



**California Department of Education
Assessment Development and
Administration Division**



California Assessment of
Student Performance and Progress

**California Assessment of Student
Performance and Progress**

**Smarter Balanced Technical Report
2014–15 Administration**

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Table of Contents

Chapter 1: Introduction	1
1.1. Background	1
1.2. Test Purpose	2
1.3. Test Content	2
1.3.1 Computer Adaptive Test	2
1.3.2 Performance Tasks	2
1.4. Intended Population	3
1.5. Intended Use and Purpose of Test Scores	3
1.6. Testing Window	4
1.7. Significant CAASPP Developments in 2015	4
1.7.1 First Operational Year of Summative Assessments	4
1.7.2 Adequate Yearly Progress (AYP) Reporting	4
1.8. Groups and Organizations Involved with the CAASPP System	4
1.8.1 State Board of Education	4
1.8.2 California Department of Education (CDE)	5
1.8.3 Smarter Balanced Assessment Consortium.....	5
1.8.4 Contractors	5
1.8.4.1 Educational Testing Service.....	5
1.8.4.2 American Institutes for Research (AIR).....	6
1.8.4.3 Measurement Incorporated (MI).....	6
1.9. Systems Overview and Functionality	6
1.9.1 Test Operations Management System (TOMS)	6
1.9.2 Test Delivery System (TDS).....	6
1.9.3 Practice and Training Tests	7
1.9.4 Online Reporting System (ORS).....	7
1.9.5 Constructed-Response (CR) Scoring Systems for Educational Testing Service (ETS) and Measurement Incorporated (MI).....	7
1.10. Overview of the Technical Report	7
References	9
Chapter 2: An Overview of Smarter Balanced Processes	10
2.1. Item Development	10
2.1.1 Item Format.....	10
2.1.2 Item Specifications	10
2.2. Test Assembly	11
2.2.1 Test Length	11
2.2.2 Test Blueprints	11
2.2.3 Item Selection	11
2.3. Test Administration	11
2.3.1 Test Security and Confidentiality.....	11
2.3.2 Procedures to Maintain Standardization	12
2.3.2.1. Test Administrators	12
2.3.2.2. Test Directions	12
2.4. Participation	13
2.5. Universal Tools, Designated Supports, and Accommodations	13
2.5.1 Resources for Selection of Accessibility Supports	14
2.5.2 Delivery of Accessibility Supports	14
2.5.3 Unlisted Resources	15
2.6. Scores	15
2.6.1 Aggregation Procedures	15
2.7. Calibration and Scaling	15
2.7.1 Calibration.....	16
2.7.2 Horizontal Scaling	16
2.7.3 Vertical Scaling	16
2.7.4 Vertical Scale Evaluation	17
References	18
Appendix 2.A: Smarter Balanced Blueprints	19
English Language Arts/Literacy Summative Assessments Blueprint	19
Smarter Balanced Mathematics Summative Assessments Blueprints	29

Appendix 2.B: Special Services Summaries	46
Chapter 3: Item Development	74
3.1. Background	74
3.2. Additional Information	74
Reference	75
Chapter 4: Test Assembly	76
4.1. Smarter Balanced Adaptive Item Selection Algorithm	76
4.1.1 Content Match.....	76
4.1.2 Information	77
4.2. Simulation Study	77
References	79
Chapter 5: Test Administration	80
5.1. Test Administration	80
5.1.1 Test Delivery Sections	80
5.1.1.1 Computer Adaptive Testing (CAT) Administration.....	80
5.1.1.2 Performance Task (PT) Administration	81
5.2. Test Security and Confidentiality	82
5.2.1 ETS’s Office of Testing Integrity (OTI)	82
5.2.2 Test Delivery	82
5.2.3 Security of Electronic Files Using a Firewall	83
5.2.4 Transfer of Scores via Secure Data Exchange	83
5.2.5 Data Management	84
5.2.6 Statistical Analysis	84
5.2.7 Student Confidentiality	84
5.2.8 Student Test Results.....	84
5.2.8.1 Types of Results	84
5.2.8.2 Security of Results Files.....	85
5.2.8.3 Security of Individual Results	85
5.2.9 Test Security Incidents.....	86
5.2.9.1 Impropriety	86
5.2.9.2 Irregularity	86
5.2.9.3 Breach.....	86
5.2.10 Appeals.....	86
5.3. Processing and Scoring	86
5.4. Procedures to Maintain Standardization	87
5.4.1 LEA CAASPP Coordinator	87
5.4.2 CAASPP Test Site Coordinator.....	88
5.4.3 Test Administrators	88
5.4.4 Instructions for Test Administrators.....	89
5.4.4.1 Directions for Administration	89
5.4.4.2 Additional Information	89
5.4.4.3 CAASPP Online Test Administration Manual.....	89
5.4.4.4 Test Operations Management System (TOMS) Manuals.....	89
5.4.4.5 Other System Manuals.....	90
5.5. LEA Training	90
5.5.1 In-person Training.....	90
5.5.2 Webcasts	91
5.5.3 Videos and Narrated PowerPoint Presentations	91
5.6. Universal Tools, Designated Supports, and Accommodations for Students with Disabilities	91
5.6.1 Identification.....	91
5.6.2 Assignment	91
References	93
Appendix 5.A: PT Test Length	95
Appendix 5.B: Item Distributions	97
Chapter 6: Standard Setting	99
6.1. Description	99
Reference	100
Chapter 7: Scoring and Reporting	101
7.1. Approach to Scoring Item Responses	101
7.1.1 Structure of the Assessments	101
7.1.2 Certification of the Scoring System	101

7.1.3 Types of Item Responses	102
7.1.4 Scoring the Item Types	103
7.2. Quality Control of Scoring	103
7.2.1 Human Scoring	103
7.2.1.1 Quality Control in the Scoring Process	103
7.2.1.2 Quality Control Related to Raters	104
7.2.2. Quality Control of Artificial Intelligence Scoring	105
7.2.3 Score Verification Process	106
7.3. Rater Training	106
7.3.1 Training Overview	106
7.3.1.1 ELA	106
7.3.1.2 Mathematics	107
7.3.2 Training Process: ELA/Literacy Performance Task Extended Writing Tasks	107
7.3.3 Training Process: ELA/Literacy Short-Answer Items	110
7.3.4 Training Process: Mathematics Items	110
7.3.5 Supplemental Training for Scoring Supervisors	111
7.3.6 Human Scoring Alerts	112
7.4. Student Test Scores	113
7.4.1 Total Test Scores	113
7.4.1.1 Theta Scores	113
7.4.1.2 Scale Scores for the Total Assessment	117
7.4.1.3 Achievement Levels	118
7.4.2 Claim Scores (Subscores)	119
7.4.2.1 Scale Scores for Claims	120
7.4.2.2 Achievement Levels for Claims	120
7.4.3 Theta Scores Standard Error	121
7.4.4 Scale Score Standard Errors	122
7.4.5 Error Band	122
7.5. Overview of Score Aggregation Procedures	122
7.5.1 Score Distributions and Summary Statistics	122
7.5.2 Group Scores	125
7.6. Reports Produced and Scores for Each Report	126
7.6.1 Online Reporting	126
7.6.2 Special Cases	126
7.6.3 Types of Score Reports	127
7.6.4 Score Report Applications	128
7.6.5 Criteria for Interpreting Test Scores	129
7.6.6 Criteria for Interpreting Score Reports	129
References	130
Appendix 7.A: Participation Rates	132
Appendix 7.B: Theta Scores of Tests and Claims	147
Appendix 7.C: Scale Scores of Tests and Claims	156
Appendix 7.D: Summary Statistics and Performance Levels of Claims	183
Appendix 7.E: Demographic Summaries	189
Appendix 7.F: Student Completion Conditions	245
Chapter 8: Analyses	275
8.1. Background	275
8.1.1 Summary of the Analyses	275
8.1.2 Samples for the Analyses	276
8.2. IRT Parameter Values	276
8.2.1 Summary Information	277
8.2.1.1 All Items	277
8.2.1.2 CAT Items	277
8.2.1.3 Performance Task Items	277
8.3. Omission and Completion Analyses	277
8.3.1 Omit Rates	277
8.3.2 Completion Rates	278
8.4. Conditional Exposure Rates of Items	278
8.5. Reliability Analyses	279
8.5.1 Sample for Reliability Analyses	279
8.5.2 Marginal Reliability	279
8.5.3 Standard Error of Measurement (SEM)	280

8.5.4 Intercorrelations, Reliabilities, and SEMs for Claims Scores.....	281
8.5.5 Subgroup Reliabilities and SEMs.....	281
8.5.6 Conditional Standard Errors of Measurement (CSEMs).....	282
8.5.7 Decision Classification Analyses.....	283
8.5.8 Interrater Agreement.....	285
8.5.8.1 Percentage Agreement.....	285
8.5.8.2 Kappa.....	285
8.5.8.3 Quadratic-Weighted Kappa.....	285
8.5.9 Agreement between AI and Human Scoring.....	286
8.6. Validity Evidence.....	287
8.6.1 Evidence in the Design of CAASPP.....	288
8.6.1.1 Purpose.....	288
8.6.1.2 The Constructs to Be Measured.....	288
8.6.1.3 The Interpretations and Uses of the Scores.....	288
8.6.1.4 Intended Test Population.....	289
8.6.2 Validity Evidence Based on Test Content.....	289
8.6.2.1 Description of the State Standards.....	289
8.6.2.2 Item Specifications.....	289
8.6.2.3 Item Selection Algorithm.....	289
8.6.2.4 Assessment Blueprints.....	290
8.6.2.5 Item Development Process.....	290
8.6.2.6 Alignment Study.....	290
8.6.2.7 Form Assembly Process.....	290
8.6.2.8 Simulation Study.....	290
8.6.3 Validity Evidence Based on Response Processes.....	290
8.6.3.1 Think Alouds.....	291
8.6.3.2 Analysis of Testing Time.....	291
8.6.4 Validity Evidence Based on Internal Structure.....	292
8.6.4.1 Dimensionality.....	292
8.6.4.2 Differential Item Functioning (DIF).....	293
8.6.4.3 Overall Reliability Estimates.....	293
8.6.4.4 Claim Reliability Estimates.....	293
8.6.4.5 Subgroup Reliability Estimates.....	293
8.6.4.6 Reliability of Performance Classifications.....	293
8.6.4.7 Interrater Reliability.....	294
8.6.4.8 Interrater Agreement.....	294
8.6.4.9 Correlations between the Claims Within Content Areas.....	295
8.6.4.10 Correlations between Content Area Test Scores.....	295
8.6.5 Validity Evidence Based on Relations to Other Variables.....	296
8.6.6 Validity Evidence Based on Consequences of Testing.....	296
References.....	298
Appendix 8.A: IRT Parameter Estimates.....	301
Appendix 8.B: Omission and Completion Analyses.....	360
Appendix 8.C: Item Exposure.....	366
Appendix 8.D: Reliability Analyses.....	383
Appendix 8.E: Scale Score CSEM Distribution.....	412
Appendix 8.F: Analyses of Classification.....	433
Appendix 8.G: Interrater Reliability.....	440
Appendix 8.H: Analyses in Support of Validity Evidence.....	479
Appendix 8.I: Correlations between Content Areas.....	491
Chapter 9: Quality Control Procedures.....	495
9.1. Quality Control of Item Development.....	495
9.2. Quality Control of Test Assembly and Delivery.....	495
9.3. Quality Control of Test Materials.....	496
9.3.1 Developing Assessments.....	496
9.3.1.1 Online Assessments.....	496
9.3.1.2 Paper-Pencil Forms.....	496
9.3.1.3 Test Administration Manuals.....	496
9.3.2 Collecting Test Materials.....	496
9.3.2.1 Online Assessments.....	496
9.3.2.2 Paper-Pencil Forms.....	496
9.3.3 Processing Test Materials.....	496

9.3.3.1 Online Assessments	496
9.3.3.2 Paper-Pencil Forms	497
9.4. Quality Control of Psychometric Processes	497
9.4.1 Development of Scoring Specifications	497
9.4.2 Development of Scoring Procedures	497
9.4.2.1 Enterprise Score Key Management System (eSKM) Processing	498
9.4.2.2 Psychometric Processing	498
9.5. Quality Control of Constructed Response (CR) Scoring	498
9.6. Quality Control of Paper-Pencil Scoring	499
9.7. Quality Control of Reporting	499
9.7.1. Exclusion of Student Scores from Summary Reports	500
9.8. End-to-End Operational Tests	500
9.8.1. Paper-Pencil Tests	500
References	501
Chapter 10: Paper-Pencil Versions of Smarter Balanced Summative Assessments	502
10.1. Background	502
10.2. Test Window	502
10.3. Test Assembly	502
10.4. Test Administration	502
10.5. Universal Tools, Designated Supports, and Accommodations	503
10.6. Calibration and Scaling	503
10.6.1 Initial Calibration	504
10.6.2 Anchor Item Evaluation	504
10.6.3 Final Calibration	504
10.7. Scoring	504
10.7.1 Total Score Distributions and Achievement Levels	505
10.7.2 Claim Score Distributions and Achievement Levels	506
10.7.3 Group Scores	506
10.8. Analyses	506
10.8.1 IRT Parameter Values	506
10.8.2 Reliability Analyses	507
10.8.3 CSEM Distributions	508
10.8.4 Correlations between Content Area Test Scores	509
References	511
Appendix 10.A: Special Services Summaries for Paper-Pencil Tests	512
Appendix 10.B: Score Distributions for Paper-Pencil Tests	540
Appendix 10.C: Claim Scores for Paper-Pencil Tests	568
Appendix 10.D: Demographic Summary for Paper-Pencil Tests	572
Appendix 10.E: IRT Parameter Estimates	642
Appendix 10.F: Reliability Analyses for Paper-Pencil Tests	653
Appendix 10.G: Scale Score CSEM Distribution for Paper-Pencil Tests	681

Tables

Acronyms and Initialisms Used in the Technical Report for CAASPP Smarter Balanced Technical Report	xxi
Table 2.B.1 Special Services Summary for ELA, Grades Three through Six—All Tested	46
Table 2.B.2 Special Services Summary for ELA, Grades Seven through Eleven—All Tested	47
Table 2.B.3 Special Services Summary for ELA, Grades Three through Six—Students Not in Special Education	48
Table 2.B.4 Special Services Summary for ELA, Grades Seven through Eleven—Students Not in Special Education	49
Table 2.B.5 Special Services Summary for ELA, Grades Three through Six—Students in Special Education	50
Table 2.B.6 Special Services Summary for ELA, Grades Seven through Eleven—Students in Special Education	51
Table 2.B.7 Special Services Summary for ELA, Grades Three through Six—English-Only Students	52
Table 2.B.8 Special Services Summary for ELA, Grades Seven through Eleven—English-Only Students	53
Table 2.B.9 Special Services Summary for ELA, Grades Three through Six—I-FEP Students	54
Table 2.B.10 Special Services Summary for ELA, Grades Seven through Eleven—I-FEP Students	55
Table 2.B.11 Special Services Summary for ELA, Grades Three through Six—English Learner (EL) Students	56
Table 2.B.12 Special Services Summary for ELA, Grades Seven through Eleven—EL Students	57
Table 2.B.13 Special Services Summary for ELA, Grades Three through Six—Reclassified Fluent English Proficient (R-FEP) Students	58
Table 2.B.14 Special Services Summary for ELA, Grades Seven through Eleven—R-FEP Students	59
Table 2.B.15 Special Services Summary for Mathematics, Grades Three through Six—All Tested	60
Table 2.B.16 Special Services Summary for Mathematics, Grades Seven through Eleven—All Tested	61

Table 2.B.17 Special Services Summary for Mathematics, Grades Three through Six—Students Not in Special Education.....	62
Table 2.B.18 Special Services Summary for Mathematics, Grades Seven through Eleven—Students Not in Special Education.....	63
Table 2.B.19 Special Services Summary for Mathematics, Grades Three through Six—Students in Special Education.....	64
Table 2.B.20 Special Services Summary for Mathematics, Grades Seven through Eleven—Students in Special Education.....	65
Table 2.B.21 Special Services Summary for Mathematics, Grades Three through Six—English-Only Students	66
Table 2.B.22 Special Services Summary for Mathematics, Grades Seven through Eleven—English-Only Students.....	67
Table 2.B.23 Special Services Summary for Mathematics, Grades Three through Six—I-FEP Students.....	68
Table 2.B.24 Special Services Summary for Mathematics, Grades Seven through Eleven—I-FEP Students.....	69
Table 2.B.25 Special Services Summary for Mathematics, Grades Three through Six—EL Students	70
Table 2.B.26 Special Services Summary for Mathematics, Grades Seven through Eleven—EL Students	71
Table 2.B.27 Special Services Summary for Mathematics, Grades Three through Six—R-FEP Students.....	72
Table 2.B.28 Special Services Summary for Mathematics, Grades Seven through Eleven—R-FEP Students	73
Table 4.1 Item Distribution Characteristics	78
Table 5.1 Performance Task and CR Scoring by Content Area and Grade.....	87
Table 5.A.1 Assignment Proportions for ELA.....	95
Table 5.A.2 Assignment Proportions for Mathematics	96
Table 5.B.1 Summary of Items Presented for the Total Test.....	97
Table 5.B.2 Summary of Items Presented in the CAT Component of the Test.....	97
Table 5.B.3 Summary of Items Presented in the PT Component of the Test.....	98
Table 5.B.4 Percent of Students Meeting Blueprint	98
Table 7.1 Machine-scored Online Item Types	102
Table 7.2 Rater Qualification Standard for Agreement with Correct Scores	105
Table 7.3 Scoring Condition Codes	112
Table 7.4 Lowest and Highest Obtainable Scores	115
Table 7.5 Treatment of Incomplete Tests	116
Table 7.6 Lowest and Highest Obtainable Scale Scores	117
Table 7.7 Theta Cut Scores.....	118
Table 7.8 Scale Score Ranges for Achievement Levels.....	119
Table 7.9 Claims Identified for ELA and Mathematics	119
Table 7.10 Mean and Standard Deviation of Theta and Scale Scores	123
Table 7.11 Percentages and Counts of Students in Achievement Levels for CAASPP Online Summative Assessments	123
Table 7.12 Demographic Groups to Be Reported.....	125
Table 7.A.1 California Assessment of Student Performance and Progress (CAASPP) Smarter Balanced Participation Rates for English Language Arts/Literacy (ELA), Grade Three	133
Table 7.A.2 CAASPP Smarter Balanced Participation Rates for ELA, Grade Three	133
Table 7.A.3 CAASPP Smarter Balanced Participation Rates for ELA, Grade Four	134
Table 7.A.4 Spring 2015 CAASPP Smarter Balanced Participation Rates for ELA, Grade Four	134
Table 7.A.5 CAASPP Smarter Balanced Participation Rates for ELA, Grade Five.....	135
Table 7.A.6 CAASPP Smarter Balanced Participation Rates for ELA, Grade Five.....	135
Table 7.A.7 CAASPP Smarter Balanced Participation Rates for ELA, Grade Six.....	136
Table 7.A.8 CAASPP Smarter Balanced Participation Rates for ELA, Grade Six.....	136
Table 7.A.9 CAASPP Smarter Balanced Participation Rates for ELA, Grade Seven	137
Table 7.A.10 CAASPP Smarter Balanced Participation Rates for ELA, Grade Seven	137
Table 7.A.11 CAASPP Smarter Balanced Participation Rates for ELA, Grade Eight	138
Table 7.A.12 CAASPP Smarter Balanced Participation Rates for ELA, Grade Eight	138
Table 7.A.13 CAASPP Smarter Balanced Participation Rates for ELA, Grade Eleven.....	139
Table 7.A.14 CAASPP Smarter Balanced Participation Rates for ELA, Grade Eleven.....	139
Table 7.A.15 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Three.....	140
Table 7.A.16 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Three.....	140
Table 7.A.17 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Four.....	141
Table 7.A.18 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Four.....	141
Table 7.A.19 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Five	142
Table 7.A.20 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Five	142
Table 7.A.21 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Six	143
Table 7.A.22 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Six	143
Table 7.A.23 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Seven.....	144
Table 7.A.24 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Seven	144

Table 7.A.25 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Eight	145
Table 7.A.26 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Eight	145
Table 7.A.27 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Eleven	146
Table 7.A.28 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Eleven	146
Table 7.B.1 Frequency Distribution of Theta for Overall Scores—ELA.....	147
Table 7.B.2 Frequency Distribution of Theta for Overall Scores—Mathematics	147
Table 7.B.3 Frequency Distribution of Theta for Claim Scores—ELA, Grade Three.....	148
Table 7.B.4 Frequency Distribution of Theta for Claim Scores—ELA, Grade Four.....	148
Table 7.B.5 Frequency Distribution of Theta for Claim Scores—ELA, Grade Five	149
Table 7.B.6 Frequency Distribution of Theta for Claim Scores—ELA, Grade Six	149
Table 7.B.7 Frequency Distribution of Theta for Claim Scores—ELA, Grade Seven.....	150
Table 7.B.8 Frequency Distribution of Theta for Claim Scores—ELA, Grade Eight.....	150
Table 7.B.9 Frequency Distribution of Theta for Claim Scores—ELA, Grade Eleven	151
Table 7.B.10 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Three	151
Table 7.B.11 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Four	152
Table 7.B.12 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Five	152
Table 7.B.13 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Six.....	153
Table 7.B.14 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Seven	153
Table 7.B.15 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Eight	154
Table 7.B.16 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Eleven.....	155
Table 7.C.1 Percentiles of Scale Scores in ELA	156
Table 7.C.2 Percentiles of Scale Scores in Mathematics.....	156
Table 7.C.3 Frequency Distribution of Overall Scale Scores—ELA, Grade Three.....	157
Table 7.C.4 Frequency Distribution of Overall Scale Scores—ELA, Grade Four.....	159
Table 7.C.5 Frequency Distribution of Overall Scale Scores—ELA, Grade Five	161
Table 7.C.6 Frequency Distribution of Overall Scale Scores—ELA, Grade Six	163
Table 7.C.7 Frequency Distribution of Overall Scale Scores—ELA, Grade Seven	165
Table 7.C.8 Frequency Distribution of Overall Scale Scores—ELA, Grade Eight.....	167
Table 7.C.9 Frequency Distribution of Overall Scale Scores—ELA, Grade Eleven	169
Table 7.C.10 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Three	171
Table 7.C.11 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Four	172
Table 7.C.12 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Five.....	173
Table 7.C.13 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Six.....	175
Table 7.C.14 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Seven	177
Table 7.C.15 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Eight	179
Table 7.C.16 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Eleven.....	181
Table 7.D.1 Mean and Standard Deviation of Theta and Scale Scores for Claim 1 of Online Summative Tests.....	183
Table 7.D.2 Mean and Standard Deviation of Theta and Scale Scores for Claim 2 of Online Summative Tests.....	183
Table 7.D.3 Mean and Standard Deviation of Theta and Scale Scores for Claim 3 of Online Summative Tests.....	184
Table 7.D.4 Mean and Standard Deviation of Theta and Scale Scores for Claim 4 of Online Summative Tests.....	184
Table 7.D.5 Percentages of Students in Performance Levels for Claim 1 of Online Summative Tests	185
Table 7.D.6 Percentages of Students in Performance Levels for Claim 2 of Online Summative Tests	186
Table 7.D.7 Percentages of Students in Performance Levels for Claim 3 of Online Summative Tests	187
Table 7.D.8 Percentages of Students in Performance Levels for Claim 4 of Online Summative Tests	188
Table 7.E.1 Demographic Summary for ELA, Grade Three.....	189
Table 7.E.2 Demographic Summary for ELA, Grade Four.....	191
Table 7.E.3 Demographic Summary for ELA, Grade Five	193
Table 7.E.4 Demographic Summary for ELA, Grade Six	195
Table 7.E.5 Demographic Summary for ELA, Grade Seven	197
Table 7.E.6 Demographic Summary for ELA, Grade Eight.....	199
Table 7.E.7 Demographic Summary for ELA, Grade Eleven	201
Table 7.E.8 Demographic Summary for Mathematics, Grade Three	203
Table 7.E.9 Demographic Summary for Mathematics, Grade Four	205
Table 7.E.10 Demographic Summary for Mathematics, Grade Five	207
Table 7.E.11 Demographic Summary for Mathematics, Grade Six.....	209
Table 7.E.12 Demographic Summary for Mathematics, Grade Seven	211
Table 7.E.13 Demographic Summary for Mathematics, Grade Eight	213
Table 7.E.14 Demographic Summary for Mathematics, Grade Eleven.....	215
Table 7.E.15 Ethnicity Summary by Economic Status for Claims—ELA, Grade Three	217
Table 7.E.16 Ethnicity Summary by Economic Status for Claims—ELA, Grade Four	219
Table 7.E.17 Ethnicity Summary by Economic Status for Claims—ELA, Grade Five	221
Table 7.E.18 Ethnicity Summary by Economic Status for Claims—ELA, Grade Six.....	223

Table 7.E.19 Ethnicity Summary by Economic Status for Claims—ELA, Grade Seven.....	225
Table 7.E.20 Ethnicity Summary by Economic Status for Claims—ELA, Grade Eight.....	227
Table 7.E.21 Ethnicity Summary by Economic Status for Claims—ELA, Grade Eleven.....	229
Table 7.E.22 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Three.....	231
Table 7.E.23 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Four.....	233
Table 7.E.24 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Five.....	235
Table 7.E.25 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Six.....	237
Table 7.E.26 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Seven.....	239
Table 7.E.27 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Eight.....	241
Table 7.E.28 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Eleven.....	243
Table 7.F.1 California Assessment of Student Performance and Progress (CAASPP) Smarter Balanced Student Completion Conditions.....	246
Table 7.F.2 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Three.....	247
Table 7.F.3 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Three.....	248
Table 7.F.4 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Four.....	249
Table 7.F.5 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Four.....	250
Table 7.F.6 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Five.....	251
Table 7.F.7 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Five.....	252
Table 7.F.8 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Six.....	253
Table 7.F.9 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Six.....	254
Table 7.F.10 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Seven.....	255
Table 7.F.11 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Seven.....	256
Table 7.F.12 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Eight.....	257
Table 7.F.13 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Eight.....	258
Table 7.F.14 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Eleven.....	259
Table 7.F.15 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Eleven.....	260
Table 7.F.16 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Three.....	261
Table 7.F.17 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Three.....	262
Table 7.F.18 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Four.....	263
Table 7.F.19 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Four.....	264
Table 7.F.20 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Five.....	265
Table 7.F.21 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Five.....	266
Table 7.F.22 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Six.....	267
Table 7.F.23 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Six.....	268
Table 7.F.24 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Seven.....	269
Table 7.F.25 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Seven.....	270
Table 7.F.26 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Eight.....	271
Table 7.F.27 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Eight.....	272
Table 7.F.28 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Eleven.....	273
Table 7.F.29 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Eleven.....	274
Table 8.1 Minimum Number of Items for Claims.....	278
Table 8.2 Summary Statistics for Scale Scores and Theta Scores, Reliability, and SEMs.....	281
Table 8.3 Scale Score CSEM at Performance-level Cut Points.....	282
Table 8.4 Mean Conditional Standard Errors of Scale Scores.....	283
Table 8.5 Correlations for All Students.....	295
Table 8.A.1 IRT a -values for ELA, Grade Three.....	301
Table 8.A.2 IRT a -values for ELA, Grade Four.....	301
Table 8.A.3 IRT a -values for ELA, Grade Five.....	301
Table 8.A.4 IRT a -values for ELA, Grade Six.....	301

Table 8.A.5	IRT <i>a</i> -values for ELA, Grade Seven	301
Table 8.A.6	IRT <i>a</i> -values for ELA, Grade Eight	302
Table 8.A.7	IRT <i>a</i> -values for ELA, Grade Eleven	302
Table 8.A.8	IRT <i>a</i> -values for Mathematics, Grade Three	302
Table 8.A.9	IRT <i>a</i> -values for Mathematics, Grade Four	302
Table 8.A.10	IRT <i>a</i> -values for Mathematics, Grade Five	302
Table 8.A.11	IRT <i>a</i> -values for Mathematics, Grade Six	302
Table 8.A.12	IRT <i>a</i> -values for Mathematics, Grade Seven	303
Table 8.A.13	IRT <i>a</i> -values for Mathematics, Grade Eight	303
Table 8.A.14	IRT <i>a</i> -values for Mathematics, Grade Eleven	303
Table 8.A.15	IRT <i>b</i> -values for ELA, Grade Three	303
Table 8.A.16	IRT <i>b</i> -values for ELA, Grade Four	303
Table 8.A.17	IRT <i>b</i> -values for ELA, Grade Five	303
Table 8.A.18	IRT <i>b</i> -values for ELA, Grade Six	304
Table 8.A.19	IRT <i>b</i> -values for ELA, Grade Seven	304
Table 8.A.20	IRT <i>b</i> -values for ELA, Grade Eight	304
Table 8.A.21	IRT <i>b</i> -values for ELA, Grade Eleven	304
Table 8.A.22	IRT <i>b</i> -values for Mathematics, Grade Three	304
Table 8.A.23	IRT <i>b</i> -values for Mathematics, Grade Four	304
Table 8.A.24	IRT <i>b</i> -values for Mathematics, Grade Five	305
Table 8.A.25	IRT <i>b</i> -values for Mathematics, Grade Six	305
Table 8.A.26	IRT <i>b</i> -values for Mathematics, Grade Seven	305
Table 8.A.27	IRT <i>b</i> -values for Mathematics, Grade Eight	305
Table 8.A.28	IRT <i>b</i> -values for Mathematics, Grade Eleven	305
Table 8.A.29	Distribution of IRT <i>a</i> -values Conditional on Ability for ELA Non-PT Items, Grade Three	306
Table 8.A.30	Distribution of IRT <i>a</i> -values Conditional on Ability for ELA Non-PT Items, Grade Four	306
Table 8.A.31	Distribution of IRT <i>a</i> -values Conditional on Ability for ELA Non-PT Items, Grade Five	306
Table 8.A.32	Distribution of IRT <i>a</i> -values Conditional on Ability for ELA Non-PT Items, Grade Six	307
Table 8.A.33	Distribution of IRT <i>a</i> -values Conditional on Ability for ELA Non-PT Items, Grade Seven	307
Table 8.A.34	Distribution of IRT <i>a</i> -values Conditional on Ability for ELA Non-PT Items, Grade Eight	307
Table 8.A.35	Distribution of IRT <i>a</i> -values Conditional on Ability for ELA Non-PT Items, Grade Eleven	308
Table 8.A.36	Distribution of IRT <i>a</i> -values Conditional on Ability for Mathematics Non-PT Items, Grade Three	308
Table 8.A.37	Distribution of IRT <i>a</i> -values Conditional on Ability for Mathematics Non-PT Items, Grade Four	308
Table 8.A.38	Distribution of IRT <i>a</i> -values Conditional on Ability for Mathematics Non-PT Items, Grade Five	309
Table 8.A.39	Distribution of IRT <i>a</i> -values Conditional on Ability for Mathematics Non-PT Items, Grade Six	309
Table 8.A.40	Distribution of IRT <i>a</i> -values Conditional on Ability for Mathematics Non-PT Items, Grade Seven	309
Table 8.A.41	Distribution of IRT <i>a</i> -values Conditional on Ability for Mathematics Non-PT Items, Grade Eight	310
Table 8.A.42	Distribution of IRT <i>a</i> -values Conditional on Ability for Mathematics Non-PT Items, Grade Eleven	310
Table 8.A.43	Distribution of IRT <i>b</i> -values Conditional on Ability for ELA Non-PT Items, Grade Three	310
Table 8.A.44	Distribution of IRT <i>b</i> -values Conditional on Ability for ELA Non-PT Items, Grade Four	311
Table 8.A.45	Distribution of IRT <i>b</i> -values Conditional on Ability for ELA Non-PT Items, Grade Five	311
Table 8.A.46	Distribution of IRT <i>b</i> -values Conditional on Ability for ELA Non-PT Items, Grade Six	312
Table 8.A.47	Distribution of IRT <i>b</i> -values Conditional on Ability for ELA Non-PT Items, Grade Seven	312
Table 8.A.48	Distribution of IRT <i>b</i> -values Conditional on Ability for ELA Non-PT Items, Grade Eight	313
Table 8.A.49	Distribution of IRT <i>b</i> -values Conditional on Ability for ELA Non-PT Items, Grade Eleven	313
Table 8.A.50	Distribution of IRT <i>b</i> -values Conditional on Ability for Mathematics Non-PT Items, Grade Four	314
Table 8.A.51	Distribution of IRT <i>b</i> -values Conditional on Ability for Mathematics Non-PT Items, Grade Five	314
Table 8.A.52	Distribution of IRT <i>b</i> -values Conditional on Ability for Mathematics Non-PT Items, Grade Six	315
Table 8.A.53	Distribution of IRT <i>b</i> -values Conditional on Ability for Mathematics Non-PT Items, Grade Seven	315
Table 8.A.54	Distribution of IRT <i>b</i> -values Conditional on Ability for Mathematics Non-PT Items, Grade Eight	316
Table 8.A.55	Distribution of IRT <i>b</i> -values Conditional on Ability for Mathematics Non-PT Items, Grade Eleven	317
Table 8.A.56	Distribution of IRT <i>b</i> -values Conditional on Ability for Mathematics Non-PT Items, Grade Eleven	317
Table 8.A.57	Distribution of IRT <i>a</i> -values Conditional for PT for ELA, Grade Three	317
Table 8.A.58	Distribution of IRT <i>a</i> -values Conditional for PT for ELA, Grade Four	317
Table 8.A.59	Distribution of IRT <i>a</i> -values Conditional for PT for ELA, Grade Five	318
Table 8.A.60	Distribution of IRT <i>a</i> -values Conditional for PT for ELA, Grade Six	318
Table 8.A.61	Distribution of IRT <i>a</i> -values Conditional for PT for ELA, Grade Seven	318
Table 8.A.62	Distribution of IRT <i>a</i> -values Conditional for PT for ELA, Grade Eight	319
Table 8.A.63	Distribution of IRT <i>a</i> -values Conditional for PT for ELA, Grade Eleven	319
Table 8.A.64	Distribution of IRT <i>a</i> -values Conditional for PT for Mathematics, Grade Three	319
Table 8.A.65	Distribution of IRT <i>a</i> -values Conditional for PT for Mathematics, Grade Four	320
Table 8.A.66	Distribution of IRT <i>a</i> -values Conditional for PT for Mathematics, Grade Five	320

Table 8.A.67	Distribution of IRT <i>a</i> -values Conditional for PT for Mathematics, Grade Six	320
Table 8.A.68	Distribution of IRT <i>a</i> -values Conditional for PT for Mathematics, Grade Seven	321
Table 8.A.69	Distribution of IRT <i>a</i> -values Conditional for PT for Mathematics, Grade Eight	321
Table 8.A.70	Distribution of IRT <i>a</i> -values Conditional for PT for Mathematics, Grade Eleven	321
Table 8.A.71	Distribution of IRT <i>b</i> -values Conditional for PT for ELA, Grade Three	322
Table 8.A.72	Distribution of IRT <i>b</i> -values Conditional for PT for ELA, Grade Four	322
Table 8.A.73	Distribution of IRT <i>b</i> -values Conditional for PT for ELA, Grade Five	323
Table 8.A.74	Distribution of IRT <i>b</i> -values Conditional for PT for ELA, Grade Six	323
Table 8.A.75	Distribution of IRT <i>b</i> -values Conditional for PT for ELA, Grade Seven	324
Table 8.A.76	Distribution of IRT <i>b</i> -values Conditional for PT for ELA, Grade Eight	324
Table 8.A.77	Distribution of IRT <i>b</i> -values Conditional for PT for ELA, Grade Eleven	325
Table 8.A.78	Distribution of IRT <i>b</i> -values Conditional for PT for Mathematics, Grade Three	325
Table 8.A.79	Distribution of IRT <i>b</i> -values Conditional for PT for Mathematics, Grade Four	326
Table 8.A.80	Distribution of IRT <i>b</i> -values Conditional for PT for Mathematics, Grade Five	326
Table 8.A.81	Distribution of IRT <i>b</i> -values Conditional for PT for Mathematics, Grade Six	327
Table 8.A.82	Distribution of IRT <i>b</i> -values Conditional for PT for Mathematics, Grade Seven	327
Table 8.A.83	Distribution of IRT <i>b</i> -values Conditional for PT for Mathematics, Grade Eight	328
Table 8.A.84	Distribution of IRT <i>b</i> -values Conditional for PT for Mathematics, Grade Eleven	328
Table 8.A.85	PT Item Statistics—ELA, Grade Three	329
Table 8.A.86	PT Item Statistics—ELA, Grade Four	331
Table 8.A.87	PT Item Statistics—ELA, Grade Five	333
Table 8.A.88	PT Item Statistics—ELA, Grade Six	335
Table 8.A.89	PT Item Statistics—ELA, Grade Seven	337
Table 8.A.90	PT Item Statistics—ELA, Grade Eight	339
Table 8.A.91	PT Item Statistics—ELA, Grade Eleven	341
Table 8.A.92	PT Item Statistics—Mathematics, Grade Three	344
Table 8.A.93	PT Item Statistics—Mathematics, Grade Four	347
Table 8.A.94	PT Item Statistics—Mathematics, Grade Five	349
Table 8.A.95	PT Item Statistics—Mathematics, Grade Six	351
Table 8.A.96	PT Item Statistics—Mathematics, Grade Seven	354
Table 8.A.97	PT Item Statistics—Mathematics, Grade Eight	356
Table 8.A.98	PT Item Statistics—Mathematics, Grade Eleven	358
Table 8.B.1	Omit Rates for ELA	360
Table 8.B.2	Omit Rates for Mathematics	362
Table 8.B.3	Item Completion	364
Table 8.C.1	Item Exposure Frequency—ELA	366
Table 8.C.2	Item Exposure Frequency—Mathematics	368
Table 8.C.3	Conditional Exposure by Difficulty for ELA, Grade Three	369
Table 8.C.4	Conditional Exposure by Difficulty for ELA, Grade Four	370
Table 8.C.5	Conditional Exposure by Difficulty for ELA, Grade Five	371
Table 8.C.6	Conditional Exposure by Difficulty for ELA, Grade Six	372
Table 8.C.7	Conditional Exposure by Difficulty for ELA, Grade Seven	373
Table 8.C.8	Conditional Exposure by Difficulty for ELA, Grade Eight	374
Table 8.C.9	Conditional Exposure by Difficulty for ELA, Grade Eleven	375
Table 8.C.10	Conditional Exposure by Difficulty for Mathematics, Grade Three	376
Table 8.C.11	Conditional Exposure by Difficulty for Mathematics, Grade Four	377
Table 8.C.12	Conditional Exposure by Difficulty for Mathematics, Grade Five	378
Table 8.C.13	Conditional Exposure by Difficulty for Mathematics, Grade Six	379
Table 8.C.14	Conditional Exposure by Difficulty for Mathematics, Grade Seven	380
Table 8.C.15	Conditional Exposure by Difficulty for Mathematics, Grade Eight	381
Table 8.C.16	Conditional Exposure by Difficulty for Mathematics, Grade Eleven	382
Table 8.D.1	Reliabilities of Claims and Intercorrelations for ELA, Grade Three	383
Table 8.D.2	Reliabilities of Claims and Intercorrelations for ELA, Grade Four	383
Table 8.D.3	Reliabilities of Claims and Intercorrelations for ELA, Grade Five	383
Table 8.D.4	Reliabilities of Claims and Intercorrelations for ELA, Grade Six	383
Table 8.D.5	Reliabilities of Claims and Intercorrelations for ELA, Grade Seven	384
Table 8.D.6	Reliabilities of Claims and Intercorrelations for ELA, Grade Eight	384
Table 8.D.7	Reliabilities of Claims and Intercorrelations for ELA, Grade Eleven	384
Table 8.D.8	Reliabilities of Claims and Intercorrelations for Mathematics, Grade Three	384
Table 8.D.9	Reliabilities of Claims and Intercorrelations for Mathematics, Grade Four	384
Table 8.D.10	Reliabilities of Claims and Intercorrelations for Mathematics, Grade Five	384
Table 8.D.11	Reliabilities of Claims and Intercorrelations for Mathematics, Grade Six	385

Table 8.D.12	Reliabilities of Claims and Intercorrelations for Mathematics, Grade Seven	385
Table 8.D.13	Reliabilities of Claims and Intercorrelations for Mathematics, Grade Eight	385
Table 8.D.14	Reliabilities of Claims and Intercorrelations for Mathematics, Grade Eleven.....	385
Table 8.D.15	Reliabilities and SEMs by Gender	385
Table 8.D.16	Reliabilities and SEMs by Economic Status	386
Table 8.D.17	Reliabilities and SEMs by Special Services.....	386
Table 8.D.18	Reliabilities and SEMs by English–Language Fluency	387
Table 8.D.19	Reliabilities and SEMs by English–Language Fluency (continued).....	387
Table 8.D.20	Reliabilities and SEMs by Primary Ethnicity	388
Table 8.D.21	Reliabilities and SEMs by Primary Ethnicity (continued)	388
Table 8.D.22	Reliabilities and SEMs by Primary Ethnicity (continued)	389
Table 8.D.23	Reliabilities and SEMs by Migrant Status	389
Table 8.D.24	Reliabilities and SEMs by Primary Ethnicity for Not Economically Disadvantaged.....	390
Table 8.D.25	Reliabilities and SEMs by Primary Ethnicity for Not Economically Disadvantaged (continued).....	390
Table 8.D.26	Reliabilities and SEMs by Primary Ethnicity for Not Economically Disadvantaged (continued).....	391
Table 8.D.27	Reliabilities and SEMs by Primary Ethnicity for Economically Disadvantaged	391
Table 8.D.28	Reliabilities and SEMs by Primary Ethnicity for Economically Disadvantaged (continued)	392
Table 8.D.29	Reliabilities and SEMs by Primary Ethnicity for Economically Disadvantaged (continued)	392
Table 8.D.30	Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Three	393
Table 8.D.31	Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Four	393
Table 8.D.32	Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Five	393
Table 8.D.33	Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Six.....	394
Table 8.D.34	Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Seven.....	394
Table 8.D.35	Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Eight.....	394
Table 8.D.36	Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Eleven.....	394
Table 8.D.37	Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Three.....	395
Table 8.D.38	Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Four.....	395
Table 8.D.39	Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Five	395
Table 8.D.40	Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Six	395
Table 8.D.41	Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Seven ..	396
Table 8.D.42	Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Eight....	396
Table 8.D.43	Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Eleven ..	396
Table 8.D.44	Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Three	396
Table 8.D.45	Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Four	397
Table 8.D.46	Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Five	397
Table 8.D.47	Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Six.....	397
Table 8.D.48	Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Seven.....	397
Table 8.D.49	Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Eight.....	398
Table 8.D.50	Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Eleven.....	398
Table 8.D.51	Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Three	398
Table 8.D.52	Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Four.....	398
Table 8.D.53	Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Five.....	399
Table 8.D.54	Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Six	399
Table 8.D.55	Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Seven	399
Table 8.D.56	Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Eight.....	399
Table 8.D.57	Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Eleven	400
Table 8.D.58	Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Three	400
Table 8.D.59	Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Four	400
Table 8.D.60	Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Five.....	400
Table 8.D.61	Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Six.....	401
Table 8.D.62	Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Seven	401
Table 8.D.63	Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Eight	401
Table 8.D.64	Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Eleven.....	401
Table 8.D.65	Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Three.....	402
Table 8.D.66	Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Four.....	402
Table 8.D.67	Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Five	403
Table 8.D.68	Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Six	403
Table 8.D.69	Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Seven	403
Table 8.D.70	Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Eight.....	403
Table 8.D.71	Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Eleven	404
Table 8.D.72	Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Three	404

Table 8.D.73 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Four	404
Table 8.D.74 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Five	404
Table 8.D.75 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Six.....	405
Table 8.D.76 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Seven.....	405
Table 8.D.77 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Eight.....	405
Table 8.D.78 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Eleven.....	406
Table 8.D.79 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Three	406
Table 8.D.80 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Four	406
Table 8.D.81 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Five.....	406
Table 8.D.82 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Six.....	407
Table 8.D.83 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Seven.....	407
Table 8.D.84 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Eight.....	407
Table 8.D.85 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Eleven.....	407
Table 8.D.86 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Three ..	408
Table 8.D.87 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Four ...	408
Table 8.D.88 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Five ...	408
Table 8.D.89 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Six.....	409
Table 8.D.90 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Seven ..	409
Table 8.D.91 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Eight ..	409
Table 8.D.92 Claim Reliabilities and SEM for ELA, Grade Eleven by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Eleven.....	410
Table 8.D.93 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Three	410
Table 8.D.94 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Four	410
Table 8.D.95 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Five	410
Table 8.D.96 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Six.....	411
Table 8.D.97 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Seven.....	411
Table 8.D.98 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Eight.....	411
Table 8.D.99 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Eleven.....	411
Table 8.E.1 Scale Score CSEM Distribution—ELA, Grade Three	412
Table 8.E.2 Scale Score CSEM Distribution—ELA, Grade Four	413
Table 8.E.3 Scale Score CSEM Distribution—ELA, Grade Five	414
Table 8.E.4 Scale Score CSEM Distribution—ELA, Grade Six.....	415
Table 8.E.5 Scale Score CSEM Distribution—ELA, Grade Seven.....	416
Table 8.E.6 Scale Score CSEM Distribution—ELA, Grade Eight.....	417
Table 8.E.7 Scale Score CSEM Distribution—ELA, Grade Eleven.....	418
Table 8.E.8 Scale Score CSEM Distribution—Mathematics, Grade Three	419
Table 8.E.9 Scale Score CSEM Distribution—Mathematics, Grade Four.....	420
Table 8.E.10 Scale Score CSEM Distribution—Mathematics, Grade Five.....	421
Table 8.E.11 Scale Score CSEM Distribution—Mathematics, Grade Six	422
Table 8.E.12 Scale Score CSEM Distribution—Mathematics, Grade Seven	423
Table 8.E.13 Scale Score CSEM Distribution—Mathematics, Grade Eight	424
Table 8.E.14 Scale Score CSEM Distribution—Mathematics, Grade Eleven	425
Table 8.F.1 Decision Accuracy and Decision Consistency: ELA, Grade Three	433

Table 8.F.2 Decision Accuracy and Decision Consistency: ELA, Grade Four	433
Table 8.F.3 Decision Accuracy and Decision Consistency: ELA, Grade Five	434
Table 8.F.4 Decision Accuracy and Decision Consistency: ELA, Grade Six	434
Table 8.F.5 Decision Accuracy and Decision Consistency: ELA, Grade Seven	435
Table 8.F.6 Decision Accuracy and Decision Consistency: ELA, Grade Eight	435
Table 8.F.7 Decision Accuracy and Decision Consistency: ELA, Grade Eleven	436
Table 8.F.8 Decision Accuracy and Decision Consistency: Mathematics, Grade Three	436
Table 8.F.9 Decision Accuracy and Decision Consistency: Mathematics, Grade Four	437
Table 8.F.10 Decision Accuracy and Decision Consistency: Mathematics, Grade Five	437
Table 8.F.11 Decision Accuracy and Decision Consistency: Mathematics, Grade Six	438
Table 8.F.12 Decision Accuracy and Decision Consistency: Mathematics, Grade Seven	438
Table 8.F.13 Decision Accuracy and Decision Consistency: Mathematics, Grade Eight	439
Table 8.F.14 Decision Accuracy and Decision Consistency: Mathematics, Grade Eleven	439
Table 8.G.1 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Three Short Answer	440
Table 8.G.2 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Four Short Answer	441
Table 8.G.3 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Five Short Answer	442
Table 8.G.4 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Six Short Answer	443
Table 8.G.5 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Seven Short Answer	444
Table 8.G.6 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Eight Short Answer	445
Table 8.G.7 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Eleven Short Answer	446
Table 8.G.8 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Three Short Answer	448
Table 8.G.9 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Four Short Answer	450
Table 8.G.10 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Five Short Answer	452
Table 8.G.11 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Six Short Answer	454
Table 8.G.12 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Seven Short Answer	456
Table 8.G.13 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Eight Short Answer	457
Table 8.G.14 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Eleven Short Answer	459
Table 8.G.15 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Three Writing Extended Response	461
Table 8.G.16 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-scoring Items for ELA, Grade Four Writing Extended Response	463
Table 8.G.17 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-scoring Items for ELA, Grade Five Writing Extended Response	465
Table 8.G.18 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-scoring Items for ELA, Grade Six Writing Extended Response	467
Table 8.G.19 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-scoring Items for ELA, Grade Seven Writing Extended Response	468
Table 8.G.20 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-scoring Items for ELA, Grade Eight Writing Extended Response	470
Table 8.G.21 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-scoring Items for ELA, Grade Eleven Writing Extended Response	472
Table 8.G.22 Agreement Statistics between AI and Human Scoring of CR Items for Mathematics, Grade Three	474
Table 8.G.23 Agreement Statistics between AI and Human Scoring of CR Items for Mathematics, Grade Four	474
Table 8.G.24 Agreement Statistics between AI and Human Scoring of CR Items for Mathematics, Grade Five	475
Table 8.G.25 Agreement Statistics between AI and Human Scoring of CR Items for ELA, Grade Six	476
Table 8.G.26 Agreement Statistics between AI and Human Scoring of CR Items for ELA, Grade Seven	477
Table 8.G.27 Agreement Statistics between AI and Human Scoring of CR Items for ELA, Grade Eight	478
Table 8.H.1 Total Testing Time (in Minutes) at Each Ability Level, ELA	479
Table 8.H.2 Total Testing Time (in Minutes) at Each Ability Level, Mathematics	480

Table 8.H.3 CAT Testing Time (in Minutes) at Each Ability Level, ELA.....	481
Table 8.H.4 CAT Testing Time (in Minutes) at Each Ability Level, Mathematics	482
Table 8.H.5 PT Testing Time (in Minutes) at Each Ability Level, ELA.....	483
Table 8.H.6 PT Testing Time (in Minutes) at Each Ability Level, Mathematics	487
Table 8.I.1 Correlations for Gender	491
Table 8.I.2 Correlations for Primary Ethnicity.....	491
Table 8.I.3 Correlations for Primary Ethnicity.....	492
Table 8.I.4 Correlations for English Fluency	492
Table 8.I.5 Correlations for English Fluency	493
Table 8.I.6 Correlations for Economic Status.....	493
Table 8.I.7 Correlations for Special Education Services	494
Table 8.I.8 Correlations for Migrant Status	494
Table 10.1 Mean and Standard Deviation of Total Theta and Scale Scores of Paper-Pencil Summative Assessments	505
Table 10.2 Percentages and Counts of Students in Achievement Levels for CAASPP Paper-pencil Summative Assessments	505
Table 10.3 Summary Statistics for Scale Scores and Theta Scores, Reliabilities, and SEMs	507
Table 10.4 Scale Score CSEM at Performance-level Cut Points.....	508
Table 10.5 Average CSEM of Scale Scores in Each Performance Level	509
Table 10.6 Correlations between Content Areas for All Students	509
Table 10.A.1 Special Services Summary for ELA, Grades Three through Six—All Tested	512
Table 10.A.2 Special Services Summary for ELA, Grades Seven through Eleven—All Tested.....	513
Table 10.A.3 Special Services Summary for ELA, Grades Three through Six—Students Not in Special Education	514
Table 10.A.4 Special Services Summary for ELA, Grades Seven through Eleven—Students Not in Special Education.....	515
Table 10.A.5 Special Services Summary for ELA, Grades Three through Six—Students in Special Education.....	516
Table 10.A.6 Special Services Summary for ELA, Grades Seven through Eleven—Students in Special Education	517
Table 10.A.7 Special Services Summary for ELA, Grades Three through Six—English-Only Students.....	518
Table 10.A.8 Special Services Summary for ELA, Grades Seven through Eleven—English-Only Students	519
Table 10.A.9 Special Services Summary for ELA, Grades Three through Six—Initially Fluent English Proficient (I-FEP) Students	520
Table 10.A.10 Special Services Summary for ELA, Grades Seven through Eleven—I-FEP Students	521
Table 10.A.11 Special Services Summary for ELA, Grades Three through Six— English Learner (EL) Students	522
Table 10.A.12 Special Services Summary for ELA, Grades Seven through Eleven—EL Students	523
Table 10.A.13 Special Services Summary for ELA, Grades Three through Six—Reclassified Fluent English Proficient (R-FEP) Students.....	524
Table 10.A.14 Special Services Summary for ELA, Grades Seven through Eleven—R-FEP Students.....	525
Table 10.A.15 Special Services Summary for Mathematics, Grades Three through Six—All Tested	526
Table 10.A.16 Special Services Summary for Mathematics, Grades Seven through Eleven—All Tested	527
Table 10.A.17 Special Services Summary for Mathematics, Grades Three through Six—Students Not in Special Education.....	528
Table 10.A.18 Special Services Summary for Mathematics, Grades Seven through Eleven—Students Not in Special Education.....	529
Table 10.A.19 Special Services Summary for Mathematics, Grades Three through Six—Students in Special Education.....	530
Table 10.A.20 Special Services Summary for Mathematics, Grades Seven through Eleven—Students in Special Education.....	531
Table 10.A.21 Special Services Summary for Mathematics, Grades Three through Six—English-Only Students	532
Table 10.A.22 Special Services Summary for Mathematics, Grades Seven through Eleven—English-Only Students.....	533
Table 10.A.23 Special Services Summary for Mathematics, Grades Three through Six—I-FEP Students	534
Table 10.A.24 Special Services Summary for Mathematics, Grades Seven through Eleven—I-FEP Students.....	535
Table 10.A.25 Special Services Summary for Mathematics, Grades Three through Six—EL Students	536
Table 10.A.26 Special Services Summary for Mathematics, Grades Seven through Eleven—EL Students	537
Table 10.A.27 Special Services Summary for Mathematics, Grades Three through Six—R-FEP Students	538
Table 10.A.28 Special Services Summary for Mathematics, Grades Seven through Eleven—R-FEP Students	539
Table 10.B.1 Frequency Distribution of Theta for Overall Scores—ELA.....	540
Table 10.B.2 Frequency Distribution of Theta for Overall Scores—Mathematics	540
Table 10.B.3 Percentiles of Scale Scores for Paper-Pencil Tests—ELA	541
Table 10.B.4 Percentiles of Scale Scores for Paper-Pencil Tests—Mathematics.....	541
Table 10.B.5 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Three.....	542
Table 10.B.6 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Four	544
Table 10.B.7 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Five	546
Table 10.B.8 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Six	548

Table 10.B.9	Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Seven	550
Table 10.B.10	Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Eight	552
Table 10.B.11	Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Eleven	554
Table 10.B.12	Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Three	556
Table 10.B.13	Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Four	557
Table 10.B.14	Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Five	558
Table 10.B.15	Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Six	560
Table 10.B.16	Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Seven	562
Table 10.B.17	Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Eight	564
Table 10.B.18	Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Eleven	566
Table 10.C.1	Mean and Standard Deviation of Theta and Scale Scores for Claim 1 of Paper-pencil Tests	568
Table 10.C.2	Mean and Standard Deviation of Theta and Scale Scores for Claim 2 of Paper-pencil Tests	568
Table 10.C.3	Mean and Standard Deviation of Theta and Scale Scores for Claim 3 of Paper-pencil Tests	569
Table 10.C.4	Mean and Standard Deviation of Theta and Scale Scores for Claim 4 of Paper-pencil Tests	569
Table 10.C.5	Percentages of Examinees in Achievement Levels for Claim 1 of Paper-pencil Tests	570
Table 10.C.6	Percentages of Examinees in Achievement Levels for Claim 2 of Paper-pencil Tests	570
Table 10.C.7	Percentages of Examinees in Achievement Levels for Claim 3 of Paper-pencil Tests	571
Table 10.C.8	Percentages of Examinees in Achievement Levels for Claim 4 of Paper-pencil Tests	571
Table 10.D.1	Demographic Summary for Paper-pencil Tests—ELA, Grade Three	572
Table 10.D.2	Demographic Summary for Paper-pencil Tests—ELA, Grade Four	574
Table 10.D.3	Demographic Summary for Paper-pencil Tests—ELA, Grade Five	576
Table 10.D.4	Demographic Summary for Paper-pencil Tests—ELA, Grade Six	578
Table 10.D.5	Demographic Summary for Paper-pencil Tests—ELA, Grade Seven	580
Table 10.D.6	Demographic Summary for Paper-pencil Tests—ELA, Grade Eight	582
Table 10.D.7	Demographic Summary for Paper-pencil Tests—ELA, Grade Eleven	584
Table 10.D.8	Demographic Summary for Paper-pencil Tests—Mathematics, Grade Three	586
Table 10.D.9	Demographic Summary for Paper-pencil Tests—Mathematics, Grade Four	588
Table 10.D.10	Demographic Summary for Paper-pencil Tests—Mathematics, Grade Five	590
Table 10.D.11	Demographic Summary for Paper-pencil Tests—Mathematics, Grade Six	592
Table 10.D.12	Demographic Summary for Paper-pencil Tests—Mathematics, Grade Seven	594
Table 10.D.13	Demographic Summary for Paper-pencil Tests—Mathematics, Grade Eight	596
Table 10.D.14	Demographic Summary for Paper-pencil Tests—Mathematics, Grade Eleven	598
Table 10.D.15	Ethnicity Summary by Economic Status for Claims—ELA, Grade Three	600
Table 10.D.16	Ethnicity Summary by Economic Status for Claims—ELA, Grade Four	603
Table 10.D.17	Ethnicity Summary by Economic Status for Claims—ELA, Grade Five	606
Table 10.D.18	Ethnicity Summary by Economic Status for Claims—ELA, Grade Six	609
Table 10.D.19	Ethnicity Summary by Economic Status for Claims—ELA, Grade Seven	612
Table 10.D.20	Ethnicity Summary by Economic Status for Claims—ELA, Grade Eight	615
Table 10.D.21	Ethnicity Summary by Economic Status for Claims—ELA, Grade Eleven	618
Table 10.D.22	Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Three	621
Table 10.D.23	Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Four	624
Table 10.D.24	Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Five	627
Table 10.D.25	Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Six	630
Table 10.D.26	Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Seven	633
Table 10.D.27	Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Eight	636
Table 10.D.28	Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Eleven	639
Table 10.E.1	IRT <i>a</i> -values for ELA, Grade Three	642
Table 10.E.2	IRT <i>a</i> -values for ELA, Grade Four	642
Table 10.E.3	IRT <i>a</i> -values for ELA, Grade Five	642
Table 10.E.4	IRT <i>a</i> -values for ELA, Grade Six	642
Table 10.E.5	IRT <i>a</i> -values for ELA, Grade Seven	642
Table 10.E.6	IRT <i>a</i> -values for ELA, Grade Eight	643
Table 10.E.7	IRT <i>a</i> -values for ELA, Grade Eleven	643
Table 10.E.8	IRT <i>a</i> -values for Mathematics, Grade Three	643
Table 10.E.9	IRT <i>a</i> -values for Mathematics, Grade Four	643
Table 10.E.10	IRT <i>a</i> -values for Mathematics, Grade Five	643
Table 10.E.11	IRT <i>a</i> -values for Mathematics, Grade Six	643
Table 10.E.12	IRT <i>a</i> -values for Mathematics, Grade Seven	644
Table 10.E.13	IRT <i>a</i> -values for Mathematics, Grade Eight	644
Table 10.E.14	IRT <i>a</i> -values for Mathematics, Grade Eleven	644
Table 10.E.15	IRT <i>b</i> -values for ELA, Grade Three	644
Table 10.E.16	IRT <i>b</i> -values for ELA, Grade Four	644

Table 10.E.17	IRT <i>b</i> -values for ELA, Grade Five.....	644
Table 10.E.18	IRT <i>b</i> -values for ELA, Grade Six	645
Table 10.E.19	IRT <i>b</i> -values for ELA, Grade Seven	645
Table 10.E.20	IRT <i>b</i> -values for ELA, Grade Eight	645
Table 10.E.21	IRT <i>b</i> -values for ELA, Grade Eleven	645
Table 10.E.22	IRT <i>b</i> -values for Mathematics, Grade Three.....	645
Table 10.E.23	IRT <i>b</i> -values for Mathematics, Grade Four.....	645
Table 10.E.24	IRT <i>b</i> -values for Mathematics, Grade Five	646
Table 10.E.25	IRT <i>b</i> -values for Mathematics, Grade Six.....	646
Table 10.E.26	IRT <i>b</i> -values for Mathematics, Grade Seven.....	646
Table 10.E.27	IRT <i>b</i> -values for Mathematics, Grade Eight.....	646
Table 10.E.28	IRT <i>b</i> -values for Mathematics, Grade Eleven	646
Table 10.E.29	Distribution of IRT <i>a</i> -values for Non-PT Items—ELA, All Grades	647
Table 10.E.30	Distribution of IRT <i>a</i> -values for Non-PT Items—Mathematics, All Grades.....	647
Table 10.E.31	Distribution of IRT <i>b</i> -values for Non-PT Items—ELA, All Grades	647
Table 10.E.32	Distribution of IRT <i>b</i> -values for Non-PT Items—Mathematics, All Grades.....	648
Table 10.E.33	Distribution of IRT <i>a</i> -values for PT—ELA, All Grades.....	648
Table 10.E.34	Distribution of IRT <i>a</i> -values for PT—Mathematics, All Grades	648
Table 10.E.35	Distribution of IRT <i>b</i> -values for PT—ELA, All Grades.....	649
Table 10.E.36	Distribution of IRT <i>b</i> -values for PT—Mathematics, All Grades	649
Table 10.E.37	PT Item Statistics—ELA, Grade Three	650
Table 10.E.38	PT Item Statistics—ELA, Grade Four	650
Table 10.E.39	PT Item Statistics—ELA, Grade Five.....	650
Table 10.E.40	PT Item Statistics—ELA, Grade Six	650
Table 10.E.41	PT Item Statistics—ELA, Grade Seven	650
Table 10.E.42	PT Item Statistics—ELA, Grade Eight	651
Table 10.E.43	PT Item Statistics—ELA, Grade Eleven.....	651
Table 10.E.44	PT Item Statistics—Mathematics, Grade Three.....	651
Table 10.E.45	PT Item Statistics—Mathematics, Grade Four.....	651
Table 10.E.46	PT Item Statistics—Mathematics, Grade Five	651
Table 10.E.47	PT Item Statistics—Mathematics, Grade Six	652
Table 10.E.48	PT Item Statistics—Mathematics, Grade Seven.....	652
Table 10.E.49	PT Item Statistics—Mathematics, Grade Eight.....	652
Table 10.E.50	PT Item Statistics—Mathematics, Grade Eleven	652
Table 10.F.1	Reliabilities of Claims and Intercorrelations for ELA, Grade Three	653
Table 10.F.2	Reliabilities of Claims and Intercorrelations for ELA, Grade Four	653
Table 10.F.3	Reliabilities of Claims and Intercorrelations for ELA, Grade Five.....	653
Table 10.F.4	Reliabilities of Claims and Intercorrelations for ELA, Grade Six	653
Table 10.F.5	Reliabilities of Claims and Intercorrelations for ELA, Grade Seven	654
Table 10.F.6	Reliabilities of Claims and Intercorrelations for ELA, Grade Eight	654
Table 10.F.7	Reliabilities of Claims and Intercorrelations for ELA, Grade Eleven	654
Table 10.F.8	Reliabilities of Claims and Intercorrelations for Mathematics, Grade Three.....	654
Table 10.F.9	Reliabilities of Claims and Intercorrelations for Mathematics, Grade Four.....	655
Table 10.F.10	Reliabilities of Claims and Intercorrelations for Mathematics, Grade Five	655
Table 10.F.11	Reliabilities of Claims and Intercorrelations for Mathematics, Grade Six	655
Table 10.F.12	Reliabilities of Claims and Intercorrelations for Mathematics, Grade Seven.....	655
Table 10.F.13	Reliabilities of Claims and Intercorrelations for Mathematics, Grade Eight.....	655
Table 10.F.14	Reliabilities of Claims and Intercorrelations for Mathematics, Grade Eleven	656
Table 10.F.15	Reliabilities and SEMs for Paper-pencil Tests by Gender.....	656
Table 10.F.16	Reliabilities and SEMs for Paper-pencil Tests by Economic Status.....	656
Table 10.F.17	Reliabilities and SEMs for Paper-pencil Tests by Special Services	657
Table 10.F.18	Reliabilities and SEMs for Paper-pencil Tests by English—Language Fluency	657
Table 10.F.19	Reliabilities and SEMs for Paper-pencil Tests by English—Language Fluency (continued)	658
Table 10.F.20	Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity.....	658
Table 10.F.21	Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity (continued).....	659
Table 10.F.22	Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity (continued).....	659
Table 10.F.23	Reliabilities and SEMs for Paper-pencil Tests by Migrant Status	660
Table 10.F.24	Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged.....	660
Table 10.F.25	Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged (continued).....	661

Table 10.F.26 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged (continued).....	661
Table 10.F.27 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged.....	662
Table 10.F.28 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged (continued).....	662
Table 10.F.29 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged (continued).....	663
Table 10.F.30 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status— ELA, Grade Three.....	663
Table 10.F.31 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status— ELA, Grade Four.....	663
Table 10.F.32 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status— ELA, Grade Five.....	663
Table 10.F.33 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status— ELA, Grade Six.....	664
Table 10.F.34 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status— ELA, Grade Seven.....	664
Table 10.F.35 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status— ELA, Grade Eight.....	664
Table 10.F.36 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status— ELA, Grade Eleven.....	664
Table 10.F.37 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status— Mathematics, Grade Three.....	664
Table 10.F.38 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status— Mathematics, Grade Four.....	665
Table 10.F.39 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status— Mathematics, Grade Five.....	665
Table 10.F.40 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status— Mathematics, Grade Six.....	665
Table 10.F.41 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status— Mathematics, Grade Seven.....	665
Table 10.F.42 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status— Mathematics, Grade Eight.....	665
Table 10.F.43 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status— Mathematics, Grade Eleven.....	666
Table 10.F.44 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Three.....	666
Table 10.F.45 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Four.....	666
Table 10.F.46 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Five.....	666
Table 10.F.47 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Six.....	666
Table 10.F.48 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Seven.....	667
Table 10.F.49 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Eight.....	667
Table 10.F.50 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Eleven.....	667
Table 10.F.51 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency— Mathematics, Grade Three.....	667
Table 10.F.52 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency— Mathematics, Grade Four.....	667
Table 10.F.53 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency— Mathematics, Grade Five.....	668
Table 10.F.54 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency— Mathematics, Grade Six.....	668
Table 10.F.55 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency— Mathematics, Grade Seven.....	668
Table 10.F.56 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency— Mathematics, Grade Eight.....	668
Table 10.F.57 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency— Mathematics, Grade Eleven.....	668

Table 10.F.58 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Three.....	669
Table 10.F.59 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Four.....	669
Table 10.F.60 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Five.....	669
Table 10.F.61 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Six.....	669
Table 10.F.62 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Seven.....	670
Table 10.F.63 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Eight.....	670
Table 10.F.64 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Eleven.....	670
Table 10.F.65 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Three ..	670
Table 10.F.66 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Four	671
Table 10.F.67 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Five.....	671
Table 10.F.68 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Six.....	671
Table 10.F.69 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Seven ..	671
Table 10.F.70 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Eight ...	672
Table 10.F.71 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Eleven.....	672
Table 10.F.72 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Three.....	672
Table 10.F.73 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Four.....	672
Table 10.F.74 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Five.....	673
Table 10.F.75 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Six.....	673
Table 10.F.76 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Seven.....	673
Table 10.F.77 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Eight.....	674
Table 10.F.78 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Eleven.....	674
Table 10.F.79 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Three.....	674
Table 10.F.80 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Four.....	674
Table 10.F.81 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Five.....	675
Table 10.F.82 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Six.....	675
Table 10.F.83 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Seven.....	675
Table 10.F.84 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Eight.....	675
Table 10.F.85 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantage—Mathematics, Grade Eleven.....	676
Table 10.F.86 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Three.....	676
Table 10.F.87 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Four.....	676
Table 10.F.88 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Five.....	677
Table 10.F.89 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Six.....	677
Table 10.F.90 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Seven.....	677
Table 10.F.91 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Eight.....	678
Table 10.F.92 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Eleven.....	678
Table 10.F.93 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Three.....	678
Table 10.F.94 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Four.....	678
Table 10.F.95 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Five.....	679

Table 10.F.96 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Six	679
Table 10.F.97 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Seven	679
Table 10.F.98 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Eight	679
Table 10.F.99 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Eleven	680
Table 10.G.1 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Three	681
Table 10.G.2 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Four	681
Table 10.G.3 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Five	681
Table 10.G.4 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Six	682
Table 10.G.5 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Seven	682
Table 10.G.6 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Eight	682
Table 10.G.7 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Eleven	682
Table 10.G.8 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Three	683
Table 10.G.9 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Four	683
Table 10.G.10 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Five	683
Table 10.G.11 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Six	684
Table 10.G.12 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Seven	684
Table 10.G.13 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Eight	685
Table 10.G.14 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Eleven	685

Figures

Figure 2.1 Vertical scaling	17
Figure 7.1 Writing Traits	108
Figure 7.2 Training Process for Extended Writing Tasks	109
Figure 7.3 Training Process for ELA Short Answer Items	110
Figure 7.4 Training Process for Mathematics Items	111
Figure 7.5 Percentages of Achievement Levels in ELA	124
Figure 7.6 Percentages of Achievement Levels in Mathematics	124
Figure 8.1 Decision Accuracy for Reaching an Achievement Level	284
Figure 8.2 Decision Consistency for Reaching an Achievement Level	284
Figure 8.E.1 Scale Score CSEM Distribution Plots—ELA, Grade Three	426
Figure 8.E.2 Scale Score CSEM Distribution Plots—ELA, Grade Four	426
Figure 8.E.3 Scale Score CSEM Distribution Plots—ELA, Grade 5	427
Figure 8.E.4 Scale Score CSEM Distribution Plots—ELA, Grade Six	427
Figure 8.E.5 Scale Score CSEM Distribution Plots—ELA, Grade Seven	428
Figure 8.E.6 Scale Score CSEM Distribution Plots—ELA, Grade Eight	428
Figure 8.E.7 Scale Score CSEM Distribution Plots—ELA, Grade Eleven	429
Figure 8.E.8 Scale Score CSEM Distribution Plots—Mathematics, Grade Three	429
Figure 8.E.9 Scale Score CSEM Distribution Plots—Mathematics, Grade Four	430
Figure 8.E.10 Scale Score CSEM Distribution Plots—Mathematics, Grade Five	430
Figure 8.E.11 Scale Score CSEM Distribution Plots—Mathematics, Grade Six	431
Figure 8.E.12 Scale Score CSEM Distribution Plots—Mathematics, Grade Seven	431
Figure 8.E.13 Scale Score CSEM Distribution Plots—Mathematics, Grade 8	432
Figure 8.E.14 Scale Score CSEM Distribution Plots—Mathematics, Grade Eleven	432
Figure 10.G.1 Scale Score CSEM Distribution Plots—ELA, Grade Three	686
Figure 10.G.2 Scale Score CSEM Distribution Plots—ELA, Grade Four	686
Figure 10.G.3 Scale Score CSEM Distribution Plots—ELA, Grade Five	687
Figure 10.G.4 Scale Score CSEM Distribution Plots—ELA, Grade Six	687
Figure 10.G.5 Scale Score CSEM Distribution Plots—ELA, Grade Seven	688
Figure 10.G.6 Scale Score CSEM Distribution Plots—ELA, Grade Eight	688
Figure 10.G.7 Scale Score CSEM Distribution Plots—ELA, Grade Eleven	689
Figure 10.G.8 Scale Score CSEM Distribution Plots—Mathematics, Grade Three	689
Figure 10.G.9 Scale Score CSEM Distribution Plots—Mathematics, Grade Four	690
Figure 10.G.10 Scale Score CSEM Distribution Plots—Mathematics, Grade Five	690
Figure 10.G.11 Scale Score CSEM Distribution Plots—Mathematics, Grade Six	691
Figure 10.G.12 Scale Score CSEM Distribution Plots—Mathematics, Grade Seven	691
Figure 10.G.13 Scale Score CSEM Distribution Plots—Mathematics, Grade Eight	692
Figure 10.G.14 Scale Score CSEM Distribution Plots—Mathematics, Grade Eleven	692

Acronyms and Initialisms Used in the Technical Report for CAASPP Smarter Balanced Technical Report

2PL	two-parameter logistic	HumRRO	Human Resource Research Organization
AERA	American Educational Research Association	ICC	item characteristic curve <i>or</i> intraclass correlation
AI	artificial intelligence	IEP	individualized education program
AIR	American Institutes for Research	I-FEP	initially fluent English proficient
AYP	adequate yearly progress	IRT	item response theory
CAASPP	California Assessment of Student Performance and Progress	ISAAP	Individual Student Assessment Accessibility Profile
CAPA	California Alternate Performance Assessment	LEA	local educational agency
CAT	computer-adaptive test	LOT	lowest obtainable theta
CCR	<i>California Code of Regulations</i>	LOSS	lowest obtainable scale score
CCSS	Common Core State Standards	MI	Measurement Incorporated
CDE	California Department of Education	MLE	maximum likelihood estimation
CDS	county/district/school	NAEP	National Assessment of Educational Progress
CI	confidence interval	NCME	National Council on Measurement in Education
CMA	California Modified Assessment	ORS	Online Reporting System
CR	constructed response	OTI	Office of Testing Integrity
CRESST	Center for Research on Evaluation, Standards, & Student Testing	PISA	Program for International Student Assessment
CSEMs	conditional standard errors of measurement	PT	performance task
CSTs	California Standards Tests	R-FEP	reclassified fluent English proficient
CSU	California State University	SBE	State Board of Education
DFA	<i>Directions for Administration</i>	SEM	standard error of measurement
DIF	differential item functioning	SFTP	secure file transfer protocol
EAP	Early Assessment Program	SGID	School and Grade Identification sheet
EC	<i>Education Code</i>	SS	scale score
EL	English learner	STS	Standards-based Tests in Spanish
ELA	English language arts/literacy	TCC	test characteristic curve
eSKM	Enterprise Score Key Management	TDS	test delivery system
ETS	Educational Testing Service	TIF	test information function
GPCM	generalized partial credit model	TOMS	Test Operations Management System
HOSS	highest obtainable scale score	wABC	weighted Area Between the Curves
HOT	highest obtainable theta	WER	writing extended response

Chapter 1: Introduction

1.1. Background

In October 2013, Assembly Bill 484 established the California Assessment of Student Performance and Progress (CAASPP) as the new student assessment system that replaced the Standardized Testing and Reporting Program. The primary purpose of the CAASPP System of assessments is to assist teachers, administrators, and students and their parents by promoting high-quality teaching and learning through the use of a variety of item types and assessment approaches. These tests provide the foundation for the state's school accountability system.

The Smarter Balanced Summative Assessments for English language arts/literacy (ELA) and mathematics were administered during the 2014–15 CAASPP administration as a result of California's participation in the Smarter Balanced Assessment Consortium. This technical report describes the results of that administration.

In 2014–15, the CAASPP System comprised the following assessments:

- Smarter Balanced Assessments
 - Summative Assessments—Online assessments for English language arts/literacy (ELA) and mathematics in grades three through eight and grade eleven
 - Interim Assessments—Optional resources designed to inform and promote teaching and learning by providing information that can be used to monitor student progress toward mastery of the Common Core State Standards (CCSS)
 - Digital Library—Tools and practices designed to help teachers utilize formative assessment processes for improved teaching and learning in all grades
- California Alternate Assessments for ELA and mathematics in grades three through eight and grade eleven
- Science assessments in grades five, eight, and ten (i.e., California Standards Tests [CSTs], California Modified Assessment [CMA], and California Alternate Performance Assessment [CAPA] for Science)
- A primary language assessment, the Standards-based Tests in Spanish (STS) for Reading/Language Arts in grades two through eleven (optional for eligible Spanish-speaking English learners)

The CAASPP Smarter Balanced tests are presented as online assessments. Paper-pencil and braille versions of the Smarter Balanced assessments are made available to local educational agencies (LEAs) that do not have the necessary computer network infrastructure to administer the online tests. The paper-pencil versions are fixed forms (i.e., a test where students are given a fixed set of questions irrespective of the student's responses or ability) that also include the components of the online assessment such as constructed-response (CR) items and performance tasks.

For those schools that do not yet have the necessary computer network infrastructure, paper-pencil and braille tests were available with prior permission from the California Department of Education (CDE).

The CSTs, CMA, and CAPA for science and the STS are available as paper-pencil tests only.

More background information about the CAASPP System can be found on the CAASPP Description – *CalEdFacts* Web page at <http://www.cde.ca.gov/ta/tg/ai/cefcaaspp.asp>.

1.2. Test Purpose

The purpose of the Smarter Balanced assessment system is to provide teachers with information and the tools they need to improve teaching and learning, and to prepare students for college and career readiness. The Smarter Balanced summative assessments, which are aligned with the California CCSS for ELA and mathematics, form one component of the Smarter Balanced assessment system. The summative assessments are comprehensive, end-of-year tests of grade-level learning that measure students' progress toward college and career readiness.

1.3. Test Content

Smarter Balanced summative assessments are comprised of two required components: a computer adaptive test (CAT) and a performance task (PT). A student's final scale score is calculated by combining the student's responses to items within both components.

1.3.1 Computer Adaptive Test

The computer-adaptive portion of the test is designed to present items of varying levels of difficulty to match the ability of each student according to the responses the student provided to previous test items. By adapting to the student's ability as the assessment is being taken, the CAT presents an individually tailored set of questions that is appropriate to each student and provides more accurate scores for all students across the full range of the achievement continuum. A CAT requires fewer questions as compared to a fixed-form assessment—that is, a test where students are given the same questions regardless of the student's responses or ability—to obtain an equally precise estimate of a student's ability.

At the beginning of the test, the assumption is made that a student is of average ability, and an item is presented that is appropriate for an average student. During the test, if a student gives a wrong answer, the test delivery system (TDS) will follow up with an easier question; while if the student answers correctly, the next question will be slightly more difficult. Since the answers on items used to estimate the student's ability are machine-scored, the student's performance on the items administered can be known immediately, and the successive items are selected to adapt to the current ability of the student. The CAT selects questions based on a student's responses, scores the responses, and iteratively estimates the student's performance. This process continues until the test content outlined in the test's blueprint is covered.

The CAT requires a large pool of test questions statistically calibrated on a common scale to cover the ability range. For the Smarter Balanced Online Summative Assessments, the test question statistics were obtained from the spring 2014 field test.

1.3.2 Performance Tasks

The performance task (PT) is a non-adaptive test designed to provide students with an opportunity to demonstrate their ability to apply knowledge and higher-order thinking skills to explore and analyze a complex, real-world scenario. Prior to the administration of a PT, the test administrator administers a Classroom Activity for all students in the class to ensure that students understand the context of the PT and that lack of understanding does not interfere with a student's ability to address the content of the PT. PTs are not targeted to students' specific ability levels.

Some PT responses are machine-scored, others are human-scored. Scores are later combined with CAT results for the student's final score.

1.4. Intended Population

Each grade-level, content area Smarter Balanced Summative Assessment was administered to approximately 431,000 to 477,000 students in 2015. All students enrolled in grades three through eight and grade eleven are required to take part in the Smarter Balanced Summative Assessments unless students are eligible to participate in the alternate assessments (*California Code of Regulations*, Title 5 [5 CCR], Section 851.5). English learners (ELs) who are in their first 12 months of attending school in the United States are exempt from taking the ELA portion of the assessment. ELs are defined as follows:

“English learner students are those students for whom there is a report of a primary language other than English on the state-approved Home Language Survey **and** who, on the basis of the state approved oral language (grades kindergarten through grade twelve) assessment procedures and literacy (grades three through twelve only), have been determined to lack the clearly defined English language skills of listening comprehension, speaking, reading, and writing necessary to succeed in the school's regular instructional programs.”¹

EL students who choose to participate in taking the ELA assessment are included in the calculation of the percent of students testing but their scores are excluded from all aggregate calculations.

For students with significant cognitive disabilities, the decision to administer the Smarter Balanced Summative Assessments or California Alternate Assessments (CAAs) is made by their individualized education program (IEP) team. Parents may submit a written request to have their child exempted from taking any or all parts of the Smarter Balanced Summative Assessments or CAAs. Only students whose parents submit a written request may be exempted from taking the tests (*Education Code [EC] Section 60615*).

1.5. Intended Use and Purpose of Test Scores

The results of tests within the CAASPP System are used for two primary purposes as described in *Education Code (EC)* sections 60602.5 (a) and (a)(4). (Excerpted from the *EC* Section 60602 Web page at <https://bit.ly/2lfp1ps>.)

“60602.5(a) It is the intent of the Legislature in enacting this chapter to provide a system of assessments of pupils that has the primary purposes of assisting teachers, administrators, and pupils and their parents; improving teaching and learning; and promoting high-quality teaching and learning using a variety of assessment approaches and item types. The assessments, where applicable and valid, will produce scores that can be aggregated and disaggregated for the purpose of holding schools and local educational agencies accountable for the achievement of all their pupils in learning the California academic content standards.”

¹ “English Learner (EL) Students (Formerly Known as Limited-English-Proficient or LEP),” from the CDE Glossary of Terms Web page at <http://www.cde.ca.gov/ds/sd/cb/glossary.asp>.

“60602.5(a)(4) Provide information to pupils, parents or guardians, teachers, schools, and local educational agencies on a timely basis so that the information can be used to further the development of the pupil and to improve the educational program.”

Sections 60602.5(c) and (d) provide additional information regarding intent and context for the system of assessments:

“60602.5(c) It is the intent of the Legislature that parents, classroom teachers, other educators, pupil representatives, institutions of higher education, business community members, and the public be involved, in an active and ongoing basis, in the design and implementation of the statewide pupil assessment system and the development of assessment instruments.”

“60602.5(d) It is the intent of the Legislature, insofar as is practically feasible and following the completion of annual testing, that the content, test structure, and test items in the assessments that are part of the statewide pupil assessment system become open and transparent to teachers, parents, and pupils, to assist stakeholders in working together to demonstrate improvement in pupil academic achievement. A planned change in annual test content, format, or design, should be made available to educators and the public well before the beginning of the school year in which the change will be implemented.”

1.6. Testing Window

The Smarter Balanced Summative Assessments for grades three through eight are administered within a testing window pursuant to 5 *CCR*, Sections 855 (b) (1) and 855(b) (2) and proposed emergency regulations 5 *CCR*, Sections 855 (a) (1), 855 (a) (2), 855 (b), and 855 (c). The 12-week window begins on the day in which 66 percent of the instructional year is completed. The summative assessment for students in grade eleven is administered within a 7-week window beginning on the day in which 80 percent of the instructional year is completed.

1.7. Significant CAASPP Developments in 2015

1.7.1 First Operational Year of Summative Assessments

The Smarter Balanced Summative Assessments were administered operationally in spring 2015.

1.7.2 Adequate Yearly Progress (AYP) Reporting

For the 2014–15 administration of the CAASPP assessments, only participation rates are required for AYP reporting (CDE, 2015a).

1.8. Groups and Organizations Involved with the CAASPP System

1.8.1 State Board of Education

The State Board of Education (SBE) is the state agency that establishes educational policy for kindergarten through grade twelve in the areas of standards, instructional materials, assessment, and accountability. The SBE adopts textbooks for kindergarten through grade eight, adopts regulations to implement legislation, and has the authority to grant waivers of the *Education Code*.

In addition to adopting the rules and regulations for itself, its appointees, and California’s public schools, the SBE is also the state educational agency responsible for overseeing

California's compliance with programs that meet the requirements of the federal Elementary and Secondary Education Act (and now the Every Student Succeeds Act) and the state's Public School Accountability Act, which measure the academic performance and progress of schools on a variety of academic metrics (CDE, 2015b).

1.8.2 California Department of Education (CDE)

The CDE oversees California's public school system, which is responsible for the education of more than 6,200,000 children and young adults in more than 9,800 schools. California aims to provide a world-class education for all students, from early childhood to adulthood. The CDE serves the state by innovating and collaborating with educators, school staff, parents, and community partners which together, as a team, prepares students to live, work, and thrive in a highly connected world.

Within the CDE, it is the District, School & Innovation Branch that oversees programs promoting innovation and improved student achievement. Programs include oversight of statewide assessments and the collection and reporting of educational data (CDE, 2016).

1.8.3 Smarter Balanced Assessment Consortium

The Smarter Balanced Assessment Consortium is a public agency governed by a consortium of states, of which California is a member. The consortium created an online assessment system aligned to the CCSS. The Smarter Balanced Assessment Consortium offers year-end summative assessments, optional interim assessments, and the Digital Library, an online collection of resources to help teachers to improve classroom-based assessment practices. The roles of Smarter Balanced in the CAASPP System are to provide the collection of test items in the item bank and to provide access to the Digital Library.

1.8.4 Contractors

1.8.4.1 Educational Testing Service

The CDE and the SBE contract with Educational Testing Service (ETS) to administer and report the CAASPP Smarter Balanced assessments. As the prime contractor, ETS has overall responsibility for working with the CDE to implement and maintain an effective assessment system and to coordinate the work of ETS with its subcontractors. Activities directly conducted by ETS include but are not limited to the following:

- Overall management of the program activities;
- Support and training provided to counties, LEAs, and directly funded charter schools;
- Providing tiered help desk support to LEAs;
- Construction, production, and quality control of test booklets and related test materials;
- Hosting and maintaining a Web site with resources for LEA CAASPP coordinators;
- Developing, hosting, and providing support for the Test Operations Management System (TOMS);
- Processing of orders and shipment of test materials and pre-identification services;
- All aspects of CR scoring for the Smarter Balanced summative assessments;
- Production and distribution of score reports;
- Development of a score reporting Web site; and
- Completion of all psychometric procedures.

1.8.4.2 American Institutes for Research (AIR)

ETS also monitors and manages the work of AIR, subcontractor to ETS for the CAASPP System online assessments. Activities conducted by AIR include the following:

- Providing the AIR proprietary TDS, including the Student Testing Interface, Test Administrator Interface, secure browser, and practice and training tests;
- Hosting and providing support for its TDS and Online Reporting System (ORS), a component of the overall CAASPP Assessment Delivery System;
- Scoring machine-scorable items; and
- Providing the three-tiered technology help desk support to LEAs.

1.8.4.3 Measurement Incorporated (MI)

ETS monitors and manages the work of Measurement Incorporated (MI), subcontractor to ETS for the CAASPP System. MI uses its artificial intelligence (AI) scoring system to score some of the CR items for the Smarter Balanced summative assessments.

1.9. Systems Overview and Functionality

1.9.1 Test Operations Management System (TOMS)

TOMS is the primary conduit for users of the online system. TOMS serves various functions, including but not limited to:

- Managing test administration windows;
- Managing student test assignments and accessibility supports;
- Ordering test materials and pre-identification services;
- Viewing reports; and
- Entering appeals related to the summative assessments.

TOMS receives student enrollment data and LEA/school hierarchy data from the California Longitudinal Pupil Achievement Data System (CALPADS) via a daily feed. CALPADS is “a longitudinal data system used to maintain individual-level data including student demographics, course data, discipline, assessments, staff assignments, and other data for state and federal reporting.”² LEA staff involved in the administration of the CAASPP assessments, such as LEA CAASPP coordinators, CAASPP test site coordinators, test administrators, and test examiners are assigned varying levels of access to TOMS. For example, only an LEA CAASPP coordinator is given permission to set up the LEA’s test administration window; a test administrator cannot download student reports. A description of user roles is more extensively explained in the *2015 Online Test Administration Manual* (CDE, 2015c).

1.9.2 Test Delivery System (TDS)

The TDS is the means by which the statewide online assessments are delivered to students. CAT items are selected in the TDS according to an adaptive algorithm (AIR, 2014). Components of the TDS include the following:

- Test Administrator Interface, the Web browser–based application that allows test administrators to activate student tests and monitor student testing;

² From the CDE California Longitudinal Pupil Achievement Data System (CALPADS) Web page at <http://www.cde.ca.gov/ds/sp/cl/>.

- Student Testing Interface, on which students take the test using the secure browser; and
- Secure browser, the online application through which the student testing interface may be accessed. The secure browser prevents students from accessing other applications during testing.

1.9.3 Practice and Training Tests

The practice and training tests are provided to LEAs to prepare students and LEA staff for the summative assessment. These tests simulate the experience of the Smarter Balanced Online Assessments. Unlike the summative assessments, the practice and training tests do not assess standards, gauge student success on the operational test, or produce scores. Students may access them using a Web browser, although accessing them through the secure browser permits them to take the tests using the text-to-speech embedded accommodation.

The purpose of the training tests is to allow students and administrators to quickly become familiar with the user interface and components of the TDS and the process of starting and completing a testing session. The purpose of the practice tests is to allow students and administrators the experience of a grade-level assessment, grade-specific items and difficulty levels, performance tasks, and the format and structure of an operational assessment.

1.9.4 Online Reporting System (ORS)

The ORS is the system used by LEAs to view preliminary student results from the CAASPP assessments. The primary features of the ORS are for LEAs to access completion data to determine which students need to complete testing or start testing, and for LEAs to access preliminary score reports that can provide claim-related data for schools within the LEA. Results in the ORS are preliminary and may not be used for accountability purposes.

1.9.5 Constructed-Response (CR) Scoring Systems for Educational Testing Service (ETS) and Measurement Incorporated (MI)

CRs from the TDS were routed to either ETS's or MI's constructed-response (CR) scoring systems based on the division of work between ETS and MI. CR items were scored by certified raters. A small percentage of CR items were deemed appropriate to be scored by the AI system and were routed for both AI scoring and human-scoring for the purpose of producing agreement samples. More information regarding scoring of CR items is available in *Chapter 7: Scoring and Reporting*, which starts on page 101.

Targeted efforts were made to hire California educators for human scoring opportunities. Hired raters were provided in-depth training and were certified before starting the human scoring process. Human raters were organized under a scoring leader and were provided Smarter Balanced scoring materials such as anchor sets, scoring rubrics, validity samples, qualifying sets, and condition codes for unscorable responses within the interface. The quality control processes for CR scoring is explained further in *Chapter 9: Quality Control Procedures*, which starts on page 495.

1.10. Overview of the Technical Report

This technical report addresses the characteristics of the CAASPP Smarter Balanced Summative Assessment administered in spring 2015. The technical report contains eight additional chapters as follows:

- Chapter 2 presents an overview of the processes involved in a testing cycle for a Smarter Balanced Summative Assessment. This includes test administration, generation of test scores, and dissemination of score reports. It also includes information about the distributions of scores aggregated by subgroups based on demographics and the use of designated supports and accommodations.
- Chapter 3 discusses the procedures followed during the development of Smarter Balanced items to help ensure valid interpretation of test scores.
- Chapter 4 discusses the content and psychometric criteria that guide the construction of the Smarter Balanced summative assessments.
- Chapter 5 details the processes involved in the administration of the 2014–15 Smarter Balanced summative assessments. It also describes the procedures followed by ETS to ensure test security.
- Chapter 6 discusses the standard-setting process outlined by Smarter Balanced.
- Chapter 7 summarizes the types of scores and score reports that are produced at the end of each administration of the Smarter Balanced Summative Assessments.
- Chapter 8 summarizes the results of the analyses performed on the data resulting from the spring 2015 administration. These include the following:
 - item response theory parameters,
 - omission and completion analyses,
 - conditional exposure analyses,
 - reliability analyses that include assessments of the reliability of test scores and claim scores for the population as a whole and for selected subgroups,
 - consistency and accuracy of the performance-level classifications,
 - interrater reliability statistics for the human-scoring items and statistics showing the agreement of artificial intelligence scoring with human scoring, and
 - procedures designed to ensure the validity of score uses and interpretations are presented.
- Chapter 9 highlights the quality control processes used at various stages of administration of the Smarter Balanced assessments.
- Chapter 10 provides a summary of test assembly, test administration, calibration, and scaling procedures that are specifically applied to the paper-pencil tests; and the results of the analyses performed on the data for students who took paper-pencil tests instead of the online assessments. Analyses include the following:
 - score distributions,
 - item response theory parameter values,
 - reliability analyses,
 - conditional standard error of measurement,
 - correlations between claims and between content areas, and
 - the use of designated supports and accommodations.

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Chapter 2: An Overview of Smarter Balanced Processes

This chapter provides an overview of the processes conducted by Smarter Balanced to develop the summative assessments. The chapter also describes the processes implemented by Educational Testing Service (ETS) to administer the tests.

The chapter provides a brief description of each process and a summary of the associated specifications. More details about the specifications and the analyses associated with each process are described in other chapters that are referenced in the sections that follow.

2.1. Item Development

All items in the Smarter Balanced operational item bank were developed and revised during the pilot and field test periods. Item and performance task specifications provide guidance on how to translate the Smarter Balanced content specifications into actual assessment items (Smarter Balanced, 2015a and 2015b). In addition, guidelines for bias and sensitivity, accessibility and accommodations, and style help item developers and reviewers ensure consistency and fairness across the item development process. The specifications and guidelines from Smarter Balanced were reviewed by member states, school districts, higher education professionals, and other stakeholders (Smarter Balanced, 2015c). *For more information regarding the item response theory methodology used by Smarter Balanced to form the basis for new item development, test equating, and computer-adaptive testing, refer to Chapter 9 of the 2013–14 Smarter Balanced Technical Report (Smarter Balanced, 2015c).*

2.1.1 Item Format

The Smarter Balanced assessments include the following item formats:

- selected response,
- constructed response, and
- technology enhanced.

Formats for these item types are described in more detail in section 7.1.3 *Types of Item Responses* on page 102.

2.1.2 Item Specifications

The item specifications describe the characteristics of the items that should be written to measure each content standard. Items of the same type should consistently measure the content standards in the same way. The *Smarter Balanced Item and Task Specifications* were given to item developers to help ensure that the tests are measuring the intended constructs without influence from extraneous factors. These documents contain item specification tables and provide item writers with definitions of the constructs that are intended to support the claims of measurement and clear direction regarding the types of evidence needed for students to demonstrate their knowledge and skills (Smarter Balanced, 2015a and 2015b; note that because these specifications were reorganized following the initial development, their publication date was updated).

2.2. Test Assembly

2.2.1 Test Length

The CAASPP online summative assessments for English language arts/literacy (ELA) and mathematics are composed of two portions: the computer adaptive test (CAT) and the performance task (PT). The number of PT items that a student is administered depends on the particular PT a student is assigned. Refer to Table 5.A.1 and Table 5.A.2 for the number of items in each PT. Refer to Table 5.B.1 through Table 5.B.3 for the distributions of number of items presented to students in the total test, PT, and CAT components respectively

The number of CAT items encountered in an individual testing session may vary from student to student. The length of the CAT portion is determined by the termination rule of the CAT engine, which includes the following conditions:

1. administer at least a specified minimum number of items in each reporting category and overall;
2. achieve a target level of precision on the overall test score; and
3. achieve a target level of precision on all reporting categories.

The termination rule of CAASPP assessments is discussed in more detail in the *Smarter Balanced Adaptive Item Selection Algorithm Design Report* (American Institutes for Research, 2014).

2.2.2 Test Blueprints

Blueprints represent a set of constraints and specifications to which each test form must conform. Each grade band—grades three through five, grades six through eight, and grade eleven—of the Smarter Balanced assessments includes a separate blueprint (Appendix 2.A on page 19) with criteria including, but not limited to:

- whether the test is adaptive or fixed form;
- termination conditions for the segment;
- content constraints such as minimum/maximum number of items administered; and
- non-nested content constraints such as priority weights for a group of items.

2.2.3 Item Selection

In the CAT portion of each assessment, items are presented to the student according to the adaptive algorithm mapped onto the test blueprint (American Institutes for Research [AIR], 2014). Use of the adaptive algorithm in 2014–15 testing is discussed in the unpublished report, *Smarter Balanced Summative Assessments Testing Procedures for Adaptive Item-Selection Algorithm* (AIR, 2015).

For more information regarding test length, refer to *Chapter 5: Test Administration* on page 80; the test blueprints are provided in Appendix 2.A which starts on page 19.

2.3. Test Administration

It is of utmost priority to administer the Smarter Balanced assessments in a secure, confidential, standardized, consistent, and appropriate manner.

2.3.1 Test Security and Confidentiality

All tests within the CAASPP System are secure. For the Smarter Balanced Online Summative Assessment administration, every person having access to test materials

maintains the security and confidentiality of the tests. ETS’s internal Code of Ethics requires that all test information, including tangible materials (such as test booklets, test questions, test results), confidential files, processes, and activities are kept secure. To ensure security for all tests that ETS develops or handles, ETS maintains an Office of Testing Integrity (OTI). A detailed description of the OTI and its mission is presented in *Chapter 5: Test Administration* on page 82.

In the pursuit of enforcing secure practices, ETS strives to safeguard the various processes involved in a test development and administration cycle. Those processes are listed below. The practices related to each of the following security processes are discussed in detail in Chapter 5, starting on page 82.

- Test delivery
- Security of electronic files using a firewall
- Transfer of scores via secure data exchange
- Data management
- Statistical analysis
- Student confidentiality
- Student test results

2.3.2 Procedures to Maintain Standardization

ETS takes all necessary measures to ensure the standardization of administration of the Smarter Balanced Summative Assessments. The measures for standardization include, but are not limited to, the aspects described in these subsections.

2.3.2.1. Test Administrators

The Smarter Balanced Summative Assessments are administered in conjunction with the other assessments that comprise the CAASPP System. ETS employs processes to ensure the standardization of an administration cycle; these processes are discussed in more detail in *Chapter 5: Test Administration*, which starts on page 80.

Staff at LEAs involved in the CAASPP administration include LEA CAASPP coordinators, CAASPP test site coordinators, and test administrators. The responsibilities of each of the staff members are described in the *2015 Online Test Administration Manual* (CDE, 2015a).

2.3.2.2. Test Directions

Several series of instructions regarding the CAASPP administration are compiled in detailed manuals and provided to the LEA staff. Such documents include, but are not limited to, the following:

Directions for Administration (DFAs)—A manual that provides the script and directions for administration to be followed exactly by test administrators during a testing session. The *DFAs* are available in the *Online Test Administration Manual* (CDE, 2015a) and as a standalone PDF (CDE, 2015b). (See page 89 in Chapter 5 for more information.)

CAASPP Online Test Administration Manual—Test administration procedures and guidelines for LEA CAASPP coordinators and CAASPP test site coordinators (CDE, 2015a). (See page 89 in Chapter 5 for more information.)

Test Operations Management System (TOMS) manuals—Instructions for TOMS that allow LEA CAASPP coordinators to set up test administrations, add and manage users, configure online student test settings, and order student paper-pencil tests. Each

functionality has its own user manual with detailed instructions on how to use the TOMS module. (See page 89 in Chapter 5 for a list of all manuals.)

2.4. Participation

All students enrolled in grades three through eight and grade eleven are required to participate in the Smarter Balanced mathematics assessment except for the following:

- Students with the most significant cognitive disabilities who meet the criteria for the California Alternate Assessments (CAAs) for Mathematics based on alternate achievement standards (approximately one percent or fewer of the student population). The decision to assign a student to take an alternate assessment is made by his or her individualized education program (IEP) team.
- All students enrolled in grades three through eight and grade eleven are required to participate in the Smarter Balanced for ELA except:
 - Students with the most significant cognitive disabilities who meet the criteria for the CAA for ELA alternate assessment based on alternate achievement standards (approximately one percent or fewer of the student population). The decision to assign a student to take an alternate assessment is made by his or her IEP team.
 - ELs who are within their first 12 months of enrollment in a U.S. school on the day that is the midpoint of the LEA's selected testing window have a one-time exemption from the Smarter Balanced for ELA assessment. These are cumulative, not consecutive, months. These students may instead participate in the California English Language Development Test.

The treatment of incomplete tests and participation situations are illustrated in Table 7.5 on page 116. Refer to Appendix 7.A on page 132 regarding the number of participants and the percent of participation of all students and selected demographic groups for each test.

2.5. Universal Tools, Designated Supports, and Accommodations

All public school students participate in the CAASPP System, including students with disabilities and English learners. Supports are sometimes needed for these students.

Universal tools are available to all students. These supports may be turned on and off when embedded as part of the technology platform for the online CAASPP assessments on the basis of student preference and selection.

Designated supports are available to all students when determined as needed by an educator or team of educators, with parent/guardian and student input as appropriate, or specified in the student's IEP or Section 504 plan.

Accommodations must be permitted on CAASPP assessments to all eligible students if specified in the student's IEP or Section 504 plan.

Assignment of designated supports and accommodations to individual students based on student need is made in TOMS by the LEA CAASPP coordinator and/or CAASPP test site coordinator either through individual assignment through the student's profile in TOMS; or uploading of settings for multiple students that were either selected and entered into a macro-enabled template called the Individual Student Assessment Accessibility Profile (ISAAP) Tool that created an upload file; or entered into a template. These designated supports and accommodations were delivered to the student through the test delivery

system at the time of testing. Refer to *Systems Overview and Functionality* in *Chapter 1: Introduction* on page 6 for more details regarding these systems.

Appendix 2.B on page 46 presents counts and percentages of students using designated supports, accommodations, or unlisted resources (*2.4.3 Unlisted Resources* on page 15). The majority of students do not use any designated supports, accommodations, or unlisted resources.

2.5.1 Resources for Selection of Accessibility Supports

The CDE maintains a list of the universal tools, designated supports, and accommodations that are permitted for use in CAASPP online assessments in its “Matrix One: Universal Tools, Designated Supports, and Accommodations for the CAASPP System” Web document (CDE, 2015c). Parts 2 and 3 of Matrix One include the non-embedded universal tools, designated supports, accommodations, and unlisted resources that are available for online testing. School-level personnel, IEP decision-making teams, and Section 504 decision-making teams use Matrix One when deciding how best to support the student’s test-taking experience. *Note that this technical report is based on the version of Matrix One that was available during the 2014–15 CAASPP administration.*

The Smarter Balanced Assessment Consortium’s *Usability, Accessibility, and Accommodations Guidelines* (Smarter Balanced, 2015d) aids in the selection of universal tools, designated supports, and accommodations deemed necessary for individual students. The *Guidelines* apply to all students and promote an individualized approach to the implementation of assessment practices. The *Guidelines* are intended to provide Smarter Balanced policy regarding universal tools, designated supports, and accommodations. Another manual, the *Smarter Balanced Usability, Accessibility, and Accommodations Implementation Guide* (Smarter Balanced, 2014), provides suggestions for implementation of these supports.

Finally, LEAs had the option of using the ISAAP Tool to assign supports to students. Smarter Balanced developed the ISAAP Tool to facilitate selection of the accessibility resources that match student access needs for the Smarter Balanced assessments. The CAASPP ISAAP Tool was used by LEAs in conjunction with the *Guidelines* as well as with state regulations and policies (such as Matrix One) related to assessment accessibility as a part of the ISAAP process. LEA personnel, including IEP and Section 504 plan teams, used the CAASPP 2015–16 ISAAP Tool to facilitate the selection of designated supports and accommodations for students.

2.5.2 Delivery of Accessibility Supports

Universal tools, designated supports, and accommodations can be delivered as either embedded or non-embedded supports. Embedded supports are digitally delivered features or settings available as part of the technology platform for the online CAASPP assessments. Examples of embedded supports include the braille language support, color contrast, and closed captioning for ELA listening items.

Non-embedded supports are available, when provided by the LEA, for both online and paper-pencil CAASPP assessments. These supports are not part of the technology platform for the computer-administered CAASPP tests. Examples of non-embedded supports include magnification, noise buffers, and the use of a scribe.

2.5.3 Unlisted Resources

An unlisted resource, previously called an “individualized aid,” is an instructional support that a student regularly uses in daily instruction and/or assessment that has not been previously identified as a universal tool, designated support, or accommodation. Matrix One includes an inventory of unlisted resources that have already been identified and are preapproved (CDE, 2015c). An LEA CAASPP coordinator or CAASPP test site coordinator may submit a request using forms available in TOMS to request such a support for an eligible student. The support must be specified in the eligible student’s IEP or Section 504 plan and may only be assigned with the CDE’s approval.

Test results for unlisted resources that are approved but change the construct of what is being tested will not be considered valid for accountability purposes. The student will receive a score with a footnote that the test was administered under conditions that resulted in a score that may not be an accurate representation of the student’s achievement.

2.6. Scores

For information regarding score specifications and score reports, refer to *Chapter 7: Scoring and Reporting*, which starts on page 101.

2.6.1 Aggregation Procedures

In order to provide meaningful results to the stakeholders, CAASPP scores for a given grade are aggregated at the school, independently testing charter school, LEA, county, and state levels. Aggregate scores are generated by combining student scores. They can be created by combining results at the state, LEA, or school level; for all students, or by combining results for all students or students who represent selected demographic subgroups.

Aggregation procedures used to present CAASPP Smarter Balanced results are described in section *Overview of Score Aggregation Procedures* on page 122 of this report.

2.7. Calibration and Scaling

Item response theory (IRT) methods are ideally suited to the assessments and measurement goals of Smarter Balanced in both establishing a common scale and ongoing maintenance of the program. The purpose of calibration, equating, and scaling using IRT methods is to place item difficulty and student ability estimates onto a common theta scale in each content area. As a result, scores on different versions of the same test are statistically adjusted to compensate for any differences in difficulty between the test versions.

The Common Core State Standards were developed with the intent of supporting inferences concerning a student’s change in achievement (i.e., progress) as demonstrated by performance on the corresponding assessments. *Vertical scaling* is an approach that places test scores across grades onto a common scale. A vertical scale is a single scale for scores on tests at different grade levels of the same content area. Reporting scores on a vertical scale allows student progress to be tracked for a particular content area across grade levels; it is expected that students’ proficiency increases across different levels of the assessment. An advantage of vertical scaling is that progress expectations concerning the establishment of achievement levels across grades can be inspected and ordered by standard setting panelists.

All items used on the Smarter Balanced Online Summative Assessments were calibrated within grade and vertically scaled during the 2013–14 Smarter Balanced field test phase (Smarter Balanced, 2015c). These activities supported the creation of scale scores.

The basic steps in the process of scaling the scores are as follows:

1. Calibrate the items at each grade level.
2. Transform the ability scales at the different grade levels onto a common ability scale.
3. Transform the ability scale onto the reported score scale by applying a single linear transformation for all grade levels.

The reported test scores for the 2014–15 administration of the Smarter Balanced assessments were based on the baseline scale since all items were pre-equated. The baseline scale was defined following the 2013–14 Smarter Balanced field test administration.

2.7.1 Calibration

Unidimensional IRT models were used for calibration. Based on the psychometric research conducted during the pilot and field test phases by the Smarter Balanced Assessment Consortium, the two-parameter logistic (2PL) model (Birnbaum, 1968) and the generalized partial credit model (GPCM) (Muraki, 1992) were chosen for calibration. Refer to Equation 7.1 on page 113 for the 2PL model and GPCM formulas.

Item parameter calibration software, model-to-data fit, and evaluation of vertical scale anchor items are described in more detail in Chapter 6 of the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2015c). The summary statistics describing the distribution of item difficulty and discrimination parameter estimates at each grade level from the field-test calibration and scaling that comprised the 2014–15 administration item pool are available in Appendix 8.A on page 301.

2.7.2 Horizontal Scaling

Item parameters derived for the Smarter Balanced assessment were linked during the Smarter Balanced field test administration by concurrently calibrating items within grade for each content area. The calibration approach relied on a hybrid of the “common items” approach and the “randomly equivalent groups” linking approach. The common items approach requires that items and tasks partially overlap and be administered to different student samples. For the randomly equivalent groups approach, the test material presented to different student samples is considered as comparably “on scale” by virtue of the random equivalence of the groups. The horizontal linking design incorporated both types of approaches and was done by assembling test versions with partially overlapping test content and randomly assigning the test versions to students.

2.7.3 Vertical Scaling

After the grade-specific horizontal scaling was conducted for a content area, a separate, cross-grade, vertical scaling occurred using common items (vertical linking items). To implement the vertical scaling, representative sets of off-grade items were administered to adjacent grades—for example, grade four and grade six items were also administered to students in grade five.

Vertical linking item sets were intended to sample the construct that included both the CAT and PT components and associated item types as well as claims that conformed to the test blueprint. Linking items from the lower grade were administered to the upper-adjacent-

grade-level students. Content experts designated a target grade for each item and a minimum and maximum grade designation. A set of PTs was given on-grade; the same set was administered off-grade for vertical linking.

The vertical scaling was undertaken using the test characteristic curve transformation method (Stocking & Lord, 1983). The Stocking-Lord procedure minimizes the sum of the squared differences over students between the target and reference test characteristic curves based on common items. Using grade six as the base grade, each grade was successively linked onto the vertical scale separately for ELA and for mathematics. For example, grade seven was linked to grade six, and then grade eight was linked to grade seven and so forth until grade eleven was placed onto the vertical scale. Likewise, grade five was linked to grade six, and then grade four was linked to grade five and so forth until grade three was placed onto the vertical scale. Vertical scaling is represented in Figure 2.1.

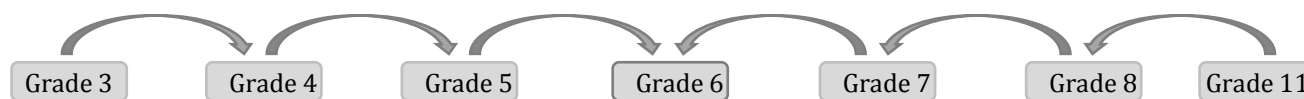


Figure 2.1 Vertical scaling

Once the Smarter Balanced horizontal and vertical scales were established, the remaining items (i.e., the entire calibration item pool including the noncommon items) were linked onto this final scale in each grade and content area.

2.7.4 Vertical Scale Evaluation

The results of vertical scaling were evaluated using a number of methods. Refer to the section *Vertical Scale Evaluation* in *Chapter 9 Field Test Design, Sampling, and Administration* in the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2015c) that included the following results:

- correlation of difficulties of common items across grade levels;
- changes in test difficulty across grades;
- comparison of mean scale scores across grades;
- comparison of scale scores associated with achievement levels across grades;
- comparison of overlap/separation of scale score distributions across grades; and
- comparison of variability in scale scores within and across grades.

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Appendix 2.A: Smarter Balanced Blueprints

English Language Arts/Literacy Summative Assessments Blueprint

Blueprint Table ELA/Literacy Grades 3–5 Estimated Total Testing Time: 4:00 (with Classroom Activity) ¹						
Claim/Score Reporting Category ²	Content Category ³	Stimuli		Items		Total Items by Claim ⁴
		CAT	PT ⁵	CAT Items ⁶	PT Items ⁷	
1. Reading	Literary	2	0	7–8	0	14–16
	Informational	2	0	7–8		
2. Writing	Organization/Purpose	0	1a	5	1 ⁸	13 ⁹
	Evidence/Elaboration	0			1 ⁸	
	Conventions	0		5	1 ⁸	
3. Speaking/Listening	Listening	3–4	0	8–9	0	8–9
4. Research	Research	0	1b	6	2-3	8–9

¹ All times are estimates. Actual times may vary.

² Each student receives an overall ELA/literacy score and four claim scores or subscores reported at the individual level.

³ For more information on content categories, see the Content Specifications document at <http://www.smarterbalanced.org/smarter-balanced-assessments/>.

⁴ Total number of items is not necessarily equal to weighting by claim.

⁵ Each student receives one PT, which includes a set of stimuli on a given topic. A Classroom Activity will be conducted for each PT to help orient students to the PT context.

⁶ The CAT component of the test includes machine-scored items and short-text items. One or two short-text items in Reading and one short-text item in Writing are designed for hand-scoring and may be AI scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand-scoring.

⁷ Each PT includes two or three research items, one of which may be machine scored, and one or two of which are short text items. Each PT also has one full write that is scored across three traits: Organization/Purpose, Evidence/Elaboration, and Conventions. The short-text items and the full write are designed for hand-scoring and may be AI scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand-scoring.

⁸ For the purpose of this table, Writing PTs are noted as three separate “items”; however, the Writing PT score is derived from a single student response scored on three distinct traits.

⁹ Total Items by Claim for Claim 2 includes 10 CAT items and 3 items from the PT as described in footnote 8.

Blueprint Table ELA/Literacy Grades 6–8 Estimated Total Testing Time: 4:00 (with Classroom Activity) ¹						
Claim/Score Reporting Category ²	Content Category ³	Stimuli		Items		Total Items by Claim ⁴
		CAT	PT ⁵	CAT Items ⁶	PT Items ⁷	
1. Reading	Literary	1–2	0	4–7 ¹⁰	0	13–17
	Informational	2–3	0	9–10		
2. Writing	Organization/Purpose	0	1a	5	1 ⁸	13 ⁹
	Evidence/Elaboration	0			1 ⁸	
	Conventions	0		5	1 ⁸	
3. Speaking/Listening	Listening	3–4	0	8–9	0	8–9
4. Research	Research	0	1b	6	2-3	8–9

¹ All times are estimates. Actual times may vary.

² Each student receives an overall ELA/literacy score and four claim scores or subscores reported at the individual level.

³ For more information on content categories, see the Content Specifications document at <http://www.smarterbalanced.org/smarter-balanced-assessments/>.

⁴ Total number of items is not necessarily equal to weighting by claim.

⁵ Each student receives one PT, which includes a set of stimuli on a given topic. A Classroom Activity will be conducted for each PT to help orient students to the PT context.

⁶ The CAT component of the test includes machine-scored items and short-text items. One or two short-text items in Reading and one short-text item in Writing are designed for hand-scoring and may be AI scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand-scoring.

⁷ Each PT includes two or three research items, one of which may be machine scored, and one or two of which are short text items. Each PT also has one full write that is scored across three traits: Organization/Purpose, Evidence/Elaboration, and Conventions. The short-text items and the full write are designed for hand-scoring and may be AI scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand-scoring.

⁸ For the purpose of this table, Writing PTs are noted as three separate “items”; however, the Writing PT score is derived from a single student response scored on three distinct traits.

⁹ Total Items by Claim for Claim 2 includes 10 CAT items and 3 items from the PT as described in footnote 10.

¹⁰ In 2015 and 2016, students will receive 4 literary items.

Blueprint Table ELA/Literacy Grade 11 Estimated Total Testing Time: 4:30 (with Classroom Activity) ¹						
Claim/Score Reporting Category ²	Content Category ³	Stimuli		Items		Total Items by Claim ⁴
		CAT	PT ⁵	CAT Items ⁶	PT Items ⁷	
1. Reading	Literary	1	0	4	0	15–16
	Informational	3	0	11–12		
2. Writing	Organization/Purpose	0	1a	5	1 ⁸	13 ⁹
	Evidence/Elaboration	0			1 ⁸	
	Conventions	0		5	1 ⁸	
3. Speaking/Listening	Listening	3–4	0	8–9	0	8–9
4. Research	Research	0	1b	6	2–3	8–9

¹ All times are estimates. Actual times may vary.

² Each student receives an overall ELA/literacy score and four claim scores or subscores reported at the individual level.

³ For more information on content categories, see the Content Specifications document at <http://www.smarterbalanced.org/smarter-balanced-assessments/>.

⁴ Total number of items is not necessarily equal to weighting by claim.

⁵ Each student receives one PT, which includes a set of stimuli on a given topic. A Classroom Activity will be conducted for each PT to help orient students to the PT context.

⁶ The CAT component of the test includes machine-scored items and short-text items. One or two short-text items in Reading and one short-text item in Writing are designed for hand-scoring and may be AI scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand-scoring.

⁷ Each PT includes two or three research items, one of which may be machine scored, and one or two of which are short text items. Each PT also has one full write that is scored across three traits: Organization/Purpose, Evidence/Elaboration, and Conventions. The short-text items and the full write are designed for hand-scoring and may be AI scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand-scoring.

⁸ For the purpose of this table, Writing PTs are noted as three separate “items”; however, the Writing PT score is derived from a single student response scored on three distinct traits.

⁹ Total Items by Claim for Claim 2 includes 10 CAT items and 3 items from the PT as described in footnote 8.

Target Sampling ELA/Literacy Grades 3–5								
Component	Claim/Score Reporting Category	Content Category	Assessment Target ¹	DOK ^{2,3}	CAT Items	Item Type		Total Items
						Machine Scored	Short Text	
CAT	1. Reading	Literary ⁴	2: Central Ideas	2, 3	1–2 ⁵	6–8 ⁵	0	7–8
			4: Reasoning and Evaluation	3	1–2 ⁵			
			1: Key Details	1, 2	3–6			
			3: Word Meanings	1, 2				
			5: Analysis within/across Texts	3, 4				
			6: Text Structures and Features	2, 3				
			7: Language Use	2, 3				
		Informational ⁶	9: Central Ideas	2, 3	1–2 ⁷	6–8 ⁷	0	7–8
			11: Reasoning and Evaluation	3	1–2 ⁷			
			8: Key Details	1, 2	3–6			
			10: Word Meanings	1, 2				
			12: Analysis within/across Texts	3, 4				
			13: Text Structures and Features	2, 3				
			14: Language Use	2, 3				

¹ For more information on assessment targets, see the Content Specifications document at <http://www.smarterbalanced.org/smarter-balanced-assessments/>.

² DOK: Depth of Knowledge, consistent with the Smarter Balanced Content Specifications.

³ The CAT algorithm will be configured to ensure the following:

For Claim 1, a student will receive at least seven items at DOK 2 and two items at DOK 3 or higher.

For Claim 2, a student will receive at least four items at DOK 2 and one item at DOK 3 or higher.

For Claim 3, a student will receive at least three items at DOK 2 or higher.

For Claim 4, CAT items are DOK 2 for all grades.

⁴ Each student will receive at least one long literary passage set and up to two additional short passage sets.

⁵ For the Reading Literary long passage set, students may see up to one short answer question on either target 2 or 4.

⁶ Each student will receive at least one long informational passage set and up to two additional short informational passage sets.

⁷ For the Reading Informational long passage set, students may see up to one short answer question on either target 9 or 11.

Target Sampling ELA/Literacy Grades 3–5								
Component	Claim/Score Reporting Category	Content Category	Assessment Target ¹	DOK ^{2,3}	CAT Items	Item Type		Total Items
						Machine Scored	Short Text	
CAT	2. Writing	Organization/Purpose	1a/3a/6a: Write Brief Texts ⁸	3	3	0	0–1 ⁸	10
			1b/3b/6b: Revise Brief Texts	2		0–2 ⁸	0	
		Evidence/Elaboration	1a/3a/6a: Write Brief Texts ⁸	3		0	0–1 ⁸	
			1b/3b/6b: Revise Brief Texts	2	0–2 ⁸	0		
			8: Language and Vocabulary Use ⁹	1, 2	2	0		
	Conventions	9: Edit/Clarify	1, 2	5	5	0		
	3. Speaking/Listening	Listening	4: Listen/Interpret	1, 2, 3	8	8	0	8
	4. Research	Research	2: Interpret and Integrate Information	2	6	6	0	6
			3: Analyze Information/Sources	2				
			4: Use Evidence	2				

⁸ Each student will receive at least one item in Organization/Purpose and at least one item in Evidence/Elaboration, for a total of three items, assessed in either Write Brief Texts or Revise Brief Texts. Among these three items will be one and only one Write Brief Text.

⁹ Language and Vocabulary Use contributes two items to Evidence/Elaboration.

Target Sampling ELA/Literacy Grades 3–5									
Component	Claim/Score Reporting Category	Content Category	Assessment Target	DOK	Item Type			Scores	
					Machine Scored	Short Text	Full Write		
PT	2. Writing	Organization/Purpose	2/4/7: Compose Full Texts	4	0	0	1	1	
		Evidence/Elaboration	2/4/7: Compose Full Texts					1	
			8: Language and Vocabulary Use					1	
		Conventions	9: Edit/Clarify					1	
	4. Research	Research		2: Interpret and Integrate Information	3	0–1	1–2	0	2–3
				3: Analyze Information/Sources	3, 4				
				4: Use Evidence	3				

Target Sampling ELA/Literacy Grades 6–8								
Component	Claim/Score Reporting Category	Content Category	Assessment Target ¹	DOK ^{2,3}	CAT Items	Item Type		Total Items
						Machine Scored	Short Text	
CAT	1. Reading	Literary ⁴	2: Central Ideas	2, 3	1 ⁵	1–2 ⁵	0–1 ⁵	4–7 ⁶
			4: Reasoning and Evaluation	3, 4	1 ⁵			
			1: Key Details	2	2–5	2–5	0	
			3: Word Meanings	1, 2				
			5: Analysis within/across Texts	3, 4				
			6: Text Structures and Features	2, 3, 4				
			7: Language Use	3				
		Informational ⁷	9: Central Ideas	2, 3	1–3 ⁷	9–10	0–1 ⁸	9–10
			11: Reasoning and Evaluation	3, 4				
			8: Key Details	2	7–8	9–10	0	
			10: Word Meanings	1, 2				
			12: Analysis within/across Texts	3, 4				
			13: Text Structures and Features	2, 3				
			14: Language Use	3				

¹ For more information on assessment targets, see the Content Specifications document at <http://www.smarterbalanced.org/smarter-balanced-assessments/>.

² DOK: Depth of Knowledge, consistent with the Smarter Balanced Content Specifications.

³ The CAT algorithm will be configured to ensure the following:

For Claim 1, a student will receive no more than 5 items at DOK 1 and at least 2 items at DOK 3 or higher.

For Claim 2, a student will receive at least five items at DOK 2 or higher, at least one of which will be DOK 3 or higher.

For Claim 3, a student will receive at least three items at DOK 2 or higher.

For Claim 4, CAT items are DOK 2 for all grades.

⁴ Each student will receive at least one literary passage set.

⁵ For the Reading Literary long passage set, students may see up to 1 short answer question on either target 2 or 4.

⁶ In 2015 and 2016, students receive 4 literary items.

⁷ Each student will receive at least one informational passage set and up to two additional short informational passage sets.

⁸ For the Reading Informational long passage set, students may see up to one short answer question on either target 9 or 11.

Target Sampling ELA/Literacy Grades 6–8								
Component	Claim/Score Reporting Category	Content Category	Assessment Target ¹	DOK ^{2,3}	CAT Items	Item Type		Total Items
						Machine Scored	Short Text	
CAT	2. Writing	Organization/Purpose	1a/3a/6a: Write Brief Texts ⁹	3	3	0	0–1 ¹⁰	10
			1b/3b/6b: Revise Brief Texts	2		0–2 ¹⁰	0	
		Evidence/Elaboration	1a/3a/6a: Write Brief Texts ¹⁰	3		0	0–1 ¹⁰	
			1b/3b/6b: Revise Brief Texts	2		0–2 ¹⁰	0	
			8: Language and Vocabulary Use ¹⁰	1, 2	2	0		
	Conventions	9: Edit/Clarify	1, 2	5	5	0		
	3. Speaking/Listening	Listening	4: Listen/Interpret	1, 2, 3	8–9	8–9	0	8–9
	4. Research	Research	2: Analyze/Integrate Information	2	6	6	0	6
			3: Evaluate Information/Sources	2				
4: Use Evidence			2					

Target Sampling ELA/Literacy Grades 6–8										
Component	Claim/Score Reporting Category	Content Category	Assessment Target	DOK	Item Type			Scores		
					Machine Scored	Short Text	Full Write			
PT	2. Writing	Organization/Purpose	2/4/7: Compose Full Texts	4	0	0	1	1		
		Evidence/Elaboration	2/4/7: Compose Full Texts					1	1	
			8: Language and Vocabulary Use						1	1
			Conventions							9: Edit/Clarify
	4. Research	Research	2: Analyze/Integrate Information	3, 4	0–1	1–2	0	2–3		
			3: Evaluate Information/Sources	3, 4						
4: Use Evidence			3, 4							

⁹ Each student will receive at least one item in Organization/Purpose and at least one item in Evidence/Elaboration, for a total of three items, assessed in either Write Brief Texts or Revise Brief Texts. Among these three items will be one and only one Write Brief Text.

¹⁰ Language and Vocabulary Use contributes 2 items to Evidence/Elaboration.

Target Sampling ELA/Literacy Grade 11								
Component	Claim/Score Reporting Category	Content Category	Assessment Target ¹	DOK ^{2,3}	CAT Items	Item Type		Total Items
						Machine Scored	Short Text	
CAT	1. Reading	Literary ⁴	2: Central Ideas	2, 3	1 ⁵	1-2 ⁵	0-1 ⁵	4
			4: Reasoning and Evaluation	3, 4	1 ⁵			
			1: Key Details	2	2	2	0	
			3: Word Meanings	1, 2				
			5: Analysis within/across Texts	3, 4				
			6: Text Structures and Features	3, 4				
			7: Language Use	3				
		Informational ⁶	9: Central Ideas	2,3	2-4 ⁷	10-12 ⁷	0-1 ⁷	11-12
			11: Reasoning and Evaluation	3, 4				
			8: Key Details	2	7-10		0	
			10: Word Meanings	1, 2				
			12: Analysis within/across Texts	3, 4				
			13: Text Structures and Features	3, 4				
			14: Language Use	3				

¹ For more information on assessment targets, see the Content Specifications document at <http://www.smarterbalanced.org/smarter-balanced-assessments/>.

² DOK: Depth of Knowledge, consistent with the Smarter Balanced Content Specifications.

³ The CAT algorithm will be configured to ensure the following:
 For Claim 1, a student will receive no more than 4 items at DOK 1 and at least 3 items at DOK 3 or higher.
 For Claim 2, a student will receive at least five items at DOK 2 or higher, at least one of which will be DOK 3 or higher.
 For Claim 3, a student will receive at least four items at DOK 2 or higher.
 For Claim 4, CAT items are DOK 2 for all grades.

⁴ Each student will receive at least one literary long passage set.

⁵ For the Reading Literary long set, students may see up to one short answer question on either target 2 or 4.

⁶ Each student will receive at least one long informational passage set and up to two additional short informational passage sets.

⁷ For the Reading Informational long passage set, students may see up to one short answer question on either target 9 or 11.

Target Sampling ELA/Literacy Grade 11								
Component	Claim/Score Reporting Category	Content Category	Assessment Target ¹	DOK ^{2,3}	CAT Items	Item Type		Total Items
						Machine Scored	Short Text	
CAT	2. Writing	Organization/Purpose	1a/3a/6a: Write Brief Texts ⁸	3	3	0	0–1 ⁸	10
			1b/3b/6b: Revise Brief Texts	2		0–2 ⁸	0	
		Evidence/Elaboration	1a/3a/6a: Write Brief Texts ⁸	3		0	0–1 ⁸	
			1b/3b/6b: Revise Brief Texts	2	2	0		
			8: Language and Vocabulary Use ⁹	1, 2	2	0		
	Conventions	9: Edit/Clarify	1, 2	5	5	0		
	3. Speaking/Listening	Listening	4: Listen/Interpret	1, 2, 3	8–9	8–9	0	8–9
	4. Research	Research	2: Analyze/Integrate Information	2	6	6	0	6
			3: Evaluate Information/Sources	2				
			4: Use Evidence	2				

Target Sampling ELA/Literacy Grade 11								
Component	Claim/Score Reporting Category	Content Category	Assessment Target	DOK	Item Type			Scores
					Machine Scored	Short Text	Full Write	
PT	2. Writing	Organization/Purpose	2/4/7: Compose Full Texts	4	0	0	1	1
		Evidence/Elaboration	2/4/7: Compose Full Texts					1
			8: Language and Vocabulary Use					1
	Conventions	9: Edit/Clarify	1					
	4. Research	Research	2: Analyze/Integrate Information	3, 4	0–1	1–2	0	2–3
			3: Evaluate Information/Sources	3, 4				
4: Use Evidence			3, 4					

⁸ Each student will receive at least one item in Organization/Purpose and at least one item in Evidence/Elaboration, for a total of three items, assessed in either Write Brief Texts or Revise Brief Texts. Among these three items will be one and only one Write Brief Text.

⁹ Language and Vocabulary Use contributes 2 items to Evidence/Elaboration.

Smarter Balanced Mathematics Summative Assessments Blueprints

Blueprint Table Mathematics Grades 3–5
Estimated Total Testing Time: 3:00 (with Classroom Activity)¹

Claim/Score Reporting Category	Content Category ²	Stimuli		Items		Total Items by Claim ³
		CAT	PT	CAT ⁴	PT ⁵	
1. Concepts and Procedures	Priority Cluster	0	0	13–15	0	17–20
	Supporting Cluster	0		4–5		
2. Problem Solving 4. Modeling and Data Analysis ⁶	Problem Solving	0	1	6	2–4	8–10
	Modeling and Data Analysis	0				
3. Communicating Reasoning	Communicating Reasoning	0			8	0–2

¹ All times are estimates. Actual times may vary.

² For more information on content categories, see the Content Specifications document at <http://www.smarterbalanced.org/smarter-balanced-assessments/>.

³ While the range for the total items by Claim for Problem Solving/Modeling and Data Analysis and Communicating Reasoning indicates 8-10 items in each reporting category, the total number of items across these two reporting categories for any individual test event is 18-20.

⁴ All CAT items in grades 3–5 are designed to be machine-scored.

⁵ Each PT contains 4-6 total items. Up to four PT items may require hand-scoring.

⁶ Claim 2 (Problem Solving) and Claim 4 (Modeling and Data Analysis) have been combined because of content similarity and to provide flexibility for item development. There are still four claims, but only three claim scores will be reported with the overall math score.

Blueprint Table Mathematics Grades 6–8
Estimated Total Testing Time: 3:30 (with Classroom Activity)¹

Claim/Score Reporting Category	Content Category ²	Stimuli		Items		Total Items by Claim ³
		CAT	PT	CAT ⁴	PT ⁵	
1. Concepts and Procedures	Priority Cluster	0	0	12–15	0	16–20
	Supporting Cluster	0		4–5		
2. Problem Solving 4. Modeling and Data Analysis ⁶	Problem Solving	0	1	6	2–4	8–10
	Modeling and Data Analysis	0				
3. Communicating Reasoning	Communicating Reasoning	0			8	0–2

¹ All times are estimates. Actual times may vary.

² For more information on content categories, see the Content Specifications document at <http://www.smarterbalanced.org/smarter-balanced-assessments/>.

³ While the range for the total items by Claim for Problem Solving/Modeling and Data Analysis and Communicating Reasoning indicates 8-10 items in each reporting category, the total number of items across these two reporting categories for any individual test event is 18-20.

⁴ In grades 6-8, up to one CAT item per student may require hand-scoring (from either Claim 3 or Claim 4), which may be AI-scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand-scoring.

⁵ Each PT contains 4-6 total items. Up to four PT items may require hand-scoring.

⁶ Claim 2 (Problem Solving) and Claim 4 (Modeling and Data Analysis) have been combined because of content similarity and to provide flexibility for item development. There are still four claims, but only three claim scores will be reported with the overall math score.

Blueprint Table Mathematics Grade 11
Estimated Total Testing Time: 4:00 (with Classroom Activity)¹

Claim/Score Reporting Category	Content Category ²	Stimuli		Items		Total Items by Claim ³
		CAT	PT	CAT ⁴	PT ⁵	
1. Concepts and Procedures	Priority Cluster	0	0	14–16	0	19–22
	Supporting Cluster	0		5–6		
2. Problem Solving 4. Modeling and Data Analysis ⁶	Problem Solving	0	1	6	2–4	8–10
	Modeling and Data Analysis	0		8		
3. Communicating Reasoning	Communicating Reasoning	0			0–2	8–10

¹ All times are estimates. Actual times may vary.

² For more information on content categories, see the Content Specifications document at <http://www.smarterbalanced.org/smarter-balanced-assessments/>.

³ While the range for the total items by Claim for Problem Solving/Modeling and Data Analysis and Communicating Reasoning indicates 8-10 items in each reporting category, the total number of items across these two reporting categories for any individual test event is 18-20.

⁴ In grade 11, up to one CAT item per student may require hand-scoring (from either Claim 3 or Claim 4), which may be AI-scored with an application that yields comparable results by meeting or exceeding reliability and validity criteria for hand-scoring.

⁵ Each PT contains 4-6 total items. Up to six PT items may require hand-scoring.

⁶ Claim 2 (Problem Solving) and Claim 4 (Modeling and Data Analysis) have been combined, because of content similarity and to provide flexibility for item development. There are still four claims, but only three claim scores will be reported with the overall math score.

Target Sampling Mathematics Grade 3						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	B. Understand properties of multiplication and the relationship between multiplication and division.	1	5–6	0	17–20
		C. Multiply and divide within 100.	1			
		I. Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	1, 2			
		G. Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.	1, 2			
		D. Solve problems involving the four operations, and identify and explain patterns in arithmetic.	2	5–6		
		F. Develop understanding of fractions as numbers.	1, 2			
	A. Represent and solve problems involving multiplication and division.	1, 2	2–3			
	Supporting Cluster	E. Use place value understanding and properties of operations to perform multi-digit arithmetic.	1	3–4		
		J. Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.	1			
		K. Reason with shapes and their attributes.	1, 2			
H. Represent and interpret data.		2, 3	1			

* DOK: Depth of Knowledge, consistent with the Smarter Balanced Content Specifications.
 The CAT algorithm will be configured to ensure the following:

- For Claim 1, each student will receive at least 7 CAT items at DOK 2 or higher.
- For combined Claims 2 and 4, each student will receive at least 2 CAT items at DOK 3 or higher.
- For Claim 3, each student will receive at least 2 CAT items at DOK 3 or higher.

Target Sampling Mathematics Grade 3						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1–2	8–10
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
	Modeling and Data Analysis (drawn across content domains)	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	1–3	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0		
3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	0–2	
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3	2		

Target Sampling Mathematics Grade 4						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	A. Use the four operations with whole numbers to solve problems.	1, 2	8-9	0	17-20
		E. Use place value understanding and properties of operations to perform multi-digit arithmetic.	1, 2			
		F. Extend understanding of fraction equivalence and ordering.	1, 2			
		G. Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	1, 2	2-3		
		D. Generalize place value understanding for multi-digit whole numbers.	1, 2	1-2		
		H. Understand decimal notation for fractions, and compare decimal fractions.	1, 2	1		
	Supporting Cluster	I. Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	1, 2	2-3		
		K. Geometric measurement: understand concepts of angle and measure angles.	1, 2			
		B. Gain familiarity with factors and multiples.	1, 2	1		
		C. Generate and analyze patterns.	2, 3			
		J. Represent and interpret data.	1, 2			
L. Draw and identify lines and angles, and classify shapes by properties of their lines and angles.	1, 2	1				

* DOK: Depth of Knowledge, consistent with the Smarter Balanced Content Specifications.
 The CAT algorithm will be configured to ensure the following:

- For Claim 1, each student will receive at least 7 CAT items at DOK 2 or higher.
- For combined Claims 2 and 4, each student will receive at least 2 CAT items at DOK 3 or higher.
- For Claim 3, each student will receive at least 2 CAT items at DOK 3 or higher.

Target Sampling Mathematics Grade 4

Claim	Content Category	Assessment Targets	DOK*	Items		Total Items		
				CAT	PT			
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1–2	8–10		
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1				
	Modeling and Data Analysis (drawn across content domains)	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	1–3			
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1				
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1				
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0				
	3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3		0–2	8–10
			B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3			
C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.			2, 3	2				

Target Sampling Mathematics Grade 5

Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	E. Use equivalent fractions as a strategy to add and subtract fractions.	1, 2	5-6	0	17-20
		I. Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	1, 2			
		F. Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	1, 2	4-5		
		D. Perform operations with multi-digit whole numbers and with decimals to hundredths.	1, 2	3-4		
		C. Understand the place value system.	1, 2			
	Supporting Cluster	J. Graph points on the coordinate plane to solve real-world and mathematical problems.	1	2-3		
		K. Classify two-dimensional figures into categories based on their properties.	2			
		A. Write and interpret numerical expressions.	1	2		
		B. Analyze patterns and relationships.	2			
		G. Convert like measurement units within a given measurement system.	1			
H. Represent and interpret data.	1, 2					

* DOK: Depth of Knowledge, consistent with the Smarter Balanced Content Specifications.

The CAT algorithm will be configured to ensure the following:

- For Claim 1, each student will receive at least 7 CAT items at DOK 2 or higher.
- For combined Claims 2 and 4, each student will receive at least 2 CAT items at DOK 3 or higher.
- For Claim 3, each student will receive at least 2 CAT items at DOK 3 or higher.

Target Sampling Mathematics Grade 5						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1–2	8–10
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
	Modeling and Data Analysis (drawn across content domains)	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	1–3	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0		
3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	0–2	8–10
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3	2		

Target Sampling Mathematics Grade 6						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	E. Apply and extend previous understandings of arithmetic to algebraic expressions.	1	5–6	0	16–19
		F. Reason about and solve one-variable equations and inequalities.	1, 2			
		A. Understand ratio concepts and use ratio reasoning to solve problems.	1, 2			
		G. Represent and analyze quantitative relationships between dependent and independent variables.	2	2		
		B. Apply and extend previous understandings of multiplication and division to divide fractions by fractions.	1, 2			
		D. Apply and extend previous understandings of numbers to the system of rational numbers.	1, 2	2		
	Supporting Cluster	C. Compute fluently with multi-digit numbers and find common factors and multiples.	1, 2	4–5		
		H. Solve real-world and mathematical problems involving area, surface area, and volume.	1, 2			
		I. Develop understanding of statistical variability.	2			
		J. Summarize and describe distributions.	1, 2			

* DOK: Depth of Knowledge, consistent with the Smarter Balanced Content Specifications.

The CAT algorithm will be configured to ensure the following:

- For Claim 1, each student will receive at least 7 CAT items at DOK 2 or higher.
- For combined Claims 2 and 4, each student will receive at least 2 CAT items at DOK 3 or higher.
- For Claim 3, each student will receive at least 2 CAT items at DOK 3 or higher.

Target Sampling Mathematics Grade 6						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1–2	8–10
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
	Modeling and Data Analysis (drawn across content domains)	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	1–3	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0		
3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	0–2	8–10
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)	2, 3	2		

Target Sampling Mathematics Grade 7

Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	A. Analyze proportional relationships and use them to solve real-world and mathematical problems.	2	8–9	0	17–20
		D. Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	1, 2			
		B. Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	1, 2	5–6		
		C. Use properties of operations to generate equivalent expressions.	1, 2			
	Supporting Cluster	E. Draw, construct, and describe geometrical figures and describe the relationship between them.	1, 2	2–3		
		F. Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.	1, 2			
		G. Use random sampling to draw inferences about a population.	1, 2	1-2		
		H. Draw informal comparative inferences about two populations.	2			
		I. Investigate chance processes and develop, use, and evaluate probability models.	1, 2			

* DOK: Depth of Knowledge, consistent with the Smarter Balanced Content Specifications.

The CAT algorithm will be configured to ensure the following:

- For Claim 1, each student will receive at least 7 CAT items at DOK 2 or higher.
- For combined Claims 2 and 4, each student will receive at least 2 CAT items at DOK 3 or higher.
- For Claim 3, each student will receive at least 2 CAT items at DOK 3 or higher.

Target Sampling Mathematics Grade 7						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1–2	8–10
		B. Select and use appropriate tools strategically.	1, 2, 3	1		
		C. Interpret results in the context of a situation.				
		D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).				
	Modeling and Data Analysis (drawn across content domains)	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace.	2, 3	1	1–3	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.	2, 3, 4	1		
		E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	1, 2, 3	1		
		C. State logical assumptions being used.				
F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	3, 4	0				
3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples.	2, 3	3	0–2	8–10
		D. Use the technique of breaking an argument into cases.				
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	2, 3, 4	3		
		E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3	2		
		C. State logical assumptions being used.				
F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.						
G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)						

Target Sampling Mathematics Grade 8

Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	C. Understand the connections between proportional relationships, lines, and linear equations.	1, 2	5-6	0	17–20
		D. Analyze and solve linear equations and pairs of simultaneous linear equations.	1, 2			
		B. Work with radicals and integer exponents.	1, 2			
		E. Define, evaluate, and compare functions.	1, 2			
		G. Understand congruence and similarity using physical models, transparencies, or geometry software.	1, 2			
		F. Use functions to model relationships between quantities.	1, 2			
	H. Understand and apply the Pythagorean Theorem.	1, 2	2-3			
	Supporting Cluster	A. Know that there are numbers that are not rational, and approximate them by rational numbers.	1, 2	4-5		
		I. Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.	1, 2			
		J. Investigate patterns of association in bivariate data.	1, 2			

* DOK: Depth of Knowledge, consistent with the Smarter Balanced Content Specifications.

The CAT algorithm will be configured to ensure the following:

- For Claim 1, each student will receive at least 7 CAT items at DOK 2 or higher.
- For combined Claims 2 and 4, each student will receive at least 2 CAT items at DOK 3 or higher.
- For Claim 3, each student will receive at least 2 CAT items at DOK 3 or higher.

Target Sampling Mathematics Grade 8

Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1–2	8–10
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
	Modeling and Data Analysis (drawn across content domains)	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	1–3	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0		
3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3	0–2	8–10
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)	2, 3	2		

Target Sampling Mathematics Grade 11

Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
1. Concepts and Procedures	Priority Cluster	D. Interpret the structure of expressions.	1, 2	2	0	19–22
		E. Write expressions in equivalent forms to solve problems.	1, 2			
		F. Perform arithmetic operations on polynomials.	2	1		
		G. Create equations that describe numbers or relationships.	1, 2	4–5		
		H. Understand solving equations as a process of reasoning and explain the reasoning.	1, 2			
		I. Solve equations and inequalities in one variable.	1, 2			
		J. Represent and solve equations and inequalities graphically.	1, 2	2		
		K. Understand the concept of a function and use function notation.	1, 2	2		
		L. Interpret functions that arise in applications in terms of a context.	1, 2	3–4		
		M. Analyze functions using different representations.	1, 2, 3			
	N. Build a function that models a relationship between two quantities.	2				
	Supporting Cluster	O. Define trigonometric ratios and solve problems involving right triangles.	1, 2	2		
		P. Summarize, represent, and interpret data on a single count or measurement variable.	2	1–2		
		A. Extend the properties of exponents to rational exponents.	1, 2	1		
		B. Use properties of rational and irrational numbers.	1, 2			
C. Reason quantitatively and use units to solve problems.		1, 2	1			

* DOK: Depth of Knowledge, consistent with the Smarter Balanced Content Specifications.

The CAT algorithm will be configured to ensure the following:

- For Claim 1, each student will receive at least 7 CAT items at DOK 2 or higher.
- For combined Claims 2 and 4, each student will receive at least 2 CAT items at DOK 3 or higher.
- For Claim 3, each student will receive at least 2 CAT items at DOK 3 or higher.

Target Sampling Mathematics Grade 11						
Claim	Content Category	Assessment Targets	DOK*	Items		Total Items
				CAT	PT	
2. Problem Solving 4. Modeling and Data Analysis	Problem Solving (drawn across content domains)	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	1–2	8–10
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
		A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1		
	Modeling and Data Analysis (drawn across content domains)	B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1	1–3	
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3	1		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	0		
		A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	3		
3. Communicating Reasoning	Communicating Reasoning (drawn across content domains)	B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4	3	0–2	8–10
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)	2, 3	2		

Appendix 2.B: Special Services Summaries

Table 2.B.1 Special Services Summary for ELA, Grades Three through Six—All Tested

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded Supports—American Sign Language	158	0.03	171	0.04	154	0.03	194	0.04
Embedded Supports—Braille	6	0.00	7	0.00	9	0.00	14	0.00
Embedded Supports—Closed Captioning	408	0.09	436	0.09	457	0.10	522	0.11
Embedded Supports—Streamlining	782	0.17	918	0.20	988	0.21	722	0.16
Embedded Supports—Text-to-Speech	2,269	0.48	2,422	0.52	2,725	0.59	10,332	2.26
Non-Embedded Supports—Alternate Response Options	219	0.05	254	0.05	257	0.06	257	0.06
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	795	0.17	789	0.17	674	0.15	493	0.11
Designated Supports								
Embedded Supports—Color Contrast	25,503	5.40	25,579	5.53	25,172	5.47	21,611	4.74
Embedded Supports—Masking	4,270	0.90	5,009	1.08	4,878	1.06	4,094	0.90
Embedded Supports—Permissive Mode	462	0.10	444	0.10	483	0.10	436	0.10
Embedded Supports—Text-to-Speech	27,182	5.75	26,642	5.76	25,496	5.54	14,880	3.26
Embedded Supports—Turn off Any Universal Tool	7	0.00	10	0.00	15	0.00	13	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Bilingual Dictionary	6,981	1.48	5,350	1.16	4,290	0.93	3,809	0.83
Non-Embedded Supports—Color Contrast	620	0.13	809	0.17	817	0.18	750	0.16
Non-Embedded Supports—Color Overlay	303	0.06	379	0.08	398	0.09	393	0.09
Non-Embedded Supports—Magnification	711	0.15	866	0.19	890	0.19	723	0.16
Non-Embedded Supports—Noise Buffers	2,361	0.50	2,402	0.52	2,670	0.58	1,727	0.38
Non-Embedded Supports—Read Aloud	10,296	2.18	11,023	2.38	11,576	2.52	8,190	1.79
Non-Embedded Supports—Separate Setting	13,791	2.92	15,573	3.37	16,586	3.60	14,141	3.10
Non-Embedded Supports—Special Lighting or Acoustics	148	0.03	156	0.03	183	0.04	170	0.04
Individualized Aid								
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	4,303	0.91	3,084	0.67	2,421	0.53	2,303	0.50
Designated support or accommodation is in IEP	22,115	4.68	26,145	5.65	28,541	6.20	26,270	5.76
Designated support or accommodation is in Sect. 504 plan	444	0.09	616	0.13	698	0.15	618	0.14

Table 2.B.2 Special Services Summary for ELA, Grades Seven through Eleven—All Tested

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded Supports—American Sign Language	203	0.05	242	0.05	195	0.05
Embedded Supports—Braille	9	0.00	16	0.00	5	0.00
Embedded Supports—Closed Captioning	542	0.12	485	0.11	418	0.10
Embedded Supports—Streamlining	677	0.15	671	0.15	443	0.10
Embedded Supports—Text-to-Speech	8,811	1.96	8,173	1.81	3,708	0.88
Non-Embedded Supports—Alternate Response Options	205	0.05	216	0.05	107	0.03
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	309	0.07	256	0.06	141	0.03
Designated Supports						
Embedded Supports—Color Contrast	17,911	3.98	16,961	3.76	10,752	2.55
Embedded Supports—Masking	3,879	0.86	3,611	0.80	4,917	1.16
Embedded Supports—Permissive Mode	325	0.07	298	0.07	166	0.04
Embedded Supports—Text-to-Speech	11,020	2.45	9,891	2.19	8,056	1.91
Embedded Supports—Turn off Any Universal Tool	10	0.00	12	0.00	2	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Bilingual Dictionary	3,538	0.79	3,262	0.72	3,357	0.80
Non-Embedded Supports—Color Contrast	568	0.13	558	0.12	419	0.10
Non-Embedded Supports—Color Overlay	213	0.05	159	0.04	254	0.06
Non-Embedded Supports—Magnification	656	0.15	585	0.13	498	0.12
Non-Embedded Supports—Noise Buffers	1,186	0.26	981	0.22	526	0.12
Non-Embedded Supports—Read Aloud	6,277	1.40	5,779	1.28	2,770	0.66
Non-Embedded Supports—Separate Setting	12,939	2.88	12,160	2.70	8,542	2.02
Non-Embedded Supports—Special Lighting or Acoustics	93	0.02	74	0.02	145	0.03
Individualized Aid						
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	2,123	0.47	1,903	0.42	2,055	0.49
Designated support or accommodation is in IEP	23,190	5.16	22,008	4.88	12,596	2.98
Designated support or accommodation is in Sect. 504 plan	544	0.12	622	0.14	450	0.11

Table 2.B.3 Special Services Summary for ELA, Grades Three through Six—Students Not in Special Education

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded Supports—American Sign Language	9	0.00	16	0.00	7	0.00	4	0.00
Embedded Supports—Braille	2	0.00	0	0.00	3	0.00	1	0.00
Embedded Supports—Closed Captioning	32	0.01	40	0.01	30	0.01	55	0.01
Embedded Supports—Streamlining	113	0.03	112	0.03	77	0.02	104	0.03
Embedded Supports—Text-to-Speech	559	0.13	454	0.11	379	0.09	1,013	0.25
Non-Embedded Supports—Alternate Response Options	20	0.00	10	0.00	17	0.00	15	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	124	0.03	101	0.02	77	0.02	44	0.01
Designated Supports								
Embedded Supports—Color Contrast	11,623	2.72	9,271	2.24	7,677	1.87	5,808	1.42
Embedded Supports—Masking	1,546	0.36	1,403	0.34	1,070	0.26	823	0.20
Embedded Supports—Permissive Mode	200	0.05	153	0.04	146	0.04	154	0.04
Embedded Supports—Text-to-Speech	14,989	3.50	12,069	2.92	10,078	2.46	6,763	1.65
Embedded Supports—Turn off Any Universal Tool	3	0.00	0	0.00	8	0.00	1	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Bilingual Dictionary	6,318	1.48	4,702	1.14	3,692	0.90	3,084	0.75
Non-Embedded Supports—Color Contrast	83	0.02	83	0.02	108	0.03	118	0.03
Non-Embedded Supports—Color Overlay	46	0.01	38	0.01	64	0.02	94	0.02
Non-Embedded Supports—Magnification	138	0.03	136	0.03	150	0.04	82	0.02
Non-Embedded Supports—Noise Buffers	538	0.13	381	0.09	365	0.09	247	0.06
Non-Embedded Supports—Read Aloud	2,414	0.56	1,842	0.45	1,538	0.38	974	0.24
Non-Embedded Supports—Separate Setting	3,248	0.76	2,982	0.72	2,657	0.65	2,014	0.49
Non-Embedded Supports—Special Lighting or Acoustics	17	0.00	18	0.00	29	0.01	62	0.02
Individualized Aid								
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	3,784	0.88	2,559	0.62	1,884	0.46	1,772	0.43
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00	1	0.00
Designated support or accommodation is in Sect. 504 plan	329	0.08	449	0.11	522	0.13	476	0.12

Table 2.B.4 Special Services Summary for ELA, Grades Seven through Eleven—Students Not in Special Education

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded Supports—American Sign Language	16	0.00	12	0.00	6	0.00
Embedded Supports—Braille	0	0.00	0	0.00	1	0.00
Embedded Supports—Closed Captioning	68	0.02	49	0.01	39	0.01
Embedded Supports—Streamlining	67	0.02	49	0.01	106	0.03
Embedded Supports—Text-to-Speech	826	0.20	700	0.17	327	0.08
Non-Embedded Supports—Alternate Response Options	6	0.00	6	0.00	6	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	20	0.00	18	0.00	10	0.00
Designated Supports						
Embedded Supports—Color Contrast	4,660	1.15	4,141	1.02	4,730	1.22
Embedded Supports—Masking	911	0.23	728	0.18	3,460	0.89
Embedded Supports—Permissive Mode	118	0.03	96	0.02	47	0.01
Embedded Supports—Text-to-Speech	4,563	1.13	4,200	1.03	6,384	1.65
Embedded Supports—Turn off Any Universal Tool	1	0.00	1	0.00	1	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Bilingual Dictionary	2,950	0.73	2,781	0.68	2,893	0.75
Non-Embedded Supports—Color Contrast	68	0.02	61	0.01	83	0.02
Non-Embedded Supports—Color Overlay	38	0.01	21	0.01	71	0.02
Non-Embedded Supports—Magnification	51	0.01	33	0.01	94	0.02
Non-Embedded Supports—Noise Buffers	185	0.05	111	0.03	89	0.02
Non-Embedded Supports—Read Aloud	682	0.17	600	0.15	556	0.14
Non-Embedded Supports—Separate Setting	1,652	0.41	1,503	0.37	1,265	0.33
Non-Embedded Supports—Special Lighting or Acoustics	8	0.00	5	0.00	29	0.01
Individualized Aid						
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	1,648	0.41	1,526	0.38	1,609	0.41
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Sect. 504 plan	428	0.11	495	0.12	398	0.10

Table 2.B.5 Special Services Summary for ELA, Grades Three through Six—Students in Special Education

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded Supports—American Sign Language	149	0.33	155	0.32	147	0.29	190	0.40
Embedded Supports—Braille	4	0.01	7	0.01	6	0.01	13	0.03
Embedded Supports—Closed Captioning	376	0.84	396	0.81	427	0.84	467	0.98
Embedded Supports—Streamlining	669	1.49	806	1.65	911	1.80	618	1.30
Embedded Supports—Text-to-Speech	1,710	3.80	1,968	4.03	2,346	4.64	9,319	19.61
Non-Embedded Supports—Alternate Response Options	199	0.44	244	0.50	240	0.47	242	0.51
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	671	1.49	688	1.41	597	1.18	449	0.95
Designated Supports								
Embedded Supports—Color Contrast	13,880	30.87	16,308	33.40	17,495	34.59	15,803	33.26
Embedded Supports—Masking	2,724	6.06	3,606	7.38	3,808	7.53	3,271	6.88
Embedded Supports—Permissive Mode	262	0.58	291	0.60	337	0.67	282	0.59
Embedded Supports—Text-to-Speech	12,193	27.11	14,573	29.84	15,418	30.48	8,117	17.08
Embedded Supports—Turn off Any Universal Tool	4	0.01	10	0.02	7	0.01	12	0.03
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Bilingual Dictionary	663	1.47	648	1.33	598	1.18	725	1.53
Non-Embedded Supports—Color Contrast	537	1.19	726	1.49	709	1.40	632	1.33
Non-Embedded Supports—Color Overlay	257	0.57	341	0.70	334	0.66	299	0.63
Non-Embedded Supports—Magnification	573	1.27	730	1.49	740	1.46	641	1.35
Non-Embedded Supports—Noise Buffers	1,823	4.05	2,021	4.14	2,305	4.56	1,480	3.12
Non-Embedded Supports—Read Aloud	7,882	17.53	9,181	18.80	10,038	19.85	7,216	15.19
Non-Embedded Supports—Separate Setting	10,543	23.44	12,591	25.78	13,929	27.54	12,127	25.52
Non-Embedded Supports—Special Lighting or Acoustics	131	0.29	138	0.28	154	0.30	108	0.23
Individualized Aid								
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	519	1.15	525	1.08	537	1.06	531	1.12
Designated support or accommodation is in IEP	22,115	49.18	26,145	53.54	28,541	56.43	26,269	55.29
Designated support or accommodation is in Sect. 504 plan	115	0.26	167	0.34	176	0.35	142	0.30

Table 2.B.6 Special Services Summary for ELA, Grades Seven through Eleven—Students in Special Education

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded Supports—American Sign Language	187	0.41	230	0.52	189	0.55
Embedded Supports—Braille	9	0.02	16	0.04	4	0.01
Embedded Supports—Closed Captioning	474	1.05	436	0.98	379	1.10
Embedded Supports—Streamlining	610	1.35	622	1.40	337	0.98
Embedded Supports—Text-to-Speech	7,985	17.68	7,473	16.84	3,381	9.85
Non-Embedded Supports—Alternate Response Options	199	0.44	210	0.47	101	0.29
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	289	0.64	238	0.54	131	0.38
Designated Supports						
Embedded Supports—Color Contrast	13,251	29.34	12,820	28.89	6,022	17.54
Embedded Supports—Masking	2,968	6.57	2,883	6.50	1,457	4.24
Embedded Supports—Permissive Mode	207	0.46	202	0.46	119	0.35
Embedded Supports—Text-to-Speech	6,457	14.30	5,691	12.82	1,672	4.87
Embedded Supports—Turn off Any Universal Tool	9	0.02	11	0.02	1	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Bilingual Dictionary	588	1.30	481	1.08	464	1.35
Non-Embedded Supports—Color Contrast	500	1.11	497	1.12	336	0.98
Non-Embedded Supports—Color Overlay	175	0.39	138	0.31	183	0.53
Non-Embedded Supports—Magnification	605	1.34	552	1.24	404	1.18
Non-Embedded Supports—Noise Buffers	1,001	2.22	870	1.96	437	1.27
Non-Embedded Supports—Read Aloud	5,595	12.39	5,179	11.67	2,214	6.45
Non-Embedded Supports—Separate Setting	11,287	24.99	10,657	24.02	7,277	21.19
Non-Embedded Supports—Special Lighting or Acoustics	85	0.19	69	0.16	116	0.34
Individualized Aid						
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	475	1.05	377	0.85	446	1.30
Designated support or accommodation is in IEP	23,190	51.34	22,008	49.59	12,596	36.68
Designated support or accommodation is in Sect. 504 plan	116	0.26	127	0.29	52	0.15

Table 2.B.7 Special Services Summary for ELA, Grades Three through Six—English-Only Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded Supports—American Sign Language	111	0.04	116	0.04	100	0.04	144	0.06
Embedded Supports—Braille	3	0.00	6	0.00	4	0.00	8	0.00
Embedded Supports—Closed Captioning	248	0.09	247	0.09	271	0.11	293	0.12
Embedded Supports—Streamlining	429	0.16	500	0.19	518	0.20	409	0.16
Embedded Supports—Text-to-Speech	1,262	0.47	1,334	0.51	1,475	0.57	5,653	2.23
Non-Embedded Supports—Alternate Response Options	138	0.05	156	0.06	135	0.05	149	0.06
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	547	0.20	515	0.20	450	0.17	325	0.13
Designated Supports								
Embedded Supports—Color Contrast	12,058	4.45	12,583	4.81	12,752	4.95	10,736	4.24
Embedded Supports—Masking	2,423	0.89	2,895	1.11	2,818	1.09	2,300	0.91
Embedded Supports—Permissive Mode	263	0.10	259	0.10	296	0.11	270	0.11
Embedded Supports—Text-to-Speech	10,811	3.99	10,986	4.20	10,885	4.23	5,906	2.33
Embedded Supports—Turn off Any Universal Tool	4	0.00	8	0.00	9	0.00	6	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Bilingual Dictionary	206	0.08	198	0.08	118	0.05	98	0.04
Non-Embedded Supports—Color Contrast	393	0.15	478	0.18	446	0.17	426	0.17
Non-Embedded Supports—Color Overlay	201	0.07	222	0.08	202	0.08	234	0.09
Non-Embedded Supports—Magnification	398	0.15	533	0.20	523	0.20	404	0.16
Non-Embedded Supports—Noise Buffers	1,366	0.50	1,403	0.54	1,486	0.58	996	0.39
Non-Embedded Supports—Read Aloud	5,214	1.92	5,772	2.21	6,156	2.39	4,090	1.61
Non-Embedded Supports—Separate Setting	7,747	2.86	8,917	3.41	9,447	3.67	8,185	3.23
Non-Embedded Supports—Special Lighting or Acoustics	86	0.03	95	0.04	109	0.04	95	0.04
Individualized Aid								
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	188	0.07	154	0.06	135	0.05	131	0.05
Designated support or accommodation is in IEP	12,726	4.70	14,842	5.67	15,998	6.21	14,766	5.83
Designated support or accommodation is in Sect. 504 plan	326	0.12	464	0.18	574	0.22	484	0.19

Table 2.B.8 Special Services Summary for ELA, Grades Seven through Eleven—English-Only Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded Supports—American Sign Language	134	0.05	175	0.07	150	0.06
Embedded Supports—Braille	5	0.00	4	0.00	2	0.00
Embedded Supports—Closed Captioning	291	0.12	303	0.12	251	0.11
Embedded Supports—Streamlining	374	0.15	364	0.15	304	0.13
Embedded Supports—Text-to-Speech	4,836	1.96	4,458	1.81	2,032	0.87
Non-Embedded Supports—Alternate Response Options	132	0.05	138	0.06	72	0.03
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	205	0.08	171	0.07	96	0.04
Designated Supports						
Embedded Supports—Color Contrast	8,947	3.62	8,404	3.41	4,720	2.03
Embedded Supports—Masking	2,208	0.89	2,037	0.83	2,229	0.96
Embedded Supports—Permissive Mode	197	0.08	200	0.08	103	0.04
Embedded Supports—Text-to-Speech	4,524	1.83	3,856	1.56	2,982	1.28
Embedded Supports—Turn off Any Universal Tool	4	0.00	3	0.00	1	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Bilingual Dictionary	72	0.03	48	0.02	50	0.02
Non-Embedded Supports—Color Contrast	303	0.12	325	0.13	225	0.10
Non-Embedded Supports—Color Overlay	107	0.04	102	0.04	147	0.06
Non-Embedded Supports—Magnification	360	0.15	346	0.14	286	0.12
Non-Embedded Supports—Noise Buffers	715	0.29	604	0.24	324	0.14
Non-Embedded Supports—Read Aloud	3,201	1.30	2,888	1.17	1,238	0.53
Non-Embedded Supports—Separate Setting	7,449	3.01	7,060	2.86	4,860	2.09
Non-Embedded Supports—Special Lighting or Acoustics	56	0.02	44	0.02	86	0.04
Individualized Aid						
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	116	0.05	84	0.03	179	0.08
Designated support or accommodation is in IEP	13,022	5.27	12,303	4.99	7,189	3.09
Designated support or accommodation is in Sect. 504 plan	423	0.17	517	0.21	387	0.17

Table 2.B.9 Special Services Summary for ELA, Grades Three through Six—I-FEP Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded Supports—American Sign Language	6	0.03	7	0.04	3	0.01	7	0.03
Embedded Supports—Braille	0	0.00	0	0.00	0	0.00	1	0.00
Embedded Supports—Closed Captioning	3	0.02	11	0.06	5	0.02	9	0.04
Embedded Supports—Streamlining	6	0.03	11	0.06	17	0.08	9	0.04
Embedded Supports—Text-to-Speech	15	0.08	23	0.13	36	0.18	104	0.48
Non-Embedded Supports—Alternate Response Options	1	0.01	1	0.01	1	0.00	6	0.03
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	6	0.03	8	0.04	10	0.05	6	0.03
Designated Supports								
Embedded Supports—Color Contrast	427	2.35	348	1.92	425	2.10	310	1.44
Embedded Supports—Masking	51	0.28	54	0.30	69	0.34	43	0.20
Embedded Supports—Permissive Mode	1	0.01	4	0.02	3	0.01	6	0.03
Embedded Supports—Text-to-Speech	266	1.47	230	1.27	306	1.51	181	0.84
Embedded Supports—Turn off Any Universal Tool	0	0.00	0	0.00	0	0.00	1	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Bilingual Dictionary	51	0.28	35	0.19	24	0.12	31	0.14
Non-Embedded Supports—Color Contrast	4	0.02	6	0.03	6	0.03	10	0.05
Non-Embedded Supports—Color Overlay	2	0.01	6	0.03	6	0.03	3	0.01
Non-Embedded Supports—Magnification	4	0.02	5	0.03	9	0.04	12	0.06
Non-Embedded Supports—Noise Buffers	36	0.20	38	0.21	44	0.22	29	0.13
Non-Embedded Supports—Read Aloud	89	0.49	77	0.42	138	0.68	93	0.43
Non-Embedded Supports—Separate Setting	138	0.76	140	0.77	213	1.05	206	0.96
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	3	0.02	3	0.01	2	0.01
Individualized Aid								
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	34	0.19	15	0.08	7	0.03	12	0.06
Designated support or accommodation is in IEP	202	1.11	223	1.23	337	1.66	313	1.45
Designated support or accommodation is in Sect. 504 plan	9	0.05	14	0.08	13	0.06	10	0.05

Table 2.B.10 Special Services Summary for ELA, Grades Seven through Eleven—I-FEP Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded Supports—American Sign Language	3	0.01	3	0.01	1	0.00
Embedded Supports—Braille	0	0.00	1	0.00	0	0.00
Embedded Supports—Closed Captioning	11	0.05	7	0.03	9	0.02
Embedded Supports—Streamlining	13	0.06	9	0.04	15	0.04
Embedded Supports—Text-to-Speech	82	0.40	100	0.48	109	0.30
Non-Embedded Supports—Alternate Response Options	1	0.00	2	0.01	2	0.01
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	3	0.01	4	0.02	6	0.02
Designated Supports						
Embedded Supports—Color Contrast	234	1.14	229	1.09	358	0.99
Embedded Supports—Masking	52	0.25	38	0.18	298	0.83
Embedded Supports—Permissive Mode	3	0.01	3	0.01	5	0.01
Embedded Supports—Text-to-Speech	121	0.59	111	0.53	494	1.37
Embedded Supports—Turn off Any Universal Tool	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Bilingual Dictionary	24	0.12	24	0.11	25	0.07
Non-Embedded Supports—Color Contrast	6	0.03	5	0.02	15	0.04
Non-Embedded Supports—Color Overlay	2	0.01	1	0.00	11	0.03
Non-Embedded Supports—Magnification	10	0.05	5	0.02	21	0.06
Non-Embedded Supports—Noise Buffers	16	0.08	15	0.07	18	0.05
Non-Embedded Supports—Read Aloud	49	0.24	68	0.32	80	0.22
Non-Embedded Supports—Separate Setting	150	0.73	170	0.81	247	0.68
Non-Embedded Supports—Special Lighting or Acoustics	2	0.01	2	0.01	1	0.00
Individualized Aid						
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	5	0.02	6	0.03	17	0.05
Designated support or accommodation is in IEP	236	1.15	278	1.32	364	1.01
Designated support or accommodation is in Sect. 504 plan	15	0.07	10	0.05	13	0.04

Table 2.B.11 Special Services Summary for ELA, Grades Three through Six—English Learner (EL) Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded Supports—American Sign Language	40	0.03	42	0.04	43	0.04	36	0.05
Embedded Supports—Braille	2	0.00	1	0.00	2	0.00	4	0.01
Embedded Supports—Closed Captioning	152	0.10	164	0.14	156	0.16	182	0.24
Embedded Supports—Streamlining	338	0.22	399	0.33	433	0.43	258	0.34
Embedded Supports—Text-to-Speech	973	0.64	1,031	0.86	1,152	1.15	4,105	5.39
Non-Embedded Supports—Alternate Response Options	78	0.05	88	0.07	114	0.11	88	0.12
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	233	0.15	248	0.21	196	0.20	141	0.18
Designated Supports								
Embedded Supports—Color Contrast	12,457	8.23	11,759	9.80	10,774	10.74	8,932	11.72
Embedded Supports—Masking	1,729	1.14	1,909	1.59	1,849	1.84	1,501	1.97
Embedded Supports—Permissive Mode	192	0.13	172	0.14	175	0.17	134	0.18
Embedded Supports—Text-to-Speech	15,405	10.18	14,296	11.92	12,714	12.68	7,188	9.43
Embedded Supports—Turn off Any Universal Tool	1	0.00	2	0.00	3	0.00	5	0.01
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Bilingual Dictionary	6,220	4.11	4,754	3.96	3,727	3.72	3,322	4.36
Non-Embedded Supports—Color Contrast	216	0.14	305	0.25	350	0.35	274	0.36
Non-Embedded Supports—Color Overlay	100	0.07	143	0.12	183	0.18	129	0.17
Non-Embedded Supports—Magnification	290	0.19	302	0.25	328	0.33	260	0.34
Non-Embedded Supports—Noise Buffers	906	0.60	913	0.76	1,037	1.03	596	0.78
Non-Embedded Supports—Read Aloud	4,913	3.25	5,026	4.19	4,985	4.97	3,623	4.75
Non-Embedded Supports—Separate Setting	5,634	3.72	6,152	5.13	6,349	6.33	5,006	6.57
Non-Embedded Supports—Special Lighting or Acoustics	56	0.04	50	0.04	62	0.06	43	0.06
Individualized Aid								
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	3,926	2.59	2,710	2.26	2,031	2.03	1,927	2.53
Designated support or accommodation is in IEP	9,024	5.96	10,722	8.94	11,533	11.50	9,966	13.07
Designated support or accommodation is in Sect. 504 plan	101	0.07	117	0.10	98	0.10	89	0.12

Table 2.B.12 Special Services Summary for ELA, Grades Seven through Eleven—EL Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded Supports—American Sign Language	57	0.09	54	0.09	35	0.09
Embedded Supports—Braille	1	0.00	6	0.01	1	0.00
Embedded Supports—Closed Captioning	177	0.27	142	0.24	96	0.24
Embedded Supports—Streamlining	246	0.37	246	0.42	87	0.22
Embedded Supports—Text-to-Speech	3,285	5.01	2,928	5.04	1,146	2.90
Non-Embedded Supports—Alternate Response Options	51	0.08	51	0.09	24	0.06
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	74	0.11	60	0.10	31	0.08
Designated Supports						
Embedded Supports—Color Contrast	7,162	10.92	6,548	11.27	4,383	11.09
Embedded Supports—Masking	1,324	2.02	1,198	2.06	1,029	2.60
Embedded Supports—Permissive Mode	110	0.17	87	0.15	53	0.13
Embedded Supports—Text-to-Speech	5,130	7.82	4,606	7.92	2,704	6.84
Embedded Supports—Turn off Any Universal Tool	2	0.00	3	0.01	1	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Bilingual Dictionary	3,166	4.83	2,882	4.96	3,064	7.76
Non-Embedded Supports—Color Contrast	219	0.33	183	0.31	134	0.34
Non-Embedded Supports—Color Overlay	86	0.13	48	0.08	73	0.18
Non-Embedded Supports—Magnification	231	0.35	178	0.31	127	0.32
Non-Embedded Supports—Noise Buffers	352	0.54	283	0.49	119	0.30
Non-Embedded Supports—Read Aloud	2,623	4.00	2,343	4.03	1,197	3.03
Non-Embedded Supports—Separate Setting	4,375	6.67	3,862	6.64	2,445	6.19
Non-Embedded Supports—Special Lighting or Acoustics	26	0.04	23	0.04	51	0.13
Individualized Aid						
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	1,831	2.79	1,632	2.81	1,705	4.32
Designated support or accommodation is in IEP	8,304	12.66	7,468	12.85	3,568	9.03
Designated support or accommodation is in Sect. 504 plan	67	0.10	57	0.10	24	0.06

