

# **APPENDIX J**

## **ANALYSIS OF EQUATING ITEMS**

**Table J-1. 2018 Legacy MCAS: Delta Analysis Results –ELA Grade 10**

Item Number	P		Delta		Discard	Std
	Old	New	Old	New		
290898	0.79000	0.78000	9.77432	9.91123	False	-0.70843
290900	0.94000	0.93000	6.78091	7.09684	False	-0.19879
290902	0.76000	0.75000	10.17479	10.30204	False	-0.71703
290905	0.70000	0.71000	10.90240	10.78646	False	0.00802
290909	0.47750	0.45000	13.22572	13.50265	False	0.14833
299075	0.93000	0.92000	7.09684	7.37971	False	-0.31161
299076	0.85000	0.84000	8.85427	9.02217	False	-0.65199
299077	0.85000	0.85000	8.85427	8.85427	False	-0.31336
299078	0.82000	0.82000	9.33854	9.33854	False	-0.35167
299079	0.59000	0.59000	12.08982	12.08982	False	-0.56927
299080	0.68000	0.66000	11.12920	11.35015	False	-0.25091
299081	0.53000	0.56000	12.69892	12.39612	False	0.64502
299082	0.81000	0.79000	9.48841	9.77432	False	-0.10986
299083	0.69750	0.66500	10.93111	11.29541	False	0.33114
302639	0.73000	0.70000	10.54875	10.90240	False	0.25648
302642	0.79000	0.79000	9.77432	9.77432	False	-0.38613
302645	0.85000	0.84000	8.85427	9.02217	False	-0.65199
302646	0.79000	0.77000	9.77432	10.04461	False	-0.15230
302652	0.60500	0.56750	11.93476	12.31995	False	0.49761
302860	0.56000	0.55000	12.39612	12.49735	False	-0.64983
302863	0.81000	0.81000	9.48841	9.48841	False	-0.36352
302868	0.80000	0.78000	9.63352	9.91123	False	-0.13252
302869	0.73000	0.70000	10.54875	10.90240	False	0.25648
302873	0.75000	0.74000	10.30204	10.42662	False	-0.71812
302877	0.67000	0.66000	11.24035	11.35015	False	-0.70551
302878	0.83000	0.83000	9.18334	9.18334	False	-0.33939
302883	0.82000	0.80000	9.33854	9.63352	False	-0.08387
302886	0.60000	0.61750	11.98661	11.80431	False	0.19895
303654	0.68000	0.68000	11.12920	11.12920	False	-0.49330
303660	0.68000	0.69000	11.12920	11.01660	False	-0.02380
303662	0.96000	0.96000	5.99726	5.99726	False	-0.08740
303663	0.66000	0.66000	11.35015	11.35015	False	-0.51077
303666	0.48250	0.53750	13.17552	12.62345	False	1.64663
303872	0.72000	0.71000	10.66863	10.78646	False	-0.71727
303873	0.87000	0.86000	8.49444	8.67872	False	-0.61213
304010	0.84000	0.85000	9.02217	8.85427	False	0.37340
304011	0.94000	0.94000	6.78091	6.78091	False	-0.14938
304013	0.90000	0.90000	7.87379	7.87379	False	-0.23582
304017	0.86000	0.77000	8.67872	10.04461	True	4.32897
304021	0.79000	0.78000	9.77432	9.91123	False	-0.70843
304029	0.57500	0.55500	12.24353	12.44678	False	-0.23652
304291	0.79000	0.85000	9.77432	8.85427	True	3.44988

**Table J-2. 2018 Legacy MCAS: Delta Analysis Results –Mathematics Grade 10**

Item Number	P		Delta		Discard	Std
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
281614	0.62000	0.60000	11.77808	11.98661	False	0.01402
287679	0.67000	0.69000	11.24035	11.01660	False	1.12266
287699	0.66000	0.65000	11.35015	11.45872	False	-0.80798
294009	0.73000	0.72000	10.54875	10.66863	False	-0.82194
294155	0.59000	0.57000	12.08982	12.29450	False	0.02368
294292	0.71000	0.70000	10.78646	10.90240	False	-0.82235
294480	0.60000	0.59000	11.98661	12.08982	False	-0.76905
294697	0.63000	0.56750	11.67259	12.31995	True	3.37269
298055	0.42500	0.41500	13.75647	13.85881	False	-0.55295
301388	0.90000	0.88000	7.87379	8.30005	False	1.19545
301440	0.45000	0.45000	13.50265	13.50265	False	-0.88146
301486	0.55000	0.55500	12.49735	12.44678	False	-0.36630
301997	0.72000	0.71000	10.66863	10.78646	False	-0.82266
302007	0.50000	0.51000	13.00000	12.89972	False	-0.04765
302040	0.67000	0.67000	11.24035	11.24035	False	-0.59663
302047	0.74000	0.76000	10.42662	10.17479	False	1.44088
302057	0.45000	0.43000	13.50265	13.70550	False	0.18748
302066	0.60000	0.57750	11.98661	12.21799	False	0.21582
303248	0.70000	0.68000	10.90240	11.12920	False	0.04417
303270	0.78000	0.77000	9.91123	10.04461	False	-0.79847
303274	0.74000	0.75000	10.42662	10.30204	False	0.46308
303296	0.62000	0.62000	11.77808	11.77808	False	-0.66433
303308	0.61000	0.61000	11.88272	11.88272	False	-0.67750
303431	0.61000	0.64000	11.88272	11.56616	False	1.75494
304337	0.62000	0.61000	11.77808	11.88272	False	-0.78425
308020	0.57000	0.58000	12.29450	12.19243	False	0.05501
308721	0.62000	0.62000	11.77808	11.77808	False	-0.66433
315082	0.64000	0.65000	11.56616	11.45872	False	0.18797

