



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



California Assessment of
Student Performance and Progress

**California Assessment of Student
Performance and Progress**

**California Science Test
2018–2019 Technical Report**

Chapter 8 Appendices

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Appendix 8.A: Item Difficulty Distribution

Note:

- Item types are as follows:
 - MC = Multiple-choice item
 - CR = Constructed-response item
 - TEI = Technology-enhanced item
 - Composite = Composite item (an item type that includes multiple parts)

Table 8.A.1 Item Difficulty Distributions by Item Type

Grade or Grade Level	Item Type	$0 \leq p < 0.2$	$0.2 \leq p < 0.4$	$0.4 \leq p < 0.6$	$0.6 \leq p < 0.8$	$0.8 \leq p \leq 1.0$	Total Number of Items
Grade 5	MC	0	8	13	7	1	29
Grade 5	CR	1	2	2	2	0	7
Grade 5	TEI	3	6	9	3	0	21
Grade 5	Composite	0	4	0	3	0	7
Grade 8	MC	1	13	11	3	1	29
Grade 8	CR	0	5	1	2	0	8
Grade 8	TEI	2	11	5	5	0	23
Grade 8	Composite	0	2	4	1	0	7
High school—Grade 10	MC	0	13	13	1	0	27
High school—Grade 10	CR	2	5	1	0	0	8
High school—Grade 10	TEI	1	6	5	2	1	15
High school—Grade 10	Composite	0	2	0	0	0	2
High school—Grade 11	MC	0	11	14	2	0	27
High school—Grade 11	CR	1	5	2	0	0	8
High school—Grade 11	TEI	1	6	3	3	2	15
High school—Grade 11	Composite	0	2	0	0	0	2
High school—Grade 12	MC	0	14	12	1	0	27
High school—Grade 12	CR	1	6	1	0	0	8
High school—Grade 12	TEI	1	7	4	3	0	15
High school—Grade 12	Composite	0	2	0	0	0	2
High school—All grades	MC	0	11	14	2	0	27
High school—All grades	CR	1	6	1	0	0	8
High school—All grades	TEI	1	7	3	3	1	15
High school—All grades	Composite	0	2	0	0	0	2

Table 8.A.2 Item Difficulty Distributions by Content Domain

Grade or Grade Level	Content Domain	$0 \leq p < 0.2$	$0.2 \leq p < 0.4$	$0.4 \leq p < 0.6$	$0.6 \leq p < 0.8$	$0.8 \leq p \leq 1.0$	Total Number of Items
Grade 5	PS	3	7	14	8	0	32
Grade 5	LS	1	4	6	4	1	16
Grade 5	ESS	0	9	4	3	0	16
Grade 8	PS	0	11	7	5	1	24
Grade 8	LS	1	11	10	2	0	24
Grade 8	ESS	2	9	4	4	0	19
High school—Grade 10	PS	1	8	7	1	0	17
High school—Grade 10	LS	1	11	5	0	1	18
High school—Grade 10	ESS	1	7	7	2	0	17
High school—Grade 11	PS	0	8	6	3	0	17
High school—Grade 11	LS	1	10	5	1	1	18
High school—Grade 11	ESS	1	6	8	1	1	17
High school—Grade 12	PS	0	9	7	1	0	17
High school—Grade 12	LS	1	11	5	1	0	18
High school—Grade 12	ESS	1	9	5	2	0	17
High school—All grades	PS	0	8	7	2	0	17
High school—All grades	LS	1	10	5	1	1	18
High school—All grades	ESS	1	8	6	2	0	17

Appendix 8.B: Item-Total Correlation Distribution

Table 8.B.1 Item-Total Correlation Distributions by Item Type

Grade or Grade Level	Item Type	$r < 0$	$0 \leq r < 0.2$	$0.2 \leq r < 0.3$	$0.3 \leq r < 0.4$	$0.4 \leq r < 0.5$	$r \geq 0.5$	Total Number of Items
Grade 5	MC	0	0	4	3	7	15	29
Grade 5	CR	0	0	0	0	0	7	7
Grade 5	TEI	0	0	0	2	3	16	21
Grade 5	Composite	0	0	0	0	0	7	7
Grade 8	MC	0	2	1	8	6	12	29
Grade 8	CR	0	0	0	0	1	7	8
Grade 8	TEI	0	1	1	4	3	14	23
Grade 8	Composite	0	0	0	0	0	7	7
High school—Grade 10	MC	0	4	3	3	9	8	27
High school—Grade 10	CR	0	0	0	1	0	7	8
High school—Grade 10	TEI	0	2	1	1	3	8	15
High school—Grade 10	Composite	0	0	0	0	1	1	2
High school—Grade 11	MC	0	3	3	5	6	10	27
High school—Grade 11	CR	0	0	0	1	0	7	8
High school—Grade 11	TEI	0	2	1	1	3	8	15
High school—Grade 11	Composite	0	0	0	0	0	2	2
High school—Grade 12	MC	0	3	3	4	6	11	27
High school—Grade 12	CR	0	0	0	0	1	7	8
High school—Grade 12	TEI	0	2	0	3	2	8	15
High school—Grade 12	Composite	0	0	0	0	0	2	2
High school—All grades	MC	0	3	3	4	6	11	27
High school—All grades	CR	0	0	0	1	0	7	8
High school—All grades	TEI	0	2	1	1	3	8	15
High school—All grades	Composite	0	0	0	0	0	2	2

Table 8.B.2 Item-Total Correlation Distributions by Content Domain

Grade or Grade Level	Content Domain	$r < 0$	$0 \leq r < 0.2$	$0.2 \leq r < 0.3$	$0.3 \leq r < 0.4$	$0.4 \leq r < 0.5$	$r \geq 0.5$	Total Number of Items
Grade 5	PS	0	0	2	4	6	20	32
Grade 5	LS	0	0	1	1	2	12	16
Grade 5	ESS	0	0	1	0	2	13	16
Grade 8	PS	0	1	1	2	3	17	24
Grade 8	LS	0	1	0	5	5	13	24
Grade 8	ESS	0	1	1	5	2	10	19
High school—Grade 10	PS	0	2	2	1	1	11	17
High school—Grade 10	LS	0	3	1	2	6	6	18
High school—Grade 10	ESS	0	1	1	2	6	7	17
High school—Grade 11	PS	0	2	1	1	2	11	17
High school—Grade 11	LS	0	3	1	2	3	9	18
High school—Grade 11	ESS	0	0	2	4	4	7	17
High school—Grade 12	PS	0	2	1	1	2	11	17
High school—Grade 12	LS	0	3	1	2	3	9	18
High school—Grade 12	ESS	0	0	1	4	4	8	17
High school—All grades	PS	0	2	1	1	2	11	17
High school—All grades	LS	0	3	1	2	3	9	18
High school—All grades	ESS	0	0	2	3	4	8	17

Appendix 8.C: Item Discrimination Parameter Distribution

Note:

- Item types are as follows:
 - MC = Multiple-choice item
 - CR = Constructed-response item
 - TEI = Technology-enhanced item
 - Composite = Composite item (an item type that includes multiple parts)

Table 8.C.1 Item Discrimination Parameter Distribution by Item Type for Grade Five

IRT-a Range	MC	CR	TEI	Composite	Number of Items
$a < 0$	0	0	0	0	0
$0 \leq a < 0.2$	4	0	0	0	4
$0.2 \leq a < 0.4$	3	0	3	2	8
$0.4 \leq a < 0.6$	9	1	7	3	20
$0.6 \leq a < 0.8$	6	2	9	1	18
$0.8 \leq a < 1.0$	6	2	1	1	10
$1.0 \leq a < 1.2$	0	2	1	0	3
$1.2 \leq a < 1.4$	1	0	0	0	1
$1.4 \leq a < 1.6$	0	0	0	0	0
$1.6 \leq a < 1.8$	0	0	0	0	0
$1.8 \leq a < 2.0$	0	0	0	0	0
$a \geq 2.0$	0	0	0	0	0
Minimum	0.15	0.48	0.33	0.37	0.15
Maximum	1.36	1.13	1.06	0.81	1.36
Mean	0.60	0.84	0.62	0.50	0.62
SD	0.29	0.25	0.18	0.16	0.25
Number of Items	29	7	21	7	64

Table 8.C.2 Item Discrimination Parameter Distribution by Item Type for Grade Eight

IRT-a Range	MC	CR	TEI	Composite	Number of Items
$a < 0$	0	0	0	0	0
$0 \leq a < 0.2$	3	0	2	0	5
$0.2 \leq a < 0.4$	8	3	3	0	14
$0.4 \leq a < 0.6$	9	1	9	6	25
$0.6 \leq a < 0.8$	5	1	4	1	11
$0.8 \leq a < 1.0$	3	3	3	0	9
$1.0 \leq a < 1.2$	1	0	1	0	2
$1.2 \leq a < 1.4$	0	0	0	0	0
$1.4 \leq a < 1.6$	0	0	1	0	1
$1.6 \leq a < 1.8$	0	0	0	0	0
$1.8 \leq a < 2.0$	0	0	0	0	0
$a \geq 2.0$	0	0	0	0	0
Minimum	0.08	0.26	0.11	0.48	0.08
Maximum	1.13	0.84	1.42	0.74	1.42
Mean	0.50	0.59	0.60	0.56	0.55
SD	0.25	0.24	0.28	0.08	0.25
Number of Items	29	8	23	7	67

Table 8.C.3 Item Discrimination Parameter Distribution by Item Type for High School