Table 2.B.13 Special Services Summary for ELA, Grades Three through Six—Reclassified Fluent English Proficient (R-FEP) Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded Supports—American Sign Language	1	0.00	5	0.01	8	0.01	7	0.01
Embedded Supports—Braille	1	0.00	0	0.00	3	0.00	0	0.00
Embedded Supports—Closed Captioning	5	0.02	13	0.02	24	0.03	36	0.03
Embedded Supports—Streamlining	5	0.02	7	0.01	20	0.02	44	0.04
Embedded Supports—Text-to-Speech	13	0.04	28	0.05	56	0.07	455	0.44
Non-Embedded Supports—Alternate Response Options	2	0.01	7	0.01	7	0.01	14	0.01
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	7	0.02	15	0.02	17	0.02	21	0.02
Designated Supports								
Embedded Supports—Color Contrast	472	1.52	823	1.33	1,158	1.43	1,564	1.50
Embedded Supports—Masking	57	0.18	143	0.23	139	0.17	247	0.24
Embedded Supports—Permissive Mode	3	0.01	7	0.01	8	0.01	24	0.02
Embedded Supports—Text-to-Speech	650	2.09	1,090	1.76	1,557	1.92	1,578	1.51
Embedded Supports—Turn off Any Universal Tool	2	0.01	0	0.00	3	0.00	0	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Bilingual Dictionary	484	1.56	344	0.56	401	0.49	334	0.32
Non-Embedded Supports—Color Contrast	3	0.01	17	0.03	14	0.02	40	0.04
Non-Embedded Supports—Color Overlay	0	0.00	7	0.01	6	0.01	27	0.03
Non-Embedded Supports—Magnification	17	0.05	26	0.04	29	0.04	45	0.04
Non-Embedded Supports—Noise Buffers	45	0.14	44	0.07	98	0.12	104	0.10
Non-Embedded Supports—Read Aloud	53	0.17	128	0.21	280	0.35	367	0.35
Non-Embedded Supports—Separate Setting	235	0.76	339	0.55	554	0.68	726	0.70
Non-Embedded Supports—Special Lighting or Acoustics	6	0.02	8	0.01	8	0.01	29	0.03
Individualized Aid								
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	137	0.44	191	0.31	232	0.29	205	0.20
Designated support or accommodation is in IEP	146	0.47	338	0.55	657	0.81	1,210	1.16
Designated support or accommodation is in Sect. 504 plan	6	0.02	21	0.03	11	0.01	33	0.03

Table 2.B.14 Special Services Summary for ELA, Grades Seven through Eleven—R-FEP Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded Supports—American Sign Language	9	0.01	10	0.01	7	0.01
Embedded Supports—Braille	3	0.00	5	0.00	2	0.00
Embedded Supports—Closed Captioning	62	0.05	32	0.03	60	0.05
Embedded Supports—Streamlining	43	0.04	52	0.04	36	0.03
Embedded Supports—Text-to-Speech	588	0.51	682	0.55	419	0.37
Non-Embedded Supports—Alternate Response Options	20	0.02	25	0.02	9	0.01
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	26	0.02	20	0.02	8	0.01
Designated Supports						
Embedded Supports—Color Contrast	1,476	1.28	1,701	1.37	1,244	1.10
Embedded Supports—Masking	292	0.25	335	0.27	1,357	1.20
Embedded Supports—Permissive Mode	15	0.01	7	0.01	5	0.00
Embedded Supports—Text-to-Speech	1,219	1.06	1,293	1.04	1,858	1.64
Embedded Supports—Turn off Any Universal Tool	4	0.00	6	0.00	0	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Bilingual Dictionary	239	0.21	274	0.22	185	0.16
Non-Embedded Supports—Color Contrast	39	0.03	45	0.04	45	0.04
Non-Embedded Supports—Color Overlay	18	0.02	8	0.01	23	0.02
Non-Embedded Supports—Magnification	55	0.05	56	0.04	64	0.06
Non-Embedded Supports—Noise Buffers	99	0.09	78	0.06	65	0.06
Non-Embedded Supports—Read Aloud	379	0.33	469	0.38	248	0.22
Non-Embedded Supports—Separate Setting	939	0.81	1,056	0.85	980	0.87
Non-Embedded Supports—Special Lighting or Acoustics	9	0.01	5	0.00	7	0.01
Individualized Aid						
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	137	0.12	152	0.12	129	0.11
Designated support or accommodation is in IEP	1,607	1.39	1,948	1.56	1,471	1.30
Designated support or accommodation is in Sect. 504 plan	39	0.03	38	0.03	24	0.02

Table 2.B.15 Special Services Summary for Mathematics, Grades Three through Six—All Tested

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded Supports—American Sign Language	156	0.03	169	0.04	157	0.03	194	0.04
Embedded Supports—Braille	7	0.00	7	0.00	7	0.00	14	0.00
Embedded Supports—Streamlining	774	0.16	913	0.20	981	0.21	720	0.16
Non-Embedded Supports—Abacus	198	0.04	163	0.04	169	0.04	105	0.02
Non-Embedded Supports—Alternate Response Options	219	0.05	254	0.05	261	0.06	253	0.06
Non-Embedded Supports—Calculator	2,341	0.49	3,715	0.80	5,058	1.10	6,771	1.48
Non-Embedded Supports—Multiplication Table	N/A	N/A	10,467	2.25	11,777	2.55	10,495	2.29
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Embedded Supports—Color Contrast	26,135	5.51	26,228	5.65	25,792	5.59	22,115	4.83
Embedded Supports—Masking	4,275	0.90	4,991	1.07	4,886	1.06	4,101	0.90
Embedded Supports—Permissive Mode	465	0.10	442	0.10	482	0.10	431	0.09
Embedded Supports—Text-to-Speech	28,981	6.11	27,632	5.95	26,537	5.75	22,465	4.91
Embedded Supports—Translated Test Directions	6,342	1.34	4,979	1.07	4,084	0.88	3,996	0.87
Embedded Supports—Translations (Glossary)	38,695	8.16	35,230	7.59	33,111	7.17	27,920	6.10
Embedded Supports—Translations (Stacked)	32,679	6.89	32,986	7.10	32,422	7.02	28,073	6.14
Embedded Supports—Turn off Any Universal Tool	6	0.00	6	0.00	6	0.00	9	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	618	0.13	806	0.17	817	0.18	749	0.16
Non-Embedded Supports—Color Overlay	299	0.06	375	0.08	399	0.09	392	0.09
Non-Embedded Supports—Magnification	711	0.15	861	0.19	885	0.19	713	0.16
Non-Embedded Supports—Noise Buffers	2,345	0.49	2,402	0.52	2,671	0.58	1,735	0.38
Non-Embedded Supports—Read Aloud	10,354	2.18	11,047	2.38	11,628	2.52	8,186	1.79
Non-Embedded Supports—Scribe	1,019	0.21	1,074	0.23	936	0.20	643	0.14
Non-Embedded Supports—Separate Setting	13,816	2.91	15,578	3.35	16,606	3.60	14,148	3.09
Non-Embedded Supports—Special Lighting or Acoustics	149	0.03	156	0.03	182	0.04	175	0.04
Non-Embedded Supports—Translated Test Directions	2,452	0.52	2,155	0.46	1,851	0.40	1,682	0.37
Non-Embedded Supports—Translations (Glossary)	28,762	6.06	28,218	6.08	27,407	5.94	23,581	5.15
Individualized Aid								
Non-Embedded Supports—Bilingual Dictionary	7,139	1.51	5,558	1.20	4,491	0.97	4,026	0.88
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Math Tools	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	2,754	0.58	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	23,414	4.94	27,735	5.97	30,230	6.55	27,945	6.11
Designated support or accommodation is in Section 504 plan	495	0.10	673	0.14	784	0.17	654	0.14

Table 2.B.16 Special Services Summary for Mathematics, Grades Seven through Eleven—All Tested

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded Supports—American Sign Language	205	0.05	245	0.05	206	0.05
Embedded Supports—Braille	9	0.00	13	0.00	6	0.00
Embedded Supports—Streamlining	680	0.15	672	0.15	438	0.10
Non-Embedded Supports—Abacus	41	0.01	62	0.01	17	0.00
Non-Embedded Supports—Alternate Response Options	201	0.04	211	0.05	107	0.03
Non-Embedded Supports—Calculator	6,884	1.53	6,882	1.52	5,154	1.23
Non-Embedded Supports—Multiplication Table	7,927	1.76	7,098	1.57	1,835	0.44
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Designated Supports						
Embedded Supports—Color Contrast	18,534	4.12	17,486	3.87	10,842	2.58
Embedded Supports—Masking	3,873	0.86	3,600	0.80	4,898	1.17
Embedded Supports—Permissive Mode	309	0.07	280	0.06	157	0.04
Embedded Supports—Text-to-Speech	16,391	3.64	14,940	3.31	10,411	2.48
Embedded Supports—Translated Test Directions	3,815	0.85	3,315	0.73	3,019	0.72
Embedded Supports—Translations (Glossary)	23,850	5.30	22,218	4.92	15,334	3.66
Embedded Supports—Translations (Stacked)	23,953	5.32	22,817	5.05	15,109	3.60
Embedded Supports—Turn off Any Universal Tool	7	0.00	10	0.00	2	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	572	0.13	565	0.13	411	0.10
Non-Embedded Supports—Color Overlay	214	0.05	161	0.04	243	0.06
Non-Embedded Supports—Magnification	651	0.14	584	0.13	490	0.12
Non-Embedded Supports—Noise Buffers	1,176	0.26	975	0.22	517	0.12
Non-Embedded Supports—Read Aloud	6,283	1.39	5,794	1.28	2,779	0.66
Non-Embedded Supports—Scribe	472	0.10	390	0.09	267	0.06
Non-Embedded Supports—Separate Setting	12,934	2.87	12,145	2.69	8,469	2.02
Non-Embedded Supports—Special Lighting or Acoustics	89	0.02	73	0.02	142	0.03
Non-Embedded Supports—Translated Test Directions	1,716	0.38	1,653	0.37	1,861	0.44
Non-Embedded Supports—Translations (Glossary)	20,173	4.48	18,923	4.19	12,075	2.88
Individualized Aid						
Non-Embedded Supports—Bilingual Dictionary	3,819	0.85	3,539	0.78	3,474	0.83
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Math Tools	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	24,752	5.50	23,800	5.27	14,420	3.44
Designated support or accommodation is in Section 504 plan	595	0.13	706	0.16	513	0.12

Table 2.B.17 Special Services Summary for Mathematics, Grades Three through Six—Students Not in Special Education

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded Supports—American Sign Language	10	0.00	17	0.00	7	0.00	4	0.00
Embedded Supports—Braille	2	0.00	0	0.00	2	0.00	1	0.00
Embedded Supports—Streamlining	112	0.03	107	0.03	78	0.02	105	0.03
Non-Embedded Supports—Abacus	16	0.00	10	0.00	13	0.00	6	0.00
Non-Embedded Supports—Alternate Response Options	20	0.00	11	0.00	17	0.00	15	0.00
Non-Embedded Supports—Calculator	344	0.08	343	0.08	428	0.10	541	0.13
Non-Embedded Supports—Multiplication Table	N/A	N/A	868	0.21	812	0.20	694	0.17
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Embedded Supports—Color Contrast	12,324	2.87	9,963	2.40	8,335	2.03	6,385	1.56
Embedded Supports—Masking	1,562	0.36	1,405	0.34	1,078	0.26	848	0.21
Embedded Supports—Permissive Mode	202	0.05	152	0.04	149	0.04	152	0.04
Embedded Supports—Text-to-Speech	16,037	3.73	12,624	3.04	10,648	2.59	7,723	1.88
Embedded Supports—Translated Test Directions	5,487	1.28	4,074	0.98	3,156	0.77	2,989	0.73
Embedded Supports—Translations (Glossary)	24,203	5.64	18,299	4.40	15,070	3.66	11,527	2.81
Embedded Supports—Translations (Stacked)	15,805	3.68	13,298	3.20	11,194	2.72	8,633	2.10
Embedded Supports—Turn off Any Universal Tool	1	0.00	0	0.00	2	0.00	0	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	82	0.02	83	0.02	108	0.03	120	0.03
Non-Embedded Supports—Color Overlay	46	0.01	38	0.01	65	0.02	94	0.02
Non-Embedded Supports—Magnification	138	0.03	135	0.03	151	0.04	81	0.02
Non-Embedded Supports—Noise Buffers	538	0.13	387	0.09	366	0.09	251	0.06
Non-Embedded Supports—Read Aloud	2,498	0.58	1,897	0.46	1,613	0.39	1,008	0.25
Non-Embedded Supports—Scribe	191	0.04	171	0.04	117	0.03	76	0.02
Non-Embedded Supports—Separate Setting	3,296	0.77	3,028	0.73	2,711	0.66	2,054	0.50
Non-Embedded Supports—Special Lighting or Acoustics	18	0.00	18	0.00	29	0.01	62	0.02
Non-Embedded Supports—Translated Test Directions	2,168	0.50	1,832	0.44	1,567	0.38	1,399	0.34
Non-Embedded Supports—Translations (Glossary)	14,726	3.43	11,792	2.84	9,769	2.38	7,628	1.86
Individualized Aid								
Non-Embedded Supports—Bilingual Dictionary	6,479	1.51	4,909	1.18	3,888	0.95	3,303	0.81
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Math Tools	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	327	0.08	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00	1	0.00
Designated support or accommodation is in Section 504 plan	370	0.09	491	0.12	589	0.14	510	0.12

Table 2.B.18 Special Services Summary for Mathematics, Grades Seven through Eleven—Students Not in Special Education

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded Supports—American Sign Language	16	0.00	12	0.00	8	0.00
Embedded Supports—Braille	0	0.00	0	0.00	2	0.00
Embedded Supports—Streamlining	69	0.02	50	0.01	104	0.03
Non-Embedded Supports—Abacus	2	0.00	2	0.00	0	0.00
Non-Embedded Supports—Alternate Response Options	6	0.00	6	0.00	6	0.00
Non-Embedded Supports—Calculator	477	0.12	445	0.11	300	0.08
Non-Embedded Supports—Multiplication Table	519	0.13	408	0.10	136	0.04
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Designated Supports						
Embedded Supports—Color Contrast	5,319	1.31	4,730	1.16	4,916	1.27
Embedded Supports—Masking	911	0.22	735	0.18	3,455	0.90
Embedded Supports—Permissive Mode	113	0.03	86	0.02	47	0.01
Embedded Supports—Text-to-Speech	5,017	1.24	4,534	1.11	6,568	1.70
Embedded Supports—Translated Test Directions	2,894	0.71	2,626	0.64	2,308	0.60
Embedded Supports—Translations (Glossary)	10,005	2.47	8,884	2.18	8,825	2.29
Embedded Supports—Translations (Stacked)	7,139	1.76	6,421	1.57	6,129	1.59
Embedded Supports—Turn off Any Universal Tool	0	0.00	0	0.00	1	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	74	0.02	66	0.02	85	0.02
Non-Embedded Supports—Color Overlay	37	0.01	22	0.01	70	0.02
Non-Embedded Supports—Magnification	50	0.01	34	0.01	94	0.02
Non-Embedded Supports—Noise Buffers	183	0.05	108	0.03	88	0.02
Non-Embedded Supports—Read Aloud	730	0.18	640	0.16	579	0.15
Non-Embedded Supports—Scribe	60	0.01	51	0.01	83	0.02
Non-Embedded Supports—Separate Setting	1,685	0.42	1,536	0.38	1,267	0.33
Non-Embedded Supports—Special Lighting or Acoustics	8	0.00	5	0.00	28	0.01
Non-Embedded Supports—Translated Test Directions	1,451	0.36	1,413	0.35	1,526	0.40
Non-Embedded Supports—Translations (Glossary)	6,638	1.64	5,881	1.44	5,963	1.55
Individualized Aid						
Non-Embedded Supports—Bilingual Dictionary	3,233	0.80	3,063	0.75	3,020	0.78
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Math Tools	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	463	0.11	569	0.14	445	0.12

Table 2.B.19 Special Services Summary for Mathematics, Grades Three through Six—Students in Special Education

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded Supports—American Sign Language	146	0.33	152	0.31	150	0.30	190	0.40
Embedded Supports—Braille	5	0.01	7	0.01	5	0.01	13	0.03
Embedded Supports—Streamlining	662	1.48	806	1.65	903	1.79	615	1.30
Non-Embedded Supports—Abacus	182	0.41	153	0.31	156	0.31	99	0.21
Non-Embedded Supports—Alternate Response Options	199	0.44	243	0.50	244	0.48	238	0.50
Non-Embedded Supports—Calculator	1,997	4.45	3,372	6.92	4,630	9.18	6,230	13.15
Non-Embedded Supports—Multiplication Table	N/A	N/A	9,599	19.70	10,965	21.74	9,801	20.69
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Embedded Supports—Color Contrast	13,811	30.80	16,265	33.38	17,457	34.62	15,730	33.21
Embedded Supports—Masking	2,713	6.05	3,586	7.36	3,808	7.55	3,253	6.87
Embedded Supports—Permissive Mode	263	0.59	290	0.60	333	0.66	279	0.59
Embedded Supports—Text-to-Speech	12,944	28.87	15,008	30.80	15,889	31.51	14,742	31.12
Embedded Supports—Translated Test Directions	855	1.91	905	1.86	928	1.84	1,007	2.13
Embedded Supports—Translations (Glossary)	14,492	32.32	16,931	34.74	18,041	35.78	16,393	34.61
Embedded Supports—Translations (Stacked)	16,874	37.63	19,688	40.40	21,228	42.10	19,440	41.04
Embedded Supports—Turn off Any Universal Tool	5	0.01	6	0.01	4	0.01	9	0.02
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	536	1.20	723	1.48	709	1.41	629	1.33
Non-Embedded Supports—Color Overlay	253	0.56	337	0.69	334	0.66	298	0.63
Non-Embedded Supports—Magnification	573	1.28	726	1.49	734	1.46	632	1.33
Non-Embedded Supports—Noise Buffers	1,807	4.03	2,015	4.13	2,305	4.57	1,484	3.13
Non-Embedded Supports—Read Aloud	7,856	17.52	9,150	18.78	10,015	19.86	7,178	15.15
Non-Embedded Supports—Scribe	828	1.85	903	1.85	819	1.62	567	1.20
Non-Embedded Supports—Separate Setting	10,520	23.46	12,550	25.75	13,895	27.55	12,094	25.53
Non-Embedded Supports—Special Lighting or Acoustics	131	0.29	138	0.28	153	0.30	113	0.24
Non-Embedded Supports—Translated Test Directions	284	0.63	323	0.66	284	0.56	283	0.60
Non-Embedded Supports—Translations (Glossary)	14,036	31.30	16,426	33.71	17,638	34.98	15,953	33.68
Individualized Aid								
Non-Embedded Supports—Bilingual Dictionary	660	1.47	649	1.33	603	1.20	723	1.53
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Math Tools	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	2,427	5.41	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	23,414	52.21	27,735	56.91	30,230	59.95	27,944	58.99
Designated support or accommodation is in Section 504 plan	125	0.28	182	0.37	195	0.39	144	0.30

Table 2.B.20 Special Services Summary for Mathematics, Grades Seven through Eleven—Students in Special Education

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded Supports—American Sign Language	189	0.42	233	0.53	198	0.58
Embedded Supports—Braille	9	0.02	13	0.03	4	0.01
Embedded Supports—Streamlining	611	1.36	622	1.41	334	0.98
Non-Embedded Supports—Abacus	39	0.09	60	0.14	17	0.05
Non-Embedded Supports—Alternate Response Options	195	0.43	205	0.46	101	0.30
Non-Embedded Supports—Calculator	6,407	14.24	6,437	14.55	4,854	14.31
Non-Embedded Supports—Multiplication Table	7,408	16.46	6,690	15.12	1,699	5.01
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Designated Supports						
Embedded Supports—Color Contrast	13,215	29.37	12,756	28.84	5,926	17.47
Embedded Supports—Masking	2,962	6.58	2,865	6.48	1,443	4.25
Embedded Supports—Permissive Mode	196	0.44	194	0.44	110	0.32
Embedded Supports—Text-to-Speech	11,374	25.28	10,406	23.52	3,843	11.33
Embedded Supports—Translated Test Directions	921	2.05	689	1.56	711	2.10
Embedded Supports—Translations (Glossary)	13,845	30.77	13,334	30.14	6,509	19.19
Embedded Supports—Translations (Stacked)	16,814	37.37	16,396	37.06	8,980	26.48
Embedded Supports—Turn off Any Universal Tool	7	0.02	10	0.02	1	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	498	1.11	499	1.13	326	0.96
Non-Embedded Supports—Color Overlay	177	0.39	139	0.31	173	0.51
Non-Embedded Supports—Magnification	601	1.34	550	1.24	396	1.17
Non-Embedded Supports—Noise Buffers	993	2.21	867	1.96	429	1.26
Non-Embedded Supports—Read Aloud	5,553	12.34	5,154	11.65	2,200	6.49
Non-Embedded Supports—Scribe	412	0.92	339	0.77	184	0.54
Non-Embedded Supports—Separate Setting	11,249	25.00	10,609	23.98	7,202	21.24
Non-Embedded Supports—Special Lighting or Acoustics	81	0.18	68	0.15	114	0.34
Non-Embedded Supports—Translated Test Directions	265	0.59	240	0.54	335	0.99
Non-Embedded Supports—Translations (Glossary)	13,535	30.08	13,042	29.48	6,112	18.02
Individualized Aid						
Non-Embedded Supports—Bilingual Dictionary	586	1.30	476	1.08	454	1.34
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Math Tools	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	24,752	55.01	23,800	53.80	14,420	42.52
Designated support or accommodation is in Section 504 plan	132	0.29	137	0.31	68	0.20

Table 2.B.21 Special Services Summary for Mathematics, Grades Three through Six—English-Only Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded Supports—American Sign Language	110	0.04	114	0.04	103	0.04	143	0.06
Embedded Supports—Braille	3	0.00	6	0.00	3	0.00	7	0.00
Embedded Supports—Streamlining	424	0.16	496	0.19	515	0.20	404	0.16
Non-Embedded Supports—Abacus	96	0.04	85	0.03	82	0.03	55	0.02
Non-Embedded Supports—Alternate Response Options	138	0.05	156	0.06	139	0.05	146	0.06
Non-Embedded Supports—Calculator	1,334	0.49	2,114	0.81	2,853	1.11	3,948	1.56
Non-Embedded Supports—Multiplication Table	N/A	N/A	5,988	2.29	6,635	2.58	6,068	2.40
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Embedded Supports—Color Contrast	12,013	4.44	12,552	4.80	12,714	4.94	10,693	4.23
Embedded Supports—Masking	2,419	0.89	2,874	1.10	2,818	1.10	2,283	0.90
Embedded Supports—Permissive Mode	264	0.10	259	0.10	296	0.12	269	0.11
Embedded Supports—Text-to-Speech	11,373	4.20	11,420	4.37	11,245	4.37	9,926	3.92
Embedded Supports—Translated Test Directions	448	0.17	435	0.17	395	0.15	362	0.14
Embedded Supports—Translations (Glossary)	12,192	4.51	12,667	4.85	12,828	4.99	10,808	4.27
Embedded Supports—Translations (Stacked)	14,698	5.43	15,343	5.87	15,700	6.10	13,362	5.28
Embedded Supports—Turn off Any Universal Tool	5	0.00	3	0.00	2	0.00	3	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	391	0.14	474	0.18	447	0.17	426	0.17
Non-Embedded Supports—Color Overlay	198	0.07	220	0.08	202	0.08	233	0.09
Non-Embedded Supports—Magnification	395	0.15	529	0.20	518	0.20	399	0.16
Non-Embedded Supports—Noise Buffers	1,352	0.50	1,396	0.53	1,485	0.58	1,002	0.40
Non-Embedded Supports—Read Aloud	5,197	1.92	5,741	2.20	6,148	2.39	4,073	1.61
Non-Embedded Supports—Scribe	690	0.26	689	0.26	631	0.25	395	0.16
Non-Embedded Supports—Separate Setting	7,725	2.86	8,886	3.40	9,415	3.66	8,153	3.22
Non-Embedded Supports—Special Lighting or Acoustics	87	0.03	95	0.04	108	0.04	98	0.04
Non-Embedded Supports—Translated Test Directions	208	0.08	179	0.07	171	0.07	135	0.05
Non-Embedded Supports—Translations (Glossary)	12,023	4.45	12,486	4.78	12,676	4.93	10,764	4.25
Individualized Aid								
Non-Embedded Supports—Bilingual Dictionary	206	0.08	198	0.08	118	0.05	100	0.04
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Math Tools	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	1,627	0.60	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	13,509	4.99	15,838	6.06	17,123	6.66	15,824	6.25
Designated support or accommodation is in Section 504 plan	355	0.13	504	0.19	636	0.25	508	0.20

Table 2.B.22 Special Services Summary for Mathematics, Grades Seven through Eleven—English-Only Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded Supports—American Sign Language	133	0.05	177	0.07	159	0.07
Embedded Supports—Braille	5	0.00	2	0.00	3	0.00
Embedded Supports—Streamlining	373	0.15	368	0.15	299	0.13
Non-Embedded Supports—Abacus	20	0.01	32	0.01	12	0.01
Non-Embedded Supports—Alternate Response Options	129	0.05	133	0.05	69	0.03
Non-Embedded Supports—Calculator	4,042	1.64	4,049	1.65	3,023	1.31
Non-Embedded Supports—Multiplication Table	4,646	1.88	4,101	1.67	1033	0.45
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Designated Supports						
Embedded Supports—Color Contrast	8,904	3.61	8,357	3.40	4,652	2.02
Embedded Supports—Masking	2,194	0.89	2,021	0.82	2,195	0.95
Embedded Supports—Permissive Mode	187	0.08	191	0.08	98	0.04
Embedded Supports—Text-to-Speech	7,282	2.95	6,577	2.67	4,363	1.89
Embedded Supports—Translated Test Directions	338	0.14	245	0.10	293	0.13
Embedded Supports—Translations (Glossary)	9,044	3.67	8,482	3.45	4,569	1.98
Embedded Supports—Translations (Stacked)	11,496	4.66	11,019	4.48	6,622	2.88
Embedded Supports—Turn off Any Universal Tool	3	0.00	2	0.00	1	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	301	0.12	323	0.13	219	0.10
Non-Embedded Supports—Color Overlay	107	0.04	101	0.04	141	0.06
Non-Embedded Supports—Magnification	358	0.15	344	0.14	282	0.12
Non-Embedded Supports—Noise Buffers	705	0.29	595	0.24	317	0.14
Non-Embedded Supports—Read Aloud	3,180	1.29	2,855	1.16	1,233	0.54
Non-Embedded Supports—Scribe	298	0.12	254	0.10	125	0.05
Non-Embedded Supports—Separate Setting	7,404	3.00	7,007	2.85	4,787	2.08
Non-Embedded Supports—Special Lighting or Acoustics	53	0.02	44	0.02	83	0.04
Non-Embedded Supports—Translated Test Directions	101	0.04	99	0.04	190	0.08
Non-Embedded Supports—Translations (Glossary)	9,016	3.66	8,444	3.43	4,436	1.93
Individualized Aid						
Non-Embedded Supports—Bilingual Dictionary	73	0.03	51	0.02	49	0.02
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Math Tools	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	13,970	5.67	13,445	5.47	8,289	3.60
Designated support or accommodation is in Section 504 plan	460	0.19	578	0.24	427	0.19

Table 2.B.23 Special Services Summary for Mathematics, Grades Three through Six—I-FEP Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded Supports—American Sign Language	6	0.03	7	0.04	3	0.01	7	0.03
Embedded Supports—Braille	0	0.00	0	0.00	0	0.00	1	0.00
Embedded Supports—Streamlining	6	0.03	11	0.06	17	0.08	9	0.04
Non-Embedded Supports—Abacus	5	0.03	0	0.00	3	0.01	1	0.00
Non-Embedded Supports—Alternate Response Options	0	0.00	1	0.01	1	0.00	6	0.03
Non-Embedded Supports—Calculator	9	0.05	24	0.13	48	0.24	79	0.37
Non-Embedded Supports—Multiplication Table	N/A	N/A	79	0.44	113	0.56	112	0.52
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Embedded Supports—Color Contrast	424	2.34	347	1.91	426	2.10	308	1.43
Embedded Supports—Masking	52	0.29	53	0.29	69	0.34	43	0.20
Embedded Supports—Permissive Mode	1	0.01	4	0.02	3	0.01	6	0.03
Embedded Supports—Text-to-Speech	284	1.57	242	1.33	333	1.65	251	1.17
Embedded Supports—Translated Test Directions	34	0.19	31	0.17	33	0.16	14	0.07
Embedded Supports—Translations (Glossary)	464	2.56	382	2.11	463	2.29	344	1.60
Embedded Supports—Translations (Stacked)	461	2.54	405	2.23	493	2.44	365	1.70
Embedded Supports—Turn off Any Universal Tool	0	0.00	0	0.00	0	0.00	1	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	4	0.02	6	0.03	6	0.03	11	0.05
Non-Embedded Supports—Color Overlay	2	0.01	6	0.03	6	0.03	3	0.01
Non-Embedded Supports—Magnification	4	0.02	5	0.03	9	0.04	12	0.06
Non-Embedded Supports—Noise Buffers	36	0.20	38	0.21	44	0.22	29	0.13
Non-Embedded Supports—Read Aloud	89	0.49	78	0.43	140	0.69	92	0.43
Non-Embedded Supports—Scribe	7	0.04	8	0.04	15	0.07	8	0.04
Non-Embedded Supports—Separate Setting	140	0.77	139	0.77	214	1.06	202	0.94
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	3	0.02	3	0.01	2	0.01
Non-Embedded Supports—Translated Test Directions	18	0.10	19	0.10	8	0.04	7	0.03
Non-Embedded Supports—Translations (Glossary)	435	2.40	350	1.93	431	2.13	324	1.51
Individualized Aid								
Non-Embedded Supports—Bilingual Dictionary	51	0.28	35	0.19	24	0.12	31	0.14
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Math Tools	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	17	0.09	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	211	1.16	243	1.34	353	1.74	332	1.54
Designated support or accommodation is in Section 504 plan	10	0.06	15	0.08	16	0.08	10	0.05

Table 2.B.24 Special Services Summary for Mathematics, Grades Seven through Eleven—I-FEP Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded Supports—American Sign Language	5	0.02	4	0.02	2	0.01
Embedded Supports—Braille	0	0.00	1	0.00	0	0.00
Embedded Supports—Streamlining	14	0.07	9	0.04	15	0.04
Non-Embedded Supports—Abacus	3	0.01	2	0.01	1	0.00
Non-Embedded Supports—Alternate Response Options	2	0.01	2	0.01	2	0.01
Non-Embedded Supports—Calculator	68	0.33	96	0.46	139	0.39
Non-Embedded Supports—Multiplication Table	73	0.36	73	0.35	40	0.11
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Designated Supports						
Embedded Supports—Color Contrast	235	1.15	235	1.12	356	0.99
Embedded Supports—Masking	53	0.26	38	0.18	297	0.83
Embedded Supports—Permissive Mode	4	0.02	3	0.01	5	0.01
Embedded Supports—Text-to-Speech	172	0.84	160	0.76	561	1.56
Embedded Supports—Translated Test Directions	18	0.09	19	0.09	49	0.14
Embedded Supports—Translations (Glossary)	273	1.33	279	1.33	386	1.08
Embedded Supports—Translations (Stacked)	287	1.40	295	1.40	417	1.16
Embedded Supports—Turn off Any Universal Tool	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	8	0.04	5	0.02	16	0.04
Non-Embedded Supports—Color Overlay	2	0.01	1	0.00	12	0.03
Non-Embedded Supports—Magnification	9	0.04	5	0.02	21	0.06
Non-Embedded Supports—Noise Buffers	16	0.08	15	0.07	19	0.05
Non-Embedded Supports—Read Aloud	49	0.24	70	0.33	79	0.22
Non-Embedded Supports—Scribe	3	0.01	6	0.03	4	0.01
Non-Embedded Supports—Separate Setting	153	0.75	171	0.81	247	0.69
Non-Embedded Supports—Special Lighting or Acoustics	2	0.01	2	0.01	1	0.00
Non-Embedded Supports—Translated Test Directions	3	0.01	8	0.04	15	0.04
Non-Embedded Supports—Translations (Glossary)	250	1.22	257	1.22	328	0.91
Individualized Aid						
Non-Embedded Supports—Bilingual Dictionary	25	0.12	25	0.12	24	0.07
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Math Tools	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	252	1.23	309	1.47	403	1.12
Designated support or accommodation is in Section 504 plan	17	0.08	12	0.06	15	0.04

Table 2.B.25 Special Services Summary for Mathematics, Grades Three through Six—EL Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded Supports—American Sign Language	39	0.03	42	0.03	43	0.04	37	0.05
Embedded Supports—Braille	3	0.00	1	0.00	1	0.00	5	0.01
Embedded Supports—Streamlining	335	0.22	398	0.33	428	0.42	260	0.34
Non-Embedded Supports—Abacus	95	0.06	74	0.06	80	0.08	39	0.05
Non-Embedded Supports—Alternate Response Options	79	0.05	88	0.07	114	0.11	87	0.11
Non-Embedded Supports—Calculator	967	0.63	1,537	1.26	2,051	2.02	2,492	3.21
Non-Embedded Supports—Multiplication Table	N/A	N/A	4,268	3.51	4,774	4.69	3,922	5.06
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Embedded Supports—Color Contrast	12,977	8.49	12,317	10.13	11,306	11.11	9,383	12.11
Embedded Supports—Masking	1,736	1.14	1,911	1.57	1,854	1.82	1,522	1.96
Embedded Supports—Permissive Mode	193	0.13	169	0.14	171	0.17	130	0.17
Embedded Supports—Text-to-Speech	16,627	10.88	14,880	12.24	13,427	13.20	10,310	13.30
Embedded Supports—Translated Test Directions	5,616	3.67	4,149	3.41	3,304	3.25	3,212	4.14
Embedded Supports—Translations (Glossary)	24,538	16.05	20,355	16.75	17,721	17.42	14,557	18.78
Embedded Supports—Translations (Stacked)	16,672	10.91	16,005	13.17	14,579	14.33	12,256	15.81
Embedded Supports—Turn off Any Universal Tool	0	0.00	3	0.00	1	0.00	4	0.01
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	217	0.14	306	0.25	348	0.34	273	0.35
Non-Embedded Supports—Color Overlay	99	0.06	141	0.12	184	0.18	129	0.17
Non-Embedded Supports—Magnification	292	0.19	301	0.25	328	0.32	255	0.33
Non-Embedded Supports—Noise Buffers	904	0.59	919	0.76	1,038	1.02	598	0.77
Non-Embedded Supports—Read Aloud	4,979	3.26	5,071	4.17	5,025	4.94	3,635	4.69
Non-Embedded Supports—Scribe	308	0.20	353	0.29	267	0.26	212	0.27
Non-Embedded Supports—Separate Setting	5,671	3.71	6,180	5.08	6,387	6.28	5,046	6.51
Non-Embedded Supports—Special Lighting or Acoustics	56	0.04	50	0.04	62	0.06	45	0.06
Non-Embedded Supports—Translated Test Directions	2,032	1.33	1,744	1.43	1,415	1.39	1,358	1.75
Non-Embedded Supports—Translations (Glossary)	15,295	10.01	14,040	11.55	12,705	12.49	10,594	13.67
Individualized Aid								
Non-Embedded Supports—Bilingual Dictionary	6,349	4.15	4,933	4.06	3,901	3.83	3,500	4.52
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Math Tools	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	1,087	0.71	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	9,508	6.22	11,246	9.25	12,024	11.82	10,474	13.51
Designated support or accommodation is in Section 504 plan	122	0.08	129	0.11	114	0.11	100	0.13

Table 2.B.26 Special Services Summary for Mathematics, Grades Seven through Eleven—EL Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded Supports—American Sign Language	58	0.09	54	0.09	35	0.09
Embedded Supports—Braille	1	0.00	6	0.01	2	0.01
Embedded Supports—Streamlining	249	0.37	242	0.41	87	0.22
Non-Embedded Supports—Abacus	15	0.02	23	0.04	3	0.01
Non-Embedded Supports—Alternate Response Options	50	0.07	51	0.09	26	0.07
Non-Embedded Supports—Calculator	2,386	3.57	2,232	3.76	1,438	3.62
Non-Embedded Supports—Multiplication Table	2,763	4.13	2,381	4.01	559	1.41
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Designated Supports						
Embedded Supports—Color Contrast	7,712	11.53	7,015	11.81	4,524	11.37
Embedded Supports—Masking	1,333	1.99	1,200	2.02	1,049	2.64
Embedded Supports—Permissive Mode	103	0.15	78	0.13	48	0.12
Embedded Supports—Text-to-Speech	7,315	10.94	6,481	10.91	3,279	8.24
Embedded Supports—Translated Test Directions	3,101	4.64	2,705	4.56	2,415	6.07
Embedded Supports—Translations (Glossary)	12,360	18.48	11,136	18.75	8,366	21.03
Embedded Supports—Translations (Stacked)	10,083	15.08	9,140	15.39	6,324	15.90
Embedded Supports—Turn off Any Universal Tool	1	0.00	5	0.01	1	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	217	0.32	189	0.32	133	0.33
Non-Embedded Supports—Color Overlay	87	0.13	51	0.09	68	0.17
Non-Embedded Supports—Magnification	230	0.34	179	0.30	127	0.32
Non-Embedded Supports—Noise Buffers	352	0.53	287	0.48	119	0.30
Non-Embedded Supports—Read Aloud	2,642	3.95	2,382	4.01	1,210	3.04
Non-Embedded Supports—Scribe	134	0.20	89	0.15	122	0.31
Non-Embedded Supports—Separate Setting	4,401	6.58	3,891	6.55	2,461	6.19
Non-Embedded Supports—Special Lighting or Acoustics	25	0.04	22	0.04	51	0.13
Non-Embedded Supports—Translated Test Directions	1,435	2.15	1,356	2.28	1,491	3.75
Non-Embedded Supports—Translations (Glossary)	8,991	13.45	8,155	13.73	5,908	14.85
Individualized Aid						
Non-Embedded Supports—Bilingual Dictionary	3,401	5.09	3,109	5.24	3,167	7.96
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Math Tools	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	8,800	13.16	7,953	13.39	4,041	10.16
Designated support or accommodation is in Section 504 plan	76	0.11	72	0.12	33	0.08

Table 2.B.27 Special Services Summary for Mathematics, Grades Three through Six—R-FEP Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Embedded Supports—American Sign Language	1	0.00	5	0.01	8	0.01	7	0.01
Embedded Supports—Braille	1	0.00	0	0.00	3	0.00	0	0.00
Embedded Supports—Streamlining	5	0.02	7	0.01	21	0.03	44	0.04
Non-Embedded Supports—Abacus	2	0.01	4	0.01	3	0.00	8	0.01
Non-Embedded Supports—Alternate Response Options	2	0.01	7	0.01	7	0.01	14	0.01
Non-Embedded Supports—Calculator	27	0.09	37	0.06	96	0.12	246	0.24
Non-Embedded Supports—Multiplication Table	N/A	N/A	115	0.19	236	0.29	386	0.37
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Embedded Supports—Color Contrast	473	1.52	822	1.33	1,157	1.43	1,560	1.50
Embedded Supports—Masking	57	0.18	142	0.23	140	0.17	247	0.24
Embedded Supports—Permissive Mode	3	0.01	7	0.01	8	0.01	24	0.02
Embedded Supports—Text-to-Speech	569	1.83	977	1.58	1,447	1.78	1,897	1.82
Embedded Supports—Translated Test Directions	105	0.34	247	0.40	230	0.28	300	0.29
Embedded Supports—Translations (Glossary)	1,197	3.85	1,581	2.55	1,861	2.30	2,003	1.92
Embedded Supports—Translations (Stacked)	559	1.80	1,003	1.62	1,433	1.77	1,898	1.82
Embedded Supports—Turn off Any Universal Tool	1	0.00	0	0.00	3	0.00	0	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	3	0.01	17	0.03	15	0.02	39	0.04
Non-Embedded Supports—Color Overlay	0	0.00	7	0.01	6	0.01	27	0.03
Non-Embedded Supports—Magnification	17	0.05	26	0.04	29	0.04	45	0.04
Non-Embedded Supports—Noise Buffers	45	0.14	45	0.07	99	0.12	104	0.10
Non-Embedded Supports—Read Aloud	54	0.17	129	0.21	280	0.35	364	0.35
Non-Embedded Supports—Scribe	10	0.03	23	0.04	22	0.03	26	0.02
Non-Embedded Supports—Separate Setting	235	0.76	340	0.55	555	0.68	720	0.69
Non-Embedded Supports—Special Lighting or Acoustics	6	0.02	8	0.01	8	0.01	29	0.03
Non-Embedded Supports—Translated Test Directions	109	0.35	151	0.24	189	0.23	105	0.10
Non-Embedded Supports—Translations (Glossary)	730	2.35	1,129	1.82	1,388	1.71	1,708	1.64
Individualized Aid								
Non-Embedded Supports—Bilingual Dictionary	485	1.56	344	0.56	400	0.49	334	0.32
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Math Tools	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	16	0.05	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	169	0.54	387	0.63	713	0.88	1,298	1.25
Designated support or accommodation is in Section 504 plan	6	0.02	25	0.04	16	0.02	34	0.03

Table 2.B.28 Special Services Summary for Mathematics, Grades Seven through Eleven—R-FEP Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Embedded Supports—American Sign Language	9	0.01	10	0.01	8	0.01
Embedded Supports—Braille	3	0.00	4	0.00	1	0.00
Embedded Supports—Streamlining	42	0.04	53	0.04	36	0.03
Non-Embedded Supports—Abacus	3	0.00	5	0.00	1	0.00
Non-Embedded Supports—Alternate Response Options	19	0.02	25	0.02	10	0.01
Non-Embedded Supports—Calculator	375	0.33	497	0.40	553	0.49
Non-Embedded Supports—Multiplication Table	435	0.38	539	0.43	202	0.18
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Designated Supports						
Embedded Supports—Color Contrast	1,468	1.28	1,692	1.36	1,228	1.09
Embedded Supports—Masking	288	0.25	333	0.27	1,353	1.20
Embedded Supports—Permissive Mode	14	0.01	6	0.00	6	0.01
Embedded Supports—Text-to-Speech	1,522	1.32	1,646	1.32	2,176	1.93
Embedded Supports—Translated Test Directions	210	0.18	233	0.19	204	0.18
Embedded Supports—Translations (Glossary)	1,916	1.66	2,097	1.69	1,873	1.67
Embedded Supports—Translations (Stacked)	1,851	1.61	2,158	1.73	1,650	1.47
Embedded Supports—Turn off Any Universal Tool	3	0.00	3	0.00	0	0.00
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	39	0.03	46	0.04	43	0.04
Non-Embedded Supports—Color Overlay	18	0.02	8	0.01	22	0.02
Non-Embedded Supports—Magnification	54	0.05	56	0.05	60	0.05
Non-Embedded Supports—Noise Buffers	99	0.09	77	0.06	62	0.06
Non-Embedded Supports—Read Aloud	375	0.33	467	0.38	249	0.22
Non-Embedded Supports—Scribe	32	0.03	33	0.03	15	0.01
Non-Embedded Supports—Separate Setting	933	0.81	1,050	0.84	958	0.85
Non-Embedded Supports—Special Lighting or Acoustics	9	0.01	5	0.00	7	0.01
Non-Embedded Supports—Translated Test Directions	72	0.06	102	0.08	124	0.11
Non-Embedded Supports—Translations (Glossary)	1,685	1.46	1,869	1.50	1,305	1.16
Individualized Aid						
Non-Embedded Supports—Bilingual Dictionary	238	0.21	269	0.22	183	0.16
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Math Tools	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	1,708	1.48	2,081	1.67	1,683	1.50
Designated support or accommodation is in Section 504 plan	42	0.04	44	0.04	36	0.03

Chapter 3: Item Development

3.1. Background

The Smarter Balanced Assessment Consortium, in coordination with its member states, developed innovative item types and authored items based on the Common Core State Standards. The Consortium used an iterative process involving higher education and kindergarten–12 educators who were trained in item development, content experts, and other participants at various stages in the item development process.

3.2. Additional Information

More information regarding the item development process, item development specifications, and content alignment studies undertaken by Smarter Balanced to produce item types and items for the assessment can be found in Chapter 3 of the *2013–14 Technical Report* (Smarter Balanced, 2015).

Reference

Smarter Balanced Assessment Consortium. (2015). *2013–14 Technical report*. Retrieved from http://www.smarterbalanced.org/wp-content/uploads/2015/08/2013-14_Technical_Report.pdf

Chapter 4: Test Assembly

The Smarter Balanced Summative Assessments were administered operationally as part of the California Assessment of Student Performance and Progress for the first time during the 2014–15 school year. The summative assessments each consist of two parts: a computer adaptive test (CAT) and performance tasks (PT). The Smarter Balanced Summative Assessments are constructed to measure students’ performance relative to Common Core State Standards (CCSS). The assessments are also constructed to produce scores that meet professional standards for reliability and validity of test score interpretation. The content standards and desired psychometric attributes are used as the basis for assembling the test forms.

4.1. Smarter Balanced Adaptive Item Selection Algorithm

This section describes the algorithm and the design for implementation of adaptive item selection for the Smarter Balanced test delivery system. The implementation builds extensively on the algorithm implemented in American Institutes for Research’s (AIR’s) test delivery system.

The general item selection approach is that the next item to be administered to a specific student is chosen on the basis of a function of three variables. The first variable is an index of the importance of the item for meeting the content requirements of the test. The other two variables are values of the item response theory (IRT) item information function in the region of the student’s current ability estimate. One of these information functions is for the student’s total score; the other is for the student’s claim score.

More information about how each of these three measures is defined can be found in the *Smarter Balanced Adaptive Item Selection Algorithm* document (AIR, 2014).

Values for these three measures are calculated to guide and support item selection. A value is computed for whether the item will be selected based on how well that item matches the target content, contributes to overall score information, and contributes to claim score information.

$$\begin{aligned}
 & \textit{Item Selection} \\
 & = w_1 \textit{Content Match} + w_2 \textit{Overall Information} \\
 & + w_3 \textit{Claim Information}
 \end{aligned}
 \tag{4.1}$$

This objective function is used to measure an item’s contribution to each of these objectives. A higher value for “Content Match” means that an item is more important for meeting the content requirements. A higher value for “Overall Information” means that an item contributes more information to the estimation of the student’s current overall ability. A higher value for “Claim Information” means that an item contributes more information for estimating the student’s current claim ability. Weights of these objectives can be adjusted to achieve the desired balance and optimize performance for a given item pool. This algorithm enables users to maximize information subject to the constraint that the blueprint is almost always met, with minimal exceptions.

4.1.1 Content Match

Each item or item group is characterized by its contribution to meeting the blueprint, given the items that have already been administered at any point. The contribution is based on the presence or absence of features specified in the blueprint.

The Smarter Balanced summative test blueprints describe the content of the English language arts/literacy (ELA) and mathematics summative assessments for all grades tested and the means by which that content is assessed. The summative online test blueprints reflect the depth and breadth of the performance expectations of the CCSS.

The test blueprints have information about the number of items and depth of knowledge for items associated with each assessment target. Each test is described by a single blueprint for each claim of the test.

Each blueprint has features referred to as *constraints*. Constraints define features such as the minimum and maximum number of items required in a specific content area. For example, a constraint might require a minimum of four and a maximum of six algebra items. The value of content match is highest for items with content that has not met its minimum constraint, decreases for items representing content for which the minimum number of items has been reached but the maximum has not, and becomes negative for items representing content that has met the maximum.

See the blueprints for the Smarter Balanced ELA and mathematics assessments provided in Appendix 2.A starting on page 19 for additional details.

4.1.2 Information

Every item has an overall information value within the CAT algorithm and an information value for each claim. Details on how information is calculated is provided in equations 7.7 through 7.11 in *7.4.3 Theta Scores Standard Error* starting on page 121.

Items with higher discrimination parameters offer more information and therefore are generally given preference in item selection. Because the overexposure of highly discriminating items is a test security risk, the item selection algorithm includes additional rules to control the exposure of the items that provide the highest measurement information (AIR, 2014).

4.2. Simulation Study

For the CAT, prior to opening the operational testing window, AIR conducts simulations to evaluate and ensure the appropriate implementation and quality of the adaptive item-selection algorithm and the scoring algorithm. The simulation tool allows manipulation of key blueprint and configuration settings to match the blueprint of the test and minimize measurement error. In this simulation study, the adaptive tests are administered in one segment (section) in ELA and mathematics grades three through five and in two segments in mathematics grades six through eight and grade eleven, including calculator and no-calculator segments. Each segment is simulated separately.

In *Smarter Balanced Summative Assessments Testing Procedures for Adaptive Item-Selection Algorithm*, an unpublished report, AIR (2015) presents the results of an examination of the robustness of the item-selection algorithm of the Smarter Balanced CAT administrations in ELA and mathematics for grades three through eight and grade eleven. The information provided by the simulations includes:

- evaluation of the simulation step,
- the percentage of tests aligned with the test blueprints (blueprint match rates),
- the number of targets (subclaims) covered in the simulated forms,

- accuracy of ability estimates indicated by bias and precision of ability estimates indicated by standard error,
- item exposure rates,
- selection of off-grade items and corresponding psychometric properties, and
- exposure rates of embedded field-test items.

The results of AIR's simulation study show the following:

- Across content areas and grade levels, 98 percent or more of the simulated tests covered the test blueprint.
- Scale scores were precisely estimated across the entire scale with the exception of scores near the highest obtainable scale score and the lowest obtainable scale score.
- The vast majority of items were exposed to students less than 20 percent of the time.
- The embedded field test item exposure rates were below one percent.
- Table 4.1 contains characteristics of items students received particular to the content area tests.

Table 4.1 Item Distribution Characteristics

Characteristic	ELA	Mathematics
Received off-grade items	11–55% of students in grades 3–8 only	16–54% of students in grades 4–8 and grade 11
Scored above standard, received above-grade items	4–18% of the students for grades 3–8 only	N/A
Scored as not meeting the standard, received below-grade items	38–50% of students in grades 4, 6, and 7 only	19–54% of students in grades 4–8 and grade 11

AIR concluded that content domain scores were comparable across the grades within the content area with respect to a certain content domain and that scores at various ranges of the score distribution were measured with good precision. The results also demonstrated that global item exposure was controlled to the extent that no items were used too often, off-grade items were administered according to criteria in the test specifications to students who were performing very well or very poorly on the test, and the field-test items were distributed equally across multiple blocks within a test as intended for that grade and content area.

References

American Institutes for Research. (2014). Smarter Balanced adaptive item selection algorithm design report. Retrieved from <http://www.smarterapp.org/>.

American Institutes for Research. (2015). *Smarter Balanced Summative Assessments testing procedures for adaptive item selection algorithm*. Unpublished report.

Chapter 5: Test Administration

This chapter provides an overview of the Smarter Balanced California Assessment of Student Performance and Progress (CAASPP) test administration and includes descriptions of the measures to ensure test security, procedures to maintain standardization, and procedures for implementation of test accommodations based on Standard 7.8 of the *Standards for Educational and Psychological Testing* (American Educational Research Association [AERA], American Psychological Association [APA], & National Council on Measurement in Education [NCME], 2014).

5.1. Test Administration

The window for 2015–16 testing was approximately March 10, 2015, through the end of July 2015. Specific test administration schedules within that window were determined locally pursuant to the *California Code of Regulations*, Title 5 (5 CCR), Sections 855 (b) (1) and 855 (b) (2) and proposed emergency regulations 5 CCR, Sections 855 (a) (1), 855 (a) (2), 855 (b), and 855 (c).

Educational Testing Service (ETS) conducted on-site test administration workshops in various locations throughout California in January and February and produced Webcasts and videos on helpful topics. In addition, ETS provided a number of test administration resources to schools and local educational agencies (LEAs). These resources included detailed information on topics such as technology readiness, test administration, test security, accommodations, using the test delivery system, and general testing rules. These resources are discussed in more detail in the section *Procedures to Maintain Standardization*.

5.1.1 Test Delivery Sections

The test delivery sections correspond to the computer adaptive tests (CATs) and performance task (PT) portions of the assessments. CAT items are delivered dynamically based on the students' performance on the previous items; students typically see many different items, and items seen by any two students may appear in different locations within the test. For a given PT, students see the same items in the same order of presentation and associated test length (See Table 5.A.1 and Table 5.A.2 for the numbers of items in each PT). Since PT items have a classroom-based activity and were organized thematically, they were randomly assigned at the school level.

The distributions of the number of items presented to students for the total test and the CAT and the PT components are presented in Table 5.B.1 through Table 5.B.3. Table 5.B.4 presents the counts and percentages of students administered items who meet the criteria specified in the blueprints, students who do not meet the criteria, and students who exceed the criteria. Criteria for the minimum number of items for each claim that are required in the blueprints are provided in Table 8.1.

5.1.1.1 Computer Adaptive Testing (CAT) Administration

CAT delivered assessments are assembled dynamically to obtain a unique test for each student from a defined item pool so that each student obtains a unique content-conforming test form. Item statistics based on item response theory (IRT) are used to determine the administration and adaptation of test items based on student responses/ability; this information is incorporated into the delivery algorithm. The item selection algorithm is described in more detail in *Smarter Balanced Adaptive Item Selection Algorithm*, which starts on page 76. Item exposure control (e.g., Sympson & Hetter, 1985) can be used to

ensure that uniform rates of item administration are achieved. That is, it is not desirable to have some items presented to many students, while other items are presented to relatively few students.

5.1.1.2 Performance Task (PT) Administration

Delivery of Classroom Activities

LEAs are requested to administer a Classroom Activity before administering PT items in order to introduce students to the context of a PT so they are not disadvantaged in demonstrating the skills the task intends to assess (California Department of Education [CDE], 2015a). A Classroom Activity is assigned by school and grade, and all the grades within a school are assigned to the same Classroom Activity.

Four to six separate PTs are associated with each Classroom Activity. Activities are assigned by ETS prior to testing. LEA CAASPP coordinators are directed to obtain Classroom Activity assignments and the nonsecure PDFs of the Classroom Activities from the program resource Web site at <http://www.caaspp.org/>.

The Classroom Activity and teacher directions on how to form and monitor groups for the classroom component of the PTs help to ensure that no students are disadvantaged simply because of the group to which they are assigned. Group work is not scored but is designed as a means to accomplish such ends as the generation of data, discussion and sharing of information, or role-playing for the purposes of the task. To avoid the possibility of small-group discussions potentially serving to advantage some groups, the teacher directions require the use of standardized scripts to summarize key points that should have come out of the group discussions. Procedures for standardizing the group-work component may vary depending on the task type. Some task steps require teachers to play more than a monitoring role and/or students to perform small-group work.

Teachers and administrators are directed not to assist students during the tests. The permitted types of teacher and peer student interactions for a task are standardized (i.e., carefully scripted and explicitly described in task directions) for the purposes of both fairness and security. Although small-group work may be involved in some part of a Classroom Activity, this work is not scored. Students are informed about the nature of the final product(s) at the beginning of the Classroom Activity task. The task directions include information for the students on what parts of their work are scored.

Delivery of PT Items

Smarter Balanced Assessment Consortium item and task specifications assume online delivery of the items and tasks. Most tasks are long enough to warrant several administration sessions. Such sessions could be same-day, back-to-back sessions with short breaks between sessions. All tasks are administered in controlled classroom settings. Expected time requirements for completing PTs and administration time are provided in subject-specific documentation.

Student directions for all tasks begin with an overview of the entire task that briefly describes the necessary steps. The overview gives students advanced knowledge of the scorable products or performances to be created (Khatti, Reeve, & Kane, 1998). Allowable teacher-student interactions for a task are standardized (i.e., carefully scripted or described in task directions for purposes of comparability, fairness, and security). Teachers are directed not to assist students in the production of their scorable products or presentations.

Table 5.A.1 and Table 5.A.2 present the assignment proportions of each PT and the number of items in each PT.

5.2. Test Security and Confidentiality

All tests within the CAASPP System as well as the confidentiality of student information should be protected to ensure the validity, reliability, and fairness of the results. As stated in *Standard 7.9* (AERA, APA, & NCME), “The documentation should explain the steps necessary to protect test materials and to prevent inappropriate exchange of information during the test administration session” (p. 128). This section describes the measures intended to prevent potential test security incidents prior to testing and the actions that were taken to handle actual security incidents during or after testing.

For the Smarter Balanced Online Summative Assessment administration, every person who works with the assessments, communicates test results, and/or receives testing information is responsible for maintaining the security and confidentiality of the tests, including CDE staff, ETS staff, ETS subcontractors, LEA assessment coordinators, school assessment coordinators, students, parents, teachers, and cooperative educational service agency staff. ETS’s Code of Ethics requires that all test information, including tangible materials (such as test items), confidential files (such as those containing personally identifiable student information), processes related to test administration (such as the configurations of secure servers), and activities are kept secure. ETS has systems in place that maintain tight security for test items and test results, as well as for student data. To ensure security for all the tests that ETS develops or handles, ETS maintains an Office of Testing Integrity (OTI), which is described in the next subsection.

5.2.1 ETS’s Office of Testing Integrity (OTI)

The OTI is a division of ETS that provides quality assurance services for all testing programs managed by ETS; this division resides in the ETS legal department. The Office of Professional Standards Compliance at ETS publishes and maintains *ETS Standards for Quality and Fairness* (2014), which supports the OTI’s goals and activities. The *ETS Standards for Quality and Fairness* provide guidelines to help ETS staff design, develop, and deliver technically sound, fair, and beneficial products and services and help the public and auditors evaluate those products and services.

The OTI’s mission is to:

- Minimize any testing security violations that can impact the fairness of testing,
- Minimize and investigate any security breach that threatens the validity of the interpretation of test scores, and
- Report on security activities.

The OTI helps prevent misconduct on the part of students and administrators, detects potential misconduct through empirically established indicators, and resolves situations involving misconduct in a fair and balanced way that reflects the laws and professional standards governing the integrity of testing. In its pursuit of enforcing secure practices, the OTI strives to safeguard the various processes involved in a test development and administration cycle.

5.2.2 Test Delivery

Test security requires accounting for all secure materials—including online summative test items, paper-pencil tests, and student data—before, during, and after each test

administration. The LEA CAASPP coordinator is responsible for keeping all electronic and paper-pencil test materials secure, keeping student information confidential, and making sure the CAASPP test site coordinators and test administrators are properly trained regarding security policies and procedures.

The CAASPP test site coordinator is responsible for mitigating test security incidents at the test site and for reporting incidents to the LEA CAASPP coordinator. If the test site administered paper-pencil tests, the CAASPP test site coordinator is also responsible for the return of any secure materials to the LEA CAASPP coordinator, who, in turn, is responsible for returning any materials to the Scoring and Processing Center.

The test administrator is responsible for reporting testing incidents to the CAASPP test site coordinator and securely destroying printed and digital media for items and/or passages generated by the print-on-demand feature of the test delivery system (TDS) (CDE, 2015a and 2015b).

The following measures ensure the security of CAASPP System assessments:

- LEA CAASPP coordinators and test site coordinators must sign and submit a “CAASPP Test Security Agreement for LEA CAASPP coordinators and CAASPP test site coordinators” form to the California Technical Assistance Center before ETS can grant the coordinators access to the Test Operations Management System (TOMS). (5 CCR, Section 859 [a])
- Anyone having access to the testing materials must sign and submit a “Test Security Affidavit for Test Examiners, Proctors, Translators, Scribes, and Any Other Person Having Access to CAASPP Tests, 2014–2015 School Year” form to the CAASPP test site coordinator before receiving access to any testing materials. (5 CCR, Section 859 [c])

In addition, it is the responsibility of every participant in the CAASPP System to immediately report any violation or suspected violation of test security or confidentiality. The test site coordinator must report to the LEA CAASPP coordinator. The LEA CAASPP coordinator must report to the CDE within 24 hours of the incident. (5 CCR, Section 859 [e])

5.2.3 Security of Electronic Files Using a Firewall

A firewall is software that prevents unauthorized entry to files, e-mail, and other organization-specific information. All ETS data exchanges and internal e-mail remain within the ETS firewall at all ETS locations, ranging from Princeton, New Jersey, to San Antonio, Texas, to Concord and Sacramento, California.

All electronic applications that are included in TOMS remain protected by the ETS firewall software at all times. Due to the sensitive nature of the student information processed by TOMS, the firewall plays a significant role in maintaining an assurance of confidentiality among the users of this information.

See the section on Systems Overview and Functionality on page 6 in Chapter 1 for more information on TOMS.

5.2.4 Transfer of Scores via Secure Data Exchange

Due to the confidential nature of test results, ETS uses secure file transfer protocol (SFTP) and encryption for all data file transfers, including student data files. SFTP is a method for reliable and exclusive routing of files. Files reside on a password-protected server that can be accessed only by authorized users. ETS shares an SFTP server with the CDE. On that

site, ETS posts Microsoft Word and Excel files, Adobe Acrobat PDFs, or other document files for the CDE to review; the CDE returns reviewed materials in the same manner.

ETS enters information about the deliverable in a Web form on a SharePoint Web site when a file has been posted; a CDE staff member checks this log throughout the day to check the status of deliverables and downloads the file from the SFTP server when its status shows it has been posted.

Data are always transmitted to the SFTP server in an encrypted format; test data are never sent via e-mail. The SFTP server is used as a conduit for the transfer of files; secure test data are stored only temporarily on the shared SFTP server.

5.2.5 Data Management

ETS maintains a secure database to house all student demographic data and assessment results. Information associated with each student has a database relationship to the LEA, school, and grade codes as these data are collected during the operational chain of events. Only individuals with the appropriate credentials can access these data. ETS builds all interfaces with the most stringent security considerations, including interfaces with data encryption for databases that store test items and student data. ETS applies best security practices, including system-to-system authentication and authorization, in all solution designs.

In TOMS, staff at LEAs and test sites have different levels of access appropriate to the role assigned to them. For example, a CAASPP test site coordinator would only have access to the data for the students at his or her test site and not the data for students at other schools within the LEA. In this way, personally identifiable student data remains fully secure.

All stored test content and student data are encrypted. Industry-standard secure protocols are used to transfer test content and student data from the ETS internal data center to any external systems. ETS complies with the Family Educational Rights and Privacy Act and the Children's Online Privacy Protection Act.

5.2.6 Statistical Analysis

The information technology staff at ETS retrieves data files from the American Institutes for Research and loads them into a database. The ETS Data Quality Services staff extracts the data from the database and performs quality control procedures before passing files to the ETS statistical analysis group. The statistical analysis staff store the files on secure servers. All staff members involved with the data adhere to the ETS Code of Ethics and the ETS Information Protection Policies to prevent any unauthorized access to data.

5.2.7 Student Confidentiality

To meet Elementary and Secondary Education Act (and now the Every Student Succeeds Act) and state requirements, LEAs must collect demographic data about students' ethnicity, disabilities, parent/guardian education, and so forth. ETS takes every precaution to prevent any of this information from becoming public or being used for anything other than testing purposes. These procedures are applied to all documents in which student demographic data appears, including the Pre-ID files, reports, and response booklets.

5.2.8 Student Test Results

5.2.8.1 Types of Results

The following deliverables are produced for reporting of the CAASPP Smarter Balanced Summative Assessments:

- Preliminary student reports for online assessments in the Online Reporting System (ORS),
- Preliminary student reports for paper-pencil tests in the ORS,
- Individual student score reports (printed), and
- Internet reports aggregated by content area and state, county, LEA, or test site.

5.2.8.2 Security of Results Files

ETS takes measures to protect files and reports that show students' scores and achievement levels. ETS is committed to safeguarding all secure information in its possession from unauthorized access, disclosure, modification, or destruction. ETS has strict information security policies in place to protect the confidentiality of both student and client data. ETS staff access to production databases is limited to personnel with a business need to access the data. User IDs for production systems must be person-specific or for systems use only.

ETS has implemented network controls for routers, gateways, switches, firewalls, network tier management, and network connectivity. Routers, gateways, and switches represent points of access between networks. However, these do not contain mass storage or represent points of vulnerability, particularly for unauthorized access or denial of service.

ETS has many facilities, policies, and procedures to protect computer files. Software and procedures such as firewalls, intrusion detection, and virus control are in place to provide for physical security, data security, and disaster recovery. ETS is certified in the BS 25999-2 standard for business continuity and conducts disaster recovery exercises annually. ETS routinely backs up all data to either disks through deduplication or to tapes, all of which are stored off site.

Access to the ETS Computer Processing Center is controlled by employee and visitor identification badges. The Center is secured by doors that can only be unlocked by the badges of personnel who have functional responsibilities within its secure perimeter. Authorized personnel accompany visitors to the ETS Computer Processing Center at all times. Extensive smoke detection and alarm systems, as well as a pre-action fire-control system, are installed in the Center.

5.2.8.3 Security of Individual Results

ETS protects individual students' results on both electronic files and paper reports during the following events:

- Scoring
- Transfer of scores by means of secure data exchange
- Reporting
- Analysis and reporting of erasure marks
- Posting of aggregate data
- Storage

In addition to protecting the confidentiality of testing materials, ETS's Code of Ethics further prohibits ETS employees from financial misuse, conflicts of interest, and unauthorized appropriation of ETS property and resources. Specific rules are also given to ETS employees and their immediate families who may take a test developed by ETS (e.g., a CAASPP assessment). ETS OTI verifies that these standards are followed throughout ETS.

This verification is conducted, in part, by periodic onsite security audits of departments, with follow-up reports containing recommendations for improvement.

5.2.9 Test Security Incidents

Test security incidents, such as improprieties, irregularities, and breaches, are prohibited behaviors that give a student an unfair advantage or compromise the secure administration of the tests, which, in turn, compromises the reliability and validity of test results (CDE, 2015a). Test security incidents have impacts on scoring and affect student's performance on the test.

5.2.9.1 Impropriety

A testing impropriety is an unusual circumstance that has a low impact on the individual or group of students who are testing and has a low risk of potentially affecting student performance on the test, test security, or test validity. An impropriety can be corrected and contained at a local level; should an appeal be required, an LEA coordinator could report the incident using a form that was faxed to the CDE.

Improprieties are escalated within 24 hours of the incident by individual LEAs.

5.2.9.2 Irregularity

A testing irregularity is an unusual circumstance that impacts an individual or a group of students who are testing and may potentially affect student performance on the test—for example, a test security breach or an invalid score interpretation. An irregularity must be reported to the LEA CAASPP coordinator or CAASPP test site coordinator, who then reports the irregularity using a form that was faxed to the CDE.

Irregularities must be escalated by the end of the day of the incident to the CDE.

5.2.9.3 Breach

A testing breach is an event that poses the greatest threat to the validity of the interpretation of test scores (e.g., the release of secure materials). A testing breach has implications for the Smarter Balanced Assessment Consortium and may result in a Consortium decision to remove the test items from the available item bank.

A breach must be immediately escalated by telephone to the CDE by the LEA CAASPP coordinator.

5.2.10 Appeals

For incidents that result in a need to reset, reopen, invalidate, or restore individual online student assessments, the request must be approved by the CDE. In most instances, an appeal will be submitted to address a test security breach or irregularity. The LEA CAASPP coordinator or CAASPP test site coordinator may submit appeals in TOMS. All submitted appeals are available for retrieval and review by the appropriate credentialed users within a given organization. However, the view of appeals will be restricted according to the user role as established in TOMS (CDE, 2015j).

5.3. Processing and Scoring

The constructed response (CR) data and the TDS-scored data for tests completed by students in a given day flow from the TDS to ETS. The TDS is capable of scoring a variety of item types referred to as “machine-scored” items, which are described in subsection *Approach to Scoring Item Responses*. Outcomes of CR items are scored by artificial intelligence or by human scoring. Depending on the grade level, human-scored CR items

are flowed to either ETS or Measurement Incorporated (MI). Table 5.1 shows the scoring process assignments for ETS and MI, by content area and grade.

Table 5.1 Performance Task and CR Scoring by Content Area and Grade

	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
ELA	ETS	ETS	ETS	MI	MI	MI	ETS
Mathematics	MI	MI	MI	ETS	ETS	ETS	ETS

Targeted efforts are made to recruit California educators for participation as raters in the human scoring portion of the Smarter Balanced assessments. Raters are certified based on their ability to use a rubric and accurately score sample responses. Once approved, raters are trained to access the MI and ETS scoring interfaces, Smarter Balanced-specific scoring policies and procedures, as well as interactive training to practice scoring sample responses with feedback from the scoring leader.

Raters work in shifts and are supervised by a scoring leader who has received special training in scoring and monitoring. Raters are provided Smarter Balanced materials to aid scoring; these materials include anchor sets, scoring rubrics, validity samples, qualifying sets, and condition codes (See section *Rater Training* on page 106 for the definitions of these materials). A scoring leader gives direct feedback to raters for additional content support. Scoring of California student responses is given priority routing to raters who are California-based educators.

5.4. Procedures to Maintain Standardization

The procedures are designed so that the tests are administered and scored in a standardized manner. ETS takes all necessary measures to ensure the standardization of test administration, as described in this section. See also section *10.4 Test Administration* for additional information about administration of the CAASPP Smarter Balanced paper-pencil tests.

5.4.1 LEA CAASPP Coordinator

An LEA CAASPP coordinator is designated by the district superintendent at the beginning of the 2014–15 school year. LEAs include public school districts, statewide benefit charter schools, state board-authorized charter schools, county office of education programs, and charter schools testing independently from their home district.

LEA CAASPP coordinators are responsible for ensuring the proper and consistent administration of the CAASPP assessments. In addition to the responsibilities set forth in 5 CCR Section 857, their responsibilities include the following activities:

- Add CAASPP test site coordinators and test administrators into TOMS.
- Train CAASPP test site coordinators and test administrators regarding the state and Smarter Balanced assessment administration as well as security policies and procedures.
- Report test security incidents (including testing irregularities) to the CDE.
- Oversee test administration activities.
- Print out checklists for CAASPP test site coordinators and test administrators to review in preparation for administering the summative assessments.
- Distribute and collect scorable and nonscorable materials for students who take paper-pencil tests.

5.4.2 CAASPP Test Site Coordinator

A CAASPP test site coordinator is designated by the LEA CAASPP coordinator or district superintendent for each test site (5 CCR Section 858 [a]). A test site coordinator must be an employee of the LEA and must sign a security agreement.

A test site coordinator is responsible for identifying test administrators and ensuring that they have signed CAASPP Test Security Affidavits (5 CCR Section 850 [w]). CAASPP test site coordinators' duties may comprise the following:

- Add test administrators into TOMS.
- Enter test settings for students.
- Create testing schedules and procedures for a school consistent with state and LEA policies.
- Work with technology staff to ensure secure browsers are installed and any technical issues are resolved.
- Monitor testing progress during the testing window and ensuring all students participate, as appropriate.
- Coordinate and verify the correction of student data errors in the California Longitudinal Pupil Achievement Data System.
- Ensure a student's test session is rescheduled, if necessary.
- Address testing problems.
- Report security incidents.
- Oversee administration activities at a school site.

5.4.3 Test Administrators

Test administrators are identified by CAASPP test site coordinators as individuals who will administer the Smarter Balanced Summative Assessments.

A test administrator must sign a security affidavit (5 CCR Section 850 [w]). A test administrator's duties may comprise the following:

- Ensure the physical conditions of the testing room meet the criteria for a secure test environment.
- Administer the CAASPP assessments.
- Report all test security incidents to the test site coordinator and LEA CAASPP coordinator in a manner consistent with Smarter Balanced, state, and LEA policies.
- View student information prior to testing to ensure that the correct student receives the proper test with appropriate supports and report potential data errors to test site coordinators and LEA CAASPP coordinators.
- Monitor student progress throughout the test session using the test administrator interface (TA Interface).
- Fully comply with all directions provided in the *Directions for Administration for the Smarter Balanced Online Summative Assessments* (CDE, 2015h).

5.4.4 Instructions for Test Administrators

5.4.4.1 Directions for Administration

The *Directions for Administration for the Smarter Balanced Online Summative Assessments* are used by test administrators to administer the Smarter Balanced assessments to students (CDE, 2015b). Test administrators must follow all directions and guidelines and read, word-for-word, the instructions to students in the “SAY” boxes to ensure standardization of test administration. (Note that the “SAY” boxes are also included in the *CAASPP Online Test Administration Manual* [CDE, 2015a].)

5.4.4.2 Additional Information

The *Test Administrator Reference Guide* provides additional information to test administrators regarding the systems involved in testing, including sections on the TDS so they may become familiar with the testing application used by their students (CDE, 2015c).

5.4.4.3 CAASPP Online Test Administration Manual

The *CAASPP Online Test Administration Manual* (CDE, 2015a) contains information and instructions on overall procedures and guidelines for all LEA and test site staff involved in the administration of online assessments. Sections include the following topics:

- Test security
- Responding to testing incidents
- Filing appeals
- Accessibility supports
- General test administration
- Instructions for steps to take before, during, and after testing

Appendixes include definitions of common terms, descriptions of different aspects of the test and systems associated with the test, and checklists of activities for LEA CAASPP coordinators, CAASPP test site coordinators, and test administrators.

5.4.4.4 Test Operations Management System (TOMS) Manuals

TOMS is a Web-based application that allows LEA CAASPP coordinators to set up test administrations, add and manage users, submit online student test settings, and order paper-pencil tests. Each functionality has its own user manual with detailed instructions on how to use TOMS. These manuals include the following:

- **Test Administration Setup**—Allows LEAs to determine and calculate dates for the LEA’s 2014–15 administration of the CAASPP assessments (CDE, 2015d).
- **Adding and Managing Users**—Allows LEA CAASPP coordinators to add CAASPP test site coordinators and test administrators to TOMS so that the designated user can administer, monitor, and manage the online Smarter Balanced summative and interim assessments (CDE, 2015e).
- **Online Student Test Settings**—Allows LEA CAASPP coordinators and CAASPP test site coordinators to configure online test settings so that students receive the assigned accessibility tools and accommodations for the online Smarter Balanced assessments (CDE, 2015f).

- **Student Paper-Pencil Test Registration**—Allows LEA CAASPP coordinators to configure CAASPP paper-pencil test assignments, including paper-pencil versions of the Smarter Balanced assessments for LEAs that are unable to administer the online assessments and which have received prior approval from the CDE (CDE, 2015g).

5.4.4.5 Other System Manuals

Other manuals were created to assist LEA CAASPP coordinators with the other technological components of the CAASPP System and are listed below.

- **Secure Browser Installation Manual**—Provides instructions for installing secure browsers on computers and devices running a supported operating system (CDE, 2015h).
- **Technical Specifications Manual**—Provides information, tools, and recommended configuration details to help technology staff prepare computers to be used for the online CAASPP assessments (CDE, 2015i).
- **Online Testing Appeals User Guide**—Provides information on how to submit an appeal to the CDE to reset, reopen, invalidate, or restore individual online student assessments within TOMS (CDE, 2015j).
- **Braille Requirements for Online Testing**—Provides information about supported hardware and software requirements for administering a test to a student with a braille accommodation using the software Job Access with Speech (JAWS®) tool or a braille embosser (hardware). Students with a braille accommodation are able to take advantage of the adaptive algorithm using the TDS's Enhanced Accessibility Mode and JAWS (CDE, 2015k).

5.5. LEA Training

ETS established and implemented a training plan for LEA assessment staff on all aspects of the assessment program. The CDE and ETS, in collaboration with the CDE Senior Assessment Fellows and other stakeholders as needed, determined the audience, topics, frequency, and mode (in-person, Webcast, videos, modules, etc.) of the training, including such elements as format, participants, and logistics.

ETS conducted 21 workshops and 19 Webcasts for the 2014–15 administration.

Following approval by the CDE, the ancillary materials were posted for each Webcast on the CAASPP Web site at <http://www.caaspp.org> so the LEAs could download the training materials.

5.5.1 In-person Training

ETS also provided a series of in-person trainings. Beginning in January 2015, the first in-person trainings provided were the pretest CAASPP workshops, which focused on training LEA CAASPP coordinators on how to prepare for administering the Smarter Balanced Summative Assessments. At the conclusion of the 2014–15 summative assessment window, in-person post-test training on testing results and reporting were provided. ETS provided in-person trainings at 16 locations throughout California for the pretest workshops and 5 locations for the post-test workshops.

5.5.2 Webcasts

ETS provided a series of live Webcasts that were available for training prior to the availability of the summative assessments as well as for training during the administration. Webcast viewers were provided with a method of electronically submitting questions to the presenters during the Webcast. The Webcasts were recorded and archived for on-demand viewing on the CAASPP Training Videos and Resources Web page at <http://www.caaspp.org/training/caaspp/>. CAASPP Webcasts are available to everyone and require neither preregistration nor a logon account.

5.5.3 Videos and Narrated PowerPoint Presentations

To supplement the live Webcasts and in-person workshops, ETS also produced short “how-to” videos and narrated PowerPoint presentations that were available on the CAASPP Training Videos and Resources Web page. In total, 11 tutorials were produced for the 2014–15 administration year.

5.6. Universal Tools, Designated Supports, and Accommodations for Students with Disabilities

The purpose of universal tools, designated supports, and accommodations in testing is to allow *all* students the opportunity to demonstrate what they know and what they are able to do, rather than giving students with disabilities an advantage over other students or artificially inflating their scores. Universal tools, designated supports, and accommodations minimize or remove barriers that could otherwise prevent students from demonstrating their knowledge, skills, and achievement in a specific content area.

5.6.1 Identification

All public school students participate in the CAASPP System, including students with disabilities and English learners. The Smarter Balanced Assessment Consortium’s *Usability, Accessibility, and Accommodations Guidelines* (Smarter Balanced, 2015) and the CDE’s Matrix One (CDE, 2015l) are intended for school-level personnel and individualized education program (IEP) and Section 504 plan decision-making teams to select and administer the appropriate universal tools, designated supports, and accommodations as deemed necessary for individual students. The *Guidelines* apply to all students and promote an individualized approach to the implementation of assessment practices.

Another manual, the *Smarter Balanced Usability, Accessibility, and Accommodations Implementation Guide* (Smarter Balanced, 2014), provides suggestions for implementation of these supports. Test administrators are given the opportunity to participate in the Smarter Balanced practice and training tests so that students have the opportunity to familiarize themselves with a support or accommodation prior to testing.

5.6.2 Assignment

Once the student’s IEP or Section 504 plan team has decided which accessibility support(s) the student shall use, LEA CAASPP coordinators and CAASPP test site coordinators use TOMS to assign designated supports and accommodations to students prior to the start of a test session.

There are three ways the student’s accessibility support(s) can be assigned:

1. Using the Individual Student Assessment Accessibility Profile Tool to identify the accessibility resource(s) and then uploading the spreadsheet it creates into TOMS;
2. Using the Online Student Test Settings template to enter students' assignments and then uploading the spreadsheet into TOMS; and
3. Entering assignments for each student individually in TOMS.

If a student's IEP or Section 504 plan team identifies and designates a resource not identified in Matrix One, the LEA CAASPP coordinator or CAASPP test site coordinator needs to submit a request for an unlisted resource to be approved by the CDE. The CDE and Smarter Balanced Assessment Consortium then determines if the requested unlisted resource changes the construct being measured after all testing has been completed.

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Appendix 5.A: PT Test Length

Table 5.A.1 Assignment Proportions for ELA

Grade	Proportion	Performance task name	# of items
3	0.36	HEATWAVES	5
3	0.36	LAND FORMATIONS	5
3	0.29	TREES	4
4	0.21	CLASSIFYING VERTEBRATES	4
4	0.26	DESERTS	5
4	0.26	SPIDERS AND INSECTS	5
4	0.26	THUNDERSTORMS	5
5	0.25	POWER OF WATER	5
5	0.25	THE AMERICAN WEST IN THE 1800S	5
5	0.25	VIEW THROUGH A TELESCOPE	5
5	0.25	ZOOS	5
6	0.36	AZTEC EMPIRE	5
6	0.36	GROWTH AND EXPANSION OF AMERICA	5
6	0.29	INVENTIONS	4
7	0.26	EXPLORING THE WORLD	5
7	0.21	INVASIVE SPECIES	4
7	0.26	MONUMENTS	5
7	0.26	RENEWABLE ENERGY SOURCES	5
8	0.24	ADVERTISING	5
8	0.24	FOOD WASTE	5
8	0.24	HOW THE BRAIN WORKS	5
8	0.19	SPACE EXPLORATION	4
8	0.10	THE INTERNET	2
11	0.21	A NEW KIND OF NEWS	5
11	0.17	COMMUNICABLE DISEASES	4
11	0.21	ENVIRONMENTAL AWARENESS	5
11	0.21	INTELLECTUAL PROPERTY	5
11	0.21	POETRY	5

Table 5.A.2 Assignment Proportions for Mathematics

Grade	Proportion	Performance task name	# of items
3	0.22	FITNESS CHALLENGE	4
3	0.33	MAKING SANDWICHES	6
3	0.22	SCHOOL LIBRARY	4
3	0.22	SCIENCE KIT	4
4	0.32	CLASSPET	6
4	0.26	COMMUNITY GARDEN	5
4	0.21	FIELD TRIP	4
4	0.21	SOCCER	4
5	0.27	CABINET ORGANIZATION	4
5	0.20	SANDBOX	3
5	0.27	SCHOOL FAIR	4
5	0.27	SPACE MUSEUM	4
6	0.33	AMUSEMENT PARK	6
6	0.33	BUDGETING	6
6	0.33	TALENT SHOW	6
7	0.38	DONUTS	6
7	0.38	MINIATURE GOLF	6
7	0.25	WALKING PATH	4
8	0.33	SIGNS	6
8	0.33	SOUTH POLE	6
8	0.33	YOGURT	6
11	0.12	GREAT COFFEE CUP	2
11	0.29	LANDSURVEY	5
11	0.24	ROOFTRUSS	4
11	0.35	ZIP LINE	6

Appendix 5.B: Item Distributions

Table 5.B.1 Summary of Items Presented for the Total Test

Content Area	Grade	No. Examinees		Min	25%	50%	75%	Max	Mean	Mode
		Total								
ELA	3	472,496		12	43	44	44	45	43.72	44
	4	462,551		12	44	45	45	45	44.44	45
	5	460,076		13	45	45	45	46	44.81	45
	6	456,022		12	42	43	44	46	43.01	43
	7	449,271		12	43	44	44	46	43.54	44
	8	450,956		12	44	45	45	46	44.50	45
	11	421,313		13	43	43	44	46	43.41	43
Mathematics	3	474,113		15	39	40	40	40	39.66	40
	4	464,260		14	38	39	40	40	38.97	40
	5	461,432		14	39	40	40	40	39.66	40
	6	457,351		15	39	39	39	39	38.81	39
	7	450,163		14	39	40	40	40	39.40	40
	8	451,675		14	38	39	39	40	38.75	39
	11	419,018		14	41	41	42	42	41.18	42

Table 5.B.2 Summary of Items Presented in the CAT Component of the Test

Content Area	Grade	No. Examinees		Min	25%	50%	75%	Max	Mean	Mode
		Total								
ELA	3	472,496		10	39	39	40	40	39.30	39
	4	462,551		10	40	40	40	40	39.98	40
	5	460,076		10	40	40	40	41	40.06	40
	6	456,022		10	38	39	39	41	38.66	38
	7	449,271		10	39	39	40	41	39.39	39
	8	450,956		10	40	40	40	41	40.04	40
	11	421,313		10	39	39	39	41	39.05	39
Mathematics	3	474,113		10	34	34	34	34	33.99	34
	4	464,260		10	34	34	34	34	33.99	34
	5	461,432		10	34	34	34	34	33.99	34
	6	457,351		10	33	33	33	33	32.98	33
	7	450,163		10	34	34	34	34	33.96	34
	8	451,675		10	34	34	34	34	33.97	34
	11	419,018		10	36	36	36	36	35.94	36

Table 5.B.3 Summary of Items Presented in the PT Component of the Test

Content Area	Grade	No. Examinees							
		Total	Min	25%	50%	75%	Max	Mean	Mode
ELA	3	472,496	2	4	4	5	5	4.43	4
	4	462,551	1	4	5	5	5	4.47	5
	5	460,076	2	4	5	5	5	4.75	5
	6	456,022	2	4	4	5	5	4.35	4
	7	449,271	2	4	4	4	5	4.15	4
	8	450,956	2	4	4	5	5	4.47	4
	11	421,313	2	4	4	5	5	4.36	4
Mathematics	3	474,113	5	5	6	6	6	5.67	6
	4	464,260	3	4	5	6	6	4.98	6
	5	461,432	4	5	6	6	6	5.67	6
	6	457,351	5	6	6	6	6	5.83	6
	7	450,163	4	5	6	6	6	5.43	6
	8	451,675	4	4	5	5	6	4.78	5
	11	419,018	4	5	5	6	6	5.24	6

Table 5.B.4 Percent of Students Meeting Blueprint

Content Area	Grade	N	Percent of students meeting blue prints	Claim 1			Claim 2			Claim 3			Claim 4		
				Not meeting	Meeting	Exceeding	Not meeting	Meeting	Exceeding	Not meeting	Meeting	Exceeding	Not meeting	Meeting	Exceeding
ELA	3	472,674	99.54	0.18	99.82	0.00	0.42	99.47	0.10	0.12	99.88	0.00	0.23	99.77	0.00
	4	462,679	94.37	0.15	99.85	0.00	0.34	99.66	0.00	0.10	99.90	0.00	5.48	94.52	0.00
	5	460,190	99.72	0.14	99.86	0.00	0.26	99.74	0.00	0.11	99.89	0.00	0.02	99.98	0.00
	6	456,321	99.41	0.35	99.65	0.00	0.57	99.16	0.27	0.31	99.69	0.00	0.22	99.78	0.00
	7	449,714	99.21	0.45	99.55	0.00	0.64	96.89	2.47	0.39	99.61	0.00	0.46	99.54	0.00
	8	451,185	99.14	0.39	99.61	0.00	0.86	99.14	0.00	0.34	99.66	0.00	0.50	99.50	0.00
	11	422,098	98.49	0.55	99.44	0.01	1.39	98.61	0.00	0.80	99.20	0.00	0.96	99.04	0.00
Mathematics	3	474,261	99.88	0.09	99.85	0.06	0.07	83.03	16.90	0.11	94.20	5.68			
	4	464,355	99.90	0.07	99.90	0.03	0.07	99.93	0.00	0.10	99.90	0.00			
	5	461,617	99.89	0.09	99.91	0.00	0.07	99.91	0.01	0.11	99.89	0.00			
	6	457,550	99.79	0.20	99.79	0.00	0.04	99.95	0.00	0.09	94.43	5.48			
	7	450,395	99.67	0.32	99.68	0.00	0.09	99.89	0.03	0.19	99.81	0.00			
	8	451,965	99.68	0.32	99.68	0.00	0.17	99.82	0.01	0.22	99.78	0.00			
	11	419,508	99.44	0.38	99.59	0.03	0.56	99.44	0.00	0.30	93.81	5.88			

Chapter 6: Standard Setting

6.1. Description

Standard setting, which is also referred to as achievement level setting, refers to a class of methodologies by which one or more cut scores are used to determine achievement levels. The Smarter Balanced Assessment Consortium set four achievement levels—*Standard Not Met*, *Standard Nearly Met*, *Standard Met* and *Standard Exceeded*—with three threshold cuts for each grade and content area.

In coordination with its member states, the Smarter Balanced Assessment Consortium implemented an extensive achievement-level-setting process involving software development, item mapping, review panels, committees, workshops, and extensive validity research to set the final cut scores and achievement level descriptors. For detailed information regarding this process, refer to Chapter 10 of the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2015).

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Chapter 7: Scoring and Reporting

In order to determine individual students' scores for the California Assessment of Student Performance and Progress (CAASPP) Smarter Balanced Online Summative Assessments, student item responses are scored and individual student scores (i.e., overall scale scores and claims/subscores) are calculated based on the item responses. In addition, student test scores must be aggregated to produce information for schools and local educational agencies (LEAs). This chapter describes how various types of student responses are scored for the CAASPP online assessments, as well as the various types of scores that are generated. This chapter also presents information on the concept of measurement error and how measurement error should be considered when interpreting student test scores.

7.1. Approach to Scoring Item Responses

7.1.1 Structure of the Assessments

In order to understand the basis of the scoring approach, an understanding of the structure of the CAASPP online summative assessments is necessary. These assessments are designed to gather evidence that can be used to make inferences about student mastery of the Common Core State Standards (CCSS). The assessments are based on claims and targets. Claims are inferences made about a student based on his or her test score. They are broad statements about learning outcomes. These statements require evidence that articulates the types of data/observations that support interpretations of progress toward the achievement of the claim. Claims identify the set of knowledge and skills being measured. Here is an example of a mathematics claim:

Claim 1: Concepts and Procedures—Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.

Targets describe the evidence that can be used to support a claim about a student. Targets are specific to claims. Here is a target associated with the previous claim:

Target C— Understand the connections between proportional relationships, lines, and linear equations.

The items are designed based on a variety of task models that define item characteristics such as item type, allowable stimuli, prompt feature, and item interactions.

7.1.2 Certification of the Scoring System

Educational Testing Service (ETS) staff from Assessment Development, Research and Statistical Analysis, Performance Assessment Scoring Service, and Information Technology participated in the certification of the scoring system. Each team followed procedures required by the ETS Office of Quality for operational readiness and Standard 7.8 of *Standards for Educational and Psychological Testing* (American Educational Research Association [AERA], American Psychological Association [APA], & National Council on Measurement in Education [NCME], 2014).

ETS staff reviewed operational answer keys and scoring rubrics provided by Smarter Balanced staff. In addition, item parameter estimates for items were loaded into the ETS operational scoring system. Central aspects of the validity of the CAASPP online summative test scores are the degree to which scoring rubrics are related to the appropriate assessment targets and claims based on Smarter Balanced assessments. A key facet of

validity is the degree to which scoring rules are applied accurately throughout the scoring sessions.

7.1.3 Types of Item Responses

In accordance with the Smarter Balanced Online Summative Assessment specifications, students are administered a computer adaptive test (CAT) component and a selected performance task (PT) (Smarter Balanced, 2015a and 2015b). The combination of the CAT and the PT components fulfills the content requirements for the test blueprint (see Appendix 2.A on page 19).

CAASPP online summative assessments include traditional selected-response items, short constructed-response (CR) items, writing extended-response (WER) items, and technology-enhanced items. Some items are machine scored, which means that they can be scored by the test delivery system (TDS). Other items are scored with the artificial intelligence (AI) scoring engine, and still others are human-scored by a trained rater. The scoring approach used depends on the item type and scoring requirements provided by the Smarter Balanced item specifications. Table 7.1 lists the types of items that are machine scored.

Table 7.1 Machine-scored Online Item Types

Item Type	Description	Content Area
Equation items	Students select buttons representing numbers and mathematic symbols to create an equation.	Mathematics only
Evidence-based selected response	A traditional selected-response question is combined with a second selected-response question that asks students to show evidence from the text that supports the answer they provided to the first question.	English language arts/literacy (ELA) only
Graphic interaction	Students plot points, lines, and multisegment lines on a graph. Items can be answered by looking at a graph. For some items, students must manipulate the elements in the graph to respond.	Mathematics only
Hot text multiple select	Students are presented with a stem that contains multiple underlined words or phrases from which students select the answer(s) to the question.	ELA only
Match interaction	Students respond by dragging and dropping a single choice (“source”) into the appropriate location (“target”). The scoring key is a set of numeric identifiers that specifies which source needs to be placed in which target to answer the item correctly.	ELA and mathematics
Multiple-selection selected response	Five to eight answer choices are provided, and students are instructed to select one or more choices to respond. These item types can have multiple keys; students may be awarded partial credit for partially correct answers or may need to select all correct answers to receive credit.	ELA and mathematics
Single-selection selected response	Three to five answer choices are provided, and students can select only one choice to respond.	ELA and mathematics
Table interaction	Students are required to respond by marking one or more cells in a table grid. The response can be restricted to one selection of row, column, or table, or no restrictions.	Mathematics only

Item types that require students to provide a response by writing words or numbers are called “constructed-response” items. Both the CAT and the PT include CR items. The CAT section contains both machine-scored items as well as short-text items worth 0–2 points. The PT section contains machine-scored items as well as short-text 0–2 point items and WER items worth 0–6 points. A small number of mathematics performance tasks include CR items with a 0–4 point range. CR items for CAASPP include the following item types:

- *Short-answer items* require students to respond with words, phrases, short sentences, or mathematical expressions. These items have a value of 0–2 points, with a small number of mathematics short-answer items having values ranging from 0 to 4 points. These items are scored holistically based on a rubric. Holistic scoring gives students a single, overall assessment score for the response as a whole.
- *WER items (full-write response)* require students to write one or more paragraphs. The WER is scored for three dimensions of writing (purpose/focus/organization, evidence/elaboration, and conventions); these items are scored analytically based on rubrics, for which readers assign a score for each criterion.

7.1.4 Scoring the Item Types

The specifications regarding which CR items are eligible for machine scoring are described in an ETS memorandum (ETS, 2015).

ETS staff review operational answer keys and scoring rubrics provided by the Smarter Balanced Assessment Consortium and follow scoring specifications to enter scores into the ETS operational scoring system. The target of the scoring specifications is to optimize the validity, reliability, and efficiency of scoring. A central aspect of the validity of the test scores is the degree to which scoring rubrics are related to the appropriate assessment targets, depth of knowledge, and claims based on Smarter Balanced assessments. A key facet of reliability is whether the scoring rules are applied accurately during the scoring sessions. The validity and reliability of the scoring of CR items are evaluated in *Chapter 8: Analyses*.

The scoring specifications include details on the type of training provided to raters, the rater screening and qualification process, as well as the metrics used to evaluate rater accuracy that apply to the human scoring of CR items. ETS’s subcontractor, MI, scores the machine-scorable CR items utilizing AI scoring engines.

The scoring rubrics for the short answer items are holistic, with the exception of the rubrics used to score the ELA PT full-write response, which is analytic. The full-write response item is also referred to as a writing extended-response (WER) item. An example of scoring rubrics of the WER items is available in the *Smarter Balanced Scoring Guide* (Smarter Balanced, 2014a).

7.2. Quality Control of Scoring

7.2.1 Human Scoring

7.2.1.1 Quality Control in the Scoring Process

In general, the scoring model is based on scoring one item at a time (i.e., raters score responses to a single prompt until there are no more responses to that prompt during the shift). However, some mathematics PT items have scoring dependencies, which means that students base their calculations and responses on the answers to previous items associated with the PT. When these items are human scored, all of the items in the PT, along with the

student responses, are provided to the rater. This allows the rater to evaluate dependent items based on the previous items that serve as the basis for the dependent item.

Additionally, the three traits that make up the extended writing tasks (full write responses)—Organization/Purpose, Evidence/Elaboration or Development/Elaboration, and Conventions—are evaluated together by a single rater. The rater assigns the separate trait scores for each of the traits being evaluated for the extended writing task.

Items are scored by a team of five to ten raters under the direction of a scoring leader. Scoring leaders are supervised by chief scoring leaders. Each chief scoring leader is responsible for multiple teams in a specific content area and grade band. Responses to individual prompts are assigned to teams of no fewer than three raters. If there is not a sufficient number of responses during a shift to occupy at least three raters, the responses are held until a sufficient number is reached to occupy at least three raters. Each rater works individually at his or her own device to read each student response and enter a score for each item.

7.2.1.2 Quality Control Related to Raters

ETS has developed a variety of procedures to control the quality of ratings and monitor the consistency of scores provided by raters. These procedures specify rater qualifications, rater certification, and daily rater calibration. Raters are required to demonstrate their accuracy by passing a certification test before ETS assigns them to score a specific assessment and passing a shorter, more focused calibration test before each scheduled scoring session. Rater certification and calibration are key components in maintaining quality and consistency.

Scoring leaders monitor raters' performance by reading their responses to see if the rater assigned the correct rating. Some scoring leaders choose to read the response before finding out what score the rater has assigned; others choose to know what score the rater has assigned before reading the response. See the *Monitoring Raters* section on page 105 for more information on this process.

Rater Qualification

Raters should meet the following requirements:

- Bachelor's degree in any field
- Teaching experience strongly preferred
- Graduate students and substitute teachers encouraged to apply
- Bilingual English/Spanish speakers encouraged to apply
- Raters must be eligible to work in the United States and are e-verified prior to hire

Among all the raters of CAASPP Smarter Balanced Summative Assessments, many of them are California educators. California educators should meet the following qualifications:

- Must have a current California teaching credential
- California charter school teachers who may or may not have a teaching credential
- Retired educators and other administrative staff with a teaching credential who are not current classroom teachers
- Must have achieved at minimum a Bachelor's Degree

All team leaders and raters are required to qualify before scoring and are informed of what they are expected to achieve in order to qualify (see *Rater Training* on page 106 for a more

complete description of this training). The standards, provided in Table 7.2, are qualification expectations for the various score point ranges and the qualification standard in terms of the percent of exact agreement. A rater is required to meet the qualification standards on one qualification set in order to score student responses. This qualification set, like the validity papers discussed in the next subsection (*Monitoring Raters*), has been previously scored by scoring experts. Raters must score the papers in the same manner according to the percentage of agreements listed in Table 7.2.

Table 7.2 Rater Qualification Standard for Agreement with Correct Scores

Score Point Range	Qualification Standard (Exact Agreement)
0–1	90%
0–2	80%
0–3	70%
0–4	60%

The qualification process is conducted through an online system so that the results can be electronically captured for each individual trainee.

Monitoring Raters

ETS staff created performance scoring reports so that scoring leaders can monitor the daily human-scoring process and plan any retraining activities, if needed. For monitoring interrater reliability, ten percent of the student responses that have already been scored by the raters are randomly selected and assigned to raters by the scoring system; this process is referred to as back-reading. The second rater is unaware of the first rater's score. The evaluation of the response from the second rater is compared to that of the first rater. Scoring leaders and chief scoring leaders provide second reads during their shifts to provide additional quality review.

Validity papers are also used to monitor rater performance. Validity papers are randomly inserted into each rater's scoring queue at a rate of nine percent of the total papers scored by a rater during his or her shift. These papers are carefully selected and prescored by scoring experts. Validity papers serve as another real-time evaluation of rater accuracy.

Real-time management tools allow everyone, from scoring leaders to content specialists, access to the following information:

- overall interrater reliability rate, which measures the percentage of agreement when the scores assigned by raters are compared to the scores assigned by other raters, including scoring managers;
- read rate, which is defined as the number of response read per hour;
- individual and overall percentage of agreement for validity paper ratings; and
- projected date for completion of the scoring for a specific prompt or task.

7.2.2. Quality Control of Artificial Intelligence Scoring

The responses to some of the short-answer (SA) items on CAASPP Smarter Balanced Online Summative Assessments are scored by MI's AI scoring engine. MI's AI scoring engine analyzes a training set of papers and calculates features that pertain to the content in question for each individual item. The scoring engine then sends the features to dozens of different algorithms that compete to see which ones can best associate the features with the corresponding human-assigned scores. The strongest models are then automatically

blended to create a final model that retains the best elements from the various algorithms. After the model is built, the model elements are selected to maximize scoring accuracy for the response data.

The goal of MI's AI scoring is to provide scores that are statistically comparable to those obtained from human raters. To ensure that this continues to be true after the initial model development, MI conducts ongoing quality checks to ensure that the scoring models consistently perform as expected. Statistics such as perfect/adjacent agreement, the Pearson product-moment correlation coefficient, or the quadratic weighted kappa are used for comparing the accuracy of AI scoring with respect to human scoring. MI meets with the California Department of Education (CDE) to specify the evaluation metric and the expected level of accuracy for AI scoring. If an analysis of the human/AI agreement for an item indicates that the scoring engine needs to be adjusted, MI recalibrates the scoring model for that item. Using a new set of training papers (500–1,000, depending on the item type and complexity), MI retrains and recalibrates the scoring model until it meets or exceeds the agreement level established by the CDE, using agreed-upon evaluation metrics.

ETS and MI have developed and documented a proprietary standardized system for addressing the complexities inherent in monitoring and maintaining quality throughout large-scale human-scoring projects. ETS processes ensure that both organizations maintain a quality assurance system through 10 percent of AI-scored items being scored by a human rater and used for agreement sample analysis. The results of the agreement analysis are presented in *8.6.4.8 Interrater Agreement* on page 294.

7.2.3 Score Verification Process

Various measures are taken to ascertain that the scoring keys are applied to the student responses as intended and the student overall and claim scores are accurately computed. ETS's Enterprise Score Key Management (eSKM) system utilizes scoring procedures specified by psychometricians to provide scoring services. A series of quality control checks are carried out by ETS psychometricians to ensure the accuracy of each score. The details are described in *Quality Control of Psychometric Processes* on page 497.

7.3. Rater Training

7.3.1 Training Overview

7.3.1.1 ELA

In order to score ELA items, raters receive training based on the task model that is used to design a group of items with similar characteristics. Raters are first trained by grade band, claim, and target. For example, raters are trained to score Claim 1 Target 5 responses for grade band three through five. They are trained to score this type of prompt and then apply generic rubrics to score the responses. The training is further focused based on the item type—short answer or WER—as well as the grade span (grades three through five, six through eight, or grade eleven).

“Baseline” anchor and training sets of papers, as well as scoring rubrics, are provided to raters based on writing purpose (e.g., informational or explanatory writing) for the WER items. For baseline anchor and training sets of papers, student responses have been scored and then reviewed by scoring experts. Responses are then selected that are deemed to be exemplars of each score point. Often, these are annotated to provide a specific explanation of how the paper exemplifies a response that should earn that particular

score. Raters can refer to these sets to increase their understanding of how to accurately apply the scoring rubric.

Additional anchor and training sets are created for the purpose of periodic qualification, a process by which raters engage in a brief training and then score a prescored set of papers to ensure they are scoring accurately before their shift begins.

Qualification and validity sets are provided for each essay type of the WER items. Anchor and training sets are also provided for the task models associated with the ELA short-answer items in the CAT and PT sections. For the ELA short-answer items in the CAT and the PT sections, raters receive training for a grade span (grades three through five, six through eight, or grade eleven) instead of a grade level.

Although training is provided at the task-model level, rater qualification occurs on an item-type and grade-span basis for all ELA human-scored items. Qualification and validity papers are provided for each ELA CR item. Raters must qualify for each item type within a specific grade span before being assigned to score that item type. (AIR, 2014)

7.3.1.2 Mathematics

In order to score mathematics items, raters receive training and qualify on task models for all items. Similar to the training procedures for ELA, for mathematics, the Smarter Balanced Assessment Consortium provides anchor papers and training sets for the task models. The consortium also provides item-specific rubrics and item-specific validation sets for all mathematics items. (AIR, 2014)

7.3.2 Training Process: ELA/Literacy Performance Task Extended Writing Tasks

Baseline anchor sets for each writing purpose (e.g., informational writing or explanatory writing) are used to train raters on each of the writing traits—Organization/Purpose, Evidence/Elaboration or Development/Elaboration, and Conventions—within a particular grade span. The writing purposes are narrative, informational, and opinion at grades three through five; narrative, informational, and argumentative at grades six through eight; and explanatory and argumentative at grade eleven.

For all writing purposes, Organization/Purpose is the first trait and Conventions is the third trait. Evidence/Elaboration is the second trait for the opinion, argumentative, informational, and explanatory writing purposes. Development/Elaboration is the second trait for the narrative writing purpose.

Writing traits for opinion, argumentative, informational, or explanatory writing are:

- Organization/Purpose
- Evidence/Elaboration
- Conventions

Writing traits for narrative writing are:

- Organization/Purpose
- Development/Elaboration
- Conventions

A chart that presents the traits to their purposes is shown in Figure 7.1.

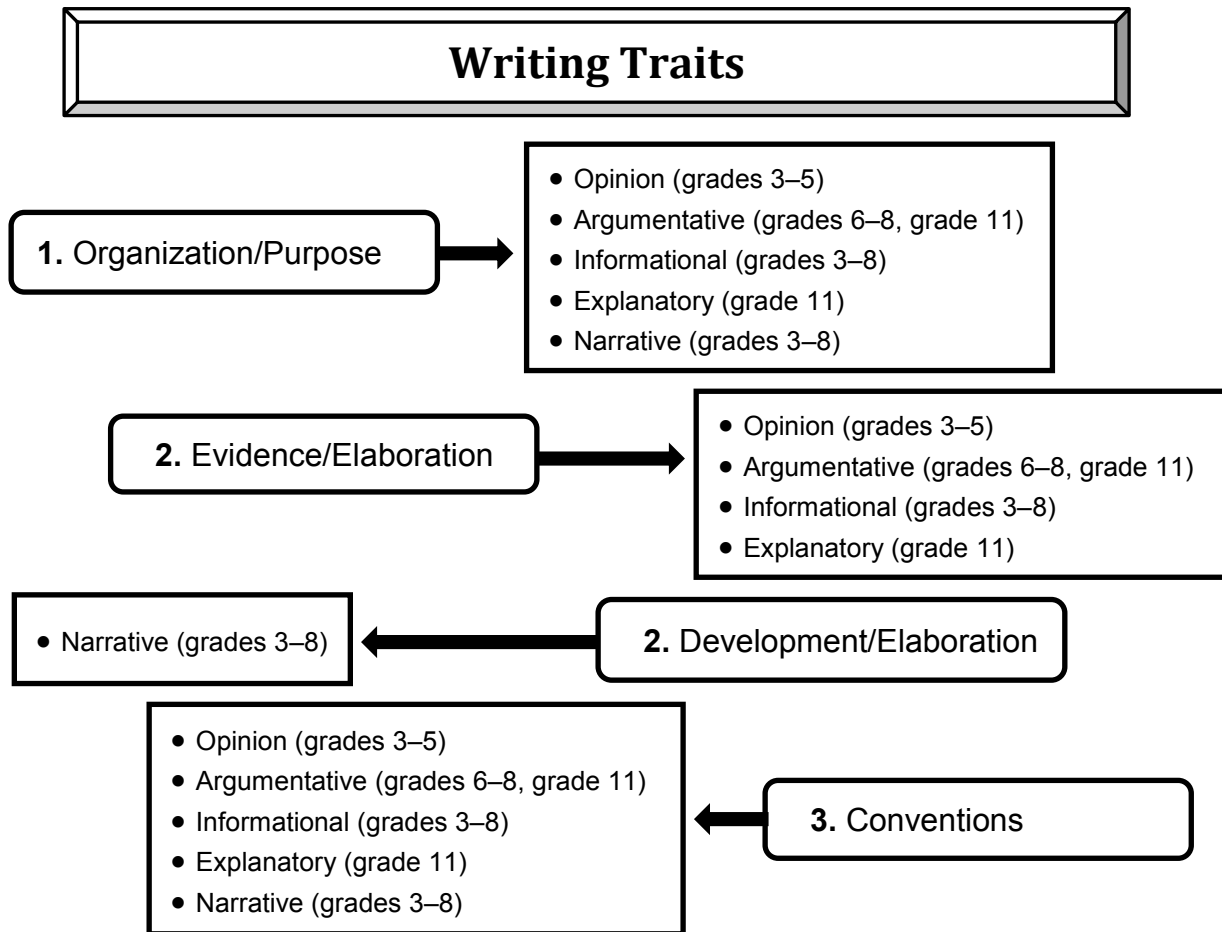


Figure 7.1 Writing Traits

The training steps are described in the top panel of Figure 7.2, and the training materials are described in the bottom panel.

Training steps:

1. Trainees read the task, rubrics, and source materials for the WER items in a particular grade span and writing purpose (for example, Grade Three through Five Informational). Trainees read sample responses and annotations.
2. Trainees read a training set of five responses to the same item (Essay 1) and score those responses for Conventions.
3. Trainees review the correct scores and the scoring rationale for the Conventions scores for those responses.
4. Trainees read another training set of five responses to that item (Essay 1) and score those responses for Organization/Purpose. They then review the correct scores and the scoring rationale for the Organization/Purpose scores for those responses.
5. Trainees read another training set of five responses to that item (Essay 1) and score those responses for Evidence/Elaboration. They then review the correct scores and the scoring rationale for the Evidence/Elaboration scores for those responses.

6. Trainees read another training set of five responses to that item (Essay 1) and score each of those responses for all three traits.
7. Trainees review the scoring rationale for the training responses and answer training questions.
8. Trainees score a qualification round (10 papers) for all three traits for Essay 1.
9. Qualified raters begin scoring.
10. Trainees who do not meet the qualification standard on round 1 have an opportunity to review with a scoring leader before scoring round 2.

Materials for training raters of WER items, at each grade level:

1. Baseline anchor sets approved during Smarter Balanced Pre-Range-Finding¹
2. Field test prompt and stimulus materials
3. Purpose/task specific rubrics
4. Conventions charts (approved by Smarter Balanced Assessment Consortium)
5. Supplemental scoring guidelines (approved by Smarter Balanced Assessment Consortium)
6. Training sets (specific to the first WER task for each grade/purpose)
7. Qualification sets (generally administered in two rounds of approximately 10 responses per WER task)

Figure 7.2 Training Process for Extended Writing Tasks

¹ Range finding activities include the review of student responses against item rubrics, the validation of rubric effectiveness, and the selection of anchor papers used by human scoring for the larger population of responses.

7.3.3 Training Process: ELA/Literacy Short-Answer Items

The process for training raters to score short-answer items is also organized by grade band (three through five, six through eight, or grade eleven). These training steps are described in the top panel of Figure 7.3, and the training materials are described in the bottom panel.

<p>Training steps:</p> <ol style="list-style-type: none"> 1. Trainees read the rubrics and scoring notes for the short-answer items in a particular grade span and purpose category (for example, Grade Three through Five Evidence). Trainees read sample responses to a prompt and the associated annotations. 2. Trainees review the scoring rationale for each of the anchors (i.e., anchor sets for the claim/target/subclaim). 3. Trainees score the training set (5–10 papers) for the short answer claim/target/ subclaim. 4. Trainees review the correct scores and scoring rationale for the training set. 5. Trainees read the prompt, source materials, or stimuli for the first short answer item in the claim/target/subclaim (e.g., Grade 6, Claim 1, Reading Item 1). 6. Trainees score a qualification round. 7. Qualified raters begin scoring. 8. Trainees who do not meet the qualification standard on round 1 have an opportunity to review with a scoring leader before then scoring round 2.
<p>Materials for short answer item training:</p> <ol style="list-style-type: none"> 1. Anchors and training sets (by grade band/claim/target/subcategory) 2. Prompts and source materials or stimuli 3. Item-specific rubrics 4. One qualification set (10 responses per item)

Figure 7.3 Training Process for ELA Short Answer Items

7.3.4 Training Process: Mathematics Items

The training steps for scoring mathematics items are described in the top panel of Figure 7.4, and the training materials are described in the bottom panel.

<p>Training Steps:</p> <ol style="list-style-type: none"> 1. Trainees review the items that are represented in the anchor and training sets, any associated source materials or stimuli, and the item-specific rubrics. 2. Trainees read the associated source materials or stimuli, as appropriate. 3. Trainees score the training set for the item category, as described in the next step. 4. Trainees review the correct scores and scoring rationale for the training set. 5. Trainees score a qualification round. 6. Trainees who do not meet the qualification standard on round 1 have an opportunity to review with a scoring leader before then scoring round 2. 7. Qualified raters begin scoring.
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Material for mathematics training:

1. Anchors and training sets (by performance task grade/family/item category or by CAT item)
2. Prompts and source materials or stimuli
3. Item specific rubrics
4. One or two qualification rounds per item category, depending on item complexity (10 responses per round)

Figure 7.4 Training Process for Mathematics Items

Unlike ELA performance tasks, mathematics performance tasks may contain interdependencies among the items within a task. Each mathematics performance task is made up of six items. Items may be dependent on any of the previous items within the performance task. For example, if item 6 is dependent on items 3 and 5, the rubric for item 6 specifies the correct response based on prior correct responses to items 3 and 5. Raters are responsible for determining the appropriate response to item 6 and awarding credit accordingly, even when the student's responses to items 3 and 5 are incorrect. The first two of the six items are generally AI-scored items. Two or more of the remaining four items are human scored.

The proper handling of tasks with dependencies is addressed in the training process. Raters have practice working through PT responses and recognizing correct work based on previous incorrect values. PTs are composed of items based on several different task models. In general, training materials are organized so that raters train on a task model rather than on a complete performance task. However, when performance task items that are dependent on previous items in the set are presented in training, the entire set of items and responses is included. This allows raters to see the previous responses that serve as the basis for the item that is being scored.

7.3.5 Supplemental Training for Scoring Supervisors

Scoring condition codes allow raters to categorize certain responses as unscorable. The code indicates the reason that the response cannot be scored. Responses with condition codes are routed to scoring supervisors for final code assignment. Supervisors require detailed training on the Smarter Balanced condition codes and definitions (Smarter Balanced, 2014b).

Table 7.3 presents the valid condition codes used for scoring along with descriptions of the responses that would warrant the assignment of the different codes.

Table 7.3 Scoring Condition Codes

Condition Code	Reasons for assigning this condition code
B	Blank —no response
I	<p>Insufficient</p> <p>a. Use the “I” code when a student has not provided a meaningful response; for example:</p> <ul style="list-style-type: none"> • Random keystrokes • Undecipherable text • “I hate this test” • “I don’t know, IDK” • “I don’t care” • “I like pizza!” (in response to a reading passage about helicopters) • Response consisting entirely of profanity <p>b. For ELA WER items, use the “I” code (Insufficient) for responses described above and also if:</p> <ul style="list-style-type: none"> • The student’s original work is insufficient for rater to determine whether the student is able to organize, cite evidence/elaborate, and use conventions as defined in the rubrics, or • Response is too brief to make a determination regarding whether it is on purpose or on topic
L	<p>Nonscorable Language</p> <p>ELA: Language other than English Mathematics: Language other than English or Spanish</p>
T	<p>Off-Topic for ELA WER Items Only</p> <ul style="list-style-type: none"> • The response is unrelated to the task or the sources or shows no evidence that the student has read the task or the sources (especially for informational/explanatory and opinion/argumentative) • “Off topic” responses are generally substantial responses
M	<p>Off-Purpose for ELA WER Items Only</p> <p>The student has clearly not written to the purpose designated in the task.</p> <ul style="list-style-type: none"> • An off-purpose response addresses the topic of the task but not the purpose of the task. • Students may use narrative techniques in an explanatory essay or use argumentative/persuasive techniques to explain, for example, and still be on purpose. • Off-purpose responses are generally developed responses (essays, poems, etc.) clearly not written to the designated purpose.

7.3.6 Human Scoring Alerts

Raters are also trained to watch for indications of a “crisis paper” and/or cheating. Such information can require urgent attention. Any student response of a sensitive nature to any human-scored test item is assigned a score and identified as an “alert.” Raters receive a process document as part of their training materials that describes the steps to follow should they determine that a response should be classified as an alert response. The different types of crisis paper alerts are as follows:

- Suicide
- Criminal activity
- Alcohol or drug use
- Extreme depression
- Violence

- Rape, sexual, or physical abuse
- Self-harm or intent to harm others
- Neglect

For crisis paper alerts, the LEA's superintendent and LEA CAASPP coordinator in the LEA for the flagged student are sent a copy of the response and the student Statewide Student Identifier via tracked delivery.

7.4. Student Test Scores

ETS developed two parallel scoring systems to produce students' scores: the eSKM scoring system collects, scores, and delivers individual students' scores to the ETS reporting system; the parallel scoring system developed by ETS Technology and Information Processing Services collects and scores individual students' scores. The scores from the two systems are then compared for the purpose of internal quality control. The two scoring systems independently apply the same methods, scoring algorithms, and specifications. Students' scores are reported when the two parallel systems produce identical results.

All scores must comply with the ETS scoring specifications and the parallel scoring process to ensure the quality and accuracy of scoring and to support the transfer of scores into the database of the student records scoring system, the Test Operations Management System (TOMS).

7.4.1 Total Test Scores

7.4.1.1 Theta Scores

For all of the tests, theta scores are obtained through maximum likelihood estimation (MLE) applied to item responses (Birnbaum, 1968). Items scored as one (correct) or zero (incorrect) are referred to as dichotomous items. Items scored from zero to some number of points greater than one are called polytomous items. The generalized partial credit (GPC) model is applied to both types of items. The GPC model (Muraki, 1992) is

$$P_{ih}(\theta_j) = \begin{cases} \frac{\exp(\sum_{v=1}^h Da_i(\theta_j - b_i + d_{iv}))}{1 + \sum_{c=1}^{n_i} \exp(\sum_{v=1}^c Da_i(\theta_j - b_i + d_{iv}))}, & \text{if score } h = 1, 2, \dots, n_i \\ \frac{1}{1 + \sum_{c=1}^{n_i} \exp[\sum_{v=1}^c Da_i(\theta_j - b_i + d_{iv})]}, & \text{if score } h = 0 \end{cases}, \quad (7.1)$$

where,

$P_{ih}(\theta_j)$ is the probability of student with proficiency θ_j obtaining score h on item i ;

n_i is the maximum number of score points for item i ;

α_i is the discrimination parameter for item i ;

b_i is the location parameter for item i ;

d_{iv} is the category parameter for item i on score v ; and

D is a scaling constant of 1.7 that makes the logistic model approximate the normal ogive model.

When $n_i = 1$, Equation 7.1 becomes an expression of the 2-parameter logistic model for dichotomous items.

The log-likelihood of a student with proficiency θ_j , given the observed response vector U , is:

$$L(\theta_j | U) = \ln\left(\prod_{i=1}^I \prod_{v=0}^{n_i} P_{ih}(\theta_j)^{u_{iv}}\right) \quad (7.2)$$

$$u_{iv} = \begin{cases} 1, & \text{if the score } h \text{ on polytomous item } i \text{ is equal to } v, \\ 0, & \text{otherwise} \end{cases}$$

where,

l is the total number of items in the response vector,

n_i is the maximum number of score points for item i , and

P_{ih} is the probability of the score h observed on item i , as expressed in Equation 7.1.

The theta that is associated with the largest log-likelihood for a particular pattern of scores is the maximum likelihood theta estimate. The MLE cannot generally be solved explicitly as it is nonlinear in nature (Hambleton & Swaminathan, 1985, p. 79). As a result, an iterative process such as the Newton-Raphson procedure is employed. In each Newton-Raphson iteration t , the ability is estimated seen in Equation 7.3:

$$\theta_t = \theta_{t-1} - \frac{L'_{t-1}}{L''_{t-1}} \quad (7.3)$$

where

L'_{t-1} is for the first derivative, and

L''_{t-1} is the second derivative of the log-likelihood at iteration $t-1$.

When the difference between the estimates in successive iterations becomes acceptably small (i.e., difference is less than .0001), the process is said to converge. As the convergence criterion is set, the level of accuracy of estimation can be obtained, provided the process converges. Theta scores are the basis for scale scores but are not reported. Scale scores and the transformation from theta scores to scale scores are described in the *Scale Scores for the Total Assessment* subsection on page 117.

Inverse Test Characteristic Curve Method

There are some special cases in which the score reported for a student is not based on the MLE approach described previously:

- The student got the lowest possible score on the total test, which would lead to an MLE of $-\infty$.
- The student got the highest possible score on the total test, which would lead to an MLE of $+\infty$.
- The student's response pattern did not lead to a single most likely MLE of the student's ability.

In these cases, the student's score was computed by the inverse test characteristic curve (TCC) method (Stocking, 1996). This method transforms the sum of the student's item scores into an ability estimate. That estimate is the ability level at which the sum of the expected scores on the items the student took is equal to the sum of the scores that the student actually earned on those items.

The item characteristic curve for an item shows the probability of a correct answer to the item as a function of the student's ability. The test characteristic curve for a set of items shows the expected total score on those items as a function of the student's ability. Because information is lost by not utilizing each student's unique pattern of responses, this method was used only when the response pattern does not lead to one clear MLE of the student's ability or the likelihood function is so flat that although it has a maximum, that maximum is not much greater than the likelihood over a wide range of theta values.

The lowest obtainable theta (LOT) and the highest obtainable theta (HOT) are presented in Table 7.4 for each grade, as defined by the Smarter Balanced Consortium. All the theta scores across grades are on a common vertical scale.

Table 7.4 Lowest and Highest Obtainable Scores

Content Area	Grade	θ	
		LOT	HOT
ELA	3	-4.5941	1.3374
	4	-4.3962	1.8014
	5	-3.5763	2.2498
	6	-3.4785	2.5140
	7	-2.9114	2.7547
	8	-2.5677	3.0430
	11	-2.4375	3.3392
Mathematics	3	-4.1132	1.3335
	4	-3.9204	1.8191
	5	-3.7276	2.3290
	6	-3.5348	2.9455
	7	-3.3420	3.3238
	8	-3.1492	3.6254
	11	-2.9564	4.3804

Scoring of Incomplete Cases

Sometimes students fail to complete their tests. Depending on the nature of the missing data, different actions are taken. This section covers three specifications:

1. Attemptedness/participation rules: when a test is considered attempted or participated;

2. When a test is scored, and
3. How and when incomplete tests are scored.

As defined in the Smarter Balanced scoring specifications, tests are considered “complete” if students respond to the minimum number of operational items specified in the blueprint (See Table 8.1 for the minimum number of operational items in each claim). Otherwise, the tests are “incomplete.” In a fixed-form (i.e., not CAT) assessment, unanswered items are treated as incorrect. However, in a CAT environment, the specific unanswered items are not known because the test administration terminates when a student stops responding to items. ETS implemented several procedures that score an incomplete test in a CAT environment; these options are presented in Table 7.5.

The number and the percent of students who participated the tests are presented in the tables of Appendix 7.A for all students in each test and for the selected demographic groups by grade and content area. In addition, the numbers of students in the selected demographic groups with different test completion conditions are presented in the tables of Appendix 7.F.

Table 7.5 Treatment of Incomplete Tests

If the student	Classify the student as participating?	Include the data in the student file?	Score the student's responses?	Classify the student as attempting the test?	Report a score for the student?
Logged on to both the CAT and PT, but answered no items	Yes	Yes	No	No	No
Logged on to both the CAT and PT, and answered at least one item for only CAT or PT	Yes	Yes	Lowest obtainable score for the test	No (Participating)	No
Logged on to both the CAT and PT and answered at least one item for both CAT and PT	Yes	Yes	Lowest obtainable score for the test	Yes	No
Logged on to both the CAT and PT and answered at least one PT item but fewer than 10 CAT items	Yes	Yes	Lowest obtainable score for the test	Yes	No
Logged on to both the CAT and PT, answered at least one PT item and at least 10 CAT items, but did not answer specified minimum number of items	Yes	Yes	MLE (unanswered items in the middle of the test scored treated as incorrect), or for an incomplete test, estimate from Equation 7.4	Yes	Yes

Sometimes a student stops answering items before the test delivery system has administered all the items the student is supposed to answer. When that happens, the student's test is considered complete if the student has answered at least a specified minimum number of items (less than the number of items in the full test). Otherwise, the student's score is based on an adjusted ability estimate calculated by the formula in Equation 7.4.

$$\theta_{Adj.} = \theta_{min} + (\theta_{achieved} - \theta_{min}) * PropAdj, \quad (7.4)$$

where,

θ_{adj} is a student's incomplete theta score,

$\theta_{achieved}$ is the theta estimate based on the incomplete test,

θ_{min} is a predetermined theta estimate (–3.5), with –3.5 being the average of the lowest obtainable theta value across all tests on a vertical scale, and

$PropAdj$ is the proportion of the test completed by the student.

7.4.1.2 Scale Scores for the Total Assessment

After MLE scoring is performed on the theta scale and the scoring rules are implemented, the scaling constants are applied. Scale scores (SS) are on the Smarter Balanced vertical scale, formed by linking across grades using common items in adjacent grades. The vertical scale score is the linear transformation of the post-vertically scaled item response theory (IRT) ability estimate. The student's estimated theta score is converted to a scale score by the following formulas:

$$\text{For ELA: } SS = 85.8 \theta + 2508.2 \quad (7.5)$$

$$\text{For mathematics: } SS = 79.3 \theta + 2514.9 \quad (7.6)$$

There is a restriction that the scale score cannot be higher or lower than the specified highest and lowest possible scores for that content area and grade level. The lowest obtainable scale score (LOSS) and the highest obtainable scale score (HOSS) for each test are displayed in Table 7.6.

Scale scores are rounded to the nearest integer.

Detailed information regarding the establishment of scale scores for the Smarter Balanced Summative Assessments can be found in Chapter 10 of the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2015c) and the *Smarter Balanced Scoring Specification: 2014–2015 Administration* (2015).

Table 7.6 Lowest and Highest Obtainable Scale Scores

Content Area	Grade	Scale Score	
		LOSS	HOSS
ELA	3	2114	2623
	4	2131	2663
	5	2201	2701
	6	2210	2724
	7	2258	2745
	8	2288	2769
	11	2299	2795
Mathematics	3	2189	2621
	4	2204	2659
	5	2219	2700
	6	2235	2748
	7	2250	2778
	8	2265	2802
	11	2280	2862

7.4.1.3 Achievement Levels

Standard settings were performed by the Smarter Balanced Assessment Consortium, which defined four achievement levels based on overall scale scores. These achievement level categories were labeled “Standard Not Met,” “Standard Nearly Met,” “Standard Met,” and “Standard Exceeded.” The combined categories of “Standard Met” or “Standard Exceeded” are used to define students meeting the proficiency criterion for accountability purposes. See *Chapter 10 Achievement Level Setting of the 2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2015c) for details related to the standard setting procedure; *Reporting Achievement Level Descriptors* (Smarter Balanced, 2015d) for the descriptors used to describe Smarter Balanced achievement levels; and *Interpretation and Use of Scores and Achievement Levels* (Smarter Balanced, 2014c) for more information about using achievement levels.

- **Level 1—Standard Not Met.** Student demonstrates minimal understanding of ELA and mathematics and the ability to apply the knowledge and skills for his or her grade level that are associated with college and career readiness.
- **Level 2—Standard Nearly Met.** Student demonstrates partial understanding of ELA and mathematics and the ability to apply the knowledge and skills for his or her grade level that are associated with college and career readiness.
- **Level 3—Standard Met.** Student demonstrates adequate understanding of ELA and mathematics and the ability to apply the knowledge and skills for his or her grade level that are associated with college and career readiness.
- **Level 4—Standard Exceeded.** Student demonstrates thorough understanding of ELA and mathematics and the ability to apply the knowledge and skills for his or her grade level that are associated with college and career readiness.

The cut scores for the achievement levels vary by grade and content area. Table 7.7 provides the theta cut scores for Standard Nearly Met, Met, and Exceeded at each grade. For example, the cut score of -0.888 for “Standard Met” in grade three ELA means that a student must earn a theta score (θ) of -0.888 or higher to achieve that classification.

Table 7.7 Theta Cut Scores

Content Area	Grade	Standard Nearly Met	Standard Met	Standard Exceeded
ELA	3	-1.646	-0.888	-0.212
	4	-1.075	-0.410	0.289
	5	-0.772	-0.072	0.860
	6	-0.597	0.266	1.280
	7	-0.340	0.510	1.641
	8	-0.247	0.685	1.862
	11	-0.177	0.872	2.026
Mathematics	3	-1.689	-0.995	-0.175
	4	-1.310	-0.377	0.430
	5	-0.755	0.165	0.808
	6	-0.528	0.468	1.199
	7	-0.390	0.657	1.515
	8	-0.137	0.897	1.741
	11	0.354	1.426	2.561

Table 7.8 shows the scale score range of each achievement level for the ELA tests and the mathematics tests, respectively.

Table 7.8 Scale Score Ranges for Achievement Levels

Content Area	Grade	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded
ELA	3	2114–2366	2367–2431	2432–2489	2490–2623
	4	2131–2415	2416–2472	2473–2532	2533–2663
	5	2201–2441	2442–2501	2502–2581	2582–2701
	6	2210–2456	2457–2530	2531–2617	2618–2724
	7	2258–2478	2479–2551	2552–2648	2649–2745
	8	2288–2486	2487–2566	2567–2667	2668–2769
	11	2299–2492	2493–2582	2583–2681	2682–2795
Mathematics	3	2189–2380	2381–2435	2436–2500	2501–2621
	4	2204–2410	2411–2484	2485–2548	2549–2659
	5	2219–2454	2455–2527	2528–2578	2579–2700
	6	2235–2472	2473–2551	2552–2609	2610–2748
	7	2250–2483	2484–2566	2567–2634	2635–2778
	8	2265–2503	2504–2585	2586–2652	2653–2802
	11	2280–2542	2543–2627	2628–2717	2718–2862

7.4.2 Claim Scores (Subscores)

Claims identify the set of knowledge and skills being measured. Groups of items in each combination of grade and content area are formed based on related content standards; outcomes for these groups of items are called claim scores. A claim score is a measure of a student's performance on the items in that claim. There are four claims for ELA tests and three claims for mathematics tests. Claims 2 and 4 of mathematics scores are combined because of content similarity and to provide flexibility for item development. Consequently, only three claim scores are reported with the overall mathematics score. Like the overall test, results of each claim are reported as a theta score, a scale score, and a claim strength/weakness. The claims are identified in Table 7.9 and are also available in the blueprints, which are provided in Appendix 2.A on page 19.

Table 7.9 Claims Identified for ELA and Mathematics

Content Area	Claim	Description
ELA	1. Reading	Students can read closely and analytically to comprehend a range of increasingly complex literary and informational texts.
	2. Writing	Students can produce effective and well-grounded writing for a range of purposes and audiences.
	3. Listening/Speaking	Students can employ effective listening skills for a range of purposes and audiences.
	4. Research	Students can engage in research and inquiry to investigate topics and to analyze, integrate, and present information.

Content Area	Claim	Description
Mathematics <i>Note:</i> In mathematics, claims 2 and 4 are reported together, so there are only three reporting categories with four claims.	1. Concepts and Procedures	Students can explain and apply mathematical concepts and interpret and carry out mathematical procedures with precision and fluency.
	2. Problem Solving	Students can solve a range of complex, well-posed problems in pure and applied mathematics, making productive use of knowledge and problem-solving strategies.
	4. Model and Data Analysis	Students can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems.
	3. Communicating/Reasoning	Students can clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others.

7.4.2.1 Scale Scores for Claims

Claim scores are calculated by applying the MLE approach to the items contained in a particular claim. The claim scale scores are obtained by applying Equation 7.5 for ELA assessments and Equation 7.6 for mathematics assessments. ELA scores are computed for each claim. Mathematics scores are computed for Claim 1, Claims 2 and 4 combined, and Claim 3.

Claim scores are associated with fewer items and score points relative to total test scores; this means that the number of students whose claim scores cannot be estimated by the MLE approach is larger than what is observed for the total score. Therefore, ETS uses the inverse TCC approach when MLE derived theta estimates are not available for a claim.

7.4.2.2 Achievement Levels for Claims

The relative strengths and weaknesses for each student are reported for each claim. The three achievement levels for each claim are as follows:

- **Above standard**—Student clearly understands and can successfully apply his or her knowledge to the standards tested in this content area for his or her grade.
- **At/Near standard**—Student shows understanding and can apply his or her knowledge to the standards tested in this content area for his or her grade.
- **Below standard**—Student has limited understanding and difficulty applying his or her knowledge to the standards tested in this content area for his or her grade.

Because claim scores are based on fewer items than overall test scores, the standard error of the claim scores is included in the determination of the student’s estimated theta score on a claim. θ_{claim} is a student’s estimated theta score on a claim. A range of possible student thetas is calculated for each student from $\theta_{claim} - 1.5 \times SE_{\theta_{claim}}$ to $\theta_{claim} + 1.5 \times SE_{\theta_{claim}}$, each of which is converted to a scale score and rounded to an integer.

If the value at the high end of the score range is less than the minimum scale score associated with the overall “Met” achievement classification, the claim achievement level is reported as “Below Standard.” This achievement classification is also assigned when all student responses to items associated with a claim are incorrect.

If the value at the low end of the range is greater than the minimum scale score associated with the overall “Met” achievement classification, the claim achievement level is reported as

“Above Standard.” This claim achievement level is also reported when all student responses are correct.

Theta ranges that do not meet either of these classifications are reported as “At/Near Standard.”

7.4.3 Theta Scores Standard Error

A student’s true ability level or theta score and standard error of theta are not known. The standard error of measurement (SEM) is the standard deviation of the distribution of theta scores that the student would earn under different testing conditions. In IRT, the only differences taken into account in the SEM are those associated with different sets of items that could be presented to the student. An error band can be calculated from the student’s theta score minus one SEM to the student’s theta score plus one SEM, which should contain the student’s true score 68 percent of the time. The error band is transformed to the scale score metric and reported for the CAASPP online summative assessments. It is useful to take into account the size of measurement errors because no assessment measures student ability with perfect accuracy or consistency. (Error bands are also discussed in subsection 7.4.5 *Error Band*.)

In the framework of IRT, the SEM is the reciprocal of the square root of the test information function (TIF) based on the items taken by each student. It is also the estimate of standard error for the estimate of theta. The TIF is the sum of information from each item on the test. With MLE, the SEM for a student with proficiency θ_j is:

$$SEM(\theta_j) = \frac{1}{\sqrt{I(\theta_j)}} \quad (7.7)$$

where,

$I(\theta_j)$ is the test information for student j , calculated as:

$$I(\theta_j) = \sum_{i=1}^n I_i(\theta_j) \quad (7.8)$$

and $I_i(\theta_j)$ is the item information of item i for student j .

When item information is based on the generalized partial credit model for both dichotomous and polytomous items, it is calculated as:

$$I_i(\theta_j) = (Da_i)^2 [s_{i2}(\theta_j) - s_i^2(\theta_j)], \quad (7.9)$$

where,

$s_i(\theta_j)$ is the expected item score for item i on a theta scale score θ_j , calculated as

$$s_i(\theta_j) = \sum_{h=0}^{n_i} h p_{ih}(\theta_j) \quad (7.10)$$

and

$$s_{i2}(\theta_j) = \sum_{h=0}^{n_i} h^2 p_{ih}(\theta_j) \quad (7.11)$$

where

$p_{ih}(\theta_j)$ is the probability of an examinee with θ_j getting score h on item i , the computation of which is shown in Equation 7.1, and
 n_i is the maximum number of score points for item i .

The SEM is calculated based only on the answered item(s) for both complete and incomplete tests. The upper bound of the SEM is set to 2.5 on the theta metric, and any value larger than 2.5 is truncated at 2.5, as is required by the Smarter Balanced Assessment Consortium (AIR, 2015).

7.4.4 Scale Score Standard Errors

Standard errors of the maximum likelihood theta estimates are also transformed onto the reporting scale. This transformation is:

$$SE_{scaled} = a * SE_{\theta} \quad (7.12)$$

where

SE_{θ} is the standard error of the ability estimate on the θ scale ,

and a is the slope of the scaling constants that transform θ to the reporting scale.

The value of a is 85.8 for ELA and 79.3 for mathematics.

7.4.5 Error Band

A band of scale scores showing the measurement error associated with each scale score is reported. The error band indicates the extent to which a student's score might have been different had the student taken the test again. It is generated by developing a band of indeterminacy surrounding the scale score

$$\text{error band} = (SS - SE_{scaled}, SS + SE_{scaled}), \quad (7.13)$$

where,

SS is the scale score, and

SE_{scaled} is the standard error of measurement associated with this scale score.

$SS - SE_{scaled}$ is the lower boundary of the error band and $SS + SE_{scaled}$ is the upper boundary of the error band.

7.5. Overview of Score Aggregation Procedures

To provide meaningful results to the stakeholders, test scores for a given grade and content area are aggregated at the school, LEA, county, and state levels. The aggregated scores are generated both for selected groups and for the population. The next section contains a description of the types of aggregation performed on Smarter Balanced online summary assessment scores.

7.5.1 Score Distributions and Summary Statistics

Summary statistics that describe student performance on each test are presented in Table 7.10. Included in the table are the number of students for each test and the means and standard deviations of student scores expressed in terms of both scale scores and theta scores. The mean thetas and corresponding scale scores increase as expected as grade level increases. The number and the percentage of students in each achievement

level and the number and the percentage who meet or exceed the standard are shown in Table 7.11.

Table 7.10 Mean and Standard Deviation of Theta and Scale Scores

Content Area	Grade	Number of Students	Scale Score		Theta Score	
			Mean	SD	Mean	SD
ELA	3	472,674	2403	88	-1.23	1.02
	4	462,679	2446	93	-0.73	1.08
	5	460,190	2487	95	-0.25	1.10
	6	456,321	2512	92	0.04	1.07
	7	449,714	2531	97	0.27	1.12
	8	451,185	2552	95	0.52	1.10
	11	422,098	2591	110	0.97	1.28
Mathematics	3	474,261	2415	80	-1.26	1.01
	4	464,355	2454	81	-0.77	1.02
	5	461,617	2480	90	-0.44	1.13
	6	457,550	2504	102	-0.13	1.29
	7	450,395	2518	109	0.04	1.38
	8	451,965	2534	116	0.24	1.47
	11	419,508	2560	125	0.57	1.58

Table 7.11 Percentages and Counts of Students in Achievement Levels for CAASPP Online Summative Assessments

Content Area	Grade	Standard Not Met		Standard Nearly Met		Standard Met		Standard Exceeded		Standard Met/Exceeded*	
		n	%	n	%	n	%	n	%	n	%
ELA	3	170,767	36	124,621	26	94,053	20	83,233	18	177,286	38
	4	181,029	39	98,855	21	94,947	21	87,848	19	182,795	40
	5	155,478	34	98,662	21	126,124	27	79,926	17	206,050	45
	6	128,732	28	132,503	29	134,469	29	60,617	13	195,086	43
	7	139,302	31	114,520	25	142,405	32	53,487	12	195,892	44
	8	115,826	26	131,481	29	150,604	33	53,274	12	203,878	45
	11	84,369	20	102,568	24	139,951	33	95,210	23	235,161	56
Mathematics	3	157,269	33	126,157	27	124,278	26	66,557	14	190,835	40
	4	142,408	31	161,100	35	101,560	22	59,287	13	160,847	35
	5	189,045	41	132,398	29	71,243	15	68,931	15	140,174	30
	6	165,353	36	141,778	31	82,021	18	68,398	15	150,419	33
	7	166,921	37	131,422	29	85,325	19	66,727	15	152,052	34
	8	183,683	41	118,529	26	75,459	17	74,294	16	149,753	33
	11	190,798	45	104,315	25	76,935	18	47,460	11	124,395	30

* May not exactly match the sum of Level 3 and Level 4 percentages due to rounding.

Figure 7.5 presents a graphical representation of the percentage of students at each achievement level by grade for ELA.

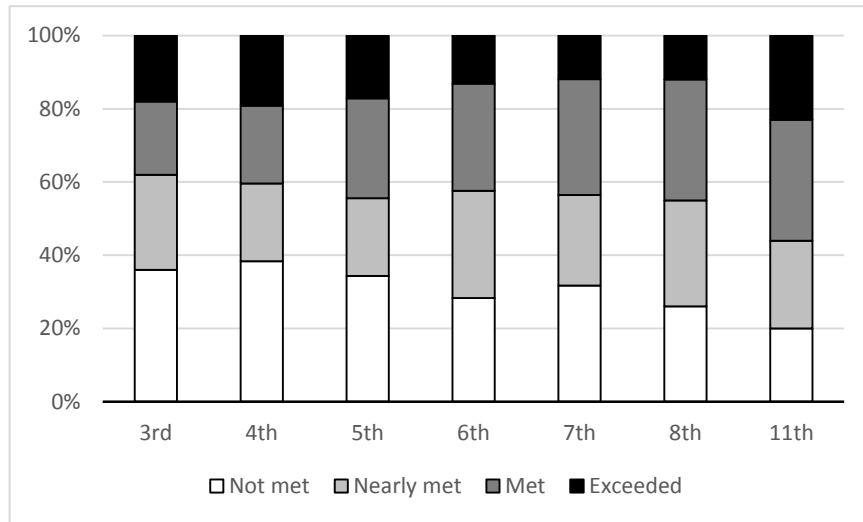


Figure 7.5 Percentages of Achievement Levels in ELA

Figure 7.6 presents a graphical representation of the percentage of students at each achievement level by grade for mathematics.

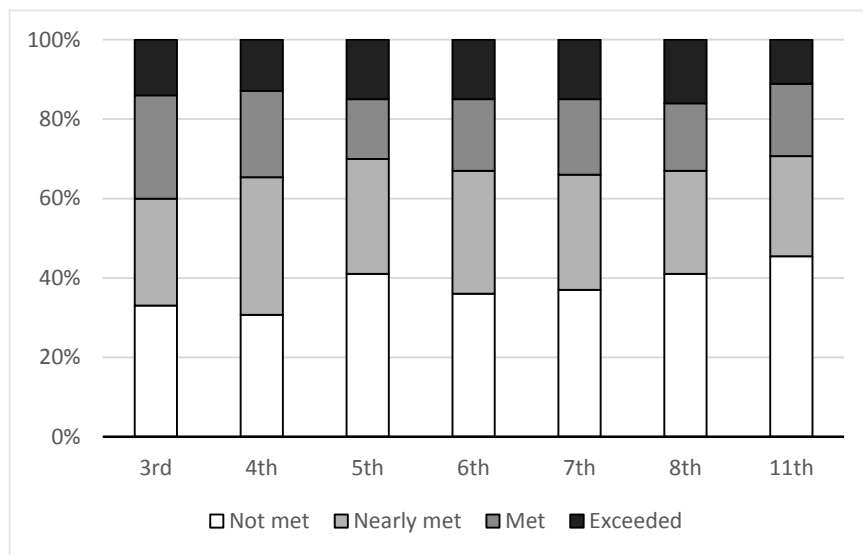


Figure 7.6 Percentages of Achievement Levels in Mathematics

Detailed score distribution information is available in Appendix 7. Table 7.B.1 and Table 7.B.2 in Appendix 7.B on page 147 show the estimated distributions of theta scores for each test. Table 7.C.1 and Table 7.C.2 present the selected percentiles of the scale score distributions. Table 7.C.3 through Table 7.C.16 present the frequency distributions of scale scores for each test.

Table 7.B.3 through Table 7.B.16 contain the distributions of theta scores for each claim. Table 7.D.1 through Table 7.D.4 show the range of the number of items presented within each test, number of students with valid score in each claim, and the means and standard deviations of student scores expressed in terms of both scale scores and theta scores.

“Valid score” means the student records were not flagged as “not scored” or the students were enrolled in the same grade as they were tested. The number of students in each claim achievement level as well as the percentage of students in that claim achievement level are reported in Table 7.D.5 through Table 7.D.8.

7.5.2 Group Scores

Statistics summarizing student performance by content area and grade for selected groups of students are provided starting on page 189 in Table 7.E.1 through Table 7.E.14 for each test, and for each test claim in Table 7.E.15 through Table 7.E.28.

In the tables, students are grouped by demographic characteristics, including gender, ethnicity, English-language fluency, economic status (disadvantaged or not), need for special education services, migrant status, and ethnicity by economic status. The tables show, for each demographic group, the numbers of students with a valid scale score, scale score means and standard deviations, and the percentage of students in each achievement level and claim achievement level.

Table 7.12 provides definitions of the demographic subgroups included in the tables. Students’ economic status was determined by the education level of their parents and whether or not the student participated in the National School Lunch Program (NSLP). To protect privacy when the number of students in a subgroup is 10 or fewer, the summary statistics at the achievement and claim level are not reported and are presented as hyphens.

Table 7.12 Demographic Groups to Be Reported

Subgroups	
Gender	Male Female Gender Unknown
Ethnicity	American Indian or Alaska Native Asian Black or African American Filipino Hispanic or Latino Native Hawaiian or Pacific Islander White Two or More Races
English-language Fluency	English only Initially fluent English proficient English learner Reclassified fluent English proficient To be determined English proficiency Unknown
Economic Status	Not economically disadvantaged Economically disadvantaged Unknown Economic Status
Primary Disability Type	No special services Special services Special Ed Unknown
Migrant Status	Change school or LEA Remain in the same school or LEA

7.6. Reports Produced and Scores for Each Report

The tests that make up the CAASPP online summative assessments provide results or score summaries that are reported for different purposes. The four major purposes are to:

1. Help facilitate conversations between parents/guardians and teachers about student performance;
2. Serve as a tool to help parents/guardians and teachers work together to improve student learning;
3. Help schools and school districts identify strengths and areas that need improvement in their educational programs; and
4. Provide the public and policymakers with information about student achievement.

This section provides detailed descriptions of the uses and applications of CAASPP reporting for students.

7.6.1 Online Reporting

TOMS is a secure Web site hosted by ETS that permits LEA users to manage the CAASPP online summative assessments to inform the test delivery system. This system uses a role-specific design to restrict access to certain tools and applications based on the user's designated role. Specific functions of TOMS include the following:

- Manage user access privileges,
- Manage test administration calendars and testing windows,
- Manage student test assignments,
- Manage and confirm the accuracy of students' test settings (i.e., designated supports and accommodations) prior to testing, and
- Run and download various reports.

In addition, TOMS communicates with the Online Reporting System (ORS) that provides authorized users with interactive and cumulative online reports for ELA and mathematics at the student, school, and LEA levels. The ORS provides access to two CAASPP functions: Score Reports, which provides preliminary score data for each administered test available in the reporting system; and the Completion Status Reports, which provide completion data for students taking the test in the reporting system.

Based on the Smarter Balanced reporting requirements for ELA and mathematics, the ORS provides the preliminary summative reports containing information outlining student knowledge and skills, as well as achievement levels aligned to the assessment-specific claims. The online aggregate reports provide functionality at the student, classroom, school, and LEA levels. The online aggregate reports are available to be downloaded in PDF, Excel, and CSV format.

7.6.2 Special Cases

Student scores are not reported for the following cases:

- Student was absent from the test
- Student whose answer document was blank or because the student moved or had a medical emergency
- Student's parent/guardian requested exemption from testing

- Student who was tested but marked no answers
- Student did not log on to both CAT and PT portions
- Student logged on to two parts (PT and CAT) without any recorded answers
- Student logged on to one part (PT or CAT) but not both parts, and had no recorded answers
- Student attempted fewer than 10 CAT items and fewer than 1 PT item
- Student was invalidated in the system

7.6.3 Types of Score Reports

There are three categories of CAASPP reports. The categories and the specific reports within each category are as follows:

- Student Score Report
 - The Student Score Report is the official score report for the parents or guardians and describes the student’s results.
 - Results presented for the CAASPP online summative assessments include the following metrics:
 - scale score for each content area assessment reported (The ranges of scale scores for both ELA and mathematics are provided in Table 7.4.)
 - error band for each scale score
 - achievement level for each content area assessment reported (Smarter Balanced achievement levels for both ELA and mathematics are “Standard Exceeded,” “Standard Met,” “Standard Nearly Met,” and “Standard Not Met.”)
 - performance levels for all claims in each content area assessment reported (Smarter Balanced achievement levels for claims are “Above Standard,” “At or Near Standard,” and “Below Standard.”)
 - Scores for students who use accommodations or designated supports are reported in the same way as for students without accommodations or designated supports. (See *Universal Tools, Designated Supports, and Accommodations* for more information about accessibility supports.)
 - LEAs receive printed Student Score Reports to distribute to parents/guardians and students’ schools. This report is also provided as a printable PDF that the LEA CAASPP coordinator may download from TOMS.
 - Further information about the CAASPP online summative assessments Student Score Report and the other reports is provided at <http://caaspp.cde.ca.gov/>.
- School Reports
 - The school performance report provides group information by content area, including the school average scale score and percentage of students at or above “Standard Met.”
 - This report provides a list of students’ scale scores, achievement levels, and performance levels for claims.
 - The school scale score report is presented as a dashboard to provide group information by content area. It includes a histogram showing the distribution of students’ scale scores.

- District Reports
 - The district performance report provides school-level information by content area, including the school average scale score and percentage of students at or above “Standard Met.”
 - This report lists all the proficiency information for each school, including the testing status, number of students who completed testing, average scale score, and percentage of students in each achievement level.
 - The district scale score report is presented as a dashboard to provide cumulative information. The histogram shows the frequency of schools with mean scores in each score interval.

The CAASPP aggregate reports and student data files for the LEA are available for the LEA CAASPP coordinator to download from TOMS. The LEA CAASPP coordinator forwards the appropriate reports to test sites. In the case of the CAASPP Student Score Report, the LEA sends the printed report(s) to the child’s parent or guardian and forwards a copy to the student’s school or test site. Downloaded Student Score Reports are forwarded to the test site. CAASPP Student Score Reports that include individual student results are not distributed beyond the student’s school.

Internet reports are described on the CDE Web site and are accessible to the public online at <http://caaspp.cde.ca.gov/>.

Preliminary individual student scores are also available to LEAs prior to the release of final reports via electronic reporting, accessed using the Online Reporting System. This application permits LEAs to view preliminary results data for all tests taken.

7.6.4 Score Report Applications

CAASPP online summative assessments results provide parents and guardians with information about their child’s progress. The results are a tool for increasing communication and collaboration between parents or guardians and teachers. Along with the results from the Smarter Balanced Interim Assessments, the Student Score Report can be used by parents and guardians while talking with teachers about ways to improve their child’s achievement of the CCSS.

Schools may use the CAASPP online summative assessments results to help make decisions about how best to support student achievement. CAASPP online summative assessments results, however, should never be used as the only source of information to make important decisions about a child’s education.

CAASPP online summative assessments results help schools and LEAs identify strengths and weaknesses in their instructional programs. Each year, staff from schools and LEAs examine CAASPP test results at each grade level and content area tested. Their findings are used to help determine:

- The extent to which students are learning the academic standards,
- Instructional areas that can be improved,
- Teaching strategies that can be developed to address needs of students, and
- Decisions about how to use funds to ensure that students achieve the standards.

CAASPP online summative assessments results are used to rank the academic performance of schools, compare schools with similar characteristics (e.g., size and ethnic

composition), identify low-performing and high-performing schools, and set yearly targets for academic progress.

7.6.5 Criteria for Interpreting Test Scores

An LEA may use CAASPP online summative assessment results to help make decisions about student placement, promotion, retention, or other considerations related to student achievement. However, it is important to remember that a single test can provide only limited information. Other relevant information should be considered as well. It is advisable for parents to evaluate their child's strengths and weaknesses in the relevant topics by reviewing classroom work and progress reports in addition to the child's CAASPP online summative assessment results. It is also important to note that a student's score in a content area contains measurement error and could vary somewhat if the student were retested.

7.6.6 Criteria for Interpreting Score Reports

The information presented in various reports must be interpreted with caution when making performance comparisons. When comparing scale score and performance-level results, the user is limited to comparisons within a content area. The scale scores are on a vertical scale across grades for each content area (ELA or mathematics), but the score scales for ELA and mathematics are not comparable to each other. The user may compare scale scores for the same content area and grade, within a school, between schools, or between a school and its district, its county, or the state. For more details on the criteria for interpreting information provided on the score reports, see the *2015 CAASPP Post-Test Guide* (CDE, 2015).

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Appendix 7.A: Participation Rates

Notes:

- The number of students is derived from the 2014–15 data that were received on October 5, 2015.
- A student is considered a participant if a student logged on to both the computer adaptive test and the performance task portions of the test, even if no items are answered.

Table 7.A.1 California Assessment of Student Performance and Progress (CAASPP) Smarter Balanced Participation Rates for English Language Arts/Literacy (ELA), Grade Three

	Gender			English-Language Fluency					
	All	Male	Female	English Learner (EL)	English only (EO)	Reclassified Fluent English Proficient (R-FEP)	Initially Fluent English Proficient (I-FEP)	To Be Determined (TBD)	No Response
Number of students	488,520	250,078	238,442	156,080	280,098	31,333	18,446	531	2,032
Number of participants	475,228	242,970	232,258	151,983	272,558	31,146	18,192	274	1,075
Percent of participation	97.28%	97.16%	97.41%	97.38%	97.31%	99.40%	98.62%	51.60%	52.90%

Table 7.A.2 CAASPP Smarter Balanced Participation Rates for ELA, Grade Three

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaskan Native	Asian	Pacific Islander	Filipino	Hispanic or Latino	African American	White	Two or More Races	Unknown
Number of students	302,768	185,752	2,689	42,343	2,323	11,210	268,169	27,786	114,682	16,321	2,997
Number of participants	296,138	179,090	2,571	40,935	2,232	10,799	262,896	26,688	110,663	15,534	2,910
Percent of participation	97.81%	96.41%	95.61%	96.67%	96.08%	96.33%	98.03%	96.05%	96.50%	95.18%	97.10%

Table 7.A.3 CAASPP Smarter Balanced Participation Rates for ELA, Grade Four

	Gender			English-Language Fluency					
	All	Male	Female	EL	EO	R-FEP	I-FEP	TBD	No Response
Number of students	477,280	243,394	233,886	124,146	270,191	62,361	18,463	459	1,660
Number of participants	465,425	237,085	228,340	120,692	263,352	62,035	18,183	237	926
Percent of participation	97.52%	97.41%	97.63%	97.22%	97.47%	99.48%	98.48%	51.63%	55.78%

Table 7.A.4 Spring 2015 CAASPP Smarter Balanced Participation Rates for ELA, Grade Four

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaskan Native	Asian	Pacific Islander	Filipino	Hispanic or Latino	African American	White	Two or More Races	Unknown
Number of students	293,370	183,910	2,615	42,518	2,383	11,509	258,890	27,231	114,520	15,058	2,556
Number of participants	287,408	178,017	2,485	41,255	2,301	11,206	254,171	26,270	110,821	14,443	2,473
Percent of participation	97.97%	96.80%	95.03%	97.03%	96.56%	97.37%	98.18%	96.47%	96.77%	95.92%	96.75%

Table 7.A.5 CAASPP Smarter Balanced Participation Rates for ELA, Grade Five

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	R-FEP	I-FEP	TBD	No Response
Number of students	479,011	245,785	233,226	105,750	268,760	81,882	20,623	460	1,536
Number of participants	462,675	236,304	226,371	100,933	259,150	81,255	20,290	224	823
Percent of participation	96.59%	96.14%	97.06%	95.44%	96.42%	99.23%	98.39%	48.70%	53.58%

Table 7.A.6 CAASPP Smarter Balanced Participation Rates for ELA, Grade Five

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaskan Native	Asian	Pacific Islander	Filipino	Hispanic or Latino	African American	White	Two or More Races	Unknown
Number of students	290,198	188,813	2,686	43,919	2,499	12,265	255,384	28,057	117,791	13,867	2,543
Number of participants	281,427	181,248	2,548	42,352	2,402	11,836	248,199	26,679	113,040	13,174	2,445
Percent of participation	96.98%	95.99%	94.86%	96.43%	96.12%	96.50%	97.19%	95.09%	95.97%	95.00%	96.15%

Table 7.A.7 CAASPP Smarter Balanced Participation Rates for ELA, Grade Six

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	R-FEP	I-FEP	TBD	No Response
Number of students	470,945	240,829	230,116	79,895	262,014	105,187	21,888	479	1,482
Number of participants	459,401	234,656	224,745	76,945	255,197	104,577	21,621	280	781
Percent of participation	97.55%	97.44%	97.67%	96.31%	97.40%	99.42%	98.78%	58.46%	52.70%

Table 7.A.8 CAASPP Smarter Balanced Participation Rates for ELA, Grade Six

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/Alaskan Native	Asian	Pacific Islander	Filipino	Hispanic or Latino	African American	White	Two or More Races	Unknown
Number of students	283,852	187,093	2,679	42,955	2,384	12,766	249,656	27,896	117,103	12,470	3,036
Number of participants	277,942	181,459	2,547	41,934	2,314	12,486	245,109	26,830	113,383	11,844	2,954
Percent of participation	97.92%	96.99%	95.07%	97.62%	97.06%	97.81%	98.18%	96.18%	96.82%	94.98%	97.30%

Table 7.A.9 CAASPP Smarter Balanced Participation Rates for ELA, Grade Seven

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	R-FEP	I-FEP	TBD	No Response
Number of students	466,612	238,270	228,342	69,582	257,311	116,682	20,946	476	1,615
Number of participants	453,373	231,152	222,221	66,445	249,299	115,829	20,641	250	909
Percent of participation	97.16%	97.01%	97.32%	95.49%	96.89%	99.27%	98.54%	52.52%	56.28%

Table 7.A.10 CAASPP Smarter Balanced Participation Rates for ELA, Grade Seven

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaskan Native	Asian	Pacific Islander	Filipino	Hispanic or Latino	African American	White	Two or More Races	Unknown
Number of students	279,967	186,645	2,868	41,630	2,446	12,858	247,960	28,711	115,764	11,829	2,546
Number of participants	272,876	180,497	2,723	40,634	2,353	12,545	242,344	27,369	111,759	11,200	2,446
Percent of participation	97.47%	96.71%	94.94%	97.61%	96.20%	97.57%	97.74%	95.33%	96.54%	94.68%	96.07%

Table 7.A.11 CAASPP Smarter Balanced Participation Rates for ELA, Grade Eight

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	R-FEP	I-FEP	TBD	No Response
Number of students	474,479	243,177	231,302	63,677	260,527	126,717	21,565	343	1,650
Number of participants	455,494	232,555	222,939	59,042	248,977	125,318	21,132	187	838
Percent of participation	96.00%	95.63%	96.38%	92.72%	95.57%	98.90%	97.99%	54.52%	50.79%

Table 7.A.12 CAASPP Smarter Balanced Participation Rates for ELA, Grade Eight

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaskan Native	Asian	Pacific Islander	Filipino	Hispanic or Latino	African American	White	Two or More Races	Unknown
Number of students	281,180	193,299	2,864	42,220	2,435	13,526	250,638	30,219	118,612	11,373	2,592
Number of participants	270,611	184,883	2,654	40,902	2,339	13,034	241,998	28,305	113,261	10,555	2,446
Percent of participation	96.24%	95.65%	92.67%	96.88%	96.06%	96.36%	96.55%	93.67%	95.49%	92.81%	94.37%

Table 7.A.13 CAASPP Smarter Balanced Participation Rates for ELA, Grade Eleven

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	R-FEP	I-FEP	TBD	No Response
Number of students	479,423	244,823	234,600	49,065	267,613	121,647	39,152	367	1,579
Number of participants	432,825	220,120	212,705	41,497	238,319	115,339	36,683	199	788
Percent of participation	90.28%	89.91%	90.67%	84.58%	89.05%	94.81%	93.69%	54.22%	49.91%

Table 7.A.14 CAASPP Smarter Balanced Participation Rates for ELA, Grade Eleven

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaskan Native	Asian	Pacific Islander	Filipino	Hispanic or Latino	African American	White	Two or More Races	Unknown
Number of students	263,774	215,649	3,261	41,556	2,694	14,765	247,120	31,242	125,232	11,722	1,831
Number of participants	238,727	194,098	2,726	39,170	2,440	13,963	224,949	26,730	111,128	10,162	1,557
Percent of participation	90.50%	90.01%	83.59%	94.26%	90.57%	94.57%	91.03%	85.56%	88.74%	86.69%	85.04%

Table 7.A.15 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Three

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	R-FEP	I-FEP	TBD	No Response
Number of students	488,520	250,078	238,442	156,080	280,098	31,333	18,446	531	2,032
Number of participants	477,045	243,931	233,114	153,537	272,409	31,148	18,192	392	1,367
Percent of participation	97.65%	97.54%	97.77%	98.37%	97.25%	99.41%	98.62%	73.82%	67.27%

Table 7.A.16 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Three

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaskan Native	Asian	Pacific Islander	Filipino	Hispanic or Latino	African American	White	Two or More Races	Unknown
Number of students	302,768	185,752	2,689	42,343	2,323	11,210	268,169	27,786	114,682	16,321	2,997
Number of participants	297,128	179,917	2,569	41,484	2,239	10,900	263,880	26,674	110,835	15,540	2,924
Percent of participation	98.14%	96.86%	95.54%	97.97%	96.38%	97.23%	98.40%	96.00%	96.65%	95.21%	97.56%

Table 7.A.17 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Four

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	R-FEP	I-FEP	TBD	No Response
Number of students	477,280	243,394	233,886	124,146	270,191	62,361	18,463	459	1,660
Number of participants	466,980	237,918	229,062	122,115	263,133	62,025	18,170	331	1,206
Percent of participation	97.84%	97.75%	97.94%	98.36%	97.39%	99.46%	98.41%	72.11%	72.65%

Table 7.A.18 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Four

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaskan Native	Asian	Pacific Islander	Filipino	Hispanic or Latino	African American	White	Two or More Races	Unknown
Number of students	293,370	183,910	2,615	42,518	2,383	11,509	258,890	27,231	114,520	15,058	2,556
Number of participants	288,308	178,672	2,485	41,774	2,301	11,311	255,013	26,247	110,898	14,456	2,495
Percent of participation	98.27	97.15	95.03	98.25	96.56	98.28	98.50	96.39	96.84	96.00	97.61

Table 7.A.19 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Five

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	R-FEP	I-FEP	TBD	No Response
Number of students	479,011	245,785	233,226	105,750	268,760	81,882	20,623	460	1,536
Number of participants	464,153	237,068	227,085	102,242	258,960	81,248	20,292	318	1,093
Percent of participation	96.90%	96.45%	97.37%	96.68%	96.35%	99.23%	98.39%	69.13%	71.16%

Table 7.A.20 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Five

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaskan Native	Asian	Pacific Islander	Filipino	Hispanic or Latino	African American	White	Two or More Races	Unknown
Number of students	290,198	188,813	2,686	43,919	2,499	12,265	255,384	28,057	117,791	13,867	2,543
Number of participants	282,277	181,876	2,551	42,825	2,407	11,903	249,029	26,651	113,142	13,194	2,451
Percent of participation	97.27%	96.33%	94.97%	97.51%	96.32%	97.05%	97.51%	94.99%	96.05%	95.15%	96.38%

Table 7.A.21 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Six

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	R-FEP	I-FEP	TBD	No Response
Number of students	470,945	240,829	230,116	79,895	262,014	105,187	21,888	479	1,482
Number of participants	460,624	235,282	225,342	78,172	254,937	104,543	21,613	353	1,006
Percent of participation	97.81%	97.70%	97.93%	97.84%	97.30%	99.39%	98.74%	73.70%	67.88%

Table 7.A.22 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Six

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaskan Native	Asian	Pacific Islander	Filipino	Hispanic or Latino	African American	White	Two or More Races	Unknown
Number of students	283,852	187,093	2,679	42,955	2,384	12,766	249,656	27,896	117,103	12,470	3,036
Number of participants	278,650	181,974	2,539	42,347	2,320	12,575	245,754	26,799	113,483	11,839	2,968
Percent of participation	98.17%	97.26%	94.77%	98.58%	97.32%	98.50%	98.44%	96.07%	96.91%	94.94%	97.76%

Table 7.A.23 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Seven

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	R-FEP	I-FEP	TBD	No Response
Number of students	466,612	238,270	228,342	69,582	257,311	116,682	20,946	476	1,615
Number of participants	454,517	231,752	222,765	67,677	248,925	115,772	20,636	348	1,159
Percent of participation	97.41%	97.26%	97.56%	97.26%	96.74%	99.22%	98.52%	73.11%	71.76%

Table 7.A.24 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Seven

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaskan Native	Asian	Pacific Islander	Filipino	Hispanic or Latino	African American	White	Two or More Races	Unknown
Number of students	279,967	186,645	2,868	41,630	2,446	12,858	247,960	28,711	115,764	11,829	2,546
Number of participants	273,587	180,930	2,725	41,046	2,355	12,621	243,053	27,311	111,748	11,193	2,465
Percent of participation	97.72%	96.94%	95.01%	98.60%	96.28%	98.16%	98.02%	95.12%	96.53%	94.62%	96.82%

Table 7.A.25 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Eight

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	R-FEP	I-FEP	TBD	No Response
Number of students	474,479	243,177	231,302	63,677	260,527	126,717	21,565	343	1,650
Number of participants	456,448	233,054	223,394	60,203	248,558	125,239	21,134	254	1,060
Percent of participation	96.20%	95.84%	96.58%	94.54%	95.41%	98.83%	98.00%	74.05%	64.24%

Table 7.A.26 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Eight

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaskan Native	Asian	Pacific Islander	Filipino	Hispanic or Latino	African American	White	Two or More Races	Unknown
Number of students	281,180	193,299	2,864	42,220	2,435	13,526	250,638	30,219	118,612	11,373	2,592
Number of participants	271,225	185,223	2,652	41,269	2,342	13,132	242,644	28,211	113,180	10,550	2,468
Percent of participation	96.46%	95.82%	92.60%	97.75%	96.18%	97.09%	96.81%	93.36%	95.42%	92.76%	95.22%

Table 7.A.27 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Eleven

	Gender			English Language Fluency					
	All	Male	Female	EL	EO	R-FEP	I-FEP	TBD	No Response
Number of students	479,423	244,823	234,600	49,065	267,613	121,647	39,152	367	1,579
Number of participants	430,227	218,922	211,305	41,543	236,385	114,702	36,473	205	919
Percent of participation	89.74%	89.42%	90.07%	84.67%	88.33%	94.29%	93.16%	55.86%	58.20%

Table 7.A.28 CAASPP Smarter Balanced Participation Rates for Mathematics, Grade Eleven

	Economic Status		Ethnicity								
	Economically Disadvantaged	Not Economically Disadvantaged	American Indian/ Alaskan Native	Asian	Pacific Islander	Filipino	Hispanic or Latino	African American	White	Two or More Races	Unknown
Number of students	263,774	215,649	3,261	41,556	2,694	14,765	247,120	31,242	125,232	11,722	1,831
Number of participants	237,190	193,037	2,688	39,235	2,428	13,942	223,473	26,415	110,417	10,072	1,557
Percent of participation	89.92%	89.51%	82.43%	94.41%	90.13%	94.43%	90.43%	84.55%	88.17%	85.92%	85.04%

Appendix 7.B: Theta Scores of Tests and Claims

Note: An expression that opens with a parenthesis and closes with a bracket indicates that a value is greater than the first number and is less than or equal to the second number. For example, “(0.5, 2]” indicates a value greater than 0.5 but less than or equal to 2.

