

## **APPENDIX E**

### **DELTA AND RESCORE ANALYSES TABLES FOR MCAS 2008 TESTS**



**E1. Delta Analyses Tables ..... Appendix E, pages 2–15**

All of the delta analyses tables (tables E1-1 through E1-14) use the following abbreviations in column headings:

<b>IREF</b>	<b>= Internal Reference Number for each item</b>
<b>OLDP</b>	<b>= 2007 Item Difficulty Index</b>
<b>NEWP</b>	<b>= 2008 Item Difficulty Index</b>
<b>OLDDELTA</b>	<b>= 2007 Delta Value</b>
<b>NEWDELTA</b>	<b>= 2008 Delta Value</b>
<b>LINE</b>	<b>= Regression line</b>
<b>MAX</b>	<b>= Maximum Number of Raw Score Points</b>
<b>DISCARD</b>	<b>= Whether or not the item was discarded from use as an equating item; “NO” is the default</b>

All grade 10 tests (English Language Arts, Mathematics, and the high school Biology, Chemistry, Introductory Physics, and Technology/Engineering) were pre-equated; no delta analyses were performed for these tests.

**E2. Rescore Analyses Tables ..... Appendix E, pages 16–18**

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## Appendix E

### E1. Delta Analyses English Language Arts

**Table E1.1 2007–08 MCAS : English Language Arts/Reading—Grade 3**

<i>IREF</i>	<i>OLDP</i>	<i>NEWP</i>	<i>OLD DELTA</i>	<i>NEW DELTA</i>	<i>LINE</i>	<i>MAX</i>	<i>DISCARD</i>	<i>ST DEV FROM LINE</i>
214091	0.77	0.76	10.045	10.175	10.090	1	NO	-1.176
214092	0.94	0.95	6.781	6.421	6.658	1	NO	-0.685
214093	0.92	0.93	7.380	7.097	7.277	1	NO	-0.808
214094	0.69	0.7	11.017	10.902	10.755	1	NO	0.199
214100	0.79	0.8	9.774	9.634	9.595	1	NO	-0.325
214101	0.86	0.84	8.679	9.022	9.036	1	NO	0.809
214102	0.57	0.58	12.295	12.192	11.934	1	NO	0.826
214103	0.79	0.79	9.774	9.774	9.724	1	NO	-1.143
214104	0.84	0.81	9.022	9.488	9.463	1	NO	1.335
214105	0.64	0.61	11.566	11.883	11.651	1	NO	-0.924
214106	0.83	0.83	9.183	9.183	9.184	1	NO	-1.462
214107	0.93	0.94	7.097	6.781	6.988	1	NO	-0.770
214108	2.83	2.72	10.816	11.129	10.962	4	NO	-0.531
220171	0.83	0.85	9.183	8.854	8.883	1	NO	0.446
220175	0.78	0.76	9.911	10.175	10.090	1	NO	-0.328
220181	0.76	0.74	10.175	10.427	10.320	1	NO	-0.540
220185	0.8	0.83	9.634	9.183	9.184	1	NO	1.395
220194	0.69	0.71	11.017	10.787	10.649	1	NO	0.872
220196	0.73	0.75	10.549	10.302	10.206	1	NO	0.713
220199	0.79	0.81	9.774	9.488	9.463	1	NO	0.518
220220	0.78	0.8	9.911	9.634	9.595	1	NO	0.545
220259	2.19	2.07	12.523	12.825	12.512	4	NO	-1.396
231813	0.86	0.84	8.679	9.022	9.036	1	NO	0.809
231821	0.69	0.69	11.017	11.017	10.859	1	NO	-0.465
231823	0.78	0.76	9.911	10.175	10.090	1	NO	-0.328
231828	0.52	0.54	12.799	12.598	12.305	1	NO	1.677
231830	1.76	1.33	13.604	14.732	14.256	4	NO	2.678
234878	0.69	0.66	11.017	11.350	11.164	1	NO	-0.525
234879	0.8	0.81	9.634	9.488	9.463	1	NO	-0.377
234880	0.87	0.87	8.494	8.494	8.554	1	NO	-1.085
234882	0.88	0.87	8.300	8.494	8.554	1	NO	0.150
234890	0.89	0.87	8.094	8.494	8.554	1	NO	1.460
234894	0.8	0.8	9.634	9.634	9.595	1	NO	-1.220
234896	0.82	0.8	9.339	9.634	9.595	1	NO	0.167
234897	0.87	0.87	8.494	8.494	8.554	1	NO	-1.085
234903	2.56	2.34	11.566	12.141	11.887	4	NO	0.577

Table E1.2 2007–08 MCAS : English Language Arts—Grade 4

IREF	OLDP	NEWP	OLD DELTA	NEW DELTA	LINE	MAX	DISCARD	ST DEV FROM LINE
225937	0.7	0.69	10.902	11.017	10.921	1	NO	-1.015
225944	0.78	0.77	9.911	10.045	9.933	1	NO	-0.997
225949	0.7	0.69	10.902	11.017	10.921	1	NO	-1.015
225967	2.05	1.94	12.875	13.150	13.091	4	NO	0.160
227630	0.85	0.84	8.854	9.022	8.894	1	NO	-0.893
227631	0.85	0.82	8.854	9.339	9.215	1	NO	1.024
227640	0.79	0.8	9.774	9.634	9.515	1	NO	0.418
227641	0.87	0.87	8.494	8.494	8.357	1	NO	-0.308
227644	0.79	0.8	9.774	9.634	9.515	1	NO	0.418
227649	0.77	0.76	10.045	10.175	10.065	1	NO	-1.003
227651	0.89	0.87	8.094	8.494	8.357	1	NO	0.442
227653	0.88	0.87	8.300	8.494	8.357	1	NO	-0.788
227656	0.8	0.78	9.634	9.911	9.797	1	NO	-0.150
227657	0.92	0.9	7.380	7.874	7.726	1	NO	0.938
227658	0.71	0.75	10.787	10.302	10.195	1	NO	2.400
227660	2.18	2.07	12.548	12.825	12.759	4	NO	0.133
227667	1.89	1.9	13.276	13.251	13.193	4	NO	-0.631
228178	0.74	0.73	10.427	10.549	10.446	1	NO	-1.014
228192	0.78	0.76	9.911	10.175	10.065	1	NO	-0.208
228201	0.79	0.81	9.774	9.488	9.368	1	NO	1.297
228205	0.82	0.84	9.339	9.022	8.894	1	NO	1.525
228215	0.81	0.8	9.488	9.634	9.515	1	NO	-0.968
228225	0.89	0.89	8.094	8.094	7.950	1	NO	-0.269
228265	0.66	0.66	11.350	11.350	11.260	1	NO	-0.592
228276	0.75	0.74	10.302	10.427	10.321	1	NO	-1.012
228278	0.66	0.64	11.350	11.566	11.480	1	NO	-0.354
228281	2.01	1.8	12.975	13.503	13.449	4	NO	1.697
228290	0.66	0.67	11.350	11.240	11.149	1	NO	0.074
244109	0.63	0.63	11.673	11.673	11.588	1	NO	-0.624
244112	0.62	0.67	11.778	11.240	11.149	1	NO	2.625
244114	2.01	2.07	12.975	12.825	12.759	4	NO	0.159
244118	0.65	0.61	11.459	11.883	11.802	1	NO	0.918
244260	0.8	0.76	9.634	10.175	10.065	1	NO	1.447
256081	0.81	0.8	9.488	9.634	9.515	1	NO	-0.968
256084	0.87	0.84	8.494	9.022	8.894	1	NO	1.252
256149	0.72	0.71	10.669	10.787	10.687	1	NO	-1.016
256164	0.7	0.7	10.902	10.902	10.805	1	NO	-0.548
256173	0.76	0.75	10.175	10.302	10.195	1	NO	-1.008
256184	0.64	0.65	11.566	11.459	11.371	1	NO	0.038
256192	0.85	0.85	8.854	8.854	8.723	1	NO	-0.344
256212	1.88	1.8	13.301	13.503	13.449	4	NO	-0.247
256807	0.79	0.78	9.774	9.911	9.797	1	NO	-0.990