IRT-a Range	MC	CR	TEI	Composite	Number of Items
$a < 0$	0	0	0	0	0
$0 \leq a < 0.2$	5	0	2	0	7
$0.2 \leq a < 0.4$	7	0	3	0	10
$0.4 \leq a < 0.6$	8	2	5	2	17
$0.6 \leq a < 0.8$	4	4	3	0	11
$0.8 \leq a < 1.0$	2	1	1	0	4
$1.0 \leq a < 1.2$	1	0	1	0	2
$1.2 \leq a < 1.4$	0	1	0	0	1
$1.4 \leq a < 1.6$	0	0	0	0	0
$1.6 \leq a < 1.8$	0	0	0	0	0
$1.8 \leq a < 2.0$	0	0	0	0	0
$a \geq 2.0$	0	0	0	0	0
Minimum	0.05	0.47	0.07	0.45	0.05
Maximum	1.09	1.31	1.06	0.54	1.31
Mean	0.45	0.76	0.53	0.49	0.52
SD	0.27	0.27	0.28	0.07	0.28
Number of Items	27	8	15	2	52

Table 8.C.4 Item Discrimination Parameter Distribution by Content Domain for Grade Five

IRT-a Range	Life Sciences	Physical Sciences	Earth and Space Sciences	Number of Items
$a < 0$	0	0	0	0
$0 \leq a < 0.2$	1	2	1	4
$0.2 \leq a < 0.4$	2	6	0	8
$0.4 \leq a < 0.6$	3	9	8	20
$0.6 \leq a < 0.8$	4	10	4	18
$0.8 \leq a < 1.0$	4	4	2	10
$1.0 \leq a < 1.2$	1	1	1	3
$1.2 \leq a < 1.4$	1	0	0	1
$1.4 \leq a < 1.6$	0	0	0	0
$1.6 \leq a < 1.8$	0	0	0	0
$1.8 \leq a < 2.0$	0	0	0	0
$a \geq 2.0$	0	0	0	0
Minimum	0.18	0.15	0.18	0.15
Maximum	1.36	1.05	1.06	1.36
Mean	0.71	0.58	0.60	0.62
SD	0.32	0.23	0.21	0.25
Number of Items	16	32	16	64

Table 8.C.5 Item Discrimination Parameter Distribution by Content Domain for Grade Eight

IRT-a Range	Life Sciences	Physical Sciences	Earth and Space Sciences	Number of Items
$a < 0$	0	0	0	0
$0 \leq a < 0.2$	1	2	2	5
$0.2 \leq a < 0.4$	6	3	5	14
$0.4 \leq a < 0.6$	9	11	5	25
$0.6 \leq a < 0.8$	5	3	3	11
$0.8 \leq a < 1.0$	3	4	2	9
$1.0 \leq a < 1.2$	0	1	1	2
$1.2 \leq a < 1.4$	0	0	0	0
$1.4 \leq a < 1.6$	0	0	1	1
$1.6 \leq a < 1.8$	0	0	0	0
$1.8 \leq a < 2.0$	0	0	0	0
$a \geq 2.0$	0	0	0	0
Minimum	0.09	0.08	0.11	0.08
Maximum	0.93	1.13	1.42	1.42
Mean	0.53	0.57	0.55	0.55
SD	0.21	0.23	0.32	0.25
Number of Items	24	24	19	67

Table 8.C.6 Item Discrimination Parameter Distribution by Content Domain for High School

IRT-a Range	Life Sciences	Physical Sciences	Earth and Space Sciences	Number of Items
$a < 0$	0	0	0	0
$0 \leq a < 0.2$	3	3	1	7
$0.2 \leq a < 0.4$	3	2	5	10
$0.4 \leq a < 0.6$	9	3	5	17
$0.6 \leq a < 0.8$	1	6	4	11
$0.8 \leq a < 1.0$	1	2	1	4
$1.0 \leq a < 1.2$	1	1	0	2
$1.2 \leq a < 1.4$	0	0	1	1
$1.4 \leq a < 1.6$	0	0	0	0
$1.6 \leq a < 1.8$	0	0	0	0
$1.8 \leq a < 2.0$	0	0	0	0
$a \geq 2.0$	0	0	0	0
Minimum	0.05	0.05	0.15	0.05
Maximum	1.06	1.09	1.31	1.31
Mean	0.46	0.57	0.54	0.52
SD	0.27	0.29	0.29	0.28
Number of Items	18	17	17	52

Appendix 8.D: Item Difficulty Parameter Distribution

Note:

- Item types are as follows:
 - MC = Multiple-choice item
 - CR = Constructed-response item
 - TEI = Technology-enhanced item
 - Composite = Composite item (an item type that includes multiple parts)

Table 8.D.1 Item Difficulty Parameter Distribution by Item Type for Grade Five

IRT-b Range	MC	CR	TEI	Composite	Number of Items
$b < -3.5$	0	0	0	0	0
$-3.5 \leq b < -3.0$	0	0	0	0	0
$-3.0 \leq b < -2.5$	0	0	0	0	0
$-2.5 \leq b < -2.0$	0	0	0	0	0
$-2.0 \leq b < -1.5$	0	0	0	0	0
$-1.5 \leq b < -1.0$	2	0	2	0	4
$-1.0 \leq b < -0.5$	5	1	2	1	9
$-0.5 \leq b < 0$	7	1	3	2	13
$0 \leq b < 0.5$	5	2	5	0	12
$0.5 \leq b < 1.0$	4	1	3	2	10
$1.0 \leq b < 1.5$	1	2	3	2	8
$1.5 \leq b < 2.0$	3	0	0	0	3
$2.0 \leq b < 2.5$	1	0	1	0	2
$2.5 \leq b < 3.0$	1	0	0	0	1
$3.0 \leq b < 3.5$	0	0	1	0	1
$b \geq 3.5$	0	0	1	0	1
Minimum	-1.16	-0.53	-1.47	-0.86	-1.47
Maximum	2.59	1.35	4.03	1.34	4.03
Mean	0.24	0.43	0.56	0.32	0.38
SD	0.98	0.77	1.35	0.90	1.07
Number of Items	29	7	21	7	64

Table 8.D.2 Item Difficulty Parameter Distribution by Item Type for Grade Eight

IRT-<i>b</i> Range	MC	CR	TEI	Composite	Number of Items
$b < -3.5$	0	0	0	0	0
$-3.5 \leq b < -3.0$	0	0	0	0	0
$-3.0 \leq b < -2.5$	0	0	0	0	0
$-2.5 \leq b < -2.0$	0	0	1	0	1
$-2.0 \leq b < -1.5$	1	0	0	0	1
$-1.5 \leq b < -1.0$	0	0	1	1	2
$-1.0 \leq b < -0.5$	1	2	3	0	6
$-0.5 \leq b < 0$	7	0	2	3	12
$0 \leq b < 0.5$	4	1	3	1	9
$0.5 \leq b < 1.0$	6	2	6	1	15
$1.0 \leq b < 1.5$	3	3	3	1	10
$1.5 \leq b < 2.0$	4	0	3	0	7
$2.0 \leq b < 2.5$	1	0	1	0	2
$2.5 \leq b < 3.0$	0	0	0	0	0
$3.0 \leq b < 3.5$	0	0	0	0	0
$b \geq 3.5$	2	0	0	0	2
Minimum	-1.75	-0.88	-2.01	-1.10	-2.01
Maximum	8.88	1.40	2.17	1.10	8.88
Mean	0.93	0.45	0.50	0.11	0.64
SD	1.96	0.89	1.04	0.76	1.49
Number of Items	29	8	23	7	67

Table 8.D.3 Item Difficulty Parameter Distribution by Item Type for High School

IRT-<i>b</i> Range	MC	CR	TEI	Composite	Number of Items
$b < -3.5$	0	0	1	0	1
$-3.5 \leq b < -3.0$	0	0	0	0	0
$-3.0 \leq b < -2.5$	0	0	0	0	0
$-2.5 \leq b < -2.0$	0	0	0	0	0
$-2.0 \leq b < -1.5$	0	0	0	0	0
$-1.5 \leq b < -1.0$	1	0	1	0	2
$-1.0 \leq b < -0.5$	0	0	2	0	2
$-0.5 \leq b < 0$	5	0	2	0	7
$0 \leq b < 0.5$	9	2	2	0	13
$0.5 \leq b < 1.0$	4	1	3	0	8
$1.0 \leq b < 1.5$	3	4	1	2	10
$1.5 \leq b < 2.0$	1	0	1	0	2
$2.0 \leq b < 2.5$	0	0	0	0	0
$2.5 \leq b < 3.0$	0	0	0	0	0
$3.0 \leq b < 3.5$	1	0	1	0	2
$b \geq 3.5$	3	1	1	0	5
Minimum	-1.04	0.04	-8.21	1.14	-8.21
Maximum	13.01	3.68	6.81	1.44	13.01
Mean	1.53	1.23	0.25	1.29	1.11
SD	3.18	1.10	3.07	0.21	2.87
Number of Items	27	8	15	2	52

Table 8.D.4 Item Difficulty Parameter Distribution by Content Domain for Grade Five

