

APPENDIX P

CLASSICAL RELIABILITY

**Table P-1. 2014 MCAS: Subgroup Reliabilities –
ELA**

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM	
			Maximum	Mean	Standard Deviation			
3	All Students	67,061	48	35.83	8.04	0.90	2.52	
	Low Income	27,425	48	32.29	8.82	0.90	2.75	
	African American	5,503	48	32.19	9.05	0.91	2.75	
	Asian	4,214	48	37.92	7.26	0.89	2.40	
	Hispanic	11,959	48	31.34	9.13	0.91	2.80	
	Multi-race	2,302	48	36.48	7.88	0.90	2.46	
	Native American	131	48	33.51	8.17	0.89	2.76	
	Pacific Islander/Hawaiian	61	48	36.61	5.17	0.76	2.55	
	White	42,872	48	37.32	6.97	0.88	2.41	
	Female	32,811	48	36.61	7.76	0.90	2.49	
	Male	34,244	48	35.09	8.24	0.90	2.55	
	LEP	7,181	48	29.19	9.33	0.90	2.90	
	FLEP	2,051	48	35.51	7.92	0.90	2.56	
	LEPFLEP	8,787	48	30.38	9.44	0.91	2.84	
	Plan 504	2,963	48	34.94	7.81	0.89	2.57	
	Special Education	11,235	48	28.46	9.35	0.90	2.89	
	Title I	27,103	48	32.62	8.78	0.90	2.73	
	4	All Students	67,707	72	49.61	10.86	0.90	3.43
		Low Income	26,847	72	44.55	11.52	0.90	3.62
		African American	5,429	72	44.18	11.84	0.90	3.66
Asian		4,201	72	53.18	9.96	0.89	3.26	
Hispanic		11,440	72	43.48	12.02	0.91	3.68	
Multi-race		2,281	72	49.88	10.69	0.89	3.48	
Native American		163	72	46.23	11.15	0.89	3.64	
Pacific Islander/Hawaiian		69	72	49.65	10.16	0.89	3.44	
White		44,105	72	51.52	9.58	0.88	3.29	
Female		33,277	72	51.77	10.25	0.90	3.32	
Male		34,423	72	47.52	11.02	0.90	3.44	
LEP		5,322	72	38.90	12.34	0.90	3.89	
FLEP		3,295	72	48.80	9.91	0.88	3.43	
LEPFLEP		8,260	72	42.43	12.51	0.91	3.77	
Plan 504		3,506	72	47.55	9.87	0.88	3.46	
Special Education		11,735	72	38.86	11.59	0.90	3.72	
Title I		26,309	72	45.01	11.42	0.90	3.59	
5		All Students	68,505	52	34.59	8.71	0.89	2.87
		Low Income	26,335	52	30.37	8.89	0.88	3.04
		African American	5,474	52	30.31	9.04	0.89	3.06
	Asian	4,341	52	37.57	8.37	0.89	2.75	
	Hispanic	11,169	52	29.55	9.17	0.89	3.07	
	Multi-race	2,134	52	35.37	8.49	0.89	2.85	
	Native American	166	52	32.88	8.91	0.89	2.96	
	Pacific Islander/Hawaiian	65	52	33.52	8.98	0.88	3.09	
	White	45,139	52	36.05	7.89	0.88	2.79	
	Female	33,640	52	36.01	8.33	0.88	2.83	
	Male	34,861	52	33.23	8.85	0.89	2.88	

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
5	LEP	4,687	52	25.18	8.70	0.86	3.21
	FLEP	2,958	52	33.02	7.85	0.85	3.00
	LEPFLEP	7,311	52	28.03	9.26	0.88	3.15
	Plan 504	3,966	52	33.44	8.10	0.87	2.88
	Special Education	12,239	52	26.18	8.81	0.88	3.12
	Title I	24,323	52	30.77	8.95	0.89	3.02
6	All Students	68,284	52	35.87	9.10	0.90	2.86
	Low Income	26,502	52	31.46	9.36	0.89	3.04
	African American	5,703	52	31.45	9.32	0.89	3.03
	Asian	4,075	52	39.43	8.37	0.90	2.68
	Hispanic	11,052	52	30.52	9.65	0.90	3.07
	Multi-race	1,899	52	36.37	8.91	0.90	2.84
	Native American	138	52	33.78	8.97	0.89	2.96
	Pacific Islander/Hawaiian	66	52	32.35	10.49	0.91	3.07
	White	45,330	52	37.40	8.25	0.89	2.78
	Female	33,537	52	37.42	8.62	0.89	2.80
	Male	34,737	52	34.37	9.30	0.90	2.88
	LEP	3,758	52	24.47	8.88	0.87	3.19
	FLEP	3,091	52	33.61	8.42	0.87	3.00
	LEPFLEP	6,736	52	28.54	9.81	0.90	3.13
	7	Plan 504	3,963	52	34.84	8.31	0.88
Special Education		12,133	52	26.67	9.06	0.88	3.11
Title I		21,186	52	31.76	9.47	0.90	3.03
All Students		69,416	72	51.81	11.33	0.91	3.40
Low Income		26,588	72	46.35	12.03	0.91	3.67
African American		5,867	72	46.98	11.91	0.91	3.64
Asian		4,110	72	55.58	10.45	0.91	3.21
Hispanic		10,793	72	45.10	12.65	0.91	3.74
Multi-race		1,998	72	52.22	11.02	0.91	3.37
Native American		150	72	49.39	10.66	0.89	3.49
Pacific Islander/Hawaiian		79	72	52.71	11.30	0.92	3.29
White		46,390	72	53.63	10.17	0.90	3.26
Female		34,092	72	54.45	10.22	0.90	3.18
Male		35,317	72	49.26	11.76	0.91	3.49
8		LEP	3,687	72	37.19	11.92	0.88
	FLEP	2,214	72	48.83	10.37	0.88	3.52
	LEPFLEP	5,788	72	41.46	12.69	0.90	3.94
	Plan 504	4,170	72	50.29	10.35	0.89	3.47
	Special Education	12,211	72	40.11	11.98	0.89	3.92
	Title I	19,926	72	46.55	12.16	0.91	3.66
	All Students	69,879	52	37.54	9.29	0.91	2.84
	Low Income	26,633	52	32.97	9.95	0.90	3.08
	African American	5,934	52	33.09	9.73	0.90	3.07
	Asian	4,032	52	40.32	8.81	0.91	2.69
	Hispanic	10,717	52	31.86	10.40	0.91	3.13
	Multi-race	1,723	52	37.75	9.40	0.91	2.83
	Native American	150	52	34.60	9.07	0.89	3.00