## Appendix E

**Table E1.3 2007–08 MCAS : English Language Arts—Grade 5**

<i>IREF</i>	<i>OLDP</i>	<i>NEWP</i>	<i>OLD DELTA</i>	<i>NEW DELTA</i>	<i>LINE</i>	<i>MAX</i>	<i>DISCARD</i>	<i>ST DEV FROM LINE</i>
205081	0.74	0.74	10.427	10.427	10.379	1	NO	-0.832
205084	0.54	0.57	12.598	12.295	12.236	1	NO	1.614
205090	0.85	0.85	8.854	8.854	8.816	1	NO	-0.903
205091	0.64	0.62	11.566	11.778	11.722	1	NO	0.010
205093	0.64	0.63	11.566	11.673	11.617	1	NO	-0.805
205102	2.3	2.12	12.244	12.699	12.638	4	NO	1.861
205133	0.65	0.66	11.459	11.350	11.297	1	NO	0.054
205134	0.58	0.58	12.192	12.192	12.134	1	NO	-0.752
205136	0.78	0.77	9.911	10.045	9.999	1	NO	-0.522
205139	0.85	0.85	8.854	8.854	8.816	1	NO	-0.903
205143	0.75	0.76	10.302	10.175	10.128	1	NO	0.146
205147	0.72	0.72	10.669	10.669	10.619	1	NO	-0.821
205148	0.65	0.67	11.459	11.240	11.188	1	NO	0.903
205153	2.02	1.96	12.950	13.100	13.037	4	NO	-0.528
208721	0.7	0.7	10.902	10.902	10.852	1	NO	-0.810
208722	0.86	0.86	8.679	8.679	8.641	1	NO	-0.911
208726	0.72	0.73	10.669	10.549	10.500	1	NO	0.106
208735	0.73	0.73	10.549	10.549	10.500	1	NO	-0.826
208738	0.76	0.73	10.175	10.549	10.500	1	NO	1.325
208741	0.8	0.8	9.634	9.634	9.590	1	NO	-0.868
208743	0.82	0.82	9.339	9.339	9.297	1	NO	-0.881
208744	0.81	0.82	9.488	9.339	9.297	1	NO	0.284
208765	2.46	2.53	11.831	11.646	11.591	4	NO	0.657
208783	0.69	0.69	11.017	11.017	10.965	1	NO	-0.805
208784	0.84	0.83	9.022	9.183	9.143	1	NO	-0.267
224762	0.78	0.79	9.911	9.774	9.730	1	NO	0.203
224773	0.75	0.72	10.302	10.669	10.619	1	NO	1.263
224804	0.67	0.68	11.240	11.129	11.077	1	NO	0.064
224807	0.91	0.92	7.637	7.380	7.350	1	NO	1.029
224817	2.14	2.05	12.649	12.875	12.813	4	NO	0.070
224840	0.79	0.78	9.774	9.911	9.866	1	NO	-0.488
224846	0.77	0.75	10.045	10.302	10.255	1	NO	0.431
224854	0.76	0.71	10.175	10.787	10.737	1	YES	3.162
224858	0.79	0.79	9.774	9.774	9.730	1	NO	-0.861
224867	1.92	1.9	13.201	13.251	13.186	4	NO	-1.094
242303	0.73	0.72	10.549	10.669	10.619	1	NO	-0.655
242304	0.84	0.84	9.022	9.022	8.983	1	NO	-0.896
242324	0.77	0.76	10.045	10.175	10.128	1	NO	-0.553
242325	0.78	0.77	9.911	10.045	9.999	1	NO	-0.522
242326	0.8	0.81	9.634	9.488	9.446	1	NO	0.253
250901	0.85	0.82	8.854	9.339	9.297	1	NO	2.238
255425	2.06	2.14	12.850	12.649	12.588	4	NO	0.831

Table E1.4 2007–08 MCAS : English Language Arts—Grade 6

IREF	OLDP	NEWP	OLD DELTA	NEW DELTA	LINE	MAX	DISCARD	ST DEV FROM LINE
203337	0.73	0.73	10.549	10.549	10.455	1	NO	-0.886
203340	0.87	0.86	8.494	8.679	8.259	1	NO	-0.264
203348	0.77	0.76	10.045	10.175	10.016	1	NO	-1.171
207292	0.74	0.73	10.427	10.549	10.455	1	NO	-1.169
207306	0.76	0.75	10.175	10.302	10.166	1	NO	-1.256
207307	0.63	0.66	11.673	11.350	11.397	1	NO	-0.084
207311	0.62	0.64	11.778	11.566	11.650	1	NO	-0.735
207313	0.83	0.81	9.183	9.488	9.210	1	NO	-1.178
207320	0.86	0.87	8.679	8.494	8.043	1	NO	1.495
207339	1.97	2.13	13.075	12.674	12.951	4	NO	-0.750
207360	2.21	2.46	12.472	11.831	11.961	4	NO	0.949
207439	0.85	0.79	8.854	9.774	9.546	1	NO	1.740
207439	0.84	0.79	9.022	9.774	9.546	1	NO	1.003
207446	0.81	0.83	9.488	9.183	8.852	1	NO	1.498
207448	0.87	0.83	8.494	9.183	8.852	1	NO	0.274
207449	0.66	0.67	11.350	11.240	11.268	1	NO	-0.933
207450	0.93	0.91	7.097	7.637	7.036	1	NO	-1.029
207455	0.42	0.44	13.808	13.604	14.043	1	NO	-0.261
207464	0.94	0.89	6.781	8.094	7.573	1	NO	2.179
207473	0.87	0.83	8.494	9.183	8.852	1	NO	0.274
207479	0.85	0.79	8.854	9.774	9.546	1	NO	1.740
207484	0.86	0.85	8.679	8.854	8.466	1	NO	-0.360
207497	0.78	0.79	9.911	9.774	9.546	1	NO	0.307
207508	2.18	2.05	12.548	12.875	13.187	4	NO	1.509
207576	0.72	0.75	10.669	10.302	10.166	1	NO	0.912
207578	0.64	0.67	11.566	11.240	11.268	1	NO	0.015
207670	2.15	2.33	12.624	12.167	12.356	4	NO	-0.120
207783	0.57	0.55	12.295	12.497	12.744	1	NO	0.676
244965	0.8	0.79	9.634	9.774	9.546	1	NO	-0.911
244966	0.68	0.69	11.129	11.017	11.005	1	NO	-0.750
245042	0.87	0.87	8.494	8.494	8.043	1	NO	0.686
245080	0.59	0.62	12.090	11.778	11.899	1	NO	-0.459
245081	0.55	0.54	12.497	12.598	12.862	1	NO	0.306
245083	0.6	0.61	11.987	11.883	12.022	1	NO	-1.140
245085	2.14	2.25	12.649	12.371	12.595	4	NO	-1.061
245090	0.66	0.61	11.350	11.883	12.022	1	NO	1.653
250602	0.74	0.74	10.427	10.427	10.312	1	NO	-0.793
250603	0.63	0.6	11.673	11.987	12.144	1	NO	0.773
250604	2.4	2.54	11.987	11.620	11.713	4	NO	-0.094
250705	0.66	0.67	11.350	11.240	11.268	1	NO	-0.933
250746	0.53	0.57	12.699	12.295	12.506	1	NO	-0.447
250747	0.7	0.72	10.902	10.669	10.596	1	NO	0.048
255205	0.75	0.74	10.302	10.427	10.312	1	NO	-1.252