**Table J-3. 2018 Legacy MCAS: Delta Analysis Results – Biology Grade HS**

Item Number	P		Delta		Discard	Std
	Old	New	Old	New		
208283	0.36250	0.46000	14.40714	13.40173	False	1.66760
234806	0.64750	0.63250	11.48568	11.64607	False	-0.18338
261199	0.65000	0.65000	11.45872	11.45872	False	-0.61746
273292	0.71000	0.77000	10.78646	10.04461	False	0.31267
273520	0.79000	0.86000	9.77432	8.67872	False	1.10325
273546	0.46000	0.54000	13.40173	12.59827	False	0.93913
276760	0.59000	0.62000	12.08982	11.77808	False	-0.63584
289148	0.42250	0.42500	13.78201	13.75647	False	-1.09407
289310	0.62000	0.57000	11.77808	12.29450	False	0.73948
290008	0.73000	0.73000	10.54875	10.54875	False	-0.45815
294821	0.66000	0.70000	11.35015	10.90240	False	-0.39324
296649	0.51000	0.53000	12.89972	12.69892	False	-0.79755
299828	0.73000	0.69000	10.54875	11.01660	False	0.82181
299981	0.65000	0.65000	11.45872	11.45872	False	-0.61746
301351	0.75000	0.85000	10.30204	8.85427	False	2.15915
301372	0.86000	0.88000	8.67872	8.30005	False	-1.04994
301381	0.56000	0.57000	12.39612	12.29450	False	-1.05959
301406	0.61000	0.61000	11.88272	11.88272	False	-0.69169
304841	0.64000	0.80000	11.56616	9.63352	True	3.70701
304871	0.73000	0.74000	10.54875	10.42662	False	-0.79227
304928	0.47000	0.52000	13.30108	12.79939	False	0.09590
305070	0.70000	0.77000	10.90240	10.04461	False	0.65015
305071	0.80000	0.78000	9.63352	9.91123	False	0.46186
305073	0.73000	0.70000	10.54875	10.90240	False	0.50938
305074	0.81000	0.81000	9.48841	9.48841	False	-0.27251
305077	0.48000	0.37000	13.20061	14.32741	False	2.16030
305768	0.80000	0.82000	9.63352	9.33854	False	-1.10491
305773	0.65000	0.61000	11.45872	11.88272	False	0.54255
305776	0.68000	0.68000	11.12920	11.12920	False	-0.55977
308744	0.74000	0.79000	10.42662	9.77432	False	0.00469
310071	0.83000	0.84000	9.18334	9.02217	False	-0.66003
313331	0.84000	0.85000	9.02217	8.85427	False	-0.65023
313366	0.56000	0.57000	12.39612	12.29450	False	-1.05959
313369	0.58000	0.56000	12.19243	12.39612	False	-0.18863
313372	0.59000	0.62000	12.08982	11.77808	False	-0.63584
313436	0.80000	0.83000	9.63352	9.18334	False	-0.68715
313445	0.66000	0.65000	11.35015	11.45872	False	-0.30142
314734	0.74000	0.79000	10.42662	9.77432	False	0.00469
316128	0.88000	0.89000	8.30005	8.09389	False	-0.62849
316145	0.85000	0.84000	8.85427	9.02217	False	0.29787
316190	0.57000	0.60000	12.29450	11.98661	False	-0.61054
316215	0.85000	0.83000	8.85427	9.18334	False	0.73880
316229	0.54000	0.56000	12.59827	12.39612	False	-0.84667
316251	0.80000	0.80000	9.63352	9.63352	False	-0.29791
316268	0.56000	0.53250	12.39612	12.67378	False	-0.02196