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
8	Pacific Islander/Hawaiian	89	52	37.03	9.83	0.91	2.97
	White	47,204	52	39.16	8.24	0.89	2.73
	Female	34,238	52	39.44	8.51	0.90	2.73
	Male	35,633	52	35.72	9.64	0.91	2.90
	LEP	3,358	52	24.10	9.48	0.87	3.35
	FLEP	2,011	52	34.20	8.41	0.87	3.08
	LEPFLEP	5,287	52	27.81	10.34	0.90	3.29
	Plan 504	4,127	52	36.74	8.35	0.88	2.87
	Special Education	11,947	52	27.94	10.01	0.90	3.23
	Title I	19,435	52	33.14	9.94	0.91	3.06
10	All Students	69,601	72	53.65	9.91	0.90	3.20
	Low Income	24,552	72	48.41	10.79	0.89	3.55
	African American	6,032	72	48.33	10.50	0.89	3.52
	Asian	3,928	72	56.31	10.23	0.91	3.11
	Hispanic	9,881	72	46.83	11.51	0.90	3.69
	Multi-race	1,508	72	53.83	9.56	0.89	3.20
	Native American	173	72	50.51	8.91	0.86	3.29
	Pacific Islander/Hawaiian	58	72	56.55	9.25	0.87	3.31
	White	48,017	72	55.50	8.50	0.87	3.01
	Female	34,546	72	55.24	9.29	0.89	3.05
	Male	35,055	72	52.08	10.25	0.90	3.29
	LEP	2,736	72	35.23	11.40	0.85	4.38
	FLEP	1,754	72	47.28	8.99	0.85	3.52
	LEPFLEP	4,273	72	39.64	12.13	0.88	4.18
	Plan 504	4,105	72	53.64	8.57	0.87	3.15
	Special Education	10,987	72	43.97	10.93	0.88	3.72
	Title I	14,867	72	48.10	10.71	0.89	3.53

Table P-2. 2014 MCAS: Subgroup Reliabilities – Mathematics

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	All Students	67,001	40	29.40	7.65	0.90	2.48
	Low Income	27,404	40	26.23	8.06	0.89	2.68
	African American	5,496	40	25.58	8.35	0.90	2.70
	Asian	4,207	40	32.97	6.44	0.89	2.16
	Hispanic	11,958	40	25.84	8.24	0.89	2.69
	Multi-race	2,284	40	29.68	7.79	0.90	2.45
	Native American	133	40	26.98	7.64	0.88	2.62
	Pacific Islander/Hawaiian	59	40	29.46	7.97	0.91	2.44
	White	42,835	40	30.53	6.93	0.88	2.40
	Female	32,775	40	29.38	7.55	0.89	2.48
	Male	34,215	40	29.43	7.74	0.90	2.47
	LEP	7,218	40	24.83	8.46	0.90	2.73
	FLEP	2,050	40	29.82	7.68	0.90	2.45
	LEPFLEP	8,823	40	25.78	8.58	0.90	2.68

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	Plan 504	2,964	40	28.24	7.44	0.88	2.58
	Special Education	11,231	40	23.11	8.39	0.89	2.80
	Title I	27,100	40	26.72	8.08	0.89	2.65
4	All Students	68,254	54	37.75	10.52	0.89	3.50
	Low Income	27,011	54	33.21	10.78	0.89	3.64
	African American	5,467	54	31.64	10.92	0.89	3.65
	Asian	4,240	54	43.07	9.17	0.88	3.16
	Hispanic	11,550	54	32.75	11.03	0.89	3.66
	Multi-race	2,323	54	37.86	10.79	0.89	3.51
	Native American	165	54	34.36	9.88	0.86	3.66
	Pacific Islander/Hawaiian	70	54	36.41	11.24	0.90	3.64
	White	44,410	54	39.31	9.62	0.87	3.42
	Female	33,467	54	37.97	10.35	0.89	3.51
	Male	34,770	54	37.55	10.67	0.89	3.50
	LEP	5,407	54	29.85	11.23	0.89	3.67
	FLEP	3,333	54	37.68	9.92	0.87	3.53
	LEPFLEP	8,377	54	32.64	11.44	0.90	3.67
	Plan 504	3,529	54	35.87	9.80	0.87	3.54
	Special Education	11,885	54	28.78	10.79	0.89	3.61
	Title I	26,457	54	33.88	10.83	0.89	3.64
5	All Students	68,490	54	38.29	11.63	0.92	3.37
	Low Income	26,392	54	32.77	11.98	0.91	3.56
	African American	5,465	54	31.76	11.90	0.91	3.56
	Asian	4,306	54	44.05	9.90	0.91	2.97
	Hispanic	11,183	54	31.84	12.05	0.91	3.57
	Multi-race	2,121	54	38.18	11.97	0.92	3.37
	Native American	168	54	34.99	12.23	0.92	3.49
	Pacific Islander/Hawaiian	64	54	35.92	11.33	0.90	3.51
	White	45,152	54	40.15	10.63	0.91	3.25
	Female	33,618	54	38.41	11.27	0.91	3.36
	Male	34,855	54	38.17	11.96	0.92	3.38
	LEP	4,710	54	27.67	11.71	0.91	3.60
	FLEP	2,964	54	37.07	10.97	0.90	3.42
	LEPFLEP	7,342	54	31.06	12.36	0.92	3.59
	Plan 504	3,969	54	36.80	11.32	0.91	3.45
	Special Education	12,232	54	27.13	11.88	0.91	3.61
	Title I	24,418	54	33.55	11.95	0.91	3.54
6	All Students	68,516	54	37.57	11.13	0.92	3.18
	Low Income	26,552	54	32.46	11.22	0.91	3.32
	African American	5,714	54	31.68	11.12	0.91	3.35
	Asian	4,060	54	44.26	9.68	0.92	2.78
	Hispanic	11,065	54	31.54	11.35	0.91	3.32
	Multi-race	1,903	54	37.82	11.32	0.92	3.17
	Native American	139	54	35.01	11.20	0.91	3.28
	Pacific Islander/Hawaiian	66	54	33.97	12.22	0.93	3.34
	White	45,530	54	39.18	10.25	0.91	3.11
	Female	33,619	54	38.05	10.84	0.91	3.16
	Male	34,872	54	37.10	11.37	0.92	3.19