## Appendix E

Table E1.5 2007–08 MCAS : English Language Arts—Grade 7

<i>IREF</i>	<i>OLDP</i>	<i>NEWP</i>	<i>OLD DELTA</i>	<i>NEW DELTA</i>	<i>LINE</i>	<i>MAX</i>	<i>DISCARD</i>	<i>ST DEV FROM LINE</i>
222356	0.67	0.65	11.240	11.459	11.499	1	NO	0.350
222357	0.85	0.89	8.854	8.094	8.160	1	NO	2.934
222380	0.73	0.78	10.549	9.911	9.964	1	NO	2.288
224900	0.83	0.82	9.183	9.339	9.395	1	NO	0.071
224909	0.69	0.69	11.017	11.017	11.060	1	NO	-0.926
224911	0.78	0.78	9.911	9.911	9.964	1	NO	-0.876
224913	0.77	0.74	10.045	10.427	10.475	1	NO	1.368
224918	2.36	2.46	12.090	11.831	11.868	4	NO	0.130
224946	0.88	0.86	8.300	8.679	8.740	1	NO	1.428
224951	0.69	0.69	11.017	11.017	11.060	1	NO	-0.926
224954	0.93	0.93	7.097	7.097	7.171	1	NO	-0.748
224955	0.74	0.75	10.427	10.302	10.351	1	NO	-0.739
224999	0.6	0.6	11.987	11.987	12.023	1	NO	-0.970
225000	0.75	0.73	10.302	10.549	10.596	1	NO	0.559
225004	0.74	0.72	10.427	10.669	10.715	1	NO	0.526
225008	0.69	0.7	11.017	10.902	10.947	1	NO	-0.774
225044	0.89	0.92	8.094	7.380	7.451	1	NO	2.628
225050	0.72	0.7	10.669	10.902	10.947	1	NO	0.466
225051	0.67	0.68	11.240	11.129	11.172	1	NO	-0.782
225055	2.1	2.08	12.749	12.799	12.830	4	NO	-0.709
225545	0.79	0.8	9.774	9.634	9.688	1	NO	-0.673
225550	0.83	0.81	9.183	9.488	9.544	1	NO	0.954
225593	0.68	0.7	11.129	10.902	10.947	1	NO	-0.105
225596	0.73	0.75	10.549	10.302	10.351	1	NO	-0.014
225597	2.12	2.11	12.699	12.724	12.755	4	NO	-0.855
225618	0.74	0.73	10.427	10.549	10.596	1	NO	-0.180
225621	0.78	0.78	9.911	9.911	9.964	1	NO	-0.876
225625	0.62	0.62	11.778	11.778	11.816	1	NO	-0.961
225630	0.82	0.82	9.339	9.339	9.395	1	NO	-0.850
225631	0.86	0.87	8.679	8.494	8.558	1	NO	-0.467
225661	0.81	0.79	9.488	9.774	9.828	1	NO	0.827
225663	0.75	0.75	10.302	10.302	10.351	1	NO	-0.894
225664	0.82	0.83	9.339	9.183	9.241	1	NO	-0.608
225665	0.61	0.6	11.883	11.987	12.023	1	NO	-0.354
225667	1.95	2.16	13.125	12.598	12.630	4	NO	1.754
225678	0.82	0.81	9.339	9.488	9.544	1	NO	0.033
225679	0.68	0.66	11.129	11.350	11.391	1	NO	0.370
225700	0.81	0.82	9.488	9.339	9.395	1	NO	-0.633
225707	2.09	2.22	12.774	12.447	12.480	4	NO	0.563
233976	0.83	0.84	9.183	9.022	9.081	1	NO	-0.580
233987	0.72	0.74	10.669	10.427	10.475	1	NO	-0.037
233993	0.78	0.77	9.911	10.045	10.096	1	NO	-0.090
234003	0.76	0.76	10.175	10.175	10.225	1	NO	-0.888
234009	2.17	2.25	12.573	12.371	12.404	4	NO	-0.184
256460	0.84	0.85	9.022	8.854	8.915	1	NO	-0.548
234009	2.17	2.25	12.573	12.371	12.404	4	NO	-0.184
256460	0.84	0.85	9.022	8.854	8.915	1	NO	-0.548



Table E1.6 2007–08 MCAS : English Language Arts—Grade 8

IREF	OLDP	NEWP	OLD DELTA	NEW DELTA	LINE	MAX	DISCARD	ST DEV FROM LINE
204169	0.81	0.82	9.488	9.339	9.356	1	NO	-0.103
204172	0.76	0.74	10.175	10.427	10.428	1	NO	1.065
204175	0.78	0.76	9.911	10.175	10.180	1	NO	1.213
204185	2.11	2.03	12.724	12.925	12.891	4	NO	0.227
207096	0.73	0.72	10.549	10.669	10.667	1	NO	-0.244
207099	0.85	0.84	8.854	9.022	9.044	1	NO	0.448
207101	0.84	0.84	9.022	9.022	9.044	1	NO	-1.175
207118	0.72	0.69	10.669	11.017	11.010	1	NO	1.913
207124	1.98	2.07	13.050	12.825	12.792	4	NO	1.111
207159	0.85	0.86	8.854	8.679	8.705	1	NO	0.054
207176	0.81	0.82	9.488	9.339	9.356	1	NO	-0.103
207180	0.59	0.59	12.090	12.090	12.068	1	NO	-1.172
207185	0.59	0.58	12.090	12.192	12.169	1	NO	-0.621
207193	2.4	2.42	11.987	11.935	11.915	4	NO	-0.692
207202	0.87	0.88	8.494	8.300	8.332	1	NO	0.184
207205	0.56	0.57	12.396	12.295	12.270	1	NO	-0.161
207207	0.85	0.86	8.854	8.679	8.705	1	NO	0.054
207216	0.71	0.71	10.787	10.787	10.783	1	NO	-1.352
207219	0.68	0.66	11.129	11.350	11.339	1	NO	0.639
207222	0.76	0.77	10.175	10.045	10.052	1	NO	-0.196
207225	0.72	0.75	10.669	10.302	10.306	1	NO	2.125
207246	0.81	0.79	9.488	9.774	9.785	1	NO	1.485
207248	2.65	2.59	11.323	11.486	11.472	4	NO	0.059
207589	0.78	0.79	9.911	9.774	9.785	1	NO	-0.168
207592	0.71	0.7	10.787	10.902	10.897	1	NO	-0.314
207595	0.84	0.84	9.022	9.022	9.044	1	NO	-1.175
207598	0.83	0.83	9.183	9.183	9.203	1	NO	-1.198
207599	0.78	0.79	9.911	9.774	9.785	1	NO	-0.168
207600	0.74	0.73	10.427	10.549	10.549	1	NO	-0.205
207618	0.72	0.69	10.669	11.017	11.010	1	NO	1.913
207624	0.79	0.79	9.774	9.774	9.785	1	NO	-1.279
207639	2.61	2.64	11.432	11.350	11.339	4	NO	-0.486
227758	0.76	0.76	10.175	10.175	10.180	1	NO	-1.334
227759	0.71	0.72	10.787	10.669	10.667	1	NO	-0.229
227764	0.94	0.94	6.781	6.781	6.835	1	NO	-0.866
227769	0.89	0.89	8.094	8.094	8.129	1	NO	-1.047
227773	0.71	0.7	10.787	10.902	10.897	1	NO	-0.314
227774	0.79	0.81	9.774	9.488	9.504	1	NO	1.233
227777	0.7	0.7	10.902	10.902	10.897	1	NO	-1.336
227781	0.54	0.56	12.598	12.396	12.370	1	NO	0.825
227783	2.45	2.41	11.857	11.961	11.941	4	NO	-0.575

