

Appendix P

CLASSICAL RELIABILITY

Table P-1. 2011 MCAS: Subgroup Reliabilities – ELA

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	All Students	68,693	48	36.69	7.97	0.90	2.51
	Low Income	24,835	48	32.74	8.81	0.90	2.77
	African American	5,334	48	32.22	8.90	0.90	2.80
	Asian	4,052	48	38.19	7.64	0.90	2.41
	Hispanic	10,979	48	31.94	9.11	0.91	2.80
	Multi-race	1,908	48	37.35	7.55	0.89	2.47
	Native American	163	48	34.71	8.42	0.90	2.68
	Pacific Islander/Hawaiian	74	48	35.03	8.38	0.90	2.60
	White	46,162	48	38.19	6.89	0.88	2.40
	Female	33,725	48	37.58	7.52	0.89	2.46
	Male	34,947	48	35.83	8.28	0.91	2.54
	LEP	6,310	48	29.07	9.40	0.90	2.91
	FLEP	2,177	48	36.01	7.60	0.88	2.60
	LEPFLEP	8,487	48	30.85	9.47	0.91	2.85
	Plan 504	1,332	48	34.71	7.60	0.88	2.64
	Special Education	11,454	48	29.48	9.36	0.90	2.89
	Title I	25,340	48	33.04	8.71	0.90	2.75
4	All Students	69,507	72	48.75	10.27	0.89	3.41
	Low Income	25,095	72	43.66	10.70	0.89	3.59
	African American	5,465	72	43.07	10.97	0.89	3.63
	Asian	4,000	72	51.47	10.12	0.89	3.33
	Hispanic	10,535	72	42.63	11.12	0.89	3.65
	Multi-race	1,982	72	48.86	10.16	0.89	3.42
	Native American	160	72	45.28	10.13	0.87	3.61
	Pacific Islander/Hawaiian	92	72	48.62	11.98	0.91	3.53
	White	47,253	72	50.55	9.17	0.87	3.30
	Female	34,100	72	50.60	9.80	0.89	3.31
	Male	35,387	72	46.97	10.40	0.89	3.44
	LEP	5,371	72	39.11	11.29	0.89	3.78
	FLEP	2,318	72	47.82	9.79	0.88	3.46
	LEPFLEP	7,689	72	41.73	11.57	0.90	3.72
	Plan 504	1,813	72	46.02	9.32	0.86	3.44
	Special Education	12,084	72	38.92	10.72	0.88	3.70
	Title I	25,094	72	44.01	10.71	0.89	3.58
5	All Students	69,986	52	35.85	8.57	0.89	2.80
	Low Income	24,981	52	31.26	9.09	0.89	3.00
	African American	5,514	52	31.41	9.05	0.89	3.01
	Asian	3,904	52	37.76	8.60	0.90	2.74
	Hispanic	10,491	52	30.23	9.47	0.90	3.03
	Multi-race	1,692	52	36.05	8.78	0.90	2.79
	Native American	144	52	34.15	8.72	0.89	2.91
	Pacific Islander/Hawaiian	90	52	36.90	7.85	0.88	2.74
	White	48,129	52	37.42	7.54	0.87	2.72
	Female	34,193	52	37.01	8.19	0.89	2.76
	Male	35,771	52	34.73	8.77	0.90	2.82
	LEP	4,883	52	25.93	9.25	0.88	3.14
	FLEP	2,272	52	34.16	8.41	0.88	2.92
	LEPFLEP	7,155	52	28.54	9.77	0.90	3.09

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM	
			Maximum	Mean	Standard Deviation			
5	Plan 504	1,904	52	34.14	7.89	0.87	2.87	
	Special Education	12,344	52	27.62	9.18	0.89	3.08	
	Title I	23,930	52	31.59	9.10	0.89	2.98	
6	All Students	70,232	52	37.54	8.93	0.90	2.77	
	Low Income	25,038	52	32.61	9.52	0.90	3.00	
	African American	5,705	52	32.39	9.42	0.90	3.03	
	Asian	3,541	52	39.88	8.59	0.90	2.65	
	Hispanic	10,334	52	31.32	9.90	0.90	3.06	
	Multi-race	1,544	52	37.57	9.06	0.90	2.80	
	Native American	170	52	35.35	8.85	0.90	2.85	
	Pacific Islander/Hawaiian	60	52	35.63	9.33	0.90	2.90	
	White	48,852	52	39.30	7.77	0.88	2.66	
	Female	34,400	52	38.67	8.62	0.90	2.72	
	Male	35,806	52	36.46	9.09	0.91	2.78	
	LEP	3,746	52	25.69	9.64	0.89	3.19	
	FLEP	2,172	52	33.73	9.07	0.89	2.99	
	LEPFLEP	5,918	52	28.64	10.20	0.90	3.14	
	Plan 504	1,746	52	36.13	8.10	0.88	2.82	
	Special Education	12,308	52	28.74	9.47	0.89	3.09	
	Title I	21,485	52	32.84	9.54	0.90	3.00	
	7	All Students	71,062	72	51.20	10.52	0.91	3.23
		Low Income	24,639	72	45.55	11.05	0.90	3.48
African American		5,742	72	46.02	10.96	0.90	3.45	
Asian		3,584	72	54.72	10.11	0.91	3.09	
Hispanic		10,170	72	44.41	11.43	0.90	3.53	
Multi-race		1,465	72	50.91	10.80	0.91	3.30	
Native American		173	72	48.01	10.44	0.90	3.28	
Pacific Islander/Hawaiian		58	72	53.33	10.17	0.90	3.16	
White		49,843	72	52.96	9.46	0.89	3.11	
Female		34,824	72	53.60	9.62	0.90	3.07	
Male		36,211	72	48.91	10.83	0.91	3.30	
LEP		3,099	72	36.82	10.93	0.88	3.80	
FLEP		1,569	72	47.08	10.08	0.89	3.40	
LEPFLEP		4,668	72	40.27	11.71	0.90	3.71	
Plan 504		1,823	72	49.00	9.91	0.89	3.28	
Special Education		12,484	72	40.37	10.91	0.89	3.67	
Title I		19,228	72	45.89	10.85	0.90	3.45	
8		All Students	70,506	52	38.27	8.58	0.89	2.82
		Low Income	23,900	52	33.70	9.11	0.89	3.05
	African American	5,683	52	34.00	8.88	0.88	3.03	
	Asian	3,633	52	40.79	8.41	0.90	2.67	
	Hispanic	9,701	52	32.63	9.46	0.89	3.09	
	Multi-race	1,435	52	38.41	8.43	0.89	2.84	
	Native American	199	52	36.01	8.87	0.89	2.94	
	Pacific Islander/Hawaiian	77	52	37.44	8.64	0.89	2.85	
	White	49,759	52	39.68	7.71	0.87	2.74	
	Female	34,553	52	39.98	7.96	0.88	2.71	
	Male	35,934	52	36.63	8.83	0.89	2.88	
	LEP	2,854	52	25.19	8.92	0.87	3.27	