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
6	LEP	3,789	54	26.59	10.88	0.90	3.38
	FLEP	3,100	54	35.86	10.78	0.91	3.22
	LEPFLEP	6,775	54	30.69	11.77	0.92	3.35
	Plan 504	3,995	54	36.16	10.20	0.90	3.21
	Special Education	12,143	54	26.52	10.72	0.90	3.40
	Title I	21,231	54	33.18	11.33	0.92	3.30
7	All Students	69,724	53	35.45	12.04	0.92	3.40
	Low Income	26,751	53	29.33	12.05	0.91	3.54
	African American	5,891	53	28.51	11.75	0.91	3.54
	Asian	4,123	53	41.95	10.39	0.92	2.97
	Hispanic	10,871	53	28.07	12.34	0.92	3.55
	Multi-race	2,000	53	35.03	12.35	0.92	3.42
	Native American	152	53	31.72	11.79	0.91	3.52
	Pacific Islander/Hawaiian	79	53	35.62	13.28	0.94	3.28
	White	46,571	53	37.51	10.96	0.91	3.30
	Female	34,188	53	36.06	11.84	0.92	3.39
	Male	35,524	53	34.86	12.20	0.92	3.41
	LEP	3,750	53	22.78	11.32	0.90	3.50
	FLEP	2,213	53	32.59	11.56	0.91	3.48
	LEPFLEP	5,853	53	26.32	12.35	0.92	3.55
8	Plan 504	4,194	53	34.01	11.24	0.91	3.44
	Special Education	12,278	53	23.48	11.26	0.90	3.51
	Title I	20,097	53	29.90	12.20	0.92	3.52
	All Students	70,113	54	35.79	11.83	0.92	3.35
	Low Income	26,644	54	30.20	11.68	0.92	3.40
	African American	5,946	54	29.45	11.48	0.91	3.40
	Asian	4,038	54	42.62	10.43	0.92	3.04
	Hispanic	10,732	54	29.14	11.83	0.92	3.39
	Multi-race	1,736	54	35.82	12.20	0.92	3.36
	Native American	152	54	31.82	11.63	0.91	3.42
	Pacific Islander/Hawaiian	87	54	37.33	10.98	0.91	3.22
	White	47,388	54	37.52	11.01	0.91	3.29
	Female	34,359	54	36.29	11.47	0.92	3.33
	Male	35,742	54	35.31	12.15	0.92	3.36
10	LEP	3,384	54	23.42	10.97	0.91	3.32
	FLEP	2,021	54	33.47	11.25	0.91	3.36
	LEPFLEP	5,324	54	27.08	12.10	0.92	3.39
	Plan 504	4,147	54	34.36	10.99	0.91	3.37
	Special Education	11,924	54	24.04	10.66	0.90	3.36
	Title I	19,432	54	30.88	11.83	0.92	3.39
	All Students	69,733	60	39.93	13.19	0.92	3.82
	Low Income	24,591	60	33.17	13.24	0.91	3.99
	African American	6,041	60	32.61	12.87	0.90	4.00
	Asian	3,939	60	47.44	12.18	0.93	3.30
	Hispanic	9,916	60	31.25	13.28	0.91	4.01
	Multi-race	1,516	60	39.23	13.54	0.92	3.83
	Native American	175	60	34.18	11.85	0.89	3.98

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
10	Pacific Islander/Hawaiian	59	60	41.10	11.61	0.89	3.79
	White	48,083	60	42.07	12.03	0.91	3.70
	Female	34,548	60	40.32	12.80	0.91	3.77
	Male	35,185	60	39.55	13.55	0.92	3.86
	LEP	2,801	60	23.75	12.49	0.90	3.93
	FLEP	1,749	60	33.55	12.85	0.90	3.99
	LEPFLEP	4,331	60	27.28	13.49	0.91	4.02
	Plan 504	4,129	60	39.39	12.13	0.90	3.83
	Special Education	11,034	60	27.08	11.84	0.89	3.93
	Title I	14,918	60	33.43	13.47	0.91	3.98

Table P-3. 2014 MCAS: Subgroup Reliabilities – STE

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
5	All Students	69,787	54	36.10	9.30	0.88	3.25
	Low Income	26,900	54	31.33	9.35	0.87	3.36
	African American	5,556	54	29.93	9.49	0.87	3.36
	Asian	4,425	54	38.84	9.15	0.88	3.19
	Hispanic	11,427	54	30.19	9.56	0.88	3.37
	Multi-race	2,174	54	36.87	9.12	0.88	3.22
	Native American	170	54	34.32	8.77	0.86	3.33
	Pacific Islander/Hawaiian	64	54	33.30	10.24	0.89	3.34
	White	45,939	54	38.03	8.21	0.85	3.17
	Female	34,232	54	36.05	9.12	0.87	3.27
	Male	35,538	54	36.15	9.46	0.88	3.24
	LEP	4,754	54	25.33	9.02	0.86	3.37
	FLEP	2,996	54	32.81	8.69	0.85	3.38
	LEPFLEP	7,417	54	28.08	9.65	0.88	3.41
	Plan 504	4,035	54	36.06	8.83	0.87	3.23
	Special Education	12,541	54	28.92	9.47	0.87	3.36
	Title I	24,848	54	31.65	9.49	0.88	3.35
8	All Students	70,853	54	33.61	9.68	0.88	3.28
	Low Income	26,933	54	28.50	9.37	0.87	3.35
	African American	6,002	54	27.38	9.18	0.87	3.37
	Asian	4,138	54	37.15	9.76	0.89	3.22
	Hispanic	10,918	54	27.11	9.51	0.87	3.37
	Multi-race	1,749	54	34.02	9.99	0.89	3.26
	Native American	155	54	30.56	9.37	0.88	3.29
	Pacific Islander/Hawaiian	89	54	32.84	9.35	0.87	3.32
	White	47,768	54	35.58	8.70	0.86	3.21
	Female	34,712	54	33.54	9.38	0.88	3.29
	Male	36,129	54	33.69	9.95	0.89	3.27
	LEP	3,399	54	20.95	7.91	0.83	3.30
	FLEP	2,043	54	28.98	8.54	0.84	3.36
	LEPFLEP	5,361	54	23.90	9.04	0.86	3.37

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
8	Plan 504	4,177	54	33.55	8.87	0.87	3.25
	Special Education	12,046	54	25.31	9.16	0.87	3.35
	Title I	19,808	54	28.50	9.46	0.87	3.35

