

APPENDIX M

CLASSICAL RELIABILITY

Table M-1. 2017 Next-Generation MCAS and MCAS-Alt Technical Report: Subgroup Reliabilities – ELA

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	All Students	69,805	42	23.64	7.23	0.85	2.81
	Economically Disadvantaged	25,735	42	20.57	7.23	0.84	2.85
	African American	6,082	42	20.61	7.17	0.84	2.87
	Asian	4,859	42	26.82	6.80	0.83	2.78
	Hispanic	14,393	42	20.43	7.31	0.85	2.86
	Multi-Race	2,789	42	24.21	7.27	0.85	2.79
	Native American	159	42	21.44	7.85	0.87	2.84
	Pacific Islander/Hawaiian	46	42	23.20	6.58	0.81	2.84
	White	41,462	42	24.79	6.73	0.83	2.78
	Female	34,087	42	24.60	7.16	0.85	2.82
	Male	35,713	42	22.72	7.19	0.85	2.80
	LEP	8,949	42	18.47	7.12	0.84	2.87
	FLEP	2,291	42	25.62	6.41	0.81	2.82
	LEPFLEP	11,019	42	19.83	7.54	0.85	2.88
	Plan 504	3,427	42	22.47	6.71	0.83	2.80
	Special Education	12,053	42	17.27	6.91	0.83	2.81
	Title I	33,163	42	21.31	7.28	0.85	2.85
4	All Students	6,282	42	23.07	8.08	0.88	2.83
	Economically Disadvantaged	3,216	42	20.78	7.83	0.86	2.90
	African American	902	42	20.63	7.68	0.86	2.89
	Asian	185	42	25.08	7.98	0.89	2.71
	Hispanic	2,312	42	21.36	7.98	0.87	2.89
	Multi-Race	187	42	23.07	7.77	0.87	2.79
	Native American	10	42	26.40	6.02	0.82	2.56
	Pacific Islander/Hawaiian	6					
	White	2,679	42	25.21	7.75	0.87	2.75
	Female	2,890	42	24.09	8.11	0.88	2.81
	Male	3,392	42	22.20	7.95	0.87	2.83
	LEP	1,075	42	17.83	7.37	0.84	2.91
	FLEP	517	42	25.36	6.69	0.82	2.81
	LEPFLEP	1,554	42	20.16	7.99	0.87	2.90
	Plan 504	286	42	23.45	6.85	0.83	2.82
	Special Education	2,397	42	18.37	7.21	0.84	2.88
	Title I	4,019	42	21.51	7.91	0.87	2.88
5	All Students	69,098	46	29.56	7.98	0.88	2.76
	Economically Disadvantaged	23,794	46	25.92	8.31	0.87	2.94
	African American	5,928	46	25.98	8.25	0.87	2.95
	Asian	4,583	46	32.23	7.23	0.87	2.60
	Hispanic	13,613	46	25.90	8.44	0.88	2.95
	Multi-Race	2,465	46	30.04	7.96	0.88	2.74
	Native American	136	46	27.33	8.63	0.89	2.86
	Pacific Islander/Hawaiian	59	46	28.80	8.24	0.88	2.83
	White	42,304	46	30.93	7.28	0.87	2.67
	Female	33,800	46	30.84	7.70	0.88	2.71
	Male	35,296	46	28.33	8.04	0.88	2.78

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
5	LEP	4,983	46	20.94	8.08	0.86	3.07
	FLEP	4,974	46	28.82	6.85	0.83	2.85
	LEPFLEP	9,785	46	24.82	8.48	0.88	3.00
	Plan 504	4,615	46	28.73	7.17	0.85	2.79
	Special Education	12,835	46	21.86	8.01	0.86	2.97
	Title I	28,270	46	26.70	8.25	0.87	2.92
6	All Students	68,908	49	27.56	9.83	0.91	3.02
	Economically Disadvantaged	22,716	49	22.72	9.74	0.90	3.13
	African American	5,869	49	22.94	9.71	0.90	3.12
	Asian	4,534	49	31.99	9.12	0.90	2.88
	Hispanic	12,787	49	22.52	9.95	0.90	3.14
	Multi-Race	2,381	49	28.28	9.91	0.91	3.01
	Native American	154	49	23.86	9.90	0.90	3.10
	Pacific Islander/Hawaiian	47	49	27.43	9.56	0.90	2.98
	White	43,118	49	29.19	9.07	0.89	2.96
	Female	33,708	49	29.37	9.50	0.90	2.99
	Male	35,195	49	25.82	9.83	0.91	3.00
	LEP	4,204	49	15.74	7.97	0.85	3.07
	FLEP	3,499	49	24.89	8.71	0.87	3.14
	LEPFLEP	7,608	49	19.80	9.46	0.89	3.14
Plan 504	4,858	49	26.47	8.84	0.88	3.03	
Special Education	12,494	49	18.19	8.67	0.88	3.03	
Title I	23,803	49	23.84	9.95	0.90	3.13	
7	All Students	70,167	49	30.14	9.42	0.89	3.11
	Economically Disadvantaged	22,224	49	25.48	9.69	0.89	3.28
	African American	5,950	49	25.72	9.58	0.88	3.28
	Asian	4,604	49	34.42	8.18	0.88	2.87
	Hispanic	12,563	49	25.28	9.83	0.89	3.29
	Multi-Race	2,371	49	30.82	9.60	0.90	3.08
	Native American	163	49	27.87	9.28	0.89	3.11
	Pacific Islander/Hawaiian	66	49	31.68	7.06	0.82	2.97
	White	44,443	49	31.63	8.64	0.88	3.03
	Female	34,448	49	32.31	8.76	0.88	3.00
	Male	35,716	49	28.05	9.55	0.89	3.15
	LEP	4,127	49	18.60	8.78	0.86	3.34
	FLEP	2,361	49	27.91	8.45	0.86	3.20
	LEPFLEP	6,409	49	21.93	9.76	0.88	3.34
Plan 504	4,979	49	28.89	8.48	0.86	3.15	
Special Education	12,454	49	20.82	8.90	0.86	3.28	
Title I	21,521	49	26.57	9.67	0.89	3.25	
8	All Students	70,135	49	30.05	9.23	0.89	3.09
	Economically Disadvantaged	21,349	49	25.41	9.59	0.89	3.18
	African American	5,828	49	25.92	9.32	0.89	3.16
	Asian	4,561	49	34.28	8.31	0.87	2.95
	Hispanic	12,191	49	25.20	9.92	0.90	3.20
	Multi-Race	2,190	49	30.57	9.15	0.89	3.10
	Native American	174	49	27.91	10.01	0.90	3.20