Table 7.B.1 Frequency Distribution of Theta for Overall Scores—ELA

Theta Score	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
(-5.0,-4.5]	103	—	—	—	—	—	—
(-4.5,-4.0]	424	174	—	—	—	—	—
(-4.0,-3.5]	2,156	710	371	—	—	—	—
(-3.5,-3.0]	11,761	3,648	1,149	856	—	—	—
(-3.0,-2.5]	37,857	15,613	4,900	2,555	1,896	993	—
(-2.5,-2.0]	63,911	40,150	17,334	9,386	5,782	3,059	4,462
(-2.0,-1.5]	79,137	61,249	40,100	24,307	18,621	11,023	9,284
(-1.5,-1.0]	83,325	71,456	61,449	43,413	38,895	26,366	19,452
(-1.0,-0.5]	74,919	74,420	68,800	61,834	55,041	45,222	28,326
(-0.5,0.0]	59,378	72,030	71,427	76,538	64,075	62,767	37,678
(0.0,0.5]	36,730	58,635	71,320	79,770	68,868	71,996	47,284
(0.5,1.0]	16,569	37,351	58,498	67,294	70,627	71,142	56,094
(1.0,1.5]	6,404	18,604	37,803	49,473	59,437	66,990	62,142
(1.5,2.0]	—	8,639	18,821	27,550	39,928	50,487	60,043
(2.0,2.5]	—	—	8,218	10,063	18,448	27,645	48,637
(2.5,3.0]	—	—	—	3,282	8,096	10,167	29,737
(3.0,3.5]	—	—	—	—	—	3,328	18,959

Table 7.B.2 Frequency Distribution of Theta for Overall Scores—Mathematics

Theta Score	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
(-4.5,-4.0]	3,179	—	—	—	—	—	—
(-4.0,-3.5]	5,692	1,752	1,303	4,238	—	—	—
(-3.5,-3.0]	12,460	4,263	2,765	4,725	8,292	5,605	—
(-3.0,-2.5]	27,977	12,528	8,816	10,149	8,610	7,500	9,787
(-2.5,-2.0]	57,560	31,746	21,914	18,820	17,018	15,980	10,324
(-2.0,-1.5]	85,734	63,126	46,263	29,891	27,506	27,220	19,395
(-1.5,-1.0]	91,082	83,404	71,476	42,684	40,054	38,456	30,551
(-1.0,-0.5]	83,994	87,530	76,167	59,525	53,148	48,767	40,657
(-0.5,0.0]	57,582	75,219	72,164	71,706	62,666	57,012	46,227
(0.0,0.5]	29,773	51,995	61,105	70,614	63,248	59,049	49,098
(0.5,1.0]	12,824	31,547	47,784	58,420	56,528	53,655	49,580
(1.0,1.5]	6,404	14,291	30,320	41,347	45,946	45,903	46,200
(1.5,2.0]	—	6,954	14,047	24,892	32,002	36,553	37,884
(2.0,2.5]	—	—	7,493	12,564	19,903	25,694	29,637
(2.5,3.0]	—	—	—	7,975	9,400	15,741	20,996
(3.0,3.5]	—	—	—	—	6,074	8,360	13,822
(3.5,4.0]	—	—	—	—	—	6,470	8,457
(4.0,4.5]	—	—	—	—	—	—	6,893

Table 7.B.3 Frequency Distribution of Theta for Claim Scores—ELA, Grade Three

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 4 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent	Claim 4 Percent
[LOT, -4.5]	6,667	4,734	17,352	20,744	1%	1%	4%	4%
(-4.5, -4]	786	3,644	16	327	0%	1%	0%	0%
(-4, -3.5]	6,972	8,855	14,870	9,853	1%	2%	3%	2%
(-3.5, -3]	15,031	19,950	11,844	23,020	3%	4%	3%	5%
(-3, -2.5]	35,896	37,980	29,535	38,839	8%	8%	6%	8%
(-2.5, -2]	63,978	57,512	40,560	57,584	14%	12%	9%	12%
(-2, -1.5]	78,196	72,382	61,924	63,530	17%	15%	13%	13%
(-1.5, -1]	74,683	78,232	74,474	62,659	16%	17%	16%	13%
(-1, -0.5]	67,144	72,303	72,090	60,315	14%	15%	15%	13%
(-0.5, 0]	56,178	53,661	57,977	53,550	12%	11%	12%	11%
(0, 0.5]	36,700	33,622	40,254	40,760	8%	7%	9%	9%
(0.5, 1]	18,076	17,564	24,498	24,124	4%	4%	5%	5%
(1, HOT]	12,208	12,223	27,170	17,358	3%	3%	6%	4%

Table 7.B.4 Frequency Distribution of Theta for Claim Scores—ELA, Grade Four

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 4 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent	Claim 4 Percent
[LOT, -4]	7,030	3,476	11,605	19,283	2%	1%	3%	4%
(-4, -3.5]	2,255	3,912	6,391	584	0%	1%	1%	0%
(-3.5, -3]	9,225	7,881	11,931	8,069	2%	2%	3%	2%
(-3, -2.5]	20,185	17,234	20,258	37,292	4%	4%	4%	8%
(-2.5, -2]	41,353	33,669	31,665	34,913	9%	7%	7%	8%
(-2, -1.5]	62,058	52,914	45,540	52,638	13%	11%	10%	11%
(-1.5, -1]	69,062	68,521	59,105	57,601	15%	15%	13%	12%
(-1, -0.5]	64,889	75,814	66,531	57,918	14%	16%	14%	13%
(-0.5, 0]	60,436	71,433	64,672	57,919	13%	15%	14%	13%
(0, 0.5]	52,636	55,081	54,548	53,601	11%	12%	12%	12%
(0.5, 1]	37,505	34,737	38,924	40,341	8%	8%	8%	9%
(1, 1.5]	21,378	19,720	24,324	23,866	5%	4%	5%	5%
(1.5, HOT]	14,552	18,278	27,116	18,634	3%	4%	6%	4%

Table 7.B.5 Frequency Distribution of Theta for Claim Scores—ELA, Grade Five

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 4 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent	Claim 4 Percent
[LOT, -3.5]	5,798	4,007	17,788	14,101	1%	1%	4%	3%
(-3.5, -3]	4,053	3,508	13,171	143	1%	1%	3%	0%
(-3, -2.5]	9,186	8,302	21,656	7,000	2%	2%	5%	2%
(-2.5, -2]	23,171	18,601	24,119	13,535	5%	4%	5%	3%
(-2, -1.5]	46,476	37,159	39,165	28,273	10%	8%	9%	6%
(-1.5, -1]	64,219	56,223	50,194	44,205	14%	12%	11%	10%
(-1, -0.5]	66,857	65,628	53,550	55,769	15%	14%	12%	12%
(-0.5, 0]	65,982	68,881	54,379	64,680	14%	15%	12%	14%
(0, 0.5]	61,812	65,470	52,214	68,193	13%	14%	11%	15%
(0.5, 1]	49,397	53,538	48,286	62,842	11%	12%	10%	14%
(1, 1.5]	33,071	37,036	36,470	47,265	7%	8%	8%	10%
(1.5, 2]	18,061	21,659	23,616	28,304	4%	5%	5%	6%
(2, HOT]	11,952	20,172	25,464	25,878	3%	4%	6%	6%

Table 7.B.6 Frequency Distribution of Theta for Claim Scores—ELA, Grade Six

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 4 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent	Claim 4 Percent
[LOT, -3]	11,462	5,386	14,582	11,444	3%	1%	3%	3%
(-3, -2.5]	15,378	4,703	9,271	8,336	3%	1%	2%	2%
(-2.5, -2]	18,852	10,491	18,391	11,705	4%	2%	4%	3%
(-2, -1.5]	36,628	20,944	21,450	23,094	8%	5%	5%	5%
(-1.5, -1]	53,091	37,594	32,530	34,017	12%	8%	7%	7%
(-1, -0.5]	61,211	56,780	50,467	48,904	13%	12%	11%	11%
(-0.5, 0]	63,857	74,067	53,853	61,141	14%	16%	12%	13%
(0, 0.5]	59,838	80,617	59,339	69,049	13%	18%	13%	15%
(0.5, 1]	51,154	67,490	60,407	68,625	11%	15%	13%	15%
(1, 1.5]	39,591	46,963	48,309	57,347	9%	10%	11%	13%
(1.5, 2]	24,974	27,960	32,009	36,350	5%	6%	7%	8%
(2, 2.5]	12,394	13,809	23,590	16,477	3%	3%	5%	4%
(2.5, HOT]	7,579	9,505	31,785	9,825	2%	2%	7%	2%

Table 7.B.7 Frequency Distribution of Theta for Claim Scores—ELA, Grade Seven

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 4 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent	Claim 4 Percent
[LOT, -2.5]	11,488	8,988	15,607	21,006	3%	2%	3%	5%
(-2.5, -2]	12,582	9,148	16,487	16,040	3%	2%	4%	4%
(-2, -1.5]	23,841	17,408	24,388	21,481	5%	4%	5%	5%
(-1.5, -1]	42,651	29,559	33,968	33,921	9%	7%	8%	8%
(-1, -0.5]	57,944	43,809	48,801	45,578	13%	10%	11%	10%
(-0.5, 0]	62,771	58,077	54,050	51,728	14%	13%	12%	12%
(0, 0.5]	62,069	68,479	58,631	55,987	14%	15%	13%	12%
(0.5, 1]	58,554	69,604	56,177	60,734	13%	15%	12%	14%
(1, 1.5]	48,716	60,515	46,513	58,787	11%	13%	10%	13%
(1.5, 2]	33,841	41,442	37,630	43,361	8%	9%	8%	10%
(2, 2.5]	19,082	23,468	24,480	23,740	4%	5%	5%	5%
(2.5, HOT]	15,949	19,200	32,720	17,299	4%	4%	7%	4%

Table 7.B.8 Frequency Distribution of Theta for Claim Scores—ELA, Grade Eight

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 4 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent	Claim 4 Percent
[LOT, -2.5]	8,741	6,065	15,829	14,292	2%	1%	4%	3%
(-2.5, -2]	8,404	5,907	12,033	16,885	2%	1%	3%	4%
(-2, -1.5]	14,670	11,989	16,349	14,763	3%	3%	4%	3%
(-1.5, -1]	28,853	22,564	27,881	29,245	6%	5%	6%	6%
(-1, -0.5]	45,555	37,906	39,317	40,785	10%	8%	9%	9%
(-0.5, 0]	57,501	56,751	52,213	50,492	13%	13%	12%	11%
(0, 0.5]	63,344	70,727	60,840	55,020	14%	16%	13%	12%
(0.5, 1]	66,596	73,731	63,245	60,042	15%	16%	14%	13%
(1, 1.5]	61,473	63,205	53,355	60,337	14%	14%	12%	13%
(1.5, 2]	48,387	46,080	41,681	50,187	11%	10%	9%	11%
(2, 2.5]	29,096	29,105	28,111	32,126	6%	6%	6%	7%
(2.5, 3]	12,711	15,267	17,660	15,919	3%	3%	4%	4%
(3, HOT]	5,720	11,873	22,175	11,037	1%	3%	5%	2%

Table 7.B.9 Frequency Distribution of Theta for Claim Scores—ELA, Grade Eleven

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 4 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent	Claim 4 Percent
[LOT, -2]	8,973	15,681	24,188	26,219	2%	4%	6%	6%
(-2, -1.5]	7,566	11,578	15,582	10,494	2%	3%	4%	2%
(-1.5, -1]	15,834	17,803	23,714	16,958	4%	4%	6%	4%
(-1, -0.5]	27,068	25,429	31,286	22,955	6%	6%	7%	5%
(-0.5, 0]	39,325	34,465	39,162	30,365	9%	8%	9%	7%
(0, 0.5]	51,175	44,247	44,537	36,783	12%	10%	11%	9%
(0.5, 1]	57,433	53,589	47,895	44,622	14%	13%	11%	11%
(1, 1.5]	59,259	57,743	47,370	52,636	14%	14%	11%	12%
(1.5, 2]	55,321	52,780	43,610	56,795	13%	13%	10%	13%
(2, 2.5]	43,167	42,409	35,948	50,966	10%	10%	9%	12%
(2.5, 3]	28,302	29,756	26,486	35,552	7%	7%	6%	8%
(3, HOT]	28,444	36,526	40,938	37,631	7%	9%	10%	9%

Table 7.B.10 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Three

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent
[LOT, -4]	6,494	22,921	19,023	1%	5%	4%
(-4, -3.5]	6,135	4,054	5,791	1%	1%	1%
(-3.5, -3]	12,279	16,051	19,627	3%	3%	4%
(-3, -2.5]	25,575	34,601	32,000	5%	7%	7%
(-2.5, -2]	51,030	56,161	54,215	11%	12%	11%
(-2, -1.5]	82,712	74,015	72,675	17%	16%	15%
(-1.5, -1]	94,015	81,751	80,026	20%	17%	17%
(-1, -0.5]	82,373	76,219	74,744	17%	16%	16%
(-0.5, 0]	57,006	56,117	57,070	12%	12%	12%
(0, 0.5]	31,955	30,735	32,918	7%	6%	7%
(0.5, 1]	14,379	13,165	15,057	3%	3%	3%
(1, HOT]	10,279	8,470	11,106	2%	2%	2%

Table 7.B.11 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Four

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent
[LOT, -3.5]	4,516	31,561	11,578	1%	7%	2%
(-3.5, -3]	5,436	2,122	8,058	1%	0%	2%
(-3, -2.5]	12,508	14,658	17,370	3%	3%	4%
(-2.5, -2]	29,009	34,076	34,600	6%	7%	7%
(-2, -1.5]	58,155	52,537	57,408	13%	11%	12%
(-1.5, -1]	82,078	70,622	75,785	18%	15%	16%
(-1, -0.5]	89,228	79,003	78,584	19%	17%	17%
(-0.5, 0]	74,130	71,859	71,018	16%	15%	15%
(0, 0.5]	50,944	52,911	53,521	11%	11%	12%
(0.5, 1]	31,587	30,480	32,426	7%	7%	7%
(1, 1.5]	16,427	14,149	14,659	4%	3%	3%
(1.5, HOT]	10,314	10,375	9,342	2%	2%	2%

Table 7.B.12 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Five

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent
[LOT, -3.5]	3,208	59,666	23,629	1%	13%	5%
(-3.5, -3]	4,429	11	480	1%	0%	0%
(-3, -2.5]	10,183	814	10,946	2%	0%	2%
(-2.5, -2]	21,265	12,808	33,151	5%	3%	7%
(-2, -1.5]	41,197	41,239	41,451	9%	9%	9%
(-1.5, -1]	63,934	55,971	61,124	14%	12%	13%
(-1, -0.5]	75,709	64,973	69,608	16%	14%	15%
(-0.5, 0]	72,918	65,634	64,790	16%	14%	14%
(0, 0.5]	62,489	58,977	54,993	14%	13%	12%
(0.5, 1]	48,725	47,065	44,144	11%	10%	10%
(1, 1.5]	31,207	30,936	30,059	7%	7%	7%
(1.5, 2]	15,172	15,010	15,698	3%	3%	3%
(2, HOT]	11,152	8,509	11,539	2%	2%	2%

Table 7.B.13 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Six

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent
[LOT, -3.5]	7,613	51,962	18,155	2%	11%	4%
(-3.5, -3]	5,580	475	2,039	1%	0%	0%
(-3, -2.5]	10,588	3,386	10,440	2%	1%	2%
(-2.5, -2]	18,344	11,428	22,029	4%	2%	5%
(-2, -1.5]	28,295	28,983	31,873	6%	6%	7%
(-1.5, -1]	40,137	40,482	45,730	9%	9%	10%
(-1, -0.5]	55,202	51,555	56,120	12%	11%	12%
(-0.5, 0]	68,697	63,978	62,074	15%	14%	14%
(0, 0.5]	68,250	66,471	60,286	15%	15%	13%
(0.5, 1]	57,439	55,368	53,983	13%	12%	12%
(1, 1.5]	42,559	39,235	41,777	9%	9%	9%
(1.5, 2]	26,862	23,498	27,085	6%	5%	6%
(2, 2.5]	15,074	11,806	14,225	3%	3%	3%
(2.5, HOT]	12,855	8,921	11,712	3%	2%	3%

Table 7.B.14 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Seven

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent
[LOT, -3]	12,283	77,798	51,740	3%	17%	11%
(-3, -2.5]	9,586	470	2,291	2%	0%	1%
(-2.5, -2]	15,993	5,657	8,191	4%	1%	2%
(-2, -1.5]	25,362	15,959	21,081	6%	4%	5%
(-1.5, -1]	37,393	33,936	36,719	8%	8%	8%
(-1, -0.5]	50,101	47,641	46,192	11%	11%	10%
(-0.5, 0]	60,174	53,180	53,106	13%	12%	12%
(0, 0.5]	63,024	54,716	57,763	14%	12%	13%
(0.5, 1]	55,613	50,803	55,633	12%	11%	12%
(1, 1.5]	45,741	42,935	45,777	10%	10%	10%
(1.5, 2]	33,603	31,124	32,131	7%	7%	7%
(2, 2.5]	21,061	19,353	19,771	5%	4%	4%
(2.5, 3]	11,048	9,601	10,715	2%	2%	2%
(3, HOT]	9,368	7,215	9,264	2%	2%	2%

Table 7.B.15 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Eight

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent
[LOT, -3]	10,790	74,364	19,694	2%	16%	4%
(-3, -2.5]	8,548	513	10,397	2%	0%	2%
(-2.5, -2]	15,492	6,885	16,458	3%	2%	4%
(-2, -1.5]	25,694	11,264	25,067	6%	2%	6%
(-1.5, -1]	37,602	23,469	34,164	8%	5%	8%
(-1, -0.5]	46,985	51,595	43,520	10%	11%	10%
(-0.5, 0]	53,960	48,985	51,974	12%	11%	12%
(0, 0.5]	55,607	50,218	56,066	12%	11%	12%
(0.5, 1]	52,444	47,911	52,619	12%	11%	12%
(1, 1.5]	45,506	43,705	44,279	10%	10%	10%
(1.5, 2]	36,772	36,509	35,342	8%	8%	8%
(2, 2.5]	26,218	25,869	26,478	6%	6%	6%
(2.5, 3]	16,614	15,587	17,251	4%	3%	4%
(3, 3.5]	9,518	7,919	9,113	2%	2%	2%
(3.5, HOT]	10,178	7,166	9,520	2%	2%	2%

Table 7.B.16 Frequency Distribution of Theta for Claim Scores—Mathematics, Grade Eleven

Theta Score	Claim 1 N	Claim 2 N	Claim 3 N	Claim 1 Percent	Claim 2 Percent	Claim 3 Percent
[LOT, -2.5]	16,754	77,708	31,892	4%	19%	8%
(-2.5, -2]	11,665	5,494	12,138	3%	1%	3%
(-2, -1.5]	17,853	9,894	13,716	4%	2%	3%
(-1.5, -1]	26,459	18,100	23,531	6%	4%	6%
(-1, -0.5]	34,871	28,738	34,950	8%	7%	8%
(-0.5, 0]	42,476	43,806	41,756	10%	10%	10%
(0, 0.5]	47,287	41,629	46,594	11%	10%	11%
(0.5, 1]	51,036	40,056	46,222	12%	10%	11%
(1, 1.5]	48,277	38,753	42,523	12%	9%	10%
(1.5, 2]	38,355	35,600	37,933	9%	8%	9%
(2, 2.5]	28,666	30,081	31,323	7%	7%	7%
(2.5, 3]	21,276	21,281	22,807	5%	5%	5%
(3, 3.5]	15,000	13,151	15,127	4%	3%	4%
(3.5, 4]	9,496	7,662	8,574	2%	2%	2%
(4, HOT]	9,969	7,454	10,359	2%	2%	2%

Appendix 7.C: Scale Scores of Tests and Claims

Table 7.C.1 Percentiles of Scale Scores in ELA

Percentile	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
p1	2,222	2,251	2,283	2,303	2,320	2,340	2,334
p10	2,290	2,324	2,364	2,390	2,403	2,427	2,438
p20	2,324	2,360	2,400	2,431	2,443	2,468	2,493
p30	2,351	2,390	2,431	2,462	2,476	2,499	2,534
p40	2,376	2,418	2,459	2,489	2,505	2,527	2,569
p50	2,400	2,445	2,487	2,513	2,534	2,554	2,600
p60	2,425	2,471	2,515	2,537	2,561	2,581	2,629
p70	2,451	2,499	2,542	2,563	2,588	2,608	2,658
p80	2,481	2,529	2,572	2,593	2,618	2,638	2,690
p90	2,520	2,569	2,612	2,632	2,657	2,676	2,730
p99	2,603	2,657	2,697	2,713	2,742	2,757	2,795

Table 7.C.2 Percentiles of Scale Scores in Mathematics

Percentile	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
p1	2,212	2,268	2,280	2,240	2,250	2,265	2,280
p10	2,315	2,353	2,369	2,368	2,374	2,382	2,400
p20	2,350	2,385	2,403	2,420	2,426	2,432	2,450
p30	2,374	2,409	2,428	2,455	2,462	2,469	2,489
p40	2,395	2,431	2,452	2,483	2,492	2,502	2,524
p50	2,415	2,451	2,476	2,508	2,520	2,532	2,557
p60	2,436	2,473	2,501	2,533	2,548	2,563	2,591
p70	2,457	2,495	2,529	2,559	2,578	2,597	2,626
p80	2,482	2,523	2,560	2,591	2,613	2,636	2,669
p90	2,516	2,561	2,600	2,633	2,660	2,689	2,727
p99	2,603	2,648	2,690	2,735	2,765	2,802	2,854

Table 7.C.3 Frequency Distribution of Overall Scale Scores—ELA, Grade Three

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2114, 2119]	272	272	0%	0%
[2120, 2129]	48	320	0%	0%
[2130, 2139]	55	375	0%	0%
[2140, 2149]	81	456	0%	0%
[2150, 2159]	121	577	0%	0%
[2160, 2169]	188	765	0%	0%
[2170, 2179]	268	1,033	0%	0%
[2180, 2189]	424	1,457	0%	0%
[2190, 2199]	621	2,078	0%	0%
[2200, 2209]	894	2,972	0%	1%
[2210, 2219]	1,365	4,337	0%	1%
[2220, 2229]	2,068	6,405	0%	1%
[2230, 2239]	3,144	9,549	1%	2%
[2240, 2249]	4,259	13,808	1%	3%
[2250, 2259]	5,695	19,503	1%	4%
[2260, 2269]	7,514	27,017	2%	6%
[2270, 2279]	9,005	36,022	2%	8%
[2280, 2289]	11,065	47,087	2%	10%
[2290, 2299]	12,831	59,918	3%	13%
[2300, 2309]	13,458	73,376	3%	16%
[2310, 2319]	14,719	88,095	3%	19%
[2320, 2329]	16,000	104,095	3%	22%
[2330, 2339]	17,155	121,250	4%	26%
[2340, 2349]	17,988	139,238	4%	29%
[2350, 2359]	18,254	157,492	4%	33%
[2360, 2369]	18,857	176,349	4%	37%
[2370, 2379]	18,996	195,345	4%	41%
[2380, 2389]	19,464	214,809	4%	45%
[2390, 2399]	19,794	234,603	4%	50%
[2400, 2409]	19,706	254,309	4%	54%
[2410, 2419]	19,014	273,323	4%	58%
[2420, 2429]	18,456	291,779	4%	62%
[2430, 2439]	18,057	309,836	4%	66%
[2440, 2449]	17,632	327,468	4%	69%
[2450, 2459]	16,788	344,256	4%	73%
[2460, 2469]	15,912	360,168	3%	76%
[2470, 2479]	15,200	375,368	3%	79%
[2480, 2489]	14,073	389,441	3%	82%
[2490, 2499]	13,182	402,623	3%	85%
[2500, 2509]	11,737	414,360	2%	88%
[2510, 2519]	10,582	424,942	2%	90%
[2520, 2529]	9,135	434,077	2%	92%
[2530, 2539]	7,959	442,036	2%	94%
[2540, 2549]	6,685	448,721	1%	95%
[2550, 2559]	5,665	454,386	1%	96%
[2560, 2569]	4,483	458,869	1%	97%
[2570, 2579]	3,628	462,497	1%	98%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2580, 2589]	2,760	465,257	1%	98%
[2590, 2599]	2,101	467,358	0%	99%
[2600, 2609]	1,592	468,950	0%	99%
[2610, 2619]	1,160	470,110	0%	99%
[2620, 2623]	2,564	472,674	1%	100%

Table 7.C.4 Frequency Distribution of Overall Scale Scores—ELA, Grade Four

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2131, 2139]	199	199	0%	0%
[2140, 2149]	21	220	0%	0%
[2150, 2159]	35	255	0%	0%
[2160, 2169]	67	322	0%	0%
[2170, 2179]	83	405	0%	0%
[2180, 2189]	120	525	0%	0%
[2190, 2199]	202	727	0%	0%
[2200, 2209]	304	1,031	0%	0%
[2210, 2219]	406	1,437	0%	0%
[2220, 2229]	628	2,065	0%	0%
[2230, 2239]	951	3,016	0%	1%
[2240, 2249]	1,336	4,352	0%	1%
[2250, 2259]	1,940	6,292	0%	1%
[2260, 2269]	2,836	9,128	1%	2%
[2270, 2279]	3,673	12,801	1%	3%
[2280, 2289]	4,926	17,727	1%	4%
[2290, 2299]	6,167	23,894	1%	5%
[2300, 2309]	7,728	31,622	2%	7%
[2310, 2319]	9,539	41,161	2%	9%
[2320, 2329]	10,807	51,968	2%	11%
[2330, 2339]	11,932	63,900	3%	14%
[2340, 2349]	13,196	77,096	3%	17%
[2350, 2359]	14,111	91,207	3%	20%
[2360, 2369]	14,943	106,150	3%	23%
[2370, 2379]	15,391	121,541	3%	26%
[2380, 2389]	15,850	137,391	3%	30%
[2390, 2399]	16,313	153,704	4%	33%
[2400, 2409]	16,990	170,694	4%	37%
[2410, 2419]	17,248	187,942	4%	41%
[2420, 2429]	17,475	205,417	4%	44%
[2430, 2439]	17,201	222,618	4%	48%
[2440, 2449]	17,344	239,962	4%	52%
[2450, 2459]	17,408	257,370	4%	56%
[2460, 2469]	17,269	274,639	4%	59%
[2470, 2479]	17,097	291,736	4%	63%
[2480, 2489]	17,060	308,796	4%	67%
[2490, 2499]	16,505	325,301	4%	70%
[2500, 2509]	16,130	341,431	3%	74%
[2510, 2519]	15,103	356,534	3%	77%
[2520, 2529]	14,181	370,715	3%	80%
[2530, 2539]	13,385	384,100	3%	83%
[2540, 2549]	12,158	396,258	3%	86%
[2550, 2559]	10,793	407,051	2%	88%
[2560, 2569]	9,476	416,527	2%	90%
[2570, 2579]	8,600	425,127	2%	92%
[2580, 2589]	7,348	432,475	2%	93%
[2590, 2599]	6,390	438,865	1%	95%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2600, 2609]	5,318	444,183	1%	96%
[2610, 2619]	4,318	448,501	1%	97%
[2620, 2629]	3,468	451,969	1%	98%
[2630, 2639]	2,693	454,662	1%	98%
[2640, 2649]	2,152	456,814	0%	99%
[2650, 2659]	1,648	458,462	0%	99%
[2660, 2663]	4,217	462,679	1%	100%

Table 7.C.5 Frequency Distribution of Overall Scale Scores—ELA, Grade Five

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2201, 2209]	485	485	0%	0%
[2210, 2219]	141	626	0%	0%
[2220, 2229]	199	825	0%	0%
[2230, 2239]	270	1,095	0%	0%
[2240, 2249]	394	1,489	0%	0%
[2250, 2259]	618	2,107	0%	0%
[2260, 2269]	771	2,878	0%	1%
[2270, 2279]	1,149	4,027	0%	1%
[2280, 2289]	1,571	5,598	0%	1%
[2290, 2299]	2,218	7,816	0%	2%
[2300, 2309]	2,894	10,710	1%	2%
[2310, 2319]	3,734	14,444	1%	3%
[2320, 2329]	5,084	19,528	1%	4%
[2330, 2339]	6,088	25,616	1%	6%
[2340, 2349]	7,482	33,098	2%	7%
[2350, 2359]	8,928	42,026	2%	9%
[2360, 2369]	10,188	52,214	2%	11%
[2370, 2379]	11,642	63,856	3%	14%
[2380, 2389]	12,995	76,851	3%	17%
[2390, 2399]	14,036	90,887	3%	20%
[2400, 2409]	14,608	105,495	3%	23%
[2410, 2419]	15,314	120,809	3%	26%
[2420, 2429]	15,613	136,422	3%	30%
[2430, 2439]	15,864	152,286	3%	33%
[2440, 2449]	16,085	168,371	3%	37%
[2450, 2459]	16,209	184,580	4%	40%
[2460, 2469]	16,481	201,061	4%	44%
[2470, 2479]	16,511	217,572	4%	47%
[2480, 2489]	16,675	234,247	4%	51%
[2490, 2499]	16,534	250,781	4%	54%
[2500, 2509]	16,921	267,702	4%	58%
[2510, 2519]	17,012	284,714	4%	62%
[2520, 2529]	17,018	301,732	4%	66%
[2530, 2539]	16,646	318,378	4%	69%
[2540, 2549]	16,023	334,401	3%	73%
[2550, 2559]	15,225	349,626	3%	76%
[2560, 2569]	14,458	364,084	3%	79%
[2570, 2579]	13,590	377,674	3%	82%
[2580, 2589]	12,475	390,149	3%	85%
[2590, 2599]	11,211	401,360	2%	87%
[2600, 2609]	10,097	411,457	2%	89%
[2610, 2619]	8,902	420,359	2%	91%
[2620, 2629]	7,826	428,185	2%	93%
[2630, 2639]	6,639	434,824	1%	94%
[2640, 2649]	5,575	440,399	1%	96%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2650, 2659]	4,649	445,048	1%	97%
[2660, 2669]	3,833	448,881	1%	98%
[2670, 2679]	3,020	451,901	1%	98%
[2680, 2689]	2,285	454,186	0%	99%
[2690, 2699]	1,798	455,984	0%	99%
[2700, 2701]	4,206	460,190	1%	100%

Table 7.C.6 Frequency Distribution of Overall Scale Scores—ELA, Grade Six

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2210, 2219]	564	564	0%	0%
[2220, 2229]	93	657	0%	0%
[2230, 2239]	144	801	0%	0%
[2240, 2249]	211	1,012	0%	0%
[2250, 2259]	283	1,295	0%	0%
[2260, 2269]	388	1,683	0%	0%
[2270, 2279]	539	2,222	0%	0%
[2280, 2289]	809	3,031	0%	1%
[2290, 2299]	1,140	4,171	0%	1%
[2300, 2309]	1,554	5,725	0%	1%
[2310, 2319]	2,104	7,829	0%	2%
[2320, 2329]	2,635	10,464	1%	2%
[2330, 2339]	3,489	13,953	1%	3%
[2340, 2349]	4,307	18,260	1%	4%
[2350, 2359]	5,303	23,563	1%	5%
[2360, 2369]	6,226	29,789	1%	7%
[2370, 2379]	7,323	37,112	2%	8%
[2380, 2389]	8,289	45,401	2%	10%
[2390, 2399]	9,396	54,797	2%	12%
[2400, 2409]	10,427	65,224	2%	14%
[2410, 2419]	11,680	76,904	3%	17%
[2420, 2429]	12,678	89,582	3%	20%
[2430, 2439]	13,727	103,309	3%	23%
[2440, 2449]	14,575	117,884	3%	26%
[2450, 2459]	15,464	133,348	3%	29%
[2460, 2469]	15,876	149,224	3%	33%
[2470, 2479]	17,263	166,487	4%	36%
[2480, 2489]	17,679	184,166	4%	40%
[2490, 2499]	18,349	202,515	4%	44%
[2500, 2509]	18,868	221,383	4%	49%
[2510, 2519]	19,015	240,398	4%	53%
[2520, 2529]	18,941	259,339	4%	57%
[2530, 2539]	18,618	277,957	4%	61%
[2540, 2549]	17,844	295,801	4%	65%
[2550, 2559]	17,240	313,041	4%	69%
[2560, 2569]	16,221	329,262	4%	72%
[2570, 2579]	15,470	344,732	3%	76%
[2580, 2589]	14,940	359,672	3%	79%
[2590, 2599]	13,565	373,237	3%	82%
[2600, 2609]	12,875	386,112	3%	85%
[2610, 2619]	11,833	397,945	3%	87%
[2620, 2629]	10,382	408,327	2%	89%
[2630, 2639]	9,433	417,760	2%	92%
[2640, 2649]	8,116	425,876	2%	93%
[2650, 2659]	6,753	432,629	1%	95%
[2660, 2669]	5,618	438,247	1%	96%
[2670, 2679]	4,602	442,849	1%	97%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2680, 2689]	3,597	446,446	1%	98%
[2690, 2699]	2,730	449,176	1%	98%
[2700, 2709]	2,008	451,184	0%	99%
[2710, 2719]	1,448	452,632	0%	99%
[2720, 2724]	3,689	456,321	1%	100%

Table 7.C.7 Frequency Distribution of Overall Scale Scores—ELA, Grade Seven

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2258, 2259]	926	926	0%	0%
[2260, 2269]	200	1,126	0%	0%
[2270, 2279]	272	1,398	0%	0%
[2280, 2289]	403	1,801	0%	0%
[2290, 2299]	570	2,371	0%	1%
[2300, 2309]	902	3,273	0%	1%
[2310, 2319]	1,216	4,489	0%	1%
[2320, 2329]	1,645	6,134	0%	1%
[2330, 2339]	2,319	8,453	1%	2%
[2340, 2349]	3,043	11,496	1%	3%
[2350, 2359]	3,904	15,400	1%	3%
[2360, 2369]	4,914	20,314	1%	5%
[2370, 2379]	6,009	26,323	1%	6%
[2380, 2389]	7,114	33,437	2%	7%
[2390, 2399]	8,503	41,940	2%	9%
[2400, 2409]	9,680	51,620	2%	11%
[2410, 2419]	10,414	62,034	2%	14%
[2420, 2429]	11,260	73,294	3%	16%
[2430, 2439]	12,188	85,482	3%	19%
[2440, 2449]	13,035	98,517	3%	22%
[2450, 2459]	13,613	112,130	3%	25%
[2460, 2469]	13,965	126,095	3%	28%
[2470, 2479]	14,676	140,771	3%	31%
[2480, 2489]	14,799	155,570	3%	35%
[2490, 2499]	15,148	170,718	3%	38%
[2500, 2509]	15,623	186,341	3%	41%
[2510, 2519]	15,479	201,820	3%	45%
[2520, 2529]	15,884	217,704	4%	48%
[2530, 2539]	16,452	234,156	4%	52%
[2540, 2549]	16,350	250,506	4%	56%
[2550, 2559]	16,759	267,265	4%	59%
[2560, 2569]	16,713	283,978	4%	63%
[2570, 2579]	16,472	300,450	4%	67%
[2580, 2589]	16,289	316,739	4%	70%
[2590, 2599]	15,629	332,368	3%	74%
[2600, 2609]	14,905	347,273	3%	77%
[2610, 2619]	13,958	361,231	3%	80%
[2620, 2629]	13,121	374,352	3%	83%
[2630, 2639]	11,872	386,224	3%	86%
[2640, 2649]	11,050	397,274	2%	88%
[2650, 2659]	9,686	406,960	2%	90%
[2660, 2669]	8,703	415,663	2%	92%
[2670, 2679]	7,306	422,969	2%	94%
[2680, 2689]	6,047	429,016	1%	95%
[2690, 2699]	4,842	433,858	1%	96%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2700, 2709]	3,869	437,727	1%	97%
[2710, 2719]	3,050	440,777	1%	98%
[2720, 2729]	2,299	443,076	1%	99%
[2730, 2739]	1,806	444,882	0%	99%
[2740, 2745]	4,832	449,714	1%	100%

Table 7.C.8 Frequency Distribution of Overall Scale Scores—ELA, Grade Eight

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2288, 2289]	950	950	0%	0%
[2290, 2299]	314	1,264	0%	0%
[2300, 2309]	475	1,739	0%	0%
[2310, 2319]	649	2,388	0%	1%
[2320, 2329]	849	3,237	0%	1%
[2330, 2339]	1,266	4,503	0%	1%
[2340, 2349]	1,750	6,253	0%	1%
[2350, 2359]	2,216	8,469	0%	2%
[2360, 2369]	2,932	11,401	1%	3%
[2370, 2379]	3,690	15,091	1%	3%
[2380, 2389]	4,665	19,756	1%	4%
[2390, 2399]	5,566	25,322	1%	6%
[2400, 2409]	6,382	31,704	1%	7%
[2410, 2419]	7,394	39,098	2%	9%
[2420, 2429]	8,584	47,682	2%	11%
[2430, 2439]	9,549	57,231	2%	13%
[2440, 2449]	10,556	67,787	2%	15%
[2450, 2459]	11,552	79,339	3%	18%
[2460, 2469]	12,669	92,008	3%	20%
[2470, 2479]	13,820	105,828	3%	23%
[2480, 2489]	14,466	120,294	3%	27%
[2490, 2499]	15,310	135,604	3%	30%
[2500, 2509]	15,917	151,521	4%	34%
[2510, 2519]	16,630	168,151	4%	37%
[2520, 2529]	16,769	184,920	4%	41%
[2530, 2539]	17,009	201,929	4%	45%
[2540, 2549]	16,787	218,716	4%	48%
[2550, 2559]	16,830	235,546	4%	52%
[2560, 2569]	16,765	252,311	4%	56%
[2570, 2579]	16,328	268,639	4%	60%
[2580, 2589]	16,601	285,240	4%	63%
[2590, 2599]	16,412	301,652	4%	67%
[2600, 2609]	16,294	317,946	4%	70%
[2610, 2619]	15,758	333,704	3%	74%
[2620, 2629]	15,222	348,926	3%	77%
[2630, 2639]	14,289	363,215	3%	81%
[2640, 2649]	13,538	376,753	3%	84%
[2650, 2659]	12,172	388,925	3%	86%
[2660, 2669]	11,083	400,008	2%	89%
[2670, 2679]	9,777	409,785	2%	91%
[2680, 2689]	8,367	418,152	2%	93%
[2690, 2699]	7,116	425,268	2%	94%
[2700, 2709]	6,163	431,431	1%	96%
[2710, 2719]	4,869	436,300	1%	97%
[2720, 2729]	3,880	440,180	1%	98%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2730, 2739]	2,923	443,103	1%	98%
[2740, 2749]	2,315	445,418	1%	99%
[2750, 2759]	1,672	447,090	0%	99%
[2760, 2769]	4,095	451,185	1%	100%

Table 7.C.9 Frequency Distribution of Overall Scale Scores—ELA, Grade Eleven

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2299, 2299]	1,781	1,781	0%	0%
[2300, 2309]	453	2,234	0%	1%
[2310, 2319]	632	2,866	0%	1%
[2320, 2329]	847	3,713	0%	1%
[2330, 2339]	1,193	4,906	0%	1%
[2340, 2349]	1,461	6,367	0%	2%
[2350, 2359]	1,952	8,319	0%	2%
[2360, 2369]	2,473	10,792	1%	3%
[2370, 2379]	2,990	13,782	1%	3%
[2380, 2389]	3,645	17,427	1%	4%
[2390, 2399]	4,144	21,571	1%	5%
[2400, 2409]	4,658	26,229	1%	6%
[2410, 2419]	5,385	31,614	1%	7%
[2420, 2429]	5,716	37,330	1%	9%
[2430, 2439]	6,158	43,488	1%	10%
[2440, 2449]	6,619	50,107	2%	12%
[2450, 2459]	7,160	57,267	2%	14%
[2460, 2469]	7,561	64,828	2%	15%
[2470, 2479]	8,337	73,165	2%	17%
[2480, 2489]	8,496	81,661	2%	19%
[2490, 2499]	9,148	90,809	2%	22%
[2500, 2509]	9,676	100,485	2%	24%
[2510, 2519]	10,234	110,719	2%	26%
[2520, 2529]	10,662	121,381	3%	29%
[2530, 2539]	11,363	132,744	3%	31%
[2540, 2549]	11,794	144,538	3%	34%
[2550, 2559]	12,208	156,746	3%	37%
[2560, 2569]	12,868	169,614	3%	40%
[2570, 2579]	13,235	182,849	3%	43%
[2580, 2589]	13,625	196,474	3%	47%
[2590, 2599]	13,850	210,324	3%	50%
[2600, 2609]	14,363	224,687	3%	53%
[2610, 2619]	14,427	239,114	3%	57%
[2620, 2629]	14,806	253,920	4%	60%
[2630, 2639]	14,660	268,580	3%	64%
[2640, 2649]	14,496	283,076	3%	67%
[2650, 2659]	14,331	297,407	3%	70%
[2660, 2669]	13,658	311,065	3%	74%
[2670, 2679]	13,307	324,372	3%	77%
[2680, 2689]	12,615	336,987	3%	80%
[2690, 2699]	11,965	348,952	3%	83%
[2700, 2709]	11,115	360,067	3%	85%
[2710, 2719]	10,252	370,319	2%	88%
[2720, 2729]	9,199	379,518	2%	90%
[2730, 2739]	8,092	387,610	2%	92%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2740, 2749]	6,729	394,339	2%	93%
[2750, 2759]	5,838	400,177	1%	95%
[2760, 2769]	4,728	404,905	1%	96%
[2770, 2779]	3,818	408,723	1%	97%
[2780, 2789]	3,086	411,809	1%	98%
[2790, 2795]	10,289	422,098	2%	100%

Table 7.C.10 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Three

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2189, 2189]	2,606	2,606	1%	1%
[2190, 2199]	845	3,451	0%	1%
[2200, 2209]	1,029	4,480	0%	1%
[2210, 2219]	1,324	5,804	0%	1%
[2220, 2229]	1,634	7,438	0%	2%
[2230, 2239]	1,970	9,408	0%	2%
[2240, 2249]	2,400	11,808	1%	2%
[2250, 2259]	2,848	14,656	1%	3%
[2260, 2269]	3,515	18,171	1%	4%
[2270, 2279]	4,368	22,539	1%	5%
[2280, 2289]	5,309	27,848	1%	6%
[2290, 2299]	6,589	34,437	1%	7%
[2300, 2309]	8,115	42,552	2%	9%
[2310, 2319]	9,861	52,413	2%	11%
[2320, 2329]	11,725	64,138	2%	14%
[2330, 2339]	13,959	78,097	3%	16%
[2340, 2349]	16,452	94,549	3%	20%
[2350, 2359]	18,448	112,997	4%	24%
[2360, 2369]	20,315	133,312	4%	28%
[2370, 2379]	21,679	154,991	5%	33%
[2380, 2389]	22,918	177,909	5%	38%
[2390, 2399]	22,747	200,656	5%	42%
[2400, 2409]	22,998	223,654	5%	47%
[2410, 2419]	23,233	246,887	5%	52%
[2420, 2429]	22,956	269,843	5%	57%
[2430, 2439]	22,604	292,447	5%	62%
[2440, 2449]	22,675	315,122	5%	66%
[2450, 2459]	21,589	336,711	5%	71%
[2460, 2469]	19,962	356,673	4%	75%
[2470, 2479]	18,548	375,221	4%	79%
[2480, 2489]	16,589	391,810	3%	83%
[2490, 2499]	14,531	406,341	3%	86%
[2500, 2509]	12,936	419,277	3%	88%
[2510, 2519]	10,788	430,065	2%	91%
[2520, 2529]	9,007	439,072	2%	93%
[2530, 2539]	7,394	446,466	2%	94%
[2540, 2549]	6,030	452,496	1%	95%
[2550, 2559]	4,821	457,317	1%	96%
[2560, 2569]	3,777	461,094	1%	97%
[2570, 2579]	3,204	464,298	1%	98%
[2580, 2589]	2,529	466,827	1%	98%
[2590, 2599]	2,011	468,838	0%	99%
[2600, 2609]	1,562	470,400	0%	99%
[2610, 2619]	1,075	471,475	0%	99%
[2620, 2621]	2,786	474,261	1%	100%

Table 7.C.11 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Four

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2204, 2209]	802	802	0%	0%
[2210, 2219]	273	1,075	0%	0%
[2220, 2229]	337	1,412	0%	0%
[2230, 2239]	514	1,926	0%	0%
[2240, 2249]	666	2,592	0%	1%
[2250, 2259]	957	3,549	0%	1%
[2260, 2269]	1,270	4,819	0%	1%
[2270, 2279]	1,724	6,543	0%	1%
[2280, 2289]	2,264	8,807	0%	2%
[2290, 2299]	2,885	11,692	1%	3%
[2300, 2309]	3,611	15,303	1%	3%
[2310, 2319]	4,704	20,007	1%	4%
[2320, 2329]	5,959	25,966	1%	6%
[2330, 2339]	7,351	33,317	2%	7%
[2340, 2349]	9,489	42,806	2%	9%
[2350, 2359]	11,283	54,089	2%	12%
[2360, 2369]	13,542	67,631	3%	15%
[2370, 2379]	15,899	83,530	3%	18%
[2380, 2389]	17,648	101,178	4%	22%
[2390, 2399]	19,081	120,259	4%	26%
[2400, 2409]	20,085	140,344	4%	30%
[2410, 2419]	21,066	161,410	5%	35%
[2420, 2429]	21,837	183,247	5%	39%
[2430, 2439]	22,343	205,590	5%	44%
[2440, 2449]	22,198	227,788	5%	49%
[2450, 2459]	22,564	250,352	5%	54%
[2460, 2469]	21,794	272,146	5%	59%
[2470, 2479]	21,141	293,287	5%	63%
[2480, 2489]	20,068	313,355	4%	67%
[2490, 2499]	19,454	332,809	4%	72%
[2500, 2509]	17,910	350,719	4%	76%
[2510, 2519]	16,094	366,813	3%	79%
[2520, 2529]	14,657	381,470	3%	82%
[2530, 2539]	13,066	394,536	3%	85%
[2540, 2549]	11,651	406,187	3%	87%
[2550, 2559]	10,329	416,516	2%	90%
[2560, 2569]	9,111	425,627	2%	92%
[2570, 2579]	7,853	433,480	2%	93%
[2580, 2589]	6,807	440,287	1%	95%
[2590, 2599]	5,720	446,007	1%	96%
[2600, 2609]	4,388	450,395	1%	97%
[2610, 2619]	3,471	453,866	1%	98%
[2620, 2629]	2,558	456,424	1%	98%
[2630, 2639]	1,991	458,415	0%	99%
[2640, 2649]	1,476	459,891	0%	99%
[2650, 2659]	4,464	464,355	1%	100%

Table 7.C.12 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Five

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2219, 2219]	942	942	0%	0%
[2220, 2229]	262	1,204	0%	0%
[2230, 2239]	300	1,504	0%	0%
[2240, 2249]	412	1,916	0%	0%
[2250, 2259]	620	2,536	0%	1%
[2260, 2269]	788	3,324	0%	1%
[2270, 2279]	1,176	4,500	0%	1%
[2280, 2289]	1,520	6,020	0%	1%
[2290, 2299]	2,050	8,070	0%	2%
[2300, 2309]	2,569	10,639	1%	2%
[2310, 2319]	3,337	13,976	1%	3%
[2320, 2329]	4,043	18,019	1%	4%
[2330, 2339]	5,273	23,292	1%	5%
[2340, 2349]	6,288	29,580	1%	6%
[2350, 2359]	7,881	37,461	2%	8%
[2360, 2369]	9,529	46,990	2%	10%
[2370, 2379]	11,308	58,298	2%	13%
[2380, 2389]	13,158	71,456	3%	15%
[2390, 2399]	15,302	86,758	3%	19%
[2400, 2409]	17,017	103,775	4%	22%
[2410, 2419]	18,262	122,037	4%	26%
[2420, 2429]	18,694	140,731	4%	30%
[2430, 2439]	19,404	160,135	4%	35%
[2440, 2449]	19,129	179,264	4%	39%
[2450, 2459]	19,546	198,810	4%	43%
[2460, 2469]	19,140	217,950	4%	47%
[2470, 2479]	18,780	236,730	4%	51%
[2480, 2489]	18,380	255,110	4%	55%
[2490, 2499]	18,305	273,415	4%	59%
[2500, 2509]	17,926	291,341	4%	63%
[2510, 2519]	17,136	308,477	4%	67%
[2520, 2529]	16,178	324,655	4%	70%
[2530, 2539]	15,359	340,014	3%	74%
[2540, 2549]	14,692	354,706	3%	77%
[2550, 2559]	13,937	368,643	3%	80%
[2560, 2569]	13,032	381,675	3%	83%
[2570, 2579]	12,142	393,817	3%	85%
[2580, 2589]	11,078	404,895	2%	88%
[2590, 2599]	10,097	414,992	2%	90%
[2600, 2609]	8,725	423,717	2%	92%
[2610, 2619]	7,493	431,210	2%	93%
[2620, 2629]	6,332	437,542	1%	95%
[2630, 2639]	5,384	442,926	1%	96%
[2640, 2649]	4,219	447,145	1%	97%
[2650, 2659]	3,410	450,555	1%	98%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2660, 2669]	2,704	453,259	1%	98%
[2670, 2679]	2,055	455,314	0%	99%
[2680, 2689]	1,617	456,931	0%	99%
[2690, 2699]	1,248	458,179	0%	99%
[2700, 2700]	3,438	461,617	1%	100%

Table 7.C.13 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Six

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2235, 2239]	4,541	4,541	1%	1%
[2240, 2249]	851	5,392	0%	1%
[2250, 2259]	1,085	6,477	0%	1%
[2260, 2269]	1,299	7,776	0%	2%
[2270, 2279]	1,745	9,521	0%	2%
[2280, 2289]	2,051	11,572	0%	3%
[2290, 2299]	2,398	13,970	1%	3%
[2300, 2309]	2,884	16,854	1%	4%
[2310, 2319]	3,305	20,159	1%	4%
[2320, 2329]	3,986	24,145	1%	5%
[2330, 2339]	4,617	28,762	1%	6%
[2340, 2349]	5,138	33,900	1%	7%
[2350, 2359]	6,052	39,952	1%	9%
[2360, 2369]	6,649	46,601	1%	10%
[2370, 2379]	7,479	54,080	2%	12%
[2380, 2389]	8,156	62,236	2%	14%
[2390, 2399]	8,744	70,980	2%	16%
[2400, 2409]	9,755	80,735	2%	18%
[2410, 2419]	10,563	91,298	2%	20%
[2420, 2429]	11,612	102,910	3%	22%
[2430, 2439]	12,685	115,595	3%	25%
[2440, 2449]	13,821	129,416	3%	28%
[2450, 2459]	15,099	144,515	3%	32%
[2460, 2469]	15,860	160,375	3%	35%
[2470, 2479]	16,995	177,370	4%	39%
[2480, 2489]	17,622	194,992	4%	43%
[2490, 2499]	18,157	213,149	4%	47%
[2500, 2509]	18,452	231,601	4%	51%
[2510, 2519]	18,556	250,157	4%	55%
[2520, 2529]	18,518	268,675	4%	59%
[2530, 2539]	17,638	286,313	4%	63%
[2540, 2549]	17,433	303,746	4%	66%
[2550, 2559]	16,635	320,381	4%	70%
[2560, 2569]	15,860	336,241	3%	73%
[2570, 2579]	14,631	350,872	3%	77%
[2580, 2589]	13,755	364,627	3%	80%
[2590, 2599]	12,712	377,339	3%	82%
[2600, 2609]	11,813	389,152	3%	85%
[2610, 2619]	10,217	399,369	2%	87%
[2620, 2629]	9,086	408,455	2%	89%
[2630, 2639]	8,036	416,491	2%	91%
[2640, 2649]	7,062	423,553	2%	93%
[2650, 2659]	6,309	429,862	1%	94%
[2660, 2669]	5,199	435,061	1%	95%
[2670, 2679]	4,580	439,641	1%	96%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2680, 2689]	3,785	443,426	1%	97%
[2690, 2699]	3,017	446,443	1%	98%
[2700, 2709]	2,388	448,831	1%	98%
[2710, 2719]	1,914	450,745	0%	99%
[2720, 2729]	1,488	452,233	0%	99%
[2730, 2739]	1,196	453,429	0%	99%
[2740, 2748]	4,121	457,550	1%	100%

Table 7.C.14 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Seven

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2250, 2259]	6,209	6,209	1%	1%
[2260, 2269]	1,216	7,425	0%	2%
[2270, 2279]	1,382	8,807	0%	2%
[2280, 2289]	1,704	10,511	0%	2%
[2290, 2299]	2,018	12,529	0%	3%
[2300, 2309]	2,460	14,989	1%	3%
[2310, 2319]	2,891	17,880	1%	4%
[2320, 2329]	3,640	21,520	1%	5%
[2330, 2339]	4,134	25,654	1%	6%
[2340, 2349]	4,685	30,339	1%	7%
[2350, 2359]	5,391	35,730	1%	8%
[2360, 2369]	6,077	41,807	1%	9%
[2370, 2379]	7,011	48,818	2%	11%
[2380, 2389]	7,486	56,304	2%	13%
[2390, 2399]	8,117	64,421	2%	14%
[2400, 2409]	9,295	73,716	2%	16%
[2410, 2419]	9,893	83,609	2%	19%
[2420, 2429]	10,886	94,495	2%	21%
[2430, 2439]	11,612	106,107	3%	24%
[2440, 2449]	12,642	118,749	3%	26%
[2450, 2459]	13,591	132,340	3%	29%
[2460, 2469]	13,961	146,301	3%	32%
[2470, 2479]	14,715	161,016	3%	36%
[2480, 2489]	15,144	176,160	3%	39%
[2490, 2499]	15,839	191,999	4%	43%
[2500, 2509]	16,550	208,549	4%	46%
[2510, 2519]	16,344	224,893	4%	50%
[2520, 2529]	16,218	241,111	4%	54%
[2530, 2539]	16,157	257,268	4%	57%
[2540, 2549]	15,540	272,808	3%	61%
[2550, 2559]	15,126	287,934	3%	64%
[2560, 2569]	14,773	302,707	3%	67%
[2570, 2579]	14,192	316,899	3%	70%
[2580, 2589]	13,903	330,802	3%	73%
[2590, 2599]	13,172	343,974	3%	76%
[2600, 2609]	12,317	356,291	3%	79%
[2610, 2619]	11,701	367,992	3%	82%
[2620, 2629]	10,693	378,685	2%	84%
[2630, 2639]	9,746	388,431	2%	86%
[2640, 2649]	8,681	397,112	2%	88%
[2650, 2659]	7,906	405,018	2%	90%
[2660, 2669]	7,336	412,354	2%	92%
[2670, 2679]	6,387	418,741	1%	93%
[2680, 2689]	5,648	424,389	1%	94%
[2690, 2699]	4,948	429,337	1%	95%
[2700, 2709]	4,222	433,559	1%	96%
[2710, 2719]	3,494	437,053	1%	97%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2720, 2729]	2,719	439,772	1%	98%
[2730, 2739]	2,304	442,076	1%	98%
[2740, 2749]	1,764	443,840	0%	99%
[2750, 2759]	1,429	445,269	0%	99%
[2760, 2769]	1,105	446,374	0%	99%
[2770, 2778]	4,021	450,395	1%	100%

Table 7.C.15 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Eight

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2265, 2269]	4,974	4,974	1%	1%
[2270, 2279]	1,131	6,105	0%	1%
[2280, 2289]	1,422	7,527	0%	2%
[2290, 2299]	1,596	9,123	0%	2%
[2300, 2309]	2,221	11,344	0%	3%
[2310, 2319]	2,689	14,033	1%	3%
[2320, 2329]	3,167	17,200	1%	4%
[2330, 2339]	3,944	21,144	1%	5%
[2340, 2349]	4,532	25,676	1%	6%
[2350, 2359]	5,212	30,888	1%	7%
[2360, 2369]	5,923	36,811	1%	8%
[2370, 2379]	6,777	43,588	1%	10%
[2380, 2389]	7,475	51,063	2%	11%
[2390, 2399]	8,304	59,367	2%	13%
[2400, 2409]	8,818	68,185	2%	15%
[2410, 2419]	9,710	77,895	2%	17%
[2420, 2429]	10,344	88,239	2%	20%
[2430, 2439]	10,864	99,103	2%	22%
[2440, 2449]	11,606	110,709	3%	24%
[2450, 2459]	12,158	122,867	3%	27%
[2460, 2469]	12,937	135,804	3%	30%
[2470, 2479]	13,656	149,460	3%	33%
[2480, 2489]	13,975	163,435	3%	36%
[2490, 2499]	14,375	177,810	3%	39%
[2500, 2509]	14,754	192,564	3%	43%
[2510, 2519]	14,920	207,484	3%	46%
[2520, 2529]	14,960	222,444	3%	49%
[2530, 2539]	15,010	237,454	3%	53%
[2540, 2549]	14,781	252,235	3%	56%
[2550, 2559]	14,560	266,795	3%	59%
[2560, 2569]	13,891	280,686	3%	62%
[2570, 2579]	13,588	294,274	3%	65%
[2580, 2589]	13,104	307,378	3%	68%
[2590, 2599]	12,576	319,954	3%	71%
[2600, 2609]	12,022	331,976	3%	73%
[2610, 2619]	11,497	343,473	3%	76%
[2620, 2629]	11,055	354,528	2%	78%
[2630, 2639]	10,422	364,950	2%	81%
[2640, 2649]	9,879	374,829	2%	83%
[2650, 2659]	9,236	384,065	2%	85%
[2660, 2669]	8,471	392,536	2%	87%
[2670, 2679]	7,715	400,251	2%	89%
[2680, 2689]	6,996	407,247	2%	90%
[2690, 2699]	6,456	413,703	1%	92%
[2700, 2709]	5,697	419,400	1%	93%
[2710, 2719]	5,187	424,587	1%	94%
[2720, 2729]	4,552	429,139	1%	95%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2730, 2739]	3,805	432,944	1%	96%
[2740, 2749]	3,224	436,168	1%	97%
[2750, 2759]	2,843	439,011	1%	97%
[2760, 2769]	2,370	441,381	1%	98%
[2770, 2779]	2,026	443,407	0%	98%
[2780, 2789]	1,653	445,060	0%	98%
[2790, 2799]	1,303	446,363	0%	99%
[2800, 2802]	5,602	451,965	1%	100%

Table 7.C.16 Frequency Distribution of Overall Scale Scores—Mathematics, Grade Eleven

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2280, 2289]	6,218	6,218	1%	1%
[2290, 2299]	1,205	7,423	0%	2%
[2300, 2309]	1,423	8,846	0%	2%
[2310, 2319]	1,650	10,496	0%	3%
[2320, 2329]	2,045	12,541	0%	3%
[2330, 2339]	2,439	14,980	1%	4%
[2340, 2349]	2,955	17,935	1%	4%
[2350, 2359]	3,448	21,383	1%	5%
[2360, 2369]	4,103	25,486	1%	6%
[2370, 2379]	4,637	30,123	1%	7%
[2380, 2389]	5,470	35,593	1%	8%
[2390, 2399]	6,192	41,785	1%	10%
[2400, 2409]	6,889	48,674	2%	12%
[2410, 2419]	7,609	56,283	2%	13%
[2420, 2429]	8,395	64,678	2%	15%
[2430, 2439]	8,964	73,642	2%	18%
[2440, 2449]	9,514	83,156	2%	20%
[2450, 2459]	10,214	93,370	2%	22%
[2460, 2469]	10,858	104,228	3%	25%
[2470, 2479]	11,347	115,575	3%	28%
[2480, 2489]	11,386	126,961	3%	30%
[2490, 2499]	11,697	138,658	3%	33%
[2500, 2509]	11,777	150,435	3%	36%
[2510, 2519]	12,132	162,567	3%	39%
[2520, 2529]	12,131	174,698	3%	42%
[2530, 2539]	12,250	186,948	3%	45%
[2540, 2549]	12,680	199,628	3%	48%
[2550, 2559]	12,678	212,306	3%	51%
[2560, 2569]	12,532	224,838	3%	54%
[2570, 2579]	12,469	237,307	3%	57%
[2580, 2589]	12,597	249,904	3%	60%
[2590, 2599]	12,219	262,123	3%	62%
[2600, 2609]	12,164	274,287	3%	65%
[2610, 2619]	11,626	285,913	3%	68%
[2620, 2629]	11,351	297,264	3%	71%
[2630, 2639]	10,442	307,706	2%	73%
[2640, 2649]	10,141	317,847	2%	76%
[2650, 2659]	9,493	327,340	2%	78%
[2660, 2669]	8,968	336,308	2%	80%
[2670, 2679]	8,448	344,756	2%	82%
[2680, 2689]	7,932	352,688	2%	84%
[2690, 2699]	7,431	360,119	2%	86%
[2700, 2709]	6,875	366,994	2%	87%
[2710, 2719]	6,253	373,247	1%	89%
[2720, 2729]	5,644	378,891	1%	90%
[2730, 2739]	5,215	384,106	1%	92%
[2740, 2749]	4,828	388,934	1%	93%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2750, 2759]	4,212	393,146	1%	94%
[2760, 2769]	3,668	396,814	1%	95%
[2770, 2779]	3,566	400,380	1%	95%
[2780, 2789]	2,961	403,341	1%	96%
[2790, 2799]	2,737	406,078	1%	97%
[2800, 2809]	2,388	408,466	1%	97%
[2810, 2819]	1,971	410,437	0%	98%
[2820, 2829]	1,751	412,188	0%	98%
[2830, 2839]	1,468	413,656	0%	99%
[2840, 2849]	1,182	414,838	0%	99%
[2850, 2859]	953	415,791	0%	99%
[2860, 2862]	3,717	419,508	1%	100%

Appendix 7.D: Summary Statistics and Performance Levels of Claims

Table 7.D.1 Mean and Standard Deviation of Theta and Scale Scores for Claim 1 of Online Summative Tests

Content Area	Grade	No. of Items	No. of Students	Scale Score		Theta Score	
				Mean	SD	Mean	SD
ELA	3	14–16	472,674	2,398	100	–1.29	1.17
	4	14–16	462,679	2,437	109	–0.83	1.27
	5	14–16	460,190	2,473	106	–0.41	1.24
	6	13–17	456,321	2,485	115	–0.27	1.34
	7	13–17	449,714	2,518	111	0.11	1.29
	8	13–17	451,185	2,545	108	0.43	1.26
	11	15–16	422,098	2,592	114	0.97	1.33
Mathematics	3	17–20	474,261	2,418	84	–1.23	1.06
	4	17–20	464,355	2,455	85	–0.75	1.07
	5	17–20	461,617	2,483	94	–0.40	1.19
	6	16–20	457,550	2,508	109	–0.09	1.38
	7	16–20	450,395	2,521	115	0.08	1.45
	8	16–20	451,965	2,535	123	0.25	1.55
	11	19–22	419,508	2,563	132	0.60	1.67

Table 7.D.2 Mean and Standard Deviation of Theta and Scale Scores for Claim 2 of Online Summative Tests

Content Area	Grade	No. of Items	No. of Students	Scale Score		Theta Score	
				Mean	SD	Mean	SD
ELA	3	12	472,674	2,395	102	–1.32	1.19
	4	12	462,679	2,446	104	–0.72	1.21
	5	12	460,190	2,488	107	–0.23	1.25
	6	12	456,321	2,515	101	0.07	1.18
	7	12	449,714	2,540	107	0.36	1.25
	8	12	451,185	2,557	105	0.57	1.22
	11	12	422,098	2,592	124	0.96	1.45
Mathematics	3	8–10	474,261	2,405	94	–1.39	1.18
	4	8–10	464,355	2,441	102	–0.93	1.29
	5	8–10	461,617	2,459	122	–0.71	1.53
	6	8–10	457,550	2,484	125	–0.38	1.58
	7	8–10	450,395	2,490	141	–0.31	1.78
	8	8–10	451,965	2,510	145	–0.07	1.83
	11	8–10	419,508	2,528	157	0.16	1.99

Table 7.D.3 Mean and Standard Deviation of Theta and Scale Scores for Claim 3 of Online Summative Tests

Content Area	Grade	No. of Items	No. of Students	Scale Score		Theta Score	
				Mean	SD	Mean	SD
ELA	3	8–9	472,674	2,408	117	-1.17	1.37
	4	8–9	462,679	2,445	121	-0.73	1.41
	5	8–9	460,190	2,469	130	-0.46	1.52
	6	8–9	456,321	2,520	127	0.14	1.48
	7	8–9	449,714	2,529	123	0.24	1.44
	8	8–9	451,185	2,548	122	0.46	1.42
	11	8–9	422,098	2,575	135	0.77	1.58
Mathematics	3	8–10	474,261	2,408	95	-1.34	1.20
	4	8–10	464,355	2,447	93	-0.85	1.17
	5	8–10	461,617	2,468	108	-0.59	1.37
	6	8–10	457,550	2,498	115	-0.22	1.45
	7	8–10	450,395	2,505	132	-0.12	1.67
	8	8–10	451,965	2,529	129	0.18	1.62
	11	8–10	419,508	2,556	141	0.51	1.78

Table 7.D.4 Mean and Standard Deviation of Theta and Scale Scores for Claim 4 of Online Summative Tests

Content Area	Grade	No. of Items	No. of Students	Scale Score		Theta Score	
				Mean	SD	Mean	SD
ELA	3	8–9	472,674	2,392	118	-1.36	1.38
	4	8–9	462,679	2,432	123	-0.89	1.44
	5	8–9	460,190	2,502	114	-0.07	1.33
	6	8–9	456,321	2,516	113	0.09	1.32
	7	8–9	449,714	2,525	120	0.19	1.41
	8	8–9	451,185	2,545	120	0.42	1.40
	11	8–9	422,098	2,593	133	0.99	1.56

Table 7.D.5 Percentages of Students in Performance Levels for Claim 1 of Online Summative Tests

Content Area	Grade	N Standard Not Met	N Standard Nearly Met	N Standard Met	% Standard Not Met	% Standard Nearly Met	% Standard Met
ELA	3	192,845	192,276	86,686	41%	41%	18%
	4	178,588	198,041	85,337	39%	43%	18%
	5	177,210	191,661	90,689	39%	42%	20%
	6	171,273	211,009	72,425	38%	46%	16%
	7	165,649	200,943	81,048	37%	45%	18%
	8	143,524	207,663	98,195	32%	46%	22%
	11	86,461	206,455	126,798	21%	49%	30%
Mathematics	3	188,858	167,476	117,491	40%	35%	25%
	4	217,922	148,714	97,379	47%	32%	21%
	5	235,903	136,608	88,673	51%	30%	19%
	6	216,489	148,996	91,115	47%	33%	20%
	7	205,494	146,658	96,801	46%	33%	22%
	8	209,358	144,552	96,608	46%	32%	21%
	11	202,434	136,214	79,207	48%	33%	19%

Table 7.D.6 Percentages of Students in Performance Levels for Claim 2 of Online Summative Tests

Content Area	Grade	N Standard Not Met	N Standard Nearly Met	N Standard Met	% Standard Not Met	% Standard Nearly Met	% Standard Met
ELA	3	180,246	209,362	81,075	38%	44%	17%
	4	162,388	214,658	84,038	35%	47%	18%
	5	153,803	197,622	107,590	34%	43%	23%
	6	147,064	214,679	91,978	32%	47%	20%
	7	134,611	206,220	105,989	30%	46%	24%
	8	127,399	224,358	95,561	28%	50%	21%
	11	94,765	191,272	130,194	23%	46%	31%
Mathematics	3	179,119	199,290	95,501	38%	42%	20%
	4	180,415	208,030	75,607	39%	45%	16%
	5	214,450	174,990	71,843	46%	38%	16%
	6	178,330	210,679	68,321	39%	46%	15%
	7	155,387	216,438	78,178	35%	48%	17%
	8	142,403	229,342	79,453	32%	51%	18%
	11	146,078	209,406	61,682	35%	50%	15%

Table 7.D.7 Percentages of Students in Performance Levels for Claim 3 of Online Summative Tests

Content Area	Grade	N Standard Not Met	N Standard Nearly Met	N Standard Met	% Standard Not Met	% Standard Nearly Met	% Standard Met
ELA	3	112,792	291,684	67,606	24%	62%	14%
	4	107,648	285,801	68,746	23%	62%	15%
	5	110,537	281,568	67,575	24%	61%	15%
	6	86,269	307,368	61,270	19%	68%	13%
	7	106,652	286,227	55,048	24%	64%	12%
	8	101,243	293,117	55,261	23%	65%	12%
	11	86,537	259,024	73,098	21%	62%	17%
Mathematics	3	130,873	246,353	96,483	28%	52%	20%
	4	179,961	199,495	84,447	39%	43%	18%
	5	189,599	207,003	64,495	41%	45%	14%
	6	156,634	227,275	73,221	34%	50%	16%
	7	84,529	288,536	76,475	19%	64%	17%
	8	151,210	223,445	76,278	34%	50%	17%
	11	124,678	231,215	62,272	30%	55%	15%

Table 7.D.8 Percentages of Students in Performance Levels for Claim 4 of Online Summative Tests

Content Area	Grade	N Standard Not Met	N Standard Nearly Met	N Standard Met	% Standard Not Met	% Standard Nearly Met	% Standard Met
ELA	3	150,750	236,543	84,281	32%	50%	18%
	4	135,243	223,225	78,875	31%	51%	18%
	5	96,168	240,881	123,023	21%	52%	27%
	6	85,669	266,945	102,690	19%	59%	23%
	7	112,065	238,957	96,619	25%	53%	22%
	8	103,519	248,733	96,694	23%	55%	22%
	11	66,877	214,256	136,932	16%	51%	33%

Appendix 7.E: Demographic Summaries

Table 7.E.1 Demographic Summary for ELA, Grade Three

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	472,674	2,403	88	36%	26%	20%	18%	38%
Male	241,579	2,393	87	41%	26%	18%	15%	34%
Female	231,095	2,413	87	31%	27%	21%	20%	42%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	2,539	2,379	82	47%	26%	18%	9%	27%
Asian American	40,783	2,460	87	16%	20%	25%	40%	65%
Pacific Islander	2,220	2,395	79	37%	30%	21%	12%	33%
Filipino	10,743	2,446	79	16%	24%	28%	31%	59%
Hispanic	261,805	2,379	79	46%	29%	17%	9%	25%
African American	26,422	2,369	81	52%	25%	15%	8%	23%
White	109,827	2,438	85	21%	24%	26%	30%	55%
Two or more races	18,335	2,433	88	24%	24%	24%	29%	52%
English only	270,859	2,417	88	30%	26%	22%	22%	44%
Initially Fluent English Proficient	18,156	2,466	82	13%	20%	25%	42%	67%
English Learner	151,300	2,361	74	55%	28%	12%	5%	17%
Reclassified Fluent English Proficient	31,105	2,447	66	11%	30%	33%	26%	59%
To be determined	246	2,374	102	49%	22%	16%	13%	29%
English proficiency unknown	1,008	2,399	93	37%	24%	21%	18%	39%
No special education services	427,704	2,409	85	33%	27%	21%	19%	40%
Special education services	44,970	2,339	83	68%	18%	9%	6%	15%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	178,053	2,447	84	18%	23%	26%	33%	59%
Economically disadvantaged	294,621	2,376	78	47%	29%	16%	8%	24%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	4,649	2,352	73	60%	26%	11%	4%	14%
Not migrant	468,025	2,403	88	36%	26%	20%	18%	38%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	787	2,413	83	31%	26%	24%	19%	43%
Asian American	26,413	2,484	79	9%	16%	25%	51%	76%
Pacific Islander	745	2,426	80	23%	29%	26%	21%	48%
Filipino	6,966	2,458	77	13%	22%	30%	36%	65%
Hispanic	48,493	2,416	82	28%	28%	24%	19%	44%
African American	6,425	2,402	85	36%	26%	22%	16%	38%
White	77,099	2,457	80	14%	22%	28%	37%	64%
Two or more races	11,125	2,460	82	14%	21%	26%	39%	65%

				Percent in Performance Level				
	Number Tested	Mean Scale Score	SD of Scale Scores	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian	1,752	2,363	76	54%	26%	15%	5%	20%
Asian American	14,370	2,417	83	28%	27%	24%	20%	45%
Pacific Islander	1,475	2,380	75	44%	31%	19%	7%	25%
Filipino	3,777	2,425	79	23%	30%	26%	22%	47%
Hispanic	213,312	2,370	75	50%	29%	15%	6%	21%
African American	19,997	2,359	77	57%	25%	13%	6%	18%
White	32,728	2,395	82	37%	29%	21%	13%	34%
Two or More Races	7,210	2,391	81	39%	29%	19%	13%	32%
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 7.E.2 Demographic Summary for ELA, Grade Four

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	462,679	2,446	93	39%	21%	21%	19%	40%
Male	235,607	2,435	93	44%	21%	19%	16%	35%
Female	227,072	2,457	92	34%	22%	22%	22%	44%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	2,453	2,423	89	49%	22%	18%	12%	30%
Asian American	41,102	2,510	91	16%	16%	24%	44%	68%
Pacific Islander	2,288	2,435	84	41%	26%	20%	13%	33%
Filipino	11,154	2,490	84	19%	20%	28%	33%	61%
Hispanic	252,924	2,419	84	50%	23%	17%	10%	27%
African American	25,989	2,407	86	56%	20%	15%	8%	23%
White	109,959	2,483	89	23%	20%	26%	31%	57%
Two or more races	16,810	2,478	93	26%	19%	24%	30%	54%
English only	261,576	2,460	93	33%	21%	23%	24%	47%
Initially Fluent English Proficient	18,135	2,512	86	14%	17%	26%	43%	69%
English Learner	119,955	2,384	72	68%	20%	9%	3%	11%
Reclassified Fluent English Proficient	61,924	2,484	71	17%	27%	32%	24%	56%
To be determined	219	2,405	113	54%	13%	19%	14%	33%
English proficiency unknown	870	2,439	102	43%	17%	19%	20%	40%
No special education services	413,847	2,455	90	35%	22%	22%	21%	43%
Special education services	48,832	2,370	87	74%	13%	8%	5%	14%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	176,935	2,493	88	20%	19%	26%	35%	62%
Economically disadvantaged	285,744	2,416	83	51%	23%	17%	9%	26%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	4,496	2,392	78	62%	22%	12%	4%	16%
Not migrant	458,183	2,446	93	39%	21%	21%	19%	40%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	799	2,465	90	31%	20%	24%	24%	48%
Asian American	26,343	2,535	82	9%	12%	24%	56%	79%
Pacific Islander	749	2,462	86	29%	24%	24%	23%	47%
Filipino	7,247	2,504	81	14%	17%	29%	39%	68%
Hispanic	47,243	2,458	87	32%	23%	25%	21%	46%
African American	6,435	2,443	89	38%	23%	22%	17%	39%
White	77,824	2,502	83	15%	18%	28%	38%	66%
Two or more races	10,295	2,507	85	15%	17%	27%	41%	68%

				Percent in Performance Level				
	Number Tested	Mean Scale Score	SD of Scale Scores	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian	1,654	2,402	80	57%	22%	15%	6%	21%
Asian American	14,759	2,465	89	30%	22%	25%	24%	48%
Pacific Islander	1,539	2,421	80	47%	27%	18%	8%	26%
Filipino	3,907	2,465	83	28%	24%	27%	21%	48%
Hispanic	205,681	2,410	80	54%	23%	16%	7%	23%
African American	19,554	2,395	81	62%	20%	13%	6%	18%
White	32,135	2,436	86	41%	24%	22%	14%	35%
Two or more races	6,515	2,431	87	44%	23%	20%	13%	33%
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 7.E.3 Demographic Summary for ELA, Grade Five

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	460,190	2,487	95	34%	21%	27%	17%	45%
Male	234,937	2,474	95	39%	21%	25%	14%	39%
Female	225,253	2,501	92	28%	22%	30%	21%	50%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	2,520	2,452	89	48%	23%	21%	8%	29%
Asian American	42,200	2,551	93	14%	14%	31%	42%	72%
Pacific Islander	2,393	2,473	87	37%	25%	26%	12%	38%
Filipino	11,783	2,530	85	16%	19%	36%	29%	65%
Hispanic	247,031	2,461	85	43%	24%	24%	8%	32%
African American	26,397	2,447	89	50%	22%	21%	7%	28%
White	112,354	2,523	91	20%	19%	34%	28%	62%
Two or more races	15,512	2,519	94	22%	19%	31%	28%	59%
English only	257,606	2,501	95	28%	20%	30%	21%	52%
Initially Fluent English Proficient	20,247	2,547	88	13%	16%	33%	37%	71%
English Learner	100,271	2,414	70	67%	21%	10%	1%	11%
Reclassified Fluent English Proficient	81,074	2,518	73	15%	26%	39%	20%	58%
To be determined	210	2,453	110	46%	20%	20%	15%	35%
English proficiency unknown	782	2,476	107	40%	17%	24%	19%	43%
No special education services	409,614	2,498	90	29%	22%	30%	19%	49%
Special education services	50,576	2,401	86	73%	14%	9%	4%	13%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	180,361	2,533	90	16%	17%	34%	32%	66%
Economically disadvantaged	279,829	2,457	85	45%	24%	23%	8%	31%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	4,465	2,433	81	56%	23%	17%	4%	21%
Not migrant	455,725	2,487	95	34%	21%	28%	18%	45%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	792	2,489	90	32%	23%	29%	16%	46%
Asian American	26,997	2,576	83	7%	10%	30%	52%	82%
Pacific Islander	824	2,503	84	23%	26%	32%	19%	51%
Filipino	7,547	2,542	82	12%	17%	37%	34%	71%
Hispanic	46,736	2,500	88	27%	22%	33%	18%	51%
African American	7,007	2,482	93	33%	23%	29%	14%	44%
White	80,888	2,542	84	13%	17%	36%	34%	70%
Two or more races	9,570	2,548	86	12%	16%	34%	38%	72%

				Percent in Performance Level				
	Number Tested	Mean Scale Score	SD of Scale Scores	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian	1,728	2,435	84	55%	23%	17%	5%	22%
Asian American	15,203	2,506	92	25%	20%	32%	23%	54%
Pacific Islander	1,569	2,457	84	44%	25%	23%	8%	31%
Filipino	4,236	2,507	86	22%	23%	34%	21%	55%
Hispanic	200,295	2,451	82	47%	25%	22%	6%	28%
African American	19,390	2,434	84	56%	22%	18%	5%	22%
White	31,466	2,475	89	37%	23%	28%	12%	40%
Two or more races	5,942	2,472	88	39%	23%	27%	11%	38%
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 7.E.4 Demographic Summary for ELA, Grade Six

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	456,321	2,512	92	28%	29%	29%	13%	43%
Male	232,916	2,498	93	34%	29%	26%	11%	37%
Female	223,405	2,525	89	23%	29%	33%	16%	49%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	2,503	2,483	89	39%	30%	24%	7%	31%
Asian American	41,789	2,576	89	10%	17%	36%	36%	72%
Pacific Islander	2,302	2,502	86	29%	33%	29%	9%	38%
Filipino	12,432	2,554	83	12%	24%	40%	24%	64%
Hispanic	243,545	2,486	84	36%	33%	24%	6%	30%
African American	26,412	2,474	88	43%	30%	21%	5%	27%
White	112,650	2,544	87	16%	25%	38%	21%	59%
Two or more races	14,688	2,538	92	20%	25%	35%	20%	56%
English only	253,400	2,525	91	23%	28%	33%	16%	49%
Initially Fluent English Proficient	21,514	2,566	87	11%	22%	36%	30%	67%
English Learner	76,222	2,430	70	66%	27%	7%	1%	7%
Reclassified Fluent English Proficient	104,197	2,529	74	16%	36%	36%	12%	48%
To be determined	255	2,473	110	44%	26%	18%	12%	30%
English proficiency unknown	733	2,486	106	39%	22%	29%	11%	39%
No special education services	408,809	2,522	87	23%	30%	32%	15%	47%
Special education services	47,512	2,419	82	71%	19%	8%	2%	10%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	180,506	2,555	86	13%	23%	38%	25%	63%
Economically disadvantaged	275,815	2,483	84	38%	33%	24%	6%	29%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	3,929	2,461	82	48%	31%	18%	3%	21%
Not migrant	452,392	2,512	92	28%	29%	30%	13%	43%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	839	2,516	89	25%	31%	31%	13%	44%
Asian American	26,431	2,600	80	5%	12%	37%	46%	82%
Pacific Islander	800	2,529	87	21%	27%	37%	15%	52%
Filipino	8,023	2,568	80	9%	21%	42%	29%	70%
Hispanic	47,036	2,523	85	21%	31%	35%	13%	48%
African American	7,222	2,509	90	29%	29%	31%	12%	42%
White	81,189	2,562	81	10%	22%	41%	26%	67%
Two or more races	8,966	2,565	84	11%	20%	40%	28%	69%

				Percent in Performance Level				
	Number Tested	Mean Scale Score	SD of Scale Scores	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian	1,664	2,466	84	47%	30%	20%	4%	24%
Asian American	15,358	2,536	90	19%	26%	36%	19%	55%
Pacific Islander	1,502	2,488	82	34%	36%	25%	5%	30%
Filipino	4,409	2,529	84	19%	30%	37%	15%	51%
Hispanic	196,509	2,477	81	40%	34%	22%	4%	26%
African American	19,190	2,461	84	49%	30%	18%	3%	21%
White	31,461	2,500	85	31%	32%	29%	8%	37%
Two or more races	5,722	2,495	87	33%	32%	27%	8%	35%
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 7.E.5 Demographic Summary for ELA, Grade Seven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	449,714	2,531	97	31%	25%	32%	12%	44%
Male	229,040	2,518	97	37%	25%	28%	10%	38%
Female	220,674	2,545	93	25%	26%	35%	14%	49%
Gender unknown	0	—	—	—	—	—	—	—
American Indian	2,677	2,502	92	42%	27%	26%	5%	31%
Asian American	40,461	2,601	92	11%	15%	39%	35%	73%
Pacific Islander	2,334	2,521	87	32%	31%	31%	7%	37%
Filipino	12,457	2,576	86	14%	21%	45%	20%	65%
Hispanic	240,370	2,504	88	40%	29%	26%	5%	31%
African American	26,880	2,490	91	47%	26%	22%	4%	27%
White	111,022	2,567	91	17%	22%	41%	19%	61%
Two or more races	13,513	2,562	95	20%	22%	38%	19%	57%
English only	247,158	2,546	96	25%	24%	36%	15%	50%
Initially Fluent English Proficient	20,546	2,586	91	13%	20%	40%	27%	67%
English Learner	65,610	2,438	68	74%	20%	5%	0%	6%
Reclassified Fluent English Proficient	115,338	2,544	80	21%	32%	37%	10%	46%
To be determined	223	2,478	110	52%	20%	22%	7%	28%
English proficiency unknown	839	2,493	108	47%	19%	26%	8%	34%
No special education services	404,545	2,542	92	26%	26%	34%	13%	47%
Special education services	45,169	2,436	81	74%	16%	8%	2%	9%
Special education unknown	0	—	—	—	—	—	—	—
Not economically disadvantaged	179,378	2,577	90	15%	21%	42%	23%	64%
Economically disadvantaged	270,336	2,501	88	42%	29%	25%	5%	30%
Unknown economic status	0	—	—	—	—	—	—	—
Migrant	3,749	2,477	85	52%	27%	19%	2%	21%
Not migrant	445,965	2,532	96	31%	25%	32%	12%	44%
Migrant status unknown	0	—	—	—	—	—	—	—
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	943	2,538	93	29%	24%	37%	11%	47%
Asian American	25,468	2,626	82	6%	11%	39%	44%	83%
Pacific Islander	841	2,548	86	21%	28%	41%	11%	51%
Filipino	8,033	2,590	82	10%	18%	47%	24%	72%
Hispanic	47,709	2,542	89	24%	27%	38%	11%	49%
African American	7,624	2,523	93	33%	27%	32%	8%	41%
White	80,307	2,585	84	11%	20%	45%	24%	69%
Two or More Races	8,453	2,588	88	12%	19%	43%	26%	69%

				Percent in Performance Level				
	Number Tested	Mean Scale Score	SD of Scale Scores	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian	1,734	2,483	85	49%	28%	20%	3%	22%
Asian American	14,993	2,560	94	20%	23%	39%	18%	57%
Pacific Islander	1,493	2,505	84	38%	33%	25%	4%	29%
Filipino	4,424	2,550	86	21%	27%	40%	12%	52%
Hispanic	192,661	2,494	85	44%	29%	23%	3%	27%
African American	19,256	2,478	87	53%	26%	19%	3%	21%
White	30,715	2,520	90	33%	28%	32%	7%	39%
Two or more races	5,060	2,518	90	35%	27%	31%	7%	38%
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 7.E.6 Demographic Summary for ELA, Grade Eight

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	451,185	2,552	95	26%	29%	33%	12%	45%
Male	230,130	2,537	96	32%	29%	30%	9%	39%
Female	221,055	2,568	91	20%	29%	37%	14%	52%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	2,599	2,525	90	34%	33%	27%	6%	33%
Asian American	40,680	2,619	91	9%	17%	41%	33%	74%
Pacific Islander	2,307	2,539	88	29%	33%	31%	7%	38%
Filipino	12,955	2,595	83	11%	23%	48%	19%	66%
Hispanic	239,613	2,526	86	33%	34%	28%	5%	33%
African American	27,826	2,512	91	40%	31%	24%	5%	28%
White	112,317	2,586	90	14%	24%	42%	19%	61%
Two or more races	12,888	2,581	95	17%	24%	39%	19%	58%
English only	246,538	2,566	94	21%	27%	37%	15%	52%
Initially Fluent English Proficient	21,005	2,603	90	11%	22%	41%	26%	67%
English Learner	58,124	2,457	67	68%	26%	5%	0%	6%
Reclassified Fluent English Proficient	124,566	2,562	79	17%	36%	38%	9%	47%
To be determined	170	2,485	109	52%	25%	18%	5%	24%
English prof. unknown	782	2,511	107	44%	22%	27%	8%	35%
No special education services	406,809	2,563	90	21%	30%	36%	13%	49%
Special education services	44,376	2,457	80	69%	21%	8%	1%	10%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	183,537	2,594	90	13%	23%	42%	22%	64%
Economically disadvantaged	267,648	2,524	87	34%	33%	27%	5%	32%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	3,896	2,502	85	44%	32%	20%	3%	23%
Not migrant	447,289	2,553	95	26%	29%	33%	12%	45%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	975	2,555	90	22%	32%	36%	10%	46%
Asian American	25,290	2,643	82	5%	12%	41%	42%	83%
Pacific Islander	844	2,568	87	18%	32%	38%	13%	50%
Filipino	8,445	2,608	80	8%	19%	50%	23%	73%
Hispanic	49,294	2,559	88	21%	30%	38%	11%	49%
African American	8,241	2,544	94	27%	30%	33%	9%	42%
White	82,320	2,603	84	10%	22%	46%	23%	69%
Two or more races	8,128	2,606	88	10%	20%	43%	26%	69%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian	1,624	2,507	85	42%	34%	22%	3%	25%
Asian American	15,390	2,581	92	16%	25%	41%	18%	59%
Pacific Islander	1,463	2,522	83	35%	34%	27%	4%	31%
Filipino	4,510	2,570	83	17%	29%	43%	11%	54%
Hispanic	190,319	2,518	84	36%	35%	25%	4%	29%
African American	19,585	2,499	86	46%	32%	20%	3%	23%
White	29,997	2,541	89	28%	31%	33%	7%	41%
Two or more races	4,760	2,538	91	29%	31%	32%	7%	40%
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 7.E.7 Demographic Summary for ELA, Grade Eleven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	422,098	2,591	110	20%	24%	33%	23%	56%
Male	214,145	2,576	113	25%	25%	31%	20%	50%
Female	207,953	2,607	104	15%	24%	36%	26%	61%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	2,616	2,570	108	25%	27%	31%	17%	48%
Asian American	38,752	2,657	105	9%	13%	30%	48%	78%
Pacific Islander	2,384	2,573	105	24%	28%	33%	16%	48%
Filipino	13,834	2,634	94	8%	18%	40%	34%	74%
Hispanic	218,563	2,565	103	25%	29%	33%	13%	46%
African American	25,437	2,545	108	33%	28%	28%	11%	39%
White	109,078	2,624	106	13%	19%	35%	33%	68%
Two or more races	11,434	2,618	109	14%	20%	34%	32%	66%
English only	232,541	2,604	109	17%	22%	34%	27%	61%
Initially Fluent English Proficient	36,086	2,633	101	10%	19%	36%	35%	71%
English Learner	39,506	2,469	78	63%	29%	7%	1%	8%
Reclassified Fluent English Proficient	113,058	2,595	93	14%	29%	39%	18%	57%
To be determined	182	2,536	126	42%	19%	25%	14%	39%
English prof. unknown	725	2,533	123	42%	21%	25%	13%	38%
No special education services	387,756	2,601	105	16%	24%	35%	24%	59%
Special education services	34,342	2,479	94	60%	26%	11%	3%	14%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	190,559	2,626	106	12%	19%	35%	34%	69%
Economically disadvantaged	231,539	2,563	104	26%	29%	32%	13%	45%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	3,375	2,535	99	34%	33%	26%	7%	33%
Not migrant	418,723	2,592	110	20%	24%	33%	23%	56%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	1,230	2,598	106	18%	22%	36%	24%	60%
Asian American	23,267	2,682	96	5%	10%	28%	58%	85%
Pacific Islander	1,102	2,595	106	18%	25%	34%	23%	56%
Filipino	9,503	2,646	90	7%	15%	40%	38%	78%
Hispanic	55,430	2,589	104	19%	25%	36%	20%	56%
African American	9,658	2,572	110	25%	26%	33%	17%	49%
White	82,820	2,638	101	9%	17%	36%	38%	74%
Two or more races	7,549	2,641	103	10%	15%	35%	39%	75%

				Percent in Performance Level				
	Number Tested	Mean Scale Score	SD of Scale Scores	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian	1,386	2,545	104	32%	30%	28%	10%	38%
Asian American	15,485	2,619	108	14%	19%	35%	32%	67%
Pacific Islander	1,282	2,553	100	28%	31%	32%	10%	41%
Filipino	4,331	2,609	97	13%	23%	40%	24%	64%
Hispanic	163,133	2,557	101	27%	30%	32%	11%	43%
African American	15,779	2,529	104	38%	29%	25%	7%	32%
White	26,258	2,578	108	23%	26%	33%	18%	51%
Two or more races	3,885	2,574	107	23%	28%	33%	17%	49%
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 7.E.8 Demographic Summary for Mathematics, Grade Three

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	474,261	2,415	80	33%	27%	26%	14%	40%
Male	242,453	2,415	83	33%	26%	26%	15%	41%
Female	231,808	2,415	77	33%	28%	26%	13%	39%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	2,534	2,390	77	44%	27%	22%	7%	29%
Asian American	41,359	2,478	78	11%	17%	32%	41%	72%
Pacific Islander	2,226	2,409	73	34%	30%	26%	10%	36%
Filipino	10,857	2,452	70	15%	23%	38%	24%	62%
Hispanic	262,614	2,393	71	42%	30%	22%	6%	28%
African American	26,412	2,378	76	51%	27%	18%	5%	22%
White	109,930	2,445	76	19%	23%	35%	23%	58%
Two or more races	18,329	2,440	81	22%	24%	32%	23%	54%
English only	270,479	2,425	80	28%	26%	29%	17%	46%
Initially Fluent English Proficient	18,145	2,473	76	11%	20%	33%	36%	69%
English Learner	152,869	2,383	71	49%	29%	17%	5%	22%
Reclassified Fluent English Proficient	31,071	2,455	62	11%	27%	40%	22%	62%
To be determined	377	2,389	91	47%	22%	19%	12%	31%
English prof. unknown	1,320	2,399	89	42%	23%	23%	12%	35%
No special education services	429,419	2,421	76	30%	27%	28%	15%	43%
Special education services	44,842	2,353	89	64%	18%	12%	6%	18%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	178,749	2,454	77	16%	22%	35%	27%	62%
Economically disadvantaged	295,512	2,391	72	43%	30%	21%	6%	27%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	4,717	2,376	68	52%	29%	16%	3%	19%
Not migrant	469,544	2,415	80	33%	27%	26%	14%	40%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	781	2,419	77	30%	26%	30%	14%	44%
Asian American	26,794	2,500	71	6%	11%	31%	52%	83%
Pacific Islander	746	2,434	73	23%	28%	31%	18%	49%
Filipino	7,036	2,463	68	11%	20%	40%	29%	69%
Hispanic	48,715	2,422	73	27%	29%	31%	13%	45%
African American	6,431	2,407	76	35%	28%	27%	10%	37%
White	77,118	2,461	71	12%	21%	38%	29%	67%
Two or more races	11,128	2,465	75	13%	20%	36%	32%	68%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
Primary Ethnicity—Economically Disadvantaged									
American Indian	1,753	2,377	73	50%	28%	19%	3%	22%	
Asian American	14,565	2,439	75	21%	26%	32%	20%	53%	
Pacific Islander	1,480	2,396	70	39%	32%	23%	6%	29%	
Filipino	3,821	2,433	70	21%	28%	35%	16%	50%	
Hispanic	213,899	2,386	69	46%	30%	20%	5%	24%	
African American	19,981	2,368	73	56%	27%	15%	3%	18%	
White	32,812	2,407	74	34%	30%	27%	9%	37%	
Two or more races	7,201	2,402	74	37%	29%	25%	8%	33%	
Primary Ethnicity—Unknown Economic Status									
American Indian	0	—	—	—	—	—	—	—	
Asian American	0	—	—	—	—	—	—	—	
Pacific Islander	0	—	—	—	—	—	—	—	
Filipino	0	—	—	—	—	—	—	—	
Hispanic	0	—	—	—	—	—	—	—	
African American	0	—	—	—	—	—	—	—	
White	0	—	—	—	—	—	—	—	
Two or more races	0	—	—	—	—	—	—	—	

Table 7.E.9 Demographic Summary for Mathematics, Grade Four

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	464,355	2,454	81	31%	35%	22%	13%	35%
Male	236,459	2,454	84	31%	33%	22%	14%	36%
Female	227,896	2,453	77	30%	36%	22%	12%	34%
Gender unknown	0	—	—	—	—	—	—	—
American Indian	2,445	2,433	77	38%	37%	18%	7%	25%
Asian American	41,644	2,522	80	9%	22%	29%	40%	69%
Pacific Islander	2,282	2,443	71	33%	41%	19%	7%	27%
Filipino	11,281	2,490	73	13%	33%	32%	22%	54%
Hispanic	253,901	2,430	71	40%	38%	17%	5%	22%
African American	25,961	2,416	74	48%	35%	14%	4%	17%
White	110,018	2,485	77	16%	32%	31%	21%	52%
Two or more races	16,823	2,480	82	19%	32%	28%	21%	49%
English only	261,276	2,464	81	26%	34%	25%	15%	40%
Initially Fluent English Proficient	18,138	2,511	79	11%	27%	29%	33%	63%
English Learner	121,552	2,407	66	54%	34%	9%	2%	11%
Reclassified Fluent English Proficient	61,906	2,486	65	11%	40%	32%	17%	49%
To be determined	318	2,421	102	51%	23%	13%	13%	26%
English prof. unknown	1,165	2,433	94	42%	29%	17%	12%	29%
No special education services	415,621	2,461	77	27%	36%	23%	14%	37%
Special education services	48,734	2,389	84	64%	23%	9%	4%	13%
Special education unknown	0	—	—	—	—	—	—	—
Not economically disadvantaged	177,633	2,495	78	14%	30%	31%	25%	56%
Economically disadvantaged	286,722	2,428	71	41%	38%	16%	5%	21%
Unknown economic status	0	—	—	—	—	—	—	—
Migrant	4,532	2,413	66	50%	35%	12%	2%	14%
Not migrant	459,823	2,454	81	30%	35%	22%	13%	35%
Migrant status unknown	0	—	—	—	—	—	—	—
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	798	2,468	77	22%	37%	26%	15%	41%
Asian American	26,689	2,545	72	4%	15%	29%	51%	81%
Pacific Islander	751	2,464	74	22%	40%	24%	14%	38%
Filipino	7,319	2,502	71	10%	28%	35%	27%	62%
Hispanic	47,475	2,460	73	25%	38%	26%	11%	37%
African American	6,436	2,446	76	31%	38%	22%	8%	31%
White	77,853	2,501	72	10%	29%	35%	26%	61%
Two or more races	10,312	2,506	75	10%	28%	33%	30%	62%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian	1,647	2,416	72	46%	38%	14%	3%	17%
Asian American	14,955	2,480	77	18%	33%	29%	20%	48%
Pacific Islander	1,531	2,432	67	38%	41%	17%	4%	21%
Filipino	3,962	2,467	71	20%	41%	26%	13%	39%
Hispanic	206,426	2,423	68	44%	38%	15%	4%	18%
African American	19,525	2,406	70	53%	34%	11%	2%	13%
White	32,165	2,445	73	31%	39%	22%	8%	30%
Two or more races	6,511	2,439	74	34%	39%	20%	7%	27%
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 7.E.10 Demographic Summary for Mathematics, Grade Five

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	461,617	2,480	90	41%	29%	15%	15%	30%
Male	235,661	2,480	93	42%	27%	16%	16%	31%
Female	225,956	2,481	85	40%	30%	15%	14%	29%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	2,512	2,450	82	54%	29%	10%	7%	17%
Asian American	42,721	2,555	89	14%	21%	21%	44%	65%
Pacific Islander	2,395	2,467	82	45%	32%	14%	9%	23%
Filipino	11,863	2,520	81	22%	30%	23%	25%	48%
Hispanic	247,961	2,453	78	53%	30%	11%	6%	17%
African American	26,313	2,436	81	60%	26%	9%	5%	14%
White	112,328	2,515	84	23%	30%	22%	24%	46%
Two or more races	15,524	2,510	90	28%	28%	20%	24%	44%
English only	257,186	2,492	90	35%	29%	18%	18%	36%
Initially Fluent English Proficient	20,240	2,537	88	19%	27%	20%	34%	54%
English Learner	101,743	2,419	69	73%	21%	5%	2%	7%
Reclassified Fluent English Proficient	81,073	2,506	75	26%	37%	20%	17%	38%
To be determined	310	2,441	107	62%	12%	14%	12%	25%
English prof. unknown	1,065	2,457	97	52%	23%	13%	12%	26%
No special education services	411,190	2,489	86	37%	30%	17%	16%	33%
Special education services	50,427	2,406	85	76%	15%	5%	4%	9%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	180,891	2,525	87	21%	28%	22%	29%	51%
Economically disadvantaged	280,726	2,451	79	54%	29%	11%	6%	17%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	4,513	2,433	73	63%	27%	7%	3%	10%
Not migrant	457,104	2,481	90	41%	29%	16%	15%	31%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	791	2,486	84	36%	34%	15%	15%	30%
Asian American	27,282	2,581	79	7%	16%	21%	56%	77%
Pacific Islander	824	2,495	81	32%	33%	19%	16%	35%
Filipino	7,593	2,533	78	17%	28%	26%	30%	55%
Hispanic	46,968	2,486	81	36%	33%	18%	13%	32%
African American	6,996	2,468	86	44%	31%	15%	10%	25%
White	80,857	2,533	79	16%	29%	25%	30%	55%
Two or more races	9,580	2,538	84	16%	26%	24%	33%	58%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian	1,721	2,434	76	63%	26%	8%	3%	11%
Asian American	15,439	2,510	86	27%	29%	21%	22%	44%
Pacific Islander	1,571	2,453	78	52%	31%	11%	6%	17%
Filipino	4,270	2,498	80	30%	33%	19%	17%	36%
Hispanic	200,993	2,445	75	57%	29%	10%	4%	14%
African American	19,317	2,425	76	66%	24%	7%	3%	10%
White	31,471	2,470	81	42%	33%	15%	9%	25%
Two or more races	5,944	2,464	81	46%	31%	14%	8%	22%
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 7.E.11 Demographic Summary for Mathematics, Grade Six

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	457,550	2,504	102	36%	31%	18%	15%	33%
Male	233,513	2,500	106	38%	30%	17%	15%	32%
Female	224,037	2,509	97	34%	32%	19%	15%	34%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	2,499	2,475	96	47%	32%	14%	7%	22%
Asian American	42,238	2,590	96	12%	20%	23%	45%	68%
Pacific Islander	2,303	2,495	92	38%	35%	17%	10%	27%
Filipino	12,522	2,548	90	18%	31%	26%	25%	51%
Hispanic	244,197	2,474	92	47%	33%	14%	6%	20%
African American	26,403	2,456	97	55%	29%	11%	5%	16%
White	112,760	2,541	94	21%	31%	25%	23%	48%
Two or more races	14,628	2,532	101	25%	30%	22%	22%	45%
English only	253,077	2,517	101	31%	31%	21%	18%	38%
Initially Fluent English Proficient	21,525	2,566	98	17%	27%	23%	34%	56%
English Learner	77,512	2,421	85	73%	21%	4%	2%	6%
Reclassified Fluent English Proficient	104,131	2,524	82	25%	39%	21%	14%	35%
To be determined	340	2,459	120	56%	21%	11%	12%	22%
English prof. unknown	965	2,462	117	50%	27%	13%	10%	23%
No special education services	410,182	2,516	96	31%	33%	19%	16%	36%
Special education services	47,368	2,400	99	78%	15%	5%	3%	8%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	180,948	2,553	96	18%	28%	25%	29%	53%
Economically disadvantaged	276,602	2,472	93	48%	33%	13%	6%	20%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	3,979	2,455	89	56%	30%	11%	3%	14%
Not migrant	453,571	2,505	102	36%	31%	18%	15%	33%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	840	2,509	95	32%	32%	22%	14%	35%
Asian American	26,698	2,618	86	6%	15%	22%	57%	80%
Pacific Islander	797	2,523	94	27%	34%	20%	18%	38%
Filipino	8,072	2,564	86	14%	28%	28%	31%	58%
Hispanic	47,186	2,512	92	30%	35%	21%	13%	35%
African American	7,206	2,494	97	38%	34%	17%	11%	28%
White	81,247	2,560	87	14%	29%	28%	29%	57%
Two or more races	8,902	2,563	93	15%	27%	26%	31%	58%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian	1,659	2,458	92	54%	32%	11%	4%	15%
Asian American	15,540	2,543	95	22%	30%	24%	25%	49%
Pacific Islander	1,506	2,480	87	43%	36%	15%	6%	21%
Filipino	4,450	2,520	90	27%	35%	23%	15%	38%
Hispanic	197,011	2,465	90	51%	33%	12%	4%	16%
African American	19,197	2,442	93	61%	28%	9%	3%	12%
White	31,513	2,492	93	38%	35%	18%	9%	27%
Two or more races	5,726	2,485	94	42%	34%	16%	8%	24%
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 7.E.12 Demographic Summary for Mathematics, Grade Seven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	450,395	2,518	109	37%	29%	19%	15%	34%
Male	229,411	2,515	113	39%	28%	18%	15%	34%
Female	220,984	2,522	105	35%	31%	19%	15%	34%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	2,677	2,489	101	47%	32%	14%	7%	22%
Asian American	40,909	2,616	103	11%	18%	24%	47%	71%
Pacific Islander	2,336	2,508	99	38%	33%	19%	9%	28%
Filipino	12,553	2,566	96	18%	28%	28%	25%	53%
Hispanic	240,803	2,485	97	48%	31%	15%	6%	20%
African American	26,779	2,465	101	56%	28%	12%	4%	16%
White	110,818	2,559	101	21%	29%	27%	23%	50%
Two or more races	13,520	2,551	107	25%	28%	24%	23%	47%
English only	246,482	2,532	108	32%	29%	22%	17%	39%
Initially Fluent English Proficient	20,494	2,582	107	18%	25%	24%	33%	57%
English Learner	66,871	2,424	89	76%	18%	4%	2%	6%
Reclassified Fluent English Proficient	115,108	2,533	92	29%	36%	21%	14%	35%
To be determined	321	2,459	128	61%	17%	11%	12%	22%
English prof. unknown	1,119	2,472	121	54%	23%	12%	10%	22%
No special education services	405,401	2,530	104	32%	31%	21%	16%	37%
Special education services	44,994	2,411	100	78%	14%	5%	3%	7%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	179,604	2,570	104	20%	27%	26%	28%	54%
Economically disadvantaged	270,791	2,484	99	49%	31%	14%	6%	20%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	3,813	2,466	94	55%	31%	11%	3%	14%
Not migrant	446,582	2,519	109	37%	29%	19%	15%	34%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	942	2,527	102	32%	32%	22%	15%	36%
Asian American	25,711	2,646	92	5%	13%	23%	59%	82%
Pacific Islander	838	2,540	95	26%	33%	25%	16%	41%
Filipino	8,083	2,582	92	13%	26%	30%	30%	60%
Hispanic	47,829	2,523	99	32%	33%	22%	13%	35%
African American	7,597	2,499	103	42%	31%	18%	9%	27%
White	80,165	2,579	94	15%	27%	29%	29%	58%
Two or more races	8,439	2,582	100	16%	25%	27%	31%	59%

				Percent in Performance Level				
	Number Tested	Mean Scale Score	SD of Scale Scores	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian	1,735	2,468	94	54%	31%	11%	3%	14%
Asian American	15,198	2,566	103	20%	27%	26%	27%	52%
Pacific Islander	1,498	2,489	96	45%	34%	16%	6%	21%
Filipino	4,470	2,537	95	27%	32%	25%	15%	40%
Hispanic	192,974	2,476	94	52%	31%	13%	4%	17%
African American	19,182	2,452	96	62%	27%	9%	3%	12%
White	30,653	2,507	98	38%	34%	19%	9%	28%
Two or more races	5,081	2,501	101	41%	32%	19%	8%	27%
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 7.E.13 Demographic Summary for Mathematics, Grade Eight

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	451,965	2,534	116	41%	26%	17%	16%	33%
Male	230,528	2,528	121	43%	25%	16%	16%	32%
Female	221,437	2,539	111	38%	28%	18%	16%	34%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	2,587	2,499	108	52%	27%	13%	8%	21%
Asian American	41,144	2,639	113	13%	17%	20%	50%	70%
Pacific Islander	2,314	2,519	106	44%	30%	16%	11%	26%
Filipino	13,056	2,586	104	21%	27%	26%	27%	53%
Hispanic	240,142	2,499	102	52%	28%	13%	7%	20%
African American	27,679	2,477	104	61%	23%	10%	5%	16%
White	112,176	2,574	110	26%	26%	23%	25%	48%
Two or more races	12,867	2,567	116	30%	25%	20%	25%	45%
English only	245,902	2,546	116	36%	26%	19%	19%	38%
Initially Fluent English Proficient	20,999	2,597	117	22%	24%	20%	34%	54%
English Learner	59,383	2,434	92	80%	15%	4%	2%	6%
Reclassified Fluent English Proficient	124,423	2,546	102	35%	32%	18%	15%	33%
To be determined	241	2,461	122	70%	13%	9%	8%	17%
English prof. unknown	1,017	2,485	123	58%	21%	11%	10%	21%
No special education services	407,729	2,546	112	36%	28%	18%	18%	36%
Special education services	44,236	2,422	98	81%	12%	4%	3%	7%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	183,747	2,585	114	24%	25%	22%	29%	52%
Economically disadvantaged	268,218	2,499	105	52%	27%	13%	8%	21%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	3,951	2,480	100	60%	25%	11%	5%	15%
Not migrant	448,014	2,534	117	40%	26%	17%	17%	33%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	966	2,531	111	40%	28%	17%	14%	31%
Asian American	25,540	2,670	101	7%	12%	19%	62%	81%
Pacific Islander	843	2,551	107	32%	30%	20%	17%	38%
Filipino	8,503	2,603	101	16%	25%	27%	33%	60%
Hispanic	49,394	2,534	106	38%	30%	18%	14%	32%
African American	8,204	2,512	109	47%	28%	15%	10%	26%
White	82,183	2,594	104	19%	25%	25%	30%	56%
Two or more races	8,114	2,598	110	20%	24%	23%	34%	57%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian	1,621	2,480	101	59%	26%	11%	5%	15%
Asian American	15,604	2,589	114	23%	24%	22%	31%	53%
Pacific Islander	1,471	2,500	101	51%	29%	13%	7%	20%
Filipino	4,553	2,556	102	29%	30%	23%	18%	40%
Hispanic	190,748	2,490	99	55%	28%	12%	5%	17%
African American	19,475	2,462	98	67%	22%	8%	3%	11%
White	29,993	2,518	106	44%	29%	17%	10%	27%
Two or more races	4,753	2,514	108	47%	27%	16%	11%	26%
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 7.E.14 Demographic Summary for Mathematics, Grade Eleven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	419,508	2,560	125	45%	25%	18%	11%	30%
Male	213,078	2,555	132	48%	23%	17%	12%	29%
Female	206,430	2,565	118	43%	27%	20%	10%	30%
Gender unknown	0	—	—	—	—	—	—	—
American Indian	2,564	2,531	115	56%	24%	15%	6%	21%
Asian American	38,858	2,672	124	16%	18%	27%	40%	67%
Pacific Islander	2,353	2,540	114	50%	29%	14%	7%	21%
Filipino	13,759	2,609	110	26%	28%	30%	16%	46%
Hispanic	217,296	2,525	109	56%	26%	14%	4%	18%
African American	25,221	2,502	110	65%	22%	11%	3%	14%
White	108,155	2,595	123	33%	26%	25%	17%	41%
Two or more races	11,302	2,588	127	36%	25%	23%	16%	39%
English only	230,317	2,570	125	42%	25%	20%	13%	33%
Initially Fluent English Proficient	35,882	2,608	128	31%	25%	23%	21%	44%
English Learner	39,778	2,454	98	85%	10%	4%	2%	5%
Reclassified Fluent English Proficient	112,487	2,563	111	44%	29%	18%	9%	27%
To be determined	192	2,521	130	54%	25%	14%	7%	21%
English prof. unknown	852	2,510	123	62%	20%	13%	5%	18%
No special education services	385,593	2,570	122	42%	26%	20%	12%	32%
Special education services	33,915	2,444	98	86%	10%	3%	1%	5%
Special education unknown	0	—	—	—	—	—	—	—
Not economically disadvantaged	189,172	2,601	127	32%	25%	24%	19%	43%
Economically disadvantaged	230,336	2,526	112	56%	25%	14%	5%	19%
Unknown economic status	0	—	—	—	—	—	—	—
Migrant	3,376	2,509	104	63%	24%	11%	2%	13%
Not migrant	416,132	2,560	125	45%	25%	18%	11%	30%
Migrant status unknown	0	—	—	—	—	—	—	—
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	1,213	2,563	116	44%	27%	20%	9%	29%
Asian American	23,283	2,703	116	10%	14%	26%	50%	77%
Pacific Islander	1,083	2,562	118	42%	30%	18%	10%	28%
Filipino	9,438	2,622	108	22%	27%	32%	19%	51%
Hispanic	55,059	2,548	114	48%	27%	18%	7%	25%
African American	9,560	2,528	115	55%	25%	15%	5%	20%
White	82,076	2,613	120	27%	26%	27%	20%	47%
Two or more races	7,460	2,617	124	26%	25%	27%	22%	49%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
Primary Ethnicity—Economically Disadvantaged									
American Indian	1,351	2,502	107	66%	21%	10%	3%	13%	
Asian American	15,575	2,625	122	25%	23%	28%	24%	52%	
Pacific Islander	1,270	2,522	107	56%	29%	10%	4%	15%	
Filipino	4,321	2,582	109	35%	29%	26%	10%	36%	
Hispanic	162,237	2,517	106	59%	25%	12%	3%	15%	
African American	15,661	2,486	105	70%	20%	8%	2%	10%	
White	26,079	2,539	115	51%	26%	16%	7%	23%	
Two or more races	3,842	2,532	113	54%	26%	15%	5%	20%	
Primary Ethnicity—Unknown Economic Status									
American Indian	0	—	—	—	—	—	—	—	
Asian American	0	—	—	—	—	—	—	—	
Pacific Islander	0	—	—	—	—	—	—	—	
Filipino	0	—	—	—	—	—	—	—	
Hispanic	0	—	—	—	—	—	—	—	
African American	0	—	—	—	—	—	—	—	
White	0	—	—	—	—	—	—	—	
Two or more races	0	—	—	—	—	—	—	—	

Table 7.E.15 Ethnicity Summary by Economic Status for Claims—ELA, Grade Three

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	472,674	2,403	88	41%	41%	18%	38%	44%	17%	24%	62%	14%	32%	50%	18%
Male	241,579	2,393	87	45%	39%	16%	43%	43%	14%	26%	60%	13%	35%	49%	16%
Female	231,095	2,413	87	36%	43%	21%	34%	46%	20%	21%	63%	15%	28%	52%	20%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	2,539	2,379	82	50%	38%	12%	49%	41%	10%	31%	60%	9%	41%	48%	11%
Asian American	40,783	2,460	87	20%	43%	37%	18%	44%	39%	10%	61%	28%	15%	48%	37%
Pacific Islander	2,220	2,395	79	43%	44%	13%	38%	47%	15%	25%	66%	10%	35%	52%	13%
Filipino	10,743	2,446	79	22%	48%	30%	19%	50%	32%	11%	69%	20%	16%	54%	30%
Hispanic	261,805	2,379	79	51%	39%	10%	48%	43%	9%	30%	62%	8%	39%	50%	11%
African American	26,422	2,369	81	56%	35%	9%	52%	39%	9%	35%	58%	7%	45%	45%	9%
White	109,827	2,438	85	26%	44%	30%	24%	49%	27%	13%	63%	24%	20%	52%	28%
Two or more races	18,335	2,433	88	29%	43%	28%	26%	47%	26%	15%	62%	23%	23%	51%	27%
English only	270,859	2,417	88	35%	43%	23%	32%	47%	21%	19%	63%	18%	27%	51%	21%
Initially Fluent English Proficient	18,156	2,466	82	17%	43%	40%	16%	45%	39%	8%	61%	31%	13%	48%	39%
English Learner	151,300	2,361	74	59%	35%	6%	56%	38%	6%	37%	58%	5%	46%	47%	7%
Reclassified Fluent English Proficient	31,105	2,447	66	19%	55%	27%	15%	59%	26%	8%	73%	19%	13%	60%	27%
To be determined	246	2,374	102	50%	35%	15%	51%	34%	15%	37%	51%	12%	48%	39%	13%
English prof. unknown	1,008	2,399	93	40%	39%	21%	40%	42%	18%	27%	58%	14%	33%	50%	17%
No special education services	427,704	2,409	85	38%	42%	20%	35%	46%	18%	21%	64%	15%	29%	52%	19%
Special education services	44,970	2,339	83	68%	25%	7%	69%	26%	6%	51%	43%	6%	57%	36%	7%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Not economically disadvantaged	178,053	2,447	84	23%	45%	33%	21%	48%	31%	11%	63%	26%	17%	52%	31%
Economically disadvantaged	294,621	2,376	78	52%	38%	10%	49%	42%	9%	32%	61%	7%	41%	49%	10%
Unknown economic status	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Migrant	4,649	2,352	73	63%	32%	5%	60%	35%	4%	43%	53%	4%	50%	44%	6%
Not migrant	468,025	2,403	88	41%	41%	19%	38%	45%	17%	24%	62%	14%	32%	50%	18%
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
Primary Ethnicity—Not Economically Disadvantaged															
American Indian	787	2,413	83	35%	46%	20%	34%	48%	18%	18%	66%	16%	29%	52%	19%
Asian American	26,413	2,484	79	12%	41%	47%	10%	41%	48%	6%	58%	36%	9%	45%	46%
Pacific Islander	745	2,426	80	30%	48%	21%	26%	51%	23%	16%	67%	17%	23%	55%	22%
Filipino	6,966	2,458	77	18%	47%	34%	15%	49%	36%	9%	68%	23%	13%	53%	34%
Hispanic	48,493	2,416	82	34%	46%	21%	31%	50%	19%	18%	67%	16%	26%	54%	20%
African American	6,425	2,402	85	41%	42%	17%	37%	46%	17%	23%	63%	14%	33%	51%	17%
White	77,099	2,457	80	18%	45%	37%	17%	49%	33%	9%	62%	29%	14%	52%	33%
Two or more races	11,125	2,460	82	19%	43%	38%	17%	48%	35%	9%	61%	30%	14%	51%	35%
Primary Ethnicity—Economically Disadvantaged															
American Indian	1,752	2,363	76	58%	34%	8%	56%	38%	7%	36%	58%	6%	47%	46%	7%
Asian American	14,370	2,417	83	34%	46%	20%	31%	48%	21%	19%	66%	15%	26%	53%	21%
Pacific Islander	1,475	2,380	75	50%	42%	8%	44%	45%	10%	29%	65%	6%	40%	51%	9%
Filipino	3,777	2,425	79	30%	49%	22%	25%	51%	23%	15%	71%	14%	22%	55%	23%
Hispanic	213,312	2,370	75	54%	38%	8%	51%	41%	7%	33%	61%	6%	43%	49%	9%
African American	19,997	2,359	77	61%	33%	7%	56%	37%	7%	39%	56%	5%	49%	44%	7%
White	32,728	2,395	82	43%	42%	15%	40%	47%	13%	24%	64%	12%	34%	53%	14%
Two or more races	7,210	2,391	81	44%	42%	13%	41%	46%	12%	26%	63%	11%	36%	51%	13%
Primary Ethnicity—Unknown Economic Status															
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 7.E.16 Ethnicity Summary by Economic Status for Claims—ELA, Grade Four

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	462,679	2,446	93	39%	43%	18%	35%	47%	18%	23%	62%	15%	31%	51%	18%
Male	235,607	2,435	93	43%	41%	16%	41%	45%	15%	25%	61%	14%	34%	50%	16%
Female	227,072	2,457	92	34%	44%	21%	30%	48%	22%	21%	63%	15%	28%	52%	20%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	2,453	2,423	89	47%	42%	12%	44%	44%	12%	28%	61%	10%	40%	48%	12%
Asian American	41,102	2,510	91	18%	43%	39%	15%	43%	42%	10%	58%	31%	13%	48%	39%
Pacific Islander	2,288	2,435	84	42%	45%	13%	34%	51%	15%	27%	64%	9%	35%	51%	15%
Filipino	11,154	2,490	84	21%	49%	29%	17%	50%	33%	13%	66%	22%	16%	53%	31%
Hispanic	252,924	2,419	84	49%	41%	10%	45%	46%	10%	30%	62%	8%	39%	50%	11%
African American	25,989	2,407	86	54%	37%	9%	50%	41%	9%	35%	58%	7%	45%	46%	9%
White	109,959	2,483	89	23%	46%	30%	21%	50%	28%	13%	63%	24%	19%	55%	27%
Two or more races	16,810	2,478	93	27%	44%	29%	23%	48%	28%	15%	62%	23%	21%	52%	27%
English only	261,576	2,460	93	32%	45%	23%	29%	48%	22%	19%	63%	18%	26%	53%	21%
Initially Fluent English Proficient	18,135	2,512	86	16%	45%	39%	14%	47%	39%	8%	60%	32%	12%	50%	39%
English Learner	119,955	2,384	72	65%	31%	3%	61%	36%	3%	41%	56%	3%	53%	43%	4%
Reclassified Fluent English Proficient	61,924	2,484	71	19%	57%	23%	16%	60%	24%	10%	71%	19%	14%	61%	25%
To be determined	219	2,405	113	55%	30%	15%	50%	36%	14%	39%	47%	13%	48%	39%	13%
English prof. unknown	870	2,439	102	41%	39%	21%	38%	43%	19%	25%	57%	18%	34%	45%	21%
No special education services	413,847	2,455	90	35%	45%	20%	31%	49%	20%	20%	64%	16%	28%	53%	19%
Special education services	48,832	2,370	87	70%	24%	6%	70%	25%	5%	50%	45%	5%	60%	34%	6%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Not economically disadvantaged	176,935	2,493	88	21%	46%	33%	18%	49%	33%	11%	62%	26%	16%	53%	31%
Economically disadvantaged	285,744	2,416	83	50%	41%	9%	46%	45%	9%	31%	62%	8%	40%	50%	10%
Unknown economic status	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Migrant	4,496	2,392	78	61%	35%	4%	57%	39%	4%	40%	56%	4%	49%	45%	6%
Not migrant	458,183	2,446	93	38%	43%	19%	35%	47%	18%	23%	62%	15%	31%	51%	18%
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–

				Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4			
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	
	Number Tested	Mean Scale Score	SD of Scale Scores													
Primary Ethnicity—Not Economically Disadvantaged																
American Indian	799	2,465	90	31%	46%	23%	27%	51%	22%	18%	63%	19%	25%	52%	23%	
Asian American	26,343	2,535	82	10%	41%	49%	8%	40%	52%	6%	55%	40%	7%	45%	48%	
Pacific Islander	749	2,462	86	31%	49%	20%	24%	53%	23%	18%	68%	14%	25%	53%	22%	
Filipino	7,247	2,504	81	16%	49%	35%	13%	48%	39%	10%	64%	26%	12%	52%	36%	
Hispanic	47,243	2,458	87	32%	48%	20%	29%	52%	20%	18%	66%	16%	25%	55%	20%	
African American	6,435	2,443	89	38%	45%	17%	35%	49%	17%	23%	64%	13%	31%	54%	15%	
White	77,824	2,502	83	17%	47%	37%	15%	51%	35%	9%	62%	29%	13%	55%	32%	
Two or more races	10,295	2,507	85	16%	45%	38%	14%	49%	38%	9%	61%	31%	13%	52%	36%	
Primary Ethnicity—Economically Disadvantaged																
American Indian	1,654	2,402	80	55%	39%	6%	52%	41%	7%	33%	60%	6%	47%	46%	7%	
Asian American	14,759	2,465	89	31%	48%	21%	26%	50%	24%	18%	64%	17%	24%	53%	23%	
Pacific Islander	1,539	2,421	80	47%	44%	9%	39%	50%	11%	31%	62%	7%	40%	49%	11%	
Filipino	3,907	2,465	83	30%	50%	20%	24%	53%	23%	18%	68%	14%	22%	55%	23%	
Hispanic	205,681	2,410	80	52%	40%	8%	48%	44%	7%	32%	61%	6%	42%	49%	9%	
African American	19,554	2,395	81	59%	35%	6%	55%	39%	6%	39%	56%	5%	50%	44%	6%	
White	32,135	2,436	86	40%	45%	15%	37%	49%	13%	23%	64%	12%	33%	54%	13%	
Two or more races	6,515	2,431	87	44%	43%	14%	39%	48%	13%	26%	63%	11%	35%	53%	13%	
Primary Ethnicity—Unknown Economic Status																
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Asian American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Hispanic	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
African American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
White	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Table 7.E.17 Ethnicity Summary by Economic Status for Claims—ELA, Grade Five

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	460,190	2,487	95	39%	42%	20%	34%	43%	23%	24%	61%	15%	21%	52%	27%
Male	234,937	2,474	95	44%	40%	16%	40%	42%	19%	26%	60%	14%	24%	52%	23%
Female	225,253	2,501	92	33%	44%	23%	27%	45%	29%	22%	62%	16%	17%	52%	30%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	2,520	2,452	89	51%	38%	11%	48%	40%	13%	33%	59%	8%	30%	54%	16%
Asian American	42,200	2,551	93	18%	42%	40%	14%	37%	49%	11%	57%	31%	8%	41%	51%
Pacific Islander	2,393	2,473	87	45%	42%	13%	36%	46%	19%	29%	62%	9%	22%	56%	22%
Filipino	11,783	2,530	85	22%	49%	29%	17%	44%	39%	13%	65%	21%	9%	49%	42%
Hispanic	247,031	2,461	85	48%	40%	11%	42%	44%	14%	30%	61%	8%	27%	55%	18%
African American	26,397	2,447	89	54%	36%	10%	49%	39%	12%	37%	56%	7%	32%	53%	15%
White	112,354	2,523	91	24%	45%	31%	21%	44%	35%	14%	63%	23%	12%	50%	38%
Two or more races	15,512	2,519	94	26%	44%	30%	23%	42%	35%	16%	62%	22%	13%	49%	37%
English only	257,606	2,501	95	33%	43%	24%	29%	43%	28%	20%	62%	18%	17%	52%	31%
Initially Fluent English Proficient	20,247	2,547	88	18%	44%	38%	15%	41%	44%	10%	60%	30%	7%	45%	48%
English Learner	100,271	2,414	70	71%	27%	2%	63%	34%	3%	46%	52%	2%	43%	51%	6%
Reclassified Fluent English Proficient	81,074	2,518	73	23%	55%	22%	17%	54%	28%	13%	71%	17%	8%	58%	34%
To be determined	210	2,453	110	51%	35%	14%	51%	32%	17%	36%	54%	10%	34%	41%	25%
English prof. unknown	782	2,476	107	42%	38%	21%	41%	38%	21%	28%	55%	17%	27%	47%	26%
No special education services	409,614	2,498	90	34%	44%	22%	29%	46%	26%	21%	63%	16%	17%	54%	29%
Special education services	50,576	2,401	86	73%	22%	5%	72%	23%	6%	52%	44%	4%	52%	41%	7%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Not economically disadvantaged	180,361	2,533	90	21%	45%	34%	18%	42%	40%	12%	62%	25%	10%	48%	42%
Economically disadvantaged	279,829	2,457	85	50%	40%	10%	44%	43%	13%	32%	61%	8%	28%	55%	17%
Unknown economic status	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Migrant	4,465	2,433	81	59%	35%	6%	53%	39%	8%	39%	56%	4%	36%	52%	11%
Not migrant	455,725	2,487	95	38%	42%	20%	33%	43%	24%	24%	61%	15%	21%	52%	27%
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–

				Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4			
	Number Tested	Mean Scale Score	SD of Scale Scores	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	
Primary Ethnicity—Not Economically Disadvantaged																
American Indian	792	2,489	90	37%	44%	19%	33%	46%	22%	21%	65%	14%	19%	55%	27%	
Asian American	26,997	2,576	83	11%	39%	50%	8%	32%	60%	7%	55%	39%	4%	35%	60%	
Pacific Islander	824	2,503	84	31%	48%	21%	24%	49%	27%	20%	67%	14%	14%	54%	32%	
Filipino	7,547	2,542	82	18%	48%	34%	13%	42%	45%	11%	64%	25%	7%	46%	47%	
Hispanic	46,736	2,500	88	32%	46%	22%	27%	47%	26%	19%	65%	16%	16%	54%	30%	
African American	7,007	2,482	93	39%	43%	18%	34%	45%	22%	25%	61%	13%	21%	54%	25%	
White	80,888	2,542	84	17%	46%	37%	15%	43%	42%	10%	63%	27%	8%	48%	44%	
Two or more races	9,570	2,548	86	16%	44%	40%	14%	40%	46%	9%	62%	29%	7%	45%	48%	
Primary Ethnicity—Economically Disadvantaged																
American Indian	1,728	2,435	84	57%	36%	7%	55%	37%	8%	38%	56%	5%	35%	54%	11%	
Asian American	15,203	2,506	92	31%	46%	24%	25%	44%	30%	20%	62%	18%	15%	51%	34%	
Pacific Islander	1,569	2,457	84	52%	39%	9%	42%	44%	15%	33%	60%	7%	27%	57%	17%	
Filipino	4,236	2,507	86	30%	49%	21%	22%	48%	30%	18%	66%	16%	14%	52%	34%	
Hispanic	200,295	2,451	82	52%	39%	9%	45%	44%	11%	33%	60%	7%	29%	56%	15%	
African American	19,390	2,434	84	60%	34%	7%	54%	37%	9%	41%	54%	5%	36%	53%	11%	
White	31,466	2,475	89	41%	43%	16%	38%	45%	18%	25%	64%	11%	23%	56%	21%	
Two or more races	5,942	2,472	88	43%	43%	15%	39%	44%	17%	27%	63%	11%	23%	56%	20%	
Primary Ethnicity—Unknown Economic Status																
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Asian American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Hispanic	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
African American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
White	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Table 7.E.18 Ethnicity Summary by Economic Status for Claims—ELA, Grade Six

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	456,321	2,512	92	38%	46%	16%	32%	47%	20%	19%	68%	13%	19%	59%	23%
Male	232,916	2,498	93	42%	44%	14%	39%	46%	16%	22%	66%	12%	22%	59%	19%
Female	223,405	2,525	89	33%	49%	18%	26%	49%	25%	16%	69%	15%	15%	58%	26%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	2,503	2,483	89	46%	44%	9%	45%	44%	11%	26%	65%	9%	26%	60%	14%
Asian American	41,789	2,576	89	17%	47%	36%	13%	41%	47%	8%	65%	27%	7%	46%	47%
Pacific Islander	2,302	2,502	86	43%	47%	11%	32%	51%	17%	20%	70%	10%	21%	62%	18%
Filipino	12,432	2,554	83	22%	53%	25%	15%	48%	36%	10%	71%	19%	9%	54%	37%
Hispanic	243,545	2,486	84	47%	44%	8%	41%	48%	11%	24%	67%	8%	24%	61%	14%
African American	26,412	2,474	88	52%	40%	8%	47%	42%	11%	29%	64%	7%	28%	59%	12%
White	112,650	2,544	87	24%	51%	25%	21%	50%	30%	11%	69%	20%	11%	58%	31%
Two or more races	14,688	2,538	92	27%	49%	24%	23%	47%	30%	13%	68%	19%	13%	57%	30%
English only	253,400	2,525	91	32%	48%	19%	28%	48%	24%	15%	68%	16%	16%	59%	26%
Initially Fluent English Proficient	21,514	2,566	87	20%	48%	32%	15%	46%	39%	8%	67%	25%	8%	51%	41%
English Learner	76,222	2,430	70	73%	26%	1%	67%	31%	2%	44%	54%	2%	43%	53%	4%
Reclassified Fluent English Proficient	104,197	2,529	74	29%	56%	15%	22%	58%	20%	11%	76%	13%	11%	64%	25%
To be determined	255	2,473	110	50%	35%	14%	50%	34%	16%	35%	59%	7%	35%	43%	22%
English prof. unknown	733	2,486	106	45%	42%	14%	42%	42%	16%	29%	59%	12%	27%	55%	18%
No special education services	408,809	2,522	87	34%	49%	17%	28%	50%	22%	15%	70%	15%	15%	60%	25%
Special education services	47,512	2,419	82	72%	25%	3%	73%	23%	3%	52%	45%	3%	48%	47%	5%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Not economically disadvantaged	180,506	2,555	86	21%	51%	28%	17%	48%	35%	9%	68%	22%	9%	55%	36%
Economically disadvantaged	275,815	2,483	84	48%	44%	8%	42%	47%	11%	25%	67%	8%	25%	61%	14%
Unknown economic status	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Migrant	3,929	2,461	82	58%	37%	5%	53%	41%	6%	33%	61%	6%	32%	59%	10%
Not migrant	452,392	2,512	92	37%	46%	16%	32%	47%	20%	19%	68%	14%	19%	59%	23%
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
Primary Ethnicity—Not Economically Disadvantaged															
American Indian	839	2,516	89	34%	49%	17%	31%	49%	20%	17%	69%	14%	17%	61%	22%
Asian American	26,431	2,600	80	11%	45%	45%	7%	36%	57%	5%	63%	33%	4%	40%	56%
Pacific Islander	800	2,529	87	31%	50%	18%	24%	50%	26%	13%	71%	15%	14%	62%	24%
Filipino	8,023	2,568	80	18%	53%	29%	11%	47%	42%	8%	70%	22%	7%	51%	42%
Hispanic	47,036	2,523	85	32%	51%	17%	26%	52%	21%	15%	71%	15%	14%	61%	24%
African American	7,222	2,509	90	38%	47%	14%	33%	47%	19%	19%	69%	12%	19%	61%	21%
White	81,189	2,562	81	18%	52%	30%	14%	50%	36%	7%	69%	24%	7%	56%	37%
Two or more races	8,966	2,565	84	18%	51%	31%	14%	46%	39%	8%	68%	24%	7%	53%	40%
Primary Ethnicity—Economically Disadvantaged															
American Indian	1,664	2,466	84	52%	42%	6%	52%	41%	7%	31%	62%	7%	30%	59%	10%
Asian American	15,358	2,536	90	29%	51%	20%	23%	49%	29%	14%	69%	16%	13%	56%	31%
Pacific Islander	1,502	2,488	82	49%	45%	7%	36%	52%	12%	23%	69%	8%	24%	62%	14%
Filipino	4,409	2,529	84	31%	53%	17%	23%	52%	26%	13%	73%	13%	14%	59%	27%
Hispanic	196,509	2,477	81	51%	43%	6%	45%	47%	9%	27%	67%	7%	26%	62%	12%
African American	19,190	2,461	84	58%	37%	5%	53%	40%	7%	32%	62%	5%	32%	59%	9%
White	31,461	2,500	85	40%	48%	12%	36%	49%	15%	19%	70%	11%	20%	63%	16%
Two or more races	5,722	2,495	87	42%	46%	12%	38%	48%	14%	22%	68%	10%	22%	62%	16%
Primary Ethnicity—Unknown Economic Status															
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
African American	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
White	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Two or more races	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Table 7.E.19 Ethnicity Summary by Economic Status for Claims—ELA, Grade Seven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	449,714	2,531	97	37%	45%	18%	30%	46%	24%	24%	64%	12%	25%	53%	22%
Male	229,040	2,518	97	42%	42%	16%	36%	45%	19%	26%	63%	11%	30%	52%	18%
Female	220,674	2,545	93	32%	47%	20%	24%	47%	29%	22%	65%	13%	20%	55%	25%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	2,677	2,502	92	46%	42%	12%	42%	43%	14%	30%	62%	8%	33%	55%	12%
Asian American	40,461	2,601	92	16%	43%	40%	11%	36%	53%	10%	65%	24%	9%	44%	47%
Pacific Islander	2,334	2,521	87	41%	46%	12%	28%	53%	19%	27%	65%	8%	26%	58%	16%
Filipino	12,457	2,576	86	21%	51%	28%	13%	45%	42%	14%	70%	16%	11%	53%	35%
Hispanic	240,370	2,504	88	47%	43%	10%	38%	48%	13%	31%	62%	7%	32%	55%	13%
African American	26,880	2,490	91	51%	40%	9%	45%	43%	12%	35%	59%	6%	38%	51%	11%
White	111,022	2,567	91	22%	49%	28%	19%	46%	35%	13%	67%	20%	15%	54%	30%
Two or more races	13,513	2,562	95	25%	48%	27%	21%	45%	35%	16%	66%	18%	18%	52%	30%
English only	247,158	2,546	96	31%	47%	22%	26%	46%	28%	20%	65%	15%	21%	54%	25%
Initially Fluent English Proficient	20,546	2,586	91	19%	47%	34%	14%	43%	43%	11%	67%	22%	12%	49%	40%
English Learner	65,610	2,438	68	78%	21%	1%	68%	30%	2%	54%	45%	1%	56%	41%	2%
Reclassified Fluent English Proficient	115,338	2,544	80	30%	53%	16%	21%	56%	23%	18%	71%	11%	17%	60%	22%
To be determined	223	2,478	110	55%	32%	13%	52%	35%	13%	40%	51%	9%	37%	48%	15%
English prof. unknown	839	2,493	108	49%	37%	14%	46%	38%	16%	37%	54%	10%	36%	49%	15%
No special education services	404,545	2,542	92	33%	47%	20%	26%	49%	26%	20%	66%	13%	21%	55%	24%
Special education services	45,169	2,436	81	74%	22%	3%	72%	25%	4%	54%	43%	3%	58%	38%	4%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Not economically disadvantaged	179,378	2,577	90	20%	49%	31%	16%	45%	40%	13%	67%	21%	13%	52%	35%
Economically disadvantaged	270,336	2,501	88	48%	42%	9%	40%	47%	13%	31%	62%	7%	33%	54%	13%
Unknown economic status	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Migrant	3,749	2,477	85	59%	35%	5%	48%	45%	7%	40%	55%	4%	40%	51%	9%
Not migrant	445,965	2,532	96	37%	45%	18%	30%	46%	24%	24%	64%	12%	25%	53%	22%
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
Primary Ethnicity—Not Economically Disadvantaged															
American Indian	943	2,538	93	33%	47%	20%	29%	46%	25%	21%	67%	11%	23%	57%	20%
Asian American	25,468	2,626	82	9%	41%	50%	6%	30%	64%	6%	64%	30%	5%	38%	56%
Pacific Islander	841	2,548	86	31%	50%	19%	18%	54%	28%	20%	69%	12%	18%	61%	22%
Filipino	8,033	2,590	82	16%	51%	32%	10%	43%	48%	11%	70%	19%	9%	51%	40%
Hispanic	47,709	2,542	89	31%	50%	19%	24%	51%	25%	20%	67%	13%	20%	57%	23%
African American	7,624	2,523	93	39%	46%	15%	32%	47%	21%	25%	65%	10%	28%	54%	19%
White	80,307	2,585	84	16%	50%	34%	13%	46%	42%	9%	67%	23%	11%	54%	36%
Two or more races	8,453	2,588	88	17%	49%	35%	13%	43%	45%	10%	66%	23%	11%	51%	39%
Primary Ethnicity—Economically Disadvantaged															
American Indian	1,734	2,483	85	53%	40%	7%	49%	42%	9%	35%	60%	5%	39%	53%	8%
Asian American	14,993	2,560	94	28%	48%	24%	19%	46%	35%	18%	68%	14%	16%	52%	31%
Pacific Islander	1,493	2,505	84	48%	44%	9%	34%	52%	14%	31%	63%	6%	30%	57%	12%
Filipino	4,424	2,550	86	31%	51%	19%	20%	50%	30%	18%	70%	11%	17%	57%	26%
Hispanic	192,661	2,494	85	51%	41%	8%	42%	47%	11%	33%	61%	6%	35%	54%	11%
African American	19,256	2,478	87	57%	37%	6%	50%	42%	8%	39%	56%	5%	42%	50%	8%
White	30,715	2,520	90	38%	48%	14%	33%	49%	18%	24%	66%	10%	28%	56%	16%
Two or more races	5,060	2,518	90	40%	47%	13%	34%	48%	18%	26%	65%	10%	29%	55%	17%
Primary Ethnicity—Unknown Economic Status															
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 7.E.20 Ethnicity Summary by Economic Status for Claims—ELA, Grade Eight

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	451,185	2,552	95	32%	46%	22%	28%	50%	21%	23%	65%	12%	23%	55%	22%
Male	230,130	2,537	96	37%	44%	19%	35%	49%	16%	26%	63%	11%	28%	54%	18%
Female	221,055	2,568	91	27%	48%	25%	22%	52%	27%	19%	68%	14%	18%	56%	26%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	2,599	2,525	90	40%	46%	14%	38%	50%	12%	30%	62%	8%	31%	56%	13%
Asian American	40,680	2,619	91	13%	42%	45%	11%	41%	48%	9%	65%	26%	9%	45%	46%
Pacific Islander	2,307	2,539	88	36%	48%	16%	30%	53%	17%	26%	65%	9%	26%	57%	17%
Filipino	12,955	2,595	83	17%	50%	33%	13%	53%	34%	12%	71%	17%	11%	55%	34%
Hispanic	239,613	2,526	86	41%	47%	13%	36%	52%	12%	29%	65%	7%	29%	57%	14%
African American	27,826	2,512	91	46%	42%	12%	43%	46%	11%	34%	60%	7%	35%	54%	11%
White	112,317	2,586	90	19%	48%	33%	17%	50%	32%	14%	68%	19%	15%	56%	30%
Two or more races	12,888	2,581	95	23%	46%	32%	20%	49%	32%	16%	66%	18%	17%	54%	30%
English only	246,538	2,566	94	27%	47%	26%	24%	50%	26%	19%	66%	15%	20%	55%	24%
Initially Fluent English Proficient	21,005	2,603	90	16%	46%	38%	14%	48%	38%	10%	67%	23%	11%	51%	38%
English Learner	58,124	2,457	67	73%	26%	1%	68%	31%	1%	56%	43%	1%	54%	44%	2%
Reclassified Fluent English Proficient	124,566	2,562	79	26%	55%	20%	21%	60%	19%	16%	73%	11%	17%	61%	22%
To be determined	170	2,485	109	55%	34%	12%	53%	38%	9%	47%	46%	7%	40%	50%	10%
English prof. unknown	782	2,511	107	43%	40%	17%	46%	41%	13%	35%	57%	9%	33%	52%	16%
No special education services	406,809	2,563	90	28%	48%	24%	24%	53%	23%	19%	68%	13%	20%	57%	23%
Special education services	44,376	2,457	80	70%	26%	4%	70%	26%	3%	57%	41%	2%	55%	41%	4%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Not economically disadvantaged	183,537	2,594	90	18%	47%	35%	15%	49%	36%	12%	67%	20%	13%	54%	33%
Economically disadvantaged	267,648	2,524	87	41%	46%	13%	38%	51%	12%	30%	64%	7%	30%	57%	13%
Unknown economic status	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Migrant	3,896	2,502	85	51%	42%	8%	48%	45%	8%	38%	58%	4%	36%	54%	9%
Not migrant	447,289	2,553	95	32%	46%	22%	28%	50%	21%	22%	65%	12%	23%	55%	22%
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
Primary Ethnicity—Not Economically Disadvantaged															
American Indian	975	2,555	90	28%	51%	21%	25%	54%	21%	21%	68%	11%	21%	59%	19%
Asian American	25,290	2,643	82	8%	38%	54%	6%	35%	59%	5%	62%	32%	5%	41%	54%
Pacific Islander	844	2,568	87	25%	50%	25%	21%	52%	27%	19%	69%	13%	18%	56%	26%
Filipino	8,445	2,608	80	13%	49%	38%	9%	51%	40%	9%	71%	20%	8%	53%	39%
Hispanic	49,294	2,559	88	28%	50%	22%	24%	54%	21%	19%	69%	12%	20%	58%	22%
African American	8,241	2,544	94	34%	47%	19%	30%	51%	19%	24%	65%	11%	25%	57%	18%
White	82,320	2,603	84	14%	47%	39%	12%	50%	38%	10%	68%	22%	11%	55%	35%
Two or more races	8,128	2,606	88	15%	45%	40%	12%	46%	41%	10%	66%	24%	11%	52%	37%
Primary Ethnicity—Economically Disadvantaged															
American Indian	1,624	2,507	85	47%	43%	10%	45%	48%	7%	36%	58%	6%	37%	54%	9%
Asian American	15,390	2,581	92	22%	48%	30%	19%	51%	30%	16%	69%	16%	15%	53%	32%
Pacific Islander	1,463	2,522	83	43%	46%	11%	35%	53%	12%	31%	63%	7%	31%	58%	11%
Filipino	4,510	2,570	83	24%	54%	22%	19%	57%	23%	17%	72%	12%	16%	57%	26%
Hispanic	190,319	2,518	84	44%	46%	10%	39%	51%	9%	31%	63%	6%	31%	57%	12%
African American	19,585	2,499	86	51%	40%	9%	48%	44%	8%	38%	57%	5%	39%	53%	8%
White	29,997	2,541	89	34%	48%	18%	32%	52%	16%	24%	66%	10%	26%	58%	16%
Two or more races	4,760	2,538	91	36%	46%	18%	32%	52%	16%	26%	65%	10%	27%	57%	16%
Primary Ethnicity—Unknown Economic Status															
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 7.E.21 Ethnicity Summary by Economic Status for Claims—ELA, Grade Eleven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	422,098	2,591	110	21%	49%	30%	23%	46%	31%	21%	62%	17%	16%	51%	33%
Male	214,145	2,576	113	23%	49%	28%	29%	45%	26%	24%	59%	17%	20%	52%	29%
Female	207,953	2,607	104	18%	50%	33%	17%	47%	37%	17%	65%	18%	12%	51%	37%
Gender unknown	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
American Indian	2,616	2,570	108	24%	50%	26%	30%	47%	23%	25%	60%	15%	21%	53%	26%
Asian American	38,752	2,657	105	11%	39%	50%	9%	32%	59%	11%	58%	31%	7%	37%	56%
Pacific Islander	2,384	2,573	105	25%	51%	24%	25%	49%	26%	24%	63%	13%	19%	56%	26%
Filipino	13,834	2,634	94	11%	50%	39%	9%	41%	50%	12%	65%	23%	7%	46%	47%
Hispanic	218,563	2,565	103	26%	53%	21%	28%	50%	21%	25%	63%	12%	20%	56%	25%
African American	25,437	2,545	108	32%	50%	19%	37%	46%	17%	31%	59%	10%	26%	55%	19%
White	109,078	2,624	106	13%	44%	43%	15%	43%	42%	14%	61%	24%	11%	47%	41%
Two or more races	11,434	2,618	109	14%	45%	41%	17%	42%	40%	16%	60%	24%	12%	47%	41%
English only	232,541	2,604	109	17%	47%	36%	20%	45%	35%	18%	62%	20%	14%	50%	36%
Initially Fluent English Proficient	36,086	2,633	101	11%	47%	42%	12%	43%	45%	12%	63%	25%	9%	45%	46%
English Learner	39,506	2,469	78	60%	38%	2%	64%	34%	2%	56%	43%	1%	43%	53%	4%
Reclassified Fluent English Proficient	113,058	2,595	93	17%	58%	25%	17%	54%	28%	17%	69%	15%	12%	56%	32%
To be determined	182	2,536	126	33%	46%	21%	41%	38%	21%	32%	56%	12%	30%	47%	23%
English prof. unknown	725	2,533	123	38%	41%	21%	44%	36%	20%	37%	52%	11%	26%	54%	20%
No special education services	387,756	2,601	105	18%	50%	32%	19%	47%	34%	18%	63%	19%	14%	51%	35%
Special education services	34,342	2,479	94	54%	39%	7%	63%	32%	5%	52%	45%	4%	42%	51%	7%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Not economically disadvantaged	190,559	2,626	106	13%	45%	42%	15%	42%	44%	14%	61%	25%	11%	46%	43%
Economically disadvantaged	231,539	2,563	104	27%	53%	20%	30%	49%	21%	26%	62%	11%	20%	55%	24%
Unknown economic status	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Migrant	3,375	2,535	99	35%	52%	13%	38%	50%	13%	33%	61%	7%	25%	58%	17%
Not migrant	418,723	2,592	110	20%	49%	30%	23%	46%	31%	21%	62%	18%	16%	51%	33%
Migrant status unknown	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4			
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	
Primary Ethnicity—Not Economically Disadvantaged																
American Indian	1,230	2,598	106	18%	50%	33%	21%	47%	32%	19%	61%	20%	16%	49%	35%	
Asian American	23,267	2,682	96	7%	33%	60%	5%	26%	69%	7%	55%	38%	4%	32%	64%	
Pacific Islander	1,102	2,595	106	20%	49%	31%	20%	46%	34%	20%	63%	17%	15%	51%	34%	
Filipino	9,503	2,646	90	9%	48%	43%	7%	38%	55%	10%	65%	26%	6%	44%	51%	
Hispanic	55,430	2,589	104	19%	52%	29%	22%	49%	29%	20%	64%	16%	15%	54%	31%	
African American	9,658	2,572	110	24%	50%	26%	28%	47%	25%	24%	61%	15%	20%	54%	26%	
White	82,820	2,638	101	10%	43%	47%	12%	41%	47%	11%	61%	27%	9%	45%	46%	
Two or more races	7,549	2,641	103	10%	42%	48%	12%	39%	49%	12%	60%	29%	8%	43%	49%	
Primary Ethnicity—Economically Disadvantaged																
American Indian	1,386	2,545	104	29%	51%	20%	37%	47%	16%	31%	59%	10%	26%	57%	17%	
Asian American	15,485	2,619	108	17%	47%	36%	15%	41%	44%	16%	62%	21%	10%	45%	44%	
Pacific Islander	1,282	2,553	100	30%	52%	18%	29%	52%	19%	28%	63%	9%	22%	59%	19%	
Filipino	4,331	2,609	97	16%	55%	29%	14%	46%	40%	16%	67%	17%	10%	50%	39%	
Hispanic	163,133	2,557	101	28%	54%	18%	31%	51%	18%	27%	63%	10%	21%	57%	22%	
African American	15,779	2,529	104	36%	49%	15%	42%	45%	13%	34%	58%	8%	30%	55%	15%	
White	26,258	2,578	108	22%	50%	28%	26%	48%	26%	23%	62%	15%	19%	54%	27%	
Two or more races	3,885	2,574	107	22%	52%	26%	28%	49%	24%	24%	62%	14%	19%	54%	27%	
Primary Ethnicity—Unknown Economic Status																
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Asian American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Hispanic	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
African American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
White	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Table 7.E.22 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Three

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	474,261	2,415	80	40%	35%	25%	38%	42%	20%	28%	52%	20%
Male	242,453	2,415	83	39%	34%	26%	37%	42%	21%	29%	51%	20%
Female	231,808	2,415	77	40%	36%	23%	39%	42%	19%	26%	54%	20%
Gender unknown	0	—	—	—	—	—	—	—	—	—	—	—
American Indian	2,534	2,390	77	52%	33%	15%	47%	41%	12%	37%	51%	12%
Asian American	41,359	2,478	78	14%	30%	56%	15%	38%	47%	10%	42%	48%
Pacific Islander	2,226	2,409	73	40%	39%	21%	41%	43%	16%	30%	54%	16%
Filipino	10,857	2,452	70	20%	39%	41%	20%	48%	33%	14%	52%	34%
Hispanic	262,614	2,393	71	50%	35%	15%	48%	42%	11%	34%	54%	11%
African American	26,412	2,378	76	57%	32%	11%	55%	36%	8%	43%	48%	9%
White	109,930	2,445	76	25%	38%	38%	22%	46%	33%	17%	51%	32%
Two or more races	18,329	2,440	81	28%	36%	36%	26%	43%	31%	19%	50%	30%
English only	270,479	2,425	80	35%	36%	29%	32%	44%	24%	25%	52%	24%
Initially Fluent English Proficient	18,145	2,473	76	16%	33%	51%	15%	41%	44%	11%	45%	45%
English Learner	152,869	2,383	71	56%	32%	12%	55%	37%	8%	39%	53%	9%
Reclassified Fluent English Proficient	31,071	2,455	62	17%	43%	39%	16%	53%	30%	10%	57%	32%
To be determined	377	2,389	91	54%	23%	23%	52%	33%	14%	39%	45%	15%
English prof. unknown	1,320	2,399	89	47%	30%	23%	44%	37%	19%	35%	47%	18%
No special education services	429,419	2,421	76	37%	37%	26%	35%	44%	21%	25%	53%	22%
Special education services	44,842	2,353	89	68%	21%	10%	65%	26%	9%	52%	39%	9%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—
Not economically disadvantaged	178,749	2,454	77	22%	36%	42%	20%	44%	36%	15%	49%	36%
Economically disadvantaged	295,512	2,391	72	51%	35%	14%	49%	41%	10%	35%	54%	11%
Unknown economic status	0	—	—	—	—	—	—	—	—	—	—	—
Migrant	4,717	2,376	68	59%	32%	8%	57%	36%	6%	41%	53%	7%
Not migrant	469,544	2,415	80	40%	35%	25%	38%	42%	20%	28%	52%	21%
Migrant status unknown	0	—	—	—	—	—	—	—	—	—	—	—

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	781	2,419	77	37%	37%	27%	34%	45%	22%	26%	54%	20%	
Asian American	26,794	2,500	71	8%	25%	67%	8%	34%	58%	6%	36%	59%	
Pacific Islander	746	2,434	73	28%	39%	33%	29%	45%	26%	21%	54%	25%	
Filipino	7,036	2,463	68	16%	38%	46%	15%	47%	38%	11%	49%	40%	
Hispanic	48,715	2,422	73	34%	40%	26%	32%	48%	21%	23%	56%	21%	
African American	6,431	2,407	76	41%	39%	20%	41%	43%	16%	30%	53%	17%	
White	77,118	2,461	71	18%	37%	45%	15%	45%	40%	12%	50%	38%	
Two or more races	11,128	2,465	75	17%	35%	48%	16%	43%	42%	12%	48%	41%	
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,753	2,377	73	58%	32%	10%	53%	39%	8%	42%	50%	8%	
Asian American	14,565	2,439	75	27%	38%	35%	28%	45%	27%	19%	53%	29%	
Pacific Islander	1,480	2,396	70	46%	39%	15%	47%	42%	11%	35%	54%	11%	
Filipino	3,821	2,433	70	28%	42%	30%	28%	50%	23%	19%	56%	25%	
Hispanic	213,899	2,386	69	54%	34%	12%	51%	40%	9%	37%	54%	9%	
African American	19,981	2,368	73	62%	30%	8%	60%	34%	6%	47%	47%	7%	
White	32,812	2,407	74	42%	38%	20%	38%	46%	16%	29%	55%	16%	
Two or more races	7,201	2,402	74	45%	37%	18%	42%	44%	14%	31%	54%	15%	
Primary Ethnicity—Unknown Economic Status													
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	
Asian American	0	—	—	—	—	—	—	—	—	—	—	—	
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	
Hispanic	0	—	—	—	—	—	—	—	—	—	—	—	
African American	0	—	—	—	—	—	—	—	—	—	—	—	
White	0	—	—	—	—	—	—	—	—	—	—	—	
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—	

Table 7.E.23 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Four

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	464,355	2,454	81	47%	32%	21%	39%	45%	16%	39%	43%	18%
Male	236,459	2,454	84	46%	31%	23%	39%	44%	17%	39%	42%	19%
Female	227,896	2,453	77	48%	33%	19%	39%	46%	15%	38%	44%	18%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–
American Indian	2,445	2,433	77	56%	31%	12%	47%	42%	11%	48%	40%	12%
Asian American	41,644	2,522	80	18%	29%	53%	16%	42%	43%	15%	38%	47%
Pacific Islander	2,282	2,443	71	51%	34%	15%	44%	46%	11%	43%	44%	12%
Filipino	11,281	2,490	73	26%	39%	35%	22%	52%	25%	21%	49%	30%
Hispanic	253,901	2,430	71	59%	30%	11%	49%	43%	8%	48%	42%	9%
African American	25,961	2,416	74	65%	27%	8%	57%	37%	6%	56%	37%	7%
White	110,018	2,485	77	30%	37%	33%	23%	50%	27%	25%	47%	29%
Two or more races	16,823	2,480	82	33%	35%	32%	27%	48%	26%	28%	44%	28%
English only	261,276	2,464	81	41%	34%	25%	33%	47%	20%	34%	44%	21%
Initially Fluent English Proficient	18,138	2,511	79	22%	33%	45%	17%	46%	37%	17%	42%	41%
English Learner	121,552	2,407	66	72%	22%	6%	63%	34%	3%	61%	35%	4%
Reclassified Fluent English Proficient	61,906	2,486	65	28%	43%	29%	20%	58%	22%	22%	53%	25%
To be determined	318	2,421	102	63%	18%	19%	57%	29%	14%	51%	32%	17%
English prof. unknown	1,165	2,433	94	55%	26%	19%	49%	35%	16%	47%	37%	16%
No special education services	415,621	2,461	77	44%	34%	23%	35%	47%	18%	36%	45%	20%
Special education services	48,734	2,389	84	76%	16%	8%	68%	26%	6%	66%	27%	6%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–
Not economically disadvantaged	177,633	2,495	78	27%	36%	38%	21%	49%	31%	22%	45%	33%
Economically disadvantaged	286,722	2,428	71	60%	30%	11%	50%	43%	7%	49%	42%	9%
Unknown economic status	0	–	–	–	–	–	–	–	–	–	–	–
Migrant	4,532	2,413	66	69%	25%	6%	59%	38%	4%	56%	39%	5%
Not migrant	459,823	2,454	81	47%	32%	21%	39%	45%	16%	39%	43%	18%
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	798	2,468	77	39%	36%	25%	31%	48%	21%	32%	46%	22%	
Asian American	26,689	2,545	72	9%	25%	66%	8%	38%	54%	8%	34%	58%	
Pacific Islander	751	2,464	74	40%	37%	23%	34%	47%	18%	35%	44%	21%	
Filipino	7,319	2,502	71	20%	38%	41%	17%	52%	31%	16%	48%	36%	
Hispanic	47,475	2,460	73	42%	37%	21%	34%	50%	16%	34%	48%	18%	
African American	6,436	2,446	76	48%	36%	16%	42%	46%	12%	42%	44%	14%	
White	77,853	2,501	72	22%	38%	40%	16%	51%	33%	18%	47%	35%	
Two or more races	10,312	2,506	75	21%	36%	43%	16%	48%	36%	17%	45%	38%	
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,647	2,416	72	65%	29%	6%	55%	39%	6%	56%	37%	7%	
Asian American	14,955	2,480	77	32%	36%	32%	28%	49%	23%	26%	47%	27%	
Pacific Islander	1,531	2,432	67	56%	33%	11%	48%	45%	7%	47%	44%	8%	
Filipino	3,962	2,467	71	37%	40%	23%	31%	53%	16%	31%	50%	19%	
Hispanic	206,426	2,423	68	63%	29%	8%	53%	42%	6%	52%	41%	7%	
African American	19,525	2,406	70	70%	24%	6%	62%	34%	4%	61%	34%	5%	
White	32,165	2,445	73	49%	35%	15%	39%	49%	12%	41%	46%	13%	
Two or more races	6,511	2,439	74	53%	33%	14%	43%	47%	10%	45%	43%	12%	
Primary Ethnicity—Unknown Economic Status													
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	
Asian American	0	—	—	—	—	—	—	—	—	—	—	—	
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	
Hispanic	0	—	—	—	—	—	—	—	—	—	—	—	
African American	0	—	—	—	—	—	—	—	—	—	—	—	
White	0	—	—	—	—	—	—	—	—	—	—	—	
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—	

Table 7.E.24 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Five

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	461,617	2,480	90	51%	30%	19%	46%	38%	16%	41%	45%	14%
Male	235,661	2,480	93	51%	29%	21%	47%	37%	16%	42%	44%	14%
Female	225,956	2,481	85	52%	30%	18%	46%	39%	15%	40%	46%	14%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–
American Indian	2,512	2,450	82	65%	25%	10%	58%	35%	7%	53%	40%	7%
Asian American	42,721	2,555	89	20%	29%	50%	20%	38%	42%	16%	45%	39%
Pacific Islander	2,395	2,467	82	56%	31%	13%	53%	37%	10%	46%	46%	8%
Filipino	11,863	2,520	81	31%	38%	32%	28%	46%	26%	24%	52%	23%
Hispanic	247,961	2,453	78	64%	27%	9%	59%	34%	7%	52%	42%	6%
African American	26,313	2,436	81	70%	23%	7%	66%	29%	5%	57%	38%	5%
White	112,328	2,515	84	34%	36%	30%	29%	46%	25%	26%	51%	23%
Two or more races	15,524	2,510	90	38%	33%	29%	33%	43%	24%	29%	48%	22%
English only	257,186	2,492	90	46%	32%	23%	40%	41%	19%	36%	47%	17%
Initially Fluent English Proficient	20,240	2,537	88	29%	32%	39%	24%	42%	34%	21%	47%	31%
English Learner	101,743	2,419	69	79%	17%	4%	77%	21%	2%	68%	30%	2%
Reclassified Fluent English Proficient	81,073	2,506	75	39%	38%	23%	33%	49%	18%	29%	55%	16%
To be determined	310	2,441	107	65%	18%	17%	62%	27%	11%	56%	32%	12%
English prof. unknown	1,065	2,457	97	58%	27%	16%	55%	33%	13%	50%	39%	11%
No special education services	411,190	2,489	86	47%	32%	21%	43%	40%	17%	38%	47%	15%
Special education services	50,427	2,406	85	81%	13%	6%	77%	18%	4%	70%	26%	4%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–
Not economically disadvantaged	180,891	2,525	87	31%	34%	35%	26%	45%	29%	24%	50%	26%
Economically disadvantaged	280,726	2,451	79	64%	27%	9%	60%	34%	7%	52%	42%	6%
Unknown economic status	0	–	–	–	–	–	–	–	–	–	–	–
Migrant	4,513	2,433	73	72%	23%	5%	69%	27%	4%	60%	37%	3%
Not migrant	457,104	2,481	90	51%	30%	19%	46%	38%	16%	41%	45%	14%
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	791	2,486	84	48%	33%	19%	41%	44%	15%	39%	47%	14%	
Asian American	27,282	2,581	79	12%	26%	62%	11%	36%	53%	9%	41%	49%	
Pacific Islander	824	2,495	81	42%	36%	22%	38%	46%	16%	33%	53%	13%	
Filipino	7,593	2,533	78	25%	39%	37%	23%	47%	30%	20%	53%	27%	
Hispanic	46,968	2,486	81	48%	34%	18%	41%	44%	15%	37%	50%	13%	
African American	6,996	2,468	86	55%	30%	14%	51%	39%	11%	43%	47%	10%	
White	80,857	2,533	79	26%	37%	37%	21%	48%	31%	19%	53%	28%	
Two or more races	9,580	2,538	84	25%	35%	40%	21%	46%	33%	19%	50%	31%	
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,721	2,434	76	73%	21%	6%	66%	31%	3%	59%	37%	3%	
Asian American	15,439	2,510	86	35%	35%	29%	35%	43%	22%	29%	51%	20%	
Pacific Islander	1,571	2,453	78	63%	28%	9%	61%	33%	7%	53%	42%	6%	
Filipino	4,270	2,498	80	41%	36%	23%	38%	45%	17%	33%	51%	16%	
Hispanic	200,993	2,445	75	67%	26%	7%	63%	32%	5%	55%	40%	4%	
African American	19,317	2,425	76	75%	20%	5%	71%	26%	3%	62%	35%	3%	
White	31,471	2,470	81	55%	32%	13%	48%	41%	11%	44%	47%	9%	
Two or more races	5,944	2,464	81	58%	29%	12%	52%	39%	9%	46%	45%	8%	
Primary Ethnicity—Unknown Economic Status													
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	
Asian American	0	—	—	—	—	—	—	—	—	—	—	—	
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	
Hispanic	0	—	—	—	—	—	—	—	—	—	—	—	
African American	0	—	—	—	—	—	—	—	—	—	—	—	
White	0	—	—	—	—	—	—	—	—	—	—	—	
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—	

Table 7.E.25 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Six

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	457,550	2,504	102	47%	33%	20%	39%	46%	15%	34%	50%	16%
Male	233,513	2,500	106	49%	31%	20%	40%	45%	15%	36%	48%	16%
Female	224,037	2,509	97	45%	34%	20%	38%	48%	14%	32%	52%	16%
Gender unknown	0	—	—	—	—	—	—	—	—	—	—	—
American Indian	2,499	2,475	96	60%	28%	12%	49%	43%	8%	43%	49%	9%
Asian American	42,238	2,590	96	17%	30%	52%	15%	42%	43%	13%	43%	44%
Pacific Islander	2,303	2,495	92	50%	36%	15%	43%	47%	10%	38%	51%	12%
Filipino	12,522	2,548	90	28%	39%	33%	22%	54%	24%	20%	54%	26%
Hispanic	244,197	2,474	92	60%	30%	10%	49%	44%	6%	43%	49%	7%
African American	26,403	2,456	97	65%	26%	8%	57%	37%	5%	50%	44%	6%
White	112,760	2,541	94	31%	39%	30%	24%	52%	24%	22%	53%	25%
Two or more races	14,628	2,532	101	36%	36%	28%	29%	49%	23%	25%	51%	24%
English only	253,077	2,517	101	42%	35%	23%	34%	48%	18%	30%	51%	19%
Initially Fluent English Proficient	21,525	2,566	98	26%	34%	40%	20%	48%	33%	18%	48%	34%
English Learner	77,512	2,421	85	82%	15%	3%	72%	27%	2%	63%	35%	2%
Reclassified Fluent English Proficient	104,131	2,524	82	40%	40%	21%	31%	55%	14%	27%	58%	16%
To be determined	340	2,459	120	64%	20%	15%	55%	34%	11%	50%	39%	11%
English prof. unknown	965	2,462	117	60%	26%	14%	50%	40%	11%	47%	43%	11%
No special education services	410,182	2,516	96	43%	35%	22%	35%	49%	16%	30%	52%	18%
Special education services	47,368	2,400	99	84%	12%	4%	76%	21%	3%	68%	28%	3%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—
Not economically disadvantaged	180,948	2,553	96	28%	37%	35%	22%	50%	28%	19%	51%	29%
Economically disadvantaged	276,602	2,472	93	60%	30%	10%	50%	43%	6%	44%	49%	7%
Unknown economic status	0	—	—	—	—	—	—	—	—	—	—	—
Migrant	3,979	2,455	89	68%	26%	6%	57%	40%	4%	51%	45%	4%
Not migrant	453,571	2,505	102	47%	33%	20%	39%	46%	15%	34%	50%	16%
Migrant status unknown	0	—	—	—	—	—	—	—	—	—	—	—

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	840	2,509	95	45%	33%	21%	36%	50%	14%	32%	53%	15%	
Asian American	26,698	2,618	86	10%	26%	64%	8%	38%	54%	7%	38%	55%	
Pacific Islander	797	2,523	94	38%	38%	23%	32%	51%	18%	29%	52%	19%	
Filipino	8,072	2,564	86	22%	40%	38%	18%	53%	29%	15%	53%	31%	
Hispanic	47,186	2,512	92	43%	38%	19%	34%	52%	14%	30%	55%	15%	
African American	7,206	2,494	97	50%	35%	16%	43%	46%	11%	36%	51%	12%	
White	81,247	2,560	87	24%	40%	36%	18%	53%	29%	16%	54%	30%	
Two or more races	8,902	2,563	93	24%	38%	38%	19%	50%	31%	16%	51%	33%	
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,659	2,458	92	67%	26%	7%	56%	39%	5%	49%	46%	5%	
Asian American	15,540	2,543	95	31%	37%	32%	27%	50%	23%	23%	52%	25%	
Pacific Islander	1,506	2,480	87	56%	34%	10%	49%	45%	6%	42%	50%	8%	
Filipino	4,450	2,520	90	39%	38%	23%	31%	55%	15%	27%	56%	16%	
Hispanic	197,011	2,465	90	64%	29%	8%	53%	43%	5%	46%	48%	5%	
African American	19,197	2,442	93	71%	23%	5%	63%	34%	3%	55%	41%	4%	
White	31,513	2,492	93	51%	35%	14%	41%	50%	10%	37%	53%	11%	
Two or more races	5,726	2,485	94	55%	33%	13%	44%	47%	9%	40%	51%	9%	
Primary Ethnicity—Unknown Economic Status													
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	
Asian American	0	—	—	—	—	—	—	—	—	—	—	—	
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	
Hispanic	0	—	—	—	—	—	—	—	—	—	—	—	
African American	0	—	—	—	—	—	—	—	—	—	—	—	
White	0	—	—	—	—	—	—	—	—	—	—	—	
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—	

Table 7.E.26 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Seven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	450,395	2,518	109	46%	33%	22%	35%	48%	17%	19%	64%	17%
Male	229,411	2,515	113	47%	31%	22%	35%	47%	18%	21%	62%	17%
Female	220,984	2,522	105	45%	34%	21%	34%	49%	17%	17%	66%	17%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–
American Indian	2,677	2,489	101	56%	32%	12%	42%	49%	9%	25%	65%	9%
Asian American	40,909	2,616	103	16%	27%	58%	12%	39%	49%	6%	46%	48%
Pacific Islander	2,336	2,508	99	48%	36%	15%	37%	52%	11%	20%	68%	12%
Filipino	12,553	2,566	96	26%	38%	36%	20%	52%	28%	10%	63%	27%
Hispanic	240,803	2,485	97	58%	31%	11%	44%	48%	8%	24%	68%	8%
African American	26,779	2,465	101	65%	27%	8%	51%	44%	6%	28%	66%	6%
White	110,818	2,559	101	29%	38%	33%	21%	52%	27%	12%	62%	26%
Two or more races	13,520	2,551	107	33%	35%	32%	24%	50%	26%	14%	61%	25%
English only	246,482	2,532	108	40%	35%	25%	30%	50%	21%	17%	63%	20%
Initially Fluent English Proficient	20,494	2,582	107	25%	33%	42%	19%	45%	36%	9%	56%	35%
English Learner	66,871	2,424	89	83%	14%	3%	67%	31%	2%	37%	61%	2%
Reclassified Fluent English Proficient	115,108	2,533	92	40%	39%	21%	29%	55%	16%	15%	69%	16%
To be determined	321	2,459	128	65%	18%	17%	52%	37%	11%	32%	58%	10%
English prof. unknown	1,119	2,472	121	61%	25%	14%	47%	41%	12%	26%	63%	11%
No special education services	405,401	2,530	104	42%	35%	23%	31%	50%	19%	16%	65%	19%
Special education services	44,994	2,411	100	83%	13%	4%	68%	28%	3%	41%	56%	3%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–
Not economically disadvantaged	179,604	2,570	104	27%	36%	37%	19%	49%	32%	11%	59%	30%
Economically disadvantaged	270,791	2,484	99	58%	31%	11%	45%	48%	8%	24%	68%	8%
Unknown economic status	0	–	–	–	–	–	–	–	–	–	–	–
Migrant	3,813	2,466	94	65%	28%	7%	49%	47%	4%	26%	69%	5%
Not migrant	446,582	2,519	109	46%	33%	22%	34%	48%	17%	19%	64%	17%
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	942	2,527	102	42%	36%	22%	31%	53%	17%	18%	65%	17%	
Asian American	25,711	2,646	92	8%	22%	69%	7%	33%	61%	4%	37%	59%	
Pacific Islander	838	2,540	95	35%	41%	24%	25%	56%	19%	13%	68%	19%	
Filipino	8,083	2,582	92	20%	38%	42%	15%	51%	34%	8%	60%	32%	
Hispanic	47,829	2,523	99	42%	38%	20%	31%	53%	16%	17%	68%	16%	
African American	7,597	2,499	103	51%	34%	15%	39%	50%	11%	21%	67%	11%	
White	80,165	2,579	94	22%	39%	39%	15%	51%	33%	9%	59%	32%	
Two or more races	8,439	2,582	100	23%	35%	42%	16%	49%	35%	9%	57%	34%	
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,735	2,468	94	64%	29%	7%	48%	48%	5%	29%	66%	5%	
Asian American	15,198	2,566	103	28%	34%	38%	21%	50%	29%	11%	61%	28%	
Pacific Islander	1,498	2,489	96	56%	34%	10%	43%	50%	7%	23%	69%	8%	
Filipino	4,470	2,537	95	37%	38%	25%	29%	53%	18%	13%	69%	18%	
Hispanic	192,974	2,476	94	62%	30%	8%	47%	47%	6%	25%	69%	6%	
African American	19,182	2,452	96	70%	24%	6%	55%	41%	4%	31%	65%	4%	
White	30,653	2,507	98	48%	36%	15%	35%	53%	12%	21%	68%	11%	
Two or more races	5,081	2,501	101	51%	34%	15%	38%	51%	11%	21%	68%	10%	
Primary Ethnicity—Unknown Economic Status													
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	
Asian American	0	–	–	–	–	–	–	–	–	–	–	–	
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	
Hispanic	0	–	–	–	–	–	–	–	–	–	–	–	
African American	0	–	–	–	–	–	–	–	–	–	–	–	
White	0	–	–	–	–	–	–	–	–	–	–	–	
Two or more races	0	–	–	–	–	–	–	–	–	–	–	–	

Table 7.E.27 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Eight

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	451,965	2,534	116	46%	32%	21%	32%	51%	18%	34%	50%	17%
Male	230,528	2,528	121	49%	30%	21%	33%	49%	18%	36%	47%	16%
Female	221,437	2,539	111	44%	34%	22%	30%	52%	17%	30%	52%	18%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–
American Indian	2,587	2,499	108	59%	30%	12%	39%	51%	10%	43%	48%	9%
Asian American	41,144	2,639	113	16%	27%	57%	12%	39%	49%	11%	40%	49%
Pacific Islander	2,314	2,519	106	51%	33%	16%	35%	54%	11%	36%	52%	12%
Filipino	13,056	2,586	104	26%	38%	36%	18%	54%	28%	17%	55%	28%
Hispanic	240,142	2,499	102	58%	31%	11%	40%	52%	8%	42%	50%	8%
African American	27,679	2,477	104	67%	25%	8%	46%	48%	6%	50%	44%	6%
White	112,176	2,574	110	32%	37%	31%	20%	53%	28%	23%	52%	25%
Two or more races	12,867	2,567	116	35%	34%	31%	23%	51%	27%	25%	50%	25%
English only	245,902	2,546	116	42%	34%	25%	27%	52%	21%	30%	50%	19%
Initially Fluent English Proficient	20,999	2,597	117	28%	33%	39%	17%	48%	35%	19%	48%	34%
English Learner	59,383	2,434	92	82%	14%	4%	63%	35%	2%	63%	35%	3%
Reclassified Fluent English Proficient	124,423	2,546	102	42%	37%	21%	27%	57%	16%	28%	56%	16%
To be determined	241	2,461	122	72%	19%	9%	53%	38%	10%	51%	39%	10%
English prof. unknown	1,017	2,485	123	63%	24%	13%	46%	42%	12%	45%	44%	11%
No special education services	407,729	2,546	112	42%	34%	23%	28%	53%	19%	30%	52%	18%
Special education services	44,236	2,422	98	84%	12%	4%	64%	33%	3%	69%	28%	3%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–
Not economically disadvantaged	183,747	2,585	114	29%	35%	36%	19%	50%	31%	21%	50%	29%
Economically disadvantaged	268,218	2,499	105	58%	30%	12%	40%	51%	8%	42%	49%	8%
Unknown economic status	0	–	–	–	–	–	–	–	–	–	–	–
Migrant	3,951	2,480	100	64%	28%	8%	46%	49%	5%	48%	46%	6%
Not migrant	448,014	2,534	117	46%	32%	22%	31%	51%	18%	33%	50%	17%
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	966	2,531	111	47%	35%	18%	31%	52%	16%	33%	52%	15%	
Asian American	25,540	2,670	101	9%	23%	68%	7%	34%	60%	6%	34%	59%	
Pacific Islander	843	2,551	107	39%	36%	24%	26%	56%	19%	29%	52%	19%	
Filipino	8,503	2,603	101	21%	38%	42%	14%	53%	33%	14%	54%	32%	
Hispanic	49,394	2,534	106	45%	36%	19%	29%	55%	15%	32%	54%	14%	
African American	8,204	2,512	109	53%	32%	15%	37%	52%	11%	39%	50%	12%	
White	82,183	2,594	104	25%	38%	38%	15%	52%	33%	17%	53%	30%	
Two or more races	8,114	2,598	110	25%	35%	40%	15%	49%	35%	17%	50%	33%	
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,621	2,480	101	65%	27%	8%	44%	50%	6%	49%	46%	5%	
Asian American	15,604	2,589	114	27%	34%	39%	21%	49%	31%	19%	50%	31%	
Pacific Islander	1,471	2,500	101	57%	32%	11%	41%	53%	7%	40%	52%	8%	
Filipino	4,553	2,556	102	36%	39%	25%	25%	57%	18%	24%	57%	19%	
Hispanic	190,748	2,490	99	61%	30%	9%	43%	51%	6%	44%	49%	6%	
African American	19,475	2,462	98	72%	22%	6%	50%	46%	4%	55%	41%	4%	
White	29,993	2,518	106	51%	34%	15%	33%	55%	13%	38%	51%	11%	
Two or more races	4,753	2,514	108	53%	31%	15%	35%	53%	12%	37%	51%	11%	
Primary Ethnicity—Unknown Economic Status													
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	
Asian American	0	–	–	–	–	–	–	–	–	–	–	–	
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	
Hispanic	0	–	–	–	–	–	–	–	–	–	–	–	
African American	0	–	–	–	–	–	–	–	–	–	–	–	
White	0	–	–	–	–	–	–	–	–	–	–	–	
Two or more races	0	–	–	–	–	–	–	–	–	–	–	–	

Table 7.E.28 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Eleven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard
All valid scores	419,508	2,560	125	48%	33%	19%	35%	50%	15%	30%	55%	15%
Male	213,078	2,555	132	51%	30%	19%	36%	48%	16%	32%	53%	16%
Female	206,430	2,565	118	46%	35%	19%	34%	52%	14%	28%	58%	14%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–
American Indian	2,564	2,531	115	58%	30%	11%	40%	51%	9%	37%	54%	8%
Asian American	38,858	2,672	124	17%	29%	54%	14%	44%	42%	10%	46%	44%
Pacific Islander	2,353	2,540	114	53%	34%	13%	42%	48%	10%	33%	57%	10%
Filipino	13,759	2,609	110	29%	42%	29%	22%	56%	21%	17%	60%	23%
Hispanic	217,296	2,525	109	59%	32%	9%	43%	50%	7%	36%	57%	7%
African American	25,221	2,502	110	66%	26%	7%	51%	45%	5%	43%	52%	5%
White	108,155	2,595	123	37%	36%	27%	25%	53%	22%	22%	56%	22%
Two or more races	11,302	2,588	127	40%	35%	26%	27%	52%	21%	24%	55%	20%
English only	230,317	2,570	125	45%	34%	21%	32%	51%	17%	28%	55%	17%
Initially Fluent English Proficient	35,882	2,608	128	34%	35%	31%	24%	51%	25%	21%	54%	25%
English Learner	39,778	2,454	98	84%	13%	3%	66%	32%	2%	52%	46%	2%
Reclassified Fluent English Proficient	112,487	2,563	111	47%	37%	16%	34%	54%	12%	28%	59%	13%
To be determined	192	2,521	130	58%	29%	13%	41%	47%	12%	38%	51%	11%
English prof. unknown	852	2,510	123	64%	27%	10%	46%	46%	8%	38%	53%	8%
No special education services	385,593	2,570	122	45%	34%	20%	32%	52%	16%	27%	57%	16%
Special education services	33,915	2,444	98	86%	11%	2%	66%	32%	2%	56%	42%	2%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–
Not economically disadvantaged	189,172	2,601	127	36%	35%	30%	25%	51%	23%	22%	55%	24%
Economically disadvantaged	230,336	2,526	112	59%	31%	10%	43%	49%	8%	36%	56%	8%
Unknown economic status	0	–	–	–	–	–	–	–	–	–	–	–
Migrant	3,376	2,509	104	65%	29%	6%	49%	47%	4%	40%	55%	5%
Not migrant	416,132	2,560	125	48%	33%	19%	35%	50%	15%	30%	55%	15%
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			
				Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	Below Standard	At/Near Standard	Above Standard	
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1,213	2,563	116	47%	36%	17%	31%	55%	14%	31%	57%	12%	
Asian American	23,283	2,703	116	11%	24%	65%	9%	39%	52%	6%	39%	54%	
Pacific Islander	1,083	2,562	118	45%	36%	19%	35%	51%	14%	29%	58%	13%	
Filipino	9,438	2,622	108	25%	42%	33%	19%	57%	24%	15%	59%	26%	
Hispanic	55,059	2,548	114	51%	35%	14%	37%	53%	11%	31%	58%	11%	
African American	9,560	2,528	115	57%	31%	12%	44%	49%	7%	36%	56%	8%	
White	82,076	2,613	120	31%	37%	32%	21%	54%	26%	19%	56%	25%	
Two or more races	7,460	2,617	124	30%	36%	33%	21%	52%	27%	19%	55%	27%	
Primary Ethnicity—Economically Disadvantaged													
American Indian	1,351	2,502	107	68%	25%	6%	48%	47%	5%	43%	52%	5%	
Asian American	15,575	2,625	122	27%	35%	38%	21%	51%	28%	16%	55%	29%	
Pacific Islander	1,270	2,522	107	59%	33%	8%	48%	45%	7%	37%	56%	7%	
Filipino	4,321	2,582	109	38%	41%	21%	29%	56%	15%	23%	61%	16%	
Hispanic	162,237	2,517	106	62%	31%	8%	45%	49%	6%	38%	56%	6%	
African American	15,661	2,486	105	72%	24%	5%	55%	42%	3%	47%	50%	3%	
White	26,079	2,539	115	56%	32%	12%	37%	52%	10%	34%	56%	10%	
Two or more races	3,842	2,532	113	58%	32%	11%	40%	51%	8%	36%	56%	9%	
Primary Ethnicity—Unknown Economic Status													
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	
Asian American	0	–	–	–	–	–	–	–	–	–	–	–	
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	
Hispanic	0	–	–	–	–	–	–	–	–	–	–	–	
African American	0	–	–	–	–	–	–	–	–	–	–	–	
White	0	–	–	–	–	–	–	–	–	–	–	–	
Two or more races	0	–	–	–	–	–	–	–	–	–	–	–	

Appendix 7.F: Student Completion Conditions

Note: Due to different data sources, the number of students in these tables may differ slightly from the total number of students in Appendix 7.A: Participation Rates. The data for Appendix 7.F were calculated based on the number of items a student answered. Some students who logged on to both the non–performance task and performance task (PT) portions but did not answer questions may not be included. Participation rates in Appendix 7.A were based on the final P2 data that included all cases.