**Table J-4. 2018 Legacy MCAS: Delta Analysis Results –Chemistry Grade HS**

Item Number	P		Delta		Discard	Std
	Old	New	Old	New		
208285	0.84000	0.81000	9.02217	9.48841	False	-0.76105
226974	0.80000	0.77000	9.63352	10.04461	False	-0.94432
229644	0.73000	0.72000	10.54875	10.66863	False	-0.31467
229662	0.93000	0.91000	7.09684	7.63698	False	-0.47136
230419	0.85000	0.79000	8.85427	9.77432	False	0.55307
230665	0.86000	0.82000	8.67872	9.33854	False	-0.18967
244827	0.83000	0.81000	9.18334	9.48841	False	-0.90267
244944	0.53750	0.39500	12.62345	14.06524	False	1.90592
246683	0.82000	0.80000	9.33854	9.63352	False	-0.86738
258902	0.73000	0.65000	10.54875	11.45872	False	0.45645
258914	0.77000	0.73000	10.04461	10.54875	False	-0.69267
258916	0.85000	0.87000	8.85427	8.49444	False	0.99984
260796	0.54000	0.50250	12.59827	12.97493	False	-0.97273
260908	0.80000	0.72000	9.63352	10.66863	False	0.85352
261057	0.88000	0.86000	8.30005	8.67872	False	-0.98457
261451	0.84000	0.83000	9.02217	9.18334	False	-0.49450
261459	0.69000	0.69000	11.01660	11.01660	False	0.04939
271908	0.80000	0.63000	9.63352	11.67259	True	3.74596
272999	0.76000	0.75000	10.17479	10.30204	False	-0.35080
273017	0.70000	0.72000	10.90240	10.66863	False	0.71832
273026	0.59000	0.55000	12.08982	12.49735	False	-1.05256
273191	0.88000	0.89000	8.30005	8.09389	False	0.53502
274078	0.68000	0.64000	11.12920	11.56616	False	-0.92947
275829	0.66000	0.61000	11.35015	11.88272	False	-0.66280
275850	0.84000	0.79000	9.02217	9.77432	False	0.06264
275898	0.79000	0.78000	9.77432	9.91123	False	-0.39461
275906	0.84000	0.84000	9.02217	9.02217	False	-0.03016
281172	0.50000	0.57000	13.00000	12.29450	False	2.16107
281268	0.61000	0.58000	11.88272	12.19243	False	-0.80834
281281	0.85000	0.82000	8.85427	9.33854	False	-0.70242
281924	0.62000	0.61000	11.77808	11.88272	False	-0.22173
287590	0.61000	0.55000	11.88272	12.49735	False	-0.44764
288245	0.55000	0.60000	12.49735	11.98661	False	1.57993
288261	0.74000	0.67000	10.42662	11.24035	False	0.18405
288262	0.72000	0.73000	10.66863	10.54875	False	0.38091
294673	0.79000	0.78000	9.77432	9.91123	False	-0.39461
294709	0.57500	0.56750	12.24353	12.31995	False	-0.12185
294728	0.67000	0.63000	11.24035	11.67259	False	-0.94750
294746	0.95000	0.94000	6.42059	6.78091	False	-0.96247
294770	0.61000	0.59000	11.88272	12.08982	False	-0.51272
298326	0.41500	0.39000	13.85881	14.11728	False	-0.58192
298512	0.78000	0.78000	9.91123	9.91123	False	0.00530
299695	0.78000	0.78000	9.91123	9.91123	False	0.00530
299725	0.63500	0.51250	11.61950	12.87465	False	1.40823
300101	0.83000	0.75000	9.18334	10.30204	False	1.11228