IRT-<i>b</i> Range	Life Sciences	Physical Sciences	Earth and Space Sciences	Number of Items
$b < -3.5$	0	0	0	0
$-3.5 \leq b < -3.0$	0	0	0	0
$-3.0 \leq b < -2.5$	0	0	0	0
$-2.5 \leq b < -2.0$	0	0	0	0
$-2.0 \leq b < -1.5$	0	0	0	0
$-1.5 \leq b < -1.0$	2	2	0	4
$-1.0 \leq b < -0.5$	3	5	1	9
$-0.5 \leq b < 0$	3	6	4	13
$0 \leq b < 0.5$	2	8	2	12
$0.5 \leq b < 1.0$	3	2	5	10
$1.0 \leq b < 1.5$	1	4	3	8
$1.5 \leq b < 2.0$	0	2	1	3
$2.0 \leq b < 2.5$	1	1	0	2
$2.5 \leq b < 3.0$	1	0	0	1
$3.0 \leq b < 3.5$	0	1	0	1
$b \geq 3.5$	0	1	0	1
Minimum	-1.47	-1.31	-0.59	-1.47
Maximum	2.59	4.03	1.79	4.03
Mean	0.20	0.42	0.47	0.38
SD	1.15	1.19	0.73	1.07
Number of Items	16	32	16	64

Table 8.D.5 Item Difficulty Parameter Distribution by Content Domain for Grade Eight

IRT-<i>b</i> Range	Life Sciences	Physical Sciences	Earth and Space Sciences	Number of Items
$b < -3.5$	0	0	0	0
$-3.5 \leq b < -3.0$	0	0	0	0
$-3.0 \leq b < -2.5$	0	0	0	0
$-2.5 \leq b < -2.0$	0	0	1	1
$-2.0 \leq b < -1.5$	0	1	0	1
$-1.5 \leq b < -1.0$	1	1	0	2
$-1.0 \leq b < -0.5$	0	3	3	6
$-0.5 \leq b < 0$	6	5	1	12
$0 \leq b < 0.5$	4	2	3	9
$0.5 \leq b < 1.0$	6	5	4	15
$1.0 \leq b < 1.5$	3	4	3	10
$1.5 \leq b < 2.0$	2	2	3	7
$2.0 \leq b < 2.5$	1	0	1	2
$2.5 \leq b < 3.0$	0	0	0	0
$3.0 \leq b < 3.5$	0	0	0	0
$b \geq 3.5$	1	1	0	2
Minimum	-1.10	-1.75	-2.01	-2.01
Maximum	8.88	5.11	2.17	8.88
Mean	0.88	0.46	0.56	0.64
SD	1.89	1.34	1.07	1.49
Number of Items	24	24	19	67

Table 8.D.6 Item Difficulty Parameter Distribution by Content Domain for High School

IRT-<i>b</i> Range	Life Sciences	Physical Sciences	Earth and Space Sciences	Number of Items
$b < -3.5$	1	0	0	1
$-3.5 \leq b < -3.0$	0	0	0	0
$-3.0 \leq b < -2.5$	0	0	0	0
$-2.5 \leq b < -2.0$	0	0	0	0
$-2.0 \leq b < -1.5$	0	0	0	0
$-1.5 \leq b < -1.0$	0	1	1	2
$-1.0 \leq b < -0.5$	1	0	1	2
$-0.5 \leq b < 0$	3	2	2	7
$0 \leq b < 0.5$	4	5	4	13
$0.5 \leq b < 1.0$	0	5	3	8
$1.0 \leq b < 1.5$	6	1	3	10
$1.5 \leq b < 2.0$	0	1	1	2
$2.0 \leq b < 2.5$	0	0	0	0
$2.5 \leq b < 3.0$	0	0	0	0
$3.0 \leq b < 3.5$	0	0	2	2
$b \geq 3.5$	3	2	0	5
Minimum	-8.21	-1.04	-1.33	-8.21
Maximum	8.58	13.01	3.24	13.01
Mean	1.13	1.49	0.71	1.11
SD	3.47	3.42	1.22	2.87
Number of Items	18	17	17	52

Appendix 8.E: Response Time Analyses

Notes:

- Response time analyses were based on students who logged on to the test and whose total testing time at the test level did not equal zero.
- In [Table 8.E.1](#), PT refers to performance task, and HS refers to high school. According to the test design, half of the students received a PT and the other half of the students received a discrete item block in Segment C. Segment C (PT) provides a summary of the testing time to complete Segment C if students received a PT. Segment C (Discrete) provides a summary of the testing time to complete Segment C if students received a discrete item block.
- Because response time was recorded at the page level, items that were on a page with multiple items were excluded in the analysis in [Table 8.E.2](#).
- The following abbreviations apply in [Table 8.E.2](#):
 - MCSS = Multiple-choice single-select item
 - CR = Constructed-response item
 - TE = Technology-enhanced item
 - Composite = Composite item (an item type that includes multiple parts)
 - HS = high school

Table 8.E.1 Testing Time (in Minutes) by Segment

Grade or Grade Level	Segment	N	Mean	SD	Min	Max	1st Percentile	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile	99th Percentile
Grade 5	Discrete Operational	456,221	100.9	54.7	3.4	1157.9	25.1	49.2	65.0	88.5	122.4	166.3	294.8
Grade 5	PT Operational	455,178	26.0	16.3	0.0	508.1	3.8	10.1	15.6	22.7	32.2	44.8	83.5
Grade 5	Discrete Field Test	227,673	26.0	17.4	0.0	514.8	3.2	10.4	15.1	21.8	31.9	46.2	89.9
Grade 5	PT Field Test	227,639	15.3	11.3	0.0	323.7	1.4	5.0	8.4	12.8	19.0	27.7	57.3
Grade 8	Discrete Operational	462,504	85.0	41.7	1.4	1531.8	16.5	43.2	57.6	77.1	103.6	135.8	226.0
Grade 8	PT Operational	460,353	18.3	12.7	0.0	417.5	1.9	5.4	10.0	16.1	23.3	32.3	62.8
Grade 8	Discrete Field Test	230,582	23.5	15.2	0.0	331.5	2.1	7.9	13.9	20.8	29.7	41.2	76.5
Grade 8	PT Field Test	230,163	9.6	7.4	0.0	349.3	0.9	2.7	5.2	8.2	12.0	16.9	36.6
HS—Grade 10	Discrete Operational	23,322	54.8	25.7	1.6	409.1	8.6	26.3	38.4	51.8	67.4	85.4	136.3
HS—Grade 10	PT Operational	23,103	11.4	7.5	0.0	140.5	1.5	3.8	6.5	10.2	14.5	19.7	36.8
HS—Grade 10	Discrete Field Test	11,667	14.8	9.3	0.3	111.3	1.6	4.2	8.4	13.6	19.2	25.8	45.4
HS—Grade 10	PT Field Test	11,500	6.4	5.1	0.0	81.9	0.6	1.5	3.0	5.5	8.4	11.8	25.1

Table 8.E.1 (continuation)

Grade or Grade Level	Segment	N	Mean	SD	Min	Max	1st Percentile	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile	99th Percentile
HS—Grade 11	Discrete Operational	256,842	55.2	28.6	1.0	663.7	5.9	23.5	37.0	51.5	68.8	89.4	147.7
HS—Grade 11	PT Operational	255,715	12.5	8.9	0.0	340.3	1.4	3.7	6.8	10.9	15.9	22.2	43.7
HS—Grade 11	Discrete Field Test	128,105	15.6	10.3	0.0	259.1	1.4	4.3	8.7	14.2	20.2	27.5	49.6
HS—Grade 11	PT Field Test	127,821	6.9	5.8	0.0	258.2	0.6	1.5	3.2	5.9	9.0	12.9	26.8
HS—Grade 12	Discrete Operational	276,105	42.4	22.3	1.5	679.1	4.5	16.1	27.7	40.4	53.9	68.9	111.0
HS—Grade 12	PT Operational	274,352	9.1	6.3	0.0	240.6	1.2	2.7	4.8	8.0	11.8	16.2	30.3
HS—Grade 12	Discrete Field Test	137,640	11.7	7.8	0.0	154.0	1.2	2.9	6.0	10.6	15.6	21.1	36.6
HS—Grade 12	PT Field Test	137,011	4.9	4.0	0.0	131.8	0.5	1.1	2.0	4.2	6.7	9.4	18.3
HS—All Grades	Discrete Operational	556,269	48.8	26.3	1.0	679.1	5.0	19.2	31.8	45.7	61.5	80.3	133.5
HS—All Grades	PT Operational	553,170	10.7	7.8	0.0	340.3	1.3	3.1	5.6	9.3	13.8	19.4	38.1
HS—All Grades	Discrete Field Test	277,412	13.6	9.3	0.0	259.1	1.3	3.4	7.1	12.3	18.0	24.5	44.5
HS—All Grades	PT Field Test	276,332	5.9	5.1	0.0	258.2	0.6	1.2	2.5	5.0	7.9	11.3	23.3