Table 7.F.1 California Assessment of Student Performance and Progress (CAASPP) Smarter Balanced Student Completion Conditions

If the Student:		Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
		N	N	N	N	N	N	N
English Language Arts/Literacy (ELA)	1. Logged on to both computer adaptive test (CAT) and PT, but answered no items	0	0	0	2	0	0	2
	2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	14	13	12	32	50	33	73
	3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	165	122	107	268	399	205	851
	4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	1,140	664	501	1,564	1,756	1,749	5,347
	5. Completed both CAT and PT	471,263	461,818	459,491	454,374	447,418	449,091	415,094
	6. Did not log on to both CAT and PT—not tested medical emergency (NTE)	7	5	3	5	4	7	9
	7. Did not log on to both CAT and PT—parent guardian exemption (PGE)	258	215	217	210	254	303	1,640
	8. Did not log on to both CAT and PT—other reasons	1,918	2,046	1,781	2,855	3,644	4,010	11,485
Mathematics	1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	1
	2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	11	10	19	20	29	34	76
	3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	143	94	175	191	209	265	595
	4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	323	283	261	636	989	812	1,347
	5. Completed both CAT and PT	473,742	463,933	461,117	456,666	449,118	450,774	417,200
	6. Did not log on to both CAT and PT—NTE (medical reasons)	1	5	7	1	5	3	10
	7. Did not log on to both CAT and PT—PGE	147	118	122	120	150	220	957
	8. Did not log on to both CAT and PT—other reasons	2,105	1,921	1,938	2,856	4,054	4,446	10,989

Table 7.F.2 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Three

If the Student:	Gender			English Language Fluency						Economic Status	
	All N	1. Male N	2. Female N	1. English Learner (EL) N	2. English only (EO) N	3. Reclassified Fluent English Proficient (RFEP) N	4. Initially Fluent English Proficient (IFEP) N	5. To Be Determined (TBD) N	6. No Response N	1. Economically Disadvantaged N	2. Not Economically Disadvantaged N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	14	7	7	3	11	0	0	0	0	9	5
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	165	90	75	61	96	3	1	3	1	106	59
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	1,140	548	592	332	724	47	30	1	6	747	393
5. Completed both CAT and PT	471,263	240,875	230,388	150,895	269,949	31,052	18,123	242	1,002	293,726	177,537
6. Did not log on to both CAT and PT—NTE (medical reasons)	7	5	2	1	5	1	0	0	0	5	2
7. Did not log on to both CAT and PT—PGE	258	143	115	31	220	2	4	0	1	90	168
8. Did not log on to both CAT and PT—other reasons	1,918	1,068	850	605	1,161	38	25	27	62	1,259	659

Table 7.F.3 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Three

If the Student:	Ethnicity								
	1. American Indian/ Alaskan Native	2. Asian	3. Pacific Islander	4. Filipino	5. Hispanic or Latino	6. African American	7. White	8. Two or More Races	9. Unknown
	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	1	0	0	5	2	5	1	0
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	0	8	0	2	85	12	52	6	0
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	13	44	3	19	604	93	297	56	11
5. Completed both CAT and PT	2,524	40,730	2,216	10,721	261,084	26,311	109,421	15,377	2,879
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	0	0	0	3	0	2	1	1
7. Did not log on to both CAT and PT—PGE	3	10	1	2	71	6	150	14	1
8. Did not log on to both CAT and PT—other reasons	25	126	11	50	897	247	491	57	14

Table 7.F.4 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Four

If the Student:	Gender			English Language Fluency						Economic Status	
	All	1. Male	2. Female	1. EL	2. EO	3. RFEF	4. IFEP	5. TBD	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged
		N	N							N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	13	8	5	6	6	0	0	0	1	10	3
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	122	86	36	45	70	2	2	1	2	76	46
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	664	351	313	182	420	42	15	0	5	405	259
5. Completed both CAT and PT	461,818	235,130	226,688	119,723	261,017	61,880	18,117	218	863	285,237	176,581
6. Did not log on to both CAT and PT—NTE (medical reasons)	5	3	2	0	5	0	0	0	0	3	2
7. Did not log on to both CAT and PT—PGE	215	133	82	15	191	5	3	0	1	70	145
8. Did not log on to both CAT and PT—other reasons	2,046	1,154	892	633	1,211	93	41	18	50	1,345	701

Table 7.F.5 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Four

If the Student:	Ethnicity								
	1. American Indian/ Alaskan Native	2. Asian	3. Pacific Islander	4. Filipino	5. Hispanic or Latino	6. African American	7. White	8. Two or More Races	9. Unknown
	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	1	0	0	8	1	2	0	1
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	3	3	0	3	68	5	32	7	1
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	4	38	6	20	321	55	185	28	7
5. Completed both CAT and PT	2,446	41,059	2,281	11,131	252,517	25,925	109,698	14,314	2,447
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	0	0	0	3	1	1	0	0
7. Did not log on to both CAT and PT—PGE	2	7	1	1	53	11	124	12	4
8. Did not log on to both CAT and PT—other reasons	18	126	10	46	1,036	247	492	57	14

Table 7.F.6 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Five

If the Student:	Gender			English Language Fluency						Economic Status	
	All	1. Male	2. Female	1. EL	2. EO	3. RFEP	4. IFEP	5. TBD	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged
		N	N							N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT, and answered at least one item for only CAT or PT	12	8	4	3	9	0	0	0	0	8	4
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	107	58	49	31	61	10	3	2	0	81	26
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	501	280	221	118	317	49	15	0	2	341	160
5. Completed both CAT and PT	459,491	234,540	224,951	100,117	257,145	81,012	20,229	208	780	279,369	180,122
6. Did not log on to both CAT and PT—NTE (medical reasons)	3	2	1	0	2	1	0	0	0	1	2
7. Did not log on to both CAT and PT—PGE	217	111	106	19	190	5	2	0	1	80	137
8. Did not log on to both CAT and PT—other reasons	1,781	1,027	754	509	1,061	122	35	14	40	1,193	588

Table 7.F.7 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Five

If the Student:	Ethnicity								
	1. American Indian/ Alaskan Native	2. Asian	3. Pacific Islander	4. Filipino	5. Hispanic or Latino	6. African American	7. White	8. Two or More Races	9. Unknown
	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	0	0	0	7	3	2	0	0
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	1	7	1	2	69	4	22	1	0
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	8	29	4	7	247	58	126	18	4
5. Completed both CAT and PT	2,511	42,163	2,388	11,774	246,687	26,327	112,157	13,070	2,414
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	0	0	0	2	0	1	0	0
7. Did not log on to both CAT and PT—PGE	1	5	0	2	52	13	134	9	1
8. Did not log on to both CAT and PT—other reasons	19	119	5	40	876	248	400	54	20

Table 7.F.8 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Six

If the Student:	Gender			English Language Fluency						Economic Status	
	All	1. Male	2. Female	1. EL	2. EO	3. RFEF	4. IFEP	5. TBD	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged
		N	N							N	N
1. Logged on to both CAT and PT, but answered no items	2	1	1	1	1	0	0	0	0	2	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	32	19	13	6	19	3	4	0	0	26	6
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	268	157	111	82	136	42	4	2	2	196	72
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	1,564	836	728	304	806	369	81	2	2	1,105	459
5. Completed both CAT and PT	454,374	231,861	222,513	75,825	252,365	103,779	21,424	252	729	274,460	179,914
6. Did not log on to both CAT and PT—NTE (medical reasons)	5	4	1	0	4	1	0	0	0	1	4
7. Did not log on to both CAT and PT—PGE	210	112	98	17	181	7	3	1	1	78	132
8. Did not log on to both CAT and PT—other reasons	2,855	1,626	1,229	675	1,641	365	103	24	47	1,973	882

Table 7.F.9 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Six

If the Student:	Ethnicity								
	1. American Indian/ Alaskan Native	2. Asian	3. Pacific Islander	4. Filipino	5. Hispanic or Latino	6. African American	7. White	8. Two or More Races	9. Unknown
	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	1	0	1	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	0	0	1	18	5	8	0	0
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	4	13	2	7	161	31	41	7	2
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	10	104	9	44	914	169	266	39	9
5. Completed both CAT and PT	2,489	41,670	2,291	12,380	242,433	26,205	112,283	11,701	2,922
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	1	0	0	0	1	3	0	0
7. Did not log on to both CAT and PT—PGE	0	9	1	0	59	8	121	9	3
8. Did not log on to both CAT and PT—other reasons	34	137	11	50	1,467	396	652	87	21

Table 7.F.10 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Seven

If the Student:	Gender			English Language Fluency						Economic Status	
	All	1. Male	2. Female	1. EL	2. EO	3. RFEP	4. IFEP	5. TBD	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged
		N	N							N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	50	29	21	9	36	3	2	0	0	31	19
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	399	236	163	82	223	66	21	3	4	291	108
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	1,756	901	855	319	861	487	80	3	6	1,291	465
5. Completed both CAT and PT	447,418	227,831	219,587	65,188	245,971	114,775	20,439	217	828	268,683	178,735
6. Did not log on to both CAT and PT—NTE (medical reasons)	4	2	2	1	2	1	0	0	0	2	2
7. Did not log on to both CAT and PT—PGE	254	128	126	18	210	17	6	0	3	87	167
8. Did not log on to both CAT and PT—other reasons	3,644	2,113	1,531	821	2,134	497	98	24	70	2,532	1,112

Table 7.F.11 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Seven

If the Student:	Ethnicity								
	1. American Indian/ Alaskan Native	2. Asian	3. Pacific Islander	4. Filipino	5. Hispanic or Latino	6. African American	7. White	8. Two or More Races	9. Unknown
	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	1	0	1	18	14	16	0	0
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	4	11	0	6	226	61	75	12	4
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	9	77	13	42	1,109	190	277	30	9
5. Completed both CAT and PT	2,662	40,365	2,321	12,408	238,991	26,610	110,608	11,044	2,409
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	0	0	0	3	0	1	0	0
7. Did not log on to both CAT and PT—PGE	2	15	0	0	62	13	149	12	1
8. Did not log on to both CAT and PT—other reasons	48	176	18	88	1,968	483	726	113	24

Table 7.F.12 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Eight

If the Student:	Gender			English Language Fluency						Economic Status	
	All	1. Male	2. Female	1. EL	2. EO	3. RFEF	4. IFEP	5. TBD	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged
		N	N							N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	33	25	8	3	19	9	1	1	0	26	7
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	205	118	87	53	94	44	6	1	7	139	66
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	1,749	899	850	298	851	512	73	3	12	1,198	551
5. Completed both CAT and PT	449,091	229,041	220,050	57,765	245,481	123,992	20,925	165	763	266,259	182,832
6. Did not log on to both CAT and PT—NTE (medical reasons)	7	4	3	1	5	1	0	0	0	4	3
7. Did not log on to both CAT and PT—PGE	303	138	165	14	264	18	6	1	0	78	225
8. Did not log on to both CAT and PT—other reasons	4,010	2,271	1,739	875	2,320	638	106	17	54	2,726	1,284

Table 7.F.13 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Eight

If the Student:	Ethnicity								
	1. American Indian/ Alaskan Native	2. Asian	3. Pacific Islander	4. Filipino	5. Hispanic or Latino	6. African American	7. White	8. Two or More Races	9. Unknown
	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	1	1	0	21	5	5	0	0
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	0	6	1	2	131	27	31	5	2
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	9	87	8	49	1,087	181	287	34	7
5. Completed both CAT and PT	2,584	40,584	2,297	12,903	238,351	27,609	111,928	10,427	2,408
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	0	0	0	4	0	3	0	0
7. Did not log on to both CAT and PT—PGE	7	18	0	3	64	14	184	11	2
8. Did not log on to both CAT and PT—other reasons	56	152	30	68	2,224	465	911	85	19

Table 7.F.14 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Eleven

If the Student:	Gender			English Language Fluency					Economic Status		
	All	1. Male	2. Female	1. EL	2. EO	3. RFEF	4. IFEP	5. TBD	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged
	N	N	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	2	1	1	0	1	0	1	0	0	1	1
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	73	46	27	13	37	17	4	0	2	43	30
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	851	458	393	158	442	195	50	3	3	524	327
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	5,347	2,731	2,616	741	2,529	1,646	406	4	21	3,418	1,929
5. Completed both CAT and PT	415,094	210,614	204,480	38,594	228,979	111,100	35,547	175	699	227,427	187,667
6. Did not log on to both CAT and PT—NTE (medical reasons)	9	4	5	1	4	4	0	0	0	7	2
7. Did not log on to both CAT and PT—PGE	1,640	717	923	33	1,255	204	144	3	1	380	1,260
8. Did not log on to both CAT and PT—other reasons	11,485	6,278	5,207	1,995	6,339	2,387	684	17	63	7,332	4,153

Table 7.F.15 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for ELA, Grade Eleven

If the Student:	Ethnicity								
	1. American Indian/ Alaskan Native	2. Asian	3. Pacific Islander	4. Filipino	5. Hispanic or Latino	6. African American	7. White	8. Two or More Races	9. Unknown
	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	2	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	1	3	0	1	47	8	12	0	1
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	6	36	5	21	474	92	194	17	6
4. Logged on to both CAT and PT, answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	34	295	47	149	3,315	448	918	127	14
5. Completed both CAT and PT	2,574	38,299	2,325	13,588	214,590	24,868	107,605	9,754	1,491
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	0	0	1	6	1	1	0	0
7. Did not log on to both CAT and PT—PGE	9	190	11	108	369	60	825	60	8
8. Did not log on to both CAT and PT—other reasons	110	539	63	204	6,543	1,322	2,395	265	44

Table 7.F.16 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Three

If the Student:	Gender			English Language Fluency						Economic Status	
	All	1. Male	2. Female	1. EL	2. EO	3. RFEF	4. IFEP	5. TBD	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged
	N	N	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	11	9	2	2	9	0	0	0	0	9	2
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	143	84	59	42	91	1	2	2	5	72	71
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	323	168	155	83	212	12	14	0	2	204	119
5. Completed both CAT and PT	473,742	242,158	231,584	152,737	270,132	31,057	18,128	375	1,313	295,212	178,530
6. Did not log on to both CAT and PT—NTE (medical reasons)	1	1	0	0	1	0	0	0	0	0	1
7. Did not log on to both CAT and PT—PGE	147	86	61	18	124	1	2	1	1	47	100
8. Did not log on to both CAT and PT—other reasons	2,105	1,136	969	593	1,345	72	39	13	43	1,341	764

Table 7.F.17 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Three

If the Student:	Ethnicity								
	1. American Indian/ Alaskan Native	2. Asian	3. Pacific Islander	4. Filipino	5. Hispanic or Latino	6. African American	7. White	8. Two or More Races	9. Unknown
	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	0	0	0	6	2	2	1	0
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	1	8	0	2	59	10	55	7	1
4. Logged on to both CAT and PT and answered at least one PT item and at least 10 CAT items, but did not answer specified minimum number of items	2	14	2	8	163	26	92	13	3
5. Completed both CAT and PT	2,530	41,337	2,224	10,846	262,372	26,373	109,758	15,408	2,894
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	0	0	0	0	0	0	0	1
7. Did not log on to both CAT and PT—PGE	2	4	0	3	39	5	84	8	2
8. Did not log on to both CAT and PT—other reasons	27	103	11	37	1,053	244	536	75	19

Table 7.F.18 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Four

If the Student:	Gender			English Language Fluency						Economic Status	
	All	1. Male	2. Female	1. EL	2. EO	3. RFEF	4. IFEP	5. TBD	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged
		N	N							N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	10	6	4	3	6	0	0	0	1	6	4
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	94	49	45	29	56	1	0	2	6	54	40
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	283	143	140	73	182	17	4	0	7	160	123
5. Completed both CAT and PT	463,933	236,236	227,697	121,441	261,000	61,888	18,132	317	1,155	286,492	177,441
6. Did not log on to both CAT and PT—NTE (medical reasons)	5	4	1	1	4	0	0	0	0	4	1
7. Did not log on to both CAT and PT—PGE	118	66	52	11	99	2	3	0	3	30	88
8. Did not log on to both CAT and PT—other reasons	1,921	1,127	794	469	1,285	97	26	12	32	1,265	656

Table 7.F.19 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Four

If the Student:	Ethnicity								
	1. American Indian/ Alaskan Native	2. Asian	3. Pacific Islander	4. Filipino	5. Hispanic or Latino	6. African American	7. White	8. Two or More Races	9. Unknown
	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	0	0	1	3	5	0	1	0
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	0	5	1	3	40	9	34	2	0
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	2	14	4	10	131	22	85	13	2
5. Completed both CAT and PT	2,442	41,625	2,276	11,269	253,720	25,922	109,877	14,328	2,474
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	0	0	0	2	2	1	0	0
7. Did not log on to both CAT and PT—PGE	2	6	1	2	24	4	73	5	1
8. Did not log on to both CAT and PT—other reasons	28	95	16	25	917	246	501	77	16

Table 7.F.20 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Five

If the Student:	Gender		English Language Fluency					Economic Status			
	All	1. Male	2. Female	1. EL	2. EO	3. RFEP	4. IFEP	5. TBD	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged
	N	N	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	19	10	9	6	10	3	0	0	0	15	4
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	175	111	64	36	111	21	2	1	4	109	66
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	261	155	106	57	158	35	9	0	2	167	94
5. Completed both CAT and PT	461,117	235,360	225,757	101,641	256,867	81,012	20,229	309	1,059	280,417	180,700
6. Did not log on to both CAT and PT—NTE (medical reasons)	7	4	3	0	6	1	0	0	0	4	3
7. Did not log on to both CAT and PT—PGE	122	61	61	11	104	5	1	0	1	50	72
8. Did not log on to both CAT and PT—other reasons	1,938	1,110	828	436	1,266	152	48	9	27	1,259	679

Table 7.F.21 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Five

If the Student:	Ethnicity								
	1. American Indian/ Alaskan Native	2. Asian	3. Pacific Islander	4. Filipino	5. Hispanic or Latino	6. African American	7. White	8. Two or More Races	9. Unknown
	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	1	2	0	0	14	0	2	0	0
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	1	9	1	5	100	8	45	5	1
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	2	8	3	6	141	14	79	6	2
5. Completed both CAT and PT	2,508	42,699	2,391	11,851	247,696	26,289	112,177	13,079	2,427
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	0	0	0	3	2	2	0	0
7. Did not log on to both CAT and PT—PGE	1	4	0	2	33	6	71	4	1
8. Did not log on to both CAT and PT—other reasons	29	88	10	30	907	293	502	65	14

Table 7.F.22 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Six

If the Student:	Gender			English Language Fluency						Economic Status	
	All	1. Male	2. Female	1. EL	2. EO	3. RFEF	4. IFEP	5. TBD	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged
	N	N	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	20	14	6	6	9	5	0	0	0	18	2
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	191	109	82	43	107	28	4	2	7	124	67
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	636	364	272	142	321	146	21	2	4	428	208
5. Completed both CAT and PT	456,666	233,014	223,652	77,319	252,601	103,952	21,500	336	958	276,026	180,640
6. Did not log on to both CAT and PT—NTE (medical reasons)	1	0	1	0	1	0	0	0	0	0	1
7. Did not log on to both CAT and PT—PGE	120	65	55	12	105	1	0	1	1	36	84
8. Did not log on to both CAT and PT—other reasons	2,856	1,654	1,202	617	1,711	394	87	11	36	1,907	949

Table 7.F.23 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Six

If the Student:	Ethnicity								
	1. American Indian/ Alaskan Native	2. Asian	3. Pacific Islander	4. Filipino	5. Hispanic or Latino	6. African American	7. White	8. Two or More Races	9. Unknown
	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	0	0	0	12	3	5	0	0
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	2	11	3	2	98	20	44	10	1
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	4	36	3	15	365	66	126	17	4
5. Completed both CAT and PT	2,494	42,194	2,297	12,505	243,717	26,312	112,554	11,737	2,856
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	0	0	0	0	1	0	0	0
7. Did not log on to both CAT and PT—PGE	1	4	0	1	28	5	75	5	1
8. Did not log on to both CAT and PT—other reasons	28	98	17	49	1,478	377	637	65	107

Table 7.F.24 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Seven

If the Student:	Gender			English Language Fluency						Economic Status	
	All	1. Male	2. Female	1. EL	2. EO	3. RFEF	4. IFEP	5. TBD	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	29	17	12	5	16	5	1	1	1	21	8
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	209	120	89	45	113	35	9	2	5	157	52
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	989	513	476	205	477	262	33	3	9	715	274
5. Completed both CAT and PT	449,118	228,742	220,376	66,613	245,837	114,801	20,449	314	1,104	269,876	179,242
6. Did not log on to both CAT and PT—NTE (medical reasons)	5	3	2	3	2	0	0	0	0	3	2
7. Did not log on to both CAT and PT—PGE	150	72	78	3	133	8	4	1	1	54	96
8. Did not log on to both CAT and PT—other reasons	4,054	2,307	1,747	786	2,392	667	142	28	39	2,752	1,302

Table 7.F.25 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Seven

If the Student:	Ethnicity								
	1. American Indian/ Alaskan Native	2. Asian	3. Pacific Islander	4. Filipino	5. Hispanic or Latino	6. African American	7. White	8. Two or More Races	9. Unknown
	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	0	1	0	17	5	6	0	0
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	3	2	2	3	120	30	38	9	2
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	5	26	2	22	643	96	164	28	3
5. Completed both CAT and PT	2,667	40,878	2,331	12,528	240,006	26,645	110,587	11,045	2,431
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	0	0	0	4	0	1	0	0
7. Did not log on to both CAT and PT—PGE	2	7	0	1	43	7	79	11	0
8. Did not log on to both CAT and PT—other reasons	49	136	17	69	2,232	510	903	109	29

Table 7.F.26 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Eight

If the Student	Gender			English Language Fluency						Economic Status	
	All	1. Male	2. Female	1. EL	2. EO	3. RFEF	4. IFEP	5. TBD	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged
		N	N							N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	34	19	15	8	13	10	2	0	1	30	4
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	265	161	104	58	131	54	12	2	8	205	60
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	812	390	422	126	413	225	45	2	1	545	267
5. Completed both CAT and PT	450,774	229,924	220,850	59,193	245,268	124,127	20,940	236	1,010	267,421	183,353
6. Did not log on to both CAT and PT—NTE (medical reasons)	3	2	1	1	2	0	0	0	0	2	1
7. Did not log on to both CAT and PT—PGE	220	98	122	12	191	13	1	1	2	56	164
8. Did not log on to both CAT and PT—other reasons	4,446	2,489	1,957	795	2,652	810	136	14	39	2,957	1,489

Table 7.F.27 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Eight

If the Student:	Ethnicity								
	1. American Indian/ Alaskan Native	2. Asian	3. Pacific Islander	4. Filipino	5. Hispanic or Latino	6. African American	7. White	8. Two or More Races	9. Unknown
	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	0	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	1	0	1	23	4	4	0	1
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	3	1	0	4	171	29	49	7	1
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	4	33	6	21	508	62	153	23	2
5. Completed both CAT and PT	2,576	41,102	2,308	13,029	239,428	27,583	111,920	10,399	2,429
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	1	0	0	0	1	1	0	0
7. Did not log on to both CAT and PT—PGE	7	15	0	2	50	10	123	12	1
8. Did not log on to both CAT and PT—other reasons	64	129	28	72	2,464	531	1,005	120	33

Table 7.F.28 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Eleven

If the Student:	Gender			English Language Fluency						Economic Status	
	All	1. Male	2. Female	1. EL	2. EO	3. RFEF	4. IFEP	5. TBD	6. No Response	1. Economically Disadvantaged	2. Not Economically Disadvantaged
		N	N							N	N
1. Logged on to both CAT and PT, but answered no items	1	0	1	0	1	0	0	0	0	1	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	76	45	31	8	36	20	12	0	0	47	29
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	595	312	283	95	343	113	35	1	8	347	248
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	1,347	681	666	166	666	404	105	0	6	818	529
5. Completed both CAT and PT	417,200	211,924	205,276	39,518	229,032	111,921	35,700	189	840	229,098	188,102
6. Did not log on to both CAT and PT—NTE (medical reasons)	10	5	5	0	6	4	0	0	0	8	2
7. Did not log on to both CAT and PT—PGE	957	418	539	32	745	100	75	5	0	225	732
8. Did not log on to both CAT and PT—other reasons	10,989	5,956	5,033	1,763	6,295	2,230	620	15	66	6,874	4,115

Table 7.F.29 CAASPP Smarter Balanced Student Completion Conditions by Subgroups for Mathematics, Grade Eleven

If the Student:	Ethnicity								
	1. American Indian/ Alaskan Native	2. Asian	3. Pacific Islander	4. Filipino	5. Hispanic or Latino	6. African American	7. White	8. Two or More Races	9. Unknown
	N	N	N	N	N	N	N	N	N
1. Logged on to both CAT and PT, but answered no items	0	0	0	0	0	1	0	0	0
2. Logged on to both CAT and PT and answered at least one item for only CAT or PT	0	12	0	1	35	8	18	1	1
3. Logged on to both CAT and PT and answered at least 1 CAT and 1 PT item but fewer than 10 CAT items	5	15	8	7	320	59	159	19	3
4. Logged on to both CAT and PT and answered at least 1 PT item and at least 10 CAT items, but did not answer specified minimum number of items	13	108	13	48	787	113	225	34	6
5. Completed both CAT and PT	2,545	38,673	2,337	13,692	216,125	25,036	107,559	9,729	1,504
6. Did not log on to both CAT and PT—NTE (medical reasons)	0	1	0	0	8	0	1	0	0
7. Did not log on to both CAT and PT—PGE	6	108	4	16	200	39	548	34	2
8. Did not log on to both CAT and PT—other reasons	126	424	70	187	6,204	1,205	2,446	286	41

Chapter 8: Analyses

This chapter summarizes the item- and test-level statistics calculated for the California Assessment of Student Performance and Progress (CAASPP) Smarter Balanced Online Summative Assessments administered during the 2014–15 administration.

8.1. Background

There are five primary statistical analyses presented in this chapter:

1. Item Response Theory (IRT) Parameters
2. Omission and Completion Analyses
3. Conditional Exposure Analyses
4. Reliability Analyses
5. Analyses in Support of Validity Evidence

8.1.1 Summary of the Analyses

Each of these sets of analyses is presented in the body of the text and in the appendixes listed below. Please note that classical item analyses and differential item functioning (DIF) analysis are not presented because these analyses were performed by the Smarter Balanced Assessment Consortium during the 2013–14 field test administration (Smarter Balanced, 2015a).

1. **Item Response Theory (IRT) Parameters.** Appendix 8.A on page 301 presents summaries of item difficulty parameter estimates (b -values) and item discrimination parameter estimates (a -values) for all of the items in each assessment and separate summaries for each claim. Also presented for each test are conditional distributions of a -values and b -values for students at specified ability levels (scale-score intervals) and the a -values and b -values of all performance task (PT) items. For polytomous items, partial credit step values (d -values) are included.
2. **Omission and Completion Analyses.** Appendix 8.B on page 360 shows item parameter estimate summaries for items with different omit rates. Statistics are shown for the PTs and computer adaptive test (CAT) items in each test. The item parameter estimates are from the field test calibrations. The purpose of these analyses is to examine whether the items with high omit rates are systematically more difficult or more discriminating than items with low omit rates. Appendix 8.B also shows the completion rates for each test.
3. **Conditional Exposure Analyses.** Appendix 8.C on page 366 shows, for each assessment, distributions (in intervals) of item exposure frequency for all of the items in that test, for the items in each claim, and for items at different difficulty levels.
4. **Reliability Analyses.** Appendixes 8.D, beginning on page 383, present results of the reliability analyses of test scores and claim scores for the population as a whole and for selected subgroups. Table 8.2 presents the reliability results for the population as a whole. Table 8.3 shows the conditional standard errors of measurement (CSEMs) at achievement-level scale score cuts.

Tables in Appendix 8.E, starting on page 412, present CSEM distributions for the total test scores. Figure 8.E.1 through Figure 8.E.14, which start on page 426,

present plots of CSEMs conditional on scale scores. Table 8.4 presents the mean CSEM for each performance level. Tables in Appendix 8.F, starting on page 433, present statistics describing the accuracy and consistency of the performance classifications. Interrater reliability statistics for the human-scored items and statistics showing the agreement of artificial intelligence (AI) scoring with human scoring are shown in Appendix 8.G, beginning on page 440, for the constructed-response (CR) items.

5. **Analyses in Support of Validity Evidence.** Validity evidence related to the CAASPP online summative assessments is discussed in section 8.6 on page 287. Appendix 8.H, on page 479, presents distributions of the time required to complete the total test for each content area, including both the PT and CAT portions. Table 8.5, on page 295, and the tables in Appendix 8.I, beginning on page 491, present correlations between English language arts/literacy (ELA) and mathematics scores calculated for demographic subgroups of interest.

8.1.2 Samples for the Analyses

Analyses were conducted on the sample of student data received during the last “daily feed” on October 5, 2015, which comprised the full CAASPP online summative assessments’ data for the majority of tests. Unless student records were flagged as “not scored” or the students were enrolled in a different grade than the one in which they were tested, the test records were considered as valid and included in the technical report analyses.

8.2. IRT Parameter Values

The purpose of the IRT calibration and scaling is to place item difficulty and student ability estimates onto a common theta scale in each content area. The Common Core State Standards provide a foundation for developing Smarter Balanced assessments that support inferences concerning student changes in achievement (i.e., progress). One approach to modeling student progress across grades is to report scores on a common vertical scale. A vertical scale is a single scale for reporting scores on tests at different grade levels of the same content area. Its purpose is to report scores in a way that shows a student’s progress in a content area, from one grade level to the next. One key assumption with vertical scaling is that it is possible to make meaningful comparisons between scores on tests in the same content area at different grade levels.

Item parameters used in the CAASPP online summative assessments were estimated and scales were constructed during the Smarter Balanced field test administration. Item parameter calibration software, model fit, and evaluation of vertical scale anchor items are not described in the current technical report. For more detailed information on these and other psychometric topics, see Chapter 6 of the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2015a).

Unidimensional IRT models were used to calibrate items within each content area. Based on the results from the psychometric analyses occurring during the pilot and field test administrations, the Smarter Balanced Assessment Consortium chose the two-parameter logistic (2PL) model (Birnbaum, 1968) for calibration of the dichotomous items and the generalized partial credit model (GPCM; Muraki, 1992) for calibration of polytomous items. The formula associated with these models is provided in Equation 7.1 on page 113.

Chapter 9 of the Smarter Balanced technical report provides more detailed information about how Smarter Balanced assessments were calibrated and both horizontally and vertically scaled through IRT processes (Smarter Balanced, 2015a).

8.2.1 Summary Information

Parameter estimates for the 2014–15 operational items were obtained from the 2013–14 Smarter Balanced field test analyses. Summary statistics of these parameter estimates are calculated to show the difficulty and discrimination of the overall test, as well as the difficulty and discrimination of claims; distributions of b -value and a -value parameter estimates are created to provide more detail. The step parameters for all polytomous items are also provided.

Appendix 8.A on page 301 provides summary statistics describing the distributions of item difficulty and discrimination parameter estimates at each test level from the field test calibration and scaling. Note that only operational items from the item pool administered as part of the CAASPP administration are included in this analysis. For more information regarding the IRT methodology used by Smarter Balanced to form the basis for new item development, test equating, and computer-adaptive testing, refer to Chapter 9 of the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced 2015a).

8.2.1.1 All Items

Table 8.A.1 through Table 8.A.14 present univariate statistics (mean, standard deviation, minimum, and maximum) of the scaled IRT a -values. The results for each test are presented for all items in the test and for the items in each claim. Table 8.A.15 through Table 8.A.28 present the univariate statistics of the IRT b -values for all items in the test and for the items in each claim.

8.2.1.2 CAT Items

Table 8.A.29 through Table 8.A.42 show the distributions of CAT item a -values across 10 intervals of the ability scale, conditional on 6 intervals of student ability indicated by ranges of the overall test scale score. Table 8.A.43 through Table 8.A.56 present the distributions of CAT items across 16 intervals of b -values conditional on 6 intervals of overall test scale scores. The mode of each distribution is in bold text.

8.2.1.3 Performance Task Items

Table 8.A.57 through Table 8.A.70 show the conditional distribution of a -values for the PT items. Table 8.A.71 through Table 8.A.84 show the conditional distribution of b -values for the PT items. Parameter values of all PT items are presented in Table 8.A.85 through Table 8.A.98.

For Table 8.A.29 through Table 8.A.84, the scale score intervals range from the lowest one hundred scale scores containing the lowest obtainable scale score (LOSS) to the highest one hundred scale scores containing the highest obtainable scale score (HOSS) for that test. For example, “2100–2199” to “2600–2699” for ELA in grade three includes the LOSS of 2114 and the HOSS of 2623.

8.3. Omission and Completion Analyses

8.3.1 Omit Rates

When a question has been seen but has not been answered (left blank) in the middle of an administered assessment wherein the student has viewed and responded to successive items, that response is regarded as an “omit.” When a question has not been answered (left

blank) and the student did not view any of the successive items, that response is regarded as “not seen.”

The percentage of students leaving an item blank can indicate a problem with the time provided for the test or with some feature of the item. If students have an adequate amount of testing time, at least 95 percent of the students should attempt to answer each item. The CAASPP online summative assessments are designed to be untimed, allowing all students to respond to all of the items. Because there is no time limit for the test, a percentage of blank responses that is greater than five percent for any single item may be an indication of a problem with an item.

Table 8.B.1 and Table 8.B.2 present the summary of omit rates, including the number of items in each omit rate interval, for the PT and CAT items respectively. The tables also contain the average difficulty and discrimination for these items. As shown, the overall omit rates for CAT items across contents and grades are very low. The omit rates for the PT items are slightly higher than the CAT items. Only one item in the grade four ELA assessment and one item in the grade seven mathematics assessment had omit rates higher than five percent.

8.3.2 Completion Rates

Completion rates indicate the proportion of students who failed to complete a certain number of items in either the CAT or PT portion of the test. A student’s record for the CAT portion is considered incomplete if the student completed fewer than 10 CAT items. A student’s record for the PT portion is considered incomplete if the student did not complete at least one PT item. A student’s record for the test is not considered complete unless the student completed at least 10 CAT items and at least one PT item. A student’s record for a claim is not considered complete unless the student completed at least the specified minimum number of items for that claim (Table 8.1). The percentages of students completing each test, each claim on the test, and each of the two parts of the test are presented in Table 8.B.3.

Table 8.1 Minimum Number of Items for Claims

Content Area	Claim	Grades 3–5	Grades 6–8	Grade 11
ELA	1	14	13	15
	2	12	12	12
	3	8	8	8
	4	8	8	8
Mathematics	1	17	16	19
	2	8	8	8
	3	8	8	8

8.4. Conditional Exposure Rates of Items

Item exposure refers to the frequency of item administration in the student population. Items that are selected too frequently may become known to students in advance of the test administration and, as a result, fail to perform as expected. Table 8.C.1 and Table 8.C.2 show, for each test and for each claim, how many items were not administered. These tables also present the numbers of items in five intervals of exposure with the lowest being 1 to 100 student testing events and the highest being greater than or equal to 3,000 student testing events.

Conditional exposure control refers to the establishment of exposure controls to be applied to the items at a specified level of difficulty (*b*-value). These controls become necessary when items at a particular level of difficulty are especially likely to be used too often. For example, it may be necessary to limit item exposure for very difficult items. Table 8.C.3 through Table 8.C.16 present the same information as Table 8.C.1 and Table 8.C.2, computed separately for items in several intervals of difficulty.

8.5. Reliability Analyses

There are many definitions of reliability (Haertel, 2006) that have their genesis in classical test theory and a variety of methods that can be used to estimate reliability.

The general concept of reliability concerns the extent to which the test scores measure a *particular construct* consistently. The variance in the distribution of test scores—essentially, the differences among individuals—is partly due to factors that are consistent over permissible differences in the testing process (e.g., different items or tasks, different raters) and partly due to factors that are not consistent. The measure of variation associated with the first kind of differences—consistent differences—is called “true variance”; the measure of variation associated with the remaining differences—those that operate essentially at random—is called “error variance.” Reliability is the proportion of total variance that is due to true variance. The standard error of measurement (SEM) is a statistic that characterizes the error variance.

This section documents the reliability and SEM statistics that are used for CAASPP.

8.5.1 Sample for Reliability Analyses

The reliability analyses performed for CAASPP require that the sample be screened beyond the requirements listed in section 8.1.2 *Samples for the Analyses*. When students’ ability estimates on the overall test or a claim are lower than the lowest obtainable theta (LOT) for that test, they are assigned the LOSS for that test. When students’ ability estimates on the overall test or a claim are higher than the highest obtainable theta (HOT) for that test, they are assigned the HOSS for that test. When a student is assigned to either the LOSS or HOSS, a measure of his or her true performance is not known as it would be lower than LOSS or higher than HOSS, which ultimately impacts any reliability analyses. Because of this, the reliability analyses in this section further exclude students assigned the LOSS or HOSS from the student data used for general analyses that was described at the beginning of this chapter. (Refer to section 7.4.1.2 *Scale Scores for the Total Assessment* on page 117 for the definitions of LOSS/LOT and HOSS/HOT.)

8.5.2 Marginal Reliability

In a specified population of students, the reliability of test scores, X , is defined as the proportion of the test score variance that is attributable to true differences in student abilities and is sometimes operationalized as the correlation between scores on two replications of the same testing procedure, $\rho_{XX'}$. Reliability coefficients may range from 0 to 1. The higher the reliability coefficient for a set of scores, the more likely students would be to obtain very similar scores if they were retested. In applied settings, the requirement of repeated administrations is impractical, and methodologies estimating reliability from relationships among student performances on items within a single test form are often used. Coefficient alpha (Cronbach, 1951) is among the most common of these methodologies. These reliability indices are not directly applicable to CAT because each student takes a different test form.

An IRT-based approach called marginal reliability (Green, Bock, Humphreys, Linn, & Reckase, 1984) can be used to estimate the reliability of CAT scores. The estimates of reliability coefficients reported here are for item response model-based ability estimates.

This reliability coefficient for theta estimates, $\rho_{\theta\theta'}$, is defined, based on a single test administration, as shown in Equation 8.1

$$\rho_{\theta\theta'} = 1 - \frac{M_{SEM_{\theta}^2}}{s_{\theta}^2} \quad (8.1)$$

where,

s_{θ}^2 is the measure of variance in ability estimates,

θ is an ability estimate, and

$M_{SEM_{\theta}^2}$ is an average of the squared CSEM (i.e., error variances) at each value of the ability estimate.

8.5.3 Standard Error of Measurement (SEM)

The SEM provides a measure of score instability in the scale score metric. The SEM is the square root of the “error variance” in the scores (i.e., the standard deviation of the distribution of the differences between students’ observed scores and their true scores). The SEM is calculated by:

$$SEM_{Scaled} = a \times s_{\theta} \sqrt{1 - \rho_{\theta\theta'}} \quad (8.2)$$

where,

$\rho_{\theta\theta'}$ is the reliability estimated in Equation 8.1, and

s_{θ} is the standard deviation of the total test θ score.

a is the slope of the scaling constants that transform θ to the reporting scale.

The SEM is useful in determining the confidence interval (CI) that likely captures a student’s true score. A student’s true score can be thought of as the score a student would earn over an infinite number of independent administrations of the test. Across those administrations, approximately 95 percent of CIs from a student’s observed score of -1.96 SEMs to that student’s observed score of $+1.96$ SEMs would contain a student’s true score (Crocker & Algina, 1986). For example, if a student’s observed score on a given test equals 2440 points, and the SEM equals 23, one can be 95 percent confident that the student’s true score lies between 2395 and 2485 points (2440 ± 45).

Table 8.2 gives the total score reliability for theta, and the mean, standard deviation, and SEM of both thetas and scale scores for each of the 14 tests, along with the number of students upon which those analyses are performed. In Table 8.2, only students who finished at least 10 CAT items and 1 PT item are included in the analysis.

Table 8.2 Summary Statistics for Scale Scores and Theta Scores, Reliability, and SEMs

Content Area	Grade	Number of Students	Reliability	Scale Score			Theta Score		
				Mean	SD	SEM	Mean	SD	SEM
ELA	3	470,347	0.91	2402	86	26	-1.24	1.01	0.31
	4	458,836	0.91	2444	91	27	-0.75	1.06	0.32
	5	455,946	0.92	2485	93	26	-0.27	1.08	0.30
	6	452,937	0.91	2510	91	28	0.02	1.05	0.32
	7	444,984	0.91	2530	94	28	0.25	1.10	0.32
	8	447,455	0.91	2551	93	28	0.50	1.08	0.32
	11	411,581	0.91	2588	105	31	0.93	1.23	0.36
Mathematics	3	469,155	0.93	2415	77	21	-1.26	0.97	0.26
	4	460,274	0.94	2452	79	20	-0.79	0.99	0.25
	5	457,384	0.92	2479	87	24	-0.45	1.10	0.30
	6	450,287	0.92	2505	98	27	-0.13	1.23	0.34
	7	442,039	0.91	2519	104	31	0.06	1.31	0.40
	8	442,302	0.91	2533	111	33	0.23	1.40	0.41
	11	410,907	0.89	2561	119	39	0.58	1.50	0.49

8.5.4 Intercorrelations, Reliabilities, and SEMs for Claims Scores

For each test, theta scores and scale scores are computed for claims. As is described on page 119 in *Chapter 7: Scoring and Reporting*, a claim consists of a group of items with related content standards.

Intercorrelations, reliability estimates, and theta-based SEMs for the claims are presented in Table 8.D.1 through Table 8.D.14, starting on page 383. The reliability estimates across claims vary significantly according to the number of items as well as the types of content standards that are included in each claim. The standards of claims can be found in the Smarter Balanced blueprints that are provided in Appendix 2.A on page 19.

8.5.5 Subgroup Reliabilities and SEMs

The reliabilities of the total test scores and the claim scores are examined for various subgroups of the student population. The subgroups included in these analyses are defined by gender, economic status, eligibility for special services, English-language fluency, primary ethnicity, and migrant status. The reliability analyses are also presented by primary ethnicity within economic status.

Reliabilities and theta-based SEMs for the total test scores and the claim scores are reported for each subgroup analysis. Table 8.D.15 through Table 8.D.23 present the overall test reliabilities for subgroups defined by student gender, economic status, provision of special services, English-language fluency, primary ethnicity, and migrant status. Table 8.D.24 through Table 8.D.29 present the reliabilities for the subgroups based on primary ethnicity within economic status.

The next set of tables, Table 8.D.30 through Table 8.D.99, present the claim-level reliabilities for the subgroups. Table 8.D.30 through Table 8.D.43 present the claim-level reliabilities for the subgroups based on gender, economic status, and migrant status. Table 8.D.44 through Table 8.D.57 show the same analyses for the subgroups based on provision of special services and English-language fluency. Table 8.D.58 through Table 8.D.71 present results for the subgroups based on primary ethnicity of the students. The last set of tables, Table 8.D.72 through Table 8.D.99 present the claim-level reliabilities

for the subgroups based on primary ethnicity within economic status. Note that the reliabilities are reported only for samples that are comprised of 11 or more students. Also, in some cases, score reliabilities are not estimable and are presented in the tables as a hyphen. The reliability estimates for some of the subgroups are negative due to small variation in scale scores and large CSEMs for extreme score values. These negative reliabilities and their associated SEMs are presented as “N/A.”

8.5.6 Conditional Standard Errors of Measurement (CSEMs)

As part of the IRT-based scoring procedure, CSEMs are produced. CSEMs for scale scores are based on IRT and are estimated as a function of measured ability. The CSEMs are typically smaller in scale score units toward the center of the scale in the test metric where more items are located, whereas CSEMs are usually larger at the extreme ends of the scale because there is no way to know how much better than that a student really is in the case of an extremely high score, or how much worse than that a student really is in the case of an extremely low score given the difficulty of content administered to the student. A student’s CSEM under the IRT framework is equal to the reciprocal of the square root of the test information function (TIF):

$$\text{CSEM}(\theta) = a \times \frac{1}{\sqrt{I(\theta)}} \quad (8.3)$$

where,

CSEM(θ) is the conditional standard error of measurement, and

$I(\theta)$ is the test information function at ability level θ , as is shown in equations 7.8 to 7.11, which start on page 121.

The statistic is multiplied by a , where a is the scaling factor needed to transform theta to the scale score metric. The value of a varies by content area and is shown in equations 7.5 and 7.6 for ELA and mathematics, respectively.

CSEMs vary across the θ scale. When a test has cut scores, it is important to provide CSEMs at those cut scores. Table 8.3 presents the scale score CSEMs at the lowest score required for a student to be classified in the *Standard Nearly Met*, *Standard Met*, and *Standard Exceeded* achievement levels for each test.

Table 8.3 Scale Score CSEM at Performance-level Cut Points

Content Area	Grade	Standard Nearly Met		Standard Met		Standard Exceeded	
		Min SS	CSEM	Min SS	CSEM	Min SS	CSEM
ELA	3	2367	24	2432	22	2490	22
	4	2416	25	2473	25	2533	25
	5	2442	24	2502	25	2582	25
	6	2457	27	2531	26	2618	26
	7	2479	27	2552	26	2649	26
	8	2487	27	2567	26	2668	27
	11	2493	32	2583	28	2682	28

Content Area	Grade	Standard Nearly Met		Standard Met		Standard Exceeded	
		Min SS	CSEM	Min SS	CSEM	Min SS	CSEM
Mathematics	3	2381	19	2436	17	2501	17
	4	2411	19	2485	17	2549	17
	5	2455	23	2528	19	2579	18
	6	2473	25	2552	21	2610	20
	7	2484	30	2567	23	2635	20
	8	2504	33	2586	26	2653	22
	11	2543	35	2628	27	2718	22

Table 8.4 presents the average CSEMs in each achievement level by content area and grade level. The CSEMs tended to be smaller in the achievement levels of *Standard Nearly Met*, *Standard Met*, and *Standard Exceeded* than *Standard Not Met* for all tests. The pattern of average CSEMs is similar for the tests in each content area.

Table 8.4 Mean Conditional Standard Errors of Scale Scores

Content Area	Grade	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded
ELA	3	28	23	22	23
	4	28	25	25	26
	5	27	24	25	26
	6	31	26	26	27
	7	31	26	26	28
	8	30	26	26	28
	11	36	30	28	30
Mathematics	3	22	18	17	18
	4	23	18	17	17
	5	29	21	18	18
	6	33	23	21	21
	7	40	26	21	20
	8	40	29	24	22
	11	48	31	25	22

Scale score CSEM distributions are shown in Table 8.E.1 through Table 8.E.14. The plots of the CSEMs conditional for scale scores are also presented in Figure 8.E.1 through Figure 8.E.14. In the figures, the vertical axis is defined as the CSEMs and the horizontal axis is designated as scale scores, which is a common metric for tests within the same content area. Each data point represents an individual student. Typically, for fixed-form tests, the pattern of the CSEMs tends to be U-shaped such that the plotted values of CSEMs for the middle scale scores tend to be lower than those for extreme scale scores. An impact of the CAT, in relation to a fixed form test, is the attenuation of the U-shape relationship between CSEMs and scale scores.

8.5.7 Decision Classification Analyses

The accuracy of decisions (classifications) based on specified cut scores for the CAASPP online summative assessments is evaluated as a measure of the reliability of performance level classifications. Every discrete test administration will result in some errors in the classification of students. When an assessment uses achievement levels as the primary

method to report test results, accuracy and consistency of decisions become key indicators about the quality of the assessment.

The methodology used for estimating the reliability of classification decisions described in Livingston and Lewis (1995) is implemented using the Educational Testing Service (ETS)-proprietary computer program RELCLASS-COMP (Version 4.14).

Decision accuracy describes the extent to which students 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 following question: How closely 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 are somehow known?

Decision consistency describes the extent to which students 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 following question: What is the agreement between the classifications based on two non-overlapping, equally difficult forms of the test? The input information that RELCLASS-COMP requires includes the maximum and minimum possible scores, the observed score distribution, and the reliability coefficient that is estimated for the same group of students.

In each case, the estimated proportion of classifications with exact agreement is the sum of the entries in the diagonal of the contingency table representing the multivariate distribution. Reliability of classification at a cut score is estimated by combining the multivariate distribution at any particular cut score into a two-by-two table indicating whether the students are above or below the cut score and summing the entries in the diagonal. Figure 8.1 and Figure 8.2 present the two scenarios.

		Decision made on a form actually taken	
		Does not reach an achievement level	Reaches an achievement level
True status on all-forms average	Does not reach an achievement level	Correct classification	Misclassification
	Reaches an achievement level	Misclassification	Correct classification

Figure 8.1 Decision Accuracy for Reaching an Achievement Level

		Decision made on the alternate form taken	
		Does not reach an achievement level	Reaches an achievement level
Decision made on the form taken	Does not reach an achievement level	Correct classification	Misclassification
	Reaches an achievement level	Misclassification	Correct classification

Figure 8.2 Decision Consistency for Reaching an Achievement Level

For each test, the classification consistency and accuracy table includes estimates of the proportion of:

- overall consistent and accurate classifications, and
- consistency and accuracy around all cut scores.

The results of these analyses are presented in Table 8.F.1 through Table 8.F.14 in Appendix 8.F.

Each table includes the contingency tables for both accuracy and consistency of the various achievement-level classifications. The proportion of students being accurately classified is determined by summing across the diagonals of the upper tables. The proportion of consistently classified students is determined by summing the diagonals of the lower tables. The classifications are collapsed to *Standard Not Met* and *Standard Nearly Met* versus *Standard Met* and *Standard Exceeded*, which are the critical categories for accountability.

8.5.8 Interrater Agreement

To monitor the consistency of ratings assigned to students' responses by raters, approximately 10 percent of the CRs received a second rating. The two sets of ratings are used to compute statistics describing the consistency (or reliability) of the ratings. This interrater consistency is described in three ways:

1. Percentage agreement between two raters,
2. Cohen's Kappa, and
3. Quadratic-weighted Kappa coefficient.

8.5.8.1 Percentage Agreement

Percentage agreement between two raters is frequently defined as the percentage of exact score agreement and adjacent score agreement. The percentage of exact score agreement is a stringent criterion, which tends to decrease with increasing numbers of item score points. The fewer the item score points, the fewer degrees of freedom on which two raters can vary, and the higher the percentage of agreement.

8.5.8.2 Kappa

Interrater reliability or consistency is an indicator of homogeneity and is most frequently measured using an intraclass correlation (ICC) which incorporates the exact agreement between raters over and above that expected by chance. The index is defined as the following:

$$ICC = r_1 = (m_{S_{\text{between}}} - m_{S_{\text{within}}}) / (m_{S_{\text{between}}} + [k - 1]m_{S_{\text{within}}}) \quad (8.5)$$

where,

$m_{S_{\text{between}}}$ is the mean-square estimate of between-subjects variance, and
 $m_{S_{\text{within}}}$ is the mean-square estimate of within-subjects variance.

For categorical ratings, Cohen's Kappa statistic (1960) has the properties of an ICC and can be used for interrater reliability. Cohen's Kappa is therefore used as a primary indicator of the interrater reliability of the human-scored items. In addition, the percentages of ratings on which the raters are in exact agreement or differed by just one point are computed.

8.5.8.3 Quadratic-Weighted Kappa

Quadratic-weighted Kappa is used because Kappa does not take into account the degree of disagreement between raters. It is a generalization of the simple Kappa coefficient using weights to quantify the relative difference between categories. The range of the quadratic weighted Kappa is from 0.0 to 1.0, with perfect agreement being equal to 1.0.

For a human-scored item with m categories, one can construct an $m \times m$ rating table with scores provided by two raters A and B. Suppose m is the maximum obtainable score for each item, n_{ij} is the number of responses for which rater A's score = i and rater B's score =

j , n_{i+} is the number of responses for which rater A = i , n_{+j} is the number of responses for which rater B = j , and n_{++} is the number of all responses from either rater A or rater B. The weighted Kappa coefficient is defined as:

$$\kappa_{ij} = \frac{\left(\sum_{i=0}^m \sum_{j=0}^m w_{ij} \frac{n_{ij}}{n_{++}}\right) - \left(\sum_{i=0}^m \sum_{j=0}^m w_{ij} \frac{n_{i+} n_{+j}}{n_{++}^2}\right)}{1 - \left(\sum_{i=0}^m \sum_{j=0}^m w_{ij} \frac{n_{i+} n_{+j}}{n_{++}^2}\right)}, \quad (8.6)$$

For quadratic weighted kappa, the weights are

$$w_{ij} = 1 - \frac{(i-j)^2}{m^2}. \quad (8.7)$$

The interrater reliability analyses are performed on approximately 10 percent of the overall testing population randomly selected from the total population; those students' responses are scored by two raters. In some scoring rubrics, zero is a valid score for the responses but is not provided by a rater. Instead, a score of zero is assigned when the student attempted the writing task but did not provide a response. Responses with zero scores should not be included in the calculation of the agreement statistics for these items.

Table 8.G.1 through Table 8.G.14 in Appendix 8.G present the results of the interrater analyses and descriptive statistics of the ratings by the two raters on short-answer items, including the following:

- Number of score points in each item
- Number of raters for each round of rating
- Kappa
- Quadratic-weighted Kappa
- Percent of exact agreement
- Percent of adjacent agreement

Table 8.G.15 through Table 8.G.21 present the results of the interrater analyses on writing extended-response (WER) items. In addition to the statistics described above, the dimension name is also identified. Refer to *Chapter 7 Scoring and Reporting* of this report and the *Smarter Balanced Scoring Guide* (Smarter Balanced, 2014a) for scoring dimensions.

8.5.9 Agreement between AI and Human Scoring

In order to monitor the accuracy of the AI scoring engine, Measurement Incorporated, the CAASPP subcontractor scoring some of the CR items, conducts ongoing quality checks to ensure that the scoring models perform consistently. A description of these quality checks is provided in section 7.2.2. *Quality Control of Artificial Intelligence Scoring*. Two sets of ratings for the same item, one set from the AI scoring engine and the other set from human raters, are evaluated and compared. Table 8.G.22 through Table 8.G.27 present the agreement statistics between AI and human scoring. Both short answer items and WER items are included. The dimension name is identified in the case of WER items. These tables include the following:

- Number of score points in each item
- Number of raters for each round of rating
- Kappa

- Quadratic-weighted Kappa
- Percent of exact agreement
- Percent of adjacent agreement

8.6. Validity Evidence

Validity refers to the degree to which each interpretation or use of a test score is supported by the accumulated evidence (American Educational Research Association [AERA], American Psychological Association [APA], & National Council on Measurement in Education [NCME], 2014; ETS, 2014). It constitutes the central notion underlying the development, administration, and scoring of a test and the uses and interpretations of test scores. Validation is the process of accumulating evidence to support each proposed score interpretation or use. This validation process does not rely on a single study or gathering only one type of evidence. Rather, validation involves multiple investigations and different kinds of supporting evidence (AERA, APA, & NCME, 2014; Cronbach, 1971; ETS, 2014; Kane, 2006). It begins with the test design and is implicit throughout the entire assessment process, which includes item development and field testing, analyses of items, test scaling and linking, scoring, reporting, and score usage.

In this section, the evidence gathered is presented to support the intended uses and interpretations of scores for the CAASPP online summative assessment. This section is organized primarily around the principles prescribed by AERA, APA, and NCME's *Standards for Educational and Psychological Testing* (2014). These *Standards* require a clear definition of the purpose of the test, a description of the constructs to be assessed, and the population to be assessed, as well as how the scores are to be interpreted and used. Since many aspects of the CAASPP System are still under development at the time of this report, additional research to further support the Smarter Balanced goals is mentioned as appropriate throughout this section.

The *Standards* identify five kinds of evidence that can provide support for score interpretations and uses:

1. Evidence based on test content,
2. Evidence based on relations to other variables,
3. Evidence based on response processes,
4. Evidence based on internal structure, and
5. Evidence based on the consequences of testing.

The next subsection defines the purpose of the CAASPP online summative assessments, followed by a description and discussion of the kinds of validity evidence that have been gathered. For general test validity evidence collected by the Smarter Balanced Assessment Consortium, refer to Chapter 2 of the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2015a). The validity evidence presented in Chapter 2 of that report was collected from the results of a pilot test and a field test prior to the operational administration of the nationwide Smarter Balanced Online Summative Assessment.

8.6.1 Evidence in the Design of CAASPP

8.6.1.1 Purpose

The purpose of the CAASPP assessment system is to provide school staff and teachers with information and tools they need to improve teaching and learning so as to prepare all students for college and career readiness.

8.6.1.2 The Constructs to Be Measured

The CAASPP online summative assessments are designed to show how well students perform relative to the Smarter Balanced Assessment Consortium content standards, which are aligned to the Common Core State Standards (CCSS). These standards describe what students should know and be able to do at each grade level.

Test blueprints define the procedures used to measure the claims and standards. These blueprints, for ELA and mathematics, are provided in Appendix 2.A on page 19. They also provide an operational definition of the construct to which each set of standards refers. That is, they define, for each content area, the subject to be assessed, the tasks to be presented, the administration instructions to be given, and the rules used to score student responses. The test blueprints control as many aspects of the measurement procedure as possible so that the testing conditions will remain the same over test administrations (Cronbach, 1971) in order to minimize construct irrelevant score variance (Messick, 1989).

The Smarter Balanced Assessment Consortium also created the content specifications used to create the CAASPP online summative assessments (Smarter Balanced, 2015b and 2015c).

8.6.1.3 The Interpretations and Uses of the Scores

Overall student performance expressed as scale scores and achievement levels are generated for both ELA and mathematics assessments, as are strength and weakness levels for each claim. An inference is drawn about how much knowledge and skill in the content area the student has, based on a student's total score. The total score is also used to classify students in terms of their level of knowledge and skill in the content area. These levels are called performance levels and are labeled *Standard Exceeded*, *Standard Met*, *Standard Nearly Met*, and *Standard Not Met*.

The strength and weakness levels are used to draw inferences about a student's achievement in each of the claims for each test. A detailed description of the uses and applications of the CAASPP online summative assessment scores is presented in Chapter 7, starting on page 101. The CDE also publishes *The Guide to Your CAASPP Student Score Report* for parents/guardians of students in grades three, four, six, seven, and eleven (CDE, 2015a); and grades five and eight (CDE, 2015b). The guides are published in English and Spanish.

The results for tests within the CAASPP System have four primary purposes:

1. Help facilitate conversations between parents/guardians and teachers about student performance.
2. Serve as a tool to help parents/guardians and teachers work together to improve student learning.
3. Help staff from schools and local educational agencies identify strengths and areas that need improvement in their educational programs.
4. Provide the public and policymakers with information about student achievement.

More detailed descriptions regarding score use can be found in the *Education Code* Section 60602 Web page at <https://bit.ly/2lfp1ps>.

8.6.1.4 Intended Test Population

Students enrolled in grades three through eight and grade eleven are required to take part in the Smarter Balanced Summative Assessments, unless they are eligible to participate in the alternate assessments. English learners who were in their first 12 months of attending school in the United States were exempt from taking the ELA portion of the assessments.

8.6.2 Validity Evidence Based on Test Content

Evidence based on test content refers to traditional forms of content validity evidence, such as the rating of test specifications and test items (Crocker, Miller, & Franks, 1989; Sireci, 1998), as well as alignment methods for educational tests that evaluate the interactions between curriculum frameworks, testing, and instruction (Rothman, Slattery, Vranek, & Resnick, 2002; Bhola, Impara & Buckendahl, 2003; Martone & Sireci, 2009).

The degree to which (a) the Smarter Balanced test specifications captured the CCSS and (b) the items adequately represent the domains delineated in the test specifications were demonstrated in the *Alignment Study Report* (Human Resource Research Organization [HumRRO], 2014). The major finding presented here is that the knowledge, skills, and abilities measured by the Smarter Balanced assessments are consistent with the ones specified in the CCSS. With computer adaptive testing, an extra dimension of content validity evidence is to ensure that the item selection algorithm produces forms for individual students that conform to the test blueprint. It was found that across content areas and grade levels, 98 percent or more of the simulated tests covered the test blueprint (American Institutes for Research, 2015).

8.6.2.1 Description of the State Standards

As noted on page 1 in Chapter 1, the Smarter Balanced Summative Assessments are aligned with the CCSS for ELA and mathematics. The purpose of the CCSS is to provide school staff and teachers with the information and tools they need to improve teaching and learning so as to prepare all students for college and career readiness. These content standards describe what students should know and be able to do at each grade level (Smarter Balanced, 2015d).

8.6.2.2 Item Specifications

Item specifications describe the characteristics of items that are written to measure each content standard. A thorough description of the specifications can be found in the specifications for ELA (Smarter Balanced, 2015b) and mathematics (2015c).

8.6.2.3 Item Selection Algorithm

The item selection algorithm is designed to cover a standards-based blueprint in the assembly of CAT forms. The general item selection approach is based on an item selection algorithm (refer to *Chapter 4: Test Assembly* on page 76) that evaluates an item's contribution to each of these measures:

1. a measure of content match to the blueprint;
2. a measure of overall test information; and
3. measures of test information for each reporting category on the test.

Details can be found in Cohen & Albright (2014).

8.6.2.4 Assessment Blueprints

The Smarter Balanced summative test blueprints provided in Appendix 2.A on page 19 describe the content of the ELA and mathematics summative assessments for all grades tested and how that content is assessed. The summative online test blueprints reflect the depth and breadth of the performance expectations of the CCSS. The test blueprints have information about the number of items and depth of knowledge for items associated with each assessment target. Each test is described by a single blueprint for each segment of the test and identifies the order in which the segments appear.

The degree to which test forms administered in 2014–15 met the blueprint is provided in *Chapter 5: Test Administration*, starting on page 80, and in Table 5.B.4.

8.6.2.5 Item Development Process

A detailed description of the content and psychometric criteria applicable to the construction of the Smarter Balanced item pool is included in *Chapter 4: Test Design*, for overall content validity, and *Chapter 3: Item Development*, for item development, of the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2015a).

8.6.2.6 Alignment Study

A strong alignment between standards and assessments is fundamental to the meaningful measurement of student achievement and instructional effectiveness. Alignment results demonstrate that the assessments represent the full range of the content standards and that these assessments measure student knowledge in the same manner and at the same level of complexity as expected in the content standards. For example, across all grades, 64.7 percent of the items are identified in alignment with the ELA grade-level standards and 76.7 percent of the items are identified in alignment with the mathematics grade-level standards by at least 50 percent of the reviewers (HumRRO, 2014).

8.6.2.7 Form Assembly Process

The content standards, blueprints, and item selection algorithm are the basis for choosing items for each assessment. Additional item difficulty and discrimination targets are defined in light of what are desirable statistical characteristics in test items and statistical evaluations. See Chapter 4, starting on page 76, for additional information.

8.6.2.8 Simulation Study

Simulations are conducted to evaluate and ensure the implementation and quality of the adaptive item-selection algorithm and the scoring algorithm. The simulation tool allows for the manipulation of key blueprint and configuration settings to match the blueprint and minimize measurement error. The unpublished report, *Smarter Balanced Summative Assessments Testing Procedures for Adaptive Item-Selection Algorithm*, contains more information about the algorithms used (AIR, 2015).

8.6.3 Validity Evidence Based on Response Processes

Validity evidence based on response processes refers to “evidence concerning the fit between the construct and the detailed nature of performance or response actually engaged in by students” (AERA et al., 1999, p. 12). This type of evidence generally includes documentation of activities such as:

- interviewing students concerning their responses to test items (i.e., think alouds),
- systematic observations of test response behavior,
- evaluation of the criteria used by judges when scoring performance tasks, analysis of student item-response-time data, features scored by automated algorithms, and

- evaluation of the reasoning processes students employ when solving test items (Embretson, 1983; Messick, 1989; Mislevy, 2009).

This type of evidence is used to confirm that the Smarter Balanced assessments are measuring the cognitive skills that are intended to be the objects of measurement and that students are using these targeted skills to respond to the items.

8.6.3.1 Think Alouds

One way to evaluate response process is through think-aloud protocols (Lewis, 1982). Think-aloud protocols were conducted early in the development of the Smarter Balanced assessments and were described by Smarter Balanced (2015a) in the following way:

“Using the revised item and task specifications, a small set of items was developed and administered in fall 2012 during a small-scale trial. This provided the Consortium with their first opportunity to administer and score the new item types. During the small-scale trials, the Consortium also conducted cognitive laboratories to better understand how students respond to various types of items. The cognitive laboratories used a think-aloud methodology in which students speak their thoughts while working on a test item. The item and task specifications were again revised based on the findings of the cognitive laboratories and the small-scale trial. These revised specifications were used to develop items for the 2013 pilot test, and they were again revised based on 2013 pilot test results and subsequent review by content experts.”

8.6.3.2 Analysis of Testing Time

Testing times for each administration can be evaluated for consistency, with the expected response processes for the tasks presented to students. The length of time it takes students to take a test is collected and analyzed to build a profile describing what a typical testing event looks like for each content area and grade. In addition, variability in testing time is investigated to determine whether a student’s testing time should be viewed as unusual or irregular. It should be noted that the Smarter Balanced assessments are untimed tests.

In these analyses, only students who completed at least 10 CAT items and 1 PT item and had timing records are considered. One percent of the students having the shortest testing time in the PT portion and one percent of the students with the shortest testing time in the CAT portion are removed from the analysis. The remaining testing population is partitioned into quartiles based on scale scores on the total test. These groupings are not the same as the achievement levels.

The descriptive statistics—e.g., the number of students, mean, standard deviation, minimum and maximum, percentiles—of the following time variables are computed for each of the four quartile groups for each content area:

- time required to complete the total test,
- time required to complete the CAT section of each test, and
- time required to complete the PT section of each test.

Some cases of extremely long testing time may be attributed to students with special needs taking longer to complete the tests, or the test not being closed down properly. With that being said, the results should be interpreted with caution. Mean testing times should not be interpreted directly, whereas the medians (50th percentile) are more meaningful in the interpretation of the time comparisons because medians are less impacted by the extreme values than means. The removal of one percent of the student data with the shortest testing

time is a modest exclusion that leaves some very short durations in the results for each of the tests. Similarly, some very long durations are present in the data that suggest errors such as the failure to close a testing session. These are reminders that the medians are to be preferred in evaluating testing time information.

Table 8.H.1 and Table 8.H.2, which start on page 479, provide descriptive statistics for ELA and mathematics testing time, respectively. These tables include total testing time and percentile information at each ability level. The unit of testing time is minutes; for example, in Table 8.H.1, the median of the testing time for the ELA grade three Q1 group is 126 minutes. Overall, students in the lowest ability level (1st quartile, Q1) have shorter testing times than students in the other groups. The median of total testing time generally increases with ability level from Q1 to Q4. Students at the 50th percentile within each ability quartile spent 111 to 211 minutes on ELA assessments across grades and 64 to 138 minutes on mathematics assessments across all grades.

Table 8.H.3 (for ELA) and Table 8.H.4 (for mathematics) provide the descriptive statistics of testing time for the CAT portion and the percentile information at each ability level. The number of CAT items presented to each student is reported in Table 5.B.2. Similar to total testing time, the median of testing time in the CAT portion generally increases with ability level from Q1 to Q4 in mathematics. For ELA, median testing time also increase with ability level, though there are no substantial differences in testing times between the Q3 and Q4 groups for ELA. Students at the 50th percentile within each ability quartile spent 62 to 107 minutes on the CAT portion of ELA tests across grades and 44 to 96 minutes on the CAT portion of mathematics tests across grades.

After testing time distributions for CAT were reviewed, testing times for the PTs are investigated. Each student is presented with a few items (one to six) that are randomly assigned in each grade. (More details on assignment of PTs can be found in *Chapter 5: Test Administration* on page 81.) Table 8.H.1 and Table 8.H.6 provide the descriptive statistics for ELA and mathematics testing times for each PT and the percentile information at each ability level, respectively. Overall, students in the lowest ability level (1st quartile, Q1) have shorter testing times than students in the other groups. For ELA, the median of the PT testing time increases with ability level from Q1 to Q4. Students at the 50th percentile within each ability quartile spent 40 to 107 minutes on the PT portion of ELA tests across PTs and grades and 14 to 58 minutes on the PT portion of mathematics tests across PTs and grades. For mathematics, there are no significant differences in PT testing time from Q2 to Q4 groups.

For the CAT administrations, results are consistent with past studies suggesting that testing time for items increases with more difficult items (van der Linden, 2009).

8.6.4 Validity Evidence Based on Internal Structure

Validity evidence based on *internal structure* refers to the statistical analysis of item and score subdomains to investigate the primary and secondary (if any) dimensions measured by an assessment. Procedures for gathering such evidence include factor analysis (both exploratory and confirmatory) or multidimensional IRT scaling. With a vertical scale, a consistent primary dimension across the levels of the test should be maintained.

8.6.4.1 Dimensionality

A dimensionality study was conducted during the pilot test phase to determine the factor structure of the assessments and the types of scales developed, as well as the associated IRT models used to calibrate them. In part, that study used the Akaike Information Criterion

(Akaike, 1973) to evaluate the fit of potential multidimensional models relative to the unidimensional model. The results suggested that the unidimensional model fit better than the multidimensional model, once model complexity was taken into account. More detailed results for the Smarter Balanced pilot test are available in the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2015a).

8.6.4.2 Differential Item Functioning (DIF)

In addition, analysis of item functioning using IRT and differential item functioning (DIF) falls under the internal structure category. For Smarter Balanced, DIF analyses were conducted to assess differences in the item performance of groups of students that differ in their demographic characteristics. DIF analyses were implemented during the pilot test and field test phases when the tests were delivered in linear fixed-length forms (Smarter Balanced, 2015a, Chapter 6; and Smarter Balanced, 2015a, Chapter 8). For both ELA and mathematics, few items were identified as having significant levels of DIF. In the operational assessment, by virtue of the CAT delivery, the non-embedded field test items are not amenable to DIF analyses.

8.6.4.3 Overall Reliability Estimates

The results of reliability analyses on the total test theta scores on each summative test are presented in Table 8.2. The results indicate that the reliability estimates for all summative test total scores are high, ranging from 0.89 to 0.94. Theta score standard deviations and SEMs are increasing with grade level; this is often an artifact of vertical scaling.

8.6.4.4 Claim Reliability Estimates

For each CAASPP online summative assessment, theta scores are computed for claims. The reliability estimates of these scores are presented in Table 8.D.1 through Table 8.D.14. The reliability estimates of claims are invariably lower than those for the total tests because they are based on fewer items. Because the reliabilities of scores at the claim level are lower than for total scores, and because each claim contains a different number of items, educators should supplement the score results with other information when interpreting claim scores.

8.6.4.5 Subgroup Reliability Estimates

The reliabilities are also examined for various subgroups of the student population that differ in their demographic characteristics. The characteristics considered are gender, ethnicity, economic status, provision of special services, migrant status, English-language fluency, and ethnicity-by-economic status (refer to Table 7.12 on page 125 for the demographic groups reported). Reliability estimates and SEM information for the total test theta scores and the claim theta scores are reported for each subgroup. Table 8.D.15 through Table 8.D.29 present the reliabilities and SEMs on the overall test theta scores for the various subgroups. Table 8.D.30 through Table 8.D.99 present the reliabilities and SEMs of theta scores for the claims.

8.6.4.6 Reliability of Performance Classifications

The methodology used for estimating the reliability of classification decisions is described with the decision classification analyses on page 283. The results of these analyses are presented in Table 8.F.1 through Table 8.F.14 in Appendix 8.F. When the classifications are collapsed to below *Standard Met* versus *Standard Met* and above, which are the critical categories for accountability analyses, the proportion of students who are classified accurately ranges from 0.90 to 0.98 across all tests. Similarly, the proportion of students who are classified consistently ranges from 0.87 to 0.92 for students classified into below

Standard Met versus *Standard Met* and above. These are considered high levels of accuracy and consistency.

8.6.4.7 Interrater Reliability

Cohen's Kappa statistics provide evidence of the degree to which a student's score is consistent from one rater to another rater. Research has shown values of Kappa between 0.41 and 0.60 exhibit moderate levels of agreement between the two ratings (Landis & Koch, 1977; Flack, Afifi, Lachenbruch & Schouten, 1988); the values of quadratic-weighted Kappa greater than 0.70 indicate excellent agreement (Williamson, Xi, & Breyer, 2012).

The results in Table 8.G.1 through Table 8.G.14 show at least moderate levels of agreement between raters who scored students' responses for 69 percent of the human-scored short-answer items in ELA and 28 percent of the human-scored items in mathematics. The rater agreement is at least high, with Kappa over 0.60 for 20 percent of ELA human-scored items and 66 percent of mathematics human-scored items. The rater agreement is excellent, with the quadratic-weighted Kappa over 0.7 for 41 percent of the ELA and 73 percent of the mathematics human-scored items.

The results in Table 8.G.15 through Table 8.G.21 show at least moderate levels of agreement between raters that scored students' responses for 20 percent of the human-scored WER items and high levels of agreement for 29 percent of the human-scored WER items in grades three through five and grade eleven ELA tests. The rater agreement is excellent, with the quadratic-weighted Kappa over 0.7 for 38 percent of the WER items.

Table 8.G.22 through Table 8.G.27 present the results for AI machine-scored items for ELA in grades three through five and mathematics in grades six through eight. The results show at least moderate levels of agreement between human raters and AI engines that scored students' responses for 51 percent of the human-scored short-answer items in ELA and 14 percent of the human-scored items in mathematics. The agreement is high, with Kappa over 0.6 for 15 percent of ELA human-scored items and 86 percent of mathematics human-scored items. The rater agreement is excellent, with the quadratic-weighted Kappa over 0.7 for 17 percent of the ELA and 97 percent of the mathematics AI machine-scored items.

8.6.4.8 Interrater Agreement

As is shown in Table 8.G.1 through Table 8.G.14, all human-scored items in ELA tests can be awarded a maximum of two points (0, 1, or 2) for short-text items and a maximum of four points for WER items. In mathematics, human-scored items can be awarded between one (0, 1) and four (0, 1, 2, 3, 4) points. Approximately 10 percent of the test population's responses to the human-scored items are scored by two raters. The percentage of students for whom the raters are in exact agreement ranges from 51.2 to 100 percent for ELA tests and 52.4 to 100 percent for mathematics tests. The percentage of students for whom the raters are in exact or adjacent agreement ranges from 95.4 to 100 percent for ELA tests and 84 to 100 percent for mathematics tests.

As is reported in Table 8.G.15 through Table 8.G.18, WER items have two points for convention dimension and four points for organization/purpose, development/elaboration, or evidence/elaboration scoring dimensions. The percentage of students for whom the raters are in exact agreement ranges from 46.3 percent to 99.5 percent; the percentage of students for whom the raters are in exact or adjacent agreement ranges from 91.7 percent to 100 percent in ELA tests for grades three through eight and grade eleven.

As presented in Table 8.G.22 through Table 8.G.27, 10 percent of the students who are scored by the AI engine are also scored by human raters. The percentages of students for whom the AI engine and human raters are in exact agreement range from 42.9 to 92.5 percent for ELA across the grades and from 71.7 to 96.2 percent for mathematics across the grades. The percentages of students for whom the AI engine and human raters are in exact or adjacent agreement are all over 85.4 percent for the ELA tests and over 96.1 percent for the mathematics tests.

8.6.4.9 Correlations between the Claims Within Content Areas

The distinctiveness and reliability of the claim theta scores in each content area are important because CAASPP strength and weakness levels are reported based on claim scores. The interrelationships of claim scores should be shown to be consistent with the construct being assessed. Table 8.D.1 through Table 8.D.14 provide the intercorrelations between claim scores within each test in the two content areas (i.e., ELA and mathematics). Results show that the correlations between claim scores are consistent across the grades and of a moderate magnitude. Correlations range from 0.56 to 0.72 for ELA and from 0.64 to 0.79 for mathematics.

8.6.4.10 Correlations between Content Area Test Scores

The degree to which students' content area test scores correlate as expected provides evidence of those scores as measures of the intended constructs. Table 8.5 provides the correlations between scores on the 2015 CAASPP ELA and mathematics tests and the numbers of students on which these correlations are based. Sample sizes for individual tests are shown in bold font on the diagonals of the correlation matrices; the numbers of students on which the correlations are based are shown on the lower left. The correlations are provided in the upper right. Results are based on all students with valid scale scores and are provided by grade.

Table 8.5 Correlations for All Students

Grade	Content Area	All Students	
3	ELA	472,674	0.80
	Mathematics	470,922	474,261
4	ELA	462,679	0.81
	Mathematics	461,094	464,355
5	ELA	460,190	0.81
	Mathematics	458,568	461,617
6	ELA	456,321	0.82
	Mathematics	454,148	457,550
7	ELA	449,714	0.81
	Mathematics	446,393	450,395
8	ELA	451,185	0.79
	Mathematics	447,587	451,965
11	ELA	422,098	0.76
	Mathematics	412,104	419,508

Note: Sample sizes in tests are in bold font.

Results for these students appear to be consistent with expectations. In general, students' ELA scores correlated moderately with their mathematics scores. They are correlated more highly among students in lower grades than students in higher grades.

Table 8.1.1 through Table 8.1.8 in Appendix 8.1 provide the content area test score correlations by gender, ethnicity, English-language fluency, economic status, migrant status, and special service utilization. Similar patterns of correlations were found between students' ELA and mathematics results within the subgroups. One exception was English learners, who showed lower correlations across grades.

Note that the correlations are reported only for groups of more than 10 students. Correlations between scores on any two content area tests where 10 or fewer students took the tests are expressed as hyphens.

8.6.5 Validity Evidence Based on Relations to Other Variables

Evidence based on *relations to other variables* refers to traditional forms of criterion-related validity evidence such as concurrent and predictive validity, as well as more comprehensive investigations of the relationships among test scores and other variables such as multitrait-multimethod studies (Campbell & Fiske, 1959). External variables can be used to evaluate hypothesized relationships between test scores and other measures of student achievement (e.g., test scores) to evaluate the degree to which different tests actually measure different skills and the utility of test scores for predicting specific criteria (e.g., college grades). This type of evidence is essential for supporting the validity of certain inferences based on scores from the Smarter Balanced assessments for certifying college and career readiness, which are the primary test purposes.

A subset of students who took National Assessment of Educational Progress (NAEP) and Program for International Student Assessment (PISA) items also took Smarter Balanced CAT items and PTs. A summary of the resulting item performance for NAEP, PISA, and all Smarter Balanced items can be found in chapters 7 and 8 of the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2015a). That study found item-level performance to be similar for NAEP and Smarter Balanced populations. A study taking the next step of relating Smarter Balanced scales to NAEP or PISA scales has not yet been completed.

Another study established the relationship between Smarter Balanced field-test scores and the likelihood of achieving “Conditionally Exempt” status based on achieving the required minimum scores for the California State University (CSU) Early Assessment Program (EAP). During the 2013–14 administration, students in grade eleven took the EAP for ELA test and/or mathematics test. The comparison showed a correlation of 0.68 between Smarter Balanced ELA and EAP ELA tests, and correlations from 0.49 to 0.61 between Smarter Balanced mathematics and EAP mathematics tests (ETS, 2015). These correlations indicate that Smarter Balanced summative assessments might be measuring different aspects of college readiness than the EAP tests, which previously provided insight into the readiness of California students in grade eleven for college-level mathematics and ELA courses. Other predictive validity research is being pursued by the Smarter Balanced Assessment Consortium as part of their research agenda.

8.6.6 Validity Evidence Based on Consequences of Testing

Evidence based on *consequences of testing* refers to the evaluation of the intended and unintended consequences associated with a testing program. Examples of evidence based on testing consequences include investigations of adverse impact, evaluation of the effects of testing on instruction, and evaluation of the effects of testing on issues such as high school dropout rates. With respect to educational tests, the *Standards* stress the importance of evaluating test consequences. For example, they state,

“When educational testing programs are mandated . . . the ways in which test results are intended to be used should be clearly described. It is the responsibility of those who mandate the use of tests to monitor their impact and to identify and minimize potential negative consequences. Consequences resulting from the use of the test, both intended and unintended, should also be examined by the test user.” (AERA et al., 1999, p. 145)

Investigations of testing consequences relevant to the Smarter Balanced goals include analyses of students’ opportunity to learn the CCSS and analyses of changes in textbooks and instructional approaches. Unintended consequences, such as changes in instruction, diminished morale among teachers and students, increased pressure on students leading to increased dropout rates, or the pursuit of college majors and careers that are less challenging can be evaluated. These sorts of investigations require information beyond what has been available to the CAASPP program to date.

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Appendix 8.A: IRT Parameter Estimates

Table 8.A.1 IRT a -values for ELA, Grade Three

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	217	0.72	0.25	0.20	1.52
Claim 2	203	0.67	0.19	0.19	1.12
Claim 3	118	0.56	0.19	0.21	1.01
Claim 4	131	0.67	0.23	0.19	1.29
All items	669	0.67	0.22	0.19	1.52

Table 8.A.2 IRT a -values for ELA, Grade Four

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	177	0.64	0.22	0.15	1.17
Claim 2	232	0.61	0.21	0.17	1.16
Claim 3	127	0.55	0.18	0.18	1.01
Claim 4	169	0.59	0.20	0.15	1.29
All items	705	0.60	0.21	0.15	1.29

Table 8.A.3 IRT a -values for ELA, Grade Five

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	194	0.65	0.20	0.18	1.22
Claim 2	225	0.63	0.21	0.19	1.25
Claim 3	108	0.52	0.17	0.16	1.02
Claim 4	148	0.64	0.17	0.23	1.10
All items	675	0.62	0.19	0.16	1.25

Table 8.A.4 IRT a -values for ELA, Grade Six

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	175	0.59	0.19	0.17	1.18
Claim 2	220	0.58	0.23	0.19	1.35
Claim 3	116	0.50	0.18	0.11	0.95
Claim 4	139	0.61	0.22	0.17	1.22
All items	650	0.57	0.21	0.11	1.35

Table 8.A.5 IRT a -values for ELA, Grade Seven

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	183	0.58	0.19	0.18	1.11
Claim 2	221	0.59	0.24	0.17	1.65
Claim 3	117	0.49	0.15	0.18	0.99
Claim 4	110	0.60	0.20	0.14	1.00
All items	631	0.57	0.21	0.14	1.65

Table 8.A.6 IRT a -values for ELA, Grade Eight

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	161	0.59	0.20	0.15	1.11
Claim 2	219	0.57	0.20	0.15	1.07
Claim 3	131	0.47	0.17	0.13	0.91
Claim 4	118	0.58	0.19	0.20	1.19
All items	629	0.56	0.20	0.13	1.19

Table 8.A.7 IRT a -values for ELA, Grade Eleven

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	499	0.57	0.19	0.13	1.16
Claim 2	437	0.47	0.13	0.15	1.02
Claim 3	334	0.45	0.16	0.10	0.93
Claim 4	311	0.51	0.19	0.12	1.19
All items	1581	0.50	0.18	0.10	1.19

Table 8.A.8 IRT a -values for Mathematics, Grade Three

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	554	0.85	0.29	0.16	1.59
Claim 2	246	0.92	0.26	0.20	1.48
Claim 3	160	0.79	0.31	0.13	1.42
All items	960	0.86	0.28	0.13	1.59

Table 8.A.9 IRT a -values for Mathematics, Grade Four

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	551	0.84	0.29	0.17	1.80
Claim 2	256	0.79	0.30	0.20	1.63
Claim 3	149	0.79	0.29	0.25	1.51
All items	956	0.82	0.29	0.17	1.80

Table 8.A.10 IRT a -values for Mathematics, Grade Five

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	517	0.77	0.29	0.14	1.55
Claim 2	270	0.82	0.30	0.16	1.56
Claim 3	182	0.71	0.31	0.18	1.77
All items	969	0.77	0.30	0.14	1.77

Table 8.A.11 IRT a -values for Mathematics, Grade Six

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	538	0.68	0.25	0.15	1.35
Claim 2	198	0.80	0.25	0.17	1.42
Claim 3	137	0.63	0.23	0.18	1.41
All items	873	0.70	0.26	0.15	1.42

Table 8.A.12 IRT *a*-values for Mathematics, Grade Seven

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	462	0.71	0.28	0.10	1.43
Claim 2	190	0.83	0.28	0.11	1.43
Claim 3	125	0.67	0.33	0.12	1.68
All items	777	0.73	0.29	0.10	1.68

Table 8.A.13 IRT *a*-values for Mathematics, Grade Eight

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	439	0.62	0.25	0.09	1.29
Claim 2	171	0.74	0.29	0.16	1.33
Claim 3	143	0.57	0.23	0.14	1.36
All items	753	0.64	0.26	0.09	1.36

Table 8.A.14 IRT *a*-values for Mathematics, Grade Eleven

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	1028	0.55	0.26	0.09	1.44
Claim 2	390	0.58	0.28	0.10	1.49
Claim 3	460	0.47	0.25	0.09	1.39
All items	1878	0.54	0.26	0.09	1.49

Table 8.A.15 IRT *b*-values for ELA, Grade Three

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	217	-0.44	1.06	-2.72	2.74
Claim 2	203	-0.65	1.11	-2.90	2.81
Claim 3	118	-0.01	1.24	-2.28	3.82
Claim 4	131	-0.06	1.07	-2.03	3.03
All items	669	-0.35	1.14	-2.90	3.82

Table 8.A.16 IRT *b*-values for ELA, Grade Four

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	177	0.30	1.24	-2.10	3.13
Claim 2	232	-0.22	1.12	-3.25	2.94
Claim 3	127	0.14	1.41	-2.82	4.25
Claim 4	169	0.48	1.13	-1.76	3.73
All items	705	0.14	1.24	-3.25	4.25

Table 8.A.17 IRT *b*-values for ELA, Grade Five

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	194	0.67	1.21	-1.60	4.81
Claim 2	225	0.21	1.14	-2.75	4.95
Claim 3	108	0.68	1.17	-2.40	3.48
Claim 4	148	0.72	1.05	-1.74	3.83
All items	675	0.53	1.17	-2.75	4.95

Table 8.A.18 IRT *b*-values for ELA, Grade Six

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	175	1.05	1.22	-1.20	4.78
Claim 2	220	0.81	1.33	-2.72	4.61
Claim 3	116	1.03	1.51	-1.45	4.92
Claim 4	139	1.09	1.04	-1.24	3.61
All items	650	0.97	1.28	-2.72	4.92

Table 8.A.19 IRT *b*-values for ELA, Grade Seven

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	183	1.16	1.24	-1.88	3.91
Claim 2	221	0.95	1.24	-1.98	5.12
Claim 3	117	0.87	1.26	-1.71	4.78
Claim 4	110	1.62	1.29	-0.67	5.52
All items	631	1.12	1.27	-1.98	5.52

Table 8.A.20 IRT *b*-values for ELA, Grade Eight

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	161	1.49	1.25	-1.17	5.57
Claim 2	219	1.02	1.29	-3.01	4.56
Claim 3	131	0.97	1.28	-1.54	4.27
Claim 4	118	1.89	1.06	-0.67	5.19
All items	629	1.29	1.28	-3.01	5.57

Table 8.A.21 IRT *b*-values for ELA, Grade Eleven

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	499	1.84	1.27	-1.34	5.57
Claim 2	437	1.62	1.34	-1.88	5.93
Claim 3	334	1.30	1.39	-1.25	5.62
Claim 4	311	2.03	1.18	-0.27	5.12
All items	1581	1.70	1.32	-1.88	5.93

Table 8.A.22 IRT *b*-values for Mathematics, Grade Three

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	554	-1.15	1.01	-3.38	2.40
Claim 2	246	-0.33	0.86	-2.68	1.97
Claim 3	160	-0.20	0.84	-2.32	3.46
All items	960	-0.78	1.04	-3.38	3.46

Table 8.A.23 IRT *b*-values for Mathematics, Grade Four

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	551	-0.39	1.12	-3.26	4.11
Claim 2	256	0.14	0.98	-2.68	2.57
Claim 3	149	0.38	0.92	-1.95	3.16
All items	956	-0.13	1.10	-3.26	4.11

Table 8.A.24 IRT *b*-values for Mathematics, Grade Five

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	517	0.08	1.24	-3.26	3.61
Claim 2	270	1.10	0.92	-2.68	4.45
Claim 3	182	1.00	1.01	-1.22	5.28
All items	969	0.53	1.22	-3.26	5.28

Table 8.A.25 IRT *b*-values for Mathematics, Grade Six

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	538	0.75	1.34	-3.93	4.35
Claim 2	198	1.19	1.10	-2.98	5.10
Claim 3	137	1.46	1.02	-1.73	4.71
All items	873	0.96	1.27	-3.93	5.10

Table 8.A.26 IRT *b*-values for Mathematics, Grade Seven

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	462	1.60	1.24	-1.79	5.64
Claim 2	190	1.78	1.09	-1.09	5.07
Claim 3	125	2.11	1.24	-1.34	6.17
All items	777	1.72	1.22	-1.79	6.17

Table 8.A.27 IRT *b*-values for Mathematics, Grade Eight

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	439	1.97	1.56	-1.79	6.32
Claim 2	171	2.32	1.24	-1.48	5.75
Claim 3	143	2.57	1.42	-1.73	6.70
All items	753	2.16	1.48	-1.79	6.70

Table 8.A.28 IRT *b*-values for Mathematics, Grade Eleven

	Number of Items	Mean	Standard Deviation	Minimum	Maximum
Claim 1	1028	2.45	1.60	-3.36	7.30
Claim 2	390	3.03	1.35	-1.10	6.68
Claim 3	460	2.93	1.51	-1.79	7.19
All items	1878	2.69	1.55	-3.36	7.30

Table 8.A.29 Distribution of IRT a -values Conditional on Ability for ELA Non-PT Items, Grade Three

IRT a -value	2100–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
0 –< 0.2	1	2	2	2	2	2
0.2 –< 0.4	59	61	61	67	65	65
0.4 –< 0.6	156	159	163	167	164	161
0.6 –< 0.8	180	180	186	190	188	183
0.8 –< 1.0	96	98	99	103	101	101
1.0 –< 1.2	39	40	40	40	40	40
1.2 –< 1.4	4	4	4	4	4	4
1.4 –< 1.6	1	1	1	1	1	–
1.6 –< 1.8	–	–	–	–	–	–
1.8 –< 2.0	–	–	–	–	–	–

Table 8.A.30 Distribution of IRT a -values Conditional on Ability for ELA Non-PT Items, Grade Four

IRT a -value	2100–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
0 –< 0.2	7	8	8	8	8	8
0.2 –< 0.4	78	86	88	90	98	99
0.4 –< 0.6	146	164	167	182	192	186
0.6 –< 0.8	149	158	164	169	175	170
0.8 –< 1.0	55	59	64	65	65	59
1.0 –< 1.2	18	19	20	20	20	18
1.2 –< 1.4	–	–	–	1	1	–
1.4 –< 1.6	–	–	–	–	–	–
1.6 –< 1.8	–	–	–	–	–	–
1.8 –< 2.0	–	–	–	–	–	–

Table 8.A.31 Distribution of IRT a -values Conditional on Ability for ELA Non-PT Items, Grade Five

IRT a -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	3	3	3	3	3	3
0.2 –< 0.4	76	77	79	80	79	79
0.4 –< 0.6	181	184	190	194	196	193
0.6 –< 0.8	163	163	164	167	168	164
0.8 –< 1.0	72	73	75	76	73	67
1.0 –< 1.2	12	12	12	12	11	11
1.2 –< 1.4	2	2	2	2	2	2
1.4 –< 1.6	–	–	–	–	–	–
1.6 –< 1.8	–	–	–	–	–	–
1.8 –< 2.0	–	–	–	–	–	–

Table 8.A.32 Distribution of IRT a -values Conditional on Ability for ELA Non-PT Items, Grade Six

IRT a -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	8	8	8	8	8	8
0.2 –< 0.4	123	123	124	126	126	125
0.4 –< 0.6	200	201	205	207	208	206
0.6 –< 0.8	131	131	136	138	138	130
0.8 –< 1.0	43	46	45	45	46	43
1.0 –< 1.2	–	–	–	–	–	–
1.2 –< 1.4	1	1	1	1	1	1
1.4 –< 1.6	–	–	–	–	–	–
1.6 –< 1.8	–	–	–	–	–	–
1.8 –< 2.0	–	–	–	–	–	–

Table 8.A.33 Distribution of IRT a -values Conditional on Ability for ELA Non-PT Items, Grade Seven

IRT a -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	10	10	10	10	10	10
0.2 –< 0.4	115	114	116	119	121	118
0.4 –< 0.6	187	192	193	201	201	198
0.6 –< 0.8	130	130	134	136	136	129
0.8 –< 1.0	31	32	33	34	34	32
1.0 –< 1.2	3	3	3	3	3	3
1.2 –< 1.4	–	–	–	–	–	–
1.4 –< 1.6	–	–	–	–	–	–
1.6 –< 1.8	–	–	–	–	–	–
1.8 –< 2.0	–	–	–	–	–	–

Table 8.A.34 Distribution of IRT a -values Conditional on Ability for ELA Non-PT Items, Grade Eight

IRT a -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	14	15	15	15	15	15
0.2 –< 0.4	110	109	111	112	112	111
0.4 –< 0.6	194	196	199	202	205	202
0.6 –< 0.8	118	117	118	120	120	119
0.8 –< 1.0	32	32	33	33	33	32
1.0 –< 1.2	4	4	4	4	4	4
1.2 –< 1.4	–	–	–	–	–	–
1.4 –< 1.6	–	–	–	–	–	–
1.6 –< 1.8	–	–	–	–	–	–
1.8 –< 2.0	–	–	–	–	–	–

Table 8.A.35 Distribution of IRT a-values Conditional on Ability for ELA Non-PT Items, Grade Eleven

IRT a-value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 < 0.2	46	49	49	49	49	49
0.2 < 0.4	332	374	377	378	379	379
0.4 < 0.6	526	582	583	588	597	597
0.6 < 0.8	236	266	268	274	275	271
0.8 < 1.0	48	57	57	58	58	58
1.0 < 1.2	7	8	8	8	8	8
1.2 < 1.4	–	–	–	–	–	–
1.4 < 1.6	–	–	–	–	–	–
1.6 < 1.8	–	–	–	–	–	–
1.8 < 2.0	–	–	–	–	–	–

Table 8.A.36 Distribution of IRT a-values Conditional on Ability for Mathematics Non-PT Items, Grade Three

IRT a-value	2114–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
0 < 0.2	10	10	10	10	10	10
0.2 < 0.4	49	49	49	49	49	49
0.4 < 0.6	108	109	109	109	109	109
0.6 < 0.8	178	180	180	180	180	180
0.8 < 1.0	206	207	207	207	207	207
1.0 < 1.2	182	182	182	182	182	182
1.2 < 1.4	83	83	83	83	83	83
1.4 < 1.6	8	8	8	8	8	8
1.6 < 1.8	–	–	–	–	–	–
1.8 < 2.0	–	–	–	–	–	–

Table 8.A.37 Distribution of IRT a-values Conditional on Ability for Mathematics Non-PT Items, Grade Four

IRT a-value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
0 < 0.2	3	3	3	3	3
0.2 < 0.4	54	55	55	55	54
0.4 < 0.6	156	156	156	154	154
0.6 < 0.8	217	217	218	214	212
0.8 < 1.0	183	183	184	182	180
1.0 < 1.2	118	119	119	118	117
1.2 < 1.4	67	67	67	67	66
1.4 < 1.6	26	26	26	26	26
1.6 < 1.8	4	4	4	4	4
1.8 < 2.0	–	–	–	–	–

Table 8.A.38 Distribution of IRT A-values Conditional on Ability for Mathematics Non-PT Items, Grade Five

IRT a-value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	8	8	8	8	8	8
0.2 –< 0.4	84	84	84	84	84	84
0.4 –< 0.6	166	168	165	163	162	161
0.6 –< 0.8	219	222	217	204	199	199
0.8 –< 1.0	168	171	169	160	157	155
1.0 –< 1.2	109	109	109	109	108	108
1.2 –< 1.4	71	71	71	70	70	70
1.4 –< 1.6	18	18	18	18	18	18
1.6 –< 1.8	1	1	1	1	1	1
1.8 –< 2.0	–	–	–	–	–	–

Table 8.A.39 Distribution of IRT a-values Conditional on Ability for Mathematics Non-PT Items, Grade Six

IRT a-value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	14	14	14	14	14	14
0.2 –< 0.4	99	99	99	99	99	99
0.4 –< 0.6	169	169	169	169	161	161
0.6 –< 0.8	196	196	196	195	190	190
0.8 –< 1.0	177	177	177	177	174	174
1.0 –< 1.2	85	85	85	85	83	83
1.2 –< 1.4	14	14	14	14	14	14
1.4 –< 1.6	3	3	3	3	3	3
1.6 –< 1.8	–	–	–	–	–	–
1.8 –< 2.0	–	–	–	–	–	–

Table 8.A.40 Distribution of IRT a-values Conditional on Ability for Mathematics Non-PT Items, Grade Seven

IRT a-value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	20	20	20	20	20	20
0.2 –< 0.4	99	99	99	99	99	99
0.4 –< 0.6	117	117	117	117	117	116
0.6 –< 0.8	169	169	169	169	167	164
0.8 –< 1.0	156	156	156	156	155	152
1.0 –< 1.2	99	99	99	99	99	99
1.2 –< 1.4	18	18	18	18	18	18
1.4 –< 1.6	2	2	2	2	2	2
1.6 –< 1.8	–	–	–	–	–	–
1.8 –< 2.0	–	–	–	–	–	–

Table 8.A.41 Distribution of IRT *a*-values Conditional on Ability for Mathematics Non-PT Items, Grade Eight

IRT <i>a</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799	2800–2899
0 < 0.2	26	26	26	26	26	26	26
0.2 < 0.4	124	124	124	124	124	124	124
0.4 < 0.6	170	170	170	170	170	167	167
0.6 < 0.8	150	150	150	150	150	143	143
0.8 < 1.0	109	109	109	109	109	105	104
1.0 < 1.2	39	39	39	39	39	39	39
1.2 < 1.4	7	7	7	7	7	7	7
1.4 < 1.6	–	–	–	–	–	–	–
1.6 < 1.8	–	–	–	–	–	–	–
1.8 < 2.0	–	–	–	–	–	–	–

Table 8.A.42 Distribution of IRT *a*-values Conditional on Ability for Mathematics Non-PT Items, Grade Eleven

IRT <i>a</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799	2800–2899
0 < 0.2	171	172	172	172	172	172	172
0.2 < 0.4	447	451	451	451	451	451	450
0.4 < 0.6	458	459	459	459	459	458	458
0.6 < 0.8	334	337	337	337	337	335	335
0.8 < 1.0	224	226	226	226	226	223	223
1.0 < 1.2	59	59	59	59	59	59	59
1.2 < 1.4	7	7	7	7	7	7	7
1.4 < 1.6	1	1	1	1	1	1	1
1.6 < 1.8	–	–	–	–	–	–	–
1.8 < 2.0	–	–	–	–	–	–	–

Table 8.A.43 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Three

IRT <i>b</i> -value	2114–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–
-3.0 < -2.5	6	6	6	6	5	5
-2.5 < -2.0	26	26	26	26	26	26
-2.0 < -1.5	81	82	82	82	82	80
-1.5 < -1.0	94	94	94	96	93	92
-1.0 < -0.5	80	80	85	86	83	81
-0.5 < 0	82	85	85	88	87	85
0 < 0.5	64	66	69	74	73	73
0.5 < 1.0	51	52	54	57	57	55
1.0 < 1.5	34	34	34	38	38	38
1.5 < 2.0	11	11	12	12	12	12
2.0 < 2.5	4	6	6	6	6	6
2.5 < 3.0	3	3	3	3	3	3
3.0 < 3.5	–	–	–	–	–	–
>= 3.5	–	–	–	–	–	–

Table 8.A.44 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Four

IRT <i>b</i> -value	2114–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	1	1	1	1	1	1
-3.0 < -2.5	2	2	2	2	2	2
-2.5 < -2.0	12	12	13	12	12	12
-2.0 < -1.5	34	35	37	35	34	32
-1.5 < -1.0	70	77	78	78	77	73
-1.0 < -0.5	75	80	83	84	84	81
-0.5 < 0	74	77	77	82	83	76
0 < 0.5	61	67	69	72	74	72
0.5 < 1.0	54	58	58	63	64	62
1.0 < 1.5	31	36	40	47	54	54
1.5 < 2.0	18	25	28	31	39	37
2.0 < 2.5	12	14	14	14	19	19
2.5 < 3.0	8	8	9	10	11	12
3.0 < 3.5	1	1	1	2	3	4
>= 3.5	–	1	1	2	2	3

Table 8.A.45 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Five

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–
-3.0 < -2.5	2	2	2	1	1	1
-2.5 < -2.0	4	4	4	4	4	4
-2.0 < -1.5	13	13	13	13	13	12
-1.5 < -1.0	36	38	38	36	33	32
-1.0 < -0.5	75	77	77	77	75	74
-0.5 < 0	60	60	60	60	60	58
0 < 0.5	74	74	76	77	77	75
0.5 < 1.0	93	93	95	96	96	93
1.0 < 1.5	60	60	64	68	70	69
1.5 < 2.0	37	38	41	45	45	43
2.0 < 2.5	34	34	34	35	34	34
2.5 < 3.0	13	13	13	13	14	14
3.0 < 3.5	4	4	4	4	5	5
>= 3.5	4	4	4	5	5	5

Table 8.A.46 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Six

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–
-3.0 < -2.5	1	1	1	1	1	1
-2.5 < -2.0	–	–	–	–	–	–
-2.0 < -1.5	4	4	4	4	4	4
-1.5 < -1.0	23	23	23	23	23	19
-1.0 < -0.5	49	50	49	49	50	48
-0.5 < 0	59	59	59	59	58	57
0 < 0.5	63	65	66	66	66	65
0.5 < 1.0	66	66	70	74	74	68
1.0 < 1.5	70	70	71	71	71	71
1.5 < 2.0	62	62	64	65	65	65
2.0 < 2.5	42	42	44	44	45	45
2.5 < 3.0	24	25	25	26	27	27
3.0 < 3.5	19	19	19	19	19	19
>= 3.5	24	24	24	24	24	24

Table 8.A.47 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Seven

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–
-3.0 < -2.5	–	–	–	–	–	–
-2.5 < -2.0	–	–	–	–	–	–
-2.0 < -1.5	6	6	6	6	6	6
-1.5 < -1.0	18	18	18	18	17	16
-1.0 < -0.5	23	24	24	24	24	20
-0.5 < 0	65	66	65	66	66	60
0 < 0.5	57	57	57	58	58	58
0.5 < 1.0	64	65	66	66	66	64
1.0 < 1.5	78	78	83	84	82	80
1.5 < 2.0	69	70	74	76	78	78
2.0 < 2.5	38	38	38	43	43	43
2.5 < 3.0	15	15	15	15	15	15
3.0 < 3.5	17	17	17	20	22	22
>= 3.5	26	27	26	27	28	28

Table 8.A.48 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Eight

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	1	1	1	1	1	1
-3.0 < -2.5	–	–	–	–	–	–
-2.5 < -2.0	–	–	–	–	–	–
-2.0 < -1.5	3	3	3	3	3	3
-1.5 < -1.0	8	8	8	8	7	7
-1.0 < -0.5	24	24	24	24	24	23
-0.5 < 0	64	64	64	64	63	63
0 < 0.5	55	55	55	55	55	55
0.5 < 1.0	54	52	54	54	54	52
1.0 < 1.5	59	60	61	64	65	62
1.5 < 2.0	70	69	71	73	75	74
2.0 < 2.5	52	52	53	53	53	53
2.5 < 3.0	36	38	39	40	41	41
3.0 < 3.5	23	23	23	23	23	23
>= 3.5	23	24	24	24	25	26

Table 8.A.49 Distribution of IRT *b*-values Conditional on Ability for ELA Non-PT Items, Grade Eleven

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–
-3.0 < -2.5	–	–	–	–	–	–
-2.5 < -2.0	–	–	–	–	–	–
-2.0 < -1.5	3	3	3	3	3	3
-1.5 < -1.0	11	12	12	12	12	12
-1.0 < -0.5	45	48	48	48	48	48
-0.5 < 0	86	97	97	97	96	96
0 < 0.5	131	142	143	143	144	143
0.5 < 1.0	151	171	172	174	174	171
1.0 < 1.5	147	163	164	165	167	165
1.5 < 2.0	176	199	200	203	204	204
2.0 < 2.5	134	151	151	152	154	155
2.5 < 3.0	109	127	127	129	133	133
3.0 < 3.5	89	93	93	94	95	95
>= 3.5	113	130	132	135	136	137

Table 8.A.50 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Three

IRT <i>b</i> -value	2114–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
< -3.5	–	–	–	–	–	–
-3.5 <- -3.0	9	9	9	9	9	9
-3.0 <- -2.5	34	34	34	34	34	34
-2.5 <- -2.0	67	67	67	67	67	67
-2.0 <- -1.5	150	151	151	151	151	151
-1.5 <- -1.0	116	116	116	116	116	116
-1.0 <- -0.5	128	130	130	130	130	130
-0.5 <- 0	135	135	135	135	135	135
0 <- 0.5	95	96	96	96	96	96
0.5 <- 1.0	59	59	59	59	59	59
1.0 <- 1.5	20	20	20	20	20	20
1.5 <- 2.0	7	7	7	7	7	7
2.0 <- 2.5	2	2	2	2	2	2
2.5 <- 3.0	–	–	–	–	–	–
3.0 <- 3.5	2	2	2	2	2	2
>= 3.5	–	–	–	–	–	–

Table 8.A.51 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Four

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
< -3.5	–	–	–	–	–
-3.5 <- -3.0	3	3	5	3	3
-3.0 <- -2.5	11	12	12	7	4
-2.5 <- -2.0	25	25	25	23	20
-2.0 <- -1.5	45	45	45	45	45
-1.5 <- -1.0	76	76	76	76	76
-1.0 <- -0.5	112	112	112	112	112
-0.5 <- 0	171	172	172	172	171
0 <- 0.5	145	145	145	145	145
0.5 <- 1.0	123	123	123	123	123
1.0 <- 1.5	71	71	71	71	71
1.5 <- 2.0	29	29	29	29	29
2.0 <- 2.5	13	13	13	13	13
2.5 <- 3.0	2	2	2	2	2
3.0 <- 3.5	1	1	1	1	1
>= 3.5	1	1	1	1	1

Table 8.A.52 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Five

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	2	2	2	–	–	–
-3.0 < -2.5	10	13	9	3	2	2
-2.5 < -2.0	18	20	17	7	2	2
-2.0 < -1.5	18	21	18	11	7	7
-1.5 < -1.0	18	18	18	18	18	18
-1.0 < -0.5	65	65	65	65	65	65
-0.5 < 0	103	103	103	103	103	103
0 < 0.5	174	174	174	174	174	172
0.5 < 1.0	145	145	145	145	145	145
1.0 < 1.5	117	117	117	117	117	116
1.5 < 2.0	103	103	103	103	103	103
2.0 < 2.5	42	42	42	42	42	42
2.5 < 3.0	19	19	19	19	19	19
3.0 < 3.5	6	6	6	6	6	6
>= 3.5	4	4	4	4	4	4

Table 8.A.53 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Six

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5	1	1	1	1	1	1
-3.5 < -3.0	1	1	1	–	–	–
-3.0 < -2.5	6	6	6	6	4	4
-2.5 < -2.0	12	12	12	12	2	2
-2.0 < -1.5	20	20	20	20	15	15
-1.5 < -1.0	18	18	18	18	17	17
-1.0 < -0.5	35	35	35	35	35	35
-0.5 < 0	53	53	53	53	53	53
0 < 0.5	90	90	90	90	90	90
0.5 < 1.0	119	119	119	119	119	119
1.0 < 1.5	130	130	130	130	130	130
1.5 < 2.0	110	110	110	110	110	110
2.0 < 2.5	91	91	91	91	91	91
2.5 < 3.0	37	37	37	37	37	37
3.0 < 3.5	17	17	17	17	17	17
>= 3.5	17	17	17	17	17	17

Table 8.A.54 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Seven

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–
-3.0 < -2.5	–	–	–	–	–	–
-2.5 < -2.0	–	–	–	–	–	–
-2.0 < -1.5	8	8	8	8	8	4
-1.5 < -1.0	11	11	11	11	8	7
-1.0 < -0.5	9	9	9	9	9	8
-0.5 < 0	21	21	21	21	21	21
0 < 0.5	39	39	39	39	39	39
0.5 < 1.0	70	70	70	70	70	70
1.0 < 1.5	106	106	106	106	106	106
1.5 < 2.0	132	132	132	132	132	132
2.0 < 2.5	124	124	124	124	124	123
2.5 < 3.0	84	84	84	84	84	84
3.0 < 3.5	31	31	31	31	31	31
>= 3.5	45	45	45	45	45	45

Table 8.A.55 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Eight

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799	2800–2899
< -3.5	–	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–	–
-3.0 < -2.5	–	–	–	–	–	–	–
-2.5 < -2.0	–	–	–	–	–	–	–
-2.0 < -1.5	7	7	7	7	7	2	2
-1.5 < -1.0	10	10	10	10	10	4	3
-1.0 < -0.5	23	23	23	23	23	20	20
-0.5 < 0	21	21	21	21	21	21	21
0 < 0.5	25	25	25	25	25	25	25
0.5 < 1.0	33	33	33	33	33	33	33
1.0 < 1.5	49	49	49	49	49	49	49
1.5 < 2.0	81	81	81	81	81	81	81
2.0 < 2.5	104	104	104	104	104	104	104
2.5 < 3.0	86	86	86	86	86	86	86
3.0 < 3.5	66	66	66	66	66	66	66
>= 3.5	120	120	120	120	120	120	120

Table 8.A.56 Distribution of IRT *b*-values Conditional on Ability for Mathematics Non-PT Items, Grade Eleven

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799	2800–2899
< -3.5	–	–	–	–	–	–	–
-3.5 < -3.0	3	3	3	3	3	3	3
-3.0 < -2.5	–	–	–	–	–	–	–
-2.5 < -2.0	5	5	5	5	5	5	5
-2.0 < -1.5	11	11	11	11	11	10	10
-1.5 < -1.0	21	21	21	21	21	18	18
-1.0 < -0.5	21	21	21	21	21	19	19
-0.5 < 0	31	31	31	31	31	31	31
0 < 0.5	55	55	55	55	55	55	55
0.5 < 1.0	83	83	83	83	83	83	83
1.0 < 1.5	116	116	116	116	116	116	116
1.5 < 2.0	162	163	163	163	163	163	163
2.0 < 2.5	206	207	207	207	207	207	207
2.5 < 3.0	256	259	259	259	259	259	259
3.0 < 3.5	232	232	232	232	232	232	232
>= 3.5	499	505	505	505	505	505	504

Table 8.A.57 Distribution of IRT *a*-values Conditional for PT for ELA, Grade Three

IRT <i>a</i> -value	2100–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
0 < 0.2	–	–	–	–	–	–
0.2 < 0.4	6	6	6	6	6	6
0.4 < 0.6	11	11	11	11	11	11
0.6 < 0.8	26	26	26	26	26	26
0.8 < 1.0	14	14	14	14	14	14
1.0 < 1.2	5	5	5	5	5	5
1.2 < 1.4	–	–	–	–	–	–
1.4 < 1.6	–	–	–	–	–	–
1.6 < 1.8	–	–	–	–	–	–
1.8 < 2.0	–	–	–	–	–	–

Table 8.A.58 Distribution of IRT *a*-values Conditional for PT for ELA, Grade Four

IRT <i>a</i> -value	2100–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
0 < 0.2	–	–	–	–	–	–
0.2 < 0.4	4	4	4	4	4	4
0.4 < 0.6	30	30	30	30	30	30
0.6 < 0.8	32	32	32	32	32	32
0.8 < 1.0	17	17	17	17	17	17
1.0 < 1.2	2	2	2	2	2	2
1.2 < 1.4	–	–	–	–	–	–
1.4 < 1.6	–	–	–	–	–	–
1.6 < 1.8	–	–	–	–	–	–
1.8 < 2.0	–	–	–	–	–	–

Table 8.A.59 Distribution of IRT a-values Conditional for PT for ELA, Grade Five

IRT a-value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	–	–	–	–	–	–
0.2 –< 0.4	3	3	3	3	3	3
0.4 –< 0.6	27	27	27	27	27	27
0.6 –< 0.8	40	40	40	40	40	40
0.8 –< 1.0	18	18	18	18	18	18
1.0 –< 1.2	6	6	6	6	6	6
1.2 –< 1.4	1	1	1	1	1	1
1.4 –< 1.6	–	–	–	–	–	–
1.6 –< 1.8	–	–	–	–	–	–
1.8 –< 2.0	–	–	–	–	–	–

Table 8.A.60 Distribution of IRT a-values Conditional for PT for ELA, Grade Six

IRT a-value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	–	–	–	–	–	–
0.2 –< 0.4	–	–	–	–	–	–
0.4 –< 0.6	6	6	6	6	6	6
0.6 –< 0.8	18	18	18	18	18	18
0.8 –< 1.0	22	22	22	22	22	22
1.0 –< 1.2	11	11	11	11	11	11
1.2 –< 1.4	4	4	4	4	4	4
1.4 –< 1.6	–	–	–	–	–	–
1.6 –< 1.8	–	–	–	–	–	–
1.8 –< 2.0	–	–	–	–	–	–

Table 8.A.61 Distribution of IRT a-values Conditional for PT for ELA, Grade Seven

IRT a-value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	–	–	–	–	–	–
0.2 –< 0.4	6	6	6	6	6	6
0.4 –< 0.6	3	3	3	3	3	3
0.6 –< 0.8	30	30	30	30	30	30
0.8 –< 1.0	29	29	29	29	29	29
1.0 –< 1.2	4	4	4	4	4	4
1.2 –< 1.4	5	5	5	5	5	5
1.4 –< 1.6	1	1	1	1	1	1
1.6 –< 1.8	1	1	1	1	1	1
1.8 –< 2.0	–	–	–	–	–	–

Table 8.A.62 Distribution of IRT a -values Conditional for PT for ELA, Grade Eight

IRT a -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	–	–	–	–	–	–
0.2 –< 0.4	6	6	6	6	6	6
0.4 –< 0.6	13	13	13	13	13	13
0.6 –< 0.8	41	41	41	41	41	41
0.8 –< 1.0	31	31	31	31	31	31
1.0 –< 1.2	3	3	3	3	3	3
1.2 –< 1.4	–	–	–	–	–	–
1.4 –< 1.6	–	–	–	–	–	–
1.6 –< 1.8	–	–	–	–	–	–
1.8 –< 2.0	–	–	–	–	–	–

Table 8.A.63 Distribution of IRT a -values Conditional for PT for ELA, Grade Eleven

IRT a -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	–	–	–	–	–	–
0.2 –< 0.4	4	4	4	4	4	4
0.4 –< 0.6	48	48	48	48	48	48
0.6 –< 0.8	51	51	51	51	51	51
0.8 –< 1.0	2	2	2	2	2	2
1.0 –< 1.2	–	–	–	–	–	–
1.2 –< 1.4	–	–	–	–	–	–
1.4 –< 1.6	–	–	–	–	–	–
1.6 –< 1.8	–	–	–	–	–	–
1.8 –< 2.0	–	–	–	–	–	–

Table 8.A.64 Distribution of IRT a -values Conditional for PT for Mathematics, Grade Three

IRT a -value	2114–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
0 –< 0.2	1	1	1	1	1	1
0.2 –< 0.4	1	1	1	1	1	1
0.4 –< 0.6	9	9	9	9	9	9
0.6 –< 0.8	27	27	27	27	27	27
0.8 –< 1.0	20	20	20	20	20	20
1.0 –< 1.2	30	30	30	30	30	30
1.2 –< 1.4	11	11	11	11	11	11
1.4 –< 1.6	3	3	3	3	3	3
1.6 –< 1.8	–	–	–	–	–	–
1.8 –< 2.0	–	–	–	–	–	–

Table 8.A.65 Distribution of IRT a-values Conditional for PT for Mathematics, Grade Four

IRT a-value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
0 –< 0.2	–	–	–	–	–
0.2 –< 0.4	–	–	–	–	–
0.4 –< 0.6	8	8	8	8	8
0.6 –< 0.8	37	37	37	37	37
0.8 –< 1.0	27	27	27	27	27
1.0 –< 1.2	15	15	15	15	15
1.2 –< 1.4	6	6	6	6	6
1.4 –< 1.6	2	2	2	2	2
1.6 –< 1.8	–	–	–	–	–
1.8 –< 2.0	–	–	–	–	–

Table 8.A.66 Distribution of IRT a-values Conditional for PT for Mathematics, Grade Five

IRT a-value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	–	–	–	–	–	–
0.2 –< 0.4	8	8	8	8	8	8
0.4 –< 0.6	18	18	18	18	18	18
0.6 –< 0.8	24	24	24	24	24	24
0.8 –< 1.0	20	20	20	20	20	20
1.0 –< 1.2	9	9	9	9	9	9
1.2 –< 1.4	6	6	6	6	6	6
1.4 –< 1.6	–	–	–	–	–	–
1.6 –< 1.8	–	–	–	–	–	–
1.8 –< 2.0	–	–	–	–	–	–

Table 8.A.67 Distribution of IRT a-values Conditional for PT for Mathematics, Grade Six

IRT a-value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 –< 0.2	–	–	–	–	–	–
0.2 –< 0.4	2	2	2	2	2	2
0.4 –< 0.6	27	27	27	27	27	27
0.6 –< 0.8	42	42	42	42	42	42
0.8 –< 1.0	21	21	21	21	21	21
1.0 –< 1.2	12	12	12	12	12	12
1.2 –< 1.4	1	1	1	1	1	1
1.4 –< 1.6	–	–	–	–	–	–
1.6 –< 1.8	–	–	–	–	–	–
1.8 –< 2.0	–	–	–	–	–	–

Table 8.A.68 Distribution of IRT a -values Conditional for PT for Mathematics, Grade Seven

IRT a -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
0 < 0.2	3	3	3	3	3	3
0.2 < 0.4	4	4	4	4	4	4
0.4 < 0.6	3	3	3	3	3	3
0.6 < 0.8	23	23	23	23	23	23
0.8 < 1.0	22	22	22	22	22	22
1.0 < 1.2	18	18	18	18	18	18
1.2 < 1.4	10	10	10	10	10	10
1.4 < 1.6	3	3	3	3	3	3
1.6 < 1.8	1	1	1	1	1	1
1.8 < 2.0	–	–	–	–	–	–

Table 8.A.69 Distribution of IRT a -values Conditional for PT for Mathematics, Grade Eight

IRT a -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799	2800–2899
0 < 0.2	–	–	–	–	–	–	–
0.2 < 0.4	–	–	–	–	–	–	–
0.4 < 0.6	17	17	17	17	17	17	17
0.6 < 0.8	26	26	26	26	26	26	26
0.8 < 1.0	22	22	22	22	22	22	22
1.0 < 1.2	17	17	17	17	17	17	17
1.2 < 1.4	4	4	4	4	4	4	4
1.4 < 1.6	–	–	–	–	–	–	–
1.6 < 1.8	–	–	–	–	–	–	–
1.8 < 2.0	–	–	–	–	–	–	–

Table 8.A.70 Distribution of IRT a -values Conditional for PT for Mathematics, Grade Eleven

IRT a -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799	2800–2899
0 < 0.2	–	–	–	–	–	–	–
0.2 < 0.4	12	12	12	12	12	12	12
0.4 < 0.6	22	22	22	22	22	22	22
0.6 < 0.8	28	28	28	28	28	28	28
0.8 < 1.0	12	12	12	12	12	12	12
1.0 < 1.2	6	6	6	6	6	6	6
1.2 < 1.4	7	7	7	7	7	7	7
1.4 < 1.6	2	2	2	2	2	2	2
1.6 < 1.8	–	–	–	–	–	–	–
1.8 < 2.0	–	–	–	–	–	–	–

Table 8.A.71 Distribution of IRT *b*-values Conditional for PT for ELA, Grade Three

IRT <i>b</i> -value	2114–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–
-3.0 < -2.5	–	–	–	–	–	–
-2.5 < -2.0	–	–	–	–	–	–
-2.0 < -1.5	–	–	–	–	–	–
-1.5 < -1.0	4	4	4	4	4	4
-1.0 < -0.5	13	13	13	13	13	13
-0.5 < 0	10	10	10	10	10	10
0 < 0.5	14	14	14	14	14	14
0.5 < 1.0	10	10	10	10	10	10
1.0 < 1.5	5	5	5	5	5	5
1.5 < 2.0	3	3	3	3	3	3
2.0 < 2.5	1	1	1	1	1	1
2.5 < 3.0	1	1	1	1	1	1
3.0 < 3.5	1	1	1	1	1	1
>= 3.5	–	–	–	–	–	–

Table 8.A.72 Distribution of IRT *b*-values Conditional for PT for ELA, Grade Four

IRT <i>b</i> -value	2114–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–
-3.0 < -2.5	–	–	–	–	–	–
-2.5 < -2.0	–	–	–	–	–	–
-2.0 < -1.5	1	1	1	1	1	1
-1.5 < -1.0	1	1	1	1	1	1
-1.0 < -0.5	–	–	–	–	–	–
-0.5 < 0	26	26	26	26	26	26
0 < 0.5	19	19	19	19	19	19
0.5 < 1.0	20	20	20	20	20	20
1.0 < 1.5	8	8	8	8	8	8
1.5 < 2.0	7	7	7	7	7	7
2.0 < 2.5	1	1	1	1	1	1
2.5 < 3.0	2	2	2	2	2	2
3.0 < 3.5	–	–	–	–	–	–
>= 3.5	–	–	–	–	–	–

Table 8.A.73 Distribution of IRT *b*-values Conditional for PT for ELA, Grade Five

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–
-3.0 < -2.5	–	–	–	–	–	–
-2.5 < -2.0	–	–	–	–	–	–
-2.0 < -1.5	–	–	–	–	–	–
-1.5 < -1.0	–	–	–	–	–	–
-1.0 < -0.5	1	1	1	1	1	1
-0.5 < 0	18	18	18	18	18	18
0 < 0.5	28	28	28	28	28	28
0.5 < 1.0	13	13	13	13	13	13
1.0 < 1.5	16	16	16	16	16	16
1.5 < 2.0	11	11	11	11	11	11
2.0 < 2.5	3	3	3	3	3	3
2.5 < 3.0	4	4	4	4	4	4
3.0 < 3.5	1	1	1	1	1	1
>= 3.5	–	–	–	–	–	–

Table 8.A.74 Distribution of IRT *b*-values Conditional for PT for ELA, Grade Six

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–
-3.0 < -2.5	–	–	–	–	–	–
-2.5 < -2.0	–	–	–	–	–	–
-2.0 < -1.5	–	–	–	–	–	–
-1.5 < -1.0	–	–	–	–	–	–
-1.0 < -0.5	–	–	–	–	–	–
-0.5 < 0	13	13	13	13	13	13
0 < 0.5	7	7	7	7	7	7
0.5 < 1.0	14	14	14	14	14	14
1.0 < 1.5	12	12	12	12	12	12
1.5 < 2.0	8	8	8	8	8	8
2.0 < 2.5	4	4	4	4	4	4
2.5 < 3.0	1	1	1	1	1	1
3.0 < 3.5	2	2	2	2	2	2
>= 3.5	–	–	–	–	–	–

Table 8.A.75 Distribution of IRT *b*-values Conditional for PT for ELA, Grade Seven

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–
-3.0 < -2.5	–	–	–	–	–	–
-2.5 < -2.0	–	–	–	–	–	–
-2.0 < -1.5	–	–	–	–	–	–
-1.5 < -1.0	–	–	–	–	–	–
-1.0 < -0.5	–	–	–	–	–	–
-0.5 < 0	5	5	5	5	5	5
0 < 0.5	11	11	11	11	11	11
0.5 < 1.0	21	21	21	21	21	21
1.0 < 1.5	24	24	24	24	24	24
1.5 < 2.0	5	5	5	5	5	5
2.0 < 2.5	7	7	7	7	7	7
2.5 < 3.0	3	3	3	3	3	3
3.0 < 3.5	2	2	2	2	2	2
>= 3.5	1	1	1	1	1	1

Table 8.A.76 Distribution of IRT *b*-values Conditional for PT for ELA, Grade Eight

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–
-3.0 < -2.5	–	–	–	–	–	–
-2.5 < -2.0	–	–	–	–	–	–
-2.0 < -1.5	–	–	–	–	–	–
-1.5 < -1.0	–	–	–	–	–	–
-1.0 < -0.5	–	–	–	–	–	–
-0.5 < 0	17	17	17	17	17	17
0 < 0.5	6	6	6	6	6	6
0.5 < 1.0	9	9	9	9	9	9
1.0 < 1.5	26	26	26	26	26	26
1.5 < 2.0	15	15	15	15	15	15
2.0 < 2.5	11	11	11	11	11	11
2.5 < 3.0	5	5	5	5	5	5
3.0 < 3.5	3	3	3	3	3	3
>= 3.5	2	2	2	2	2	2

Table 8.A.77 Distribution of IRT *b*-values Conditional for PT for ELA, Grade Eleven

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–
-3.0 < -2.5	–	–	–	–	–	–
-2.5 < -2.0	–	–	–	–	–	–
-2.0 < -1.5	–	–	–	–	–	–
-1.5 < -1.0	–	–	–	–	–	–
-1.0 < -0.5	–	–	–	–	–	–
-0.5 < 0	–	–	–	–	–	–
0 < 0.5	–	–	–	–	–	–
0.5 < 1.0	8	8	8	8	8	8
1.0 < 1.5	26	26	26	26	26	26
1.5 < 2.0	42	42	42	42	42	42
2.0 < 2.5	15	15	15	15	15	15
2.5 < 3.0	3	3	3	3	3	3
3.0 < 3.5	3	3	3	3	3	3
>= 3.5	8	8	8	8	8	8

Table 8.A.78 Distribution of IRT *b*-values Conditional for PT for Mathematics, Grade Three

IRT <i>b</i> -value	2114–2199	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–
-3.0 < -2.5	–	–	–	–	–	–
-2.5 < -2.0	–	–	–	–	–	–
-2.0 < -1.5	8	8	8	8	8	8
-1.5 < -1.0	23	23	23	23	23	23
-1.0 < -0.5	23	23	23	23	23	23
-0.5 < 0	23	23	23	23	23	23
0 < 0.5	17	17	17	17	17	17
0.5 < 1.0	7	7	7	7	7	7
1.0 < 1.5	–	–	–	–	–	–
1.5 < 2.0	–	–	–	–	–	–
2.0 < 2.5	1	1	1	1	1	1
2.5 < 3.0	–	–	–	–	–	–
3.0 < 3.5	–	–	–	–	–	–
>= 3.5	–	–	–	–	–	–

Table 8.A.79 Distribution of IRT *b*-values Conditional for PT for Mathematics, Grade Four

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699
< -3.5	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–
-3.0 < -2.5	–	–	–	–	–
-2.5 < -2.0	–	–	–	–	–
-2.0 < -1.5	6	6	6	6	6
-1.5 < -1.0	15	15	15	15	15
-1.0 < -0.5	11	11	11	11	11
-0.5 < 0	8	8	8	8	8
0 < 0.5	28	28	28	28	28
0.5 < 1.0	18	18	18	18	18
1.0 < 1.5	4	4	4	4	4
1.5 < 2.0	3	3	3	3	3
2.0 < 2.5	2	2	2	2	2
2.5 < 3.0	–	–	–	–	–
3.0 < 3.5	–	–	–	–	–
>= 3.5	–	–	–	–	–

Table 8.A.80 Distribution of IRT *b*-values Conditional for PT for Mathematics, Grade Five

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–
-3.0 < -2.5	–	–	–	–	–	–
-2.5 < -2.0	–	–	–	–	–	–
-2.0 < -1.5	–	–	–	–	–	–
-1.5 < -1.0	2	2	2	2	2	2
-1.0 < -0.5	2	2	2	2	2	2
-0.5 < 0	5	5	5	5	5	5
0 < 0.5	7	7	7	7	7	7
0.5 < 1.0	29	29	29	29	29	29
1.0 < 1.5	20	20	20	20	20	20
1.5 < 2.0	10	10	10	10	10	10
2.0 < 2.5	7	7	7	7	7	7
2.5 < 3.0	1	1	1	1	1	1
3.0 < 3.5	–	–	–	–	–	–
>= 3.5	2	2	2	2	2	2

Table 8.A.81 Distribution of IRT b -values Conditional for PT for Mathematics, Grade Six

IRT b -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–
-3.0 < -2.5	–	–	–	–	–	–
-2.5 < -2.0	–	–	–	–	–	–
-2.0 < -1.5	–	–	–	–	–	–
-1.5 < -1.0	–	–	–	–	–	–
-1.0 < -0.5	12	12	12	12	12	12
-0.5 < 0	10	10	10	10	10	10
0 < 0.5	18	18	18	18	18	18
0.5 < 1.0	19	19	19	19	19	19
1.0 < 1.5	18	18	18	18	18	18
1.5 < 2.0	17	17	17	17	17	17
2.0 < 2.5	11	11	11	11	11	11
2.5 < 3.0	–	–	–	–	–	–
3.0 < 3.5	–	–	–	–	–	–
≥ 3.5	–	–	–	–	–	–

Table 8.A.82 Distribution of IRT b -values Conditional for PT for Mathematics, Grade Seven

IRT b -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799
< -3.5	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–
-3.0 < -2.5	–	–	–	–	–	–
-2.5 < -2.0	–	–	–	–	–	–
-2.0 < -1.5	–	–	–	–	–	–
-1.5 < -1.0	–	–	–	–	–	–
-1.0 < -0.5	7	7	7	7	7	7
-0.5 < 0	1	1	1	1	1	1
0 < 0.5	6	6	6	6	6	6
0.5 < 1.0	5	5	5	5	5	5
1.0 < 1.5	22	22	22	22	22	22
1.5 < 2.0	13	13	13	13	13	13
2.0 < 2.5	17	17	17	17	17	17
2.5 < 3.0	11	11	11	11	11	11
3.0 < 3.5	2	2	2	2	2	2
≥ 3.5	3	3	3	3	3	3

Table 8.A.83 Distribution of IRT *b*-values Conditional for PT for Mathematics, Grade Eight

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799	2800–2899
< -3.5	–	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–	–
-3.0 < -2.5	–	–	–	–	–	–	–
-2.5 < -2.0	–	–	–	–	–	–	–
-2.0 < -1.5	–	–	–	–	–	–	–
-1.5 < -1.0	–	–	–	–	–	–	–
-1.0 < -0.5	–	–	–	–	–	–	–
-0.5 < 0	1	1	1	1	1	1	1
0 < 0.5	3	3	3	3	3	3	3
0.5 < 1.0	3	3	3	3	3	3	3
1.0 < 1.5	11	11	11	11	11	11	11
1.5 < 2.0	22	22	22	22	22	22	22
2.0 < 2.5	22	22	22	22	22	22	22
2.5 < 3.0	15	15	15	15	15	15	15
3.0 < 3.5	9	9	9	9	9	9	9
>= 3.5	–	–	–	–	–	–	–

Table 8.A.84 Distribution of IRT *b*-values Conditional for PT for Mathematics, Grade Eleven

IRT <i>b</i> -value	2200–2299	2300–2399	2400–2499	2500–2599	2600–2699	2700–2799	2800–2899
< -3.5	–	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	–	–
-3.0 < -2.5	–	–	–	–	–	–	–
-2.5 < -2.0	–	–	–	–	–	–	–
-2.0 < -1.5	–	–	–	–	–	–	–
-1.5 < -1.0	–	–	–	–	–	–	–
-1.0 < -0.5	–	–	–	–	–	–	–
-0.5 < 0	–	–	–	–	–	–	–
0 < 0.5	1	1	1	1	1	1	1
0.5 < 1.0	1	1	1	1	1	1	1
1.0 < 1.5	14	14	14	14	14	14	14
1.5 < 2.0	13	13	13	13	13	13	13
2.0 < 2.5	13	13	13	13	13	13	13
2.5 < 3.0	16	16	16	16	16	16	16
3.0 < 3.5	20	20	20	20	20	20	20
>= 3.5	11	11	11	11	11	11	11

Table 8.A.85 PT Item Statistics—ELA, Grade Three

Item ID	Score Points	A	B	D
VH295913	3	0.71	-0.36	1.4, -0.01, -1.39
VH295686	2	0.80	-0.65	0.1, -0.1
VH295879	1	0.40	3.03	-
VH295342	2	0.63	0.37	0.72, -0.72
VH295658	2	1.02	0.24	0.42, -0.42
VH295223	3	1.00	-0.07	1.25, 0.03, -1.28
VH295671	3	0.55	0.06	1.54, 0.19, -1.73
VH295562	4	0.60	-0.00	0.39, 1.47, -0.13, -1.73
VH295688	2	0.91	1.18	0.5, -0.5
VH295881	4	0.64	0.03	0.76, 1.07, -0.24, -1.59
VH295345	3	0.67	-0.78	1.95, 0.04, -1.99
VH295660	3	0.86	-0.82	1.76, -0.02, -1.74
VH295420	2	0.67	-1.28	0.47, -0.47
VH295715	2	0.75	-0.62	0.35, -0.35
VH296069	4	0.49	0.62	0.12, 1.42, 0.17, -1.71
VH295225	2	0.90	0.80	0.08, -0.08
VH295674	2	0.55	-0.19	0.13, -0.13
VH295685	4	0.54	0.13	0.74, 1.33, -0.18, -1.89
VH295675	2	0.84	-0.28	-0.12, 0.12
VH295878	2	0.37	0.04	0.75, -0.75
VH295417	1	0.62	1.59	-
VH295996	2	0.57	1.52	-0.85, 0.85
VH295657	2	0.78	0.40	0.41, -0.41
VH295961	2	0.73	0.56	0.1, -0.1
VH296065	2	0.69	0.56	0.22, -0.22
VH295947	2	0.38	-0.57	0.57, -0.57
VH295346	2	0.73	-1.41	0.82, -0.82
VH295952	2	0.60	0.19	-0.28, 0.28
VH295911	2	0.92	0.84	0.35, -0.35
VH295963	3	0.67	0.07	0.76, 0.41, -1.18
VH296066	1	0.86	0.01	-
VH295948	1	0.45	2.95	-
VH295711	2	0.47	-0.73	-0.7, 0.7
VH295995	2	0.98	1.02	0.4, -0.4
VH295687	1	0.30	2.31	-
VH295343	2	0.99	0.66	0.43, -0.43
VH295714	3	0.66	-0.03	1.02, 0.4, -1.42
VH295998	3	0.58	-0.44	1.64, -0.11, -1.53
VH296067	2	0.79	0.28	0.1, -0.1
VH295916	1	0.61	0.04	-
VH295882	2	1.03	-0.66	0.16, -0.16
VH295421	2	0.59	-0.32	-1.34, 1.34
VH296000	1	0.33	-0.39	-
VH295965	1	0.71	1.81	-
VH295224	2	1.09	-0.69	0.45, -0.45
VH295672	2	0.60	-0.72	0.53, -0.53
VH295563	2	0.95	-0.56	0.22, -0.22

Item ID	Score Points	A	B	D
VH295656	1	0.63	1.35	–
VH296070	2	0.76	–0.11	–0.03, 0.03
VH295226	2	0.83	1.47	0.88, –0.88
VH295951	4	0.38	0.85	–0.74, 1.91, 0.08, –1.25
VH295565	2	0.98	0.48	0.63, –0.63
VH295877	2	0.69	0.61	0.42, –0.42
VH295999	2	0.63	–1.10	0.36, –0.36
VH295964	2	0.75	–0.57	–0.1, 0.1
VH295915	2	1.15	0.74	0.17, –0.17
VH295419	3	0.62	–0.66	1.85, –0.16, –1.69
VH295914	2	0.86	–0.93	0.38, –0.38
VH295712	2	0.75	0.77	0.27, –0.27
VH295661	2	0.86	–1.26	0.75, –0.75
VH295966	2	0.60	1.28	–0.25, 0.25
VH295564	2	0.64	0.36	0.91, –0.91

Table 8.A.86 PT Item Statistics—ELA, Grade Four

Item ID	Score Points	A	B	D
VH295494	4	0.61	0.44	2.26, 1.03, -0.8, -2.48
VH295496	2	0.82	0.49	0.21, -0.21
VH295423	2	0.80	0.51	0.62, -0.62
VH295790	2	0.63	1.55	0.27, -0.27
VH295894	2	0.65	-0.44	0.28, -0.28
VH295642	1	0.40	-1.52	–
VH295646	2	0.90	-0.02	0.26, -0.26
VH295780	1	0.44	2.76	–
VH295782	4	0.43	0.34	0.49, 1.24, 0.04, -1.77
VH295784	2	0.48	0.53	-1.15, 1.15
VH295730	2	0.53	0.03	-0.89, 0.89
VH295957	3	0.44	-0.15	1.28, 0.63, -1.9
VH295959	2	0.68	0.83	0.5, -0.5
VH295588	4	0.49	0.10	-0.25, 1.17, -0.04, -0.88
VH295856	2	0.39	0.37	0.73, -0.73
VH295860	2	0.90	-0.19	0.15, -0.15
VH295349	2	0.60	-0.16	0.14, -0.14
VH295350	2	0.77	1.20	0.4, -0.4
VH295352	4	0.52	-0.06	0.63, 1.05, -0.43, -1.25
VH295353	2	0.87	-0.14	0.42, -0.42
VH295458	2	0.42	0.66	-0.66, 0.66
VH295456	2	0.64	0.65	-0.05, 0.05
VH295457	1	0.48	-1.15	–
VH295460	3	0.74	-0.49	0.96, 0.31, -1.28
VH295461	2	0.98	-0.38	0.45, -0.45
VH295863	2	0.93	1.00	0.33, -0.33
VH295867	2	0.91	0.05	0.31, -0.31
VH295630	2	0.66	1.45	-0.5, 0.5
VH295632	3	0.52	-0.09	0.85, 0.7, -1.55
VH295257	2	0.71	1.07	0.56, -0.56
VH295259	4	0.41	0.10	-0.21, 1.51, 0.11, -1.41
VH295261	1	0.32	1.65	–
VH295772	2	1.06	0.78	0.52, -0.52
VH295774	1	0.70	0.50	–
VH295776	4	0.53	-0.10	0.86, 1, -0.54, -1.31
VH295704	2	0.78	0.59	0.21, -0.21
VH295705	2	0.89	0.77	0.27, -0.27
VH295706	1	0.28	2.82	–
VH295708	3	0.65	-0.26	0.74, 0.41, -1.15
VH295709	2	0.90	-0.30	0.4, -0.4
VH295443	2	0.82	1.44	0.32, -0.32
VH295445	4	0.49	0.57	2.09, 1.34, -0.69, -2.74
VH295446	2	0.68	-0.35	0.37, -0.37
VH295492	2	1.03	0.78	0.97, -0.97
VH295495	2	0.87	-0.36	0.43, -0.43
VH295427	4	0.39	0.97	2.1, 1.67, -0.61, -3.16
VH295788	3	0.63	-0.46	0.83, 0.37, -1.2

Item ID	Score Points	A	B	D
VH295791	1	0.41	0.13	–
VH295893	4	0.47	0.61	1.95, 1.55, –0.83, –2.67
VH295896	2	0.80	1.16	0.37, –0.37
VH295520	2	0.48	0.10	0.55, –0.55
VH295524	2	0.85	–0.39	0.27, –0.27
VH295779	2	0.51	0.97	0.68, –0.68
VH295783	2	0.77	–0.04	0.33, –0.33
VH295732	4	0.45	0.59	1.54, 1.38, –0.23, –2.68
VH295734	2	0.68	0.61	0.26, –0.26
VH295590	2	0.72	0.03	–0.15, 0.15
VH295592	1	0.62	2.36	
VH295857	2	0.63	0.77	0.39, –0.39
VH295859	4	0.55	0.16	0.21, 1.19, –0.18, –1.22
VH295861	1	0.52	1.41	–
VH295864	1	0.49	1.54	–
VH295866	4	0.49	0.24	0.45, 1.17, –0.06, –1.56
VH295868	2	0.56	0.15	–0.8, 0.8
VH295629	2	0.42	1.76	0.16, –0.16
VH295633	2	0.77	–0.15	0.39, –0.39
VH295256	2	0.67	1.75	0.45, –0.45
VH295260	2	0.82	–0.08	0.47, –0.47
VH295773	2	0.71	1.99	0.88, –0.88
VH295777	2	0.85	–0.27	0.44, –0.44
VH295425	1	0.47	1.92	–
VH295428	2	0.53	–0.25	–0.04, 0.04
VH295786	2	0.56	0.85	–0.23, 0.23
VH295789	2	0.94	–0.31	0.52, –0.52
VH295895	2	0.67	–0.48	0.23, –0.23
VH295521	2	0.64	0.31	0.12, –0.12
VH295523	4	0.60	0.36	1.49, 1.33, –0.47, –2.34
VH295643	2	0.79	0.54	0.83, –0.83
VH295645	4	0.49	0.20	0.29, 1.19, –0.2, –1.29
VH295647	2	0.75	0.41	0.24, –0.24
VH295733	2	0.67	–0.36	0.01, –0.01
VH295954	2	0.58	0.62	–0.05, 0.05
VH295958	2	0.66	–0.34	0.16, –0.16
VH295589	2	0.85	0.04	0.18, –0.18
VH295591	2	0.65	1.05	0.21, –0.21

Table 8.A.87 PT Item Statistics—ELA, Grade Five

Item ID	Score Points	A	B	D
VH296034	4	0.70	0.37	1.79, 0.95, -0.53, -2.2
VH295808	2	0.79	0.98	0.52, -0.52
VH295812	2	1.14	-0.04	0.9, -0.9
VH296087	2	0.67	1.35	0.29, -0.29
VH296089	1	0.52	2.06	-
VH296091	4	0.62	0.24	0.82, 1.69, -0.35, -2.16
VH295449	2	0.76	1.11	0, 0
VH295451	1	0.36	2.13	-
VH295453	4	0.57	0.05	2.34, 0.75, -0.66, -2.42
VH295969	2	0.48	1.18	-0.14, 0.14
VH295973	2	0.91	-0.22	0.85, -0.85
VH295213	1	0.65	0.21	-
VH295216	4	0.54	0.30	0.63, 1.85, -0.21, -2.27
VH295919	2	0.71	0.99	0.72, -0.72
VH295921	4	0.57	0.29	0.49, 1.43, -0.06, -1.86
VH295924	1	0.40	-0.66	-
VH295403	2	0.89	1.14	-0.12, 0.12
VH295405	1	0.76	1.87	-
VH295407	4	0.59	-0.10	2.19, 0.67, -0.72, -2.14
VH296083	2	0.80	-0.34	1.13, -1.13
VH296085	1	0.73	2.94	-
VH296075	2	0.91	-0.28	0.91, -0.91
VH296077	2	0.94	0.95	0.29, -0.29
VH295479	2	0.75	1.53	0.81, -0.81
VH295481	4	0.54	0.04	0.55, 1.37, -0.22, -1.7
VH295738	2	0.83	1.07	0.76, -0.76
VH295742	2	1.25	0.07	0.79, -0.79
VH295235	1	0.59	1.58	-
VH295237	2	0.66	1.33	-0.1, 0.1
VH295239	4	0.73	0.14	1.42, 0.84, -0.44, -1.82
VH295901	4	0.41	1.00	-0.73, 2.33, 0.26, -1.86
VH295903	1	0.63	1.66	-
VH296044	2	0.72	0.74	0.55, -0.55
VH296048	4	0.56	-0.04	0.04, 1.56, -0.11, -1.49
VH295541	2	0.87	0.82	0.47, -0.47
VH296030	2	0.61	1.87	0.36, -0.36
VH296032	2	0.78	0.87	0.48, -0.48
VH296035	2	1.08	0.03	0.64, -0.64
VH295837	2	1.12	0.03	0.77, -0.77
VH295839	2	0.57	1.22	0.41, -0.41
VH296088	2	0.68	0.44	-0.03, 0.03
VH296092	2	0.96	-0.12	0.68, -0.68
VH295970	1	0.63	2.05	-
VH295972	4	0.59	0.21	2.39, 0.67, -0.69, -2.37
VH295217	2	1.03	0.05	0.63, -0.63
VH295219	2	0.61	1.16	0.64, -0.64
VH295228	2	0.38	0.31	0.89, -0.89

Item ID	Score Points	A	B	D
VH295232	2	0.81	-0.29	0.95, -0.95
VH295408	2	0.77	-0.43	1.02, -1.02
VH296080	2	0.50	-0.34	0.3, -0.3
VH296082	4	0.58	0.11	2.42, 0.83, -0.7, -2.55
VH296084	2	0.59	0.97	0.86, -0.86
VH296073	4	0.66	0.14	2.09, 0.72, -0.44, -2.38
VH296076	2	0.71	0.77	-0.12, 0.12
VH295430	2	0.67	-0.00	0.59, -0.59
VH295432	4	0.66	0.09	1.89, 0.89, -0.62, -2.16
VH295434	1	0.62	3.11	-
VH295478	1	0.48	1.42	-
VH295482	2	1.06	-0.04	0.74, -0.74
VH295739	2	0.81	1.52	0.82, -0.82
VH295741	4	0.74	0.21	0.75, 1.3, -0.32, -1.72
VH295236	2	0.86	1.59	0.13, -0.13
VH295240	2	1.00	0.07	0.7, -0.7
VH295898	2	0.47	1.14	1.15, -1.15
VH295902	2	0.75	0.40	0.09, -0.09
VH296045	2	0.63	1.18	0.12, -0.12
VH295545	2	0.87	-0.22	0.94, -0.94
VH295795	2	0.91	-0.22	0.75, -0.75
VH295797	2	0.44	1.51	-1.46, 1.46
VH296031	1	0.40	1.92	-
VH295836	4	0.61	0.28	0.58, 1.49, -0.27, -1.8
VH295838	1	0.50	0.45	-
VH295840	2	0.53	0.88	0.07, -0.07
VH295807	2	0.75	0.38	0.5, -0.5
VH295809	1	0.59	2.90	-
VH295811	4	0.64	0.24	1.07, 1.2, -0.1, -2.17
VH295450	2	0.79	0.76	0.37, -0.37
VH295454	2	0.82	-0.42	1.06, -1.06
VH295968	2	0.87	0.90	0.45, -0.45
VH295218	2	0.51	1.51	0.43, -0.43
VH295229	2	0.58	1.57	0.89, -0.89
VH295231	4	0.65	0.07	1.86, 0.83, -0.65, -2.03
VH295233	1	0.79	2.83	-
VH295918	2	0.65	1.06	0.08, -0.08
VH295922	2	1.07	-0.04	0.71, -0.71
VH295404	2	0.80	0.88	0.29, -0.29
VH295433	2	0.98	-0.40	0.89, -0.89
VH295435	2	0.75	0.77	0.59, -0.59
VH295477	2	0.71	1.19	-0.16, 0.16
VH296049	2	0.98	-0.07	0.52, -0.52
VH295540	1	0.57	2.75	-
VH295544	4	0.56	0.24	2.05, 0.8, -0.55, -2.3
VH295794	4	0.64	0.29	2.21, 0.77, -0.4, -2.58
VH295796	1	0.60	1.40	-
VH295798	2	0.63	1.01	0.46, -0.46

Table 8.A.88 PT Item Statistics—ELA, Grade Six

Item ID	Score Points	A	B	D
VH295682	2	1.14	-0.14	0.25, -0.25
VH295582	1	1.05	1.71	-
VH295695	2	0.88	-0.05	0.32, -0.32
VH295821	2	0.78	1.10	0.34, -0.34
VH295753	1	0.67	3.07	-
VH295440	4	0.69	0.37	0.95, 0.97, -0.35, -1.57
VH295318	2	1.30	-0.06	0.35, -0.35
VH295678	2	0.86	2.03	0.19, -0.19
VH295871	2	0.91	1.75	-0.33, 0.33
VH295874	4	0.69	0.60	0.13, 1.24, -0.19, -1.17
VH295934	2	0.85	0.57	0.21, -0.21
VH296039	2	0.94	1.57	0.49, -0.49
VH295826	2	0.95	-0.44	0.38, -0.38
VH295938	2	1.09	-0.00	0.29, -0.29
VH296037	2	1.22	1.22	0.32, -0.32
VH295555	2	0.76	1.23	0.48, -0.48
VH295559	2	1.03	0.12	0.26, -0.26
VH295664	4	0.74	0.42	0.5, 1.14, -0.19, -1.45
VH296009	1	0.92	1.66	-
VH295580	2	0.75	1.19	0.28, -0.28
VH295585	2	1.01	-0.03	0.22, -0.22
VH295437	2	0.73	1.49	-0.02, 0.02
VH295317	4	1.05	0.66	1.94, 0.74, -0.71, -1.97
VH295677	2	0.87	1.63	0.73, -0.73
VH295314	2	0.60	1.69	-0.51, 0.51
VH295933	1	0.64	-0.11	-
VH295690	2	0.68	1.88	0.66, -0.66
VH295556	1	0.85	3.09	-
VH295985	4	0.94	0.53	2.16, 1.1, -0.9, -2.37
VH296042	2	1.35	-0.06	0.32, -0.32
VH295441	2	1.11	-0.03	0.32, -0.32
VH295558	4	0.58	0.39	0.31, 1.34, -0.17, -1.48
VH295315	2	0.96	1.62	0.3, -0.3
VH295822	2	0.76	2.28	-1.04, 1.04
VH295666	2	0.72	1.04	0.73, -0.73
VH295692	1	0.89	2.31	-
VH295825	4	0.77	0.58	2.19, 1.31, -0.76, -2.74
VH295752	2	0.89	1.32	0.44, -0.44
VH295755	4	0.79	0.46	2.02, 0.63, -0.84, -1.8
VH295665	2	1.34	-0.09	0.21, -0.21
VH296013	4	0.93	0.77	1.61, 0.79, -0.71, -1.69
VH295581	2	0.51	2.10	-0.89, 0.89
VH295691	2	0.90	1.48	0.68, -0.68
VH295438	2	0.45	2.77	-0.28, 0.28
VH295667	2	0.54	1.36	0.5, -0.5
VH295983	2	0.67	0.61	0.52, -0.52
VH295986	2	1.07	-0.30	0.41, -0.41

Item ID	Score Points	A	B	D
VH295681	4	0.83	0.67	1.3, 1.07, -0.57, -1.81
VH295751	2	0.48	0.85	-0.19, 0.19
VH296011	2	0.88	1.23	0.4, -0.4
VH295584	4	0.88	0.74	1.51, 1.04, -0.69, -1.86
VH295756	2	0.91	-0.21	0.3, -0.3
VH295935	2	0.75	1.11	0.37, -0.37
VH295937	4	0.96	0.65	1.59, 0.67, -0.64, -1.62
VH296041	3	1.03	0.08	1.24, 0.21, -1.45
VH295872	2	0.74	0.79	0.32, -0.32
VH295875	2	1.10	0.13	-0.08, 0.08
VH295982	2	0.90	0.88	0.37, -0.37
VH296010	2	0.85	1.40	0.29, -0.29
VH296014	2	1.15	-0.04	0.31, -0.31
VH295694	4	0.63	0.72	1.91, 0.76, -0.74, -1.93

Table 8.A.89 PT Item Statistics—ELA, Grade Seven

Item ID	Score Points	A	B	D
VH295267	3	0.73	0.51	1.74, -0.04, -1.7
VH295397	2	0.74	1.42	0.58, -0.58
VH295762	4	0.66	1.08	0.75, 0.72, 0, -1.47
VH295613	2	0.76	1.10	0.66, -0.66
VH295909	2	0.72	1.08	0.17, -0.17
VH295506	2	0.67	1.80	0.77, -0.77
VH295374	2	1.20	0.59	0.37, -0.37
VH295758	2	0.87	1.30	0.2, -0.2
VH296119	2	0.87	-0.06	0.56, -0.56
VH295268	2	0.87	-0.03	0.64, -0.64
VH295322	4	1.14	1.22	2.17, 0.59, -0.6, -2.16
VH295400	2	1.65	0.52	0.41, -0.41
VH295763	2	1.02	0.52	0.14, -0.14
VH295414	2	0.61	1.97	0.46, -0.46
VH295578	2	0.98	0.42	0.48, -0.48
VH296118	3	0.68	0.55	1.66, 0.14, -1.8
VH295905	1	0.29	2.05	-
VH295335	3	1.25	0.63	1.33, -0.05, -1.28
VH295264	2	0.72	1.29	0.02, -0.02
VH295306	2	0.89	1.22	0.34, -0.34
VH295311	2	0.96	-0.05	0.42, -0.42
VH295526	2	0.71	1.72	-0.34, 0.34
VH295530	2	0.90	0.58	0.26, -0.26
VH295907	3	0.71	0.84	1.51, -0.1, -1.41
VH296102	2	1.00	1.40	0.35, -0.35
VH295336	2	1.50	0.34	0.54, -0.54
VH295310	3	0.82	0.49	1.35, 0.15, -1.5
VH295527	2	0.31	3.20	-0.1, 0.1
VH295718	2	0.40	2.59	0.43, -0.43
VH295720	3	0.94	0.63	1.53, -0.11, -1.42
VH295270	2	0.78	1.50	0.22, -0.22
VH295759	2	0.76	1.28	0.18, -0.18
VH295574	2	0.72	1.15	-0.05, 0.05
VH295577	4	0.66	0.78	1.47, 0.65, -0.32, -1.79
VH295401	2	0.81	1.28	0.29, -0.29
VH295639	2	0.97	1.22	0.44, -0.44
VH295575	2	0.36	2.52	0.39, -0.39
VH295611	4	0.61	0.89	1.58, 1.04, -0.36, -2.26
VH296115	2	0.63	1.29	0.2, -0.2
VH295337	1	0.27	4.54	-
VH295339	2	0.81	0.96	0.43, -0.43
VH295371	2	0.75	2.38	0.92, -0.92
VH295325	2	0.91	1.43	0.39, -0.39
VH295612	2	0.95	0.17	0.38, -0.38
VH295411	4	0.88	1.24	2.21, 0.7, -0.68, -2.23
VH295415	2	0.66	2.11	0.47, -0.47
VH295274	2	0.65	1.43	-0.3, 0.3

Item ID	Score Points	A	B	D
VH295338	2	0.67	2.25	-0.16, 0.16
VH295305	2	0.87	0.98	0.21, -0.21
VH295307	1	0.96	2.95	-
VH295529	4	0.66	1.27	1.47, 0.62, -0.37, -1.72
VH295373	3	0.99	1.00	0.97, 0.02, -0.99
VH295638	2	0.88	-0.00	0.4, -0.4
VH296106	2	1.24	0.27	0.56, -0.56
VH295505	2	0.54	1.19	0, 0
VH295941	2	0.92	1.41	0.36, -0.36
VH295399	3	1.28	0.93	1.03, 0.02, -1.05
VH295637	3	0.70	0.56	1.31, 0.22, -1.53
VH295908	2	0.92	0.37	0.58, -0.58
VH295510	2	0.97	0.12	0.48, -0.48
VH295940	2	0.67	1.45	0.19, -0.19
VH295944	3	0.83	0.76	1.68, -0.07, -1.61
VH295370	2	0.57	2.23	0.33, -0.33
VH295323	2	1.33	0.16	0.59, -0.59
VH295272	4	0.67	1.25	2.31, 0.66, -0.83, -2.15
VH295509	3	0.80	0.73	1.48, 0.29, -1.76
VH295263	2	0.82	0.82	0.24, -0.24
VH295717	2	0.75	2.05	0.27, -0.27
VH295608	2	0.78	1.57	0.41, -0.41
VH296101	2	0.37	3.24	-0.61, 0.61
VH295324	2	0.79	1.28	0.67, -0.67
VH295721	2	0.99	0.15	0.52, -0.52
VH295412	2	1.00	-0.13	0.3, -0.3
VH295635	2	0.66	2.02	0.17, -0.17
VH295609	1	0.59	0.54	-
VH295273	2	0.83	0.05	0.49, -0.49
VH296116	2	0.61	1.70	0.42, -0.42
VH296105	3	1.00	0.59	1.27, 0.04, -1.31
VH295945	2	0.82	0.17	0.55, -0.55

Table 8.A.90 PT Item Statistics—ELA, Grade Eight

Item ID	Score Points	A	B	D
VH295622	2	0.79	2.39	0.35, -0.35
VH295842	1	0.74	2.81	–
VH295570	2	0.69	-0.12	0.1, -0.1
VH295388	2	1.01	-0.05	0.4, -0.4
VH295828	2	0.91	1.00	0.32, -0.32
VH295331	4	0.80	1.01	1.95, 0.83, -0.94, -1.84
VH295770	2	0.70	-0.49	0.42, -0.42
VH296099	2	0.99	-0.08	0.22, -0.22
VH295626	2	0.93	-0.27	0.45, -0.45
VH295484	2	0.80	2.41	-0.2, 0.2
VH295598	2	0.82	0.62	-0.28, 0.28
VH296098	4	0.68	0.61	1.29, 0.66, -0.55, -1.4
VH296019	2	0.88	-0.34	0.4, -0.4
VH296021	2	0.53	1.44	0.07, -0.07
VH295844	2	0.63	1.93	-0.22, 0.22
VH295846	4	0.91	1.06	2.31, 0.96, -1, -2.27
VH295569	3	0.70	0.61	1.57, 0.36, -1.93
VH295329	1	0.33	2.54	–
VH295766	2	0.32	3.32	-2.91, 2.91
VH295602	2	0.64	1.81	0.8, -0.8
VH295623	2	0.76	2.37	0.8, -0.8
VH295383	2	0.48	1.85	-0.26, 0.26
VH295387	4	0.93	0.96	1.94, 0.77, -0.9, -1.81
VH295327	2	0.84	1.80	0.77, -0.77
VH295463	2	0.89	1.53	0.19, -0.19
VH295769	4	0.70	0.78	2.19, 1.06, -1.12, -2.13
VH295298	2	0.45	1.59	1.28, -1.28
VH295302	4	0.57	1.03	-0.11, 1.27, -0.1, -1.06
VH295296	2	0.78	-0.16	0.37, -0.37
VH296063	2	0.62	1.55	0.26, -0.26
VH295843	2	0.82	1.54	0.04, -0.04
VH295980	2	0.77	-0.26	0.3, -0.3
VH295489	2	0.72	2.17	0.69, -0.69
VH295594	1	0.57	2.37	–
VH295833	2	1.05	-0.14	0.47, -0.47
VH295328	2	0.94	2.18	0.51, -0.51
VH295515	2	0.71	-0.30	0.59, -0.59
VH296058	1	0.65	2.96	–
VH295356	2	0.68	1.49	-0.01, 0.01
VH295332	2	0.86	-0.06	0.31, -0.31
VH295291	2	0.61	1.28	0.33, -0.33
VH295625	4	0.87	1.01	2.21, 0.81, -0.68, -2.34
VH295277	2	0.69	1.30	0.22, -0.22
VH295282	1	0.43	3.64	–
VH295765	2	0.88	1.36	0.46, -0.46
VH296028	2	0.83	1.10	0.17, -0.17
VH295597	4	0.57	1.06	-0.21, 1.02, 0.05, -0.85

Item ID	Score Points	A	B	D
VH295599	2	0.61	1.41	0.45, -0.45
VH295516	1	0.38	0.25	-
VH295299	2	0.60	2.00	0.23, -0.23
VH295303	2	0.90	0.44	-0.29, 0.29
VH296023	2	0.74	1.32	0.46, -0.46
VH296027	2	0.72	-0.09	0.29, -0.29
VH295606	2	1.05	-0.08	0.45, -0.45
VH295977	2	0.62	1.77	0.35, -0.35
VH295485	1	0.22	1.46	-
VH295487	4	0.75	0.96	2.39, 1.07, -1.02, -2.43
VH295355	2	0.72	2.04	0.64, -0.64
VH295359	2	0.82	-0.11	0.42, -0.42
VH295280	4	0.87	1.08	1.95, 0.99, -0.81, -2.13
VH295464	2	0.92	1.15	0.14, -0.14
VH295466	3	0.86	0.53	1.42, 0.24, -1.66
VH296094	2	0.40	1.97	0.14, -0.14
VH295517	2	0.68	2.17	1.05, -1.05
VH295293	1	0.50	3.18	-
VH296060	4	0.59	0.78	1.74, 0.56, -0.59, -1.71
VH295605	4	0.98	0.77	1.9, 0.74, -0.83, -1.81
VH295847	2	0.85	-0.16	0.51, -0.51
VH295975	2	0.84	2.14	0.78, -0.78
VH295358	4	0.82	1.09	2.63, 0.8, -1.27, -2.16
VH295360	1	0.49	2.35	-
VH295829	2	0.83	1.49	0.39, -0.39
VH295278	2	0.37	2.80	-0.72, 0.72
VH295488	2	0.86	-0.23	0.5, -0.5
VH295832	4	0.96	1.10	2.24, 1.04, -0.75, -2.54
VH295467	2	0.79	0.00	0.33, -0.33
VH296095	2	0.78	1.35	0.11, -0.11
VH295512	2	0.61	1.79	0.56, -0.56
VH295514	3	0.64	0.39	1.77, 0.32, -2.09
VH296016	2	0.53	2.31	0.89, -0.89
VH295295	4	0.74	1.15	2.11, 1.06, -0.83, -2.33
VH296062	2	0.62	1.73	0.57, -0.57
VH296026	4	0.85	1.28	2.5, 0.83, -1.17, -2.16
VH295601	2	0.85	1.44	0.41, -0.41
VH295603	1	0.64	3.61	-
VH295976	1	0.51	3.42	-
VH295979	3	0.70	0.42	1.42, 0.42, -1.83
VH295595	2	0.51	2.62	0.07, -0.07
VH295567	2	0.70	1.89	0.65, -0.65
VH295571	2	0.70	1.49	0.33, -0.33
VH295384	2	0.79	1.85	0.33, -0.33
VH295281	2	0.99	-0.01	0.3, -0.3
VH296018	4	0.74	1.04	2.41, 1.23, -0.79, -2.85
VH296061	2	0.73	0.07	0.27, -0.27