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
8	Pacific Islander/Hawaiian	53	49	29.94	9.63	0.89	3.18
	White	45,119	49	31.45	8.40	0.87	3.03
	Female	34,388	49	32.06	8.56	0.88	3.03
	Male	35,738	49	28.11	9.43	0.89	3.09
	LEP	3,995	49	18.41	8.79	0.87	3.14
	FLEP	1,575	49	27.44	8.51	0.86	3.16
	LEPFLEP	5,443	49	20.82	9.61	0.89	3.19
	Plan 504	5,017	49	29.33	8.27	0.86	3.08
	Special Education	12,228	49	20.97	8.96	0.88	3.10
Title I	20,367	49	26.63	9.63	0.89	3.18	

Table M-2. 2017 Next-Generation MCAS and MCAS-Alt Technical Report: Subgroup Reliabilities – Mathematics (Paper)

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	All Students	45,877	48	28.93	10.90	0.92	3.00
	Economically Disadvantaged	18,384	48	24.29	10.74	0.92	3.08
	African American	4,377	48	24.22	10.70	0.92	3.06
	Asian	3,431	48	35.76	9.40	0.92	2.71
	Hispanic	11,126	48	24.26	10.72	0.92	3.08
	Multi-Race	1,774	48	29.90	11.01	0.93	2.97
	Native American	92	48	26.58	11.11	0.93	3.02
	Pacific Islander/Hawaiian	34	48	29.18	9.26	0.89	3.07
	White	25,023	48	30.83	10.09	0.91	2.95
	Female	22,184	48	28.87	10.76	0.92	3.00
	Male	23,686	48	28.98	11.03	0.93	2.99
	LEP	7,568	48	23.00	10.47	0.91	3.08
	FLEP	1,602	48	33.36	9.82	0.91	2.88
	LEPFLEP	9,013	48	24.67	11.05	0.92	3.07
	Plan 504	2,217	48	27.33	10.67	0.92	3.03
	Special Education	9,116	48	20.51	10.25	0.91	3.06
	Title I	22,325	48	25.40	10.84	0.92	3.07
4	All Students	10,473	54	23.91	11.87	0.92	3.37
	Economically Disadvantaged	5,593	54	21.14	10.91	0.91	3.28
	African American	1,382	54	19.92	10.50	0.90	3.26
	Asian	431	54	30.91	12.14	0.92	3.41
	Hispanic	3,849	54	22.14	11.11	0.91	3.29
	Multi-Race	300	54	22.59	11.77	0.92	3.34
	Native American	27	54	24.07	9.29	0.86	3.46
	Pacific Islander/Hawaiian	10	54	13.70	6.70	0.82	2.82
	White	4,469	54	26.11	12.17	0.92	3.42
	Female	4,753	54	24.18	11.76	0.92	3.38
	Male	5,718	54	23.69	11.96	0.92	3.35
	LEP	2,995	54	20.74	10.43	0.90	3.22
	FLEP	720	54	29.28	11.08	0.91	3.41
	LEPFLEP	3,604	54	22.16	11.01	0.91	3.29