**Table J-5. 2018 Legacy MCAS: Delta Analysis Results –Intro to Physics Grade 10**

Item Number	P		Delta		Discard	Std
	Old	New	Old	New		
280449	0.58000	0.57000	12.19243	12.29450	False	0.59276
280813	0.55000	0.61000	12.49735	11.88272	False	-0.31699
280950	0.62000	0.74000	11.77808	10.42662	True	3.57568
285643	0.63000	0.69000	11.67259	11.01660	False	0.13479
286519	0.59000	0.63000	12.08982	11.67259	False	-1.18133
287311	0.59000	0.64000	12.08982	11.56616	False	-0.65000
287331	0.54000	0.55500	12.59827	12.44678	False	-0.55248
287380	0.46000	0.51000	13.40173	12.89972	False	-1.14824
287386	0.74000	0.74000	10.42662	10.42662	False	-0.44205
290767	0.58000	0.67000	12.19243	11.24035	False	1.45847
293918	0.52000	0.61000	12.79939	11.88272	False	1.10113
293932	0.62000	0.68000	11.77808	11.12920	False	0.06789
299317	0.42750	0.48750	13.73097	13.12535	False	-0.72887
304715	0.69000	0.68000	11.01660	11.12920	False	0.29563
304739	0.70000	0.70000	10.90240	10.90240	False	-0.30054
304741	0.47750	0.57250	13.22572	12.26903	False	1.17417
304750	0.62000	0.62000	11.77808	11.77808	False	-0.04011
304772	0.78000	0.81000	9.91123	9.48841	False	-0.50554
304781	0.62000	0.66000	11.77808	11.35015	False	-1.03521
305387	0.61000	0.61000	11.88272	11.88272	False	-0.00899
305490	0.73000	0.72000	10.54875	10.66863	False	0.19283
306934	0.59000	0.63250	12.08982	11.64607	False	-1.04895
310442	0.69000	0.75000	11.01660	10.30204	False	0.62231
310445	0.69000	0.70000	11.01660	10.90240	False	-0.83675
310449	0.70000	0.66000	10.90240	11.35015	False	1.93493
310457	0.74000	0.75000	10.42662	10.30204	False	-1.06402
311020	0.67000	0.67000	11.24035	11.24035	False	-0.20004
311317	0.81000	0.81000	9.48841	9.48841	False	-0.72108
311319	0.79000	0.83000	9.77432	9.18334	False	0.37477
311351	0.76000	0.80000	10.17479	9.63352	False	0.00752
311353	0.68000	0.74000	11.12920	10.42662	False	0.52905
311373	0.63000	0.64000	11.67259	11.56616	False	-0.60282
313621	0.77000	0.76000	10.04461	10.17479	False	0.09428
313642	0.76000	0.82000	10.17479	9.33854	False	1.48024
313644	0.62000	0.66000	11.77808	11.35015	False	-1.03521
313706	0.64000	0.68000	11.56616	11.12920	False	-0.92710
313719	0.73000	0.73000	10.54875	10.54875	False	-0.40572
313731	0.78000	0.78000	9.91123	9.91123	False	-0.59533
315665	0.58000	0.55000	12.19243	12.49735	False	1.60553
316302	0.68000	0.67000	11.12920	11.24035	False	0.32181
316307	0.59000	0.59000	12.08982	12.08982	False	0.05260
316356	0.70000	0.73000	10.90240	10.54875	False	-1.14563
316357	0.71000	0.68000	10.78646	11.12920	False	1.37619
316432	0.51250	0.54000	12.87465	12.59827	False	-1.09388
317051	0.73000	0.73000	10.54875	10.54875	False	-0.40572

**Table J-6. 2018 Legacy MCAS: Delta Analysis Results –Technology & Engineering Grade HS**

Item Number	P		Delta		Discard	Std
	Old	New	Old	New		
206618	0.57000	0.68000	12.29450	11.12920	False	0.48477
246667	0.56000	0.66000	12.39612	11.35015	False	0.44220
265889	0.76000	0.77000	10.17479	10.04461	False	-0.59859
268493	0.37750	0.47250	14.24821	13.27595	False	1.17580
273081	0.76000	0.66000	10.17479	11.35015	False	0.33935
274563	0.80000	0.82000	9.63352	9.33854	False	-0.48712
274585	0.67000	0.71000	11.24035	10.78646	False	-0.47402
274641	0.68000	0.68000	11.12920	11.12920	False	-0.84731
274663	0.36750	0.36500	14.35393	14.38050	False	0.50310
281470	0.80000	0.73000	9.63352	10.54875	False	0.38234
283356	0.77000	0.71000	10.04461	10.78646	False	0.08319
283439	0.65000	0.65000	11.45872	11.45872	False	-0.70737
287791	0.76000	0.71000	10.17479	10.78646	False	-0.06562
287799	0.88000	0.92000	8.30005	7.37971	False	-0.37010
289934	0.56000	0.56000	12.39612	12.39612	False	-0.30926
290854	0.24750	0.28750	15.72951	15.24281	False	1.45604
294350	0.55000	0.51000	12.49735	12.89972	False	-0.55535
294363	0.48000	0.60000	13.20061	11.98661	False	0.90458
294365	0.70000	0.75000	10.90240	10.30204	False	-0.51231
294375	0.69000	0.71000	11.01660	10.78646	False	-0.72979
296414	0.77000	0.78000	10.04461	9.91123	False	-0.54561
296427	0.59000	0.58000	12.08982	12.19243	False	-0.51306
296447	0.79000	0.85000	9.77432	8.85427	False	-0.76171
296455	0.60000	0.57000	11.98661	12.29450	False	-0.70438
299111	0.50000	0.46000	13.00000	13.40173	False	-0.34143
299284	0.43000	0.45000	13.70550	13.50265	False	0.39254
299345	0.68000	0.71000	11.12920	10.78646	False	-0.60107
305082	0.54000	0.11000	12.59827	17.90611	False	2.27907
305100	0.78000	0.79000	9.91123	9.77432	False	-0.49150
305128	0.38750	0.44250	14.14336	13.57854	False	0.83856
305183	0.69000	0.76000	11.01660	10.17479	False	-0.29034
306795	0.78000	0.77000	9.91123	10.04461	False	-0.29731
310044	0.60000	0.37000	11.98661	14.32741	False	0.40719
310051	0.68000	0.06000	11.12920	19.21909	True	4.90168
310287	0.64000	0.66000	11.56616	11.35015	False	-0.50654
310308	0.60000	0.60000	11.98661	11.98661	False	-0.48318
310310	0.64000	0.63000	11.56616	11.67259	False	-0.73819
313231	0.83000	0.85000	9.18334	8.85427	False	-0.32043
313236	0.73000	0.75000	10.54875	10.30204	False	-0.84113
313237	0.56000	0.56000	12.39612	12.39612	False	-0.30926
313280	0.67000	0.72000	11.24035	10.66863	False	-0.38937
316494	0.73000	0.69000	10.54875	11.01660	False	-0.32776
316542	0.55500	0.54250	12.44678	12.57306	False	-0.37847
316871	0.72000	0.68000	10.66863	11.12920	False	-0.38391
316902	0.88000	0.88000	8.30005	8.30005	False	0.29111