Table 8.A.91 PT Item Statistics—ELA, Grade Eleven

Item ID	Score Points	A	B	D
VH295850	2	0.58	1.95	0.54, -0.54
VH296006	2	0.57	1.15	0.04, -0.04
VH295285	2	0.71	2.43	0.47, -0.47
VH295725	2	0.51	3.62	-0.55, 0.55
VH296054	4	0.64	1.53	2.05, 0.83, -0.87, -2.01
VH295887	2	0.68	2.15	1.09, -1.09
VH295854	2	0.69	1.06	0.25, -0.25
VH295499	2	0.57	1.95	0.1, -0.1
VH295470	2	0.62	1.10	0.37, -0.37
VH295547	2	0.46	2.71	0.69, -0.69
VH296002	2	0.53	1.38	-0.15, 0.15
VH296109	2	0.64	1.57	0.66, -0.66
VH295928	4	0.52	1.67	2.9, 0.89, -0.84, -2.95
VH295615	2	0.64	2.12	0.27, -0.27
VH296052	2	0.64	2.01	0.21, -0.21
VH295853	4	0.61	1.70	2.67, 0.91, -0.85, -2.73
VH295471	2	0.71	1.48	0.36, -0.36
VH295242	2	0.69	1.77	0.29, -0.29
VH295534	4	0.53	1.53	2.74, 0.92, -0.83, -2.83
VH295800	2	0.45	2.70	0.79, -0.79
VH295926	1	0.41	1.70	-
VH295931	2	0.66	2.16	0.17, -0.17
VH295723	1	0.59	1.98	-
VH295728	2	0.62	1.09	0.13, -0.13
VH295253	4	0.44	1.73	2.61, 1.03, -0.85, -2.78
VH295243	2	0.87	1.51	0.68, -0.68
VH295989	2	0.73	1.69	0.47, -0.47
VH295649	2	0.57	1.71	0.03, -0.03
VH295724	2	0.46	2.27	-0.03, 0.03
VH295251	1	0.34	0.69	-
VH295535	2	0.58	0.91	0.09, -0.09
VH295819	2	0.67	1.91	0.4, -0.4
VH295287	4	0.55	1.81	2.16, 1, -0.98, -2.17
VH295653	4	0.50	1.76	2.51, 0.67, -1.05, -2.13
VH296055	2	0.70	0.84	0.25, -0.25
VH295888	2	0.59	2.05	0.23, -0.23
VH295250	2	0.54	1.83	0.18, -0.18
VH295378	2	0.71	2.01	0.67, -0.67
VH295247	2	0.75	1.02	0.26, -0.26
VH295538	2	0.60	1.25	-0.4, 0.4
VH295367	2	0.64	1.22	0.38, -0.38
VH295552	2	0.50	1.20	-0.25, 0.25
VH296108	1	0.63	4.31	-
VH296113	2	0.55	0.90	0.01, -0.01
VH295618	4	0.56	1.72	2.2, 0.84, -0.99, -2.04
VH295381	2	0.58	0.83	0.04, -0.04
VH295503	2	0.60	1.30	-0.12, 0.12

Item ID	Score Points	A	B	D
VH295362	2	0.54	3.10	0.44, -0.44
VH295548	2	0.26	3.29	-1.71, 1.71
VH295988	2	0.63	1.97	0.63, -0.63
VH295698	2	0.49	3.23	0.33, -0.33
VH295284	2	0.63	0.74	0.27, -0.27
VH295650	2	0.62	1.22	0.19, -0.19
VH295851	2	0.71	1.61	1.19, -1.19
VH295249	2	0.45	1.88	0.42, -0.42
VH295475	2	0.63	1.08	0.03, -0.03
VH295366	4	0.49	1.90	2.49, 0.74, -0.62, -2.61
VH295551	4	0.43	1.94	2.81, 0.71, -1.1, -2.41
VH295814	2	0.75	2.07	0.63, -0.63
VH295744	2	0.73	1.82	0.28, -0.28
VH295749	2	0.71	1.14	0.21, -0.21
VH295727	4	0.53	2.01	2.46, 1.06, -0.72, -2.8
VH296056	2	0.70	1.54	-0.03, 0.03
VH295380	4	0.51	1.31	2.6, 1.03, -0.91, -2.72
VH295474	4	0.51	1.84	2.35, 1.17, -0.79, -2.72
VH295804	4	0.62	1.55	2.5, 0.64, -0.85, -2.29
VH296007	1	0.42	3.65	-
VH295701	4	0.51	1.72	2.34, 1.09, -0.57, -2.86
VH295745	2	0.71	2.18	0.2, -0.2
VH295390	2	0.62	1.66	0.03, -0.03
VH295363	2	0.39	2.91	0.45, -0.45
VH296003	2	0.63	1.38	0.45, -0.45
VH295376	1	0.48	4.02	-
VH295498	2	0.38	4.05	-0.12, 0.12
VH296005	4	0.48	1.73	2.52, 0.71, -0.96, -2.28
VH295992	2	0.63	1.07	0.09, -0.09
VH295849	1	0.60	4.03	-
VH295393	2	0.56	1.09	-0.01, 0.01
VH295805	2	0.75	1.10	0.56, -0.56
VH296112	4	0.50	1.63	2.67, 1.09, -1.1, -2.66
VH295993	1	0.57	4.43	-
VH295702	2	0.66	1.01	0.01, -0.01
VH295620	2	0.41	1.40	0.04, -0.04
VH295748	4	0.56	1.67	2.05, 0.61, -0.83, -1.84
VH295654	2	0.63	1.47	0.23, -0.23
VH295886	2	0.69	1.07	0.12, -0.12
VH295377	2	0.66	1.79	0.46, -0.46
VH295392	4	0.51	1.83	2.68, 0.93, -0.7, -2.91
VH295502	4	0.55	2.17	2.3, 0.71, -0.75, -2.25
VH295246	4	0.59	1.50	2.42, 0.67, -1, -2.09
VH295537	2	0.61	2.32	0.91, -0.91
VH295801	1	0.61	4.04	-
VH296110	2	0.74	1.99	0.12, -0.12
VH295991	4	0.58	1.73	2.48, 0.81, -0.82, -2.47
VH295929	2	0.59	0.83	0.16, -0.16

Item ID	Score Points	A	B	D
VH295817	4	0.63	1.64	2.1, 0.6, -0.86, -1.84
VH295288	2	0.80	1.26	0.41, -0.41
VH295885	4	0.56	1.54	2.02, 1.04, -0.81, -2.25
VH295254	2	0.52	0.95	-0.21, 0.21
VH295395	2	0.78	2.31	0.44, -0.44
VH295802	2	0.71	1.92	0.62, -0.62
VH295697	2	0.64	1.50	0.31, -0.31
VH295930	2	0.67	2.19	0.43, -0.43
VH295619	2	0.61	1.13	0.09, -0.09
VH295818	2	0.65	1.08	0.23, -0.23

Table 8.A.92 PT Item Statistics—Mathematics, Grade Three

Item ID	Score Points	A	B	D
VH300139	1	1.29	0.11	–
VH300140	2	0.84	0.70	0.16, –0.16
VH300476	1	1.12	–1.23	–
VH300477	1	1.13	–1.14	–
VH300478	2	0.76	–0.72	0.07, –0.07
VH300480	2	0.73	–0.71	–1.13, 1.13
VH300482	1	1.40	0.05	–
VH300485	2	1.04	0.67	0.33, –0.33
VH299779	1	1.14	–1.07	–
VH299780	1	0.91	–0.13	–
VH299781	2	0.86	0.19	0.57, –0.57
VH299782	2	0.71	–0.34	–0.35, 0.35
VH299783	2	1.07	–0.59	–0.34, 0.34
VH299784	2	1.30	0.22	0.51, –0.51
VH299624	1	1.06	–1.03	–
VH299631	1	0.88	–0.20	–
VH299632	2	0.67	0.17	0.83, –0.83
VH299637	2	0.59	–0.18	–0.34, 0.34
VH299646	2	0.94	–0.61	–0.5, 0.5
VH299647	2	1.10	0.27	0.47, –0.47
VH299557	1	1.08	–1.07	–
VH299558	1	1.44	–0.68	–
VH299559	1	1.44	–0.50	–
VH299560	2	0.57	–0.30	–1.51, 1.51
VH299561	2	0.84	0.82	–0.63, 0.63
VH299565	1	0.26	2.20	–
VH299376	1	1.42	–1.74	–
VH299377	1	1.30	–1.38	–
VH299378	2	0.89	–0.30	–0.44, 0.44
VH299379	3	0.64	–1.55	–0.22, 0.68, –0.46
VH299380	1	1.28	–1.08	–
VH299381	2	0.93	0.09	0.1, –0.1
VH299090	1	0.93	–1.20	–
VH299092	1	1.35	–1.23	–
VH299093	2	0.71	–0.49	–0.02, 0.02
VH299291	1	1.04	–1.41	–
VH299294	2	0.60	–1.53	0.42, –0.42
VH299297	2	0.61	–0.57	–0.62, 0.62
VH300263	1	0.75	0.52	–
VH300265	1	0.63	0.23	–
VH300358	1	0.98	–1.22	–
VH300362	3	0.59	–1.55	–0.17, 0.69, –0.52
VH300365	2	0.97	0.01	0.26, –0.26
VH299534	1	1.01	–1.09	–
VH299544	1	1.13	–0.81	–
VH299549	1	1.35	–0.12	–
VH299171	1	0.86	–1.27	–

Item ID	Score Points	A	B	D
VH299173	2	0.70	-0.80	0.02, -0.02
VH300059	1	1.22	-0.58	-
VH300062	1	0.67	-0.37	-
VH300064	2	1.07	0.03	-0.08, 0.08
VH299060	1	0.90	-1.05	-
VH299345	1	0.61	-1.77	-
VH299350	1	1.13	-0.81	-
VH299360	1	0.13	0.29	-
VH299415	1	1.12	-0.56	-
VH299417	2	0.72	-0.52	0.26, -0.26
VH299420	2	0.84	-0.49	-0.17, 0.17
VH299997	1	0.76	-0.71	-
VH299999	3	0.54	-1.44	-0.39, 0.74, -0.35
VH300001	1	1.15	-0.16	-
VH299466	1	1.09	-0.49	-
VH299468	2	0.78	-0.44	0.2, -0.2
VH299470	2	0.78	-0.46	-0.31, 0.31
VH300135	1	1.09	-1.20	-
VH300137	2	0.91	-0.81	0.13, -0.13
VH299094	2	0.72	-0.75	-1.25, 1.25
VH299097	2	1.02	0.69	0.02, -0.02
VH299292	1	1.07	-0.74	-
VH299295	1	0.68	-0.38	-
VH299298	2	1.18	0.01	0.02, -0.02
VH300262	1	0.91	-1.04	-
VH300264	1	1.11	-0.50	-
VH300267	1	1.22	0.06	-
VH300355	1	1.19	-1.26	-
VH300360	2	0.82	-0.45	-0.34, 0.34
VH300364	1	1.13	-1.03	-
VH299538	1	0.86	0.23	-
VH299548	2	0.61	0.10	-0.19, 0.19
VH299172	1	1.24	-1.49	-
VH299174	2	0.70	-0.75	-1.25, 1.25
VH299176	2	1.06	0.57	0, 0
VH300058	1	1.07	-1.40	-
VH300060	2	0.49	-1.28	0.64, -0.64
VH300063	2	0.66	-0.40	-0.82, 0.82
VH299057	1	0.64	-0.97	-
VH299058	1	1.04	-0.03	-
VH299059	3	0.52	-1.67	-0.73, 0.75, -0.02
VH299061	1	1.04	-0.10	-
VH299347	1	1.03	-1.19	-
VH299352	2	0.51	-0.52	-1.21, 1.21
VH299365	1	0.67	0.61	-
VH299414	1	0.86	-1.51	-
VH299416	2	0.63	0.42	-0.68, 0.68
VH299419	2	0.41	-0.17	-2.68, 2.68

Item ID	Score Points	A	B	D
VH299998	1	1.21	-0.21	-
VH300000	1	0.91	-0.88	-
VH299465	1	1.02	-1.84	-
VH299467	2	0.76	0.39	-1.2, 1.2
VH299469	2	0.43	-0.04	-2.13, 2.13
VH300136	1	1.01	-0.84	-
VH300138	2	0.72	-0.72	-1.4, 1.4

Table 8.A.93 PT Item Statistics—Mathematics, Grade Four

Item ID	Score Points	A	B	D
VH299111	1	0.98	-0.71	-
VH299114	3	0.65	-1.16	0.83, -0.95, 0.12
VH299337	1	0.85	-1.47	-
VH299340	2	0.74	0.62	-0.66, 0.66
VH300210	2	0.79	1.14	0.1, -0.1
VH300213	3	0.82	0.61	0.64, 0.38, -1.02
VH299775	2	1.15	-0.38	0.08, -0.08
VH299100	1	1.18	-1.21	-
VH299105	2	0.69	1.98	-0.52, 0.52
VH300217	1	0.87	0.93	-
VH300185	2	0.99	-0.23	0.04, -0.04
VH299178	1	0.79	-1.02	-
VH299181	2	0.57	0.37	-0.13, 0.13
VH299498	1	0.65	-0.75	-
VH299506	2	0.80	0.16	-0.18, 0.18
VH299445	2	0.94	0.38	0.23, -0.23
VH299448	3	0.85	-0.01	0.44, 0.49, -0.92
VH300287	1	1.15	-0.57	-
VH300291	3	0.64	-1.19	1.01, -0.62, -0.4
VH299933	1	0.88	-1.49	-
VH300026	1	0.86	-1.33	-
VH300047	2	0.71	0.69	-1.88, 1.88
VH299396	2	0.63	0.55	-1.81, 1.81
VH299403	2	0.69	0.35	-0.67, 0.67
VH299823	2	1.22	1.05	0.09, -0.09
VH300006	1	0.94	0.44	-
VH300009	2	0.69	-0.09	-1.36, 1.36
VH299473	1	1.09	-1.53	-
VH299477	2	0.68	0.01	0.27, -0.27
VH300095	1	1.43	-1.90	-
VH300099	2	0.73	-0.07	0.42, -0.42
VH300181	1	1.24	-1.07	-
VH299180	1	0.53	0.05	-
VH299504	1	0.87	0.84	-
VH299512	2	0.69	0.43	-0.49, 0.49
VH299444	1	1.27	-0.98	-
VH299447	1	1.13	0.53	-
VH300286	1	0.72	-0.69	-
VH300290	2	0.78	0.49	0.18, -0.18
VH299932	1	1.09	-1.18	-
VH299937	1	1.01	0.19	-
VH300038	2	0.63	0.33	0.02, -0.02
VH299391	1	0.79	-1.26	-
VH299402	2	0.44	1.57	-3.52, 3.52
VH299820	1	0.73	-1.67	-
VH300005	2	0.66	0.45	-1.77, 1.77
VH300008	2	0.57	0.33	-0.86, 0.86

Item ID	Score Points	A	B	D
VH299472	1	0.66	-0.72	-
VH299476	1	0.76	0.22	-
VH300094	1	0.67	-0.76	-
VH300098	1	0.97	0.20	-
VH299110	1	0.57	-0.63	-
VH299113	2	0.71	0.65	0.26, -0.26
VH299339	2	1.06	0.73	-0.05, 0.05
VH299342	3	0.70	0.12	0.77, 0.26, -1.03
VH300209	1	0.67	-1.66	-
VH300212	1	1.02	0.42	-
VH300410	1	1.08	0.74	-
VH300414	1	0.60	0.35	-
VH299774	1	1.30	-1.05	-
VH299103	2	0.91	0.80	0.19, -0.19
VH299107	3	0.77	0.24	0.56, 0.55, -1.1
VH300216	1	0.70	-0.42	-
VH300180	1	1.37	-1.04	-
VH300188	2	0.74	0.94	0.17, -0.17
VH299179	1	0.48	2.21	-
VH299182	2	0.60	0.95	-1.77, 1.77
VH299501	1	0.63	0.02	-
VH299508	1	1.07	-0.33	-
VH299443	1	1.08	-1.58	-
VH299446	2	0.74	0.68	-0.97, 0.97
VH300288	2	0.93	0.78	0.26, -0.26
VH299934	2	1.23	0.65	-0.06, 0.06
VH300031	1	0.44	2.15	-
VH299400	1	0.98	0.27	-
VH299405	2	0.82	0.04	-1.44, 1.44
VH299817	1	1.05	-0.21	-
VH299825	1	0.95	0.31	-
VH300004	1	0.68	-1.41	-
VH300007	2	0.50	1.25	-1.53, 1.53
VH299474	1	0.88	0.18	-
VH300096	1	0.82	0.13	-
VH299112	2	0.88	0.86	0.32, -0.32
VH299115	2	0.87	1.20	0.09, -0.09
VH299338	1	1.11	-0.83	-
VH299341	1	0.90	0.45	-
VH300208	1	0.89	-1.05	-
VH300211	1	0.88	1.58	-
VH300412	2	0.92	-0.53	0.78, -0.78
VH299773	1	1.42	-1.21	-
VH299776	2	0.95	0.08	0.24, -0.24
VH299101	1	0.75	-1.68	-
VH299106	1	1.00	0.57	-
VH300215	1	0.66	-0.79	-
VH300219	2	0.79	0.31	-0.27, 0.27

Table 8.A.94 PT Item Statistics—Mathematics, Grade Five

Item ID	Score Points	A	B	D
VH300074	1	0.78	-0.48	-
VH300077	3	0.58	0.83	-0.5, -0.33, 0.83
VH299692	1	1.10	0.91	-
VH299696	2	0.91	1.86	-0.12, 0.12
VH300306	2	0.63	1.34	-0.17, 0.17
VH300309	2	0.42	0.63	-3.01, 3.01
VH299141	1	1.11	0.82	-
VH299164	2	0.82	1.14	-0.24, 0.24
VH299876	1	0.69	1.23	-
VH299884	2	0.64	0.76	-0.54, 0.54
VH299078	2	0.68	1.08	-0.66, 0.66
VH299082	2	0.30	3.94	1.92, -1.92
VH299186	1	0.94	-0.22	-
VH299190	1	0.54	0.70	-
VH299852	2	0.69	0.51	-1.94, 1.94
VH299860	1	0.53	2.20	-
VH299433	1	1.24	1.19	-
VH299992	2	0.54	0.82	-3.35, 3.35
VH299995	2	0.65	0.55	1.17, -1.17
VH299408	1	0.60	0.23	-
VH299411	2	0.82	1.60	-0.07, 0.07
VH299676	1	0.96	0.51	-
VH299683	2	0.57	0.13	0.24, -0.24
VH299985	2	0.58	0.02	0.14, -0.14
VH299989	3	0.33	2.40	-1.35, 0.49, 0.86
VH299042	1	1.26	0.83	-
VH299045	2	0.81	1.11	-0.16, 0.16
VH299591	1	0.73	1.24	-
VH299595	2	0.69	0.87	-0.33, 0.33
VH300073	1	0.93	0.54	-
VH300076	2	0.71	1.60	0.43, -0.43
VH299695	2	0.82	1.06	0.05, -0.05
VH299699	2	0.39	0.83	-3.11, 3.11
VH300305	1	1.21	0.75	-
VH300308	2	0.79	1.49	0, 0
VH299129	1	1.09	0.92	-
VH299151	2	0.88	1.73	-0.29, 0.29
VH299881	2	0.45	-0.19	-2.39, 2.39
VH299891	3	0.74	1.32	0.19, -0.21, 0.02
VH299077	1	1.20	0.97	-
VH299081	3	0.54	0.90	-0.57, -0.1, 0.67
VH299188	3	0.82	1.36	1, -1.29, 0.29
VH299850	1	0.56	-1.14	-
VH299857	2	0.39	0.95	-0.53, 0.53
VH299432	1	0.52	2.12	-
VH299438	2	0.77	1.49	0.45, -0.45
VH299991	1	0.70	-0.73	-

Item ID	Score Points	A	B	D
VH299994	2	0.57	0.99	-0.86, 0.86
VH299407	1	0.75	-1.15	-
VH299410	1	0.72	2.98	-
VH299680	1	1.22	0.67	-
VH299687	2	1.20	2.18	0.2, -0.2
VH299984	1	0.71	1.39	-
VH299987	2	0.77	1.52	-0.12, 0.12
VH299041	1	0.90	0.73	-
VH299044	2	1.14	1.73	0.11, -0.11
VH299594	2	0.59	-0.49	-1.83, 1.83
VH299601	3	0.55	0.91	-0.58, -0.54, 1.13
VH300075	2	0.61	1.00	-1.15, 1.15
VH300078	2	0.31	3.81	1.9, -1.9
VH299693	1	1.13	0.68	-
VH299697	2	0.84	1.30	0.04, -0.04
VH300303	1	1.30	0.43	-
VH300307	2	1.01	1.84	0.13, -0.13
VH299143	2	0.73	1.03	-0.2, 0.2
VH299169	2	0.37	0.74	-3.58, 3.58
VH299877	1	1.14	1.17	-
VH299887	2	0.99	1.67	-0.1, 0.1
VH299076	1	0.79	0.19	-
VH299080	2	0.67	1.60	0.2, -0.2
VH299187	1	0.90	1.12	-
VH299855	2	0.87	2.02	-0.3, 0.3
VH299861	2	0.68	0.57	-0.34, 0.34
VH299430	1	0.98	-0.39	-
VH299434	2	0.55	0.10	0.23, -0.23
VH299993	2	0.34	1.47	-0.91, 0.91
VH299409	2	0.58	0.46	0.45, -0.45
VH299412	3	0.39	2.13	-0.93, 0.67, 0.26
VH299678	1	0.46	2.05	-
VH299685	2	0.83	1.37	0.42, -0.42
VH299983	1	0.82	-0.94	-
VH299043	2	0.88	0.90	-0.06, 0.06
VH299046	2	0.48	0.86	-2.87, 2.87
VH299593	1	1.16	0.98	-
VH299597	2	0.83	1.69	-0.15, 0.15

Table 8.A.95 PT Item Statistics—Mathematics, Grade Six

Item ID	Score Points	A	B	D
VH300103	1	0.76	0.26	–
VH299651	2	0.68	1.49	–0.38, 0.38
VH299733	1	1.10	1.28	–
VH300406	4	0.45	0.61	0.39, 0.18, 0.02, –0.59
VH299456	2	0.60	1.62	–0.08, 0.08
VH300301	4	0.42	0.81	–0.14, 0.48, 0.49, –0.83
VH300378	1	0.77	–0.19	–
VH299585	1	1.19	0.89	–
VH299787	1	0.71	0.46	–
VH300155	2	0.73	1.36	–0.25, 0.25
VH300403	2	0.42	–0.52	1.02, –1.02
VH299451	1	0.65	–0.54	–
VH300295	1	1.16	0.61	–
VH300397	2	0.60	1.62	0.95, –0.95
VH299788	1	0.82	0.45	–
VH299281	1	1.13	2.08	–
VH300144	1	0.81	0.13	–
VH300158	1	0.91	–0.21	–
VH299652	2	0.65	1.39	–0.26, 0.26
VH299521	1	1.12	1.63	–
VH300230	2	0.77	1.19	0.35, –0.35
VH300205	2	0.52	1.47	1.14, –1.14
VH299734	1	0.80	0.44	–
VH299453	2	0.57	2.03	–0.81, 0.81
VH300195	2	0.51	2.33	–1.15, 1.15
VH299283	2	0.40	–0.27	–0.39, 0.39
VH300105	1	0.67	–0.87	–
VH300114	2	0.70	1.41	–0.24, 0.24
VH299649	1	0.80	–0.12	–
VH300229	1	0.91	0.34	–
VH300201	1	0.69	0.24	–
VH300206	2	0.55	1.93	0.35, –0.35
VH299580	1	0.74	0.37	–
VH299481	1	0.92	2.24	–
VH299002	2	0.44	1.31	0.15, –0.15
VH300405	2	0.45	0.23	–0.89, 0.89
VH299583	1	0.69	–0.79	–
VH299486	2	0.96	1.73	–0.18, 0.18
VH300109	2	0.62	1.72	–0.59, 0.59
VH300163	2	0.71	1.47	–0.74, 0.74
VH299009	2	0.50	0.97	–0.87, 0.87
VH299454	2	0.63	1.56	–0.32, 0.32
VH300299	2	0.53	0.21	–0.86, 0.86
VH299482	1	0.83	1.19	–
VH299280	1	0.74	1.43	–
VH299282	1	0.86	0.90	–
VH300431	2	0.66	0.94	–0.24, 0.24

Item ID	Score Points	A	B	D
VH300196	2	0.66	1.56	-0.32, 0.32
VH299285	2	0.61	0.72	0.28, -0.28
VH300125	1	1.08	1.46	-
VH299727	2	0.86	1.21	0.25, -0.25
VH300428	2	0.73	0.74	0.17, -0.17
VH300298	2	0.72	2.22	0.91, -0.91
VH300380	1	0.70	0.22	-
VH299579	1	0.75	-0.38	-
VH299786	1	0.67	-0.23	-
VH299516	1	0.79	-0.14	-
VH300232	2	0.98	1.84	-0.67, 0.67
VH300204	1	0.55	-0.79	-
VH300407	1	0.79	0.66	-
VH300385	1	0.75	-0.61	-
VH299484	2	0.40	-0.60	-0.34, 0.34
VH300193	1	0.71	-0.65	-
VH300198	2	0.56	1.88	-0.09, 0.09
VH299790	2	0.58	1.27	1.13, -1.13
VH299287	2	0.67	2.01	-0.5, 0.5
VH299650	1	0.82	-0.81	-
VH299518	2	0.69	1.68	-0.19, 0.19
VH300235	1	1.08	0.81	-
VH299730	2	0.65	2.14	-0.32, 0.32
VH299450	1	0.82	0.35	-
VH300438	3	0.53	0.42	-0.32, 0.26, 0.06
VH300297	2	0.58	0.27	1.11, -1.11
VH299586	2	0.41	2.30	1.11, -1.11
VH300192	1	0.81	-0.15	-
VH298998	1	1.08	0.46	-
VH299006	2	0.64	0.58	-0.03, 0.03
VH299522	2	0.70	1.78	-0.95, 0.95
VH300234	4	0.39	0.41	0.43, 0.7, 0.09, -1.22
VH300202	1	0.82	0.50	-
VH300197	1	1.03	1.55	-
VH299015	3	0.46	0.53	-0.59, 0.3, 0.29
VH299520	2	0.68	1.48	-0.29, 0.29
VH300233	2	0.91	1.70	0.02, -0.02
VH300200	1	0.57	-0.19	-
VH299789	1	0.59	-0.69	-
VH300153	2	0.59	2.14	-0.84, 0.84
VH299653	1	0.73	-0.33	-
VH299655	2	0.55	1.42	-0.84, 0.84
VH299732	4	0.39	0.36	-0.2, 0.44, 0.24, -0.48
VH300421	1	0.95	0.52	-
VH299792	2	0.50	2.21	0.48, -0.48
VH300126	2	0.76	1.79	-0.48, 0.48
VH299517	1	0.61	-0.65	-
VH300423	2	0.46	2.19	-0.3, 0.3

Item ID	Score Points	A	B	D
VH300390	1	1.29	0.79	–
VH300294	1	0.96	1.01	–
VH299582	1	0.98	0.46	–
VH299480	1	0.77	1.49	–
VH299485	2	0.51	0.65	0.39, –0.39
VH300148	1	0.86	–0.64	–
VH299729	2	0.80	1.91	–0.99, 0.99
VH300408	1	1.19	0.62	–
VH299455	1	1.02	1.70	–
VH300384	1	1.01	0.53	–

Table 8.A.96 PT Item Statistics—Mathematics, Grade Seven

Item ID	Score Points	A	B	D
VH300256	1	0.92	1.98	–
VH300021	1	0.68	–0.88	–
VH299572	1	1.22	2.28	–
VH299577	2	0.36	2.83	2.66, –2.66
VH299051	1	0.65	0.41	–
VH299925	2	0.69	2.55	0.17, –0.17
VH299245	1	0.82	0.98	–
VH299064	1	0.79	1.20	–
VH299207	1	0.95	0.15	–
VH299218	2	0.87	2.32	0.21, –0.21
VH300312	1	1.19	2.23	–
VH300067	1	0.93	0.26	–
VH300069	1	0.38	0.75	–
VH299574	1	1.52	2.41	–
VH299926	1	0.84	1.81	–
VH299246	1	1.10	2.00	–
VH299768	2	0.82	1.20	0.51, –0.51
VH299240	1	1.14	2.77	–
VH300318	1	1.05	2.83	–
VH299571	1	0.91	1.83	–
VH299865	1	0.68	1.40	–
VH299223	1	0.92	1.78	–
VH300087	1	1.02	0.77	–
VH300449	2	0.77	1.20	–0.04, 0.04
VH299237	1	1.03	1.11	–
VH300252	1	0.73	0.40	–
VH299247	1	1.27	2.22	–
VH299761	1	1.03	1.09	–
VH299770	1	0.19	2.82	–
VH300315	1	1.10	1.03	–
VH300070	2	1.02	1.22	0.11, –0.11
VH299054	1	0.15	2.71	–
VH299866	1	0.71	–0.72	–
VH300444	1	0.76	2.08	–
VH299923	1	1.34	2.65	–
VH299248	2	0.91	2.91	–0.03, 0.03
VH299756	1	1.29	2.29	–
VH299872	2	0.82	2.17	–0.45, 0.45
VH300314	1	1.19	1.95	–
VH299922	1	0.72	1.29	–
VH299927	2	0.51	4.02	1.43, –1.43
VH299073	1	0.75	–0.86	–
VH300091	2	0.69	1.32	0.55, –0.55
VH300446	1	0.86	–0.35	–
VH299948	1	0.70	–0.75	–
VH300068	1	1.06	1.93	–
VH299570	1	1.01	1.35	–

Item ID	Score Points	A	B	D
VH299921	1	0.86	0.33	–
VH299249	1	1.40	2.18	–
VH299869	2	0.85	1.24	0.46, –0.46
VH300090	2	0.87	2.56	–0.41, 0.41
VH300447	1	1.00	1.97	–
VH299238	1	1.43	1.74	–
VH300323	1	0.21	3.75	–
VH299765	1	1.38	2.58	–
VH300092	1	1.42	2.06	–
VH300448	1	0.15	3.38	–
VH299950	2	0.66	1.33	0.55, –0.55
VH300071	2	0.74	0.99	–0.22, 0.22
VH299074	1	1.02	1.88	–
VH299210	1	0.90	1.13	–
VH299953	2	0.82	2.33	–0.21, 0.21
VH300320	2	0.68	1.20	0.67, –0.67
VH300254	1	0.85	–0.57	–
VH299575	2	0.78	1.17	0.51, –0.51
VH299050	1	0.76	2.30	–
VH299053	1	0.79	2.09	–
VH299759	1	1.03	1.68	–
VH299212	1	1.68	2.54	–
VH299227	2	0.53	3.75	1.14, –1.14
VH300088	1	1.32	1.64	–
VH299239	1	1.37	2.20	–
VH299242	2	0.34	3.09	2.58, –2.58
VH299947	1	0.69	1.17	–
VH299949	1	1.07	1.27	–
VH299952	1	1.03	2.10	–
VH300257	1	0.41	0.59	–
VH300259	2	0.82	1.17	–0.05, 0.05
VH300066	1	0.84	0.49	–
VH300019	1	0.70	1.29	–
VH300020	1	0.71	–0.62	–
VH300022	1	0.95	1.95	–
VH299055	2	0.69	1.36	–0.07, 0.07
VH299070	1	0.83	–0.57	–
VH299868	1	1.35	1.34	–
VH299871	1	1.30	2.05	–
VH300089	1	1.14	2.27	–

Table 8.A.97 PT Item Statistics—Mathematics, Grade Eight

Item ID	Score Points	A	B	D
VH300337	2	1.36	2.24	0.6, -0.6
VH299711	2	0.47	-0.07	0.36, -0.36
VH299614	2	0.56	2.40	-1.76, 1.76
VH299084	1	1.17	1.11	–
VH299806	2	0.79	2.11	-0.17, 0.17
VH300084	1	1.20	2.03	–
VH299253	1	1.18	2.29	–
VH299902	1	0.67	1.70	–
VH299494	2	0.75	3.27	0.1, -0.1
VH299260	1	0.95	2.54	–
VH300245	2	0.44	0.03	0.31, -0.31
VH299320	1	0.96	1.63	–
VH299668	1	0.73	2.21	–
VH300052	1	1.11	1.20	–
VH299899	1	1.18	2.78	–
VH299493	2	0.42	0.17	0.07, -0.07
VH300016	2	0.61	2.64	0.95, -0.95
VH300340	1	0.66	1.67	–
VH299270	2	0.65	2.08	-0.63, 0.63
VH299710	1	1.09	2.14	–
VH300167	2	0.80	3.01	0.34, -0.34
VH300461	1	0.60	1.61	–
VH300470	2	0.85	2.79	-0.35, 0.35
VH299305	1	0.92	1.69	–
VH300053	1	1.15	1.64	–
VH299738	1	1.19	1.86	–
VH299741	2	0.54	1.49	-0.42, 0.42
VH299085	1	1.13	2.58	–
VH299088	1	0.66	2.49	–
VH299796	1	0.98	1.74	–
VH300345	2	0.56	2.50	0.76, -0.76
VH300054	2	1.24	1.86	0.42, -0.42
VH300012	1	0.56	1.93	–
VH300081	2	0.78	2.95	-0.02, 0.02
VH299274	2	0.50	2.73	-1.27, 1.27
VH300246	1	0.88	1.29	–
VH300467	1	0.96	1.34	–
VH299314	2	0.74	2.15	-0.2, 0.2
VH300014	2	0.64	3.05	0.3, -0.3
VH299087	2	0.75	1.94	1.01, -1.01
VH300243	1	1.13	2.10	–
VH299669	2	1.08	2.31	0.28, -0.28
VH299897	1	1.01	1.36	–
VH300165	1	1.01	2.81	–
VH300468	2	0.52	3.22	1.34, -1.34
VH299670	1	0.71	1.24	–
VH299901	2	0.85	2.40	0.36, -0.36

Item ID	Score Points	A	B	D
VH299490	1	0.87	1.73	–
VH300015	1	0.72	0.19	–
VH300017	2	0.65	2.75	–0.68, 0.68
VH299737	1	1.16	1.46	–
VH299707	2	0.53	3.03	–1.05, 1.05
VH300334	1	0.73	2.90	–
VH300169	2	0.60	2.01	–0.77, 0.77
VH299312	1	1.22	2.06	–
VH300055	2	0.51	1.49	–0.62, 0.62
VH299608	1	1.17	2.26	–
VH300013	1	0.76	2.41	–
VH299704	1	0.68	2.63	–
VH299706	2	0.57	1.74	–1.19, 1.19
VH299811	2	0.86	2.78	0.02, –0.02
VH300247	2	0.59	2.52	–0.78, 0.78
VH299709	1	0.85	1.71	–
VH299712	1	0.88	1.30	–
VH299713	2	0.57	2.61	–0.53, 0.53
VH300463	1	0.78	2.58	–
VH299667	1	0.92	1.54	–
VH300056	1	0.79	0.70	–
VH299900	2	0.82	2.10	0.74, –0.74
VH299489	1	0.82	1.51	–
VH299492	1	1.15	2.09	–
VH299611	2	0.72	3.16	0.23, –0.23
VH299742	1	0.86	0.85	–
VH299701	1	1.01	2.36	–
VH299807	1	0.99	1.62	–
VH300080	1	1.00	1.41	–
VH300083	1	0.95	1.67	–
VH300085	2	0.47	0.51	–0.32, 0.32
VH300242	1	0.87	1.71	–
VH300170	2	0.53	3.01	–0.9, 0.9
VH300465	2	0.58	3.12	–0.11, 0.11
VH300332	1	0.98	1.69	–
VH299325	2	0.78	3.16	0.06, –0.06
VH299613	2	0.71	1.52	–0.65, 0.65
VH299739	2	0.82	1.85	–0.1, 0.1
VH299802	1	1.16	2.12	–

Table 8.A.98 PT Item Statistics—Mathematics, Grade Eleven

Item ID	Score Points	A	B	D
VH300132	2	0.37	3.61	-1.9, 1.9
VH299462	2	0.77	1.90	0.24, -0.24
VH300281	1	1.42	2.56	-
VH299029	1	0.57	1.21	-
VH299554	1	0.66	1.81	-
VH299838	2	0.50	3.43	-0.8, 0.8
VH300240	1	0.25	5.35	-
VH299463	2	0.64	3.17	0.24, -0.24
VH300283	2	1.09	2.13	0.1, -0.1
VH300225	2	0.41	1.50	-1.76, 1.76
VH300178	3	0.58	3.20	-1.08, 0.88, 0.2
VH299974	2	0.51	2.80	-0.61, 0.61
VH299956	1	1.14	3.30	-
VH299834	1	0.45	2.56	-
VH299385	1	0.60	2.04	-
VH299460	3	0.71	2.35	-0.67, 0.1, 0.58
VH300276	1	1.29	1.24	-
VH299026	1	1.39	1.35	-
VH300174	1	0.89	1.88	-
VH299746	1	0.76	4.44	-
VH299555	2	0.37	3.07	-1.9, 1.9
VH299955	1	0.83	1.32	-
VH299833	1	0.37	6.44	-
VH300129	1	1.28	3.60	-
VH299720	2	0.83	2.38	0.05, -0.05
VH300272	2	0.80	1.24	0.48, -0.48
VH299024	1	0.60	1.52	-
VH299745	2	0.32	3.32	-4.39, 4.39
VH299195	3	0.88	2.01	-0.07, 0.26, -0.2
VH299552	1	0.40	2.66	-
VH299977	2	0.34	3.23	1.99, -1.99
VH299961	2	0.35	2.81	-1.97, 1.97
VH299717	1	0.44	0.48	-
VH299910	2	0.39	2.77	-1.54, 1.54
VH299660	2	0.55	4.24	-2.44, 2.44
VH300224	2	0.34	2.74	1.97, -1.97
VH300177	2	0.30	2.52	-2.44, 2.44
VH299192	2	0.42	2.13	-2.12, 2.12
VH299199	1	1.00	3.42	-
VH299979	2	0.47	1.37	-1.14, 1.14
VH299965	3	0.75	3.07	-0.83, 0.17, 0.66
VH299718	1	0.73	1.45	-
VH300237	2	0.46	0.50	2.27, -2.27
VH299912	3	0.67	3.08	-1.04, 0.57, 0.48
VH300221	2	0.44	2.87	-0.69, 0.69
VH299196	2	0.62	1.95	-1.17, 1.17
VH299835	1	0.84	2.65	-

Item ID	Score Points	A	B	D
VH299387	3	0.74	3.09	-0.66, 0.71, -0.05
VH299909	2	0.61	3.61	-1.27, 1.27
VH299662	3	0.70	3.15	-0.74, 0.52, 0.22
VH299197	2	0.75	1.81	0.19, -0.19
VH299976	2	0.62	1.89	0.04, -0.04
VH300133	3	0.71	3.21	-0.77, 0.15, 0.63
VH299723	2	1.32	3.03	-0.05, 0.05
VH299905	1	1.09	3.26	-
VH299659	1	1.11	3.47	-
VH299553	1	0.79	2.44	-
VH300128	1	0.70	1.51	-
VH299384	1	0.90	2.41	-
VH299719	1	0.73	1.56	-
VH300239	2	0.76	3.55	0.64, -0.64
VH299917	1	0.98	1.50	-
VH299459	1	0.89	3.37	-
VH299747	2	0.80	1.74	-0.57, 0.57
VH299836	1	0.56	1.22	-
VH299725	1	1.49	2.30	-
VH300173	1	1.07	1.38	-
VH299551	1	0.42	4.13	-
VH299958	2	0.67	4.05	-1.39, 1.39
VH299386	2	0.56	2.90	-1.11, 1.11
VH299022	1	0.80	2.67	-
VH299032	2	0.65	2.51	0.13, -0.13
VH299750	1	1.31	2.06	-
VH299194	1	0.67	3.23	-
VH299383	1	0.86	1.38	-
VH299461	2	0.55	1.98	-1.51, 1.51
VH300280	2	0.65	2.22	-1.08, 1.08
VH299027	1	1.26	1.29	-
VH299657	1	0.94	1.44	-
VH300222	2	0.57	1.90	0.22, -0.22
VH300176	1	0.65	1.93	-
VH299980	2	0.50	3.21	0.98, -0.98
VH299968	3	0.47	2.70	1.01, -1.5, 0.49
VH300238	1	1.18	2.95	-
VH299913	3	0.60	2.82	0.68, -2.65, 1.98
VH299458	2	0.43	2.43	-2.13, 2.13
VH300274	1	1.39	2.35	-
VH299661	2	0.37	3.64	-2.66, 2.66
VH300226	2	0.48	3.42	0.87, -0.87

Appendix 8.B: Omission and Completion Analyses

Note: An expression that opens with a parenthesis and closes with a bracket indicates that a value is greater than the first number and is less than or equal to the second number. For example, “(0.5, 2]” indicates a value greater than 0.5 but less than or equal to 2.

Table 8.B.1 Omit Rates for ELA

Section		Omission Rate (in percent)						
		0	(0, 0.5]	(0.5, 1]	(1, 5]	(5, 10]	(10, 50]	(50, 100]
Grade 3								
PT	No. of Items	–	62	–	–	–	–	–
	Mean a	–	0.71	–	–	–	–	–
	Mean b	–	0.21	–	–	–	–	–
CAT	No. of Items	295	280	–	–	–	–	–
	Mean a	0.64	0.69	–	–	–	–	–
	Mean b	–0.33	–0.63	–	–	–	–	–
Grade 4								
PT	No. of Items	–	85	–	–	–	–	–
	Mean a	–	0.65	–	–	–	–	–
	Mean b	–	0.45	–	–	–	–	–
CAT	No. of Items	267	299	–	–	–	–	1
	Mean a	0.57	0.62	–	–	–	–	0.58
	Mean b	0.27	–0.19	–	–	–	–	1.23
Grade 5								
PT	No. of Items	–	95	–	–	–	–	–
	Mean a	–	0.71	–	–	–	–	–
	Mean b	–	0.74	–	–	–	–	–
CAT	No. of Items	303	238	–	–	–	–	–
	Mean a	0.58	0.63	–	–	–	–	–
	Mean b	0.66	0.23	–	–	–	–	–
Grade 6								
PT	No. of Items	–	61	–	–	–	–	–
	Mean a	–	0.87	–	–	–	–	–
	Mean b	–	0.92	–	–	–	–	–
CAT	No. of Items	254	273	3	–	–	–	–
	Mean a	0.5	0.56	0.79	–	–	–	–
	Mean b	1.27	0.72	1.53	–	–	–	–
Grade 7								
PT	No. of Items	–	79	–	–	–	–	–
	Mean a	–	0.81	–	–	–	–	–
	Mean b	–	1.15	–	–	–	–	–
CAT	No. of Items	239	272	–	–	–	–	–
	Mean a	0.5	0.56	–	–	–	–	–
	Mean b	1.28	0.94	–	–	–	–	–

Section	Omission Rate (in percent)						
	0	(0, 0.5]	(0.5, 1]	(1, 5]	(5, 10]	(10, 50]	(50, 100]
Grade 8							
PT	No. of Items	–	94	–	–	–	–
	Mean a	–	0.72	–	–	–	–
	Mean b	–	1.27	–	–	–	–
CAT	No. of Items	160	329	3	–	–	–
	Mean a	0.47	0.54	0.94	–	–	–
	Mean b	1.43	1.19	1.9	–	–	–
Grade 11							
PT	No. of Items	–	77	28	–	–	–
	Mean a	–	0.58	0.61	–	–	–
	Mean b	–	1.81	1.92	–	–	–
CAT	No. of Items	688	675	6	2	–	–
	Mean a	0.48	0.5	0.57	0.69	–	–
	Mean b	1.82	1.48	0.41	0.79	–	–

Table 8.B.2 Omit Rates for Mathematics

Section	Omission Rate (in percent)						
	0	(0, 0.5]	(0.5, 1]	(1, 5]	(5, 10]	(10, 50]	(50, 100]
Grade 3							
PT	No. of Items	1	101	–	–	–	–
	Mean a	1.04	0.91	–	–	–	–
	Mean b	–1.41	–0.52	–	–	–	–
CAT	No. of Items	557	271	–	–	–	–
	Mean a	0.84	0.86	–	–	–	–
	Mean b	–0.73	–1.05	–	–	–	–
Grade 4							
PT	No. of Items	1	94	–	–	–	–
	Mean a	0.79	0.85	–	–	–	–
	Mean b	–1.26	–0.02	–	–	–	–
CAT	No. of Items	618	215	–	–	–	–
	Mean a	0.81	0.84	–	–	–	–
	Mean b	–0.02	–0.38	–	–	–	–
Grade 5							
PT	No. of Items	1	84	–	–	–	–
	Mean a	0.82	0.76	–	–	–	–
	Mean b	–0.94	1.04	–	–	–	–
CAT	No. of Items	605	247	–	–	–	–
	Mean a	0.78	0.76	–	–	–	–
	Mean b	0.63	0.24	–	–	–	–
Grade 6							
PT	No. of Items	–	105	–	–	–	–
	Mean a	–	0.73	–	–	–	–
	Mean b	–	0.82	–	–	–	–
CAT	No. of Items	452	305	–	–	–	–
	Mean a	0.69	0.7	–	–	–	–
	Mean b	1.18	0.69	–	–	–	–
Grade 7							
PT	No. of Items	–	87	–	–	–	–
	Mean a	–	0.89	–	–	–	–
	Mean b	–	1.58	–	–	–	–
CAT	No. of Items	378	301	–	–	1	–
	Mean a	0.72	0.7	–	–	0.88	–
	Mean b	2.05	1.38	–	–	2.39	–
Grade 8							
PT	No. of Items	–	86	–	–	–	–
	Mean a	–	0.83	–	–	–	–
	Mean b	–	2	–	–	–	–
CAT	No. of Items	298	327	–	–	–	–
	Mean a	0.59	0.63	–	–	–	–
	Mean b	2.84	1.68	–	–	–	–

Section	Omission Rate (in percent)						
	0	(0, 0.5]	(0.5, 1]	(1, 5]	(5, 10]	(10, 50]	(50, 100]
Grade 11							
PT	No. of Items	–	83	6	–	–	–
	Mean a	–	0.71	0.85	–	–	–
	Mean b	–	2.56	2.55	–	–	–
CAT	No. of Items	1, 165	547	–	–	–	–
	Mean a	0.52	0.53	–	–	–	–
	Mean b	2.93	2.19	–	–	–	–

Table 8.B.3 Item Completion

Score	ELA		Mathematics	
	% Completion	Total N	% Completion	Total N
Grade 3				
Overall	99.96	472,496	99.97	474,113
Claim 1	99.82	471,820	99.91	473,833
Claim 2	99.58	470,683	99.93	473,911
Claim 3	99.88	472,096	99.89	473,717
Claim 4	99.77	471,574	–	–
PT	100.00	472,659	100.00	474,253
Non-PT	99.97	472,511	99.97	474,121
Grade 4				
Overall	99.97	462,551	99.98	464,260
Claim 1	99.85	461,979	99.93	464,021
Claim 2	99.66	461,084	99.93	464,052
Claim 3	99.90	462,208	99.90	463,909
Claim 4	94.52	437,343	–	–
PT	100.00	462,665	100.00	464,349
Non-PT	99.98	462,565	99.98	464,266
Grade 5				
Overall	99.98	460,076	99.96	461,432
Claim 1	99.86	459,568	99.91	461,194
Claim 2	99.74	459,015	99.93	461,289
Claim 3	99.89	459,688	99.89	461,107
Claim 4	99.98	460,085	–	–
PT	100.00	460,179	100.00	461,600
Non-PT	99.98	460,086	99.96	461,444
Grade 6				
Overall	99.93	456,022	99.96	457,351
Claim 1	99.65	454,725	99.80	456,613
Claim 2	99.43	453,721	99.96	457,347
Claim 3	99.69	454,925	99.91	457,143
Claim 4	99.78	455,304	–	–
PT	99.99	456,294	100.00	457,535
Non-PT	99.94	456,045	99.96	457,365
Grade 7				
Overall	99.90	449,271	99.95	450,163
Claim 1	99.55	447,674	99.68	448,971
Claim 2	99.36	446,820	99.91	450,003
Claim 3	99.61	447,963	99.81	449,559
Claim 4	99.54	447,641	–	–
PT	99.99	449,674	99.99	450,371
Non-PT	99.91	449,309	99.95	450,182

Score	ELA		Mathematics	
	% Completion	Total N	% Completion	Total N
Grade 8				
Overall	99.95	450,956	99.94	451,675
Claim 1	99.61	449,406	99.68	450,540
Claim 2	99.14	447,318	99.83	451,198
Claim 3	99.66	449,645	99.78	450,955
Claim 4	99.50	448,946	–	–
PT	99.99	451,156	99.99	451,939
Non-PT	99.96	450,984	99.94	451,699
Grade 11				
Overall	99.81	421,313	99.88	419,018
Claim 1	99.45	419,762	99.62	417,920
Claim 2	98.61	416,231	99.44	417,166
Claim 3	99.20	418,705	99.70	418,230
Claim 4	99.04	418,065	–	–
PT	99.99	422,040	99.98	419,439
Non-PT	99.83	421,369	99.90	419,085

Appendix 8.C: Item Exposure

Table 8.C.1 Item Exposure Frequency—ELA

Claim	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
Grade 3							
Overall	669	32	15	6	5	132	479
Claim 1	217	16	9	6	5	66	115
Claim 2	203	2	3	–	–	8	190
Claim 3	118	14	1	–	–	53	50
Claim 4	131	–	2	–	–	5	124
Grade 4							
Overall	705	53	19	10	8	108	507
Claim 1	177	16	7	7	3	42	102
Claim 2	232	15	7	–	–	13	197
Claim 3	127	16	1	1	1	39	69
Claim 4	169	6	4	2	4	14	139
Grade 5							
Overall	675	39	12	7	9	152	456
Claim 1	194	17	9	5	6	44	113
Claim 2	225	14	3	2	2	33	171
Claim 3	108	–	–	–	–	74	34
Claim 4	148	8	–	–	1	1	138
Grade 6							
Overall	650	59	9	2	–	177	403
Claim 1	175	31	6	2	–	47	89
Claim 2	220	18	–	–	–	30	172
Claim 3	116	–	–	–	–	96	20
Claim 4	139	10	3	–	–	4	122
Grade 7							
Overall	631	41	17	14	3	181	375
Claim 1	183	18	12	9	1	45	98
Claim 2	221	17	3	4	2	45	150
Claim 3	117	–	–	–	–	81	36
Claim 4	110	6	2	1	–	10	91

Claim	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
Grade 8							
Overall	629	43	8	7	3	119	449
Claim 1	161	14	–	6	1	17	123
Claim 2	219	23	5	1	2	8	180
Claim 3	131	2	2	–	–	91	36
Claim 4	118	4	1	–	–	3	110
Grade 11							
Overall	1581	105	36	210	340	89	801
Claim 1	499	84	30	99	157	22	107
Claim 2	437	8	2	4	13	29	381
Claim 3	334	6	–	105	157	4	62
Claim 4	311	7	4	2	13	34	251

Table 8.C.2 Item Exposure Frequency—Mathematics

Claim	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
Grade 3							
Overall	960	30	–	–	213	53	664
Claim 1	554	7	–	–	186	8	353
Claim 2	246	18	–	–	11	34	183
Claim 3	160	5	–	–	16	11	128
Grade 4							
Overall	956	28	4	–	36	84	804
Claim 1	551	18	4	–	1	22	506
Claim 2	256	7	–	–	8	53	188
Claim 3	149	3	–	–	27	9	110
Grade 5							
Overall	969	32	15	5	69	110	738
Claim 1	517	14	15	5	7	29	447
Claim 2	270	10	–	–	37	59	164
Claim 3	182	8	–	–	25	22	127
Grade 6							
Overall	873	11	–	–	–	160	702
Claim 1	538	8	–	–	–	98	432
Claim 2	198	1	–	–	–	43	154
Claim 3	137	2	–	–	–	19	116
Grade 7							
Overall	777	10	1	–	–	191	575
Claim 1	462	1	–	–	–	137	324
Claim 2	190	4	1	–	–	33	152
Claim 3	125	5	–	–	–	21	99
Grade 8							
Overall	753	42	–	–	13	117	581
Claim 1	439	25	–	–	6	59	349
Claim 2	171	13	–	–	2	27	129
Claim 3	143	4	–	–	5	31	103
Grade 11							
Overall	1878	77	–	301	214	555	731
Claim 1	1028	48	–	96	138	378	368
Claim 2	390	10	–	150	30	63	137
Claim 3	460	19	–	55	46	114	226

Table 8.C.3 Conditional Exposure by Difficulty for ELA, Grade Three

<i>b</i>-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0	–	–	–	–	–	–	–
(5.5, 6.0]	–	–	–	–	–	–	–
(5.0, 5.5]	–	–	–	–	–	–	–
(4.5, 5.0]	–	–	–	–	–	–	–
(4.0, 4.5]	–	–	–	–	–	–	–
(3.5, 4.0]	1	1	–	–	–	–	–
(3.0, 3.5]	2	1	–	–	–	–	1
(2.5, 3.0]	5	1	–	–	–	1	3
(2.0, 2.5]	7	–	–	–	–	4	3
(1.5, 2.0]	20	5	1	–	–	4	10
(1.0, 1.5]	49	6	–	1	–	16	26
(0.5, 1.0]	76	9	2	2	1	10	52
(0, 0.5]	89	1	1	1	1	16	69
(–0.5, 0]	101	2	4	–	2	18	75
(–1.0, –0.5]	99	–	3	1	1	18	76
(–1.5, –1.0]	102	2	3	–	–	24	73
(–2.0, –1.5]	86	4	1	–	–	16	65
(–2.5, –2.0]	26	–	–	–	–	4	22
(–3.0, –2.5]	6	–	–	1	–	1	4
(–3.5, –3.0]	–	–	–	–	–	–	–
<= –3.5	–	–	–	–	–	–	–

Table 8.C.4 Conditional Exposure by Difficulty for ELA, Grade Four

b-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0	–	–	–	–	–	–	–
(5.5, 6.0]	–	–	–	–	–	–	–
(5.0, 5.5]	–	–	–	–	–	–	–
(4.5, 5.0]	–	–	–	–	–	–	–
(4.0, 4.5]	1	–	–	–	–	–	–
(3.5, 4.0]	3	1	1	–	–	–	1
(3.0, 3.5]	5	1	1	1	–	2	–
(2.5, 3.0]	16	2	1	2	1	5	5
(2.0, 2.5]	26	6	1	–	1	9	9
(1.5, 2.0]	52	6	2	–	1	19	24
(1.0, 1.5]	72	10	3	1	1	4	53
(0.5, 1.0]	89	5	1	2	–	13	68
(0, 0.5]	103	10	2	2	–	13	76
(–0.5, 0]	114	5	2	–	1	6	100
(–1.0, –0.5]	85	1	–	–	2	15	67
(–1.5, –1.0]	83	4	1	2	1	13	62
(–2.0, –1.5]	40	2	2	–	–	6	30
(–2.5, –2.0]	13	–	1	–	–	2	10
(–3.0, –2.5]	2	–	–	–	–	–	1
(–3.5, –3.0]	1	–	–	–	–	–	1
<= –3.5	–	–	–	–	–	–	–

Table 8.C.5 Conditional Exposure by Difficulty for ELA, Grade Five

<i>b</i>-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0	–	–	–	–	–	–	–
(5.5, 6.0]	–	–	–	–	–	–	–
(5.0, 5.5]	–	–	–	–	–	–	–
(4.5, 5.0]	2	1	–	–	–	–	1
(4.0, 4.5]	–	–	–	–	–	–	–
(3.5, 4.0]	4	–	1	–	–	3	–
(3.0, 3.5]	6	–	1	–	–	2	3
(2.5, 3.0]	18	–	–	–	1	7	10
(2.0, 2.5]	41	3	1	1	1	14	21
(1.5, 2.0]	63	7	1	2	–	10	43
(1.0, 1.5]	95	9	4	–	1	19	62
(0.5, 1.0]	113	4	1	2	1	25	80
(0, 0.5]	110	5	1	–	–	20	84
(–0.5, 0]	81	3	–	–	–	19	59
(–1.0, –0.5]	82	4	–	–	2	24	52
(–1.5, –1.0]	39	1	2	–	3	4	29
(–2.0, –1.5]	15	2	–	1	–	3	9
(–2.5, –2.0]	4	–	–	–	–	1	3
(–3.0, –2.5]	2	–	–	1	–	1	–
(–3.5, –3.0]	–	–	–	–	–	–	–
<= –3.5	–	–	–	–	–	–	–

Table 8.C.6 Conditional Exposure by Difficulty for ELA, Grade Six

b-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0	–	–	–	–	–	–	–
(5.5, 6.0]	–	–	–	–	–	–	–
(5.0, 5.5]	–	–	–	–	–	–	–
(4.5, 5.0]	4	–	–	–	–	2	2
(4.0, 4.5]	9	–	–	–	–	7	2
(3.5, 4.0]	11	–	–	–	–	10	1
(3.0, 3.5]	21	–	–	–	–	11	10
(2.5, 3.0]	31	3	1	–	–	6	21
(2.0, 2.5]	55	5	2	–	–	15	33
(1.5, 2.0]	88	14	1	1	–	15	57
(1.0, 1.5]	92	9	–	–	–	20	63
(0.5, 1.0]	93	5	4	–	–	28	56
(0, 0.5]	81	8	–	1	–	18	54
(–0.5, 0]	80	8	–	–	–	19	53
(–1.0, –0.5]	56	6	1	–	–	18	31
(–1.5, –1.0]	24	1	–	–	–	6	17
(–2.0, –1.5]	4	–	–	–	–	1	3
(–2.5, –2.0]	–	–	–	–	–	–	–
(–3.0, –2.5]	1	–	–	–	–	1	–
(–3.5, –3.0]	–	–	–	–	–	–	–
<= –3.5	–	–	–	–	–	–	–

Table 8.C.7 Conditional Exposure by Difficulty for ELA, Grade Seven

<i>b</i> -value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0	–	–	–	–	–	–	–
(5.5, 6.0]	1	–	–	–	–	1	–
(5.0, 5.5]	2	–	–	–	–	2	–
(4.5, 5.0]	5	–	–	–	–	4	1
(4.0, 4.5]	5	–	–	–	–	5	–
(3.5, 4.0]	16	–	1	1	–	7	7
(3.0, 3.5]	25	1	2	1	1	7	13
(2.5, 3.0]	22	4	–	–	–	4	14
(2.0, 2.5]	58	8	3	1	1	22	23
(1.5, 2.0]	95	12	3	3	–	20	57
(1.0, 1.5]	109	1	2	3	–	18	85
(0.5, 1.0]	90	2	1	–	–	24	63
(0, 0.5]	72	3	1	–	1	21	46
(–0.5, 0]	79	6	3	2	–	21	47
(–1.0, –0.5]	27	3	1	1	–	11	11
(–1.5, –1.0]	19	1	–	2	–	11	5
(–2.0, –1.5]	6	–	–	–	–	3	3
(–2.5, –2.0]	–	–	–	–	–	–	–
(–3.0, –2.5]	–	–	–	–	–	–	–
(–3.5, –3.0]	–	–	–	–	–	–	–
<= –3.5	–	–	–	–	–	–	–

Table 8.C.8 Conditional Exposure by Difficulty for ELA, Grade Eight

b-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0	–	–	–	–	–	–	–
(5.5, 6.0]	1	–	–	–	–	–	1
(5.0, 5.5]	2	–	–	–	–	1	1
(4.5, 5.0]	1	–	–	–	–	1	–
(4.0, 4.5]	8	1	–	1	–	4	2
(3.5, 4.0]	20	3	1	1	–	5	10
(3.0, 3.5]	26	–	–	–	1	5	20
(2.5, 3.0]	47	1	–	2	–	8	36
(2.0, 2.5]	76	12	–	–	1	11	52
(1.5, 2.0]	98	8	2	2	1	16	69
(1.0, 1.5]	97	6	4	–	–	12	75
(0.5, 1.0]	66	3	–	–	–	12	51
(0, 0.5]	66	5	–	–	–	15	46
(–0.5, 0]	84	3	–	1	–	18	62
(–1.0, –0.5]	25	1	–	–	–	7	17
(–1.5, –1.0]	8	–	1	–	–	2	5
(–2.0, –1.5]	3	–	–	–	–	2	1
(–2.5, –2.0]	–	–	–	–	–	–	–
(–3.0, –2.5]	–	–	–	–	–	–	–
(–3.5, –3.0]	1	–	–	–	–	–	1
<= –3.5	–	–	–	–	–	–	–

Table 8.C.9 Conditional Exposure by Difficulty for ELA, Grade Eleven

<i>b</i>-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0	–	–	–	–	–	–	–
(5.5, 6.0]	4	–	1	2	1	–	–
(5.0, 5.5]	7	1	–	2	3	1	–
(4.5, 5.0]	21	–	–	4	12	2	3
(4.0, 4.5]	52	5	1	8	23	5	10
(3.5, 4.0]	72	5	2	4	14	34	13
(3.0, 3.5]	111	13	2	12	18	23	43
(2.5, 3.0]	150	13	6	27	24	2	78
(2.0, 2.5]	201	31	6	21	36	6	101
(1.5, 2.0]	270	24	5	27	37	3	174
(1.0, 1.5]	198	5	4	27	33	2	127
(0.5, 1.0]	185	3	5	29	54	4	90
(0, 0.5]	149	4	3	23	37	3	79
(–0.5, 0]	98	1	1	15	27	3	51
(–1.0, –0.5]	48	–	–	6	17	–	25
(–1.5, –1.0]	12	–	–	3	4	–	5
(–2.0, –1.5]	3	–	–	–	–	1	2
(–2.5, –2.0]	–	–	–	–	–	–	–
(–3.0, –2.5]	–	–	–	–	–	–	–
(–3.5, –3.0]	–	–	–	–	–	–	–
<= –3.5	–	–	–	–	–	–	–

Table 8.C.10 Conditional Exposure by Difficulty for Mathematics, Grade Three

b-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0	–	–	–	–	–	–	–
(5.5, 6.0]	–	–	–	–	–	–	–
(5.0, 5.5]	–	–	–	–	–	–	–
(4.5, 5.0]	–	–	–	–	–	–	–
(4.0, 4.5]	–	–	–	–	–	–	–
(3.5, 4.0]	–	–	–	–	–	–	–
(3.0, 3.5]	2	–	–	–	2	–	–
(2.5, 3.0]	–	–	–	–	–	–	–
(2.0, 2.5]	3	–	–	–	2	–	1
(1.5, 2.0]	7	–	–	–	4	3	–
(1.0, 1.5]	20	–	–	–	4	6	10
(0.5, 1.0]	75	9	–	–	15	11	40
(0, 0.5]	122	9	–	–	20	15	78
(–0.5, 0]	163	5	–	–	28	7	123
(–1.0, –0.5]	154	1	–	–	37	8	108
(–1.5, –1.0]	140	1	–	–	33	1	105
(–2.0, –1.5]	163	4	–	–	37	1	121
(–2.5, –2.0]	68	1	–	–	9	1	57
(–3.0, –2.5]	34	–	–	–	16	–	18
(–3.5, –3.0]	9	–	–	–	6	–	3
<= –3.5	–	–	–	–	–	–	–

Table 8.C.11 Conditional Exposure by Difficulty for Mathematics, Grade Four

<i>b</i>-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0	–	–	–	–	–	–	–
(5.5, 6.0]	–	–	–	–	–	–	–
(5.0, 5.5]	–	–	–	–	–	–	–
(4.5, 5.0]	–	–	–	–	–	–	–
(4.0, 4.5]	1	–	–	–	–	–	1
(3.5, 4.0]	–	–	–	–	–	–	–
(3.0, 3.5]	1	–	–	–	1	–	–
(2.5, 3.0]	2	–	–	–	–	2	–
(2.0, 2.5]	15	–	–	–	3	4	8
(1.5, 2.0]	32	–	–	–	1	14	17
(1.0, 1.5]	78	3	–	–	8	12	55
(0.5, 1.0]	146	5	–	–	8	15	118
(0, 0.5]	179	6	–	–	5	10	158
(–0.5, 0]	182	2	–	–	7	12	161
(–1.0, –0.5]	123	–	–	–	3	9	111
(–1.5, –1.0]	91	–	–	–	–	2	89
(–2.0, –1.5]	52	1	–	–	–	–	51
(–2.5, –2.0]	26	1	–	–	–	1	24
(–3.0, –2.5]	20	7	2	–	–	3	8
(–3.5, –3.0]	8	3	2	–	–	–	3
<= –3.5	–	–	–	–	–	–	–

Table 8.C.12 Conditional Exposure by Difficulty for Mathematics, Grade Five

b-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0	–	–	–	–	–	–	–
(5.5, 6.0]	–	–	–	–	–	–	–
(5.0, 5.5]	2	–	–	–	–	1	1
(4.5, 5.0]	–	–	–	–	–	–	–
(4.0, 4.5]	1	–	–	–	–	–	1
(3.5, 4.0]	3	–	–	–	–	1	2
(3.0, 3.5]	6	–	–	–	–	2	–
(2.5, 3.0]	21	1	–	–	4	11	5
(2.0, 2.5]	50	1	–	–	9	13	27
(1.5, 2.0]	117	4	–	–	17	27	69
(1.0, 1.5]	143	6	–	–	20	20	97
(0.5, 1.0]	178	4	–	–	5	9	160
(0, 0.5]	184	3	–	–	3	6	172
(–0.5, 0]	108	–	–	–	–	5	103
(–1.0, –0.5]	68	1	–	–	–	7	60
(–1.5, –1.0]	21	1	–	–	2	2	16
(–2.0, –1.5]	22	1	5	1	1	3	11
(–2.5, –2.0]	22	2	5	4	2	1	8
(–3.0, –2.5]	18	5	5	–	1	1	6
(–3.5, –3.0]	5	3	–	–	1	1	–
<= –3.5	–	–	–	–	–	–	–

Table 8.C.13 Conditional Exposure by Difficulty for Mathematics, Grade Six

b-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0	–	–	–	–	–	–	–
(5.5, 6.0]	–	–	–	–	–	–	–
(5.0, 5.5]	1	–	–	–	–	1	–
(4.5, 5.0]	1	–	–	–	–	1	–
(4.0, 4.5]	3	–	–	–	–	2	1
(3.5, 4.0]	12	–	–	–	–	9	3
(3.0, 3.5]	17	–	–	–	–	7	10
(2.5, 3.0]	37	–	–	–	–	12	25
(2.0, 2.5]	103	1	–	–	–	35	67
(1.5, 2.0]	130	3	–	–	–	32	95
(1.0, 1.5]	149	1	–	–	–	22	126
(0.5, 1.0]	139	1	–	–	–	15	123
(0, 0.5]	110	2	–	–	–	10	98
(–0.5, 0]	64	1	–	–	–	–	63
(–1.0, –0.5]	48	1	–	–	–	–	47
(–1.5, –1.0]	19	1	–	–	–	1	17
(–2.0, –1.5]	20	–	–	–	–	7	13
(–2.5, –2.0]	12	–	–	–	–	2	10
(–3.0, –2.5]	6	–	–	–	–	2	4
(–3.5, –3.0]	1	–	–	–	–	1	–
<= –3.5	1	–	–	–	–	1	–

Table 8.C.14 Conditional Exposure by Difficulty for Mathematics, Grade Seven

<i>b</i>-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0	1	–	–	–	–	–	1
(5.5, 6.0]	1	–	–	–	–	–	1
(5.0, 5.5]	7	–	–	–	–	5	2
(4.5, 5.0]	7	–	–	–	–	3	4
(4.0, 4.5]	14	–	–	–	–	9	5
(3.5, 4.0]	18	–	–	–	–	10	8
(3.0, 3.5]	33	–	–	–	–	14	19
(2.5, 3.0]	95	–	–	–	–	38	57
(2.0, 2.5]	143	2	1	–	–	53	87
(1.5, 2.0]	147	2	–	–	–	36	109
(1.0, 1.5]	130	2	–	–	–	23	105
(0.5, 1.0]	76	1	–	–	–	–	75
(0, 0.5]	46	1	–	–	–	–	45
(–0.5, 0]	22	–	–	–	–	–	22
(–1.0, –0.5]	17	1	–	–	–	–	16
(–1.5, –1.0]	12	1	–	–	–	–	11
(–2.0, –1.5]	8	–	–	–	–	–	8
(–2.5, –2.0]	–	–	–	–	–	–	–
(–3.0, –2.5]	–	–	–	–	–	–	–
(–3.5, –3.0]	–	–	–	–	–	–	–
<= –3.5	–	–	–	–	–	–	–

Table 8.C.15 Conditional Exposure by Difficulty for Mathematics, Grade Eight

<i>b</i>-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0	2	–	–	–	1	–	1
(5.5, 6.0]	12	–	–	–	3	8	1
(5.0, 5.5]	12	–	–	–	5	5	2
(4.5, 5.0]	16	–	–	–	3	5	8
(4.0, 4.5]	29	1	–	–	1	13	14
(3.5, 4.0]	50	–	–	–	–	20	30
(3.0, 3.5]	77	2	–	–	–	22	53
(2.5, 3.0]	107	6	–	–	–	13	88
(2.0, 2.5]	134	8	–	–	–	15	111
(1.5, 2.0]	109	6	–	–	–	2	101
(1.0, 1.5]	67	7	–	–	–	1	59
(0.5, 1.0]	40	4	–	–	–	1	35
(0, 0.5]	30	2	–	–	–	–	28
(–0.5, 0]	23	1	–	–	–	2	20
(–1.0, –0.5]	25	2	–	–	–	2	21
(–1.5, –1.0]	10	–	–	–	–	4	6
(–2.0, –1.5]	10	3	–	–	–	4	3
(–2.5, –2.0]	–	–	–	–	–	–	–
(–3.0, –2.5]	–	–	–	–	–	–	–
(–3.5, –3.0]	–	–	–	–	–	–	–
<= –3.5	–	–	–	–	–	–	–

Table 8.C.16 Conditional Exposure by Difficulty for Mathematics, Grade Eleven

<i>b</i>-value	No. of Items	Frequency=0	1<=Frequency<100	100<=Frequency<500	500<=Frequency<1000	1000<=Frequency<3000	Frequency>=3000
> 6.0	34	1	–	24	1	2	6
(5.5, 6.0]	36	1	–	27	3	2	3
(5.0, 5.5]	44	–	–	31	5	4	4
(4.5, 5.0]	88	1	–	62	13	6	6
(4.0, 4.5]	114	5	–	54	12	27	16
(3.5, 4.0]	216	8	–	23	45	95	45
(3.0, 3.5]	266	14	–	31	51	103	67
(2.5, 3.0]	292	17	–	20	58	120	77
(2.0, 2.5]	232	12	–	8	19	80	113
(1.5, 2.0]	186	10	–	9	3	54	110
(1.0, 1.5]	133	3	–	7	–	24	99
(0.5, 1.0]	85	1	–	1	–	8	75
(0, 0.5]	57	1	–	–	–	12	44
(–0.5, 0]	31	–	–	–	–	2	29
(–1.0, –0.5]	23	2	–	–	–	4	17
(–1.5, –1.0]	21	–	–	–	–	4	17
(–2.0, –1.5]	12	1	–	–	2	6	3
(–2.5, –2.0]	5	–	–	1	2	2	–
(–3.0, –2.5]	–	–	–	–	–	–	–
(–3.5, –3.0]	3	–	–	3	–	–	–
<= –3.5	–	–	–	–	–	–	–

Appendix 8.D: Reliability Analyses

Table 8.D.1 Reliabilities of Claims and Intercorrelations for ELA, Grade Three

Claim	No. of Items	Intercorrelations				Reliability	SEM
		1	2	3	4		
Claim 1	14–16	1.00	.	.	.	0.75	0.54
Claim 2	12	0.69	1.00	.	.	0.76	0.54
Claim 3	8–9	0.62	0.61	1.00	.	0.50	0.81
Claim 4	8–9	0.65	0.64	0.56	1.00	0.61	0.73

Table 8.D.2 Reliabilities of Claims and Intercorrelations for ELA, Grade Four

Claim	No. of Items	Intercorrelations				Reliability	SEM
		1	2	3	4		
Claim 1	14–16	1.00	.	.	.	0.74	0.60
Claim 2	12	0.71	1.00	.	.	0.76	0.55
Claim 3	8–9	0.63	0.62	1.00	.	0.52	0.87
Claim 4	8–9	0.67	0.66	0.59	1.00	0.61	0.76

Table 8.D.3 Reliabilities of Claims and Intercorrelations for ELA, Grade Five

Claim	No. of Items	Intercorrelations				Reliability	SEM
		1	2	3	4		
Claim 1	14–16	1.00	.	.	.	0.76	0.57
Claim 2	12	0.72	1.00	.	.	0.79	0.53
Claim 3	8–9	0.65	0.62	1.00	.	0.48	0.97
Claim 4	8–9	0.70	0.70	0.61	1.00	0.64	0.68

Table 8.D.4 Reliabilities of Claims and Intercorrelations for ELA, Grade Six

Claim	No. of Items	Intercorrelations				Reliability	SEM
		1	2	3	4		
Claim 1	13–17	1.00	.	.	.	0.68	0.70
Claim 2	12	0.68	1.00	.	.	0.77	0.53
Claim 3	8–9	0.60	0.62	1.00	.	0.40	0.97
Claim 4	8–9	0.64	0.66	0.57	1.00	0.56	0.77

Table 8.D.5 Reliabilities of Claims and Intercorrelations for ELA, Grade Seven

Claim	No. of Items	Intercorrelations				Reliability	SEM
		1	2	3	4		
Claim 1	13–17	1.00	.	.	.	0.72	0.63
Claim 2	12	0.71	1.00	.	.	0.76	0.56
Claim 3	8–9	0.65	0.61	1.00	.	0.42	0.95
Claim 4	8–9	0.69	0.68	0.59	1.00	0.60	0.79

Table 8.D.6 Reliabilities of Claims and Intercorrelations for ELA, Grade Eight

Claim	No. of Items	Intercorrelations				Reliability	SEM
		1	2	3	4		
Claim 1	13–17	1.00	.	.	.	0.73	0.60
Claim 2	12	0.71	1.00	.	.	0.74	0.57
Claim 3	8–9	0.64	0.61	1.00	.	0.44	0.93
Claim 4	8–9	0.68	0.67	0.58	1.00	0.60	0.80

Table 8.D.7 Reliabilities of Claims and Intercorrelations for ELA, Grade Eleven

Claim	No. of Items	Intercorrelations				Reliability	SEM
		1	2	3	4		
Claim 1	15–16	1.00	.	.	.	0.71	0.66
Claim 2	12	0.72	1.00	.	.	0.74	0.66
Claim 3	8–9	0.63	0.62	1.00	.	0.44	1.03
Claim 4	8–9	0.67	0.72	0.60	1.00	0.60	0.84

Table 8.D.8 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Three

Claim	No. of Items	Intercorrelations			Reliability	SEM
		1	2	3		
Claim 1	17–20	1.00	.	.	0.89	0.34
Claim 2	8–10	0.79	1.00	.	0.75	0.51
Claim 3	8–10	0.75	0.71	1.00	0.64	0.63

Table 8.D.9 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Four

Claim	No. of Items	Intercorrelations			Reliability	SEM
		1	2	3		
Claim 1	17–20	1.00	.	.	0.89	0.34
Claim 2	8–10	0.77	1.00	.	0.69	0.56
Claim 3	8–10	0.79	0.71	1.00	0.71	0.58

Table 8.D.10 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Five

Claim	No. of Items	Intercorrelations			Reliability	SEM
		1	2	3		
Claim 1	17–20	1.00	.	.	0.87	0.41
Claim 2	8–10	0.75	1.00	.	0.67	0.60
Claim 3	8–10	0.73	0.67	1.00	0.60	0.73

Table 8.D.11 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Six

Claim	No. of Items	Intercorrelations			Reliability	SEM
		1	2	3		
Claim 1	16–20	1.00	.	.	0.87	0.46
Claim 2	8–10	0.78	1.00	.	0.63	0.70
Claim 3	8–10	0.76	0.69	1.00	0.62	0.79

Table 8.D.12 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Seven

Claim	No. of Items	Intercorrelations			Reliability	SEM
		1	2	3		
Claim 1	16–20	1.00	.	.	0.85	0.52
Claim 2	8–10	0.76	1.00	.	0.59	0.76
Claim 3	8–10	0.72	0.64	1.00	0.44	0.93

Table 8.D.13 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Eight

Claim	No. of Items	Intercorrelations			Reliability	SEM
		1	2	3		
Claim 1	16–20	1.00	.	.	0.84	0.57
Claim 2	8–10	0.72	1.00	.	0.55	0.86
Claim 3	8–10	0.78	0.66	1.00	0.64	0.87

Table 8.D.14 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Eleven

Claim	No. of Items	Intercorrelations			Reliability	SEM
		1	2	3		
Claim 1	19–22	1.00	.	.	0.82	0.65
Claim 2	8–10	0.73	1.00	.	0.47	1.05
Claim 3	8–10	0.71	0.64	1.00	0.50	1.10

Table 8.D.15 Reliabilities and SEMs by Gender

Content Area	Grade	Male			Female		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	240,687	0.91	0.31	229,660	0.91	0.30
	4	234,159	0.91	0.33	224,677	0.91	0.31
	5	233,363	0.92	0.31	222,583	0.92	0.30
	6	231,686	0.91	0.33	221,251	0.90	0.32
	7	227,125	0.91	0.33	217,859	0.91	0.32
	8	228,590	0.91	0.33	218,865	0.91	0.32
	11	209,328	0.92	0.37	202,253	0.91	0.35
Mathematics	3	239,220	0.92	0.28	229,935	0.93	0.24
	4	233,787	0.94	0.25	226,487	0.93	0.25
	5	232,955	0.93	0.31	224,429	0.92	0.30
	6	228,927	0.93	0.35	221,360	0.92	0.33
	7	224,354	0.91	0.40	217,685	0.91	0.39
	8	224,574	0.91	0.42	217,728	0.91	0.40
	11	207,475	0.90	0.51	203,432	0.89	0.48

Table 8.D.16 Reliabilities and SEMs by Economic Status

Content Area	Grade	No Economic Disadvantage			Economic Disadvantage		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	176,037	0.91	0.29	294,310	0.88	0.31
	4	173,530	0.91	0.31	285,306	0.89	0.33
	5	176,829	0.91	0.30	279,117	0.90	0.30
	6	177,673	0.90	0.32	275,264	0.89	0.33
	7	175,698	0.90	0.32	269,286	0.89	0.33
	8	180,825	0.90	0.32	266,630	0.90	0.32
	11	182,546	0.91	0.35	229,035	0.90	0.36
Mathematics	3	175,905	0.94	0.23	293,250	0.90	0.28
	4	174,359	0.94	0.23	285,915	0.92	0.26
	5	177,604	0.93	0.27	279,780	0.89	0.32
	6	177,368	0.93	0.30	272,919	0.90	0.36
	7	175,773	0.93	0.34	266,266	0.87	0.43
	8	178,323	0.93	0.37	263,979	0.88	0.44
	11	184,674	0.92	0.45	226,233	0.85	0.53

Table 8.D.17 Reliabilities and SEMs by Special Services

Content Area	Grade	No Special Services			Special Services		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	425,480	0.91	0.30	44,867	0.84	0.38
	4	410,128	0.91	0.31	48,708	0.86	0.37
	5	405,640	0.92	0.30	50,306	0.88	0.33
	6	405,574	0.90	0.32	47,363	0.85	0.37
	7	400,181	0.91	0.32	44,803	0.84	0.37
	8	403,525	0.91	0.32	43,930	0.85	0.35
	11	377,798	0.91	0.36	33,783	0.86	0.40
Mathematics	3	425,942	0.93	0.24	43,213	0.85	0.41
	4	412,094	0.93	0.24	48,180	0.92	0.30
	5	407,529	0.92	0.29	49,855	0.87	0.38
	6	405,413	0.92	0.32	44,874	0.86	0.45
	7	399,584	0.91	0.38	42,455	0.79	0.54
	8	400,131	0.91	0.40	42,171	0.80	0.53
	11	378,683	0.89	0.48	32,224	0.68	0.66

Table 8.D.18 Reliabilities and SEMs by English–Language Fluency

Content Area	Grade	English Only			Initially Designated Fluent		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	269,208	0.91	0.30	17,775	0.91	0.28
	4	258,897	0.91	0.31	17,525	0.90	0.30
	5	254,749	0.92	0.30	19,583	0.91	0.30
	6	251,248	0.90	0.32	20,974	0.90	0.31
	7	244,124	0.91	0.32	19,903	0.90	0.32
	8	244,310	0.91	0.32	20,508	0.90	0.32
	11	225,810	0.91	0.36	34,368	0.90	0.35
Mathematics	3	267,504	0.92	0.27	17,617	0.94	0.23
	4	258,914	0.94	0.24	17,416	0.94	0.23
	5	254,807	0.93	0.30	19,528	0.94	0.27
	6	249,378	0.93	0.33	20,745	0.93	0.30
	7	242,394	0.92	0.38	19,723	0.93	0.33
	8	240,972	0.92	0.40	19,966	0.93	0.36
	11	225,844	0.90	0.48	34,774	0.92	0.44

Table 8.D.19 Reliabilities and SEMs by English–Language Fluency (continued)

Content Area	Grade	English Learner			Redesignated Fluent		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	151,146	0.85	0.33	30,966	0.87	0.27
	4	119,879	0.83	0.34	61,454	0.87	0.29
	5	100,111	0.85	0.31	80,521	0.88	0.29
	6	76,085	0.81	0.35	103,648	0.87	0.31
	7	65,297	0.79	0.36	114,608	0.88	0.31
	8	57,768	0.80	0.35	123,933	0.88	0.31
	11	39,003	0.80	0.40	111,519	0.89	0.35
Mathematics	3	151,550	0.91	0.26	30,819	0.91	0.22
	4	121,169	0.89	0.27	61,314	0.92	0.23
	5	101,323	0.83	0.36	80,366	0.91	0.27
	6	75,597	0.83	0.41	103,315	0.91	0.31
	7	64,563	0.77	0.51	113,981	0.90	0.36
	8	57,452	0.78	0.52	122,705	0.90	0.39
	11	38,191	0.68	0.66	111,084	0.88	0.47

Table 8.D.20 Reliabilities and SEMs by Primary Ethnicity

Content Area	Grade	American Indian			Asian		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	2,535	0.90	0.30	39,955	0.92	0.28
	4	2,443	0.89	0.34	39,727	0.91	0.30
	5	2,511	0.91	0.31	40,725	0.92	0.30
	6	2,493	0.89	0.33	40,433	0.90	0.31
	7	2,661	0.90	0.33	38,822	0.91	0.32
	8	2,588	0.90	0.33	39,404	0.90	0.32
	11	2,572	0.91	0.36	35,514	0.91	0.35
Mathematics	3	2,511	0.93	0.25	40,006	0.94	0.23
	4	2,434	0.93	0.26	39,779	0.94	0.23
	5	2,501	0.90	0.33	40,767	0.94	0.26
	6	2,468	0.91	0.36	40,249	0.94	0.29
	7	2,643	0.88	0.43	38,783	0.94	0.31
	8	2,540	0.89	0.44	38,005	0.94	0.34
	11	2,516	0.86	0.52	36,740	0.93	0.38

Table 8.D.21 Reliabilities and SEMs by Primary Ethnicity (continued)

Content Area	Grade	Pacific Islander			Filipino		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	2,215	0.90	0.29	10,651	0.90	0.28
	4	2,282	0.90	0.31	10,992	0.90	0.31
	5	2,383	0.91	0.30	11,632	0.91	0.30
	6	2,293	0.89	0.32	12,292	0.89	0.31
	7	2,318	0.89	0.32	12,269	0.90	0.31
	8	2,296	0.90	0.32	12,855	0.89	0.31
	11	2,347	0.91	0.36	13,463	0.89	0.35
Mathematics	3	2,212	0.93	0.24	10,753	0.93	0.23
	4	2,276	0.92	0.25	11,172	0.93	0.23
	5	2,385	0.91	0.31	11,742	0.93	0.27
	6	2,278	0.91	0.33	12,404	0.92	0.30
	7	2,306	0.89	0.40	12,424	0.92	0.34
	8	2,287	0.89	0.42	12,851	0.92	0.36
	11	2,318	0.86	0.51	13,638	0.90	0.42

Table 8.D.22 Reliabilities and SEMs by Primary Ethnicity (continued)

Content Area	Grade	Hispanic			African American			White		
		N	Reliability	SEM	N	Reliability	SEM	N	Reliability	SEM
ELA	3	261,518	0.88	0.31	26,391	0.88	0.32	108,941	0.90	0.30
	4	252,447	0.89	0.32	25,952	0.89	0.33	108,454	0.91	0.31
	5	246,388	0.91	0.30	26,301	0.91	0.31	110,763	0.92	0.30
	6	243,059	0.89	0.33	26,335	0.89	0.34	111,515	0.90	0.32
	7	239,482	0.89	0.33	26,747	0.90	0.34	109,426	0.91	0.32
	8	238,789	0.89	0.32	27,675	0.90	0.33	111,121	0.90	0.32
	11	216,440	0.90	0.36	25,104	0.91	0.37	105,159	0.91	0.35
Mathematics	3	260,790	0.90	0.28	26,050	0.91	0.28	108,785	0.93	0.24
	4	253,311	0.92	0.26	25,845	0.91	0.27	108,886	0.94	0.23
	5	247,238	0.89	0.32	26,164	0.89	0.34	111,277	0.93	0.28
	6	241,243	0.90	0.36	25,864	0.90	0.38	111,383	0.93	0.31
	7	237,153	0.87	0.43	26,070	0.86	0.45	109,403	0.92	0.35
	8	236,728	0.88	0.44	27,111	0.87	0.46	110,200	0.92	0.37
	11	213,785	0.84	0.53	24,570	0.82	0.56	106,285	0.91	0.45

Table 8.D.23 Reliabilities and SEMs by Migrant Status

Content Area	Grade	Migrant			Non-Migrant		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	4,646	0.87	0.31	465,701	0.91	0.31
	4	4,492	0.78	0.42	454,344	0.91	0.32
	5	4,455	0.89	0.31	451,491	0.92	0.30
	6	3,921	0.87	0.34	449,016	0.91	0.32
	7	3,734	0.88	0.34	441,250	0.91	0.32
	8	3,880	0.89	0.33	443,575	0.91	0.32
	11	3,353	0.89	0.37	408,228	0.91	0.36
Mathematics	3	4,685	0.90	0.26	464,470	0.93	0.26
	4	4,521	0.90	0.27	455,753	0.94	0.25
	5	4,500	0.86	0.34	452,884	0.92	0.30
	6	3,916	0.88	0.38	446,371	0.92	0.34
	7	3,721	0.84	0.45	438,318	0.91	0.40
	8	3,874	0.86	0.46	438,428	0.91	0.41
	11	3,310	0.80	0.56	407,597	0.89	0.49

Table 8.D.24 Reliabilities and SEMs by Primary Ethnicity for Not Economically Disadvantaged

Content Area	Grade	American Indian			Asian		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	785	0.91	0.28	25,651	0.90	0.28
	4	793	0.91	0.31	25,088	0.89	0.30
	5	790	0.92	0.30	25,672	0.89	0.30
	6	832	0.90	0.32	25,221	0.88	0.31
	7	936	0.91	0.32	24,019	0.88	0.32
	8	970	0.90	0.32	24,187	0.88	0.32
	11	1202	0.91	0.36	20,552	0.89	0.35
Mathematics	3	778	0.94	0.24	25,568	0.93	0.23
	4	794	0.94	0.24	24,959	0.93	0.22
	5	789	0.92	0.29	25,482	0.93	0.25
	6	836	0.92	0.33	24,928	0.92	0.28
	7	930	0.91	0.38	23,829	0.93	0.29
	8	950	0.91	0.41	22,834	0.93	0.32
	11	1,201	0.89	0.48	21,472	0.93	0.35

Table 8.D.25 Reliabilities and SEMs by Primary Ethnicity for Not Economically Disadvantaged (continued)

Content Area	Grade	Pacific Islander			Filipino		
		No.	Reliability	SEM	N	Reliability	SEM
ELA	3	742	0.91	0.28	6,891	0.90	0.28
	4	743	0.90	0.30	7,110	0.89	0.31
	5	817	0.90	0.30	7,424	0.90	0.30
	6	795	0.90	0.32	7,902	0.88	0.31
	7	832	0.89	0.32	7,871	0.89	0.31
	8	839	0.90	0.32	8,362	0.88	0.31
	11	1,081	0.91	0.36	9,189	0.88	0.35
Mathematics	3	739	0.93	0.23	6,957	0.93	0.23
	4	748	0.93	0.24	7,224	0.93	0.23
	5	821	0.92	0.29	7,497	0.93	0.26
	6	792	0.92	0.32	7,976	0.92	0.29
	7	832	0.91	0.36	7,993	0.92	0.32
	8	831	0.91	0.39	8,340	0.92	0.35
	11	1,066	0.88	0.48	9,357	0.91	0.41

**Table 8.D.26 Reliabilities and SEMs by Primary Ethnicity for Not Economically Disadvantaged
(continued)**

Content Area	Grade	Hispanic			African American			White		
		N	Reliability	SEM	N	Reliability	SEM	N	Reliability	SEM
ELA	3	48,346	0.90	0.29	6,406	0.88	0.33	76,274	0.89	0.30
	4	46,948	0.90	0.31	6,417	0.90	0.32	76,386	0.90	0.30
	5	46,432	0.91	0.30	6,963	0.92	0.30	79,411	0.90	0.30
	6	46,803	0.89	0.32	7,188	0.90	0.32	80,126	0.88	0.32
	7	47,381	0.90	0.32	7,581	0.91	0.33	78,853	0.89	0.31
	8	49,040	0.90	0.32	8,195	0.91	0.32	81,234	0.89	0.31
	11	54,618	0.91	0.36	9,501	0.91	0.36	79,249	0.90	0.35
Mathematics	3	48,385	0.93	0.24	6,373	0.93	0.24	76,208	0.93	0.23
	4	47,305	0.93	0.24	6,416	0.93	0.25	76,825	0.93	0.23
	5	46,766	0.92	0.29	6,954	0.91	0.31	79,904	0.93	0.26
	6	46,766	0.92	0.32	7,113	0.92	0.34	80,223	0.92	0.29
	7	47,308	0.90	0.38	7,462	0.89	0.41	79,146	0.92	0.32
	8	48,784	0.90	0.40	8,084	0.90	0.43	80,601	0.92	0.35
	11	54,301	0.87	0.50	9,393	0.86	0.53	80,608	0.92	0.42

Table 8.D.27 Reliabilities and SEMs by Primary Ethnicity for Economically Disadvantaged

Content Area	Grade	American Indian			Asian		
		N	Reliability	SEM	N	Reliability	SEM
ELA	3	1,750	0.88	0.30	14,304	0.91	0.29
	4	1,650	0.85	0.36	14,639	0.91	0.30
	5	1,721	0.89	0.31	15,053	0.92	0.30
	6	1,661	0.88	0.34	15,212	0.90	0.32
	7	1,725	0.88	0.34	14,803	0.91	0.32
	8	1,618	0.89	0.33	15,217	0.91	0.32
	11	1,370	0.90	0.37	14,962	0.91	0.35
Mathematics	3	1,733	0.92	0.26	14,438	0.93	0.25
	4	1,640	0.91	0.27	14,820	0.94	0.24
	5	1,712	0.87	0.34	15,285	0.93	0.28
	6	1,632	0.89	0.37	15,321	0.93	0.31
	7	1,713	0.85	0.45	14,954	0.92	0.34
	8	1,590	0.86	0.46	15,171	0.93	0.37
	11	1,315	0.81	0.56	15,268	0.92	0.42

Table 8.D.28 Reliabilities and SEMs by Primary Ethnicity for Economically Disadvantaged (continued)

Content Area	Grade	Pacific Islander			Filipino		
		No.	Reliability	SEM	No.	Reliability	SEM
ELA	3	1,473	0.89	0.29	3,760	0.90	0.28
	4	1,539	0.89	0.31	3,882	0.90	0.30
	5	1,566	0.90	0.30	4,208	0.91	0.30
	6	1,498	0.88	0.33	4,390	0.89	0.32
	7	1,486	0.89	0.33	4,398	0.90	0.32
	8	1,457	0.89	0.32	4,493	0.89	0.31
	11	1,266	0.90	0.37	4,274	0.90	0.35
Mathematics	3	1,473	0.92	0.25	3,796	0.93	0.23
	4	1,528	0.91	0.25	3,948	0.93	0.24
	5	1,564	0.89	0.32	4,245	0.92	0.28
	6	1,486	0.89	0.34	4,428	0.92	0.32
	7	1,474	0.87	0.42	4,431	0.90	0.36
	8	1,456	0.88	0.44	4,511	0.90	0.38
	11	1,252	0.84	0.53	4,281	0.89	0.45

Table 8.D.29 Reliabilities and SEMs by Primary Ethnicity for Economically Disadvantaged (continued)

Content Area	Grade	Hispanic			African American			White		
		N	Reliability	SEM	N	Reliability	SEM	N	Reliability	SEM
ELA	3	213,172	0.87	0.31	19,985	0.88	0.31	32,667	0.89	0.32
	4	205,499	0.88	0.33	19,535	0.88	0.33	32,068	0.89	0.32
	5	199,956	0.90	0.30	19,338	0.90	0.31	31,352	0.91	0.30
	6	196,256	0.88	0.33	19,147	0.88	0.34	31,389	0.89	0.32
	7	192,101	0.89	0.33	19,166	0.88	0.34	30,573	0.90	0.32
	8	189,749	0.89	0.32	19,480	0.89	0.33	29,887	0.90	0.32
	11	161,822	0.90	0.37	15,603	0.90	0.38	25,910	0.91	0.36
Mathematics	3	212,405	0.89	0.29	19,677	0.89	0.29	32,577	0.91	0.27
	4	206,006	0.91	0.26	19,429	0.90	0.27	32,061	0.93	0.25
	5	200,472	0.88	0.33	19,210	0.86	0.35	31,373	0.91	0.31
	6	194,477	0.89	0.36	18,751	0.88	0.39	31,160	0.91	0.34
	7	189,845	0.85	0.44	18,608	0.83	0.47	30,257	0.89	0.40
	8	187,944	0.86	0.45	19,027	0.84	0.47	29,599	0.89	0.42
	11	159,484	0.82	0.54	15,177	0.78	0.58	25,677	0.87	0.51

Table 8.D.30 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Three

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	14–16	0.74	0.55	0.75	0.53	0.75	0.52	0.68	0.55	0.61	0.57	0.75	0.54
Claim 2	12	0.75	0.55	0.77	0.54	0.76	0.52	0.71	0.56	0.67	0.58	0.76	0.54
Claim 3	8–9	0.51	0.81	0.49	0.80	0.45	0.79	0.45	0.81	0.39	0.84	0.50	0.80
Claim 4	8–9	0.60	0.74	0.62	0.72	0.63	0.69	0.53	0.76	0.46	0.78	0.61	0.73

Table 8.D.31 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Four

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	14–16	0.73	0.60	0.74	0.59	0.74	0.57	0.67	0.61	0.59	0.63	0.74	0.59
Claim 2	12	0.76	0.56	0.76	0.55	0.73	0.55	0.73	0.56	0.71	0.57	0.76	0.55
Claim 3	8–9	0.52	0.87	0.50	0.86	0.48	0.83	0.46	0.89	0.39	0.92	0.52	0.86
Claim 4	8–9	0.60	0.77	0.62	0.75	0.61	0.73	0.54	0.78	0.48	0.80	0.61	0.76

Table 8.D.32 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Five

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	14–16	0.75	0.58	0.76	0.56	0.75	0.55	0.71	0.58	0.64	0.59	0.76	0.57
Claim 2	12	0.79	0.53	0.78	0.53	0.76	0.54	0.76	0.53	0.75	0.54	0.79	0.53
Claim 3	8–9	0.48	0.97	0.47	0.97	0.46	0.93	0.41	0.99	0.34	1.01	0.48	0.97
Claim 4	8–9	0.64	0.68	0.64	0.67	0.61	0.65	0.60	0.69	0.56	0.71	0.64	0.68

Table 8.D.33 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Six

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.67	0.72	0.68	0.69	0.70	0.66	0.61	0.73	0.54	0.76
Claim 2	12	0.77	0.53	0.76	0.52	0.74	0.52	0.74	0.53	0.72	0.55	0.77	0.53
Claim 3	8–9	0.41	0.97	0.37	0.97	0.29	0.98	0.40	0.96	0.40	0.96	0.40	0.97
Claim 4	8–9	0.55	0.79	0.57	0.75	0.57	0.71	0.50	0.80	0.46	0.83	0.56	0.77

Table 8.D.34 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Seven

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.72	0.64	0.72	0.62	0.71	0.61	0.67	0.64	0.62	0.67
Claim 2	12	0.76	0.57	0.75	0.56	0.73	0.56	0.74	0.57	0.71	0.58	0.76	0.56
Claim 3	8–9	0.43	0.95	0.41	0.95	0.36	0.95	0.38	0.95	0.35	0.95	0.42	0.95
Claim 4	8–9	0.59	0.82	0.60	0.77	0.61	0.73	0.53	0.83	0.48	0.86	0.60	0.79

Table 8.D.35 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Eight

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.73	0.62	0.73	0.59	0.73	0.58	0.69	0.62	0.64	0.64
Claim 2	12	0.75	0.57	0.72	0.57	0.71	0.58	0.71	0.57	0.71	0.57	0.74	0.57
Claim 3	8–9	0.46	0.93	0.41	0.93	0.37	0.94	0.42	0.92	0.42	0.92	0.44	0.93
Claim 4	8–9	0.59	0.82	0.61	0.77	0.61	0.75	0.55	0.83	0.51	0.85	0.60	0.80

Table 8.D.36 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—ELA, Grade Eleven

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	15–16	0.71	0.67	0.70	0.65	0.70	0.64	0.68	0.67	0.63	0.69
Claim 2	12	0.74	0.67	0.72	0.65	0.72	0.65	0.72	0.67	0.69	0.68	0.74	0.66
Claim 3	8–9	0.47	1.02	0.40	1.03	0.40	1.04	0.43	1.02	0.40	1.01	0.44	1.03
Claim 4	8–9	0.60	0.87	0.59	0.82	0.60	0.80	0.57	0.87	0.52	0.90	0.60	0.84

Table 8.D.37 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Three

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.89	0.34	0.88	0.33	0.88	0.33	0.86	0.34	0.84	0.34
Claim 2	8–10	0.75	0.51	0.74	0.51	0.76	0.47	0.67	0.53	0.60	0.56	0.75	0.51
Claim 3	8–10	0.64	0.64	0.63	0.62	0.69	0.56	0.52	0.67	0.41	0.70	0.64	0.63

Table 8.D.38 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Four

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.90	0.34	0.88	0.34	0.88	0.33	0.86	0.35	0.84	0.35
Claim 2	8–10	0.69	0.57	0.68	0.56	0.72	0.52	0.58	0.59	0.49	0.62	0.69	0.56
Claim 3	8–10	0.72	0.58	0.70	0.57	0.76	0.51	0.61	0.62	0.51	0.65	0.71	0.58

Table 8.D.39 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Five

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.88	0.41	0.86	0.41	0.88	0.38	0.83	0.43	0.79	0.45
Claim 2	8–10	0.68	0.60	0.66	0.60	0.72	0.53	0.52	0.64	0.36	0.68	0.67	0.60
Claim 3	8–10	0.61	0.73	0.59	0.72	0.67	0.65	0.44	0.77	0.28	0.80	0.60	0.73

Table 8.D.40 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Six

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	16–20	0.87	0.46	0.87	0.45	0.87	0.43	0.84	0.47	0.82	0.49
Claim 2	8–10	0.64	0.70	0.62	0.70	0.69	0.62	0.48	0.75	0.38	0.78	0.63	0.70
Claim 3	8–10	0.62	0.80	0.61	0.78	0.68	0.70	0.48	0.84	0.35	0.88	0.62	0.79

Table 8.D.41 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Seven

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	16–20	0.86	0.52	0.85	0.51	0.87	0.46	0.81	0.55	0.78	0.57
Claim 2	8–10	0.60	0.76	0.58	0.76	0.67	0.67	0.40	0.82	0.25	0.86	0.59	0.76
Claim 3	8–10	0.44	0.95	0.43	0.91	0.57	0.81	0.20	1.01	N/A	N/A	0.44	0.93

Table 8.D.42 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Eight

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	16–20	0.85	0.58	0.84	0.56	0.86	0.52	0.80	0.60	0.77	0.62
Claim 2	8–10	0.56	0.86	0.53	0.86	0.63	0.77	0.36	0.92	0.22	0.96	0.55	0.86
Claim 3	8–10	0.65	0.88	0.64	0.85	0.69	0.79	0.54	0.91	0.47	0.95	0.64	0.87

Table 8.D.43 Claim Reliabilities and SEM by Gender/Economic Status/Migrant Status—Mathematics, Grade Eleven

Claim	No. of Items	Male		Female		Not Econ. Disadvantaged		Economically Disadvantaged		Migrant		Non-Migrant	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	19–22	0.82	0.67	0.81	0.64	0.85	0.60	0.76	0.70	0.70	0.72
Claim 2	8–10	0.50	1.05	0.44	1.05	0.58	0.95	0.28	1.13	0.09	1.18	0.48	1.05
Claim 3	8–10	0.51	1.12	0.49	1.08	0.59	1.02	0.35	1.16	0.23	1.21	0.50	1.10

Table 8.D.44 Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Three

Claim	No. of Items	No Special Services		Special Services		English Only		Ini. Fluent		Learner		Red. Fluent	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.75	0.53	0.63	0.59	0.76	0.53	0.74	0.51	0.63	0.56
Claim 2	12	0.76	0.54	0.69	0.61	0.77	0.54	0.75	0.51	0.68	0.57	0.67	0.50
Claim 3	8–9	0.49	0.80	0.45	0.88	0.50	0.80	0.41	0.79	0.41	0.82	0.31	0.78
Claim 4	8–9	0.61	0.73	0.48	0.79	0.63	0.72	0.64	0.67	0.48	0.77	0.56	0.69

Table 8.D.45 Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Four

Claim	No. of Items	No Special Services		Special Services		English Only		Ini. Fluent		Learner		Red. Fluent	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.73	0.59	0.61	0.66	0.74	0.59	0.73	0.56	0.53	0.63
Claim 2	12	0.75	0.55	0.71	0.61	0.76	0.55	0.71	0.55	0.67	0.57	0.64	0.53
Claim 3	8–9	0.50	0.85	0.43	0.97	0.52	0.85	0.44	0.82	0.35	0.92	0.38	0.82
Claim 4	8–9	0.61	0.76	0.46	0.82	0.62	0.75	0.61	0.71	0.41	0.80	0.54	0.73

Table 8.D.46 Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Five

Claim	No. of Items	No Special Services		Special Services		English Only		Ini. Fluent		Learner		Red. Fluent	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.75	0.56	0.61	0.62	0.76	0.56	0.74	0.55	0.53	0.61
Claim 2	12	0.77	0.53	0.73	0.56	0.79	0.53	0.74	0.54	0.69	0.53	0.69	0.53
Claim 3	8–9	0.46	0.96	0.34	1.04	0.48	0.96	0.45	0.92	0.23	1.03	0.37	0.95
Claim 4	8–9	0.63	0.67	0.50	0.75	0.64	0.67	0.59	0.65	0.45	0.72	0.55	0.64

Table 8.D.47 Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Six

Claim	No. of Items	No Special Services		Special Services		English Only		Ini. Fluent		Learner		Red. Fluent	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.68	0.69	0.43	0.81	0.69	0.69	0.70	0.65	0.31	0.80
Claim 2	12	0.75	0.52	0.67	0.60	0.77	0.53	0.73	0.53	0.64	0.56	0.69	0.51
Claim 3	8–9	0.35	0.97	0.36	0.98	0.37	0.97	0.26	0.98	0.32	0.96	0.26	0.96
Claim 4	8–9	0.56	0.75	0.30	0.90	0.57	0.75	0.57	0.70	0.26	0.88	0.51	0.73

Table 8.D.48 Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Seven

Claim	No. of Items	No Special Services		Special Services		English Only		Ini. Fluent		Learner		Red. Fluent	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.72	0.62	0.52	0.71	0.73	0.62	0.71	0.61	0.36	0.70
Claim 2	12	0.75	0.56	0.64	0.63	0.76	0.56	0.72	0.56	0.61	0.61	0.69	0.54
Claim 3	8–9	0.40	0.95	0.26	0.98	0.41	0.95	0.33	0.95	0.14	0.96	0.33	0.94
Claim 4	8–9	0.60	0.78	0.30	0.92	0.61	0.78	0.62	0.72	0.22	0.91	0.56	0.77

Table 8.D.49 Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Eight

Claim	No. of Items	No Special Services		Special Services		English Only		Ini. Fluent		Learner		Red. Fluent	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	13–17	0.73	0.59	0.53	0.69	0.74	0.59	0.73	0.58	0.36	0.70
Claim 2	12	0.72	0.57	0.66	0.59	0.74	0.57	0.70	0.58	0.58	0.58	0.66	0.57
Claim 3	8–9	0.41	0.93	0.37	0.93	0.43	0.93	0.36	0.94	0.24	0.92	0.33	0.92
Claim 4	8–9	0.60	0.78	0.31	0.92	0.61	0.79	0.61	0.74	0.24	0.91	0.56	0.77

Table 8.D.50 Claim Reliabilities and SEM by Special Services/English Fluency—ELA, Grade Eleven

Claim	No. of Items	No Special Services		Special Services		English Only		Ini. Fluent		Learner		Red. Fluent	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	15–16	0.70	0.65	0.56	0.73	0.71	0.65	0.68	0.64	0.37	0.74
Claim 2	12	0.72	0.65	0.60	0.73	0.74	0.66	0.70	0.65	0.53	0.73	0.68	0.65
Claim 3	8–9	0.42	1.03	0.36	0.98	0.43	1.03	0.37	1.04	0.22	0.97	0.36	1.03
Claim 4	8–9	0.59	0.83	0.34	1.01	0.60	0.83	0.58	0.79	0.24	1.02	0.56	0.82

Table 8.D.51 Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Three

Claim	No. of Items	No Special Services		Special Services		English Only		Ini. Fluent		Learner		Red. Fluent	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.88	0.33	0.89	0.36	0.89	0.33	0.87	0.33	0.86	0.34
Claim 2	8–10	0.75	0.50	0.66	0.59	0.76	0.49	0.77	0.46	0.63	0.55	0.71	0.45
Claim 3	8–10	0.64	0.62	0.47	0.74	0.66	0.61	0.71	0.54	0.47	0.69	0.64	0.55

Table 8.D.52 Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Four

Claim	No. of Items	No Special Services		Special Services		English Only		Ini. Fluent		Learner		Red. Fluent	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.88	0.33	0.87	0.38	0.89	0.34	0.89	0.33	0.83	0.36
Claim 2	8–10	0.69	0.55	0.54	0.66	0.70	0.55	0.72	0.51	0.44	0.64	0.65	0.51
Claim 3	8–10	0.71	0.56	0.53	0.71	0.73	0.56	0.77	0.49	0.48	0.66	0.71	0.50

Table 8.D.53 Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Five

Claim	No. of Items	No Special Services		Special Services		English Only		Ini. Fluent		Learner		Red. Fluent	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	17–20	0.86	0.40	0.81	0.49	0.87	0.40	0.88	0.37	0.76	0.46	0.84	0.38
Claim 2	8–10	0.67	0.59	0.41	0.72	0.69	0.58	0.74	0.53	0.21	0.72	0.66	0.55
Claim 3	8–10	0.61	0.71	0.28	0.85	0.63	0.70	0.69	0.64	0.13	0.84	0.60	0.67

Table 8.D.54 Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Six

Claim	No. of Items	No Special Services		Special Services		English Only		Ini. Fluent		Learner		Red. Fluent	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	16–20	0.87	0.44	0.79	0.56	0.87	0.45	0.87	0.43	0.77	0.53	0.84	0.43
Claim 2	8–10	0.63	0.69	0.32	0.89	0.65	0.68	0.71	0.62	0.14	0.86	0.59	0.67
Claim 3	8–10	0.62	0.77	0.25	0.96	0.64	0.76	0.70	0.69	0.12	0.94	0.58	0.75

Table 8.D.55 Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Seven

Claim	No. of Items	No Special Services		Special Services		English Only		Ini. Fluent		Learner		Red. Fluent	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	16–20	0.85	0.50	0.71	0.66	0.86	0.50	0.87	0.46	0.68	0.64	0.83	0.48
Claim 2	8–10	0.60	0.75	0.18	0.95	0.61	0.74	0.70	0.67	0.01	0.94	0.54	0.75
Claim 3	8–10	0.46	0.90	N/A	N/A	0.48	0.90	0.60	0.79	N/A	N/A	0.41	0.89

Table 8.D.56 Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Eight

Claim	No. of Items	No Special Services		Special Services		English Only		Ini. Fluent		Learner		Red. Fluent	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	16–20	0.84	0.55	0.68	0.70	0.85	0.55	0.87	0.51	0.66	0.68	0.82	0.54
Claim 2	8–10	0.55	0.84	0.11	1.04	0.58	0.83	0.66	0.77	N/A	N/A	0.48	0.86
Claim 3	8–10	0.64	0.85	0.31	1.04	0.66	0.84	0.71	0.78	0.25	1.06	0.61	0.84

Table 8.D.57 Claim Reliabilities and SEM by Special Services/English Fluency—Mathematics, Grade Eleven

Claim	No. of Items	No Special Services		Special Services		English Only		Ini. Fluent		Learner		Red. Fluent	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	19–22	0.82	0.63	0.53	0.85	0.83	0.64	0.86	0.59	0.54	0.85
Claim 2	8–10	0.49	1.02	N/A	N/A	0.50	1.02	0.59	0.94	N/A	N/A	0.40	1.05
Claim 3	8–10	0.51	1.08	N/A	N/A	0.53	1.07	0.60	1.01	N/A	N/A	0.46	1.09

Table 8.D.58 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Three

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.71	0.56	0.75	0.52	0.71	0.53	0.74	0.51	0.69	0.55	0.68	0.57
Claim 2	12	0.73	0.56	0.77	0.52	0.75	0.54	0.75	0.51	0.72	0.56	0.72	0.57	0.76	0.52
Claim 3	8–9	0.48	0.81	0.45	0.79	0.45	0.80	0.41	0.79	0.46	0.81	0.47	0.83	0.47	0.79
Claim 4	8–9	0.54	0.76	0.65	0.68	0.57	0.74	0.62	0.69	0.54	0.75	0.53	0.77	0.63	0.70

Table 8.D.59 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Four

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.69	0.61	0.74	0.57	0.69	0.60	0.72	0.57	0.68	0.61	0.67	0.62
Claim 2	12	0.74	0.56	0.73	0.56	0.74	0.55	0.72	0.55	0.73	0.55	0.74	0.56	0.74	0.55
Claim 3	8–9	0.48	0.88	0.50	0.83	0.47	0.87	0.47	0.83	0.46	0.88	0.47	0.91	0.49	0.83
Claim 4	8–9	0.57	0.79	0.63	0.71	0.58	0.78	0.61	0.72	0.55	0.78	0.53	0.80	0.61	0.74

Table 8.D.60 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Five

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	14–16	0.72	0.59	0.75	0.55	0.73	0.57	0.73	0.55	0.71	0.57	0.71	0.59
Claim 2	12	0.77	0.54	0.76	0.54	0.77	0.53	0.74	0.54	0.76	0.53	0.77	0.54	0.77	0.54
Claim 3	8–9	0.40	1.00	0.48	0.92	0.42	0.99	0.44	0.94	0.41	0.99	0.42	1.01	0.46	0.94
Claim 4	8–9	0.60	0.70	0.62	0.65	0.62	0.68	0.61	0.65	0.60	0.69	0.60	0.70	0.62	0.66

Table 8.D.61 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Six

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	13–17	0.63	0.73	0.70	0.65	0.64	0.72	0.68	0.66	0.61	0.73	0.60	0.75	0.70	0.66
Claim 2	12	0.76	0.54	0.73	0.54	0.75	0.53	0.72	0.52	0.74	0.53	0.75	0.55	0.75	0.52
Claim 3	8–9	0.42	0.97	0.28	0.99	0.37	0.96	0.28	0.98	0.39	0.96	0.41	0.97	0.31	0.98
Claim 4	8–9	0.50	0.82	0.59	0.69	0.53	0.79	0.57	0.71	0.50	0.80	0.49	0.82	0.56	0.73

Table 8.D.62 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Seven

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	13–17	0.69	0.65	0.72	0.61	0.68	0.63	0.70	0.61	0.67	0.64	0.66	0.65	0.71	0.61
Claim 2	12	0.75	0.58	0.72	0.56	0.74	0.56	0.71	0.56	0.73	0.57	0.74	0.58	0.74	0.56
Claim 3	8–9	0.39	0.95	0.33	0.96	0.36	0.94	0.34	0.95	0.39	0.95	0.39	0.95	0.36	0.95
Claim 4	8–9	0.52	0.84	0.62	0.70	0.54	0.80	0.59	0.72	0.54	0.82	0.51	0.85	0.60	0.75

Table 8.D.63 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Eight

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	13–17	0.70	0.62	0.73	0.57	0.70	0.61	0.71	0.57	0.69	0.62	0.68	0.64	0.73	0.58
Claim 2	12	0.73	0.57	0.70	0.59	0.72	0.57	0.67	0.58	0.71	0.57	0.73	0.58	0.72	0.58
Claim 3	8–9	0.44	0.92	0.34	0.94	0.42	0.92	0.33	0.94	0.42	0.92	0.44	0.92	0.39	0.94
Claim 4	8–9	0.54	0.83	0.61	0.72	0.57	0.82	0.59	0.74	0.55	0.82	0.52	0.85	0.60	0.76

Table 8.D.64 Claim Reliabilities and SEM by Primary Ethnicity—ELA, Grade Eleven

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	15–16	0.70	0.66	0.71	0.64	0.69	0.66	0.66	0.64	0.68	0.67	0.69	0.68	0.70	0.64
Claim 2	12	0.73	0.67	0.71	0.65	0.73	0.67	0.68	0.64	0.72	0.67	0.72	0.68	0.72	0.65
Claim 3	8–9	0.46	1.03	0.38	1.04	0.42	1.03	0.36	1.04	0.42	1.02	0.45	1.01	0.40	1.04
Claim 4	8–9	0.59	0.87	0.57	0.77	0.57	0.86	0.55	0.77	0.57	0.87	0.55	0.91	0.60	0.81

Table 8.D.65 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Three

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.88	0.34	0.88	0.33	0.87	0.33	0.86	0.33	0.86	0.34	0.87	0.34
Claim 2	8–10	0.69	0.53	0.77	0.47	0.71	0.52	0.74	0.47	0.67	0.53	0.66	0.55	0.76	0.47
Claim 3	8–10	0.55	0.67	0.72	0.54	0.58	0.64	0.67	0.56	0.53	0.67	0.50	0.69	0.68	0.58

Table 8.D.66 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Four

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
		Claim 1	17–20	0.88	0.34	0.89	0.33	0.87	0.34	0.87	0.33	0.86	0.34	0.86	0.35
Claim 2	8–10	0.64	0.58	0.73	0.51	0.63	0.57	0.69	0.52	0.59	0.59	0.56	0.61	0.71	0.52
Claim 3	8–10	0.66	0.62	0.77	0.48	0.64	0.59	0.74	0.50	0.61	0.61	0.58	0.65	0.75	0.52

Table 8.D.67 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Five

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	17–20	0.83	0.43	0.88	0.37	0.85	0.42	0.86	0.38	0.82	0.43	0.82	0.45	0.87	0.38
Claim 2	8–10	0.55	0.64	0.76	0.51	0.57	0.62	0.70	0.54	0.53	0.64	0.47	0.67	0.71	0.54
Claim 3	8–10	0.48	0.78	0.70	0.62	0.53	0.75	0.65	0.65	0.45	0.77	0.40	0.79	0.65	0.66

Table 8.D.68 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Six

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	16–20	0.85	0.47	0.87	0.42	0.85	0.45	0.86	0.43	0.84	0.47	0.84	0.49	0.87	0.43
Claim 2	8–10	0.52	0.74	0.73	0.59	0.56	0.73	0.66	0.63	0.48	0.75	0.45	0.79	0.67	0.63
Claim 3	8–10	0.53	0.83	0.72	0.66	0.55	0.80	0.65	0.70	0.48	0.84	0.46	0.86	0.66	0.71

Table 8.D.69 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Seven

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	16–20	0.82	0.54	0.87	0.44	0.83	0.52	0.86	0.46	0.80	0.54	0.79	0.57	0.86	0.47
Claim 2	8–10	0.45	0.83	0.73	0.61	0.49	0.79	0.64	0.68	0.40	0.82	0.33	0.86	0.64	0.68
Claim 3	8–10	0.25	1.01	0.65	0.72	0.34	0.93	0.54	0.80	0.19	1.01	0.11	1.05	0.54	0.83

Table 8.D.70 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Eight

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	16–20	0.80	0.60	0.87	0.49	0.82	0.58	0.85	0.51	0.79	0.59	0.78	0.62	0.85	0.52
Claim 2	8–10	0.43	0.91	0.69	0.70	0.43	0.89	0.59	0.77	0.34	0.92	0.28	0.96	0.61	0.78
Claim 3	8–10	0.55	0.91	0.72	0.73	0.58	0.87	0.66	0.78	0.53	0.91	0.51	0.93	0.68	0.80

Table 8.D.71 Claim Reliabilities and SEM by Primary Ethnicity—Mathematics, Grade Eleven

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	19–22	0.78	0.69	0.88	0.52	0.78	0.67	0.83	0.57	0.75	0.69	0.73	0.73	0.85	0.60
Claim 2	8–10	0.36	1.11	0.67	0.81	0.35	1.11	0.54	0.92	0.25	1.13	0.10	1.22	0.56	0.95
Claim 3	8–10	0.39	1.15	0.66	0.90	0.42	1.12	0.56	0.98	0.33	1.17	0.27	1.20	0.57	1.02

Table 8.D.72 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Three

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	14–16	0.75	0.54	0.72	0.51	0.74	0.52	0.73	0.51	0.74	0.53	0.74	0.54	0.74	0.51
Claim 2	12	0.75	0.53	0.73	0.51	0.74	0.52	0.74	0.51	0.75	0.53	0.75	0.54	0.74	0.51
Claim 3	8–9	0.46	0.78	0.37	0.79	0.44	0.79	0.39	0.79	0.47	0.79	0.49	0.80	0.42	0.79
Claim 4	8–9	0.60	0.72	0.63	0.66	0.61	0.71	0.61	0.68	0.60	0.72	0.61	0.74	0.62	0.69

Table 8.D.73 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Four

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	14–16	0.73	0.58	0.70	0.56	0.72	0.58	0.70	0.56	0.72	0.58	0.73	0.60	0.72	0.56
Claim 2	12	0.74	0.54	0.67	0.56	0.73	0.54	0.70	0.55	0.74	0.55	0.75	0.55	0.70	0.55
Claim 3	8–9	0.51	0.84	0.41	0.81	0.47	0.84	0.45	0.82	0.49	0.85	0.50	0.87	0.44	0.82
Claim 4	8–9	0.62	0.75	0.58	0.69	0.61	0.76	0.60	0.71	0.60	0.75	0.58	0.77	0.58	0.72

Table 8.D.74 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Five

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	14–16	0.76	0.57	0.71	0.55	0.74	0.55	0.72	0.55	0.75	0.56	0.75	0.57	0.73	0.55
Claim 2	12	0.77	0.53	0.70	0.55	0.75	0.53	0.73	0.54	0.76	0.53	0.78	0.53	0.74	0.54
Claim 3	8–9	0.45	0.97	0.42	0.89	0.42	0.96	0.43	0.93	0.45	0.96	0.47	0.97	0.42	0.92
Claim 4	8–9	0.63	0.67	0.53	0.65	0.62	0.67	0.58	0.65	0.62	0.66	0.63	0.67	0.58	0.65

Table 8.D.75 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Six

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	13–17	0.68	0.70	0.67	0.63	0.68	0.69	0.67	0.65	0.67	0.69	0.67	0.70	0.68	0.65
Claim 2	12	0.76	0.53	0.66	0.54	0.74	0.52	0.69	0.53	0.74	0.52	0.77	0.53	0.71	0.52
Claim 3	8–9	0.38	0.98	0.14	0.99	0.32	0.96	0.24	0.98	0.34	0.97	0.39	0.97	0.23	0.98
Claim 4	8–9	0.55	0.77	0.53	0.66	0.55	0.75	0.55	0.69	0.54	0.75	0.54	0.77	0.54	0.70

Table 8.D.76 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Seven

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	13–17	0.72	0.62	0.66	0.60	0.70	0.62	0.68	0.60	0.71	0.62	0.70	0.63	0.69	0.60
Claim 2	12	0.76	0.56	0.64	0.57	0.72	0.56	0.67	0.56	0.74	0.55	0.76	0.56	0.70	0.55
Claim 3	8–9	0.40	0.94	0.22	0.96	0.35	0.94	0.31	0.95	0.39	0.95	0.40	0.95	0.30	0.95
Claim 4	8–9	0.58	0.79	0.57	0.67	0.55	0.76	0.58	0.70	0.58	0.77	0.58	0.80	0.59	0.72

Table 8.D.77 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Eight

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	13–17	0.71	0.60	0.68	0.56	0.72	0.58	0.70	0.56	0.72	0.59	0.72	0.61	0.71	0.57
Claim 2	12	0.74	0.57	0.63	0.59	0.71	0.58	0.63	0.58	0.71	0.57	0.74	0.58	0.68	0.58
Claim 3	8–9	0.41	0.92	0.24	0.95	0.41	0.94	0.28	0.94	0.40	0.93	0.44	0.93	0.33	0.94
Claim 4	8–9	0.58	0.79	0.55	0.70	0.59	0.79	0.57	0.72	0.59	0.78	0.58	0.81	0.58	0.74

Table 8.D.78 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Eleven

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	15–16	0.70	0.65	0.66	0.64	0.70	0.65	0.64	0.63	0.69	0.65	0.70	0.67	0.68	0.64
Claim 2	12	0.72	0.66	0.66	0.65	0.73	0.66	0.65	0.64	0.72	0.66	0.73	0.67	0.70	0.65
Claim 3	8–9	0.44	1.02	0.30	1.05	0.41	1.04	0.34	1.04	0.42	1.03	0.45	1.02	0.37	1.04
Claim 4	8–9	0.61	0.83	0.52	0.75	0.58	0.84	0.53	0.76	0.58	0.84	0.58	0.87	0.59	0.79

Table 8.D.79 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Three

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	17–20	0.88	0.33	0.85	0.33	0.87	0.33	0.85	0.33	0.87	0.33	0.87	0.34	0.86	0.33
Claim 2	8–10	0.75	0.50	0.74	0.45	0.75	0.49	0.74	0.46	0.73	0.49	0.72	0.51	0.75	0.46
Claim 3	8–10	0.62	0.62	0.71	0.51	0.65	0.59	0.68	0.55	0.63	0.61	0.61	0.64	0.68	0.55

Table 8.D.80 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Four

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	17–20	0.88	0.33	0.86	0.33	0.87	0.33	0.86	0.33	0.87	0.33	0.88	0.34	0.87	0.33
Claim 2	8–10	0.71	0.54	0.69	0.50	0.69	0.55	0.69	0.51	0.67	0.55	0.65	0.56	0.70	0.50
Claim 3	8–10	0.74	0.55	0.75	0.46	0.71	0.55	0.74	0.49	0.70	0.55	0.68	0.59	0.75	0.49

Table 8.D.81 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Five

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	17–20	0.86	0.40	0.86	0.36	0.86	0.39	0.86	0.37	0.85	0.40	0.86	0.42	0.87	0.37
Claim 2	8–10	0.67	0.57	0.74	0.48	0.64	0.57	0.71	0.52	0.65	0.58	0.62	0.61	0.71	0.51
Claim 3	8–10	0.60	0.73	0.68	0.58	0.61	0.68	0.65	0.63	0.58	0.71	0.54	0.74	0.66	0.63

**Table 8.D.82 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—
Mathematics, Grade Six**

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	16–20	0.87	0.45	0.84	0.42	0.86	0.44	0.85	0.42	0.86	0.44	0.86	0.46	0.85	0.42
Claim 2	8–10	0.61	0.70	0.71	0.56	0.64	0.68	0.67	0.60	0.60	0.68	0.57	0.72	0.68	0.60
Claim 3	8–10	0.62	0.76	0.70	0.61	0.62	0.75	0.67	0.68	0.60	0.77	0.58	0.79	0.67	0.68

**Table 8.D.83 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—
Mathematics, Grade Seven**

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	16–20	0.85	0.50	0.85	0.43	0.84	0.48	0.85	0.45	0.84	0.50	0.83	0.53	0.85	0.45
Claim 2	8–10	0.58	0.76	0.72	0.57	0.57	0.73	0.65	0.65	0.55	0.75	0.49	0.79	0.66	0.65
Claim 3	8–10	0.43	0.90	0.65	0.66	0.46	0.85	0.57	0.77	0.40	0.91	0.33	0.96	0.57	0.78

**Table 8.D.84 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—
Mathematics, Grade Eight**

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	16–20	0.82	0.56	0.86	0.46	0.84	0.54	0.85	0.49	0.83	0.56	0.82	0.58	0.85	0.50
Claim 2	8–10	0.55	0.85	0.69	0.65	0.53	0.82	0.61	0.74	0.49	0.86	0.44	0.89	0.62	0.74
Claim 3	8–10	0.63	0.85	0.71	0.69	0.63	0.84	0.67	0.76	0.61	0.86	0.60	0.88	0.68	0.77

**Table 8.D.85 Claim Reliabilities and SEM by Primary Ethnicity for Not Economically Disadvantaged—
Mathematics, Grade Eleven**

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	19–22	0.81	0.64	0.88	0.49	0.81	0.64	0.84	0.55	0.79	0.66	0.78	0.69	0.85	0.57
Claim 2	8–10	0.48	1.01	0.68	0.76	0.43	1.06	0.56	0.89	0.38	1.07	0.27	1.14	0.58	0.90
Claim 3	8–10	0.49	1.10	0.67	0.83	0.48	1.09	0.57	0.95	0.43	1.12	0.38	1.15	0.60	0.99

Table 8.D.86 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Three

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	14–16	0.66	0.57	0.74	0.53	0.67	0.54	0.73	0.52	0.66	0.56	0.64	0.57	0.73	0.54
Claim 2	12	0.69	0.57	0.76	0.53	0.73	0.55	0.74	0.52	0.70	0.56	0.70	0.57	0.73	0.55
Claim 3	8–9	0.45	0.83	0.46	0.79	0.41	0.81	0.41	0.79	0.44	0.82	0.44	0.83	0.49	0.80
Claim 4	8–9	0.48	0.78	0.62	0.71	0.52	0.75	0.61	0.71	0.51	0.76	0.48	0.78	0.57	0.74

Table 8.D.87 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Four

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	14–16	0.63	0.63	0.73	0.58	0.65	0.61	0.71	0.58	0.65	0.61	0.63	0.63	0.71	0.60
Claim 2	12	0.71	0.56	0.75	0.55	0.73	0.55	0.74	0.55	0.72	0.56	0.72	0.57	0.74	0.55
Claim 3	8–9	0.42	0.90	0.50	0.85	0.44	0.88	0.46	0.84	0.44	0.89	0.43	0.92	0.49	0.87
Claim 4	8–9	0.49	0.80	0.62	0.75	0.55	0.78	0.60	0.74	0.52	0.79	0.48	0.81	0.56	0.78

Table 8.D.88 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Five

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	14–16	0.67	0.59	0.75	0.56	0.69	0.58	0.73	0.55	0.69	0.58	0.67	0.60	0.74	0.57
Claim 2	12	0.75	0.54	0.78	0.53	0.77	0.53	0.75	0.53	0.75	0.53	0.75	0.54	0.77	0.53
Claim 3	8–9	0.33	1.01	0.48	0.96	0.39	1.00	0.43	0.96	0.39	1.00	0.37	1.02	0.44	0.98
Claim 4	8–9	0.55	0.71	0.64	0.66	0.59	0.68	0.63	0.66	0.58	0.69	0.56	0.71	0.61	0.68

Table 8.D.89 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Six

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	13–17	0.57	0.75	0.69	0.68	0.57	0.73	0.67	0.68	0.58	0.74	0.55	0.76	0.65	0.71
Claim 2	12	0.73	0.55	0.76	0.53	0.75	0.53	0.74	0.52	0.73	0.53	0.73	0.55	0.75	0.53
Claim 3	8–9	0.40	0.97	0.36	0.97	0.37	0.96	0.31	0.97	0.39	0.96	0.40	0.96	0.37	0.96
Claim 4	8–9	0.44	0.84	0.59	0.73	0.51	0.81	0.56	0.74	0.47	0.81	0.44	0.84	0.50	0.79

Table 8.D.90 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Seven

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	13–17	0.64	0.66	0.73	0.62	0.65	0.64	0.70	0.61	0.65	0.65	0.62	0.66	0.70	0.63
Claim 2	12	0.72	0.58	0.75	0.56	0.73	0.56	0.73	0.55	0.72	0.57	0.72	0.59	0.75	0.56
Claim 3	8–9	0.35	0.95	0.38	0.95	0.33	0.94	0.36	0.94	0.37	0.95	0.36	0.95	0.40	0.95
Claim 4	8–9	0.45	0.86	0.62	0.74	0.52	0.82	0.57	0.75	0.51	0.84	0.46	0.87	0.55	0.81

Table 8.D.91 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Eight

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	13–17	0.67	0.63	0.74	0.58	0.66	0.62	0.70	0.58	0.67	0.63	0.65	0.65	0.72	0.61
Claim 2	12	0.70	0.57	0.72	0.58	0.70	0.57	0.68	0.57	0.70	0.57	0.71	0.58	0.73	0.57
Claim 3	8–9	0.43	0.92	0.39	0.93	0.41	0.92	0.37	0.93	0.41	0.92	0.42	0.92	0.43	0.93
Claim 4	8–9	0.49	0.86	0.62	0.76	0.53	0.84	0.60	0.77	0.53	0.83	0.48	0.87	0.57	0.81

Table 8.D.92 Claim Reliabilities and SEM for ELA, Grade Eleven by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Eleven

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	15–16	0.68	0.67	0.71	0.65	0.67	0.67	0.67	0.65	0.67	0.67	0.66	0.69	0.71	0.66
Claim 2	12	0.70	0.68	0.73	0.65	0.71	0.68	0.70	0.65	0.71	0.67	0.70	0.69	0.73	0.67
Claim 3	8–9	0.45	1.03	0.42	1.03	0.41	1.02	0.37	1.03	0.42	1.01	0.44	1.01	0.44	1.03
Claim 4	8–9	0.54	0.91	0.59	0.80	0.54	0.88	0.57	0.80	0.56	0.88	0.52	0.93	0.59	0.86

Table 8.D.93 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Three

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	17–20	0.86	0.35	0.88	0.33	0.86	0.34	0.86	0.33	0.85	0.34	0.86	0.35	0.87	0.34
Claim 2	8–10	0.64	0.54	0.75	0.49	0.67	0.53	0.73	0.49	0.64	0.54	0.61	0.57	0.72	0.50
Claim 3	8–10	0.48	0.69	0.67	0.59	0.51	0.66	0.63	0.59	0.48	0.68	0.44	0.71	0.59	0.64

Table 8.D.94 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Four

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	17–20	0.85	0.35	0.89	0.33	0.85	0.34	0.86	0.33	0.85	0.35	0.85	0.35	0.87	0.34
Claim 2	8–10	0.55	0.60	0.70	0.54	0.57	0.58	0.66	0.54	0.55	0.60	0.49	0.62	0.64	0.56
Claim 3	8–10	0.57	0.65	0.74	0.52	0.58	0.60	0.70	0.54	0.57	0.62	0.51	0.67	0.67	0.59

Table 8.D.95 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Five

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	17–20	0.80	0.45	0.87	0.39	0.83	0.43	0.85	0.39	0.81	0.44	0.80	0.46	0.84	0.41
Claim 2	8–10	0.41	0.67	0.70	0.56	0.50	0.64	0.66	0.57	0.47	0.66	0.36	0.69	0.60	0.60
Claim 3	8–10	0.35	0.80	0.64	0.67	0.44	0.78	0.61	0.68	0.38	0.78	0.29	0.81	0.53	0.74

**Table 8.D.96 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—
Mathematics, Grade Six**

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	16–20	0.83	0.48	0.87	0.43	0.83	0.46	0.86	0.44	0.83	0.48	0.82	0.50	0.85	0.46
Claim 2	8–10	0.43	0.77	0.67	0.64	0.48	0.75	0.60	0.67	0.42	0.77	0.35	0.81	0.55	0.71
Claim 3	8–10	0.43	0.86	0.66	0.72	0.49	0.82	0.60	0.75	0.42	0.85	0.36	0.89	0.56	0.80

**Table 8.D.97 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—
Mathematics, Grade Seven**

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	16–20	0.78	0.56	0.87	0.47	0.80	0.54	0.84	0.49	0.79	0.55	0.76	0.58	0.83	0.52
Claim 2	8–10	0.28	0.87	0.66	0.68	0.39	0.82	0.56	0.73	0.32	0.84	0.20	0.88	0.47	0.78
Claim 3	8–10	0.05	1.07	0.55	0.81	0.23	0.98	0.44	0.86	0.10	1.03	N/A	N/A	0.32	0.95

**Table 8.D.98 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—
Mathematics, Grade Eight**

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	16–20	0.76	0.62	0.87	0.52	0.79	0.59	0.83	0.54	0.77	0.60	0.74	0.64	0.81	0.57
Claim 2	8–10	0.28	0.94	0.63	0.78	0.30	0.93	0.51	0.83	0.27	0.94	0.14	0.98	0.45	0.87
Claim 3	8–10	0.46	0.94	0.69	0.79	0.53	0.89	0.62	0.82	0.49	0.93	0.45	0.95	0.59	0.88

**Table 8.D.99 Claim Reliabilities and SEM by Primary Ethnicity for Economically Disadvantaged—
Mathematics, Grade Eleven**

Claim	No. of Items	American Indian		Asian		Pacific Islander		Filipino		Hispanic		African American		White	
		Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM	Reliability	SEM
Claim 1	19–22	0.71	0.74	0.86	0.57	0.74	0.69	0.81	0.60	0.73	0.71	0.68	0.76	0.78	0.68
Claim 2	8–10	0.13	1.20	0.61	0.89	0.25	1.15	0.46	0.99	0.18	1.16	N/A	N/A	0.38	1.08
Claim 3	8–10	0.23	1.20	0.60	0.98	0.33	1.15	0.50	1.04	0.28	1.18	0.16	1.23	0.42	1.13

Appendix 8.E: Scale Score CSEM Distribution

Notes:

- CSEMs reported in these tables and figures are not truncated.
- An expression that opens with a parenthesis and closes with a bracket indicates that a value is greater than the first number and is less than or equal to the second number. For example, “(0.5, 2]” indicates a value greater than 0.5 but less than or equal to 2.

Table 8.E.1 Scale Score CSEM Distribution—ELA, Grade Three

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[15, 20)	90	90	0%	0%
[20, 25)	305,286	305,376	65%	65%
[25, 30)	125,990	431,366	27%	91%
[30, 35)	27,593	458,959	6%	97%
[35, 40)	8,661	467,620	2%	99%
[40, 45)	2,862	470,482	1%	100%
[45, 50)	1,076	471,558	0%	100%
[50, 55)	459	472,017	0%	100%
[55, 60)	245	472,262	0%	100%
[60, 65)	119	472,381	0%	100%
[65, 70)	79	472,460	0%	100%
[70, 75)	33	472,493	0%	100%
[75, 80)	23	472,516	0%	100%
[80, 85)	25	472,541	0%	100%
[85, 90)	20	472,561	0%	100%
[90, 95)	11	472,572	0%	100%
[95, 100)	9	472,581	0%	100%
[100, 105)	7	472,588	0%	100%
[105, 110)	10	472,598	0%	100%
[110, 115)	5	472,603	0%	100%
[115, 120)	7	472,610	0%	100%
[120, 125)	5	472,615	0%	100%
[125, 130)	2	472,617	0%	100%
[160, 165)	1	472,618	0%	100%
[165, 170)	1	472,619	0%	100%
[170, 175)	1	472,620	0%	100%
[180, 185)	1	472,621	0%	100%
[190, 195)	1	472,622	0%	100%
[210, 215)	52	472,674	0%	100%

Table 8.E.2 Scale Score CSEM Distribution—ELA, Grade Four

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	122,330	122,330	26%	26%
[25, 30)	287,563	409,893	62%	89%
[30, 35)	38,733	448,626	8%	97%
[35, 40)	9,357	457,983	2%	99%
[40, 45)	2,794	460,777	1%	100%
[45, 50)	1,013	461,790	0%	100%
[50, 55)	412	462,202	0%	100%
[55, 60)	187	462,389	0%	100%
[60, 65)	80	462,469	0%	100%
[65, 70)	54	462,523	0%	100%
[70, 75)	28	462,551	0%	100%
[75, 80)	15	462,566	0%	100%
[80, 85)	15	462,581	0%	100%
[85, 90)	11	462,592	0%	100%
[90, 95)	7	462,599	0%	100%
[95, 100)	7	462,606	0%	100%
[100, 105)	10	462,616	0%	100%
[105, 110)	3	462,619	0%	100%
[110, 115)	6	462,625	0%	100%
[115, 120)	3	462,628	0%	100%
[120, 125)	4	462,632	0%	100%
[125, 130)	3	462,635	0%	100%
[135, 140)	1	462,636	0%	100%
[180, 185)	1	462,637	0%	100%
[210, 215)	42	462,679	0%	100%

Table 8.E.3 Scale Score CSEM Distribution—ELA, Grade Five

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	165,453	165,453	36%	36%
[25, 30)	256,410	421,863	56%	92%
[30, 35)	26,614	448,477	6%	97%
[35, 40)	7,107	455,584	2%	99%
[40, 45)	2,511	458,095	1%	100%
[45, 50)	1,004	459,099	0%	100%
[50, 55)	456	459,555	0%	100%
[55, 60)	242	459,797	0%	100%
[60, 65)	132	459,929	0%	100%
[65, 70)	77	460,006	0%	100%
[70, 75)	27	460,033	0%	100%
[75, 80)	41	460,074	0%	100%
[80, 85)	24	460,098	0%	100%
[85, 90)	13	460,111	0%	100%
[90, 95)	5	460,116	0%	100%
[95, 100)	9	460,125	0%	100%
[100, 105)	6	460,131	0%	100%
[105, 110)	7	460,138	0%	100%
[110, 115)	6	460,144	0%	100%
[115, 120)	10	460,154	0%	100%
[120, 125)	2	460,156	0%	100%
[125, 130)	2	460,158	0%	100%
[130, 135)	1	460,159	0%	100%
[190, 195)	1	460,160	0%	100%
[210, 215)	30	460,190	0%	100%

Table 8.E.4 Scale Score CSEM Distribution—ELA, Grade Six

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	50,953	50,953	11%	11%
[25, 30)	328,799	379,752	72%	83%
[30, 35)	51,731	431,483	11%	95%
[35, 40)	15,479	446,962	3%	98%
[40, 45)	5,438	452,400	1%	99%
[45, 50)	2,044	454,444	0%	100%
[50, 55)	814	455,258	0%	100%
[55, 60)	450	455,708	0%	100%
[60, 65)	217	455,925	0%	100%
[65, 70)	119	456,044	0%	100%
[70, 75)	71	456,115	0%	100%
[75, 80)	52	456,167	0%	100%
[80, 85)	17	456,184	0%	100%
[85, 90)	22	456,206	0%	100%
[90, 95)	8	456,214	0%	100%
[95, 100)	15	456,229	0%	100%
[100, 105)	8	456,237	0%	100%
[105, 110)	4	456,241	0%	100%
[110, 115)	9	456,250	0%	100%
[115, 120)	5	456,255	0%	100%
[120, 125)	9	456,264	0%	100%
[125, 130)	3	456,267	0%	100%
[130, 135)	1	456,268	0%	100%
[200, 205)	1	456,269	0%	100%
[210, 215)	52	456,321	0%	100%

Table 8.E.5 Scale Score CSEM Distribution—ELA, Grade Seven

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	42,404	42,404	9%	9%
[25, 30)	322,562	364,966	72%	81%
[30, 35)	59,265	424,231	13%	94%
[35, 40)	16,273	440,504	4%	98%
[40, 45)	5,442	445,946	1%	99%
[45, 50)	1,963	447,909	0%	100%
[50, 55)	773	448,682	0%	100%
[55, 60)	413	449,095	0%	100%
[60, 65)	162	449,257	0%	100%
[65, 70)	107	449,364	0%	100%
[70, 75)	75	449,439	0%	100%
[75, 80)	54	449,493	0%	100%
[80, 85)	31	449,524	0%	100%
[85, 90)	20	449,544	0%	100%
[90, 95)	17	449,561	0%	100%
[95, 100)	17	449,578	0%	100%
[100, 105)	14	449,592	0%	100%
[105, 110)	10	449,602	0%	100%
[110, 115)	7	449,609	0%	100%
[115, 120)	9	449,618	0%	100%
[120, 125)	7	449,625	0%	100%
[125, 130)	4	449,629	0%	100%
[130, 135)	1	449,630	0%	100%
[135, 140)	1	449,631	0%	100%
[140, 145)	1	449,632	0%	100%
[210, 215)	82	449,714	0%	100%

Table 8.E.6 Scale Score CSEM Distribution—ELA, Grade Eight

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	22,519	22,519	5%	5%
[25, 30)	362,618	385,137	80%	85%
[30, 35)	49,917	435,054	11%	96%
[35, 40)	10,831	445,885	2%	99%
[40, 45)	3,166	449,051	1%	100%
[45, 50)	1,103	450,154	0%	100%
[50, 55)	438	450,592	0%	100%
[55, 60)	178	450,770	0%	100%
[60, 65)	109	450,879	0%	100%
[65, 70)	79	450,958	0%	100%
[70, 75)	45	451,003	0%	100%
[75, 80)	34	451,037	0%	100%
[80, 85)	25	451,062	0%	100%
[85, 90)	17	451,079	0%	100%
[90, 95)	5	451,084	0%	100%
[95, 100)	11	451,095	0%	100%
[100, 105)	8	451,103	0%	100%
[105, 110)	7	451,110	0%	100%
[110, 115)	6	451,116	0%	100%
[115, 120)	5	451,121	0%	100%
[120, 125)	5	451,126	0%	100%
[125, 130)	5	451,131	0%	100%
[130, 135)	2	451,133	0%	100%
[135, 140)	3	451,136	0%	100%
[145, 150)	1	451,137	0%	100%
[155, 160)	1	451,138	0%	100%
[165, 170)	2	451,140	0%	100%
[180, 185)	1	451,141	0%	100%
[200, 205)	1	451,142	0%	100%
[210, 215)	43	451,185	0%	100%

Table 8.E.7 Scale Score CSEM Distribution—ELA, Grade Eleven

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	22	22	0%	0%
[25, 30)	203,409	203,431	48%	48%
[30, 35)	158,612	362,043	38%	86%
[35, 40)	41,278	403,321	10%	96%
[40, 45)	12,232	415,553	3%	98%
[45, 50)	3,785	419,338	1%	99%
[50, 55)	1,357	420,695	0%	100%
[55, 60)	535	421,230	0%	100%
[60, 65)	255	421,485	0%	100%
[65, 70)	140	421,625	0%	100%
[70, 75)	79	421,704	0%	100%
[75, 80)	55	421,759	0%	100%
[80, 85)	23	421,782	0%	100%
[85, 90)	29	421,811	0%	100%
[90, 95)	22	421,833	0%	100%
[95, 100)	20	421,853	0%	100%
[100, 105)	19	421,872	0%	100%
[105, 110)	22	421,894	0%	100%
[110, 115)	16	421,910	0%	100%
[115, 120)	8	421,918	0%	100%
[120, 125)	11	421,929	0%	100%
[125, 130)	13	421,942	0%	100%
[130, 135)	3	421,945	0%	100%
[140, 145)	1	421,946	0%	100%
[145, 150)	2	421,948	0%	100%
[155, 160)	2	421,950	0%	100%
[185, 190)	1	421,951	0%	100%
[195, 200)	1	421,952	0%	100%
[210, 215)	146	422,098	0%	100%

Table 8.E.8 Scale Score CSEM Distribution—Mathematics, Grade Three

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[10, 15)	53	53	0%	0%
[15, 20)	330,618	330,671	70%	70%
[20, 25)	111,819	442,490	24%	93%
[25, 30)	18,752	461,242	4%	97%
[30, 35)	6,373	467,615	1%	99%
[35, 40)	2,890	470,505	1%	99%
[40, 45)	1,503	472,008	0%	100%
[45, 50)	760	472,768	0%	100%
[50, 55)	428	473,196	0%	100%
[55, 60)	293	473,489	0%	100%
[60, 65)	156	473,645	0%	100%
[65, 70)	165	473,810	0%	100%
[70, 75)	70	473,880	0%	100%
[75, 80)	53	473,933	0%	100%
[80, 85)	27	473,960	0%	100%
[85, 90)	28	473,988	0%	100%
[90, 95)	22	474,010	0%	100%
[95, 100)	28	474,038	0%	100%
[100, 105)	27	474,065	0%	100%
[105, 110)	15	474,080	0%	100%
[110, 115)	13	474,093	0%	100%
[115, 120)	2	474,095	0%	100%
[135, 140)	1	474,096	0%	100%
[140, 145)	1	474,097	0%	100%
[145, 150)	5	474,102	0%	100%
[150, 155)	11	474,113	0%	100%
[155, 160)	20	474,133	0%	100%
[160, 165)	4	474,137	0%	100%
[165, 170)	22	474,159	0%	100%
[170, 175)	12	474,171	0%	100%
[175, 180)	10	474,181	0%	100%
[180, 185)	5	474,186	0%	100%
[185, 190)	4	474,190	0%	100%
[190, 195)	2	474,192	0%	100%
[195, 200)	69	474,261	0%	100%

Table 8.E.9 Scale Score CSEM Distribution—Mathematics, Grade Four

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[10, 15)	55	55	0%	0%
[15, 20)	309,075	309,130	67%	67%
[20, 25)	116,612	425,742	25%	92%
[25, 30)	24,959	450,701	5%	97%
[30, 35)	7,606	458,307	2%	99%
[35, 40)	2,980	461,287	1%	99%
[40, 45)	1,289	462,576	0%	100%
[45, 50)	688	463,264	0%	100%
[50, 55)	373	463,637	0%	100%
[55, 60)	197	463,834	0%	100%
[60, 65)	135	463,969	0%	100%
[65, 70)	86	464,055	0%	100%
[70, 75)	59	464,114	0%	100%
[75, 80)	38	464,152	0%	100%
[80, 85)	20	464,172	0%	100%
[85, 90)	16	464,188	0%	100%
[90, 95)	30	464,218	0%	100%
[95, 100)	20	464,238	0%	100%
[100, 105)	20	464,258	0%	100%
[105, 110)	12	464,270	0%	100%
[110, 115)	2	464,272	0%	100%
[130, 135)	1	464,273	0%	100%
[145, 150)	1	464,274	0%	100%
[150, 155)	1	464,275	0%	100%
[155, 160)	1	464,276	0%	100%
[160, 165)	2	464,278	0%	100%
[165, 170)	1	464,279	0%	100%
[170, 175)	3	464,282	0%	100%
[175, 180)	2	464,284	0%	100%
[180, 185)	11	464,295	0%	100%
[185, 190)	2	464,297	0%	100%
[190, 195)	3	464,300	0%	100%
[195, 200)	55	464,355	0%	100%

Table 8.E.10 Scale Score CSEM Distribution—Mathematics. Grade Five

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[15, 20)	150,236	150,236	33%	33%
[20, 25)	158,747	308,983	34%	67%
[25, 30)	84,352	393,335	18%	85%
[30, 35)	40,048	433,383	9%	94%
[35, 40)	15,975	449,358	3%	97%
[40, 45)	6,578	455,936	1%	99%
[45, 50)	2,803	458,739	1%	99%
[50, 55)	1,234	459,973	0%	100%
[55, 60)	589	460,562	0%	100%
[60, 65)	315	460,877	0%	100%
[65, 70)	197	461,074	0%	100%
[70, 75)	120	461,194	0%	100%
[75, 80)	96	461,290	0%	100%
[80, 85)	58	461,348	0%	100%
[85, 90)	52	461,400	0%	100%
[90, 95)	41	461,441	0%	100%
[95, 100)	29	461,470	0%	100%
[100, 105)	20	461,490	0%	100%
[105, 110)	23	461,513	0%	100%
[110, 115)	10	461,523	0%	100%
[115, 120)	12	461,535	0%	100%
[120, 125)	1	461,536	0%	100%
[130, 135)	3	461,539	0%	100%
[140, 145)	1	461,540	0%	100%
[170, 175)	2	461,542	0%	100%
[180, 185)	3	461,545	0%	100%
[185, 190)	2	461,547	0%	100%
[190, 195)	1	461,548	0%	100%
[195, 200)	69	461,617	0%	100%

Table 8.E.11 Scale Score CSEM Distribution—Mathematics, Grade Six

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[15, 20)	21,859	21,859	5%	5%
[20, 25)	245,416	267,275	54%	58%
[25, 30)	96,618	363,893	21%	80%
[30, 35)	41,245	405,138	9%	89%
[35, 40)	21,571	426,709	5%	93%
[40, 45)	11,494	438,203	3%	96%
[45, 50)	6,571	444,774	1%	97%
[50, 55)	3,925	448,699	1%	98%
[55, 60)	2,469	451,168	1%	99%
[60, 65)	1,485	452,653	0%	99%
[65, 70)	1,111	453,764	0%	99%
[70, 75)	750	454,514	0%	99%
[75, 80)	526	455,040	0%	99%
[80, 85)	384	455,424	0%	100%
[85, 90)	330	455,754	0%	100%
[90, 95)	281	456,035	0%	100%
[95, 100)	230	456,265	0%	100%
[100, 105)	200	456,465	0%	100%
[105, 110)	195	456,660	0%	100%
[110, 115)	192	456,852	0%	100%
[115, 120)	156	457,008	0%	100%
[120, 125)	32	457,040	0%	100%
[125, 130)	21	457,061	0%	100%
[130, 135)	9	457,070	0%	100%
[135, 140)	11	457,081	0%	100%
[140, 145)	4	457,085	0%	100%
[145, 150)	8	457,093	0%	100%
[150, 155)	2	457,095	0%	100%
[175, 180)	1	457,096	0%	100%
[185, 190)	2	457,098	0%	100%
[190, 195)	9	457,107	0%	100%
[195, 200)	443	457,550	0%	100%

Table 8.E.12 Scale Score CSEM Distribution—Mathematics, Grade Seven

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[15, 20)	35,133	35,133	8%	8%
[20, 25)	139,129	174,262	31%	39%
[25, 30)	99,407	273,669	22%	61%
[30, 35)	70,600	344,269	16%	76%
[35, 40)	39,729	383,998	9%	85%
[40, 45)	22,525	406,523	5%	90%
[45, 50)	13,811	420,334	3%	93%
[50, 55)	8,693	429,027	2%	95%
[55, 60)	5,671	434,698	1%	97%
[60, 65)	3,700	438,398	1%	97%
[65, 70)	2,632	441,030	1%	98%
[70, 75)	1,803	442,833	0%	98%
[75, 80)	1,366	444,199	0%	99%
[80, 85)	1,113	445,312	0%	99%
[85, 90)	850	446,162	0%	99%
[90, 95)	588	446,750	0%	99%
[95, 100)	522	447,272	0%	99%
[100, 105)	461	447,733	0%	99%
[105, 110)	469	448,202	0%	100%
[110, 115)	431	448,633	0%	100%
[115, 120)	360	448,993	0%	100%
[120, 125)	121	449,114	0%	100%
[125, 130)	80	449,194	0%	100%
[130, 135)	75	449,269	0%	100%
[135, 140)	68	449,337	0%	100%
[140, 145)	36	449,373	0%	100%
[145, 150)	36	449,409	0%	100%
[150, 155)	16	449,425	0%	100%
[155, 160)	10	449,435	0%	100%
[160, 165)	17	449,452	0%	100%
[165, 170)	3	449,455	0%	100%
[170, 175)	4	449,459	0%	100%
[175, 180)	2	449,461	0%	100%
[180, 185)	1	449,462	0%	100%
[190, 195)	1	449,463	0%	100%
[195, 200)	932	450,395	0%	100%

Table 8.E.13 Scale Score CSEM Distribution—Mathematics, Grade Eight

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[15, 20)	1,635	1,635	0%	0%
[20, 25)	116,700	118,335	26%	26%
[25, 30)	91,503	209,838	20%	46%
[30, 35)	100,225	310,063	22%	69%
[35, 40)	70,580	380,643	16%	84%
[40, 45)	31,618	412,261	7%	91%
[45, 50)	15,736	427,997	3%	95%
[50, 55)	8,377	436,374	2%	97%
[55, 60)	5,005	441,379	1%	98%
[60, 65)	3,039	444,418	1%	98%
[65, 70)	1,971	446,389	0%	99%
[70, 75)	1,346	447,735	0%	99%
[75, 80)	927	448,662	0%	99%
[80, 85)	627	449,289	0%	99%
[85, 90)	497	449,786	0%	100%
[90, 95)	353	450,139	0%	100%
[95, 100)	309	450,448	0%	100%
[100, 105)	241	450,689	0%	100%
[105, 110)	210	450,899	0%	100%
[110, 115)	181	451,080	0%	100%
[115, 120)	122	451,202	0%	100%
[120, 125)	28	451,230	0%	100%
[125, 130)	19	451,249	0%	100%
[130, 135)	40	451,289	0%	100%
[135, 140)	35	451,324	0%	100%
[140, 145)	28	451,352	0%	100%
[145, 150)	32	451,384	0%	100%
[150, 155)	23	451,407	0%	100%
[155, 160)	29	451,436	0%	100%
[160, 165)	27	451,463	0%	100%
[165, 170)	22	451,485	0%	100%
[170, 175)	29	451,514	0%	100%
[175, 180)	17	451,531	0%	100%
[180, 185)	15	451,546	0%	100%
[185, 190)	25	451,571	0%	100%
[190, 195)	12	451,583	0%	100%
[195, 200)	382	451,965	0%	100%

Table 8.E.14 Scale Score CSEM Distribution—Mathematics, Grade Eleven

CSEM Range	N	Cumulative Frequency	Percent	Cumulative Percent
[15, 20)	2,152	2,152	1%	1%
[20, 25)	73,298	75,450	17%	18%
[25, 30)	76,558	152,008	18%	36%
[30, 35)	67,266	219,274	16%	52%
[35, 40)	54,641	273,915	13%	65%
[40, 45)	42,998	316,913	10%	76%
[45, 50)	31,629	348,542	8%	83%
[50, 55)	21,720	370,262	5%	88%
[55, 60)	15,081	385,343	4%	92%
[60, 65)	10,210	395,553	2%	94%
[65, 70)	6,901	402,454	2%	96%
[70, 75)	4,663	407,117	1%	97%
[75, 80)	3,202	410,319	1%	98%
[80, 85)	2,199	412,518	1%	98%
[85, 90)	1,619	414,137	0%	99%
[90, 95)	1,127	415,264	0%	99%
[95, 100)	859	416,123	0%	99%
[100, 105)	688	416,811	0%	99%
[105, 110)	519	417,330	0%	99%
[110, 115)	420	417,750	0%	100%
[115, 120)	328	418,078	0%	100%
[120, 125)	103	418,181	0%	100%
[125, 130)	104	418,285	0%	100%
[130, 135)	73	418,358	0%	100%
[135, 140)	55	418,413	0%	100%
[140, 145)	40	418,453	0%	100%
[145, 150)	28	418,481	0%	100%
[150, 155)	40	418,521	0%	100%
[155, 160)	28	418,549	0%	100%
[160, 165)	20	418,569	0%	100%
[165, 170)	40	418,609	0%	100%
[170, 175)	53	418,662	0%	100%
[175, 180)	61	418,723	0%	100%
[180, 185)	52	418,775	0%	100%
[185, 190)	62	418,837	0%	100%
[190, 195)	50	418,887	0%	100%
[195, 200)	621	419,508	0%	100%