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
4	Plan 504	477	54	24.67	10.99	0.91	3.36
	Special Education	4,697	54	18.55	9.70	0.89	3.18
	Title I	6,744	54	22.07	11.15	0.91	3.31
5	All Students	42,491	54	29.88	12.10	0.91	3.54
	Economically Disadvantaged	16,465	54	24.58	11.06	0.90	3.51
	African American	4,080	54	24.27	10.91	0.90	3.48
	Asian	2,837	54	38.14	11.62	0.92	3.31
	Hispanic	10,298	54	24.59	11.10	0.90	3.51
	Multi-race	1,562	54	30.35	12.67	0.92	3.51
	Native American	73	54	27.19	12.49	0.92	3.50
	Pacific Islander/Hawaiian	37	54	31.16	11.26	0.90	3.64
	White	23,591	54	32.15	11.43	0.91	3.52
	Female	20,732	54	30.24	11.85	0.91	3.55
	Male	21,751	54	29.54	12.32	0.92	3.52
	LEP	4,164	54	20.18	9.79	0.88	3.40
	FLEP	3,445	54	29.37	10.94	0.90	3.52
	LEPFLEP	7,494	54	24.28	11.29	0.90	3.50
	6	Plan 504	2,832	54	28.39	10.82	0.89
Special Education		9,201	54	20.43	9.96	0.88	3.42
Title I		19,267	54	25.64	11.30	0.90	3.51
All Students		41,410	54	26.02	13.15	0.92	3.72
Economically Disadvantaged		15,374	54	19.62	11.27	0.91	3.47
African American		4,101	54	19.37	11.13	0.90	3.45
Asian		2,938	54	36.43	12.93	0.92	3.65
Hispanic		9,394	54	19.34	11.18	0.91	3.44
Multi-Race		1,462	54	27.21	13.82	0.93	3.74
Native American		82	54	20.85	12.63	0.92	3.54
Pacific Islander/Hawaiian		32	54	29.00	13.47	0.92	3.80
White		23,379	54	28.51	12.43	0.91	3.75
Female		20,044	54	26.31	12.89	0.92	3.74
Male		21,355	54	25.75	13.37	0.92	3.70
7		LEP	3,535	54	14.22	9.27	0.89
	FLEP	2,439	54	23.48	11.37	0.90	3.60
	LEPFLEP	5,898	54	17.90	11.09	0.91	3.38
	Plan 504	2,747	54	24.26	11.64	0.90	3.65
	Special Education	8,784	54	15.24	9.76	0.89	3.23
	Title I	16,400	54	21.13	11.79	0.91	3.54
	All Students	41,934	54	24.26	12.58	0.93	3.42
	Economically Disadvantaged	14,920	54	17.72	10.01	0.90	3.11
	African American	4,009	54	17.48	9.59	0.90	3.08
	Asian	2,938	54	34.27	12.82	0.92	3.59
	Hispanic	9,204	54	17.43	10.02	0.90	3.09
	Multi-Race	1,484	54	25.94	13.48	0.93	3.51
	Native American	83	54	21.84	11.91	0.92	3.39
	Pacific Islander/Hawaiian	40	54	27.08	13.00	0.93	3.45
	White	24,167	54	26.67	12.06	0.92	3.47
Female	20,367	54	24.67	12.35	0.92	3.42	
Male	21,564	54	23.87	12.78	0.93	3.42	

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
7	LEP	3,384	54	12.77	7.56	0.86	2.81
	FLEP	1,618	54	21.36	10.93	0.91	3.28
	LEPFLEP	4,948	54	15.53	9.68	0.90	3.00
	Plan 504	2,763	54	22.64	10.96	0.91	3.35
	Special Education	8,556	54	13.94	8.43	0.88	2.90
	Title I	14,390	54	19.09	10.68	0.91	3.18
	All Students	6,960	54	19.27	11.13	0.91	3.27
	Economically Disadvantaged	3,774	54	16.55	9.38	0.89	3.11
	African American	887	54	16.50	9.34	0.89	3.13
	Asian	361	54	30.58	13.78	0.93	3.57
	Hispanic	2,707	54	16.60	9.31	0.89	3.12
	Multi-Race	173	54	21.51	12.24	0.93	3.35
	Native American	24	54	22.21	12.34	0.92	3.46
	Pacific Islander/Hawaiian	3					
8	White	2,790	54	21.16	11.50	0.92	3.34
	Female	3,048	54	20.40	11.44	0.92	3.33
	Male	3,910	54	18.39	10.81	0.91	3.22
	LEP	1,583	54	14.25	7.71	0.85	2.96
	FLEP	242	54	22.06	10.31	0.89	3.36
	LEPFLEP	1,796	54	15.12	8.41	0.87	3.02
	Plan 504	364	54	22.74	11.19	0.91	3.36
	Special Education	3,130	54	14.35	7.83	0.86	2.97
	Title I	4,414	54	19.58	11.47	0.92	3.29

Table M-3. 2017 Next-Generation MCAS and MCAS-Alt Technical Report: Subgroup Reliabilities – Mathematics (Online)

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	All Students	24,029	48	29.03	10.42	0.92	3.02
	Economically Disadvantaged	7,419	48	24.35	10.51	0.91	3.08
	African American	1,717	48	23.42	10.42	0.91	3.06
	Asian	1,435	48	34.79	9.42	0.91	2.80
	Hispanic	3,299	48	25.36	10.69	0.92	3.08
	Multi-race	1,017	48	28.18	10.98	0.92	3.02
	Native American	68	48	25.31	10.61	0.91	3.10
	Pacific Islander/Hawaiian	12	48	25.92	9.92	0.92	2.87
	White	16,479	48	29.92	9.94	0.91	3.00
	Female	11,930	48	28.78	10.33	0.91	3.03
	Male	12,099	48	29.28	10.51	0.92	3.01
	LEP	1,422	48	24.00	10.75	0.92	3.07

