106	361361	SPR	0.28	0.45	0.45	-0.38			6.4
B	5106	421342	SR	0.20	0.06	0.05	-0.04	0.06	-0.05	1.1
B	5106	415998	SR	0.23	0.26	0.26	-0.11	-0.05	-0.11	0.5
B	5106	415191	SPR	0.24	0.22	0.22	-0.18			3.2
B	5106	422610	SR	0.34	-0.03	-0.03	0.04	0.02	-0.04	0.7
B	5106	422601	SPR	0.12	0.43	0.43	-0.30			6.4
B	5106	422599	SR	0.49	0.14	-0.03	0.14	-0.09	-0.05	0.7
Mean				0.27	0.20	0.12	-0.06	-0.03	-0.04	1.7
SD				0.16	0.13	0.18	0.16	0.13	0.11	2.2

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

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A	8412	416421	SR	0.43	0.24	-0.04	-0.07	0.24	-0.20	0.1
A	8412	417686	SR	0.73	0.37	-0.15	0.37	-0.22	-0.21	0.0
A	8412	417689	SR	0.44	0.31	0.31	-0.16	-0.15	-0.09	0.1
A	8412	423659	SR	0.76	0.32	-0.16	0.32	-0.19	-0.15	0.1
A	8412	423657	SR	0.39	0.46	-0.25	-0.12	-0.22	0.46	0.2
A	8412	421494	SR	0.48	0.52	-0.23	-0.24	-0.23	0.52	0.3
A	8412	421551	SR	0.35	0.32	-0.11	0.32	-0.24	-0.02	0.5
A	8412	392508	SR	0.41	0.40	-0.04	0.40	-0.25	-0.23	0.2
A	8412	414823	SR	0.48	0.44	0.44	-0.27	-0.28	-0.01	0.2
A	8412	416439	SR	0.61	0.34	-0.17	-0.18	0.34	-0.14	0.2
A	8412	415070	SR	0.58	0.27	0.27	-0.26	0.02	-0.19	0.6
A	8412	415073	SR	0.74	0.42	-0.20	-0.22	-0.21	0.42	0.4
A	8412	415072	SR	0.49	0.42	-0.22	-0.23	0.42	-0.09	0.4
A	8412	423808	SR	0.87	0.28	-0.14	-0.16	0.28	-0.14	0.5
A	8412	423809	SR	0.46	0.13	-0.10	-0.14	0.13	0.07	0.5
A	8412	421466	SR	0.53	0.50	-0.20	-0.23	-0.25	0.50	0.5
A	8412	421518	SR	0.55	0.53	0.53	-0.23	-0.27	-0.23	0.4
A	8412	415079	SR	0.47	0.50	0.50	-0.30	-0.19	-0.14	0.5
A	8412	414821	SR	0.62	0.49	-0.23	-0.26	0.49	-0.19	0.6
A	8412	416489	SR	0.57	0.36	-0.13	0.36	-0.22	-0.13	0.6
A	8412	416492	SR	0.49	0.38	-0.19	-0.20	0.38	-0.10	0.5
A	8412	416491	SR	0.35	0.27	0.27	-0.04	-0.16	-0.11	0.5
A	8412	414811	SR	0.64	0.35	-0.17	-0.23	-0.12	0.35	0.5
B	3815	416416	SR	0.48	0.38	0.38	-0.27	-0.09	-0.16	0.1
B	3815	417635	SR	0.35	0.36	0.36	-0.21	-0.24	0.08	0.0
B	3815	417687	SR	0.61	0.38	-0.14	-0.21	-0.21	0.38	0.0
B	3815	423658	SR	0.62	0.46	0.46	-0.28	-0.21	-0.18	0.2
B	3815	423656	SR	0.39	0.51	-0.24	-0.17	-0.21	0.51	0.2
B	3815	416427	SR	0.37	0.23	-0.06	0.23	-0.10	-0.14	0.3
B	3815	416431	SR	0.25	0.25	-0.07	-0.11	0.25	-0.07	0.5
B	3815	416434	SR	0.64	0.35	-0.22	-0.14	0.35	-0.13	0.1
B	3815	417631	SR	0.75	0.48	0.48	-0.26	-0.28	-0.20	0.3
B	3815	415092	SR	0.56	0.46	-0.16	-0.25	-0.22	0.46	0.2
B	3815	393909	SR	0.54	0.35	-0.07	0.35	-0.22	-0.17	0.3
B	3815	393906	SR	0.62	0.48	0.48	-0.25	-0.30	-0.13	0.3
B	3815	393907	SR	0.27	0.54	-0.23	-0.22	-0.13	0.54	0.3
B	3815	423810	SR	0.80	0.36	-0.18	0.36	-0.24	-0.15	0.3
B	3815	423811	SR	0.77	0.38	0.38	-0.22	-0.23	-0.14	0.4
B	3815	421519	SR	0.37	0.27	-0.07	-0.21	0.27	-0.03	0.3
B	3815	421521	SR	0.29	0.16	-0.28	-0.03	0.16	0.12	0.3
B	3815	416423	SR	0.60	0.37	-0.11	0.37	-0.25	-0.17	0.3
B	3815	423696	SR	0.51	0.51	-0.23	-0.22	-0.24	0.51	0.4
B	3815	417606	SR	0.34	0.39	-0.07	-0.21	-0.17	0.39	0.5

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

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
B	3815	417661	SR	0.53	0.25	-0.18	-0.06	0.25	-0.09	0.3
B	3815	417607	SR	0.35	0.45	-0.14	0.45	-0.27	-0.12	0.3
B	3815	417619	SR	0.44	0.11	-0.21	0.11	0.14	-0.16	0.4
Mean				0.52	0.37	-0.01	-0.07	-0.07	0.02	0.3
SD				0.15	0.11	0.26	0.24	0.24	0.26	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 English—January Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A	4566	423566	SR	0.61	0.32	-0.12	0.32	-0.19	-0.14	0.4
A	4566	423567	SR	0.53	0.16	0.16	-0.07	0.02	-0.21	0.2
A	4566	423568	SR	0.68	0.44	-0.21	-0.22	-0.23	0.44	0.2
A	4566	423569	SR	0.33	0.28	0.28	-0.13	-0.04	-0.15	0.4
A	4566	423571	SR	0.50	0.31	-0.15	0.31	-0.13	-0.14	0.3
A	4566	423547	SR	0.47	0.32	-0.12	-0.10	-0.18	0.32	0.5
A	4566	423548	SR	0.23	0.10	-0.09	0.03	-0.03	0.10	0.5
A	4566	423549	SR	0.35	0.12	-0.11	-0.15	0.12	0.08	0.6
A	4566	423550	SR	0.17	0.13	-0.19	0.13	0.09	-0.05	0.6
A	4566	423551	SR	0.65	0.37	-0.17	0.37	-0.26	-0.14	0.7
A	4566	423552	SR	0.52	0.35	0.35	-0.15	-0.17	-0.18	0.7
A	4566	423553	SR	0.43	0.15	-0.18	0.05	0.15	-0.20	0.9
A	4566	423554	SR	0.15	0.17	0.24	-0.23	0.17	-0.23	0.8
A	4566	373879	SR	0.61	0.43	-0.17	0.43	-0.24	-0.19	1.3
A	4566	417503	SR	0.33	0.22	0.11	-0.12	-0.27	0.22	0.3
A	4566	417504	SR	0.46	0.36	-0.19	0.36	-0.19	-0.07	0.4
A	4566	417505	SR	0.46	0.16	-0.18	0.08	0.16	-0.11	0.3
A	4566	395703	SR	0.68	0.31	-0.17	0.31	-0.12	-0.17	0.3
A	4566	421432	SR	0.46	0.32	0.32	-0.11	-0.16	-0.14	0.5
A	4566	421433	SR	0.37	0.29	0.29	0.00	-0.22	-0.11	0.5
A	4566	421434	SR	0.53	0.42	-0.19	-0.15	-0.21	0.42	0.4
A	4566	421436	SR	0.40	0.26	0.26	-0.08	-0.13	-0.12	0.4
A	4566	421437	SR	0.24	0.05	-0.11	0.05	-0.12	0.19	0.5
A	4566	421440	SR	0.25	0.22	0.11	-0.16	-0.20	0.22	0.5
A	4566	421441	SR	0.66	0.36	0.36	-0.18	-0.16	-0.17	0.5
A	4566	421442	SR	0.35	0.18	0.01	-0.11	0.18	-0.10	0.4
A	4566	421443	SR	0.22	0.05	0.05	-0.16	0.10	0.02	0.4
A	4566	421444	SR	0.53	0.20	-0.25	0.20	-0.23	0.11	0.4
A	4566	421445	SR	0.56	0.30	-0.04	-0.22	0.30	-0.13	0.4
A	4566	421500	SR	0.54	0.48	-0.20	-0.21	-0.24	0.48	0.5
A	4566	421501	SR	0.34	0.25	-0.03	0.25	-0.19	-0.06	0.5
A	4566	421502	SR	0.42	0.35	-0.11	0.35	-0.20	-0.11	0.5
A	4566	421503	SR	0.52	0.28	0.28	-0.11	-0.19	-0.05	0.6
A	4566	421504	SR	0.45	0.45	0.45	-0.23	-0.28	-0.07	0.5
A	4566	421505	SR	0.27	0.21	0.21	0.03	-0.15	-0.08	0.5
A	4566	392654	SR	0.21	-0.11	0.24	-0.11	-0.06	-0.16	0.6
A	4566	395685	SR	0.43	0.15	-0.07	-0.19	0.15	0.06	0.5
A	4566	400552	SR	0.53	0.41	0.41	-0.20	-0.18	-0.15	0.5
B	8560	423572	SR	0.44	0.15	-0.17	0.15	-0.19	0.14	0.2
B	8560	423573	SR	0.27	0.07	-0.17	0.12	0.07	-0.08	0.2
B	8560	423574	SR	0.39	0.04	-0.12	0.16	0.04	-0.08	0.3
B	8560	423575	SR	0.38	0.17	-0.01	0.17	-0.08	-0.11	0.3
B	8560	423576	SR	0.40	0.30	0.30	-0.19	-0.04	-0.12	0.3
B	8560	415153	SR	0.37	0.15	0.01	0.15	-0.26	0.05	0.4

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

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
B	8560	415154	SR	0.56	0.33	-0.12	-0.20	0.33	-0.15	0.5
B	8560	415155	SR	0.40	0.32	-0.21	-0.07	0.32	-0.16	0.6
B	8560	415156	SR	0.41	0.17	-0.01	0.17	-0.04	-0.21	0.6
B	8560	415157	SR	0.49	0.08	-0.10	-0.20	0.06	0.08	0.7
B	8560	415158	SR	0.69	0.36	-0.16	-0.21	0.36	-0.16	0.7
B	8560	415159	SR	0.38	0.20	-0.17	-0.20	-0.03	0.20	0.8
B	8560	415161	SR	0.58	0.42	0.42	-0.23	-0.18	-0.19	0.9
B	8560	373883	SR	0.47	0.35	0.35	-0.14	-0.15	-0.17	1.2
B	8560	422568	SR	0.79	0.31	-0.14	-0.14	0.31	-0.19	0.3
B	8560	422569	SR	0.23	0.11	0.11	-0.18	0.16	-0.16	0.3
B	8560	422570	SR	0.60	0.42	-0.18	0.42	-0.22	-0.19	0.3
B	8560	400482	SR	0.35	0.24	-0.01	-0.22	-0.08	0.24	0.3
B	8560	422530	SR	0.29	0.25	0.00	-0.03	-0.25	0.25	0.5
B	8560	422531	SR	0.48	0.37	-0.13	-0.18	0.37	-0.18	0.5
B	8560	422532	SR	0.49	0.36	-0.22	-0.10	0.36	-0.16	0.5
B	8560	422535	SR	0.29	0.06	0.06	-0.21	0.12	0.00	0.5
B	8560	422536	SR	0.39	0.29	-0.06	-0.07	-0.24	0.29	0.5
B	8560	422538	SR	0.43	0.05	-0.03	0.05	0.06	-0.07	0.5
B	8560	422539	SR	0.46	0.41	-0.15	0.41	-0.25	-0.10	0.5
B	8560	422540	SR	0.46	0.25	0.25	-0.15	-0.06	-0.08	0.5
B	8560	422541	SR	0.43	0.45	-0.18	0.45	-0.22	-0.16	0.5
B	8560	422542	SR	0.38	0.38	0.38	-0.20	-0.14	-0.09	0.5
B	8560	422543	SR	0.69	0.44	-0.20	-0.22	0.44	-0.23	0.6
B	8560	416458	SR	0.45	0.20	0.20	-0.10	-0.13	-0.04	0.5
B	8560	416459	SR	0.50	0.34	-0.05	-0.22	0.34	-0.18	0.6
B	8560	416460	SR	0.46	0.44	-0.18	-0.16	-0.22	0.44	0.6
B	8560	416461	SR	0.49	0.49	-0.16	0.49	-0.25	-0.22	0.6
B	8560	416464	SR	0.30	0.28	0.28	-0.03	-0.14	-0.12	0.6
B	8560	416466	SR	0.49	0.39	-0.14	0.39	-0.22	-0.13	0.6
B	8560	392658	SR	0.66	0.49	0.49	-0.24	-0.28	-0.17	0.8
B	8560	392659	SR	0.31	0.07	-0.08	0.07	0.13	-0.17	0.7
B	8560	395686	SR	0.28	0.03	0.11	-0.14	0.03	0.01	0.8
Mean				0.44	0.26	0.01	-0.01	-0.05	-0.04	0.5
SD				0.14	0.13	0.21	0.21	0.20	0.18	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 Government—January Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
A	3586	108400	CR	0.34	0.69					0.0
A	3586	374606	SR	0.43	0.24	-0.21	0.07	-0.25	0.24	0.5
A	5462	460884	CR	0.33	0.70					0.0
A	3586	374516	SR	0.43	0.27	-0.12	-0.05	0.27	-0.16	2.0
A	3586	370263	SR	0.81	0.49	-0.26	-0.23	-0.27	0.49	0.5
A	3586	374691	SR	0.17	0.04	0.08	-0.04	0.04	-0.09	0.6
A	3586	279795	SR	0.67	0.41	-0.24	-0.17	0.41	-0.19	0.7
A	3586	374484	SR	0.67	0.40	-0.17	0.40	-0.16	-0.23	0.9
A	3586	374690	SR	0.89	0.42	-0.24	-0.22	0.42	-0.19	1.0
A	3586	279845	SR	0.61	0.51	-0.28	-0.22	0.51	-0.22	0.5
A	3586	374602	SR	0.68	0.57	-0.27	-0.24	-0.32	0.57	0.7
A	3586	368616	SR	0.73	0.39	-0.16	-0.22	0.39	-0.19	0.6
A	3586	374517	SR	0.39	0.34	-0.14	-0.12	-0.13	0.34	0.8
A	3586	108337	CR	0.15	0.78					0.0
A	3586	370269	SR	0.46	0.25	0.11	-0.19	-0.30	0.25	1.1
B	1876	79599	CR	0.33	0.69					0.0
B	1876	374546	SR	0.51	0.17	-0.01	0.17	-0.22	-0.09	0.9
B	1876	374486	SR	0.69	0.45	-0.16	0.45	-0.27	-0.20	3.7
B	1876	374604	SR	0.46	0.41	-0.13	-0.21	-0.21	0.41	0.2
B	1876	374592	SR	0.62	0.55	0.55	-0.32	-0.22	-0.24	0.5
B	1876	348545	SR	0.84	0.41	-0.22	0.41	-0.21	-0.22	0.4
B	1876	364309	SR	0.73	0.24	-0.14	0.24	-0.10	-0.10	0.9
B	1876	374526	SR	0.39	0.09	0.09	-0.10	-0.07	0.08	0.8
B	1876	257006	SR	0.59	0.22	-0.16	0.22	-0.06	-0.07	0.5
B	1876	387359	SR	0.69	0.57	0.57	-0.30	-0.34	-0.19	0.7
B	1876	370219	SR	0.60	0.39	-0.21	-0.14	0.39	-0.18	0.6
B	1876	374605	SR	0.46	0.37	-0.16	-0.11	-0.20	0.37	0.5
B	1876	108369	CR	0.21	0.78					0.0
B	1876	374582	SR	0.73	0.50	-0.29	0.50	-0.32	-0.14	0.8
Mean				0.54	0.43	-0.09	-0.02	-0.05	0.00	0.7
SD				0.20	0.19	0.23	0.26	0.28	0.26	0.7

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 Algebra—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D	26945	369137	SR	0.51	0.42	-0.25	-0.30	0.42	0.01	0.1
D	26945	416012	SR	0.70	0.32	-0.21	-0.11	-0.16	0.32	0.1
D	26945	395578	SPR	0.46	0.49	0.49	-0.45			1.9
D	26945	417536	SR	0.53	0.37	-0.22	-0.07	-0.21	0.37	0.3
D	26945	136698	SPR	0.49	0.61	0.61	-0.56			4.2
D	26945	416009	SR	0.64	0.35	-0.20	-0.20	0.35	-0.13	0.5
D	20035	415969	SR	0.49	0.50	0.50	-0.15	-0.25	-0.26	0.4
D	26945	392319	SPR	0.31	0.57	0.57	-0.52			3.6
D	26945	415265	SR	0.25	0.29	0.02	-0.21	-0.12	0.29	0.8
D	26945	392372	SPR	0.22	0.52	0.52	-0.41			7.1
D	26945	415979	SR	0.42	0.44	0.44	-0.10	-0.26	-0.20	1.1
D	26945	423607	SR	0.23	-0.04	-0.11	0.06	-0.04	0.07	0.3
D	26945	416020	SR	0.63	0.43	-0.18	0.43	-0.26	-0.20	0.3
D	26945	366207	SR	0.33	0.25	0.25	-0.04	-0.23	-0.14	0.6
D	26945	415280	SPR	0.12	0.46	0.46	-0.31			6.5
D	26945	362288	SR	0.52	0.34	-0.17	0.34	-0.14	-0.14	0.6
E	11539	416000	SR	0.33	0.46	-0.26	-0.08	-0.20	0.46	0.2
E	11539	422596	SR	0.32	0.15	-0.10	0.15	-0.27	0.12	0.3
E	11539	422597	SPR	0.57	0.43	0.43	-0.39			2.5
E	11539	417559	SR	0.55	0.38	-0.11	-0.25	-0.18	0.38	0.4
E	11539	319425	SPR	0.24	0.55	0.55	-0.46			3.9
E	11539	397872	SR	0.37	0.32	0.32	-0.23	-0.09	-0.07	0.2
E	18449	415199	SR	0.25	-0.02	-0.02	-0.24	0.19	0.05	0.3
E	11539	50422	SPR	0.22	0.45	0.45	-0.37			5.6
E	11539	423590	SR	0.17	0.24	-0.04	-0.01	-0.17	0.24	0.4
E	11539	397846	SPR	0.54	0.42	0.42	-0.36			4.0
E	11539	417532	SR	0.66	0.40	-0.25	-0.21	0.40	-0.13	1.2
E	11539	415260	SR	0.48	0.32	-0.17	0.32	-0.20	-0.06	0.4
E	11539	338651	SR	0.29	0.28	-0.09	-0.07	0.28	-0.14	0.5
E	11539	282317	SR	0.81	0.48	0.48	-0.28	-0.28	-0.19	0.3
E	11539	392320	SPR	0.18	0.46	0.46	-0.38			2.5
E	11539	79055	SR	0.85	0.41	-0.24	0.41	-0.20	-0.21	0.5
F	11412	362351	SR	0.36	0.30	-0.02	-0.15	-0.20	0.30	0.1
F	11412	361362	SR	0.76	0.43	-0.11	-0.21	0.43	-0.33	0.1
F	11412	223243	SPR	0.30	0.50	0.50	-0.48			1.7
F	11412	417556	SR	0.36	0.42	-0.08	-0.26	-0.15	0.42	0.5
F	11412	392365	SPR	0.43	0.58	0.58	-0.52			6.1
F	11412	397881	SR	0.16	0.14	0.14	-0.19	-0.01	0.04	0.1
F	11412	369151	SR	0.41	0.04	-0.10	-0.09	0.04	0.13	0.2
F	11412	421317	SPR	0.20	0.51	0.51	-0.45			3.1
F	11412	415968	SR	0.39	0.33	-0.17	-0.22	-0.01	0.33	0.5
F	11412	106567	SPR	0.54	0.50	0.50	-0.46			2.6
F	11412	395573	SR	0.26	0.32	-0.19	-0.20	0.01	0.32	1.2
F	11412	397866	SR	0.65	0.35	-0.19	0.35	-0.16	-0.17	0.2