Table P-4. 2014 MCAS: Subgroup Reliabilities – High School Biology

Subgroup	Number of Students	Raw Score			Alpha	SEM
		Maximum	Mean	Standard Deviation		
All Students	49,845	60	39.74	11.66	0.91	3.58
Low Income	17,462	60	33.57	11.60	0.90	3.68
African American	3,831	60	33.32	11.25	0.89	3.69
Asian	2,696	60	44.01	12.12	0.92	3.45
Hispanic	6,869	60	31.58	11.97	0.90	3.70
Multi-race	1,032	60	39.75	11.82	0.91	3.59
Native American	124	60	35.72	11.94	0.90	3.68
Pacific Islander/Hawaiian	35	60	39.14	12.80	0.91	3.75
White	35,153	60	41.77	10.53	0.89	3.48
Female	25,000	60	40.03	11.44	0.90	3.57
Male	24,804	60	39.48	11.86	0.91	3.58
LEP	2,088	60	23.44	10.21	0.88	3.59
FLEP	1,131	60	32.83	11.17	0.89	3.68
LEPFLEP	3,083	60	26.51	11.42	0.90	3.67
Plan 504	2,859	60	39.66	10.78	0.89	3.56
Special Education	7,818	60	29.41	11.04	0.89	3.63
Title I	9,569	60	33.64	11.89	0.90	3.69

Table P-5. 2014 MCAS: Subgroup Reliabilities – High School Chemistry

Subgroup	Number of Students	Raw Score			Alpha	SEM
		Maximum	Mean	Standard Deviation		
All Students	1,047	60	41.17	11.37	0.90	3.60
Low Income	248	60	37.14	12.72	0.92	3.66
African American	120	60	37.43	11.22	0.89	3.65
Asian	97	60	45.63	10.19	0.89	3.37
Hispanic	104	60	33.34	14.54	0.93	3.77
Multi-race	30	60	44.47	8.78	0.86	3.28
Native American	2					
Pacific Islander/Hawaiian	1					
White	691	60	42.23	10.40	0.88	3.56
Female	553	60	40.88	11.65	0.90	3.60
Male	493	60	41.51	11.06	0.89	3.59

continued

Subgroup	Number of Students	Raw Score			Alpha	SEM
		Maximum	Mean	Standard Deviation		
LEP	35	60	26.06	14.57	0.94	3.54
FLEP	9					
LEPFLEP	42	60	27.24	14.27	0.93	3.67
Plan 504	45	60	41.80	9.62	0.86	3.56
Special Education	85	60	28.94	13.07	0.92	3.69
Title I	52	60	24.81	11.90	0.91	3.56

Table P-6. 2014 MCAS: Subgroup Reliabilities – High School Introductory Physics

Subgroup	Number of Students	Raw Score			Alpha	SEM
		Maximum	Mean	Standard Deviation		
All Students	16,024	60	36.97	11.84	0.91	3.50
Low Income	5,935	60	30.21	11.14	0.90	3.61
African American	1,801	60	30.69	11.06	0.89	3.61
Asian	999	60	44.05	10.78	0.91	3.21
Hispanic	2,673	60	28.25	11.00	0.89	3.60
Multi-race	455	60	37.50	12.71	0.93	3.46
Native American	39	60	34.59	11.77	0.91	3.62
Pacific Islander/Hawaiian	17	60	33.47	12.98	0.92	3.67
White	10,016	60	39.72	10.48	0.90	3.38
Female	7,865	60	36.90	11.54	0.91	3.48
Male	8,151	60	37.05	12.12	0.92	3.51
LEP	1,006	60	25.15	11.63	0.90	3.64
FLEP	421	60	33.08	10.53	0.88	3.60
LEPFLEP	1,326	60	27.20	12.01	0.91	3.66
Plan 504	840	60	37.60	10.95	0.90	3.47
Special Education	2,376	60	28.00	10.94	0.89	3.60
Title I	3,956	60	29.60	11.46	0.90	3.62

Table P-7. 2014 MCAS: Subgroup Reliabilities – High School Technology/Engineering

Subgroup	Number of Students	Raw Score			Alpha	SEM
		Maximum	Mean	Standard Deviation		
All Students	2,409	60	34.95	10.24	0.88	3.54
Low Income	1,233	60	31.36	9.87	0.87	3.56
African American	183	60	29.01	9.60	0.87	3.49
Asian	49	60	37.43	10.42	0.88	3.56
Hispanic	516	60	28.79	9.39	0.86	3.54
Multi-race	57	60	33.84	11.16	0.90	3.48
Native American	7					
Pacific Islander/Hawaiian	1					
White	1,596	60	37.60	9.36	0.86	3.49

continued

Subgroup	Number of Students	Raw Score			Alpha	SEM
		Maximum	Mean	Standard Deviation		
Female	892	60	32.63	9.97	0.87	3.55
Male	1,517	60	36.31	10.16	0.88	3.51
LEP	122	60	22.94	8.38	0.83	3.49
FLEP	66	60	29.26	8.02	0.81	3.49
LEPFLEP	172	60	24.84	8.89	0.84	3.51
Plan 504	145	60	36.97	9.41	0.86	3.48
Special Education	669	60	28.77	9.44	0.86	3.52
Title I	1,031	60	32.46	9.90	0.87	3.55

Table P-8. 2014 MCAS: Reliabilities by Reporting Category by Grade – ELA

Grade	Item Reporting Category*	Number of Items	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	LA	10	10	7.76	2.24	0.74	1.14
	LT	31	38	28.07	6.21	0.87	2.24
4	CC	1	8	6.36	1.45		
	CT	1	12	6.81	1.80		
	LA	9	9	7.38	1.74	0.65	1.02
	LT	31	43	29.05	7.29	0.88	2.47
5	LA	6	6	4.13	1.46	0.52	1.01
	LT	34	46	30.46	7.69	0.88	2.68
6	LA	7	7	5.33	1.42	0.52	0.98
	LT	33	45	30.53	8.09	0.89	2.68
7	CC	1	8	6.77	1.34		
	CT	1	12	7.00	1.60		
	LA	5	5	4.03	1.25	0.62	0.77
	LT	35	47	34.01	8.42	0.90	2.72
8	LA	6	6	4.09	1.47	0.52	1.01
	LT	34	46	33.45	8.26	0.90	2.65
10	CC	1	8	7.09	1.24		
	CT	1	12	7.37	1.47		
	LA	4	4	3.42	0.84	0.41	0.64
	LT	36	48	35.77	7.56	0.88	2.61

* Reporting category definitions follow table P-14.