Table 8.E.2 Testing Time (in Minutes) by Item Type

Grade or Grade Level	Item Type	N	Mean	SD	Min	Max	1st Percentile	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile	99th Percentile
Grade 5	MCSS	9,573,244	2.0	2.6	0.0	216.2	0.1	0.4	0.8	1.3	2.3	4.0	12.3
Grade 5	CR	1,486,848	6.3	6.7	0.0	297.4	0.3	1.5	2.6	4.5	7.7	12.8	33.1
Grade 5	TE	6,037,049	2.0	2.5	0.0	486.3	0.1	0.5	0.8	1.3	2.3	4.0	11.8
Grade 5	Composite	3,326,919	4.7	5.5	0.0	364.6	0.0	1.2	1.9	3.2	5.5	9.6	26.8
Grade 8	MCSS	8,803,584	1.7	2.3	0.0	166.7	0.0	0.2	0.6	1.2	2.1	3.6	10.7
Grade 8	CR	1,598,259	6.1	5.9	0.0	207.6	0.2	1.8	2.9	4.6	7.4	11.8	29.4
Grade 8	TE	5,309,661	1.6	2.0	0.0	196.5	0.1	0.3	0.7	1.2	2.0	3.2	9.1
Grade 8	Composite	3,449,943	3.8	4.0	0.0	560.4	0.1	0.9	1.6	2.6	4.6	7.7	19.2
HS—Grade 10	MCSS	626,517	1.2	1.4	0.0	64.6	0.0	0.1	0.4	0.9	1.6	2.5	6.3
HS—Grade 10	CR	118,599	3.4	3.4	0.0	165.1	0.1	0.7	1.5	2.7	4.4	6.8	15.6
HS—Grade 10	TE	284,852	1.2	1.2	0.0	58.3	0.1	0.3	0.5	0.9	1.5	2.2	5.2
HS—Grade 10	Composite	53,654	1.5	1.6	0.0	59.3	0.2	0.4	0.7	1.2	1.9	2.9	7.2
HS—Grade 11	MCSS	6,906,745	1.2	1.5	0.0	128.0	0.0	0.1	0.4	0.9	1.6	2.5	6.7
HS—Grade 11	CR	1,308,632	3.5	3.5	0.0	254.8	0.1	0.7	1.4	2.7	4.5	7.0	16.2
HS—Grade 11	TE	3,140,376	1.2	1.2	0.0	96.7	0.1	0.3	0.5	0.9	1.5	2.2	5.3
HS—Grade 11	Composite	592,738	1.5	1.6	0.0	109.1	0.2	0.4	0.7	1.2	1.9	2.9	7.2
HS—Grade 12	MCSS	7,418,022	0.9	1.1	0.0	103.7	0.0	0.1	0.2	0.7	1.2	2.0	4.8
HS—Grade 12	CR	1,404,888	2.7	2.6	0.0	115.4	0.1	0.4	1.0	2.0	3.5	5.4	11.9
HS—Grade 12	TE	3,374,853	0.9	0.9	0.0	64.9	0.1	0.2	0.4	0.7	1.2	1.9	4.1
HS—Grade 12	Composite	635,277	1.2	1.2	0.0	66.6	0.1	0.3	0.6	1.0	1.5	2.3	5.4

Table 8.E.2 (continuation)

Grade or Grade Level	Item Type	N	Mean	SD	Min	Max	1st Percentile	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile	99th Percentile
HS—All Grades	MCSS	14,951,284	1.1	1.3	0.0	128.0	0.0	0.1	0.3	0.8	1.4	2.2	5.8
HS—All Grades	CR	2,832,119	3.1	3.1	0.0	254.8	0.1	0.5	1.2	2.4	4.0	6.2	14.3
HS—All Grades	TE	6,800,081	1.1	1.1	0.0	96.7	0.1	0.2	0.5	0.8	1.4	2.1	4.7
HS—All Grades	Composite	1,281,669	1.4	1.4	0.0	109.1	0.1	0.3	0.6	1.1	1.7	2.6	6.4

Appendix 8.F: Reliability Analysis

Table 8.F.1 Reliabilities and Standard Error of Measurement (SEMs) by Demographic Groups for Grade Five

Group	Number Tested	Reliability	Theta Score SEM	Theta Score Variance
All students	455,033	0.91	0.31	1.07
Male	233,759	0.92	0.31	1.20
Female	221,274	0.91	0.31	1.07
English learner	87,764	0.81	0.30	0.47
English only	262,591	0.91	0.32	1.14
Reclassified fluent English proficient	86,525	0.88	0.30	0.75
Initial fluent English proficient	17,770	0.89	0.34	1.05
To be determined	175	0.89	0.33	0.99
Economically disadvantaged	283,278	0.89	0.30	0.82
Not economically disadvantaged	171,755	0.90	0.33	1.09
American Indian or Alaska Native (All)	2,185	0.90	0.31	0.96
Asian (All)	42,190	0.91	0.35	1.36
Native Hawaiian or Other Pacific Islander (All)	2,073	0.90	0.30	0.90
Filipino (All)	9,188	0.90	0.32	1.02
Hispanic or Latino (All)	253,338	0.89	0.30	0.82
Black or African American (All)	24,282	0.89	0.30	0.82
White (All)	100,299	0.91	0.32	1.14
Two or more races (All)	18,611	0.91	0.33	1.21
Special education services	57,028	0.89	0.32	0.93
No special education services	398,005	0.91	0.31	1.07
Migrant	3,851	0.87	0.30	0.69
Nonmigrant	451,182	0.91	0.31	1.07
Military	4,549	0.91	0.32	1.14
Nonmilitary	450,484	0.91	0.31	1.07

Table 8.F.1 (continuation)

Group	Number Tested	Reliability	Theta Score SEM	Theta Score Variance
Homeless	18,217	0.89	0.30	0.82
Not homeless	436,816	0.91	0.31	1.07
American Indian or Alaska Native (Primary ethnicity—not economically disadvantaged)	718	0.91	0.31	1.07
American Indian or Alaska Native (Primary ethnicity—economically disadvantaged)	1,467	0.89	0.30	0.82
Asian (Primary ethnicity—not economically disadvantaged)	26,656	0.88	0.36	1.08
Asian (Primary ethnicity—economically disadvantaged)	15,534	0.91	0.32	1.14
Native Hawaiian or Other Pacific Islander (Primary ethnicity—not economically disadvantaged)	671	0.91	0.31	1.07
Native Hawaiian or Other Pacific Islander (Primary ethnicity—economically disadvantaged)	1,402	0.88	0.30	0.75
Filipino (Primary ethnicity—not economically disadvantaged)	5,871	0.89	0.33	0.99
Filipino (Primary ethnicity—economically disadvantaged)	3,317	0.90	0.31	0.96
Hispanic or Latino (Primary ethnicity—not economically disadvantaged)	49,897	0.90	0.31	0.96
Hispanic or Latino (Primary ethnicity—economically disadvantaged)	203,441	0.88	0.30	0.75
Black or African American (Primary ethnicity—not economically disadvantaged)	5,766	0.90	0.30	0.90
Black or African American (Primary ethnicity—economically disadvantaged)	18,516	0.87	0.30	0.69
White (Primary ethnicity—not economically disadvantaged)	68,896	0.89	0.33	0.99
White (Primary ethnicity—economically disadvantaged)	31,403	0.90	0.31	0.96
Two or more races (Primary ethnicity—not economically disadvantaged)	11,916	0.89	0.34	1.05
Two or more races (Primary ethnicity—economically disadvantaged)	6,695	0.90	0.31	0.96

Table 8.F.2 Reliabilities and SEMs by Demographic Groups for Grade Eight

Group	Number Tested	Reliability	Theta Score SEM	Theta Score Variance
All students	462,015	0.90	0.34	1.16
Male	235,512	0.91	0.34	1.28
Female	226,503	0.89	0.34	1.05
English learner	56,702	0.75	0.34	0.46
English only	252,433	0.90	0.34	1.16
Reclassified fluent English proficient	132,627	0.88	0.33	0.91
Initial fluent English proficient	19,903	0.89	0.36	1.18
To be determined	184	0.87	0.35	0.94
Economically disadvantaged	279,299	0.88	0.33	0.91
Not economically disadvantaged	182,716	0.89	0.35	1.11
American Indian or Alaska Native (All)	2,381	0.89	0.34	1.05
Asian (All)	43,407	0.89	0.37	1.24
Native Hawaiian or Other Pacific Islander (All)	2,190	0.88	0.33	0.91
Filipino (All)	10,831	0.88	0.35	1.02
Hispanic or Latino (All)	254,378	0.88	0.33	0.91
Black or African American (All)	24,274	0.87	0.34	0.89
White (All)	105,289	0.89	0.35	1.11
Two or more races (All)	16,872	0.90	0.35	1.23
Special education services	52,199	0.84	0.35	0.77
No special education services	409,816	0.90	0.34	1.16
Migrant	3,782	0.85	0.33	0.73
Nonmigrant	458,233	0.90	0.34	1.16
Military	4,787	0.89	0.34	1.05
Nonmilitary	457,228	0.90	0.34	1.16
Homeless	15,358	0.87	0.33	0.84
Not homeless	446,657	0.90	0.34	1.16

Table 8.F.2 (continuation)

Group	Number Tested	Reliability	Theta Score SEM	Theta Score Variance
American Indian or Alaska Native (Primary ethnicity—not economically disadvantaged)	854	0.89	0.34	1.05
American Indian or Alaska Native (Primary ethnicity—economically disadvantaged)	1,527	0.87	0.34	0.89
Asian (Primary ethnicity—not economically disadvantaged)	26,996	0.86	0.38	1.03
Asian (Primary ethnicity—economically disadvantaged)	16,411	0.90	0.35	1.23
Native Hawaiian or Other Pacific Islander (Primary ethnicity—not economically disadvantaged)	790	0.89	0.34	1.05
Native Hawaiian or Other Pacific Islander (Primary ethnicity—economically disadvantaged)	1,400	0.86	0.33	0.78
Filipino (Primary ethnicity—not economically disadvantaged)	7,119	0.87	0.35	0.94
Filipino (Primary ethnicity—economically disadvantaged)	3,712	0.88	0.34	0.96
Hispanic or Latino (Primary ethnicity—not economically disadvantaged)	53,835	0.89	0.34	1.05
Hispanic or Latino (Primary ethnicity—economically disadvantaged)	200,543	0.87	0.33	0.84
Black or African American (Primary ethnicity—not economically disadvantaged)	6,676	0.89	0.34	1.05
Black or African American (Primary ethnicity—economically disadvantaged)	17,598	0.85	0.34	0.77
White (Primary ethnicity—not economically disadvantaged)	74,148	0.88	0.35	1.02
White (Primary ethnicity—economically disadvantaged)	31,141	0.89	0.33	0.99
Two or more races (Primary ethnicity—not economically disadvantaged)	11,182	0.88	0.36	1.08
Two or more races (Primary ethnicity—economically disadvantaged)	5,690	0.89	0.34	1.05