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	FLEP	690	48	30.35	10.45	0.92	2.98
	LEPFLEP	2,045	48	26.03	11.09	0.92	3.05
	Plan 504	1,217	48	26.71	10.35	0.91	3.05
	Special Education	2,971	48	20.57	10.79	0.92	3.05
	Title I	10,874	48	26.35	10.67	0.92	3.07
4	All Students	59,748	54	32.71	11.17	0.91	3.33
	Economically Disadvantaged	19,563	54	27.48	10.94	0.91	3.35
	African American	4,640	54	26.63	10.81	0.90	3.34
	Asian	4,378	54	39.62	9.92	0.90	3.13
	Hispanic	10,423	54	27.80	11.05	0.91	3.34
	Multi-Race	2,360	54	32.91	11.76	0.92	3.32
	Native American	120	54	29.10	11.30	0.91	3.37
	Pacific Islander/Hawaiian	40	54	34.40	11.09	0.91	3.32
	White	37,782	54	34.00	10.49	0.90	3.30
	Female	29,769	54	32.73	11.02	0.91	3.34
	Male	29,976	54	32.68	11.31	0.91	3.32
	LEP	3,302	54	24.34	10.99	0.91	3.30
	FLEP	3,721	54	32.63	10.44	0.90	3.31
	LEPFLEP	6,886	54	28.68	11.48	0.92	3.35
	Plan 504	3,768	54	30.15	10.62	0.90	3.35
Special Education	8,057	54	22.82	10.89	0.91	3.29	
Title I	25,671	54	29.08	11.05	0.91	3.35	
5	All Students	26,635	54	31.35	11.28	0.90	3.51
	Economically Disadvantaged	7,336	54	25.46	10.59	0.89	3.50
	African American	1,849	54	25.22	10.20	0.88	3.48
	Asian	1,752	54	38.27	11.09	0.91	3.30
	Hispanic	3,340	54	25.83	10.79	0.89	3.50
	Multi-Race	903	54	32.13	11.81	0.91	3.49
	Native American	62	54	28.10	9.52	0.86	3.50
	Pacific Islander/Hawaiian	22	54	27.14	11.04	0.89	3.61
	White	18,703	54	32.27	10.81	0.90	3.50
	Female	13,063	54	31.39	11.03	0.90	3.53
	Male	13,572	54	31.31	11.52	0.91	3.47
	LEP	847	54	22.60	10.30	0.89	3.43
	FLEP	1,528	54	28.74	10.67	0.89	3.51
	LEPFLEP	2,316	54	26.39	10.87	0.90	3.49
	Plan 504	1,777	54	28.68	10.64	0.89	3.49
Special Education	3,612	54	21.20	10.09	0.89	3.38	
Title I	9,034	54	27.06	10.86	0.90	3.51	
6	All Students	27,468	54	28.24	12.17	0.91	3.66
	Economically Disadvantaged	7,324	54	21.43	11.24	0.90	3.49
	African American	1,785	54	20.37	10.74	0.90	3.43
	Asian	1,605	54	35.87	11.99	0.91	3.57
	Hispanic	3,380	54	21.71	11.52	0.91	3.50
	Multi-Race	913	54	27.96	12.46	0.91	3.64
	Native American	71	54	23.00	11.53	0.91	3.51
	Pacific Islander/Hawaiian	15	54	22.00	12.86	0.91	3.76
	White	19,690	54	29.50	11.60	0.90	3.65

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
6	Female	13,601	54	28.26	11.99	0.91	3.68
	Male	13,865	54	28.22	12.34	0.91	3.63
	LEP	690	54	15.54	9.79	0.89	3.19
	FLEP	1,056	54	23.98	11.95	0.91	3.54
	LEPFLEP	1,725	54	20.55	11.82	0.91	3.45
	Plan 504	2,105	54	26.09	11.48	0.90	3.59
	Special Education	3,669	54	16.76	10.28	0.90	3.30
	Title I	7,398	54	23.29	11.74	0.91	3.54
	All Students	28,206	54	25.57	12.00	0.92	3.39
	Economically Disadvantaged	7,272	54	19.29	10.58	0.91	3.12
7	African American	1,944	54	18.93	10.20	0.91	3.07
	Asian	1,669	54	33.95	12.49	0.92	3.54
	Hispanic	3,359	54	19.28	10.72	0.92	3.12
	Multi-Race	884	54	25.63	12.86	0.93	3.42
	Native American	81	54	20.80	12.18	0.93	3.25
	Pacific Islander/Hawaiian	26	54	22.31	11.21	0.91	3.36
	White	20,240	54	26.59	11.54	0.91	3.41
	Female	14,043	54	25.85	11.82	0.92	3.38
	Male	14,162	54	25.30	12.18	0.92	3.40
	LEP	770	54	14.88	9.36	0.91	2.83
FLEP	743	54	21.12	10.72	0.91	3.17	
LEPFLEP	1,488	54	17.83	10.46	0.92	3.02	
Plan 504	2,211	54	22.78	10.82	0.91	3.30	
Special Education	3,849	54	14.56	8.96	0.90	2.87	
Title I	7,125	54	20.73	11.10	0.92	3.18	
8	All Students	63,102	54	30.10	11.73	0.91	3.48
	Economically Disadvantaged	17,527	54	23.89	10.78	0.90	3.37
	African American	4,948	54	23.10	10.61	0.90	3.38
	Asian	4,194	54	38.27	11.33	0.91	3.35
	Hispanic	9,470	54	24.24	11.05	0.91	3.39
	Multi-Race	2,008	54	30.38	12.27	0.92	3.51
	Native American	146	54	25.92	11.33	0.91	3.45
	Pacific Islander/Hawaiian	50	54	28.22	9.56	0.86	3.54
	White	42,275	54	31.43	11.07	0.90	3.47
	Female	31,318	54	30.46	11.52	0.91	3.50
Male	31,775	54	29.75	11.92	0.92	3.47	
LEP	2,429	54	18.12	9.36	0.88	3.18	
FLEP	1,326	54	26.44	11.16	0.90	3.44	
LEPFLEP	3,657	54	20.96	10.78	0.91	3.30	
Plan 504	4,657	54	28.29	10.87	0.90	3.45	
Special Education	9,031	54	19.11	9.41	0.88	3.20	
Title I	15,948	54	25.77	11.20	0.91	3.42	