Table P-9. 2014 MCAS: Reliabilities by Reporting Category by Grade – Mathematics

Grade	Item Reporting Category*	Number of Items	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	GE	4	5	3.71	1.09	0.4	0.84
	MD	9	10	6.73	2.21	0.63	1.34
	NF	5	6	4.00	1.61	0.61	1.00

continued

Grade	Item Reporting Category*	Number of Items	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	NT	6	6	4.56	1.60	0.69	0.89
	OA	12	13	10.39	2.66	0.75	1.33
4	GE	8	8	5.99	1.81	0.66	1.06
	MD	8	11	7.18	2.81	0.55	1.88
	NF	8	11	6.41	2.75	0.65	1.63
	NT	8	11	8.76	2.25	0.63	1.38
	OA	10	13	9.42	2.79	0.60	1.76
5	GE	5	5	3.38	1.29	0.51	0.90
	MD	8	11	7.63	3.01	0.68	1.69
	NF	10	13	9.10	3.33	0.78	1.57
	NT	12	15	12.04	3.10	0.77	1.50
	OA	7	10	6.14	2.62	0.56	1.73
6	EE	13	16	11.28	3.46	0.78	1.63
	GE	8	8	5.24	1.99	0.65	1.17
	NS	7	10	7.65	2.13	0.66	1.24
	RP	8	11	8.01	2.58	0.67	1.47
	SP	6	9	5.38	2.48	0.60	1.57
7	EE	8	11	8.20	2.62	0.70	1.44
	GE	9	9	5.94	2.04	0.63	1.24
	NS	9	12	7.21	3.15	0.75	1.58
	RP	8	11	7.25	3.05	0.68	1.72
	SP	7	10	6.85	2.69	0.64	1.61
8	EE	13	16	9.99	4.01	0.78	1.90
	FN	10	13	8.40	3.14	0.71	1.68
	GE	13	16	11.61	3.60	0.79	1.64
	NS	3	3	2.08	1.06	0.65	0.63
	SP	3	6	3.71	1.62	0.31	1.35
10	AF	11	17	12.16	3.87	0.74	1.96
	GE	11	17	11.28	4.48	0.73	2.35
	NQ	11	14	8.38	3.40	0.71	1.83
	SP	9	12	8.12	2.67	0.71	1.43

* Reporting category definitions follow table P-14.

Table P-10. 2014 MCAS: Reliabilities by Reporting Category – STE

Grade	Item Reporting Category*	Number of Items	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
5	ES	13	16	9.91	3.10	0.70	1.69
	LS	13	16	10.09	3.49	0.72	1.85
	PS	11	14	10.68	2.66	0.60	1.69
	TE	5	8	5.42	1.53	0.35	1.24
8	ES	10	13	7.85	2.74	0.63	1.68
	LS	10	13	8.03	2.82	0.68	1.61
	PS	11	14	7.83	2.91	0.68	1.64
	TE	11	14	9.90	2.72	0.63	1.64

* Reporting category definitions follow table P-14.

Table P-11. 2014 MCAS: Reliabilities by Reporting Category – High School Biology

<i>Item Reporting Category*</i>	<i>Number of Items</i>	<i>Raw Score</i>			<i>Alpha</i>	<i>SEM</i>
		<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>		
AP	6	9	5.58	1.97	0.43	1.48
BC	12	15	9.58	3.46	0.74	1.77
EC	9	12	7.88	2.74	0.64	1.65
EV	9	12	8.32	2.48	0.66	1.45
GE	9	12	8.39	2.79	0.64	1.68

* Reporting category definitions follow table P-14.

Table P-12. 2014 MCAS: Reliabilities by Reporting Category – High School Chemistry

<i>Item Reporting Category*</i>	<i>Number of Items</i>	<i>Raw Score</i>			<i>Alpha</i>	<i>SEM</i>
		<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>		
AS	12	15	11.05	2.97	0.67	1.69
BR	12	18	11.68	4.07	0.74	2.08
SO	9	12	7.65	2.65	0.64	1.60
TH	12	15	10.80	3.07	0.66	1.80

* Reporting category definitions follow table P-14.

Table P-13. 2014 MCAS: Reliabilities by Reporting Category – High School Introductory Physics

<i>Item Reporting Category*</i>	<i>Number of Items</i>	<i>Raw Score</i>			<i>Alpha</i>	<i>SEM</i>
		<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>		
EM	9	12	7.18	2.81	0.65	1.66
HT	6	9	5.45	1.89	0.54	1.28
MF	18	24	15.16	4.96	0.81	2.18
WV	12	15	9.18	3.54	0.75	1.78

* Reporting category definitions follow table P-14.

Table P-14. 2014 MCAS: Reliabilities by Reporting Category – High School Technology/Engineering

<i>Item Reporting Category*</i>	<i>Number of Items</i>	<i>Raw Score</i>			<i>Alpha</i>	<i>SEM</i>
		<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>		
CM	9	12	7.85	2.31	0.59	1.47
ED	9	12	7.51	2.79	0.59	1.78
EL	12	18	8.41	3.22	0.65	1.90
FL	15	18	11.17	3.52	0.71	1.89

* Reporting category definitions follow table P-14.

Reporting Category Definitions

- AP = Anatomy and Physiology
- AS = Atomic Structure and Periodicity
- BC = Biochemistry and Cell Biology
- BI = Biology
- BR = Bonding and Reactions
- CC = Composition/Conventions
- CH = Chemistry
- CM = Construction and Manufacturing
- CT = Composition/Topic Development
- EC = Ecology
- ED = Engineering Design
- EL = Electrical and Communications Systems
- EM = Electromagnetism
- ES = Earth and Space Science
- EV = Evolution and Biodiversity
- FL = Fluid and Thermal Systems
- GE = Genetics
- GE = Geometry
- HT = Heat and Heat Transfer
- LA = Language
- LS = Life Science
- LT = Reading and Literature
- ME = Measurement
- MF = Motion and Forces
- NS = Number Sense and Operations
- PH = Introductory Physics
- PR = Patterns, Relations, and Algebra
- PS = Physical Sciences
- SO = Solutions, Equilibrium, and Acid-Base Theory
- SP = Data Analysis, Statistics, and probability
- TE = Technology/Engineering
- TH = Properties of Matter and Thermochemistry
- WV = Waves and Radiation