Table 8.F.3 Reliabilities and SEMs by Demographic Groups for Grade Ten

Group	Number Tested	Reliability	Theta Score SEM	Theta Score Variance
All students	23,313	0.88	0.36	1.08
Male	11,918	0.88	0.37	1.14
Female	11,395	0.87	0.35	0.94
English learner	1,992	0.65	0.42	0.50
English only	13,333	0.89	0.36	1.18
Reclassified fluent English proficient	6,970	0.84	0.35	0.77
Initial fluent English proficient	985	0.89	0.35	1.11
To be determined	12	0.89	0.42	1.60
Economically disadvantaged	13,880	0.84	0.37	0.86
Not economically disadvantaged	9,433	0.89	0.35	1.11
American Indian or Alaska Native (All)	161	0.88	0.37	1.14
Asian (All)	1,213	0.89	0.36	1.18
Native Hawaiian or Other Pacific Islander (All)	76	0.84	0.34	0.72
Filipino (All)	586	0.86	0.36	0.93
Hispanic or Latino (All)	12,703	0.84	0.37	0.86
Black or African American (All)	1,509	0.83	0.39	0.89
White (All)	6,051	0.89	0.35	1.11
Two or more races (All)	858	0.90	0.36	1.30
Special education services	2,631	0.76	0.42	0.74
No special education services	20,682	0.88	0.35	1.02
Migrant	179	0.79	0.37	0.65
Nonmigrant	23,134	0.88	0.36	1.08
Military	173	0.88	0.35	1.02
Nonmilitary	23,140	0.88	0.36	1.08
Homeless	487	0.85	0.38	0.96
Not homeless	22,826	0.88	0.36	1.08

Table 8.F.3 (continuation)

Group	Number Tested	Reliability	Theta Score SEM	Theta Score Variance
American Indian or Alaska Native (Primary ethnicity—not economically disadvantaged)	62	0.89	0.35	1.11
American Indian or Alaska Native (Primary ethnicity—economically disadvantaged)	99	0.84	0.37	0.86
Asian (Primary ethnicity—not economically disadvantaged)	810	0.88	0.36	1.08
Asian (Primary ethnicity—economically disadvantaged)	403	0.87	0.35	0.94
Native Hawaiian or Other Pacific Islander (Primary ethnicity—not economically disadvantaged)	37	0.85	0.34	0.77
Native Hawaiian or Other Pacific Islander (Primary ethnicity—economically disadvantaged)	39	0.81	0.34	0.61
Filipino (Primary ethnicity—not economically disadvantaged)	411	0.85	0.35	0.82
Filipino (Primary ethnicity—economically disadvantaged)	175	0.86	0.38	1.03
Hispanic or Latino (Primary ethnicity—not economically disadvantaged)	3,038	0.87	0.35	0.94
Hispanic or Latino (Primary ethnicity—economically disadvantaged)	9,665	0.82	0.37	0.76
Black or African American (Primary ethnicity—not economically disadvantaged)	431	0.87	0.37	1.05
Black or African American (Primary ethnicity—economically disadvantaged)	1,078	0.79	0.40	0.76
White (Primary ethnicity—not economically disadvantaged)	4,060	0.88	0.35	1.02
White (Primary ethnicity—economically disadvantaged)	1,991	0.86	0.35	0.88
Two or more races (Primary ethnicity—not economically disadvantaged)	495	0.90	0.36	1.30
Two or more races (Primary ethnicity—economically disadvantaged)	363	0.88	0.37	1.14

Table 8.F.4 Reliabilities and SEMs by Demographic Groups for Grade Eleven

Group	Number Tested	Reliability	Theta Score SEM	Theta Score Variance
All students	256,472	0.89	0.36	1.18
Male	129,463	0.90	0.37	1.37
Female	127,009	0.88	0.35	1.02
English learner	22,214	0.71	0.41	0.58
English only	134,322	0.90	0.36	1.30
Reclassified fluent English proficient	86,344	0.87	0.35	0.94
Initial fluent English proficient	13,441	0.90	0.35	1.23
To be determined	84	0.80	0.42	0.88
Economically disadvantaged	148,009	0.87	0.36	1.00
Not economically disadvantaged	108,463	0.90	0.35	1.23
American Indian or Alaska Native (All)	1,385	0.88	0.36	1.08
Asian (All)	24,008	0.90	0.36	1.30
Native Hawaiian or Other Pacific Islander (All)	1,089	0.88	0.36	1.08
Filipino (All)	7,300	0.88	0.34	0.96
Hispanic or Latino (All)	139,454	0.86	0.36	0.93
Black or African American (All)	12,184	0.86	0.38	1.03
White (All)	61,818	0.90	0.35	1.23
Two or more races (All)	7,645	0.90	0.36	1.30
Special education services	23,284	0.80	0.40	0.80
No special education services	233,188	0.89	0.35	1.11
Migrant	1,765	0.84	0.36	0.81
Nonmigrant	254,707	0.89	0.36	1.18
Military	4,001	0.89	0.35	1.11
Nonmilitary	252,471	0.89	0.36	1.18
Homeless	7,227	0.85	0.38	0.96
Not homeless	249,245	0.89	0.36	1.18

Table 8.F.4 (continuation)

Group	Number Tested	Reliability	Theta Score SEM	Theta Score Variance
American Indian or Alaska Native (Primary ethnicity—not economically disadvantaged)	564	0.89	0.36	1.18
American Indian or Alaska Native (Primary ethnicity—economically disadvantaged)	821	0.85	0.37	0.91
Asian (Primary ethnicity—not economically disadvantaged)	13,717	0.89	0.37	1.24
Asian (Primary ethnicity—economically disadvantaged)	10,291	0.90	0.35	1.23
Native Hawaiian or Other Pacific Islander (Primary ethnicity—not economically disadvantaged)	446	0.89	0.35	1.11
Native Hawaiian or Other Pacific Islander (Primary ethnicity—economically disadvantaged)	643	0.86	0.36	0.93
Filipino (Primary ethnicity—not economically disadvantaged)	4,741	0.88	0.34	0.96
Filipino (Primary ethnicity—economically disadvantaged)	2,559	0.87	0.34	0.89
Hispanic or Latino (Primary ethnicity—not economically disadvantaged)	33,397	0.88	0.35	1.02
Hispanic or Latino (Primary ethnicity—economically disadvantaged)	106,057	0.85	0.36	0.86
Black or African American (Primary ethnicity—not economically disadvantaged)	4,085	0.88	0.37	1.14
Black or African American (Primary ethnicity—economically disadvantaged)	8,099	0.83	0.39	0.89
White (Primary ethnicity—not economically disadvantaged)	45,401	0.89	0.35	1.11
White (Primary ethnicity—economically disadvantaged)	16,417	0.88	0.36	1.08
Two or more races (Primary ethnicity—not economically disadvantaged)	5,231	0.90	0.35	1.23
Two or more races (Primary ethnicity—economically disadvantaged)	2,414	0.89	0.36	1.18

Table 8.F.5 Reliabilities and SEMs by Demographic Groups for Grade Twelve

Group	Number Tested	Reliability	Theta Score SEM	Theta Score Variance
All students	275,679	0.89	0.37	1.24
Male	139,799	0.90	0.37	1.37
Female	135,880	0.88	0.36	1.08
English learner	21,622	0.67	0.42	0.53
English only	148,397	0.90	0.37	1.37
Reclassified fluent English proficient	90,556	0.87	0.36	1.00
Initial fluent English proficient	14,801	0.91	0.36	1.44
To be determined	114	0.84	0.42	1.10
Economically disadvantaged	151,661	0.86	0.37	0.98
Not economically disadvantaged	124,018	0.91	0.36	1.44
American Indian or Alaska Native (All)	1,351	0.87	0.37	1.05
Asian (All)	29,015	0.91	0.36	1.44
Native Hawaiian or Other Pacific Islander (All)	1,421	0.86	0.38	1.03
Filipino (All)	8,914	0.88	0.35	1.02
Hispanic or Latino (All)	141,326	0.85	0.37	0.91
Black or African American (All)	15,656	0.83	0.39	0.89
White (All)	67,180	0.90	0.36	1.30
Two or more races (All)	9,039	0.91	0.36	1.44
Special education services	25,064	0.79	0.42	0.84
No special education services	250,615	0.89	0.36	1.18
Migrant	1,879	0.82	0.37	0.76
Nonmigrant	273,800	0.89	0.37	1.24
Military	3,928	0.88	0.37	1.14
Nonmilitary	271,751	0.89	0.37	1.24
Homeless	9,322	0.84	0.38	0.90
Not homeless	266,357	0.89	0.37	1.24

Table 8.F.5 (continuation)