Table M-4. 2017 Next-Generation MCAS and MCAS-Alt Technical Report: Reliabilities by Reporting Category by Grade – ELA

Grade	Item Reporting Category*	Number of Items	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	1	7	11	5.60	2.24	0.64	1.34
	2	18	24	15.42	4.58	0.75	2.27
	3	2	7	2.61	1.32	0.58	0.86
4	1	7	12	7.04	2.76	0.73	1.43
	2	18	23	13.17	4.65	0.77	2.22
	3	2	7	2.85	1.45	0.65	0.86
5	1	8	15	9.15	3.04	0.70	1.67
	2	17	20	15.31	3.80	0.77	1.81
	3	3	11	5.09	2.05	0.75	1.03
6	1	5	11	6.44	2.62	0.73	1.37
	2	20	24	15.86	5.65	0.85	2.20
	3	3	14	5.26	2.61	0.79	1.19
7	1	6	12	7.72	2.93	0.75	1.46
	2	19	23	15.80	4.73	0.78	2.20
	3	3	14	6.62	2.77	0.81	1.21
8	1	6	13	8.44	2.89	0.70	1.59
	2	19	22	15.47	4.51	0.79	2.08
	3	3	14	6.13	2.83	0.83	1.18

* Reporting categories on page 12

Table M-5. 2017 Next-Generation MCAS and MCAS-Alt Technical Report: Reliabilities by Reporting Category by Grade – Mathematics (Paper)

Grade	Item Reporting Category*	Number of Items	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	1	5	5	2.93	1.37	0.47	1.00
	2	9	12	7.22	3.02	0.71	1.62
	3	6	7	4.48	1.96	0.74	1.00
	4	7	8	4.53	2.09	0.70	1.14
	5	13	16	9.76	4.16	0.83	1.70
4	1	7	7	3.25	1.89	0.66	1.11
	2	6	11	4.20	2.98	0.68	1.69
	3	10	11	6.46	2.97	0.79	1.35
	4	10	12	6.03	2.85	0.73	1.48
	5	7	13	3.98	3.10	0.70	1.71
5	1	5	6	4.34	1.57	0.57	1.03
	2	5	11	4.21	3.20	0.72	1.69
	3	8	13	6.91	3.58	0.73	1.87
	4	12	14	7.90	3.34	0.75	1.67
	5	10	10	6.52	2.36	0.71	1.28
6	1	12	16	9.01	4.03	0.76	1.97
	2	4	8	3.16	2.47	0.58	1.60

continued

Grade	Item Reporting Category*	Number of Items	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
6	3	4	11	4.25	3.46	0.78	1.62
	4	8	9	5.61	2.10	0.64	1.27
	5	6	10	4.00	2.74	0.68	1.56
7	1	8	11	4.73	2.80	0.68	1.58
	2	6	11	4.38	2.89	0.73	1.49
	3	5	11	3.98	2.70	0.68	1.52
	4	8	9	5.03	2.34	0.72	1.23
	5	7	12	6.14	3.36	0.72	1.78
8	1	9	16	4.19	3.70	0.80	1.68
	2	8	14	5.14	3.08	0.65	1.83
	3	9	16	5.69	3.64	0.78	1.72
	4	5	5	2.89	1.50	0.61	0.94
	5	3	3	1.36	0.87	0.25	0.75

* Reporting categories on page 12

Table M-6. 2017 Next-Generation MCAS and MCAS-Alt Technical Report: Reliabilities by Reporting Category by Grade – Mathematics (Online)

Grade	Item Reporting Category*	Number of Items	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	1	5	5	2.97	1.35	0.45	1.00
	2	9	12	6.98	3.01	0.70	1.65
	3	6	7	4.24	1.84	0.70	1.00
	4	7	8	4.71	2.07	0.69	1.15
	5	13	16	10.14	3.92	0.81	1.70
4	1	7	7	4.45	1.92	0.70	1.06
	2	6	11	6.04	2.88	0.68	1.63
	3	10	11	8.18	2.46	0.75	1.23
	4	10	12	7.93	2.47	0.68	1.40
	5	7	13	6.10	3.35	0.69	1.85
5	1	5	6	4.47	1.49	0.58	0.97
	2	5	11	4.43	3.08	0.70	1.68
	3	8	13	7.19	3.43	0.70	1.87
	4	12	14	8.34	3.22	0.73	1.66
	5	10	10	6.92	2.15	0.66	1.25
6	1	12	16	10.04	3.84	0.76	1.87
	2	4	8	3.26	2.35	0.53	1.61
	3	4	11	5.12	3.24	0.74	1.64
	4	8	9	5.70	1.96	0.59	1.26
	5	6	10	4.12	2.57	0.65	1.52
7	1	8	11	4.92	2.88	0.71	1.55
	2	6	11	4.48	2.71	0.70	1.48
	3	5	11	4.26	2.58	0.64	1.54
	4	8	9	5.57	2.37	0.72	1.25
	5	7	12	6.34	3.06	0.67	1.75
8	1	9	16	7.21	4.14	0.77	1.98

continued

Grade	Item Reporting Category*	Number of Items	Raw Score			Alpha	SEM
			<i>Maximum</i>	<i>Mean</i>	<i>Standard Deviation</i>		
8	2	8	14	7.53	3.33	0.67	1.90
	3	9	16	9.73	3.83	0.78	1.79
	4	5	5	3.83	1.22	0.55	0.82
	5	3	3	1.80	0.86	0.33	0.70