**Table P-15. 2014 MCAS-Alt: Subgroup Reliabilities –
ELA**

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	All Students	1,007	26	21.51	1.26	0.72	0.67
	Low Income	611	26	21.65	1.01	0.65	0.60
	African American	148	26	21.49	1.18	0.63	0.72
	Asian	50	26	21.58	0.99	0.67	0.57
	Hispanic	252	26	21.69	0.99	0.74	0.50
	Multi-race	34	26	21.62	0.70	0.32	0.57
	Native American	4					
	Pacific Islander/Hawaiian	1					
	White	511	26	21.45	1.40	0.73	0.73
	Female	345	26	21.45	1.32	0.71	0.71
	Male	660	26	21.55	1.23	0.73	0.64
	LEP	121	26	21.70	0.95	0.71	0.51
	FLEP	34	26	21.76	0.92	0.71	0.50
	LEPFLEP	155	26	21.72	0.94	0.71	0.51
	Plan 504	8					
	Special Education	1,007	26	21.51	1.26	0.72	0.67
	Title I	500	26	21.64	0.99	0.64	0.60
4	All Students	1,181	39	30.97	3.28	0.72	1.72
	Low Income	692	39	31.17	3.15	0.72	1.67
	African American	129	39	30.97	3.48	0.72	1.83
	Asian	59	39	30.25	3.85	0.80	1.71
	Hispanic	305	39	31.23	3.18	0.72	1.69
	Multi-race	42	39	31.10	2.91	0.59	1.86
	Native American	2					
	Pacific Islander/Hawaiian	3					
	White	638	39	30.93	3.21	0.71	1.71
	Female	380	39	31.19	3.10	0.76	1.51
	Male	799	39	30.87	3.34	0.71	1.80
	LEP	123	39	30.80	3.62	0.69	2.00
	FLEP	42	39	30.83	3.25	0.37	2.57
	LEPFLEP	165	39	30.81	3.52	0.64	2.10
	Plan 504	10	39	28.10	4.20	-0.17	4.55
	Special Education	1,181	39	30.97	3.28	0.72	1.72
	Title I	564	39	31.18	3.16	0.69	1.77
5	All Students	1,031	26	21.57	1.16	0.66	0.68
	Low Income	638	26	21.60	1.13	0.61	0.70
	African American	140	26	21.48	1.27	0.51	0.89
	Asian	43	26	21.67	0.92	0.37	0.73
	Hispanic	285	26	21.62	0.94	0.52	0.65
	Multi-race	20	26	21.65	1.35	0.84	0.53
	Native American	2					
	Pacific Islander/Hawaiian	2					
	White	538	26	21.56	1.24	0.75	0.62
	Female	312	26	21.50	1.40	0.78	0.66
	Male	719	26	21.60	1.04	0.56	0.69

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
5	LEP	98	26	21.63	0.82	0.48	0.59
	FLEP	37	26	21.81	0.57	0.32	0.47
	LEPFLEP	135	26	21.68	0.76	0.46	0.56
	Plan 504	8					
	Special Education	1,031	26	21.57	1.16	0.66	0.68
	Title I	522	26	21.64	1.04	0.56	0.69
	All Students	906	26	21.29	1.59	0.66	0.93
	Low Income	503	26	21.34	1.59	0.61	0.99
	African American	115	26	20.72	2.24	0.56	1.49
	Asian	53	26	21.04	1.80	0.69	1.00
6	Hispanic	213	26	21.40	1.46	0.65	0.86
	Multi-race	29	26	21.28	1.83	0.82	0.78
	Native American	2					
	Pacific Islander/Hawaiian	0					
	White	494	26	21.40	1.39	0.71	0.75
	Female	302	26	21.19	1.67	0.67	0.97
	Male	604	26	21.34	1.55	0.65	0.92
	LEP	80	26	21.50	1.37	0.61	0.85
	FLEP	24	26	22.00	0.00		
	LEPFLEP	104	26	21.62	1.22	0.62	0.75
7	Plan 504	5					
	Special Education	906	26	21.29	1.59	0.66	0.93
	Title I	310	26	21.66	0.95	0.56	0.63
	All Students	1,101	39	29.79	4.07	0.73	2.10
	Low Income	612	39	29.69	4.14	0.71	2.22
	African American	150	39	28.84	4.60	0.71	2.47
	Asian	42	39	30.24	3.46	0.80	1.56
	Hispanic	268	39	29.82	3.94	0.68	2.23
	Multi-race	26	39	30.04	3.63	0.75	1.82
	Native American	4					
8	Pacific Islander/Hawaiian	3					
	White	600	39	29.97	4.02	0.76	1.97
	Female	345	39	29.68	4.16	0.74	2.13
	Male	752	39	29.82	4.04	0.73	2.09
	LEP	96	39	28.56	4.66	0.68	2.62
	FLEP	31	39	30.58	3.56	0.77	1.70
	LEPFLEP	127	39	29.06	4.49	0.69	2.51
	Plan 504	8					
	Special Education	1,101	39	29.79	4.07	0.73	2.10
	Title I	374	39	29.80	3.96	0.74	2.03
8	All Students	714	26	21.42	1.40	0.64	0.83
	Low Income	408	26	21.43	1.49	0.65	0.88
	African American	88	26	21.26	1.77	0.57	1.16
	Asian	33	26	20.94	2.14	0.76	1.05
	Hispanic	177	26	21.43	1.40	0.69	0.78
	Multi-race	20	26	21.30	1.59	0.60	1.00
	Native American	0					

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
8	Pacific Islander/Hawaiian	0					
	White	395	26	21.49	1.20	0.64	0.72
	Female	243	26	21.53	1.18	0.61	0.73
	Male	471	26	21.36	1.50	0.65	0.88
	LEP	60	26	21.62	1.34	0.57	0.88
	FLEP	20	26	21.65	1.57	0.93	0.41
	LEPFLEP	80	26	21.63	1.39	0.68	0.79
	Plan 504	3					
	Special Education	714	26	21.42	1.40	0.64	0.83
	Title I	239	26	21.51	1.41	0.62	0.86
10	All Students	675	39	30.08	3.70	0.72	1.97
	Low Income	372	39	30.32	3.60	0.71	1.93
	African American	107	39	30.32	3.63	0.74	1.84
	Asian	31	39	29.84	3.87	0.45	2.88
	Hispanic	140	39	30.42	3.59	0.75	1.81
	Multi-race	10	39	31.00	4.03	0.68	2.27
	Native American	0					
	Pacific Islander/Hawaiian	1					
	White	386	39	29.90	3.75	0.70	2.05
	Female	235	39	29.90	3.70	0.76	1.82
	Male	440	39	30.18	3.71	0.69	2.07
	LEP	65	39	30.48	3.59	0.66	2.09
	FLEP	14	39	30.71	3.38	0.45	2.51
	LEPFLEP	79	39	30.52	3.53	0.63	2.14
	Plan 504	4					
	Special Education	675	39	30.08	3.70	0.72	1.97
	Title I	178	39	30.48	3.43	0.70	1.89

Note: No reliability or SEM values are reported for some subgroups, because there were some items for which only one student in the subgroup received a score.