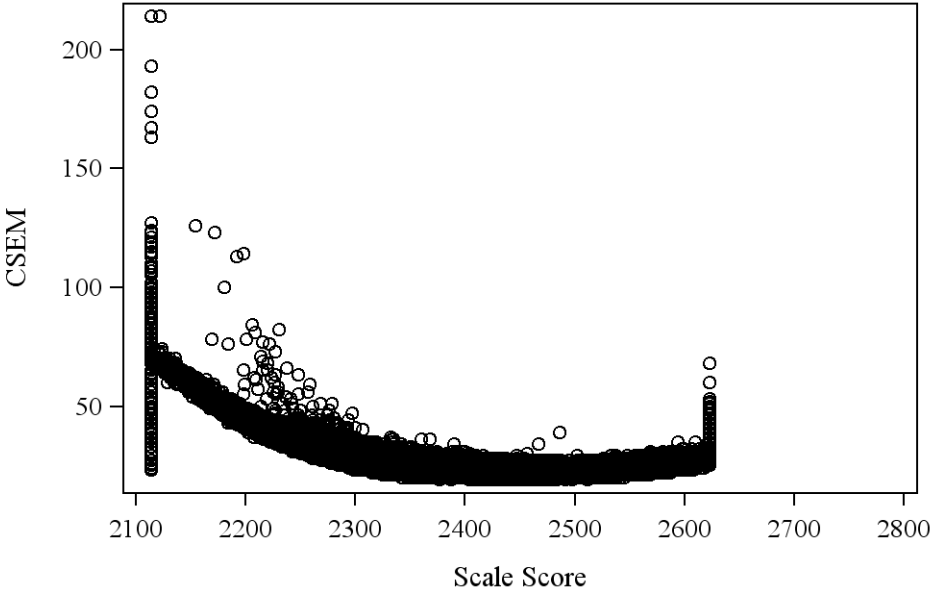


Figure 8.E.1 Scale Score CSEM Distribution Plots—ELA, Grade Three

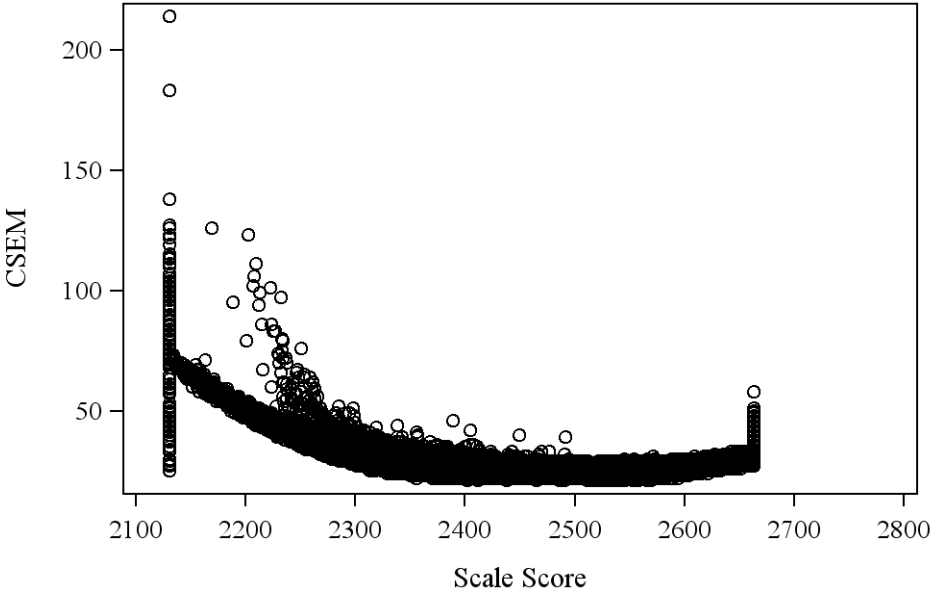


Figure 8.E.2 Scale Score CSEM Distribution Plots—ELA, Grade Four

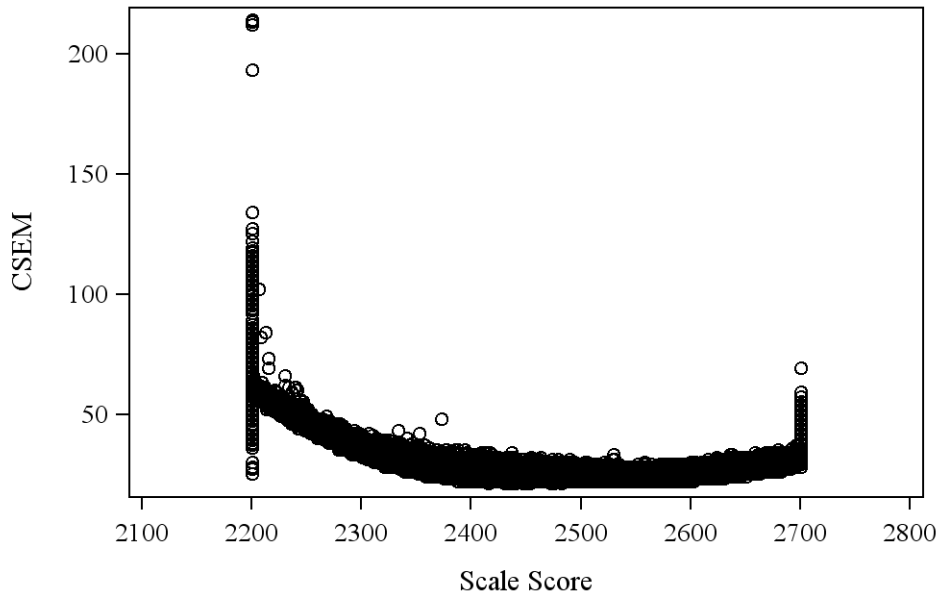


Figure 8.E.3 Scale Score CSEM Distribution Plots—ELA, Grade 5

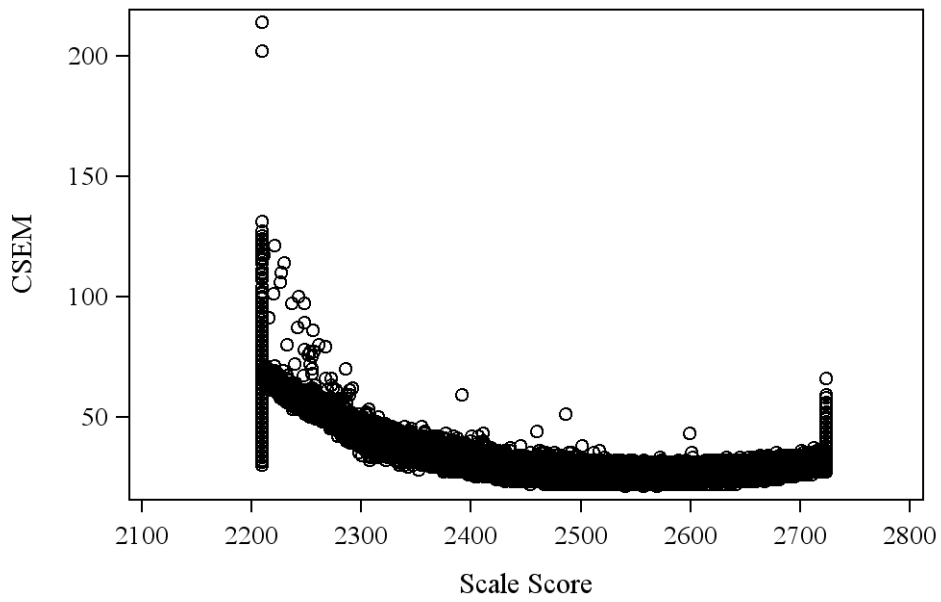


Figure 8.E.4 Scale Score CSEM Distribution Plots—ELA, Grade Six

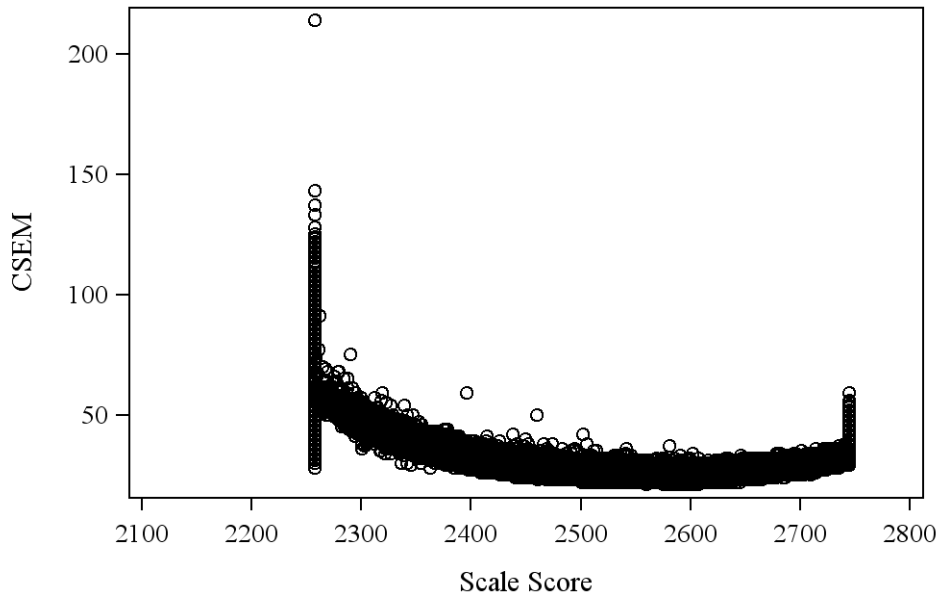


Figure 8.E.5 Scale Score CSEM Distribution Plots—ELA, Grade Seven

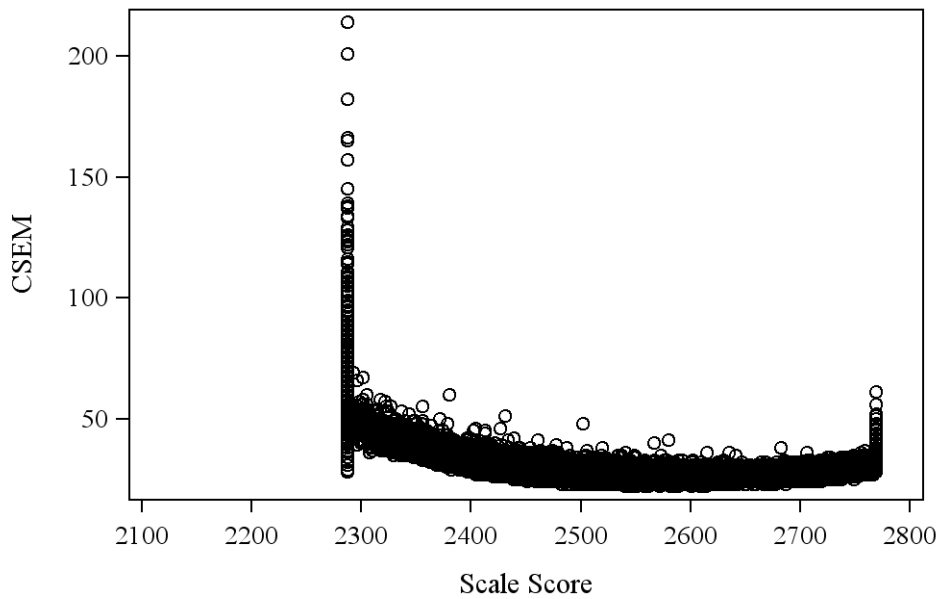


Figure 8.E.6 Scale Score CSEM Distribution Plots—ELA, Grade Eight

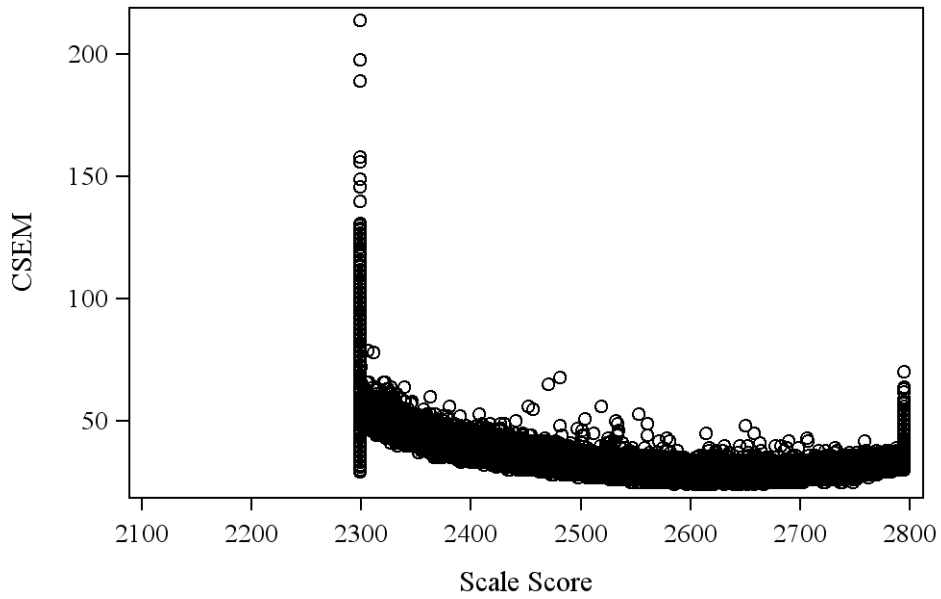


Figure 8.E.7 Scale Score CSEM Distribution Plots—ELA, Grade Eleven

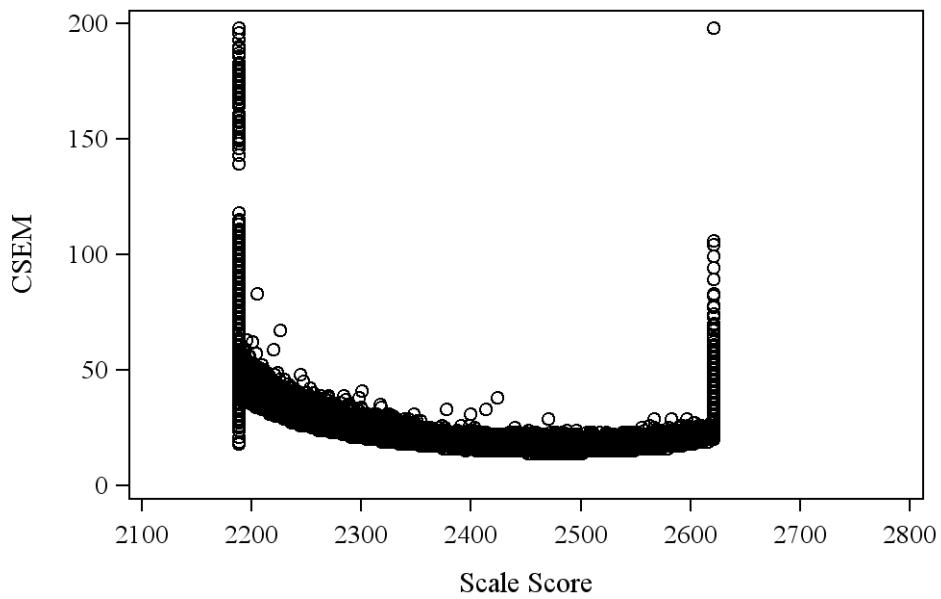


Figure 8.E.8 Scale Score CSEM Distribution Plots—Mathematics, Grade Three

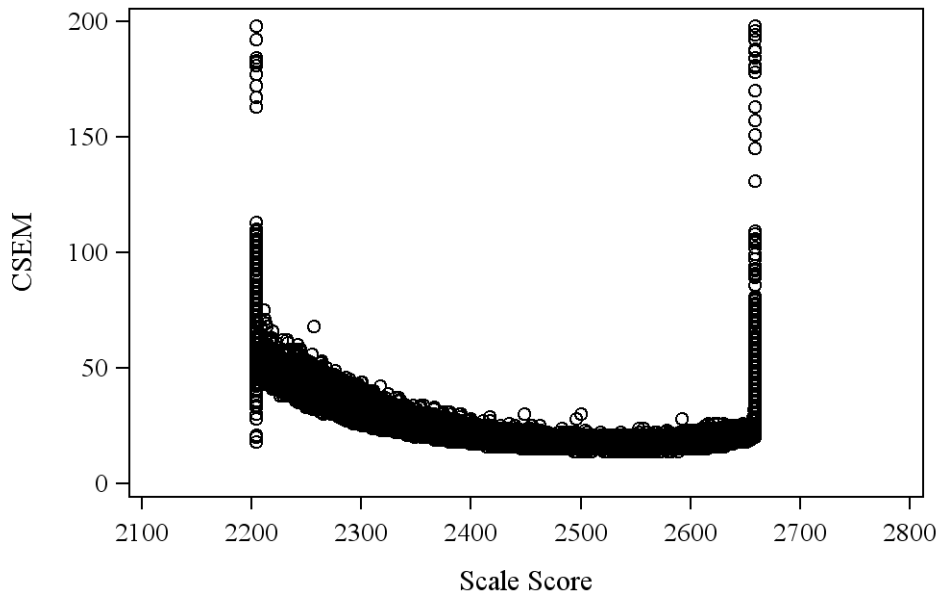


Figure 8.E.9 Scale Score CSEM Distribution Plots—Mathematics, Grade Four

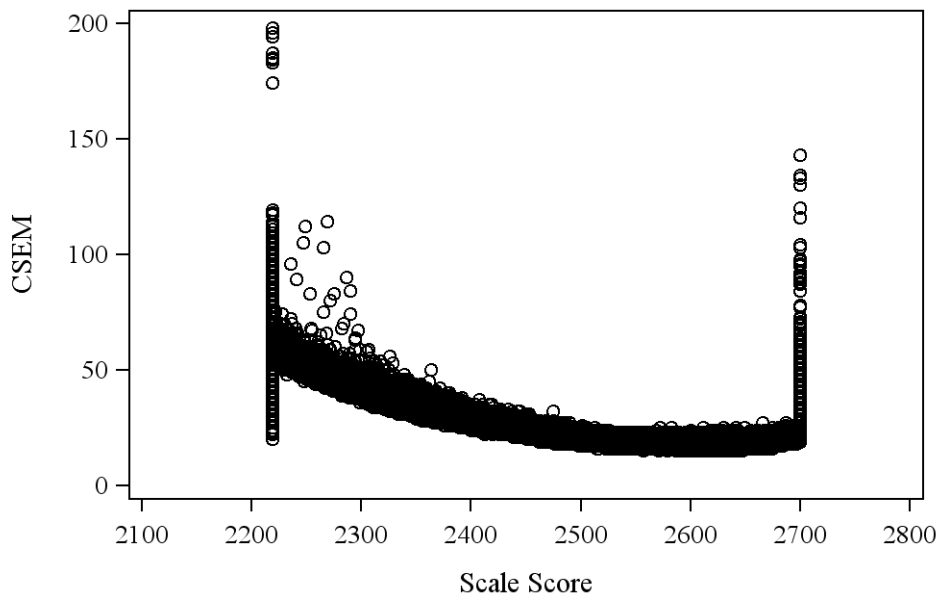


Figure 8.E.10 Scale Score CSEM Distribution Plots—Mathematics, Grade Five

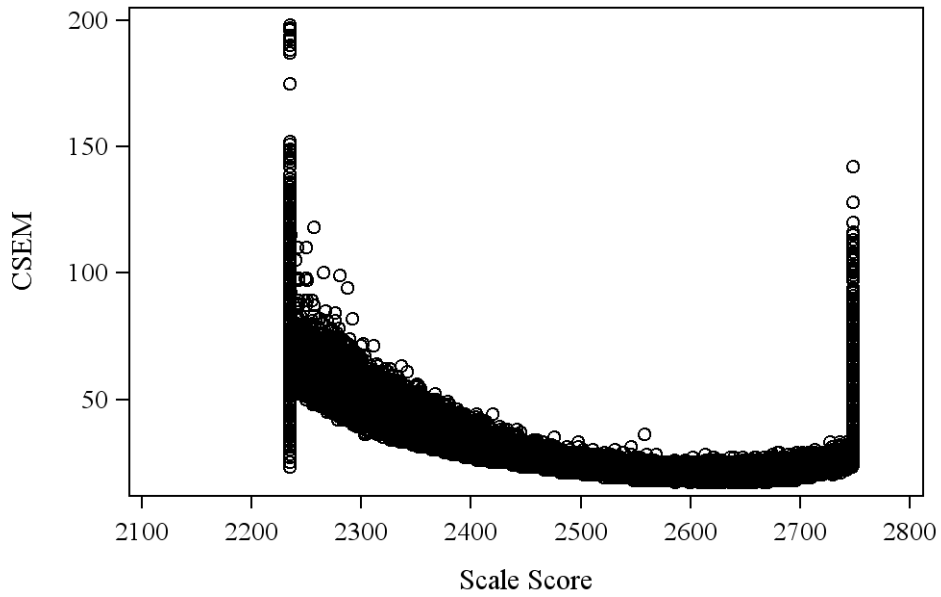


Figure 8.E.11 Scale Score CSEM Distribution Plots—Mathematics, Grade Six

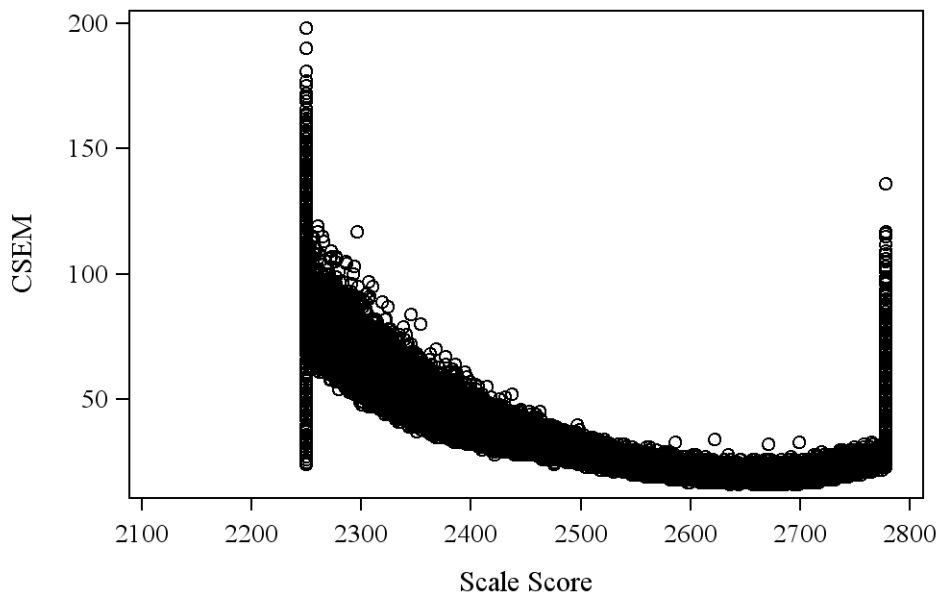


Figure 8.E.12 Scale Score CSEM Distribution Plots—Mathematics, Grade Seven

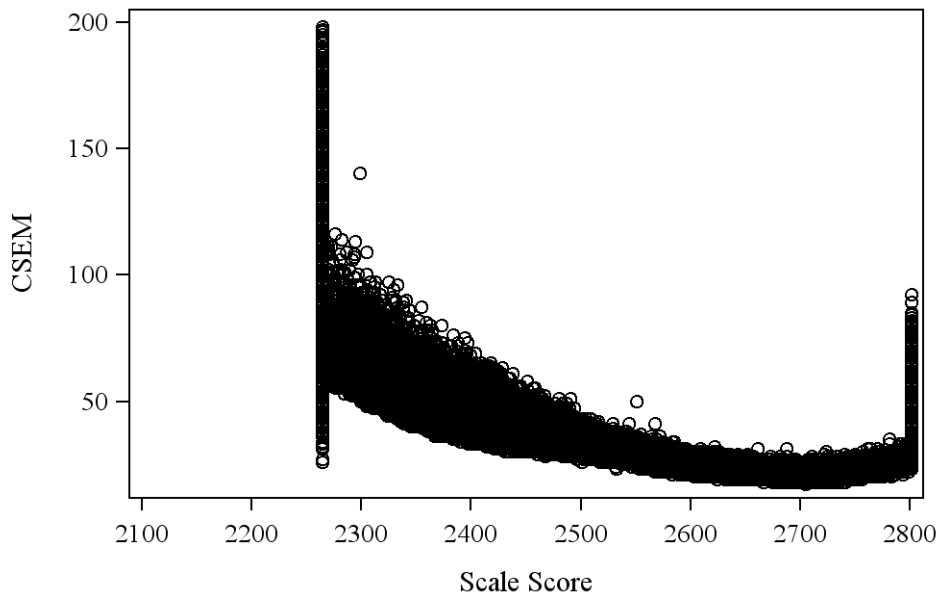


Figure 8.E.13 Scale Score CSEM Distribution Plots—Mathematics, Grade 8

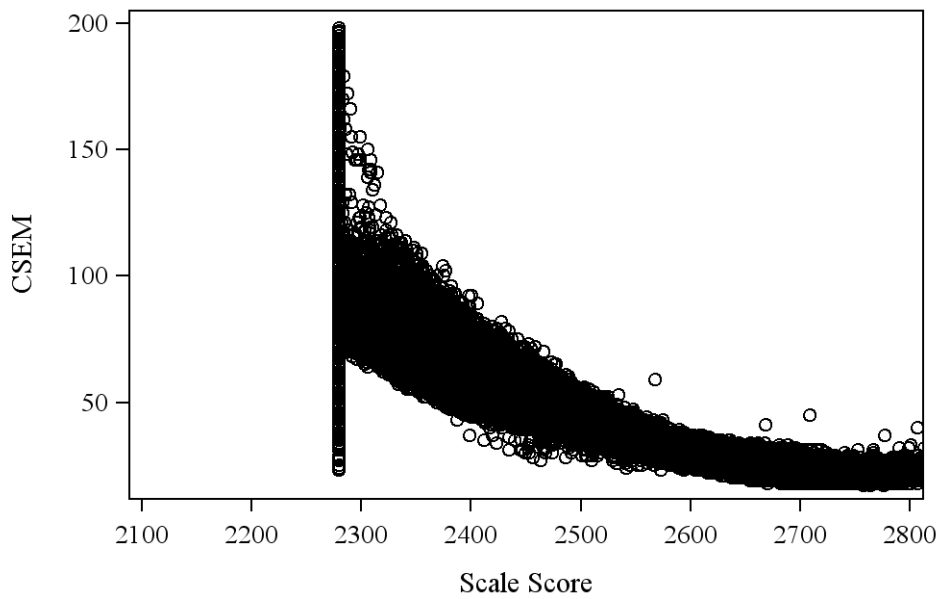


Figure 8.E.14 Scale Score CSEM Distribution Plots—Mathematics, Grade Eleven

Appendix 8.F: Analyses of Classification

Table 8.F.1 Decision Accuracy and Decision Consistency: ELA, Grade Three

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2114–2366	0.32	0.04	0.00	0.00	0.36
	2367–2431	0.04	0.18	0.04	0.00	0.26
	2432–2489	0.00	0.04	0.13	0.02	0.20
	2490–2623	0.00	0.00	0.03	0.15	0.18
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.78 Standard Met and Exceeded = 0.92					
Decision Consistency	2114–2366	0.30	0.06	0.00	0.00	0.36
	2367–2431	0.06	0.15	0.05	0.00	0.26
	2432–2489	0.00	0.05	0.11	0.04	0.20
	2490–2623	0.00	0.00	0.03	0.14	0.18
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.70 Standard Met and Exceeded = 0.89					

Table 8.F.2 Decision Accuracy and Decision Consistency: ELA, Grade Four

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2131–2415	0.35	0.04	0.00	0.00	0.39
	2416–2472	0.04	0.13	0.04	0.00	0.21
	2473–2532	0.00	0.04	0.13	0.03	0.21
	2533–2663	0.00	0.00	0.03	0.16	0.19
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.78 Standard Met and Exceeded = 0.92					
Decision Consistency	2131–2415	0.33	0.05	0.00	0.00	0.39
	2416–2472	0.06	0.10	0.05	0.00	0.21
	2473–2532	0.01	0.05	0.11	0.04	0.21
	2533–2663	0.00	0.00	0.03	0.16	0.19
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.70 Standard Met and Exceeded = 0.89					

Table 8.F.3 Decision Accuracy and Decision Consistency: ELA, Grade Five

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2201–2441	0.30	0.04	0.00	0.00	0.34
	2442–2501	0.04	0.14	0.04	0.00	0.21
	2502–2581	0.00	0.04	0.20	0.03	0.27
	2582–2701	0.00	0.00	0.03	0.15	0.17
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.79 Standard Met and Exceeded = 0.92					
Decision Consistency	2201–2441	0.28	0.05	0.00	0.00	0.34
	2442–2501	0.05	0.11	0.05	0.00	0.21
	2502–2581	0.01	0.05	0.17	0.04	0.27
	2582–2701	0.00	0.00	0.03	0.14	0.17
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.71 Standard Met and Exceeded = 0.88					

Table 8.F.4 Decision Accuracy and Decision Consistency: ELA, Grade Six

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2210–2456	0.24	0.04	0.00	0.00	0.28
	2457–2530	0.04	0.20	0.05	0.00	0.29
	2531–2617	0.00	0.05	0.23	0.02	0.29
	2618–2724	0.00	0.00	0.03	0.10	0.13
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.77 Standard Met and Exceeded = 0.91					
Decision Consistency	2210–2456	0.23	0.05	0.00	0.00	0.28
	2457–2530	0.06	0.16	0.07	0.00	0.29
	2531–2617	0.00	0.06	0.20	0.04	0.29
	2618–2724	0.00	0.00	0.03	0.10	0.13
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.69 Standard Met and Exceeded = 0.87					

Table 8.F.5 Decision Accuracy and Decision Consistency: ELA, Grade Seven

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2258–2478	0.27	0.04	0.00	0.00	0.31
	2479–2551	0.04	0.18	0.04	0.00	0.25
	2552–2648	0.00	0.05	0.25	0.02	0.32
	2649–2745	0.00	0.00	0.03	0.09	0.12
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.78 Standard Met and Exceeded = 0.91					
Decision Consistency	2258–2478	0.25	0.05	0.00	0.00	0.31
	2479–2551	0.05	0.14	0.06	0.00	0.25
	2552–2648	0.00	0.06	0.22	0.04	0.32
	2649–2745	0.00	0.00	0.03	0.09	0.12
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.70 Standard Met and Exceeded = 0.87					

Table 8.F.6 Decision Accuracy and Decision Consistency: ELA, Grade Eight

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2288–2486	0.22	0.04	0.00	0.00	0.26
	2487–2566	0.04	0.21	0.05	0.00	0.29
	2567–2667	0.00	0.05	0.27	0.02	0.33
	2668–2769	0.00	0.00	0.03	0.09	0.12
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.79 Standard Met and Exceeded = 0.91					
Decision Consistency	2288–2486	0.21	0.05	0.00	0.00	0.26
	2487–2566	0.05	0.17	0.06	0.00	0.29
	2567–2667	0.00	0.06	0.24	0.04	0.33
	2668–2769	0.00	0.00	0.03	0.09	0.12
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.70 Standard Met and Above = 0.87					

Table 8.F.7 Decision Accuracy and Decision Consistency: ELA, Grade Eleven

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2299–2492	0.17	0.03	0.00	0.00	0.20
	2493–2582	0.03	0.17	0.04	0.00	0.24
	2583–2681	0.00	0.05	0.25	0.04	0.33
	2682–2795	0.00	0.00	0.03	0.19	0.23
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.78 Standard Met and Above = 0.91					
Decision Consistency	2299–2492	0.16	0.04	0.00	0.00	0.20
	2493–2582	0.04	0.14	0.06	0.00	0.24
	2583–2681	0.00	0.06	0.21	0.06	0.33
	2682–2795	0.00	0.00	0.04	0.18	0.23
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.69 Standard Met and Above = 0.88					

Table 8.F.8 Decision Accuracy and Decision Consistency: Mathematics, Grade Three

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2189–2380	0.30	0.03	0.00	0.00	0.33
	2381–2435	0.04	0.18	0.04	0.00	0.27
	2436–2500	0.00	0.04	0.20	0.02	0.26
	2501–2621	0.00	0.00	0.02	0.12	0.14
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.80 Standard Met and Above = 0.92					
Decision Consistency	2189–2380	0.29	0.04	0.00	0.00	0.33
	2381–2435	0.05	0.15	0.06	0.00	0.27
	2436–2500	0.00	0.05	0.17	0.04	0.26
	2501–2621	0.00	0.00	0.02	0.12	0.14
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.73 Standard Met and Above = 0.89					

Table 8.F.9 Decision Accuracy and Decision Consistency: Mathematics, Grade Four

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2204–2410	0.28	0.03	0.00	0.00	0.31
	2411–2484	0.04	0.26	0.04	0.01	0.35
	2485–2548	0.00	0.03	0.17	0.02	0.22
	2549–2659	0.00	0.00	0.02	0.11	0.13
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.82 Standard Met and Above = 0.92					
Decision Consistency	2204–2410	0.26	0.04	0.00	0.00	0.31
	2411–2484	0.06	0.23	0.06	0.01	0.35
	2485–2548	0.00	0.04	0.15	0.03	0.22
	2549–2659	0.00	0.00	0.02	0.11	0.13
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.74 Standard Met and Above = 0.90					

Table 8.F.10 Decision Accuracy and Decision Consistency: Mathematics, Grade Five

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2219–2454	0.37	0.04	0.00	0.00	0.41
	2455–2527	0.04	0.21	0.04	0.00	0.29
	2528–2578	0.00	0.03	0.10	0.02	0.15
	2579–2700	0.00	0.00	0.02	0.13	0.15
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.80 Standard Met and Above = 0.93					
Decision Consistency	2219–2454	0.35	0.06	0.00	0.00	0.41
	2455–2527	0.06	0.17	0.05	0.01	0.29
	2528–2578	0.00	0.04	0.08	0.03	0.15
	2579–2700	0.00	0.00	0.03	0.12	0.15
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.73 Standard Met and Above = 0.90					

Table 8.F.11 Decision Accuracy and Decision Consistency: Mathematics, Grade Six

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2235–2472	0.33	0.03	0.00	0.00	0.36
	2473–2551	0.05	0.20	0.05	0.01	0.31
	2552–2609	0.00	0.04	0.12	0.03	0.18
	2610–2748	0.00	0.00	0.02	0.13	0.15
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.77 Standard Met and Above = 0.90					
Decision Consistency	2235–2472	0.31	0.05	0.00	0.00	0.36
	2473–2551	0.06	0.17	0.06	0.01	0.31
	2552–2609	0.00	0.05	0.09	0.04	0.18
	2610–2748	0.00	0.00	0.03	0.12	0.15
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.70 Standard Met and Above = 0.88					

Table 8.F.12 Decision Accuracy and Decision Consistency: Mathematics, Grade Seven

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2250–2483	0.33	0.04	0.00	0.00	0.37
	2484–2566	0.05	0.18	0.05	0.01	0.29
	2567–2634	0.00	0.05	0.12	0.03	0.19
	2635–2778	0.00	0.00	0.03	0.12	0.15
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.74 Standard Met and Above = 0.90					
Decision Consistency	2250–2483	0.31	0.06	0.00	0.00	0.37
	2484–2566	0.07	0.15	0.06	0.01	0.29
	2567–2634	0.00	0.06	0.09	0.04	0.19
	2635–2778	0.00	0.00	0.04	0.11	0.15
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.66 Standard Met and Above = 0.87					

Table 8.F.13 Decision Accuracy and Decision Consistency: Mathematics, Grade Eight

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2265–2503	0.36	0.04	0.00	0.00	0.41
	2504–2585	0.05	0.16	0.04	0.01	0.26
	2586–2652	0.00	0.04	0.10	0.02	0.17
	2653–2802	0.00	0.00	0.03	0.14	0.16
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.77 Standard Met and Above = 0.91					
Decision Consistency	2265–2503	0.35	0.06	0.00	0.00	0.41
	2504–2585	0.07	0.13	0.06	0.01	0.26
	2586–2652	0.00	0.05	0.08	0.04	0.17
	2653–2802	0.00	0.00	0.03	0.13	0.16
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.69 Standard Met and Above = 0.88					

Table 8.F.14 Decision Accuracy and Decision Consistency: Mathematics, Grade Eleven

	Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
Decision Accuracy	2280–2542	0.41	0.05	0.00	0.00	0.45
	2543–2627	0.05	0.15	0.05	0.00	0.25
	2628–2717	0.00	0.04	0.12	0.02	0.18
	2718–2862	0.00	0.00	0.03	0.09	0.11
All-Forms Average	Estimated Proportion Correctly Classified: Total = 0.76 Standard Met and Above = 0.91					
Decision Consistency	2280–2542	0.39	0.06	0.01	0.00	0.45
	2543–2627	0.07	0.11	0.06	0.01	0.25
	2628–2717	0.00	0.05	0.10	0.03	0.18
	2718–2862	0.00	0.00	0.03	0.08	0.11
Alternate Form	Estimated Proportion Consistently Classified: Total = 0.68 Standard Met and Above = 0.88					

Appendix 8.G: Interrater Reliability

Table 8.G.1 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Three Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
1	VH279435	2	17,827	6,075	0.29	0.40	67.8	29.4	97.2	0.36	0.58	0.36	0.58
2	VH279720	2	8,954	904	0.40	0.50	71.0	25.6	96.6	0.40	0.63	0.41	0.63
3	VH282903	2	1,060	105	0.50	0.65	79.0	19.0	98.1	0.32	0.58	0.36	0.65
4	VH295225	2	18,233	2,805	0.45	0.60	78.4	20.7	99.1	0.29	0.55	0.30	0.55
5	VH295226	2	17,801	2,734	0.46	0.63	81.5	17.8	99.4	0.24	0.51	0.26	0.53
6	VH295342	2	18,765	2,977	0.44	0.62	66.8	31.9	98.8	0.60	0.70	0.60	0.69
7	VH295343	2	18,577	2,912	0.42	0.54	74.6	24.9	99.4	0.33	0.55	0.33	0.54
8	VH295564	2	18,383	2,695	0.47	0.62	70.2	28.3	98.6	0.54	0.67	0.53	0.67
9	VH295565	2	17,625	2,671	0.49	0.66	77.3	21.8	99.1	0.37	0.62	0.36	0.61
10	VH295658	2	18,233	2,890	0.46	0.63	77.5	21.4	98.9	0.33	0.59	0.32	0.58
11	VH295688	2	17,973	2,780	0.46	0.63	73.5	23.7	97.2	0.45	0.69	0.44	0.69
12	VH295711	2	19,001	2,896	0.45	0.63	67.6	28.8	96.3	0.63	0.76	0.61	0.76
13	VH295712	2	18,574	2,832	0.42	0.56	72.4	26.0	98.4	0.39	0.60	0.41	0.61
14	VH295877	2	19,399	2,954	0.46	0.62	72.2	26.7	99.0	0.45	0.64	0.44	0.64
15	VH295911	2	18,481	2,842	0.44	0.60	72.6	26.8	99.4	0.41	0.62	0.40	0.60
16	VH295915	2	18,142	2,834	0.44	0.59	78.5	20.2	98.7	0.29	0.55	0.29	0.56
17	VH295947	2	18,651	2,950	0.36	0.49	60.3	35.6	95.8	0.71	0.71	0.73	0.71
18	VH295961	2	18,502	2,670	0.43	0.59	74.0	23.2	97.2	0.40	0.66	0.38	0.64
19	VH295995	2	18,336	2,714	0.52	0.68	79.0	20.1	99.2	0.35	0.61	0.35	0.61
20	VH295996	2	18,086	2,843	0.38	0.50	79.7	18.8	98.5	0.23	0.50	0.23	0.49
21	VH296065	2	18,137	2,707	0.54	0.72	77.6	20.4	98.0	0.45	0.71	0.46	0.71
AVERAGE			17,083	2,752	0.44	0.59	73.9	24.3	98.2	0.41	0.62	0.41	0.62

Notes:

- Numbers indicate students who received valid ratings.
- Rater 2 is the backup rater.

Table 8.G.2 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Four Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
1	VH281222	2	1,403	156	0.46	0.56	75.6	21.2	96.8	0.33	0.59	0.41	0.64
2	VH281326	2	1,625	148	0.50	0.66	75.7	23.6	99.3	0.41	0.63	0.41	0.62
3	VH281693	2	18,393	12,663	0.37	0.51	78.2	20.7	98.9	0.25	0.50	0.25	0.51
4	VH281949	2	1,340	101	0.29	0.50	70.3	28.7	99.0	0.30	0.56	0.35	0.59
5	VH282756	2	18,471	10,063	0.43	0.57	74.9	24.0	98.9	0.34	0.58	0.35	0.58
6	VH295256	2	19,276	2,020	0.40	0.54	68.5	30.5	99.1	0.46	0.61	0.46	0.62
7	VH295257	2	18,801	2,085	0.42	0.61	69.8	28.4	98.2	0.47	0.68	0.48	0.67
8	VH295349	2	19,490	2,175	0.56	0.74	71.8	27.1	98.9	0.79	0.78	0.80	0.78
9	VH295350	2	18,908	2,142	0.36	0.46	80.9	17.1	97.9	0.22	0.49	0.20	0.48
10	VH295423	2	18,917	2,121	0.57	0.72	75.6	23.0	98.5	0.56	0.72	0.55	0.72
11	VH295443	2	19,175	2,152	0.37	0.51	71.7	25.5	97.2	0.37	0.61	0.36	0.62
12	VH295458	2	18,790	2,116	0.42	0.60	71.3	26.1	97.4	0.44	0.67	0.43	0.67
13	VH295496	2	19,050	2,205	0.43	0.61	67.0	31.4	98.5	0.58	0.69	0.58	0.69
14	VH295520	2	18,889	2,187	0.44	0.60	66.4	31.4	97.9	0.65	0.71	0.66	0.71
15	VH295521	2	18,632	2,151	0.53	0.73	70.4	28.3	98.7	0.71	0.79	0.76	0.79
16	VH295590	2	19,125	2,180	0.49	0.69	68.0	31.1	99.1	0.75	0.74	0.74	0.74
17	VH295591	2	18,786	2,141	0.58	0.72	75.6	22.1	97.7	0.58	0.75	0.60	0.76
18	VH295629	2	19,187	2,055	0.30	0.42	65.5	31.5	97.1	0.40	0.61	0.42	0.61
19	VH295643	2	18,838	2,153	0.55	0.71	71.7	26.9	98.7	0.71	0.74	0.72	0.74
20	VH295647	2	19,058	2,196	0.47	0.66	70.7	28.1	98.8	0.54	0.71	0.53	0.69
21	VH295704	2	19,150	2,190	0.57	0.76	72.1	27.1	99.2	0.77	0.79	0.78	0.79
22	VH295705	2	19,109	2,180	0.51	0.68	73.6	24.8	98.4	0.51	0.69	0.50	0.70
23	VH295730	2	18,873	2,065	0.56	0.74	74.7	23.4	98.2	0.59	0.77	0.60	0.77
24	VH295734	2	18,884	2,082	0.55	0.72	76.0	22.1	98.1	0.52	0.72	0.50	0.72
25	VH295772	2	18,895	2,191	0.53	0.70	75.8	23.1	99.0	0.46	0.68	0.47	0.67
26	VH295773	2	18,892	2,184	0.42	0.56	83.3	14.8	98.1	0.20	0.51	0.22	0.50
27	VH295779	2	19,032	2,083	0.39	0.54	71.2	26.7	97.9	0.39	0.61	0.40	0.62
28	VH295784	2	19,171	2,038	0.61	0.79	79.1	18.5	97.7	0.57	0.81	0.57	0.81
29	VH295786	2	19,110	2,129	0.45	0.59	69.8	27.8	97.6	0.51	0.68	0.50	0.68
30	VH295790	2	18,626	1,991	0.41	0.56	74.9	23.5	98.4	0.33	0.57	0.35	0.59
31	VH295856	2	19,646	2,230	0.44	0.62	65.9	32.2	98.1	0.68	0.72	0.66	0.72
32	VH295857	2	18,956	2,187	0.45	0.65	71.0	27.0	98.0	0.50	0.71	0.49	0.70
33	VH295863	2	18,698	2,090	0.60	0.76	77.7	21.4	99.1	0.54	0.72	0.55	0.71
34	VH295868	2	18,945	2,069	0.50	0.67	71.2	26.1	97.3	0.56	0.74	0.59	0.75
35	VH295895	2	19,553	2,161	0.45	0.65	64.8	33.5	98.3	0.76	0.75	0.77	0.76
36	VH295896	2	19,496	2,004	0.45	0.61	71.4	27.5	98.9	0.44	0.63	0.48	0.65
37	VH295954	2	19,181	2,129	0.46	0.61	73.9	23.3	97.2	0.43	0.67	0.43	0.67
38	VH295959	2	18,679	2,146	0.59	0.76	75.5	22.6	98.1	0.66	0.78	0.66	0.79
AVERAGE			17,607	2,457	0.47	0.63	72.7	25.6	98.3	0.51	0.68	0.52	0.68

Notes:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Table 8.G.3 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Five Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
1	VH288881	2	1,256	129	0.23	0.32	63.6	32.6	96.1	0.36	0.60	0.41	0.59
2	VH289122	2	1,234	113	0.05	0.24	56.6	38.9	95.6	0.44	0.67	0.30	0.53
3	VH289482	2	1,382	118	0.46	0.61	72.0	27.1	99.2	0.42	0.63	0.48	0.62
4	VH295218	2	19,292	1,892	0.42	0.60	64.4	33.8	98.2	0.68	0.72	0.68	0.72
5	VH295219	2	19,133	1,982	0.50	0.69	67.1	30.7	97.8	0.92	0.80	0.92	0.80
6	VH295228	2	19,427	2,106	0.38	0.55	61.1	36.5	97.6	0.90	0.71	0.90	0.71
7	VH295229	2	19,612	2,069	0.46	0.63	72.8	25.6	98.4	0.45	0.66	0.45	0.66
8	VH295236	2	19,750	2,038	0.61	0.76	86.2	12.9	99.1	0.29	0.60	0.28	0.58
9	VH295237	2	19,202	1,991	0.48	0.65	72.7	25.3	98.0	0.48	0.69	0.49	0.69
10	VH295403	2	19,589	2,030	0.51	0.70	72.7	26.2	98.8	0.54	0.71	0.55	0.71
11	VH295404	2	19,363	2,126	0.57	0.76	72.8	26.2	99.0	0.72	0.79	0.73	0.79
12	VH295430	2	19,594	2,112	0.45	0.65	64.3	34.5	98.8	0.87	0.74	0.88	0.76
13	VH295435	2	19,767	2,105	0.45	0.66	64.7	34.4	99.1	0.80	0.74	0.78	0.75
14	VH295449	2	19,803	2,138	0.51	0.70	74.8	23.8	98.6	0.47	0.69	0.47	0.69
15	VH295450	2	19,419	2,126	0.59	0.77	73.0	25.5	98.6	0.83	0.81	0.83	0.81
16	VH295477	2	18,959	2,041	0.55	0.73	77.5	21.0	98.5	0.45	0.70	0.47	0.70
17	VH295479	2	19,391	2,106	0.44	0.61	66.0	32.9	98.8	0.71	0.69	0.72	0.70
18	VH295541	2	19,131	2,073	0.53	0.74	70.4	28.8	99.2	0.74	0.77	0.75	0.79
19	VH295738	2	19,376	2,082	0.56	0.76	74.6	24.4	99.1	0.60	0.76	0.59	0.76
20	VH295739	2	19,185	2,063	0.49	0.66	69.1	30.1	99.1	0.66	0.70	0.68	0.71
21	VH295798	2	19,344	2,011	0.41	0.62	63.9	34.2	98.1	0.68	0.74	0.67	0.74
22	VH295807	2	19,143	2,103	0.50	0.69	67.7	31.7	99.4	0.82	0.74	0.82	0.76
23	VH295808	2	19,080	2,078	0.58	0.73	78.1	20.4	98.5	0.49	0.72	0.47	0.70
24	VH295839	2	19,418	2,098	0.46	0.69	65.6	32.9	98.5	0.76	0.80	0.76	0.78
25	VH295840	2	19,558	2,147	0.43	0.62	63.7	34.1	97.8	0.74	0.75	0.76	0.75
26	VH295898	2	19,025	2,048	0.41	0.62	62.5	33.6	96.1	0.77	0.81	0.77	0.79
27	VH295918	2	19,460	2,066	0.49	0.65	68.4	30.3	98.8	0.73	0.70	0.73	0.71
28	VH295919	2	19,446	2,036	0.42	0.61	65.6	33.5	99.1	0.64	0.70	0.64	0.68
29	VH295968	2	19,619	2,038	0.44	0.62	64.9	32.5	97.4	0.70	0.74	0.71	0.76
30	VH295969	2	19,424	1,977	0.49	0.67	71.3	26.6	97.9	0.57	0.75	0.55	0.72
31	VH296030	2	19,070	2,017	0.61	0.76	85.2	13.7	98.9	0.31	0.62	0.32	0.62
32	VH296032	2	19,769	2,113	0.47	0.67	67.2	31.6	98.7	0.70	0.74	0.72	0.74
33	VH296044	2	19,705	1,989	0.52	0.70	69.3	29.8	99.1	0.78	0.75	0.77	0.74
34	VH296045	2	19,466	2,079	0.50	0.64	73.8	24.5	98.3	0.46	0.65	0.48	0.66
35	VH296076	2	19,629	2,079	0.62	0.78	78.3	20.6	98.9	0.60	0.76	0.59	0.76
36	VH296077	2	19,409	2,078	0.52	0.70	70.7	28.3	99.0	0.65	0.73	0.67	0.75
37	VH296080	2	19,593	2,080	0.43	0.63	63.3	35.9	99.1	1.03	0.73	1.01	0.74
38	VH296084	2	18,811	1,876	0.55	0.73	70.5	27.2	97.7	0.84	0.83	0.82	0.83
39	VH296087	2	19,594	2,039	0.40	0.56	64.1	34.4	98.5	0.64	0.69	0.63	0.67
40	VH296088	2	19,499	2,089	0.50	0.70	67.8	31.3	99.1	0.77	0.75	0.77	0.76
AVERAGE			18,048	1,912	0.47	0.65	69.5	29.0	98.4	0.65	0.72	0.65	0.72

Notes:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Table 8.G.4 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Six Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
1	VH295314	2	2,776	2,776	0.45	0.54	80.7	17.0	97.8	0.26	0.54	0.25	0.53
2	VH295315	2	3,428	3,428	0.61	0.73	81.9	17.3	99.2	0.40	0.63	0.37	0.60
3	VH295437	2	2,887	2,887	0.63	0.79	81.8	17.5	99.3	0.45	0.70	0.46	0.70
4	VH295438	2	2,840	2,839	0.72	0.83	87.7	11.2	99.0	0.39	0.67	0.37	0.66
5	VH295555	2	2,698	2,698	0.55	0.71	72.6	25.9	98.5	0.66	0.74	0.67	0.74
6	VH295580	2	3,418	3,417	0.57	0.65	86.5	12.5	99.0	0.22	0.49	0.22	0.48
7	VH295581	2	2,815	2,815	0.73	0.85	89.7	9.9	99.6	0.32	0.63	0.32	0.62
8	VH295666	2	2,963	2,963	0.64	0.78	79.1	20.6	99.6	0.56	0.70	0.58	0.71
9	VH295667	2	2,888	2,888	0.66	0.79	82.0	16.8	98.8	0.51	0.73	0.50	0.71
10	VH295678	2	3,262	3,262	0.56	0.62	84.5	13.4	97.9	0.26	0.54	0.25	0.53
11	VH295752	2	2,782	2,782	0.59	0.74	77.4	21.4	98.7	0.54	0.71	0.54	0.70
12	VH295872	2	2,600	2,600	0.56	0.72	73.2	24.7	98.0	0.67	0.76	0.67	0.76
13	VH295935	2	2,597	2,597	0.52	0.67	77.6	21.5	99.1	0.40	0.63	0.38	0.61
14	VH295982	2	3,289	3,287	0.54	0.68	79.9	19.0	98.8	0.35	0.60	0.36	0.60
15	VH296010	2	2,855	2,855	0.56	0.69	77.9	21.2	99.1	0.44	0.63	0.44	0.64
16	VH296011	2	2,619	2,617	0.60	0.73	77.7	21.4	99.1	0.52	0.68	0.53	0.68
17	VH296039	2	2,239	2,238	0.45	0.57	83.8	15.4	99.2	0.21	0.47	0.19	0.45
18	VH296363	2	1,585	1,584	0.45	0.56	68.5	30.1	98.5	0.58	0.64	0.60	0.64
19	VH297172	2	228	228	0.81	0.87	88.6	11.0	99.6	0.70	0.72	0.63	0.68
20	VH297220	2	1	1	-	-	100.0	0.0	100.0	0.00	-	0.00	-
AVERAGE			2,539	2,538	0.59	0.71	81.6	17.4	98.9	0.42	0.64	0.42	0.63

Notes:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Table 8.G.5 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Seven Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
1	VH295263	2	1,811	1,811	0.61	0.77	75.6	22.9	98.5	0.70	0.79	0.72	0.80
2	VH295264	2	1,878	1,878	0.46	0.63	78.3	19.9	98.2	0.32	0.59	0.33	0.61
3	VH295270	2	2,001	2,001	0.65	0.79	82.7	16.6	99.4	0.45	0.68	0.43	0.68
4	VH295274	2	2,055	2,055	0.46	0.61	77.2	20.6	97.9	0.33	0.60	0.35	0.62
5	VH295305	2	2,004	2,004	0.60	0.77	75.2	22.9	98.1	0.69	0.80	0.72	0.83
6	VH295306	2	1,720	1,720	0.53	0.69	75.9	23.0	98.9	0.46	0.67	0.45	0.66
7	VH295324	2	1,995	1,995	0.58	0.70	76.1	22.9	99.0	0.52	0.65	0.58	0.68
8	VH295325	2	2,096	2,096	0.57	0.76	75.5	23.8	99.2	0.54	0.75	0.62	0.75
9	VH295339	2	1,856	1,856	0.53	0.70	68.7	29.1	97.8	0.95	0.79	0.91	0.81
10	VH295370	2	2,098	2,098	0.82	0.88	92.4	6.7	99.0	0.37	0.66	0.36	0.65
11	VH295371	2	1,933	1,933	0.55	0.64	81.6	17.7	99.3	0.31	0.53	0.31	0.53
12	VH295397	2	2,158	2,158	0.70	0.79	82.1	17.5	99.6	0.65	0.66	0.67	0.68
13	VH295401	2	1,736	1,735	0.55	0.74	71.4	27.2	98.6	0.77	0.79	0.76	0.82
14	VH295414	2	2,097	2,097	0.61	0.74	82.5	16.5	99.0	0.37	0.63	0.38	0.64
15	VH295415	2	1,812	1,812	0.55	0.67	81.6	16.9	98.5	0.29	0.55	0.36	0.61
16	VH295505	2	1,880	1,880	0.48	0.67	67.6	30.6	98.1	0.75	0.77	0.70	0.76
17	VH295506	2	2,208	2,208	0.71	0.83	82.7	16.8	99.5	0.66	0.75	0.63	0.72
18	VH295526	2	1,856	1,856	0.47	0.64	75.9	20.7	96.6	0.41	0.69	0.40	0.69
19	VH295527	2	1,918	1,918	0.65	0.75	85.9	12.1	98.0	0.35	0.64	0.34	0.63
20	VH295574	2	1,901	1,901	0.54	0.71	75.6	22.5	98.1	0.50	0.71	0.52	0.74
21	VH295575	2	1,822	1,820	0.68	0.78	83.1	16.4	99.5	0.46	0.65	0.49	0.66
22	VH295608	2	1,858	1,858	0.72	0.79	86.4	12.4	98.8	0.40	0.63	0.42	0.66
23	VH295613	2	2,071	2,071	0.58	0.73	74.7	23.0	97.7	0.64	0.76	0.64	0.77
24	VH295635	2	1,454	1,454	0.62	0.79	85.5	14.0	99.5	0.32	0.61	0.31	0.62
25	VH295639	2	1,906	1,905	0.73	0.86	84.0	15.9	99.8	0.62	0.75	0.63	0.76
26	VH295717	2	2,113	2,113	0.51	0.64	80.1	18.6	98.7	0.31	0.57	0.32	0.57
27	VH295718	2	1,956	1,956	0.65	0.74	86.0	12.5	98.5	0.29	0.58	0.34	0.62
28	VH295758	2	1,980	1,980	0.43	0.56	73.5	22.2	95.7	0.39	0.67	0.42	0.67
29	VH295759	2	2,277	2,277	0.65	0.77	77.8	20.4	98.2	0.72	0.76	0.72	0.78
30	VH295909	2	1,965	1,965	0.45	0.60	69.8	27.0	96.8	0.52	0.71	0.54	0.71
31	VH295940	2	2,201	2,201	0.63	0.73	80.7	18.9	99.6	0.46	0.61	0.49	0.62
32	VH295941	2	1,943	1,943	0.56	0.71	73.0	25.0	98.0	0.65	0.74	0.66	0.76
33	VH296101	2	2,077	2,077	0.67	0.81	91.4	8.1	99.5	0.19	0.51	0.21	0.52
34	VH296102	2	1,544	1,544	0.59	0.72	77.8	21.1	98.9	0.51	0.68	0.48	0.66
35	VH296115	2	1,592	1,592	0.67	0.82	80.3	18.7	99.0	0.65	0.81	0.64	0.79
36	VH296116	2	1,811	1,811	0.55	0.67	79.1	20.0	99.1	0.37	0.59	0.38	0.61
37	VH298062	2	278	278	0.89	0.92	94.2	5.8	100.0	0.52	0.60	0.54	0.61
38	VH298666	2	329	329	0.92	0.95	96.4	3.6	100.0	0.34	0.59	0.36	0.62
AVERAGE			1,847	1,847	0.61	0.74	80.0	18.7	98.7	0.49	0.67	0.50	0.68

Notes:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Table 8.G.6 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Eight Short Answer

Prompt	Item ID	Score Points								Rater 1		Rater 2	
			Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Mean	SD	Mean	SD
1	VH279941	2	2,001	2,001	0.45	0.58	66.4	31.7	98.1	0.76	0.68	0.78	0.70
2	VH279694	2	429	429	0.39	0.55	70.4	27.3	97.7	0.41	0.63	0.42	0.64
3	VH280258	2	1,840	1,839	0.36	0.49	61.6	35.7	97.3	0.71	0.67	0.73	0.69
4	VH280491	2	359	359	0.36	0.54	63.8	35.9	99.7	1.09	0.63	1.13	0.63
5	VH282249	2	244	244	0.80	0.87	88.5	11.1	99.6	0.56	0.70	0.60	0.70
6	VH295277	2	1,407	1,407	0.55	0.73	71.3	26.4	97.7	0.79	0.81	0.80	0.81
7	VH295278	2	1,701	1,701	0.72	0.84	89.5	10.1	99.6	0.30	0.60	0.30	0.61
8	VH295291	2	2,032	2,032	0.45	0.62	67.5	31.2	98.6	0.64	0.70	0.64	0.69
9	VH295298	2	2,811	2,811	0.63	0.71	77.7	20.8	98.5	0.80	0.68	0.81	0.68
10	VH295299	2	1,848	1,848	0.60	0.76	75.6	23.6	99.2	0.66	0.74	0.67	0.75
11	VH295327	2	1,664	1,664	0.70	0.83	84.3	15.4	99.7	0.49	0.70	0.49	0.69
12	VH295328	2	1,477	1,477	0.48	0.61	76.6	21.4	98.0	0.33	0.58	0.39	0.63
13	VH295355	2	1,807	1,807	0.50	0.66	71.8	26.4	98.2	0.55	0.71	0.55	0.70
14	VH295383	2	1,536	1,534	0.38	0.54	66.2	31.2	97.5	0.49	0.66	0.51	0.68
15	VH295384	2	1,683	1,683	0.61	0.75	78.6	20.0	98.6	0.55	0.73	0.54	0.72
16	VH295463	2	1,798	1,796	0.62	0.74	80.8	17.5	98.3	0.45	0.68	0.45	0.69
17	VH295464	2	1,656	1,655	0.62	0.75	80.2	17.6	97.8	0.49	0.73	0.49	0.73
18	VH295484	2	1,977	1,976	0.48	0.61	84.9	14.3	99.1	0.19	0.46	0.21	0.49
19	VH295489	2	2,065	2,065	0.56	0.63	75.1	21.8	96.9	0.54	0.68	0.54	0.69
20	VH295512	2	1,781	1,781	0.48	0.65	71.4	27.0	98.4	0.51	0.69	0.52	0.70
21	VH295517	2	2,966	2,966	0.77	0.81	87.5	12.3	99.8	0.50	0.59	0.51	0.59
22	VH295567	2	1,727	1,727	0.52	0.66	76.1	21.7	97.7	0.43	0.66	0.47	0.69
23	VH295571	2	1,838	1,838	0.64	0.78	78.7	20.3	99.0	0.58	0.74	0.64	0.76
24	VH295595	2	1,910	1,910	0.80	0.89	92.2	7.7	99.9	0.33	0.62	0.32	0.61
25	VH295599	2	1,690	1,690	0.55	0.71	72.5	26.3	98.8	0.65	0.74	0.65	0.74
26	VH295601	2	1,996	1,996	0.50	0.65	71.0	26.9	97.9	0.56	0.70	0.59	0.72
27	VH295602	2	1,843	1,843	0.63	0.74	79.6	19.2	98.8	0.53	0.68	0.51	0.69
28	VH295622	2	1,878	1,877	0.51	0.66	84.1	15.5	99.6	0.24	0.51	0.23	0.50
29	VH295623	2	1,857	1,857	0.41	0.50	68.2	27.4	95.5	0.43	0.63	0.56	0.71
30	VH295765	2	1,942	1,942	0.58	0.77	72.6	26.4	99.0	0.87	0.82	0.87	0.82
31	VH295766	2	1,984	1,984	0.79	0.87	95.7	3.7	99.4	0.15	0.46	0.18	0.51
32	VH295828	2	1,753	1,751	0.57	0.74	75.2	23.6	98.7	0.60	0.74	0.59	0.73
33	VH295829	2	1,953	1,952	0.71	0.81	82.9	16.3	99.3	0.60	0.71	0.61	0.72
34	VH295844	2	1,456	1,456	0.56	0.73	78.2	19.6	97.9	0.47	0.73	0.47	0.72
35	VH295975	2	1,790	1,790	0.45	0.63	69.9	29.0	98.9	0.50	0.66	0.52	0.68

Prompt	Item ID	Score Points								Rater 1		Rater 2	
			Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Mean	SD	Mean	SD
36	VH295977	2	1,576	1,576	0.54	0.65	73.8	23.2	97.0	0.56	0.71	0.58	0.71
37	VH296016	2	1,849	1,849	0.43	0.56	74.3	22.8	97.1	0.38	0.62	0.36	0.62
38	VH296021	2	1,724	1,722	0.59	0.76	74.4	24.1	98.5	0.72	0.78	0.72	0.79
39	VH296023	2	1,622	1,622	0.56	0.70	73.7	24.6	98.3	0.58	0.71	0.69	0.73
40	VH296028	2	1,936	1,936	0.64	0.75	80.5	18.6	99.1	0.52	0.67	0.50	0.65
41	VH296062	2	1,700	1,700	0.59	0.71	75.9	22.9	98.8	0.62	0.69	0.60	0.70
42	VH296063	2	1,567	1,567	0.65	0.78	81.3	17.8	99.1	0.52	0.71	0.51	0.69
43	VH296094	2	1,889	1,889	0.79	0.89	88.1	11.5	99.7	0.60	0.77	0.59	0.78
44	VH296095	2	1,637	1,637	0.51	0.66	74.6	22.5	97.1	0.49	0.71	0.46	0.71
AVERAGE			1,732	1,732	0.57	0.70	76.9	21.6	98.5	0.54	0.68	0.55	0.69

Notes:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Table 8.G.7 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Eleven Short Answer

Prompt	Item ID	Score Points								Rater 1		Rater 2	
			Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Mean	SD	Mean	SD
1	VH289614	2	8,660	863	0.29	0.44	57.5	39.9	97.3	1.10	0.66	1.08	0.69
2	VH289859	2	449	41	0.18	0.43	51.2	48.8	100.0	1.20	0.72	1.29	0.60
3	VH290305	2	610	66	0.38	0.53	60.6	36.4	97.0	0.89	0.77	0.83	0.67
4	VH291067	2	18,852	5,441	0.43	0.64	66.7	31.2	97.9	0.60	0.73	0.61	0.74
5	VH294117	2	483	45	0.38	0.66	60.0	40.0	100.0	0.67	0.77	0.84	0.77
6	VH295242	2	15,306	1,544	0.48	0.69	65.6	33.4	99.0	0.93	0.78	0.95	0.77
7	VH295243	2	15,622	1,526	0.54	0.72	69.7	29.2	98.8	1.00	0.78	1.01	0.78
8	VH295249	2	15,210	1,556	0.38	0.57	59.5	37.6	97.1	0.90	0.76	0.91	0.76
9	VH295284	2	15,930	1,582	0.48	0.65	65.9	32.0	97.9	1.11	0.76	1.14	0.76
10	VH295285	2	15,804	1,574	0.39	0.57	59.7	35.7	95.4	0.88	0.80	0.86	0.78
11	VH295362	2	14,410	1,484	0.43	0.62	62.5	35.0	97.4	0.99	0.78	0.96	0.76
12	VH295363	2	14,742	1,483	0.57	0.71	75.0	24.3	99.3	0.58	0.69	0.57	0.68
13	VH295378	2	15,080	1,535	0.55	0.72	70.8	28.8	99.6	0.89	0.74	0.88	0.74
14	VH295395	2	14,685	1,460	0.48	0.68	66.6	31.2	97.7	0.77	0.79	0.77	0.79
15	VH295470	2	15,756	1,584	0.46	0.67	65.2	34.0	99.2	1.08	0.75	1.11	0.76
16	VH295471	2	15,402	1,510	0.50	0.69	67.4	31.7	99.1	0.98	0.75	0.97	0.76
17	VH295498	2	14,506	1,459	0.54	0.64	80.1	16.9	97.0	0.36	0.64	0.36	0.63
18	VH295537	2	15,453	1,545	0.47	0.65	65.5	32.7	98.2	0.95	0.76	0.95	0.76
19	VH295620	2	15,570	1,556	0.41	0.60	60.6	35.3	95.9	0.99	0.81	0.99	0.81
20	VH295649	2	15,277	1,525	0.45	0.66	63.6	33.9	97.5	0.96	0.81	0.96	0.80
21	VH295650	2	15,181	1,474	0.55	0.74	69.9	29.2	99.2	1.11	0.79	1.09	0.79
22	VH295697	2	15,541	1,578	0.54	0.74	69.2	29.9	99.1	0.96	0.81	0.97	0.79

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic- Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
23	VH295698	2	15,564	1,543	0.54	0.67	76.4	21.0	97.4	0.46	0.69	0.48	0.70
24	VH295725	2	15,795	1,550	0.35	0.46	71.9	23.9	95.9	0.36	0.61	0.35	0.61
25	VH295744	2	16,082	1,580	0.55	0.74	70.3	28.7	99.0	0.97	0.79	0.93	0.79
26	VH295800	2	16,088	1,612	0.41	0.59	61.5	35.4	96.8	0.83	0.75	0.84	0.77
27	VH295802	2	16,284	1,621	0.54	0.73	69.6	29.5	99.1	0.97	0.79	0.95	0.78
28	VH295814	2	15,443	1,595	0.67	0.78	79.0	20.6	99.6	0.83	0.72	0.82	0.72
29	VH295850	2	15,246	1,584	0.46	0.65	64.6	33.7	98.4	0.91	0.76	0.90	0.76
30	VH295851	2	15,677	1,530	0.47	0.66	65.0	33.1	98.1	1.09	0.77	1.10	0.78
31	VH295887	2	15,232	1,573	0.54	0.71	70.2	28.8	99.0	0.92	0.75	0.92	0.75
32	VH295988	2	15,811	1,568	0.50	0.70	67.1	32.0	99.1	0.96	0.77	0.95	0.75
33	VH295989	2	15,446	1,559	0.53	0.71	68.8	30.0	98.8	0.91	0.76	0.93	0.78
34	VH296052	2	15,931	1,591	0.53	0.72	69.7	29.1	98.8	0.80	0.78	0.83	0.78
35	VH296109	2	15,818	1,594	0.52	0.72	68.3	31.0	99.2	1.02	0.78	1.01	0.78
36	VH296110	2	15,544	1,574	0.53	0.72	68.7	29.4	98.2	0.89	0.81	0.89	0.81
AVERAGE			14,125	1,514	0.47	0.66	66.8	31.5	98.3	0.88	0.76	0.89	0.75

Notes:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Table 8.G.8 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Three Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
1	VH299059	3	2,377	2,377	0.88	0.96	92.0	7.1	99.1	1.89	1.17	1.88	1.18
2	VH299061	1	2,175	2,173	0.78	0.78	92.3	7.7	100.0	0.23	0.42	0.23	0.42
3	VH299093	2	3,991	3,991	0.60	0.76	76.6	18.9	95.6	0.80	0.92	0.62	0.80
4	VH299097	2	1,633	1,633	0.84	0.88	97.1	2.6	99.7	0.12	0.40	0.13	0.41
5	VH299176	2	1,545	1,543	0.87	0.93	97.1	2.7	99.8	0.17	0.49	0.17	0.48
6	VH299294	2	2,917	2,917	0.87	0.93	92.0	7.7	99.8	1.33	0.80	1.32	0.80
7	VH299295	1	1,850	1,850	0.94	0.94	97.4	2.6	100.0	0.32	0.47	0.32	0.47
8	VH299298	2	1,554	1,551	0.79	0.86	92.6	6.3	98.9	0.30	0.63	0.30	0.62
9	VH299352	2	2,722	2,722	0.75	0.85	87.7	9.8	97.6	0.53	0.81	0.53	0.80
10	VH299378	2	59	59	1.00	1.00	100.0	0.0	100.0	0.41	0.81	0.41	0.81
11	VH299379	3	2,672	2,672	0.94	0.98	95.5	4.2	99.7	1.86	1.19	1.88	1.19
12	VH299380	1	1,959	1,958	0.84	0.84	92.0	8.0	100.0	0.44	0.50	0.43	0.50
13	VH299381	2	1,139	1,139	0.82	0.89	92.6	6.8	99.5	0.35	0.64	0.35	0.64
14	VH299417	2	1,973	1,972	0.87	0.93	92.1	7.9	100.0	0.62	0.77	0.62	0.77
15	VH299420	2	1,874	1,873	0.84	0.91	91.9	6.7	98.6	0.56	0.81	0.55	0.82
16	VH299467	2	2,116	2,112	0.74	0.87	97.3	2.5	99.8	0.08	0.35	0.09	0.36
17	VH299468	2	2,101	2,101	0.86	0.92	91.8	8.0	99.8	0.59	0.75	0.59	0.75
18	VH299470	2	2,078	2,076	0.80	0.89	90.0	8.5	98.6	0.54	0.80	0.53	0.80
19	VH299544	1	2,906	2,903	0.83	0.83	92.0	8.0	100.0	0.37	0.48	0.38	0.49
20	VH299548	2	2,859	2,858	0.96	0.98	98.6	1.4	100.0	0.34	0.64	0.34	0.64
21	VH299549	1	2,200	2,197	0.71	0.71	90.9	9.1	100.0	0.20	0.40	0.20	0.40
22	VH299560	2	2,625	2,625	0.76	0.86	90.3	7.4	97.7	0.42	0.76	0.42	0.76
23	VH299561	2	2,460	2,460	0.95	0.97	99.5	0.5	100.0	0.07	0.32	0.07	0.32
24	VH299632	2	235	235	1.00	1.00	100.0	0.0	100.0	0.63	0.77	0.63	0.77
25	VH299646	2	2,519	2,516	0.90	0.94	95.3	3.7	99.0	0.50	0.80	0.50	0.80
26	VH299647	2	1,985	1,975	0.82	0.87	93.7	6.0	99.7	0.25	0.52	0.24	0.52
27	VH299783	2	2,386	2,385	0.88	0.92	94.3	4.4	98.7	0.49	0.80	0.50	0.80
28	VH299784	2	1,618	1,611	0.82	0.86	93.2	5.9	99.1	0.29	0.58	0.30	0.58
29	VH299999	3	2,370	2,368	0.94	0.98	95.4	4.3	99.7	1.79	1.21	1.80	1.21
30	VH300000	1	2,102	2,102	0.79	0.79	89.8	10.2	100.0	0.45	0.50	0.45	0.50
31	VH300001	1	1,966	1,964	0.79	0.79	92.5	7.5	100.0	0.24	0.42	0.23	0.42
32	VH300062	1	1,853	1,853	0.95	0.95	97.9	2.1	100.0	0.32	0.46	0.32	0.46
33	VH300064	2	1,609	1,608	0.79	0.86	92.7	6.5	99.1	0.27	0.60	0.30	0.61
34	VH300137	2	1,961	1,961	0.74	0.87	83.6	15.7	99.3	0.76	0.86	0.78	0.84
35	VH300139	1	1,802	1,799	0.78	0.78	94.8	5.2	100.0	0.14	0.35	0.14	0.35

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
36	VH300140	2	1,510	1,510	0.89	0.93	96.9	3.0	99.9	0.21	0.51	0.21	0.51
37	VH300264	1	2,000	2,000	0.86	0.86	93.7	6.3	100.0	0.34	0.47	0.34	0.47
38	VH300267	1	3,035	3,035	0.77	0.77	93.7	6.3	100.0	0.15	0.36	0.17	0.37
39	VH300360	2	2,050	2,046	0.84	0.93	91.7	7.4	99.1	0.61	0.87	0.59	0.86
40	VH300362	3	2,563	2,559	0.92	0.97	94.1	5.2	99.3	1.76	1.19	1.76	1.20
41	VH300364	1	2,121	2,121	0.80	0.80	90.3	9.7	100.0	0.46	0.50	0.46	0.50
42	VH300365	2	1,573	1,573	0.78	0.86	90.9	8.4	99.3	0.35	0.64	0.35	0.63
43	VH300478	2	97	97	0.89	0.94	92.8	7.2	100.0	0.73	0.81	0.74	0.77
44	VH300482	1	1,697	1,697	0.82	0.82	95.5	4.5	100.0	0.15	0.35	0.14	0.35
45	VH300485	2	30	30	0.72	0.67	93.3	3.3	96.7	0.20	0.55	0.17	0.46
AVERAGE			1,975	1,973	0.84	0.88	93.2	6.2	99.4	0.52	0.65	0.52	0.65

Notes:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Table 8.G.9 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Four Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
1	VH299103	2	1,958	1,958	0.72	0.83	91.9	7.8	99.7	0.22	0.52	0.21	0.52
2	VH299105	2	1,827	1,827	0.41	0.51	93.3	4.9	98.1	0.09	0.35	0.08	0.36
3	VH299107	3	1,909	1,909	0.86	0.95	91.2	8.5	99.7	0.80	0.96	0.80	0.95
4	VH299112	2	1,986	1,986	0.79	0.86	90.4	9.1	99.5	0.38	0.63	0.37	0.63
5	VH299113	2	1,957	1,957	0.77	0.87	88.4	11.2	99.6	0.45	0.69	0.45	0.69
6	VH299115	2	2,182	2,179	0.77	0.87	92.0	7.7	99.7	0.28	0.59	0.27	0.57
7	VH299181	2	2,132	2,132	0.60	0.75	78.5	19.6	98.1	0.52	0.74	0.52	0.75
8	VH299339	2	1,941	1,941	0.72	0.87	92.6	7.1	99.7	0.22	0.56	0.22	0.57
9	VH299340	2	1,902	1,902	0.77	0.87	92.0	7.5	99.4	0.29	0.61	0.30	0.63
10	VH299342	3	2,102	2,102	0.83	0.92	88.4	10.8	99.2	0.87	0.94	0.85	0.95
11	VH299400	1	2,067	2,067	0.77	0.77	90.8	9.2	100.0	0.28	0.45	0.27	0.44
12	VH299402	2	2,786	2,786	0.60	0.78	92.7	6.0	98.7	0.16	0.49	0.16	0.50
13	VH299403	2	26	26	1.00	1.00	100.0	0.0	100.0	0.15	0.46	0.15	0.46
14	VH299405	2	1,628	1,628	0.82	0.89	92.2	5.4	97.6	0.52	0.84	0.51	0.84
15	VH299445	2	1,998	1,998	0.77	0.89	91.0	9.0	99.9	0.34	0.65	0.34	0.65
16	VH299446	2	1,981	1,980	0.89	0.95	97.0	2.5	99.5	0.26	0.65	0.26	0.65
17	VH299448	3	1,764	1,764	0.83	0.94	88.6	10.8	99.4	0.91	1.02	0.88	1.01
18	VH299474	1	2,067	2,067	0.60	0.60	86.7	13.3	100.0	0.22	0.41	0.21	0.41
19	VH299476	1	2,022	2,022	0.66	0.66	86.5	13.5	100.0	0.27	0.44	0.27	0.45
20	VH299477	2	2,360	2,360	0.92	0.95	94.9	4.9	99.8	0.65	0.76	0.64	0.76
21	VH299504	1	2,148	2,147	0.67	0.67	87.0	13.0	100.0	0.27	0.44	0.26	0.44
22	VH299506	2	11	11	1.00	1.00	100.0	0.0	100.0	0.09	0.30	0.09	0.30
23	VH299508	1	13	13	1.00	1.00	100.0	0.0	100.0	0.23	0.44	0.23	0.44
24	VH299512	2	1,975	1,973	0.82	0.87	93.2	5.2	98.3	0.35	0.68	0.35	0.68
25	VH299775	2	52	52	1.00	1.00	100.0	0.0	100.0	0.50	0.75	0.50	0.75
26	VH299776	2	2,143	2,142	0.79	0.87	88.0	10.9	99.0	0.57	0.75	0.58	0.76
27	VH299823	2	29	29	1.00	1.00	100.0	0.0	100.0	0.03	0.19	0.03	0.19
28	VH299934	2	28	28	1.00	1.00	100.0	0.0	100.0	0.36	0.73	0.36	0.73
29	VH300006	1	1,910	1,910	0.86	0.86	94.7	5.3	100.0	0.26	0.44	0.26	0.44
30	VH300007	2	2,376	2,376	0.81	0.83	95.6	2.4	98.0	0.20	0.56	0.19	0.54
31	VH300009	2	1,681	1,679	0.81	0.89	91.3	5.9	97.2	0.58	0.88	0.59	0.88
32	VH300038	2	2,670	2,670	0.62	0.74	81.3	18.0	99.3	0.41	0.62	0.42	0.63
33	VH300047	2	2,458	2,458	0.65	0.81	89.0	9.6	98.5	0.29	0.64	0.28	0.64
34	VH300096	1	2,084	2,084	0.57	0.57	86.8	13.2	100.0	0.19	0.40	0.19	0.39
35	VH300098	1	2,048	2,048	0.67	0.67	87.5	12.5	100.0	0.24	0.43	0.26	0.44

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
36	VH300099	2	2,323	2,323	0.94	0.96	96.6	3.1	99.7	0.65	0.77	0.65	0.77
37	VH300188	2	2,059	2,059	0.61	0.72	86.1	12.7	98.8	0.27	0.56	0.28	0.57
38	VH300210	2	4,574	4,574	0.73	0.85	94.1	5.8	99.9	0.14	0.42	0.17	0.48
39	VH300211	1	1,888	1,888	0.57	0.63	96.0	3.3	99.3	0.06	0.28	0.06	0.30
40	VH300213	3	1,863	1,863	0.86	0.95	92.6	7.2	99.8	0.54	0.85	0.55	0.85
41	VH300217	1	2,182	2,181	0.68	0.68	88.5	11.5	100.0	0.23	0.42	0.25	0.43
42	VH300219	2	2,076	2,076	0.84	0.92	92.8	6.1	98.9	0.49	0.79	0.49	0.79
43	VH300288	2	2,094	2,094	0.73	0.83	88.0	11.7	99.7	0.37	0.62	0.36	0.62
44	VH300290	2	2,000	2,000	0.81	0.89	90.3	9.4	99.7	0.47	0.69	0.46	0.69
45	VH300414	1	2,226	2,221	0.69	0.74	86.4	4.1	90.5	0.60	0.91	0.60	0.90
AVERAGE			1,856	1,855	0.77	0.84	91.7	7.5	99.2	0.36	0.61	0.36	0.61

Notes:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Table 8.G.10 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Five Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
1	VH299043	2	2,779	2,777	0.84	0.92	93.7	5.9	99.6	0.36	0.68	0.36	0.68
2	VH299044	2	2,341	2,340	0.63	0.73	92.9	6.4	99.3	0.14	0.43	0.13	0.41
3	VH299045	2	2,515	2,515	0.81	0.90	94.1	5.4	99.6	0.26	0.59	0.26	0.59
4	VH299046	2	2,300	2,298	0.82	0.89	92.6	5.0	97.6	0.48	0.82	0.49	0.83
5	VH299078	2	2,844	2,843	0.60	0.77	85.8	11.7	97.5	0.34	0.68	0.33	0.68
6	VH299080	2	2,494	2,494	0.76	0.85	93.6	5.4	99.0	0.22	0.55	0.22	0.55
7	VH299082	2	2,342	2,342	0.65	0.69	84.3	14.9	99.2	0.34	0.54	0.34	0.54
8	VH299143	2	2,864	2,863	0.86	0.92	94.2	5.2	99.4	0.36	0.67	0.36	0.67
9	VH299151	2	2,435	2,434	0.65	0.78	93.8	5.8	99.5	0.12	0.41	0.13	0.43
10	VH299164	2	2,641	2,639	0.84	0.91	95.0	4.7	99.7	0.27	0.60	0.26	0.60
11	VH299169	2	2,265	2,264	0.85	0.91	93.3	4.7	98.0	0.54	0.85	0.53	0.85
12	VH299188	3	3,106	3,106	0.97	0.96	98.8	0.6	99.4	0.35	0.61	0.35	0.61
13	VH299190	1	2,622	2,622	0.58	0.58	82.4	17.6	100.0	0.28	0.45	0.30	0.46
14	VH299410	1	2,638	2,638	0.45	0.45	93.7	6.3	100.0	0.06	0.23	0.06	0.24
15	VH299411	2	2,429	2,426	0.42	0.53	82.5	16.1	98.6	0.22	0.49	0.20	0.47
16	VH299412	3	2,113	2,113	0.42	0.64	77.4	16.1	93.6	0.40	0.83	0.42	0.84
17	VH299433	1	2,749	2,749	0.66	0.66	93.0	7.0	100.0	0.12	0.32	0.12	0.33
18	VH299434	2	10	10	0.29	0.59	60.0	40.0	100.0	0.70	0.82	0.30	0.48
19	VH299438	2	10	10	0.47	0.78	90.0	10.0	100.0	0.10	0.32	0.20	0.63
20	VH299595	2	3,005	3,005	0.71	0.82	87.1	11.5	98.6	0.40	0.69	0.39	0.69
21	VH299597	2	2,535	2,535	0.75	0.83	94.8	4.6	99.4	0.16	0.46	0.15	0.45
22	VH299601	3	3,176	3,176	0.69	0.86	85.3	11.7	96.9	0.55	0.98	0.55	0.99
23	VH299680	1	13	13	1.00	1.00	100.0	0.0	100.0	0.08	0.28	0.08	0.28
24	VH299683	2	2,819	2,819	0.73	0.86	82.3	17.3	99.6	0.82	0.80	0.83	0.81
25	VH299685	2	2,678	2,678	0.76	0.85	90.9	8.1	99.0	0.34	0.65	0.32	0.64
26	VH299687	2	2,450	2,449	0.52	0.71	92.7	6.6	99.3	0.11	0.40	0.11	0.40
27	VH299695	2	2,810	2,810	0.84	0.91	93.0	6.6	99.6	0.39	0.67	0.39	0.68
28	VH299696	2	2,274	2,274	0.65	0.78	94.5	5.1	99.6	0.12	0.42	0.10	0.37
29	VH299697	2	2,453	2,452	0.82	0.90	94.3	5.5	99.8	0.25	0.56	0.25	0.57
30	VH299699	2	2,271	2,271	0.82	0.91	92.0	6.0	98.1	0.55	0.86	0.55	0.86
31	VH299855	2	2,954	2,954	0.75	0.85	97.2	2.7	99.8	0.08	0.33	0.08	0.33
32	VH299857	2	3,082	3,082	0.79	0.90	87.9	11.8	99.7	0.65	0.83	0.64	0.83
33	VH299860	1	114	114	1.00	1.00	100.0	0.0	100.0	0.09	0.28	0.09	0.28
34	VH299861	2	3,198	3,196	0.89	0.94	94.6	4.6	99.2	0.51	0.79	0.52	0.79
35	VH299884	2	3,035	3,035	0.75	0.86	88.4	10.3	98.7	0.44	0.73	0.43	0.73

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
36	VH299887	2	2,539	2,539	0.73	0.81	96.1	3.2	99.3	0.11	0.40	0.11	0.40
37	VH299891	3	2,846	2,846	0.58	0.73	84.8	11.7	96.4	0.35	0.75	0.34	0.74
38	VH299987	2	2,537	2,537	0.48	0.55	83.6	14.9	98.5	0.22	0.49	0.22	0.48
39	VH299989	3	2,268	2,266	0.34	0.53	78.8	13.3	92.1	0.32	0.76	0.33	0.77
40	VH299995	2	3,054	3,054	0.91	0.94	94.9	5.1	99.9	0.73	0.65	0.73	0.65
41	VH300075	2	2,789	2,789	0.71	0.85	89.5	9.1	98.5	0.36	0.71	0.36	0.71
42	VH300076	2	2,534	2,532	0.76	0.83	94.1	5.1	99.2	0.18	0.48	0.20	0.51
43	VH300077	3	2,578	2,578	0.65	0.85	81.6	14.3	95.8	0.69	1.10	0.69	1.09
44	VH300078	2	2,388	2,388	0.58	0.61	82.5	16.0	98.5	0.33	0.54	0.30	0.52
45	VH300306	2	2,693	2,693	0.83	0.90	93.4	6.3	99.7	0.31	0.61	0.32	0.61
46	VH300307	2	2,277	2,277	0.71	0.80	94.6	5.0	99.5	0.13	0.42	0.13	0.42
47	VH300308	2	2,442	2,442	0.81	0.88	94.0	5.6	99.6	0.24	0.55	0.23	0.54
48	VH300309	2	2,138	2,138	0.84	0.89	92.7	4.3	97.0	0.53	0.85	0.53	0.85
49	VH303289	2	1	1	-	-	100.0	0.0	100.0	2.00	-	2.00	-
AVERAGE			2,356	2,356	0.71	0.80	90.3	8.5	98.8	0.36	0.60	0.35	0.60

Notes:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Table 8.G.11 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Six Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
1	VH299006	2	19,500	2,336	0.77	0.87	85.6	13.4	99.0	0.72	0.82	0.73	0.82
2	VH299009	2	19,584	2,350	0.81	0.90	90.0	8.9	98.9	0.57	0.82	0.57	0.82
3	VH299015	3	19,446	2,355	0.49	0.77	65.3	26.4	91.6	1.15	1.23	1.15	1.22
4	VH299282	1	19,791	1,972	0.96	0.96	98.8	1.2	100.0	0.21	0.41	0.20	0.40
5	VH299283	2	19,720	2,341	0.71	0.87	82.1	17.6	99.7	1.24	0.85	1.22	0.86
6	VH299285	2	19,612	2,309	0.67	0.77	84.5	15.0	99.5	0.38	0.61	0.39	0.62
7	VH299287	2	19,414	2,290	0.40	0.51	79.5	18.0	97.6	0.25	0.53	0.25	0.53
8	VH299454	2	19,351	2,243	0.53	0.73	78.3	19.1	97.5	0.44	0.73	0.44	0.74
9	VH299455	1	24,936	2,480	0.78	0.78	95.5	4.5	100.0	0.12	0.32	0.12	0.32
10	VH299456	2	19,245	2,235	0.43	0.61	79.7	17.1	96.8	0.29	0.61	0.31	0.63
11	VH299482	1	24,768	2,463	0.95	0.95	98.4	1.6	100.0	0.20	0.40	0.20	0.40
12	VH299484	2	19,701	2,251	0.68	0.84	79.5	19.5	99.0	1.21	0.85	1.19	0.85
13	VH299485	2	19,812	2,261	0.74	0.84	83.5	15.3	98.9	0.76	0.80	0.76	0.80
14	VH299486	2	19,362	2,208	0.42	0.63	75.7	21.8	97.5	0.36	0.65	0.36	0.66
15	VH299520	2	19,359	2,267	0.54	0.73	78.4	19.6	98.0	0.43	0.72	0.44	0.72
16	VH299521	1	24,673	2,472	0.84	0.84	96.4	3.6	100.0	0.12	0.33	0.13	0.34
17	VH299522	2	19,214	2,269	0.54	0.73	89.8	8.5	98.2	0.19	0.54	0.19	0.53
18	VH299582	1	26,085	2,619	0.94	0.94	97.1	2.9	100.0	0.37	0.48	0.37	0.48
19	VH299585	1	21,416	2,129	0.85	0.85	94.7	5.3	100.0	0.23	0.42	0.23	0.42
20	VH299586	2	19,018	2,290	0.35	0.52	66.3	29.7	96.0	0.48	0.69	0.47	0.68
21	VH299652	2	19,561	2,349	0.54	0.72	79.6	17.4	97.0	0.42	0.72	0.43	0.73
22	VH299655	2	19,487	2,334	0.49	0.65	86.8	10.1	96.9	0.21	0.56	0.23	0.58
23	VH299727	2	24,595	2,433	0.78	0.88	90.3	9.2	99.5	0.36	0.67	0.39	0.68
24	VH299729	2	19,594	2,228	0.58	0.77	93.7	5.3	99.0	0.13	0.45	0.12	0.44
25	VH299730	2	19,721	2,221	0.55	0.73	89.0	10.0	99.0	0.19	0.51	0.19	0.51
26	VH299732	4	19,395	2,197	0.42	0.77	55.2	30.9	86.1	1.67	1.50	1.65	1.50
27	VH299788	1	25,142	2,487	0.96	0.96	97.9	2.1	100.0	0.37	0.48	0.36	0.48
28	VH299790	2	19,833	2,275	0.60	0.74	75.4	23.9	99.3	0.74	0.72	0.73	0.71
29	VH299792	2	19,452	2,252	0.67	0.74	86.6	12.3	98.9	0.31	0.56	0.32	0.57
30	VH300114	2	19,237	2,275	0.56	0.75	80.0	17.5	97.6	0.43	0.73	0.45	0.74
31	VH300125	1	25,664	2,575	0.82	0.82	96.3	3.7	100.0	0.12	0.33	0.12	0.32
32	VH300126	2	19,170	2,358	0.55	0.73	91.0	7.3	98.3	0.17	0.52	0.17	0.51
33	VH300155	2	19,460	2,347	0.52	0.70	79.5	17.6	97.1	0.39	0.70	0.39	0.69
34	VH300163	2	19,202	2,350	0.54	0.71	87.0	10.7	97.7	0.23	0.58	0.25	0.60
35	VH300196	2	19,372	2,291	0.53	0.72	79.3	18.1	97.3	0.42	0.72	0.40	0.71
36	VH300197	1	25,123	2,491	0.76	0.76	95.1	4.9	100.0	0.13	0.33	0.11	0.31
37	VH300198	2	19,509	2,241	0.41	0.60	81.7	15.3	97.1	0.24	0.57	0.27	0.59
38	VH300202	1	25,407	2,530	0.88	0.88	96.2	3.8	100.0	0.20	0.40	0.20	0.40
39	VH300205	2	19,512	2,315	0.59	0.73	74.2	25.1	99.3	0.77	0.72	0.78	0.73
40	VH300206	2	19,639	2,252	0.75	0.81	90.0	9.5	99.5	0.30	0.56	0.30	0.55

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic- Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
41	VH300230	2	21,776	2,162	0.79	0.90	90.7	9.3	99.9	0.42	0.70	0.41	0.70
42	VH300232	2	19,541	2,297	0.64	0.79	94.5	4.5	99.0	0.12	0.45	0.13	0.45
43	VH300233	2	19,379	2,283	0.69	0.85	93.3	6.4	99.6	0.18	0.51	0.18	0.51
44	VH300234	4	19,680	2,268	0.38	0.72	52.4	31.6	84.0	1.54	1.43	1.55	1.44
45	VH300297	2	19,740	2,305	0.59	0.75	73.4	26.2	99.6	1.06	0.75	1.06	0.74
46	VH300299	2	19,123	2,259	0.81	0.92	88.3	11.3	99.6	0.93	0.92	0.93	0.92
47	VH300301	4	19,365	2,275	0.46	0.76	59.0	28.0	86.9	1.46	1.46	1.49	1.47
48	VH300384	1	25,871	2,563	0.92	0.92	96.2	3.8	100.0	0.36	0.48	0.35	0.48
49	VH300390	1	23,576	2,365	0.89	0.89	96.2	3.8	100.0	0.25	0.43	0.24	0.43
50	VH300397	2	18,968	2,269	0.34	0.48	65.7	29.3	94.9	0.49	0.70	0.47	0.68
51	VH300403	2	19,521	2,229	0.55	0.74	70.8	28.8	99.6	1.14	0.75	1.16	0.77
52	VH300405	2	19,170	2,231	0.78	0.90	86.1	12.9	99.0	0.98	0.92	0.98	0.92
53	VH300406	4	19,536	2,242	0.50	0.75	61.9	24.8	86.7	1.46	1.46	1.44	1.44
54	VH300428	2	19,490	2,416	0.79	0.90	87.2	12.7	99.9	0.67	0.79	0.67	0.80
55	VH300431	2	19,582	2,452	0.78	0.89	88.4	10.8	99.2	0.57	0.81	0.55	0.80
56	VH300438	3	19,663	2,398	0.55	0.81	69.2	23.5	92.7	1.14	1.22	1.16	1.22
57	VH303296	1	219	23	0.68	0.68	87.0	13.0	100.0	0.37	0.49	0.35	0.49
AVERAGE			20,286	2,280	0.65	0.78	83.6	14.1	97.7	0.54	0.69	0.54	0.69

Notes:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Table 8.G.12 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Seven Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
1	VH292675	2	19,294	4,839	0.51	0.59	91.3	7.5	98.7	0.12	0.39	0.12	0.40
2	VH294224	2	19,687	14,375	0.62	0.74	83.1	15.5	98.6	0.37	0.63	0.37	0.64
3	VH294227	2	2,043	216	0.54	0.66	78.2	20.4	98.6	0.41	0.63	0.38	0.61
4	VH294228	2	1,838	185	0.53	0.77	82.7	16.2	98.9	0.34	0.70	0.32	0.64
5	VH294235	2	2,417	225	0.78	0.87	89.8	8.4	98.2	0.46	0.77	0.47	0.77
6	VH294236	2	2,786	286	0.51	0.70	79.4	17.8	97.2	0.34	0.66	0.43	0.74
7	VH294502	2	2,648	260	0.38	0.49	70.4	15.4	85.8	0.56	0.83	0.55	0.85
8	VH294540	1	1,447	129	0.79	0.79	94.6	5.4	100.0	0.13	0.34	0.17	0.38
9	VH294786	3	7,630	761	0.39	0.69	57.0	34.6	91.6	1.08	1.11	1.04	1.11
10	VH294788	3	10,244	1,034	0.59	0.83	76.2	19.5	95.7	0.77	1.06	0.78	1.07
11	VH294789	3	7,496	752	0.44	0.65	70.7	23.9	94.7	0.55	0.83	0.51	0.81
12	VH299055	2	27,416	2,742	0.67	0.80	84.5	13.6	98.2	0.42	0.72	0.44	0.73
13	VH299074	1	29,157	2,910	0.92	0.92	97.8	2.2	100.0	0.16	0.37	0.17	0.38
14	VH299212	1	70	9	0.00	0.00	66.7	33.3	100.0	0.33	0.50	0.00	0.00
15	VH299227	2	19,428	2,606	0.35	0.47	80.8	18.1	98.8	0.19	0.45	0.21	0.47
16	VH299240	1	18,143	2,341	0.50	0.64	90.6	7.4	98.0	0.15	0.46	0.15	0.46
17	VH299242	2	27,693	2,743	0.51	0.58	76.4	22.4	98.8	0.38	0.56	0.40	0.57
18	VH299248	2	17,972	2,312	0.37	0.59	89.1	9.6	98.7	0.12	0.41	0.14	0.44
19	VH299249	1	27,119	2,704	0.86	0.86	97.7	2.3	100.0	0.09	0.29	0.10	0.29
20	VH299574	1	17,772	2,293	0.46	0.65	92.1	6.8	98.9	0.10	0.39	0.11	0.41
21	VH299575	2	18,739	2,436	0.61	0.77	77.0	21.6	98.6	0.60	0.76	0.62	0.77
22	VH299577	2	27,651	2,745	0.73	0.78	85.5	14.0	99.6	0.54	0.59	0.54	0.59
23	VH299765	1	17,791	2,404	0.37	0.55	91.7	7.0	98.7	0.09	0.36	0.10	0.37
24	VH299768	2	18,653	2,533	0.52	0.70	72.0	26.6	98.6	0.60	0.74	0.59	0.73
25	VH299869	2	19,421	2,431	0.63	0.78	83.8	15.3	99.1	0.38	0.67	0.38	0.65
26	VH299871	1	27,449	2,745	0.82	0.82	96.9	3.1	100.0	0.09	0.29	0.10	0.30
27	VH299872	2	19,013	2,434	0.43	0.67	84.3	14.5	98.7	0.22	0.54	0.22	0.54
28	VH299923	1	19,562	2,563	0.36	0.36	86.0	14.0	100.0	0.13	0.33	0.13	0.33
29	VH299927	2	19,540	2,544	0.38	0.45	82.5	16.1	98.6	0.19	0.45	0.18	0.44
30	VH299950	2	19,410	2,382	0.61	0.76	82.7	15.9	98.6	0.38	0.67	0.39	0.68
31	VH299952	1	27,296	2,702	0.77	0.77	96.4	3.6	100.0	0.08	0.28	0.09	0.28
32	VH299953	2	19,306	2,435	0.44	0.61	86.5	11.4	97.9	0.18	0.50	0.19	0.51
33	VH300022	1	25,733	2,588	0.93	0.93	98.0	2.0	100.0	0.17	0.38	0.17	0.38
34	VH300070	2	18,924	2,397	0.73	0.86	88.7	9.9	98.7	0.41	0.73	0.40	0.73
35	VH300071	2	27,959	2,790	0.71	0.83	86.1	12.0	98.2	0.45	0.74	0.49	0.76
36	VH300090	2	18,551	2,300	0.44	0.62	89.0	9.0	98.0	0.16	0.48	0.15	0.47
37	VH300091	2	18,703	2,398	0.70	0.83	83.6	15.8	99.3	0.54	0.73	0.54	0.72
38	VH300092	1	22,866	2,282	0.78	0.78	95.9	4.1	100.0	0.10	0.29	0.10	0.31
39	VH300259	2	18,523	2,426	0.74	0.87	88.5	10.4	99.0	0.42	0.73	0.43	0.75
40	VH300318	1	18,219	2,460	0.41	0.54	90.6	7.7	98.3	0.12	0.41	0.11	0.40
41	VH300320	2	18,653	2,559	0.62	0.77	77.2	21.6	98.8	0.65	0.75	0.64	0.76
42	VH300449	2	25,121	2,470	0.70	0.83	85.5	12.9	98.4	0.49	0.76	0.48	0.75
43	VH303301	2	100	15	0.86	0.94	93.3	6.7	100.0	0.41	0.73	0.47	0.74
44	VH303302	1	101	9	1.00	1.00	100.0	0.0	100.0	0.17	0.38	0.11	0.33
AVERAGE			16,581	2,245	0.59	0.71	85.2	13.1	98.3	0.33	0.58	0.33	0.57

Notes:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Table 8.G.13 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Eight Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
1	VH276633	1	19,451	2,658	0.71	0.71	89.1	10.9	100.0	0.26	0.44	0.25	0.43
2	VH299087	2	19,432	2,221	0.60	0.76	85.2	14.0	99.3	0.31	0.60	0.29	0.60
3	VH299088	1	19,162	2,211	0.49	0.49	85.1	14.9	100.0	0.17	0.37	0.18	0.39
4	VH299260	1	17,645	2,078	0.32	0.44	82.2	15.6	97.9	0.18	0.46	0.18	0.46
5	VH299274	2	18,592	2,136	0.59	0.76	89.4	8.8	98.3	0.24	0.59	0.20	0.55
6	VH299320	1	26,080	2,582	0.82	0.82	94.0	6.0	100.0	0.22	0.41	0.21	0.41
7	VH299325	2	18,997	2,239	0.41	0.60	85.7	13.0	98.7	0.18	0.47	0.18	0.49
8	VH299489	1	24,725	2,475	0.84	0.84	94.0	6.0	100.0	0.25	0.43	0.25	0.43
9	VH299494	2	19,016	2,153	0.51	0.64	87.6	11.2	98.8	0.18	0.47	0.18	0.47
10	VH299611	2	17,395	1,965	0.40	0.52	84.9	13.5	98.5	0.17	0.45	0.17	0.46
11	VH299614	2	18,592	2,044	0.50	0.66	86.5	10.1	96.7	0.22	0.57	0.25	0.61
12	VH299669	2	19,618	2,250	0.66	0.80	88.5	11.1	99.6	0.26	0.57	0.27	0.57
13	VH299670	1	19,083	2,224	0.49	0.49	80.4	19.6	100.0	0.26	0.44	0.26	0.44
14	VH299704	1	17,440	1,980	0.30	0.43	83.0	15.3	98.3	0.17	0.46	0.16	0.43
15	VH299707	2	18,752	2,042	0.47	0.63	86.4	11.3	97.7	0.21	0.54	0.19	0.51
16	VH299711	2	19,525	2,180	0.65	0.85	78.5	20.9	99.4	0.77	0.87	0.78	0.87
17	VH299712	1	24,360	2,427	0.89	0.89	95.6	4.4	100.0	0.28	0.45	0.28	0.45
18	VH299713	2	19,540	2,152	0.50	0.70	84.0	13.2	97.2	0.29	0.64	0.28	0.63
19	VH299739	2	19,264	2,253	0.71	0.87	89.7	9.8	99.5	0.32	0.67	0.32	0.66
20	VH299741	2	25,289	2,547	0.92	0.96	96.2	3.5	99.7	0.46	0.76	0.47	0.76
21	VH299742	1	19,054	2,231	0.57	0.57	82.5	17.5	100.0	0.28	0.45	0.29	0.45
22	VH299807	1	25,726	2,537	0.87	0.87	95.5	4.5	100.0	0.22	0.42	0.22	0.41
23	VH299811	2	19,063	2,243	0.54	0.70	86.6	12.2	98.8	0.22	0.53	0.22	0.54
24	VH299900	2	19,156	2,199	0.67	0.79	85.3	13.7	99.0	0.37	0.65	0.38	0.65
25	VH299901	2	24,589	2,447	0.81	0.85	93.6	5.5	99.1	0.24	0.54	0.26	0.56
26	VH299902	1	19,364	2,161	0.53	0.53	82.6	17.4	100.0	0.24	0.43	0.25	0.43
27	VH300014	2	16,209	1,927	0.56	0.69	86.1	12.6	98.8	0.24	0.54	0.23	0.53
28	VH300016	2	25,623	2,538	0.43	0.56	79.9	18.9	98.8	0.26	0.52	0.26	0.52
29	VH300017	2	19,091	2,252	0.35	0.49	74.7	18.9	93.7	0.34	0.67	0.34	0.66
30	VH300054	2	19,273	2,261	0.73	0.87	91.1	8.6	99.7	0.29	0.62	0.29	0.62
31	VH300055	2	25,310	2,515	0.92	0.95	96.1	3.5	99.6	0.47	0.76	0.47	0.75
32	VH300056	1	19,056	2,251	0.56	0.56	81.2	18.8	100.0	0.30	0.46	0.31	0.46
33	VH300080	1	25,113	2,520	0.88	0.88	95.4	4.6	100.0	0.26	0.44	0.27	0.44
34	VH300081	2	18,951	2,194	0.54	0.65	88.3	9.8	98.1	0.19	0.50	0.19	0.50
35	VH300167	2	17,582	1,968	0.34	0.46	81.8	15.9	97.7	0.18	0.47	0.21	0.49

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic- Weighted Kappa	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
36	VH300170	2	18,352	2,098	0.50	0.66	82.3	15.5	97.9	0.28	0.59	0.29	0.59
37	VH300246	1	24,642	2,451	0.91	0.91	96.3	3.7	100.0	0.30	0.46	0.31	0.46
38	VH300247	2	19,037	2,137	0.50	0.69	83.5	13.6	97.1	0.30	0.64	0.29	0.63
39	VH300337	2	19,043	2,219	0.56	0.73	87.1	11.9	99.1	0.22	0.53	0.23	0.55
40	VH300340	1	19,337	2,235	0.42	0.42	80.9	19.1	100.0	0.20	0.40	0.22	0.41
41	VH300345	2	25,043	2,482	0.81	0.86	92.6	7.0	99.6	0.28	0.54	0.30	0.56
42	VH300465	2	16,691	2,017	0.62	0.76	89.1	10.2	99.4	0.22	0.52	0.21	0.52
43	VH300468	2	25,896	2,589	0.48	0.58	82.8	15.5	98.3	0.24	0.51	0.25	0.52
44	VH300470	2	18,880	2,239	0.38	0.55	78.3	17.2	95.6	0.29	0.61	0.30	0.63
45	VH303305	1	70	7	1.00	1.00	100.0	0.0	100.0	0.04	0.20	0.14	0.38
46	VH303306	1	75	7	.	.	100.0	0.0	100.0	0.03	0.16	0.00	0.00
AVERAGE			19,613	2,164	0.61	0.70	87.4	11.5	98.9	0.26	0.52	0.26	0.52

Notes:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Table 8.G.14 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for Mathematics, Grade Eleven Short Answer

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
1	VH298806	1	289	27	0.34	0.34	81.5	18.5	100.0	0.19	0.40	0.15	0.36
2	VH298928	2	1,400	151	0.50	0.63	68.2	27.8	96.0	0.73	0.75	0.76	0.80
3	VH299022	1	17,619	1,983	0.91	0.91	98.1	1.9	100.0	0.12	0.33	0.12	0.33
4	VH299032	2	17,944	2,042	0.62	0.78	84.4	14.2	98.6	0.35	0.67	0.36	0.67
5	VH299194	1	24,931	2,478	0.73	0.73	94.9	5.1	100.0	0.10	0.29	0.10	0.31
6	VH299196	2	21,421	2,135	0.82	0.88	92.9	4.7	97.7	0.44	0.79	0.43	0.78
7	VH299197	2	17,972	2,078	0.71	0.85	84.5	14.5	98.9	0.57	0.78	0.56	0.79
8	VH299199	1	24,740	2,471	0.51	0.51	95.1	4.9	100.0	0.06	0.23	0.05	0.22
9	VH299384	1	18,903	2,103	0.58	0.58	87.3	12.7	100.0	0.18	0.39	0.19	0.39
10	VH299385	1	21,446	2,124	0.94	0.94	97.5	2.5	100.0	0.26	0.44	0.26	0.44
11	VH299386	2	24,813	2,485	0.85	0.88	96.0	2.3	98.2	0.23	0.60	0.26	0.64
12	VH299459	1	24,483	2,450	0.74	0.74	96.9	3.1	100.0	0.06	0.24	0.07	0.25
13	VH299461	2	24,326	2,440	0.76	0.82	89.9	5.6	95.5	0.46	0.80	0.47	0.81
14	VH299462	2	17,932	2,010	0.67	0.82	81.7	17.0	98.8	0.56	0.77	0.56	0.77
15	VH299463	2	24,370	2,437	0.84	0.91	95.3	4.5	99.8	0.22	0.52	0.23	0.54
16	VH299552	1	18,621	2,072	0.58	0.58	83.4	16.6	100.0	0.27	0.44	0.27	0.45
17	VH299555	2	16,993	1,920	0.67	0.82	90.8	7.6	98.4	0.26	0.63	0.25	0.62
18	VH299659	1	17,786	2,007	0.53	0.53	93.0	7.0	100.0	0.08	0.27	0.08	0.27
19	VH299660	2	23,699	2,303	0.60	0.78	93.5	5.7	99.3	0.13	0.45	0.13	0.44
20	VH299661	2	22,848	2,274	0.68	0.71	92.4	3.7	96.1	0.21	0.57	0.22	0.59
21	VH299662	3	18,202	1,996	0.43	0.78	81.5	16.4	97.9	0.33	0.77	0.32	0.77
22	VH299720	2	17,035	1,908	0.60	0.76	83.4	14.4	97.7	0.37	0.68	0.38	0.70
23	VH299723	2	17,844	1,909	0.66	0.84	90.9	8.7	99.6	0.23	0.57	0.23	0.57
24	VH299725	1	24,850	2,465	0.96	0.96	99.1	0.9	100.0	0.14	0.34	0.14	0.35
25	VH299750	1	19,578	1,931	0.81	0.81	95.1	4.9	100.0	0.15	0.35	0.16	0.37
26	VH299834	1	18,740	2,108	0.65	0.65	87.1	12.9	100.0	0.24	0.43	0.25	0.43
27	VH299835	1	24,265	2,441	0.95	0.95	98.7	1.3	100.0	0.15	0.36	0.14	0.35
28	VH299836	1	24,303	2,412	0.99	0.99	99.5	0.5	100.0	0.38	0.48	0.37	0.48
29	VH299905	1	18,198	2,088	0.66	0.66	94.3	5.7	100.0	0.09	0.29	0.09	0.29
30	VH299910	2	25,647	2,543	0.89	0.91	95.8	2.5	98.3	0.35	0.70	0.36	0.71
31	VH299956	1	17,662	2,011	0.62	0.62	94.1	5.9	100.0	0.09	0.28	0.09	0.28
32	VH299958	2	24,576	2,422	0.61	0.80	92.5	6.8	99.3	0.15	0.48	0.15	0.48
33	VH299961	2	24,760	2,449	0.85	0.87	94.4	3.1	97.6	0.37	0.71	0.35	0.69
34	VH299972	2	2,207	233	0.50	0.66	90.1	9.4	99.6	0.14	0.41	0.13	0.40
35	VH299975	2	2,358	223	0.58	0.74	77.1	19.7	96.9	0.57	0.79	0.56	0.79
36	VH299980	2	18,499	2,060	0.49	0.64	69.4	28.4	97.9	0.65	0.72	0.65	0.72
37	VH300032	1	944	98	0.53	0.53	80.6	19.4	100.0	0.31	0.46	0.28	0.45
38	VH300129	1	18,029	1,980	0.60	0.60	93.9	6.1	100.0	0.08	0.28	0.08	0.27
39	VH300132	2	22,157	2,221	0.69	0.71	91.1	5.0	96.1	0.24	0.59	0.25	0.60
40	VH300174	1	19,066	2,115	0.72	0.72	89.8	10.2	100.0	0.24	0.43	0.24	0.43

Prompt	Item ID	Score Points	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted	Percent Exact	Percent Adjacent	Percent Exact + Adjacent	Rater 1		Rater 2	
										Mean	SD	Mean	SD
41	VH300176	1	25,009	2,485	0.96	0.96	98.6	1.4	100.0	0.26	0.44	0.26	0.44
42	VH300177	2	25,001	2,490	0.96	0.97	98.3	0.9	99.2	0.42	0.76	0.42	0.76
43	VH300178	3	18,652	2,124	0.46	0.77	81.8	15.5	97.3	0.33	0.78	0.35	0.80
44	VH300224	2	18,777	2,142	0.57	0.69	73.0	25.6	98.6	0.81	0.71	0.82	0.71
45	VH300226	2	18,391	2,106	0.51	0.67	70.2	28.3	98.6	0.68	0.72	0.67	0.71
46	VH300237	2	19,093	2,179	0.67	0.75	81.9	17.8	99.7	1.04	0.62	1.06	0.63
47	VH300238	1	18,540	2,082	0.51	0.51	90.1	9.9	100.0	0.11	0.32	0.11	0.32
48	VH300239	2	17,574	1,950	0.71	0.81	91.5	8.3	99.8	0.21	0.48	0.21	0.48
49	VH300274	2	25,057	2,496	0.82	0.82	95.5	4.5	100.0	0.14	0.34	0.15	0.36
50	VH300281	1	25,041	2,509	0.81	0.81	95.9	4.1	100.0	0.13	0.34	0.12	0.33
51	VH300283	2	24,975	2,482	0.67	0.79	90.5	7.3	97.8	0.27	0.63	0.26	0.61
52	VH300589	1	212	25	0.41	0.41	84.0	16.0	100.0	0.16	0.37	0.16	0.37
53	VH300897	2	2,523	273	0.41	0.60	66.7	29.7	96.3	0.59	0.75	0.55	0.73
54	VH301145	2	448	44	0.55	0.78	72.7	25.0	97.7	0.80	0.90	0.73	0.87
55	VH301769	1	2,191	230	0.68	0.68	87.4	12.6	100.0	0.27	0.44	0.27	0.45
56	VH301904	2	1,288	119	0.28	0.58	53.8	42.0	95.8	0.74	0.81	0.86	0.86
57	VH301993	1	325	34	0.77	0.77	91.2	8.8	100.0	0.27	0.45	0.24	0.43
AVERAGE			17,273	1,814	0.67	0.74	88.0	10.9	98.9	0.32	0.53	0.32	0.53

Notes:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Table 8.G.15 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-Scoring Items for ELA, Grade Three Writing Extended Response

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
											Mean	SD	Mean	SD
1	VH295222	2	COV	21,596	1,838	0.29	0.51	55.0	42.7	97.7	1.00	0.74	1.06	0.73
2	VH295344	2	COV	2,988	2,952	0.21	0.38	49.3	43.9	93.2	0.83	0.74	0.73	0.76
3	VH295418	2	COV	22,896	2,155	0.32	0.54	56.3	41.5	97.8	0.92	0.74	0.94	0.74
4	VH295561	2	COV	18,597	1,637	0.30	0.48	55.3	41.2	96.5	0.95	0.74	1.00	0.73
5	VH295659	2	COV	27,644	2,597	0.36	0.54	58.2	38.5	96.7	0.88	0.74	0.92	0.75
6	VH295670	2	COV	24,490	2,217	0.30	0.50	54.5	42.2	96.7	1.02	0.75	1.04	0.74
7	VH295684	2	COV	1,297	1,247	0.22	0.42	48.4	46.1	94.5	0.87	0.75	1.10	0.76
8	VH295713	2	COV	19,434	1,646	0.30	0.51	55.0	42.4	97.4	1.01	0.74	1.06	0.73
9	VH295880	2	COV	1,692	1,651	0.23	0.43	48.3	45.9	94.1	0.86	0.75	1.13	0.76
10	VH295912	2	COV	21,250	1,701	0.30	0.50	55.2	42.1	97.3	0.93	0.73	0.98	0.72
11	VH295950	2	COV	11,267	850	0.33	0.52	56.4	40.5	96.8	0.96	0.76	1.08	0.76
12	VH295962	2	COV	19,460	1,594	0.32	0.52	56.2	41.0	97.2	0.99	0.74	1.05	0.73
13	VH295997	2	COV	24,389	2,205	0.26	0.47	52.5	44.4	97.0	0.98	0.74	1.01	0.73
14	VH296068	2	COV	11,943	933	0.30	0.49	55.2	42.0	97.2	1.02	0.74	1.10	0.72
15	VH295561	4	DVE	18,591	1,637	0.33	0.61	58.2	38.2	96.5	1.67	0.81	1.72	0.84
16	VH295684	4	DVE	1,288	1,008	0.20	0.39	46.3	47.8	94.1	1.51	0.73	2.02	0.66
17	VH295880	4	DVE	1,635	1,289	0.28	0.50	52.4	42.3	94.7	1.63	0.80	1.95	0.74
18	VH295950	4	DVE	11,210	847	0.40	0.59	61.0	33.1	94.1	1.63	0.82	1.80	0.88
19	VH296068	4	DVE	11,875	931	0.35	0.58	58.1	35.4	93.6	1.67	0.83	1.76	0.85
20	VH295222	4	EEL	21,566	1,834	0.30	0.47	59.5	35.6	95.1	1.54	0.72	1.59	0.74
21	VH295344	4	EEL	2,985	2,503	0.37	0.56	65.0	32.6	97.5	1.50	0.68	1.54	0.70
22	VH295418	4	EEL	22,829	2,151	0.38	0.57	64.5	33.0	97.5	1.55	0.72	1.58	0.72
23	VH295659	4	EEL	27,617	2,595	0.36	0.53	64.7	31.6	96.3	1.48	0.68	1.52	0.70
24	VH295670	4	EEL	24,450	2,211	0.31	0.48	59.4	35.2	94.6	1.59	0.74	1.61	0.76
25	VH295713	4	EEL	19,364	1,646	0.33	0.53	60.6	35.6	96.2	1.57	0.74	1.58	0.73
26	VH295912	4	EEL	21,169	1,687	0.35	0.56	62.8	33.7	96.6	1.53	0.71	1.56	0.72
27	VH295962	4	EEL	19,432	1,591	0.34	0.54	62.2	33.8	95.9	1.51	0.72	1.59	0.75
28	VH295997	4	EEL	24,352	2,202	0.33	0.50	62.5	33.6	96.0	1.52	0.70	1.55	0.71
29	VH295222	4	POR	21,569	1,834	0.29	0.46	59.9	35.6	95.4	1.50	0.70	1.55	0.72
30	VH295344	4	POR	2,985	2,437	0.24	0.31	63.3	31.3	94.6	1.48	0.69	1.22	0.42
31	VH295418	4	POR	22,827	2,150	0.38	0.56	65.3	31.9	97.3	1.52	0.71	1.56	0.71
32	VH295561	4	POR	18,591	1,637	0.35	0.61	58.2	37.9	96.1	1.71	0.82	1.78	0.84
33	VH295659	4	POR	27,617	2,595	0.37	0.54	65.7	31.0	96.7	1.46	0.67	1.51	0.70
34	VH295670	4	POR	24,455	2,213	0.33	0.50	62.8	32.4	95.3	1.53	0.72	1.55	0.73
35	VH295684	4	POR	1,291	1,019	0.23	0.30	52.7	44.7	97.4	1.52	0.73	1.79	0.44

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
											Mean	SD	Mean	SD
36	VH295713	4	POR	19,362	1,646	0.30	0.50	59.3	36.5	95.7	1.54	0.72	1.58	0.72
37	VH295880	4	POR	1,635	1,295	0.27	0.47	53.2	42.7	95.9	1.70	0.85	1.83	0.61
38	VH295912	4	POR	21,157	1,687	0.33	0.52	61.6	34.1	95.7	1.52	0.70	1.55	0.72
39	VH295950	4	POR	11,210	847	0.36	0.58	58.1	35.5	93.6	1.64	0.83	1.83	0.88
40	VH295962	4	POR	19,431	1,592	0.36	0.56	62.4	34.0	96.4	1.53	0.73	1.60	0.75
41	VH295997	4	POR	24,351	2,202	0.32	0.51	63.1	33.4	96.5	1.48	0.69	1.52	0.69
42	VH296068	4	POR	11,874	931	0.32	0.60	55.9	38.7	94.5	1.71	0.84	1.80	0.86
AVERAGE				16,325	1,749	0.31	0.51	58.0	38.0	95.9	1.36	0.74	1.43	0.73

Notes and Legend:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Dimension Key:

- | | |
|---------------------------------|------------------------------|
| – organization/purpose (POR) | – evidence/Elaboration (EEL) |
| – development/elaboration (DEV) | – convention (COV) |

Table 8.G.16 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-scoring Items for ELA, Grade Four Writing Extended Response

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
											Mean	SD	Mean	SD
1	VH295258	2	COV	13,621	1,255	0.31	0.50	56.1	41.4	97.5	1.07	0.72	1.09	0.73
2	VH295351	2	COV	11,751	1,100	0.36	0.53	59.4	38.2	97.5	1.03	0.72	1.10	0.72
3	VH295426	2	COV	19,743	1,860	0.29	0.48	54.2	41.9	96.1	1.02	0.75	1.03	0.75
4	VH295444	2	COV	18,950	1,813	0.32	0.50	56.6	40.4	97.0	1.06	0.73	1.07	0.72
5	VH295459	2	COV	17,537	1,538	0.28	0.49	54.9	42.6	97.5	1.15	0.73	1.22	0.72
6	VH295493	2	COV	20,515	1,935	0.33	0.54	57.2	40.4	97.6	1.07	0.75	1.13	0.73
7	VH295522	2	COV	18,753	1,762	0.29	0.51	54.8	43.1	98.0	1.09	0.74	1.11	0.72
8	VH295587	2	COV	13,691	1,217	0.29	0.52	55.0	43.4	98.4	1.10	0.73	1.13	0.73
9	VH295631	2	COV	14,897	1,280	0.30	0.48	55.8	41.3	97.0	1.09	0.72	1.14	0.70
10	VH295644	2	COV	14,441	1,303	0.34	0.52	57.5	39.1	96.6	1.13	0.74	1.16	0.73
11	VH295707	2	COV	16,018	1,416	0.30	0.52	55.4	42.0	97.5	1.13	0.73	1.15	0.73
12	VH295731	2	COV	19,724	1,823	0.28	0.50	54.0	43.4	97.4	1.05	0.74	1.07	0.73
13	VH295775	2	COV	15,536	1,394	0.30	0.48	55.9	41.2	97.1	1.03	0.73	1.07	0.71
14	VH295781	2	COV	12,578	1,125	0.33	0.55	56.8	40.9	97.7	1.04	0.74	1.10	0.75
15	VH295787	2	COV	19,085	1,697	0.35	0.53	58.5	38.7	97.2	1.09	0.73	1.12	0.72
16	VH295858	2	COV	11,403	996	0.28	0.50	54.7	43.4	98.1	1.14	0.73	1.15	0.72
17	VH295865	2	COV	6,632	566	0.38	0.57	60.2	37.6	97.9	1.02	0.74	1.02	0.73
18	VH295892	2	COV	21,401	2,048	0.26	0.46	53.1	43.8	96.9	1.15	0.73	1.17	0.72
19	VH295956	2	COV	20,333	1,866	0.27	0.47	53.7	42.9	96.6	1.12	0.74	1.15	0.74
20	VH295258	4	DVE	13,605	1,253	0.30	0.59	52.0	42.7	94.7	2.01	0.89	2.06	0.89
21	VH295351	4	DVE	11,718	1,100	0.34	0.63	54.0	40.1	94.1	1.92	0.91	2.03	0.94
22	VH295587	4	DVE	13,652	1,215	0.32	0.63	52.3	42.3	94.7	2.04	0.94	2.11	0.93
23	VH295644	4	DVE	14,389	1,302	0.35	0.61	54.8	39.2	94.0	1.96	0.91	2.02	0.90
24	VH295775	4	DVE	15,525	1,394	0.33	0.56	54.7	38.5	93.2	1.86	0.88	1.95	0.90
25	VH295781	4	DVE	12,437	1,120	0.32	0.63	54.5	42.1	96.5	1.84	0.86	1.93	0.86
26	VH295858	4	DVE	11,366	995	0.29	0.54	50.2	42.5	92.7	2.03	0.92	2.13	0.93
27	VH295865	4	DVE	6,238	563	0.30	0.56	52.9	41.0	94.0	1.88	0.89	1.89	0.86
28	VH295426	4	EEL	19,693	1,855	0.34	0.54	59.7	35.6	95.4	1.66	0.79	1.67	0.79
29	VH295444	4	EEL	18,927	1,810	0.35	0.53	59.2	35.1	94.4	1.69	0.80	1.70	0.79
30	VH295459	4	EEL	17,496	1,535	0.29	0.52	52.8	40.3	93.0	1.86	0.86	1.88	0.84
31	VH295493	4	EEL	20,507	1,936	0.36	0.59	59.1	36.5	95.7	1.74	0.81	1.78	0.83
32	VH295522	4	EEL	18,747	1,761	0.33	0.57	55.3	39.7	94.9	1.88	0.85	1.91	0.86
33	VH295631	4	EEL	14,867	1,276	0.31	0.55	56.1	39.3	95.4	1.69	0.79	1.80	0.83
34	VH295707	4	EEL	15,972	1,414	0.32	0.56	56.4	38.7	95.1	1.71	0.79	1.76	0.82
35	VH295731	4	EEL	19,713	1,823	0.38	0.59	60.4	34.4	94.9	1.74	0.81	1.79	0.82

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
											Mean	SD	Mean	SD
36	VH295787	4	EEL	19,069	1,694	0.35	0.60	56.6	38.0	94.6	1.80	0.86	1.88	0.89
37	VH295892	4	EEL	21,384	2,046	0.29	0.53	53.2	41.6	94.8	1.85	0.84	1.87	0.83
38	VH295956	4	EEL	20,280	1,857	0.33	0.56	56.3	38.6	94.9	1.83	0.84	1.86	0.83
39	VH295258	4	POR	13,604	1,253	0.32	0.61	53.3	42.1	95.4	2.01	0.89	2.09	0.90
40	VH295351	4	POR	11,720	1,100	0.37	0.65	55.5	39.8	95.3	1.96	0.91	2.08	0.93
41	VH295426	4	POR	19,693	1,855	0.34	0.55	61.5	34.6	96.1	1.60	0.76	1.61	0.76
42	VH295444	4	POR	18,927	1,810	0.38	0.58	62.2	33.8	95.9	1.66	0.79	1.67	0.78
43	VH295459	4	POR	17,496	1,535	0.29	0.55	52.8	41.5	94.3	1.88	0.86	1.93	0.84
44	VH295493	4	POR	20,507	1,935	0.35	0.57	58.8	36.5	95.3	1.70	0.80	1.75	0.83
45	VH295522	4	POR	18,747	1,762	0.33	0.58	56.1	39.2	95.3	1.83	0.86	1.85	0.84
46	VH295587	4	POR	13,652	1,215	0.34	0.64	53.7	41.6	95.3	2.06	0.94	2.13	0.91
47	VH295631	4	POR	14,868	1,276	0.33	0.54	57.1	37.5	94.6	1.73	0.81	1.86	0.83
48	VH295644	4	POR	14,388	1,302	0.34	0.60	53.8	39.8	93.5	1.98	0.92	2.08	0.91
49	VH295707	4	POR	15,973	1,415	0.37	0.61	59.0	37.5	96.5	1.73	0.80	1.82	0.83
50	VH295731	4	POR	19,714	1,823	0.36	0.60	59.7	36.1	95.9	1.71	0.80	1.75	0.82
51	VH295775	4	POR	15,525	1,394	0.34	0.58	55.1	38.9	94.0	1.89	0.88	1.99	0.89
52	VH295781	4	POR	12,436	1,119	0.30	0.59	52.7	42.7	95.4	1.87	0.86	1.96	0.87
53	VH295787	4	POR	19,069	1,694	0.33	0.57	55.7	37.7	93.3	1.77	0.85	1.86	0.89
54	VH295858	4	POR	11,366	995	0.30	0.55	50.9	42.1	93.0	2.04	0.93	2.13	0.92
55	VH295865	4	POR	6,237	563	0.28	0.55	51.9	41.7	93.6	1.92	0.89	1.92	0.87
56	VH295892	4	POR	21,385	2,046	0.32	0.53	56.2	38.4	94.6	1.77	0.82	1.77	0.81
57	VH295956	4	POR	20,278	1,857	0.32	0.58	55.8	39.9	95.7	1.78	0.84	1.81	0.83
AVERAGE				16,101	1,472	0.32	0.55	55.7	25.6	95.6	1.59	0.82	1.64	0.81

Notes and Legend:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Dimension Key:

- | | |
|---------------------------------|------------------------------|
| – organization/purpose (POR) | – evidence/Elaboration (EEL) |
| – development/elaboration (DEV) | – convention (COV) |

Table 8.G.17 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-scoring Items for ELA, Grade Five Writing Extended Response

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
											Mean	SD	Mean	SD
1	VH295215	2	COV	13,620	1,220	0.28	0.48	54.9	42.0	96.9	1.21	0.72	1.23	0.73
2	VH295230	2	COV	19,254	1,811	0.30	0.51	56.2	41.6	97.8	1.21	0.72	1.22	0.71
3	VH295238	2	COV	18,149	1,709	0.28	0.47	54.7	42.6	97.2	1.16	0.73	1.22	0.72
4	VH295406	2	COV	20,522	1,919	0.29	0.50	54.7	42.5	97.1	1.16	0.73	1.17	0.73
5	VH295431	2	COV	19,687	1,871	0.31	0.49	57.3	40.0	97.3	1.20	0.72	1.22	0.70
6	VH295452	2	COV	18,400	1,728	0.29	0.51	55.8	41.7	97.5	1.23	0.73	1.26	0.73
7	VH295480	2	COV	16,467	1,550	0.26	0.48	53.9	43.8	97.7	1.17	0.73	1.23	0.72
8	VH295543	2	COV	17,274	1,622	0.29	0.49	55.5	41.5	97.0	1.20	0.72	1.24	0.71
9	VH295740	2	COV	15,563	1,394	0.28	0.48	55.4	41.8	97.1	1.19	0.72	1.23	0.71
10	VH295793	2	COV	18,524	1,658	0.28	0.48	55.2	42.2	97.3	1.25	0.72	1.25	0.71
11	VH295810	2	COV	15,819	1,493	0.32	0.49	58.3	38.9	97.2	1.20	0.73	1.27	0.70
12	VH295835	2	COV	12,044	1,143	0.37	0.55	60.5	37.5	98.1	1.19	0.72	1.21	0.71
13	VH295900	2	COV	10,082	866	0.37	0.52	60.7	35.9	96.7	1.22	0.73	1.28	0.72
14	VH295920	2	COV	14,516	1,347	0.33	0.51	58.1	39.2	97.3	1.19	0.72	1.22	0.71
15	VH295971	2	COV	20,074	1,902	0.31	0.50	56.5	40.7	97.2	1.21	0.73	1.22	0.71
16	VH296033	2	COV	17,793	1,592	0.34	0.52	59.4	37.9	97.4	1.23	0.72	1.28	0.71
17	VH296047	2	COV	14,523	1,421	0.30	0.50	56.1	41.7	97.7	1.18	0.73	1.18	0.72
18	VH296072	2	COV	17,856	1,675	0.29	0.47	56.2	40.5	96.7	1.25	0.71	1.25	0.71
19	VH296081	2	COV	18,064	1,710	0.32	0.50	58.6	38.5	97.1	1.27	0.71	1.29	0.71
20	VH296090	2	COV	14,999	1,397	0.38	0.55	61.6	36.1	97.8	1.22	0.72	1.26	0.70
21	VH295215	4	DVE	13,595	1,219	0.29	0.61	49.5	44.1	93.6	2.25	0.95	2.32	0.95
22	VH295480	4	DVE	16,432	1,548	0.30	0.61	50.3	44.1	94.4	2.22	0.94	2.34	0.94
23	VH295740	4	DVE	15,532	1,392	0.30	0.56	50.4	42.0	92.4	2.20	0.93	2.28	0.94
24	VH295810	4	DVE	15,776	1,490	0.29	0.56	49.5	43.0	92.4	2.25	0.96	2.36	0.93
25	VH295835	4	DVE	11,996	1,140	0.32	0.61	51.8	42.7	94.5	2.21	0.93	2.27	0.92
26	VH295900	4	DVE	10,046	863	0.26	0.56	47.0	44.6	91.7	2.17	0.96	2.36	0.96
27	VH295920	4	DVE	14,483	1,343	0.32	0.62	51.9	42.7	94.6	2.27	0.93	2.28	0.92
28	VH296047	4	DVE	14,512	1,421	0.31	0.58	51.4	41.9	93.2	2.29	0.94	2.33	0.92
29	VH296090	4	DVE	14,967	1,397	0.28	0.57	48.5	43.5	92.0	2.23	0.94	2.34	0.96
30	VH295230	4	EEL	19,245	1,811	0.32	0.59	53.1	40.9	94.0	2.05	0.90	2.06	0.90
31	VH295238	4	EEL	18,112	1,705	0.31	0.58	52.4	40.9	93.3	1.91	0.91	1.99	0.92
32	VH295406	4	EEL	20,516	1,918	0.34	0.61	55.2	39.3	94.5	1.92	0.90	1.93	0.89
33	VH295431	4	EEL	19,681	1,871	0.34	0.61	54.4	40.2	94.6	2.01	0.89	2.06	0.90
34	VH295452	4	EEL	18,224	1,703	0.34	0.63	53.7	40.7	94.4	1.99	0.94	2.03	0.93
35	VH295543	4	EEL	17,247	1,622	0.32	0.57	53.5	40.3	93.8	2.02	0.89	2.05	0.89
36	VH295793	4	EEL	18,516	1,658	0.31	0.59	51.9	42.4	94.3	2.06	0.91	2.09	0.90
37	VH295971	4	EEL	20,015	1,894	0.33	0.62	54.4	40.4	94.8	1.94	0.91	1.98	0.91
38	VH296033	4	EEL	17,777	1,591	0.31	0.61	50.7	42.9	93.7	2.08	0.92	2.17	0.94
39	VH296072	4	EEL	17,849	1,673	0.33	0.60	53.4	40.6	94.0	2.07	0.92	2.10	0.91
40	VH296081	4	EEL	18,061	1,710	0.31	0.59	52.5	42.1	94.6	2.04	0.90	2.07	0.90
41	VH295215	4	POR	13,595	1,219	0.27	0.59	48.0	45.3	93.3	2.27	0.94	2.34	0.93
42	VH295230	4	POR	19,246	1,811	0.31	0.60	52.7	41.6	94.3	1.99	0.90	2.00	0.89
43	VH295238	4	POR	18,111	1,704	0.34	0.63	54.6	39.8	94.4	1.92	0.91	2.01	0.94
44	VH295406	4	POR	20,516	1,918	0.35	0.62	55.6	39.5	95.1	1.93	0.89	1.94	0.88

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
											Mean	SD	Mean	SD
45	VH295431	4	POR	19,682	1,871	0.37	0.66	56.5	39.7	96.2	1.95	0.89	2.02	0.91
46	VH295452	4	POR	18,223	1,703	0.36	0.64	54.8	39.2	94.0	2.02	0.94	2.06	0.94
47	VH295480	4	POR	16,423	1,548	0.30	0.60	50.1	44.1	94.1	2.25	0.92	2.36	0.92
48	VH295543	4	POR	17,248	1,621	0.32	0.58	53.8	40.1	93.9	1.96	0.89	1.97	0.89
49	VH295740	4	POR	15,533	1,392	0.29	0.57	50.3	43.0	93.3	2.22	0.92	2.30	0.94
50	VH295793	4	POR	18,516	1,658	0.33	0.60	53.2	41.0	94.2	2.05	0.91	2.08	0.90
51	VH295810	4	POR	15,775	1,490	0.29	0.55	50.1	42.0	92.1	2.27	0.95	2.37	0.92
52	VH295835	4	POR	11,995	1,140	0.29	0.58	49.7	44.2	93.9	2.23	0.93	2.32	0.90
53	VH295900	4	POR	10,046	863	0.29	0.59	49.6	43.8	93.4	2.21	0.97	2.38	0.93
54	VH295920	4	POR	14,483	1,343	0.28	0.60	49.6	45.4	95.0	2.28	0.92	2.33	0.91
55	VH295971	4	POR	19,996	1,892	0.33	0.62	53.2	41.9	95.0	2.02	0.92	2.08	0.91
56	VH296033	4	POR	17,778	1,591	0.31	0.62	51.2	43.6	94.7	2.07	0.91	2.16	0.93
57	VH296047	4	POR	14,511	1,421	0.33	0.57	53.3	39.8	93.1	2.31	0.93	2.36	0.91
58	VH296072	4	POR	17,849	1,672	0.34	0.64	53.6	41.7	95.3	2.05	0.93	2.11	0.93
59	VH296081	4	POR	18,060	1,710	0.33	0.60	53.5	40.5	94.0	2.02	0.91	2.07	0.92
60	VH296090	4	POR	14,966	1,397	0.29	0.59	49.5	44.0	93.4	2.26	0.93	2.37	0.94
AVERAGE				16,639	1,549	0.31	0.57	53.6	41.4	95.1	1.81	0.86	1.86	0.85

Notes and Legend:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

<i>Dimension Key:</i>	
– organization/purpose (POR)	– evidence/Elaboration (EEL)
– development/elaboration (DEV)	– convention (COV)

Table 8.G.18 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-scoring Items for ELA, Grade Six Writing Extended Response

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
											Mean	SD	Mean	SD
1	VH295316	2	COV	1,022	1,021	0.51	0.64	68.4	27.7	96.1	1.20	0.78	1.22	0.78
2	VH295557	2	COV	1,084	1,084	0.96	0.98	97.6	2.3	99.9	1.36	0.79	1.36	0.79
3	VH295583	2	COV	620	618	0.76	0.83	84.0	14.1	98.1	1.13	0.81	1.09	0.80
4	VH295663	2	COV	1,095	1,095	0.98	0.99	98.9	1.0	99.9	1.46	0.74	1.46	0.74
5	VH295680	2	COV	297	297	0.94	0.96	96.3	3.4	99.7	1.08	0.78	1.08	0.79
6	VH295693	2	COV	1,285	1,281	0.51	0.68	69.2	27.9	97.0	1.26	0.78	1.28	0.79
7	VH295754	2	COV	1,193	1,193	0.60	0.74	73.5	23.6	97.2	1.08	0.83	1.11	0.82
8	VH295824	2	COV	1,179	1,178	0.48	0.64	67.8	28.2	96.0	1.28	0.77	1.30	0.79
9	VH295873	2	COV	1,020	1,020	0.96	0.98	97.9	2.1	100.0	1.45	0.75	1.45	0.75
10	VH295936	2	COV	832	830	0.56	0.73	72.3	25.2	97.5	1.26	0.81	1.25	0.80
11	VH295984	2	COV	1,529	1,523	0.50	0.67	67.9	29.0	96.9	1.18	0.80	1.21	0.80
12	VH296012	2	COV	279	279	0.93	0.97	95.7	4.3	100.0	0.86	0.82	0.87	0.82
13	VH296040	2	COV	863	863	0.67	0.78	78.2	19.2	97.5	1.08	0.81	1.03	0.81
14	VH295557	4	DVE	1,084	1,084	0.96	0.98	97.3	2.4	99.7	1.84	0.84	1.84	0.84
15	VH295663	4	DVE	1,095	1,095	0.98	0.99	98.4	1.5	99.9	1.85	0.84	1.84	0.83
16	VH295873	4	DVE	1,020	1,020	0.97	0.98	98.2	1.7	99.9	1.79	0.82	1.79	0.82
17	VH295316	4	EEL	1,022	1,021	0.55	0.73	71.3	26.3	97.6	1.78	0.82	1.80	0.82
18	VH295583	4	EEL	620	618	0.67	0.79	82.0	16.7	98.7	1.52	0.76	1.54	0.74
19	VH295680	4	EEL	297	297	0.89	0.94	97.0	2.7	99.7	1.22	0.58	1.22	0.56
20	VH295693	4	EEL	1,285	1,281	0.54	0.72	70.8	27.1	97.9	1.78	0.80	1.80	0.80
21	VH295754	4	EEL	1,193	1,193	0.64	0.77	79.4	19.0	98.4	1.58	0.75	1.58	0.77
22	VH295824	4	EEL	1,179	1,178	0.48	0.65	67.4	30.5	97.9	1.75	0.75	1.77	0.77
23	VH295936	4	EEL	832	830	0.52	0.68	69.6	26.6	96.3	1.73	0.80	1.76	0.84
24	VH295984	4	EEL	1,529	1,523	0.54	0.71	71.5	26.7	98.2	1.67	0.77	1.71	0.78
25	VH296012	4	EEL	279	279	0.94	0.97	97.8	2.2	100.0	1.31	0.63	1.32	0.62
26	VH296040	4	EEL	863	863	0.62	0.78	81.1	17.7	98.8	1.47	0.73	1.45	0.70
27	VH295316	4	POR	1,022	1,021	0.55	0.75	71.4	26.8	98.2	1.77	0.82	1.78	0.81
28	VH295557	4	POR	1,084	1,084	0.96	0.98	97.3	2.5	99.8	1.68	0.81	1.69	0.81
29	VH295583	4	POR	620	618	0.68	0.80	82.5	16.2	98.7	1.52	0.74	1.53	0.74
30	VH295663	4	POR	1,095	1,095	0.97	0.98	98.3	1.6	99.9	1.67	0.79	1.66	0.78
31	VH295680	4	POR	297	297	0.89	0.94	97.0	2.7	99.7	1.21	0.57	1.21	0.56
32	VH295693	4	POR	1,285	1,281	0.53	0.73	70.3	28.1	98.4	1.77	0.80	1.80	0.79
33	VH295754	4	POR	1,193	1,193	0.64	0.78	78.1	20.9	99.0	1.68	0.75	1.70	0.77
34	VH295824	4	POR	1,179	1,178	0.50	0.68	68.6	29.7	98.3	1.78	0.74	1.81	0.77
35	VH295873	4	POR	1,020	1,020	0.97	0.99	98.5	1.4	99.9	1.60	0.78	1.59	0.77
36	VH295936	4	POR	832	830	0.56	0.72	71.7	26.0	97.7	1.79	0.79	1.82	0.82
37	VH295984	4	POR	1,529	1,523	0.55	0.73	71.8	26.9	98.8	1.75	0.77	1.77	0.78
38	VH296012	4	POR	279	279	0.96	0.98	98.2	1.8	100.0	1.34	0.63	1.35	0.63
39	VH296040	4	POR	863	863	0.65	0.78	81.0	17.5	98.5	1.52	0.73	1.52	0.72
AVERAGE				946	945	0.72	0.82	82.9	15.7	98.6	1.49	0.77	1.50	0.77

Notes and Legend:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Dimension Key:

- organization/purpose (POR)
- evidence/Elaboration (EEL)
- development/elaboration (DEV)
- convention (COV)

Table 8.G.19 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-scoring Items for ELA, Grade Seven Writing Extended Response

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
											Mean	SD	Mean	SD
1	VH295266	2	COV	326	325	0.73	0.84	81.8	16.6	98.5	0.95	0.84	0.98	0.85
2	VH295271	2	COV	149	149	0.93	0.97	95.3	4.7	100.0	0.88	0.83	0.93	0.85
3	VH295309	2	COV	307	307	0.76	0.87	84	15.0	99.0	0.96	0.84	0.99	0.84
4	VH295321	2	COV	465	465	0.82	0.90	88.4	11.2	99.6	0.80	0.83	0.80	0.81
5	VH295334	2	COV	476	476	0.79	0.88	86.6	12.4	98.9	0.80	0.82	0.83	0.84
6	VH295372	2	COV	545	545	0.97	0.98	98.2	1.8	100.0	0.72	0.77	0.71	0.76
7	VH295398	2	COV	598	598	0.96	0.97	97.3	2.3	99.7	0.68	0.73	0.69	0.74
8	VH295410	2	COV	296	296	0.97	0.99	98.3	1.7	100.0	0.73	0.79	0.73	0.80
9	VH295508	2	COV	269	269	0.81	0.90	87.7	11.9	99.6	0.80	0.82	0.80	0.81
10	VH295528	2	COV	659	659	0.98	0.98	98.9	1.1	100.0	1.57	0.60	1.57	0.59
11	VH295576	2	COV	658	658	0.93	0.95	96.2	3.6	99.8	1.45	0.66	1.45	0.66
12	VH295610	2	COV	556	556	0.90	0.91	94.4	5.0	99.5	1.50	0.64	1.49	0.66
13	VH295636	2	COV	337	337	0.77	0.86	84.9	13.9	98.8	0.88	0.82	0.87	0.80
14	VH295719	2	COV	215	215	0.87	0.93	92.1	7.9	100.0	0.66	0.77	0.64	0.76
15	VH295761	2	COV	659	659	0.97	0.97	98.3	1.5	99.8	1.56	0.60	1.55	0.60
16	VH295906	2	COV	781	781	0.68	0.80	78.6	19.2	97.8	0.98	0.84	1.04	0.84
17	VH295943	2	COV	249	249	0.72	0.84	81.9	17.3	99.2	0.81	0.79	0.81	0.79
18	VH296104	2	COV	607	607	0.76	0.86	84.0	14.5	98.5	0.98	0.85	0.95	0.85
19	VH296117	2	COV	254	254	0.87	0.92	91.3	8.3	99.6	0.85	0.80	0.87	0.81
20	VH295528	4	DVE	660	660	0.98	0.99	98.8	1.1	99.8	1.67	0.82	1.67	0.82
21	VH295576	4	DVE	658	658	0.90	0.94	93.3	5.5	98.8	1.86	0.89	1.87	0.90
22	VH295610	4	DVE	556	556	0.93	0.97	95.0	4.9	99.8	1.98	0.90	1.98	0.89
23	VH295761	4	DVE	659	659	0.97	0.99	98.2	1.8	100.0	1.88	0.87	1.88	0.86
24	VH295266	4	EEL	326	325	0.66	0.83	85.2	14.5	99.7	1.37	0.67	1.38	0.70
25	VH295271	4	EEL	149	149	0.88	0.92	96.0	4.0	100.0	1.22	0.49	1.26	0.54
26	VH295309	4	EEL	307	307	0.85	0.93	93.2	6.8	100.0	1.40	0.67	1.41	0.68
27	VH295321	4	EEL	465	465	0.72	0.84	89.9	9.9	99.8	1.29	0.59	1.28	0.58
28	VH295334	4	EEL	476	476	0.72	0.82	89.9	9.9	99.8	1.28	0.56	1.26	0.55
29	VH295372	4	EEL	545	545	0.96	0.97	98.9	1.1	100.0	1.18	0.45	1.18	0.45
30	VH295398	4	EEL	598	598	0.98	0.99	99.5	0.5	100.0	1.15	0.44	1.14	0.43
31	VH295410	4	EEL	296	296	0.95	0.96	99.3	0.7	100.0	1.08	0.29	1.07	0.28
32	VH295508	4	EEL	269	269	0.73	0.85	90.3	9.3	99.6	1.30	0.62	1.26	0.56
33	VH295636	4	EEL	337	337	0.69	0.78	89.0	10.4	99.4	1.23	0.53	1.28	0.54
34	VH295719	4	EEL	215	215	0.80	0.90	94.0	6.0	100.0	1.21	0.52	1.25	0.56
35	VH295906	4	EEL	781	781	0.64	0.79	83.0	16.3	99.2	1.41	0.68	1.42	0.68
36	VH295943	4	EEL	249	249	0.71	0.81	87.6	11.6	99.2	1.34	0.60	1.36	0.65
37	VH296104	4	EEL	607	607	0.70	0.83	85.7	13.5	99.2	1.44	0.71	1.42	0.71
38	VH296117	4	EEL	254	254	0.75	0.88	91.3	8.7	100.0	1.28	0.59	1.28	0.62
39	VH295266	4	POR	326	325	0.67	0.84	85.2	14.5	99.7	1.38	0.68	1.39	0.71
40	VH295271	4	POR	149	149	0.88	0.92	96.0	4.0	100.0	1.22	0.49	1.26	0.54
41	VH295309	4	POR	307	307	0.86	0.93	93.5	6.5	100.0	1.40	0.68	1.41	0.68
42	VH295321	4	POR	465	465	0.72	0.85	89.9	10.1	100.0	1.29	0.59	1.28	0.58
43	VH295334	4	POR	476	476	0.74	0.84	90.5	9.2	99.8	1.28	0.57	1.27	0.56
44	VH295372	4	POR	545	545	0.97	0.98	99.1	0.9	100.0	1.18	0.45	1.18	0.46

Prompt	Item ID	Score Points	Dimension Type								Rater 1		Rater 2	
				Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Mean	SD	Mean	SD
45	VH295398	4	POR	598	598	0.97	0.99	99.5	0.5	100.0	1.13	0.43	1.13	0.42
46	VH295410	4	POR	296	296	0.94	0.96	99.3	0.7	100.0	1.07	0.29	1.07	0.28
47	VH295508	4	POR	269	269	0.73	0.85	90.7	8.9	99.6	1.29	0.62	1.25	0.56
48	VH295528	4	POR	660	660	0.98	0.99	98.6	1.2	99.8	1.61	0.81	1.61	0.81
49	VH295576	4	POR	658	658	0.91	0.94	93.8	5.2	98.9	1.84	0.90	1.85	0.90
50	VH295610	4	POR	556	556	0.93	0.97	95.0	4.9	99.8	1.95	0.91	1.95	0.90
51	VH295636	4	POR	337	337	0.60	0.74	86.6	12.5	99.1	1.22	0.53	1.29	0.57
52	VH295719	4	POR	215	215	0.80	0.90	94.0	6.0	100.0	1.22	0.53	1.25	0.58
53	VH295761	4	POR	659	659	0.97	0.99	98.2	1.8	100.0	1.87	0.87	1.86	0.86
54	VH295906	4	POR	781	781	0.64	0.79	82.8	16.4	99.2	1.41	0.69	1.42	0.68
55	VH295943	4	POR	249	249	0.70	0.81	87.6	11.6	99.2	1.33	0.60	1.35	0.66
56	VH296104	4	POR	607	607	0.69	0.83	85.2	14.0	99.2	1.44	0.72	1.43	0.71
57	VH296117	4	POR	254	254	0.77	0.89	92.1	7.9	100.0	1.27	0.58	1.28	0.62
AVERAGE				442	442	0.83	0.90	91.8	7.8	99.6	1.26	0.67	1.26	0.68

Notes and Legend:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Dimension Key:

– organization/purpose (POR)	– evidence/Elaboration (EEL)
– development/elaboration (DEV)	– convention (COV)

Table 8.G.20 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-scoring Items for ELA, Grade Eight Writing Extended Response

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
											Mean	SD	Mean	SD
1	VH295279	2	COV	1,044	1,044	0.61	0.71	79.7	19.9	99.6	1.52	0.63	1.57	0.59
2	VH295294	2	COV	1,316	1,316	0.59	0.69	81.7	17.9	99.6	1.66	0.56	1.66	0.56
3	VH295301	2	COV	676	676	0.96	0.97	98.4	1.6	100.0	1.68	0.54	1.68	0.54
4	VH295330	2	COV	900	900	0.67	0.74	82.8	16.7	99.4	1.54	0.61	1.56	0.60
5	VH295357	2	COV	567	567	0.61	0.75	75.1	24.0	99.1	1.21	0.74	1.19	0.75
6	VH295386	2	COV	848	848	0.54	0.66	80.1	18.9	98.9	1.65	0.59	1.67	0.57
7	VH295465	2	COV	707	707	0.56	0.70	73.6	25.3	98.9	1.32	0.73	1.35	0.70
8	VH295486	2	COV	1,266	1,266	0.55	0.65	81.7	17.9	99.5	1.70	0.52	1.70	0.54
9	VH295513	2	COV	909	908	0.48	0.65	68.7	29.1	97.8	1.36	0.74	1.37	0.73
10	VH295568	2	COV	745	745	0.57	0.72	74.5	24.8	99.3	1.35	0.70	1.37	0.70
11	VH295596	2	COV	643	642	0.98	0.99	99.2	0.8	100.0	1.64	0.56	1.65	0.55
12	VH295604	2	COV	1,149	1,149	0.52	0.65	78.9	20.5	99.4	1.64	0.57	1.66	0.57
13	VH295624	2	COV	1,479	1,479	0.48	0.61	81.5	17.8	99.3	1.74	0.52	1.75	0.51
14	VH295768	2	COV	1,545	1,545	0.52	0.65	84.7	15.1	99.9	1.78	0.47	1.78	0.48
15	VH295831	2	COV	809	809	0.56	0.69	73.9	25.3	99.3	1.32	0.68	1.36	0.67
16	VH295845	2	COV	1,112	1,112	0.54	0.67	80.8	18.9	99.6	1.68	0.55	1.69	0.56
17	VH295978	2	COV	991	991	0.56	0.74	73.3	26.1	99.4	1.31	0.75	1.34	0.73
18	VH296017	2	COV	984	984	0.51	0.67	71.6	27.8	99.5	1.41	0.67	1.41	0.67
19	VH296025	2	COV	465	465	0.68	0.80	79.4	20.0	99.4	1.18	0.77	1.20	0.75
20	VH296059	2	COV	653	653	0.93	0.95	96.5	3.4	99.8	1.50	0.62	1.49	0.62
21	VH296097	2	COV	777	776	0.83	0.87	91.5	8.0	99.5	1.56	0.62	1.57	0.61
22	VH295301	4	DVE	676	676	0.98	0.99	98.5	1.3	99.9	1.95	0.91	1.95	0.91
23	VH295596	4	DVE	643	642	0.98	0.99	98.3	1.6	99.8	2.14	0.97	2.13	0.96
24	VH296059	4	DVE	653	653	0.92	0.97	94.8	5.2	100.0	1.85	0.86	1.85	0.88
25	VH296097	4	DVE	777	776	0.87	0.93	91.0	8.0	99.0	2.13	0.93	2.13	0.94
26	VH295279	4	EEL	1,044	1,044	0.65	0.82	77.2	22.6	99.8	1.80	0.81	1.81	0.80
27	VH295294	4	EEL	1,316	1,316	0.62	0.81	74.9	24.9	99.8	1.90	0.81	1.90	0.82
28	VH295330	4	EEL	900	900	0.64	0.81	77.2	22.6	99.8	1.79	0.79	1.79	0.77
29	VH295357	4	EEL	567	567	0.66	0.75	80.6	18.7	99.3	1.58	0.65	1.58	0.66
30	VH295386	4	EEL	848	848	0.63	0.80	75.7	23.5	99.2	1.86	0.83	1.87	0.82
31	VH295465	4	EEL	707	707	0.67	0.79	80.3	18.7	99.0	1.64	0.73	1.65	0.74
32	VH295486	4	EEL	1,266	1,266	0.55	0.75	71.1	28.4	99.5	1.99	0.78	1.99	0.78
33	VH295513	4	EEL	910	909	0.59	0.73	75.0	23.9	98.9	1.71	0.74	1.72	0.72
34	VH295568	4	EEL	745	745	0.60	0.75	75.2	24.6	99.7	1.75	0.71	1.76	0.73
35	VH295604	4	EEL	1,149	1,149	0.57	0.78	71.2	28.1	99.3	1.95	0.84	1.94	0.83
36	VH295624	4	EEL	1,479	1,479	0.56	0.76	71.0	28.3	99.3	1.97	0.79	1.99	0.81
37	VH295768	4	EEL	1,545	1,545	0.58	0.79	71.5	27.8	99.3	2.15	0.85	2.17	0.84
38	VH295831	4	EEL	809	809	0.62	0.78	74.8	24.6	99.4	1.92	0.79	1.91	0.78
39	VH295845	4	EEL	1,112	1,112	0.62	0.78	75.4	24.2	99.6	1.91	0.77	1.90	0.76
40	VH295978	4	EEL	991	991	0.58	0.75	74.2	24.9	99.1	1.72	0.76	1.71	0.76
41	VH296017	4	EEL	984	984	0.55	0.72	71.0	27.4	98.5	1.92	0.77	1.92	0.78
42	VH296025	4	EEL	465	465	0.75	0.86	85.4	14.4	99.8	1.59	0.74	1.57	0.72
43	VH295279	4	POR	1,044	1,044	0.66	0.83	77.8	22.1	99.9	1.83	0.81	1.83	0.80
44	VH295294	4	POR	1,316	1,316	0.62	0.80	75.3	24.3	99.6	1.92	0.80	1.92	0.81

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
											Mean	SD	Mean	SD
45	VH295301	4	POR	676	676	0.98	0.99	98.7	1.2	99.9	1.91	0.92	1.91	0.92
46	VH295330	4	POR	900	900	0.63	0.80	76.3	23.7	100.0	1.82	0.78	1.80	0.77
47	VH295357	4	POR	567	567	0.68	0.77	81.5	18.2	99.6	1.60	0.65	1.59	0.66
48	VH295386	4	POR	848	848	0.64	0.81	76.1	23.3	99.4	1.88	0.83	1.89	0.83
49	VH295465	4	POR	707	707	0.65	0.78	79.2	20.1	99.3	1.63	0.71	1.67	0.74
50	VH295486	4	POR	1,266	1,266	0.55	0.75	70.5	29.1	99.6	2.00	0.79	2.01	0.79
51	VH295513	4	POR	910	909	0.56	0.72	72.9	26.1	99.0	1.71	0.74	1.73	0.73
52	VH295568	4	POR	745	745	0.60	0.75	75.0	24.6	99.6	1.77	0.72	1.78	0.74
53	VH295596	4	POR	643	642	0.97	0.99	98.0	1.9	99.8	2.11	0.97	2.10	0.97
54	VH295604	4	POR	1,149	1,149	0.61	0.80	73.7	25.7	99.4	1.98	0.83	1.98	0.83
55	VH295624	4	POR	1,479	1,479	0.56	0.76	71.2	28.3	99.5	1.98	0.78	2.01	0.81
56	VH295768	4	POR	1,545	1,545	0.58	0.79	71.6	27.8	99.4	2.18	0.86	2.18	0.84
57	VH295831	4	POR	809	809	0.64	0.80	76.4	23.1	99.5	1.93	0.79	1.91	0.78
58	VH295845	4	POR	1,112	1,112	0.61	0.78	75.2	24.6	99.7	1.92	0.76	1.92	0.76
59	VH295978	4	POR	991	991	0.62	0.78	76.0	23.3	99.3	1.75	0.77	1.74	0.77
60	VH296017	4	POR	984	984	0.55	0.72	70.8	27.6	98.5	1.93	0.78	1.94	0.78
61	VH296025	4	POR	465	465	0.76	0.86	85.8	13.8	99.6	1.59	0.74	1.60	0.74
62	VH296059	4	POR	653	653	0.92	0.97	94.9	5.1	100.0	1.77	0.85	1.77	0.87
63	VH296097	4	POR	777	776	0.87	0.93	90.6	8.1	98.7	2.10	0.94	2.11	0.95
AVERAGE				933	933	0.66	0.79	80.0	19.4	99.4	1.75	0.74	1.76	0.74

Notes and Legend:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Dimension Key:

– organization/purpose (POR)	– evidence/Elaboration (EEL)
– development/elaboration (DEV)	– convention (COV)

Table 8.G.21 Interrater Reliability and Descriptive Statistics for the Ratings by Two Raters in Human-scoring Items for ELA, Grade Eleven Writing Extended Response

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
											Mean	SD	Mean	SD
1	VH295245	2	COV	16,303	1,618	0.35	0.56	58.3	39.1	97.4	1.20	0.75	1.18	0.75
2	VH295252	2	COV	14,632	1,345	0.31	0.51	57.0	39.9	96.9	1.25	0.74	1.29	0.73
3	VH295286	2	COV	16,736	1,636	0.31	0.53	55.4	41.6	97.0	1.20	0.76	1.19	0.75
4	VH295365	2	COV	1,613	1,601	0.41	0.61	61.6	35.9	97.5	1.15	0.76	1.21	0.78
5	VH295379	2	COV	1,607	1,597	0.40	0.57	62.6	32.9	95.4	1.36	0.71	1.28	0.83
6	VH295391	2	COV	15,744	1,556	0.31	0.51	56.4	40.2	96.6	1.22	0.75	1.22	0.74
7	VH295473	2	COV	1,605	1,594	0.40	0.62	61.1	35.0	96.1	1.20	0.78	1.16	0.84
8	VH295501	2	COV	1,540	1,534	0.40	0.61	60.9	35.1	96.0	1.25	0.77	1.11	0.83
9	VH295533	2	COV	1,587	1,581	0.40	0.61	62.5	34.2	96.6	1.30	0.74	1.31	0.83
10	VH295550	2	COV	1,577	1,566	0.35	0.55	59.0	35.8	94.8	1.32	0.73	1.26	0.85
11	VH295617	2	COV	1,624	1,603	0.33	0.54	55.8	40.3	96.1	1.21	0.73	1.10	0.81
12	VH295652	2	COV	16,573	1,636	0.35	0.56	58.7	38.3	96.9	1.25	0.75	1.22	0.76
13	VH295700	2	COV	1,644	1,632	0.39	0.59	61.1	35.0	96.1	1.31	0.75	1.18	0.82
14	VH295726	2	COV	16,468	1,603	0.32	0.52	56.4	40.0	96.4	1.19	0.75	1.20	0.76
15	VH295747	2	COV	1,622	1,610	0.37	0.60	58.3	37.8	96.0	1.22	0.77	1.04	0.84
16	VH295803	2	COV	1,641	1,625	0.45	0.67	63.9	34.0	98.0	1.19	0.77	1.18	0.83
17	VH295816	2	COV	15,738	1,523	0.30	0.49	55.8	40.4	96.3	1.20	0.74	1.23	0.73
18	VH295852	2	COV	1,675	1,663	0.39	0.60	59.4	37.2	96.5	1.17	0.76	1.06	0.83
19	VH295884	2	COV	16,512	1,618	0.34	0.54	59.1	37.6	96.7	1.30	0.74	1.30	0.74
20	VH295927	2	COV	1,618	1,608	0.40	0.62	60.8	36.6	97.5	1.18	0.76	1.17	0.80
21	VH295990	2	COV	1,614	1,604	0.41	0.60	60.8	35.5	96.4	1.13	0.76	1.12	0.83
22	VH296004	2	COV	1,602	1,591	0.39	0.60	61.2	34.4	95.6	1.30	0.75	1.24	0.86
23	VH296053	2	COV	16,309	1,592	0.33	0.51	57.4	38.4	95.9	1.20	0.75	1.24	0.74
24	VH296111	2	COV	1,597	1,578	0.34	0.55	57.5	36.8	94.4	1.21	0.77	1.26	0.85
25	VH295245	4	EEL	16,293	1,618	0.44	0.69	60.9	34.7	95.6	2.02	0.91	2.01	0.92
26	VH295252	4	EEL	14,611	1,344	0.41	0.68	58.9	36.6	95.5	2.01	0.93	2.03	0.94
27	VH295286	4	EEL	16,735	1,636	0.41	0.68	58.6	37.4	96.0	2.02	0.94	2.02	0.93
28	VH295365	4	EEL	1,613	1,514	0.41	0.64	61.2	37.0	98.2	1.86	0.86	1.84	0.71
29	VH295379	4	EEL	1,607	1,559	0.38	0.70	54.7	39.8	94.5	2.07	0.96	2.43	1.05
30	VH295391	4	EEL	15,741	1,556	0.42	0.68	60.5	35.5	96.1	1.94	0.91	1.98	0.89
31	VH295473	4	EEL	1,605	1,505	0.39	0.67	56.3	38.7	95.0	2.03	0.96	2.22	0.95
32	VH295501	4	EEL	1,540	1,377	0.38	0.68	54.7	39.3	94.0	2.14	0.98	2.12	1.05
33	VH295533	4	EEL	1,586	1,549	0.46	0.72	61.4	35.1	96.5	2.02	0.97	2.19	0.92
34	VH295550	4	EEL	1,577	1,488	0.42	0.70	58.4	36.8	95.2	2.01	0.94	2.18	1.00
35	VH295617	4	EEL	1,623	1,471	0.40	0.70	57.9	38.5	96.4	1.95	0.94	2.11	0.94
36	VH295652	4	EEL	16,570	1,636	0.38	0.68	57.0	39.1	96.1	2.01	0.93	2.00	0.93
37	VH295700	4	EEL	1,644	1,564	0.45	0.73	60.6	37.0	97.6	2.06	0.94	2.23	0.92
38	VH295726	4	EEL	16,465	1,600	0.42	0.70	61.0	35.8	96.8	1.86	0.88	1.88	0.89
39	VH295747	4	EEL	1,622	1,447	0.41	0.70	58.8	36.8	95.6	1.90	0.94	2.04	0.97
40	VH295803	4	EEL	1,641	1,550	0.42	0.70	58.1	37.7	95.9	2.00	0.91	2.21	0.99
41	VH295816	4	EEL	15,737	1,523	0.46	0.70	62.8	33.2	95.9	1.98	0.93	1.95	0.92
42	VH295852	4	EEL	1,675	1,582	0.46	0.70	63.1	34.9	98.0	1.96	0.90	1.99	0.80
43	VH295884	4	EEL	16,513	1,618	0.40	0.68	57.2	38.6	95.8	2.12	0.96	2.12	0.95
44	VH295927	4	EEL	1,617	1,556	0.44	0.70	60.8	35.7	96.5	1.87	0.89	2.08	0.91
45	VH295990	4	EEL	1,614	1,502	0.40	0.69	57.9	39.1	97.0	1.94	0.97	2.07	0.86
46	VH296004	4	EEL	1,602	1,495	0.33	0.55	54.4	38.1	92.6	2.01	0.99	1.73	0.64

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic-Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
											Mean	SD	Mean	SD
47	VH296053	4	EEL	16,305	1,592	0.40	0.69	57.7	38.4	96.0	2.01	0.93	2.07	0.93
48	VH296111	4	EEL	1,597	1,544	0.40	0.68	58.9	38.5	97.3	2.06	0.97	1.98	0.76
49	VH295245	4	POR	16,289	1,618	0.40	0.66	58.3	37.6	96.0	2.08	0.88	2.09	0.89
50	VH295252	4	POR	14,547	1,337	0.37	0.65	55.9	40.1	96.0	2.12	0.90	2.12	0.90
51	VH295286	4	POR	16,735	1,636	0.41	0.66	59.7	36.6	96.3	2.11	0.89	2.11	0.87
52	VH295365	4	POR	1,613	1,497	0.45	0.66	63.5	34.7	98.2	1.97	0.83	2.09	0.75
53	VH295379	4	POR	1,607	1,568	0.45	0.72	60.7	36.4	97.1	2.22	0.93	2.30	0.95
54	VH295391	4	POR	15,741	1,556	0.43	0.66	60.9	35.0	95.8	2.01	0.88	2.04	0.87
55	VH295473	4	POR	1,605	1,513	0.44	0.68	61.5	35.6	97.1	2.12	0.93	2.11	0.79
56	VH295501	4	POR	1,540	1,320	0.37	0.66	55.2	40.4	95.6	2.15	0.94	2.29	0.97
57	VH295533	4	POR	1,586	1,558	0.47	0.74	62.5	34.6	97.1	2.12	0.96	2.18	0.94
58	VH295550	4	POR	1,577	1,494	0.46	0.71	62.0	34.7	96.7	2.06	0.93	2.10	0.90
59	VH295617	4	POR	1,623	1,451	0.42	0.67	60.0	37.6	97.6	2.07	0.89	2.14	0.84
60	VH295652	4	POR	16,570	1,636	0.37	0.65	56.6	39.9	96.5	2.09	0.87	2.09	0.89
61	VH295700	4	POR	1,644	1,576	0.45	0.74	61.2	36.8	98.0	2.11	0.90	2.30	0.96
62	VH295726	4	POR	16,464	1,600	0.41	0.67	59.7	37.3	96.9	1.99	0.85	2.03	0.88
63	VH295747	4	POR	1,610	1,444	0.39	0.68	56.6	39.8	96.4	2.07	0.91	2.15	0.96
64	VH295803	4	POR	1,641	1,549	0.36	0.67	52.4	40.5	92.9	2.03	0.88	2.38	1.11
65	VH295816	4	POR	15,737	1,523	0.43	0.67	60.8	36.3	97.1	2.07	0.88	2.06	0.86
66	VH295852	4	POR	1,675	1,588	0.41	0.68	60.0	37.9	97.9	2.02	0.88	2.06	0.82
67	VH295884	4	POR	16,509	1,618	0.40	0.67	58.2	38.0	96.2	2.22	0.91	2.23	0.91
68	VH295927	4	POR	1,617	1,565	0.44	0.69	61.5	35.5	97.0	1.99	0.87	2.10	0.88
69	VH295990	4	POR	1,614	1,494	0.42	0.68	60.2	37.3	97.5	2.07	0.91	2.13	0.83
70	VH296004	4	POR	1,602	1,530	0.41	0.71	57.9	37.8	95.8	2.14	0.94	2.25	1.01
71	VH296053	4	POR	16,304	1,592	0.44	0.68	60.6	35.2	95.8	2.07	0.89	2.11	0.92
72	VH296111	4	POR	1,597	1,540	0.41	0.67	59.7	37.3	97.0	2.15	0.94	1.99	0.76
AVERAGE				7,047	1,552	0.40	0.64	59.1	37.2	96.3	1.77	0.86	1.80	0.87

Notes and Legend:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Dimension Key:

– organization/purpose (POR)	– evidence/Elaboration (EEL)
– development/elaboration (DEV)	– convention (COV)

Table 8.G.22 Agreement Statistics between AI and Human Scoring of CR Items for Mathematics, Grade Three

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
											Mean	SD	Mean	SD
1	VH299060	1	SA	532	532	0.79	0.79	89.3	10.7	100.0	0.52	0.50	0.53	0.50
2	VH299173	2	SA	558	558	0.67	0.84	79.7	19.7	99.5	0.67	0.82	0.73	0.83
3	VH299297	2	SA	565	565	0.88	0.95	93.6	6.4	100.0	0.54	0.79	0.56	0.81
4	VH299378	2	SA	593	593	0.84	0.94	94.1	5.6	99.7	0.40	0.76	0.38	0.73
5	VH299416	2	SA	613	613	0.86	0.92	96.2	3.3	99.5	0.22	0.57	0.23	0.58
6	VH299632	2	SA	577	577	0.88	0.90	93.6	5.9	99.5	0.50	0.65	0.47	0.62
7	VH299781	2	SA	549	549	0.89	0.92	94.9	4.9	99.8	0.40	0.63	0.37	0.59
8	VH300060	2	SA	611	611	0.62	0.79	74.6	24.9	99.5	1.22	0.80	1.02	0.77
9	VH300063	2	SA	593	593	0.87	0.94	94.3	5.1	99.3	0.47	0.77	0.48	0.79
10	VH300478	2	SA	766	766	0.65	0.81	78.7	20.4	99.1	0.69	0.81	0.68	0.78
11	VH300485	2	SA	597	597	0.74	0.82	95.0	5.0	100.0	0.12	0.38	0.13	0.37
AVERAGE				596	596	0.79	0.87	89.5	10.2	99.6	0.52	0.68	0.51	0.67

Notes and Legend:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Short Answer (SA)

Table 8.G.23 Agreement Statistics between AI and Human Scoring of CR Items for Mathematics, Grade Four

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
											Mean	SD	Mean	SD
1	VH299182	2	SA	982	982	0.56	0.74	89.1	9.3	98.4	0.25	0.59	0.17	0.51
2	VH299403	2	SA	994	994	0.86	0.94	94.6	5.2	99.8	0.39	0.74	0.39	0.74
3	VH299506	2	SA	1,067	1,067	0.83	0.88	92.9	5.5	98.4	0.41	0.72	0.40	0.71
4	VH299508	1	SA	1,075	1,075	0.90	0.90	95.4	4.6	100.0	0.35	0.48	0.35	0.48
5	VH299775	2	SA	1,093	1,093	0.72	0.88	82.7	16.7	99.5	0.88	0.91	0.83	0.86
6	VH299823	2	SA	1,133	1,133	0.72	0.84	95.4	4.5	99.9	0.11	0.40	0.11	0.38
7	VH299934	2	SA	1,110	1,110	0.68	0.84	92.2	7.3	99.5	0.19	0.53	0.21	0.54
8	VH300008	2	SA	940	940	0.81	0.89	91.4	6.9	98.3	0.49	0.79	0.50	0.80
9	VH300185	2	SA	1,120	1,120	0.81	0.92	88.9	11.1	100.0	0.67	0.85	0.68	0.84
AVERAGE				1,057	1,057	0.77	0.87	91.4	7.9	99.3	0.42	0.67	0.40	0.65

Notes and Legend:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Short Answer (SA)

Table 8.G.24 Agreement Statistics between AI and Human Scoring of CR Items for Mathematics, Grade Five

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
											Mean	SD	Mean	SD
1	VH299081	3	SA	725	725	0.49	0.78	73.1	23.0	96.1	0.56	0.99	0.62	0.93
2	VH299409	2	SA	671	671	0.54	0.72	71.7	27.1	98.8	0.66	0.77	0.70	0.74
3	VH299434	2	SA	701	701	0.58	0.76	73.2	25.4	98.6	0.77	0.79	0.82	0.81
4	VH299438	2	SA	699	699	0.67	0.78	88.6	10.9	99.4	0.27	0.59	0.24	0.49
5	VH299680	1	SA	747	747	0.64	0.64	90.2	9.8	100.0	0.15	0.36	0.18	0.38
6	VH299860	1	SA	778	778	0.81	0.81	95.9	4.1	100.0	0.12	0.33	0.13	0.33
7	VH299985	2	SA	689	689	0.62	0.79	74.9	24.2	99.1	0.89	0.82	0.84	0.78
8	VH299993	2	SA	822	822	0.65	0.83	80.9	18.4	99.3	0.58	0.79	0.54	0.77
9	VH299994	2	SA	995	995	0.65	0.85	85.1	14.1	99.2	0.42	0.78	0.45	0.76
AVERAGE				759	759	0.63	0.77	81.5	17.4	98.9	0.49	0.69	0.50	0.67

Notes and Legend:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Short Answer (SA)

Table 8.G.25 Agreement Statistics between AI and Human Scoring of CR Items for ELA, Grade Six

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
											Mean	SD	Mean	SD
1	VH288262	2	SA	2,246	2,246	0.50	0.62	72.1	27.5	99.6	0.55	0.59	0.56	0.65
2	VH288267	2	SA	1,311	1,311	0.42	0.50	68.6	30.5	99.1	0.62	0.62	0.38	0.50
3	VH295677	2	SA	1,228	1,228	0.43	0.51	73.5	25.6	99.1	0.36	0.58	0.36	0.51
4	VH295690	2	SA	1,053	1,053	0.43	0.53	76.5	22.9	99.4	0.24	0.51	0.35	0.52
5	VH295691	2	SA	1,052	1,052	0.51	0.71	72.6	26.7	99.3	0.61	0.74	0.44	0.67
6	VH295751	2	SA	1,134	1,134	0.41	0.60	63.8	32.1	95.9	0.58	0.72	0.76	0.82
7	VH295821	2	SA	1,119	1,119	0.51	0.69	73.4	25.6	98.9	0.51	0.68	0.53	0.71
8	VH295822	2	SA	1,123	1,123	0.53	0.70	91.0	8.1	99.1	0.17	0.51	0.11	0.36
9	VH295871	2	SA	992	992	0.63	0.82	87.3	12.4	99.7	0.29	0.61	0.29	0.62
10	VH295934	2	SA	977	977	0.40	0.59	62.2	35.0	97.2	0.64	0.72	0.82	0.75
11	VH295983	2	SA	1,159	1,159	0.50	0.68	67.6	31.4	99.0	0.75	0.78	0.85	0.70
12	VH296037	2	SA	1,163	1,163	0.58	0.74	78.0	21.2	99.1	0.46	0.66	0.51	0.71
13	VH296211	2	SA	3,318	3,318	0.41	0.51	66.9	31.5	98.4	0.64	0.64	0.49	0.59
14	VH296308	2	SA	2,205	2,205	0.37	0.50	64.4	34.7	99.0	0.65	0.60	0.46	0.61
15	VH296310	2	SA	1,623	1,623	0.55	0.69	72.8	26.5	99.3	0.87	0.69	0.83	0.68
16	VH296334	2	SA	477	477	0.36	0.41	70.2	28.3	98.5	0.45	0.60	0.25	0.44
17	VH296362	2	SA	2,144	2,144	0.36	0.52	63.9	35.2	99.1	0.65	0.65	0.37	0.56
18	VH296443	2	SA	3,428	3,428	0.35	0.45	65.2	34.3	99.5	0.76	0.65	0.64	0.48
19	VH296445	2	SA	1,024	1,024	0.43	0.59	66.8	31.6	98.4	0.59	0.66	0.62	0.70
20	VH296446	2	SA	733	733	0.42	0.49	68.1	31.0	99.0	0.62	0.64	0.56	0.51
21	VH296447	2	SA	1,432	1,432	0.54	0.60	76.3	23.7	100.0	0.64	0.57	0.73	0.52
22	VH296451	2	SA	900	900	0.50	0.53	82.2	16.9	99.1	0.29	0.52	0.19	0.39
23	VH296454	2	SA	1,305	1,305	0.42	0.54	66.7	31.7	98.5	0.58	0.64	0.61	0.64
24	VH296504	2	SA	940	940	0.39	0.49	67.0	31.9	98.9	0.57	0.66	0.43	0.49
25	VH296506	2	SA	1,484	1,484	0.43	0.56	67.3	30.2	97.4	0.63	0.71	0.51	0.63
26	VH296523	2	SA	919	919	0.33	0.42	65.0	34.2	99.1	0.49	0.57	0.44	0.57
27	VH296628	2	SA	1,077	1,077	0.64	0.75	79.4	20.3	99.7	0.62	0.68	0.52	0.63
28	VH296674	2	SA	83	83	0.52	0.59	74.7	25.3	100.0	0.55	0.55	0.47	0.57
29	VH296767	2	SA	78	78	0.61	0.67	80.8	19.2	100.0	0.44	0.55	0.40	0.54
30	VH297147	2	SA	91	91	0.50	0.65	76.9	23.1	100.0	0.35	0.58	0.38	0.57
31	VH297407	2	SA	1,820	1,820	0.62	0.74	81.4	18.5	99.9	0.38	0.61	0.43	0.58
32	VH295439	4	POR	912	615	0.31	0.53	55.4	39.0	94.5	2.03	0.88	1.95	0.74
33	VH295439	4	DVE	912	612	0.23	0.47	46.6	43.1	89.7	2.06	0.87	1.66	0.76
34	VH295439	2	COV	912	912	0.19	0.31	42.9	42.5	85.4	1.33	0.75	0.78	0.78
AVERAGE				1,246	1,229	0.45	0.58	70.2	28.0	98.2	0.65	0.65	0.58	0.60

Notes and Legend:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Dimension Key:

- | | |
|---------------------------------|---------------------|
| – organization/purpose (POR) | – Short Answer (SA) |
| – development/elaboration (DEV) | – convention (COV) |

Table 8.G.26 Agreement Statistics between AI and Human Scoring of CR Items for ELA, Grade Seven

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
											Mean	SD	Mean	SD
1	VH279677	2	SA	921	921	0.37	0.57	61.3	38.0	99.3	1.11	0.69	0.93	0.67
2	VH280500	2	SA	516	516	0.24	0.45	54.3	44.0	98.3	1.07	0.63	0.62	0.57
3	VH295338	2	SA	778	778	0.71	0.83	92.5	7.1	99.6	0.19	0.52	0.19	0.48
4	VH297495	2	SA	3,475	3,475	0.37	0.56	60.9	37.2	98.1	0.69	0.69	0.83	0.72
5	VH297599	2	SA	676	676	0.38	0.48	67.5	32.4	99.9	0.82	0.52	0.66	0.59
6	VH297601	2	SA	607	607	0.44	0.56	70.2	29.5	99.7	0.77	0.56	0.83	0.62
7	VH297700	2	SA	579	579	0.61	0.70	79.1	20.7	99.8	0.78	0.61	0.84	0.58
8	VH297722	2	SA	3,598	3,598	0.35	0.48	63.6	35.4	99.1	0.75	0.66	0.76	0.55
9	VH297723	2	SA	152	152	0.60	0.62	79.6	20.4	100.0	0.57	0.54	0.60	0.51
10	VH297730	2	SA	297	297	0.70	0.76	83.8	16.2	100.0	0.64	0.58	0.67	0.58
11	VH297739	2	SA	821	821	0.49	0.63	71.9	27.5	99.4	0.58	0.64	0.47	0.61
12	VH297772	2	SA	3,473	3,473	0.34	0.46	62.6	34.4	97.0	0.51	0.62	0.61	0.67
13	VH297773	2	SA	621	621	0.43	0.58	66.7	32.4	99.0	0.69	0.68	0.64	0.63
14	VH297840	2	SA	669	669	0.56	0.63	76.4	23.6	100.0	0.56	0.59	0.65	0.54
15	VH297882	2	SA	343	343	0.42	0.56	67.6	31.5	99.1	0.62	0.65	0.47	0.59
16	VH298258	2	SA	59	59	0.74	0.81	84.7	15.3	100.0	0.61	0.62	0.76	0.65
17	VH298382	2	SA	3,671	3,671	0.53	0.64	77.0	22.6	99.5	0.49	0.64	0.32	0.50
18	VH298573	2	SA	57	57	0.41	0.52	66.7	29.8	96.5	0.39	0.59	0.65	0.72
19	VH298602	2	SA	56	56	0.62	0.67	85.7	12.5	98.2	0.20	0.44	0.36	0.62
AVERAGE				1,125	1,125	0.49	0.61	72.2	26.9	99.1	0.63	0.60	0.62	0.60

Notes and Legend:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Short Answer (SA)

Table 8.G.27 Agreement Statistics between AI and Human Scoring of CR Items for ELA, Grade Eight

Prompt	Item ID	Score Points	Dimension Type	Rater 1 N	Rater 2 N	Kappa	Quadratic Weighted Kappa	Percent exact	Percent adjacent	Percent exact + adjacent	Rater 1		Rater 2	
											Mean	SD	Mean	SD
1	VH279615	2	SA	1,060	1,060	0.29	0.43	56.7	38.2	94.9	0.78	0.71	0.38	0.60
2	VH279674	2	SA	931	931	0.27	0.43	56.9	40.7	97.6	1.06	0.63	0.76	0.63
3	VH280208	2	SA	2,711	2,711	0.50	0.61	73.9	25.7	99.6	0.88	0.62	0.95	0.57
4	VH280233	2	SA	3,631	3,631	0.56	0.70	73.0	26.5	99.6	0.76	0.69	0.78	0.68
5	VH280240	2	SA	1,160	1,160	0.56	0.59	77.4	22.1	99.5	0.64	0.56	0.72	0.51
6	VH280246	2	SA	696	696	0.56	0.60	78.6	21.4	100.0	0.66	0.56	0.75	0.47
7	VH280252	2	SA	115	115	0.27	0.47	57.4	41.7	99.1	0.77	0.73	0.48	0.50
8	VH280255	2	SA	3,559	3,559	0.27	0.42	54.6	44.5	99.1	0.85	0.57	0.47	0.61
9	VH280276	2	SA	1,320	1,320	0.40	0.55	65.9	33.5	99.4	0.76	0.63	0.87	0.63
10	VH280507	2	SA	473	473	0.30	0.35	66.4	31.3	97.7	0.48	0.62	0.28	0.45
11	VH280871	2	SA	971	971	0.14	0.27	51.4	43.5	94.9	0.69	0.70	0.23	0.42
12	VH281238	2	SA	7,398	7,398	0.46	0.55	69.7	30.3	99.9	0.56	0.64	0.66	0.51
13	VH281341	2	SA	68	68	0.64	0.76	82.4	17.6	100.0	0.40	0.65	0.43	0.58
14	VH281698	2	SA	59	59	0.55	0.67	74.6	25.4	100.0	0.59	0.62	0.64	0.64
15	VH281717	2	SA	199	199	0.59	0.75	75.4	24.6	100.0	0.72	0.75	0.58	0.63
16	VH282298	2	SA	2,750	2,750	0.59	0.71	81.2	18.6	99.8	0.36	0.61	0.36	0.55
17	VH282579	2	SA	1,406	1,406	0.63	0.74	87.8	11.9	99.8	0.26	0.54	0.21	0.44
18	VH295843	2	SA	658	658	0.38	0.63	62.3	33.7	96.0	0.56	0.70	0.77	0.91
AVERAGE				1,620	1,620	0.44	0.57	69.2	29.5	98.7	0.65	0.64	0.57	0.57

Notes and Legend:

- Numbers indicate students who received valid ratings from Rater 1.
- Rater 2 is the backup rater.