## Appendix E

### Mathematics

**Table E1.7 2007-08 MCAS: Mathematics—Grade 3**

<i>IREF</i>	<i>OLDP</i>	<i>NEWP</i>	<i>OLD DELTA</i>	<i>NEW DELTA</i>	<i>LINE</i>	<i>MAX</i>	<i>DISCARD</i>	<i>ST DEV FROM LINE</i>
202948	0.82	0.81	9.339	9.488	9.728	1	NO	-0.006
202981	0.65	0.66	11.459	11.350	11.714	1	NO	-0.377
202988	0.74	0.75	10.427	10.302	10.596	1	NO	-0.612
202999	0.76	0.78	10.175	9.911	10.179	1	NO	-1.066
203467	0.91	0.91	7.637	7.637	7.754	1	NO	-0.756
203477	0.78	0.8	9.911	9.634	9.883	1	NO	-1.001
203598	1.43	1.38	10.728	11.017	11.358	2	NO	0.656
203629	1.49	1.63	10.365	9.414	9.649	2	NO	0.891
203643	0.72	0.74	10.669	10.427	10.729	1	NO	-0.913
203718	0.73	0.74	10.549	10.427	10.729	1	NO	-0.583
203723	0.87	0.87	8.494	8.494	8.668	1	NO	-0.600
206959	0.81	0.81	9.488	9.488	9.728	1	NO	-0.418
206976	0.71	0.7	10.787	10.902	11.236	1	NO	0.159
206988	0.86	0.86	8.679	8.679	8.865	1	NO	-0.566
207010	0.47	0.45	13.301	13.503	14.009	1	NO	0.870
207019	0.84	0.85	9.022	8.854	9.052	1	NO	-0.996
207140	0.79	0.81	9.774	9.488	9.728	1	NO	-0.952
207671	0.63	0.78	11.673	9.911	10.179	1	YES	3.031
207676	0.81	0.81	9.488	9.488	9.728	1	NO	-0.418
207679	0.54	0.54	12.598	12.598	13.045	1	NO	0.150
207704	0.86	0.85	8.679	8.854	9.052	1	NO	-0.051
207776	0.8	0.81	9.634	9.488	9.728	1	NO	-0.817
207799	0.82	0.85	9.339	8.854	9.052	1	NO	-0.290
207839	0.81	0.86	9.488	8.679	8.865	1	NO	0.638
207884	0.75	0.73	10.302	10.549	10.859	1	NO	0.454
208002	1.53	1.59	10.110	9.704	9.959	2	NO	-0.661
218446	0.83	0.81	9.183	9.488	9.728	1	NO	0.421
218517	0.73	0.84	10.549	9.022	9.231	1	NO	2.547
218523	0.78	0.8	9.911	9.634	9.883	1	NO	-1.001
218564	0.71	0.71	10.787	10.787	11.113	1	NO	-0.181
218575	1.67	1.67	9.104	9.104	9.318	2	NO	-0.488
227103	0.63	0.68	11.673	11.129	11.478	1	NO	-0.543
227197	1.05	1.32	12.749	11.350	11.714	2	NO	1.771
227252	0.57	0.69	12.295	11.017	11.358	1	NO	1.499
227295	0.68	0.67	11.129	11.240	11.597	1	NO	0.208

Table E1.8 2007-08 MCAS: Mathematics—Grade 4

<i>IREF</i>	<i>OLDP</i>	<i>NEWP</i>	<i>OLD DELTA</i>	<i>NEW DELTA</i>	<i>LINE</i>	<i>MAX</i>	<i>DISCARD</i>	<i>ST DEV FROM LINE</i>
218877	0.66	0.65	11.350	11.459	11.504	1	NO	-0.558
218887	0.53	0.54	12.699	12.598	12.662	1	NO	-1.253
218909	0.79	0.78	9.774	9.911	9.932	1	NO	-0.537
218913	0.76	0.7	10.175	10.902	10.939	1	YES	3.065
218951	0.5	0.55	13.000	12.497	12.559	1	NO	1.144
218952	0.77	0.74	10.045	10.427	10.455	1	NO	0.967
219108	2.67	2.77	11.268	10.988	11.026	4	NO	-0.036
221888	0.75	0.76	10.302	10.175	10.200	1	NO	-0.864
221898	0.72	0.75	10.669	10.302	10.329	1	NO	0.546
221901	0.51	0.47	12.900	13.301	13.376	1	NO	1.357
221913	0.91	0.91	7.637	7.637	7.621	1	NO	-1.377
221953	0.68	0.66	11.129	11.350	11.394	1	NO	0.099
221957	0.55	0.57	12.497	12.295	12.353	1	NO	-0.617
221969	0.72	0.72	10.669	10.669	10.701	1	NO	-1.278
221984	0.82	0.81	9.339	9.488	9.502	1	NO	-0.501
222049	0.63	0.64	11.673	11.566	11.613	1	NO	-1.120
222051	0.53	0.55	12.699	12.497	12.559	1	NO	-0.644
222062	0.7	0.69	10.902	11.017	11.055	1	NO	-0.567
222069	0.7	0.73	10.902	10.549	10.580	1	NO	0.445
222082	0.83	0.82	9.183	9.339	9.350	1	NO	-0.483
222093	0.92	0.92	7.380	7.380	7.360	1	NO	-1.353
222095	0.62	0.6	11.778	11.987	12.041	1	NO	0.086
222099	0.54	0.58	12.598	12.192	12.250	1	NO	0.598
222140	0.78	0.8	9.911	9.634	9.650	1	NO	0.081
222145	0.62	0.6	11.778	11.987	12.041	1	NO	0.086
222147	2.38	2.56	12.038	11.566	11.613	4	NO	1.052
222176	0.67	0.64	11.240	11.566	11.613	1	NO	0.742
226150	0.79	0.82	9.774	9.339	9.350	1	NO	1.048
227312	3.01	3.06	10.271	10.110	10.134	4	NO	-0.661
227323	2.45	2.5	11.857	11.725	11.775	4	NO	-0.988
227452	0.6	0.64	11.987	11.566	11.613	1	NO	0.745
227508	0.91	0.92	7.637	7.380	7.360	1	NO	0.175
227518	0.74	0.74	10.427	10.427	10.455	1	NO	-1.301
227586	0.57	0.61	12.295	11.883	11.935	1	NO	0.663
228510	0.38	0.37	14.222	14.327	14.419	1	NO	-0.303
228576	0.43	0.39	13.706	14.117	14.205	1	NO	1.496
228713	0.78	0.78	9.911	9.911	9.932	1	NO	-1.351
228815	0.91	0.89	7.637	8.094	8.085	1	NO	1.190
250547	1.91	2.05	13.226	12.875	12.943	4	NO	0.208