Table P-16. 2014 MCAS-Alt: Subgroup Reliabilities – Mathematics

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	All Students	1,087	26	21.46	1.29	0.72	0.69
	Low Income	657	26	21.54	1.13	0.67	0.65
	African American	154	26	21.35	1.43	0.72	0.76
	Asian	58	26	21.29	1.43	0.57	0.94
	Hispanic	278	26	21.68	1.03	0.76	0.51
	Multi-race	35	26	21.49	0.82	0.36	0.65
	Native American	4					
	Pacific Islander/Hawaiian	1					
	White	551	26	21.41	1.35	0.72	0.71
	Female	381	26	21.44	1.36	0.76	0.67
	Male	704	26	21.47	1.26	0.69	0.70

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	LEP	129	26	21.64	1.02	0.76	0.49
	FLEP	39	26	21.74	0.79	0.54	0.53
	LEPFLEP	168	26	21.66	0.97	0.73	0.51
	Plan 504	10	26	21.50	1.08	0.73	0.56
	Special Education	1,087	26	21.46	1.29	0.72	0.69
	Title I	538	26	21.62	1.00	0.66	0.58
	All Students	1,131	26	21.54	1.12	0.65	0.66
	Low Income	667	26	21.67	0.92	0.61	0.58
	African American	123	26	21.80	0.71	0.44	0.53
	Asian	55	26	21.55	1.34	0.77	0.64
	Hispanic	288	26	21.66	0.91	0.66	0.53
	Multi-race	46	26	21.59	0.93	0.55	0.63
	Native American	3					
	Pacific Islander/Hawaiian	4					
4	White	608	26	21.46	1.23	0.64	0.73
	Female	388	26	21.54	1.10	0.67	0.63
	Male	741	26	21.55	1.13	0.64	0.68
	LEP	108	26	21.84	0.50	0.27	0.42
	FLEP	40	26	21.83	0.45	0.18	0.40
	LEPFLEP	148	26	21.84	0.48	0.24	0.42
	Plan 504	10	26	21.70	0.48	-0.34	0.56
	Special Education	1,131	26	21.54	1.12	0.65	0.66
	Title I	533	26	21.69	0.90	0.58	0.58
	All Students	1,172	26	21.54	1.23	0.67	0.70
	Low Income	701	26	21.61	1.12	0.60	0.70
	African American	165	26	21.47	1.34	0.61	0.83
	Asian	46	26	21.61	0.91	0.42	0.69
	Hispanic	300	26	21.60	1.07	0.64	0.64
	Multi-race	25	26	21.88	1.33	0.69	0.74
	Native American	1					
	Pacific Islander/Hawaiian	1					
5	White	633	26	21.51	1.28	0.71	0.69
	Female	367	26	21.47	1.38	0.73	0.72
	Male	805	26	21.57	1.15	0.64	0.69
	LEP	101	26	21.58	1.13	0.71	0.61
	FLEP	43	26	21.79	0.51	0.29	0.43
	LEPFLEP	144	26	21.65	0.99	0.68	0.56
	Plan 504	9					
	Special Education	1,172	26	21.54	1.23	0.67	0.70
	Title I	565	26	21.63	1.10	0.60	0.70
	All Students	1,136	26	21.31	1.58	0.68	0.90
	Low Income	633	26	21.39	1.54	0.64	0.92
6	African American	153	26	20.95	2.18	0.61	1.36
	Asian	66	26	21.30	1.53	0.74	0.78
	Hispanic	257	26	21.42	1.45	0.65	0.86
	Multi-race	31	26	21.26	1.71	0.79	0.78
	Native American	2					

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
6	Pacific Islander/Hawaiian	0					
	White	627	26	21.36	1.45	0.73	0.75
	Female	389	26	21.28	1.66	0.71	0.89
	Male	747	26	21.33	1.54	0.65	0.91
	LEP	102	26	21.44	1.60	0.63	0.97
	FLEP	25	26	21.80	0.58	0.48	0.42
	LEPFLEP	127	26	21.51	1.46	0.62	0.90
	Plan 504	4					
	Special Education	1,136	26	21.31	1.58	0.68	0.90
	Title I	417	26	21.65	1.04	0.61	0.65
	All Students	1,076	26	21.41	1.39	0.62	0.85
7	Low Income	605	26	21.45	1.43	0.62	0.88
	African American	148	26	21.04	1.97	0.58	1.28
	Asian	40	26	21.60	0.96	0.64	0.58
	Hispanic	255	26	21.64	1.02	0.66	0.59
	Multi-race	22	26	21.82	0.66	0.72	0.35
	Native American	4					
	Pacific Islander/Hawaiian	3					
	White	598	26	21.38	1.37	0.64	0.82
	Female	343	26	21.30	1.55	0.66	0.90
	Male	731	26	21.46	1.30	0.60	0.82
	LEP	90	26	21.08	1.92	0.59	1.22
FLEP	30	26	21.83	0.46	0.27	0.39	
LEPFLEP	120	26	21.27	1.70	0.59	1.09	
Plan 504	7						
Special Education	1,076	26	21.41	1.39	0.62	0.85	
Title I	357	26	21.62	1.08	0.63	0.65	
All Students	952	26	21.37	1.45	0.62	0.89	
8	Low Income	557	26	21.44	1.48	0.61	0.92
	African American	128	26	21.29	1.67	0.54	1.14
	Asian	32	26	21.28	1.73	0.67	1.00
	Hispanic	237	26	21.42	1.46	0.69	0.81
	Multi-race	26	26	21.38	1.39	0.56	0.92
	Native American	1					
	Pacific Islander/Hawaiian	3					
	White	524	26	21.38	1.37	0.62	0.84
	Female	331	26	21.40	1.32	0.54	0.89
	Male	621	26	21.35	1.52	0.66	0.89
	LEP	76	26	21.53	1.51	0.58	0.98
FLEP	24	26	21.58	1.53	0.91	0.46	
LEPFLEP	100	26	21.54	1.51	0.65	0.89	
Plan 504	4						
Special Education	952	26	21.37	1.45	0.62	0.89	
Title I	346	26	21.57	1.26	0.60	0.79	
All Students	713	39	30.80	3.39	0.80	1.53	
10	Low Income	388	39	31.04	3.33	0.76	1.62
	African American	112	39	31.14	3.26	0.88	1.15
	Asian	33	39	31.03	3.40	0.81	1.48

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
10	Hispanic	142	39	31.02	3.40	0.70	1.87
	Multi-race	13	39	31.15	3.13		
	Native American	0					
	Pacific Islander/Hawaiian	1					
	White	412	39	30.59	3.43	0.79	1.59
	Female	243	39	30.92	3.40	0.78	1.59
	Male	470	39	30.74	3.39	0.80	1.51
	LEP	65	39	31.06	3.53	0.84	1.43
	FLEP	15	39	30.67	3.79		
	LEPFLEP	80	39	30.99	3.56	0.76	1.74
	Plan 504	4					
Special Education	713	39	30.80	3.39	0.80	1.53	
Title I	182	39	31.15	3.30	0.77	1.58	

Note: No reliability or SEM values are reported for some subgroups, because there were some items for which only one student in the subgroup received a score.