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

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
F	11412	415999	SR	0.51	0.49	-0.20	0.49	-0.20	-0.27	0.3
F	11412	328779	SR	0.59	0.47	-0.16	-0.25	0.47	-0.25	0.4
F	11412	400160	SPR	0.34	0.45	0.45	-0.38			3.5
F	11412	421339	SR	0.54	0.33	-0.20	-0.21	0.33	-0.07	0.5
G	11400	394823	SR	0.48	0.35	-0.10	-0.22	0.35	-0.14	0.1
G	11400	415263	SR	0.58	0.44	-0.17	-0.18	-0.29	0.44	0.1
G	11400	415275	SPR	0.28	0.40	0.40	-0.32			3.4
G	11400	397868	SR	0.30	0.48	-0.20	-0.21	-0.11	0.48	0.6
G	11400	415974	SPR	0.24	0.47	0.47	-0.38			4.1
G	11400	275445	SR	0.29	0.33	-0.21	0.04	-0.19	0.33	0.4
G	11400	362280	SR	0.64	0.36	-0.25	-0.18	-0.12	0.36	0.2
G	11400	79104	SPR	0.37	0.55	0.55	-0.46			4.8
G	11400	415981	SR	0.53	0.29	0.29	-0.26	-0.12	-0.04	0.2
G	11400	319424	SPR	0.24	0.36	0.36	-0.29			2.7
G	11400	415985	SR	0.46	0.32	0.32	-0.18	-0.20	-0.04	0.9
G	11400	415971	SR	0.50	0.29	-0.14	0.29	-0.10	-0.18	0.3
G	11400	394794	SR	0.42	0.22	0.01	-0.14	0.22	-0.14	0.6
G	11400	282336	SR	0.48	0.54	-0.34	-0.22	-0.14	0.54	0.3
G	11400	106623	SPR	0.44	0.64	0.64	-0.57			5.3
G	11400	417427	SR	0.61	0.46	-0.17	0.46	-0.26	-0.23	0.8
H	11299	417441	SR	0.37	0.10	-0.15	-0.07	-0.01	0.10	0.0
H	11299	395566	SR	0.46	0.32	-0.11	0.32	-0.24	-0.10	0.1
H	11299	417528	SPR	0.65	0.47	0.47	-0.45			1.4
H	11299	275470	SR	0.42	0.39	-0.11	0.39	-0.22	-0.19	0.4
H	11299	215916	SPR	0.23	0.52	0.52	-0.40			7.5
H	11299	362281	SR	0.65	0.42	-0.23	-0.22	0.42	-0.18	0.2
H	11299	421340	SR	0.32	0.23	-0.06	-0.14	-0.04	0.23	0.1
H	11299	394805	SPR	0.13	0.43	0.43	-0.37			1.6
H	11299	421309	SR	0.69	0.28	-0.20	-0.31	0.28	0.00	0.5
H	11299	394785	SPR	0.44	0.60	0.60	-0.50			8.2
H	11299	275440	SR	0.36	0.37	0.37	-0.12	-0.19	-0.18	0.9
H	11299	415258	SR	0.37	0.33	-0.07	0.33	-0.12	-0.20	0.4
H	11299	423602	SR	0.43	0.47	-0.21	-0.21	-0.18	0.47	0.2
H	11299	397883	SR	0.52	0.16	-0.17	0.04	0.16	-0.19	0.4
H	11299	322118	SPR	0.73	0.41	0.41	-0.35			3.0
H	11299	416022	SR	0.62	0.46	-0.22	0.46	-0.24	-0.21	0.6
Mean				0.43	0.38	0.10	-0.16	-0.04	0.03	1.5
SD				0.17	0.13	0.32	0.27	0.23	0.25	2.0

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

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D	22450	455132	SR	0.75	0.44	-0.19	-0.28	-0.24	0.44	0.0
D	22450	416435	SR	0.78	0.28	-0.11	-0.19	-0.17	0.28	0.0
D	22450	414905	SR	0.80	0.48	0.48	-0.21	-0.26	-0.30	0.0
D	22450	414906	SR	0.74	0.40	-0.14	0.40	-0.26	-0.25	0.0
D	22450	417656	SR	0.70	0.10	0.04	-0.22	0.10	0.00	0.1
D	22450	417658	SR	0.57	0.41	-0.14	-0.31	-0.11	0.41	0.1
D	22450	432432	SR	0.41	0.51	0.51	-0.23	-0.12	-0.34	0.2
D	22450	416437	SR	0.57	0.44	-0.22	0.44	-0.25	-0.18	0.1
D	22450	279688	SR	0.53	0.43	-0.18	0.43	-0.32	-0.15	0.2
D	22450	279689	SR	0.65	0.22	-0.16	-0.06	-0.13	0.22	0.1
D	22450	279580	SR	0.60	0.54	0.54	-0.29	-0.22	-0.27	0.2
D	22450	431171	SR	0.50	0.44	-0.24	-0.30	0.44	-0.08	0.1
D	22450	421475	SR	0.44	0.15	-0.22	0.07	0.15	-0.14	0.2
D	22450	421473	SR	0.53	0.47	0.47	-0.28	-0.18	-0.19	0.2
D	22450	455124	SR	0.86	0.34	-0.12	-0.21	-0.23	0.34	0.2
D	22450	271119	SR	0.86	0.46	-0.29	0.46	-0.25	-0.21	0.1
D	22450	421515	SR	0.83	0.48	0.48	-0.29	-0.29	-0.20	0.1
D	22450	421464	SR	0.61	0.50	-0.15	-0.33	-0.22	0.50	0.2
D	22450	421499	SR	0.71	0.40	-0.15	0.40	-0.25	-0.21	0.2
D	22450	455140	SR	0.62	0.35	-0.08	-0.27	0.35	-0.17	0.2
D	22450	431175	SR	0.48	0.46	-0.23	-0.22	0.46	-0.22	0.2
D	22450	449652	SR	0.65	0.48	0.48	-0.19	-0.31	-0.22	0.2
D	22450	449650	SR	0.40	0.38	-0.04	-0.18	-0.25	0.38	0.2
E	9878	455947	SR	0.83	0.50	-0.16	-0.33	-0.30	0.50	0.0
E	9878	415080	SR	0.75	0.40	0.40	-0.21	-0.18	-0.24	0.1
E	9878	421482	SR	0.79	0.44	-0.22	0.44	-0.28	-0.22	0.1
E	9878	421480	SR	0.85	0.46	-0.29	-0.25	0.46	-0.22	0.1
E	9878	415108	SR	0.70	0.45	-0.31	-0.17	0.45	-0.22	0.1
E	9878	415106	SR	0.69	0.31	-0.18	-0.24	-0.13	0.31	0.1
E	9878	322173	SR	0.79	0.25	0.25	-0.25	-0.06	-0.14	0.2
E	9878	415101	SR	0.71	0.28	0.28	-0.07	-0.22	-0.16	0.1
E	9878	338775	SR	0.61	0.27	-0.21	-0.03	-0.21	0.27	0.2
E	9878	338772	SR	0.49	0.23	0.23	-0.24	-0.21	0.09	0.2
E	9878	338770	SR	0.68	0.46	-0.19	-0.30	0.46	-0.20	0.1
E	9878	416428	SR	0.78	0.27	0.27	-0.11	-0.17	-0.17	0.1
E	9878	421474	SR	0.54	0.48	-0.26	-0.24	-0.16	0.48	0.2
E	9878	421552	SR	0.55	0.36	0.36	-0.21	-0.14	-0.16	0.2
E	9878	447136	SR	0.73	0.32	-0.11	-0.22	0.32	-0.18	0.2
E	9878	415205	SR	0.59	0.25	-0.08	0.25	-0.05	-0.20	0.1
E	9878	421535	SR	0.35	0.31	-0.26	-0.25	0.07	0.31	0.1
E	9878	421534	SR	0.52	0.32	-0.17	-0.03	0.32	-0.29	0.2
E	9878	421476	SR	0.47	0.32	-0.17	0.32	-0.16	-0.09	0.2
E	9878	422614	SR	0.55	0.46	-0.18	0.46	-0.30	-0.15	0.2
E	9878	421495	SR	0.66	0.39	-0.06	-0.29	-0.28	0.39	0.1

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

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
E	9878	449649	SR	0.72	0.38	-0.19	-0.24	0.38	-0.13	0.1
E	9878	449648	SR	0.72	0.56	-0.28	0.56	-0.27	-0.32	0.1
F	9990	421549	SR	0.68	0.55	-0.30	-0.32	-0.24	0.55	0.1
F	9990	414810	SR	0.62	0.45	0.45	-0.08	-0.38	-0.15	0.1
F	9990	421481	SR	0.32	0.23	0.23	-0.10	-0.07	-0.14	0.1
F	9990	421478	SR	0.70	0.53	-0.37	-0.19	-0.22	0.53	0.1
F	9990	415107	SR	0.64	0.38	-0.24	-0.23	0.38	-0.08	0.1
F	9990	415109	SR	0.61	0.34	-0.23	0.34	-0.04	-0.22	0.1
F	9990	432433	SR	0.78	0.45	-0.23	0.45	-0.32	-0.16	0.1
F	9990	455948	SR	0.87	0.26	-0.16	-0.20	0.26	-0.08	0.1
F	9990	338771	SR	0.47	0.09	0.16	0.09	-0.22	-0.26	0.2
F	9990	338774	SR	0.21	0.20	-0.03	-0.10	-0.04	0.20	0.2
F	9990	338773	SR	0.53	0.40	-0.12	-0.17	0.40	-0.24	0.1
F	9990	415093	SR	0.70	0.50	0.50	-0.25	-0.28	-0.22	0.1
F	9990	444362	SR	0.75	0.48	-0.16	-0.31	-0.27	0.48	0.2
F	9990	423683	SR	0.78	0.49	-0.22	-0.26	0.49	-0.29	0.2
F	9990	453176	SR	0.74	0.53	-0.29	-0.29	0.53	-0.25	0.1
F	9990	417620	SR	0.53	0.30	-0.22	0.30	-0.06	-0.14	0.2
F	9990	423627	SR	0.49	0.45	-0.11	0.45	-0.20	-0.27	0.1
F	9990	423629	SR	0.48	0.29	-0.04	-0.22	-0.23	0.29	0.1
F	9990	423630	SR	0.76	0.48	0.48	-0.30	-0.26	-0.20	0.1
F	9990	422615	SR	0.57	0.27	-0.10	0.27	-0.05	-0.27	0.1
F	9990	417625	SR	0.69	0.27	0.27	-0.22	-0.25	-0.02	0.1
F	9990	449646	SR	0.76	0.49	-0.24	-0.30	0.49	-0.24	0.2
F	9990	449645	SR	0.75	0.54	0.54	-0.30	-0.31	-0.25	0.2
G	9794	455114	SR	0.83	0.41	-0.15	-0.28	-0.24	0.41	0.0
G	9794	415100	SR	0.70	0.45	-0.17	-0.22	0.45	-0.29	0.1
G	9794	423670	SR	0.69	0.44	0.44	-0.26	-0.23	-0.17	0.1
G	9794	423671	SR	0.34	0.21	0.09	-0.18	-0.26	0.21	0.1
G	9794	415105	SR	0.90	0.30	-0.18	0.30	-0.18	-0.14	0.1
G	9794	415110	SR	0.59	0.48	0.48	-0.27	-0.21	-0.22	0.1
G	9794	415111	SR	0.52	0.35	0.35	-0.33	0.02	-0.12	0.2
G	9794	422612	SR	0.51	0.25	-0.12	0.25	-0.15	-0.07	0.2
G	9794	416467	SR	0.79	0.46	-0.21	-0.28	0.46	-0.23	0.2
G	9794	416560	SR	0.22	0.03	-0.11	0.20	-0.22	0.03	0.2
G	9794	416561	SR	0.50	0.38	0.38	-0.20	-0.22	-0.15	0.2
G	9794	432430	SR	0.71	0.40	-0.26	0.40	-0.21	-0.11	0.1
G	9794	423679	SR	0.45	0.43	-0.21	-0.19	-0.20	0.43	0.3
G	9794	423681	SR	0.72	0.44	-0.22	-0.25	0.44	-0.21	0.2
G	9794	270995	SR	0.48	0.37	-0.24	0.37	-0.17	-0.09	0.2
G	9794	416420	SR	0.38	0.21	-0.17	-0.08	0.21	0.03	0.1
G	9794	421532	SR	0.78	0.50	-0.25	-0.30	0.50	-0.25	0.1
G	9794	421529	SR	0.61	0.35	0.35	-0.08	-0.29	-0.24	0.1
G	9794	421531	SR	0.54	0.54	-0.35	-0.12	-0.28	0.54	0.2

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

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
G	9794	417626	SR	0.78	0.48	-0.26	0.48	-0.30	-0.20	0.1
G	9794	455122	SR	0.81	0.52	-0.26	-0.29	0.52	-0.28	0.2
G	9794	449643	SR	0.55	0.46	-0.17	-0.28	-0.20	0.46	0.1
G	9794	449644	SR	0.64	0.45	0.45	-0.24	-0.22	-0.19	0.2
H	9858	415098	SR	0.62	0.43	-0.18	-0.20	-0.25	0.43	0.0
H	9858	431170	SR	0.57	0.39	-0.21	0.39	-0.18	-0.27	0.1
H	9858	423672	SR	0.84	0.33	-0.16	0.33	-0.20	-0.17	0.1
H	9858	423673	SR	0.60	0.25	-0.11	-0.10	0.25	-0.15	0.1
H	9858	414805	SR	0.83	0.40	-0.17	-0.28	-0.21	0.40	0.1
H	9858	414807	SR	0.83	0.42	0.42	-0.19	-0.28	-0.20	0.0
H	9858	453179	SR	0.93	0.38	-0.20	-0.21	-0.23	0.38	0.1
H	9858	417630	SR	0.72	0.51	-0.22	-0.32	0.51	-0.25	0.1
H	9858	416465	SR	0.57	0.48	-0.21	-0.23	-0.24	0.48	0.1
H	9858	416562	SR	0.31	0.14	0.14	-0.01	-0.21	0.03	0.2
H	9858	416462	SR	0.63	0.37	-0.22	-0.21	0.37	-0.11	0.1
H	9858	415099	SR	0.48	0.36	-0.10	0.36	-0.26	-0.12	0.1
H	9858	416402	SR	0.73	0.52	-0.25	-0.29	0.52	-0.27	0.2
H	9858	416403	SR	0.78	0.48	-0.23	-0.27	-0.26	0.48	0.2
H	9858	453180	SR	0.34	0.32	0.32	-0.22	-0.07	-0.13	0.1
H	9858	423698	SR	0.69	0.49	-0.27	-0.28	0.49	-0.21	0.1
H	9858	421468	SR	0.73	0.25	-0.11	-0.24	0.25	-0.08	0.1
H	9858	421469	SR	0.46	0.48	-0.31	-0.14	-0.18	0.48	0.2
H	9858	421528	SR	0.79	0.42	0.42	-0.26	-0.27	-0.17	0.1
H	9858	416419	SR	0.59	0.49	-0.24	0.49	-0.27	-0.20	0.1
H	9858	432429	SR	0.41	0.52	0.52	-0.20	-0.33	-0.16	0.2
H	9858	449647	SR	0.74	0.56	-0.43	-0.20	-0.22	0.56	0.1
H	9858	449681	SR	0.52	0.41	-0.26	0.41	-0.24	-0.16	0.1
Mean				0.63	0.39	-0.04	-0.08	-0.06	-0.03	0.1
SD				0.15	0.11	0.27	0.27	0.28	0.27	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.B7 Item Statistics, Field Test Items: MDHSA English—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D	21594	416259	SR	0.72	0.33	-0.19	-0.24	0.33	-0.17	0.0
D	21594	416261	SR	0.31	0.35	0.10	0.35	-0.31	-0.18	0.1
D	21594	416262	SR	0.72	0.26	-0.18	0.26	-0.23	-0.11	0.1
D	21594	416263	SR	0.16	0.04	0.31	-0.22	-0.34	0.04	0.1
D	21594	416264	SR	0.67	0.29	-0.27	0.29	-0.16	-0.08	0.1
D	21594	416265	SR	0.47	0.12	-0.20	0.12	-0.17	0.12	0.1
D	21594	416266	SR	0.62	0.38	-0.18	0.38	-0.20	-0.18	0.1
D	21594	416267	SR	0.67	0.41	-0.17	-0.22	0.41	-0.22	0.1
D	21594	422544	SR	0.66	0.32	-0.27	-0.22	-0.01	0.32	0.1
D	21594	422545	SR	0.14	-0.20	0.11	0.13	-0.20	-0.15	0.1
D	21594	422546	SR	0.46	0.11	-0.09	0.06	0.11	-0.12	0.2
D	21594	422547	SR	0.76	0.46	0.46	-0.32	-0.22	-0.15	0.1
D	21594	422548	SR	0.57	0.17	-0.27	0.14	-0.25	0.17	0.1
D	21594	400528	SR	0.54	0.39	-0.26	-0.10	0.39	-0.20	0.1
D	21594	400474	SR	0.64	0.43	0.43	-0.19	-0.28	-0.16	0.1
D	21594	422562	SR	0.48	0.36	-0.26	0.36	-0.06	-0.18	0.1
D	21594	422563	SR	0.53	0.47	0.47	-0.27	-0.24	-0.17	0.2
D	21594	422564	SR	0.24	0.19	-0.19	-0.16	0.04	0.19	0.2
D	21594	400519	SR	0.67	0.35	-0.19	-0.26	0.35	-0.09	0.1
D	21594	400521	SR	0.55	0.36	-0.10	0.36	-0.22	-0.23	0.1
D	21594	400564	SR	0.62	0.46	-0.20	-0.30	-0.18	0.46	0.1
D	21594	415208	SR	0.67	0.33	-0.20	-0.12	-0.19	0.33	0.2
D	21594	415206	SR	0.52	0.31	-0.13	-0.17	-0.15	0.31	0.2
D	21594	415207	SR	0.17	-0.14	-0.07	0.28	-0.14	-0.15	0.1
D	21594	415209	SR	0.51	0.24	0.01	-0.20	0.24	-0.19	0.1
D	21594	415211	SR	0.79	0.28	0.28	-0.06	-0.20	-0.21	0.2
D	21594	415212	SR	0.44	0.15	-0.26	0.15	-0.18	0.20	0.2
D	21594	415213	SR	0.63	0.39	0.39	-0.29	-0.23	-0.05	0.1
D	21594	415214	SR	0.63	0.43	-0.22	0.43	-0.25	-0.17	0.2
D	21594	415216	SR	0.68	0.42	-0.16	0.42	-0.23	-0.27	0.2
D	21594	415218	SR	0.66	0.37	-0.07	-0.27	-0.20	0.37	0.1
D	21594	415219	SR	0.17	-0.04	0.31	-0.23	-0.24	-0.04	0.2
D	21594	421446	SR	0.66	0.51	0.51	-0.29	-0.27	-0.18	0.2
D	21594	421447	SR	0.69	0.31	-0.06	-0.24	0.31	-0.23	0.2
D	21594	421448	SR	0.73	0.48	-0.21	0.48	-0.30	-0.22	0.2
D	21594	421449	SR	0.66	0.36	-0.14	0.36	-0.18	-0.23	0.2
D	21594	421450	SR	0.27	0.21	-0.17	-0.27	0.13	0.21	0.2
D	21594	421451	SR	0.35	0.39	-0.23	-0.20	0.39	-0.02	0.2
E	9626	416240	SR	0.72	0.36	-0.24	-0.18	0.36	-0.16	0.1
E	9626	416241	SR	0.60	0.25	0.25	-0.20	-0.29	0.01	0.0
E	9626	416242	SR	0.26	0.06	0.03	0.02	-0.17	0.06	0.1
E	9626	416243	SR	0.45	0.19	0.04	0.19	-0.18	-0.17	0.1
E	9626	416244	SR	0.45	0.11	-0.16	0.05	0.11	-0.09	0.1
E	9626	416245	SR	0.81	0.35	-0.19	-0.26	-0.15	0.35	0.0