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
8	FLEP	1,187	52	34.30	8.63	0.88	3.05
	LEPFLEP	4,041	52	27.87	9.76	0.89	3.23
	Plan 504	1,662	52	37.12	7.55	0.85	2.89
	Special Education	11,996	52	29.60	9.04	0.88	3.17
	Title I	18,307	52	34.08	9.03	0.89	3.02
10	All Students	69,121	72	54.02	9.78	0.90	3.13
	Low Income	21,660	72	48.63	10.78	0.89	3.50
	African American	5,915	72	48.85	10.73	0.90	3.47
	Asian	3,614	72	55.82	10.06	0.91	3.05
	Hispanic	8,802	72	47.07	11.41	0.90	3.64
	Multi-race	1,328	72	54.40	9.38	0.89	3.12
	Native American	183	72	49.77	10.10	0.89	3.40
	Pacific Islander/Hawaiian	82	72	53.70	11.64	0.91	3.52
	White	49,138	72	55.78	8.46	0.88	2.95
	Female	34,233	72	55.41	9.27	0.90	2.98
	Male	34,829	72	52.68	10.07	0.90	3.21
	LEP	2,513	72	36.99	11.67	0.86	4.39
	FLEP	950	72	47.23	9.63	0.87	3.42
	LEPFLEP	3,463	72	39.80	12.05	0.88	4.21
	Plan 504	1,199	72	52.87	8.35	0.86	3.12
	Special Education	10,896	72	44.23	11.00	0.89	3.70
	Title I	12,426	72	47.98	10.41	0.89	3.45

Table P-2. 2011 MCAS: Subgroup Reliabilities – Mathematics

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	All Students	68,763	40	30.11	7.54	0.90	2.38
	Low Income	24,865	40	26.54	8.23	0.90	2.59
	African American	5,341	40	25.18	8.44	0.90	2.63
	Asian	4,062	40	33.05	6.48	0.89	2.12
	Hispanic	11,022	40	25.92	8.35	0.90	2.61
	Multi-race	1,912	40	30.35	7.46	0.90	2.36
	Native American	161	40	28.57	8.17	0.91	2.44
	Pacific Islander/Hawaiian	74	40	28.72	7.79	0.90	2.50
	White	46,167	40	31.43	6.63	0.88	2.30
	Female	33,756	40	30.13	7.42	0.90	2.38
	Male	34,983	40	30.10	7.66	0.90	2.38
	LEP	6,361	40	24.54	8.71	0.91	2.65
	FLEP	2,179	40	29.99	7.35	0.89	2.39
	LEPFLEP	8,540	40	25.93	8.71	0.91	2.59
	Plan 504	1,331	40	28.48	7.34	0.88	2.52
	Special Education	11,482	40	23.84	8.56	0.90	2.68
	Title I	25,367	40	26.93	8.14	0.90	2.57
4	All Students	69,683	54	37.91	10.54	0.90	3.35
	Low Income	25,170	54	32.94	11.04	0.90	3.54
	African American	5,504	54	31.03	11.16	0.90	3.57
	Asian	4,010	54	42.53	9.53	0.90	3.04

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
4	Hispanic	10,577	54	32.01	11.31	0.90	3.56
	Multi-race	1,979	54	37.47	10.85	0.90	3.37
	Native American	158	54	34.90	10.83	0.90	3.50
	Pacific Islander/Hawaiian	93	54	38.19	11.24	0.92	3.21
	White	47,339	54	39.67	9.43	0.88	3.24
	Female	34,148	54	37.86	10.48	0.90	3.38
	Male	35,512	54	37.96	10.59	0.90	3.32
	LEP	5,445	54	29.84	11.87	0.91	3.62
	FLEP	2,318	54	37.50	10.33	0.89	3.39
	LEPFLEP	7,763	54	32.13	11.96	0.91	3.58
	Plan 504	1,823	54	35.55	10.03	0.88	3.45
	Special Education	12,145	54	29.01	11.23	0.90	3.60
	Title I	25,184	54	33.38	11.06	0.90	3.53
5	All Students	70,050	54	37.82	10.87	0.91	3.26
	Low Income	25,016	54	32.22	10.98	0.90	3.47
	African American	5,522	54	31.39	10.97	0.90	3.48
	Asian	3,909	54	43.01	9.90	0.91	2.92
	Hispanic	10,514	54	31.24	11.20	0.90	3.50
	Multi-race	1,694	54	37.88	11.06	0.91	3.28
	Native American	144	54	35.53	10.79	0.90	3.35
	Pacific Islander/Hawaiian	91	54	39.05	9.68	0.90	3.13
	White	48,157	54	39.58	9.91	0.90	3.15
	Female	34,194	54	37.99	10.55	0.91	3.25
	Male	35,837	54	37.66	11.16	0.91	3.26
	LEP	4,921	54	28.48	11.42	0.90	3.55
	FLEP	2,268	54	36.78	10.49	0.90	3.32
	LEPFLEP	7,189	54	31.10	11.78	0.91	3.51
	Plan 504	1,905	54	35.41	10.43	0.90	3.38
Special Education	12,361	54	28.04	11.12	0.90	3.56	
Title I	23,978	54	32.72	11.03	0.90	3.46	
6	All Students	70,193	54	37.48	11.54	0.91	3.44
	Low Income	25,010	54	31.55	11.88	0.91	3.66
	African American	5,722	54	30.46	11.93	0.91	3.67
	Asian	3,557	54	42.87	10.49	0.91	3.08
	Hispanic	10,351	54	30.07	12.06	0.91	3.68
	Multi-race	1,531	54	37.35	11.80	0.92	3.43
	Native American	169	54	34.04	11.52	0.90	3.60
	Pacific Islander/Hawaiian	60	54	35.60	12.05	0.91	3.60
	White	48,775	54	39.51	10.36	0.90	3.30
	Female	34,396	54	37.76	11.29	0.91	3.42
	Male	35,769	54	37.22	11.77	0.91	3.45
	LEP	3,796	54	25.21	11.81	0.90	3.67
	FLEP	2,169	54	33.80	11.69	0.90	3.61
	LEPFLEP	5,965	54	28.33	12.47	0.91	3.70
	Plan 504	1,742	54	36.05	10.57	0.89	3.50
Special Education	12,232	54	26.17	11.46	0.90	3.69	
Title I	21,501	54	32.09	11.97	0.91	3.64	
7	All Students	71,237	54	37.16	11.67	0.92	3.35
	Low Income	24,763	54	31.03	11.70	0.91	3.54