* Reporting categories on page 12

2017 Next-Generation MCAS and MCAS-Alt Reporting Categories

Subject	Grade	RepCat	Sort Order	Student Report Text (RepCat Text)
ELA	3–8		1	Reading
			2	Writing
			3	Language
Mathematics	3–5		1	Geometry
			2	Measurement & Data
			3	Number & Operations in Base Ten
			4	Number & Operations - Fractions
			5	Operations and Algebraic Thinking
Mathematics	6–8		1	Expressions and Equations
			2	Geometry
			3	Ratios and Proportional Relationships
			4	Statistics and Probability
			5	The Number System
Science	3–8		1	Earth and Space Science
			2	Life Science
			3	Physical Science
			4	Technology / Engineering

Table M-7. 2017 Next-Generation MCAS and MCAS-Alt Technical Report: Subgroup Reliabilities – Alt/ELA

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM	
			Maximum	Mean	Standard Deviation			
3	All Students	1,158	39	29.13	3.39	0.63	2.07	
	Economically Disadvantaged	764	39	29.27	3.39	0.67	1.95	
	African American	147	39	29.34	3.30	0.48	2.37	
	Asian	72	39	28.68	3.39	0.67	1.95	
	Hispanic	362	39	29.48	3.24	0.67	1.87	
	Multi-Race	49	39	29.59	2.76	0.35	2.22	
	Native American	4						
	Pacific Islander/Hawaiian	0						
	White	522	39	28.83	3.55	0.63	2.16	
	Female	350	39	29.39	3.04	0.66	1.77	
	Male	808	39	29.01	3.52	0.61	2.20	
	LEP	156	39	29.78	2.87	0.58	1.87	
	FLEP	28	39	29.86	3.11	0.71	1.68	
	LEPFLEP	184	39	29.79	2.90	0.6	1.83	
	Plan 504	7						
	Special Education	1,158	39	29.13	3.39	0.63	2.07	
	Title I	599	39	29.49	3.13	0.54	2.13	
	4	All Students	1,161	39	29.57	3.36	0.62	2.06
		Economically Disadvantaged	725	39	29.55	3.42	0.66	2.00
African American		174	39	30.04	3.07	0.55	2.05	
Asian		58	39	29.59	2.72	0.56	1.81	
Hispanic		334	39	29.82	3.18	0.63	1.93	
Multi-Race		45	39	29.07	3.88	0.63	2.37	
Native American		5						
Pacific Islander/Hawaiian		0						
White		544	39	29.32	3.53	0.64	2.12	
Female		375	39	29.27	3.46	0.63	2.10	
Male		786	39	29.70	3.30	0.62	2.04	
LEP		142	39	30.32	2.48	0.60	1.57	
FLEP		34	39	30.74	2.48	0.43	1.86	
LEPFLEP		176	39	30.40	2.48	0.59	1.58	
Plan 504		12	39	30.92	1.08	0.09	1.04	
Special Education		1,161	39	29.57	3.36	0.62	2.06	
Title I		617	39	30.04	3.04	0.59	1.96	
5		All Students	1,226	39	29.50	3.35	0.61	2.10
		Economically Disadvantaged	730	39	29.59	3.34	0.62	2.07
	African American	178	39	29.66	3.50	0.62	2.17	
	Asian	68	39	29.50	3.03	0.55	2.03	
	Hispanic	335	39	29.70	3.27	0.63	1.98	
	Multi-Race	41	39	30.39	2.40	0.62	1.48	
	Native American	7						
	Pacific Islander/Hawaiian	3						
	White	594	39	29.27	3.43	0.58	2.22	
	Female	391	39	29.56	3.29	0.59	2.10	
	Male	835	39	29.47	3.38	0.61	2.10	