**Table J-7. 2018 Legacy MCAS: Delta Analysis Results –Science Grade 5**

Item Number	P		Delta		Discard	Std
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
288208	0.67000	0.65000	11.24035	11.45872	False	-0.69674
289409	0.92000	0.82000	7.37971	9.33854	False	2.96133
289419	0.77000	0.67000	10.04461	11.24035	False	1.23970
289448	0.74000	0.77000	10.42662	10.04461	False	-0.42392
289506	0.44000	0.45000	13.60388	13.50265	False	-0.55372
289684	0.76000	0.82000	10.17479	9.33854	False	0.37824
291229	0.85000	0.88000	8.85427	8.30005	False	-0.29872
291234	0.85000	0.90000	8.85427	7.87379	False	0.48265
291330	0.57000	0.56000	12.29450	12.39612	False	-1.03845
291591	0.38750	0.42000	14.14336	13.80757	False	-0.05840
294474	0.73000	0.74000	10.54875	10.42662	False	-0.88550
294524	0.62000	0.63000	11.77808	11.67259	False	-0.76709
309949	0.76000	0.78000	10.17479	9.91123	False	-0.67155
309975	0.74000	0.81000	10.42662	9.48841	False	0.59563
309978	0.74000	0.75000	10.42662	10.30204	False	-0.89581
313097	0.71000	0.70000	10.78646	10.90240	False	-0.82953
313098	0.58000	0.62000	12.19243	11.77808	False	-0.15073
313114	0.69000	0.68000	11.01660	11.12920	False	-0.86351
315965	0.81000	0.71000	9.48841	10.78646	False	1.49462
315983	0.74000	0.81000	10.42662	9.48841	False	0.59563
316002	0.32250	0.23500	14.84288	15.88992	False	0.38587



**Table J-8. 2018 Legacy MCAS: Delta Analysis Results –Science Grade 8**

Item Number	P		Delta		Discard	Std
	<i>Old</i>	<i>New</i>	<i>Old</i>	<i>New</i>		
289619	0.57000	0.57000	12.29450	12.29450	False	-0.43015
291720	0.63000	0.51000	11.67259	12.89972	False	1.43045
291776	0.73000	0.73000	10.54875	10.54875	False	-0.80679
291839	0.60000	0.61000	11.98661	11.88272	False	-0.34820
291949	0.82000	0.72000	9.33854	10.66863	False	2.84463
291997	0.59000	0.63000	12.08982	11.67259	False	0.42014
294058	0.50000	0.53000	13.00000	12.69892	False	0.61435
294092	0.73000	0.75000	10.54875	10.30204	False	-0.74798
294104	0.80000	0.82000	9.63352	9.33854	False	-1.01876
294239	0.64000	0.62000	11.56616	11.77808	False	-0.83629
299413	0.55000	0.60000	12.49735	11.98661	False	0.83971
299430	0.76000	0.77000	10.17479	10.04461	False	-0.91546
299465	0.57000	0.58000	12.29450	12.19243	False	-0.19683
304538	0.57000	0.57000	12.29450	12.29450	False	-0.43015
304558	0.76000	0.79000	10.17479	9.77432	False	-0.58539
304793	0.42000	0.39250	13.80757	14.09124	False	-0.31431
310231	0.61000	0.62000	11.88272	11.77808	False	-0.39893
310259	0.72000	0.71000	10.66863	10.78646	False	-0.59803
313156	0.58000	0.60000	12.19243	11.98661	False	-0.01127
313186	0.41000	0.32000	13.91018	14.87080	False	-0.30888
316057	0.41250	0.24500	13.88447	15.76124	False	1.79813