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

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
E	9626	416246	SR	0.69	0.37	-0.18	-0.26	0.37	-0.13	0.1
E	9626	416247	SR	0.54	0.46	-0.21	-0.19	-0.23	0.46	0.0
E	9626	423578	SR	0.26	0.13	-0.02	0.13	0.09	-0.20	0.2
E	9626	423579	SR	0.21	0.09	-0.09	-0.04	0.09	0.01	0.1
E	9626	423581	SR	0.47	0.30	-0.09	-0.26	0.30	-0.02	0.1
E	9626	423582	SR	0.54	0.30	-0.18	-0.23	0.30	-0.10	0.1
E	9626	423583	SR	0.60	0.37	0.37	-0.16	-0.24	-0.17	0.1
E	9626	422624	SR	0.75	0.36	-0.09	-0.12	-0.31	0.36	0.1
E	9626	400476	SR	0.87	0.41	0.41	-0.25	-0.20	-0.23	0.1
E	9626	422574	SR	0.68	0.42	-0.18	0.42	-0.32	-0.15	0.1
E	9626	422575	SR	0.65	0.26	-0.11	-0.23	-0.13	0.26	0.1
E	9626	422648	SR	0.76	0.52	0.52	-0.29	-0.30	-0.22	0.1
E	9626	400551	SR	0.62	0.40	-0.18	-0.21	-0.19	0.40	0.1
E	9626	395678	SR	0.68	0.44	-0.26	-0.21	0.44	-0.27	0.1
E	9626	395680	SR	0.79	0.52	-0.29	0.52	-0.31	-0.22	0.1
E	9626	416440	SR	0.40	0.09	-0.15	-0.08	0.09	0.12	0.2
E	9626	416442	SR	0.52	0.46	-0.19	-0.28	-0.20	0.46	0.1
E	9626	416443	SR	0.40	0.27	0.27	-0.30	-0.02	-0.12	0.1
E	9626	416444	SR	0.27	0.15	0.00	-0.06	0.15	-0.09	0.1
E	9626	416446	SR	0.55	0.26	-0.14	-0.25	-0.04	0.26	0.2
E	9626	416447	SR	0.27	0.03	0.03	-0.23	0.04	0.05	0.2
E	9626	416448	SR	0.41	0.06	0.02	0.06	0.04	-0.16	0.2
E	9626	416449	SR	0.74	0.40	-0.26	-0.20	0.40	-0.19	0.1
E	9626	416450	SR	0.59	0.32	-0.23	0.32	-0.13	-0.14	0.2
E	9626	416452	SR	0.15	0.03	0.14	0.03	-0.14	-0.11	0.2
E	9626	416453	SR	0.33	0.18	0.02	-0.18	-0.11	0.18	0.2
E	9626	416468	SR	0.42	0.31	-0.18	-0.17	0.31	-0.03	0.1
E	9626	416469	SR	0.52	0.33	-0.02	0.33	-0.27	-0.19	0.2
E	9626	416470	SR	0.82	0.19	0.19	-0.13	-0.03	-0.17	0.1
E	9626	416471	SR	0.62	0.25	-0.17	0.25	0.01	-0.15	0.2
E	9626	416472	SR	0.61	0.35	-0.18	-0.11	0.35	-0.23	0.1
F	9626	416473	SR	0.56	0.26	-0.15	0.26	-0.12	-0.10	0.2
F	9459	416249	SR	0.50	0.27	-0.08	-0.26	0.27	-0.09	0.1
F	9459	416250	SR	0.40	0.10	0.01	0.10	-0.06	-0.06	0.1
F	9459	416252	SR	0.67	0.12	-0.17	0.06	-0.12	0.12	0.1
F	9459	416253	SR	0.69	0.26	0.26	-0.16	-0.15	-0.16	0.0
F	9459	416254	SR	0.50	0.27	-0.15	0.27	-0.10	-0.11	0.1
F	9459	416255	SR	0.29	0.01	-0.05	0.21	-0.21	0.01	0.1
F	9459	416256	SR	0.52	0.19	-0.19	-0.20	0.19	0.05	0.1
F	9459	416258	SR	0.81	0.32	-0.16	0.32	-0.16	-0.19	0.1
F	9459	417571	SR	0.52	0.22	-0.24	-0.13	0.22	0.03	0.1
F	9459	417572	SR	0.76	0.44	0.44	-0.26	-0.24	-0.19	0.1
F	9459	417573	SR	0.64	0.40	-0.20	0.40	-0.20	-0.23	0.1
F	9459	417574	SR	0.70	0.26	-0.11	-0.18	-0.12	0.26	0.1

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

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
F	9459	417600	SR	0.70	0.34	-0.19	-0.23	-0.14	0.34	0.1
F	9459	422626	SR	0.75	0.51	0.51	-0.20	-0.21	-0.36	0.1
F	9459	400487	SR	0.64	0.33	-0.14	0.33	-0.12	-0.22	0.1
F	9459	417512	SR	0.39	0.29	-0.05	-0.26	-0.06	0.29	0.1
F	9459	417513	SR	0.74	0.34	-0.16	-0.22	0.34	-0.19	0.1
F	9459	417514	SR	0.41	0.33	-0.17	0.33	-0.17	-0.11	0.2
F	9459	400549	SR	0.68	0.55	-0.28	-0.29	-0.29	0.55	0.1
F	9459	400559	SR	0.52	0.24	-0.14	0.24	-0.19	0.00	0.2
F	9459	395695	SR	0.62	0.54	-0.23	-0.30	-0.28	0.54	0.1
F	9459	449315	SR	0.55	0.37	-0.13	-0.15	-0.23	0.37	0.2
F	9459	449316	SR	0.80	0.32	-0.09	-0.18	-0.25	0.32	0.1
F	9459	449317	SR	0.42	0.18	-0.09	0.18	-0.15	-0.02	0.2
F	9459	449319	SR	0.84	0.34	0.34	-0.11	-0.24	-0.19	0.1
F	9459	449320	SR	0.44	0.36	-0.20	-0.26	0.01	0.36	0.2
F	9459	449321	SR	0.52	0.34	-0.19	0.34	-0.16	-0.19	0.1
F	9459	449322	SR	0.49	0.27	-0.10	-0.19	0.27	-0.05	0.1
F	9459	449323	SR	0.56	0.32	0.01	0.32	-0.20	-0.28	0.1
F	9459	449324	SR	0.38	0.05	0.18	-0.24	0.05	-0.14	0.1
F	9459	449326	SR	0.65	0.16	0.16	-0.22	-0.02	-0.03	0.2
F	9459	449327	SR	0.39	0.23	0.23	0.01	-0.24	-0.12	0.1
F	9459	421365	SR	0.30	-0.01	-0.15	-0.02	0.15	-0.01	0.1
F	9459	421366	SR	0.70	0.42	-0.19	0.42	-0.27	-0.20	0.2
F	9459	421367	SR	0.72	0.13	0.13	-0.04	-0.04	-0.16	0.1
F	9459	421368	SR	0.66	0.30	-0.05	0.30	-0.28	-0.22	0.1
F	9459	421369	SR	0.63	0.34	0.34	-0.28	-0.19	-0.09	0.2
F	9459	421370	SR	0.65	0.42	-0.21	-0.21	-0.22	0.42	0.2
G	9495	415220	SR	0.61	0.19	0.04	-0.22	0.19	-0.15	0.0
G	9495	415221	SR	0.40	0.06	0.08	-0.20	0.03	0.06	0.1
G	9495	415222	SR	0.63	0.30	-0.19	-0.11	-0.20	0.30	0.0
G	9495	415223	SR	0.81	0.40	-0.24	0.40	-0.26	-0.16	0.0
G	9495	415224	SR	0.50	0.56	0.56	-0.28	-0.31	-0.18	0.0
G	9495	415226	SR	0.59	0.00	0.00	-0.20	-0.16	0.15	0.0
G	9495	415227	SR	0.27	0.10	0.10	0.07	-0.16	-0.05	0.1
G	9495	415229	SR	0.77	0.42	-0.21	0.42	-0.22	-0.24	0.0
G	9495	417576	SR	0.54	0.44	-0.27	-0.11	-0.26	0.44	0.0
G	9495	417577	SR	0.31	0.10	-0.13	0.10	-0.13	0.10	0.1
G	9495	417578	SR	0.74	0.34	0.34	-0.15	-0.20	-0.22	0.1
G	9495	417579	SR	0.65	0.29	-0.02	0.29	-0.28	-0.16	0.1
G	9495	417580	SR	0.58	0.48	-0.28	-0.22	0.48	-0.18	0.1
G	9495	422627	SR	0.69	0.42	-0.18	-0.14	0.42	-0.29	0.1
G	9495	400484	SR	0.80	0.37	0.37	-0.20	-0.21	-0.23	0.1
G	9495	422645	SR	0.60	0.28	-0.08	-0.13	-0.27	0.28	0.0
G	9495	422646	SR	0.79	0.39	-0.20	-0.23	0.39	-0.21	0.1
G	9495	422647	SR	0.64	0.08	0.08	0.05	-0.15	-0.13	0.1

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

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
G	9495	400561	SR	0.43	0.08	0.08	0.21	-0.23	-0.19	0.1
G	9495	395706	SR	0.54	0.26	0.26	-0.13	-0.19	-0.08	0.1
G	9495	395707	SR	0.69	0.48	-0.14	-0.30	-0.26	0.48	0.1
G	9495	449294	SR	0.77	0.32	-0.17	0.32	-0.24	-0.12	0.2
G	9495	449295	SR	0.77	0.50	-0.27	-0.30	0.50	-0.22	0.1
G	9495	449296	SR	0.49	0.18	-0.04	-0.09	-0.12	0.18	0.1
G	9495	449297	SR	0.59	0.33	-0.21	0.33	-0.16	-0.17	0.1
G	9495	449298	SR	0.73	0.36	-0.15	0.36	-0.21	-0.22	0.1
G	9495	449299	SR	0.34	0.13	0.13	-0.05	-0.18	0.05	0.2
G	9495	449300	SR	0.61	0.36	0.36	-0.19	-0.19	-0.13	0.1
G	9495	449302	SR	0.68	0.42	-0.22	-0.19	-0.26	0.42	0.1
G	9495	449303	SR	0.46	0.26	-0.03	-0.29	0.26	-0.02	0.1
G	9495	449305	SR	0.69	0.45	-0.24	-0.22	-0.27	0.45	0.1
G	9495	449306	SR	0.43	0.12	-0.08	-0.07	0.12	0.00	0.1
G	9495	416384	SR	0.76	0.41	0.41	-0.21	-0.22	-0.22	0.1
G	9495	416385	SR	0.31	0.19	0.19	-0.26	-0.16	0.14	0.1
G	9495	416386	SR	0.68	0.45	-0.22	-0.23	-0.23	0.45	0.1
G	9495	416387	SR	0.81	0.52	0.52	-0.28	-0.30	-0.25	0.1
G	9495	416388	SR	0.72	0.29	-0.12	0.29	-0.16	-0.17	0.2
H	9495	416389	SR	0.23	0.09	-0.06	0.09	-0.03	-0.01	0.1
H	9406	415162	SR	0.47	0.17	0.07	-0.18	0.17	-0.17	0.0
H	9406	415163	SR	0.64	0.30	-0.17	-0.11	-0.22	0.30	0.0
H	9406	415164	SR	0.61	0.26	-0.07	0.26	-0.22	-0.16	0.0
H	9406	415166	SR	0.52	0.22	-0.21	0.22	-0.19	0.04	0.1
H	9406	415167	SR	0.76	0.48	0.48	-0.31	-0.24	-0.20	0.1
H	9406	415168	SR	0.36	0.28	-0.07	-0.14	0.28	-0.14	0.2
H	9406	415169	SR	0.30	0.19	0.00	-0.21	0.19	0.00	0.1
H	9406	415170	SR	0.40	0.47	0.47	-0.17	-0.27	-0.21	0.0
H	9406	417496	SR	0.67	0.23	-0.19	0.23	-0.09	-0.08	0.0
H	9406	417497	SR	0.82	0.39	-0.13	-0.21	0.39	-0.27	0.0
H	9406	417498	SR	0.71	0.20	-0.11	-0.01	-0.21	0.20	0.0
H	9406	417499	SR	0.50	0.22	0.22	-0.02	-0.11	-0.18	0.1
H	9406	417500	SR	0.82	0.35	-0.21	-0.21	0.35	-0.18	0.1
H	9406	422628	SR	0.66	0.33	-0.21	-0.13	-0.17	0.33	0.0
H	9406	400530	SR	0.64	0.34	0.34	-0.19	-0.23	-0.13	0.1
H	9406	422565	SR	0.85	0.42	-0.24	-0.20	-0.25	0.42	0.1
H	9406	422566	SR	0.67	0.30	0.30	-0.14	-0.12	-0.27	0.1
H	9406	422567	SR	0.59	0.26	-0.21	-0.05	0.26	-0.23	0.1
H	9406	400522	SR	0.38	0.22	-0.13	-0.04	0.22	-0.11	0.2
H	9406	400568	SR	0.75	0.44	-0.25	-0.24	0.44	-0.25	0.1
H	9406	400569	SR	0.69	0.40	-0.23	0.40	-0.15	-0.25	0.1
H	9406	452658	SR	0.29	0.25	-0.12	-0.06	0.25	-0.18	0.1
H	9406	452659	SR	0.70	0.47	0.47	-0.28	-0.23	-0.19	0.1
H	9406	452660	SR	0.58	0.40	0.40	-0.25	-0.24	-0.15	0.1

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

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
H	9406	452661	SR	0.58	0.26	-0.04	-0.14	-0.23	0.26	0.1
H	9406	452664	SR	0.76	0.18	-0.23	0.00	0.18	-0.23	0.1
H	9406	452665	SR	0.81	0.23	-0.04	0.23	-0.24	-0.22	0.1
H	9406	452663	SR	0.69	0.41	-0.22	0.41	-0.24	-0.16	0.1
H	9406	452668	SR	0.65	0.22	-0.01	0.22	-0.27	-0.24	0.1
H	9406	452672	SR	0.71	0.33	-0.27	-0.12	0.33	-0.14	0.1
H	9406	452671	SR	0.66	0.30	0.30	-0.15	-0.14	-0.16	0.2
H	9406	452670	SR	0.60	0.36	-0.06	0.36	-0.27	-0.18	0.1
H	9406	415240	SR	0.54	0.34	0.34	-0.26	-0.14	-0.20	0.1
H	9406	415241	SR	0.61	0.54	-0.26	-0.28	-0.28	0.54	0.1
H	9406	415242	SR	0.75	0.47	-0.24	0.47	-0.30	-0.21	0.1
H	9406	415243	SR	0.77	0.46	-0.26	-0.27	0.46	-0.20	0.1
H	9406	415244	SR	0.50	0.23	-0.22	0.23	-0.17	0.03	0.2
H	9406	415245	SR	0.61	0.48	-0.20	-0.30	-0.20	0.48	0.2
Mean				0.58	0.30	-0.03	-0.04	-0.07	-0.03	0.1
SD				0.17	0.14	0.22	0.24	0.22	0.22	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 Government—May Forms