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
5	LEP	140	39	29.68	3.52	0.50	2.49
	FLEP	30	39	30.60	2.54	0.76	1.23
	LEPFLEP	170	39	29.84	3.38	0.57	2.22
	Plan 504	9					
	Special Education	1,226	39	29.50	3.35	0.61	2.10
	Title I	593	39	29.87	3.25	0.58	2.11
6	All Students	1,092	39	29.60	3.29	0.63	1.99
	Economically Disadvantaged	643	39	29.60	3.31	0.67	1.90
	African American	158	39	29.66	3.14	0.63	1.92
	Asian	56	39	29.57	3.40	0.29	2.87
	Hispanic	304	39	29.86	3.19	0.62	1.97
	Multi-Race	35	39	29.43	4.10	0.73	2.14
	Native American	1					
	Pacific Islander/Hawaiian	1					
	White	536	39	29.44	3.31	0.64	1.99
	Female	397	39	29.81	3.16	0.58	2.04
	Male	695	39	29.48	3.35	0.65	1.98
	LEP	123	39	30.09	3.05	0.68	1.72
	FLEP	26	39	29.77	3.33	0.64	1.99
	LEPFLEP	149	39	30.03	3.09	0.68	1.76
Plan 504	10	39	30.10	2.85	0.81	1.24	
Special Education	1,092	39	29.60	3.29	0.63	1.99	
Title I	499	39	30.04	3.10	0.62	1.90	
7	All Students	1,022	39	29.55	3.37	0.63	2.05
	Economically Disadvantaged	601	39	29.45	3.54	0.68	2.00
	African American	131	39	29.85	3.41	0.47	2.49
	Asian	55	39	29.76	2.99	0.56	1.97
	Hispanic	262	39	29.87	3.16	0.63	1.91
	Multi-Race	31	39	29.61	3.08	0.68	1.74
	Native American	1					
	Pacific Islander/Hawaiian	3					
	White	538	39	29.29	3.50	0.65	2.08
	Female	346	39	29.69	3.18	0.67	1.83
	Male	676	39	29.48	3.46	0.61	2.17
	LEP	102	39	30.23	3.36	0.60	2.12
	FLEP	25	39	30.56	2.66	0.46	1.96
	LEPFLEP	127	39	30.29	3.23	0.57	2.11
Plan 504	13	39	29.00	3.49	0.81	1.51	
Special Education	1,022	39	29.55	3.37	0.63	2.05	
Title I	380	39	30.01	3.14	0.67	1.80	
8	All Students	1,041	39	29.54	3.46	0.67	1.98
	Economically Disadvantaged	590	39	29.56	3.52	0.72	1.87
	African American	155	39	29.89	3.45	0.66	2.00
	Asian	54	39	29.98	2.94	0.47	2.13
	Hispanic	262	39	29.99	3.25	0.70	1.78
	Multi-Race	21	39	28.90	3.51	0.37	2.78
	Native American	2					

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
8	Pacific Islander/Hawaiian	2					
	White	544	39	29.20	3.56	0.67	2.03
	Female	325	39	29.48	3.56	0.74	1.80
	Male	716	39	29.57	3.41	0.62	2.10
	LEP	108	39	29.99	3.13	0.71	1.67
	FLEP	18	39	29.56	4.02	0.49	2.87
	LEPFLEP	126	39	29.93	3.25	0.70	1.78
	Plan 504	9					
	Special Education	1,041	39	29.54	3.46	0.67	1.98
	Title I	394	39	30.31	3.11	0.68	1.75
10	All Students	821	39	29.02	3.47	0.64	2.08
	Economically Disadvantaged	453	39	29.08	3.54	0.69	1.96
	African American	135	39	29.79	2.85	0.63	1.73
	Asian	35	39	29.57	2.79	0.45	2.06
	Hispanic	199	39	28.84	3.67	0.67	2.11
	Multi-Race	17	39	27.94	4.05	0.40	3.14
	Native American	2					
	Pacific Islander/Hawaiian	2					
	White	431	39	28.85	3.54	0.64	2.12
	Female	254	39	28.87	3.59	0.65	2.12
	Male	567	39	29.08	3.41	0.63	2.07
	LEP	82	39	29.49	3.27	0.65	1.94
	FLEP	17	39	30.29	2.26	0.37	1.79
	LEPFLEP	99	39	29.63	3.13	0.63	1.89
	Plan 504	7					
Special Education	821	39	29.02	3.47	0.64	2.08	
Title I	226	39	29.62	3.17	0.65	1.87	

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 M-8. 2017 Next-Generation MCAS and MCAS-Alt Technical Report: Subgroup Reliabilities – Alt/Mathematics

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	All Students	1,039	26	21.43	1.20	0.63	0.73
	Economically Disadvantaged	682	26	21.47	1.22	0.65	0.72
	African American	133	26	21.64	0.85	0.51	0.59
	Asian	59	26	21.02	1.68	0.70	0.91
	Hispanic	324	26	21.52	1.11	0.65	0.65
	Multi-Race	47	26	21.47	1.14	0.49	0.82
	Native American	4					
	Pacific Islander/Hawaiian	0					
	White	470	26	21.36	1.27	0.62	0.78
	Female	322	26	21.45	1.17	0.61	0.74
	Male	717	26	21.43	1.22	0.64	0.73