## Appendix E

**Table E1.9 2007-08 MCAS: Mathematics—Grade 5**

<i>IREF</i>	<i>OLDP</i>	<i>NEWP</i>	<i>OLD DELTA</i>	<i>NEW DELTA</i>	<i>LINE</i>	<i>MAX</i>	<i>DISCARD</i>	<i>ST DEV FROM LINE</i>
198670	0.66	0.69	11.350	11.017	11.217	1	NO	-0.746
198672	0.62	0.63	11.778	11.673	11.889	1	NO	-0.835
198678	2.05	2.13	12.875	12.674	12.914	4	NO	-1.127
198686	2.57	2.48	11.539	11.778	11.997	4	NO	0.582
198687	0.57	0.64	12.295	11.566	11.780	1	NO	0.814
204664	0.55	0.56	12.497	12.396	12.630	1	NO	-0.747
204670	1.52	1.83	14.222	13.427	13.685	4	NO	0.906
204673	0.74	0.79	10.427	9.774	9.946	1	NO	0.677
204680	0.85	0.83	8.854	9.183	9.341	1	NO	0.699
204708	0.85	0.84	8.854	9.022	9.176	1	NO	0.025
204781	0.86	0.86	8.679	8.679	8.824	1	NO	-0.694
204785	0.78	0.86	9.911	8.679	8.824	1	YES	3.154
204816	0.71	0.75	10.787	10.302	10.486	1	NO	-0.060
204826	0.82	0.8	9.339	9.634	9.802	1	NO	0.604
204842	0.75	0.74	10.302	10.427	10.614	1	NO	-0.016
204843	0.7	0.69	10.902	11.017	11.217	1	NO	-0.001
204845	0.72	0.78	10.669	9.911	10.086	1	NO	1.093
204870	0.61	0.71	11.883	10.787	10.982	1	NO	2.393
204883	0.67	0.71	11.240	10.787	10.982	1	NO	-0.232
204886	0.65	0.64	11.459	11.566	11.780	1	NO	0.025
204892	0.81	0.84	9.488	9.022	9.176	1	NO	-0.010
204912	0.89	0.91	8.094	7.637	7.758	1	NO	0.086
204915	0.85	0.85	8.854	8.854	9.004	1	NO	-0.677
204923	0.53	0.57	12.699	12.295	12.526	1	NO	-0.580
206930	0.53	0.55	12.699	12.497	12.733	1	NO	-1.147
206942	0.64	0.64	11.566	11.566	11.780	1	NO	-0.414
207043	0.7	0.67	10.902	11.240	11.447	1	NO	0.935
207070	0.77	0.77	10.045	10.045	10.222	1	NO	-0.562
207144	0.77	0.72	10.045	10.669	10.861	1	NO	2.049
207209	0.79	0.8	9.774	9.634	9.802	1	NO	-1.177
207514	0.62	0.65	11.778	11.459	11.670	1	NO	-0.847
207648	0.55	0.56	12.497	12.396	12.630	1	NO	-0.747
207742	2.21	2.23	12.472	12.422	12.656	4	NO	-0.538
217432	2.13	2.22	12.674	12.447	12.682	4	NO	-1.256
221120	0.75	0.73	10.302	10.549	10.739	1	NO	0.495
221447	0.73	0.75	10.549	10.302	10.486	1	NO	-1.031
221523	0.74	0.74	10.427	10.427	10.614	1	NO	-0.525
249054	0.83	0.86	9.183	8.679	8.824	1	NO	0.180
249068	0.55	0.56	12.497	12.396	12.630	1	NO	-0.747

Table E1.10 2007-08 MCAS: Mathematics—Grade 6

IREF	OLDP	NEWP	OLD DELTA	NEW DELTA	LINE	MAX	DISCARD	ST DEV FROM LINE
217532	0.72	0.77	10.669	10.045	10.410	1	NO	-0.217
217646	2.44	2.38	11.883	12.038	12.234	4	NO	0.046
223229	0.72	0.78	10.669	9.911	10.288	1	NO	0.131
226187	0.78	0.83	9.911	9.183	9.622	1	NO	-0.129
227424	0.76	0.78	10.175	9.911	10.288	1	NO	-0.634
227430	0.65	0.72	11.459	10.669	10.981	1	NO	0.408
227450	0.62	0.63	11.778	11.673	11.899	1	NO	-0.610
227473	0.75	0.74	10.302	10.427	10.759	1	NO	0.349
227497	0.73	0.75	10.549	10.302	10.645	1	NO	-0.681
227529	0.82	0.8	9.339	9.634	10.034	1	NO	1.027
227535	0.66	0.7	11.350	10.902	11.195	1	NO	-0.512
227537	0.76	0.77	10.175	10.045	10.410	1	NO	-0.286
227709	0.83	0.86	9.183	8.679	9.160	1	NO	-0.889
227715	0.49	0.51	13.100	12.900	13.022	1	NO	-0.734
227717	0.64	0.66	11.566	11.350	11.604	1	NO	-0.848
227720	0.79	0.8	9.774	9.634	10.034	1	NO	-0.217
227721	0.91	0.92	7.637	7.380	7.971	1	NO	-0.003
227723	2.02	2.06	12.950	12.850	12.976	4	NO	-0.881
227732	0.62	0.62	11.778	11.778	11.996	1	NO	-0.335
227737	0.64	0.64	11.566	11.566	11.802	1	NO	-0.283
227740	0.66	0.68	11.350	11.129	11.402	1	NO	-0.808
229036	0.68	0.86	11.129	8.679	9.160	1	YES	4.665
229744	0.77	0.79	10.045	9.774	10.162	1	NO	-0.620
229754	2.33	2.33	12.167	12.167	12.352	4	NO	-0.429
229823	0.74	0.74	10.427	10.427	10.759	1	NO	-0.007
229832	0.81	0.87	9.488	8.494	8.991	1	NO	0.463
229874	0.77	0.78	10.045	9.911	10.288	1	NO	-0.263
229881	0.73	0.71	10.549	10.787	11.089	1	NO	0.584
229889	0.76	0.74	10.175	10.427	10.759	1	NO	0.712
229907	0.66	0.78	11.350	9.911	10.288	1	NO	2.077
229915	0.82	0.84	9.339	9.022	9.474	1	NO	-0.570
229917	0.69	0.78	11.017	9.911	10.288	1	NO	1.125
229924	0.75	0.76	10.302	10.175	10.529	1	NO	-0.309
229927	0.77	0.8	10.045	9.634	10.034	1	NO	-0.925
229928	2.86	3.05	10.728	10.143	10.499	4	NO	-0.304
229936	2.78	2.86	10.960	10.728	11.035	4	NO	-0.742
251345	0.8	0.79	9.634	9.774	10.162	1	NO	0.553
251387	0.68	0.74	11.129	10.427	10.759	1	NO	0.100
251388	0.74	0.74	10.427	10.427	10.759	1	NO	-0.007

## Appendix E

**Table E1.11 2007-08 MCAS: Mathematics—Grade 7**

<i>IREF</i>	<i>OLDP</i>	<i>NEWP</i>	<i>OLD DELTA</i>	<i>NEW DELTA</i>	<i>LINE</i>	<i>MAX</i>	<i>DISCARD</i>	<i>ST DEV FROM LINE</i>
198393	0.53	0.58	12.699	12.192	12.479	1	NO	-0.192
205216	0.63	0.69	11.673	11.017	11.204	1	NO	1.057
205230	0.64	0.66	11.566	11.350	11.566	1	NO	-1.298
205232	0.54	0.54	12.598	12.598	12.919	1	NO	0.313
205239	0.61	0.62	11.883	11.778	12.030	1	NO	-0.560
205366	0.8	0.78	9.634	9.911	10.006	1	NO	0.575
205414	0.54	0.56	12.598	12.396	12.700	1	NO	-0.790
205451	0.66	0.7	11.350	10.902	11.080	1	NO	0.057
205464	0.59	0.59	12.090	12.090	12.368	1	NO	0.098
205493	0.72	0.71	10.669	10.787	10.955	1	NO	0.140
205504	0.72	0.72	10.669	10.669	10.827	1	NO	-0.503
205585	0.74	0.77	10.427	10.045	10.151	1	NO	0.089
205589	0.72	0.75	10.669	10.302	10.430	1	NO	-0.097
205627	0.59	0.66	12.090	11.350	11.566	1	NO	1.337
205689	2.38	2.55	12.038	11.593	11.829	4	NO	-0.246
205696	1.81	1.97	13.477	13.075	13.436	4	NO	-1.090
208381	0.88	0.86	8.300	8.679	8.670	1	NO	0.562
208400	0.53	0.53	12.699	12.699	13.028	1	NO	0.355
208417	0.74	0.74	10.427	10.427	10.565	1	NO	-0.605
208497	0.71	0.73	10.787	10.549	10.697	1	NO	-0.850
208505	0.85	0.85	8.854	8.854	8.860	1	NO	-1.269
208512	0.69	0.72	11.017	10.669	10.827	1	NO	-0.346
208544	0.81	0.79	9.488	9.774	9.858	1	NO	0.558
208618	0.59	0.67	12.090	11.240	11.447	1	NO	1.936
208656	0.83	0.84	9.183	9.022	9.042	1	NO	-0.590
208698	2.65	2.63	11.323	11.377	11.595	4	NO	0.072
208708	0.68	0.65	11.129	11.459	11.684	1	NO	1.489
208710	0.66	0.75	11.350	10.302	10.430	1	YES	3.332
208772	0.76	0.77	10.175	10.045	10.151	1	NO	-1.178
208790	0.63	0.65	11.673	11.459	11.684	1	NO	-1.245
219476	0.62	0.62	11.778	11.778	12.030	1	NO	-0.034
228012	0.7	0.71	10.902	10.787	10.955	1	NO	-1.036
228064	1.84	2.14	13.402	12.649	12.973	4	NO	0.856
228074	0.84	0.86	9.022	8.679	8.670	1	NO	0.472
249128	0.55	0.57	12.497	12.295	12.589	1	NO	-0.836
249139	0.61	0.63	11.883	11.673	11.915	1	NO	-1.136
249164	0.51	0.5	12.900	13.000	13.354	1	NO	0.987
250450	2.59	2.65	11.486	11.323	11.536	4	NO	-1.046
250516	0.76	0.74	10.175	10.427	10.565	1	NO	0.662