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
7	African American	5,772	54	30.53	11.65	0.91	3.53
	Asian	3,610	54	43.72	10.11	0.92	2.87
	Hispanic	10,244	54	29.91	11.87	0.91	3.56
	Multi-race	1,471	54	36.41	12.18	0.92	3.38
	Native American	171	54	33.47	10.93	0.90	3.46
	Pacific Islander/Hawaiian	59	54	38.73	11.56	0.92	3.31
	White	49,884	54	38.97	10.72	0.91	3.24
	Female	34,864	54	37.69	11.36	0.92	3.30
	Male	36,347	54	36.65	11.93	0.92	3.38
	LEP	3,180	54	24.96	11.56	0.91	3.56
	FLEP	1,575	54	33.36	11.55	0.91	3.48
	LEPFLEP	4,755	54	27.74	12.21	0.91	3.58
	Plan 504	1,835	54	35.23	10.82	0.90	3.43
	Special Education	12,501	54	25.71	11.04	0.90	3.55
Title I	19,319	54	31.56	11.67	0.91	3.52	
8	All Students	70,498	54	36.47	12.45	0.92	3.46
	Low Income	23,868	54	30.00	12.48	0.92	3.60
	African American	5,685	54	29.18	12.20	0.91	3.61
	Asian	3,652	54	43.04	11.00	0.92	3.04
	Hispanic	9,685	54	28.52	12.57	0.92	3.61
	Multi-race	1,433	54	36.34	12.78	0.93	3.48
	Native American	198	54	32.57	12.03	0.91	3.57
	Pacific Islander/Hawaiian	79	54	34.49	12.59	0.92	3.57
	White	49,741	54	38.39	11.49	0.91	3.38
	Female	34,550	54	36.63	12.26	0.92	3.45
	Male	35,923	54	36.32	12.62	0.92	3.46
	LEP	2,892	54	22.69	11.96	0.91	3.55
	FLEP	1,183	54	32.25	12.46	0.92	3.58
	LEPFLEP	4,075	54	25.46	12.86	0.92	3.60
Plan 504	1,656	54	35.02	11.25	0.90	3.52	
Special Education	11,926	54	24.17	11.45	0.90	3.54	
Title I	18,286	54	30.64	12.56	0.92	3.59	
10	All Students	68,905	60	38.76	12.63	0.91	3.77
	Low Income	21,527	60	32.14	12.62	0.91	3.86
	African American	5,883	60	31.23	12.33	0.90	3.84
	Asian	3,619	60	45.69	12.05	0.92	3.43
	Hispanic	8,747	60	30.12	12.63	0.91	3.84
	Multi-race	1,324	60	38.46	12.74	0.91	3.79
	Native American	184	60	32.23	12.20	0.90	3.82
	Pacific Islander/Hawaiian	84	60	38.51	12.57	0.91	3.83
	White	48,992	60	40.75	11.55	0.90	3.68
	Female	34,123	60	38.85	12.21	0.91	3.72
	Male	34,710	60	38.70	13.01	0.91	3.81
	LEP	2,538	60	25.02	13.28	0.92	3.84
	FLEP	940	60	32.54	13.15	0.91	3.88
	LEPFLEP	3,478	60	27.05	13.66	0.92	3.89
Plan 504	1,193	60	36.13	11.28	0.89	3.79	
Special Education	10,871	60	26.86	11.49	0.89	3.77	
Title I	12,305	60	31.75	12.52	0.91	3.84	

Table P-3. 2011 MCAS: Subgroup Reliabilities – STE

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
5	All Students	70,146	54	36.26	9.54	0.88	3.25
	Low Income	25,066	54	30.69	9.43	0.87	3.39
	African American	5,528	54	29.04	9.28	0.87	3.39
	Asian	3,909	54	38.12	9.92	0.90	3.18
	Hispanic	10,524	54	29.37	9.58	0.87	3.42
	Multi-race	1,698	54	36.55	9.39	0.88	3.26
	Native American	143	54	34.17	9.15	0.86	3.38
	Pacific Islander/Hawaiian	92	54	36.64	9.61	0.89	3.23
	White	48,233	54	38.44	8.33	0.86	3.15
	Female	34,240	54	35.76	9.38	0.88	3.27
	Male	35,887	54	36.75	9.66	0.89	3.23
	LEP	4,918	54	24.95	8.97	0.85	3.44
	FLEP	2,273	54	32.81	8.94	0.86	3.38
	LEPFLEP	7,191	54	27.43	9.68	0.87	3.45
	Plan 504	1,907	54	35.79	8.99	0.87	3.24
	Special Education	12,500	54	29.56	9.75	0.88	3.41
	Title I	23,999	54	30.80	9.47	0.87	3.39
8	All Students	70,481	54	34.04	9.54	0.88	3.28
	Low Income	23,861	54	28.32	9.19	0.87	3.36
	African American	5,685	54	27.19	8.85	0.85	3.37
	Asian	3,650	54	36.74	9.88	0.89	3.27
	Hispanic	9,680	54	26.53	9.27	0.87	3.37
	Multi-race	1,435	54	34.14	9.44	0.88	3.27
	Native American	198	54	30.89	8.95	0.86	3.30
	Pacific Islander/Hawaiian	79	54	33.39	9.17	0.87	3.33
	White	49,730	54	36.09	8.48	0.86	3.20
	Female	34,526	54	33.62	9.37	0.87	3.33
	Male	35,931	54	34.44	9.68	0.89	3.23
	LEP	2,898	54	20.77	8.02	0.83	3.29
	FLEP	1,183	54	27.86	8.90	0.86	3.39
	LEPFLEP	4,081	54	22.82	8.89	0.86	3.35
	Plan 504	1,654	54	34.07	8.68	0.86	3.23
	Special Education	12,008	54	26.51	9.02	0.86	3.32
	Title I	18,265	54	28.36	9.35	0.87	3.37