Figure J-1. 2018 Legacy MCAS: Delta Plots –ELA Grade 10

Delta Plot: English Language Arts Grade 10

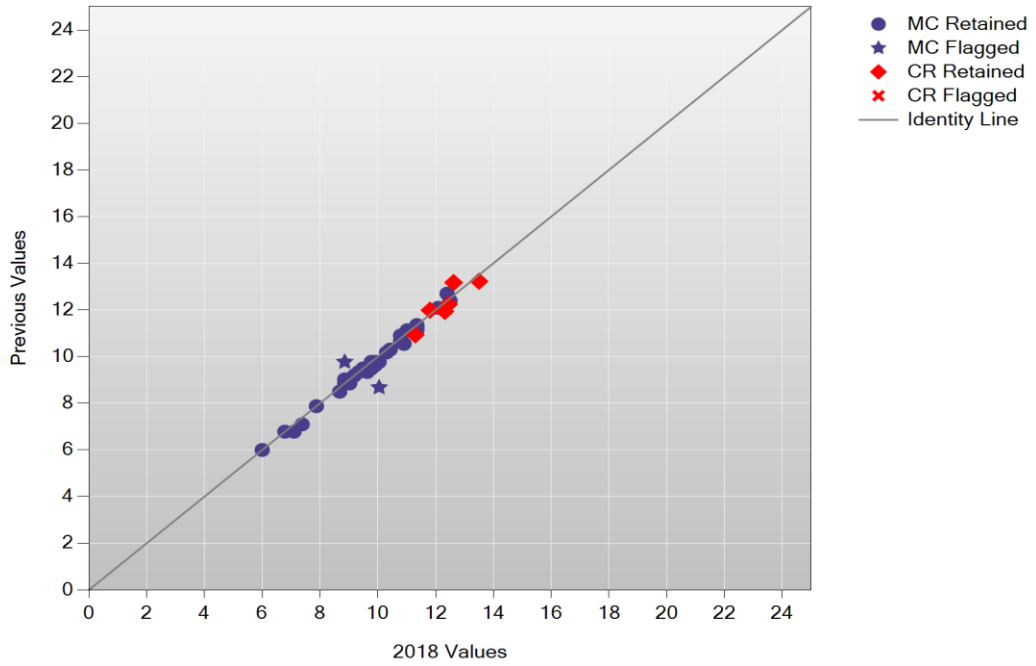


Figure J-2. 2018 Legacy MCAS: Delta Plots –Mathematics Grade 10

Delta Plot: Mathematics Grade 10