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
D	8865	364281	SR	0.75	0.44	-0.29	0.44	-0.22	-0.18	0.1
D	8865	108480	CR	0.32	0.70					0.0
D	8865	370249	SR	0.56	0.53	0.53	-0.28	-0.23	-0.21	3.1
D	8865	370275	SR	0.33	0.28	0.03	-0.19	-0.19	0.28	0.4
D	8865	279845	SR	0.62	0.53	-0.30	-0.27	0.53	-0.22	0.2
D	8865	339206	SR	0.76	0.46	-0.25	-0.28	-0.20	0.46	0.3
D	8865	374584	SR	0.77	0.48	-0.23	-0.30	0.48	-0.23	0.4
D	8865	374598	SR	0.65	0.49	-0.23	0.49	-0.24	-0.28	0.5
D	8865	374600	SR	0.62	0.47	0.47	-0.29	-0.28	-0.10	0.2
D	8865	348550	SR	0.61	0.18	-0.01	0.18	-0.21	-0.16	0.2
D	8865	108343	CR	0.29	0.72					0.0
D	8865	256999	SR	0.76	0.55	-0.27	0.55	-0.31	-0.28	0.3
D	8865	374457	SR	0.45	0.32	-0.19	0.32	-0.17	-0.04	0.4
D	8865	370258	SR	0.60	0.35	-0.14	-0.25	0.35	-0.10	0.5
E	7688	374580	SR	0.70	0.44	-0.23	-0.22	-0.24	0.44	0.0
E	7688	65170	CR	0.39	0.65					0.0
E	7688	374551	SR	0.26	0.24	0.24	-0.09	-0.11	-0.01	1.8
E	7688	348530	SR	0.78	0.43	-0.28	0.43	-0.22	-0.18	0.2
E	7688	370208	SR	0.61	0.48	0.48	-0.20	-0.28	-0.22	0.1
E	7688	374603	SR	0.25	0.10	0.03	0.10	0.05	-0.25	0.3
E	7688	297440	SR	0.68	0.27	0.27	-0.26	-0.18	-0.02	0.4
E	7688	387363	SR	0.37	0.31	0.31	-0.23	-0.14	0.01	0.7
E	7688	387360	SR	0.82	0.48	-0.26	-0.18	-0.32	0.48	0.2
E	7688	339192	SR	0.68	0.37	0.37	-0.22	-0.27	-0.10	0.2
E	7688	66004	CR	0.24	0.67					0.0
E	7688	348447	SR	0.79	0.51	0.51	-0.33	-0.24	-0.23	0.2
E	7688	324429	SR	0.53	0.41	-0.32	0.41	-0.13	-0.11	0.2
E	7688	331426	SR	0.64	0.37	0.37	-0.30	-0.11	-0.13	0.2
F	7630	374488	SR	0.29	0.07	0.00	0.07	-0.09	-0.01	0.5
F	7630	52274	CR	0.31	0.69					0.0
F	7630	263967	SR	0.79	0.46	-0.20	-0.28	0.46	-0.25	2.1
F	7630	331433	SR	0.48	0.20	0.20	-0.21	-0.14	0.08	0.4
F	7630	374510	SR	0.53	0.52	-0.16	-0.26	-0.29	0.52	0.3
F	7630	368577	SR	0.38	0.50	0.50	-0.15	-0.28	-0.23	0.2
F	7630	374593	SR	0.63	0.40	-0.24	-0.18	0.40	-0.16	0.4
F	7630	374601	SR	0.67	0.30	-0.10	-0.20	0.30	-0.14	0.5
F	7630	108407	SR	0.40	0.17	0.00	-0.06	0.17	-0.18	0.3
F	7630	370210	SR	0.63	0.11	0.11	-0.10	0.02	-0.08	0.2
F	7630	65156	CR	0.32	0.70					0.0
F	7630	279744	SR	0.45	0.23	-0.20	0.23	-0.19	0.07	0.2
F	7630	324726	SR	0.78	0.54	-0.33	0.54	-0.27	-0.24	0.3
F	7630	368670	SR	0.40	0.38	-0.08	-0.14	-0.24	0.38	0.3
G	11902	374489	SR	0.73	0.39	-0.26	-0.19	-0.20	0.39	0.4
G	11902	79580	CR	0.37	0.61					0.0

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

Form	N	ItemID	Item Type	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	P_BIS4	%Omits
G	11902	257029	SR	0.83	0.36	0.36	-0.23	-0.22	-0.12	2.5
G	11902	374547	SR	0.52	0.28	-0.19	0.28	-0.11	-0.06	0.3
G	11902	348558	SR	0.63	0.10	-0.13	0.10	-0.01	0.00	0.1
G	11902	370203	SR	0.59	0.15	0.02	-0.08	0.15	-0.24	0.3
G	11902	370280	SR	0.56	0.43	-0.14	-0.22	-0.28	0.43	0.6
G	11902	368683	SR	0.83	0.43	-0.22	0.43	-0.24	-0.23	0.4
G	11902	348553	SR	0.61	0.32	-0.10	-0.24	-0.22	0.32	0.2
G	11902	279735	SR	0.37	0.30	-0.03	0.30	-0.32	-0.15	0.2
G	11902	79728	CR	0.27	0.71					0.0
G	11902	257025	SR	0.65	0.44	-0.23	-0.30	-0.16	0.44	0.3
G	11902	374672	SR	0.53	0.41	-0.22	-0.25	0.41	-0.08	0.3
G	11902	370273	SR	0.44	0.33	-0.09	-0.16	0.33	-0.19	0.4
H	12195	283272	SR	0.39	0.31	-0.17	0.00	-0.20	0.31	0.1
H	12195	137322	CR	0.33	0.67					0.0
H	12195	370237	SR	0.70	0.41	-0.19	-0.27	0.41	-0.10	2.0
H	12195	374685	SR	0.47	0.31	0.00	-0.22	0.31	-0.19	0.2
H	12195	364326	SR	0.53	0.49	-0.18	0.49	-0.19	-0.30	0.1
H	12195	261603	SR	0.58	0.32	-0.23	0.32	-0.13	-0.07	0.2
H	12195	368599	SR	0.62	0.53	0.53	-0.27	-0.27	-0.23	0.3
H	12195	363262	SR	0.60	0.30	-0.09	-0.24	-0.14	0.30	0.4
H	12195	324421	SR	0.53	0.39	-0.21	-0.17	0.39	-0.14	0.3
H	12195	374594	SR	0.61	0.53	0.53	-0.26	-0.29	-0.23	0.2
H	12195	108387	CR	0.40	0.63					0.0
H	12195	348531	SR	0.71	0.52	0.52	-0.27	-0.33	-0.19	0.2
H	12195	363191	SR	0.74	0.52	-0.26	0.52	-0.29	-0.25	0.2
H	12195	348562	SR	0.58	0.47	-0.19	-0.30	-0.21	0.47	0.2
Mean				0.55	0.42	-0.02	-0.05	-0.08	-0.03	0.4
SD				0.17	0.16	0.27	0.28	0.25	0.25	0.6

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

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

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
114	1	258190	0.32	0.21	-0.08	-0.12	0.21	0.1
	2	258164	0.38	0.24	-0.15	-0.10	0.24	0.2
	3	258224	0.32	0.23	0.05	0.23	-0.26	0.0
	4	258107	0.26	0.08	-0.04	-0.03	0.08	0.1
	5	258126	0.51	0.26	0.26	-0.16	-0.14	0.2
	6	258239	0.28	0.12	0.00	0.12	-0.12	0.2
	7	258123	0.57	0.37	0.37	-0.26	-0.17	0.2
	8	258124	0.27	0.22	-0.10	-0.09	0.22	0.1
	9	258141	0.40	0.33	0.33	-0.17	-0.18	0.2
	10	258200	0.31	0.17	0.17	-0.01	-0.15	0.1
	11	258179	0.36	0.20	-0.07	-0.13	0.20	0.2
	12	258235	0.57	0.34	-0.21	0.34	-0.18	0.2
	13	258105	0.32	0.18	0.18	-0.20	0.01	0.2
	14	258236	0.48	0.27	-0.16	0.27	-0.14	0.4
	15	261559	0.34	0.13	0.13	-0.08	-0.06	0.1
	16	258211	0.56	0.44	-0.34	0.44	-0.17	0.1
	17	258209	0.62	0.23	-0.09	-0.21	0.23	0.2
	18	258182	0.62	0.38	-0.22	-0.24	0.38	0.2
	19	258238	0.25	0.22	-0.10	-0.09	0.22	0.3
	20	261561	0.48	0.25	0.25	-0.13	-0.15	0.1
	21	258132	0.45	0.26	-0.15	0.26	-0.14	0.3
	22	258158	0.50	0.33	-0.11	-0.25	0.33	0.3
	23	258145	0.56	0.35	-0.27	0.35	-0.15	0.2
	24	261563	0.34	0.15	-0.01	-0.13	0.15	0.2
	25	258229	0.66	0.28	-0.20	0.28	-0.15	0.2
	26	258197	0.57	0.29	-0.22	0.29	-0.11	0.2
	27	258097	0.3	0.29	0.29	-0.10	-0.20	0.1
	28	258310	0.67	0.34	-0.14	-0.28	0.34	0.1
	29	258109	0.46	0.26	0.26	-0.13	-0.15	0.2
	30	258110	0.37	0.16	-0.03	0.16	-0.14	0.1
	31	258103	0.32	0.18	0.18	-0.17	0.01	0.3
	32	258108	0.45	0.11	-0.03	0.11	-0.08	0.1
	33	258196	0.60	0.21	-0.07	0.21	-0.19	0.2
	34	261564	0.51	0.32	0.32	-0.23	-0.13	0.1
	35	258153	0.37	0.22	0.22	-0.07	-0.15	0.1
	36	258122	0.79	0.34	-0.25	0.34	-0.19	0.1
	37	258240	0.67	0.30	-0.17	0.30	-0.21	0.2
	38	258157	0.19	0.11	0.11	-0.04	-0.03	0.2
	39	258091	0.21	0.11	-0.02	0.11	-0.07	0.2
	40	258118	0.47	0.25	0.25	-0.15	-0.13	0.3
	41	258225	0.54	0.28	-0.14	0.28	-0.19	0.2

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

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
114	42	261557	0.37	0.19	0.19	-0.19	-0.01	0.2
	43	258152	0.39	0.16	0.16	-0.12	-0.04	0.1
	44	258133	0.38	0.27	0.27	-0.22	-0.05	0.2
	45	258214	0.34	0.22	0.22	-0.09	-0.13	0.1
	46	258178	0.68	0.32	-0.15	-0.24	0.32	0.2
	47	258100	0.55	0.30	-0.23	0.30	-0.12	0.2
	48	258171	0.46	0.23	-0.12	0.23	-0.14	0.1
	49	258142	0.43	0.34	-0.16	-0.23	0.34	0.3
	50	258150	0.41	0.19	0.19	-0.02	-0.18	0.3
Mean			0.44	0.25	0.01	0.00	-0.03	0.2
SD			0.14	0.08	0.19	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.A2 Item Statistics: MD Mod-HSA Biology—October

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
114	1	258627	0.78	0.19	-0.14	0.19	-0.12	0.0
	2	258733	0.6	0.16	0.16	-0.05	-0.17	0.0
	3	258684	0.49	0.16	0.02	-0.21	0.16	0.0
	4	258644	0.33	0.27	0.27	-0.14	-0.13	0.0
	5	258634	0.43	0.20	-0.11	0.20	-0.11	0.0
	6	261644	0.75	0.29	0.29	-0.13	-0.26	0.1
	7	261645	0.33	0.22	-0.03	-0.20	0.22	0.0
	8	258619	0.34	0.23	0.23	-0.11	-0.12	0.0
	9	258700	0.53	0.27	-0.16	-0.16	0.27	0.1
	10	258618	0.32	0.19	-0.14	-0.06	0.19	0.0
	11	261627	0.67	0.20	-0.12	0.20	-0.14	0.0
	12	258639	0.39	0.19	0.19	-0.07	-0.13	0.1
	13	258732	0.53	0.20	0.20	-0.11	-0.13	0.0
	14	258727	0.47	0.20	-0.18	0.20	-0.06	0.0
	15	258622	0.52	0.32	0.32	-0.24	-0.12	0.1
	16	258695	0.42	0.11	-0.04	0.11	-0.08	0.1
	17	258631	0.78	0.30	0.30	-0.17	-0.22	0.1
	18	258699	0.27	-0.03	-0.12	-0.03	0.14	0.1
	19	261607	0.67	0.18	-0.11	0.18	-0.11	0.2
	20	261624	0.42	0.29	-0.14	-0.17	0.29	0.1
	21	258612	0.6	0.24	-0.16	0.24	-0.13	0.3
	22	261610	0.39	0.26	-0.16	-0.11	0.26	0.3
	23	258714	0.31	0.28	0.28	-0.16	-0.11	0.3
	24	258725	0.6	0.24	-0.16	0.24	-0.14	0.4
	25	258664	0.62	0.24	-0.13	0.24	-0.15	0.8
	26	258638	0.29	0.13	0.01	-0.13	0.13	0.1
	27	258650	0.42	0.30	-0.08	-0.25	0.30	0.1
	28	261614	0.63	0.27	0.27	-0.25	-0.11	0.1
	29	261622	0.83	0.30	-0.18	0.30	-0.22	0.0
	30	258705	0.28	0.15	-0.12	-0.02	0.15	0.1
	31	258678	0.63	0.25	-0.11	0.25	-0.19	0.1
	32	261642	0.41	0.25	0.25	-0.22	-0.03	0.1
	33	258654	0.6	0.22	-0.23	-0.05	0.22	0.1
	34	258670	0.35	0.11	-0.03	-0.08	0.11	0.0
	35	258660	0.41	0.24	-0.17	-0.11	0.24	0.2
	36	258637	0.51	0.28	-0.14	0.28	-0.19	0.1
	37	258640	0.6	0.19	-0.05	0.19	-0.21	0.0
	38	258674	0.45	0.20	-0.05	-0.16	0.20	0.1
	39	258697	0.41	0.18	0.18	-0.12	-0.06	0.1
	40	258616	0.24	-0.01	-0.11	-0.01	0.13	0.1
	41	258630	0.23	0.16	-0.08	-0.06	0.16	0.1
	42	261617	0.37	0.17	0.17	-0.04	-0.19	0.1
	43	258726	0.35	0.17	0.17	-0.09	-0.08	0.2

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

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
114	44	258730	0.44	0.17	0.17	-0.08	-0.11	0.3
	45	258657	0.21	0.05	-0.03	-0.01	0.05	0.2
	46	258651	0.44	0.35	0.35	-0.24	-0.15	0.1
	47	258712	0.44	0.27	-0.17	-0.13	0.27	0.2
	48	258731	0.27	0.14	-0.05	-0.07	0.14	0.1
	49	261608	0.53	0.31	-0.12	-0.24	0.31	0.3
	50	258693	0.34	0.29	0.29	-0.17	-0.13	0.2
Mean			0.46	0.21	0.01	-0.04	0.00	0.1
SD			0.15	0.08	0.18	0.17	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 English—October

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
114	1	259343	0.56	0.40	-0.21	-0.27	0.40	0.0
	2	259415	0.61	0.28	0.28	-0.24	-0.10	0.1
	3	259417	0.47	0.19	0.19	-0.16	-0.05	0.0
	4	259416	0.74	0.35	-0.17	0.35	-0.28	0.0
	5	259323	0.44	0.28	0.28	-0.16	-0.15	0.0
	6	259453	0.41	0.14	0.02	-0.23	0.14	0.0
	7	259382	0.60	0.26	-0.21	0.26	-0.11	0.0
	8	259452	0.39	0.18	-0.13	0.18	-0.10	0.0
	9	259465	0.35	0.14	0.14	-0.13	-0.02	0.0
	10	259351	0.42	0.19	-0.19	0.19	-0.05	0.0
	11	259430	0.75	0.23	-0.25	0.23	-0.06	0.0
	12	259431	0.64	0.37	0.37	-0.20	-0.27	0.0
	13	259318	0.56	0.35	0.35	-0.22	-0.20	0.2
	14	259319	0.32	0.10	0.03	-0.16	0.10	0.0
	15	259320	0.70	0.37	-0.21	0.37	-0.26	0.1
	16	259419	0.57	0.27	-0.16	0.27	-0.17	0.1
	17	259421	0.56	0.28	0.28	-0.25	-0.08	0.1
	18	259463	0.34	0.14	0.14	-0.09	-0.05	0.2
	19	259345	0.47	0.26	-0.11	-0.18	0.26	0.1
	20	259325	0.52	0.35	-0.21	0.35	-0.20	0.2
	21	259385	0.55	0.29	-0.12	-0.22	0.29	0.2
	22	259390	0.58	0.26	-0.11	-0.19	0.26	0.3
	23	259383	0.49	0.25	-0.20	0.25	-0.08	0.1
	24	259386	0.40	0.26	-0.19	-0.09	0.26	0.3
	25	259388	0.49	0.28	0.28	-0.12	-0.20	0.2
	26	259389	0.35	0.24	-0.12	0.24	-0.12	0.1
	27	259438	0.43	0.18	-0.15	0.18	-0.06	0.3
	28	259439	0.52	0.25	-0.19	0.25	-0.11	0.3
	29	259437	0.45	0.20	0.20	-0.04	-0.18	0.3
	30	259332	0.64	0.20	-0.13	0.20	-0.10	0.3
	31	259403	0.35	0.23	-0.06	-0.18	0.23	0.3
	32	259401	0.41	0.23	0.23	-0.06	-0.19	0.3
	33	259402	0.37	0.32	-0.27	-0.04	0.32	0.3
	34	259399	0.70	0.36	-0.23	-0.21	0.36	0.3
	35	259400	0.52	0.33	-0.14	-0.27	0.33	0.3
	36	259404	0.56	0.24	0.24	-0.10	-0.18	0.3
	37	259461	0.65	0.38	-0.25	-0.21	0.38	0.3
	38	259446	0.53	0.35	-0.18	-0.22	0.35	0.3
	39	259447	0.51	0.29	-0.16	0.29	-0.20	0.4
	40	259448	0.54	0.34	-0.18	-0.21	0.34	0.3
	41	259358	0.47	0.36	-0.12	-0.26	0.36	0.3

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

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
114	42	259434	0.37	0.06	0.01	0.06	-0.12	0.3
	43	259391	0.54	0.28	-0.13	0.28	-0.19	0.4
	44	259454	0.33	0.19	0.19	-0.09	-0.07	1.4
	45	259455	0.48	0.35	-0.24	-0.14	0.35	0.4
	46	259392	0.42	0.34	-0.17	-0.19	0.34	0.7
	47	259394	0.66	0.42	0.42	-0.27	-0.25	0.5
	48	259393	0.49	0.39	0.39	-0.21	-0.23	0.4
	49	259444	0.62	0.29	-0.15	0.29	-0.19	0.4
	50	259356	0.50	0.27	-0.21	-0.12	0.27	0.4
Mean			0.51	0.27	-0.03	-0.03	0.01	0.2
SD			0.11	0.08	0.21	0.21	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.A4 Item Statistics: MD Mod-HSA Algebra—January

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
214	1	258090	0.59	0.33	-0.15	-0.25	0.33	0.0
	2	258095	0.73	0.32	0.32	-0.20	-0.22	0.0
	3	258166	0.73	0.33	-0.28	0.33	-0.14	0.0
	4	258312	0.47	0.32	0.32	-0.21	-0.17	0.1
	5	258173	0.55	0.24	-0.12	0.24	-0.17	0.0
	6	258115	0.43	0.35	0.35	-0.22	-0.17	0.1
	7	258223	0.30	0.13	-0.13	0.13	-0.02	0.0
	8	258230	0.52	0.22	0.22	-0.26	-0.04	0.1
	9	258147	0.47	0.26	0.26	-0.14	-0.17	0.1
	10	261560	0.69	0.32	-0.19	0.32	-0.23	0.0
	11	258227	0.65	0.32	0.32	-0.19	-0.22	0.1
	12	258308	0.44	0.28	0.28	-0.13	-0.18	0.2
	13	258101	0.51	0.27	-0.21	0.27	-0.11	0.1
	14	258210	0.81	0.33	-0.23	0.33	-0.22	0.1
	15	258116	0.46	0.21	0.21	-0.11	-0.15	0.1
	16	258089	0.21	0.14	-0.08	0.14	-0.04	0.1
	17	261556	0.43	0.22	0.22	-0.24	-0.02	0.0
	18	258309	0.84	0.33	-0.22	-0.22	0.33	0.1
	19	258098	0.59	0.34	-0.21	-0.23	0.34	0.1
	20	258208	0.37	0.13	0.00	-0.14	0.13	0.3
	21	258161	0.56	0.48	0.48	-0.38	-0.19	0.0
	22	258159	0.39	0.26	-0.08	-0.20	0.26	0.2
	23	258184	0.49	0.28	-0.07	0.28	-0.24	0.1
	24	258136	0.53	0.29	-0.17	0.29	-0.17	0.2
	25	258102	0.46	0.26	-0.10	0.26	-0.18	0.3
	26	258226	0.41	0.28	-0.13	-0.17	0.28	0.2
	27	258188	0.68	0.28	-0.14	0.28	-0.21	0.2
	28	258174	0.46	0.25	-0.09	-0.18	0.25	0.4
	29	258209	0.65	0.26	-0.15	-0.18	0.26	0.2
	30	258154	0.37	0.41	-0.25	-0.17	0.41	0.2
	31	258113	0.51	0.33	-0.25	0.33	-0.12	0.2
	32	258198	0.34	0.20	-0.10	-0.09	0.20	0.4
	33	258120	0.45	0.38	-0.19	-0.24	0.38	0.3
	34	258169	0.42	0.23	-0.07	-0.17	0.23	0.2
	35	258119	0.47	0.29	0.29	-0.14	-0.19	0.2
	36	258160	0.43	0.26	0.26	-0.14	-0.13	0.3
	37	258241	0.54	0.33	-0.16	0.33	-0.23	0.3
	38	258130	0.50	0.26	0.26	-0.14	-0.15	0.3
	39	258131	0.22	0.01	0.01	0.05	-0.07	0.4
	40	258128	0.63	0.35	-0.20	0.35	-0.22	0.4
	41	258509	0.38	0.16	0.16	-0.18	0.01	0.3