Short Answer (SA)

Appendix 8.H: Analyses in Support of Validity Evidence

Table 8.H.1 Total Testing Time (in Minutes) at Each Ability Level, ELA

Grade	Ability Level	Descriptive Statistics					Percentile Points						
		N	Mean	SD	Min	Max	1	10	25	50	75	90	99
3	Q 1	117,200	142.02	80.91	3.09	913.82	24.09	56.49	84.84	126.04	181.70	246.43	411.65
	Q 2	118,488	180.29	84.48	14.20	1127.66	53.30	90.49	120.86	164.62	221.80	289.09	455.28
	Q 3	117,146	197.08	85.85	19.90	1526.46	68.28	106.86	137.15	180.71	238.34	306.81	481.35
	Q 4	118,545	200.76	83.75	31.89	1129.17	77.05	113.92	142.81	184.46	239.32	306.42	482.01
4	Q 1	114,839	157.77	87.40	3.70	1239.02	28.31	65.32	96.14	140.93	200.59	269.68	441.09
	Q 2	115,611	196.62	90.34	18.87	1410.34	61.67	101.82	133.57	179.28	240.02	311.99	490.70
	Q 3	114,564	208.96	90.74	27.48	1390.22	75.78	115.14	146.26	191.46	250.86	322.91	511.17
	Q 4	116,482	211.36	86.94	31.35	1159.45	84.65	121.88	151.52	193.92	251.26	321.15	504.06
5	Q 1	114,277	163.83	86.73	6.31	1116.78	32.24	72.98	103.76	147.25	205.21	274.41	450.63
	Q 2	114,074	198.26	87.80	22.79	1232.83	67.64	106.60	137.10	181.18	239.91	309.55	491.79
	Q 3	115,848	206.81	87.30	32.24	1400.63	77.79	116.58	146.45	189.67	247.67	316.70	499.55
	Q 4	114,763	209.33	85.10	43.17	1380.63	85.38	122.88	151.09	192.09	247.78	315.61	500.16
6	Q 1	112,743	166.98	87.98	4.03	1254.83	32.23	74.66	106.72	150.69	207.90	277.68	462.12
	Q 2	113,493	206.86	91.00	22.00	1398.93	70.75	112.55	144.18	189.69	249.27	320.03	511.35
	Q 3	114,339	221.36	92.03	41.40	1472.99	85.70	126.75	158.31	203.45	263.60	335.51	535.38
	Q 4	114,528	229.35	91.94	18.20	1794.79	96.14	136.95	167.75	211.21	269.05	340.74	544.72
7	Q 1	111,319	145.84	76.20	3.68	1062.20	28.26	65.16	93.44	132.39	182.01	241.09	397.08
	Q 2	111,844	178.20	77.47	7.91	1256.21	60.62	97.77	125.21	163.84	214.33	274.96	435.12
	Q 3	112,459	191.89	76.10	24.60	1110.40	76.21	112.68	140.10	177.62	227.24	286.28	444.70
	Q 4	112,732	205.04	76.19	41.39	1815.18	90.17	127.41	154.23	190.86	238.83	298.07	464.00
8	Q 1	112,416	146.00	76.55	3.20	1393.06	25.20	63.52	93.23	133.15	183.81	242.62	393.69
	Q 2	112,256	183.11	77.84	19.18	1167.10	62.82	100.96	129.62	169.04	220.58	280.23	440.63
	Q 3	112,728	199.46	78.17	31.38	1491.51	79.96	118.31	146.69	185.23	235.66	295.57	460.54
	Q 4	112,724	214.26	78.35	44.00	1307.94	94.56	133.77	161.79	199.38	249.66	310.76	476.36
11	Q 1	104,325	121.10	70.64	2.08	1025.39	10.66	42.22	70.83	110.53	158.29	210.14	342.10
	Q 2	104,535	169.44	71.83	17.52	1618.30	52.55	91.07	120.06	158.64	204.72	259.65	400.77
	Q 3	106,004	188.64	72.26	22.94	1323.37	71.98	111.52	140.24	176.60	222.36	278.88	427.68
	Q 4	105,359	195.82	69.03	36.20	1162.60	87.73	125.55	151.11	183.50	224.67	279.84	433.85

Table 8.H.2 Total Testing Time (in Minutes) at Each Ability Level, Mathematics

Grade	Ability Level	Descriptive Statistics					Percentile Points						
		N	Mean	SD	Min	Max	1	10	25	50	75	90	99
3	Q 1	116,353	89.38	47.40	3.41	720.64	20.61	41.77	57.48	79.51	110.02	148.30	253.42
	Q 2	117,965	104.48	49.73	8.99	700.88	36.48	55.42	70.75	93.46	125.59	166.49	277.52
	Q 3	118,854	109.84	49.92	13.40	819.63	40.82	60.04	75.61	98.97	131.51	172.58	281.13
	Q 4	119,112	113.08	50.00	19.88	780.06	44.20	63.69	79.06	102.19	134.45	175.28	286.43
4	Q 1	113,870	89.21	46.80	4.12	909.90	20.33	42.56	58.27	79.78	109.02	146.13	249.74
	Q 2	115,102	101.10	48.53	9.11	713.89	35.93	54.33	68.76	90.04	120.71	160.36	271.85
	Q 3	116,890	107.90	50.26	15.86	971.73	40.50	59.21	74.15	96.68	128.35	169.63	283.46
	Q 4	116,670	117.62	52.96	18.51	784.50	45.90	65.98	81.93	105.80	139.64	182.99	306.73
5	Q 1	113,911	106.49	56.17	3.90	905.57	22.47	49.81	69.35	95.58	130.63	174.94	300.94
	Q 2	114,117	122.85	58.75	9.92	947.46	41.15	65.07	83.33	110.40	147.32	194.65	327.33
	Q 3	116,490	133.89	61.45	15.56	1052.73	48.81	73.05	92.33	120.70	159.55	209.92	346.40
	Q 4	115,241	151.21	65.92	25.80	1179.56	58.89	85.53	106.72	137.16	179.40	233.15	379.71
6	Q 1	113,626	110.16	54.26	4.10	838.68	22.90	53.13	74.25	101.02	135.02	175.90	293.63
	Q 2	113,272	128.60	54.36	16.51	1127.69	48.32	73.26	91.90	117.76	152.67	196.03	314.25
	Q 3	114,003	135.48	55.93	28.12	919.82	54.93	79.07	97.63	123.95	159.95	204.94	326.04
	Q 4	114,998	144.22	59.28	28.66	934.45	60.59	85.41	104.58	132.09	169.14	216.45	350.94
7	Q 1	111,787	91.51	45.75	3.17	959.78	18.01	42.80	60.93	84.22	113.21	147.10	240.98
	Q 2	112,170	107.45	46.13	8.16	943.81	37.71	60.28	76.55	98.72	128.06	163.56	263.51
	Q 3	112,326	116.80	48.31	14.33	1143.03	46.68	68.15	84.39	107.10	138.15	175.88	281.93
	Q 4	112,678	128.46	49.79	28.48	1166.55	55.17	78.04	94.97	118.80	150.67	188.84	297.01
8	Q 1	112,369	94.50	49.44	2.80	870.58	15.17	41.38	60.91	86.52	118.33	155.25	256.66
	Q 2	112,179	115.23	50.57	6.05	988.99	38.14	62.59	80.88	105.92	138.88	177.76	283.70
	Q 3	113,240	131.13	54.46	17.59	792.05	49.58	75.06	94.12	120.55	155.97	198.87	314.84
	Q 4	112,754	149.25	59.39	29.95	1422.57	62.87	89.66	109.72	137.80	174.87	220.67	351.85
11	Q 1	103,306	70.60	42.76	1.83	845.00	7.16	23.49	40.64	63.71	91.90	124.17	210.57
	Q 2	105,193	92.84	43.58	4.08	758.27	23.40	46.74	63.43	85.74	113.32	146.09	237.59
	Q 3	104,741	109.97	45.24	6.93	772.78	38.28	62.32	79.33	102.42	131.23	165.62	261.41
	Q 4	104,441	131.43	46.75	19.60	911.35	55.47	82.45	100.71	123.88	152.51	187.89	286.86

Table 8.H.3 CAT Testing Time (in Minutes) at Each Ability Level, ELA

Grade	Ability Level	Descriptive Statistics					Percentile Points						
		N	Mean	SD	Min	Max	1	10	25	50	75	90	99
3	Q 1	117,200	68.69	37.43	2.00	638.49	13.46	29.34	42.93	61.89	86.28	115.41	192.18
	Q 2	118,488	92.39	41.14	6.95	682.62	30.31	49.75	64.41	85.04	111.35	142.63	229.63
	Q 3	117,146	102.09	41.32	14.41	639.13	40.33	59.54	74.19	94.50	120.72	152.34	242.42
	Q 4	118,545	100.26	39.01	18.77	690.05	43.63	61.35	74.28	92.65	117.26	146.63	236.40
4	Q 1	114,839	77.95	40.41	3.01	955.98	15.78	35.27	50.60	70.85	96.85	128.26	208.98
	Q 2	115,611	99.92	42.87	1.10	771.21	34.83	55.71	71.06	92.16	119.74	152.00	242.60
	Q 3	114,564	106.60	42.65	16.71	985.01	43.20	63.30	78.04	98.67	125.55	157.94	252.13
	Q 4	116,482	103.56	39.95	2.09	836.07	45.75	63.49	76.95	95.88	121.08	151.24	240.44
5	Q 1	114,277	81.57	39.87	0.15	565.18	17.66	39.36	55.05	74.89	100.21	130.67	214.47
	Q 2	114,074	99.06	40.74	1.82	657.76	37.34	57.39	71.77	91.46	117.29	148.43	239.40
	Q 3	115,848	102.61	39.71	16.11	747.86	43.62	62.33	75.90	95.16	120.20	150.36	238.74
	Q 4	114,763	99.22	37.73	2.92	731.23	44.68	61.55	74.13	91.85	115.38	144.53	231.60
6	Q 1	112,743	89.07	44.19	0.23	948.79	17.73	41.61	59.59	82.41	109.95	142.77	234.53
	Q 2	113,493	109.40	45.40	2.47	1040.49	38.66	62.21	78.90	101.68	130.37	164.30	260.42
	Q 3	114,339	114.95	44.53	17.52	779.50	47.43	69.10	84.90	106.79	135.34	169.03	267.54
	Q 4	114,528	112.74	42.07	11.89	698.96	50.61	70.13	84.59	104.98	131.25	163.24	257.88
7	Q 1	111,319	77.95	38.82	0.92	1003.92	14.27	35.84	51.94	72.31	96.77	125.18	202.11
	Q 2	111,844	93.17	38.36	0.75	813.63	31.77	53.36	67.61	86.56	111.03	139.83	221.08
	Q 3	112,459	97.16	36.01	2.79	685.90	41.04	59.82	73.03	90.79	113.85	140.58	218.20
	Q 4	112,732	98.02	33.92	8.92	725.10	45.82	63.40	75.58	92.04	113.18	138.35	213.95
8	Q 1	112,416	78.28	40.05	1.04	869.59	12.14	34.33	51.54	72.57	97.88	127.67	205.45
	Q 2	112,256	95.61	38.94	7.83	906.57	32.57	54.51	69.43	89.17	114.33	143.34	222.90
	Q 3	112,728	102.17	37.83	6.18	1091.59	43.02	62.95	76.80	95.48	119.84	148.39	228.43
	Q 4	112,724	104.43	36.23	4.38	763.99	48.52	67.14	80.24	97.89	120.86	148.47	226.60
11	Q 1	104,325	66.86	39.40	0.21	630.54	5.53	21.12	39.15	62.26	87.65	115.33	190.67
	Q 2	104,535	89.23	36.57	3.14	515.24	26.90	49.42	64.94	84.09	106.87	133.68	208.99
	Q 3	106,004	94.97	34.16	3.50	607.48	38.24	58.82	72.43	89.78	110.73	136.12	209.34
	Q 4	105,359	93.84	30.51	4.12	595.91	44.85	62.79	74.27	88.86	106.88	129.51	198.34

Table 8.H.4 CAT Testing Time (in Minutes) at Each Ability Level, Mathematics

Grade	Ability Level	Descriptive Statistics					Percentile Points						
		N	Mean	SD	Min	Max	1	10	25	50	75	90	99
3	Q 1	116,353	54.90	29.62	2.42	413.85	12.32	25.41	35.20	48.74	67.34	91.10	157.77
	Q 2	117,965	65.83	31.91	4.15	520.88	23.34	35.24	44.56	58.51	78.63	105.00	178.54
	Q 3	118,854	70.29	32.74	1.81	453.92	26.57	38.52	48.22	62.76	83.62	110.84	185.31
	Q 4	119,112	74.15	33.74	6.34	608.14	29.20	41.56	51.53	66.51	87.99	115.50	192.95
4	Q 1	113,870	56.47	30.26	1.25	568.62	12.24	26.52	36.71	50.34	68.90	92.96	161.89
	Q 2	115,102	65.30	32.29	3.36	584.12	23.07	34.96	44.16	57.87	77.63	103.95	180.42
	Q 3	116,890	71.97	34.37	0.23	735.53	27.11	39.41	49.25	64.07	85.48	113.41	192.32
	Q 4	116,670	83.20	38.68	5.01	711.81	32.16	46.18	57.41	74.31	98.66	130.18	220.64
5	Q 1	113,911	61.94	33.24	1.76	756.06	12.30	28.67	40.29	55.54	75.65	101.94	177.47
	Q 2	114,117	71.81	34.28	5.02	631.13	24.34	38.58	49.09	64.39	85.59	113.22	191.26
	Q 3	116,490	79.61	36.23	7.33	699.20	29.97	44.28	55.41	71.69	94.41	123.98	204.67
	Q 4	115,241	92.41	39.51	14.00	981.34	37.55	53.37	65.79	83.91	109.27	141.47	228.08
6	Q 1	113,626	70.73	35.87	0.39	573.21	13.05	32.68	47.10	64.90	87.28	113.99	190.33
	Q 2	113,272	82.64	35.38	4.29	747.13	30.25	46.84	58.87	75.65	98.31	126.17	202.49
	Q 3	114,003	86.54	35.94	1.52	815.81	35.07	50.65	62.45	79.26	102.23	130.42	209.35
	Q 4	114,998	92.10	37.33	17.72	649.27	38.65	54.70	67.03	84.63	108.19	137.44	219.73
7	Q 1	111,787	67.80	34.93	1.97	861.05	10.84	29.83	44.53	62.69	84.67	110.22	179.84
	Q 2	112,170	80.15	34.43	5.82	870.94	26.58	44.72	57.23	73.99	95.65	122.18	195.45
	Q 3	112,326	87.37	35.75	11.31	936.38	34.40	51.18	63.46	80.44	103.35	130.97	208.36
	Q 4	112,678	96.50	37.01	12.90	896.91	41.43	59.07	71.87	89.36	112.91	141.45	221.10
8	Q 1	112,369	65.86	35.33	1.73	645.31	8.81	27.13	42.01	60.74	83.10	108.94	180.63
	Q 2	112,179	80.65	35.31	3.77	811.68	25.38	43.62	56.93	74.42	97.03	124.18	198.03
	Q 3	113,240	91.76	37.51	13.60	592.77	34.30	53.14	66.48	84.83	108.90	138.03	218.90
	Q 4	112,754	104.14	40.77	1.99	973.51	43.77	63.03	77.02	96.31	122.13	153.36	241.80
11	Q 1	103,306	48.68	30.03	1.00	403.12	4.65	14.76	27.35	44.33	64.22	85.91	146.34
	Q 2	105,193	64.41	29.95	0.23	467.63	15.16	32.33	44.36	59.98	78.70	100.17	162.08
	Q 3	104,741	75.66	30.64	0.28	555.52	25.69	43.29	55.25	70.76	90.02	112.39	178.06
	Q 4	104,441	92.40	33.03	10.56	596.21	38.31	57.96	71.08	87.35	106.81	131.59	205.16

Table 8.H.5 PT Testing Time (in Minutes) at Each Ability Level, ELA

Grade	PT Set	Number of Items	Ability Level	Descriptive Statistics					Percentile Points						
				N	Mean	SD	Min	Max	1	10	25	50	75	90	99
3	PT1	5	Q 1	41,687	72.18	55.97	0.12	592.23	4.51	17.84	32.29	57.86	96.71	144.14	269.14
			Q 2	42,377	86.65	57.61	0.18	597.02	11.69	28.83	45.68	73.31	113.41	160.22	281.87
			Q 3	42,247	93.49	57.31	0.09	794.44	15.96	35.44	52.98	80.89	119.83	167.25	285.27
			Q 4	42,161	99.51	56.05	1.51	613.23	21.51	42.24	60.17	87.75	125.84	170.42	290.46
	PT2	5	Q 1	41,934	73.82	56.98	0.19	862.47	4.53	18.04	33.04	59.54	99.73	147.86	268.47
			Q 2	42,139	87.81	57.46	0.10	921.81	10.89	28.95	46.59	75.47	114.51	162.34	280.52
			Q 3	41,699	94.02	57.54	0.92	724.25	16.00	35.61	53.21	81.76	120.76	165.89	288.92
			Q 4	42,459	99.02	56.53	0.54	841.01	21.15	42.01	59.72	87.54	124.61	168.30	290.42
	PT3	4	Q 1	33,293	74.19	57.33	0.12	783.16	4.62	18.01	32.50	59.91	100.53	147.86	274.77
			Q 2	33,976	89.49	60.03	0.29	1199.75	11.43	28.76	46.53	76.66	117.11	165.79	290.33
			Q 3	33,379	97.90	59.94	0.24	766.97	16.36	36.27	55.23	85.55	126.35	174.27	303.78
			Q 4	34,028	103.63	58.17	0.21	746.16	22.41	44.07	62.77	92.08	130.44	176.82	299.44
4	PT1	4	Q 1	24,114	81.03	60.93	0.66	885.51	5.84	20.81	37.17	66.26	109.05	158.59	287.59
			Q 2	24,182	97.34	61.42	0.24	749.02	14.24	35.12	53.71	84.55	126.44	174.33	299.98
			Q 3	24,161	102.81	60.16	0.21	885.02	21.04	41.71	60.81	90.68	130.37	177.91	308.63
			Q 4	24,558	107.31	57.73	0.22	690.50	27.00	49.08	67.46	95.96	132.87	177.83	302.43
	PT2	5	Q 1	30,390	84.01	62.75	0.36	815.58	5.97	22.02	39.19	69.32	112.77	163.15	293.28
			Q 2	30,082	102.71	64.71	0.55	771.72	15.43	36.97	56.56	88.46	133.11	185.51	323.17
			Q 3	30,483	109.10	64.29	1.29	877.46	20.85	44.46	64.81	95.78	137.57	189.41	324.22
			Q 4	30,788	115.94	61.52	0.24	805.94	28.74	52.99	73.30	103.79	144.12	193.33	327.29
	PT3	5	Q 1	30,236	79.16	61.06	0.18	680.66	5.28	19.97	36.03	63.92	105.56	156.20	294.06
			Q 2	30,230	96.13	61.99	1.02	761.51	14.39	34.24	52.76	82.31	123.50	174.87	316.17
			Q 3	30,215	101.47	60.83	2.86	759.18	19.50	40.74	59.78	88.21	128.12	177.12	314.15
			Q 4	30,692	107.20	58.61	0.95	743.47	26.63	48.50	66.86	94.13	133.15	180.48	310.61
	PT4	5	Q 1	30,068	75.38	55.83	0.15	675.26	4.93	19.67	34.50	61.42	102.44	149.29	257.35
			Q 2	30,489	90.80	57.05	0.50	741.25	13.64	32.33	49.76	77.54	119.24	165.74	274.68
			Q 3	30,143	96.04	56.86	1.76	699.35	18.29	38.59	55.83	83.15	123.19	167.91	290.95
			Q 4	30,665	100.37	53.89	1.49	689.56	24.63	45.76	62.61	88.74	125.45	168.81	284.52

Grade	PT Set	Number of Items	Ability Level	Descriptive Statistics					Percentile Points						
				N	Mean	SD	Min	Max	1	10	25	50	75	90	99
5	PT1	5	Q 1	28,594	79.51	57.21	0.17	640.02	6.29	22.52	38.70	65.74	105.23	155.18	271.69
			Q 2	28,472	95.45	56.93	0.26	686.44	17.13	37.06	54.79	82.93	122.62	169.82	284.24
			Q 3	28,730	99.44	56.31	0.23	732.51	20.42	41.90	59.96	86.97	126.15	172.34	284.19
			Q 4	28,926	105.24	55.93	1.01	711.82	26.00	48.73	66.53	93.42	130.74	175.81	296.89
	PT2	5	Q 1	28,526	84.83	61.37	0.10	909.65	5.81	23.89	41.17	70.39	112.69	163.08	290.50
			Q 2	28,632	103.70	62.17	0.12	800.51	17.33	40.09	59.86	90.42	132.94	183.52	307.18
			Q 3	28,977	110.34	62.45	1.62	1028.76	23.05	47.12	67.21	97.10	139.05	187.89	319.01
			Q 4	28,783	118.50	62.42	1.88	1266.90	30.81	55.85	76.31	105.88	145.81	193.58	330.55
	PT3	5	Q 1	28,320	83.69	61.69	0.09	716.50	6.07	23.51	40.27	69.13	111.01	160.19	300.66
			Q 2	29,004	101.11	62.54	0.65	1121.06	17.22	38.42	57.78	87.74	128.41	177.63	323.21
			Q 3	28,586	105.77	60.43	0.41	722.26	23.11	44.95	64.34	92.56	132.73	181.23	316.78
			Q 4	28,885	110.89	58.35	1.64	703.86	29.13	52.75	71.41	98.39	136.41	182.95	310.12
	PT4	5	Q 1	28,455	80.69	57.05	0.16	542.41	6.56	24.19	40.29	66.86	106.58	153.51	280.21
			Q 2	28,725	96.36	57.67	0.24	581.10	16.92	37.40	55.66	83.84	123.39	169.55	294.05
			Q 3	28,419	101.18	56.25	0.40	806.86	21.84	43.54	62.23	89.79	126.87	171.26	292.85
			Q 4	28,928	106.05	54.80	1.08	763.25	28.08	50.34	68.77	95.42	130.22	173.27	293.03
6	PT1	5	Q 1	40,543	78.06	56.82	0.19	704.28	4.98	22.05	38.86	64.39	102.58	150.80	273.28
			Q 2	40,620	97.51	57.68	0.40	802.15	16.56	39.38	57.71	85.07	123.70	170.15	292.94
			Q 3	40,518	107.44	58.40	0.99	730.68	25.06	48.62	67.43	95.32	133.65	179.55	308.56
			Q 4	41,118	119.13	61.34	0.04	1095.84	32.33	58.52	78.37	107.07	144.81	192.27	332.13
	PT2	5	Q 1	40,485	79.00	59.06	0.10	1009.45	4.95	22.16	39.03	65.18	102.79	150.41	293.73
			Q 2	40,487	98.59	61.44	0.31	1076.65	16.63	39.43	57.66	85.35	124.18	171.38	312.76
			Q 3	40,397	107.26	61.49	1.08	1075.15	24.07	47.53	66.39	93.86	132.16	180.88	323.32
			Q 4	40,804	116.83	61.69	0.21	1315.83	32.21	56.74	76.19	103.89	142.02	189.61	330.97
	PT3	4	Q 1	32,485	76.69	57.27	0.31	678.27	5.12	21.84	37.62	62.34	100.04	148.63	280.47
			Q 2	32,152	96.31	60.12	0.06	793.39	16.18	37.49	55.12	82.47	122.83	170.83	304.81
			Q 3	32,894	104.12	59.57	0.50	754.52	22.40	45.16	63.37	91.06	130.22	177.12	307.53
			Q 4	32,600	113.07	59.63	2.60	1009.24	31.62	54.87	73.41	100.10	137.77	184.36	317.17

Grade	PT Set	Number of Items	Ability Level	Descriptive Statistics					Percentile Points						
				N	Mean	SD	Min	Max	1	10	25	50	75	90	99
7	PT1	5	Q 1	29,319	69.55	51.30	0.12	544.95	3.50	18.45	33.75	57.56	92.16	133.92	252.33
			Q 2	29,635	87.41	52.19	0.65	855.36	13.42	34.14	51.71	76.53	111.20	152.12	265.37
			Q 3	29,561	98.63	53.13	0.17	691.72	20.56	44.58	62.45	87.79	123.35	164.15	277.59
			Q 4	29,668	110.48	53.45	0.15	706.20	30.10	56.66	74.90	99.69	134.42	175.48	293.58
	PT2	4	Q 1	23,481	68.37	52.29	0.13	592.77	4.35	19.43	33.95	56.40	87.04	129.77	262.31
			Q 2	23,463	84.66	52.28	0.73	903.16	14.57	34.07	50.03	72.98	105.44	147.44	272.97
			Q 3	23,375	92.65	49.20	0.69	629.75	21.99	43.15	59.54	82.45	113.73	153.97	262.34
			Q 4	23,727	105.28	49.43	0.06	657.14	31.32	54.91	71.97	95.77	126.76	165.79	273.23
	PT3	5	Q 1	29,332	71.48	51.58	0.06	796.01	4.41	20.08	35.44	59.79	93.87	136.69	247.55
			Q 2	29,456	88.52	53.36	0.14	790.31	13.67	34.92	52.36	77.42	112.55	153.36	265.43
			Q 3	29,558	97.65	51.97	1.23	817.15	21.76	44.78	62.37	87.26	121.33	160.82	270.85
			Q 4	29,540	109.68	54.65	0.04	865.88	31.01	56.27	74.28	98.55	132.47	173.62	302.60
	PT4	5	Q 1	29,257	62.20	48.19	0.29	841.83	3.29	16.11	29.33	50.90	81.48	120.92	233.61
			Q 2	29,584	79.75	49.62	0.22	599.04	11.44	30.28	46.04	68.92	100.68	141.33	252.72
			Q 3	29,513	89.62	50.17	0.46	781.85	18.65	39.81	56.30	79.22	110.76	150.99	262.25
			Q 4	29,885	102.14	50.45	4.36	1115.31	29.36	52.06	68.99	92.29	123.67	162.36	274.51
8	PT1	5	Q 1	26,697	64.72	48.60	0.31	579.65	3.15	17.14	31.55	53.73	84.88	124.92	240.35
			Q 2	26,517	83.59	49.37	0.24	620.35	13.75	33.89	49.97	73.36	105.61	144.27	255.82
			Q 3	26,949	91.89	48.74	0.87	769.92	20.95	42.56	59.22	81.91	113.33	151.34	255.47
			Q 4	27,111	104.15	49.79	0.45	852.73	30.36	54.14	71.49	94.44	126.11	164.79	273.21
	PT2	5	Q 1	26,742	70.79	49.82	0.21	798.52	4.38	20.11	36.08	60.18	92.69	133.55	239.37
			Q 2	26,571	90.61	51.05	0.39	711.27	15.54	37.94	55.78	80.67	114.50	153.74	262.97
			Q 3	26,869	100.59	50.39	1.19	794.94	23.80	48.30	66.74	91.10	124.23	162.17	269.63
			Q 4	27,039	113.53	50.99	5.73	899.59	35.00	61.30	79.77	104.23	136.73	174.82	285.60
	PT3	5	Q 1	26,530	66.92	49.26	0.33	809.59	3.73	18.39	33.41	56.15	87.74	128.22	231.35
			Q 2	26,643	85.79	50.48	0.08	870.42	13.47	34.90	51.61	75.76	108.00	147.35	265.41
			Q 3	26,955	95.38	51.10	0.16	700.32	21.53	44.37	61.32	85.11	117.54	156.96	273.31
			Q 4	26,932	108.06	52.20	0.15	787.37	31.82	55.90	73.29	97.19	130.76	172.42	286.69
	PT4	4	Q 1	21,288	69.08	50.41	0.15	589.46	3.07	18.11	34.37	58.20	90.70	132.18	238.61
			Q 2	21,407	91.97	54.70	0.39	678.34	14.85	36.67	54.76	80.83	116.39	159.88	281.87
			Q 3	21,532	103.61	55.98	0.22	749.24	22.72	48.36	66.96	92.23	127.15	169.60	304.04
			Q 4	21,546	115.60	55.97	1.47	646.21	34.54	59.95	78.54	104.24	139.76	182.83	314.91
PT5	2	Q 1	10,564	66.42	49.54	0.16	613.53	3.48	17.54	32.15	55.74	86.40	128.52	243.64	
		Q 2	10,732	84.71	50.08	0.12	558.99	11.86	33.06	49.97	74.52	106.80	149.46	255.49	

Grade	PT Set	Number of Items	Ability Level	Descriptive Statistics					Percentile Points						
				N	Mean	SD	Min	Max	1	10	25	50	75	90	99
			Q 3	10,713	95.43	51.13	0.10	733.50	20.76	42.87	61.27	84.68	117.85	160.39	269.15
			Q 4	10,787	104.48	50.43	0.11	599.27	29.49	52.83	70.59	93.95	127.55	166.49	271.31
11	PT1	5	Q 1	21,965	55.50	44.58	0.18	587.84	1.27	9.66	23.25	46.29	77.03	108.95	210.62
			Q 2	22,280	83.17	49.30	0.10	586.07	7.49	30.75	49.45	75.32	105.45	142.76	251.23
			Q 3	22,165	99.04	52.43	0.43	869.14	16.88	45.37	65.39	90.34	121.47	160.80	278.99
			Q 4	22,199	109.60	50.77	0.73	716.64	33.27	59.49	77.25	99.80	129.77	169.15	295.40
			Q 1	17,194	48.00	37.70	0.03	345.46	1.01	8.00	20.40	40.29	66.47	95.14	178.68
	PT2	4	Q 2	17,422	74.34	43.06	0.05	806.45	7.08	28.54	45.14	67.87	94.25	126.22	217.03
			Q 3	17,297	87.80	44.17	0.05	625.00	16.09	41.47	58.84	81.34	105.81	141.49	239.82
			Q 4	17,341	94.87	44.40	0.08	607.12	27.04	50.74	67.36	87.38	110.38	146.13	251.64
			Q 1	22,078	55.47	44.77	0.08	588.91	1.20	9.66	22.88	45.53	77.12	112.06	204.00
	PT3	5	Q 2	22,021	80.89	47.26	0.15	1375.38	8.05	30.61	48.97	73.77	103.01	137.52	234.35
			Q 3	22,049	93.40	47.42	0.29	765.65	18.19	43.78	62.30	85.78	113.80	150.57	254.98
			Q 4	22,326	100.14	45.09	0.46	872.64	29.76	54.65	72.01	92.75	117.45	152.64	254.22
			Q 1	21,765	53.84	42.31	0.06	467.44	1.32	9.64	22.85	44.90	74.37	106.42	195.00
	PT4	5	Q 2	21,992	78.31	45.85	0.09	556.71	7.36	29.04	46.98	70.90	100.13	134.77	230.29
			Q 3	21,775	91.27	47.40	0.12	713.72	16.06	42.19	59.76	83.53	111.98	148.81	255.96
			Q 4	22,154	100.43	47.37	0.40	836.02	28.02	53.49	70.60	92.25	118.79	154.36	273.71
			Q 1	21,539	57.46	44.34	0.08	851.83	1.44	11.12	25.06	48.15	79.13	113.65	202.33
	PT5	5	Q 2	21,545	83.52	48.50	0.17	694.46	8.48	31.54	50.06	75.91	105.62	144.53	241.33
			Q 3	21,289	95.70	49.24	0.05	603.89	16.28	43.73	63.52	87.52	117.39	156.28	261.05
			Q 4	21,827	103.17	47.68	0.38	712.82	29.12	55.58	73.18	94.75	122.32	159.11	279.83

Table 8.H.6 PT Testing Time (in Minutes) at Each Ability Level, Mathematics

Grade	PT Set	Number of Items	Ability Level	Descriptive Statistics					Percentile Points						
				N	Mean	SD	Min	Max	1	10	25	50	75	90	99
3	PT1	4	Q 1	26,293	31.54	23.34	0.06	371.65	2.92	10.24	16.18	25.70	40.01	59.89	115.19
			Q 2	26,052	36.22	24.34	0.06	411.59	5.39	13.77	20.48	30.48	45.17	64.81	125.40
			Q 3	26,280	37.52	23.47	0.06	464.25	6.91	15.65	22.26	31.99	46.54	65.00	120.51
			Q 4	26,684	36.00	21.43	0.05	406.90	7.64	16.25	22.17	31.17	44.08	60.66	111.82
	PT2	6	Q 1	39,188	30.74	21.51	0.05	371.37	3.12	10.69	16.80	25.67	38.77	56.29	107.68
			Q 2	39,136	33.49	21.26	0.05	344.81	5.79	13.68	19.49	28.39	41.39	59.22	109.20
			Q 3	39,494	34.34	21.31	0.05	542.06	6.65	14.39	20.32	29.37	42.57	60.31	108.17
			Q 4	39,400	33.77	20.05	0.06	478.34	7.51	15.02	20.55	29.19	41.61	57.88	105.67
	PT3	4	Q 1	25,976	39.83	27.55	0.10	565.98	3.42	13.50	21.88	33.76	50.61	73.09	139.27
			Q 2	25,894	45.30	27.01	0.05	402.88	6.95	19.57	27.44	39.33	55.90	78.11	142.04
			Q 3	26,558	45.55	25.38	0.06	302.84	8.41	21.19	28.88	39.88	55.80	76.68	134.79
			Q 4	26,202	45.38	23.94	0.08	383.29	10.20	22.29	29.47	40.18	55.20	74.45	130.62
	PT4	4	Q 1	26,139	38.39	27.71	0.04	391.42	3.56	12.93	20.70	31.69	48.63	70.59	139.21
			Q 2	26,287	42.74	27.87	0.10	406.66	6.68	17.60	24.89	36.11	52.92	75.14	142.13
			Q 3	26,175	43.15	26.36	0.05	380.15	8.13	18.47	25.84	37.02	53.24	74.76	137.82
			Q 4	26,526	42.37	24.60	0.06	389.37	8.84	19.17	26.24	36.54	51.81	72.49	129.38
4	PT1	6	Q 1	36,388	35.41	24.51	0.06	495.43	2.90	12.44	19.81	30.11	44.66	63.64	122.37
			Q 2	36,068	39.31	24.07	0.06	435.75	5.79	16.94	23.76	33.93	48.61	67.65	126.01
			Q 3	36,896	40.60	23.68	0.06	418.14	7.69	18.34	25.12	35.36	49.88	68.60	126.28
			Q 4	36,659	39.99	22.58	0.07	473.30	8.07	18.42	25.11	35.03	48.86	67.42	122.83
	PT2	5	Q 1	30,387	32.40	22.25	0.05	459.98	3.28	11.56	17.91	27.23	40.66	59.03	111.35
			Q 2	30,049	34.95	21.74	0.04	304.35	5.43	14.63	20.66	29.70	43.27	61.64	112.59
			Q 3	30,572	35.10	21.24	0.04	295.70	6.65	15.32	21.31	30.01	43.08	60.79	110.34
			Q 4	30,827	34.46	20.09	0.12	379.67	8.08	15.85	21.60	29.82	41.79	57.67	107.89
PT3	4	Q 1	24,190	32.24	23.34	0.03	501.32	2.92	11.15	17.51	26.78	40.37	59.02	115.96	
		Q 2	24,193	34.76	22.46	0.05	315.36	6.25	14.57	20.31	29.15	42.83	61.36	116.93	
		Q 3	24,513	33.67	20.71	0.07	295.42	6.95	14.41	19.88	28.51	41.89	59.09	107.46	
		Q 4	24,547	31.01	19.11	0.04	300.48	6.90	13.17	18.29	26.31	38.44	54.66	97.84	
PT4	4	Q 1	24,193	29.85	20.98	0.07	403.05	2.84	10.46	16.30	24.84	37.44	54.98	104.97	
		Q 2	24,146	32.50	21.45	0.04	352.15	5.47	13.10	18.59	27.20	40.17	58.11	111.26	
		Q 3	24,430	32.06	22.15	0.09	831.70	6.06	12.98	18.18	26.55	39.23	57.10	112.72	
		Q 4	24,474	29.74	19.70	0.10	259.34	6.26	12.20	16.90	24.74	36.60	52.88	100.42	

Grade	PT Set	Number of Items	Ability Level	Descriptive Statistics					Percentile Points						
				N	Mean	SD	Min	Max	1	10	25	50	75	90	99
5	PT1	4	Q 1	30,466	44.37	29.47	0.04	532.25	3.26	15.28	25.22	38.26	56.57	79.20	146.78
			Q 2	30,723	52.16	31.27	0.05	440.84	6.42	22.22	31.97	45.75	64.65	88.27	163.10
			Q 3	30,467	56.16	33.00	0.05	504.28	7.61	24.69	34.87	49.15	69.16	94.96	171.53
			Q 4	30,916	61.93	34.92	0.09	536.43	9.91	28.91	39.55	54.79	75.64	102.33	186.89
	PT2	3	Q 1	22,765	32.83	21.95	0.05	306.78	3.50	11.97	18.46	27.90	41.25	58.80	111.08
			Q 2	23,040	36.74	23.04	0.06	344.97	5.20	15.13	21.45	31.36	45.98	64.37	116.73
			Q 3	22,724	37.33	22.81	0.05	305.34	6.60	15.99	22.36	31.96	46.52	64.33	117.91
			Q 4	23,257	36.82	21.61	0.09	336.46	7.23	16.43	22.61	31.74	45.58	62.59	114.24
	PT3	4	Q 1	30,594	45.49	32.78	0.05	607.38	3.55	15.29	24.58	37.96	57.42	83.01	164.09
			Q 2	30,745	53.62	36.09	0.06	708.62	6.79	21.16	30.77	45.26	66.15	94.11	185.92
			Q 3	30,601	58.00	36.89	0.06	462.27	7.43	23.51	34.12	49.67	71.55	101.18	191.92
			Q 4	30,754	66.98	39.98	0.06	847.35	10.27	29.35	41.23	58.07	81.70	114.59	211.92
	PT4	4	Q 1	30,385	52.04	32.41	0.05	646.61	4.38	19.17	30.91	45.92	65.61	91.13	165.31
			Q 2	30,603	58.01	33.16	0.05	469.06	8.37	25.61	36.02	51.24	71.92	98.15	173.09
			Q 3	30,908	61.60	34.32	0.08	428.56	9.65	28.25	39.03	54.49	75.78	103.14	178.46
			Q 4	30,811	64.40	35.06	0.05	471.13	10.08	30.77	41.38	56.93	78.74	106.63	187.29
6	PT1	6	Q 1	37,861	38.80	24.99	0.05	343.71	3.07	13.61	22.57	33.96	49.29	68.05	127.04
			Q 2	37,844	45.06	25.62	0.04	358.66	6.99	20.13	28.41	39.85	55.36	75.78	132.67
			Q 3	38,227	49.53	28.87	0.07	431.75	9.36	22.72	31.10	43.16	60.50	82.96	152.91
			Q 4	38,291	58.49	37.70	0.04	634.23	12.13	26.22	35.34	49.31	70.29	99.50	200.78
	PT2	6	Q 1	37,841	41.03	25.92	0.05	432.24	3.24	14.85	24.32	36.22	52.12	71.35	130.11
			Q 2	37,990	48.31	26.22	0.06	380.56	7.35	22.54	31.18	43.30	59.49	79.14	139.40
			Q 3	37,586	50.39	25.90	0.09	398.38	10.03	24.95	33.38	45.38	61.25	81.10	141.29
			Q 4	38,271	49.56	25.54	0.05	650.87	11.20	25.08	32.78	44.37	60.22	79.75	137.64
PT3	6	Q 1	37,925	38.45	26.28	0.05	657.61	2.77	13.48	21.93	33.10	48.25	67.97	132.30	
		Q 2	37,515	44.61	27.31	0.07	450.50	6.81	19.30	27.11	38.51	54.59	76.18	145.65	
		Q 3	38,081	46.86	28.04	0.06	546.32	9.11	20.85	28.69	40.49	57.13	80.13	149.81	
		Q 4	38,467	48.31	27.39	0.05	415.97	11.06	22.96	30.67	42.05	58.32	80.66	148.99	

Grade	PT Set	Number of Items	Ability Level	Descriptive Statistics					Percentile Points						
				N	Mean	SD	Min	Max	1	10	25	50	75	90	99
7	PT1	6	Q 1	41,930	22.35	16.47	0.06	318.02	1.74	7.41	11.94	18.61	28.14	40.87	82.67
			Q 2	42,008	25.25	17.39	0.05	309.29	4.10	9.36	13.88	21.11	31.47	45.57	88.32
			Q 3	41,973	26.42	18.36	0.05	269.25	4.53	9.32	14.13	22.27	33.37	47.72	92.00
			Q 4	42,596	28.37	19.83	0.04	256.72	4.44	8.28	13.60	24.53	37.38	52.44	95.42
	PT2	6	Q 1	41,952	26.90	19.36	0.05	367.21	2.09	8.35	14.18	22.70	34.33	49.54	97.72
			Q 2	42,089	31.26	20.31	0.05	305.37	4.05	12.10	18.18	26.78	38.92	54.77	106.14
			Q 3	41,975	34.45	21.53	0.05	446.17	5.69	14.41	20.63	29.67	42.54	59.54	111.58
			Q 4	42,372	38.92	21.65	0.05	397.73	8.36	18.23	24.78	34.38	47.68	64.59	112.99
	PT3	4	Q 1	27,981	20.99	15.05	0.04	278.62	1.55	6.62	11.44	17.72	26.27	38.82	75.35
			Q 2	27,776	24.40	14.90	0.05	227.87	3.56	10.27	14.85	21.13	30.06	42.12	78.91
			Q 3	28,136	26.62	15.24	0.07	241.79	5.71	12.43	16.83	23.20	32.15	44.95	81.07
			Q 4	28,173	26.68	14.52	0.04	445.19	7.30	13.32	17.45	23.52	32.02	43.71	76.93
8	PT1	6	Q 1	37,173	22.28	16.32	0.06	264.25	1.29	6.26	11.47	18.80	28.62	42.14	79.61
			Q 2	37,376	25.94	16.85	0.05	303.17	3.13	9.94	15.01	22.16	32.49	46.04	85.88
			Q 3	37,443	29.36	18.06	0.06	250.75	4.98	12.36	17.66	25.28	36.24	50.90	94.70
			Q 4	37,617	32.33	17.80	0.07	271.45	7.85	15.32	20.56	28.42	39.46	53.79	96.43
	PT2	6	Q 1	37,429	29.66	21.60	0.05	697.31	1.58	8.73	15.75	25.24	38.40	54.82	102.32
			Q 2	37,324	36.94	22.26	0.07	340.22	4.50	14.97	22.27	32.35	46.43	64.00	112.51
			Q 3	37,577	42.83	25.08	0.05	345.47	7.52	18.76	26.28	37.33	53.30	72.55	131.86
			Q 4	37,978	50.42	27.28	0.11	838.08	10.68	24.21	32.68	45.10	61.66	81.78	144.71
	PT3	6	Q 1	37,379	34.12	24.13	0.04	664.33	2.16	10.58	18.27	29.05	43.70	62.74	119.73
			Q 2	37,894	41.15	25.64	0.05	370.52	4.97	16.54	24.49	35.71	51.57	71.40	131.88
			Q 3	37,404	46.11	26.86	0.04	362.24	7.21	20.25	28.39	40.43	57.19	78.00	142.06
			Q 4	37,948	51.55	28.89	0.04	491.21	10.77	24.61	33.16	45.50	62.90	83.62	157.38
11	PT1	2	Q 1	12,203	25.68	21.22	0.05	289.68	1.02	4.74	10.93	20.91	34.67	50.74	104.27
			Q 2	12,178	35.52	22.31	0.11	299.01	2.45	12.82	20.92	31.53	44.63	61.39	115.30
			Q 3	12,304	42.46	23.12	0.06	293.48	5.74	19.54	27.67	38.12	51.98	69.73	123.11
			Q 4	12,351	46.53	21.71	0.10	336.16	10.45	24.86	32.32	42.84	55.92	72.49	119.95
	PT2	5	Q 1	30,547	22.69	19.01	0.06	259.13	0.83	4.03	9.57	18.56	30.29	45.10	92.71
			Q 2	30,646	29.01	20.01	0.04	244.66	1.64	8.96	15.87	25.07	37.13	52.57	98.37
			Q 3	30,647	35.33	20.94	0.05	453.46	3.46	14.02	21.39	31.70	44.41	60.35	105.96
			Q 4	30,925	39.47	19.59	0.03	251.06	8.35	19.78	26.55	35.86	48.12	62.86	104.83
	PT3	4	Q 1	24,164	17.99	16.01	0.07	581.76	0.75	3.75	7.93	14.32	23.17	35.61	75.74

Grade	PT Set	Number of Items	Ability Level	Descriptive Statistics					Percentile Points						
				N	Mean	SD	Min	Max	1	10	25	50	75	90	99
			Q 2	24,303	22.50	16.45	0.05	258.70	1.95	7.41	12.04	18.84	28.35	41.07	83.35
			Q 3	24,401	27.08	17.86	0.08	258.04	2.93	10.46	15.74	23.30	33.61	47.45	90.76
			Q 4	24,313	31.24	17.36	0.05	343.81	5.44	14.90	20.30	27.72	38.06	51.20	90.48
			Q 1	37,056	22.68	18.76	0.04	356.87	0.89	4.21	9.70	18.67	30.40	44.93	88.04
	PT4	6	Q 2	36,860	29.64	20.36	0.04	420.69	2.20	9.58	16.34	25.51	37.93	53.32	99.11
			Q 3	37,291	35.31	21.13	0.06	355.75	4.39	14.23	21.49	31.20	44.32	60.36	105.93
			Q 4	37,492	41.19	21.02	0.08	345.80	7.17	20.03	27.47	37.49	50.19	66.36	113.20

Appendix 8.I: Correlations between Content Areas

Table 8.I.1 Correlations for Gender

Grade	Content	Male		Female		Gender Unknown	
3	ELA	241,579	0.81	231,095	0.81	0	–
	Mathematics	240,663	242,453	230,259	231,808	0	0
4	ELA	235,607	0.82	227,072	0.81	0	–
	Mathematics	234,736	236,459	226,358	227,896	0	0
5	ELA	234,937	0.82	225,253	0.81	0	–
	Mathematics	234,024	235,661	224,544	225,956	0	0
6	ELA	232,916	0.82	223,405	0.82	0	–
	Mathematics	231,683	233,513	222,465	224,037	0	0
7	ELA	229,040	0.81	220,674	0.81	0	–
	Mathematics	227,235	229,411	219,158	220,984	0	0
8	ELA	230,130	0.8	221,055	0.79	0	–
	Mathematics	228,201	230,528	219,386	221,437	0	0
11	ELA	214,145	0.76	207,953	0.75	0	–
	Mathematics	209,105	213,078	202,999	206,430	0	0

Table 8.I.2 Correlations for Primary Ethnicity

Grade	Content	American Indian or Alaska Native		Asian		Native Hawaiian or Pacific Islander		Filipino	
3	ELA	2,539	0.77	40,783	0.8	2,220	0.78	10,743	0.77
	Mathematics	2,518	2,534	40,699	41,359	2,212	2,226	10,713	10,857
4	ELA	2,453	0.79	41,102	0.8	2,288	0.76	11,154	0.78
	Mathematics	2,436	2,445	41,006	41,644	2,274	2,282	11,135	11,281
5	ELA	2,520	0.76	42,200	0.8	2,393	0.77	11,783	0.78
	Mathematics	2,501	2,512	42,124	42,721	2,383	2,395	11,754	11,863
6	ELA	2,503	0.78	41,789	0.81	2,302	0.78	12,432	0.8
	Mathematics	2,483	2,499	41,722	42,238	2,291	2,303	12,393	12,522
7	ELA	2,677	0.76	40,461	0.8	2,334	0.77	12,457	0.79
	Mathematics	2,650	2,677	40,363	40,909	2,315	2,336	12,412	12,553
8	ELA	2,599	0.76	40,680	0.78	2,307	0.76	12,955	0.77
	Mathematics	2,560	2,587	40,568	41,144	2,287	2,314	12,902	13,056
11	ELA	2,616	0.73	38,752	0.74	2,384	0.73	13,834	0.73
	Mathematics	2,507	2,564	38,232	38,858	2,311	2,353	13,582	13,759

Table 8.I.3 Correlations for Primary Ethnicity

Grade	Content	Hispanic or Latino		Black or African American		White		Two or More Races	
3	ELA	261,805	0.76	26,422	0.77	109,827	0.79	18,335	0.81
	Mathematics	260,936	262,614	26,263	26,412	109,336	109,930	18,245	18,329
4	ELA	252,924	0.76	25,989	0.77	109,959	0.79	16,810	0.81
	Mathematics	252,187	253,901	25,833	25,961	109,490	110,018	16,733	16,823
5	ELA	247,031	0.76	26,397	0.77	112,354	0.79	15,512	0.81
	Mathematics	246,315	247,961	26,190	26,313	111,859	112,328	15,442	15,524
6	ELA	243,545	0.77	26,412	0.78	112,650	0.8	14,688	0.82
	Mathematics	242,411	244,197	26,174	26,403	112,145	112,760	14,529	14,628
7	ELA	240,370	0.75	26,880	0.76	111,022	0.79	13,513	0.81
	Mathematics	238,564	240,803	26,505	26,779	110,174	110,818	13,410	13,520
8	ELA	239,613	0.75	27,826	0.75	112,317	0.77	12,888	0.8
	Mathematics	237,686	240,142	27,424	27,679	111,404	112,176	12,756	12,867
11	ELA	218,563	0.71	25,437	0.72	109,078	0.74	11,434	0.76
	Mathematics	213,395	217,296	24,528	25,221	106,435	108,155	11,114	11,302

Table 8.I.4 Correlations for English Fluency

Grade	Content	English only		Initially fluent English proficient		English learner		Reclassified fluent English proficient	
3	ELA	270,859	0.81	18,156	0.8	151,300	0.73	31,105	0.7
	Mathematics	269,712	270,479	18,115	18,145	150,822	152,869	31,039	31,071
4	ELA	261,576	0.81	18,135	0.8	119,955	0.69	61,924	0.71
	Mathematics	260,518	261,276	18,102	18,138	119,580	121,552	61,819	61,906
5	ELA	257,606	0.81	20,247	0.8	100,271	0.66	81,074	0.72
	Mathematics	256,500	257,186	20,204	20,240	99,936	101,743	80,945	81,073
6	ELA	253,400	0.82	21,514	0.82	76,222	0.66	104,197	0.74
	Mathematics	252,068	253,077	21,443	21,525	75,782	77,512	103,886	104,131
7	ELA	247,158	0.81	20,546	0.81	65,610	0.6	115,338	0.74
	Mathematics	245,156	246,482	20,426	20,494	65,009	66,871	114,764	115,108
8	ELA	246,538	0.8	21,005	0.8	58,124	0.59	124,566	0.73
	Mathematics	244,341	245,902	20,876	20,999	57,571	59,383	123,871	124,423
11	ELA	232,541	0.76	36,086	0.76	39,506	0.51	113,058	0.69
	Mathematics	226,616	230,317	35,402	35,882	38,205	39,778	111,014	112,487

Table 8.I.5 Correlations for English Fluency

Grade	Content	To be determined		English proficiency	Unknown
3	ELA	246	0.75	1,008	0.76
	Mathematics	241	377	993	1,320
4	ELA	219	0.77	870	0.77
	Mathematics	215	318	860	1,165
5	ELA	210	0.81	782	0.81
	Mathematics	208	310	775	1,065
6	ELA	255	0.81	733	0.81
	Mathematics	252	340	717	965
7	ELA	223	0.79	839	0.75
	Mathematics	215	321	823	1,119
8	ELA	170	0.69	782	0.72
	Mathematics	169	241	759	1,017
11	ELA	182	0.77	725	0.65
	Mathematics	172	192	695	852

Table 8.I.6 Correlations for Economic Status

Grade	Content	Not Economically Disadvantaged		Economically disadvantaged		Unknown Economic Status	
3	ELA	178,053	0.79	294,621	0.75	0	–
	Mathematics	177,352	178,749	293,570	295,512	0	0
4	ELA	176,935	0.79	285,744	0.76	0	–
	Mathematics	176,332	177,633	284,762	286,722	0	0
5	ELA	180,361	0.79	279,829	0.76	0	–
	Mathematics	179,753	180,891	278,815	280,726	0	0
6	ELA	180,506	0.81	275,815	0.77	0	–
	Mathematics	179,717	180,948	274,431	276,602	0	0
7	ELA	179,378	0.8	270,336	0.75	0	–
	Mathematics	178,259	179,604	268,134	270,791	0	0
8	ELA	183,537	0.78	267,648	0.75	0	–
	Mathematics	182,241	183,747	265,346	268,218	0	0
11	ELA	190,559	0.76	231,539	0.71	0	–
	Mathematics	186,262	189,172	225,842	230,336	0	0

Table 8.I.7 Correlations for Special Education Services

Grade	Content	No special services		Special services		Special Ed Unknown	
3	ELA	427,704	0.8	44,970	0.76	0	–
	Mathematics	426,287	429,419	44,635	44,842	0	0
4	ELA	413,847	0.8	48,832	0.76	0	–
	Mathematics	412,599	415,621	48,495	48,734	0	0
5	ELA	409,614	0.79	50,576	0.75	0	–
	Mathematics	408,384	411,190	50,184	50,427	0	0
6	ELA	408,809	0.8	47,512	0.73	0	–
	Mathematics	407,156	410,182	46,992	47,368	0	0
7	ELA	404,545	0.79	45,169	0.69	0	–
	Mathematics	401,841	405,401	44,552	44,994	0	0
8	ELA	406,809	0.78	44,376	0.69	0	–
	Mathematics	403,862	407,729	43,725	44,236	0	0
11	ELA	387,756	0.74	34,342	0.61	0	–
	Mathematics	379,121	385,593	32,983	33,915	0	0

Table 8.I.8 Correlations for Migrant Status

Grade	Content	Change school or LEA		Remain in the same school or LEA		Migrant status unknown	
3	ELA	4,649	0.71	468,025	0.8	0	–
	Mathematics	4,639	4,717	466,283	469,544	0	0
4	ELA	4,496	0.72	458,183	0.81	0	–
	Mathematics	4,485	4,532	456,609	459,823	0	0
5	ELA	4,465	0.74	455,725	0.81	0	–
	Mathematics	4,454	4,513	454,114	457,104	0	0
6	ELA	3,929	0.73	452,392	0.82	0	–
	Mathematics	3,916	3,979	450,232	453,571	0	0
7	ELA	3,749	0.72	445,965	0.81	0	–
	Mathematics	3,727	3,813	442,666	446,582	0	0
8	ELA	3,896	0.72	447,289	0.79	0	–
	Mathematics	3,880	3,951	443,707	448,014	0	0
11	ELA	3,375	0.66	418,723	0.76	0	–
	Mathematics	3,310	3,376	408,794	416,132	0	0

Chapter 9: Quality Control Procedures

The California Department of Education (CDE), Smarter Balanced Assessment Consortium, and Educational Testing Service (ETS) implemented rigorous quality control procedures throughout the test development, administration, scoring, and analyses processes. As part of this effort, ETS staff worked with its Office of Professional Standards Compliance, which publishes and maintains the *ETS Standards for Quality and Fairness* (ETS, 2014). These *Standards* support the goal of delivering technically sound, fair, and useful products and services; and assisting the public and auditors evaluate those products and services. Quality control procedures are outlined in this chapter.

9.1. Quality Control of Item Development

Item writers hired to develop Smarter Balanced assessment items were trained in Smarter Balanced policies on sensitivity and bias guidelines, and guidelines for accessibility to ensure that the items allow the widest possible range of students to demonstrate their content knowledge (Smarter Balanced, 2015). A group of educators reviewed the items and performance tasks for accessibility, bias/sensitivity and content prior to their administration in the 2013–14 field test.

To further ensure the quality of Smarter Balanced assessment items, in early May 2013, Smarter Balanced recruited a panel of English language arts/literacy (ELA) and mathematics content experts and decision-makers with expertise in the needs of students with disabilities and students who were English learners. This panel reviewed item specifications, item types, items, and performance tasks, and made recommendations for item development and item-quality criteria.

After the 2012–13 pilot test, staff from the Smarter Balanced Assessment Consortium used statistical criteria to flag items that were potentially problematic due to content, bias and/or accessibility.

For more information regarding the steps taken by the Smarter Balanced Assessment Consortium to ensure quality during item development, please refer to Chapter 3 of the *2013–14 Smarter Balanced Technical Report* (Smarter Balanced, 2015).

9.2. Quality Control of Test Assembly and Delivery

The assembly of all test forms must conform to blueprints that represent a set of constraints and specifications. There were separate specifications for the ELA assessments and mathematics assessments. These blueprints are critical to the formation of valid assessments and can be found in Appendix 2.A on page 19.

The Smarter Balanced Assessment Consortium conducted computer simulations to evaluate the test delivery system and the adaptive testing algorithm. Two sets of simulations studies were conducted:

1. the simulation study conducted prior to the 2013–14 Smarter Balanced field test that is described in Chapter 4 of the *2013–14 Technical Smarter Balanced Report* (Smarter Balanced, 2015); and
2. the simulation study conducted prior to the 2014–15 CAASPP operational administration that is described in *Chapter 4: Test Assembly* on page 77 of this current technical report.

9.3. Quality Control of Test Materials

9.3.1 Developing Assessments

9.3.1.1 Online Assessments

The steps taken to develop and ensure the quality of the online assessments is described in *5.2.2 Test Delivery*, which starts on page 82.

9.3.1.2 Paper-Pencil Forms

Test forms and response booklets received from the Smarter Balanced Assessment Consortium are carefully reviewed by the CDE and ETS staff to ensure that they meet quality standards. Each document is reviewed for accuracy, completeness, and alignment with supporting materials.

Print-ready PDFs received for the paper versions of the Smarter Balanced summative assessments undergo a stringent quality control process to ensure that there is adequate space for student identification and demographic information in addition to a place for a student barcode label.

9.3.1.3 Test Administration Manuals

ETS staff consult with internal subject matter experts and conduct validation checks to verify that test instruction manuals accurately match the test booklets and testing processes. Copy editors and content editors review each document for spelling, grammar, accuracy, and adherence to CDE style. Manuals received from Smarter Balanced are customized to fit the California Assessment of Student Performance and Progress (CAASPP) System specifications. Each document must be approved by the CDE before it can be published to the CAASPP Portal at <http://www.caaspp.org/>. Only nonsecure documents are posted to this Web site.

9.3.2 Collecting Test Materials

9.3.2.1 Online Assessments

During the 2014–15 CAASPP administration, there were no collectable materials associated with online testing.

9.3.2.2 Paper-Pencil Forms

Once the paper-pencil tests are administered at test sites whose local educational agencies (LEAs) had received prior approval from the CDE, LEAs must return scorable and nonscorable materials within five working days after the last day of each test administration period. The freight-return kits provided to LEAs contain color-coded labels identifying scorable and nonscorable materials and labels with bar-code information identifying the school and district. The LEAs pack all materials into cartons, apply the appropriate labels, and then number the cartons prior to returning the materials to the processing center by means of their assigned carrier. The use of the color-coded labels streamlines the return process.

9.3.3 Processing Test Materials

9.3.3.1 Online Assessments

Online tests were submitted by students are transmitted from the American Institutes for Research (AIR) to ETS each day. Each system checks for the completeness of the student record and stopped records that were identified as having an error. (For example, the system would identify a test part that is missing a content registration ID, a unique identifier

that matches the student's opportunities—computer adaptive testing [CAT] and performance task [PT]—in final scoring)

Test responses were separated for human scoring between ETS and Measurement Incorporated (MI) and the reader's ratings were delivered to ETS scoring systems for merging with machine-scored items, final scoring, and scoring quality checks.

9.3.3.2 Paper-Pencil Forms

Upon receipt of the test materials, ETS personnel examine each shipment for a number of conditions, including physical damage, shipping errors, and omission of materials. The number of students recorded on the student and grade identification (SGID) sheet is compared to the number of answer documents returned to ETS.

ETS's image scanning process captures security information electronically and compares scorable material quantities reported on the SGIDs to actual documents scanned. LEAs are contacted by phone if there are any missing shipments or the quantity of materials returned appears to be less than expected.

9.4. Quality Control of Psychometric Processes

9.4.1 Development of Scoring Specifications

A number of measures are taken to ascertain that the scoring keys are applied to the student responses as intended and the student scores are computed accurately. ETS builds and reviews the scoring system models based on the Smarter Balanced Assessment Consortium scoring specifications and CDE requirements (AIR, 2014 and 2015). Machine-scored item responses and demographic information are collected and provided electronically to ETS in a master student data file. Human-scored item responses are sent electronically to the ETS Online Network for Evaluation or MI scoring centers for scoring by trained, qualified raters. Record counts are verified against the counts obtained during security check-in from the document processing staff to ensure all students are accounted for in the file.

Once the record counts are reviewed, the machine-scored item responses are scored against the appropriate answer key provided by the Smarter Balanced Assessment Consortium. In addition, the student's original response string is stored for data verification and auditing purposes.

The Smarter Balanced Assessment Consortium provided the specifications for scoring the assessments well in advance of the receipt of student response data. These specifications contain detailed scoring procedures, along with the procedures for determining whether a student has attempted a test and whether that student response data should be included in the statistical analyses and calculations for computing summary data. Standard quality inspections are performed on all data files, including the evaluation of each student data record for correctness and completeness. Student results are kept confidential and secure at all times.

9.4.2 Development of Scoring Procedures

ETS's enterprise score key management system (eSKM) utilizes scoring procedures specified by psychometricians and provides scoring services. Following scoring, a series of quality control checks are carried out by ETS psychometricians to ensure the accuracy of each score.

9.4.2.1 Enterprise Score Key Management System (eSKM) Processing

ETS developed two independent and parallel scoring structures to produce students' scores: the eSKM¹ scoring system collects, scores, and delivers individual students' scores to the ETS reporting system; and the parallel scoring system developed by ETS Technology and Information Processing Services collects and scores individual students' responses. The scores from the two systems are then compared for the purpose of internal quality control. Students' scores are reported when the two parallel systems produce identical results. The two scoring systems independently apply the same methods, scoring algorithms and specifications.

ETS's Centralized Repository Distribution System and Enterprise Service Bus departments collect and parse .xml files that contain student response data from AIR and send constructed response (CR) item responses to ETS and MI for human scoring. After receiving the results of human scoring, eSKM merges student scores from the CAT and PT test components, calculates individual student scores, and generates student scores in the approved statistical extract format on a daily basis. These data extracts are sent to ETS's Data Quality Services for data validation. Following validation, the student response statistical extracts are made available to the psychometricians.

9.4.2.2 Psychometric Processing

Psychometricians verify the eSKM scoring by comparing the parallel scoring programs, conducting extensive analyses to resolve any discrepancies, and verifying the accuracy of all student scores and reported results. In particular, psychometricians check variables such as total scale scores, achievement levels, number of scored items, and performance levels of claims. To investigate discrepancies, theta scores and completeness are also checked (See *Student Test Scores* on page 113 for definitions of these scores). All scores must comply with the ETS scoring specifications and the parallel scoring process to ensure the quality and accuracy of scoring, and to support the transfer of scores into the database of the student records scoring system before student reports are generated.

9.5. Quality Control of Constructed Response (CR) Scoring

Rater qualifications, rater certifications, and daily rater calibrations are all processes used to control the reliability of CR scoring. Raters are led through a training period by trained assessment development staff, content scoring leaders, group scoring leaders, and scoring leaders for an assigned grade level and specific prompt types prior to the annual scoring period. In the training period, raters are trained to appropriately apply the rubrics by using the Smarter Balanced-provided benchmark sample papers.

Trained raters are scheduled to score in four or eight hour shifts. Scoring leaders are qualified raters who have the responsibility of providing feedback to raters in order to provide additional content support and offer corrective mentoring for struggling raters.

Each rater is assigned a secure user ID and password to log on to the scoring system and is required to sign a confidentiality agreement. System access for the rater is restricted to the hours that he or she is scheduled to work.

Prior to starting a shift, a rater must take and pass a calibration test which demonstrates sufficient training in Smarter Balanced scoring criteria and ability to score accurately. Ten percent of responses are scored twice (i.e., "read behind") in order to check agreement

¹ The eSKM system produces the ETS scores of record.

among raters. Scoring leaders read behind raters throughout a shift and enter their own scores on responses that raters have read. Results of interrater reliability are shown in Chapter 8 on page 294.

To ensure the quality of machine scoring with artificial intelligence (AI), ETS and MI maintain a quality assurance system through 10 percent of AI scored items being scored by a human rater and used for agreement sample analysis. The results of the agreement analysis are presented in section 8.6.4.8 Interrater Agreement on page 294.

9.6. Quality Control of Paper-Pencil Scoring

If an LEA is approved to administer the paper-pencil version of the Smarter Balanced summative assessments, the completed student answer documents are routed for scoring. Quality control of paper-pencil tests is ensured by an independent group that signs into eSKM and checks scoring keys. This group must sign off and approve the keys in order for scoring to commence for the administration. This team also creates scoring stencils to be used during the administration to overlay on top of a student's answer document to verify the score computed by eSKM is accurate.

9.7. Quality Control of Reporting

To ensure the quality of CAASPP Smarter Balanced online summative test results, for both individual student and summary reports, four general areas are evaluated:

1. Comparison of report formats with input sources from the CDE-approved samples;
2. Validation of the report data through quality control checks performed by ETS's Data Quality Services and Resolutions teams, as well as running of all student score reports through ETS's patented QC Integrator software;
3. Evaluation of the production of all printed reports by verifying the print quality, comparing number of report copies, sequence of report order, and offset characteristics to the CDE requirements; and
4. Proofreading of the pilot and production reports by the CDE and ETS prior to any LEA mailings.

All reports are required to include a single, accurate LEA code, a charter school number (if applicable), a school district name, and a school name. All elements conform to the CDE's official county/district/school (CDS) code and naming records. From the start of processing through scoring and reporting, the CDS Master File is used to verify and confirm accurate codes and names. CDE provides a revised LEA Master File to ETS throughout the year as updates become available.

After the reports are validated against the CDE's requirements, a set of reports for pilot districts are provided to the CDE and ETS for review and approval. Paper reports are sent on the actual report forms, organized as they are expected to look in production. The CDE and ETS review and approve the report package after a thorough examination.

Upon the CDE's approval of the reports generated for the pilot districts, ETS proceeds with the first batch of report production. The first production batch is selected to validate a subset of LEAs that contain key reporting characteristics (e.g., academic achievement) and demographics of the state. The first production batch incorporates CDE-selected LEAs and provides the final check prior to generating all reports and mailing them to the LEAs.

9.7.1. Exclusion of Student Scores from Summary Reports

ETS provides specifications to the CDE that document when to exclude student scores from summary reports. These specifications include the logic for handling submitted tests and answer documents that, for example, indicate the student tested but responded to no items, was absent, was not tested due to parent/guardian request, or did not complete the test due to illness. The methods for handling other anomalies are also covered in the specifications. These anomalies are described in more detail in 7.6.2 *Special Cases* on page 126.

9.8. End-to-End Operational Tests

ETS conducts end-to-end testing prior to the start of the test administration. The purpose of this testing is to verify that all systems, processes, and resources are ready for the operational administration.

9.8.1. Paper-Pencil Tests

To begin this quality control process, the ETS resolutions team members complete response documents by marking responses on response booklets for fictitious students in selected schools and across several LEAs. They mark response booklets with answers that are all correct, all incorrect, and other test response combinations. These response combinations are the expected results across performance levels and score ranges. The response booklets are sent for processing, batching, and scanning. Once released from scanning, the test results are sent through the system for scoring and reporting. Student score reports are created along with data files for subject matter experts in the teams to review and verify.

Individual student score reports were generated based on the fictitious students and 100 percent quality control was demonstrated by ETS's Resolution staff.

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Chapter 10: Paper-Pencil Versions of Smarter Balanced Summative Assessments

10.1. Background

Paper-pencil versions of the Smarter Balanced Summative Assessments are made available to local educational agencies (LEAs) that either do not have the necessary computer network infrastructure to administer the online tests or do not include computers as a part of their curricula. The paper-pencil versions contain a fixed set of questions which also includes components of the online assessment such as constructed-response (CR) items and performance tasks. Paper-pencil versions exist for all grade levels and content areas assessed by Smarter Balanced and were administered to approximately 2,300 students across California in 2014–15. There were more than 500 students who took the English language arts/literacy (ELA) and mathematics paper-pencil tests in grades three through five. For all other tests, there were fewer.

Paper-pencil versions were available with prior permission from the California Department of Education (CDE) only.

10.2. Test Window

The window for 2014–15 testing was the same as for the online tests: approximately February 18 through June 15, 2015. Specific test administration schedules within that window were determined locally pursuant to the *California Code of Regulations*, Title 5 (5 CCR), Sections 855 (b) (1) and 855 (b) (2) and proposed emergency regulations 5 CCR, Sections 855 (a) (1), 855 (a) (2), 855 (b), and 855 (c).

10.3. Test Assembly

Paper-pencil versions are composed of performance task (PT) items, which are based on a classroom-based activity (refer to section 1.3.2 *Performance Tasks* for more details), and items that are not based on performance task (non-PT) items. During the test development process, efforts were made to ensure that paper-pencil test items and online test items were comparable. The paper-pencil test development involved evaluating the test blueprint and identifying which items can be successfully assessed in paper-pencil format. The paper-pencil item development process starts with looking at each technology-enhanced item that needs a replacement or modification.

A preliminary calibration report provided by the National Center for Research on Evaluation, Standards, & Student Testing (CRESST) found that no more than three items per grade level and content area from the online test item pool that appeared on paper-pencil tests without modifications were identified as functioning differently across the two modes (CRESST, 2015).

10.4. Test Administration

The *2015 California Assessment of Student Performance and Progress (CAASPP) Smarter Balanced Paper-Pencil Test Administration Manual* (CDE, 2015a) provides an overview of the Summative Assessment administration and supplements the *2015 CAASPP Online Test Administration Manual* (CDE, 2015b). This manual, available for each grade, is intended to

familiarize test administrators with general rules for testing, how to prepare for the assessment, and what students experience in participating in the assessment.

The *2015 CAASPP Paper-Pencil Testing Test Administration Manual* (CDE, 2015c) provides additional information about the responsibilities of LEA CAASPP coordinators, CAASPP test site coordinators, and test administrators. See section 5.4 *Procedures to Maintain Standardization* on page 87 for additional information about the staff involved with administering CAASPP assessments.

Test preparation, administration, and security procedures must be followed so that all students will have an equal opportunity to demonstrate their academic achievement. See Chapter 5: Test Administration, which starts on page 80, for more information on procedures followed in 2014–15.

10.5. Universal Tools, Designated Supports, and Accommodations

Consistent with the online tests, designated supports, accommodations (section 2.4 *Universal Tools, Designated Supports and Accommodations* on page 13) and unlisted resources (section 2.4.3 *Unlisted Resources* on page 15) are assigned to individual students based on student needs. Appendix 10.A, which starts on page 512, presents counts and percentages of students using designated supports, accommodations, or unlisted resources. Note that “N/A” indicates that the designated support/accommodation/unlisted resource is not available for that test. The majority of students do not use any designated supports, accommodations, or unlisted resources.

10.6. Calibration and Scaling

Post-test calibration, equating, and scaling of the Smarter Balanced paper-pencil summative tests are conducted by CRESST by using data from paper-pencil tests administered by two member states of the Smarter Balanced Assessment Consortium. To produce scores for the paper-pencil tests that are on the same scale as the online tests, separate calibrations of the paper-pencil response data were conducted and then scaled to the online item bank. The “new” calibrations for the paper-pencil versions were established by calibrating samples of item response data from the paper-pencil administration; the “reference” calibrations were based on the CAASPP Smarter Balanced Online summative assessment item bank which was established during the field test.

For the purpose of linking the paper-pencil forms to the official reporting scale which was derived from the online test mode, the paper-pencil test item parameter estimates are placed on the reference scale by using a set of anchor items that were not modified. Specifically, these unmodified items indicate these items may appear in either test delivery mode as-is without it altering the construct; that is, the items parameter estimates should be invariant across the delivery mode.

The procedure used for equating the Smarter Balanced paper-pencil summative tests involves three parts: initial item calibration, anchor item evaluation, and final item calibration. Each of those procedures, as described below, is applied to all tests. The calibrations were performed with the flexMIRT item response modeling software (Cai, 2015).

10.6.1 Initial Calibration

The following steps are involved in the initial calibration to obtain item parameter estimates and model goodness-of-fit indices. The generalized partial credit (GPC) model was applied to both multiple-choice items and polytomously scored items. Refer to section 7.4.1 *Total Test Scores* on page 113 of Chapter 7 *Scoring and Reporting* of this report for the mathematical formula of the GPC model.

1. The parameters of all unmodified items are fixed to the parameter values obtained from the online item pool;
2. The parameters of all modified items are freely estimated; and
3. The latent variable density is estimated as an empirical histogram (see, e.g., Woods, 2007; Houts & Cai, 2013) with estimated mean and variance from the “all” student population, including students taking online tests.

10.6.2 Anchor Item Evaluation

The purpose of anchor item evaluation is to select items that function similarly across both online and paper-pencil modes as anchors. By linking tests through these anchor items, paper-pencil test results are placed onto the online test scale, and scores from the two modes should be comparable.

A series of calibrations identical to the “initial” calibration are performed but with the parameters of one unmodified item at a time freely estimated. The parameters of all other unmodified items are fixed to their prior estimates from the online item pool. As in the initial calibration, the parameters of all modified items are freely estimated, along with the population distribution’s mean, variance, and shape.

To decide whether each unmodified item should be retained or rejected as an anchor in the final calibration for the paper-pencil forms, the parameter estimates from the online item pool administration and the parameter estimates from the initial calibration are used to compute the expected score functions for the two modes of test administration. The two expected score functions—for the computer-based and paper-pencil administrations—are plotted, and differences in item functioning across the two modes are quantified by computing a weighted Area Between the Curves (wABC; see Hansen, Cai, Stucky, Tucker, Shadel, & Edelen, 2014). Any items with a wABC value greater than 0.150 were rejected as anchors.

10.6.3 Final Calibration

For tests in which any unmodified item is rejected as an anchor, a final calibration is conducted using the approach described in section 10.6.1, except that the parameters of all rejected anchor items are freely estimated. Parameters of the modified items are also freely estimated. The latent variable density is estimated as an empirical histogram. The parameter estimates from this final calibration are used in scoring the paper-pencil forms. In this way, paper-pencil version scores are placed on the online test scale.

10.7. Scoring

Like the CAASPP Smarter Balanced online assessments, student item responses in the paper-pencil forms are scored and individual student scores are calculated (i.e., overall scale scores and claims/subscores) based on the scored item responses. The same scoring specifications and procedures as in the online assessments are followed except that all the CR items in the paper-pencil versions are human-scored; no Artificial Intelligence machine

scoring is used. However, due to the small student sample sizes in the upper grades and certain subgroups, caution should be taken when interpreting some of the summary statistics.

10.7.1 Total Score Distributions and Achievement Levels

Summary statistics that describe student performance on each test are presented in Table 10.1. Included in the table are the number of students administered each test and the means and standard deviations of student scores expressed in terms of both scale scores and theta scores. The number and the percentage of students in each achievement level and the numbers and the percentages which meet or exceed the standard are shown in Table 10.2.

Table 10.1 Mean and Standard Deviation of Total Theta and Scale Scores of Paper-Pencil Summative Assessments

Content Area	Grade	No. of Students	Scale Score		Theta Score	
			Mean	Std Dev.	Mean	SD
ELA	3	669	2410	95	-1.13	1.08
	4	626	2467	96	-0.48	1.10
	5	538	2507	98	-0.02	1.14
	6	216	2508	104	-0.01	1.21
	7	97	2556	114	0.56	1.33
	8	69	2471	98	-0.43	1.15
	11	20	2571	148	0.74	1.72
Mathematics	3	682	2402	74	-1.42	0.93
	4	642	2454	74	-0.76	0.93
	5	546	2487	79	-0.35	1.00
	6	227	2509	99	-0.07	1.25
	7	105	2551	114	0.45	1.44
	8	79	2470	95	-0.57	1.19
	11	17	2554	121	0.50	1.53

Table 10.2 Percentages and Counts of Students in Achievement Levels for CAASPP Paper-pencil Summative Assessments

Content Area	Grade	Standard Not Met		Standard Nearly Met		Standard Met		Standard Exceeded		Standard Met/ Exceeded	
		N	%	N	%	N	%	N	%	N	%
ELA	3	223	33%	153	23%	153	23%	140	21%	293	44%
	4	184	29%	137	22%	146	23%	159	25%	305	49%
	5	119	22%	125	23%	172	32%	122	23%	294	55%
	6	71	33%	52	24%	63	29%	30	14%	93	43%
	7	23	24%	21	22%	34	35%	19	20%	53	55%
	8	43	62%	15	22%	8	12%	3	4%	11	16%
	11	5	25%	3	15%	8	40%	4	20%	12	60%

Content Area	Grade	Standard Not Met		Standard Nearly Met		Standard Met		Standard Exceeded		Standard Met/ Exceeded	
		N	%	N	%	N	%	N	%	N	%
Mathematics	3	254	37%	208	30%	170	25%	50	7%	220	32%
	4	171	27%	248	39%	170	26%	53	8%	223	35%
	5	180	33%	208	38%	88	16%	70	13%	158	29%
	6	73	32%	76	33%	51	22%	27	12%	78	34%
	7	24	23%	31	30%	23	22%	27	26%	50	48%
	8	51	65%	22	28%	2	3%	4	5%	6	8%
	11	5	29%	8	47%	4	24%	0	0%	4	24%

* May not exactly match the sum of percent proficient and percent advanced due to rounding

Detailed score distribution information is available in Appendix 10.B, which starts on page 540. Table 10.B.1 and Table 10.B.2 show the estimated distributions of theta scores for each test. Table 10.B.3 and Table 10.B.4 present selected percentiles of the ELA and mathematics scale score distributions. Table 10.B.5 through Table 10.B.18 present frequency distributions of scale scores for each test.

10.7.2 Claim Score Distributions and Achievement Levels

Table 10.C.1 through Table 10.C.4 in Appendix 10.C starting on page 568 show the range of the number of items presented within each claim, number of students with valid scores in each claim, and the means and standard deviations of student scores expressed in terms of both scale scores and theta scores. The number of students in each claim achievement level as well as the percentage of students in that claim achievement level are reported in Table 10.C.5 through Table 10.C.8. Note that the percentage is shown as a hyphen when there are no students in an achievement level for a claim.

10.7.3 Group Scores

Statistics summarizing student performance by content area and grade for selected demographic groups of students are provided in Appendix 10.D starting on page 572 in Table 10.D.1 through Table 10.D.14 for each test, and for each test claim in Table 10.D.15 through Table 10.D.28. Note that statistics are reported only for samples that are comprised of 11 or more students; statistics are presented in the tables as hyphens for samples fewer than 11. The percentage is shown as hyphen when there are no students in an achievement level for a claim.

10.8. Analyses

This section summarizes the item-parameter values, reliability and conditional standard error of measurement (CSEM) and correlations between content areas calculated for the Smarter Balanced paper-pencil Summative Assessments. Note that statistics should be interpreted with caution due to small numbers of students in some tests and student groups. Due to small sample sizes in paper-pencil tests, some analyses that were reported in online summative tests are not implemented for paper-pencil tests. These analyses include but are not limited to reliability of performance classifications and interrater reliability and agreement.

10.8.1 IRT Parameter Values

Parameter estimates for the 2014–15 CAASPP Smarter Balanced operational items of the paper-pencil versions were obtained using the procedure described in section 10.6 *Calibration and Scaling*. Summary statistics of these parameter estimates are calculated to

show the difficulty and discrimination of the overall test, as well as the difficulty and discrimination of claims; distributions of b -value and a -value parameter estimates are created to provide more detail. The step parameters for all polytomous items are also provided.

Table 10.E.1 through Table 10.E.14 in Appendix 10.E (which starts on page 642) present univariate statistics (mean, standard deviation, minimum, and maximum) of the scaled item response theory (IRT) a -values. For each test, the results are presented for all items in the test and for the items in each claim. Table 10.E.15 through Table 10.E.28 present the univariate statistics of the IRT b -values for all items in the test and for the items in each claim.

Table 10.E.29 and Table 10.E.30 show the distributions of a -values of non-PT items in each test across 10 intervals. Table 10.E.31 and Table 10.E.32 present the distributions of non-PT items across 16 intervals of b -values. The mode of each distribution is highlighted. Table 10.E.33 and Table 10.E.34 show the distribution of a -values for the PT items. Table 10.E.35 and Table 10.E.36 show the distribution of b -values for the PT items. Parameter values of all PT items are presented in Table 10.E.37 through Table 10.E.50.

10.8.2 Reliability Analyses

This subsection presents results of the reliability analyses of test scores and claim scores for the population as a whole and for selected subgroups. Refer to Section 8.5.2 *Marginal Reliability* on page 279 for the description and calculation of reliability. Similar to the reliability analyses conducted for the CAASPP online test, students assigned to the lowest or highest obtainable scale score were excluded.

Table 10.3 gives the total score reliability for theta, the mean, standard deviation, and standard error of measurement (SEM) for the theta and scale scores for each of the 14 tests. Only students with complete records were included in this table. A student's record for the test is not considered complete unless the student completed at least 10 non-PT items and at least one PT item.

Table 10.3 Summary Statistics for Scale Scores and Theta Scores, Reliabilities, and SEMs

Content Area	Grade	No. of Students	Reliab	Scale Score			Theta Score		
				Mean	SD	SEM	Mean	SD	SEM
ELA	3	654	0.91	2414	86	25	-1.09	1.00	0.29
	4	613	0.91	2469	88	26	-0.46	1.02	0.30
	5	521	0.91	2507	89	27	-0.01	1.04	0.31
	6	212	0.91	2506	99	29	-0.03	1.16	0.34
	7	93	0.92	2559	105	30	0.59	1.22	0.35
	8	65	0.88	2482	90	31	-0.30	1.05	0.36
	11	16	0.88	2609	89	30	1.17	1.04	0.36
Mathematics	3	665	0.91	2407	67	21	-1.37	0.84	0.26
	4	634	0.89	2457	69	23	-0.73	0.87	0.29
	5	540	0.88	2488	75	26	-0.34	0.95	0.33
	6	218	0.87	2520	83	30	0.07	1.05	0.37
	7	101	0.90	2557	101	33	0.54	1.28	0.41
	8	74	0.67	2483	81	47	-0.40	1.02	0.59
	11	16	0.82	2572	102	43	0.71	1.28	0.55

Intercorrelations, reliability estimates and theta-based SEMs for the claims are presented in Table 10.F.1 through Table 10.F.14 in Appendix 10.F starting on page 653. The reliability estimates across claims vary significantly according to the number of items as well as the types of content standards that are included in each claim.

Reliabilities and theta-based SEMs for the total test scores and the claim scores are reported for each subgroup analysis. Table 10.F.15 through Table 10.F.23 present the overall test reliabilities for subgroups defined by student gender, economic status, provision of special services, English-language fluency, primary ethnicity, and migrant status. Table 10.F.24 and Table 10.F.29 present the reliabilities for the subgroups based on primary ethnicity within economic status.

The next set of tables, Table 10.F.30 through Table 10.F.99, present the claim-level reliabilities for the subgroups. Table 10.F.30 through Table 10.F.44 present the claim-level reliabilities for the subgroups based on gender, economic status, and migrant status. Table 10.F.45 through Table 10.F.57 show the same analyses for the subgroups based on provision of special services and English-language fluency. Table 10.F.58 through Table 10.F.71 present results for the subgroups based on primary ethnicity of the students. The last set of tables, Table 10.F.72 through Table 10.F.99, present the claim-level reliabilities for the subgroups based on primary ethnicity within economic status.

Note that the reliabilities are reported only for samples that are comprised of 11 or more students. In cases where the sample size is smaller than 11, reliabilities are presented in the tables as hyphens. The reliability estimates for some of the subgroups are negative due to small variation in scale scores and large CSEMs for extreme score values. These negative reliabilities and their associated SEMs are presented as “N/A.”

10.8.3 CSEM Distributions

This subsection presents CSEM distributions for the total test scores, and the mean CSEM for each performance level. Table 10.4 presents the scale score CSEMs at the lowest score required for a student to be classified in the *Standard Nearly Met*, *Standard Met*, and *Standard Exceeded* achievement levels for each test. The CSEM is presented as “N/A” if there are no students at the cut point for a certain achievement level.

Table 10.4 Scale Score CSEM at Performance-level Cut Points

Content Area	Grade	Standard Nearly Met		Standard Met		Standard Exceeded	
		Min SS	CSEM	Min SS	CSEM	Min SS	CSEM
ELA	3	2367	23	2432	21	2490	23
	4	N/A	N/A	2473	24	2533	25
	5	2442	24	2502	25	2582	27
	6	2457	26	N/A	N/A	N/A	N/A
	7	N/A	N/A	2552	27	N/A	N/A
	8	N/A	N/A	N/A	N/A	2668	28
Mathematics	3	2381	18	2436	19	2501	22
	4	2411	22	2485	20	2549	22
	5	2455	24	2528	22	2579	23
	6	2473	26	N/A	N/A	N/A	N/A
	7	N/A	N/A	N/A	N/A	2635	19
	8	2504	39	N/A	N/A	N/A	N/A

Table 10.5 presents the average CSEMs in each achievement level by content area and grade level. The average CSEM is presented as “N/A” in the achievement levels where there are no students.

Table 10.5 Average CSEM of Scale Scores in Each Performance Level

Content Area	Grade	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded
ELA	3	28	22	22	26
	4	27	24	24	28
	5	28	24	26	29
	6	31	26	27	32
	7	33	27	28	32
	8	32	27	27	29
	11	37	28	28	33
Mathematics	3	21	18	20	25
	4	26	21	20	27
	5	31	23	22	26
	6	41	21	19	21
	7	52	26	20	20
	8	52	34	29	28
	11	62	36	30	N/A

Scale score CSEM distributions are shown in Table 10.G.1 through Table 10.G.14 of Appendix 10.G starting on page 681. The plots of the CSEMs conditional for scale scores are also presented in this appendix, in Figure 10.G.1 through Figure 10.G.14. In the figures, the vertical axis is defined as the CSEMs and the horizontal axis is designated as scale scores, which is a common metric for tests within the same content area. Each data point represents an individual student.

10.8.4 Correlations between Content Area Test Scores

Table 10.6 provides the correlations between scores on the 2015 CAASPP ELA and mathematics paper-pencil tests and the numbers of students on which these correlations are based. Sample sizes for individual tests are shown in bold font on the diagonals of the correlation matrices; the numbers of students on which the correlations are based are shown on the lower left. The correlations are provided in the upper right. Results are based on all students with valid scale scores and are provided by grade. In general, students’ ELA scores correlated moderately with their mathematics scores. Due to very small test volumes in many demographic groups, the correlations are not presented between content areas for subgroups.

Table 10.6 Correlations between Content Areas for All Students

Grade	Content	All Students	
3	ELA	669	0.78
	Mathematics	667	682
4	ELA	626	0.71
	Mathematics	625	642
5	ELA	538	0.74
	Mathematics	535	546

Grade	Content	All Students	
6	ELA	216	0.76
	Mathematics	212	227
7	ELA	97	0.78
	Mathematics	93	105
8	ELA	69	0.59
	Mathematics	63	79
11	ELA	20	0.77
	Mathematics	17	17

Note: Sample sizes in tests are in **bold** font.

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Appendix 10.A: Special Services Summaries for Paper-Pencil Tests

Table 10.A.1 Special Services Summary for ELA, Grades Three through Six—All Tested

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Non-Embedded Supports—Alternate Response Options	0	0.00	0	0.00	1	0.19	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	11	1.64	12	1.92	7	1.30	6	2.78
Non-Embedded Supports—Large Print	3	0.45	5	0.80	4	0.74	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	13	1.94	12	1.92	9	1.67	9	4.17
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Non-Embedded Supports—Administration of the test at the most beneficial time of day	16	2.39	20	3.19	14	2.60	9	4.17
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	17	2.54	19	3.04	17	3.16	8	3.70
Non-Embedded Supports—Separate Setting	8	1.20	8	1.28	10	1.86	19	8.80
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00	0	0.00
Individualized Aid								
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	1	0.19	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	30	4.48	39	6.23	28	5.20	22	10.19
Designated support or accommodation is in Section 504 plan	3	0.45	0	0.00	0	0.00	1	0.46

Table 10.A.2 Special Services Summary for ELA, Grades Seven through Eleven—All Tested

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Non-Embedded Supports—Alternate Response Options	1	1.03	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	4	4.12	7	10.14	10	50.00
Non-Embedded Supports—Large Print	1	1.03	2	2.90	1	5.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	3	3.09	10	14.49	5	25.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00
Designated Supports						
Non-Embedded Supports—Administration of the test at the most beneficial time of day	5	5.15	2	2.90	7	35.00
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	2	2.90	1	5.00
Non-Embedded Supports—Separate Setting	3	3.09	3	4.35	0	0.00
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00
Individualized Aid						
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	8	8.25	12	17.39	15	75.00
Designated support or accommodation is in Section 504 plan	0	0.00	1	1.45	0	0.00

Table 10.A.3 Special Services Summary for ELA, Grades Three through Six—Students Not in Special Education

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Non-Embedded Supports—Alternate Response Options	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	1	0.17	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Large Print	0	0.00	1	0.19	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	3	0.51	0	0.00	0	0.00	2	1.12
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Non-Embedded Supports—Administration of the test at the most beneficial time of day	5	0.85	1	0.19	1	0.21	1	0.56
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	6	1.03	0	0.00	1	0.21	1	0.56
Non-Embedded Supports—Separate Setting	3	0.51	0	0.00	1	0.21	3	1.69
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00	0	0.00
Individualized Aid								
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	3	0.51	0	0.00	0	0.00	1	0.56

Table 10.A.4 Special Services Summary for ELA, Grades Seven through Eleven—Students Not in Special Education

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Non-Embedded Supports—Alternate Response Options	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	1	1.18	0	0.00	0	0.00
Non-Embedded Supports—Large Print	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	0	0.00	1	2.08	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00
Designated Supports						
Non-Embedded Supports—Administration of the test at the most beneficial time of day	2	2.35	1	2.08	0	0.00
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Separate Setting	0	0.00	1	2.08	0	0.00
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00
Individualized Aid						
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	0	0.00	1	2.08	0	0.00

Table 10.A.5 Special Services Summary for ELA, Grades Three through Six—Students in Special Education

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Non-Embedded Supports—Alternate Response Options	0	0.00	0	0.00	1	1.39	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	10	11.90	12	13.48	7	9.72	6	15.79
Non-Embedded Supports—Large Print	3	3.57	4	4.49	4	5.56	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	10	11.90	12	13.48	9	12.50	7	18.42
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Non-Embedded Supports—Administration of the test at the most beneficial time of day	11	13.10	19	21.35	13	18.06	8	21.05
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	11	13.10	19	21.35	16	22.22	7	18.42
Non-Embedded Supports—Separate Setting	5	5.95	8	8.99	9	12.50	16	42.11
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00	0	0.00
Individualized Aid								
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	1	1.39	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	30	35.71	39	43.82	28	38.89	22	57.89
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00	0	0.00

Table 10.A.6 Special Services Summary for ELA, Grades Seven through Eleven—Students in Special Education

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Non-Embedded Supports—Alternate Response Options	1	8.33	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	3	25.00	7	33.33	10	62.50
Non-Embedded Supports—Large Print	1	8.33	2	9.52	1	6.25
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	3	25.00	9	42.86	5	31.25
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00
Designated Supports						
Non-Embedded Supports—Administration of the test at the most beneficial time of day	3	25.00	1	4.76	7	43.75
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	2	9.52	1	6.25
Non-Embedded Supports—Separate Setting	3	25.00	2	9.52	0	0.00
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00
Individualized Aid						
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	8	66.67	12	57.14	15	93.75
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 10.A.7 Special Services Summary for ELA, Grades Three through Six—English-Only Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Non-Embedded Supports—Alternate Response Options	0	0.00	0	0.00	1	0.21	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	7	1.19	6	1.10	6	1.25	1	0.57
Non-Embedded Supports—Large Print	3	0.51	5	0.92	3	0.63	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	10	1.69	9	1.65	8	1.67	8	4.60
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Non-Embedded Supports—Administration of the test at the most beneficial time of day	16	2.71	19	3.48	11	2.29	8	4.60
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	16	2.71	17	3.11	14	2.92	6	3.45
Non-Embedded Supports—Separate Setting	7	1.19	7	1.28	9	1.88	17	9.77
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00	0	0.00
Individualized Aid								
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	1	0.21	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	27	4.58	32	5.86	23	4.79	15	8.62
Designated support or accommodation is in Section 504 plan	3	0.51	0	0.00	0	0.00	1	0.57

Table 10.A.8 Special Services Summary for ELA, Grades Seven through Eleven—English-Only Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Non-Embedded Supports—Alternate Response Options	1	1.28	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	1	1.28	4	6.90	9	47.37
Non-Embedded Supports—Large Print	0	0.00	1	1.72	1	5.26
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	1	1.28	7	12.07	5	26.32
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00
Designated Supports						
Non-Embedded Supports—Administration of the test at the most beneficial time of day	5	6.41	2	3.45	7	36.84
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	2	3.45	1	5.26
Non-Embedded Supports—Separate Setting	3	3.85	3	5.17	0	0.00
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00
Individualized Aid						
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	4	5.13	8	13.79	14	73.68
Designated support or accommodation is in Section 504 plan	0	0.00	1	1.72	0	0.00

Table 10.A.9 Special Services Summary for ELA, Grades Three through Six—Initially Fluent English Proficient (I-FEP) Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Non-Embedded Supports—Alternate Response Options	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	0	0.00	1	16.67	0	0.00	1	100.00
Non-Embedded Supports—Large Print	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Separate Setting	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00	0	0.00
Individualized Aid								
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	0	0.00	1	16.67	0	0.00	1	100.00
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00	0	0.00

Table 10.A.10 Special Services Summary for ELA, Grades Seven through Eleven—I-FEP Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Non-Embedded Supports—Alternate Response Options	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Large Print	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	1	50.00	0	0.00	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00
Designated Supports						
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Separate Setting	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00
Individualized Aid						
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	1	50.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 10.A.11 Special Services Summary for ELA, Grades Three through Six— English Learner (EL) Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Non-Embedded Supports—Alternate Response Options	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	4	6.15	3	5.36	1	2.44	2	8.00
Non-Embedded Supports—Large Print	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	3	4.62	2	3.57	1	2.44	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	1	1.79	3	7.32	1	4.00
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	1	1.54	1	1.79	3	7.32	2	8.00
Non-Embedded Supports—Separate Setting	1	1.54	1	1.79	1	2.44	2	8.00
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00	0	0.00
Individualized Aid								
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	3	4.62	4	7.14	4	9.76	4	16.00
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00	0	0.00

Table 10.A.12 Special Services Summary for ELA, Grades Seven through Eleven—EL Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Non-Embedded Supports—Alternate Response Options	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	1	7.69	1	11.11	0	0.00
Non-Embedded Supports—Large Print	1	7.69	1	11.11	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	1	7.69	2	22.22	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00
Designated Supports						
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Separate Setting	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00
Individualized Aid						
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	2	15.38	2	22.22	0	0.00
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 10.A.13 Special Services Summary for ELA, Grades Three through Six—Reclassified Fluent English Proficient (R-FEP) Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Non-Embedded Supports—Alternate Response Options	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	0	0.00	2	14.29	0	0.00	2	12.50
Non-Embedded Supports—Large Print	0	0.00	0	0.00	1	6.67	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	0	0.00	1	7.14	0	0.00	1	6.25
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	1	7.14	0	0.00	0	0.00
Non-Embedded Supports—Separate Setting	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00	0	0.00
Individualized Aid								
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	0	0.00	2	14.29	1	6.67	2	12.50
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00	0	0.00

Table 10.A.14 Special Services Summary for ELA, Grades Seven through Eleven—R-FEP Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Non-Embedded Supports—Alternate Response Options	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	2	66.67	2	100.00	1	100.00
Non-Embedded Supports—Large Print	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	0	0.00	1	50.00	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00
Designated Supports						
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Separate Setting	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00
Individualized Aid						
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	1	33.33	2	100.00	1	100.00
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 10.A.15 Special Services Summary for Mathematics, Grades Three through Six—All Tested

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Non-Embedded Supports—Abacus	2	0.29	0	0.00	1	0.18	0	0.00
Non-Embedded Supports—Alternate Response Options	1	0.15	0	0.00	1	0.18	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	9	1.32	12	1.87	7	1.28	7	3.08
Non-Embedded Supports—Calculator	0	0.00	0	0.00	0	0.00	4	1.76
Non-Embedded Supports—Large Print	5	0.73	5	0.78	4	0.73	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	7	1.09	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Non-Embedded Supports—Administration of the test at the most beneficial time of day	17	2.49	21	3.27	16	2.93	9	3.96
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	24	3.52	21	3.27	12	2.20	12	5.29
Non-Embedded Supports—Scribe	10	1.47	14	2.18	10	1.83	9	3.96
Non-Embedded Supports—Separate Setting	9	1.32	16	2.49	10	1.83	23	10.13
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00	0	0.00
Individualized Aid								
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Mathematics Tools	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	0	0.00	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	31	4.55	43	6.70	32	5.86	24	10.57
Designated support or accommodation is in Section 504 plan	2	0.29	1	0.16	0	0.00	1	0.44

Table 10.A.16 Special Services Summary for Mathematics, Grades Seven through Eleven—All Tested

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Non-Embedded Supports—Abacus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Alternate Response Options	1	0.95	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	5	4.76	10	12.66	9	52.94
Non-Embedded Supports—Calculator	0	0.00	2	2.53	0	0.00
Non-Embedded Supports—Large Print	0	0.00	1	1.27	1	5.88
Non-Embedded Supports—Multiplication Table	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00
Designated Supports						
Non-Embedded Supports—Administration of the test at the most beneficial time of day	5	4.76	0	0.00	4	23.53
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	2	2.53	1	5.88
Non-Embedded Supports—Scribe	3	2.86	8	10.13	5	29.41
Non-Embedded Supports—Separate Setting	4	3.81	3	3.80	0	0.00
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00
Individualized Aid						
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Mathematics Tools	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	8	7.62	13	16.46	11	64.71
Designated support or accommodation is in Section 504 plan	0	0.00	1	1.27	0	0.00

Table 10.A.17 Special Services Summary for Mathematics, Grades Three through Six—Students Not in Special Education

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Non-Embedded Supports—Abacus	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Alternate Response Options	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	1	0.17	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Calculator	0	0.00	0	0.00	0	0.00	2	1.04
Non-Embedded Supports—Large Print	0	0.00	1	0.18	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Non-Embedded Supports—Administration of the test at the most beneficial time of day	6	1.00	1	0.18	1	0.21	1	0.52
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	9	1.51	4	0.72	1	0.21	4	2.08
Non-Embedded Supports—Scribe	1	0.17	1	0.18	0	0.00	2	1.04
Non-Embedded Supports—Separate Setting	5	0.84	2	0.36	1	0.21	6	3.13
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00	0	0.00
Individualized Aid								
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Mathematics Tools	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	0	0.00	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	2	0.33	1	0.18	0	0.00	1	0.52

Table 10.A.18 Special Services Summary for Mathematics, Grades Seven through Eleven—Students Not in Special Education

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Non-Embedded Supports—Abacus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Alternate Response Options	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	2	2.13	0	0.00	0	0.00
Non-Embedded Supports—Calculator	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Large Print	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00
Designated Supports						
Non-Embedded Supports—Administration of the test at the most beneficial time of day	1	1.06	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	0	0.00	1	1.72	0	0.00
Non-Embedded Supports—Separate Setting	0	0.00	1	1.72	0	0.00
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00
Individualized Aid						
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Mathematics Tools	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	0	0.00	1	1.72	0	0.00

Table 10.A.19 Special Services Summary for Mathematics, Grades Three through Six—Students in Special Education

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Non-Embedded Supports—Abacus	2	2.38	0	0.00	1	1.37	0	0.00
Non-Embedded Supports—Alternate Response Options	1	1.19	0	0.00	1	1.37	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	8	9.52	12	13.33	7	9.59	7	20.00
Non-Embedded Supports—Calculator	0	0.00	0	0.00	0	0.00	2	5.71
Non-Embedded Supports—Large Print	5	5.95	4	4.44	4	5.48	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	7	7.78	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Non-Embedded Supports—Administration of the test at the most beneficial time of day	11	13.10	20	22.22	15	20.55	8	22.86
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	15	17.86	17	18.89	11	15.07	8	22.86
Non-Embedded Supports—Scribe	9	10.71	13	14.44	10	13.70	7	20.00
Non-Embedded Supports—Separate Setting	4	4.76	14	15.56	9	12.33	17	48.57
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00	0	0.00
Individualized Aid								
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Mathematics Tools	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	0	0.00	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	31	36.90	43	47.78	32	43.84	24	68.57
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00	0	0.00

Table 10.A.20 Special Services Summary for Mathematics, Grades Seven through Eleven—Students in Special Education

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Non-Embedded Supports—Abacus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Alternate Response Options	1	9.09	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	3	27.27	10	47.62	9	69.23
Non-Embedded Supports—Calculator	0	0.00	2	9.52	0	0.00
Non-Embedded Supports—Large Print	0	0.00	1	4.76	1	7.69
Non-Embedded Supports—Multiplication Table	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00
Designated Supports						
Non-Embedded Supports—Administration of the test at the most beneficial time of day	4	36.36	0	0.00	4	30.77
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	2	9.52	1	7.69
Non-Embedded Supports—Scribe	3	27.27	7	33.33	5	38.46
Non-Embedded Supports—Separate Setting	4	36.36	2	9.52	0	0.00
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00
Individualized Aid						
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Mathematics Tools	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	8	72.73	13	61.90	11	84.62
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 10.A.21 Special Services Summary for Mathematics, Grades Three through Six—English-Only Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Non-Embedded Supports—Abacus	2	0.34	0	0.00	1	0.21	0	0.00
Non-Embedded Supports—Alternate Response Options	0	0.00	0	0.00	1	0.21	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	7	1.19	6	1.10	6	1.25	2	1.16
Non-Embedded Supports—Calculator	0	0.00	0	0.00	0	0.00	4	2.33
Non-Embedded Supports—Large Print	3	0.51	5	0.91	3	0.63	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	7	1.28	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Non-Embedded Supports—Administration of the test at the most beneficial time of day	17	2.88	20	3.66	13	2.71	8	4.65
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	20	3.39	19	3.47	11	2.30	8	4.65
Non-Embedded Supports—Scribe	7	1.19	10	1.83	9	1.88	8	4.65
Non-Embedded Supports—Separate Setting	8	1.36	15	2.74	9	1.88	19	11.05
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00	0	0.00
Individualized Aid								
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Mathematics Tools	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	0	0.00	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	28	4.75	36	6.58	27	5.64	17	9.88
Designated support or accommodation is in Section 504 plan	2	0.34	1	0.18	0	0.00	1	0.58

Table 10.A.22 Special Services Summary for Mathematics, Grades Seven through Eleven—English-Only Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Non-Embedded Supports—Abacus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Alternate Response Options	1	1.32	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	2	2.63	6	10.71	8	50.00
Non-Embedded Supports—Calculator	0	0.00	2	3.57	0	0.00
Non-Embedded Supports—Large Print	0	0.00	0	0.00	1	6.25
Non-Embedded Supports—Multiplication Table	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00
Designated Supports						
Non-Embedded Supports—Administration of the test at the most beneficial time of day	5	6.58	0	0.00	4	25.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	2	3.57	1	6.25
Non-Embedded Supports—Scribe	1	1.32	6	10.71	5	31.25
Non-Embedded Supports—Separate Setting	4	5.26	3	5.36	0	0.00
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00
Individualized Aid						
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Mathematics Tools	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	5	6.58	8	14.29	10	62.50
Designated support or accommodation is in Section 504 plan	0	0.00	1	1.79	0	0.00

Table 10.A.23 Special Services Summary for Mathematics, Grades Three through Six—I-FEP Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Non-Embedded Supports—Abacus	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Alternate Response Options	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	0	0.00	1	16.67	0	0.00	1	100.00
Non-Embedded Supports—Calculator	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Large Print	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Separate Setting	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00	0	0.00
Individualized Aid								
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Mathematics Tools	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	0	0.00	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	0	0.00	1	16.67	0	0.00	1	100.00
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00	0	0.00

Table 10.A.24 Special Services Summary for Mathematics, Grades Seven through Eleven—I-FEP Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Non-Embedded Supports—Abacus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Alternate Response Options	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Calculator	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Large Print	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00
Designated Supports						
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	1	50.00	0	0.00	0	0.00
Non-Embedded Supports—Separate Setting	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00
Individualized Aid						
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Mathematics Tools	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	1	50.00	0	0.00	0	0.00
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 10.A.25 Special Services Summary for Mathematics, Grades Three through Six—EL Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Non-Embedded Supports—Abacus	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Alternate Response Options	1	1.32	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	2	2.63	3	4.23	1	2.00	2	5.26
Non-Embedded Supports—Calculator	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Large Print	2	2.63	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	1	1.41	3	6.00	1	2.63
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	4	5.26	1	1.41	1	2.00	4	10.53
Non-Embedded Supports—Scribe	3	3.95	3	4.23	1	2.00	0	0.00
Non-Embedded Supports—Separate Setting	1	1.32	1	1.41	1	2.00	4	10.53
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00	0	0.00
Individualized Aid								
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Mathematics Tools	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	0	0.00	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	3	3.95	4	5.63	4	8.00	4	10.53
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00	0	0.00

Table 10.A.26 Special Services Summary for Mathematics, Grades Seven through Eleven—EL Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Non-Embedded Supports—Abacus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Alternate Response Options	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	1	4.55	1	5.26	0	0.00
Non-Embedded Supports—Calculator	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Large Print	0	0.00	1	5.26	0	0.00
Non-Embedded Supports—Multiplication Table	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00
Designated Supports						
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	1	4.55	2	10.53	0	0.00
Non-Embedded Supports—Separate Setting	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00
Individualized Aid						
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Mathematics Tools	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	1	4.55	2	10.53	0	0.00
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Table 10.A.27 Special Services Summary for Mathematics, Grades Three through Six—R-FEP Students

	Grade 3	Pct. of Total	Grade 4	Pct. of Total	Grade 5	Pct. of Total	Grade 6	Pct. of Total
Accommodations								
Non-Embedded Supports—Abacus	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Alternate Response Options	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	0	0.00	2	14.29	0	0.00	2	12.50
Non-Embedded Supports—Calculator	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Large Print	0	0.00	0	0.00	1	6.67	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00	0	0.00
Designated Supports								
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	1	7.14	0	0.00	0	0.00
Non-Embedded Supports—Scribe	0	0.00	1	7.14	0	0.00	1	6.25
Non-Embedded Supports—Separate Setting	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00	0	0.00
Individualized Aid								
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Mathematics Tools	0	0.00	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	0	0.00	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	0	0.00	2	14.29	1	6.67	2	12.50
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00	0	0.00

Table 10.A.28 Special Services Summary for Mathematics, Grades Seven through Eleven—R-FEP Students

	Grade 7	Pct. of Total	Grade 8	Pct. of Total	Grade 11	Pct. of Total
Accommodations						
Non-Embedded Supports—Abacus	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Alternate Response Options	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—American Sign Language	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Braille	2	50.00	3	100.00	1	100.00
Non-Embedded Supports—Calculator	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Large Print	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Print on Demand	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Text-to-Speech	0	0.00	0	0.00	0	0.00
Designated Supports						
Non-Embedded Supports—Administration of the test at the most beneficial time of day	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Contrast	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Color Overlay	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Magnification	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Noise Buffers	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Read Aloud	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Scribe	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Separate Setting	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Special Lighting or Acoustics	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translated Test Directions	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Translations (Glossary)	0	0.00	0	0.00	0	0.00
Individualized Aid						
Non-Embedded Supports—Bilingual Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—English Dictionary	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Individualized Aid (non-specific)	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Mathematics Tools	0	0.00	0	0.00	0	0.00
Non-Embedded Supports—Multiplication Table	N/A	N/A	N/A	N/A	N/A	N/A
Non-Embedded Supports—Thesaurus	0	0.00	0	0.00	0	0.00
Designated support or accommodation is in IEP	1	25.00	3	100.00	1	100.00
Designated support or accommodation is in Section 504 plan	0	0.00	0	0.00	0	0.00

Appendix 10.B: Score Distributions for Paper-Pencil Tests

Table 10.B.1 Frequency Distribution of Theta for Overall Scores—ELA

Theta Score	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
(-4.5,-4.0]	1	–	–	–	–	–	–
(-4.0,-3.5]	15	8	9	–	–	–	–
(-3.5,-3.0]	9	3	2	2	–	–	–
(-3.0,-2.5]	35	10	2	4	4	4	–
(-2.5,-2.0]	94	25	14	3	2	2	3
(-2.0,-1.5]	106	62	24	12	1	6	–
(-1.5,-1.0]	98	94	47	27	2	8	1
(-1.0,-0.5]	109	98	67	33	10	12	–
(-0.5,0.0]	102	112	95	24	13	16	1
(0.0,0.5]	61	87	105	30	12	6	1
(0.5,1.0]	25	70	70	34	11	9	5
(1.0,1.5]	14	43	58	24	16	2	1
(1.5,2.0]	–	14	30	14	13	2	4
(2.0,2.5]	–	–	15	6	5	1	2
(2.5,3.0]	–	–	–	3	8	1	1
(3.0,3.5]	–	–	–	–	–	–	1

Table 10.B.2 Frequency Distribution of Theta for Overall Scores—Mathematics

Theta Score	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
(-4.5,-4.0]	14	–	–	–	–	–	–
(-4.0,-3.5]	5	6	4	9	–	–	–
(-3.5,-3.0]	15	1	1	–	4	5	–
(-3.0,-2.5]	44	15	4	2	–	–	1
(-2.5,-2.0]	92	31	15	5	4	4	1
(-2.0,-1.5]	141	74	34	6	4	8	–
(-1.5,-1.0]	151	135	75	23	2	7	1
(-1.0,-0.5]	115	127	113	30	8	15	1
(-0.5,0.0]	70	120	106	29	11	16	1
(0.0,0.5]	28	84	94	48	18	14	–
(0.5,1.0]	6	30	55	39	16	5	6
(1.0,1.5]	1	14	25	15	11	1	2
(1.5,2.0]	–	5	13	14	15	2	1
(2.0,2.5]	–	–	7	5	5	1	3
(2.5,3.0]	–	–	–	2	5	1	–
(3.0,3.5]	–	–	–	–	2	–	–

Table 10.B.3 Percentiles of Scale Scores for Paper-Pencil Tests—ELA

Percentile	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
p1	2114	2131	2201	2255	2258	2288	2299
p10	2298	2350	2386	2381	2424	2340	2299
p20	2330	2389	2432	2419	2465	2386	2434
p30	2356	2418	2464	2446	2503	2425	2560
p40	2384	2445	2490	2474	2528	2453	2580
p50	2413	2468	2515	2510	2571	2466	2587
p60	2443	2497	2534	2541	2604	2483	2641
p70	2465	2521	2556	2573	2626	2516	2656
p80	2491	2553	2592	2600	2647	2556	2686
p90	2527	2591	2628	2646	2697	2591	2725
p99	2611	2662	2701	2724	2745	2728	2795

Table 10.B.4 Percentiles of Scale Scores for Paper-Pencil Tests—Mathematics

Percentile	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
p1	2189	2204	2284	2235	2250	2265	2280
p10	2313	2364	2390	2397	2384	2346	2343
p20	2345	2396	2424	2437	2471	2394	2456
p30	2368	2417	2447	2466	2510	2432	2559
p40	2387	2435	2466	2504	2532	2452	2564
p50	2406	2455	2486	2529	2559	2476	2584
p60	2423	2474	2505	2545	2587	2498	2592
p70	2444	2495	2525	2558	2625	2516	2612
p80	2467	2516	2547	2582	2652	2545	2647
p90	2491	2543	2587	2619	2675	2579	2690
p99	2572	2631	2686	2695	2766	2713	2712

Table 10.B.5 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Three

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2114, 2119]	12	12	2%	2%
[2120, 2129]	—	—	—	—
[2130, 2139]	—	—	—	—
[2140, 2149]	—	—	—	—
[2150, 2159]	1	13	0%	2%
[2160, 2169]	—	—	—	—
[2170, 2179]	—	—	—	—
[2180, 2189]	—	—	—	—
[2190, 2199]	1	14	0%	2%
[2200, 2209]	2	16	0%	2%
[2210, 2219]	1	17	0%	3%
[2220, 2229]	1	18	0%	3%
[2230, 2239]	6	24	1%	4%
[2240, 2249]	1	25	0%	4%
[2250, 2259]	2	27	0%	4%
[2260, 2269]	6	33	1%	5%
[2270, 2279]	12	45	2%	7%
[2280, 2289]	8	53	1%	8%
[2290, 2299]	15	68	2%	10%
[2300, 2309]	21	89	3%	13%
[2310, 2319]	19	108	3%	16%
[2320, 2329]	25	133	4%	20%
[2330, 2339]	26	159	4%	24%
[2340, 2349]	21	180	3%	27%
[2350, 2359]	25	205	4%	31%
[2360, 2369]	28	233	4%	35%
[2370, 2379]	27	260	4%	39%
[2380, 2389]	18	278	3%	42%
[2390, 2399]	26	304	4%	45%
[2400, 2409]	26	330	4%	49%
[2410, 2419]	20	350	3%	52%
[2420, 2429]	21	371	3%	55%
[2430, 2439]	20	391	3%	58%
[2440, 2449]	30	421	4%	63%
[2450, 2459]	32	453	5%	68%
[2460, 2469]	28	481	4%	72%
[2470, 2479]	23	504	3%	75%
[2480, 2489]	25	529	4%	79%
[2490, 2499]	24	553	4%	83%
[2500, 2509]	19	572	3%	86%
[2510, 2519]	15	587	2%	88%
[2520, 2529]	20	607	3%	91%
[2530, 2539]	10	617	1%	92%
[2540, 2549]	11	628	2%	94%
[2550, 2559]	9	637	1%	95%
[2560, 2569]	5	642	1%	96%
[2570, 2579]	8	650	1%	97%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2580, 2589]	4	654	1%	98%
[2590, 2599]	5	659	1%	99%
[2600, 2609]	3	662	0%	99%
[2610, 2619]	4	666	1%	100%
[2620, 2623]	3	669	0%	100%

Table 10.B.6 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Four

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2131, 2139]	7	7	1%	1%
[2140, 2149]	–	–	–	–
[2150, 2159]	–	–	–	–
[2160, 2169]	–	–	–	–
[2170, 2179]	–	–	–	–
[2180, 2189]	–	–	–	–
[2190, 2199]	1	8	0%	1%
[2200, 2209]	–	–	–	–
[2210, 2219]	–	–	–	–
[2220, 2229]	–	–	–	–
[2230, 2239]	–	–	–	–
[2240, 2249]	2	10	0%	2%
[2250, 2259]	2	12	0%	2%
[2260, 2269]	1	13	0%	2%
[2270, 2279]	4	17	1%	3%
[2280, 2289]	1	18	0%	3%
[2290, 2299]	4	22	1%	4%
[2300, 2309]	2	24	0%	4%
[2310, 2319]	9	33	1%	5%
[2320, 2329]	7	40	1%	6%
[2330, 2339]	11	51	2%	8%
[2340, 2349]	11	62	2%	10%
[2350, 2359]	15	77	2%	12%
[2360, 2369]	18	95	3%	15%
[2370, 2379]	13	108	2%	17%
[2380, 2389]	19	127	3%	20%
[2390, 2399]	24	151	4%	24%
[2400, 2409]	24	175	4%	28%
[2410, 2419]	16	191	3%	31%
[2420, 2429]	32	223	5%	36%
[2430, 2439]	19	242	3%	39%
[2440, 2449]	21	263	3%	42%
[2450, 2459]	26	289	4%	46%
[2460, 2469]	26	315	4%	50%
[2470, 2479]	23	338	4%	54%
[2480, 2489]	15	353	2%	56%
[2490, 2499]	36	389	6%	62%
[2500, 2509]	26	415	4%	66%
[2510, 2519]	20	435	3%	69%
[2520, 2529]	23	458	4%	73%
[2530, 2539]	15	473	2%	76%
[2540, 2549]	20	493	3%	79%
[2550, 2559]	18	511	3%	82%
[2560, 2569]	22	533	4%	85%
[2570, 2579]	18	551	3%	88%
[2580, 2589]	10	561	2%	90%
[2590, 2599]	14	575	2%	92%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2600, 2609]	14	589	2%	94%
[2610, 2619]	8	597	1%	95%
[2620, 2629]	10	607	2%	97%
[2630, 2639]	5	612	1%	98%
[2640, 2649]	4	616	1%	98%
[2650, 2659]	3	619	0%	99%
[2660, 2663]	7	626	1%	100%

Table 10.B.7 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Five

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2201, 2209]	9	9	2%	2%
[2210, 2219]	—	—	—	—
[2220, 2229]	1	10	0%	2%
[2230, 2239]	1	11	0%	2%
[2240, 2249]	—	—	—	—
[2250, 2259]	—	—	—	—
[2260, 2269]	—	—	—	—
[2270, 2279]	—	—	—	—
[2280, 2289]	2	13	0%	2%
[2290, 2299]	1	14	0%	3%
[2300, 2309]	3	17	1%	3%
[2310, 2319]	4	21	1%	4%
[2320, 2329]	2	23	0%	4%
[2330, 2339]	4	27	1%	5%
[2340, 2349]	6	33	1%	6%
[2350, 2359]	8	41	1%	8%
[2360, 2369]	6	47	1%	9%
[2370, 2379]	4	51	1%	9%
[2380, 2389]	5	56	1%	10%
[2390, 2399]	8	64	1%	12%
[2400, 2409]	15	79	3%	15%
[2410, 2419]	15	94	3%	17%
[2420, 2429]	12	106	2%	20%
[2430, 2439]	12	118	2%	22%
[2440, 2449]	18	136	3%	25%
[2450, 2459]	20	156	4%	29%
[2460, 2469]	18	174	3%	32%
[2470, 2479]	21	195	4%	36%
[2480, 2489]	19	214	4%	40%
[2490, 2499]	21	235	4%	44%
[2500, 2509]	25	260	5%	48%
[2510, 2519]	19	279	4%	52%
[2520, 2529]	30	309	6%	57%
[2530, 2539]	28	337	5%	63%
[2540, 2549]	23	360	4%	67%
[2550, 2559]	18	378	3%	70%
[2560, 2569]	16	394	3%	73%
[2570, 2579]	19	413	4%	77%
[2580, 2589]	15	428	3%	80%
[2590, 2599]	16	444	3%	83%
[2600, 2609]	17	461	3%	86%
[2610, 2619]	13	474	2%	88%
[2620, 2629]	14	488	3%	91%
[2630, 2639]	5	493	1%	92%
[2640, 2649]	11	504	2%	94%
[2650, 2659]	7	511	1%	95%
[2660, 2669]	8	519	1%	96%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2670, 2679]	4	523	1%	97%
[2680, 2689]	4	527	1%	98%
[2690, 2699]	1	528	0%	98%
[2700, 2701]	10	538	2%	100%

Table 10.B.8 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Six

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2210, 2219]	1	1	0%	0%
[2220, 2229]	1	2	0%	1%
[2230, 2239]	—	—	—	—
[2240, 2249]	—	—	—	—
[2250, 2259]	2	4	1%	2%
[2260, 2269]	—	—	—	—
[2270, 2279]	—	—	—	—
[2280, 2289]	2	6	1%	3%
[2290, 2299]	—	—	—	—
[2300, 2309]	2	8	1%	4%
[2310, 2319]	—	—	—	—
[2320, 2329]	—	—	—	—
[2330, 2339]	1	9	0%	4%
[2340, 2349]	2	11	1%	5%
[2350, 2359]	2	13	1%	6%
[2360, 2369]	5	18	2%	8%
[2370, 2379]	3	21	1%	10%
[2380, 2389]	8	29	4%	13%
[2390, 2399]	6	35	3%	16%
[2400, 2409]	3	38	1%	18%
[2410, 2419]	6	44	3%	20%
[2420, 2429]	8	52	4%	24%
[2430, 2439]	6	58	3%	27%
[2440, 2449]	10	68	5%	31%
[2450, 2459]	8	76	4%	35%
[2460, 2469]	7	83	3%	38%
[2470, 2479]	4	87	2%	40%
[2480, 2489]	3	90	1%	42%
[2490, 2499]	8	98	4%	45%
[2500, 2509]	10	108	5%	50%
[2510, 2519]	12	120	6%	56%
[2520, 2529]	3	123	1%	57%
[2530, 2539]	6	129	3%	60%
[2540, 2549]	3	132	1%	61%
[2550, 2559]	8	140	4%	65%
[2560, 2569]	7	147	3%	68%
[2570, 2579]	10	157	5%	73%
[2580, 2589]	8	165	4%	76%
[2590, 2599]	7	172	3%	80%
[2600, 2609]	7	179	3%	83%
[2610, 2619]	7	186	3%	86%
[2620, 2629]	5	191	2%	88%
[2630, 2639]	2	193	1%	89%
[2640, 2649]	5	198	2%	92%
[2650, 2659]	6	204	3%	94%
[2660, 2669]	1	205	0%	95%
[2670, 2679]	2	207	1%	96%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2680, 2689]	2	209	1%	97%
[2690, 2699]	–	–	–	–
[2700, 2709]	3	212	1%	98%
[2710, 2719]	1	213	0%	99%
[2720, 2724]	3	216	1%	100%

Table 10.B.9 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Seven

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2258, 2259]	2	2	2%	2%
[2260, 2269]	—	—	—	—
[2270, 2279]	1	3	1%	3%
[2280, 2289]	—	—	—	—
[2290, 2299]	1	4	1%	4%
[2300, 2309]	1	5	1%	5%
[2310, 2319]	—	—	—	—
[2320, 2329]	1	6	1%	6%
[2330, 2339]	—	—	—	—
[2340, 2349]	—	—	—	—
[2350, 2359]	—	—	—	—
[2360, 2369]	1	7	1%	7%
[2370, 2379]	—	—	—	—
[2380, 2389]	—	—	—	—
[2390, 2399]	1	8	1%	8%
[2400, 2409]	—	—	—	—
[2410, 2419]	1	9	1%	9%
[2420, 2429]	2	11	2%	11%
[2430, 2439]	1	12	1%	12%
[2440, 2449]	2	14	2%	14%
[2450, 2459]	3	17	3%	18%
[2460, 2469]	5	22	5%	23%
[2470, 2479]	1	23	1%	24%
[2480, 2489]	1	24	1%	25%
[2490, 2499]	2	26	2%	27%
[2500, 2509]	7	33	7%	34%
[2510, 2519]	2	35	2%	36%
[2520, 2529]	5	40	5%	41%
[2530, 2539]	3	43	3%	44%
[2540, 2549]	1	44	1%	45%
[2550, 2559]	1	45	1%	46%
[2560, 2569]	3	48	3%	49%
[2570, 2579]	2	50	2%	52%
[2580, 2589]	2	52	2%	54%
[2590, 2599]	6	58	6%	60%
[2600, 2609]	5	63	5%	65%
[2610, 2619]	4	67	4%	69%
[2620, 2629]	2	69	2%	71%
[2630, 2639]	4	73	4%	75%
[2640, 2649]	5	78	5%	80%
[2650, 2659]	3	81	3%	84%
[2660, 2669]	2	83	2%	86%
[2670, 2679]	1	84	1%	87%
[2680, 2689]	3	87	3%	90%
[2690, 2699]	1	88	1%	91%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2700, 2709]	–	–	–	–
[2710, 2719]	1	89	1%	92%
[2720, 2729]	–	–	–	–
[2730, 2739]	6	95	6%	98%
[2740, 2745]	2	97	2%	100%

Table 10.B.10 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Eight

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2288, 2289]	4	4	6%	6%
[2290, 2299]	—	—	—	—
[2300, 2309]	—	—	—	—
[2310, 2319]	—	—	—	—
[2320, 2329]	1	5	1%	7%
[2330, 2339]	1	6	1%	9%
[2340, 2349]	2	8	3%	12%
[2350, 2359]	3	11	4%	16%
[2360, 2369]	1	12	1%	17%
[2370, 2379]	—	—	—	—
[2380, 2389]	2	14	3%	20%
[2390, 2399]	2	16	3%	23%
[2400, 2409]	1	17	1%	25%
[2410, 2419]	3	20	4%	29%
[2420, 2429]	1	21	1%	30%
[2430, 2439]	2	23	3%	33%
[2440, 2449]	3	26	4%	38%
[2450, 2459]	5	31	7%	45%
[2460, 2469]	7	38	10%	55%
[2470, 2479]	2	40	3%	58%
[2480, 2489]	5	45	7%	65%
[2490, 2499]	2	47	3%	68%
[2500, 2509]	1	48	1%	70%
[2510, 2519]	1	49	1%	71%
[2520, 2529]	1	50	1%	72%
[2530, 2539]	2	52	3%	75%
[2540, 2549]	2	54	3%	78%
[2550, 2559]	2	56	3%	81%
[2560, 2569]	2	58	3%	84%
[2570, 2579]	1	59	1%	86%
[2580, 2589]	3	62	4%	90%
[2590, 2599]	2	64	3%	93%
[2600, 2609]	1	65	1%	94%
[2610, 2619]	—	—	—	—
[2620, 2629]	—	—	—	—
[2630, 2639]	—	—	—	—
[2640, 2649]	—	—	—	—
[2650, 2659]	—	—	—	—
[2660, 2669]	2	67	3%	97%
[2670, 2679]	—	—	—	—
[2680, 2689]	—	—	—	—
[2690, 2699]	—	—	—	—
[2700, 2709]	1	68	1%	99%
[2710, 2719]	—	—	—	—
[2720, 2729]	1	69	1%	100%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2730, 2739]	–	–	–	–
[2740, 2749]	–	–	–	–
[2750, 2759]	–	–	–	–
[2760, 2769]	–	–	–	–

Table 10.B.11 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—ELA, Grade Eleven

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2299, 2299]	3	3	15%	15%
[2300, 2309]	—	—	—	—
[2310, 2319]	—	—	—	—
[2320, 2329]	—	—	—	—
[2330, 2339]	—	—	—	—
[2340, 2349]	—	—	—	—
[2350, 2359]	—	—	—	—
[2360, 2369]	—	—	—	—
[2370, 2379]	—	—	—	—
[2380, 2389]	—	—	—	—
[2390, 2399]	1	4	5%	20%
[2400, 2409]	—	—	—	—
[2410, 2419]	—	—	—	—
[2420, 2429]	—	—	—	—
[2430, 2439]	—	—	—	—
[2440, 2449]	—	—	—	—
[2450, 2459]	—	—	—	—
[2460, 2469]	—	—	—	—
[2470, 2479]	1	5	5%	25%
[2480, 2489]	—	—	—	—
[2490, 2499]	—	—	—	—
[2500, 2509]	—	—	—	—
[2510, 2519]	—	—	—	—
[2520, 2529]	—	—	—	—
[2530, 2539]	—	—	—	—
[2540, 2549]	1	6	5%	30%
[2550, 2559]	—	—	—	—
[2560, 2569]	—	—	—	—
[2570, 2579]	2	8	10%	40%
[2580, 2589]	3	11	15%	55%
[2590, 2599]	—	—	—	—
[2600, 2609]	—	—	—	—
[2610, 2619]	—	—	—	—
[2620, 2629]	—	—	—	—
[2630, 2639]	1	12	5%	60%
[2640, 2649]	1	13	5%	65%
[2650, 2659]	1	14	5%	70%
[2660, 2669]	1	15	5%	75%
[2670, 2679]	1	16	5%	80%
[2680, 2689]	—	—	—	—
[2690, 2699]	2	18	10%	90%
[2700, 2709]	—	—	—	—
[2710, 2719]	—	—	—	—
[2720, 2729]	—	—	—	—
[2730, 2739]	—	—	—	—
[2740, 2749]	—	—	—	—

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2750, 2759]	1	19	5%	95%
[2760, 2769]	–	–	–	–
[2770, 2779]	–	–	–	–
[2780, 2789]	–	–	–	–
[2790, 2795]	1	20	5%	100%

Table 10.B.12 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Three

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2189, 2189]	16	16	2%	2%
[2190, 2199]	—	—	—	—
[2200, 2209]	2	18	0%	3%
[2210, 2219]	—	—	—	—
[2220, 2229]	2	20	0%	3%
[2230, 2239]	3	23	0%	3%
[2240, 2249]	1	24	0%	4%
[2250, 2259]	6	30	1%	4%
[2260, 2269]	3	33	0%	5%
[2270, 2279]	2	35	0%	5%
[2280, 2289]	5	40	1%	6%
[2290, 2299]	8	48	1%	7%
[2300, 2309]	14	62	2%	9%
[2310, 2319]	18	80	3%	12%
[2320, 2329]	16	96	2%	14%
[2330, 2339]	27	123	4%	18%
[2340, 2349]	28	151	4%	22%
[2350, 2359]	22	173	3%	25%
[2360, 2369]	40	213	6%	31%
[2370, 2379]	37	250	5%	37%
[2380, 2389]	31	281	5%	41%
[2390, 2399]	33	314	5%	46%
[2400, 2409]	41	355	6%	52%
[2410, 2419]	43	398	6%	58%
[2420, 2429]	40	438	6%	64%
[2430, 2439]	34	472	5%	69%
[2440, 2449]	26	498	4%	73%
[2450, 2459]	29	527	4%	77%
[2460, 2469]	28	555	4%	81%
[2470, 2479]	29	584	4%	86%
[2480, 2489]	26	610	4%	89%
[2490, 2499]	21	631	3%	93%
[2500, 2509]	6	637	1%	93%
[2510, 2519]	14	651	2%	95%
[2520, 2529]	15	666	2%	98%
[2530, 2539]	5	671	1%	98%
[2540, 2549]	3	674	0%	99%
[2550, 2559]	1	675	0%	99%
[2560, 2569]	—	—	—	—
[2570, 2579]	3	678	0%	99%
[2580, 2589]	2	680	0%	100%
[2590, 2599]	1	681	0%	100%
[2600, 2609]	—	—	—	—
[2610, 2619]	—	—	—	—
[2620, 2621]	1	682	0%	100%

Table 10.B.13 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Four

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2204, 2209]	7	7	1%	1%
[2210, 2219]	—	—	—	—
[2220, 2229]	—	—	—	—
[2230, 2239]	—	—	—	—
[2240, 2249]	—	—	—	—
[2250, 2259]	—	—	—	—
[2260, 2269]	—	—	—	—
[2270, 2279]	2	9	0%	1%
[2280, 2289]	—	—	—	—
[2290, 2299]	4	13	1%	2%
[2300, 2309]	5	18	1%	3%
[2310, 2319]	4	22	1%	3%
[2320, 2329]	4	26	1%	4%
[2330, 2339]	6	32	1%	5%
[2340, 2349]	12	44	2%	7%
[2350, 2359]	15	59	2%	9%
[2360, 2369]	9	68	1%	11%
[2370, 2379]	23	91	4%	14%
[2380, 2389]	20	111	3%	17%
[2390, 2399]	27	138	4%	21%
[2400, 2409]	28	166	4%	26%
[2410, 2419]	37	203	6%	32%
[2420, 2429]	33	236	5%	37%
[2430, 2439]	36	272	6%	42%
[2440, 2449]	33	305	5%	48%
[2450, 2459]	30	335	5%	52%
[2460, 2469]	39	374	6%	58%
[2470, 2479]	36	410	6%	64%
[2480, 2489]	24	434	4%	68%
[2490, 2499]	29	463	5%	72%
[2500, 2509]	33	496	5%	77%
[2510, 2519]	26	522	4%	81%
[2520, 2529]	31	553	5%	86%
[2530, 2539]	15	568	2%	88%
[2540, 2549]	22	590	3%	92%
[2550, 2559]	9	599	1%	93%
[2560, 2569]	8	607	1%	95%
[2570, 2579]	5	612	1%	95%
[2580, 2589]	9	621	1%	97%
[2590, 2599]	3	624	0%	97%
[2600, 2609]	4	628	1%	98%
[2610, 2619]	4	632	1%	98%
[2620, 2629]	3	635	0%	99%
[2630, 2639]	4	639	1%	100%
[2640, 2649]	1	640	0%	100%
[2650, 2659]	2	642	0%	100%

Table 10.B.14 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Five

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2219, 2219]	4	4	1%	1%
[2220, 2229]	—	—	—	—
[2230, 2239]	—	—	—	—
[2240, 2249]	—	—	—	—
[2250, 2259]	1	5	0%	1%
[2260, 2269]	—	—	—	—
[2270, 2279]	—	—	—	—
[2280, 2289]	1	6	0%	1%
[2290, 2299]	—	—	—	—
[2300, 2309]	2	8	0%	1%
[2310, 2319]	1	9	0%	2%
[2320, 2329]	5	14	1%	3%
[2330, 2339]	1	15	0%	3%
[2340, 2349]	7	22	1%	4%
[2350, 2359]	4	26	1%	5%
[2360, 2369]	6	32	1%	6%
[2370, 2379]	8	40	1%	7%
[2380, 2389]	14	54	3%	10%
[2390, 2399]	8	62	1%	11%
[2400, 2409]	16	78	3%	14%
[2410, 2419]	21	99	4%	18%
[2420, 2429]	21	120	4%	22%
[2430, 2439]	23	143	4%	26%
[2440, 2449]	27	170	5%	31%
[2450, 2459]	23	193	4%	35%
[2460, 2469]	35	228	6%	42%
[2470, 2479]	31	259	6%	47%
[2480, 2489]	27	286	5%	52%
[2490, 2499]	30	316	5%	58%
[2500, 2509]	22	338	4%	62%
[2510, 2519]	28	366	5%	67%
[2520, 2529]	27	393	5%	72%
[2530, 2539]	22	415	4%	76%
[2540, 2549]	23	438	4%	80%
[2550, 2559]	15	453	3%	83%
[2560, 2569]	13	466	2%	85%
[2570, 2579]	12	478	2%	88%
[2580, 2589]	17	495	3%	91%
[2590, 2599]	9	504	2%	92%
[2600, 2609]	5	509	1%	93%
[2610, 2619]	7	516	1%	95%
[2620, 2629]	9	525	2%	96%
[2630, 2639]	6	531	1%	97%
[2640, 2649]	2	533	0%	98%
[2650, 2659]	3	536	1%	98%
[2660, 2669]	2	538	0%	99%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2670, 2679]	2	540	0%	99%
[2680, 2689]	3	543	1%	99%
[2690, 2699]	1	544	0%	100%
[2700, 2700]	2	546	0%	100%

Table 10.B.15 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Six

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2235, 2239]	9	9	4%	4%
[2240, 2249]	—	—	—	—
[2250, 2259]	—	—	—	—
[2260, 2269]	—	—	—	—
[2270, 2279]	—	—	—	—
[2280, 2289]	—	—	—	—
[2290, 2299]	—	—	—	—
[2300, 2309]	—	—	—	—
[2310, 2319]	2	11	1%	5%
[2320, 2329]	—	—	—	—
[2330, 2339]	5	16	2%	7%
[2340, 2349]	—	—	—	—
[2350, 2359]	1	17	0%	7%
[2360, 2369]	1	18	0%	8%
[2370, 2379]	3	21	1%	9%
[2380, 2389]	—	—	—	—
[2390, 2399]	3	24	1%	11%
[2400, 2409]	7	31	3%	14%
[2410, 2419]	6	37	3%	16%
[2420, 2429]	5	42	2%	19%
[2430, 2439]	6	48	3%	21%
[2440, 2449]	5	53	2%	23%
[2450, 2459]	9	62	4%	27%
[2460, 2469]	10	72	4%	32%
[2470, 2479]	4	76	2%	33%
[2480, 2489]	6	82	3%	36%
[2490, 2499]	8	90	4%	40%
[2500, 2509]	8	98	4%	43%
[2510, 2519]	8	106	4%	47%
[2520, 2529]	11	117	5%	52%
[2530, 2539]	11	128	5%	56%
[2540, 2549]	18	146	8%	64%
[2550, 2559]	13	159	6%	70%
[2560, 2569]	10	169	4%	74%
[2570, 2579]	10	179	4%	79%
[2580, 2589]	7	186	3%	82%
[2590, 2599]	9	195	4%	86%
[2600, 2609]	5	200	2%	88%
[2610, 2619]	5	205	2%	90%
[2620, 2629]	1	206	0%	91%
[2630, 2639]	3	209	1%	92%
[2640, 2649]	5	214	2%	94%
[2650, 2659]	2	216	1%	95%
[2660, 2669]	2	218	1%	96%
[2670, 2679]	3	221	1%	97%
[2680, 2689]	2	223	1%	98%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2690, 2699]	2	225	1%	99%
[2700, 2709]	–	–	–	–
[2710, 2719]	1	226	0%	100%
[2720, 2729]	1	227	0%	100%
[2730, 2739]	–	–	–	–
[2740, 2748]	–	–	–	–

Table 10.B.16 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Seven

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2250, 2259]	3	3	3%	3%
[2260, 2269]	—	—	—	—
[2270, 2279]	1	4	1%	4%
[2280, 2289]	—	—	—	—
[2290, 2299]	—	—	—	—
[2300, 2309]	—	—	—	—
[2310, 2319]	—	—	—	—
[2320, 2329]	—	—	—	—
[2330, 2339]	2	6	2%	6%
[2340, 2349]	1	7	1%	7%
[2350, 2359]	1	8	1%	8%
[2360, 2369]	1	9	1%	9%
[2370, 2379]	1	10	1%	10%
[2380, 2389]	2	12	2%	11%
[2390, 2399]	—	—	—	—
[2400, 2409]	1	13	1%	12%
[2410, 2419]	—	—	—	—
[2420, 2429]	—	—	—	—
[2430, 2439]	2	15	2%	14%
[2440, 2449]	2	17	2%	16%
[2450, 2459]	3	20	3%	19%
[2460, 2469]	1	21	1%	20%
[2470, 2479]	2	23	2%	22%
[2480, 2489]	1	24	1%	23%
[2490, 2499]	4	28	4%	27%
[2500, 2509]	3	31	3%	30%
[2510, 2519]	5	36	5%	34%
[2520, 2529]	3	39	3%	37%
[2530, 2539]	7	46	7%	44%
[2540, 2549]	3	49	3%	47%
[2550, 2559]	4	53	4%	50%
[2560, 2569]	3	56	3%	53%
[2570, 2579]	3	59	3%	56%
[2580, 2589]	7	66	7%	63%
[2590, 2599]	3	69	3%	66%
[2600, 2609]	1	70	1%	67%
[2610, 2619]	1	71	1%	68%
[2620, 2629]	5	76	5%	72%
[2630, 2639]	4	80	4%	76%
[2640, 2649]	2	82	2%	78%
[2650, 2659]	7	89	7%	85%
[2660, 2669]	3	92	3%	88%
[2670, 2679]	3	95	3%	90%
[2680, 2689]	3	98	3%	93%
[2690, 2699]	—	—	—	—
[2700, 2709]	—	—	—	—

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2710, 2719]	–	–	–	–
[2720, 2729]	5	103	5%	98%
[2730, 2739]	–	–	–	–
[2740, 2749]	–	–	–	–
[2750, 2759]	–	–	–	–
[2760, 2769]	1	104	1%	99%
[2770, 2778]	1	105	1%	100%

Table 10.B.17 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Eight

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2265, 2269]	5	5	6%	6%
[2270, 2279]	—	—	—	—
[2280, 2289]	—	—	—	—
[2290, 2299]	—	—	—	—
[2300, 2309]	—	—	—	—
[2310, 2319]	—	—	—	—
[2320, 2329]	1	6	1%	8%
[2330, 2339]	1	7	1%	9%
[2340, 2349]	1	8	1%	10%
[2350, 2359]	1	9	1%	11%
[2360, 2369]	—	—	—	—
[2370, 2379]	4	13	5%	16%
[2380, 2389]	2	15	3%	19%
[2390, 2399]	2	17	3%	22%
[2400, 2409]	3	20	4%	25%
[2410, 2419]	2	22	3%	28%
[2420, 2429]	1	23	1%	29%
[2430, 2439]	2	25	3%	32%
[2440, 2449]	5	30	6%	38%
[2450, 2459]	4	34	5%	43%
[2460, 2469]	3	37	4%	47%
[2470, 2479]	4	41	5%	52%
[2480, 2489]	2	43	3%	54%
[2490, 2499]	6	49	8%	62%
[2500, 2509]	4	53	5%	67%
[2510, 2519]	4	57	5%	72%
[2520, 2529]	4	61	5%	77%
[2530, 2539]	2	63	3%	80%
[2540, 2549]	4	67	5%	85%
[2550, 2559]	3	70	4%	89%
[2560, 2569]	1	71	1%	90%
[2570, 2579]	1	72	1%	91%
[2580, 2589]	2	74	3%	94%
[2590, 2599]	—	—	—	—
[2600, 2609]	—	—	—	—
[2610, 2619]	1	75	1%	95%
[2620, 2629]	—	—	—	—
[2630, 2639]	—	—	—	—
[2640, 2649]	—	—	—	—
[2650, 2659]	—	—	—	—
[2660, 2669]	2	77	3%	97%
[2670, 2679]	1	78	1%	99%
[2680, 2689]	—	—	—	—
[2690, 2699]	—	—	—	—
[2700, 2709]	—	—	—	—
[2710, 2719]	1	79	1%	100%

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2720, 2729]	–	–	–	–
[2730, 2739]	–	–	–	–
[2740, 2749]	–	–	–	–
[2750, 2759]	–	–	–	–
[2760, 2769]	–	–	–	–
[2770, 2779]	–	–	–	–
[2780, 2789]	–	–	–	–
[2790, 2799]	–	–	–	–
[2800, 2802]	–	–	–	–

Table 10.B.18 Frequency Distribution of Overall Scale Scores for Paper-Pencil Tests—Mathematics, Grade Eleven

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2280, 2289]	1	1	6%	6%
[2290, 2299]	—	—	—	—
[2300, 2309]	—	—	—	—
[2310, 2319]	—	—	—	—
[2320, 2329]	—	—	—	—
[2330, 2339]	—	—	—	—
[2340, 2349]	1	2	6%	12%
[2350, 2359]	—	—	—	—
[2360, 2369]	—	—	—	—
[2370, 2379]	—	—	—	—
[2380, 2389]	—	—	—	—
[2390, 2399]	—	—	—	—
[2400, 2409]	1	3	6%	18%
[2410, 2419]	—	—	—	—
[2420, 2429]	—	—	—	—
[2430, 2439]	—	—	—	—
[2440, 2449]	—	—	—	—
[2450, 2459]	1	4	6%	24%
[2460, 2469]	—	—	—	—
[2470, 2479]	—	—	—	—
[2480, 2489]	—	—	—	—
[2490, 2499]	—	—	—	—
[2500, 2509]	—	—	—	—
[2510, 2519]	1	5	6%	29%
[2520, 2529]	—	—	—	—
[2530, 2539]	—	—	—	—
[2540, 2549]	—	—	—	—
[2550, 2559]	1	6	6%	35%
[2560, 2569]	1	7	6%	41%
[2570, 2579]	1	8	6%	47%
[2580, 2589]	2	10	12%	59%
[2590, 2599]	1	11	6%	65%
[2600, 2609]	—	—	—	—
[2610, 2619]	2	13	12%	76%
[2620, 2629]	—	—	—	—
[2630, 2639]	—	—	—	—
[2640, 2649]	1	14	6%	82%
[2650, 2659]	—	—	—	—
[2660, 2669]	—	—	—	—
[2670, 2679]	—	—	—	—
[2680, 2689]	—	—	—	—
[2690, 2699]	2	16	12%	94%
[2700, 2709]	—	—	—	—
[2710, 2719]	1	17	6%	100%
[2720, 2729]	—	—	—	—
[2730, 2739]	—	—	—	—

Scale Score	N	Cumulative Frequency	Percent	Cumulative Percent
[2740, 2749]	—	—	—	—
[2750, 2759]	—	—	—	—
[2760, 2769]	—	—	—	—
[2770, 2779]	—	—	—	—
[2780, 2789]	—	—	—	—
[2790, 2799]	—	—	—	—
[2800, 2809]	—	—	—	—
[2810, 2819]	—	—	—	—
[2820, 2829]	—	—	—	—
[2830, 2839]	—	—	—	—
[2840, 2849]	—	—	—	—
[2850, 2859]	—	—	—	—
[2860, 2862]	—	—	—	—

Appendix 10.C: Claim Scores for Paper-Pencil Tests

Table 10.C.1 Mean and Standard Deviation of Theta and Scale Scores for Claim 1 of Paper-pencil Tests

Content Area	Grade	No. of Items	No. of Examinees	Scale Score		Theta Score	
				Mean	SD	Mean	SD
ELA	3	19	669	2,419	92	-1.10	1.16
	4	20	626	2,475	91	-0.44	1.13
	5	19	538	2,525	95	0.14	1.18
	6	21	216	2,521	108	0.13	1.27
	7	20	97	2,572	115	0.66	1.41
	8	21	69	2,507	105	-0.17	1.33
	11	19	20	2,621	124	0.93	1.79
Mathematics	3	20	682	2,403	74	-1.49	1.01
	4	21	642	2,447	74	-0.89	0.98
	5	20	546	2,474	81	-0.55	1.05
	6	19	227	2,514	104	-0.01	1.30
	7	20	105	2,555	105	0.43	1.40
	8	20	79	2,480	99	-0.53	1.33
	11	21	17	2,529	114	0.17	1.44

Note: The LEAs contributing to means may vary across grade levels, which can lead to mean scale scores and theta scores that do not uniformly increase from one grade to the next higher grade.

Table 10.C.2 Mean and Standard Deviation of Theta and Scale Scores for Claim 2 of Paper-pencil Tests

Content Area	Grade	No. of Items	No. of Examinees	Scale Score		Theta Score	
				Mean	SD	Mean	SD
ELA	3	12	669	2,389	113	-1.45	1.38
	4	12	626	2,453	115	-0.69	1.38
	5	12	538	2,499	113	-0.15	1.38
	6	12	216	2,503	130	-0.11	1.56
	7	12	97	2,576	118	0.68	1.49
	8	12	69	2,452	108	-0.77	1.30
	11	12	20	2,603	133	0.75	1.83
Mathematics	3	12	682	2,415	83	-1.32	1.11
	4	10	642	2,471	90	-0.58	1.17
	5	11	546	2,506	96	-0.13	1.25
	6	11	227	2,472	150	-0.55	1.88
	7	11	105	2,520	164	-0.04	2.11
	8	10	79	2,483	123	-0.57	1.64
	11	11	17	2,581	144	0.83	1.81

Note: The LEAs contributing to means may vary across grade levels, which can lead to mean scale scores and theta scores that do not uniformly increase from one grade to the next higher grade.

Table 10.C.3 Mean and Standard Deviation of Theta and Scale Scores for Claim 3 of Paper-pencil Tests

Content Area	Grade	No. of Items	No. of Examinees	Scale Score		Theta Score	
				Mean	SD	Mean	SD
ELA	3	9	669	2,434	127	-0.87	1.48
	4	9	626	2,489	114	-0.23	1.33
	5	9	538	2,522	103	0.16	1.20
	6	8	216	2,516	112	0.11	1.31
	7	9	97	2,569	137	0.71	1.60
	8	9	69	2,486	125	-0.26	1.46
	11	9	20	2,590	154	0.95	1.79
Mathematics	3	9	682	2,392	101	-1.61	1.31
	4	10	642	2,456	99	-0.77	1.29
	5	10	546	2,486	102	-0.40	1.32
	6	10	227	2,472	146	-0.56	1.85
	7	10	105	2,554	139	0.38	1.84
	8	9	79	2,447	124	-0.94	1.60
	11	10	17	2,552	152	0.47	1.92

Note: The LEAs contributing to means may vary across grade levels, which can lead to mean scale scores and theta scores that do not uniformly increase from one grade to the next higher grade.

Table 10.C.4 Mean and Standard Deviation of Theta and Scale Scores for Claim 4 of Paper-pencil Tests

Content Area	Grade	No. of Items	No. of Examinees	Scale Score		Theta Score	
				Mean	SD	Mean	SD
ELA	3	11	669	2403	128	-1.30	1.55
	4	9	626	2461	126	-0.62	1.54
	5	11	538	2494	119	-0.22	1.44
	6	11	216	2490	126	-0.24	1.49
	7	10	97	2516	120	0.00	1.47
	8	10	69	2481	106	-0.45	1.31
	11	10	20	2601	122	0.73	1.72

Note: The LEAs contributing to means may vary across grade levels, which can lead to mean scale scores and theta scores that do not uniformly increase from one grade to the next higher grade.