Table E1.12 2007-08 MCAS: Mathematics—Grade 8

IREF	OLDP	NEWP	OLD DELTA	NEW DELTA	LINE	MAX	DISCARD	ST DEV FROM LINE
219579	0.89	0.86	8.094	8.679	8.783	1	NO	2.315
219599	0.54	0.54	12.598	12.598	12.789	1	NO	-0.356
219627	0.81	0.84	9.488	9.022	9.134	1	NO	0.525
219628	0.88	0.88	8.300	8.300	8.395	1	NO	-0.868
226927	0.65	0.7	11.459	10.902	11.056	1	NO	0.784
226933	0.47	0.5	13.301	13.000	13.200	1	NO	-0.836
226936	0.74	0.78	10.427	9.911	10.042	1	NO	0.682
226984	0.74	0.73	10.427	10.549	10.694	1	NO	0.055
227750	0.37	0.37	14.327	14.327	14.557	1	NO	-0.150
227753	0.51	0.51	12.900	12.900	13.097	1	NO	-0.320
227787	0.33	0.37	14.760	14.327	14.557	1	NO	-0.290
227801	0.59	0.58	12.090	12.192	12.374	1	NO	0.147
227803	0.85	0.84	8.854	9.022	9.134	1	NO	0.119
227807	0.56	0.57	12.396	12.295	12.479	1	NO	-0.937
227811	0.45	0.42	13.503	13.808	14.025	1	NO	1.425
227812	0.37	0.37	14.327	14.327	14.557	1	NO	-0.150
227814	0.69	0.74	11.017	10.427	10.569	1	NO	1.021
227819	0.66	0.68	11.350	11.129	11.287	1	NO	-1.043
227820	0.34	0.36	14.650	14.434	14.665	1	NO	-1.296
227822	1.15	1.25	15.243	14.955	15.198	4	NO	-1.141
227825	0.55	0.58	12.497	12.192	12.374	1	NO	-0.719
227830	0.58	0.67	12.192	11.240	11.401	1	NO	2.867
227832	0.62	0.61	11.778	11.883	12.058	1	NO	0.121
227833	0.84	0.84	9.022	9.022	9.134	1	NO	-0.782
227834	0.67	0.68	11.240	11.129	11.287	1	NO	-1.127
228127	0.79	0.8	9.774	9.634	9.759	1	NO	-1.294
228132	2.97	3.08	10.396	10.045	10.179	4	NO	-0.215
228534	0.56	0.6	12.396	11.987	12.164	1	NO	-0.133
228775	0.57	0.54	12.295	12.598	12.789	1	NO	1.274
229523	0.57	0.56	12.295	12.396	12.582	1	NO	0.166
229596	0.53	0.51	12.699	12.900	13.097	1	NO	0.758
229646	2.18	2.28	12.548	12.295	12.479	4	NO	-1.008
243892	0.49	0.53	13.100	12.699	12.892	1	NO	-0.262
253700	0.73	0.72	10.549	10.669	10.817	1	NO	0.058
253758	0.75	0.78	10.302	9.911	10.042	1	NO	0.014
253768	1.87	2.17	13.326	12.573	12.763	4	NO	1.641
253813	2.4	2.45	11.987	11.857	12.031	4	NO	-1.141
253823	0.55	0.61	12.497	11.883	12.058	1	NO	0.980
253890	0.4	0.43	14.013	13.706	13.921	1	NO	-0.883

## Appendix E

### Science and Technology/Engineering

**Table E1.13 2007-08 MCAS: Science and Technology/Engineering—Grade 5**

<i>IREF</i>	<i>OLDP</i>	<i>NEWP</i>	<i>OLD DELTA</i>	<i>NEW DELTA</i>	<i>LINE</i>	<i>MAX</i>	<i>DISCARD</i>	<i>ST DEV FROM LINE</i>
227352	0.67	0.66	11.2403	11.3501	11.3068	1	FALSE	-0.6794
227356	0.52	0.49	12.7994	13.1003	13.0389	1	FALSE	0.3173
227828	2.52	2.54	11.6726	11.6195	11.5733	4	FALSE	-0.4904
227831	0.79	0.81	9.7743	9.4884	9.4641	1	FALSE	0.7240
227839	0.80	0.79	9.6335	9.7743	9.7471	1	FALSE	-0.4078
227841	0.85	0.85	8.8543	8.8543	8.8365	1	FALSE	-0.9595
227856	0.63	0.64	11.6726	11.5662	11.5206	1	FALSE	-0.1865
227863	0.54	0.55	12.5983	12.4974	12.4422	1	FALSE	-0.1632
228993	0.62	0.59	11.7781	12.0898	12.0388	1	FALSE	0.4395
229048	0.77	0.77	10.0446	10.0446	10.0146	1	FALSE	-0.8891
229060	1.93	1.85	13.1755	13.3765	13.3124	4	FALSE	-0.2740
229126	0.71	0.73	10.7865	10.5487	10.5136	1	FALSE	0.5093
229139	0.51	0.50	12.8997	13.0000	12.9397	1	FALSE	-0.8318
229157	0.87	0.87	8.4944	8.4944	8.4804	1	FALSE	-0.9807
229266	0.74	0.75	10.4266	10.3020	10.2694	1	FALSE	-0.1567
229272	2.27	2.17	12.3199	12.5731	12.5171	4	FALSE	0.0734
229322	0.81	0.81	9.4884	9.4884	9.4641	1	FALSE	-0.9220
245091	2.21	2.07	12.4721	12.8245	12.7660	4	FALSE	0.6302
245343	0.86	0.87	8.6787	8.4944	8.4804	1	FALSE	0.0803
245362	0.81	0.80	9.4884	9.6335	9.6077	1	FALSE	-0.3747
245372	0.79	0.79	9.7743	9.7743	9.7471	1	FALSE	-0.9051
245463	0.93	0.92	7.0968	7.3797	7.3771	1	FALSE	0.5517
245485	0.74	0.75	10.4266	10.3020	10.2694	1	FALSE	-0.1567
245494	0.86	0.87	8.6787	8.4944	8.4804	1	FALSE	0.0803
245514	0.74	0.69	10.4266	11.0166	10.9766	1	FALSE	2.1048
245524	0.83	0.79	9.1833	9.7743	9.7471	1	FALSE	2.1840
245538	0.79	0.80	9.7743	9.6335	9.6077	1	FALSE	-0.1028
245539	0.67	0.68	11.2403	11.1292	11.0881	1	FALSE	-0.1851
253115	0.80	0.81	9.6335	9.4884	9.4641	1	FALSE	-0.0866
253150	0.77	0.78	10.0446	9.9112	9.8826	1	FALSE	-0.1291
264834	0.62	0.62	11.7781	11.7781	11.7303	1	FALSE	-0.7867
264838	0.82	0.79	9.3385	9.7743	9.7471	1	FALSE	1.2904
264845	1.76	1.63	13.6039	13.9359	13.8660	4	FALSE	0.4473
264847	0.88	0.88	8.3001	8.3001	8.2880	1	FALSE	-0.9922
264856	0.69	0.70	11.0166	10.9024	10.8636	1	FALSE	-0.1809
264859	0.46	0.54	13.4017	12.5983	12.5421	1	TRUE	3.8876
264881	0.65	0.65	11.4587	11.4587	11.4142	1	FALSE	-0.8055
264882	0.87	0.87	8.4944	8.4944	8.4804	1	FALSE	-0.9807
264887	0.66	0.65	11.3501	11.4587	11.4142	1	FALSE	-0.6929