Table P-4. 2011 MCAS: Subgroup Reliabilities – High School Biology

<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	48,673	60	39.06	11.81	0.91	3.47
Low Income	15,644	60	32.12	11.64	0.91	3.57
African American	3,568	60	31.85	11.20	0.90	3.56
Asian	2,636	60	43.40	12.14	0.92	3.36
Hispanic	6,424	60	29.43	11.68	0.91	3.57
Multi-race	894	60	39.15	11.46	0.91	3.48
Native American	119	60	34.40	11.94	0.91	3.53
Pacific Islander/Hawaiian	59	60	36.78	12.31	0.92	3.49
White	34,891	60	41.29	10.57	0.90	3.38
Female	24,258	60	39.12	11.60	0.91	3.48
Male	24,333	60	39.05	11.99	0.92	3.46
LEP	1,788	60	23.50	10.75	0.89	3.55
FLEP	819	60	29.89	11.19	0.90	3.62
LEPFLEP	2,607	60	25.51	11.28	0.90	3.59
Plan 504	771	60	38.17	10.38	0.89	3.50
Special Education	7,745	60	28.68	11.09	0.90	3.54
Title I	8,175	60	30.90	11.42	0.90	3.55

Table P-5. 2011 MCAS: Subgroup Reliabilities – High School Chemistry

<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	1,231	60	36.82	12.76	0.91	3.77
Low Income	305	60	28.19	11.83	0.90	3.77
African American	131	60	29.42	11.41	0.89	3.77
Asian	89	60	42.60	11.71	0.91	3.58
Hispanic	147	60	26.81	12.53	0.91	3.73
Multi-race	32	60	40.28	11.43	0.89	3.73
Native American	5					
Pacific Islander/Hawaiian	1					
White	821	60	39.11	11.71	0.90	3.67
Female	640	60	36.41	12.04	0.90	3.79
Male	586	60	37.41	13.41	0.92	3.74
LEP	73	60	24.49	11.11	0.89	3.60
FLEP	7					
LEPFLEP	80	60	24.35	11.12	0.90	3.60
Plan 504	21	60	37.33	9.72	0.85	3.77
Special Education	98	60	26.15	11.65	0.90	3.76
Title I	132	60	21.36	8.95	0.84	3.56

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-6. 2011 MCAS: 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	17,405	60	35.78	12.02	0.91	3.60
Low Income	6,128	60	28.71	10.96	0.89	3.62
African American	2,061	60	28.60	10.68	0.89	3.60
Asian	995	60	41.38	11.77	0.92	3.43
Hispanic	2,720	60	26.94	11.04	0.89	3.59
Multi-race	387	60	37.49	12.51	0.92	3.60
Native American	20	60	33.95	12.19	0.92	3.54
Pacific Islander/Hawaiian	26	60	31.04	10.34	0.87	3.69
White	11,183	60	38.71	10.76	0.89	3.51
Female	8,453	60	35.15	11.77	0.91	3.62
Male	8,939	60	36.38	12.21	0.91	3.59
LEP	998	60	23.73	10.99	0.90	3.51
FLEP	222	60	30.92	11.08	0.89	3.63
LEPFLEP	1,220	60	25.04	11.35	0.90	3.56
Plan 504	167	60	35.01	10.71	0.89	3.62
Special Education	2,654	60	26.39	10.75	0.89	3.58
Title I	4,349	60	27.65	11.08	0.89	3.60

Table P-7. 2011 MCAS: 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	1,992	60	35.51	10.76	0.89	3.64
Low Income	700	60	31.05	10.62	0.88	3.70
African American	145	60	29.07	9.55	0.85	3.69
Asian	38	60	38.97	11.35	0.89	3.68
Hispanic	252	60	29.05	10.53	0.88	3.71
Multi-race	18	60	34.89	13.41	0.92	3.67
Native American	3					
Pacific Islander/Hawaiian	0					
White	1,535	60	37.09	10.24	0.88	3.60
Female	669	60	33.11	10.84	0.88	3.70
Male	1,322	60	36.72	10.52	0.88	3.60
LEP	74	60	22.85	9.16	0.85	3.56
FLEP	25	60	26.96	10.55	0.88	3.61
LEPFLEP	99	60	23.89	9.64	0.86	3.58
Plan 504	48	60	39.98	7.80	0.81	3.40
Special Education	570	60	28.98	10.09	0.87	3.69
Title I	468	60	32.71	11.00	0.89	3.67

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-8. 2011 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	8	8	6.54	1.62	0.66	0.95
	LT	33	40	30.15	6.72	0.88	2.32
4	CC	1	8	6.30	1.42		
	CT	1	12	6.50	1.63		
	LA	9	9	7.46	1.75	0.67	1.00
	LT	31	43	28.49	6.98	0.86	2.57
5	LA	8	8	5.81	1.65	0.53	1.14
	LT	32	44	30.04	7.40	0.88	2.55
6	LA	7	7	5.76	1.49	0.66	0.87
	LT	33	45	31.78	7.80	0.89	2.62
7	CC	1	8	6.76	1.17		
	CT	1	12	7.07	1.43		
	LA	5	11	6.83	2.27	0.64	1.36
	LT	35	41	30.54	6.98	0.88	2.39
8	LA	7	7	5.11	1.64	0.60	1.05
	LT	33	45	33.16	7.38	0.87	2.62
10	CC	1	8	6.99	1.24		
	CT	1	12	7.24	1.49		
	LA	7	7	5.71	1.47	0.62	0.91
	LT	33	45	34.09	6.84	0.88	2.42

*Reporting category definitions follow table P-14.