Group	Number Tested	Reliability	Theta Score SEM	Theta Score Variance
American Indian or Alaska Native (Primary ethnicity—not economically disadvantaged)	578	0.88	0.36	1.08
American Indian or Alaska Native (Primary ethnicity—economically disadvantaged)	773	0.86	0.38	1.03
Asian (Primary ethnicity—not economically disadvantaged)	17,490	0.91	0.37	1.52
Asian (Primary ethnicity—economically disadvantaged)	11,525	0.90	0.36	1.30
Native Hawaiian or Other Pacific Islander (Primary ethnicity—not economically disadvantaged)	617	0.88	0.37	1.14
Native Hawaiian or Other Pacific Islander (Primary ethnicity—economically disadvantaged)	804	0.83	0.38	0.85
Filipino (Primary ethnicity—not economically disadvantaged)	6,110	0.89	0.35	1.11
Filipino (Primary ethnicity—economically disadvantaged)	2,804	0.87	0.35	0.94
Hispanic or Latino (Primary ethnicity—not economically disadvantaged)	36,621	0.88	0.36	1.08
Hispanic or Latino (Primary ethnicity—economically disadvantaged)	104,705	0.84	0.37	0.86
Black or African American (Primary ethnicity—not economically disadvantaged)	5,445	0.86	0.38	1.03
Black or African American (Primary ethnicity—economically disadvantaged)	10,211	0.81	0.40	0.84
White (Primary ethnicity—not economically disadvantaged)	50,123	0.90	0.36	1.30
White (Primary ethnicity—economically disadvantaged)	17,057	0.88	0.36	1.08
Two or more races (Primary ethnicity—not economically disadvantaged)	6,069	0.91	0.36	1.44
Two or more races (Primary ethnicity—economically disadvantaged)	2,970	0.88	0.37	1.14

Table 8.F.6 Reliabilities and SEMs by Demographic Groups for High School

Group	Number Tested	Reliability	Theta Score SEM	Theta Score Variance
All students	555,464	0.89	0.36	1.18
Male	281,180	0.90	0.37	1.37
Female	274,284	0.88	0.36	1.08
English learner	45,828	0.69	0.41	0.54
English only	296,052	0.90	0.36	1.30
Reclassified fluent English proficient	183,870	0.87	0.35	0.94
Initial fluent English proficient	29,227	0.90	0.36	1.30
To be determined	210	0.83	0.42	1.04
Economically disadvantaged	313,550	0.86	0.37	0.98
Not economically disadvantaged	241,914	0.90	0.36	1.30
American Indian or Alaska Native (All)	2,897	0.87	0.37	1.05
Asian (All)	54,236	0.91	0.36	1.44
Native Hawaiian or Other Pacific Islander (All)	2,586	0.87	0.37	1.05
Filipino (All)	16,800	0.88	0.35	1.02
Hispanic or Latino (All)	293,483	0.86	0.36	0.93
Black or African American (All)	29,349	0.84	0.39	0.95
White (All)	135,049	0.90	0.36	1.30
Two or more races (All)	17,542	0.90	0.36	1.30
Special education services	50,979	0.79	0.41	0.80
No special education services	504,485	0.89	0.36	1.18
Migrant	3,823	0.83	0.37	0.81
Nonmigrant	551,641	0.89	0.36	1.18
Military	8,102	0.89	0.36	1.18
Nonmilitary	547,362	0.89	0.36	1.18
Homeless	17,036	0.85	0.38	0.96
Not homeless	538,428	0.89	0.36	1.18

Table 8.F.6 (continuation)

Group	Number Tested	Reliability	Theta Score SEM	Theta Score Variance
American Indian or Alaska Native (Primary ethnicity—not economically disadvantaged)	1,204	0.89	0.36	1.18
American Indian or Alaska Native (Primary ethnicity—economically disadvantaged)	1,693	0.86	0.37	0.98
Asian (Primary ethnicity—not economically disadvantaged)	32,017	0.90	0.37	1.37
Asian (Primary ethnicity—economically disadvantaged)	22,219	0.90	0.36	1.30
Native Hawaiian or Other Pacific Islander (Primary ethnicity—not economically disadvantaged)	1,100	0.89	0.36	1.18
Native Hawaiian or Other Pacific Islander (Primary ethnicity—economically disadvantaged)	1,486	0.84	0.37	0.86
Filipino (Primary ethnicity—not economically disadvantaged)	11,262	0.88	0.34	0.96
Filipino (Primary ethnicity—economically disadvantaged)	5,538	0.87	0.35	0.94
Hispanic or Latino (Primary ethnicity—not economically disadvantaged)	73,056	0.88	0.36	1.08
Hispanic or Latino (Primary ethnicity—economically disadvantaged)	220,427	0.84	0.37	0.86
Black or African American (Primary ethnicity—not economically disadvantaged)	9,961	0.87	0.38	1.11
Black or African American (Primary ethnicity—economically disadvantaged)	19,388	0.82	0.39	0.85
White (Primary ethnicity—not economically disadvantaged)	99,584	0.90	0.35	1.23
White (Primary ethnicity—economically disadvantaged)	35,465	0.88	0.36	1.08
Two or more races (Primary ethnicity—not economically disadvantaged)	11,795	0.90	0.36	1.30
Two or more races (Primary ethnicity—economically disadvantaged)	5,747	0.88	0.37	1.14

Table 8.F.7 Reliabilities and SEMs by English Language Proficiency Assessments for California Performance Levels

Grade or Grade Level	Group	Number of Students	Reliability	Theta Score SEM	Theta Score Variance
Grade 5	Total Matched Cases	87,429	0.81	0.30	0.47
Grade 5	Minimally Developed	8,642	0.50	0.35	0.25
Grade 5	Somewhat Developed	22,822	0.59	0.32	0.25
Grade 5	Moderately Developed	35,286	0.73	0.29	0.31
Grade 5	Well Developed	20,679	0.82	0.28	0.44
Grade 8	Total Matched Cases	55,990	0.74	0.34	0.44
Grade 8	Minimally Developed	8,302	0.52	0.38	0.30
Grade 8	Somewhat Developed	16,225	0.57	0.36	0.30
Grade 8	Moderately Developed	20,904	0.69	0.33	0.35
Grade 8	Well Developed	10,559	0.81	0.32	0.54
Grade 10	Total Matched Cases	1,926	0.63	0.42	0.48
Grade 10	Minimally Developed	350	0.53	0.47	0.47
Grade 10	Somewhat Developed	548	0.51	0.44	0.40
Grade 10	Moderately Developed	658	0.60	0.40	0.40
Grade 10	Well Developed	370	0.68	0.37	0.43
Grade 11	Total Matched Cases	21,654	0.70	0.41	0.56
Grade 11	Minimally Developed	4,907	0.49	0.46	0.41
Grade 11	Somewhat Developed	7,379	0.58	0.42	0.42
Grade 11	Moderately Developed	6,431	0.68	0.38	0.45
Grade 11	Well Developed	2,937	0.81	0.35	0.64

Table 8.F.7 (continuation)

Grade or Grade Level	Group	Number of Students	Reliability	Theta Score SEM	Theta Score Variance
Grade 12	Total Matched Cases	20,509	0.67	0.42	0.53
Grade 12	Minimally Developed	4,370	0.50	0.47	0.44
Grade 12	Somewhat Developed	6,928	0.56	0.43	0.42
Grade 12	Moderately Developed	6,110	0.65	0.39	0.43
Grade 12	Well Developed	3,101	0.76	0.36	0.54
High school	Total Matched Cases	44,089	0.68	0.41	0.53
High school	Minimally Developed	9,627	0.50	0.46	0.42
High school	Somewhat Developed	14,855	0.57	0.42	0.41
High school	Moderately Developed	13,199	0.66	0.39	0.45
High school	Well Developed	6,408	0.79	0.36	0.62

Appendix 8.G: Analysis of Classification

Notes:

1. For the tables on decision accuracy, the horizontal headers indicate values of classification by all-forms average, while the vertical headers indicate values of classification by form taken category. For example, the value 0.14 in the 150–178 row in the *Standard Not Met* column in [Table 8.G.1](#) means that 14 percent of students were classified as Standard Not Met by all-forms average and classified as Standard Not Met (placement score within a range of 150 and 178) by their observed scores.
2. For the tables on decision consistency, the horizontal headers indicate values of classification by alternate form while the vertical headers indicate values of classification by form taken category. For example, the value 0.13 in the 150–178 row in the *Standard Not Met* column in [Table 8.G.2](#) means that 13 percent of students were classified as Standard Not Met by alternate form and classified as Standard Not Met (placement score within a range of 150 and 178) by their observed scores.

Table 8.G.1 Grade Five: Decision Accuracy

Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
150–178	0.14	0.04	0.00	0.00	0.19
179–213	0.03	0.43	0.03	0.00	0.49
214–230	0.00	0.04	0.14	0.02	0.20
231–250	0.00	0.00	0.03	0.09	0.12

All-forms average, estimated proportion correctly classified: total = 0.80 Standard Met and Exceeded = 0.93

Table 8.G.2 Grade Five: Decision Consistency

Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
150–178	0.13	0.06	0.00	0.00	0.19
179–213	0.06	0.39	0.05	0.00	0.49
214–230	0.00	0.05	0.11	0.03	0.20
231–250	0.00	0.00	0.03	0.09	0.12

Alternate form, estimated proportion consistently classified: total = 0.73 Standard Met and Exceeded = 0.90

Table 8.G.3 Grade Eight: Decision Accuracy

Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
350–377	0.13	0.05	0.00	0.00	0.18
378–414	0.04	0.44	0.04	0.00	0.51
415–432	0.00	0.04	0.15	0.02	0.21
433–450	0.00	0.00	0.03	0.07	0.10

All-forms average, estimated proportion correctly classified: total = 0.79 Standard Met and Exceeded = 0.92

Table 8.G.4 Grade Eight: Decision Consistency

Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
350–377	0.12	0.06	0.00	0.00	0.18
378–414	0.06	0.40	0.05	0.00	0.51
415–432	0.00	0.05	0.12	0.03	0.21
433–450	0.00	0.00	0.03	0.07	0.10

Alternate form, estimated proportion consistently classified: total = 0.70 Standard Met and Exceeded = 0.89