Table E1.14 2007-08 MCAS: Science and Technology/Engineering—Grade 8

<i>IREF</i>	<i>OLDP</i>	<i>NEWP</i>	<i>OLD DELTA</i>	<i>NEW DELTA</i>	<i>LINE</i>	<i>MAX</i>	<i>DISCARD</i>	<i>ST DEV FROM LINE</i>
227911	1.85	1.93	13.3765	13.1755	13.1768	4	FALSE	-0.2600
227927	0.67	0.71	11.2403	10.7865	10.9247	1	FALSE	0.4092
227944	0.73	0.74	10.5487	10.4266	10.5855	1	FALSE	-1.2011
227961	0.74	0.75	10.4266	10.3020	10.4680	1	FALSE	-1.1740
227971	0.71	0.70	10.7865	10.9024	11.0340	1	FALSE	0.0157
229335	0.70	0.69	10.9024	11.0166	11.1416	1	FALSE	-0.0321
229349	0.72	0.72	10.6686	10.6686	10.8136	1	FALSE	-0.5762
229370	0.63	0.64	11.6726	11.5662	11.6597	1	FALSE	-1.3385
229371	0.69	0.69	11.0166	11.0166	11.1416	1	FALSE	-0.6913
229375	0.42	0.44	13.8076	13.6039	13.5806	1	FALSE	-0.1029
229382	0.75	0.75	10.3020	10.3020	10.4680	1	FALSE	-0.4549
229393	0.30	0.27	15.0976	15.4513	15.3221	1	FALSE	-0.1170
229394	0.56	0.57	12.3961	12.2945	12.3463	1	FALSE	-1.1253
229401	0.81	0.80	9.4884	9.6335	9.8378	1	FALSE	0.6038
229404	0.58	0.56	12.1924	12.3961	12.4421	1	FALSE	0.0281
229421	0.87	0.86	8.4944	8.6787	8.9377	1	FALSE	1.1459
229437	0.64	0.68	11.5662	11.1292	11.2478	1	FALSE	0.4249
229451	0.71	0.71	10.7865	10.7865	10.9247	1	FALSE	-0.6152
229454	0.83	0.83	9.1833	9.1833	9.4134	1	FALSE	-0.0848
229455	2.26	2.36	12.3454	12.0898	12.1533	4	FALSE	-0.3045
229478	1.82	1.98	13.4522	13.0501	13.0586	4	FALSE	0.8587
229491	0.69	0.73	11.0166	10.5487	10.7006	1	FALSE	0.4112
246325	2.43	2.10	11.9088	12.7492	12.7749	4	TRUE	3.5865
246330	0.44	0.46	13.6039	13.4017	13.3901	1	FALSE	-0.1787
246345	0.79	0.81	9.7743	9.4884	9.7010	1	FALSE	-0.9899
246368	0.47	0.50	13.3011	13.0000	13.0113	1	FALSE	0.2595
246373	0.47	0.40	13.3011	14.0134	13.9667	1	FALSE	2.4289
246378	0.80	0.85	9.6335	8.8543	9.1032	1	FALSE	1.6480
252744	0.58	0.58	12.1924	12.1924	12.2501	1	FALSE	-1.0803
265216	0.70	0.70	10.9024	10.9024	11.0340	1	FALSE	-0.6535
265248	0.57	0.60	12.2945	11.9866	12.0560	1	FALSE	-0.0365
265251	0.67	0.70	11.2403	10.9024	11.0340	1	FALSE	-0.2217
265260	0.87	0.89	8.4944	8.0939	8.3864	1	FALSE	-0.7894
265273	0.61	0.65	11.8827	11.4587	11.5584	1	FALSE	0.4591
265280	0.36	0.32	14.4338	14.8708	14.7749	1	FALSE	0.5559
265283	0.65	0.69	11.4587	11.0166	11.1416	1	FALSE	0.4174
265290	2.13	2.29	12.6738	12.2690	12.3223	4	FALSE	0.6160
265292	0.61	0.61	11.8827	11.8827	11.9581	1	FALSE	-0.9778
265305	0.68	0.70	11.1292	10.9024	11.0340	1	FALSE	-0.8632

# Appendix E

## E2. Rescore Analyses

**Table E2.1: MCAS 2008 Rescore Analyses: English Language Arts**

Item Reference	Maximum Score	Old Mean	New Mean	Old SD	New SD	Effect Size	Absolute Difference	Discard?
<b>Grade 3</b>								
220259	4	1.81	1.66	0.97	1.00	-0.15	0.14	NO
234903	4	2.23	2.15	1.19	1.12	-0.06	0.07	NO
231830	4	1.70	1.63	1.03	0.99	-0.07	0.07	NO
214108	4	2.43	2.29	1.31	1.26	-0.10	0.13	NO
<b>Grade 4</b>								
228281	4	1.88	1.70	1.04	0.91	-0.18	0.18	NO
227667	4	1.79	1.79	1.08	1.05	0.00	0.00	NO
227660	4	2.02	1.96	1.00	0.96	-0.06	0.06	NO
244114	4	1.98	2.01	0.99	0.93	0.04	0.04	NO
256212	4	1.88	1.84	0.82	0.81	-0.05	0.04	NO
225967	4	2.01	1.79	1.09	1.08	-0.20	0.22	NO
<b>Grade 5</b>								
205153	4	1.88	1.80	0.98	0.98	-0.08	0.08	NO
255425	4	1.83	1.77	0.90	0.99	-0.07	0.06	NO
208765	4	2.45	2.42	1.11	1.12	-0.02	0.02	NO
224817	4	1.97	1.81	0.98	0.91	-0.17	0.16	NO
205102	4	2.31	1.99	0.90	0.78	-0.36	0.32	NO
224867	4	1.82	1.60	1.02	0.87	-0.22	0.22	NO
<b>Grade 6</b>								
207339	4	1.91	1.89	1.01	0.99	-0.02	0.02	NO
250604	4	2.22	2.32	1.02	0.93	0.09	0.09	NO
207508	4	2.16	1.90	0.96	0.88	-0.27	0.26	NO
207670	4	1.96	1.93	0.97	0.95	-0.04	0.03	NO
245085	4	1.87	1.97	1.10	1.20	0.09	0.10	NO
207360	4	2.10	2.33	0.93	1.00	0.24	0.23	NO
<b>Grade 7</b>								
224918	4	2.40	2.43	0.98	0.96	0.03	0.03	NO
225667	4	1.95	2.14	0.98	1.00	0.20	0.19	NO
234009	4	2.00	2.07	0.94	0.95	0.08	0.07	NO
225707	4	2.17	2.18	0.87	0.84	0.02	0.01	NO
225597	4	2.14	2.07	1.08	1.01	-0.07	0.07	NO
224918	4	2.40	2.43	0.98	0.96	0.03	0.03	NO
<b>Grade 8</b>								
207639	4	2.33	2.22	1.14	1.17	-0.10	0.11	NO
207124	4	1.71	1.64	1.08	0.92	-0.06	0.07	NO
207248	4	2.52	2.30	1.18	1.05	-0.18	0.22	NO
207193	4	2.15	2.07	1.11	1.12	-0.07	0.08	NO
204185	4	1.93	1.74	1.07	0.94	-0.18	0.19	NO
<b>Grade 10</b>								
228468	4	2.06	2.25	1.08	1.04	0.17	0.18	NO
253938	4	1.83	2.00	1.02	0.99	0.17	0.17	NO
227212	4	2.55	2.50	1.06	1.10	-0.04	0.04	NO
227168	4	2.13	2.16	1.15	1.13	0.03	0.03	NO