Table 2.A4 Item Statistics: MD Mod-HSA Algebra—January

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
214	42	258231	0.59	0.40	-0.22	-0.26	0.40	0.2
	43	258111	0.63	0.35	-0.23	0.35	-0.22	0.3
	44	258096	0.25	0.03	0.03	0.13	-0.19	0.3
	45	258125	0.36	0.15	-0.10	0.15	-0.06	0.2
	46	258144	0.33	0.14	0.14	0.03	-0.18	0.3
	47	261558	0.40	0.21	-0.12	0.21	-0.09	0.5
	48	261562	0.40	0.23	0.23	-0.16	-0.07	0.4
	49	258220	0.31	0.14	-0.03	-0.09	0.14	0.4
	50	258135	0.54	0.19	-0.12	0.19	-0.09	0.4
Mean			0.49	0.26	-0.01	-0.01	-0.03	0.2
SD			0.14	0.09	0.21	0.23	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.A5 Item Statistics: MD Mod-HSA Biology—January

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
214	1	258636	0.63	0.31	-0.22	0.31	-0.17	0.0
	2	258653	0.35	0.21	0.21	-0.09	-0.12	0.1
	3	258690	0.43	0.16	0.02	-0.17	0.16	0.2
	4	258702	0.56	0.31	-0.28	0.31	-0.08	0.1
	5	258662	0.35	0.21	-0.13	-0.08	0.21	0.3
	6	258659	0.29	0.10	0.10	-0.13	0.04	0.1
	7	258673	0.61	0.27	-0.12	-0.20	0.27	0.1
	8	258701	0.41	0.25	-0.19	0.25	-0.08	0.1
	9	258628	0.63	0.22	0.22	-0.20	-0.06	0.1
	10	258685	0.26	0.20	0.20	-0.14	-0.08	0.1
	11	261611	0.13	0.00	0.08	-0.08	0.00	0.2
	12	258615	0.42	0.16	-0.08	0.16	-0.09	0.2
	13	258683	0.66	0.32	-0.19	0.32	-0.21	0.2
	14	258641	0.46	0.16	-0.06	0.16	-0.11	0.2
	15	258676	0.43	0.13	-0.06	0.13	-0.07	0.3
	16	258607	0.63	0.22	-0.13	0.22	-0.15	0.2
	17	258645	0.51	0.37	-0.18	-0.23	0.37	0.3
	18	258666	0.58	0.23	-0.12	0.23	-0.17	0.2
	19	258675	0.43	0.20	-0.10	0.20	-0.12	0.3
	20	261609	0.59	0.20	-0.03	-0.26	0.20	0.2
	21	258665	0.25	0.20	0.20	-0.03	-0.14	0.2
	22	258682	0.49	0.15	-0.10	0.15	-0.07	0.3
	23	258648	0.36	0.22	-0.12	0.22	-0.10	0.3
	24	258614	0.39	0.29	-0.13	-0.18	0.29	0.3
	25	258680	0.43	0.28	-0.17	-0.13	0.28	0.3
	26	258681	0.41	0.09	-0.05	-0.04	0.09	0.3
	27	258642	0.53	0.16	-0.10	0.16	-0.08	0.3
	28	261623	0.66	0.25	-0.08	-0.27	0.25	0.2
	29	258649	0.27	0.12	0.12	-0.25	0.11	0.2
	30	258687	0.40	0.19	-0.09	0.19	-0.11	0.2
	31	258646	0.33	0.17	0.17	-0.13	-0.03	0.3
	32	261626	0.64	0.25	-0.21	-0.11	0.25	0.3
	33	258707	0.47	0.34	0.34	-0.28	-0.09	0.3
	34	258643	0.56	0.23	0.23	-0.15	-0.11	0.3
	35	258698	0.27	0.17	-0.11	-0.04	0.17	0.2
	36	258728	0.27	0.14	-0.15	-0.04	0.14	0.2
	37	258734	0.52	0.34	-0.17	-0.22	0.34	0.2
	38	258735	0.47	0.23	-0.20	0.23	-0.06	0.3
	39	258704	0.51	0.23	-0.07	0.23	-0.19	0.3
	40	258624	0.59	0.32	0.32	-0.23	-0.14	0.3

Table 2.A5 Item Statistics: MD Mod-HSA Biology—January

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
214	41	258697	0.37	0.21	0.21	-0.12	-0.09	0.3
	42	258616	0.24	0.02	-0.06	0.02	0.05	0.4
	43	258617	0.40	0.17	0.17	-0.18	-0.01	0.3
	44	258688	0.38	0.15	-0.04	-0.10	0.15	0.5
	45	258669	0.60	0.31	-0.17	-0.19	0.31	0.3
	46	261621	0.64	0.34	0.34	-0.22	-0.21	0.4
	47	258703	0.37	0.22	-0.08	0.22	-0.14	0.3
	48	258692	0.49	0.19	-0.07	-0.13	0.19	0.4
	49	258635	0.51	0.32	-0.18	-0.18	0.32	0.5
	50	261616	0.48	0.25	-0.15	-0.12	0.25	0.5
Mean			0.45	0.22	-0.03	-0.02	0.03	0.2
SD			0.13	0.08	0.16	0.19	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.A6 Item Statistics: MD Mod-HSA English—January

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
214	1	259429	0.43	0.25	0.25	-0.20	-0.07	0.1
	2	259426	0.62	0.30	0.30	-0.20	-0.18	0.0
	3	259349	0.61	0.33	-0.16	0.33	-0.25	0.0
	4	259427	0.43	0.19	-0.08	0.19	-0.12	0.1
	5	259312	0.59	0.33	0.33	-0.20	-0.20	0.1
	6	259368	0.39	0.22	0.22	-0.11	-0.13	0.1
	7	259371	0.68	0.38	-0.24	-0.25	0.38	0.0
	8	259367	0.64	0.31	-0.21	0.31	-0.21	0.0
	9	259370	0.48	0.17	-0.17	0.17	-0.05	0.1
	10	259432	0.58	0.30	0.30	-0.19	-0.18	0.0
	11	259433	0.54	0.30	0.30	-0.19	-0.18	0.1
	12	259354	0.41	0.17	-0.09	-0.10	0.17	0.1
	13	259407	0.18	0.00	-0.09	0.00	0.08	0.1
	14	259335	0.36	0.20	-0.15	-0.08	0.20	0.1
	15	259410	0.70	0.33	-0.27	0.33	-0.14	1.4
	16	259413	0.52	0.23	-0.10	0.23	-0.21	0.1
	17	259411	0.48	0.25	-0.16	-0.13	0.25	0.0
	18	259414	0.38	0.23	-0.15	-0.09	0.23	0.1
	19	259338	0.39	0.13	0.13	-0.01	-0.13	0.1
	20	259339	0.65	0.34	-0.21	0.34	-0.25	0.0
	21	259340	0.72	0.39	-0.26	-0.26	0.39	0.1
	22	259362	0.60	0.37	0.37	-0.24	-0.21	0.2
	23	259436	0.31	0.18	0.18	0.01	-0.24	0.2
	24	259347	0.41	0.19	0.19	-0.13	-0.09	0.3
	25	259424	0.56	0.29	-0.12	-0.23	0.29	0.2
	26	259423	0.42	0.19	-0.09	-0.12	0.19	0.1
	27	259425	0.49	0.19	-0.08	0.19	-0.14	0.2
	28	259422	0.41	0.21	-0.10	0.21	-0.13	0.2
	29	259445	0.63	0.32	-0.26	0.32	-0.13	0.0
	30	259374	0.43	0.31	-0.18	-0.18	0.31	0.0
	31	259450	0.38	0.27	-0.16	-0.13	0.27	0.1
	32	259376	0.62	0.40	-0.20	-0.31	0.40	0.1
	33	259310	0.62	0.32	-0.13	0.32	-0.26	0.1
	34	259365	0.62	0.34	-0.16	0.34	-0.26	0.1
	35	259449	0.62	0.31	0.31	-0.18	-0.20	0.4
	36	259441	0.32	0.21	0.21	-0.20	-0.01	0.1
	37	259443	0.55	0.25	-0.10	0.25	-0.19	0.1
	38	259437	0.43	0.23	0.23	-0.06	-0.21	0.1
	39	259457	0.48	0.27	0.27	-0.22	-0.08	0.2
	40	259330	0.68	0.37	-0.16	0.37	-0.30	0.1

Table 2.A6 Item Statistics: MD Mod-HSA English—January

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
214	41	259458	0.34	0.22	0.22	-0.22	0.00	0.1
	42	259466	0.65	0.39	-0.19	-0.31	0.39	0.2
	43	259395	0.48	0.24	-0.02	0.24	-0.25	0.2
	44	259459	0.47	0.31	-0.13	-0.22	0.31	0.2
	45	259396	0.36	0.20	-0.12	-0.08	0.20	0.3
	46	259460	0.65	0.33	0.33	-0.31	-0.09	0.2
	47	259398	0.57	0.32	-0.19	0.32	-0.19	0.1
	48	259397	0.43	0.23	-0.17	-0.08	0.23	0.3
	49	259360	0.45	0.29	0.29	-0.21	-0.11	0.2
	50	259435	0.23	0.16	-0.11	-0.03	0.16	0.1
Mean			0.50	0.27	-0.01	-0.02	-0.02	0.1
SD			0.13	0.08	0.21	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.A7 Item Statistics: MD Mod-HSA Gov—January

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
214	1	258363	0.44	0.37	-0.23	-0.20	0.37	0.0
	2	258500	0.27	0.19	0.19	-0.06	-0.12	0.0
	3	258327	0.48	0.23	0.23	-0.10	-0.17	0.0
	4	258338	0.38	0.21	-0.05	0.21	-0.17	0.0
	5	258408	0.47	0.35	0.35	-0.21	-0.20	0.8
	6	258463	0.38	0.23	0.23	-0.19	-0.06	0.0
	7	258458	0.48	0.25	0.25	-0.19	-0.10	0.0
	8	258506	0.53	0.31	-0.09	-0.29	0.31	0.0
	9	258505	0.42	0.28	0.28	-0.16	-0.15	0.0
	10	258349	0.58	0.27	0.27	-0.16	-0.18	0.0
	11	258429	0.38	0.29	-0.16	-0.15	0.29	0.0
	12	258353	0.33	0.29	-0.16	0.29	-0.13	0.0
	13	258396	0.50	0.19	0.19	-0.11	-0.12	0.0
	14	258410	0.51	0.41	-0.30	-0.17	0.41	0.0
	15	258386	0.43	0.50	0.50	-0.34	-0.22	0.0
	16	258350	0.36	0.15	0.15	-0.10	-0.05	0.0
	17	258378	0.51	0.21	-0.05	-0.20	0.21	0.0
	18	258503	0.34	0.15	-0.21	0.06	0.15	0.0
	19	258440	0.57	0.34	-0.21	0.34	-0.20	0.0
	20	258400	0.47	0.28	-0.24	-0.11	0.28	0.0
	21	258421	0.36	0.18	0.18	-0.05	-0.15	0.0
	22	258446	0.37	0.39	-0.27	0.39	-0.13	0.0
	23	258344	0.37	0.22	0.22	-0.04	-0.18	0.0
	24	258432	0.49	0.18	-0.13	-0.08	0.18	0.0
	25	258428	0.48	0.16	-0.05	-0.13	0.16	0.0
	26	258360	0.41	0.22	-0.16	0.22	-0.08	0.0
	27	258343	0.53	0.38	-0.20	0.38	-0.25	0.0
	28	258438	0.60	0.41	0.41	-0.37	-0.12	0.0
	29	258718	0.68	0.44	0.44	-0.27	-0.29	0.0
	30	258424	0.38	0.12	-0.04	0.12	-0.09	0.0
	31	258323	0.33	0.08	0.10	0.08	-0.18	0.0
	32	258324	0.64	0.47	-0.26	-0.34	0.47	0.0
	33	258437	0.46	0.39	-0.19	-0.24	0.39	0.0
	34	258319	0.44	0.18	-0.10	0.18	-0.10	0.0
	35	258389	0.63	0.22	-0.12	0.22	-0.18	0.0
	36	258379	0.62	0.18	-0.14	-0.07	0.18	0.0
	37	258413	0.38	0.22	-0.13	0.22	-0.09	0.0
	38	258448	0.46	0.43	0.43	-0.21	-0.30	0.0
	39	258721	0.28	0.19	0.19	-0.02	-0.16	0.0
	40	258439	0.49	0.23	-0.14	0.23	-0.12	0.0

Table 2.A7 Item Statistics: MD Mod-HSA Gov—January

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
214	41	258368	0.41	0.20	0.20	-0.21	0.06	0.8
	42	258320	0.41	0.13	0.06	0.13	-0.18	0.0
	43	258436	0.55	0.25	0.25	-0.14	-0.16	0.0
	44	258384	0.58	0.33	-0.23	0.33	-0.17	0.0
	45	258486	0.43	0.33	-0.22	0.33	-0.15	0.0
	46	258411	0.31	0.24	-0.13	-0.12	0.24	0.8
	47	258313	0.64	0.29	-0.19	0.29	-0.17	0.0
	48	258716	0.43	0.31	0.31	-0.10	-0.28	0.8
	49	258335	0.53	0.43	-0.04	-0.42	0.43	0.0
	50	258377	0.61	0.34	0.34	-0.17	-0.25	0.0
Mean			0.46	0.27	0.03	-0.03	-0.03	0.1
SD			0.10	0.10	0.23	0.22	0.22	0.2

Table 2.A8 Item Statistics: MD Mod-HSA Algebra—April

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
314	1	258090	0.57	0.42	-0.14	-0.36	0.42	0.0
	2	258095	0.72	0.37	0.37	-0.22	-0.26	0.0
	3	258166	0.76	0.40	-0.32	0.40	-0.19	0.0
	4	258312	0.45	0.39	0.39	-0.30	-0.15	0.0
	5	258173	0.63	0.35	-0.19	0.35	-0.25	0.0
	6	258115	0.45	0.35	0.35	-0.15	-0.26	0.0
	7	258223	0.33	0.06	-0.07	0.06	-0.01	0.0
	8	258230	0.50	0.14	0.14	-0.16	-0.02	0.0
	9	258147	0.49	0.31	0.31	-0.13	-0.25	0.0
	10	261560	0.68	0.37	-0.22	0.37	-0.25	0.0
	11	258227	0.67	0.32	0.32	-0.15	-0.27	0.0
	12	258308	0.45	0.31	0.31	-0.08	-0.25	0.0
	13	258101	0.53	0.28	-0.28	0.28	-0.06	0.0
	14	258210	0.80	0.34	-0.26	0.34	-0.18	0.3
	15	258116	0.50	0.23	0.23	-0.09	-0.19	0.0
	16	258089	0.22	0.12	-0.13	0.12	0.04	0.3
	17	261556	0.39	0.17	0.17	-0.22	0.03	0.0
	18	258309	0.87	0.28	-0.24	-0.15	0.28	0.0
	19	258098	0.61	0.28	-0.18	-0.18	0.28	0.0
	20	258208	0.34	0.18	-0.04	-0.15	0.18	0.0
	21	258161	0.60	0.33	0.33	-0.28	-0.11	0.0
	22	258159	0.34	0.21	-0.08	-0.13	0.21	0.0
	23	258184	0.53	0.20	0.01	0.20	-0.22	0.3
	24	258136	0.53	0.37	-0.23	0.37	-0.21	0.0
	25	258102	0.49	0.25	-0.08	0.25	-0.18	0.3
	26	258226	0.40	0.29	-0.15	-0.15	0.29	0.6
	27	258188	0.71	0.22	-0.07	0.22	-0.19	0.3
	28	258174	0.46	0.18	0.00	-0.15	0.18	0.6
	29	258209	0.61	0.23	-0.07	-0.20	0.23	0.6
	30	258154	0.36	0.40	-0.29	-0.08	0.40	1.3
	31	258113	0.51	0.40	-0.30	0.40	-0.14	0.6
	32	258198	0.37	0.21	-0.14	-0.04	0.21	0.6
	33	258120	0.44	0.34	-0.14	-0.22	0.34	0.6
	34	258169	0.46	0.22	-0.08	-0.14	0.22	0.6
	35	258119	0.44	0.24	0.24	-0.05	-0.20	0.6
	36	258160	0.50	0.26	0.26	-0.12	-0.14	0.6
	37	258241	0.53	0.28	-0.18	0.28	-0.11	1.3
	38	258130	0.47	0.25	0.25	-0.12	-0.16	1.3
	39	258131	0.24	-0.07	-0.07	0.12	-0.04	0.6
	40	258128	0.66	0.29	-0.18	0.29	-0.15	0.6
	41	258509	0.39	0.12	0.12	-0.15	0.05	0.6
	42	258231	0.58	0.40	-0.21	-0.22	0.40	0.9
	43	258111	0.67	0.40	-0.25	0.40	-0.24	0.6

Table 2.A8 Item Statistics: MD Mod-HSA Algebra—April

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
314	44	258096	0.29	0.05	0.05	0.07	-0.11	0.6
	45	258125	0.41	0.15	-0.16	0.15	0.00	0.6
	46	258144	0.31	0.14	0.14	-0.01	-0.10	0.6
	47	261558	0.40	0.24	-0.17	0.24	-0.06	0.6
	48	261562	0.36	0.25	0.25	-0.08	-0.15	0.6
	49	258220	0.34	0.21	-0.10	-0.07	0.21	0.9
	50	258135	0.53	0.12	-0.02	0.12	-0.11	0.9
Mean			0.50	0.26	-0.02	0.01	-0.02	0.4
SD			0.14	0.11	0.21	0.22	0.21	0.4