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
3	LEP	137	26	21.75	0.63	0.47	0.46
	FLEP	25	26	21.44	1.00	0.50	0.71
	LEPFLEP	162	26	21.70	0.70	0.49	0.50
	Plan 504	6					
	Special Education	1,039	26	21.43	1.20	0.63	0.73
	Title I	544	26	21.66	0.80	0.51	0.56
4	All Students	1,098	26	21.52	1.15	0.67	0.66
	Economically Disadvantaged	682	26	21.51	1.18	0.68	0.67
	African American	161	26	21.62	1.02	0.58	0.66
	Asian	51	26	21.59	0.85	0.56	0.57
	Hispanic	310	26	21.56	1.22	0.72	0.65
	Multi-Race	40	26	21.38	1.27	0.68	0.72
	Native American	6					
	Pacific Islander/Hawaiian	0					
	White	529	26	21.47	1.17	0.66	0.68
	Female	356	26	21.40	1.21	0.65	0.71
	Male	742	26	21.58	1.12	0.67	0.64
	LEP	130	26	21.60	1.17	0.77	0.57
	FLEP	32	26	21.97	1.03	0.73	0.53
	LEPFLEP	162	26	21.67	1.15	0.77	0.56
	Plan 504	8					
Special Education	1,098	26	21.52	1.15	0.67	0.66	
Title I	580	26	21.66	1.02	0.66	0.59	
5	All Students	1,118	26	21.48	1.20	0.65	0.71
	Economically Disadvantaged	647	26	21.51	1.14	0.66	0.67
	African American	159	26	21.62	1.04	0.66	0.60
	Asian	66	26	21.35	1.22	0.54	0.83
	Hispanic	297	26	21.56	1.01	0.56	0.67
	Multi-Race	41	26	21.83	0.67	0.75	0.34
	Native American	6					
	Pacific Islander/Hawaiian	3					
	White	546	26	21.41	1.26	0.65	0.75
	Female	358	26	21.48	1.16	0.65	0.69
	Male	760	26	21.49	1.22	0.65	0.72
	LEP	121	26	21.76	0.70	0.55	0.47
	FLEP	29	26	21.69	0.89	0.75	0.44
	LEPFLEP	150	26	21.75	0.73	0.60	0.46
	Plan 504	9					
Special Education	1,118	26	21.48	1.20	0.65	0.71	
Title I	523	26	21.69	0.87	0.59	0.56	
6	All Students	1,017	26	21.45	1.21	0.65	0.72
	Economically Disadvantaged	605	26	21.47	1.28	0.72	0.68
	African American	142	26	21.39	1.23	0.70	0.67
	Asian	50	26	21.76	0.59	0.28	0.50
	Hispanic	280	26	21.63	0.97	0.61	0.61
	Multi-Race	32	26	21.16	1.83	0.85	0.72
	Native American	2					

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
6	Pacific Islander/Hawaiian	1					
	White	509	26	21.36	1.29	0.62	0.80
	Female	386	26	21.55	1.09	0.68	0.62
	Male	631	26	21.39	1.28	0.64	0.77
	LEP	107	26	21.62	1.12	0.64	0.68
	FLEP	25	26	21.76	0.88	0.84	0.35
	LEPFLEP	132	26	21.64	1.08	0.65	0.63
	Plan 504	10	26	21.00	2.16	0.86	0.82
	Special Education	1,017	26	21.45	1.21	0.65	0.72
	Title I	461	26	21.68	0.88	0.61	0.55
7	All Students	963	26	21.42	1.21	0.61	0.76
	Economically Disadvantaged	553	26	21.37	1.27	0.64	0.76
	African American	125	26	21.74	0.74	0.62	0.46
	Asian	51	26	21.41	1.17	0.48	0.85
	Hispanic	238	26	21.47	1.15	0.63	0.69
	Multi-Race	32	26	21.31	1.26	0.55	0.84
	Native American	1					
	Pacific Islander/Hawaiian	3					
	White	512	26	21.33	1.32	0.60	0.83
	Female	330	26	21.35	1.30	0.64	0.78
Male	633	26	21.46	1.16	0.58	0.75	
LEP	94	26	21.73	0.78	0.66	0.45	
FLEP	24	26	21.67	0.56	0.10	0.54	
LEPFLEP	118	26	21.72	0.74	0.59	0.47	
Plan 504	10	26	21.10	1.37	0.53	0.94	
Special Education	963	26	21.42	1.21	0.61	0.76	
Title I	354	26	21.62	0.98	0.56	0.65	
8	All Students	951	26	21.41	1.27	0.62	0.78
	Economically Disadvantaged	539	26	21.38	1.36	0.67	0.78
	African American	146	26	21.45	1.20	0.61	0.75
	Asian	46	26	21.41	1.15	0.49	0.82
	Hispanic	238	26	21.55	1.15	0.68	0.65
	Multi-Race	19	26	21.53	1.54	0.73	0.80
	Native American	1					
	Pacific Islander/Hawaiian	1					
	White	499	26	21.32	1.33	0.61	0.83
	Female	301	26	21.34	1.37	0.68	0.77
Male	650	26	21.44	1.21	0.59	0.78	
LEP	101	26	21.50	1.35	0.78	0.63	
FLEP	18	26	21.83	0.51	0.47	0.37	
LEPFLEP	119	26	21.55	1.26	0.77	0.60	
Plan 504	9						
Special Education	951	26	21.41	1.27	0.62	0.78	
Title I	358	26	21.63	0.94	0.56	0.62	
10	All Students	786	39	30.83	3.44	0.86	1.31
	Economically Disadvantaged	435	39	30.86	3.57	0.89	1.17
	African American	134	39	30.96	3.28	0.87	1.19
	Asian	30	39	30.70	2.95		

continued

Grade	Subgroup	Number of Students	Raw Score			Alpha	SEM
			Maximum	Mean	Standard Deviation		
10	Hispanic	184	39	30.83	3.72	0.85	1.44
	Multi-Race	16	39	30.25	3.45	0.48	2.48
	Native American	2					
	Pacific Islander/Hawaiian	2					
	White	418	39	30.86	3.37	0.84	1.33
	Female	242	39	30.83	3.27	0.81	1.43
	Male	544	39	30.83	3.52	0.88	1.24
	LEP	77	39	31.51	2.87	0.81	1.26
	FLEP	18	39	30.67	3.33		
	LEPFLEP	95	39	31.35	2.96	0.80	1.33
	Plan 504	5					
	Special Education	786	39	30.83	3.44	0.86	1.31
	Title I	211	39	31.20	3.27	0.94	0.77

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.