Table P-9. 2011 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	3.44	1.34	0.53	0.92
	ME	5	5	3.66	1.32	0.59	0.84
	NS	13	14	10.32	2.96	0.79	1.37
	PR	7	8	6.38	1.53	0.55	1.03
	SP	7	8	6.31	1.87	0.69	1.04
4	GE	3	6	4.36	1.58	0.44	1.19
	ME	4	7	3.70	1.93	0.46	1.42
	NS	16	19	12.81	4.04	0.78	1.88
	PR	8	11	7.83	2.75	0.60	1.75
	SP	11	11	9.22	2.02	0.71	1.08
5	GE	7	7	4.53	1.78	0.61	1.11
	ME	4	7	4.74	1.89	0.49	1.35
	NS	15	18	12.39	3.82	0.78	1.78
	PR	11	14	10.71	2.77	0.72	1.47
	SP	5	8	5.44	2.30	0.58	1.49
6	GE	7	7	4.97	1.64	0.56	1.09
	ME	4	7	4.08	2.08	0.53	1.43
	NS	15	18	12.89	3.93	0.80	1.77
	PR	11	14	9.96	3.50	0.74	1.77
	SP	5	8	5.59	2.10	0.46	1.54

continued

Grade	Item Reporting Category*	Number of Items	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
7	GE	7	7	5.09	1.70	0.65	1.01
	ME	4	7	4.52	2.07	0.47	1.51
	NS	11	14	9.25	3.33	0.74	1.69
	PR	12	15	10.44	3.21	0.75	1.62
	SP	8	11	7.85	2.84	0.68	1.60
8	GE	4	7	4.16	2.07	0.52	1.43
	ME	7	7	4.76	1.79	0.64	1.07
	NS	11	14	9.30	3.28	0.70	1.79
	PR	12	15	10.50	3.80	0.78	1.78
	SP	8	11	7.75	2.98	0.71	1.60
10	GE	5	8	4.74	1.86	0.46	1.36
	ME	7	10	6.99	2.54	0.60	1.61
	NS	9	12	7.22	3.15	0.69	1.76
	PR	12	18	11.10	4.38	0.75	2.21
	SP	9	12	8.70	2.41	0.65	1.42

* Reporting category definitions follow table P-14.

Table P-10. 2011 MCAS: Reliabilities by Reporting Category by Grade – STE

Grade	Item Reporting Category*	Number of Items	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
5	ES	13	16	10.82	2.86	0.67	1.63
	LS	13	16	10.68	3.26	0.69	1.80
	PS	11	14	9.05	3.15	0.68	1.78
	TE	5	8	5.71	1.67	0.44	1.25
8	ES	11	14	9.15	2.77	0.64	1.66
	LS	11	14	8.75	3.00	0.72	1.59
	PS	10	13	8.13	2.76	0.64	1.65
	TE	10	13	8.01	2.55	0.58	1.66

* Reporting category definitions follow table P-14.

Table P-11. 2011 MCAS: Reliabilities by Reporting Category – High School Biology

Item Reporting Category*	Number of Items	Raw Score			Alpha	SEM
		Maximum	Mean	Standard Deviation		
AP	6	9	6.17	2.15	0.54	1.45
BC	12	15	9.89	3.27	0.68	1.85
EC	9	12	7.21	2.64	0.67	1.52
EV	9	12	7.93	2.66	0.71	1.43
GE	9	12	7.86	2.76	0.70	1.51

* Reporting category definitions follow table P-14.

Table P-12. 2011 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	9	15	9.26	3.74	0.66	2.17
BR	16	19	11.62	4.47	0.81	1.93
SO	8	11	6.29	2.80	0.62	1.72
TH	12	15	9.65	3.12	0.70	1.70

* Reporting category definitions follow table P-14.

Table P-13. 2011 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	8.08	2.61	0.63	1.58
HT	6	9	4.67	2.28	0.59	1.45
MF	18	24	14.44	5.28	0.80	2.34
WV	12	15	8.59	3.21	0.71	1.73

* Reporting category definitions follow table P-14.

Table P-14. 2011 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	7.02	2.54	0.58	1.65
ED	9	12	7.76	2.46	0.57	1.61
EL	12	18	10.06	3.43	0.67	1.96
FL	15	18	10.68	3.95	0.73	2.05

*Reporting category definitions follow this table.

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. 2011 MCAS-Alt: Subgroup Reliabilities – ELA