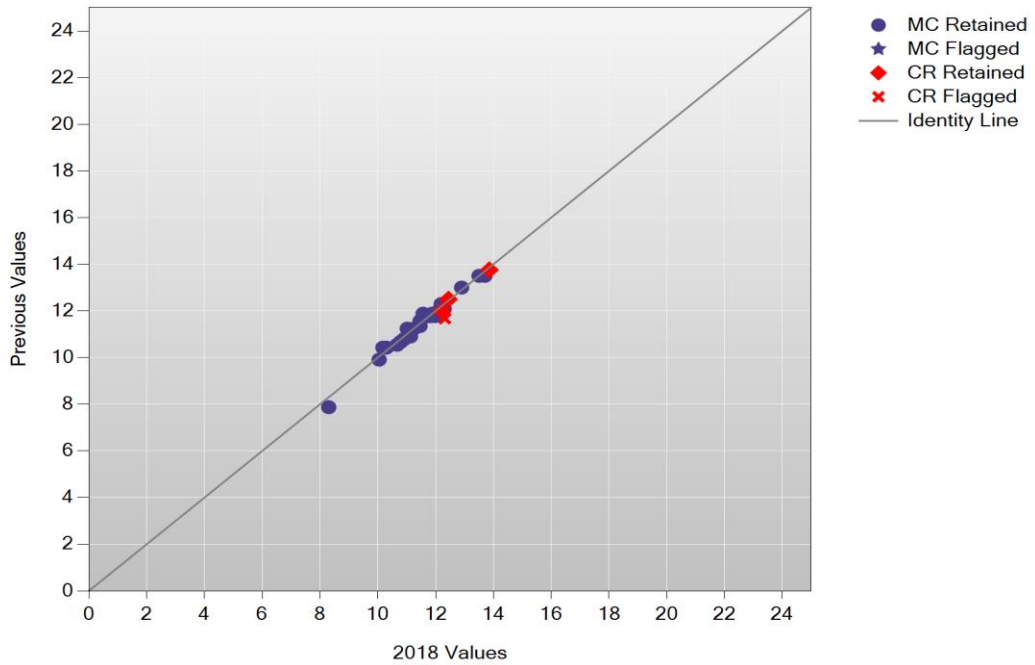


Figure J-3. 2018 Legacy MCAS: Delta Plots –Biology Grade 10

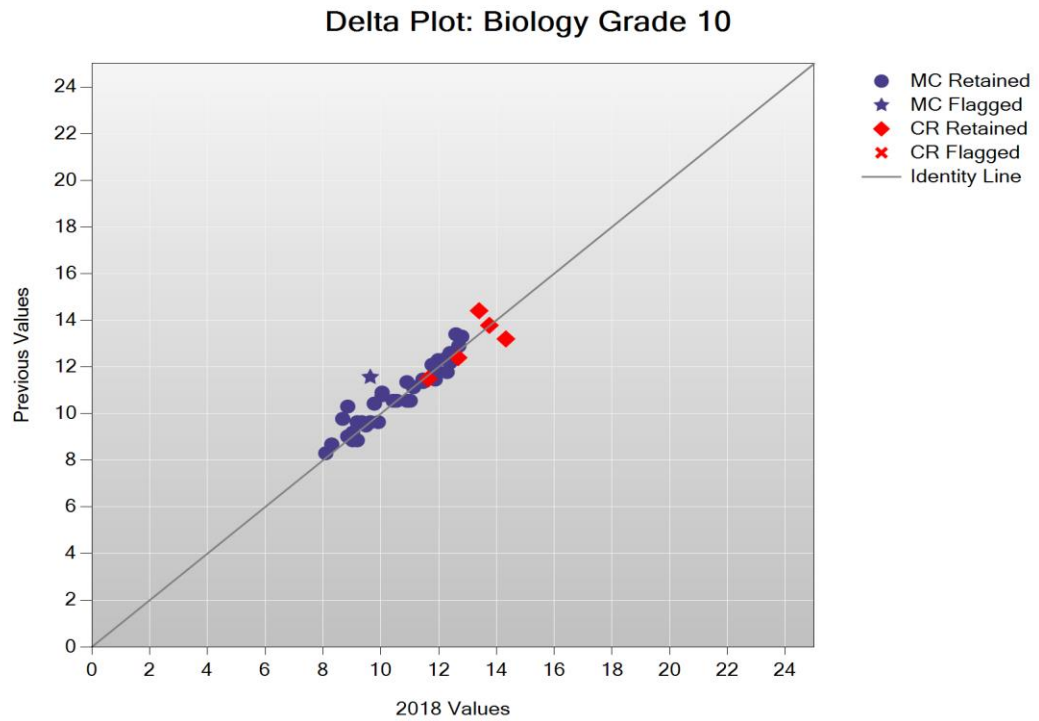


Figure J-4. 2018 Legacy MCAS: Delta Plots –Chemistry Grade 10

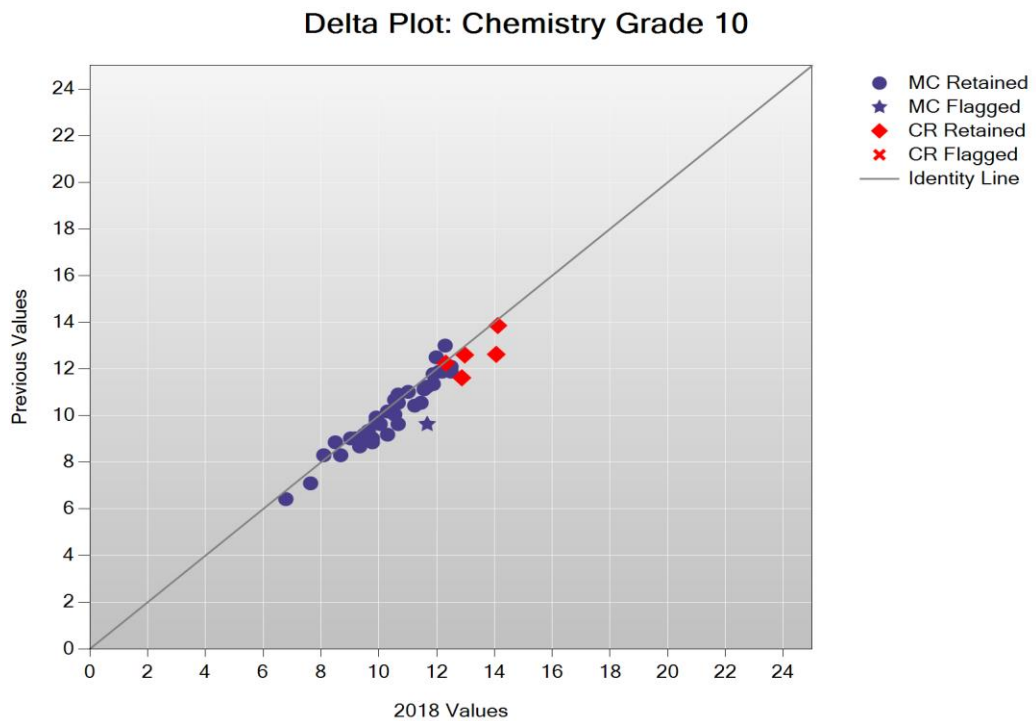


