

APPENDIX O
CLASSICAL RELIABILITIES

Table O-1. Subgroup Reliabilities—High School Biology

Subgroup	Number of Students	Raw Score			Alpha	SEM
		<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>		
All Students	53,795	60	37.30	11.04	0.91	3.37
Economically Disadvantaged	17,297	60	31.36	10.98	0.90	3.45
African American	4,556	60	32.17	10.68	0.90	3.43
Asian	3,590	60	43.29	10.21	0.90	3.20
Hispanic	10,332	60	30.53	11.16	0.90	3.45
Multi-race	1,692	60	38.23	11.12	0.91	3.35
Native American	150	60	34.53	10.60	0.90	3.39
Pacific Islander/Hawaiian	51	60	38.08	10.07	0.89	3.37
White	33,424	60	39.42	9.90	0.89	3.29
Female	26,821	60	38.10	10.77	0.90	3.37
Male	26,949	60	36.50	11.25	0.91	3.35
LEP	3,257	60	23.01	9.60	0.87	3.41
FLEP	2,897	60	33.72	10.07	0.89	3.40
LEPFLEP	6,154	60	28.05	11.18	0.90	3.46
Plan 504	3,896	60	37.32	9.97	0.89	3.35
Special Education	8,908	60	28.06	10.51	0.89	3.44
Title I	15,499	60	32.98	10.92	0.90	3.42

Table O-2. Subgroup Reliabilities—High School Chemistry

Subgroup	Number of Students	Raw Score			Alpha	SEM
		<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>		
All Students	343	60	38.01	12.67	0.91	3.70
Economically Disadvantaged	60	60	32.30	12.89	0.91	3.81
African American	29	60	32.34	12.57	0.91	3.79
Asian	47	60	41.40	10.10	0.88	3.45
Hispanic	37	60	28.51	13.77	0.92	3.87
Multi-race	21	60	43.33	12.62	0.92	3.51
Native American	0					
Pacific Islander/Hawaiian	0					
White	209	60	39.17	12.03	0.91	3.68
Female	176	60	39.23	12.53	0.92	3.65
Male	167	60	36.71	12.73	0.91	3.74
LEP	14	60	18.79	12.61	0.92	3.53
FLEP	7					
LEPFLEP	21	60	23.95	14.58	0.93	3.77
Plan 504	29	60	36.17	12.48	0.91	3.71
Special Education	30	60	33.17	14.43	0.93	3.76
Title I	36	60	33.06	14.21	0.93	3.64

Table O-3. Subgroup Reliabilities—High School Introductory Physics

Subgroup	Number of Students	Raw Score			Alpha	SEM
		<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>		
All Students	14,826	60	38.57	12.06	0.92	3.51
Economically Disadvantaged	4,259	60	31.01	11.62	0.90	3.64
African American	1,610	60	30.97	11.40	0.90	3.64
Asian	1,114	60	45.86	9.90	0.90	3.13
Hispanic	2,621	60	31.31	12.24	0.91	3.65
Multi-race	579	60	41.69	11.69	0.92	3.39
Native American	41	60	32.73	12.72	0.92	3.64
Pacific Islander/Hawaiian	13	60	37.85	6.53	0.70	3.55
White	8,847	60	41.01	10.68	0.90	3.39
Female	7,210	60	38.77	11.73	0.91	3.49
Male	7,604	60	38.37	12.36	0.92	3.53
LEP	978	60	24.18	10.65	0.89	3.59
FLEP	748	60	35.67	10.98	0.90	3.55
LEPFLEP	1,726	60	29.16	12.20	0.91	3.66
Plan 504	1,016	60	38.40	10.82	0.90	3.50
Special Education	2,518	60	28.50	11.32	0.90	3.61
Title I	3,888	60	31.59	11.88	0.91	3.65

Table O-4. Subgroup Reliabilities—High School Technology/Engineering

Subgroup	Number of Students	Raw Score			Alpha	SEM
		<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>		
All Students	1,835	60	34.88	10.16	0.89	3.32
Economically Disadvantaged	742	60	30.91	10.13	0.89	3.41
African American	113	60	29.53	10.06	0.88	3.48
Asian	43	60	36.70	9.58	0.88	3.25
Hispanic	364	60	28.99	9.76	0.87	3.46
Multi-race	55	60	32.93	10.29	0.89	3.40
Native American	4					
Pacific Islander/Hawaiian	2					
White	1,254	60	37.08	9.42	0.88	3.24
Female	657	60	33.41	9.90	0.88	3.38
Male	1,177	60	35.69	10.22	0.90	3.29
LEP	88	60	23.83	9.09	0.86	3.46
FLEP	81	60	27.69	9.41	0.86	3.49
LEPFLEP	169	60	25.68	9.42	0.86	3.48
Plan 504	166	60	36.89	8.78	0.86	3.23
Special Education	547	60	28.88	9.63	0.88	3.39
Title I	909	60	32.45	9.75	0.88	3.37

Table O-5. Reliabilities by Reporting Category—High School Biology

Item Reporting Category*	Number of Items	Raw Score			Alpha	SEM
		<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>		
AP	6	9	5.26	1.85	0.51	1.30
BC	12	15	9.50	3.35	0.75	1.69
EC	9	12	7.92	2.41	0.66	1.40
EV	9	12	7.18	2.44	0.65	1.45
GE	9	12	7.44	2.73	0.62	1.69

* Reporting category definitions are given on the next page.

Table O-6. Reliabilities by Reporting Category—High School Chemistry

Item Reporting Category*	Number of Items	Raw Score			Alpha	SEM
		<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>		
AS	12	15	9.38	3.33	0.74	1.71
BR	12	18	11.85	4.47	0.76	2.18
SO	9	12	7.25	3.09	0.70	1.70
TH	12	15	9.53	3.21	0.70	1.77

* Reporting category definitions are given on the next page.

Table O-7. Reliabilities by Reporting Category—High School Introductory Physics

Item Reporting Category*	Number of Items	Raw Score			Alpha	SEM
		<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>		
EM	9	12	7.89	2.79	0.70	1.53
HT	6	9	5.30	1.98	0.53	1.35
MF	18	24	16.26	5.22	0.81	2.27
WV	12	15	9.12	3.32	0.72	1.76

* Reporting category definitions are given on the next page.

Table O-8. Reliabilities by Reporting Category—High School Technology/Engineering

Item Reporting Category*	Number of Items	Raw Score			Alpha	SEM
		<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>		
CM	9	12	6.68	2.40	0.60	1.52
ED	9	12	8.55	2.36	0.63	1.43
EL	15	18	10.03	3.55	0.71	1.93
FL	12	18	9.61	3.33	0.73	1.73

* Reporting category definitions are given on the next page.

Reporting Category Definitions

AP	=	Anatomy and Physiology
AS	=	Atomic Structure and Periodicity
BC	=	Biochemistry and Cell Biology
BR	=	Bonding and Reactions
CM	=	Construction and Manufacturing
EC	=	Ecology
ED	=	Engineering Design
EL	=	Electrical and Communications Systems
EM	=	Electromagnetism
EV	=	Evolution and Biodiversity
FL	=	Fluid and Thermal Systems
GE	=	Genetics
HT	=	Heat and Heat Transfer
MF	=	Motion and Forces
SO	=	Solutions, Equilibrium, and Acid-Base Theory
TH	=	Properties of Matter and Thermochemistry
WV	=	Waves and Radiation