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 Biology—April

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
314	1	258636	0.60	0.32	-0.21	0.32	-0.18	0.0
	2	258653	0.32	0.27	0.27	-0.06	-0.22	0.0
	3	258690	0.39	0.24	-0.08	-0.18	0.24	0.0
	4	258702	0.59	0.31	-0.23	0.31	-0.15	0.0
	5	258662	0.37	0.16	-0.08	-0.08	0.16	0.0
	6	258659	0.35	0.02	0.02	-0.05	0.04	0.0
	7	258673	0.62	0.21	-0.09	-0.18	0.21	0.0
	8	258701	0.45	0.23	-0.21	0.23	-0.06	0.0
	9	258628	0.57	0.34	0.34	-0.25	-0.17	0.0
	10	258685	0.31	0.24	0.24	-0.15	-0.12	0.0
	11	261611	0.11	-0.05	-0.01	0.04	-0.05	0.0
	12	258615	0.42	0.22	-0.13	0.22	-0.10	0.8
	13	258683	0.60	0.39	-0.25	0.39	-0.23	0.0
	14	258641	0.47	0.16	-0.05	0.16	-0.12	0.4
	15	258676	0.36	0.07	-0.06	0.07	0.00	0.4
	16	258607	0.65	0.30	-0.18	0.30	-0.21	0.4
	17	258645	0.44	0.34	-0.16	-0.20	0.34	1.1
	18	258666	0.53	0.29	-0.22	0.29	-0.09	0.8
	19	258675	0.41	0.22	-0.13	0.22	-0.11	0.4
	20	261609	0.60	0.12	0.02	-0.17	0.12	0.4
	21	258665	0.23	0.23	0.23	-0.13	-0.06	0.4
	22	258682	0.44	0.19	-0.05	0.19	-0.15	0.4
	23	258648	0.35	0.29	-0.14	0.29	-0.14	0.4
	24	258614	0.40	0.27	-0.05	-0.22	0.27	0.4
	25	258680	0.45	0.29	-0.13	-0.17	0.29	0.8
	26	258681	0.38	0.15	-0.05	-0.09	0.15	0.4
	27	258642	0.54	0.21	-0.11	0.21	-0.10	0.8
	28	261623	0.65	0.28	-0.06	-0.31	0.28	0.8
	29	258649	0.22	0.12	0.12	-0.18	0.10	0.8
	30	258687	0.42	0.12	0.03	0.12	-0.11	0.8
	31	258646	0.31	0.21	0.21	-0.19	0.01	0.8
	32	261626	0.64	0.26	-0.16	-0.14	0.26	0.8
	33	258707	0.43	0.36	0.36	-0.18	-0.18	0.8
	34	258643	0.49	0.25	0.25	-0.14	-0.13	0.8
	35	258698	0.30	0.07	0.03	-0.07	0.07	0.8
	36	258728	0.29	0.17	-0.09	-0.08	0.17	0.8
	37	258734	0.51	0.24	-0.14	-0.10	0.24	0.8
	38	258735	0.42	0.20	-0.16	0.20	-0.03	0.8
	39	258704	0.42	0.25	-0.09	0.25	-0.15	0.8
	40	258624	0.58	0.27	0.27	-0.15	-0.14	0.8
	41	258697	0.37	0.19	0.19	-0.08	-0.05	1.5
	42	258616	0.24	0.07	-0.07	0.07	0.07	1.1
	43	258617	0.36	0.30	0.30	-0.24	-0.04	1.1

Table 2.A9 Item Statistics: MD Mod-HSA Biology—April

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
314	44	258688	0.37	0.16	-0.02	-0.10	0.16	1.1
	45	258669	0.60	0.28	-0.11	-0.17	0.28	1.1
	46	261621	0.61	0.32	0.32	-0.17	-0.18	1.5
	47	258703	0.38	0.28	-0.09	0.28	-0.15	1.5
	48	258692	0.50	0.27	-0.11	-0.15	0.27	1.5
	49	258635	0.50	0.21	-0.14	-0.05	0.21	1.5
	50	261616	0.47	0.36	-0.20	-0.15	0.36	1.5
Mean			0.44	0.23	-0.02	-0.01	0.02	0.6
SD			0.13	0.09	0.17	0.19	0.18	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.A10 Item Statistics: MD Mod-HSA English—April

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
314	1	259429	0.42	0.38	0.38	-0.29	-0.12	0.0
	2	259426	0.54	0.26	0.26	-0.17	-0.14	0.0
	3	259349	0.59	0.37	-0.22	0.37	-0.23	0.0
	4	259427	0.42	0.13	-0.06	0.13	-0.08	0.0
	5	259312	0.58	0.31	0.31	-0.23	-0.15	0.0
	6	259368	0.37	0.16	0.16	-0.07	-0.09	0.0
	7	259371	0.66	0.34	-0.15	-0.27	0.34	0.0
	8	259367	0.63	0.32	-0.22	0.32	-0.22	0.0
	9	259370	0.47	0.29	-0.21	0.29	-0.14	0.0
	10	259432	0.56	0.42	0.42	-0.34	-0.15	0.3
	11	259433	0.47	0.28	0.28	-0.15	-0.16	0.3
	12	259354	0.39	0.20	-0.15	-0.05	0.20	0.7
	13	259407	0.20	-0.04	-0.09	-0.04	0.14	0.3
	14	259335	0.41	0.12	-0.19	0.03	0.12	0.7
	15	259410	0.66	0.43	-0.33	0.43	-0.17	1.3
	16	259413	0.52	0.18	-0.03	0.18	-0.19	0.7
	17	259411	0.46	0.27	-0.13	-0.14	0.27	1.0
	18	259414	0.37	0.24	-0.12	-0.11	0.24	0.7
	19	259338	0.39	0.17	0.17	-0.05	-0.10	0.7
	20	259339	0.56	0.26	-0.14	0.26	-0.17	0.7
	21	259340	0.66	0.37	-0.25	-0.20	0.37	0.7
	22	259362	0.52	0.40	0.40	-0.22	-0.22	1.7
	23	259436	0.29	0.13	0.13	0.05	-0.20	1.0
	24	259347	0.43	0.24	0.24	-0.21	-0.04	1.3
	25	259424	0.54	0.30	-0.18	-0.16	0.30	1.0
	26	259423	0.43	0.21	-0.06	-0.15	0.21	1.0
	27	259425	0.37	0.12	-0.08	0.12	-0.01	1.7
	28	259422	0.40	0.25	-0.01	0.25	-0.25	1.0
	29	259445	0.60	0.24	-0.21	0.24	-0.07	0.0
	30	259374	0.38	0.26	-0.10	-0.21	0.26	0.0
	31	259450	0.35	0.30	-0.19	-0.13	0.30	0.3
	32	259376	0.56	0.35	-0.11	-0.34	0.35	0.0
	33	259310	0.58	0.32	-0.19	0.32	-0.19	0.0
	34	259365	0.60	0.28	-0.16	0.28	-0.19	0.0
	35	259449	0.55	0.34	0.34	-0.21	-0.21	0.3
	36	259441	0.29	0.16	0.16	-0.13	-0.03	0.0
	37	259443	0.48	0.24	-0.22	0.24	-0.06	0.0
	38	259437	0.42	0.23	0.23	-0.12	-0.13	0.0
	39	259457	0.39	0.32	0.32	-0.24	-0.10	0.0
	40	259330	0.67	0.38	-0.13	0.38	-0.32	0.3
	41	259458	0.38	0.27	0.27	-0.13	-0.14	0.3
	42	259466	0.63	0.48	-0.21	-0.37	0.48	0.7

Table 2.A10 Item Statistics: MD Mod-HSA English—April

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
314	43	259395	0.43	0.28	0.08	0.28	-0.35	0.7
	44	259459	0.46	0.27	-0.16	-0.12	0.27	0.3
	45	259396	0.33	0.20	-0.12	-0.07	0.20	0.7
	46	259460	0.67	0.32	0.32	-0.14	-0.25	0.3
	47	259398	0.52	0.30	-0.12	0.30	-0.22	0.7
	48	259397	0.44	0.25	-0.12	-0.14	0.25	0.7
	49	259360	0.44	0.29	0.29	-0.15	-0.16	0.7
	50	259435	0.23	0.20	-0.10	-0.08	0.20	0.7
Mean			0.47	0.27	0.00	-0.02	-0.02	0.5
SD			0.12	0.09	0.22	0.22	0.22	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.A11 Item Statistics: MD Mod-HSA Algebra—May

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
414	1	258190	0.34	0.24	-0.07	-0.16	0.24	0.1
	2	258164	0.38	0.28	-0.18	-0.11	0.28	0.1
	3	258224	0.33	0.25	0.02	0.25	-0.26	0.0
	4	258107	0.29	0.13	-0.06	-0.06	0.13	0.1
	5	258126	0.51	0.29	0.29	-0.18	-0.16	0.1
	6	258239	0.31	0.13	0.00	0.13	-0.14	0.1
	7	258123	0.56	0.38	0.38	-0.27	-0.18	0.1
	8	258124	0.26	0.30	-0.13	-0.14	0.30	0.1
	9	258141	0.44	0.30	0.30	-0.16	-0.17	0.1
	10	258200	0.30	0.24	0.24	-0.03	-0.20	0.2
	11	258179	0.34	0.20	-0.13	-0.07	0.20	0.3
	12	258235	0.55	0.36	-0.21	0.36	-0.20	0.3
	13	258105	0.30	0.20	0.20	-0.22	0.02	0.7
	14	258236	0.50	0.25	-0.20	0.25	-0.10	0.3
	15	261559	0.37	0.13	0.13	-0.10	-0.04	0.3
	16	258211	0.57	0.43	-0.35	0.43	-0.14	0.3
	17	258209	0.65	0.25	-0.15	-0.16	0.25	0.4
	18	258182	0.62	0.36	-0.16	-0.27	0.36	0.3
	19	258238	0.25	0.32	-0.13	-0.14	0.32	0.5
	20	261561	0.46	0.29	0.29	-0.13	-0.19	0.3
	21	258132	0.46	0.26	-0.14	0.26	-0.14	0.3
	22	258158	0.46	0.32	-0.14	-0.20	0.32	0.3
	23	258145	0.56	0.34	-0.25	0.34	-0.15	0.3
	24	261563	0.34	0.21	-0.03	-0.17	0.21	0.5
	25	258229	0.65	0.33	-0.22	0.33	-0.18	0.5
	26	258197	0.57	0.31	-0.22	0.31	-0.14	0.2
	27	258097	0.31	0.32	0.32	-0.12	-0.21	0.3
	28	258310	0.67	0.36	-0.18	-0.26	0.36	0.2
	29	258109	0.47	0.29	0.29	-0.14	-0.18	0.3
	30	258110	0.40	0.17	-0.01	0.17	-0.16	0.2
	31	258103	0.31	0.17	0.17	-0.18	0.04	0.3
	32	258108	0.46	0.18	-0.08	0.18	-0.11	0.2
	33	258196	0.57	0.22	-0.08	0.22	-0.19	0.3
	34	261564	0.48	0.35	0.35	-0.22	-0.17	0.3
	35	258153	0.40	0.27	0.27	-0.11	-0.17	0.3
	36	258122	0.80	0.28	-0.22	0.28	-0.13	0.3
	37	258240	0.64	0.32	-0.17	0.32	-0.23	0.6
	38	258157	0.21	0.17	0.17	-0.08	-0.05	0.5
	39	258091	0.23	0.17	-0.04	0.17	-0.09	0.4
	40	258118	0.49	0.27	0.27	-0.14	-0.17	0.4
	41	258225	0.52	0.33	-0.19	0.33	-0.17	0.5
	42	261557	0.40	0.23	0.23	-0.18	-0.05	0.4

Table 2.A11 Item Statistics: MD Mod-HSA Algebra—May

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
414	43	258152	0.40	0.18	0.18	-0.13	-0.04	0.4
	44	258133	0.39	0.29	0.29	-0.23	-0.06	0.4
	45	258214	0.36	0.30	0.30	-0.16	-0.14	0.5
	46	258178	0.69	0.30	-0.17	-0.20	0.30	0.4
	47	258100	0.57	0.33	-0.24	0.33	-0.14	0.4
	48	258171	0.45	0.32	-0.17	0.32	-0.17	0.4
	49	258142	0.42	0.34	-0.19	-0.19	0.34	0.5
	50	258150	0.42	0.22	0.22	-0.05	-0.17	0.5
Mean			0.45	0.27	0.01	0.00	-0.03	0.3
SD			0.13	0.07	0.21	0.22	0.20	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 Biology—May

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
414	1	258627	0.80	0.23	-0.15	0.23	-0.17	0.0
	2	258733	0.57	0.12	0.12	-0.02	-0.14	0.0
	3	258684	0.50	0.12	0.01	-0.15	0.12	0.0
	4	258644	0.35	0.29	0.29	-0.15	-0.15	0.0
	5	258634	0.41	0.25	-0.15	0.25	-0.12	0.1
	6	261644	0.73	0.29	0.29	-0.18	-0.20	0.0
	7	261645	0.36	0.22	-0.02	-0.22	0.22	0.0
	8	258619	0.39	0.26	0.26	-0.11	-0.16	0.1
	9	258700	0.59	0.38	-0.19	-0.28	0.38	0.0
	10	258618	0.34	0.24	-0.08	-0.16	0.24	0.1
	11	261627	0.63	0.21	-0.13	0.21	-0.14	0.1
	12	258639	0.41	0.26	0.26	-0.09	-0.19	0.1
	13	258732	0.54	0.25	0.25	-0.17	-0.13	0.1
	14	258727	0.48	0.28	-0.20	0.28	-0.13	0.1
	15	258622	0.56	0.31	0.31	-0.25	-0.11	0.1
	16	258695	0.45	0.18	-0.09	0.18	-0.11	0.1
	17	258631	0.81	0.28	0.28	-0.18	-0.19	0.0
	18	258699	0.26	0.00	-0.20	0.00	0.18	0.1
	19	261607	0.68	0.20	-0.13	0.20	-0.14	0.2
	20	261624	0.44	0.36	-0.18	-0.22	0.36	0.2
	21	258612	0.63	0.30	-0.20	0.30	-0.18	0.2
	22	261610	0.42	0.31	-0.16	-0.18	0.31	0.1
	23	258714	0.29	0.30	0.30	-0.14	-0.14	0.4
	24	258725	0.61	0.35	-0.19	0.35	-0.24	0.3
	25	258664	0.62	0.30	-0.16	0.30	-0.21	0.4
	26	258638	0.33	0.20	-0.07	-0.14	0.20	0.1
	27	258650	0.44	0.32	-0.10	-0.26	0.32	0.1
	28	261614	0.61	0.32	0.32	-0.24	-0.17	0.1
	29	261622	0.82	0.27	-0.16	0.27	-0.20	0.1
	30	258705	0.31	0.24	-0.18	-0.06	0.24	0.1
	31	258678	0.66	0.35	-0.20	0.35	-0.24	0.1
	32	261642	0.41	0.21	0.21	-0.17	-0.04	0.1
	33	258654	0.60	0.22	-0.23	-0.05	0.22	0.1
	34	258670	0.38	0.15	0.00	-0.15	0.15	0.1
	35	258660	0.44	0.29	-0.18	-0.15	0.29	0.1
	36	258637	0.53	0.37	-0.23	0.37	-0.20	0.1
	37	258640	0.60	0.23	-0.14	0.23	-0.16	0.1
	38	258674	0.47	0.25	-0.13	-0.14	0.25	0.1
	39	258697	0.42	0.23	0.23	-0.16	-0.09	0.2
	40	258616	0.23	0.01	-0.09	0.01	0.08	0.1
	41	258630	0.26	0.31	-0.17	-0.10	0.31	0.1
	42	261617	0.40	0.23	0.23	-0.08	-0.23	0.1
414	43	258726	0.42	0.23	0.23	-0.09	-0.16	0.1

Table 2.A12 Item Statistics: MD Mod-HSA Biology—May

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
	44	258730	0.49	0.30	0.30	-0.17	-0.18	0.1
	45	258657	0.23	0.19	-0.08	-0.09	0.19	0.2
	46	258651	0.48	0.38	0.38	-0.21	-0.22	0.1
	47	258712	0.47	0.33	-0.23	-0.15	0.33	0.2
	48	258731	0.36	0.27	-0.12	-0.16	0.27	0.2
	49	261608	0.58	0.35	-0.19	-0.24	0.35	0.2
	50	258693	0.42	0.31	0.31	-0.23	-0.10	0.3
Mean			0.48	0.26	0.00	-0.04	0.00	0.1
SD			0.15	0.08	0.21	0.20	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 English—May

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
414	1	259343	0.57	0.41	-0.23	-0.28	0.41	0.0
	2	259415	0.64	0.28	0.28	-0.21	-0.14	0.0
	3	259417	0.49	0.13	0.13	-0.10	-0.04	0.0
	4	259416	0.76	0.34	-0.17	0.34	-0.26	0.0
	5	259323	0.43	0.26	0.26	-0.12	-0.16	0.1
	6	259453	0.42	0.17	-0.03	-0.20	0.17	0.1
	7	259382	0.60	0.27	-0.20	0.27	-0.13	0.0
	8	259452	0.39	0.18	-0.18	0.18	-0.05	0.1
	9	259465	0.38	0.20	0.20	-0.19	-0.03	0.1
	10	259351	0.42	0.22	-0.23	0.22	-0.04	0.3
	11	259430	0.74	0.24	-0.21	0.24	-0.10	0.2
	12	259431	0.64	0.38	0.38	-0.18	-0.27	0.5
	13	259318	0.58	0.43	0.43	-0.24	-0.26	0.4
	14	259319	0.32	0.13	0.01	-0.15	0.13	0.3
	15	259320	0.70	0.41	-0.21	0.41	-0.28	0.5
	16	259419	0.57	0.30	-0.15	0.30	-0.19	0.4
	17	259421	0.59	0.25	0.25	-0.18	-0.09	0.4
	18	259463	0.37	0.20	0.20	-0.15	-0.03	0.5
	19	259345	0.47	0.35	-0.18	-0.19	0.35	0.5
	20	259325	0.55	0.36	-0.19	0.36	-0.21	0.4
	21	259385	0.54	0.30	-0.16	-0.16	0.30	0.6
	22	259390	0.59	0.32	-0.15	-0.21	0.32	0.5
	23	259383	0.49	0.27	-0.19	0.27	-0.09	0.5
	24	259386	0.42	0.31	-0.17	-0.14	0.31	0.4
	25	259388	0.51	0.27	0.27	-0.09	-0.20	0.5
	26	259389	0.36	0.22	-0.11	0.22	-0.09	0.6
	27	259438	0.43	0.16	-0.11	0.16	-0.03	0.7
	28	259439	0.53	0.27	-0.21	0.27	-0.09	0.9
	29	259437	0.46	0.25	0.25	-0.06	-0.19	0.7
	30	259332	0.63	0.26	-0.16	0.26	-0.12	0.8
	31	259403	0.34	0.22	-0.04	-0.16	0.22	0.7
	32	259401	0.43	0.21	0.21	-0.07	-0.12	0.7
	33	259402	0.39	0.32	-0.24	-0.05	0.32	0.7
	34	259399	0.73	0.36	-0.20	-0.22	0.36	0.7
	35	259400	0.51	0.37	-0.17	-0.26	0.37	0.7
	36	259404	0.58	0.23	0.23	-0.13	-0.11	0.8
	37	259461	0.67	0.41	-0.24	-0.23	0.41	0.7
	38	259446	0.52	0.37	-0.16	-0.24	0.37	0.8
	39	259447	0.51	0.30	-0.18	0.30	-0.14	0.8
	40	259448	0.55	0.35	-0.20	-0.17	0.35	0.9
	41	259358	0.50	0.36	-0.16	-0.22	0.36	0.8