Table 8.G.5 High School–Grade Ten: Decision Accuracy

Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
550–575	0.14	0.06	0.00	0.00	0.20
576–614	0.04	0.51	0.03	0.00	0.57
615–635	0.00	0.04	0.14	0.01	0.19
636–650	0.00	0.00	0.02	0.02	0.04

All-forms average, estimated proportion correctly classified: total = 0.80 Standard Met and Exceeded = 0.92

Table 8.G.6 High School–Grade Ten: Decision Consistency

Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
550–575	0.13	0.07	0.00	0.00	0.19
576–614	0.06	0.46	0.05	0.00	0.57
615–635	0.00	0.05	0.12	0.02	0.19
636–650	0.00	0.00	0.02	0.02	0.04

Alternate form, estimated proportion consistently classified: total = 0.73 Standard Met and Exceeded = 0.89

Table 8.G.7 High School–Grade Eleven: Decision Accuracy

Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
550–575	0.11	0.05	0.00	0.00	0.15
576–614	0.03	0.48	0.03	0.00	0.54
615–635	0.00	0.05	0.17	0.01	0.23
636–650	0.00	0.00	0.03	0.05	0.07

All-forms average, estimated proportion correctly classified: total = 0.81 Standard Met and Exceeded = 0.92

Table 8.G.8 High School–Grade Eleven: Decision Consistency

Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
550–575	0.10	0.05	0.00	0.00	0.15
576–614	0.05	0.44	0.05	0.00	0.54
615–635	0.00	0.06	0.15	0.03	0.23
636–650	0.00	0.00	0.03	0.04	0.07

Alternate form, estimated proportion consistently classified: total = 0.73 Standard Met and Exceeded = 0.88

Table 8.G.9 High School–Grade Twelve: Decision Accuracy

Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
550–575	0.14	0.05	0.00	0.00	0.20
576–614	0.04	0.47	0.03	0.00	0.55
615–635	0.00	0.04	0.14	0.01	0.19
636–650	0.00	0.00	0.02	0.04	0.07

All-forms average, estimated proportion correctly classified: total = 0.80 Standard Met and Exceeded = 0.93

Table 8.G.10 High School–Grade Twelve: Decision Consistency

Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
550–575	0.13	0.07	0.00	0.00	0.20
576–614	0.07	0.43	0.05	0.00	0.55
615–635	0.00	0.05	0.12	0.02	0.19
636–650	0.00	0.00	0.02	0.04	0.07

Alternate form, estimated proportion consistently classified: total = 0.72 Standard Met and Exceeded = 0.90

Table 8.G.11 High School: Decision Accuracy

Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
550–575	0.13	0.05	0.00	0.00	0.18
576–614	0.03	0.48	0.03	0.00	0.55
615–635	0.00	0.04	0.15	0.01	0.21
636–650	0.00	0.00	0.02	0.04	0.07

All-forms average, estimated proportion correctly classified: total = 0.80 Standard Met and Exceeded = 0.92

Table 8.G.12 High School: Decision Consistency

Placement Score	Standard Not Met	Standard Nearly Met	Standard Met	Standard Exceeded	Category Total
550–575	0.12	0.06	0.00	0.00	0.18
576–614	0.06	0.44	0.05	0.00	0.55
615–635	0.00	0.05	0.13	0.02	0.21
636–650	0.00	0.00	0.02	0.04	0.07

Alternate form, estimated proportion consistently classified: total = 0.72 Standard Met and Exceeded = 0.89

Appendix 8.H: Correlations to Smarter Balanced Test Scores

Table 8.H.1 Correlations with Smarter Balanced English Language Arts/Literacy Test Scores for Grade Five

Group	Number Tested	Correlation
All students	453,251	0.85
Male	232,709	0.86
Female	220,542	0.85
English learner	85,484	0.72
English only	262,873	0.85
Reclassified fluent English proficient	86,647	0.79
Initial fluent English proficient	17,954	0.84
To be determined	96	0.88
English proficiency unknown	197	0.83
Economically disadvantaged	281,484	0.83
Not economically disadvantaged	171,767	0.84
American Indian or Alaska Native (All)	2,167	0.84
Asian (All)	42,128	0.86
Native Hawaiian or Other Pacific Islander (All)	2,069	0.83
Filipino (All)	9,144	0.83
Hispanic or Latino (All)	251,744	0.83
Black or African American (All)	24,197	0.82
White (All)	100,324	0.84
Two or more races (All)	18,673	0.86
Special education services	56,821	0.82
No special education services	396,430	0.84
Migrant	3,778	0.80
Nonmigrant	449,473	0.85
Military	4,547	0.84
Nonmilitary	448,704	0.85
Homeless	17,923	0.82
Not homeless	435,328	0.85
American Indian or Alaska Native (Primary ethnicity—not economically disadvantaged)	712	0.86
American Indian or Alaska Native (Primary ethnicity—economically disadvantaged)	1,455	0.81
Asian (Primary ethnicity—not economically disadvantaged)	26,766	0.82
Asian (Primary ethnicity—economically disadvantaged)	15,362	0.86

Table 8.H.1 (continuation)

Group	Number Tested	Correlation
Native Hawaiian or Other Pacific Islander (Primary ethnicity—not economically disadvantaged)	672	0.82
Native Hawaiian or Other Pacific Islander (Primary ethnicity—economically disadvantaged)	1,397	0.81
Filipino (Primary ethnicity—not economically disadvantaged)	5,863	0.82
Filipino (Primary ethnicity—economically disadvantaged)	3,281	0.82
Hispanic or Latino (Primary ethnicity—not economically disadvantaged)	49,588	0.83
Hispanic or Latino (Primary ethnicity—economically disadvantaged)	202,156	0.81
Black or African American (Primary ethnicity—not economically disadvantaged)	5,751	0.84
Black or African American (Primary ethnicity—economically disadvantaged)	18,446	0.80
White (Primary ethnicity—not economically disadvantaged)	69,091	0.82
White (Primary ethnicity—economically disadvantaged)	31,233	0.83
Two or more races (Primary ethnicity—not economically disadvantaged)	11,997	0.83
Two or more races (Primary ethnicity—economically disadvantaged)	6,676	0.83

Table 8.H.2 Correlations with Smarter Balanced Mathematics Test Scores for Grade Five

Group	Number Tested	Correlation
All students	455,076	0.82
Male	233,744	0.82
Female	221,332	0.82
English learner	87,468	0.65
English only	262,667	0.82
Reclassified fluent English proficient	86,604	0.75
Initial fluent English proficient	17,959	0.82
To be determined	170	0.78
English proficiency unknown	208	0.80
Economically disadvantaged	282,609	0.77
Not economically disadvantaged	172,467	0.81
American Indian or Alaska Native (All)	2,173	0.80
Asian (All)	42,634	0.82
Native Hawaiian or Other Pacific Islander (All)	2,072	0.78
Filipino (All)	9,200	0.80
Hispanic or Latino (All)	252,851	0.77
Black or African American (All)	24,170	0.77
White (All)	100,445	0.80
Two or more races (All)	18,671	0.83
Special education services	56,755	0.77
No special education services	398,321	0.81
Migrant	3,838	0.75
Nonmigrant	451,238	0.82
Military	4,550	0.80
Nonmilitary	450,526	0.82
Homeless	18,156	0.76
Not Homeless	436,920	0.82
American Indian or Alaska Native (Primary ethnicity—not economically disadvantaged)	714	0.82
American Indian or Alaska Native (Primary ethnicity—economically disadvantaged)	1,459	0.76
Asian (Primary ethnicity—not economically disadvantaged)	27,092	0.78
Asian (Primary ethnicity—economically disadvantaged)	15,542	0.81

Table 8.H.2 (continuation)

Group	Number Tested	Correlation
Native Hawaiian or Other Pacific Islander (Primary ethnicity—not economically disadvantaged)	672	0.79
Native Hawaiian or Other Pacific Islander (Primary ethnicity—economically disadvantaged)	1,400	0.75
Filipino (Primary ethnicity—not economically disadvantaged)	5,889	0.80
Filipino (Primary ethnicity—economically disadvantaged)	3,311	0.79
Hispanic or Latino (Primary ethnicity—not economically disadvantaged)	49,859	0.79
Hispanic or Latino (Primary ethnicity—economically disadvantaged)	202,992	0.76
Black or African American (Primary ethnicity—not economically disadvantaged)	5,749	0.80
Black or African American (Primary ethnicity—economically disadvantaged)	18,421	0.74
White (Primary ethnicity—not economically disadvantaged)	69,128	0.79
White (Primary ethnicity—economically disadvantaged)	31,317	0.77
Two or more races (Primary ethnicity—not economically disadvantaged)	11,999	0.81
Two or more races (Primary ethnicity—economically disadvantaged)	6,672	0.79

Table 8.H.3 Correlations with Smarter Balanced English Language Arts/Literacy Test Scores for Grade Eight

Group	Number Tested	Correlation
All students	458,557	0.82
Male	233,635	0.83
Female	224,922	0.82
English learner	54,656	0.63
English only	251,326	0.82
Reclassified fluent English proficient	132,391	0.77
Initial fluent English proficient	19,927	0.81
To be determined	112	0.84
English proficiency unknown	145	0.80
Economically disadvantaged	276,667	0.79
Not economically disadvantaged	181,890	0.81
American Indian or Alaska Native (All)	2,368	0.79
Asian (All)	43,270	0.83
Native Hawaiian or Other Pacific Islander (All)	2,174	0.80
Filipino (All)	10,771	0.80
Hispanic or Latino (All)	252,004	0.79
Black or African American (All)	24,041	0.78
White (All)	104,760	0.80
Two or more races (All)	16,826	0.82
Special education services	51,690	0.76
No special education services	406,867	0.81
Migrant	3,721	0.77
Nonmigrant	454,836	0.82
Military	4,776	0.80
Nonmilitary	453,781	0.82
Homeless	14,982	0.78
Not Homeless	443,575	0.82
American Indian or Alaska Native (Primary ethnicity—not economically disadvantaged)	853	0.81
American Indian or Alaska Native (Primary ethnicity—economically disadvantaged)	1,515	0.75
Asian (Primary ethnicity—not economically disadvantaged)	27,023	0.80
Asian (Primary ethnicity—economically disadvantaged)	16,247	0.83