Table 10.C.5 Percentages of Examinees in Achievement Levels for Claim 1 of Paper-pencil Tests

Content Area	Grade	Standard Not Met		Standard Nearly Met		Standard Met	
		N	%	N	%	N	%
ELA	3	238	36%	270	41%	148	23%
	4	160	26%	265	43%	194	31%
	5	98	18%	251	47%	181	34%
	6	75	35%	82	38%	57	27%
	7	23	24%	35	37%	36	38%
	8	30	46%	28	43%	7	11%
	11	2	11%	8	44%	8	44%
Mathematics	3	304	48%	264	42%	66	10%
	4	324	51%	223	35%	84	13%
	5	307	57%	172	32%	59	11%
	6	97	43%	91	41%	36	16%
	7	29	29%	41	41%	31	31%
	8	45	62%	24	33%	4	5%
	11	10	59%	7	41%	0	–

Table 10.C.6 Percentages of Examinees in Achievement Levels for Claim 2 of Paper-pencil Tests

Content Area	Grade	Standard Not Met		Standard Nearly Met		Standard Met	
		N	%	N	%	N	%
ELA	3	240	37%	305	46%	111	17%
	4	217	35%	288	47%	112	18%
	5	149	28%	241	45%	140	26%
	6	77	36%	102	48%	34	16%
	7	17	18%	41	44%	36	38%
	8	43	66%	19	29%	3	5%
	11	3	17%	9	50%	6	33%
Mathematics	3	250	37%	286	43%	131	20%
	4	164	26%	375	59%	93	15%
	5	161	30%	281	52%	100	18%
	6	84	37%	105	47%	36	16%
	7	23	23%	44	44%	34	34%
	8	15	21%	56	77%	2	3%
	11	2	12%	12	71%	3	18%

Table 10.C.7 Percentages of Examinees in Achievement Levels for Claim 3 of Paper-pencil Tests

Content Area	Grade	Standard Not Met		Standard Nearly Met		Standard Met	
		N	%	N	%	N	%
ELA	3	64	10%	425	65%	160	25%
	4	73	12%	405	66%	135	22%
	5	51	10%	391	74%	84	16%
	6	41	20%	156	74%	13	6%
	7	16	17%	58	62%	19	20%
	8	11	18%	49	79%	2	3%
	11	3	19%	11	69%	2	13%
Mathematics	3	98	15%	494	74%	74	11%
	4	156	25%	370	59%	106	17%
	5	141	26%	341	63%	57	11%
	6	56	25%	136	60%	34	15%
	7	10	10%	57	56%	34	34%
	8	19	25%	54	71%	3	4%
	11	3	18%	10	59%	4	24%

Table 10.C.8 Percentages of Examinees in Achievement Levels for Claim 4 of Paper-pencil Tests

Content Area	Grade	Standard Not Met		Standard Nearly Met		Standard Met	
		N	%	N	%	N	%
ELA	3	222	34%	282	43%	151	23%
	4	139	23%	347	56%	130	21%
	5	127	24%	280	53%	123	23%
	6	62	29%	120	56%	31	15%
	7	18	19%	62	66%	14	15%
	8	25	38%	37	57%	3	5%
	11	2	11%	11	61%	5	28%

Appendix 10.D: Demographic Summary for Paper-Pencil Tests

Table 10.D.1 Demographic Summary for Paper-pencil Tests—ELA, Grade Three

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	669	2,410	95	33%	23%	23%	21%	44%
Male	351	2,399	90	36%	24%	26%	15%	40%
Female	318	2,422	99	31%	21%	20%	28%	48%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	10	–	–	–	–	–	–	–
Asian American	15	2,420	79	27%	27%	20%	27%	47%
Pacific Islander	2	–	–	–	–	–	–	–
Filipino	7	–	–	–	–	–	–	–
Hispanic	191	2,391	87	46%	19%	19%	16%	35%
African American	22	2,405	64	18%	55%	23%	5%	27%
White	382	2,420	100	28%	23%	24%	25%	49%
Two or more races	40	2,421	103	28%	18%	38%	18%	55%
English only	590	2,414	96	31%	23%	24%	22%	46%
Initially Fluent English Proficient	7	–	–	–	–	–	–	–
English Learner	65	2,362	70	58%	23%	12%	6%	18%
Reclassified Fluent English Proficient	5	–	–	–	–	–	–	–
To be determined	0	–	–	–	–	–	–	–
English proficiency unknown	2	–	–	–	–	–	–	–
No special education services	585	2,414	96	31%	23%	24%	22%	46%
Special education services	84	2,379	84	49%	24%	15%	12%	27%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	398	2,421	95	29%	23%	23%	25%	48%
Economically disadvantaged	271	2,393	92	40%	23%	22%	15%	37%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	4	–	–	–	–	–	–	–
Not migrant	665	2,410	95	33%	23%	23%	21%	44%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	4	–	–	–	–	–	–	–
Asian American	10	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–
Filipino	2	–	–	–	–	–	–	–
Hispanic	74	2,420	81	35%	16%	26%	23%	49%
African American	7	–	–	–	–	–	–	–
White	279	2,423	99	27%	24%	23%	26%	49%
Two or more races	22	2,423	119	32%	14%	32%	23%	55%

				Percent in Performance Level				
	Number Tested	Mean Scale Score	SD of Scale Scores	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian	6	—	—	—	—	—	—	—
Asian American	5	—	—	—	—	—	—	—
Pacific Islander	2	—	—	—	—	—	—	—
Filipino	5	—	—	—	—	—	—	—
Hispanic	117	2,373	86	53%	21%	15%	11%	26%
African American	15	2,397	63	20%	53%	27%	—	27%
White	103	2,412	104	31%	19%	26%	23%	50%
Two or more races	18	2,418	83	22%	22%	44%	11%	56%
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 10.D.2 Demographic Summary for Paper-pencil Tests—ELA, Grade Four

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	626	2,467	96	29%	22%	23%	25%	49%
Male	292	2,454	92	35%	22%	25%	19%	43%
Female	334	2,478	98	25%	22%	22%	31%	53%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	13	2,405	84	46%	38%	8%	8%	15%
Asian American	20	2,474	78	20%	25%	45%	10%	55%
Pacific Islander	4	–	–	–	–	–	–	–
Filipino	3	–	–	–	–	–	–	–
Hispanic	153	2,438	92	44%	22%	17%	18%	35%
African American	35	2,437	90	40%	29%	20%	11%	31%
White	363	2,481	97	23%	21%	25%	31%	56%
Two or more races	35	2,502	77	14%	17%	34%	34%	69%
English only	546	2,471	96	27%	21%	25%	27%	52%
Initially Fluent English Proficient	6	–	–	–	–	–	–	–
English Learner	56	2,411	82	54%	30%	7%	9%	16%
Reclassified Fluent English Proficient	14	2,510	76	14%	21%	21%	43%	64%
To be determined	0	–	–	–	–	–	–	–
English proficiency unknown	4	–	–	–	–	–	–	–
No special education services	537	2,474	94	26%	22%	25%	27%	52%
Special education services	89	2,425	99	48%	24%	13%	15%	28%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	358	2,485	96	23%	20%	25%	32%	58%
Economically disadvantaged	268	2,442	91	38%	25%	21%	16%	37%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	2	–	–	–	–	–	–	–
Not migrant	624	2,467	96	29%	22%	23%	25%	49%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	4	–	–	–	–	–	–	–
Asian American	13	2,444	70	31%	31%	38%	–	38%
Pacific Islander	2	–	–	–	–	–	–	–
Filipino	3	–	–	–	–	–	–	–
Hispanic	56	2,462	103	36%	18%	18%	29%	46%
African American	13	2,465	110	31%	23%	23%	23%	46%
White	245	2,492	95	19%	20%	26%	35%	61%
Two or more races	22	2,517	69	14%	9%	36%	41%	77%

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian	9	—	—	—	—	—	—	—
Asian American	7	—	—	—	—	—	—	—
Pacific Islander	2	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	97	2,424	83	48%	24%	16%	11%	28%
African American	22	2,421	74	45%	32%	18%	5%	23%
White	118	2,457	96	32%	23%	24%	21%	45%
Two or More Races	13	2,477	87	15%	31%	31%	23%	54%
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 10.D.3 Demographic Summary for Paper-pencil Tests—ELA, Grade Five

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	538	2,507	98	22%	23%	32%	23%	55%
Male	272	2,496	90	26%	26%	30%	18%	48%
Female	266	2,518	105	18%	20%	34%	27%	61%
Gender unknown	0	—	—	—	—	—	—	—
American Indian	9	—	—	—	—	—	—	—
Asian American	10	—	—	—	—	—	—	—
Pacific Islander	2	—	—	—	—	—	—	—
Filipino	9	—	—	—	—	—	—	—
Hispanic	127	2,468	98	37%	23%	32%	9%	40%
African American	32	2,475	63	28%	38%	31%	3%	34%
White	312	2,523	98	16%	22%	33%	29%	62%
Two or more races	37	2,533	92	16%	24%	24%	35%	59%
English only	480	2,514	95	20%	23%	33%	25%	58%
Initially Fluent English Proficient	2	—	—	—	—	—	—	—
English Learner	41	2,415	86	54%	34%	12%	—	12%
Reclassified Fluent English Proficient	15	2,510	108	20%	13%	47%	20%	67%
To be determined	0	—	—	—	—	—	—	—
English proficiency unknown	0	—	—	—	—	—	—	—
No special education services	466	2,516	94	18%	24%	33%	25%	58%
Special education services	72	2,446	105	47%	21%	24%	8%	32%
Special education unknown	0	—	—	—	—	—	—	—
Not economically disadvantaged	296	2,523	91	16%	24%	31%	29%	60%
Economically disadvantaged	242	2,487	103	29%	22%	33%	15%	48%
Unknown economic status	0	—	—	—	—	—	—	—
Migrant	6	—	—	—	—	—	—	—
Not migrant	532	2,508	98	21%	24%	32%	23%	55%
Migrant status unknown	0	—	—	—	—	—	—	—
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	1	—	—	—	—	—	—	—
Asian American	6	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	7	—	—	—	—	—	—	—
Hispanic	48	2,500	90	23%	27%	33%	17%	50%
African American	11	2,506	52	9%	36%	45%	9%	55%
White	199	2,530	93	15%	23%	30%	33%	63%
Two or more races	24	2,521	97	21%	25%	25%	29%	54%

				Percent in Performance Level				
	Number Tested	Mean Scale Score	SD of Scale Scores	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
Primary Ethnicity—Economically Disadvantaged								
American Indian	8	—	—	—	—	—	—	—
Asian American	4	—	—	—	—	—	—	—
Pacific Islander	2	—	—	—	—	—	—	—
Filipino	2	—	—	—	—	—	—	—
Hispanic	79	2,448	98	46%	20%	30%	4%	34%
African American	21	2,459	63	38%	38%	24%	—	24%
White	113	2,510	105	19%	22%	38%	21%	59%
Two or more races	13	2,556	80	8%	23%	23%	46%	69%
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 10.D.4 Demographic Summary for Paper-pencil Tests—ELA, Grade Six

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	216	2,508	104	33%	24%	29%	14%	43%
Male	103	2,504	97	33%	30%	22%	15%	37%
Female	113	2,511	110	33%	19%	35%	13%	49%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	10	–	–	–	–	–	–	–
Asian American	3	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–
Filipino	2	–	–	–	–	–	–	–
Hispanic	67	2,475	98	42%	28%	24%	6%	30%
African American	20	2,489	112	45%	15%	30%	10%	40%
White	107	2,531	101	25%	23%	32%	20%	51%
Two or more races	7	–	–	–	–	–	–	–
English only	174	2,521	101	29%	24%	32%	16%	48%
Initially Fluent English Proficient	1	–	–	–	–	–	–	–
English Learner	25	2,401	83	80%	12%	8%	–	8%
Reclassified Fluent English Proficient	16	2,531	67	6%	50%	31%	13%	44%
To be determined	0	–	–	–	–	–	–	–
English proficiency unknown	0	–	–	–	–	–	–	–
No special education services	178	2,520	101	29%	22%	33%	16%	49%
Special education services	38	2,449	97	53%	32%	11%	5%	16%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	90	2,525	105	26%	26%	31%	18%	49%
Economically disadvantaged	126	2,495	101	38%	23%	28%	11%	39%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	4	–	–	–	–	–	–	–
Not migrant	212	2,510	102	32%	24%	30%	14%	44%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	4	–	–	–	–	–	–	–
Asian American	2	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–
Filipino	1	–	–	–	–	–	–	–
Hispanic	12	2,543	87	17%	17%	58%	8%	67%
African American	4	–	–	–	–	–	–	–
White	60	2,525	106	27%	27%	27%	20%	47%
Two or more races	7	–	–	–	–	–	–	–

				Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
	Number Tested	Mean Scale Score	SD of Scale Scores					
Primary Ethnicity—Economically Disadvantaged								
American Indian	6	—	—	—	—	—	—	—
Asian American	1	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	1	—	—	—	—	—	—	—
Hispanic	55	2,461	94	47%	31%	16%	5%	22%
African American	16	2,507	99	44%	6%	38%	13%	50%
White	47	2,538	94	23%	19%	38%	19%	57%
Two or more races	0	—	—	—	—	—	—	—
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 10.D.5 Demographic Summary for Paper-pencil Tests—ELA, Grade Seven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	97	2,556	114	24%	22%	35%	20%	55%
Male	40	2,508	126	45%	15%	23%	18%	40%
Female	57	2,590	93	9%	26%	44%	21%	65%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	0	–	–	–	–	–	–	–
Asian American	3	–	–	–	–	–	–	–
Pacific Islander	1	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–
Hispanic	19	2,486	101	58%	21%	16%	5%	21%
African American	23	2,591	107	4%	30%	39%	26%	65%
White	50	2,564	112	20%	20%	40%	20%	60%
Two or more races	1	–	–	–	–	–	–	–
English only	78	2,577	106	14%	23%	40%	23%	63%
Initially Fluent English Proficient	2	–	–	–	–	–	–	–
English Learner	13	2,446	91	77%	15%	8%	–	8%
Reclassified Fluent English Proficient	3	–	–	–	–	–	–	–
To be determined	0	–	–	–	–	–	–	–
English proficiency unknown	1	–	–	–	–	–	–	–
No special education services	85	2,568	113	20%	21%	36%	22%	59%
Special education services	12	2,475	97	50%	25%	25%	–	25%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	43	2,579	111	14%	21%	37%	28%	65%
Economically disadvantaged	54	2,539	115	31%	22%	33%	13%	46%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	1	–	–	–	–	–	–	–
Not migrant	96	2,557	115	23%	22%	35%	20%	55%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	0	–	–	–	–	–	–	–
Asian American	2	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–
Hispanic	2	–	–	–	–	–	–	–
African American	9	–	–	–	–	–	–	–
White	29	2,584	112	14%	14%	45%	28%	72%
Two or more races	1	–	–	–	–	–	–	–

				Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
	Number Tested	Mean Scale Score	SD of Scale Scores					
Primary Ethnicity—Economically Disadvantaged								
American Indian	0	—	—	—	—	—	—	—
Asian American	1	—	—	—	—	—	—	—
Pacific Islander	1	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	17	2,487	106	59%	18%	18%	6%	24%
African American	14	2,587	114	7%	21%	50%	21%	71%
White	21	2,536	109	29%	29%	33%	10%	43%
Two or more races	0	—	—	—	—	—	—	—
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 10.D.6 Demographic Summary for Paper-pencil Tests—ELA, Grade Eight

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	69	2,471	98	62%	22%	12%	4%	16%
Male	40	2,470	101	63%	25%	8%	5%	13%
Female	29	2,472	96	62%	17%	17%	3%	21%
Gender unknown	0	—	—	—	—	—	—	—
American Indian	4	—	—	—	—	—	—	—
Asian American	2	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	1	—	—	—	—	—	—	—
Hispanic	22	2,460	90	68%	18%	14%	—	14%
African American	1	—	—	—	—	—	—	—
White	38	2,477	112	55%	24%	13%	8%	21%
Two or more races	1	—	—	—	—	—	—	—
English only	58	2,473	101	59%	24%	12%	5%	17%
Initially Fluent English Proficient	0	—	—	—	—	—	—	—
English Learner	9	—	—	—	—	—	—	—
Reclassified Fluent English Proficient	2	—	—	—	—	—	—	—
To be determined	0	—	—	—	—	—	—	—
English proficiency unknown	0	—	—	—	—	—	—	—
No special education services	48	2,489	91	56%	25%	13%	6%	19%
Special education services	21	2,430	105	76%	14%	10%	—	10%
Special education unknown	0	—	—	—	—	—	—	—
Not economically disadvantaged	27	2,471	95	59%	30%	7%	4%	11%
Economically disadvantaged	42	2,471	101	64%	17%	14%	5%	19%
Unknown economic status	0	—	—	—	—	—	—	—
Migrant	1	—	—	—	—	—	—	—
Not migrant	68	2,471	99	62%	22%	12%	4%	16%
Migrant status unknown	0	—	—	—	—	—	—	—
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	1	—	—	—	—	—	—	—
Asian American	2	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	1	—	—	—	—	—	—	—
Hispanic	1	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	22	2,478	96	55%	32%	9%	5%	14%
Two or more races	0	—	—	—	—	—	—	—

				Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
	Number Tested	Mean Scale Score	SD of Scale Scores					
Primary Ethnicity—Economically Disadvantaged								
American Indian	3	–	–	–	–	–	–	–
Asian American	0	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–
Hispanic	21	2,469	83	67%	19%	14%	–	14%
African American	1	–	–	–	–	–	–	–
White	16	2,476	134	56%	13%	19%	13%	31%
Two or more races	1	–	–	–	–	–	–	–
Primary Ethnicity—Unknown Economic Status								
American Indian	0	–	–	–	–	–	–	–
Asian American	0	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–
Hispanic	0	–	–	–	–	–	–	–
African American	0	–	–	–	–	–	–	–
White	0	–	–	–	–	–	–	–
Two or more races	0	–	–	–	–	–	–	–

Table 10.D.7 Demographic Summary for Paper-pencil Tests—ELA, Grade Eleven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	20	2,571	148	25%	15%	40%	20%	60%
Male	11	2,554	141	27%	9%	45%	18%	64%
Female	9	—	—	—	—	—	—	—
Gender unknown	0	—	—	—	—	—	—	—
American Indian	0	—	—	—	—	—	—	—
Asian American	1	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	8	—	—	—	—	—	—	—
African American	1	—	—	—	—	—	—	—
White	7	—	—	—	—	—	—	—
Two or more races	3	—	—	—	—	—	—	—
English only	19	2,562	145	26%	16%	42%	16%	58%
Initially Fluent English Proficient	0	—	—	—	—	—	—	—
English Learner	0	—	—	—	—	—	—	—
Reclassified Fluent English Proficient	1	—	—	—	—	—	—	—
To be determined	0	—	—	—	—	—	—	—
English proficiency unknown	0	—	—	—	—	—	—	—
No special education services	4	—	—	—	—	—	—	—
Special education services	16	2,541	148	31%	19%	31%	19%	50%
Special education unknown	0	—	—	—	—	—	—	—
Not economically disadvantaged	10	—	—	—	—	—	—	—
Economically disadvantaged	10	—	—	—	—	—	—	—
Unknown economic status	0	—	—	—	—	—	—	—
Migrant	0	—	—	—	—	—	—	—
Not migrant	20	2,571	148	25%	15%	40%	20%	60%
Migrant status unknown	0	—	—	—	—	—	—	—
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	0	—	—	—	—	—	—	—
Asian American	1	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	4	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	3	—	—	—	—	—	—	—
Two or more races	2	—	—	—	—	—	—	—

				Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
	Number Tested	Mean Scale Score	SD of Scale Scores					
Primary Ethnicity—Economically Disadvantaged								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	4	—	—	—	—	—	—	—
African American	1	—	—	—	—	—	—	—
White	4	—	—	—	—	—	—	—
Two or more races	1	—	—	—	—	—	—	—
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 10.D.8 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Three

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	682	2,402	74	37%	31%	25%	7%	32%
Male	357	2,401	72	38%	32%	25%	6%	31%
Female	325	2,403	77	37%	29%	25%	9%	34%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	10	–	–	–	–	–	–	–
Asian American	15	2,420	80	27%	40%	13%	20%	33%
Pacific Islander	2	–	–	–	–	–	–	–
Filipino	7	–	–	–	–	–	–	–
Hispanic	203	2,381	71	50%	27%	22%	1%	23%
African American	22	2,391	76	45%	36%	14%	5%	18%
White	382	2,412	73	31%	31%	27%	10%	37%
Two or more races	41	2,420	77	24%	34%	29%	12%	41%
English only	590	2,407	74	34%	32%	26%	8%	34%
Initially Fluent English Proficient	7	–	–	–	–	–	–	–
English Learner	76	2,363	69	64%	20%	14%	1%	16%
Reclassified Fluent English Proficient	5	–	–	–	–	–	–	–
To be determined	1	–	–	–	–	–	–	–
English proficiency unknown	3	–	–	–	–	–	–	–
No special education services	598	2,405	75	35%	31%	26%	8%	34%
Special education services	84	2,378	64	55%	27%	14%	4%	18%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	402	2,411	72	32%	31%	28%	9%	37%
Economically disadvantaged	280	2,388	76	45%	29%	21%	5%	26%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	5	–	–	–	–	–	–	–
Not migrant	677	2,402	74	37%	30%	25%	7%	33%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	4	–	–	–	–	–	–	–
Asian American	10	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–
Filipino	2	–	–	–	–	–	–	–
Hispanic	76	2,400	64	39%	26%	34%	–	34%
African American	7	–	–	–	–	–	–	–
White	280	2,415	73	30%	32%	28%	11%	38%
Two or more races	23	2,412	90	30%	35%	17%	17%	35%

				Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
	Number Tested	Mean Scale Score	SD of Scale Scores					
Primary Ethnicity—Economically Disadvantaged								
American Indian	6	—	—	—	—	—	—	—
Asian American	5	—	—	—	—	—	—	—
Pacific Islander	2	—	—	—	—	—	—	—
Filipino	5	—	—	—	—	—	—	—
Hispanic	127	2,371	73	56%	28%	15%	2%	17%
African American	15	2,379	84	47%	40%	7%	7%	13%
White	102	2,404	75	35%	29%	26%	9%	35%
Two or more races	18	2,431	58	17%	33%	44%	6%	50%
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 10.D.9 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Four

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	642	2,454	74	27%	39%	26%	8%	35%
Male	300	2,453	71	25%	41%	27%	7%	34%
Female	342	2,455	77	28%	37%	26%	9%	35%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	12	2,419	56	42%	50%	8%	–	8%
Asian American	21	2,479	71	14%	43%	24%	19%	43%
Pacific Islander	4	–	–	–	–	–	–	–
Filipino	3	–	–	–	–	–	–	–
Hispanic	168	2,434	74	40%	32%	23%	6%	29%
African American	35	2,442	72	40%	26%	29%	6%	34%
White	364	2,462	73	21%	42%	29%	8%	37%
Two or more races	35	2,480	67	11%	46%	26%	17%	43%
English only	547	2,458	73	24%	39%	28%	8%	36%
Initially Fluent English Proficient	6	–	–	–	–	–	–	–
English Learner	71	2,415	63	48%	37%	15%	–	15%
Reclassified Fluent English Proficient	14	2,494	84	14%	36%	14%	36%	50%
To be determined	0	–	–	–	–	–	–	–
English proficiency unknown	4	–	–	–	–	–	–	–
No special education services	552	2,460	72	24%	39%	28%	9%	38%
Special education services	90	2,419	80	46%	37%	16%	2%	18%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	363	2,468	73	18%	41%	31%	10%	41%
Economically disadvantaged	279	2,437	72	37%	36%	20%	6%	27%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	5	–	–	–	–	–	–	–
Not migrant	637	2,455	74	27%	39%	27%	8%	35%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	4	–	–	–	–	–	–	–
Asian American	14	2,463	51	14%	57%	21%	7%	29%
Pacific Islander	2	–	–	–	–	–	–	–
Filipino	3	–	–	–	–	–	–	–
Hispanic	60	2,453	79	28%	33%	28%	10%	38%
African American	13	2,457	78	31%	31%	23%	15%	38%
White	245	2,470	73	17%	42%	32%	9%	42%
Two or more races	22	2,488	55	5%	45%	36%	14%	50%
Primary Ethnicity—Economically Disadvantaged								
American Indian	8	–	–	–	–	–	–	–
Asian American	7	–	–	–	–	–	–	–

				Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
	Number Tested	Mean Scale Score	SD of Scale Scores					
Pacific Islander	2	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–
Hispanic	108	2,423	70	46%	31%	19%	4%	23%
African American	22	2,434	68	45%	23%	32%	–	32%
White	119	2,444	69	29%	44%	22%	5%	27%
Two or more races	13	2,467	84	23%	46%	8%	23%	31%
Primary Ethnicity—Unknown Economic Status								
American Indian	0	–	–	–	–	–	–	–
Asian American	0	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–
Hispanic	0	–	–	–	–	–	–	–
African American	0	–	–	–	–	–	–	–
White	0	–	–	–	–	–	–	–
Two or more races	0	–	–	–	–	–	–	–

Table 10.D.10 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Five

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	546	2,487	79	33%	38%	16%	13%	29%
Male	277	2,492	77	32%	37%	16%	14%	31%
Female	269	2,482	81	34%	39%	16%	11%	27%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	9	–	–	–	–	–	–	–
Asian American	10	–	–	–	–	–	–	–
Pacific Islander	2	–	–	–	–	–	–	–
Filipino	9	–	–	–	–	–	–	–
Hispanic	135	2,455	75	50%	38%	7%	6%	13%
African American	32	2,453	45	41%	56%	3%	–	3%
White	312	2,501	81	28%	35%	21%	17%	37%
Two or more races	37	2,516	70	22%	35%	24%	19%	43%
English only	479	2,494	77	29%	40%	18%	14%	31%
Initially Fluent English Proficient	2	–	–	–	–	–	–	–
English Learner	50	2,423	74	70%	22%	6%	2%	8%
Reclassified Fluent English Proficient	15	2,481	68	47%	33%	7%	13%	20%
To be determined	0	–	–	–	–	–	–	–
English proficiency unknown	0	–	–	–	–	–	–	–
No special education services	473	2,494	78	29%	39%	17%	14%	31%
Special education services	73	2,444	74	56%	30%	10%	4%	14%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	299	2,502	79	26%	37%	20%	17%	37%
Economically disadvantaged	247	2,470	76	42%	39%	12%	7%	19%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	7	–	–	–	–	–	–	–
Not migrant	539	2,488	79	32%	38%	16%	13%	29%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	1	–	–	–	–	–	–	–
Asian American	6	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–
Filipino	7	–	–	–	–	–	–	–
Hispanic	51	2,479	75	35%	45%	10%	10%	20%
African American	11	2,459	26	27%	73%	–	–	–
White	199	2,508	82	24%	34%	22%	20%	42%
Two or more races	24	2,524	75	25%	21%	29%	25%	54%

				Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
	Number Tested	Mean Scale Score	SD of Scale Scores					
Primary Ethnicity—Economically Disadvantaged								
American Indian	8	—	—	—	—	—	—	—
Asian American	4	—	—	—	—	—	—	—
Pacific Islander	2	—	—	—	—	—	—	—
Filipino	2	—	—	—	—	—	—	—
Hispanic	84	2,441	71	58%	33%	5%	4%	8%
African American	21	2,450	53	48%	48%	5%	—	5%
White	113	2,488	77	34%	38%	18%	11%	28%
Two or more races	13	2,501	60	15%	62%	15%	8%	23%
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 10.D.11 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Six

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	227	2,509	99	32%	33%	22%	12%	34%
Male	110	2,502	101	37%	31%	22%	10%	32%
Female	117	2,515	96	27%	36%	23%	14%	37%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	10	–	–	–	–	–	–	–
Asian American	3	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–
Filipino	2	–	–	–	–	–	–	–
Hispanic	79	2,477	92	49%	30%	15%	5%	20%
African American	19	2,496	77	37%	32%	32%	–	32%
White	107	2,532	96	20%	37%	26%	17%	43%
Two or more races	7	–	–	–	–	–	–	–
English only	172	2,522	98	26%	34%	26%	15%	40%
Initially Fluent English Proficient	1	–	–	–	–	–	–	–
English Learner	38	2,437	82	68%	24%	5%	3%	8%
Reclassified Fluent English Proficient	16	2,539	67	13%	50%	31%	6%	38%
To be determined	0	–	–	–	–	–	–	–
English proficiency unknown	0	–	–	–	–	–	–	–
No special education services	192	2,517	98	28%	34%	25%	13%	38%
Special education services	35	2,468	93	57%	29%	9%	6%	14%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	91	2,536	99	19%	36%	24%	21%	45%
Economically disadvantaged	136	2,491	95	41%	32%	21%	6%	27%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	6	–	–	–	–	–	–	–
Not migrant	221	2,512	97	32%	33%	23%	12%	35%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	4	–	–	–	–	–	–	–
Asian American	2	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–
Filipino	1	–	–	–	–	–	–	–
Hispanic	14	2,544	79	14%	36%	36%	14%	50%
African American	3	–	–	–	–	–	–	–
White	60	2,532	100	20%	38%	22%	20%	42%
Two or more races	7	–	–	–	–	–	–	–

				Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
	Number Tested	Mean Scale Score	SD of Scale Scores					
Primary Ethnicity—Economically Disadvantaged								
American Indian	6	—	—	—	—	—	—	—
Asian American	1	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	1	—	—	—	—	—	—	—
Hispanic	65	2,463	89	57%	29%	11%	3%	14%
African American	16	2,487	79	44%	31%	25%	—	25%
White	47	2,532	92	19%	36%	32%	13%	45%
Two or more races	0	—	—	—	—	—	—	—
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 10.D.12 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Seven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	105	2,551	114	23%	30%	22%	26%	48%
Male	44	2,522	140	34%	23%	18%	25%	43%
Female	61	2,572	87	15%	34%	25%	26%	51%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	0	–	–	–	–	–	–	–
Asian American	3	–	–	–	–	–	–	–
Pacific Islander	1	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–
Hispanic	29	2,457	98	59%	31%	7%	3%	10%
African American	21	2,583	64	5%	43%	24%	29%	52%
White	50	2,585	113	12%	24%	28%	36%	64%
Two or more races	1	–	–	–	–	–	–	–
English only	76	2,584	102	11%	28%	28%	34%	62%
Initially Fluent English Proficient	2	–	–	–	–	–	–	–
English Learner	22	2,439	86	64%	36%	–	–	–
Reclassified Fluent English Proficient	4	–	–	–	–	–	–	–
To be determined	0	–	–	–	–	–	–	–
English proficiency unknown	1	–	–	–	–	–	–	–
No special education services	94	2,553	117	23%	28%	21%	28%	49%
Special education services	11	2,533	83	18%	45%	27%	9%	36%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	42	2,597	105	7%	21%	33%	38%	71%
Economically disadvantaged	63	2,520	110	33%	35%	14%	17%	32%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	3	–	–	–	–	–	–	–
Not migrant	102	2,555	111	22%	29%	23%	26%	49%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	0	–	–	–	–	–	–	–
Asian American	2	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–
Hispanic	3	–	–	–	–	–	–	–
African American	8	–	–	–	–	–	–	–
White	28	2,612	112	7%	14%	36%	43%	79%
Two or more races	1	–	–	–	–	–	–	–

				Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
	Number Tested	Mean Scale Score	SD of Scale Scores					
Primary Ethnicity—Economically Disadvantaged								
American Indian	0	—	—	—	—	—	—	—
Asian American	1	—	—	—	—	—	—	—
Pacific Islander	1	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	26	2,454	99	62%	31%	4%	4%	8%
African American	13	2,581	65	8%	46%	23%	23%	46%
White	22	2,550	106	18%	36%	18%	27%	45%
Two or more races	0	—	—	—	—	—	—	—
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 10.D.13 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Eight

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	79	2,470	95	65%	28%	3%	5%	8%
Male	48	2,481	94	67%	23%	2%	8%	10%
Female	31	2,452	94	61%	35%	3%	–	3%
Gender unknown	0	–	–	–	–	–	–	–
American Indian	4	–	–	–	–	–	–	–
Asian American	2	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–
Filipino	1	–	–	–	–	–	–	–
Hispanic	32	2,454	73	81%	19%	–	–	–
African American	0	–	–	–	–	–	–	–
White	38	2,489	111	50%	34%	5%	11%	16%
Two or more races	2	–	–	–	–	–	–	–
English only	56	2,473	102	61%	29%	4%	7%	11%
Initially Fluent English Proficient	0	–	–	–	–	–	–	–
English Learner	19	2,447	75	84%	16%	–	–	–
Reclassified Fluent English Proficient	3	–	–	–	–	–	–	–
To be determined	0	–	–	–	–	–	–	–
English proficiency unknown	1	–	–	–	–	–	–	–
No special education services	58	2,479	90	60%	31%	3%	5%	9%
Special education services	21	2,443	104	76%	19%	–	5%	5%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	30	2,485	93	53%	37%	3%	7%	10%
Economically disadvantaged	49	2,460	95	71%	22%	2%	4%	6%
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	3	–	–	–	–	–	–	–
Not migrant	76	2,470	96	63%	29%	3%	5%	8%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	1	–	–	–	–	–	–	–
Asian American	2	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–
Filipino	1	–	–	–	–	–	–	–
Hispanic	4	–	–	–	–	–	–	–
African American	0	–	–	–	–	–	–	–
White	21	2,480	106	57%	29%	5%	10%	14%
Two or more races	1	–	–	–	–	–	–	–

				Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
	Number Tested	Mean Scale Score	SD of Scale Scores					
Primary Ethnicity—Economically Disadvantaged								
American Indian	3	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	28	2,449	72	86%	14%	—	—	—
African American	0	—	—	—	—	—	—	—
White	17	2,500	118	41%	41%	6%	12%	18%
Two or more races	1	—	—	—	—	—	—	—
Primary Ethnicity—Unknown Economic Status								
American Indian	0	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—

Table 10.D.14 Demographic Summary for Paper-pencil Tests—Mathematics, Grade Eleven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level				
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded
All valid scores	17	2,554	121	29%	47%	24%	–	24%
Male	9	–	–	–	–	–	–	–
Female	8	–	–	–	–	–	–	–
Gender unknown	0	–	–	–	–	–	–	–
American Indian	0	–	–	–	–	–	–	–
Asian American	1	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–
Hispanic	7	–	–	–	–	–	–	–
African American	1	–	–	–	–	–	–	–
White	6	–	–	–	–	–	–	–
Two or more races	2	–	–	–	–	–	–	–
English only	16	2,553	125	31%	44%	25%	–	25%
Initially Fluent English Proficient	0	–	–	–	–	–	–	–
English Learner	0	–	–	–	–	–	–	–
Reclassified Fluent English Proficient	1	–	–	–	–	–	–	–
To be determined	0	–	–	–	–	–	–	–
English proficiency unknown	0	–	–	–	–	–	–	–
No special education services	4	–	–	–	–	–	–	–
Special education services	13	2,524	120	38%	54%	8%	–	8%
Special education unknown	0	–	–	–	–	–	–	–
Not economically disadvantaged	8	–	–	–	–	–	–	–
Economically disadvantaged	9	–	–	–	–	–	–	–
Unknown economic status	0	–	–	–	–	–	–	–
Migrant	0	–	–	–	–	–	–	–
Not migrant	17	2,554	121	29%	47%	24%	–	24%
Migrant status unknown	0	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged								
American Indian	0	–	–	–	–	–	–	–
Asian American	1	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–
Hispanic	4	–	–	–	–	–	–	–
African American	0	–	–	–	–	–	–	–
White	2	–	–	–	–	–	–	–
Two or more races	1	–	–	–	–	–	–	–

				Percent in Performance Level					
				Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Standard Met/Exceeded	
				Number Tested	Mean Scale Score	SD of Scale Scores			
Primary Ethnicity—Economically Disadvantaged									
American Indian	0	—	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—
Hispanic	3	—	—	—	—	—	—	—	—
African American	1	—	—	—	—	—	—	—	—
White	4	—	—	—	—	—	—	—	—
Two or more races	1	—	—	—	—	—	—	—	—
Primary Ethnicity—Unknown Economic Status									
American Indian	0	—	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—	—

Table 10.D.15 Ethnicity Summary by Economic Status for Claims—ELA, Grade Three

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	669	2,410	95	36%	41%	23%	37%	46%	17%	10%	65%	25%	34%	43%	23%
Male	351	2,399	90	39%	45%	17%	42%	47%	12%	11%	68%	21%	35%	47%	19%
Female	318	2,422	99	33%	37%	29%	31%	46%	23%	9%	62%	29%	33%	39%	28%
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	10	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	15	2,420	79	27%	53%	20%	33%	53%	13%	13%	67%	20%	27%	40%	33%
Pacific Islander	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	7	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	191	2,391	87	48%	36%	16%	44%	42%	14%	15%	71%	15%	41%	42%	17%
African American	22	2,405	64	32%	59%	9%	36%	55%	9%	5%	73%	23%	41%	45%	14%
White	382	2,420	100	30%	43%	27%	33%	47%	19%	8%	60%	32%	30%	44%	26%
Two or more races	40	2,421	103	28%	49%	23%	28%	51%	21%	5%	74%	21%	31%	36%	33%
English only	590	2,414	96	34%	42%	24%	35%	47%	18%	9%	64%	27%	32%	43%	25%
Initially Fluent English Proficient	7	–	–	–	–	–	–	–	–	–	–	–	–	–	–
English Learner	65	2,362	70	60%	31%	9%	57%	37%	6%	21%	74%	5%	55%	38%	6%
Reclassified Fluent English Proficient	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–
To be determined	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
English proficiency unknown	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–
No special education services	585	2,414	96	34%	42%	25%	35%	48%	18%	9%	64%	26%	32%	43%	24%
Special education services	84	2,379	84	55%	36%	8%	51%	37%	12%	13%	73%	13%	46%	41%	13%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Not economically disadvantaged	398	2,421	95	31%	43%	26%	32%	48%	20%	8%	62%	30%	30%	43%	27%
Economically disadvantaged	271	2,393	92	44%	38%	18%	43%	44%	13%	13%	70%	17%	40%	42%	17%
Unknown economic status	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard			Percent in Performance Level Claim 4 Standard			
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	
Migrant	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Not migrant	665	2,410	95	36%	41%	23%	36%	47%	17%	10%	65%	25%	34%	43%	23%	
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Primary Ethnicity—Not Economically Disadvantaged																
American Indian	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Asian American	10	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Filipino	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Hispanic	74	2,420	81	32%	42%	26%	38%	39%	23%	8%	70%	22%	32%	46%	22%	
African American	7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
White	279	2,423	99	29%	44%	27%	31%	50%	19%	8%	58%	34%	28%	44%	27%	
Two or more races	22	2,423	119	33%	43%	24%	24%	52%	24%	5%	81%	14%	29%	24%	48%	
Primary Ethnicity—Economically Disadvantaged																
American Indian	6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Asian American	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Pacific Islander	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Filipino	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Hispanic	117	2,373	86	59%	32%	9%	48%	43%	9%	19%	71%	10%	47%	39%	15%	
African American	15	2,397	63	27%	67%	7%	40%	53%	7%	–	80%	20%	47%	40%	13%	
White	103	2,412	104	33%	38%	29%	41%	40%	19%	8%	66%	26%	34%	43%	22%	
Two or more races	18	2,418	83	22%	56%	22%	33%	50%	17%	6%	67%	28%	33%	50%	17%	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard			Percent in Performance Level Claim 4 Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Unknown Economic Status															
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 10.D.16 Ethnicity Summary by Economic Status for Claims—ELA, Grade Four

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	626	2,467	96	26%	43%	31%	35%	47%	18%	12%	66%	22%	23%	56%	21%
Male	292	2,454	92	31%	41%	28%	40%	48%	11%	13%	67%	19%	25%	60%	16%
Female	334	2,478	98	21%	44%	35%	30%	45%	24%	11%	65%	24%	21%	53%	26%
Gender unknown	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
American Indian	13	2,405	84	31%	54%	15%	38%	62%	—	25%	75%	—	58%	33%	8%
Asian American	20	2,474	78	20%	50%	30%	25%	60%	15%	25%	65%	10%	10%	75%	15%
Pacific Islander	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	153	2,438	92	39%	38%	23%	45%	41%	14%	21%	67%	12%	31%	55%	14%
African American	35	2,437	90	34%	51%	14%	51%	34%	14%	20%	71%	9%	26%	66%	9%
White	363	2,481	97	20%	44%	36%	31%	49%	20%	7%	64%	29%	19%	54%	27%
Two or more races	35	2,502	77	17%	40%	43%	20%	57%	23%	—	74%	26%	11%	71%	17%
English only	546	2,471	96	23%	44%	33%	34%	47%	19%	10%	66%	23%	22%	56%	22%
Initially Fluent English Proficient	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English Learner	56	2,411	82	54%	38%	9%	54%	41%	5%	27%	63%	11%	34%	57%	9%
Reclassified Fluent English Proficient	14	2,510	76	14%	29%	57%	7%	57%	36%	8%	54%	38%	7%	71%	21%
To be determined	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English proficiency unknown	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—
No special education services	537	2,474	94	23%	44%	33%	33%	48%	19%	10%	67%	23%	21%	56%	22%
Special education services	89	2,425	99	44%	36%	20%	51%	36%	13%	24%	61%	15%	30%	57%	13%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Not economically disadvantaged	358	2,485	96	21%	40%	39%	27%	50%	23%	9%	64%	28%	19%	54%	27%
Economically disadvantaged	268	2,442	91	32%	47%	21%	46%	42%	12%	16%	69%	15%	27%	60%	13%
Unknown economic status	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard			Percent in Performance Level Claim 4 Standard			
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	
Migrant	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Not migrant	624	2,467	96	26%	43%	31%	35%	47%	18%	12%	66%	22%	23%	56%	21%	
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Primary Ethnicity—Not Economically Disadvantaged																
American Indian	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	13	2,444	70	31%	46%	23%	38%	62%	–	38%	54%	8%	15%	77%	8%	
Pacific Islander	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Filipino	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Hispanic	56	2,462	103	31%	33%	36%	40%	36%	24%	15%	62%	24%	25%	51%	24%	
African American	13	2,465	110	23%	46%	31%	38%	38%	23%	8%	77%	15%	31%	54%	15%	
White	245	2,492	95	18%	42%	41%	24%	52%	23%	7%	63%	30%	17%	52%	31%	
Two or more races	22	2,517	69	14%	36%	50%	9%	59%	32%	–	73%	27%	14%	64%	23%	
Primary Ethnicity—Economically Disadvantaged																
American Indian	9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Pacific Islander	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Hispanic	97	2,424	83	44%	40%	15%	47%	43%	9%	25%	70%	5%	34%	58%	8%	
African American	22	2,421	74	41%	55%	5%	59%	32%	9%	27%	68%	5%	23%	73%	5%	
White	118	2,457	96	23%	50%	27%	45%	42%	13%	9%	66%	25%	23%	59%	18%	
Two or more races	13	2,477	87	23%	46%	31%	38%	54%	8%	–	77%	23%	8%	85%	8%	

			Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard			Percent in Performance Level Claim 4 Standard			
			Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	
	Number Tested	Mean Scale Score	SD of Scale Scores												
Primary Ethnicity—Unknown Economic Status															
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–	–	
Asian American	0	–	–	–	–	–	–	–	–	–	–	–	–	–	
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–	–	
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–	–	
Hispanic	0	–	–	–	–	–	–	–	–	–	–	–	–	–	
African American	0	–	–	–	–	–	–	–	–	–	–	–	–	–	
White	0	–	–	–	–	–	–	–	–	–	–	–	–	–	
Two or more races	0	–	–	–	–	–	–	–	–	–	–	–	–	–	

Table 10.D.17 Ethnicity Summary by Economic Status for Claims—ELA, Grade Five

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	538	2,507	98	18%	47%	34%	28%	45%	26%	10%	74%	16%	24%	53%	23%
Male	272	2,496	90	22%	48%	30%	34%	46%	19%	12%	70%	17%	27%	53%	20%
Female	266	2,518	105	15%	47%	39%	22%	45%	34%	7%	79%	14%	21%	52%	27%
Gender unknown	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
American Indian	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	127	2,468	98	31%	48%	21%	44%	43%	13%	19%	69%	12%	38%	47%	15%
African American	32	2,475	63	28%	53%	19%	34%	66%	—	13%	88%	—	44%	50%	6%
White	312	2,523	98	12%	47%	40%	22%	44%	34%	5%	76%	19%	16%	58%	26%
Two or more races	37	2,533	92	19%	35%	46%	22%	41%	38%	3%	78%	19%	22%	49%	30%
English only	480	2,514	95	17%	47%	37%	25%	47%	28%	8%	75%	17%	21%	56%	23%
Initially Fluent English Proficient	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English Learner	41	2,415	86	41%	56%	2%	66%	32%	2%	37%	61%	2%	66%	27%	7%
Reclassified Fluent English Proficient	15	2,510	108	7%	50%	43%	14%	50%	36%	—	86%	14%	21%	21%	57%
To be determined	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English proficiency unknown	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
No special education services	466	2,516	94	16%	47%	37%	24%	48%	28%	7%	76%	17%	21%	54%	25%
Special education services	72	2,446	105	38%	49%	13%	55%	29%	16%	28%	65%	7%	41%	45%	14%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Not economically disadvantaged	296	2,523	91	14%	45%	41%	23%	47%	30%	6%	75%	19%	18%	57%	25%
Economically disadvantaged	242	2,487	103	24%	50%	25%	34%	44%	22%	14%	74%	12%	31%	48%	21%
Unknown economic status	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard			Percent in Performance Level Claim 4 Standard			
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	
Migrant	6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Not migrant	532	2,508	98	18%	48%	35%	27%	46%	27%	9%	74%	16%	23%	53%	23%	
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Primary Ethnicity—Not Economically Disadvantaged																
American Indian	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	48	2,500	90	17%	50%	33%	31%	50%	19%	13%	73%	15%	23%	60%	17%	
African American	11	2,506	52	18%	55%	27%	18%	82%	–	9%	91%	–	27%	64%	9%	
White	199	2,530	93	11%	45%	44%	21%	43%	36%	4%	75%	21%	15%	58%	28%	
Two or more races	24	2,521	97	29%	29%	42%	21%	50%	29%	4%	79%	17%	25%	58%	17%	
Primary Ethnicity—Economically Disadvantaged																
American Indian	8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	79	2,448	98	40%	47%	13%	51%	38%	10%	23%	67%	10%	47%	38%	14%	
African American	21	2,459	63	33%	52%	14%	43%	57%	–	14%	86%	–	52%	43%	5%	
White	113	2,510	105	15%	51%	34%	23%	47%	30%	8%	76%	16%	17%	60%	23%	
Two or more races	13	2,556	80	–	46%	54%	23%	23%	54%	–	77%	23%	15%	31%	54%	

			Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard			Percent in Performance Level Claim 4 Standard			
			Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	
	Number Tested	Mean Scale Score	SD of Scale Scores												
Primary Ethnicity—Unknown Economic Status															
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
African American	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
White	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Two or more races	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Table 10.D.18 Ethnicity Summary by Economic Status for Claims—ELA, Grade Six

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	216	2,508	104	35%	38%	27%	36%	48%	16%	20%	74%	6%	29%	56%	15%
Male	103	2,504	97	36%	37%	27%	41%	48%	12%	17%	75%	8%	31%	54%	15%
Female	113	2,511	110	34%	40%	26%	32%	48%	20%	22%	74%	5%	27%	58%	15%
Gender unknown	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
American Indian	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	3	2,450	147	33%	67%	—	33%	67%	—	33%	67%	—	33%	67%	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	67	2,475	98	47%	35%	18%	45%	45%	9%	25%	72%	3%	42%	53%	5%
African American	20	2,489	112	32%	53%	16%	47%	47%	5%	26%	74%	—	37%	53%	11%
White	107	2,531	101	29%	36%	35%	28%	50%	22%	14%	77%	9%	18%	59%	23%
Two or more races	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English only	174	2,521	101	31%	40%	29%	31%	50%	19%	17%	77%	7%	25%	57%	18%
Initially Fluent English Proficient	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English Learner	25	2,401	83	83%	8%	8%	88%	13%	—	46%	54%	—	63%	38%	—
Reclassified Fluent English Proficient	16	2,531	67	13%	63%	25%	19%	75%	6%	13%	81%	6%	19%	81%	—
To be determined	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English proficiency unknown	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
No special education services	178	2,520	101	32%	38%	30%	31%	50%	19%	17%	76%	7%	26%	58%	16%
Special education services	38	2,449	97	50%	39%	11%	61%	36%	3%	31%	66%	3%	44%	50%	6%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Not economically disadvantaged	90	2,525	105	27%	43%	30%	27%	50%	23%	13%	80%	7%	22%	58%	20%
Economically disadvantaged	126	2,495	101	41%	35%	24%	42%	46%	11%	24%	70%	6%	34%	55%	10%
Unknown economic status	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4			
				Standard			Standard			Standard			Standard			
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	
Migrant	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Not migrant	212	2,510	102	34%	39%	27%	35%	49%	16%	19%	75%	6%	28%	57%	15%	
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Primary Ethnicity—Not Economically Disadvantaged																
American Indian	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Asian American	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Filipino	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Hispanic	12	2,543	87	8%	67%	25%	17%	67%	17%	–	100%	–	17%	67%	17%	
African American	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
White	60	2,525	106	32%	35%	33%	27%	49%	24%	16%	78%	7%	22%	54%	24%	
Two or more races	7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Primary Ethnicity—Economically Disadvantaged																
American Indian	6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Asian American	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Filipino	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Hispanic	55	2,461	94	56%	28%	17%	52%	41%	7%	30%	67%	4%	48%	50%	2%	
African American	16	2,507	99	38%	44%	19%	44%	50%	6%	31%	69%	–	38%	50%	13%	
White	47	2,538	94	26%	38%	36%	30%	51%	19%	13%	76%	11%	13%	66%	21%	
Two or more races	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard			Percent in Performance Level Claim 4 Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Unknown Economic Status															
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 10.D.19 Ethnicity Summary by Economic Status for Claims—ELA, Grade Seven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	97	2,556	114	24%	37%	38%	18%	44%	38%	17%	62%	20%	19%	66%	15%
Male	40	2,508	126	30%	41%	30%	32%	46%	22%	32%	54%	14%	30%	54%	16%
Female	57	2,590	93	21%	35%	44%	9%	42%	49%	7%	68%	25%	12%	74%	14%
Gender unknown	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	19	2,486	101	53%	32%	16%	47%	37%	16%	44%	50%	6%	37%	63%	—
African American	23	2,591	107	23%	23%	55%	—	45%	55%	9%	55%	36%	5%	59%	36%
White	50	2,564	112	15%	48%	38%	15%	46%	40%	10%	71%	19%	19%	73%	8%
Two or more races	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English only	78	2,577	106	18%	38%	43%	11%	46%	43%	11%	67%	22%	14%	67%	18%
Initially Fluent English Proficient	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English Learner	13	2,446	91	69%	23%	8%	62%	31%	8%	58%	42%	—	46%	54%	—
Reclassified Fluent English Proficient	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
To be determined	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English proficiency unknown	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
No special education services	85	2,568	113	22%	36%	42%	16%	43%	41%	16%	63%	22%	16%	67%	17%
Special education services	12	2,475	97	45%	45%	9%	36%	45%	18%	30%	60%	10%	45%	55%	—
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Not economically disadvantaged	43	2,579	111	19%	36%	45%	12%	48%	40%	12%	60%	29%	24%	57%	19%
Economically disadvantaged	54	2,539	115	29%	38%	33%	23%	40%	37%	22%	65%	14%	15%	73%	12%
Unknown economic status	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard			Percent in Performance Level Claim 4 Standard			
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	
Migrant	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Not migrant	96	2,557	115	24%	38%	39%	17%	44%	39%	17%	62%	21%	19%	66%	15%	
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Primary Ethnicity—Not Economically Disadvantaged																
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Asian American	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Hispanic	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
African American	9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
White	29	2,584	112	11%	46%	43%	11%	46%	43%	7%	68%	25%	25%	61%	14%	
Two or more races	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Primary Ethnicity—Economically Disadvantaged																
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Asian American	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Pacific Islander	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Hispanic	17	2,487	106	53%	29%	18%	47%	35%	18%	44%	50%	6%	35%	65%	–	
African American	14	2,587	114	15%	31%	54%	–	38%	62%	8%	62%	31%	–	62%	38%	
White	21	2,536	109	20%	50%	30%	20%	45%	35%	15%	75%	10%	10%	90%	–	
Two or more races	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	

			Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard			Percent in Performance Level Claim 4 Standard			
			Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	
	Number Tested	Mean Scale Score	SD of Scale Scores												
Primary Ethnicity—Unknown Economic Status															
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 10.D.20 Ethnicity Summary by Economic Status for Claims—ELA, Grade Eight

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	69	2,471	98	46%	43%	11%	66%	29%	5%	18%	79%	3%	38%	57%	5%
Male	40	2,470	101	46%	41%	14%	70%	24%	5%	22%	75%	3%	32%	62%	5%
Female	29	2,472	96	46%	46%	7%	61%	36%	4%	12%	85%	4%	46%	50%	4%
Gender unknown	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
American Indian	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	22	2,460	90	52%	43%	5%	67%	29%	5%	33%	62%	5%	38%	57%	5%
African American	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
White	38	2,477	112	43%	40%	17%	60%	34%	6%	6%	91%	3%	46%	49%	6%
Two or more races	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English only	58	2,473	101	43%	46%	11%	65%	31%	4%	10%	86%	4%	37%	59%	4%
Initially Fluent English Proficient	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English Learner	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Reclassified Fluent English Proficient	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
To be determined	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
English proficiency unknown	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
No special education services	48	2,489	91	41%	46%	13%	63%	33%	4%	7%	91%	2%	37%	59%	4%
Special education services	21	2,430	105	58%	37%	5%	74%	21%	5%	44%	50%	6%	42%	53%	5%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Not economically disadvantaged	27	2,471	95	44%	52%	4%	60%	40%	—	9%	87%	4%	36%	64%	—
Economically disadvantaged	42	2,471	101	48%	38%	15%	70%	23%	8%	23%	74%	3%	40%	53%	8%
Unknown economic status	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard			Percent in Performance Level Claim 4 Standard			
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	
Migrant	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Not migrant	68	2,471	99	45%	44%	11%	67%	28%	5%	16%	80%	3%	38%	58%	5%	
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Primary Ethnicity—Not Economically Disadvantaged																
American Indian	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Asian American	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Filipino	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Hispanic	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
African American	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
White	22	2,478	96	43%	52%	5%	57%	43%	–	10%	85%	5%	43%	57%	–	
Two or more races	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Primary Ethnicity—Economically Disadvantaged																
American Indian	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Asian American	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Hispanic	21	2,469	83	52%	43%	5%	67%	29%	5%	33%	62%	5%	38%	57%	5%	
African American	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
White	16	2,476	134	43%	21%	36%	64%	21%	14%	–	100%	–	50%	36%	14%	
Two or more races	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard			Percent in Performance Level Claim 4 Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Unknown Economic Status															
American Indian	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 10.D.21 Ethnicity Summary by Economic Status for Claims—ELA, Grade Eleven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4		
				Standard			Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	20	2,571	148	11%	44%	44%	17%	50%	33%	19%	69%	13%	11%	61%	28%
Male	11	2,554	141	–	67%	33%	11%	67%	22%	–	100%	–	11%	67%	22%
Female	9	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	8	–	–	–	–	–	–	–	–	–	–	–	–	–	–
African American	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
White	7	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Two or more races	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–
English only	19	2,562	145	12%	47%	41%	18%	53%	29%	20%	73%	7%	12%	65%	24%
Initially Fluent English Proficient	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
English Learner	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Reclassified Fluent English Proficient	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
To be determined	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
English proficiency unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
No special education services	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Special education services	16	2,541	148	14%	57%	29%	14%	57%	29%	25%	67%	8%	14%	57%	29%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Not economically disadvantaged	10	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Economically disadvantaged	10	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Unknown economic status	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3			Percent in Performance Level Claim 4			
				Standard			Standard			Standard			Standard			
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	
Migrant	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Not migrant	20	2,571	148	11%	44%	44%	17%	50%	33%	19%	69%	13%	11%	61%	28%	
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Primary Ethnicity—Not Economically Disadvantaged																
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Asian American	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Hispanic	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
African American	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
White	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Two or more races	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Primary Ethnicity—Economically Disadvantaged																
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Asian American	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Hispanic	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
African American	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
White	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Two or more races	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard			Percent in Performance Level Claim 4 Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Unknown Economic Status															
American Indian	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Asian American	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pacific Islander	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Filipino	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hispanic	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
African American	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
White	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Two or more races	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 10.D.22 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Three

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	682	2,402	74	48%	42%	10%	37%	43%	20%	15%	74%	11%
Male	357	2,401	72	49%	42%	9%	36%	46%	18%	14%	75%	11%
Female	325	2,403	77	46%	42%	12%	39%	40%	22%	15%	73%	12%
Gender unknown	0	—	—	—	—	—	—	—	—	—	—	—
American Indian	10	—	—	—	—	—	—	—	—	—	—	—
Asian American	15	2,420	80	27%	53%	20%	33%	40%	27%	—	80%	20%
Pacific Islander	2	—	—	—	—	—	—	—	—	—	—	—
Filipino	7	—	—	—	—	—	—	—	—	—	—	—
Hispanic	203	2,381	71	57%	38%	5%	52%	36%	13%	22%	74%	5%
African American	22	2,391	76	53%	32%	16%	33%	57%	10%	5%	86%	10%
White	382	2,412	73	43%	43%	13%	31%	46%	23%	12%	75%	13%
Two or more races	41	2,420	77	43%	49%	8%	20%	48%	33%	15%	68%	18%
English only	590	2,407	74	46%	43%	11%	34%	45%	21%	13%	75%	12%
Initially Fluent English Proficient	7	—	—	—	—	—	—	—	—	—	—	—
English Learner	76	2,363	69	71%	23%	7%	67%	25%	8%	27%	71%	3%
Reclassified Fluent English Proficient	5	—	—	—	—	—	—	—	—	—	—	—
To be determined	1	—	—	—	—	—	—	—	—	—	—	—
English proficiency unknown	3	—	—	—	—	—	—	—	—	—	—	—
No special education services	598	2,405	75	45%	44%	11%	35%	44%	21%	14%	74%	12%
Special education services	84	2,378	64	68%	27%	5%	52%	37%	11%	19%	73%	7%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—
Not economically disadvantaged	402	2,411	72	44%	45%	11%	31%	44%	25%	12%	77%	11%
Economically disadvantaged	280	2,388	76	53%	37%	9%	46%	41%	12%	18%	71%	11%
Unknown economic status	0	—	—	—	—	—	—	—	—	—	—	—

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard			
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	
				Migrant	5	–	–	–	–	–	–	–	–
Not migrant	677	2,402	74	48%	42%	10%	37%	43%	20%	15%	74%	11%	
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–	
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	4	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	10	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	2	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	76	2,400	64	50%	46%	4%	39%	40%	21%	19%	77%	4%	
African American	7	–	–	–	–	–	–	–	–	–	–	–	–
White	280	2,415	73	42%	45%	13%	30%	44%	26%	11%	77%	12%	
Two or more races	23	2,412	90	50%	40%	10%	23%	45%	32%	14%	64%	23%	
Primary Ethnicity—Economically Disadvantaged													
American Indian	6	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	5	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	2	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	5	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	127	2,371	73	61%	34%	5%	59%	34%	7%	23%	72%	5%	
African American	15	2,379	84	50%	42%	8%	43%	43%	14%	7%	79%	14%	
White	102	2,404	75	47%	38%	15%	34%	54%	12%	13%	70%	16%	
Two or more races	18	2,431	58	35%	59%	6%	17%	50%	33%	17%	72%	11%	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
				Primary Ethnicity—Unknown Economic Status								
American Indian	0	–	–	–	–	–	–	–	–	–	–	–
Asian American	0	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–
Hispanic	0	–	–	–	–	–	–	–	–	–	–	–
African American	0	–	–	–	–	–	–	–	–	–	–	–
White	0	–	–	–	–	–	–	–	–	–	–	–
Two or more races	0	–	–	–	–	–	–	–	–	–	–	–

Table 10.D.23 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Four

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	642	2,454	74	51%	35%	13%	26%	59%	15%	25%	59%	17%
Male	300	2,453	71	50%	38%	12%	27%	60%	13%	25%	61%	14%
Female	342	2,455	77	52%	33%	15%	25%	59%	16%	24%	57%	19%
Gender unknown	0	—	—	—	—	—	—	—	—	—	—	—
American Indian	12	2,419	56	58%	33%	8%	42%	58%	—	42%	50%	8%
Asian American	21	2,479	71	38%	33%	29%	14%	76%	10%	14%	57%	29%
Pacific Islander	4	—	—	—	—	—	—	—	—	—	—	—
Filipino	3	—	—	—	—	—	—	—	—	—	—	—
Hispanic	168	2,434	74	63%	27%	10%	40%	52%	8%	34%	55%	11%
African American	35	2,442	72	53%	26%	21%	43%	49%	9%	37%	57%	6%
White	364	2,462	73	48%	40%	13%	20%	61%	19%	21%	61%	19%
Two or more races	35	2,480	67	40%	40%	20%	6%	74%	20%	11%	63%	26%
English only	547	2,458	73	49%	37%	14%	23%	61%	16%	23%	60%	17%
Initially Fluent English Proficient	6	—	—	—	—	—	—	—	—	—	—	—
English Learner	71	2,415	63	73%	24%	3%	50%	49%	1%	41%	51%	7%
Reclassified Fluent English Proficient	14	2,494	84	36%	29%	36%	14%	71%	14%	14%	43%	43%
To be determined	0	—	—	—	—	—	—	—	—	—	—	—
English proficiency unknown	4	—	—	—	—	—	—	—	—	—	—	—
No special education services	552	2,460	72	49%	36%	15%	25%	59%	16%	23%	59%	18%
Special education services	90	2,419	80	66%	31%	4%	35%	60%	5%	37%	56%	7%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—
Not economically disadvantaged	363	2,468	73	44%	40%	16%	18%	63%	19%	18%	62%	20%
Economically disadvantaged	279	2,437	72	61%	29%	10%	36%	55%	9%	33%	55%	12%
Unknown economic status	0	—	—	—	—	—	—	—	—	—	—	—

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard			
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	
Migrant	5	–	–	–	–	–	–	–	–	–	–	–	–
Not migrant	637	2,455	74	51%	35%	13%	26%	60%	15%	25%	59%	17%	
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	4	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	14	2,463	51	50%	43%	7%	14%	86%	–	14%	71%	14%	
Pacific Islander	2	–	–	–	–	–	–	–	–	–	–	–	
Filipino	3	–	–	–	–	–	–	–	–	–	–	–	
Hispanic	60	2,453	79	51%	32%	17%	29%	63%	8%	24%	63%	14%	
African American	13	2,457	78	46%	23%	31%	31%	54%	15%	31%	62%	8%	
White	245	2,470	73	44%	42%	15%	17%	60%	23%	18%	61%	22%	
Two or more races	22	2,488	55	32%	50%	18%	5%	73%	23%	5%	68%	27%	
Primary Ethnicity—Economically Disadvantaged													
American Indian	8	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	7	–	–	–	–	–	–	–	–	–	–	–	
Pacific Islander	2	–	–	–	–	–	–	–	–	–	–	–	
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	
Hispanic	108	2,423	70	70%	24%	6%	47%	46%	7%	39%	50%	10%	
African American	22	2,434	68	57%	29%	14%	50%	45%	5%	41%	55%	5%	
White	119	2,444	69	56%	35%	9%	26%	63%	11%	28%	60%	12%	
Two or more races	13	2,467	84	54%	23%	23%	8%	77%	15%	23%	54%	23%	

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Unknown Economic Status												
American Indian	0	–	–	–	–	–	–	–	–	–	–	–
Asian American	0	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–
Hispanic	0	–	–	–	–	–	–	–	–	–	–	–
African American	0	–	–	–	–	–	–	–	–	–	–	–
White	0	–	–	–	–	–	–	–	–	–	–	–
Two or more races	0	–	–	–	–	–	–	–	–	–	–	–

Table 10.D.24 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Five

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	546	2,487	79	57%	32%	11%	30%	52%	18%	26%	63%	11%
Male	277	2,492	77	53%	33%	13%	28%	52%	20%	27%	63%	10%
Female	269	2,482	81	61%	31%	8%	31%	52%	17%	25%	64%	11%
Gender unknown	0	—	—	—	—	—	—	—	—	—	—	—
American Indian	9	—	—	—	—	—	—	—	—	—	—	—
Asian American	10	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	2	—	—	—	—	—	—	—	—	—	—	—
Filipino	9	—	—	—	—	—	—	—	—	—	—	—
Hispanic	135	2,455	75	71%	24%	5%	47%	47%	6%	43%	49%	7%
African American	32	2,453	45	84%	16%	—	47%	53%	—	41%	59%	—
White	312	2,501	81	50%	36%	14%	22%	53%	25%	20%	67%	13%
Two or more races	37	2,516	70	41%	38%	22%	22%	51%	27%	8%	78%	14%
English only	479	2,494	77	54%	33%	12%	26%	54%	20%	23%	66%	11%
Initially Fluent English Proficient	2	—	—	—	—	—	—	—	—	—	—	—
English Learner	50	2,423	74	82%	16%	2%	66%	32%	2%	58%	38%	4%
Reclassified Fluent English Proficient	15	2,481	68	60%	33%	7%	33%	53%	13%	27%	67%	7%
To be determined	0	—	—	—	—	—	—	—	—	—	—	—
English proficiency unknown	0	—	—	—	—	—	—	—	—	—	—	—
No special education services	473	2,494	78	54%	34%	12%	27%	53%	20%	24%	64%	12%
Special education services	73	2,444	74	80%	18%	1%	46%	46%	8%	42%	56%	1%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—
Not economically disadvantaged	299	2,502	79	49%	35%	16%	22%	53%	25%	21%	65%	14%
Economically disadvantaged	247	2,470	76	67%	28%	5%	39%	51%	11%	33%	61%	6%
Unknown economic status	0	—	—	—	—	—	—	—	—	—	—	—

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard			
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	
Migrant	7	–	–	–	–	–	–	–	–	–	–	–	–
Not migrant	539	2,488	79	57%	32%	11%	29%	52%	19%	25%	64%	11%	–
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	6	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	7	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	51	2,479	75	65%	25%	10%	31%	59%	10%	29%	59%	12%	–
African American	11	2,459	26	91%	9%	–	36%	64%	–	55%	45%	–	–
White	199	2,508	82	44%	39%	17%	19%	51%	30%	18%	65%	16%	–
Two or more races	24	2,524	75	29%	46%	25%	25%	38%	38%	13%	71%	17%	–
Primary Ethnicity—Economically Disadvantaged													
American Indian	8	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	4	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	2	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	2	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	84	2,441	71	76%	23%	1%	56%	40%	4%	52%	43%	5%	–
African American	21	2,450	53	81%	19%	–	52%	48%	–	33%	67%	–	–
White	113	2,488	77	60%	32%	8%	27%	56%	17%	23%	69%	8%	–
Two or more races	13	2,501	60	62%	23%	15%	15%	77%	8%	–	92%	8%	–

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
				Primary Ethnicity—Unknown Economic Status								
American Indian	0	–	–	–	–	–	–	–	–	–	–	–
Asian American	0	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–
Hispanic	0	–	–	–	–	–	–	–	–	–	–	–
African American	0	–	–	–	–	–	–	–	–	–	–	–
White	0	–	–	–	–	–	–	–	–	–	–	–
Two or more races	0	–	–	–	–	–	–	–	–	–	–	–

Table 10.D.25 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Six

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	227	2,509	99	43%	41%	16%	37%	47%	16%	25%	60%	15%
Male	110	2,502	101	47%	39%	14%	41%	45%	14%	25%	60%	15%
Female	117	2,515	96	40%	42%	18%	34%	48%	18%	25%	60%	15%
Gender unknown	0	—	—	—	—	—	—	—	—	—	—	—
American Indian	10	—	—	—	—	—	—	—	—	—	—	—
Asian American	3	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—
Filipino	2	—	—	—	—	—	—	—	—	—	—	—
Hispanic	79	2,477	92	58%	33%	9%	55%	38%	6%	37%	56%	8%
African American	19	2,496	77	47%	47%	5%	37%	63%	—	26%	68%	5%
White	107	2,532	96	32%	46%	22%	25%	54%	21%	17%	60%	23%
Two or more races	7	—	—	—	—	—	—	—	—	—	—	—
English only	172	2,522	98	38%	43%	19%	31%	50%	19%	19%	63%	18%
Initially Fluent English Proficient	1	—	—	—	—	—	—	—	—	—	—	—
English Learner	38	2,437	82	79%	18%	3%	76%	21%	3%	53%	45%	3%
Reclassified Fluent English Proficient	16	2,539	67	20%	67%	13%	13%	73%	13%	19%	69%	13%
To be determined	0	—	—	—	—	—	—	—	—	—	—	—
English proficiency unknown	0	—	—	—	—	—	—	—	—	—	—	—
No special education services	192	2,517	98	39%	44%	17%	33%	51%	16%	23%	60%	17%
Special education services	35	2,468	93	66%	23%	11%	60%	26%	14%	34%	60%	6%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—
Not economically disadvantaged	91	2,536	99	31%	43%	26%	26%	49%	26%	14%	67%	19%
Economically disadvantaged	136	2,491	95	51%	39%	10%	45%	45%	10%	32%	56%	13%
Unknown economic status	0	—	—	—	—	—	—	—	—	—	—	—

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard			
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	
Migrant	6	–	–	–	–	–	–	–	–	–	–	–	–
Not migrant	221	2,512	97	43%	40%	17%	37%	47%	16%	24%	61%	15%	
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	4	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	2	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	1	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	14	2,544	79	29%	43%	29%	21%	57%	21%	21%	64%	14%	
African American	3	–	–	–	–	–	–	–	–	–	–	–	–
White	60	2,532	100	32%	42%	25%	25%	51%	24%	14%	66%	20%	
Two or more races	7	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Economically Disadvantaged													
American Indian	6	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	1	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	1	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	65	2,463	89	64%	31%	5%	63%	34%	3%	40%	54%	6%	
African American	16	2,487	79	56%	38%	6%	38%	63%	–	25%	69%	6%	
White	47	2,532	92	33%	50%	17%	26%	57%	17%	21%	53%	26%	
Two or more races	0	–	–	–	–	–	–	–	–	–	–	–	–

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Unknown Economic Status												
American Indian	0	–	–	–	–	–	–	–	–	–	–	–
Asian American	0	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–
Hispanic	0	–	–	–	–	–	–	–	–	–	–	–
African American	0	–	–	–	–	–	–	–	–	–	–	–
White	0	–	–	–	–	–	–	–	–	–	–	–
Two or more races	0	–	–	–	–	–	–	–	–	–	–	–

Table 10.D.26 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Seven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	105	2,551	114	29%	41%	31%	23%	44%	34%	10%	56%	34%
Male	44	2,522	140	39%	32%	29%	29%	39%	32%	10%	56%	34%
Female	61	2,572	87	22%	47%	32%	18%	47%	35%	10%	57%	33%
Gender unknown	0	—	—	—	—	—	—	—	—	—	—	—
American Indian	0	—	—	—	—	—	—	—	—	—	—	—
Asian American	3	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	1	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—
Hispanic	29	2,457	98	62%	35%	4%	50%	46%	4%	27%	62%	12%
African American	21	2,583	64	5%	57%	38%	10%	57%	33%	—	62%	38%
White	50	2,585	113	22%	39%	39%	16%	37%	47%	4%	55%	41%
Two or more races	1	—	—	—	—	—	—	—	—	—	—	—
English only	76	2,584	102	16%	43%	41%	14%	43%	43%	4%	55%	41%
Initially Fluent English Proficient	2	—	—	—	—	—	—	—	—	—	—	—
English Learner	22	2,439	86	71%	29%	—	57%	43%	—	33%	62%	5%
Reclassified Fluent English Proficient	4	—	—	—	—	—	—	—	—	—	—	—
To be determined	0	—	—	—	—	—	—	—	—	—	—	—
English proficiency unknown	1	—	—	—	—	—	—	—	—	—	—	—
No special education services	94	2,553	117	26%	41%	33%	23%	42%	35%	8%	59%	33%
Special education services	11	2,533	83	50%	40%	10%	20%	60%	20%	30%	30%	40%
Special education unknown	0	—	—	—	—	—	—	—	—	—	—	—
Not economically disadvantaged	42	2,597	105	15%	44%	41%	10%	37%	54%	7%	44%	49%
Economically disadvantaged	63	2,520	110	38%	38%	23%	32%	48%	20%	12%	65%	23%
Unknown economic status	0	—	—	—	—	—	—	—	—	—	—	—

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Migrant	3	–	–	–	–	–	–	–	–	–	–	–
Not migrant	102	2,555	111	28%	41%	32%	22%	43%	35%	9%	56%	35%
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged												
American Indian	0	–	–	–	–	–	–	–	–	–	–	–
Asian American	2	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–
Hispanic	3	–	–	–	–	–	–	–	–	–	–	–
African American	8	–	–	–	–	–	–	–	–	–	–	–
White	28	2,612	112	11%	44%	44%	7%	30%	63%	4%	41%	56%
Two or more races	1	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Economically Disadvantaged												
American Indian	0	–	–	–	–	–	–	–	–	–	–	–
Asian American	1	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	1	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–
Hispanic	26	2,454	99	65%	30%	4%	48%	48%	4%	26%	61%	13%
African American	13	2,581	65	–	69%	31%	15%	54%	31%	–	62%	38%
White	22	2,550	106	36%	32%	32%	27%	45%	27%	5%	73%	23%
Two or more races	0	–	–	–	–	–	–	–	–	–	–	–

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Unknown Economic Status												
American Indian	0	—	—	—	—	—	—	—	—	—	—	—
Asian American	0	—	—	—	—	—	—	—	—	—	—	—
Pacific Islander	0	—	—	—	—	—	—	—	—	—	—	—
Filipino	0	—	—	—	—	—	—	—	—	—	—	—
Hispanic	0	—	—	—	—	—	—	—	—	—	—	—
African American	0	—	—	—	—	—	—	—	—	—	—	—
White	0	—	—	—	—	—	—	—	—	—	—	—
Two or more races	0	—	—	—	—	—	—	—	—	—	—	—

Table 10.D.27 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Eight

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	79	2,470	95	62%	33%	5%	21%	77%	3%	25%	71%	4%
Male	48	2,481	94	66%	25%	9%	14%	82%	5%	20%	74%	7%
Female	31	2,452	94	55%	45%	–	31%	69%	–	33%	67%	–
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–
American Indian	4	–	–	–	–	–	–	–	–	–	–	–
Asian American	2	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–
Filipino	1	–	–	–	–	–	–	–	–	–	–	–
Hispanic	32	2,454	73	81%	19%	–	23%	77%	–	31%	69%	–
African American	0	–	–	–	–	–	–	–	–	–	–	–
White	38	2,489	111	44%	44%	12%	18%	76%	6%	14%	77%	9%
Two or more races	2	–	–	–	–	–	–	–	–	–	–	–
English only	56	2,473	102	56%	36%	8%	16%	80%	4%	19%	75%	6%
Initially Fluent English Proficient	0	–	–	–	–	–	–	–	–	–	–	–
English Learner	19	2,447	75	84%	16%	–	32%	68%	–	37%	63%	–
Reclassified Fluent English Proficient	3	–	–	–	–	–	–	–	–	–	–	–
To be determined	0	–	–	–	–	–	–	–	–	–	–	–
English proficiency unknown	1	–	–	–	–	–	–	–	–	–	–	–
No special education services	58	2,479	90	60%	35%	5%	22%	76%	2%	21%	75%	4%
Special education services	21	2,443	104	67%	28%	6%	17%	78%	6%	35%	60%	5%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–
Not economically disadvantaged	30	2,485	93	50%	43%	7%	18%	79%	4%	21%	76%	3%
Economically disadvantaged	49	2,460	95	69%	27%	4%	22%	76%	2%	28%	68%	4%
Unknown economic status	0	–	–	–	–	–	–	–	–	–	–	–

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard			
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	
Migrant	3	–	–	–	–	–	–	–	–	–	–	–	–
Not migrant	76	2,470	96	60%	34%	6%	21%	76%	3%	25%	71%	4%	–
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	1	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	2	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	1	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	4	–	–	–	–	–	–	–	–	–	–	–	–
African American	0	–	–	–	–	–	–	–	–	–	–	–	–
White	21	2,480	106	55%	35%	10%	15%	80%	5%	20%	75%	5%	–
Two or more races	1	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Economically Disadvantaged													
American Indian	3	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	0	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	28	2,449	72	86%	14%	–	21%	79%	–	36%	64%	–	–
African American	0	–	–	–	–	–	–	–	–	–	–	–	–
White	17	2,500	118	29%	57%	14%	21%	71%	7%	7%	80%	13%	–
Two or more races	1	–	–	–	–	–	–	–	–	–	–	–	–

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
Primary Ethnicity—Unknown Economic Status												
American Indian	0	–	–	–	–	–	–	–	–	–	–	–
Asian American	0	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–
Hispanic	0	–	–	–	–	–	–	–	–	–	–	–
African American	0	–	–	–	–	–	–	–	–	–	–	–
White	0	–	–	–	–	–	–	–	–	–	–	–
Two or more races	0	–	–	–	–	–	–	–	–	–	–	–

Table 10.D.28 Ethnicity Summary by Economic Status for Claims—Mathematics, Grade Eleven

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1			Percent in Performance Level Claim 2			Percent in Performance Level Claim 3		
				Standard			Standard			Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
All valid scores	17	2,554	121	59%	41%	–	12%	71%	18%	18%	59%	24%
Male	9	–	–	–	–	–	–	–	–	–	–	–
Female	8	–	–	–	–	–	–	–	–	–	–	–
Gender unknown	0	–	–	–	–	–	–	–	–	–	–	–
American Indian	0	–	–	–	–	–	–	–	–	–	–	–
Asian American	1	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–
Hispanic	7	–	–	–	–	–	–	–	–	–	–	–
African American	1	–	–	–	–	–	–	–	–	–	–	–
White	6	–	–	–	–	–	–	–	–	–	–	–
Two or more races	2	–	–	–	–	–	–	–	–	–	–	–
English only	16	2,553	125	63%	38%	–	13%	69%	19%	19%	56%	25%
Initially Fluent English Proficient	0	–	–	–	–	–	–	–	–	–	–	–
English Learner	0	–	–	–	–	–	–	–	–	–	–	–
Reclassified Fluent English Proficient	1	–	–	–	–	–	–	–	–	–	–	–
To be determined	0	–	–	–	–	–	–	–	–	–	–	–
English proficiency unknown	0	–	–	–	–	–	–	–	–	–	–	–
No special education services	4	–	–	–	–	–	–	–	–	–	–	–
Special education services	13	2,524	120	69%	31%	–	15%	62%	23%	23%	69%	8%
Special education unknown	0	–	–	–	–	–	–	–	–	–	–	–
Not economically disadvantaged	8	–	–	–	–	–	–	–	–	–	–	–
Economically disadvantaged	9	–	–	–	–	–	–	–	–	–	–	–
Unknown economic status	0	–	–	–	–	–	–	–	–	–	–	–

	Number Tested	Mean Scale Score	SD of Scale Scores	Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard			
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	
Migrant	0	–	–	–	–	–	–	–	–	–	–	–	–
Not migrant	17	2,554	121	59%	41%	–	12%	71%	18%	18%	59%	24%	–
Migrant status unknown	0	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Not Economically Disadvantaged													
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	1	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	4	–	–	–	–	–	–	–	–	–	–	–	–
African American	0	–	–	–	–	–	–	–	–	–	–	–	–
White	2	–	–	–	–	–	–	–	–	–	–	–	–
Two or more races	1	–	–	–	–	–	–	–	–	–	–	–	–
Primary Ethnicity—Economically Disadvantaged													
American Indian	0	–	–	–	–	–	–	–	–	–	–	–	–
Asian American	0	–	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–	–
Hispanic	3	–	–	–	–	–	–	–	–	–	–	–	–
African American	1	–	–	–	–	–	–	–	–	–	–	–	–
White	4	–	–	–	–	–	–	–	–	–	–	–	–
Two or more races	1	–	–	–	–	–	–	–	–	–	–	–	–

				Percent in Performance Level Claim 1 Standard			Percent in Performance Level Claim 2 Standard			Percent in Performance Level Claim 3 Standard		
				Not Met	Nearly Met	Met	Not Met	Nearly Met	Met	Not Met	Nearly Met	Met
				Number Tested	Mean Scale Score	SD of Scale Scores						
Primary Ethnicity—Unknown Economic Status												
American Indian	0	–	–	–	–	–	–	–	–	–	–	–
Asian American	0	–	–	–	–	–	–	–	–	–	–	–
Pacific Islander	0	–	–	–	–	–	–	–	–	–	–	–
Filipino	0	–	–	–	–	–	–	–	–	–	–	–
Hispanic	0	–	–	–	–	–	–	–	–	–	–	–
African American	0	–	–	–	–	–	–	–	–	–	–	–
White	0	–	–	–	–	–	–	–	–	–	–	–
Two or more races	0	–	–	–	–	–	–	–	–	–	–	–

Appendix 10.E: IRT Parameter Estimates

Table 10.E.1 IRT a -values for ELA, Grade Three

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	19	0.73	0.25	0.32	1.13
Claim 2	12	0.62	0.20	0.28	0.99
Claim 3	9	0.58	0.17	0.36	0.85
Claim 4	11	0.67	0.22	0.31	1.09
All items	51	0.67	0.22	0.28	1.13

Table 10.E.2 IRT a -values for ELA, Grade Four

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	0.69	0.30	0.24	1.41
Claim 2	12	0.55	0.22	0.25	1.06
Claim 3	9	0.58	0.21	0.27	0.81
Claim 4	9	0.59	0.06	0.44	0.64
All items	50	0.62	0.24	0.24	1.41

Table 10.E.3 IRT a -values for ELA, Grade Five

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	19	0.65	0.24	0.28	1.16
Claim 2	12	0.72	0.18	0.53	1.06
Claim 3	9	0.55	0.16	0.31	0.76
Claim 4	11	0.54	0.18	0.32	0.89
All items	51	0.63	0.21	0.28	1.16

Table 10.E.4 IRT a -values for ELA, Grade Six

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	21	0.60	0.20	0.27	1.00
Claim 2	12	0.55	0.12	0.30	0.71
Claim 3	8	0.54	0.20	0.22	0.85
Claim 4	11	0.51	0.18	0.24	0.79
All items	52	0.56	0.18	0.22	1.00

Table 10.E.5 IRT a -values for ELA, Grade Seven

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	0.55	0.18	0.21	0.80
Claim 2	12	0.51	0.20	0.22	0.90
Claim 3	9	0.53	0.22	0.18	0.82
Claim 4	10	0.47	0.14	0.19	0.68
All items	51	0.52	0.18	0.18	0.90

Table 10.E.6 IRT a-values for ELA, Grade Eight

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	21	0.56	0.21	0.15	0.85
Claim 2	12	0.60	0.27	0.15	1.24
Claim 3	9	0.40	0.15	0.18	0.61
Claim 4	10	0.57	0.25	0.23	1.01
All items	52	0.54	0.23	0.15	1.24

Table 10.E.7 IRT a-values for ELA, Grade Eleven

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	19	0.54	0.20	0.17	0.90
Claim 2	12	0.46	0.15	0.19	0.69
Claim 3	9	0.43	0.18	0.23	0.78
Claim 4	10	0.50	0.23	0.12	0.79
All items	50	0.49	0.19	0.12	0.90

Table 10.E.8 IRT a-values for Mathematics, Grade Three

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	0.91	0.28	0.48	1.38
Claim 2	12	0.87	0.26	0.41	1.26
Claim 3	9	0.81	0.34	0.35	1.28
All items	41	0.87	0.29	0.35	1.38

Table 10.E.9 IRT a-values for Mathematics, Grade Four

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	21	0.83	0.22	0.35	1.39
Claim 2	10	0.64	0.24	0.30	1.03
Claim 3	10	0.74	0.29	0.41	1.37
All items	41	0.76	0.25	0.30	1.39

Table 10.E.10 IRT a-values for Mathematics, Grade Five

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	0.70	0.28	0.37	1.34
Claim 2	11	0.59	0.22	0.27	1.02
Claim 3	10	0.62	0.25	0.26	1.05
All items	41	0.65	0.25	0.26	1.34

Table 10.E.11 IRT a-values for Mathematics, Grade Six

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	19	0.79	0.30	0.22	1.33
Claim 2	11	0.96	0.21	0.59	1.31
Claim 3	10	0.75	0.29	0.18	1.25
All items	40	0.83	0.28	0.18	1.33

Table 10.E.12 IRT *a*-values for Mathematics, Grade Seven

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	0.77	0.29	0.25	1.27
Claim 2	11	0.93	0.26	0.52	1.46
Claim 3	10	0.69	0.42	0.14	1.68
All items	41	0.80	0.32	0.14	1.68

Table 10.E.13 IRT *a*-values for Mathematics, Grade Eight

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	0.56	0.26	0.12	1.08
Claim 2	10	0.57	0.22	0.25	0.86
Claim 3	9	0.45	0.16	0.18	0.66
All items	39	0.54	0.23	0.12	1.08

Table 10.E.14 IRT *a*-values for Mathematics, Grade Eleven

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	21	0.46	0.22	0.11	0.89
Claim 2	11	0.47	0.18	0.10	0.69
Claim 3	10	0.48	0.28	0.15	1.09
All items	42	0.47	0.22	0.10	1.09

Table 10.E.15 IRT *b*-values for ELA, Grade Three

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	19	-0.74	1.09	-2.08	1.35
Claim 2	12	-1.01	0.63	-2.02	-0.03
Claim 3	9	-0.27	0.52	-0.83	0.51
Claim 4	11	-0.74	0.89	-2.03	0.86
All items	51	-0.72	0.88	-2.08	1.35

Table 10.E.16 IRT *b*-values for ELA, Grade Four

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	-0.12	1.23	-1.73	2.64
Claim 2	12	-0.99	0.98	-2.32	1.17
Claim 3	9	0.00	1.42	-1.68	2.87
Claim 4	9	-0.45	0.91	-1.74	0.91
All items	50	-0.37	1.19	-2.32	2.87

Table 10.E.17 IRT *b*-values for ELA, Grade Five

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	19	0.47	1.23	-1.58	3.85
Claim 2	12	-0.63	1.22	-2.10	1.62
Claim 3	9	0.31	1.31	-1.12	2.55
Claim 4	11	0.59	1.49	-1.30	4.14
All items	51	0.21	1.35	-2.10	4.14

Table 10.E.18 IRT *b*-values for ELA, Grade Six

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	21	0.57	1.49	-1.05	4.69
Claim 2	12	-0.22	0.94	-1.38	1.68
Claim 3	8	-0.04	0.70	-0.82	1.38
Claim 4	11	0.32	0.70	-0.93	1.66
All items	52	0.24	1.15	-1.38	4.69

Table 10.E.19 IRT *b*-values for ELA, Grade Seven

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	0.69	1.30	-1.84	3.83
Claim 2	12	1.20	1.51	-0.34	5.35
Claim 3	9	0.54	1.26	-1.02	2.32
Claim 4	10	1.78	0.98	0.52	3.57
All items	51	1.00	1.33	-1.84	5.35

Table 10.E.20 IRT *b*-values for ELA, Grade Eight

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	21	0.94	1.02	-0.54	2.69
Claim 2	12	0.42	1.61	-3.01	2.34
Claim 3	9	1.32	1.13	-0.01	3.33
Claim 4	10	1.24	1.21	-0.45	3.57
All items	52	0.94	1.24	-3.01	3.57

Table 10.E.21 IRT *b*-values for ELA, Grade Eleven

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	19	1.92	2.01	-0.39	7.25
Claim 2	12	1.67	1.15	0.06	4.24
Claim 3	9	1.28	1.89	-0.93	4.30
Claim 4	10	1.24	1.00	0.33	3.64
All items	50	1.61	1.62	-0.93	7.25

Table 10.E.22 IRT *b*-values for Mathematics, Grade Three

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	-1.96	0.74	-3.15	-0.07
Claim 2	12	-1.28	0.99	-2.68	0.72
Claim 3	9	-0.09	0.99	-1.08	2.32
All items	41	-1.35	1.13	-3.15	2.32

Table 10.E.23 IRT *b*-values for Mathematics, Grade Four

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	21	-0.67	0.87	-2.69	0.67
Claim 2	10	-0.32	1.36	-1.51	2.66
Claim 3	10	-0.25	0.57	-1.17	0.38
All items	41	-0.48	0.95	-2.69	2.66

Table 10.E.24 IRT *b*-values for Mathematics, Grade Five

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	-0.20	0.69	-1.99	0.82
Claim 2	11	0.23	0.90	-1.14	2.04
Claim 3	10	0.70	1.15	-1.22	2.20
All items	41	0.14	0.93	-1.99	2.20

Table 10.E.25 IRT *b*-values for Mathematics, Grade Six

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	19	0.78	0.76	-0.31	2.83
Claim 2	11	1.24	0.88	-0.18	2.44
Claim 3	10	1.76	0.82	0.18	3.37
All items	40	1.15	0.89	-0.31	3.37

Table 10.E.26 IRT *b*-values for Mathematics, Grade Seven

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	1.14	1.07	-2.24	2.72
Claim 2	11	1.61	0.76	0.31	2.57
Claim 3	10	2.34	2.48	0.00	8.70
All items	41	1.56	1.52	-2.24	8.70

Table 10.E.27 IRT *b*-values for Mathematics, Grade Eight

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	20	1.27	1.23	-0.42	4.70
Claim 2	10	2.61	1.06	1.14	4.78
Claim 3	9	2.39	1.45	0.51	5.44
All items	39	1.87	1.36	-0.42	5.44

Table 10.E.28 IRT *b*-values for Mathematics, Grade Eleven

	Number of Items	Mean	SD	Minimum	Maximum
Claim 1	21	2.24	2.40	-1.78	7.22
Claim 2	11	3.47	2.71	0.65	11.00
Claim 3	10	3.55	1.32	1.77	5.89
All items	42	2.88	2.32	-1.78	11.00

Table 10.E.29 Distribution of IRT *a*-values for Non-PT Items—ELA, All Grades

IRT <i>b</i> -value	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
0 < 0.2	–	–	–	–	2	3	3
0.2 < 0.4	8	11	9	9	11	9	16
0.4 < 0.6	10	12	13	18	20	16	14
0.6 < 0.8	13	14	15	15	13	15	10
0.8 < 1.0	12	5	6	4	1	3	3
1.0 < 1.2	3	3	3	1	–	1	–
1.2 < 1.4	–	–	–	–	–	1	–
1.4 < 1.6	–	1	–	–	–	–	–
1.6 < 1.8	–	–	–	–	–	–	–
1.8 < 2.0	–	–	–	–	–	–	–

Note: The mode of the distribution is highlighted.

Table 10.E.30 Distribution of IRT *a*-values for Non-PT Items—Mathematics, All Grades

IRT <i>b</i> -value	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
0 < 0.2	–	–	–	1	1	2	5
0.2 < 0.4	1	2	5	2	3	9	11
0.4 < 0.6	6	6	14	5	7	14	9
0.6 < 0.8	10	11	7	6	7	6	10
0.8 < 1.0	7	10	4	10	9	1	1
1.0 < 1.2	4	4	4	5	6	2	–
1.2 < 1.4	7	2	1	5	1	–	–
1.4 < 1.6	–	–	–	–	1	–	–
1.6 < 1.8	–	–	–	–	–	–	–
1.8 < 2.0	–	–	–	–	–	–	–

Note: The mode of the distribution is highlighted.

Table 10.E.31 Distribution of IRT *b*-values for Non-PT Items—ELA, All Grades

IRT <i>b</i> -value	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
< -3.5	–	–	–	–	–	–	–
-3.5 < -3.0	–	–	–	–	–	1	–
-3.0 < -2.5	–	–	–	–	–	–	–
-2.5 < -2.0	3	2	2	–	–	–	–
-2.0 < -1.5	6	5	3	–	1	–	–
-1.5 < -1.0	10	9	4	3	1	–	–
-1.0 < -0.5	12	10	7	11	5	2	2
-0.5 < 0	8	3	6	12	4	10	2
0 < 0.5	3	9	4	6	5	6	8
0.5 < 1.0	2	2	10	5	9	6	10
1.0 < 1.5	2	3	4	4	5	7	8
1.5 < 2.0	–	–	3	3	8	5	1
2.0 < 2.5	–	–	1	1	4	8	2
2.5 < 3.0	–	3	1	1	2	2	4
3.0 < 3.5	–	–	–	–	–	1	2
>= 3.5	–	–	1	1	3	–	7

Note: The mode of the distribution is highlighted.

Table 10.E.32 Distribution of IRT *b*-values for Non-PT Items—Mathematics, All Grades

IRT <i>b</i> -value	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
< -3.5	—	—	—	—	—	—	—
-3.5 < -3.0	1	—	—	—	—	—	—
-3.0 < -2.5	5	1	—	—	—	—	—
-2.5 < -2.0	7	1	—	—	1	—	—
-2.0 < -1.5	9	2	1	—	—	—	1
-1.5 < -1.0	2	9	2	—	—	—	—
-1.0 < -0.5	2	8	7	—	1	—	1
-0.5 < 0	6	6	8	3	1	4	1
0 < 0.5	1	6	9	6	2	1	2
0.5 < 1.0	1	2	5	4	4	3	3
1.0 < 1.5	—	—	1	10	10	7	5
1.5 < 2.0	—	—	1	6	7	4	3
2.0 < 2.5	1	—	1	3	5	7	2
2.5 < 3.0	—	—	—	1	3	3	3
3.0 < 3.5	—	—	—	1	—	—	3
≥ 3.5	—	—	—	—	1	5	12

Note: The mode of the distribution is highlighted.

Table 10.E.33 Distribution of IRT *a*-values for PT—ELA, All Grades

IRT <i>b</i> -value	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
0 < 0.2	—	—	—	—	—	—	—
0.2 < 0.4	—	—	—	—	—	—	—
0.4 < 0.6	3	3	3	4	1	1	2
0.6 < 0.8	2	1	2	1	1	3	2
0.8 < 1.0	—	—	—	—	2	—	—
1.0 < 1.2	—	—	—	—	—	—	—
1.2 < 1.4	—	—	—	—	—	—	—
1.4 < 1.6	—	—	—	—	—	—	—
1.6 < 1.8	—	—	—	—	—	—	—
1.8 < 2.0	—	—	—	—	—	—	—

Note: The mode of the distribution is highlighted.

Table 10.E.34 Distribution of IRT *a*-values for PT—Mathematics, All Grades

IRT <i>b</i> -value	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
0 < 0.2	—	—	—	—	—	—	—
0.2 < 0.4	—	1	1	—	—	—	2
0.4 < 0.6	1	1	4	1	1	1	—
0.6 < 0.8	—	2	—	3	1	3	3
0.8 < 1.0	2	2	1	2	3	1	—
1.0 < 1.2	1	—	—	—	—	—	1
1.2 < 1.4	2	—	—	—	—	—	—
1.4 < 1.6	—	—	—	—	—	—	—
1.6 < 1.8	—	—	—	—	1	—	—
1.8 < 2.0	—	—	—	—	—	—	—

Note: The mode of the distribution is highlighted.

Table 10.E.35 Distribution of IRT b -values for PT—ELA, All Grades

IRT b -value	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
< -3.5	—	—	—	—	—	—	—
-3.5 < -3.0	—	—	—	—	—	—	—
-3.0 < -2.5	—	—	—	—	—	—	—
-2.5 < -2.0	—	—	—	—	—	—	—
-2.0 < -1.5	—	—	—	—	—	—	—
-1.5 < -1.0	1	1	1	—	—	—	—
-1.0 < -0.5	1	1	—	1	—	1	—
-0.5 < 0	1	—	1	1	1	—	—
0 < 0.5	—	—	—	1	1	—	—
0.5 < 1.0	2	2	2	1	1	1	—
1.0 < 1.5	—	—	—	—	1	—	2
1.5 < 2.0	—	—	—	1	—	1	1
2.0 < 2.5	—	—	—	—	—	—	1
2.5 < 3.0	—	—	—	—	—	—	—
3.0 < 3.5	—	—	—	—	—	—	—
≥ 3.5	—	—	1	—	—	1	—

Note: The mode of the distribution is highlighted.

Table 10.E.36 Distribution of IRT b -values for PT—Mathematics, All Grades

IRT b -value	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 11
< -3.5	—	—	—	—	—	—	—
-3.5 < -3.0	—	—	—	—	—	—	—
-3.0 < -2.5	—	—	—	—	—	—	—
-2.5 < -2.0	—	—	—	—	—	—	—
-2.0 < -1.5	2	—	—	—	—	—	—
-1.5 < -1.0	2	1	1	—	—	—	—
-1.0 < -0.5	—	—	—	—	—	—	—
-0.5 < 0	1	—	—	1	—	—	—
0 < 0.5	1	3	—	1	1	—	—
0.5 < 1.0	—	1	3	1	—	1	—
1.0 < 1.5	—	—	—	2	1	1	—
1.5 < 2.0	—	—	—	—	1	—	—
2.0 < 2.5	—	—	2	1	1	2	—
2.5 < 3.0	—	1	—	—	1	1	2
3.0 < 3.5	—	—	—	—	—	—	2
≥ 3.5	—	—	—	—	1	—	2

Note: The mode of the distribution is highlighted.

Table 10.E.37 PT Item Statistics—ELA, Grade Three

Item ID	Score Points	Score		
		A	B	D
VH315611	4	0.52	-0.39	2.59, 0.69, -0.73, -2.55
VH315632	2	0.67	-1.04	0.85, -0.85
VH314036	2	0.69	0.86	0.74, -0.74
VH314060	2	0.55	0.80	-0.04, 0.04
VH314074	1	0.49	-0.80	-

Table 10.E.38 PT Item Statistics—ELA, Grade Four

Item ID	Score Points	Score		
		A	B	D
VH295957	3	0.55	-0.96	2.1, 0.11, -2.21
VH295958	2	0.56	-1.42	0.35, -0.35
VH295954	2	0.59	0.91	0.2, -0.2
VH295959	2	0.61	0.53	0.55, -0.55

Table 10.E.39 PT Item Statistics—ELA, Grade Five

Item ID	Score Points	Score		
		A	B	D
VH295811	4	0.59	-0.48	1.61, 2.05, -0.51, -3.15
VH295812	2	0.68	-1.08	1.12, -1.12
VH295807	2	0.62	0.58	1, -1
VH295808	2	0.57	0.76	0.32, -0.32
VH303290	1	0.48	4.14	-

Table 10.E.40 PT Item Statistics—ELA, Grade Six

Item ID	Score Points	Score		
		A	B	D
VH295937	4	0.52	0.33	2.86, 1.36, -1.14, -3.08
VH295938	2	0.41	-0.78	-0.06, 0.06
VH303079	1	0.65	-0.42	-
VH295934	2	0.48	0.54	0.57, -0.57
VH295935	2	0.50	1.66	0.36, -0.36

Table 10.E.41 PT Item Statistics—ELA, Grade Seven

Item ID	Score Points	Score		
		A	B	D
VH295399	3	0.90	0.35	1.91, -0.13, -1.79
VH295400	2	0.82	-0.34	0.24, -0.24
VH295397	2	0.64	0.86	1.09, -1.09
VH295401	2	0.53	1.14	0.51, -0.51

Table 10.E.42 PT Item Statistics—ELA, Grade Eight

Item ID	Score			
	Points	A	B	D
VH295295	4	0.69	0.71	2.39, 1.15, -1.01, -2.53
VH295296	2	0.73	-0.98	0.11, -0.11
VH295291	2	0.69	1.74	0.88, -0.88
VH295293	1	0.51	3.57	-

Table 10.E.43 PT Item Statistics—ELA, Grade Eleven

Item ID	Score			
	Points	A	B	D
VH295618	4	0.56	1.72	2.2, 0.84, -0.99, -2.04
VH295619	2	0.61	1.13	0.09, -0.09
VH295615	2	0.64	2.12	0.27, -0.27
VH295620	2	0.41	1.40	0.04, -0.04

Table 10.E.44 PT Item Statistics—Mathematics, Grade Three

Item ID	Score			
	Points	A	B	D
VH310918	1	1.26	-1.58	-
VH310926	1	1.14	-1.15	-
VH299378	2	0.89	-0.30	-0.44, 0.44
VH299379	3	0.55	-1.54	-0.63, 0.61, 0.02
VH299380	1	1.28	-1.08	-
VH299381	2	0.93	0.09	0.10, -0.10

Table 10.E.45 PT Item Statistics—Mathematics, Grade Four

Item ID	Score			
	Points	A	B	D
VH303281	1	0.71	-1.46	-
VH310718	2	0.43	0.92	-2.59, 2.59
VH299400	1	0.98	0.27	-
VH299402	1	0.32	2.66	-
VH299403	2	0.69	0.35	-0.67, 0.67
VH299405	2	0.82	0.04	-1.44, 1.44

Table 10.E.46 PT Item Statistics—Mathematics, Grade Five

Item ID	Score			
	Points	A	B	D
VH299850	1	0.56	-1.14	-
VH303289	2	0.51	0.63	-2.79, 2.79
VH299855	2	0.87	2.02	-0.30, 0.30
VH299857	2	0.39	0.95	-0.53, 0.53
VH299860	1	0.53	2.20	-
VH299861	2	0.54	0.92	-0.79, 0.79

Table 10.E.47 PT Item Statistics—Mathematics, Grade Six

Item ID	Score Points	Score		
		A	B	D
VH303296	1	0.79	0.65	–
VH310938	1	0.89	–0.18	–
VH300153	2	0.59	2.14	–0.84, 0.84
VH300155	2	0.73	1.36	–0.25, 0.25
VH310939	1	0.96	0.25	–
VH300163	2	0.71	1.47	–0.74, 0.74

Table 10.E.48 PT Item Statistics—Mathematics, Grade Seven

Item ID	Score Points	Score		
		A	B	D
VH310947	1	0.83	0.31	–
VH310950	1	0.96	1.12	–
VH299212	1	1.68	2.54	–
VH303301	2	0.77	2.42	0.10, –0.10
VH303302	1	0.99	1.73	–
VH299227	2	0.53	3.75	1.14, –1.14

Table 10.E.49 PT Item Statistics—Mathematics, Grade Eight

Item ID	Score Points	Score		
		A	B	D
VH300080	1	0.70	1.14	–
VH300081	2	0.78	2.95	–0.02, 0.02
VH303305	1	0.75	2.14	–
VH303306	1	0.86	2.31	–
VH300085	2	0.47	0.51	–0.32, 0.32

Table 10.E.50 PT Item Statistics—Mathematics, Grade Eleven

Item ID	Score Points	Score		
		A	B	D
VH299905	1	1.09	3.26	–
VH303311	2	0.61	3.61	–1.27, 1.27
VH299910	2	0.39	2.77	–1.54, 1.54
VH299912	3	0.67	3.08	–1.04, 0.57, 0.48
VH303312	3	0.60	2.82	0.68, –2.65, 1.98
VH311067	1	0.31	11.00	–

Appendix 10.F: Reliability Analyses for Paper-Pencil Tests

Table 10.F.1 Reliabilities of Claims and Intercorrelations for ELA, Grade Three

Claim	N of Items	Intercorrelation				Reliab	SEM
		1	2	3	4		
Claim 1	19	1.00	.	.	.	0.77	0.48
Claim 2	12	0.69	1.00	.	.	0.72	0.64
Claim 3	9	0.60	0.55	1.00	.	0.43	0.79
Claim 4	11	0.68	0.68	0.58	1.00	0.68	0.67

Table 10.F.2 Reliabilities of Claims and Intercorrelations for ELA, Grade Four

Claim	N of Items	Intercorrelation				Reliab	SEM
		1	2	3	4		
Claim 1	20	1.00	.	.	.	0.79	0.46
Claim 2	12	0.71	1.00	.	.	0.71	0.65
Claim 3	9	0.63	0.57	1.00	.	0.44	0.82
Claim 4	9	0.68	0.68	0.58	1.00	0.61	0.75

Table 10.F.3 Reliabilities of Claims and Intercorrelations for ELA, Grade Five

Claim	N of Items	Intercorrelation				Reliab	SEM
		1	2	3	4		
Claim 1	19	1.00	.	.	.	0.74	0.50
Claim 2	12	0.73	1.00	.	.	0.76	0.59
Claim 3	9	0.59	0.54	1.00	.	0.33	0.85
Claim 4	11	0.70	0.67	0.58	1.00	0.58	0.74

Table 10.F.4 Reliabilities of Claims and Intercorrelations for ELA, Grade Six

Claim	N of Items	Intercorrelation				Reliab	SEM
		1	2	3	4		
Claim 1	21	1.00	.	.	.	0.81	0.53
Claim 2	12	0.74	1.00	.	.	0.72	0.73
Claim 3	8	0.62	0.53	1.00	.	0.36	0.92
Claim 4	11	0.73	0.73	0.46	1.00	0.59	0.82

Table 10.F.5 Reliabilities of Claims and Intercorrelations for ELA, Grade Seven

Claim	N of Items	Intercorrelation				Reliab	SEM
		1	2	3	4		
Claim 1	20	1.00	.	.	.	0.77	0.54
Claim 2	12	0.75	1.00	.	.	0.67	0.64
Claim 3	9	0.60	0.60	1.00	.	0.47	0.93
Claim 4	10	0.68	0.65	0.48	1.00	0.39	0.93

Table 10.F.6 Reliabilities of Claims and Intercorrelations for ELA, Grade Eight

Claim	N of Items	Intercorrelation				Reliab	SEM
		1	2	3	4		
Claim 1	21	1.00	.	.	.	0.73	0.60
Claim 2	12	0.63	1.00	.	.	0.72	0.60
Claim 3	9	0.44	0.40	1.00	.	0.15	1.17
Claim 4	10	0.50	0.65	0.33	1.00	0.33	0.86

Table 10.F.7 Reliabilities of Claims and Intercorrelations for ELA, Grade Eleven

Claim	N of Items	Intercorrelation				Reliab	SEM
		1	2	3	4		
Claim 1	19	1.00	.	.	.	0.69	0.60
Claim 2	12	0.71	1.00	.	.	0.64	0.69
Claim 3	9	0.88	0.68	1.00	.	0.01	1.09
Claim 4	10	0.70	0.77	0.86	1.00	0.64	0.85

Table 10.F.8 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Three

Claim	N of Items	Intercorrelation			Reliab	SEM
		1	2	3		
Claim 1	20	1.00	.	.	0.80	0.40
Claim 2	12	0.71	1.00	.	0.77	0.46
Claim 3	9	0.59	0.58	1.00	0.25	0.63

Table 10.F.9 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Four

Claim	N of Items	Intercorrelation			Reliab	SEM
		1	2	3		
Claim 1	21	1.00	.	.	0.81	0.40
Claim 2	10	0.65	1.00	.	0.59	0.65
Claim 3	10	0.66	0.65	1.00	0.56	0.63

Table 10.F.10 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Five

Claim	N of Items	Intercorrelation			Reliab	SEM
		1	2	3		
Claim 1	20	1.00	.	.	0.74	0.49
Claim 2	11	0.70	1.00	.	0.69	0.62
Claim 3	10	0.63	0.65	1.00	0.43	0.79

Table 10.F.11 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Six

Claim	N of Items	Intercorrelation			Reliab	SEM
		1	2	3		
Claim 1	19	1.00	.	.	0.76	0.47
Claim 2	11	0.78	1.00	.	0.62	0.52
Claim 3	10	0.66	0.61	1.00	0.27	0.67

Table 10.F.12 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Seven

Claim	N of Items	Intercorrelation			Reliab	SEM
		1	2	3		
Claim 1	20	1.00	.	.	0.80	0.53
Claim 2	11	0.77	1.00	.	0.70	0.55
Claim 3	10	0.67	0.66	1.00	0.51	0.84

Table 10.F.13 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Eight

Claim	N of Items	Intercorrelation			Reliab	SEM
		1	2	3		
Claim 1	20	1.00	.	.	0.56	0.75
Claim 2	10	0.36	1.00	.	N/A	N/A
Claim 3	9	0.34	0.30	1.00	N/A	N/A

Table 10.F.14 Reliabilities of Claims and Intercorrelations for Mathematics, Grade Eleven

Claim	N of Items	Intercorrelation			Reliab	SEM
		1	2	3		
Claim 1	21	1.00	.	.	0.65	0.73
Claim 2	11	0.65	1.00	.	0.40	0.93
Claim 3	10	0.69	0.48	1.00	N/A	N/A

Table 10.F.15 Reliabilities and SEMs for Paper-pencil Tests by Gender

Content Area	Grade	Male			Female		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	351	0.60	0.65	315	0.63	0.68
	4	290	0.72	0.55	330	0.72	0.59
	5	268	0.90	0.31	253	0.91	0.32
	6	103	0.91	0.33	110	0.91	0.36
	7	38	0.93	0.36	55	0.90	0.34
	8	37	0.88	0.36	28	0.88	0.36
	11	9	–	–	–	–	–
Mathematics	3	350	0.90	0.26	317	0.90	0.27
	4	298	0.89	0.29	337	0.90	0.29
	5	274	0.88	0.33	266	0.88	0.34
	6	105	0.87	0.38	113	0.87	0.37
	7	41	0.90	0.50	60	0.90	0.34
	8	46	0.71	0.57	28	0.58	0.61
	11	9	–	–	–	–	–

Table 10.F.16 Reliabilities and SEMs for Paper-pencil Tests by Economic Status

Content Area	Grade	Not Econ. Disadvantaged			Econ. Disadvantaged		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	395	0.58	0.69	271	0.66	0.61
	4	352	0.72	0.57	268	0.70	0.57
	5	287	0.90	0.31	234	0.92	0.32
	6	88	0.91	0.36	125	0.91	0.34
	7	40	0.91	0.34	53	0.92	0.35
	8	25	0.87	0.35	40	0.89	0.36
	11	7	–	–	9	–	–
Mathematics	3	393	0.90	0.26	274	0.91	0.27
	4	358	0.89	0.28	277	0.89	0.30
	5	295	0.88	0.32	245	0.86	0.34
	6	87	0.90	0.30	131	0.84	0.42
	7	40	0.91	0.33	61	0.87	0.46
	8	28	0.67	0.53	46	0.65	0.62
	11	8	–	–	8	–	–

Table 10.F.17 Reliabilities and SEMs for Paper-pencil Tests by Special Services

Content Area	Grade	No Special Services			Special Services		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	582	0.61	0.67	84	0.65	0.57
	4	531	0.78	0.50	89	0.36	0.89
	5	452	0.90	0.31	69	0.91	0.32
	6	175	0.91	0.34	38	0.87	0.40
	7	81	0.91	0.34	12	0.90	0.35
	8	46	0.87	0.34	19	0.88	0.39
	11	3	–	–	13	0.90	0.36
Mathematics	3	584	0.90	0.26	83	0.89	0.26
	4	548	0.89	0.29	87	0.87	0.30
	5	468	0.88	0.33	72	0.83	0.36
	6	185	0.88	0.37	33	0.81	0.42
	7	90	0.90	0.41	11	0.86	0.39
	8	55	0.65	0.57	19	0.69	0.64
	11	4	–	–	12	0.78	0.59

Table 10.F.18 Reliabilities and SEMs for Paper-pencil Tests by English–Language Fluency

Content Area	Grade	English Only			Initially Desig. Fluent		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	587	0.58	0.69	7	–	–
	4	540	0.69	0.60	6	–	–
	5	464	0.90	0.31	2	–	–
	6	171	0.91	0.34	1	–	–
	7	74	0.90	0.34	2	–	–
	8	54	0.89	0.36	0	–	–
	11	15	0.87	0.35	0	–	–
Mathematics	3	577	0.90	0.26	7	–	–
	4	540	0.89	0.28	6	–	–
	5	473	0.87	0.32	2	–	–
	6	165	0.88	0.34	1	–	–
	7	73	0.90	0.33	2	–	–
	8	52	0.72	0.58	0	–	–
	11	15	0.83	0.55	0	–	–

Table 10.F.19 Reliabilities and SEMs for Paper-pencil Tests by English–Language Fluency (continued)

Content Area	Grade	English Learner			Redesignated Fluent		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	65	0.86	0.31	5	–	–
	4	56	0.89	0.31	14	0.88	0.30
	5	41	0.89	0.33	14	0.85	0.30
	6	25	0.83	0.40	16	0.83	0.32
	7	13	0.87	0.38	3	–	–
	8	9	–	–	2	–	–
	11	0	–	–	1	–	–
Mathematics	3	74	0.89	0.27	5	–	–
	4	71	0.85	0.31	14	0.92	0.30
	5	50	0.81	0.41	15	0.86	0.32
	6	36	0.65	0.51	16	0.83	0.35
	7	21	0.59	0.62	4	–	–
	8	18	0.36	0.63	3	–	–
	11	0	–	–	1	–	–

Table 10.F.20 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity

Content Area	Grade	American Indian			Asian		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	10	–	–	15	0.90	0.28
	4	13	0.89	0.32	20	0.89	0.30
	5	9	–	–	10	–	–
	6	10	–	–	3	–	–
	7	0	–	–	3	–	–
	8	4	–	–	2	–	–
	11	0	–	–	1	–	–
Mathematics	3	10	–	–	15	0.93	0.27
	4	12	0.82	0.29	21	0.90	0.28
	5	9	–	–	10	–	–
	6	10	–	–	2	–	–
	7	0	–	–	3	–	–
	8	4	–	–	2	–	–
	11	0	–	–	1	–	–

Table 10.F.21 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity (continued)

Content Area	Grade	Pacific Islander			Filipino		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	2	–	–	7	–	–
	4	4	–	–	3	–	–
	5	2	–	–	9	–	–
	6	0	–	–	2	–	–
	7	1	–	–	0	–	–
	8	0	–	–	1	–	–
	11	0	–	–	0	–	–
Mathematics	3	2	–	–	7	–	–
	4	4	–	–	3	–	–
	5	2	–	–	9	–	–
	6	0	–	–	2	–	–
	7	1	–	–	0	–	–
	8	0	–	–	1	–	–
	11	0	–	–	0	–	–

Table 10.F.22 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity (continued)

Content Area	Grade	Hispanic			African American			White		
		N	Reliab	SEM	N	Reliab	SEM	N	Reliab	SEM
ELA	3	191	0.81	0.44	22	0.86	0.28	380	0.52	0.77
	4	153	0.80	0.48	35	0.91	0.31	357	0.62	0.66
	5	125	0.92	0.32	32	0.84	0.29	297	0.90	0.31
	6	67	0.90	0.35	20	0.90	0.41	104	0.91	0.34
	7	19	0.90	0.36	22	0.87	0.34	47	0.91	0.34
	8	21	0.86	0.37	1	–	–	35	0.91	0.36
	11	7	–	–	1	–	–	5	–	–
Mathematics	3	200	0.90	0.27	22	0.86	0.33	371	0.90	0.26
	4	167	0.89	0.30	35	0.90	0.29	358	0.88	0.28
	5	135	0.85	0.36	32	0.66	0.33	306	0.88	0.32
	6	77	0.81	0.46	19	0.80	0.43	102	0.90	0.29
	7	28	0.74	0.59	21	0.87	0.30	47	0.91	0.33
	8	31	0.43	0.62	0	–	–	34	0.75	0.52
	11	7	–	–	0	–	–	6	–	–

Table 10.F.23 Reliabilities and SEMs for Paper-pencil Tests by Migrant Status

Content Area	Grade	Migrant			Non-migrant		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	4	–	–	662	0.61	0.66
	4	2	–	–	618	0.72	0.57
	5	6	–	–	515	0.91	0.31
	6	4	–	–	209	0.91	0.35
	7	1	–	–	92	0.92	0.35
	8	1	–	–	64	0.88	0.36
	11	0	–	–	16	0.88	0.36
Mathematics	3	4	–	–	663	0.90	0.26
	4	5	–	–	630	0.89	0.29
	5	7	–	–	533	0.88	0.33
	6	5	–	–	213	0.87	0.36
	7	2	–	–	99	0.90	0.41
	8	3	–	–	71	0.68	0.59
	11	0	–	–	16	0.82	0.55

Table 10.F.24 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged

Content Area	Grade	American Indian			Asian		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	4	–	–	10	–	–
	4	4	–	–	13	0.87	0.29
	5	1	–	–	6	–	–
	6	4	–	–	2	–	–
	7	0	–	–	2	–	–
	8	1	–	–	2	–	–
	11	0	–	–	1	–	–
Mathematics	3	4	–	–	10	–	–
	4	4	–	–	14	0.83	0.27
	5	1	–	–	6	–	–
	6	4	–	–	2	–	–
	7	0	–	–	2	–	–
	8	1	–	–	2	–	–
	11	0	–	–	1	–	–

Table 10.F.25 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged (continued)

Content Area	Grade	Pacific Islander			Filipino		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	0	–	–	2	–	–
	4	2	–	–	3	–	–
	5	0	–	–	7	–	–
	6	0	–	–	1	–	–
	7	0	–	–	0	–	–
	8	0	–	–	1	–	–
	11	0	–	–	0	–	–
Mathematics	3	0	–	–	2	–	–
	4	2	–	–	3	–	–
	5	0	–	–	7	–	–
	6	0	–	–	1	–	–
	7	0	–	–	0	–	–
	8	0	–	–	1	–	–
	11	0	–	–	0	–	–

Table 10.F.26 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged (continued)

Content Area	Grade	Hispanic			African American			White		
		N	Reliab	SEM	N	Reliab	SEM	N	Reliab	SEM
ELA	3	74	0.91	0.29	7	–	–	277	0.52	0.76
	4	56	0.66	0.68	13	0.94	0.32	239	0.68	0.59
	5	47	0.91	0.31	11	0.76	0.29	191	0.89	0.31
	6	12	0.89	0.33	4	–	–	58	0.92	0.34
	7	2	–	–	9	–	–	26	0.89	0.34
	8	0	–	–	0	–	–	21	0.88	0.35
	11	4	–	–	0	–	–	1	–	–
Mathematics	3	76	0.89	0.26	7	–	–	272	0.90	0.25
	4	59	0.90	0.29	13	0.91	0.29	241	0.88	0.28
	5	51	0.87	0.34	11	0.13	0.31	195	0.88	0.32
	6	14	0.90	0.31	3	–	–	57	0.91	0.29
	7	3	–	–	8	–	–	26	0.91	0.31
	8	4	–	–	0	–	–	19	0.73	0.54
	11	4	–	–	0	–	–	2	–	–

Table 10.F.27 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged

Content Area	Grade	American Indian			Asian		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	6	–	–	5	–	–
	4	9	–	–	7	–	–
	5	8	–	–	4	–	–
	6	6	–	–	1	–	–
	7	0	–	–	1	–	–
	8	3	–	–	0	–	–
	11	0	–	–	0	–	–
Mathematics	3	6	–	–	5	–	–
	4	8	–	–	7	–	–
	5	8	–	–	4	–	–
	6	6	–	–	0	–	–
	7	0	–	–	1	–	–
	8	3	–	–	0	–	–
	11	0	–	–	0	–	–

Table 10.F.28 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged (continued)

Content Area	Grade	Pacific Islander			Filipino		
		N	Reliab	SEM	N	Reliab	SEM
ELA	3	2	–	–	5	–	–
	4	2	–	–	0	–	–
	5	2	–	–	2	–	–
	6	0	–	–	1	–	–
	7	1	–	–	0	–	–
	8	0	–	–	0	–	–
	11	0	–	–	0	–	–
Mathematics	3	2	–	–	5	–	–
	4	2	–	–	0	–	–
	5	2	–	–	2	–	–
	6	0	–	–	1	–	–
	7	1	–	–	0	–	–
	8	0	–	–	0	–	–
	11	0	–	–	0	–	–

Table 10.F.29 Reliabilities and SEMs for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged (continued)

Content Area	Grade	Hispanic			African American			White		
		N	Reliab	SEM	N	Reliab	SEM	N	Reliab	SEM
ELA	3	117	0.73	0.51	15	0.86	0.28	103	0.52	0.81
	4	97	0.90	0.31	22	0.88	0.30	118	0.47	0.79
	5	78	0.91	0.32	21	0.84	0.29	106	0.90	0.32
	6	55	0.90	0.36	16	0.92	0.33	46	0.90	0.33
	7	17	0.91	0.37	13	0.81	0.33	21	0.93	0.35
	8	21	0.86	0.37	1	–	–	14	0.93	0.36
	11	3	–	–	1	–	–	4	–	–
Mathematics	3	124	0.90	0.27	15	0.86	0.37	99	0.90	0.26
	4	108	0.88	0.31	22	0.88	0.29	117	0.87	0.28
	5	84	0.82	0.38	21	0.74	0.34	111	0.87	0.32
	6	63	0.76	0.49	16	0.79	0.46	45	0.89	0.29
	7	25	0.73	0.60	13	0.87	0.30	21	0.89	0.35
	8	27	0.37	0.63	0	–	–	15	0.79	0.49
	11	3	–	–	0	–	–	4	–	–

Table 10.F.30 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Three

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.76	0.47	0.78	0.49	0.76	0.47	0.77	0.49	0.73	0.51	0.77	0.48
Claim 2	12	0.70	0.65	0.73	0.63	0.72	0.62	0.70	0.67	0.64	1.07	0.71	0.64
Claim 3	9	0.39	0.79	0.46	0.80	0.42	0.79	0.39	0.81	N/A	N/A	0.43	0.79
Claim 4	11	0.66	0.66	0.70	0.67	0.69	0.66	0.67	0.68	0.81	0.78	0.68	0.67

Table 10.F.31 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Four

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.80	0.47	0.79	0.46	0.79	0.46	0.78	0.47	N/A	N/A	0.79	0.46
Claim 2	12	0.70	0.64	0.71	0.66	0.69	0.66	0.71	0.64	0.83	0.63	0.71	0.65
Claim 3	9	0.44	0.82	0.44	0.83	0.39	0.82	0.45	0.83	0.43	0.81	0.44	0.82
Claim 4	9	0.60	0.75	0.62	0.75	0.63	0.75	0.54	0.76	0.46	0.68	0.61	0.75

Table 10.F.32 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Five

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.74	0.49	0.73	0.50	0.73	0.50	0.74	0.50	0.39	0.49	0.74	0.50
Claim 2	12	0.75	0.58	0.75	0.61	0.74	0.60	0.77	0.58	0.70	0.58	0.75	0.59
Claim 3	9	0.37	0.85	0.29	0.85	0.28	0.85	0.38	0.85	0.39	0.84	0.33	0.85
Claim 4	11	0.58	0.75	0.58	0.73	0.56	0.73	0.59	0.76	0.67	0.80	0.58	0.74

Table 10.F.33 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Six

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.82	0.53	0.80	0.53	0.79	0.52	0.81	0.54	0.52	0.77	0.80	0.53
Claim 2	12	0.72	0.72	0.70	0.74	0.73	0.75	0.71	0.71	0.09	0.65	0.72	0.73
Claim 3	8	0.32	0.92	0.40	0.93	0.29	0.92	0.40	0.93	0.52	1.08	0.35	0.92
Claim 4	11	0.60	0.83	0.58	0.81	0.61	0.80	0.56	0.84	0.57	0.94	0.59	0.82

Table 10.F.34 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Seven

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.78	0.54	0.77	0.53	0.79	0.54	0.76	0.53	N/A	N/A	0.77	0.54
Claim 2	12	0.73	0.66	0.46	0.62	0.62	0.64	0.69	0.63	N/A	N/A	0.66	0.64
Claim 3	9	0.61	0.97	0.23	0.91	0.37	0.93	0.52	0.94	N/A	N/A	0.47	0.94
Claim 4	10	0.42	0.97	0.36	0.89	0.42	0.94	0.38	0.92	N/A	N/A	0.39	0.92

Table 10.F.35 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Eight

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.74	0.59	0.73	0.60	0.71	0.59	0.75	0.61	N/A	N/A	0.73	0.60
Claim 2	12	0.70	0.59	0.75	0.61	0.68	0.63	0.74	0.58	N/A	N/A	0.72	0.60
Claim 3	9	0.21	1.17	0.10	1.18	0.17	1.13	0.13	1.20	–	–	0.15	1.17
Claim 4	10	0.36	0.82	0.30	0.92	0.34	0.91	0.34	0.83	N/A	N/A	0.34	0.86

Table 10.F.36 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—ELA, Grade Eleven

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.40	0.56	0.79	0.65	0.54	0.57	0.77	0.63	–	–	0.69	0.60
Claim 2	12	0.59	0.67	0.73	0.71	0.55	0.66	0.58	0.71	–	–	0.64	0.69
Claim 3	9	N/A	N/A	0.17	1.02	N/A	N/A	N/A	N/A	–	–	0.01	1.09
Claim 4	10	0.61	0.81	0.69	0.89	0.50	0.73	0.69	0.93	–	–	0.64	0.85

Table 10.F.37 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Three

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.80	0.40	0.79	0.41	0.78	0.41	0.81	0.40	0.86	0.44	0.79	0.40
Claim 2	12	0.76	0.45	0.78	0.47	0.77	0.45	0.76	0.47	0.75	0.55	0.77	0.46
Claim 3	9	0.24	0.64	0.26	0.63	0.24	0.62	0.26	0.64	N/A	N/A	0.25	0.63

Table 10.F.38 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Four

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.80	0.39	0.82	0.40	0.80	0.38	0.80	0.41	0.80	0.38	0.81	0.40
Claim 2	10	0.57	0.65	0.60	0.66	0.57	0.66	0.55	0.65	0.11	0.70	0.58	0.65
Claim 3	10	0.53	0.63	0.58	0.64	0.57	0.61	0.50	0.66	0.69	0.67	0.56	0.63

Table 10.F.39 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Five

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.75	0.49	0.72	0.49	0.76	0.47	0.67	0.50	0.67	0.72	0.74	0.48
Claim 2	11	0.68	0.61	0.69	0.63	0.69	0.60	0.66	0.64	0.19	0.70	0.69	0.62
Claim 3	10	0.44	0.79	0.41	0.79	0.47	0.76	0.34	0.83	N/A	N/A	0.43	0.79

Table 10.F.40 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Six

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.76	0.47	0.76	0.46	0.76	0.43	0.73	0.49	0.71	0.67	0.76	0.46
Claim 2	11	0.62	0.53	0.62	0.51	0.69	0.51	0.49	0.53	0.75	0.55	0.62	0.52
Claim 3	10	0.29	0.67	0.26	0.66	0.39	0.64	0.13	0.69	0.79	0.75	0.27	0.67

Table 10.F.41 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Seven

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.82	0.61	0.77	0.47	0.79	0.45	0.78	0.57	0.57	0.48	0.80	0.53
Claim 2	11	0.71	0.52	0.70	0.57	0.76	0.53	0.57	0.57	N/A	N/A	0.70	0.55
Claim 3	10	0.54	0.84	0.49	0.84	0.59	0.73	0.42	0.90	N/A	N/A	0.51	0.82

Table 10.F.42 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Eight

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.61	0.76	0.45	0.75	0.58	0.71	0.55	0.78	N/A	N/A	0.57	0.76
Claim 2	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Claim 3	9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 10.F.43 Claim Reliabilities and SEM for Paper-pencil Tests by Gender/Economic Status/Migrant Status—Mathematics, Grade Eleven

Claim	N of Items	Male		Female		Not Econ. Dis		Econ. Dis		Migrant		Non-migrant	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.61	0.69	0.72	0.77	0.45	0.64	0.71	0.80	–	–	0.65	0.73
Claim 2	11	0.08	0.71	N/A	N/A	0.43	0.88	0.43	0.97	–	–	0.40	0.93
Claim 3	10	0.24	1.10	N/A	N/A	0.03	1.14	0.11	1.07	–	–	N/A	N/A

Table 10.F.44 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Three

Claim	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.77	0.48	0.74	0.48	0.77	0.48	0.76	0.56	0.72	0.50	N/A	N/A
Claim 2	12	0.72	0.63	0.70	0.68	0.72	0.63	0.57	0.54	0.63	0.72	0.46	0.54
Claim 3	9	0.43	0.79	0.41	0.81	0.42	0.79	0.42	0.76	0.04	0.87	0.41	0.75
Claim 4	11	0.69	0.66	0.63	0.69	0.69	0.66	0.46	0.57	0.51	0.73	0.75	0.66

Table 10.F.45 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Four

Claim	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.79	0.46	0.78	0.46	0.79	0.46	0.86	0.47	0.75	0.50	0.76	0.44
Claim 2	12	0.70	0.65	0.72	0.64	0.70	0.65	0.68	0.77	0.71	0.64	0.29	0.69
Claim 3	9	0.40	0.81	0.55	0.87	0.41	0.82	0.24	0.78	0.51	0.87	0.53	0.91
Claim 4	9	0.61	0.75	0.59	0.76	0.62	0.75	0.71	0.73	0.53	0.77	0.42	0.69

Table 10.F.46 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Five

Claim	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.72	0.50	0.74	0.50	0.73	0.50	N/A	N/A	0.67	0.54	0.66	0.48
Claim 2	12	0.75	0.60	0.78	0.56	0.74	0.60	0.14	0.53	0.78	0.56	0.52	0.61
Claim 3	9	0.29	0.85	0.40	0.85	0.29	0.85	0.11	0.82	0.32	0.87	0.25	0.84
Claim 4	11	0.58	0.73	0.52	0.79	0.57	0.74	N/A	N/A	0.40	0.81	0.63	0.72

Table 10.F.47 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Six

Claim	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.81	0.53	0.69	0.55	0.81	0.53	N/A	N/A	0.65	0.59	0.75	0.51
Claim 2	12	0.70	0.74	0.68	0.70	0.71	0.74	N/A	N/A	0.33	0.69	0.46	0.72
Claim 3	8	0.36	0.93	0.40	0.91	0.33	0.92	–	–	0.25	0.93	0.27	0.93
Claim 4	11	0.59	0.80	0.52	0.91	0.60	0.81	N/A	N/A	0.25	0.94	0.45	0.75

Table 10.F.48 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Seven

Claim	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.77	0.53	0.71	0.54	0.77	0.54	0.56	0.53	0.65	0.54	N/A	N/A
Claim 2	12	0.67	0.64	0.58	0.61	0.61	0.64	N/A	N/A	0.60	0.63	N/A	N/A
Claim 3	9	0.44	0.94	0.60	0.91	0.36	0.93	N/A	N/A	0.37	0.91	0.71	0.91
Claim 4	10	0.40	0.90	0.09	1.07	0.39	0.89	N/A	N/A	0.10	1.10	0.18	0.81

Table 10.F.49 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Eight

Claim	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.73	0.58	0.72	0.65	0.74	0.59	–	–	0.19	0.67	0.87	0.50
Claim 2	12	0.71	0.59	0.74	0.62	0.73	0.60	–	–	0.42	0.58	0.90	0.60
Claim 3	9	0.02	1.10	0.21	1.35	0.20	1.17	–	–	N/A	N/A	N/A	N/A
Claim 4	10	0.26	0.83	0.46	0.93	0.30	0.87	–	–	0.01	0.85	0.80	0.78

Table 10.F.50 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—ELA, Grade Eleven

Claim	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	N/A	N/A	0.66	0.58	0.70	0.60	–	–	–	–	N/A	N/A
Claim 2	12	0.77	0.69	0.64	0.69	0.64	0.69	–	–	–	–	–	–
Claim 3	9	N/A	N/A	N/A	N/A	0.01	1.09	–	–	–	–	–	–
Claim 4	10	0.33	0.74	0.66	0.88	0.64	0.85	–	–	–	–	N/A	N/A

Table 10.F.51 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—Mathematics, Grade Three

Claim	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.79	0.41	0.79	0.37	0.79	0.41	0.80	0.43	0.81	0.39	0.51	0.36
Claim 2	12	0.76	0.46	0.76	0.49	0.77	0.46	0.78	0.44	0.70	0.47	0.41	0.39
Claim 3	9	0.28	0.63	N/A	N/A	0.28	0.63	N/A	N/A	N/A	N/A	0.25	0.53

Table 10.F.52 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—Mathematics, Grade Four

Claim	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.80	0.39	0.79	0.43	0.80	0.39	0.79	0.39	0.76	0.42	0.89	0.43
Claim 2	10	0.59	0.65	0.53	0.64	0.58	0.65	0.77	0.70	0.42	0.66	0.27	0.61
Claim 3	10	0.56	0.63	0.44	0.67	0.56	0.62	0.47	0.51	0.42	0.73	0.53	0.57

Table 10.F.53 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—Mathematics, Grade Five

Claim	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.74	0.48	0.63	0.53	0.73	0.47	0.89	0.48	0.58	0.61	0.78	0.50
Claim 2	11	0.69	0.61	0.61	0.68	0.68	0.61	0.79	0.59	0.50	0.72	0.70	0.63
Claim 3	10	0.44	0.78	0.28	0.87	0.43	0.78	0.07	0.69	0.16	0.94	0.19	0.74

Table 10.F.54 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—Mathematics, Grade Six

Claim	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.77	0.46	0.70	0.50	0.77	0.45	N/A	N/A	0.53	0.57	0.70	0.43
Claim 2	11	0.62	0.51	0.61	0.58	0.64	0.51	N/A	N/A	N/A	N/A	0.49	0.49
Claim 3	10	0.32	0.65	N/A	N/A	0.32	0.66	N/A	N/A	N/A	N/A	0.24	0.66

Table 10.F.55 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—Mathematics, Grade Seven

Claim	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.81	0.53	0.70	0.50	0.80	0.45	N/A	N/A	0.46	0.74	0.44	0.47
Claim 2	11	0.72	0.54	0.37	0.61	0.72	0.52	N/A	N/A	N/A	N/A	N/A	N/A
Claim 3	10	0.51	0.84	0.51	0.84	0.55	0.77	N/A	N/A	N/A	N/A	N/A	N/A

Table 10.F.56 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—Mathematics, Grade Eight

Claim	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.57	0.73	0.52	0.82	0.59	0.73	–	–	0.40	0.83	0.72	0.69
Claim 2	10	N/A	N/A	N/A	N/A	N/A	N/A	–	–	N/A	N/A	N/A	N/A
Claim 3	9	N/A	N/A	0.16	1.15	N/A	N/A	–	–	N/A	N/A	0.70	1.05

Table 10.F.57 Claim Reliabilities and SEM for Paper-pencil Tests by Special Services/English Fluency—Mathematics, Grade Eleven

Claim	N of Items	No Spec. Serv.		Spec. Serv.		Eng. Only		Ini. Fluent		Learner		Red. Fluent	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.76	0.67	0.57	0.74	0.66	0.73	–	–	–	–	N/A	N/A
Claim 2	11	N/A	N/A	0.47	0.98	0.41	0.91	–	–	–	–	N/A	N/A
Claim 3	10	N/A	N/A	N/A	N/A	0.07	1.11	–	–	–	–	N/A	N/A

Table 10.F.58 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Three

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.68	0.44	0.78	0.47	0.67	0.42	0.76	0.48	0.76	0.48	0.71	0.46	0.77	0.48
Claim 2	12	0.60	0.62	0.69	0.59	0.91	0.65	N/A	N/A	0.71	0.67	0.55	0.60	0.72	0.63
Claim 3	9	N/A	N/A	0.45	0.78	0.61	0.87	N/A	N/A	0.35	0.81	0.35	0.78	0.45	0.79
Claim 4	11	0.59	0.65	0.75	0.72	0.86	0.75	0.23	0.63	0.66	0.68	0.59	0.63	0.69	0.66

Table 10.F.59 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Four

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.72	0.46	0.76	0.44	0.82	0.46	N/A	N/A	0.79	0.48	0.81	0.48	0.78	0.46
Claim 2	12	0.76	0.68	0.65	0.64	0.82	0.67	0.87	0.70	0.71	0.64	0.77	0.68	0.69	0.65
Claim 3	9	N/A	N/A	0.40	0.80	0.56	0.82	0.67	0.87	0.48	0.84	0.42	0.84	0.38	0.82
Claim 4	9	0.52	0.86	0.47	0.70	0.38	0.69	0.74	0.89	0.61	0.77	0.48	0.74	0.62	0.74

Table 10.F.60 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Five

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.64	0.48	0.69	0.51	N/A	N/A	0.46	0.47	0.75	0.51	0.68	0.48	0.70	0.50
Claim 2	12	0.67	0.56	0.74	0.59	N/A	N/A	0.67	0.58	0.80	0.58	0.59	0.55	0.73	0.60
Claim 3	9	0.37	0.83	0.30	0.86	N/A	N/A	0.49	0.86	0.47	0.87	N/A	N/A	0.23	0.85
Claim 4	11	0.64	0.84	0.75	0.76	N/A	N/A	0.57	0.72	0.57	0.77	0.51	0.79	0.55	0.72

Table 10.F.61 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Six

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.74	0.50	0.77	0.50	–	–	N/A	N/A	0.80	0.55	0.76	0.55	0.81	0.52
Claim 2	12	0.58	0.69	0.29	0.71	–	–	N/A	N/A	0.72	0.71	0.65	0.69	0.70	0.74
Claim 3	8	0.40	0.93	N/A	N/A	–	–	N/A	N/A	0.40	0.92	0.27	0.87	0.34	0.94
Claim 4	11	0.15	1.12	0.41	0.93	–	–	N/A	N/A	0.53	0.87	0.55	0.80	0.58	0.77

Table 10.F.62 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Seven

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	0.90	0.60	N/A	N/A	–	–	0.69	0.53	0.78	0.54	0.75	0.53
Claim 2	12	–	–	N/A	N/A	N/A	N/A	–	–	0.70	0.63	0.29	0.62	0.67	0.65
Claim 3	9	–	–	0.73	1.03	N/A	N/A	–	–	0.52	0.95	0.33	0.96	0.29	0.90
Claim 4	10	–	–	0.72	1.03	N/A	N/A	–	–	0.16	1.05	0.48	0.82	0.24	0.91

Table 10.F.63 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Eight

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	N/A	N/A	0.48	0.72	–	–	N/A	N/A	0.59	0.61	N/A	N/A	0.78	0.59
Claim 2	12	0.48	0.56	0.33	0.57	–	–	N/A	N/A	0.68	0.58	N/A	N/A	0.77	0.63
Claim 3	9	0.45	1.46	N/A	N/A	–	–	N/A	N/A	N/A	N/A	N/A	N/A	0.09	1.12
Claim 4	10	N/A	N/A	N/A	N/A	–	–	N/A	N/A	0.41	0.85	N/A	N/A	0.40	0.90

Table 10.F.64 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—ELA, Grade Eleven

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	–	–	N/A	N/A	–	–	–	–	0.22	0.57	N/A	N/A	0.65	0.59
Claim 2	12	–	–	N/A	N/A	–	–	–	–	0.27	0.64	N/A	N/A	N/A	N/A
Claim 3	9	–	–	N/A	N/A	–	–	–	–	N/A	N/A	–	–	N/A	N/A
Claim 4	10	–	–	N/A	N/A	–	–	–	–	0.64	0.86	N/A	N/A	0.71	0.89

Table 10.F.65 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Three

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.78	0.36	0.82	0.44	0.94	0.49	0.67	0.36	0.80	0.39	0.83	0.45	0.78	0.41
Claim 2	12	0.74	0.47	0.82	0.47	0.88	0.60	0.82	0.44	0.74	0.46	0.75	0.50	0.76	0.45
Claim 3	9	0.30	0.63	0.47	0.62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.32	0.63

Table 10.F.66 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Four

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.75	0.41	0.86	0.41	0.86	0.39	0.92	0.52	0.82	0.42	0.85	0.41	0.77	0.38
Claim 2	10	0.45	0.65	0.34	0.62	N/A	N/A	0.82	0.70	0.57	0.65	0.53	0.63	0.58	0.66
Claim 3	10	0.04	0.62	0.55	0.56	N/A	N/A	N/A	N/A	0.52	0.68	0.43	0.62	0.57	0.63

Table 10.F.67 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Five

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.67	0.47	0.58	0.42	0.12	0.40	0.48	0.43	0.69	0.54	0.40	0.48	0.75	0.47
Claim 2	11	0.72	0.70	0.77	0.65	N/A	N/A	0.34	0.52	0.62	0.66	0.48	0.64	0.68	0.59
Claim 3	10	N/A	N/A	0.22	0.74	0.45	0.95	0.54	0.76	0.33	0.85	0.01	0.85	0.45	0.77

Table 10.F.68 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Six

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.68	0.46	N/A	N/A	–	–	N/A	N/A	0.71	0.53	0.72	0.49	0.76	0.42
Claim 2	11	0.63	0.58	N/A	N/A	–	–	N/A	N/A	0.48	0.54	0.24	0.54	0.64	0.51
Claim 3	10	N/A	N/A	N/A	N/A	–	–	N/A	N/A	0.07	0.70	N/A	N/A	0.38	0.65

Table 10.F.69 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Seven

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	0.85	0.43	N/A	N/A	–	–	0.65	0.71	0.66	0.41	0.81	0.46
Claim 2	11	–	–	0.71	0.46	N/A	N/A	–	–	N/A	N/A	0.64	0.58	0.71	0.49
Claim 3	10	–	–	N/A	N/A	N/A	N/A	–	–	0.08	1.01	0.53	0.80	0.59	0.79

Table 10.F.70 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Eight

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.23	0.87	N/A	N/A	–	–	N/A	N/A	0.40	0.83	–	–	0.63	0.67
Claim 2	10	N/A	N/A	N/A	N/A	–	–	N/A	N/A	N/A	N/A	–	–	N/A	N/A
Claim 3	9	N/A	N/A	N/A	N/A	–	–	N/A	N/A	N/A	N/A	–	–	N/A	N/A

Table 10.F.71 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity—Mathematics, Grade Eleven

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	–	–	N/A	N/A	–	–	–	–	0.54	0.78	–	–	0.75	0.72
Claim 2	11	–	–	N/A	N/A	–	–	–	–	N/A	N/A	N/A	N/A	N/A	N/A
Claim 3	10	–	–	N/A	N/A	–	–	–	–	N/A	N/A	–	–	0.57	0.92

Table 10.F.72 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Three

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.73	0.43	0.80	0.48	–	–	N/A	N/A	0.76	0.47	0.76	0.47	0.77	0.47
Claim 2	12	0.79	0.62	0.73	0.59	–	–	N/A	N/A	0.74	0.63	0.52	0.57	0.71	0.62
Claim 3	9	N/A	N/A	0.49	0.79	–	–	N/A	N/A	0.39	0.79	0.53	0.82	0.44	0.79
Claim 4	11	0.80	0.64	0.76	0.76	–	–	N/A	N/A	0.68	0.67	0.64	0.62	0.68	0.65

Table 10.F.73 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Four

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.64	0.42	0.72	0.43	0.93	0.47	N/A	N/A	0.81	0.48	0.86	0.50	0.77	0.45
Claim 2	12	N/A	N/A	0.61	0.61	0.89	0.68	0.87	0.70	0.70	0.64	0.80	0.70	0.69	0.66
Claim 3	9	N/A	N/A	0.20	0.81	0.48	0.87	0.67	0.87	0.43	0.83	0.38	0.79	0.37	0.82
Claim 4	9	0.61	0.81	0.57	0.71	0.68	0.69	0.74	0.89	0.68	0.77	0.62	0.75	0.63	0.74

Table 10.F.74 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Five

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	N/A	N/A	0.39	0.52	–	–	N/A	N/A	0.75	0.49	0.68	0.49	0.71	0.50
Claim 2	12	N/A	N/A	0.58	0.58	–	–	0.72	0.58	0.79	0.59	0.44	0.57	0.72	0.61
Claim 3	9	N/A	N/A	0.44	0.88	–	–	0.52	0.87	0.40	0.87	N/A	N/A	0.19	0.84
Claim 4	11	N/A	N/A	0.80	0.79	–	–	0.65	0.72	0.47	0.72	0.57	0.79	0.53	0.72

Table 10.F.75 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Six

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	N/A	N/A	N/A	N/A	–	–	N/A	N/A	0.75	0.50	0.54	0.66	0.81	0.52
Claim 2	12	0.19	0.71	0.29	0.71	–	–	N/A	N/A	0.66	0.72	0.78	0.70	0.72	0.75
Claim 3	8	0.36	0.86	N/A	N/A	–	–	N/A	N/A	0.30	0.96	0.21	0.82	0.34	0.92
Claim 4	11	N/A	N/A	N/A	N/A	–	–	N/A	N/A	0.63	0.76	0.52	0.71	0.61	0.79

Table 10.F.76 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Seven

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	0.90	0.55	–	–	–	–	N/A	N/A	0.83	0.54	0.78	0.54
Claim 2	12	–	–	N/A	N/A	–	–	–	–	0.84	0.64	0.29	0.61	0.66	0.65
Claim 3	9	–	–	0.84	1.03	–	–	–	–	0.64	0.90	0.60	1.00	N/A	N/A
Claim 4	10	–	–	0.12	1.15	–	–	–	–	N/A	N/A	0.38	0.81	0.40	0.93

Table 10.F.77 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Eight

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	N/A	N/A	0.48	0.72	–	–	N/A	N/A	–	–	–	–	0.72	0.58
Claim 2	12	N/A	N/A	0.33	0.57	–	–	N/A	N/A	–	–	–	–	0.70	0.64
Claim 3	9	N/A	N/A	N/A	N/A	–	–	N/A	N/A	N/A	N/A	–	–	0.19	1.14
Claim 4	10	N/A	N/A	N/A	N/A	–	–	N/A	N/A	–	–	–	–	0.39	0.95

Table 10.F.78 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—ELA, Grade Eleven

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	–	–	N/A	N/A	–	–	–	–	0.45	0.57	–	–	0.81	0.62
Claim 2	12	–	–	N/A	N/A	–	–	–	–	0.41	0.65	–	–	N/A	N/A
Claim 3	9	–	–	N/A	N/A	–	–	–	–	N/A	N/A	–	–	N/A	N/A
Claim 4	10	–	–	N/A	N/A	–	–	–	–	N/A	N/A	–	–	0.19	0.84

Table 10.F.79 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Three

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.86	0.38	0.83	0.44	–	–	0.68	0.34	0.79	0.39	0.82	0.55	0.76	0.41
Claim 2	12	0.62	0.44	0.83	0.48	–	–	0.82	0.44	0.75	0.44	0.13	0.39	0.77	0.46
Claim 3	9	0.09	0.71	0.31	0.61	–	–	N/A	N/A	N/A	N/A	N/A	N/A	0.28	0.63

Table 10.F.80 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Four

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.77	0.36	0.81	0.40	N/A	N/A	0.92	0.52	0.84	0.40	0.86	0.40	0.77	0.38
Claim 2	10	0.23	0.60	0.16	0.61	N/A	N/A	0.82	0.70	0.51	0.63	0.64	0.65	0.59	0.67
Claim 3	10	0.54	0.66	0.51	0.57	N/A	N/A	N/A	N/A	0.57	0.66	0.41	0.56	0.58	0.61

Table 10.F.81 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Five

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	N/A	N/A	0.74	0.44	–	–	0.52	0.44	0.76	0.54	N/A	N/A	0.77	0.47
Claim 2	11	N/A	N/A	0.64	0.54	–	–	N/A	N/A	0.64	0.62	0.25	0.56	0.69	0.60
Claim 3	10	N/A	N/A	N/A	N/A	–	–	0.11	0.80	0.46	0.78	N/A	N/A	0.49	0.75

Table 10.F.82 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Six

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.66	0.54	N/A	N/A	–	–	N/A	N/A	0.78	0.47	0.40	0.36	0.77	0.42
Claim 2	11	N/A	N/A	N/A	N/A	–	–	N/A	N/A	0.66	0.49	0.58	0.54	0.68	0.52
Claim 3	10	N/A	N/A	N/A	N/A	–	–	N/A	N/A	0.41	0.62	0.37	0.60	0.40	0.64

Table 10.F.83 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Seven

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	0.78	0.45	–	–	–	–	0.81	0.62	0.70	0.41	0.80	0.44
Claim 2	11	–	–	0.68	0.49	–	–	–	–	N/A	N/A	0.68	0.61	0.76	0.51
Claim 3	10	–	–	N/A	N/A	–	–	–	–	N/A	N/A	0.57	0.79	0.61	0.69

Table 10.F.84 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantaged—Mathematics, Grade Eight

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	N/A	N/A	N/A	N/A	–	–	N/A	N/A	0.72	0.79	–	–	0.62	0.72
Claim 2	10	N/A	N/A	N/A	N/A	–	–	N/A	N/A	N/A	N/A	–	–	N/A	N/A
Claim 3	9	N/A	N/A	N/A	N/A	–	–	N/A	N/A	0.08	0.93	–	–	N/A	N/A

Table 10.F.85 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Not Economically Disadvantage—Mathematics, Grade Eleven

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	–	–	N/A	N/A	–	–	–	–	0.27	0.68	–	–	0.70	0.62
Claim 2	11	–	–	N/A	N/A	–	–	–	–	N/A	N/A	–	–	N/A	N/A
Claim 3	10	–	–	N/A	N/A	–	–	–	–	N/A	N/A	–	–	0.66	1.19

Table 10.F.86 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Three

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.69	0.44	0.59	0.46	0.67	0.42	0.82	0.49	0.73	0.49	0.66	0.45	0.78	0.48
Claim 2	12	0.47	0.62	0.64	0.58	0.91	0.65	0.17	0.59	0.67	0.70	0.58	0.61	0.73	0.65
Claim 3	9	N/A	N/A	0.51	0.77	0.61	0.87	N/A	N/A	0.26	0.82	0.27	0.75	0.46	0.80
Claim 4	11	0.17	0.66	0.66	0.60	0.86	0.75	0.43	0.64	0.63	0.68	0.59	0.63	0.70	0.67

Table 10.F.87 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Four

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.70	0.48	0.59	0.44	N/A	N/A	–	–	0.77	0.47	0.72	0.47	0.77	0.46
Claim 2	12	0.80	0.72	0.45	0.70	0.86	0.66	–	–	0.70	0.64	0.75	0.66	0.67	0.64
Claim 3	9	0.18	0.86	N/A	N/A	0.60	0.77	–	–	0.42	0.84	0.37	0.87	0.40	0.81
Claim 4	9	0.52	0.88	N/A	N/A	N/A	N/A	–	–	0.52	0.77	0.33	0.74	0.57	0.74

Table 10.F.88 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Five

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.68	0.48	0.81	0.50	N/A	N/A	0.68	0.50	0.72	0.52	0.62	0.48	0.68	0.49
Claim 2	12	0.70	0.57	0.86	0.61	N/A	N/A	N/A	N/A	0.81	0.57	0.61	0.54	0.73	0.59
Claim 3	9	0.37	0.82	N/A	N/A	N/A	N/A	N/A	N/A	0.48	0.87	N/A	N/A	0.30	0.85
Claim 4	11	0.61	0.74	0.66	0.70	N/A	N/A	N/A	N/A	0.59	0.79	0.49	0.79	0.55	0.74

Table 10.F.89 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Six

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.81	0.51	N/A	N/A	–	–	N/A	N/A	0.78	0.56	0.81	0.52	0.82	0.53
Claim 2	12	0.64	0.67	–	–	–	–	N/A	N/A	0.73	0.71	0.60	0.69	0.68	0.72
Claim 3	8	0.50	0.97	–	–	–	–	N/A	N/A	0.36	0.91	0.32	0.88	0.32	0.96
Claim 4	11	0.36	1.00	N/A	N/A	–	–	N/A	N/A	0.44	0.90	0.57	0.82	0.51	0.73

Table 10.F.90 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Seven

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	N/A	N/A	N/A	N/A	–	–	0.72	0.53	0.73	0.54	0.70	0.52
Claim 2	12	–	–	–	–	N/A	N/A	–	–	0.70	0.63	0.28	0.63	0.68	0.64
Claim 3	9	–	–	N/A	N/A	N/A	N/A	–	–	0.55	0.96	0.02	0.94	0.47	0.91
Claim 4	10	–	–	N/A	N/A	N/A	N/A	–	–	0.22	1.02	0.55	0.83	N/A	N/A

Table 10.F.91 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Eight

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	N/A	N/A	–	–	–	–	–	–	0.59	0.61	N/A	N/A	0.84	0.61
Claim 2	12	N/A	N/A	–	–	–	–	–	–	0.68	0.58	N/A	N/A	0.84	0.61
Claim 3	9	N/A	N/A	–	–	–	–	–	–	N/A	N/A	N/A	N/A	N/A	N/A
Claim 4	10	N/A	N/A	–	–	–	–	–	–	0.41	0.85	N/A	N/A	0.44	0.81

Table 10.F.92 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—ELA, Grade Eleven

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	–	–	–	–	–	–	–	–	0.05	0.57	N/A	N/A	0.65	0.58
Claim 2	12	–	–	–	–	–	–	–	–	0.15	0.63	N/A	N/A	N/A	N/A
Claim 3	9	–	–	–	–	–	–	–	–	N/A	N/A	–	–	N/A	N/A
Claim 4	10	–	–	–	–	–	–	–	–	0.77	1.04	N/A	N/A	0.64	0.92

Table 10.F.93 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Three

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.72	0.35	0.85	0.42	0.94	0.49	0.72	0.37	0.81	0.38	0.84	0.40	0.81	0.42
Claim 2	12	0.81	0.49	0.76	0.44	0.88	0.60	0.85	0.44	0.72	0.48	0.78	0.54	0.73	0.44
Claim 3	9	0.38	0.54	0.68	0.65	N/A	N/A	N/A	N/A	N/A	N/A	0.01	0.63	0.42	0.64

Table 10.F.94 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Four

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	0.66	0.43	0.89	0.43	0.94	0.42	–	–	0.79	0.42	0.84	0.41	0.75	0.40
Claim 2	10	0.31	0.67	0.56	0.65	N/A	N/A	–	–	0.56	0.67	0.44	0.62	0.53	0.63
Claim 3	10	N/A	N/A	0.58	0.54	N/A	N/A	–	–	0.49	0.69	0.45	0.65	0.52	0.65

Table 10.F.95 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Five

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	0.70	0.47	N/A	N/A	0.12	0.40	N/A	N/A	0.59	0.54	0.54	0.50	0.71	0.48
Claim 2	11	0.74	0.72	0.84	0.79	N/A	N/A	0.54	0.53	0.60	0.68	0.52	0.68	0.65	0.59
Claim 3	10	0.10	0.70	0.59	0.83	0.45	0.95	0.56	0.62	0.11	0.89	0.14	0.84	0.37	0.80

Table 10.F.96 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Six

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	19	0.66	0.39	–	–	–	–	N/A	N/A	0.67	0.55	0.72	0.51	0.75	0.41
Claim 2	11	0.72	0.57	–	–	–	–	N/A	N/A	0.31	0.56	0.18	0.54	0.55	0.50
Claim 3	10	N/A	N/A	–	–	–	–	N/A	N/A	N/A	N/A	N/A	N/A	0.38	0.65

Table 10.F.97 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Seven

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	–	–	N/A	N/A	N/A	N/A	–	–	0.63	0.72	0.67	0.41	0.80	0.48
Claim 2	11	–	–	N/A	N/A	N/A	N/A	–	–	N/A	N/A	0.63	0.56	0.54	0.46
Claim 3	10	–	–	N/A	N/A	N/A	N/A	–	–	0.14	1.01	0.54	0.81	0.50	0.89

Table 10.F.98 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Eight

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	20	N/A	N/A	–	–	–	–	–	–	0.31	0.84	–	–	0.57	0.60
Claim 2	10	N/A	N/A	–	–	–	–	–	–	N/A	N/A	–	–	N/A	N/A
Claim 3	9	N/A	N/A	–	–	–	–	–	–	N/A	N/A	–	–	0.08	1.14

Table 10.F.99 Claim Reliabilities and SEM for Paper-pencil Tests by Primary Ethnicity for Economically Disadvantaged—Mathematics, Grade Eleven

Claim	N of Items	Am. Ind.		Asian		Pac. Island		Filipino		Hispanic		African Am.		White	
		Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM	Reliab	SEM
Claim 1	21	–	–	–	–	–	–	–	–	0.67	0.90	–	–	0.80	0.76
Claim 2	11	–	–	–	–	–	–	–	–	N/A	N/A	N/A	N/A	N/A	N/A
Claim 3	10	–	–	–	–	–	–	–	–	N/A	N/A	–	–	N/A	N/A

Appendix 10.G: Scale Score CSEM Distribution for Paper-Pencil Tests

Note: An expression that opens with a parenthesis and closes with a bracket indicates that a value is greater than the first number and is less than or equal to the second number. For example, “(0.5, 2]” indicates a value greater than 0.5 but less than or equal to 2.

Table 10.G.1 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Three

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	407	407	61%	61%
[25, 30)	174	581	26%	87%
[30, 35)	51	632	8%	94%
[35, 40)	12	644	2%	96%
[40, 45)	7	651	1%	97%
[45, 50)	5	656	1%	98%
[60, 65)	1	657	0%	98%
[210, 215)	12	669	2%	100%

Table 10.G.2 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Four

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	296	296	47%	47%
[25, 30)	246	542	39%	87%
[30, 35)	54	596	9%	95%
[35, 40)	12	608	2%	97%
[40, 45)	7	615	1%	98%
[50, 55)	3	618	0%	99%
[55, 60)	1	619	0%	99%
[210, 215)	7	626	1%	100%

Table 10.G.3 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Five

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	82	82	15%	15%
[25, 30)	381	463	71%	86%
[30, 35)	51	514	9%	96%
[35, 40)	10	524	2%	97%
[40, 45)	2	526	0%	98%
[45, 50)	1	527	0%	98%
[50, 55)	1	528	0%	98%
[55, 60)	2	530	0%	99%
[60, 65)	1	531	0%	99%
[210, 215)	7	538	1%	100%

Table 10.G.4 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Six

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[25, 30)	157	157	73%	73%
[30, 35)	41	198	19%	92%
[35, 40)	9	207	4%	96%
[40, 45)	5	212	2%	98%
[50, 55)	1	213	0%	99%
[55, 60)	1	214	0%	99%
[75, 80)	1	215	0%	100%
[95, 100)	1	216	0%	100%

Table 10.G.5 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Seven

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[25, 30)	69	69	71%	71%
[30, 35)	15	84	15%	87%
[35, 40)	7	91	7%	94%
[40, 45)	1	92	1%	95%
[45, 50)	1	93	1%	96%
[50, 55)	1	94	1%	97%
[55, 60)	1	95	1%	98%
[210, 215)	2	97	2%	100%

Table 10.G.6 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Eight

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[25, 30)	42	42	61%	61%
[30, 35)	13	55	19%	80%
[35, 40)	4	59	6%	86%
[40, 45)	5	64	7%	93%
[45, 50)	1	65	1%	94%
[210, 215)	4	69	6%	100%

Table 10.G.7 Scale Score CSEM Distribution of Paper-pencil Tests—ELA, Grade Eleven

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[25, 30)	9	9	45%	45%
[30, 35)	5	14	25%	70%
[35, 40)	1	15	5%	75%
[40, 45)	1	16	5%	80%
[45, 50)	1	17	5%	85%
[160, 165)	1	18	5%	90%
[210, 215)	2	20	10%	100%

Table 10.G.8 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Three

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[15, 20)	344	344	50%	50%
[20, 25)	285	629	42%	92%
[25, 30)	14	643	2%	94%
[30, 35)	13	656	2%	96%
[35, 40)	7	663	1%	97%
[40, 45)	2	665	0%	98%
[45, 50)	1	666	0%	98%
[50, 55)	2	668	0%	98%
[80, 85)	1	669	0%	98%
[195, 200)	13	682	2%	100%

Table 10.G.9 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Four

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	514	514	80%	80%
[25, 30)	78	592	12%	92%
[30, 35)	25	617	4%	96%
[35, 40)	15	632	2%	98%
[40, 45)	4	636	1%	99%
[195, 200)	6	642	1%	100%

Table 10.G.10 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Five

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[20, 25)	324	324	59%	59%
[25, 30)	133	457	24%	84%
[30, 35)	47	504	9%	92%
[35, 40)	18	522	3%	96%
[40, 45)	9	531	2%	97%
[45, 50)	6	537	1%	98%
[50, 55)	2	539	0%	99%
[55, 60)	2	541	0%	99%
[65, 70)	1	542	0%	99%
[195, 200)	4	546	1%	100%

Table 10.G.11 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Six

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[15, 20)	40	40	18%	18%
[20, 25)	108	148	48%	65%
[25, 30)	24	172	11%	76%
[30, 35)	12	184	5%	81%
[35, 40)	9	193	4%	85%
[40, 45)	9	202	4%	89%
[45, 50)	5	207	2%	91%
[55, 60)	3	210	1%	93%
[60, 65)	1	211	0%	93%
[75, 80)	2	213	1%	94%
[80, 85)	3	216	1%	95%
[90, 95)	2	218	1%	96%
[195, 200)	9	227	4%	100%

Table 10.G.12 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Seven

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[15, 20)	26	26	25%	25%
[20, 25)	29	55	28%	52%
[25, 30)	21	76	20%	72%
[30, 35)	9	85	9%	81%
[35, 40)	6	91	6%	87%
[40, 45)	1	92	1%	88%
[50, 55)	1	93	1%	89%
[55, 60)	2	95	2%	90%
[60, 65)	2	97	2%	92%
[70, 75)	1	98	1%	93%
[75, 80)	3	101	3%	96%
[105, 110)	1	102	1%	97%
[115, 120)	1	103	1%	98%
[195, 200)	2	105	2%	100%

Table 10.G.13 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Eight

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[25, 30)	5	5	6%	6%
[30, 35)	12	17	15%	22%
[35, 40)	15	32	19%	41%
[40, 45)	13	45	16%	57%
[45, 50)	10	55	13%	70%
[50, 55)	3	58	4%	73%
[55, 60)	4	62	5%	78%
[60, 65)	4	66	5%	84%
[65, 70)	4	70	5%	89%
[70, 75)	1	71	1%	90%
[75, 80)	1	72	1%	91%
[80, 85)	2	74	3%	94%
[145, 150)	2	76	3%	96%
[195, 200)	3	79	4%	100%

Table 10.G.14 Scale Score CSEM Distribution of Paper-pencil Tests—Mathematics, Grade Eleven

CSEM range	N	Cumulative Frequency	Percent	Cumulative Percent
[25, 30)	1	1	6%	6%
[30, 35)	5	6	29%	35%
[35, 40)	6	12	35%	71%
[40, 45)	1	13	6%	76%
[50, 55)	1	14	6%	82%
[65, 70)	1	15	6%	88%
[80, 85)	1	16	6%	94%
[115, 120)	1	17	6%	100%

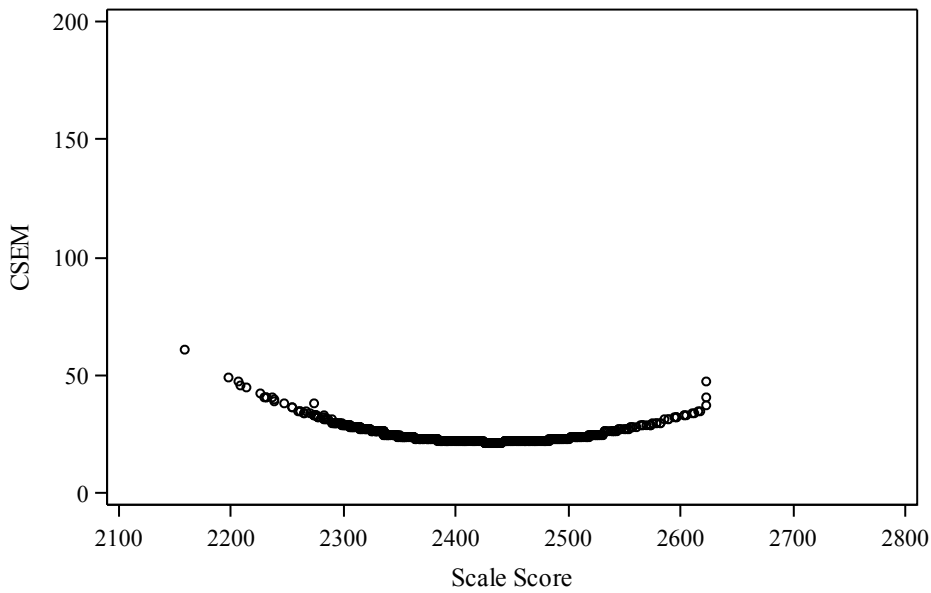


Figure 10.G.1 Scale Score CSEM Distribution Plots—ELA, Grade Three

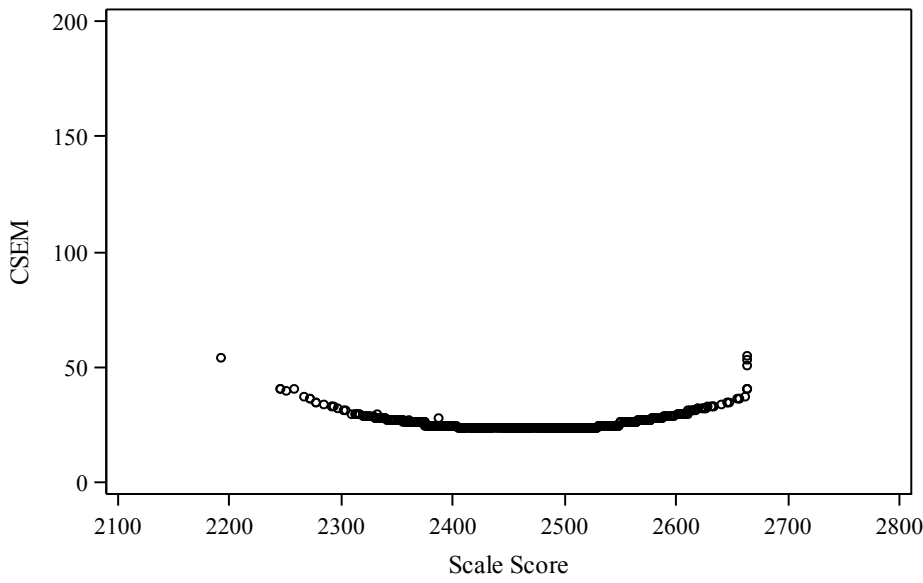


Figure 10.G.2 Scale Score CSEM Distribution Plots—ELA, Grade Four

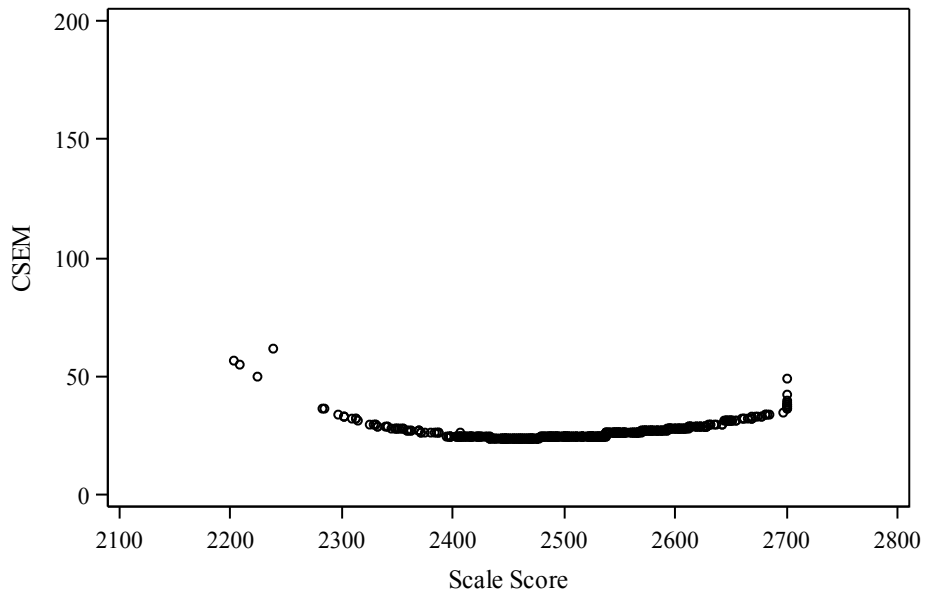


Figure 10.G.3 Scale Score CSEM Distribution Plots—ELA, Grade Five

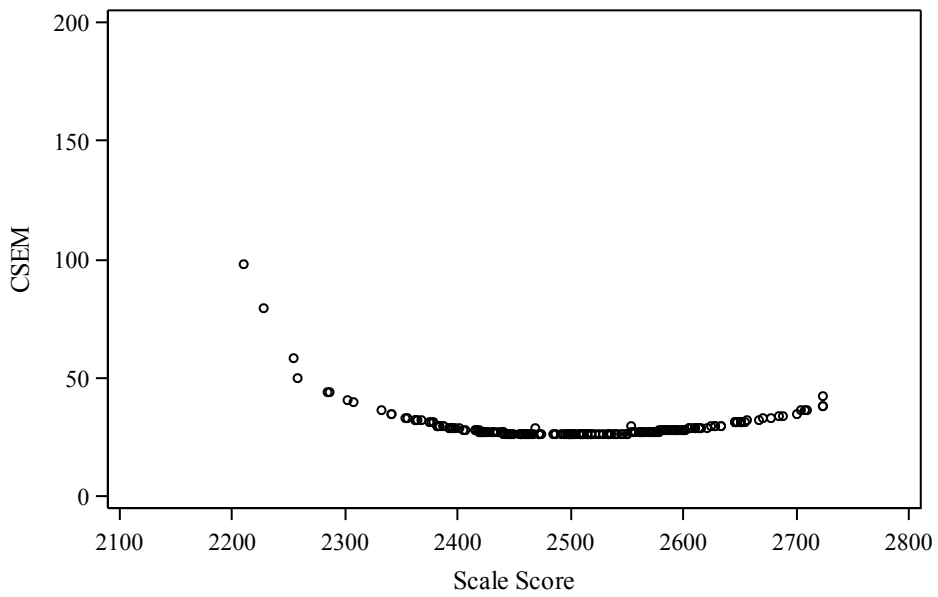


Figure 10.G.4 Scale Score CSEM Distribution Plots—ELA, Grade Six

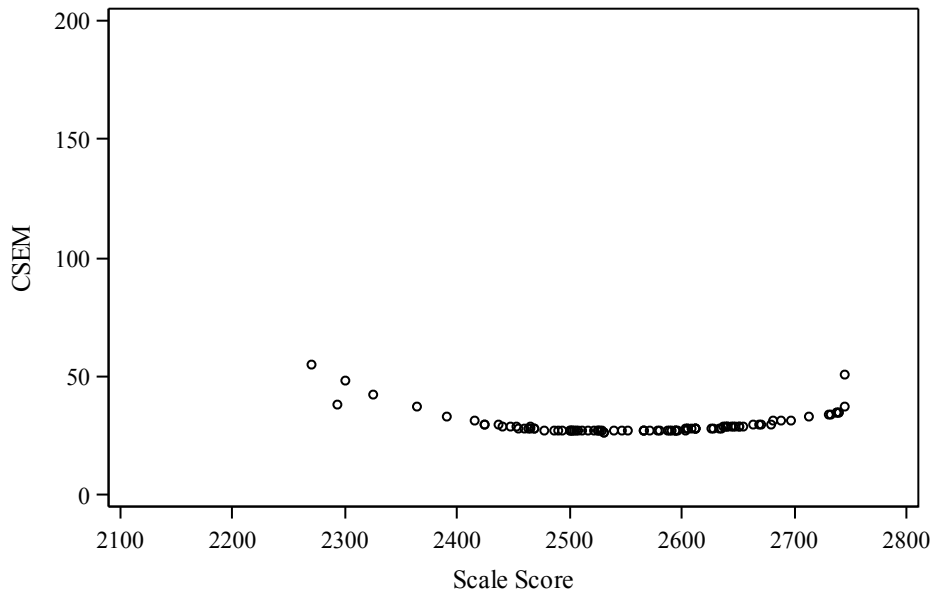


Figure 10.G.5 Scale Score CSEM Distribution Plots—ELA, Grade Seven

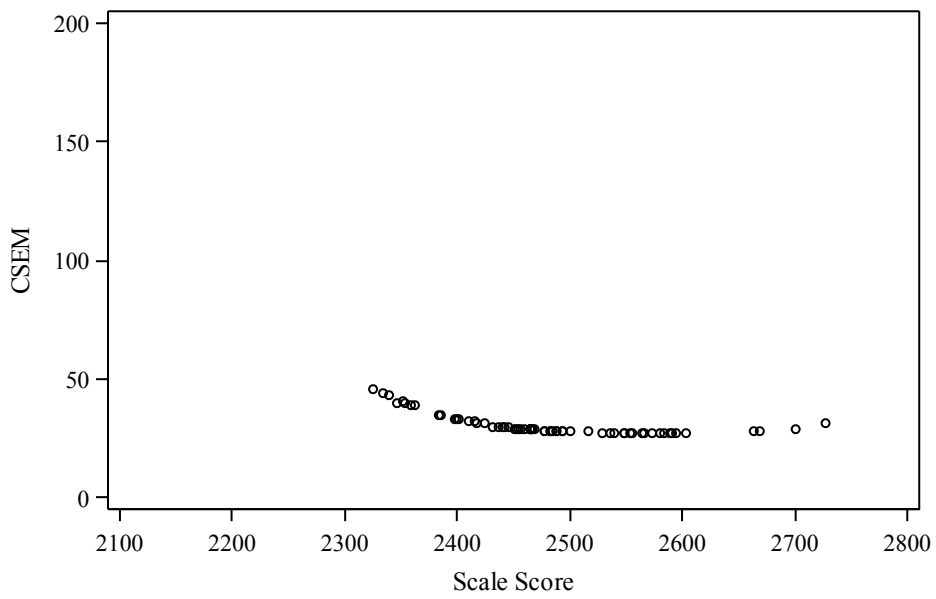


Figure 10.G.6 Scale Score CSEM Distribution Plots—ELA, Grade Eight

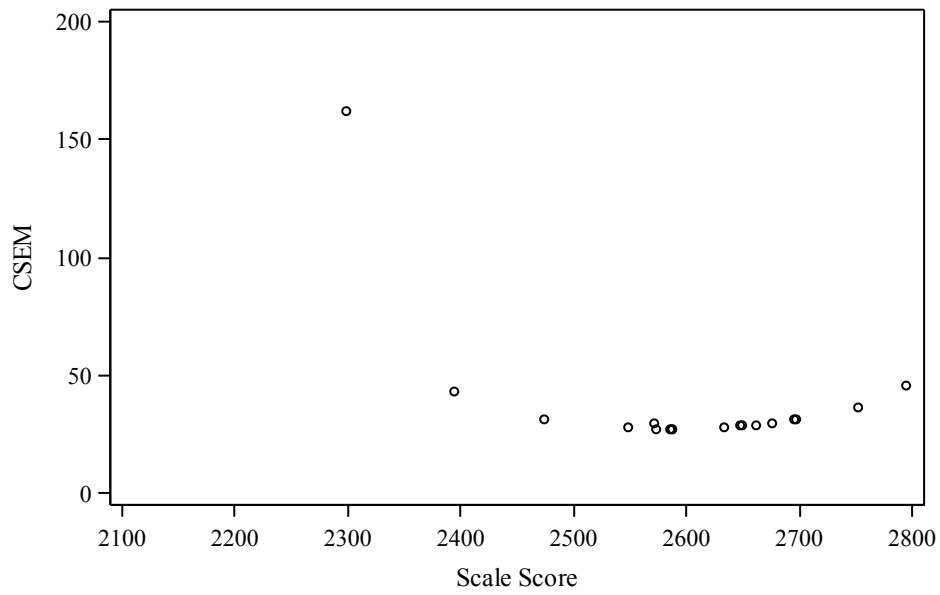


Figure 10.G.7 Scale Score CSEM Distribution Plots—ELA, Grade Eleven

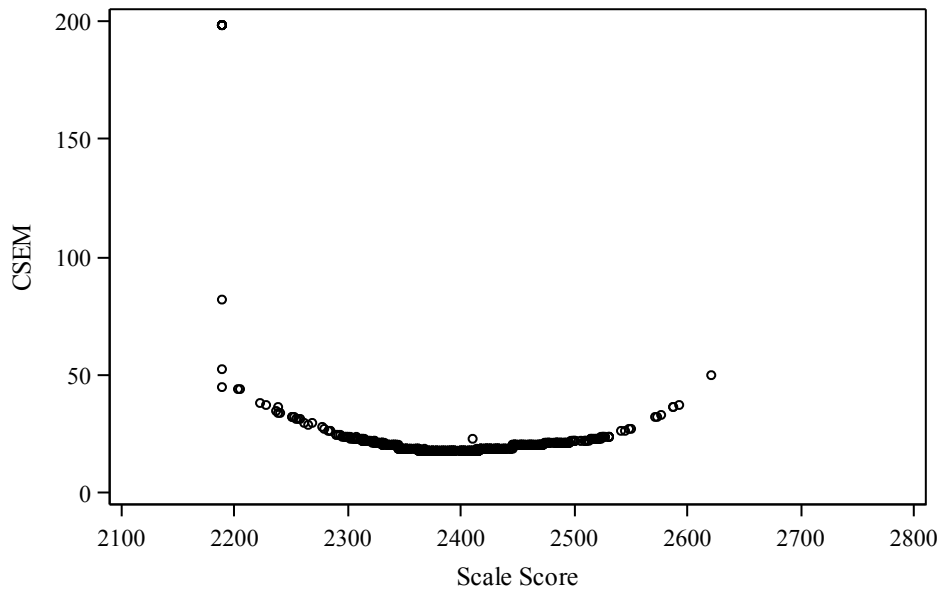


Figure 10.G.8 Scale Score CSEM Distribution Plots—Mathematics, Grade Three

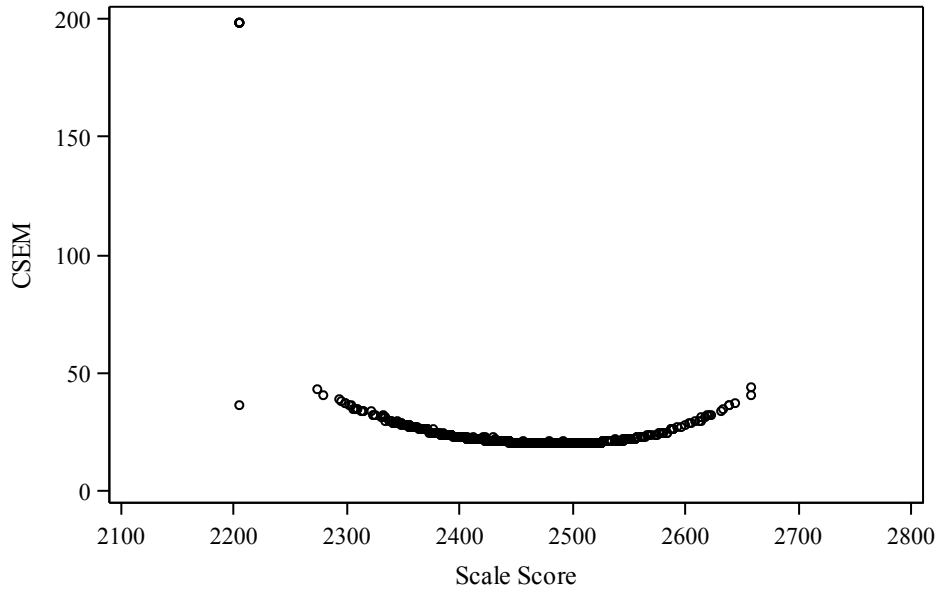


Figure 10.G.9 Scale Score CSEM Distribution Plots—Mathematics, Grade Four

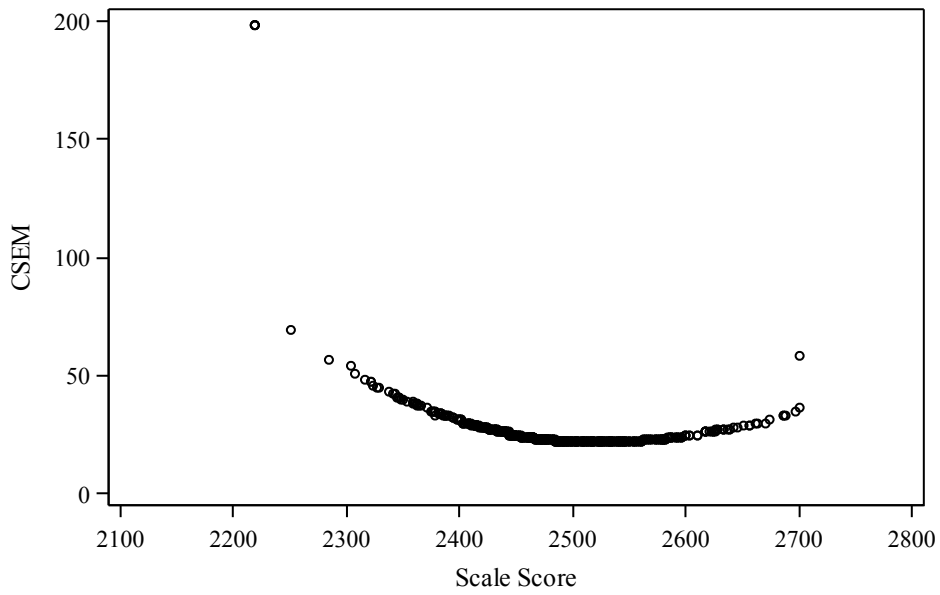


Figure 10.G.10 Scale Score CSEM Distribution Plots—Mathematics, Grade Five

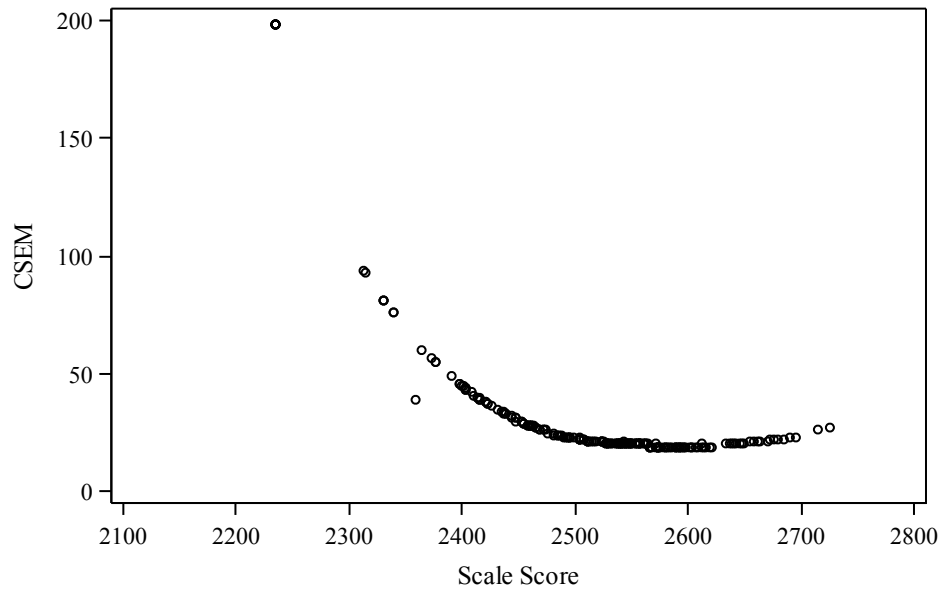


Figure 10.G.11 Scale Score CSEM Distribution Plots—Mathematics, Grade Six

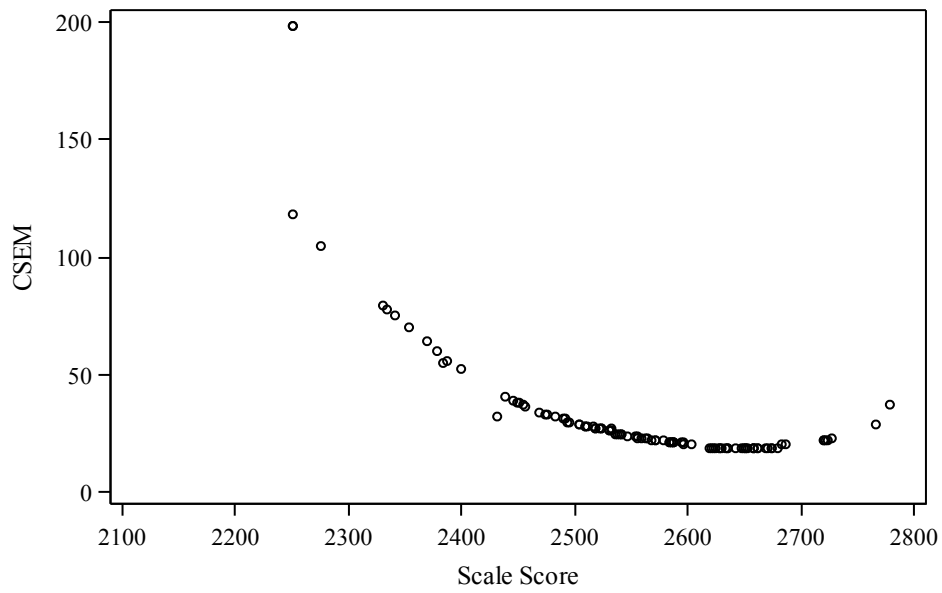


Figure 10.G.12 Scale Score CSEM Distribution Plots—Mathematics, Grade Seven

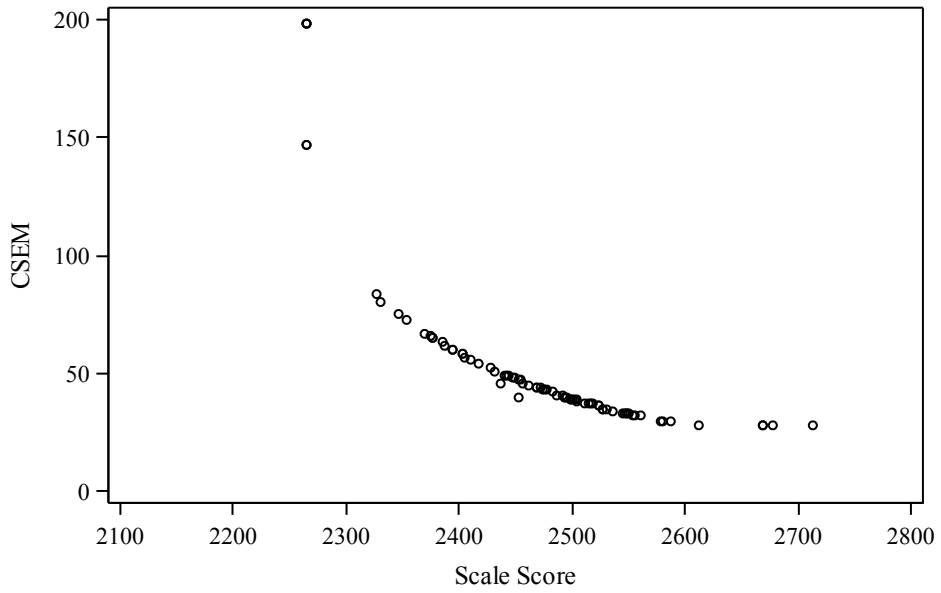


Figure 10.G.13 Scale Score CSEM Distribution Plots—Mathematics, Grade Eight

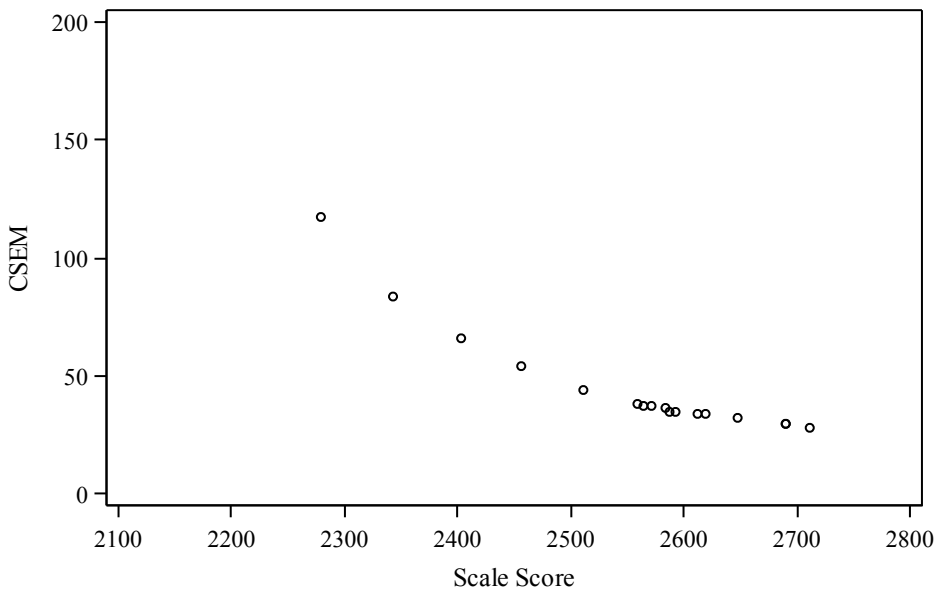


Figure 10.G.14 Scale Score CSEM Distribution Plots—Mathematics, Grade Eleven