Table 2.A13 Item Statistics: MD Mod-HSA English—May

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
414	42	259434	0.36	0.11	0.01	0.11	-0.15	0.7
	43	259391	0.57	0.36	-0.16	0.36	-0.24	0.9
	44	259454	0.36	0.18	0.18	-0.12	0.00	1.3
	45	259455	0.48	0.34	-0.20	-0.15	0.34	0.8
	46	259392	0.45	0.40	-0.20	-0.20	0.40	1.1
	47	259394	0.66	0.45	0.45	-0.26	-0.28	0.9
	48	259393	0.48	0.39	0.39	-0.21	-0.20	1.0
	49	259444	0.64	0.31	-0.17	0.31	-0.18	0.9
	50	259356	0.51	0.33	-0.21	-0.16	0.33	1.0
Mean			0.52	0.29	-0.03	-0.02	0.03	0.6
SD			0.11	0.09	0.22	0.22	0.24	0.3

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 Government—May

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
414	1	258401	0.56	0.38	-0.20	-0.26	0.38	0.0
	2	258459	0.73	0.29	-0.18	0.29	-0.20	0.1
	3	258402	0.44	0.33	-0.25	-0.14	0.33	0.1
	4	258406	0.66	0.36	-0.23	0.36	-0.23	0.0
	5	258347	0.52	0.29	0.29	-0.20	-0.17	0.0
	6	258328	0.54	0.43	0.43	-0.34	-0.17	0.0
	7	258422	0.45	0.28	-0.16	-0.16	0.28	0.0
	8	258357	0.3	0.19	-0.06	0.19	-0.13	0.0
	9	258452	0.43	0.34	0.34	-0.25	-0.14	0.0
	10	258330	0.53	0.39	0.39	-0.24	-0.22	0.0
	11	258454	0.44	0.28	-0.22	-0.12	0.28	0.1
	12	258364	0.71	0.31	-0.24	0.31	-0.17	0.0
	13	258361	0.49	0.35	0.35	-0.26	-0.14	0.1
	14	258336	0.45	0.27	-0.14	-0.16	0.27	0.0
	15	258376	0.46	0.32	0.32	-0.20	-0.15	0.3
	16	258419	0.31	0.03	-0.07	0.03	0.04	0.1
	17	258425	0.59	0.27	-0.14	0.27	-0.21	0.2
	18	258715	0.72	0.27	-0.18	0.27	-0.18	0.2
	19	258473	0.5	0.27	-0.14	-0.18	0.27	0.0
	20	258478	0.29	0.04	0.06	0.04	-0.11	0.4
	21	258501	0.5	0.25	-0.17	-0.11	0.25	0.1
	22	258450	0.51	0.27	0.27	-0.14	-0.18	0.3
	23	258498	0.5	0.39	0.39	-0.22	-0.23	0.3
	24	258388	0.32	0.14	-0.12	0.14	-0.02	0.2
	25	258351	0.37	0.38	0.38	-0.32	-0.07	0.2
	26	258488	0.74	0.34	0.34	-0.29	-0.14	0.2
	27	258479	0.47	0.36	-0.16	0.36	-0.25	0.1
	28	258375	0.53	0.44	0.44	-0.29	-0.23	0.1
	29	258414	0.48	0.28	-0.10	0.28	-0.22	0.1
	30	258495	0.25	0.17	0.17	0.02	-0.17	0.1
	31	258321	0.53	0.30	0.30	-0.17	-0.18	0.1
	32	258426	0.25	0.27	0.27	-0.22	0.00	0.2
	33	258722	0.54	0.21	-0.10	0.21	-0.14	0.1
	34	258407	0.31	0.07	0.07	0.09	-0.18	0.1
	35	258412	0.59	0.37	0.37	-0.18	-0.27	0.2
	36	258369	0.49	0.35	-0.20	-0.20	0.35	0.2
	37	258483	0.48	0.32	0.32	-0.20	-0.16	0.4
	38	258719	0.64	0.36	0.36	-0.20	-0.24	0.6
	39	258345	0.22	0.10	0.02	0.10	-0.11	0.3
	40	258390	0.59	0.31	-0.21	0.31	-0.16	0.2
	41	258329	0.29	0.17	0.17	0.00	-0.17	0.2

Table 2.A14 Item Statistics: MD Mod-HSA Government—May

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
414	42	258409	0.6	0.12	-0.07	0.12	-0.08	0.3
	43	258434	0.35	0.19	0.01	-0.18	0.19	0.3
	44	258391	0.6	0.32	0.32	-0.18	-0.21	0.3
	45	258316	0.44	0.14	-0.07	0.14	-0.09	0.5
	46	258404	0.49	0.31	0.31	-0.13	-0.23	0.3
	47	258468	0.57	0.37	0.37	-0.23	-0.20	0.4
	48	258491	0.37	0.21	-0.03	0.21	-0.19	0.3
	49	258341	0.57	0.34	0.34	-0.25	-0.17	0.2
	50	258502	0.34	0.28	0.28	-0.14	-0.14	0.5
Mean			0.48	0.28	0.08	-0.05	-0.08	0.2
SD			0.13	0.10	0.24	0.21	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.A15 Item Statistics: MD Mod-HSA Algebra—Summer Primary 1

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
514	1	258090	0.48	0.35	-0.25	-0.20	0.35	1.0
	2	258095	0.58	0.45	0.45	-0.22	-0.29	2.0
	3	258166	0.77	0.32	-0.18	0.32	-0.14	1.0
	4	258312	0.47	0.33	0.33	-0.08	-0.21	2.0
	5	258173	0.54	0.28	-0.08	0.28	-0.18	1.0
	6	258115	0.38	0.20	0.20	-0.16	0.05	2.0
	7	258223	0.26	0.07	-0.04	0.07	0.03	1.0
	8	258230	0.38	0.33	0.33	-0.26	-0.03	1.0
	9	258147	0.47	0.34	0.34	-0.12	-0.20	1.0
	10	261560	0.61	0.39	-0.17	0.39	-0.23	1.0
	11	258227	0.65	0.35	0.35	-0.24	-0.12	1.0
	12	258308	0.36	0.14	0.14	0.06	-0.11	1.0
	13	258101	0.44	0.26	-0.18	0.26	-0.04	1.0
	14	258210	0.70	0.45	-0.19	0.45	-0.30	1.0
	15	258116	0.35	0.35	0.35	-0.27	-0.06	1.0
	16	258089	0.24	0.32	-0.16	0.32	-0.05	1.0
	17	261556	0.35	0.28	0.28	-0.37	0.12	1.0
	18	258309	0.72	0.42	-0.24	-0.22	0.42	1.0
	19	258098	0.59	0.26	-0.22	-0.04	0.26	1.0
	20	258208	0.47	0.03	0.06	-0.02	0.03	1.0
	21	258161	0.44	0.52	0.52	-0.39	-0.09	1.0
	22	258159	0.32	0.23	-0.01	-0.15	0.23	1.0
	23	258184	0.38	0.39	-0.15	0.39	-0.19	1.0
	24	258136	0.45	0.33	-0.13	0.33	-0.16	1.0
	25	258102	0.41	0.28	-0.06	0.28	-0.15	2.0
	26	258226	0.40	0.23	-0.02	-0.14	0.23	1.0
	27	258188	0.61	0.17	0.01	0.17	-0.14	1.0
	28	258174	0.47	0.17	0.08	-0.19	0.17	2.0
	29	258209	0.59	0.23	-0.09	-0.17	0.23	1.0
	30	258154	0.41	0.32	-0.25	-0.01	0.32	1.0
	31	258113	0.52	0.38	-0.21	0.38	-0.16	1.0
	32	258198	0.35	0.06	0.05	-0.04	0.06	1.0
	33	258120	0.39	0.42	-0.23	-0.15	0.42	1.0
	34	258169	0.52	0.35	-0.07	-0.25	0.35	1.0
	35	258119	0.39	0.11	0.11	0.16	-0.23	1.0
	36	258160	0.30	0.09	0.09	-0.09	0.07	1.0
	37	258241	0.54	0.30	-0.01	0.30	-0.27	1.0
	38	258130	0.44	0.10	0.10	0.08	-0.12	1.0
	39	258131	0.27	0.11	0.11	0.16	-0.23	1.0
	40	258128	0.49	0.45	-0.19	0.45	-0.25	1.0
	41	258509	0.41	0.28	0.28	-0.14	-0.11	1.0
	42	258231	0.57	0.48	-0.19	-0.31	0.48	1.0
	43	258111	0.46	0.51	-0.22	0.51	-0.30	2.0

Table 2.A15 Item Statistics: MD Mod-HSA Algebra—Summer Primary 1

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
514	44	258096	0.27	0.04	0.04	0.13	-0.12	1.0
	45	258125	0.37	0.28	-0.14	0.28	-0.06	2.0
	46	258144	0.31	0.16	0.16	-0.04	-0.05	1.0
	47	261558	0.30	0.17	-0.11	0.17	0.01	1.0
	48	261562	0.35	0.38	0.38	-0.27	-0.05	1.0
	49	258220	0.34	0.13	-0.06	0.00	0.13	1.0
	50	258135	0.40	0.16	-0.08	0.16	-0.02	1.0
Mean			0.45	0.28	0.02	0.03	-0.01	1.2
SD			0.12	0.13	0.21	0.25	0.21	0.4

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 Algebra—Summer Primary 2

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
614	1	258190	0.33	0.36	-0.19	-0.17	0.36	0.0
	2	258164	0.52	0.22	-0.08	-0.17	0.22	0.0
	3	258224	0.38	0.23	-0.01	0.23	-0.22	0.0
	4	258107	0.34	0.39	-0.33	-0.13	0.39	0.0
	5	258126	0.42	0.40	0.40	-0.08	-0.38	0.0
	6	258239	0.31	0.12	0.13	0.12	-0.29	0.0
	7	258123	0.61	0.28	0.28	-0.15	-0.22	0.0
	8	258124	0.33	0.37	-0.09	-0.28	0.37	0.0
	9	258141	0.43	0.44	0.44	-0.22	-0.29	0.0
	10	258200	0.34	0.32	0.32	0.01	-0.32	0.0
	11	258179	0.38	0.38	-0.22	-0.20	0.38	0.0
	12	258235	0.56	0.41	-0.27	0.41	-0.22	0.0
	13	258105	0.34	0.15	0.15	-0.24	0.10	1.1
	14	258236	0.44	0.30	-0.16	0.30	-0.17	0.0
	15	261559	0.33	0.27	0.27	-0.30	0.04	1.1
	16	258211	0.49	0.44	-0.43	0.44	-0.03	0.0
	17	258209	0.59	0.23	-0.09	-0.17	0.23	1.0
	18	258182	0.67	0.47	-0.15	-0.42	0.47	0.0
	19	258238	0.40	0.34	-0.21	-0.17	0.34	0.0
	20	261561	0.51	0.26	0.26	-0.13	-0.18	0.0
	21	258132	0.48	0.31	-0.18	0.31	-0.19	0.0
	22	258158	0.45	0.37	-0.14	-0.28	0.37	0.0
	23	258145	0.57	0.42	-0.14	0.42	-0.33	1.1
	24	261563	0.40	0.29	-0.23	-0.07	0.29	0.0
	25	258229	0.66	0.34	-0.13	0.34	-0.30	0.0
	26	258197	0.55	0.40	-0.37	0.40	-0.01	1.1
	27	258097	0.27	0.31	0.31	0.08	-0.34	1.1
	28	258310	0.59	0.51	-0.14	-0.42	0.51	1.1
	29	258109	0.45	0.34	0.34	-0.11	-0.23	1.1
	30	258110	0.33	0.20	0.03	0.20	-0.19	1.1
	31	258103	0.33	0.25	0.25	-0.22	0.02	1.1
	32	258108	0.41	0.37	-0.13	0.37	-0.23	1.1
	33	258196	0.56	0.41	-0.23	0.41	-0.22	1.1
	34	261564	0.47	0.40	0.40	-0.30	-0.10	1.1
	35	258153	0.38	0.33	0.33	-0.15	-0.15	1.1
	36	258122	0.78	0.27	-0.25	0.27	-0.02	1.1
	37	258240	0.55	0.44	-0.23	0.44	-0.25	1.1
	38	258157	0.17	0.09	0.09	0.01	-0.03	1.1
	39	258091	0.28	0.28	-0.23	0.28	0.02	1.1
	40	258118	0.53	0.46	0.46	-0.33	-0.15	1.1
	41	258225	0.44	0.29	-0.14	0.29	-0.14	1.1
	42	261557	0.34	0.25	0.25	0.02	-0.24	1.1
	43	258152	0.43	0.04	0.04	-0.17	0.19	1.1

Table 2.A16 Item Statistics: MD Mod-HSA Algebra—Summer Primary 2

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
614	44	258133	0.28	0.23	0.23	-0.14	-0.04	1.1
	45	258214	0.34	0.39	0.39	-0.10	-0.25	1.1
	46	258178	0.67	0.37	-0.21	-0.20	0.37	1.1
	47	258100	0.55	0.34	-0.17	0.34	-0.16	2.2
	48	258171	0.40	0.45	-0.23	0.45	-0.21	1.1
	49	258142	0.49	0.27	-0.12	-0.15	0.27	1.1
	50	258150	0.38	0.23	0.23	-0.12	-0.07	1.1
Mean			0.45	0.32	0.00	0.01	-0.02	0.6
SD			0.12	0.10	0.25	0.27	0.26	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.A17 Item Statistics: MD Mod-HSA Biology—Summer Primary 1

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
514	1	258636	0.55	0.51	-0.41	0.51	-0.19	0.0
	2	258653	0.41	0.26	0.26	0.01	-0.29	0.0
	3	258690	0.47	0.02	0.07	-0.09	0.02	0.0
	4	258702	0.46	0.33	-0.26	0.33	-0.10	0.0
	5	258662	0.36	0.13	-0.13	0.00	0.13	0.0
	6	258659	0.20	0.01	0.01	-0.16	0.17	0.0
	7	258673	0.65	0.32	-0.06	-0.36	0.32	0.0
	8	258701	0.43	0.23	-0.23	0.23	-0.03	0.0
	9	258628	0.76	0.26	0.26	-0.20	-0.14	0.0
	10	258685	0.22	0.21	0.21	-0.03	-0.17	0.0
	11	261611	0.12	0.00	0.15	-0.15	0.00	0.0
	12	258615	0.41	0.35	-0.29	0.35	-0.10	0.0
	13	258683	0.67	0.37	-0.26	0.37	-0.23	0.0
	14	258641	0.41	0.09	-0.05	0.09	-0.04	0.0
	15	258676	0.37	0.25	-0.16	0.25	-0.10	0.0
	16	258607	0.52	0.41	-0.16	0.41	-0.34	0.0
	17	258645	0.41	0.38	-0.19	-0.23	0.38	0.0
	18	258666	0.51	0.27	-0.13	0.27	-0.18	0.0
	19	258675	0.43	0.18	0.07	0.18	-0.25	0.0
	20	261609	0.66	0.13	0.03	-0.28	0.13	0.0
	21	258665	0.24	0.36	0.36	-0.30	-0.01	0.0
	22	258682	0.47	0.18	-0.16	0.18	-0.04	0.0
	23	258648	0.27	0.07	-0.04	0.07	-0.03	0.0
	24	258614	0.34	0.30	-0.10	-0.22	0.30	2.4
	25	258680	0.48	0.28	-0.01	-0.31	0.28	2.4
	26	258681	0.45	0.17	-0.13	-0.08	0.17	2.4
	27	258642	0.61	0.24	-0.01	0.24	-0.28	0.0
	28	261623	0.52	0.16	-0.01	-0.26	0.16	0.0
	29	258649	0.40	0.24	0.24	-0.22	-0.06	0.0
	30	258687	0.39	0.36	-0.15	0.36	-0.23	0.0
	31	258646	0.35	0.36	0.36	-0.27	-0.10	0.0
	32	261626	0.64	0.23	-0.08	-0.20	0.23	0.0
	33	258707	0.46	0.30	0.30	-0.33	0.00	1.2
	34	258643	0.53	0.45	0.45	-0.34	-0.18	0.0
	35	258698	0.42	0.16	-0.17	0.00	0.16	0.0
	36	258728	0.27	0.43	-0.34	-0.15	0.43	0.0
	37	258734	0.46	0.38	-0.20	-0.23	0.38	0.0
	38	258735	0.47	0.03	0.03	0.03	-0.05	0.0
	39	258704	0.53	0.23	-0.21	0.23	-0.03	1.2
	40	258624	0.46	0.48	0.48	-0.34	-0.19	0.0
	41	258697	0.42	0.23	0.23	-0.07	-0.18	0.0
	42	258616	0.21	-0.03	-0.18	-0.03	0.21	0.0
	43	258617	0.47	0.21	0.21	-0.25	0.00	0.0

Table 2.A17 Item Statistics: MD Mod-HSA Biology—Summer Primary 1

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
514	44	258688	0.42	0.25	-0.07	-0.21	0.25	0.0
	45	258669	0.51	0.29	-0.13	-0.19	0.29	2.4
	46	261621	0.67	0.39	0.39	-0.22	-0.28	0.0
	47	258703	0.40	0.25	-0.08	0.25	-0.19	0.0
	48	258692	0.46	0.19	-0.15	-0.07	0.19	0.0
	49	258635	0.53	0.28	-0.22	-0.11	0.28	0.0
	50	261616	0.48	0.28	-0.20	-0.12	0.28	0.0
Mean			0.45	0.25	-0.02	-0.03	0.02	0.2
SD			0.13	0.13	0.22	0.24	0.21	0.7

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 Biology—Summer Primary 2

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
614	1	258627	0.73	0.30	-0.25	0.30	-0.13	0.0
	2	258733	0.61	0.06	0.06	0.00	-0.07	0.0
	3	258684	0.46	0.16	0.09	-0.25	0.16	0.0
	4	258644	0.37	0.39	0.39	-0.19	-0.21	0.0
	5	258634	0.39	0.36	-0.28	0.36	-0.10	0.0
	6	261644	0.64	0.41	0.41	-0.20	-0.32	0.0
	7	261645	0.47	0.17	-0.24	0.05	0.17	0.0
	8	258619	0.37	0.38	0.38	-0.22	-0.17	0.0
	9	258700	0.53	0.46	-0.27	-0.28	0.46	0.0
	10	258618	0.37	0.10	-0.14	0.03	0.10	0.0
	11	261627	0.51	0.30	0.00	0.30	-0.34	0.0
	12	258639	0.46	0.10	0.10	-0.05	-0.07	0.0
	13	258732	0.39	0.24	0.24	-0.11	-0.14	0.0
	14	258727	0.54	0.43	-0.10	0.43	-0.38	0.0
	15	258622	0.51	0.23	0.23	-0.19	-0.08	0.0
	16	258695	0.44	0.07	-0.38	0.07	0.21	0.0
	17	258631	0.69	0.38	0.38	-0.17	-0.31	0.0
	18	258699	0.34	0.12	-0.39	0.12	0.26	0.0
	19	261607	0.59	0.49	-0.37	0.49	-0.23	0.0
	20	261624	0.49	0.37	-0.15	-0.27	0.37	0.0
	21	258612	0.54	0.27	-0.10	0.27	-0.21	0.0
	22	261610	0.44	0.48	-0.36	-0.17	0.48	0.0
	23	258714	0.25	0.36	0.36	0.01	-0.33	0.0
	24	258725	0.63	0.47	-0.22	0.47	-0.35	0.0
	25	258664	0.49	0.28	-0.21	0.28	-0.11	0.0
	26	258638	0.49	0.32	-0.14	-0.27	0.32	0.0
	27	258650	0.44	0.45	-0.26	-0.24	0.45	0.0
	28	261614	0.58	0.34	0.34	-0.23	-0.22	0.0
	29	261622	0.71	0.43	-0.26	0.43	-0.30	0.0
	30	258705	0.49	0.22	-0.25	0.00	0.22	0.0
	31	258678	0.54	0.39	-0.24	0.39	-0.19	1.7
	32	261642	0.32	0.34	0.34	-0.20	-0.14	0.0
	33	258654	0.68	0.18	-0.02	-0.19	0.18	0.0
	34	258670	0.29	0.13	-0.14	0.02	0.13	0.0
	35	258660	0.44	0.05	-0.18	0.07	0.05	0.0
	36	258637	0.56	0.24	-0.07	0.24	-0.22	0.0
	37	258640	0.49	0.36	-0.14	0.36	-0.28	0.0
	38	258674	0.41	0.17	-0.16	-0.03	0.17	0.0
	39	258697	0.42	0.23	0.23	-0.07	-0.18	0.0
	40	258616	0.21	-0.03	-0.18	-0.03	0.21	0.0
	41	258630	0.31	0.28	-0.20	-0.08	0.28	0.0
	42	261617	0.39	0.27	0.27	-0.06	-0.25	0.0
	43	258726	0.37	0.31	0.31	-0.05	-0.26	0.0