Table 8.H.3 (continuation)

Group	Number Tested	Correlation
Native Hawaiian or Other Pacific Islander (Primary ethnicity—not economically disadvantaged)	784	0.80
Native Hawaiian or Other Pacific Islander (Primary ethnicity—economically disadvantaged)	1,390	0.78
Filipino (Primary ethnicity—not economically disadvantaged)	7,093	0.79
Filipino (Primary ethnicity—economically disadvantaged)	3,678	0.80
Hispanic or Latino (Primary ethnicity—not economically disadvantaged)	53,331	0.80
Hispanic or Latino (Primary ethnicity—economically disadvantaged)	198,673	0.77
Black or African American (Primary ethnicity—not economically disadvantaged)	6,626	0.80
Black or African American (Primary ethnicity—economically disadvantaged)	17,415	0.76
White (Primary ethnicity—not economically disadvantaged)	73,920	0.78
White (Primary ethnicity—economically disadvantaged)	30,840	0.79
Two or more races (Primary ethnicity—not economically disadvantaged)	11,172	0.80
Two or more races (Primary ethnicity—economically disadvantaged)	5,654	0.79

Table 8.H.4 Correlations with Smarter Balanced Mathematics Test Scores for Grade Eight

Group	Number Tested	Correlation
All students	459,566	0.82
Male	234,231	0.83
Female	225,335	0.82
English learner	56,246	0.63
English only	250,766	0.82
Reclassified fluent English proficient	132,272	0.77
Initial fluent English proficient	19,945	0.82
To be determined	173	0.77
English proficiency unknown	164	0.82
Economically disadvantaged	277,388	0.78
Not economically disadvantaged	182,178	0.81
American Indian or Alaska Native (All)	2,360	0.79
Asian (All)	43,562	0.82
Native Hawaiian or Other Pacific Islander (All)	2,177	0.77
Filipino (All)	10,810	0.80
Hispanic or Latino (All)	252,822	0.78
Black or African American (All)	23,978	0.77
White (All)	104,678	0.80
Two or more races (All)	16,800	0.83
Special education services	51,514	0.75
No special education services	408,052	0.81
Migrant	3,765	0.75
Nonmigrant	455,801	0.82
Military	4,774	0.80
Nonmilitary	454,792	0.82
Homeless	15,205	0.76
Not Homeless	444,361	0.82
American Indian or Alaska Native (Primary ethnicity—not economically disadvantaged)	851	0.81
American Indian or Alaska Native (Primary ethnicity—economically disadvantaged)	1,509	0.74
Asian (Primary ethnicity—not economically disadvantaged)	27,169	0.78
Asian (Primary ethnicity—economically disadvantaged)	16,393	0.80

Table 8.H.4 (continuation)

Group	Number Tested	Correlation
Native Hawaiian or Other Pacific Islander (Primary ethnicity—not economically disadvantaged)	783	0.79
Native Hawaiian or Other Pacific Islander (Primary ethnicity—economically disadvantaged)	1,394	0.73
Filipino (Primary ethnicity—not economically disadvantaged)	7,112	0.79
Filipino (Primary ethnicity—economically disadvantaged)	3,698	0.78
Hispanic or Latino (Primary ethnicity—not economically disadvantaged)	53,553	0.79
Hispanic or Latino (Primary ethnicity—economically disadvantaged)	199,269	0.76
Black or African American (Primary ethnicity—not economically disadvantaged)	6,619	0.79
Black or African American (Primary ethnicity—economically disadvantaged)	17,359	0.74
White (Primary ethnicity—not economically disadvantaged)	73,819	0.78
White (Primary ethnicity—economically disadvantaged)	30,859	0.77
Two or more races (Primary ethnicity—not economically disadvantaged)	11,157	0.81
Two or more races (Primary ethnicity—economically disadvantaged)	5,643	0.79

Table 8.H.5 Correlations with Smarter Balanced English Language Arts/Literacy Test Scores for Grade Eleven

Group	Number Tested	Correlation
All students	253,773	0.78
Male	128,083	0.79
Female	125,690	0.77
English learner	21,379	0.60
English only	133,059	0.77
Reclassified fluent English proficient	85,805	0.73
Initial fluent English proficient	13,412	0.75
To be determined	61	0.73
English proficiency unknown	57	0.72
Economically disadvantaged	146,076	0.75
Not economically disadvantaged	107,697	0.77
American Indian or Alaska Native (All)	1,358	0.77
Asian (All)	23,987	0.80
Native Hawaiian or Other Pacific Islander (All)	1,074	0.76
Filipino (All)	7,263	0.75
Hispanic or Latino (All)	137,786	0.74
Black or African American (All)	11,949	0.74
White (All)	61,224	0.76
Two or more races (All)	7,572	0.76
Special education services	22,776	0.70
No special education services	230,997	0.76
Migrant	1,727	0.74
Nonmigrant	252,046	0.78
Military	3,984	0.78
Nonmilitary	249,789	0.78
Homeless	7,052	0.75
Not Homeless	246,721	0.78
American Indian or Alaska Native (Primary ethnicity—not economically disadvantaged)	557	0.80
American Indian or Alaska Native (Primary ethnicity—economically disadvantaged)	801	0.74
Asian (Primary ethnicity—not economically disadvantaged)	13,790	0.77
Asian (Primary ethnicity—economically disadvantaged)	10,197	0.80

Table 8.H.5 (continuation)

Group	Number Tested	Correlation
Native Hawaiian or Other Pacific Islander (Primary ethnicity—not economically disadvantaged)	442	0.78
Native Hawaiian or Other Pacific Islander (Primary ethnicity—economically disadvantaged)	632	0.73
Filipino (Primary ethnicity—not economically disadvantaged)	4,727	0.74
Filipino (Primary ethnicity—economically disadvantaged)	2,536	0.75
Hispanic or Latino (Primary ethnicity—not economically disadvantaged)	33,021	0.75
Hispanic or Latino (Primary ethnicity—economically disadvantaged)	104,765	0.73
Black or African American (Primary ethnicity—not economically disadvantaged)	4,010	0.76
Black or African American (Primary ethnicity—economically disadvantaged)	7,939	0.71
White (Primary ethnicity—not economically disadvantaged)	45,095	0.74
White (Primary ethnicity—economically disadvantaged)	16,129	0.75
Two or more races (Primary ethnicity—not economically disadvantaged)	5,191	0.75
Two or more races (Primary ethnicity—economically disadvantaged)	2,381	0.74

Table 8.H.6 Correlations with Smarter Balanced Mathematics Test Scores for Grade Eleven

Group	Number Tested	Correlation
All students	253,323	0.78
Male	127,884	0.79
Female	125,439	0.77
English learner	21,666	0.58
English only	132,533	0.78
Reclassified fluent English proficient	85,597	0.74
Initial fluent English proficient	13,386	0.79
To be determined	80	0.64
English proficiency unknown	61	0.74
Economically disadvantaged	145,818	0.74
Not economically disadvantaged	107,505	0.79
American Indian or Alaska Native (All)	1,343	0.74
Asian (All)	24,021	0.80
Native Hawaiian or Other Pacific Islander (All)	1,057	0.77
Filipino (All)	7,247	0.76
Hispanic or Latino (All)	137,599	0.73
Black or African American (All)	11,888	0.73
White (All)	61,075	0.77
Two or more races (All)	7,532	0.78
Special education services	22,622	0.66
No special education services	230,701	0.77
Migrant	1,737	0.71
Nonmigrant	251,586	0.78
Military	3,970	0.77
Nonmilitary	249,353	0.78
Homeless	7,043	0.73
Not Homeless	246,280	0.78
American Indian or Alaska Native (Primary ethnicity—not economically disadvantaged)	552	0.73
American Indian or Alaska Native (Primary ethnicity—economically disadvantaged)	791	0.73
Asian (Primary ethnicity—not economically disadvantaged)	13,800	0.78
Asian (Primary ethnicity—economically disadvantaged)	10,221	0.78

Table 8.H.6 (continuation)

Group	Number Tested	Correlation
Native Hawaiian or Other Pacific Islander (Primary ethnicity—not economically disadvantaged)	436	0.78
Native Hawaiian or Other Pacific Islander (Primary ethnicity—economically disadvantaged)	621	0.73
Filipino (Primary ethnicity—not economically disadvantaged)	4,718	0.76
Filipino (Primary ethnicity—economically disadvantaged)	2,529	0.75
Hispanic or Latino (Primary ethnicity—not economically disadvantaged)	32,967	0.75
Hispanic or Latino (Primary ethnicity—economically disadvantaged)	104,632	0.72
Black or African American (Primary ethnicity—not economically disadvantaged)	4,010	0.76
Black or African American (Primary ethnicity—economically disadvantaged)	7,878	0.70
White (Primary ethnicity—not economically disadvantaged)	44,984	0.76
White (Primary ethnicity—economically disadvantaged)	16,091	0.75
Two or more races (Primary ethnicity—not economically disadvantaged)	5,173	0.77
Two or more races (Primary ethnicity—economically disadvantaged)	2,359	0.74