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	All Students	1,191	26	21.54	1.14	0.69	0.64
	Low Income	611	26	21.70	0.86	0.62	0.53
	African American	134	26	21.85	0.50	0.42	0.38
	Asian	63	26	21.22	1.72	0.77	0.82
	Hispanic	282	26	21.68	0.83	0.53	0.57
	Native American	5					
	White	673	26	21.46	1.24	0.71	0.67
	Pacific Islander/Hawaiian	1					
	Multi-race	31	26	21.32	1.28	0.65	0.75
	Male	808	26	21.55	1.11	0.67	0.64
	Female	381	26	21.52	1.19	0.72	0.63
	Title I	470	26	21.74	0.85	0.64	0.51
	LEP	106	26	21.69	0.96	0.65	0.57
	FLEP	33	26	21.55	0.90	0.48	0.65
	LEPFLEP	139	26	21.65	0.95	0.61	0.59
	Special Education	1,191	26	21.54	1.14	0.69	0.64
	Plan 504	78	26	20.97	1.63	0.71	0.88
4	All Students	1,357	39	31.88	2.50	0.76	1.23
	Low Income	723	39	32.07	2.25	0.74	1.15
	African American	159	39	32.21	2.02	0.79	0.92
	Asian	48	39	32.15	1.66	0.50	1.17
	Hispanic	317	39	32.23	2.07	0.75	1.03
	Native American	4					
	White	793	39	31.70	2.70	0.76	1.33
	Pacific Islander/Hawaiian	4					
	Multi-race	27	39	31.59	2.79	0.77	1.34
	Male	964	39	31.95	2.38	0.71	1.27
	Female	388	39	31.76	2.71	0.81	1.18
	Title I	562	39	32.22	2.17	0.77	1.04
	LEP	124	39	32.31	1.92	0.81	0.83
	FLEP	48	39	32.52	1.38	0.56	0.91
	LEPFLEP	172	39	32.37	1.79	0.79	0.82
	Special Education	1,357	39	31.88	2.50	0.76	1.23
	Plan 504	94	39	31.12	3.09	0.72	1.63
5	All Students	1,321	26	21.59	1.15	0.72	0.61
	Low Income	723	26	21.73	0.88	0.68	0.50
	African American	151	26	21.75	0.79	0.69	0.44
	Asian	45	26	21.40	1.19	0.54	0.81
	Hispanic	322	26	21.63	1.13	0.74	0.57
	Native American	2					
	White	757	26	21.55	1.22	0.72	0.64
	Pacific Islander/Hawaiian	4					
	Multi-race	34	26	21.85	0.70	0.85	0.28
	Male	876	26	21.57	1.11	0.68	0.63
	Female	439	26	21.62	1.21	0.79	0.55
	Title I	525	26	21.76	0.77	0.62	0.47
	LEP	128	26	21.73	1.04	0.77	0.50
	FLEP	50	26	21.58	1.05	0.78	0.50

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
5	LEPFLEP	178	26	21.69	1.04	0.77	0.50
	Special Education	1,321	26	21.59	1.15	0.72	0.61
	Plan 504	91	26	21.57	0.88	0.40	0.69
6	All Students	1,141	26	21.52	1.23	0.71	0.67
	Low Income	590	26	21.67	1.02	0.65	0.60
	African American	140	26	21.49	1.26	0.75	0.63
	Asian	40	26	21.18	1.57	0.73	0.81
	Hispanic	253	26	21.60	1.04	0.66	0.61
	Native American	4					
	White	670	26	21.52	1.24	0.70	0.68
	Pacific Islander/Hawaiian	2					
	Multi-race	32	26	21.22	1.79	0.81	0.79
	Male	753	26	21.55	1.15	0.68	0.65
	Female	388	26	21.46	1.37	0.74	0.69
	Title I	407	26	21.58	1.19	0.73	0.61
	LEP	105	26	21.61	1.00	0.69	0.56
	FLEP	30	26	21.37	1.27	0.58	0.82
	LEPFLEP	135	26	21.56	1.07	0.65	0.63
Special Education	1,141	26	21.52	1.23	0.71	0.67	
Plan 504	96	26	21.61	1.14	0.69	0.63	
7	All Students	1,154	39	31.74	2.63	0.76	1.29
	Low Income	612	39	31.77	2.66	0.72	1.39
	African American	144	39	32.41	1.57	0.66	0.92
	Asian	46	39	31.89	2.58	0.70	1.42
	Hispanic	250	39	31.54	2.83	0.79	1.30
	Native American	2					
	White	686	39	31.67	2.72	0.76	1.33
	Pacific Islander/Hawaiian	2					
	Multi-race	21	39	31.48	3.14	0.87	1.13
	Male	758	39	31.73	2.65	0.75	1.33
	Female	393	39	31.76	2.62	0.78	1.21
	Title I	367	39	31.90	2.45	0.70	1.35
	LEP	106	39	31.60	2.70	0.75	1.35
	FLEP	21	39	32.24	1.84	0.50	1.31
	LEPFLEP	127	39	31.71	2.58	0.72	1.36
Special Education	1,154	39	31.74	2.63	0.76	1.29	
Plan 504	91	39	31.09	3.41	0.68	1.94	
8	All Students	1,049	26	21.60	1.04	0.68	0.59
	Low Income	524	26	21.69	0.85	0.66	0.50
	African American	119	26	21.60	0.98	0.67	0.56
	Asian	45	26	21.69	1.02	0.70	0.56
	Hispanic	232	26	21.66	0.96	0.73	0.50
	Native American	4					
	White	629	26	21.56	1.09	0.66	0.64
	Pacific Islander/Hawaiian	1					
	Multi-race	18	26	21.72	0.96	0.85	0.38
	Male	694	26	21.62	1.02	0.66	0.59
	Female	354	26	21.55	1.09	0.70	0.60
	Title I	300	26	21.74	0.82	0.69	0.46

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
8	LEP	93	26	21.78	0.66	0.63	0.40
	FLEP	18	26	21.56	1.04	0.74	0.53
	LEPFLEP	111	26	21.75	0.73	0.66	0.42
	Special Education	1,049	26	21.60	1.04	0.68	0.59
	Plan 504	61	26	21.48	1.48	0.83	0.61
10	All Students	792	39	30.66	3.54	0.75	1.76
	Low Income	369	39	30.99	3.29	0.67	1.89
	African American	87	39	31.21	3.06	0.72	1.62
	Asian	21	39	29.90	4.40	0.95	0.96
	Hispanic	184	39	30.79	3.39	0.67	1.94
	Native American	1					
	White	478	39	30.55	3.60	0.74	1.83
	Pacific Islander/Hawaiian	1					
	Multi-race	16	39	30.94	3.97	0.73	2.07
	Male	534	39	30.82	3.39	0.70	1.85
	Female	254	39	30.33	3.80	0.80	1.70
	Title I	185	39	31.69	2.74	0.63	1.67
	LEP	72	39	30.96	3.46	0.76	1.69
	FLEP	12	39	32.25	2.30	0.00	2.30
	LEPFLEP	84	39	31.14	3.34	0.76	1.63
	Special Education	792	39	30.66	3.54	0.75	1.76
	Plan 504	99	39	30.54	3.63	0.80	1.63

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. 2011 MCAS-Alt: Subgroup Reliabilities – Mathematics