Table 2.A18 Item Statistics: MD Mod-HSA Biology—Summer Primary 2

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
614	44	258730	0.47	0.46	0.46	-0.29	-0.25	0.0
	45	258657	0.20	-0.04	-0.16	0.16	-0.04	0.0
	46	258651	0.49	0.35	0.35	-0.20	-0.21	0.0
	47	258712	0.46	0.24	-0.18	-0.11	0.24	0.0
	48	258731	0.37	0.27	-0.25	-0.02	0.27	0.0
	49	261608	0.56	0.47	-0.38	-0.18	0.47	0.0
	50	258693	0.36	0.42	0.42	-0.35	-0.07	0.0
Mean			0.47	0.28	-0.03	0.00	-0.02	0.0
SD			0.12	0.14	0.27	0.23	0.26	0.2

* 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.A19 Item Statistics: MD Mod-HSA English—Summer Primary 1

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
514	1	259429	0.48	0.23	0.23	-0.18	-0.07	1.4
	2	259426	0.42	0.34	0.34	-0.20	-0.17	1.4
	3	259349	0.51	0.46	-0.27	0.46	-0.27	0.0
	4	259427	0.45	0.27	0.00	0.27	-0.31	0.0
	5	259312	0.42	0.45	0.45	-0.24	-0.25	0.0
	6	259368	0.45	0.26	0.26	-0.30	0.00	0.0
	7	259371	0.43	0.24	-0.10	-0.16	0.24	0.0
	8	259367	0.59	0.42	-0.31	0.42	-0.21	1.4
	9	259370	0.52	0.01	-0.13	0.01	0.07	1.4
	10	259432	0.54	0.13	0.13	-0.16	0.01	0.0
	11	259433	0.41	0.25	0.25	-0.14	-0.07	1.4
	12	259354	0.45	0.33	-0.13	-0.19	0.33	1.4
	13	259407	0.25	-0.13	0.01	-0.13	0.16	1.4
	14	259335	0.30	0.00	0.11	-0.04	0.00	1.4
	15	259410	0.61	0.34	-0.37	0.34	0.07	2.9
	16	259413	0.48	0.18	-0.07	0.18	-0.09	1.4
	17	259411	0.43	0.32	-0.23	-0.08	0.32	1.4
	18	259414	0.30	0.34	-0.17	-0.12	0.34	1.4
	19	259338	0.51	0.27	0.27	-0.07	-0.15	4.3
	20	259339	0.58	0.53	-0.29	0.53	-0.29	2.9
	21	259340	0.55	0.54	-0.26	-0.32	0.54	1.4
	22	259362	0.48	0.39	0.39	-0.14	-0.25	1.4
	23	259436	0.33	0.19	0.19	0.00	-0.16	1.4
	24	259347	0.39	-0.03	-0.03	-0.06	0.18	2.9
	25	259424	0.49	0.28	0.00	-0.31	0.28	2.9
	26	259423	0.32	0.29	-0.22	-0.05	0.29	4.3
	27	259425	0.42	0.13	-0.18	0.13	0.06	2.9
	28	259422	0.36	0.43	-0.21	0.43	-0.23	2.9
	29	259445	0.58	0.37	-0.28	0.37	-0.17	0.0
	30	259374	0.29	0.30	-0.23	-0.05	0.30	0.0
	31	259450	0.38	0.26	-0.12	-0.16	0.26	0.0
	32	259376	0.59	0.22	-0.01	-0.27	0.22	0.0
	33	259310	0.57	0.45	-0.29	0.45	-0.25	0.0
	34	259365	0.51	0.01	0.15	0.01	-0.16	0.0
	35	259449	0.58	0.30	0.30	-0.18	-0.08	2.9
	36	259441	0.29	0.10	0.10	0.17	-0.22	1.4
	37	259443	0.36	0.44	-0.20	0.44	-0.17	4.3
	38	259437	0.36	0.32	0.32	-0.09	-0.19	2.2
	39	259457	0.43	0.33	0.33	-0.12	-0.16	2.9
	40	259330	0.59	0.55	-0.30	0.55	-0.31	1.4
	41	259458	0.16	0.16	0.16	-0.38	0.32	1.4
	42	259466	0.61	0.22	-0.26	-0.04	0.22	1.4

Table 2.A19 Item Statistics: MD Mod-HSA English—Summer Primary 1

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
514	43	259395	0.38	0.26	-0.05	0.26	-0.18	1.4
	44	259459	0.49	0.29	-0.09	-0.18	0.29	1.4
	45	259396	0.20	0.38	-0.21	-0.05	0.38	1.4
	46	259460	0.42	0.54	0.54	-0.33	-0.18	2.9
	47	259398	0.46	0.35	-0.05	0.35	-0.30	1.4
	48	259397	0.35	0.26	-0.12	-0.10	0.26	1.4
	49	259360	0.42	0.20	0.20	-0.04	-0.13	1.4
	50	259435	0.25	0.19	-0.15	0.05	0.19	1.4
Mean			0.43	0.28	-0.01	0.01	0.01	1.6
SD			0.11	0.15	0.24	0.26	0.23	1.2

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.A20 Item Statistics: MD Mod-HSA English—Summer Primary 2

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
614	1	259343	0.46	0.37	-0.14	-0.33	0.37	0.0
	2	259415	0.55	0.28	0.28	-0.20	-0.13	0.0
	3	259417	0.49	0.21	0.21	-0.10	-0.15	0.0
	4	259416	0.68	0.31	-0.09	0.31	-0.28	0.0
	5	259323	0.42	0.22	0.22	-0.10	-0.14	0.0
	6	259453	0.39	0.10	0.10	-0.29	0.10	0.0
	7	259382	0.52	0.32	-0.22	0.32	-0.16	0.0
	8	259452	0.33	0.07	-0.20	0.07	0.07	0.0
	9	259465	0.41	0.16	0.16	-0.14	-0.03	0.0
	10	259351	0.45	0.12	-0.12	0.12	-0.01	0.0
	11	259430	0.67	0.15	-0.09	0.15	-0.10	0.0
	12	259431	0.64	0.23	0.23	-0.13	-0.16	0.0
	13	259318	0.48	0.54	0.54	-0.37	-0.25	0.0
	14	259319	0.38	0.00	0.02	-0.03	0.00	0.0
	15	259320	0.68	0.48	-0.44	0.48	-0.16	0.0
	16	259419	0.58	0.09	-0.02	0.09	-0.10	0.0
	17	259421	0.59	0.31	0.31	-0.23	-0.15	0.0
	18	259463	0.38	0.19	0.19	0.01	-0.20	0.0
	19	259345	0.43	0.31	-0.23	-0.10	0.31	0.0
	20	259325	0.42	0.08	-0.02	0.08	-0.06	0.0
	21	259385	0.48	0.21	-0.23	0.00	0.21	0.0
	22	259390	0.48	0.42	-0.06	-0.40	0.42	0.0
	23	259383	0.49	0.38	-0.09	0.38	-0.36	0.0
	24	259386	0.38	0.29	-0.32	0.05	0.29	1.4
	25	259388	0.48	0.26	0.26	-0.17	-0.09	1.4
	26	259389	0.38	0.22	-0.09	0.22	-0.11	1.4
	27	259438	0.38	0.09	-0.19	0.09	0.12	1.4
	28	259439	0.51	0.21	0.00	0.21	-0.17	1.4
	29	259437	0.36	0.32	0.32	-0.09	-0.19	2.2
	30	259332	0.61	0.54	-0.47	0.54	-0.11	2.9
	31	259403	0.32	0.27	0.09	-0.30	0.27	2.9
	32	259401	0.36	0.33	0.33	0.10	-0.35	2.9
	33	259402	0.42	0.35	-0.32	0.04	0.35	2.9
	34	259399	0.68	0.50	-0.35	-0.19	0.50	2.9
	35	259400	0.49	0.18	0.02	-0.14	0.18	2.9
	36	259404	0.55	0.41	0.41	-0.12	-0.28	2.9
	37	259461	0.64	0.43	-0.35	-0.08	0.43	2.9
	38	259446	0.51	0.53	-0.19	-0.33	0.53	2.9
	39	259447	0.59	0.19	0.06	0.19	-0.23	2.9
	40	259448	0.55	0.48	-0.25	-0.24	0.48	2.9
	41	259358	0.51	0.40	-0.02	-0.32	0.40	2.9
	42	259434	0.30	0.29	-0.02	0.29	-0.22	2.9
	43	259391	0.43	0.34	-0.04	0.34	-0.29	2.9

Table 2.A20 Item Statistics: MD Mod-HSA English—Summer Primary 2

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
614	44	259454	0.26	0.12	0.12	-0.04	0.03	2.9
	45	259455	0.55	0.46	-0.31	-0.15	0.46	2.9
	46	259392	0.51	0.46	-0.15	-0.29	0.46	2.9
	47	259394	0.71	0.43	0.43	-0.21	-0.28	2.9
	48	259393	0.45	0.45	0.45	-0.26	-0.14	2.9
	49	259444	0.55	0.51	-0.26	0.51	-0.31	4.3
	50	259356	0.39	0.26	-0.25	0.02	0.26	4.3
Mean			0.49	0.30	-0.02	-0.02	0.02	1.5
SD			0.11	0.14	0.25	0.24	0.27	1.5

* 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 Government—Summer Primary 1

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
514	1	258363	0.19	0.36	-0.11	-0.20	0.36	0.0
	2	258500	0.06	0.77	0.77	0.05	-0.44	0.0
	3	258327	0.44	0.39	0.39	-0.12	-0.32	0.0
	4	258338	0.31	0.41	-0.41	0.41	0.00	0.0
	5	258408	0.31	0.11	0.11	-0.31	0.27	0.0
	6	258463	0.25	0.57	0.57	0.27	-0.71	0.0
	7	258458	0.31	0.58	0.58	-0.35	-0.22	0.0
	8	258506	0.63	0.11	-0.06	-0.09	0.11	0.0
	9	258505	0.56	0.46	0.46	-0.32	-0.23	0.0
	10	258349	0.38	0.43	0.43	-0.22	-0.24	0.0
	11	258429	0.25	0.65	-0.52	-0.06	0.65	0.0
	12	258353	0.31	-0.20	0.69	-0.20	-0.47	0.0
	13	258396	0.56	0.12	0.12	0.07	-0.23	0.0
	14	258410	0.50	0.41	-0.12	-0.38	0.41	0.0
	15	258386	0.25	0.55	0.55	-0.43	-0.07	0.0
	16	258350	0.38	0.20	0.20	-0.12	-0.08	0.0
	17	258378	0.63	0.18	-0.12	-0.12	0.18	0.0
	18	258503	0.25	0.41	-0.38	0.03	0.41	0.0
	19	258440	0.25	0.05	-0.12	0.05	0.07	0.0
	20	258400	0.44	0.13	0.01	-0.16	0.13	0.0
	21	258421	0.31	0.18	0.18	-0.14	-0.04	0.0
	22	258446	0.38	0.07	-0.24	0.07	0.16	0.0
	23	258344	0.25	0.03	0.03	0.29	-0.27	0.0
	24	258432	0.44	0.36	-0.24	-0.16	0.36	0.0
	25	258428	0.38	0.27	-0.29	-0.03	0.27	0.0
	26	258360	0.38	0.25	-0.12	0.25	-0.17	0.0
	27	258343	0.44	0.39	0.16	0.39	-0.53	0.0
	28	258438	0.56	0.44	0.44	-0.12	-0.43	0.0
	29	258718	0.63	0.15	0.15	-0.18	0.05	0.0
	30	258424	0.44	0.32	0.18	0.32	-0.47	0.0
	31	258323	0.25	0.33	0.07	0.33	-0.39	0.0
	32	258324	0.44	0.52	-0.27	-0.32	0.52	0.0
	33	258437	0.56	0.40	-0.44	-0.02	0.40	0.0
	34	258319	0.44	-0.26	-0.16	-0.26	0.43	0.0
	35	258389	0.56	-0.11	0.31	-0.11	-0.20	0.0
	36	258379	0.50	0.15	0.07	-0.24	0.15	0.0
	37	258413	0.44	0.18	0.01	0.18	-0.22	0.0
	38	258448	0.25	0.45	0.45	-0.26	-0.14	0.0
	39	258721	0.38	0.05	0.05	-0.07	0.02	0.0
	40	258439	0.31	0.39	-0.20	0.39	-0.19	0.0
	41	258368	0.38	0.40	0.40	-0.31	-0.10	0.0
	42	258320	0.38	0.27	-0.04	0.27	-0.24	0.0
	43	258436	0.44	0.53	0.53	-0.26	-0.33	0.0

Table 2.A21 Item Statistics: MD Mod-HSA Government—Summer Primary 1

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
514	44	258384	0.44	0.60	-0.35	0.60	-0.32	0.0
	45	258486	0.31	0.58	-0.11	0.58	-0.46	0.0
	46	258411	0.25	0.57	-0.51	0.01	0.57	0.0
	47	258313	0.63	0.26	-0.12	0.26	-0.20	0.0
	48	258716	0.56	0.40	0.40	-0.11	-0.36	0.0
	49	258335	0.31	0.26	-0.24	0.01	0.26	0.0
	50	258377	0.44	0.37	0.37	-0.24	-0.18	0.0
Mean			0.39	0.31	0.07	-0.02	-0.05	0.0
SD			0.13	0.22	0.33	0.26	0.33	0.0

* 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.A22 Item Statistics: MD Mod-HSA Government—Summer Primary 2

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
614	1	258401	0.53	0.53	-0.26	-0.37	0.53	0.0
	2	258459	0.53	0.39	-0.43	0.39	-0.18	0.0
	3	258402	0.80	0.08	-0.09	-0.01	0.08	0.0
	4	258406	0.73	0.45	-0.46	0.45	-0.12	0.0
	5	258347	0.73	0.42	0.42	-0.01	-0.46	0.0
	6	258328	0.73	0.11	0.11	-0.01	-0.11	0.0
	7	258422	0.67	-0.29	0.49	-0.08	-0.29	0.0
	8	258357	0.40	0.55	-0.41	0.55	-0.17	0.0
	9	258452	0.33	0.60	0.60	-0.21	-0.53	0.0
	10	258330	0.47	0.23	0.23	-0.21	-0.05	0.0
	11	258454	0.47	0.07	-0.09	-0.01	0.07	0.0
	12	258364	0.73	0.55	-0.46	0.55	-0.24	0.0
	13	258361	0.33	0.41	0.41	-0.18	-0.24	0.0
	14	258336	0.67	-0.60	0.54	0.34	-0.60	0.0
	15	258376	0.20	0.09	0.09	0.48	-0.53	0.0
	16	258419	0.27	0.00	-0.31	0.00	0.25	0.0
	17	258425	0.27	0.18	0.10	0.18	-0.29	0.0
	18	258715	0.80	0.51	-0.39	0.51	-0.29	0.0
	19	258473	0.47	-0.02	-0.23	0.29	-0.02	0.0
	20	258478	0.33	0.11	-0.20	0.11	0.05	0.0
	21	258501	0.47	0.12	-0.13	0.01	0.12	0.0
	22	258450	0.33	0.38	0.38	-0.03	-0.35	0.0
	23	258498	0.40	0.29	0.29	0.06	-0.43	0.0
	24	258388	0.07	-0.01	-0.22	-0.01	0.24	0.0
	25	258351	0.27	0.44	0.44	-0.18	-0.23	0.0
	26	258488	0.60	0.58	0.58	-0.47	-0.22	0.0
	27	258479	0.33	0.53	-0.18	0.53	-0.34	0.0
	28	258375	0.60	0.46	0.46	-0.47	-0.05	0.0
	29	258414	0.73	0.16	-0.16	0.16		0.0
	30	258495	0.20	0.47	0.47	0.36	-0.71	0.0
	31	258321	0.67	-0.29	-0.29	0.40	0.08	0.0
	32	258426	0.33	0.58	0.58	-0.14	-0.51	0.0
	33	258722	0.40	0.24	-0.06	0.24	-0.22	0.0
	34	258407	0.20	0.24	0.24	0.30	-0.52	0.0
	35	258412	0.53	0.23	0.23	-0.03	-0.25	0.0
	36	258369	0.53	0.44	-0.23	-0.32	0.44	0.0
	37	258483	0.47	0.10	0.10	-0.01	-0.09	0.0
	38	258719	0.60	0.13	0.13	-0.43	0.09	0.0
	39	258345	0.20	-0.31	0.51	-0.31	-0.31	0.0
	40	258390	0.60	0.32	-0.12	0.32	-0.26	0.0
	41	258329	0.33	-0.11	-0.11	0.33	-0.28	0.0
	42	258409	0.33	0.29	-0.28	0.29	-0.01	0.0
	43	258434	0.33	0.29	-0.45	0.13	0.29	0.0

Table 2.A22 Item Statistics: MD Mod-HSA Government—Summer Primary 2

Form	Pos_No	ItemID	P_Val	R_ITT	P_BIS1	P_BIS2	P_BIS3	%Omits
614	44	258391	0.53	0.67	0.67	-0.43	-0.37	0.0
	45	258316	0.53	0.11	0.08	0.11	-0.18	0.0
	46	258404	0.73	-0.05	-0.05	0.15	-0.09	0.0
	47	258468	0.47	0.65	0.65	-0.01	-0.64	0.0
	48	258491	0.27	0.18	-0.23	0.18	0.08	0.0
	49	258341	0.33	0.75	0.75	-0.10	-0.67	0.0
	50	258502	0.40	0.01	0.01	-0.27	0.39	0.0
Mean			0.46	0.25	0.07	0.06	-0.17	0.0
SD			0.18	0.28	0.36	0.29	0.29	0.0

* 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.