Table E2.2: MCAS 2008 Rescore Analyses: Mathematics

Item Reference	Maximum Score	Old Mean	New Mean	Old SD	New SD	Effect Size	Absolute Difference	Discard?
<b>Grade 3</b>								
203598	2	1.46	1.47	0.78	0.77	0.01	0.01	NO
227197	2	1.03	1.06	0.86	0.86	0.03	0.02	NO
218575	2	1.58	1.59	0.70	0.70	0.01	0.01	NO
208002	2	1.43	1.41	0.90	0.90	-0.03	0.02	NO
203629	2	1.47	1.51	0.81	0.82	0.04	0.03	NO
<b>Grade 4</b>								
250547	4	1.91	1.97	1.58	1.67	0.04	0.06	NO
219108	4	2.74	2.81	1.42	1.45	0.05	0.07	NO
222147	4	2.35	2.38	1.17	1.15	0.02	0.03	NO
227323	4	2.50	2.52	1.44	1.44	0.01	0.02	NO
227312	4	3.04	3.00	1.23	1.33	-0.04	0.04	NO
<b>Grade 5</b>								
207742	4	2.36	2.32	1.42	1.42	-0.03	0.04	NO
198686	4	2.66	2.60	1.28	1.30	-0.04	0.05	NO
198678	4	2.17	2.16	1.42	1.44	0.00	0.00	NO
204670	4	1.75	1.75	1.55	1.50	0.00	0.00	NO
217432	4	2.08	2.02	1.76	1.75	-0.03	0.05	NO
<b>Grade 6</b>								
229936	4	2.23	2.19	1.42	1.36	-0.03	0.04	NO
229754	4	2.13	2.21	1.47	1.47	0.06	0.08	NO
217646	4	2.29	2.20	1.11	1.20	-0.08	0.09	NO
229928	4	2.88	2.85	1.16	1.23	-0.03	0.03	NO
227723	4	1.82	1.86	1.59	1.61	0.02	0.04	NO
<b>Grade 7</b>								
205696	4	1.5756	1.5951	1.2728	1.2676	0.0153	0.0195	NO
208698	4	2.4634	2.5610	1.4090	1.3113	0.0692	0.0976	NO
205646	4	1.6976	1.8829	1.4836	1.4836	0.1249	0.1854	NO
205689	4	2.3073	2.3561	1.5612	1.5508	0.0312	0.0488	NO
198433	4	2.0483	2	1.2731	1.2664	-0.0379	0.0483	NO
<b>Grade 8</b>								
205696	4	1.58	1.67	1.18	1.18	0.07	0.08	NO
208698	4	2.40	2.38	1.50	1.53	-0.01	0.02	NO
228064	4	1.80	1.81	1.60	1.60	0.00	0.00	NO
205689	4	1.94	1.98	1.61	1.59	0.02	0.04	NO
250450	4	2.47	2.46	1.13	1.10	-0.01	0.01	NO
<b>Grade 10</b>								
254553	4	1.74	1.81	1.43	1.36	0.05	0.07	NO
229564	4	1.88	1.78	1.27	1.22	-0.07	0.09	NO

## Appendix E

**Table E2.3: MCAS 2008 Rescore Analyses:  
Science and Technology/Engineering, Grades 5 and 8**

Item Reference	Maximum Score	Old Mean	New Mean	Old SD	New SD	Effect Size	Absolute Difference	Discard?
<b>Grade 5</b>								
229272	4	2.35	2.44	1.17	1.15	0.08	0.10	NO
245091	4	2.17	1.96	1.33	1.33	-0.16	0.21	NO
264845	4	1.76	1.65	1.17	1.22	-0.10	0.12	NO
229060	4	2.01	2.00	1.24	1.18	-0.01	0.01	NO
227828	4	2.68	2.68	1.02	0.99	0.00	0.00	NO
<b>Grade 8</b>								
246325	4	2.37	1.93	1.38	1.36	-0.32	0.44	NO
229478	4	1.79	1.93	1.14	1.15	0.12	0.14	NO
227911	4	1.81	1.78	1.33	1.33	-0.03	0.04	NO
265290	4	2.16	2.32	1.02	1.14	0.16	0.17	NO
229455	4	2.18	2.20	1.10	1.08	0.02	0.02	NO

**Table E2.4: MCAS 2008 Rescore Analyses: Biology Grades HS**

Item Reference	Maximum Score	Old Mean	New Mean	Old SD	New SD	Effect Size	Absolute Difference	Discard?
219817	4	0.99	0.92	1.11	1.06	-0.06	0.07	NO
230316	4	2.16	1.94	1.28	1.31	-0.17	0.22	NO
234767	4	2.20	2.18	1.47	1.48	-0.01	0.01	NO
222192	4	1.54	1.62	1.06	1.17	0.08	0.09	NO
221904	4	1.65	1.66	1.27	1.29	0.00	0.00	NO

**Table E2.5: MCAS 2008 Rescore Analyses: Chemistry Grades HS**

Item Reference	Maximum Score	Old Mean	New Mean	Old SD	New SD	Effect Size	Absolute Difference	Discard?
206758	4	1.78	1.91	1.56	1.60	0.09	0.13	NO
268486	4	1.98	1.79	1.29	1.18	-0.15	0.19	NO
253953	4	1.52	1.52	0.99	1.06	0.00	0.00	NO
252636	4	1.27	1.21	1.13	1.08	-0.05	0.06	NO
252633	4	1.89	1.84	1.27	1.29	-0.04	0.05	NO

**Table E2.6: MCAS 2008 Rescore Analyses: Introductory Physics Grades HS**

Item Reference	Maximum Score	Old Mean	New Mean	Old SD	New SD	Effect Size	Absolute Difference	Discard?
226050	4	2.12	2.21	1.02	1.15	0.10	0.10	NO
247003	4	2.01	2.03	1.23	1.25	0.02	0.02	NO
208408	4	1.67	1.71	1.13	1.19	0.04	0.05	NO
247102	4	2.64	2.68	1.38	1.41	0.03	0.03	NO
258363	4	2.25	2.24	1.39	1.39	-0.01	0.01	NO

**Table E2.7: MCAS 2008 Rescore Analyses: Technology/Engineering Grades HS**

Item Reference	Maximum Score	Old Mean	New Mean	Old SD	New SD	Effect Size	Absolute Difference	Discard?
208983	4	2.78	2.75	1.20	1.14	-0.03	0.04	NO
248694	4	1.66	1.92	1.23	1.27	0.21	0.25	NO
215976	4	2.14	1.65	1.15	1.08	-0.43	0.49	NO
252775	4	2.00	2.05	1.12	1.05	0.05	0.05	NO
251730	4	2.07	1.84	1.17	1.12	-0.20	0.23	NO