Table P-17. 2014 MCAS-Alt: Subgroup Reliabilities – STE

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
5	All Students	1,057	39	31.28	3.22	0.82	1.36
	Low Income	630	39	31.25	3.30	0.82	1.38
	African American	153	39	30.91	3.43	0.82	1.47
	Asian	46	39	30.80	3.71	0.33	3.03
	Hispanic	276	39	31.35	3.21	0.85	1.25
	Multi-race	24	39	32.08	2.30	0.86	0.85
	Native American	2					
	Pacific Islander/Hawaiian	2					
	White	553	39	31.36	3.14	0.83	1.31
	Female	320	39	31.25	3.37	0.83	1.39
	Male	737	39	31.29	3.15	0.81	1.37
	LEP	90	39	31.30	3.29	0.75	1.66
	FLEP	36	39	31.39	3.17	0.64	1.89
	LEPFLEP	126	39	31.33	3.24	0.71	1.73
	Plan 504	7					
Special Education	1,057	39	31.28	3.22	0.82	1.36	
Title I	522	39	31.42	3.16	0.85	1.22	
8	All Students	920	39	30.97	3.42	0.81	1.50
	Low Income	517	39	31.05	3.49	0.81	1.52
	African American	114	39	30.69	3.73	0.78	1.74
	Asian	37	39	30.24	4.10	0.90	1.29
	Hispanic	230	39	30.99	3.40	0.82	1.46
	Multi-race	23	39	31.04	3.24	0.77	1.57
	Native American	1					
	Pacific Islander/Hawaiian	2					
	White	512	39	31.09	3.29	0.80	1.48

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
8	Female	328	39	31.24	3.26	0.78	1.54
	Male	592	39	30.82	3.50	0.82	1.49
	LEP	83	39	30.98	3.69	0.74	1.88
	FLEP	23	39	30.48	3.81	0.94	0.93
	LEPFLEP	106	39	30.87	3.71	0.78	1.73
	Plan 504	4					
	Special Education	920	39	30.97	3.42	0.81	1.50
	Title I	335	39	31.30	3.31	0.79	1.50

Note: No reliability or SEM values are reported for some subgroups, because there were some items for which only one student in the subgroup received a score.

Table P-18. 2014 MCAS-Alt: Subgroup Reliabilities – High School Biology

Subgroup	Number of Students	Raw Score			Alpha	SEM
		Maximum	Mean	Standard Deviation		
All Students	543	39	30.78	3.48	0.77	1.67
Low Income	304	39	30.58	3.76	0.81	1.65
African American	69	39	30.62	3.43	0.80	1.53
Asian	30	39	31.00	3.37	0.75	1.68
Hispanic	129	39	30.07	4.00	0.80	1.80
Multi-race	13	39	30.62	3.38	0.31	2.81
Native American	1					
Pacific Islander/Hawaiian	0					
White	301	39	31.11	3.23	0.74	1.65
Female	192	39	30.73	3.38	0.79	1.54
Male	351	39	30.81	3.53	0.75	1.76
LEP	47	39	29.45	4.05	0.83	1.67
FLEP	12	39	32.25	1.60	0.66	0.93
LEPFLEP	59	39	30.02	3.85	0.81	1.68
Plan 504	1					
Special Education	543	39	30.78	3.48	0.77	1.67
Title I	147	39	30.41	3.59	0.75	1.79

Note: No reliability or SEM values are reported for some subgroups, because there were some items for which only one student in the subgroup received a score.

Table P-19. 2014 MCAS-Alt: Subgroup Reliabilities – High School Chemistry

Subgroup	Number of Students	Raw Score			Alpha	SEM
		Maximum	Mean	Standard Deviation		
All Students	38	39	30.13	3.81	0.62	2.35
Low Income	15	39	30.80	3.80	0.44	2.86
African American	4					
Asian	0					
Hispanic	4					

continued

<i>Subgroup</i>	<i>Number of Students</i>	<i>Raw Score</i>			<i>Alpha</i>	<i>SEM</i>
		<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>		
Multi-race	2					
Native American	0					
Pacific Islander/Hawaiian	1					
White	27	39	29.93	3.91	0.62	2.40
Female	11	39	31.18	2.71	0.54	1.83
Male	27	39	29.70	4.14	0.62	2.54
LEP	4					
FLEP	0					
LEPFLEP	4					
Plan 504	0					
Special Education	38	39	30.13	3.81	0.62	2.35
Title I	6					

Note: No reliability or SEM values are reported for some subgroups, because there were some items for which only one student in the subgroup received a score.

Table P-20. 2014 MCAS-Alt: Subgroup Reliabilities – High School Introductory Physics

<i>Subgroup</i>	<i>Number of Students</i>	<i>Raw Score</i>			<i>Alpha</i>	<i>SEM</i>
		<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>		
All Students	41	39	30.95	3.96	0.74	2.02
Low Income	20	39	30.05	3.83	-0.11	4.04
African American	10	39	30.40	4.99	0.75	2.50
Asian	2					
Hispanic	4					
Multi-race	0					
Native American	0					
Pacific Islander/Hawaiian	0					
White	25	39	31.64	3.34	0.80	1.48
Female	13	39	29.62	3.95	0.43	2.98
Male	28	39	31.57	3.87	0.78	1.82
LEP	5					
FLEP	0					
LEPFLEP	5					
Plan 504	1					
Special Education	41	39	30.95	3.96	0.74	2.02
Title I	14	39	29.00	4.15		

Note: No reliability or SEM values are reported for some subgroups, because there were some items for which only one student in the subgroup received a score.

**Table P-21. 2014 MCAS-Alt: Subgroup Reliabilities –
High School Technology/Engineering**

<i>Subgroup</i>	<i>Number of Students</i>	<i>Raw Score</i>			<i>Alpha</i>	<i>SEM</i>
		<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>		
All Students	49	39	30.80	3.25	0.84	1.28
Low Income	22	39	31.59	2.54	0.77	1.23
African American	9					
Asian	1					
Hispanic	6					
Multi-race	0					
Native American	0					
Pacific Islander/Hawaiian	0					
White	33	39	30.73	3.34	0.86	1.27
Female	10	39	32.10	2.51	0.00	2.51
Male	39	39	30.46	3.36	0.84	1.34
LEP	4					
FLEP	1					
LEPFLEP	5					
Plan 504	0					
Special Education	49	39	30.80	3.25	0.84	1.28
Title I	10	39	30.30	3.16	0.72	1.69

Note: No reliability or SEM values are reported for some subgroups, because there were some items for which only one student in the subgroup received a score.