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	All Students	1,178	26	21.50	1.24	0.69	0.69
	Low Income	591	26	21.65	0.97	0.66	0.56
	African American	129	26	21.81	0.58	0.41	0.45
	Asian	63	26	20.97	1.89	0.67	1.08
	Hispanic	276	26	21.67	0.94	0.61	0.58
	Native American	4					
	White	674	26	21.43	1.33	0.71	0.71
	Pacific Islander/Hawaiian	1					
	Multi-race	29	26	21.55	1.06	0.52	0.73
	Male	791	26	21.52	1.24	0.70	0.69
	Female	385	26	21.47	1.21	0.67	0.69
	Title I	458	26	21.71	0.88	0.61	0.55
	LEP	104	26	21.63	1.07	0.65	0.63
	FLEP	30	26	21.90	0.31	-0.06	0.31
	LEPFLEP	134	26	21.69	0.96	0.64	0.57
	Special Education	1,178	26	21.50	1.24	0.69	0.69
	Plan 504	79	26	20.82	1.85	0.68	1.04
4	All Students	1,271	26	21.55	1.24	0.66	0.72
	Low Income	668	26	21.69	0.98	0.60	0.62

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
4	African American	148	26	21.58	1.15	0.66	0.67
	Asian	41	26	21.68	1.06	0.67	0.61
	Hispanic	304	26	21.71	0.99	0.61	0.61
	Native American	4					
	White	741	26	21.47	1.33	0.67	0.77
	Pacific Islander/Hawaiian	3					
	Multi-race	26	26	21.46	1.45	0.79	0.67
	Male	896	26	21.57	1.17	0.62	0.73
	Female	371	26	21.50	1.39	0.75	0.69
	Title I	525	26	21.73	0.82	0.57	0.54
	LEP	106	26	21.54	1.24	0.61	0.78
	FLEP	49	26	21.80	0.50	0.26	0.43
	LEPFLEP	155	26	21.62	1.06	0.58	0.69
	Special Education Plan 504	1,271	26	21.55	1.24	0.66	0.72
		91	26	21.16	1.49	0.66	0.88
5	All Students	1,321	26	21.60	1.23	0.75	0.62
	Low Income	732	26	21.75	0.90	0.66	0.52
	African American	155	26	21.78	0.76	0.48	0.55
	Asian	43	26	21.49	1.18	0.66	0.69
	Hispanic	318	26	21.64	1.15	0.73	0.60
	Native American	2					
	White	757	26	21.55	1.34	0.77	0.64
	Pacific Islander/Hawaiian	5					
	Multi-race	36	26	21.89	0.46	0.26	0.40
	Male	857	26	21.61	1.13	0.70	0.62
	Female	459	26	21.58	1.40	0.81	0.61
	Title I	527	26	21.77	0.83	0.66	0.49
	LEP	119	26	21.66	1.21	0.71	0.65
	FLEP	52	26	21.77	0.88	0.68	0.50
	LEPFLEP	171	26	21.70	1.12	0.71	0.61
Special Education Plan 504	1,321	26	21.60	1.23	0.75	0.62	
	87	26	21.38	1.11	0.55	0.75	
6	All Students	1,214	26	21.55	1.23	0.70	0.67
	Low Income	637	26	21.65	0.93	0.58	0.60
	African American	148	26	21.51	0.97	0.56	0.64
	Asian	40	26	21.18	1.71	0.76	0.84
	Hispanic	260	26	21.58	1.03	0.67	0.59
	Native American	5					
	White	724	26	21.56	1.32	0.72	0.69
	Pacific Islander/Hawaiian	1					
	Multi-race	35	26	21.57	0.95	0.66	0.55
	Male	794	26	21.58	1.13	0.65	0.67
	Female	419	26	21.49	1.39	0.78	0.66
	Title I	437	26	21.60	1.00	0.64	0.60
	LEP	108	26	21.58	0.96	0.65	0.56
	FLEP	31	26	21.42	0.92	0.28	0.78
	LEPFLEP	139	26	21.55	0.95	0.57	0.62
Special Education Plan 504	1,214	26	21.55	1.23	0.70	0.67	
	101	26	21.26	1.53	0.69	0.85	

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
7	All Students	1,127	26	21.55	1.12	0.67	0.64
	Low Income	596	26	21.67	0.91	0.65	0.53
	African American	144	26	21.70	0.82	0.61	0.51
	Asian	45	26	21.42	1.39	0.59	0.89
	Hispanic	225	26	21.59	1.12	0.75	0.56
	Native American	2					
	White	685	26	21.52	1.15	0.66	0.67
	Pacific Islander/Hawaiian	2					
	Multi-race	22	26	21.32	1.13	0.67	0.65
	Male	730	26	21.55	1.13	0.66	0.65
	Female	395	26	21.55	1.11	0.69	0.61
	Title I	361	26	21.62	0.96	0.66	0.56
	LEP	94	26	21.71	0.96	0.75	0.48
	FLEP	20	26	21.60	0.75	0.46	0.56
	LEPFLEP	114	26	21.69	0.92	0.71	0.50
	Special Education Plan 504	1,127	26	21.55	1.12	0.67	0.64
		87	26	21.38	1.30	0.57	0.85
8	All Students	1,121	26	21.57	1.35	0.74	0.69
	Low Income	553	26	21.67	1.15	0.76	0.57
	African American	125	26	21.65	1.18	0.69	0.66
	Asian	42	26	21.55	1.19	0.68	0.67
	Hispanic	249	26	21.60	1.32	0.78	0.62
	Native American	5					
	White	675	26	21.53	1.40	0.73	0.72
	Pacific Islander/Hawaiian	1					
	Multi-race	22	26	21.64	1.22	0.85	0.48
	Male	747	26	21.55	1.40	0.76	0.69
	Female	372	26	21.61	1.26	0.70	0.69
	Title I	323	26	21.73	1.04	0.75	0.52
	LEP	92	26	21.74	0.96	0.72	0.51
	FLEP	21	26	21.29	2.53	0.92	0.73
	LEPFLEP	113	26	21.65	1.39	0.84	0.55
	Special Education Plan 504	1,121	26	21.57	1.35	0.74	0.69
		79	26	21.20	1.76	0.73	0.91
10	All Students	771	39	30.45	3.71	0.85	1.45
	Low Income	360	39	30.85	3.48	0.76	1.69
	African American	90	39	30.59	3.69	0.75	1.84
	Asian	21	39	29.95	4.84	0.98	0.74
	Hispanic	184	39	30.88	3.47	0.78	1.62
	Native American	1					
	White	457	39	30.23	3.76	0.85	1.47
	Pacific Islander/Hawaiian	0					
	Multi-race	14	39	31.00	3.37		
	Male	509	39	30.60	3.60	0.77	1.71
	Female	258	39	30.13	3.91	0.91	1.19
	Title I	187	39	31.30	3.17	0.72	1.68
	LEP	70	39	31.91	2.69	0.64	1.62
	FLEP	14	39	29.93	3.83		
	LEPFLEP	84	39	31.58	2.98	0.62	1.84

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
10	Special Education	770	39	30.45	3.71	0.85	1.45
	Plan 504	93	39	29.28	4.18	0.90	1.29

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. 2011 MCAS-Alt: Subgroup Reliabilities – STE

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
5	All Students	1,168	39	31.63	2.81	0.88	0.98
	Low Income	655	39	31.82	2.66	0.85	1.03
	African American	139	39	31.85	2.40	0.83	0.98
	Asian	46	39	31.76	2.54	0.68	1.43
	Hispanic	301	39	31.60	2.97	0.88	1.02
	Native American	2					
	White	643	39	31.56	2.85	0.89	0.95
	Pacific Islander/Hawaiian	4					
	Multi-race	28	39	32.21	2.11	0.42	1.62
	Male	781	39	31.65	2.76	0.88	0.97
	Female	382	39	31.56	2.93	0.89	0.98
	Title I	485	39	31.93	2.54	0.80	1.15
	LEP	121	39	31.58	2.94	0.91	0.87
	FLEP	45	39	32.27	2.29	0.55	1.54
	LEPFLEP	166	39	31.77	2.79	0.88	0.98
Special Education	1,168	39	31.63	2.81	0.88	0.98	
Plan 504	84	39	31.26	2.79	0.79	1.27	
8	All Students	973	39	31.60	2.89	0.88	1.00
	Low Income	468	39	31.73	2.72	0.87	0.97
	African American	108	39	31.58	2.90	0.87	1.06
	Asian	46	39	31.65	2.83	0.90	0.89
	Hispanic	218	39	31.66	2.83	0.91	0.84
	Native American	4					
	White	579	39	31.53	2.96	0.87	1.05
	Pacific Islander/Hawaiian	1					
	Multi-race	15	39	32.87	0.35	0.00	0.35
	Male	641	39	31.64	2.88	0.88	0.99
	Female	330	39	31.51	2.92	0.88	1.02
	Title I	287	39	31.88	2.62	0.86	0.97
	LEP	85	39	31.76	2.68	0.89	0.89
	FLEP	19	39	31.84	3.50		
	LEPFLEP	104	39	31.78	2.82	0.91	0.84
Special Education	973	39	31.60	2.89	0.88	1.00	
Plan 504	64	39	31.22	3.26	0.86	1.21	

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. 2011 MCAS-Alt: Subgroup Reliabilities – High School Biology

<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	544	39	30.69	3.50	0.73	1.82
Low Income	261	39	30.67	3.56	0.77	1.69
African American	59	39	30.32	3.39	0.67	1.96
Asian	12	39	30.58	3.20	0.65	1.89
Hispanic	133	39	30.52	3.84	0.83	1.60
Native American	1					
White	324	39	30.84	3.38	0.68	1.92
Pacific Islander/Hawaiian	0					
Multi-race	13	39	30.00	3.92	0.20	3.50
Male	352	39	30.78	3.49	0.66	2.04
Female	190	39	30.51	3.53	0.79	1.61
Title I	130	39	30.95	3.23	0.61	2.02
LEP	54	39	30.24	3.84	0.72	2.02
FLEP	9					
LEPFLEP	63	39	30.51	3.73	0.73	1.94
Special Education	544	39	30.69	3.50	0.73	1.82
Plan 504	58	39	29.84	3.75	0.71	2.02

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. 2011 MCAS-Alt: Subgroup Reliabilities – High School Chemistry

<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	62	39	30.89	3.62	0.87	1.30
Low Income	27	39	31.00	3.71	0.85	1.44
African American	8					
Asian	1					
Hispanic	19	39	30.58	4.60	0.93	1.20
Native American	0					
White	32	39	30.97	3.32	0.70	1.81
Pacific Islander/Hawaiian	0					
Multi-race	2					
Male	34	39	31.24	3.49	0.93	0.90
Female	28	39	30.46	3.80	0.71	2.03
Title I	10	39	31.70	4.11	0.63	2.48
LEP	7					
FLEP	2					
LEPFLEP	9					
Special Education	62	39	30.89	3.62	0.87	1.30
Plan 504	4					

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. 2011 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	60	39	31.40	3.34	0.81	1.44
Low Income	26	39	32.27	2.34	0.69	1.31
African American	5					
Asian	1					
Hispanic	14	39	31.86	2.48	0.86	0.93
Native American	0					
White	38	39	31.34	3.54	0.82	1.51
Pacific Islander/Hawaiian	0					
Multi-race	1					
Male	38	39	31.76	2.78	0.75	1.39
Female	21	39	30.67	4.20	0.84	1.68
Title I	14	39	32.64	3.10	0.77	1.50
LEP	6					
FLEP	0					
LEPFLEP	6					
Special Education	60	39	31.40	3.34	0.81	1.44
Plan 504	9					

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. 2011 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	59	39	30.20	3.60	0.82	1.55
Low Income	13	39	31.31	2.75	0.80	1.22
African American	7					
Asian	1					
Hispanic	5					
Native American	0					
White	45	39	30.13	3.67	0.83	1.53
Pacific Islander/Hawaiian	0					
Multi-race	1					
Male	40	39	30.53	3.64	0.70	2.00
Female	19	39	29.53	3.53	0.84	1.41
Title I	1					
LEP	2					
FLEP	1					
LEPFLEP	3					
Special Education	59	39	30.20	3.60	0.82	1.55
Plan 504	5					

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.