Figure J-5. 2018 Legacy MCAS: Delta Plots –Intro to Physics Grade 10

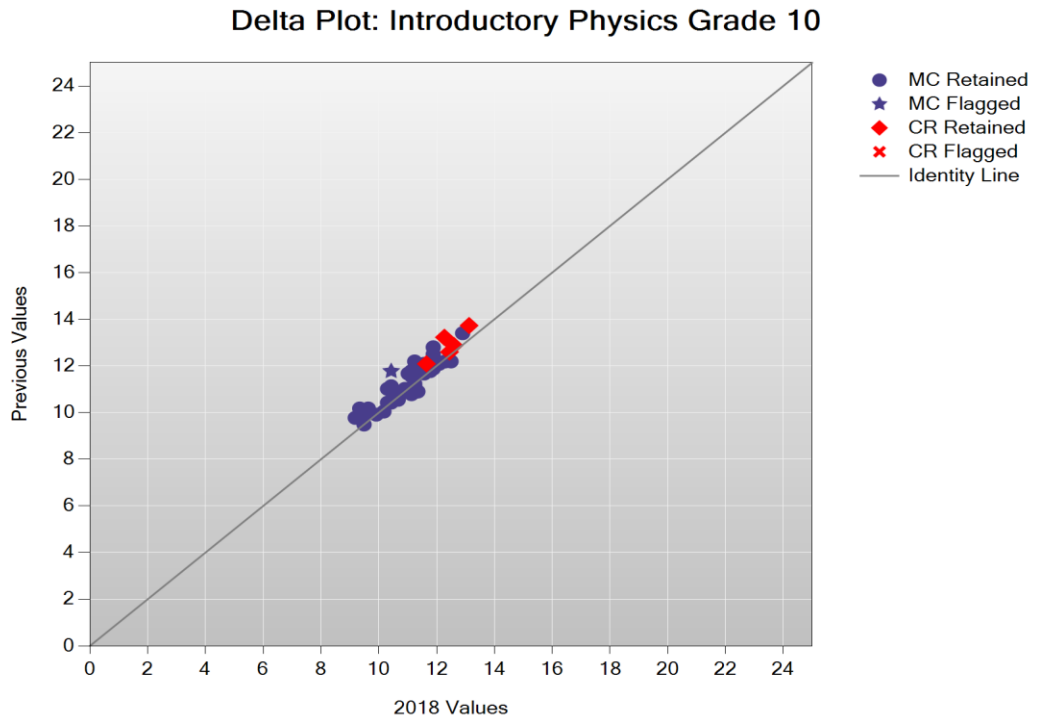


Figure J-6. 2018 Legacy MCAS: Delta Plots –Technology and Engineering Grade 10

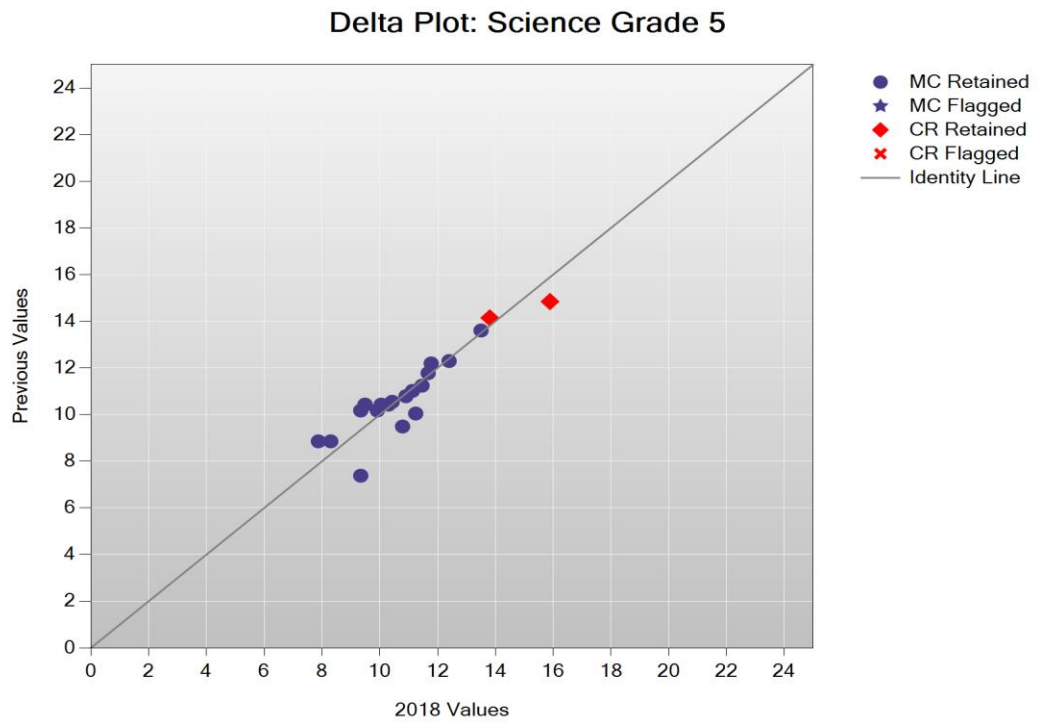


Figure J-7. 2018 Legacy MCAS: Delta Plots –Science Grade 5

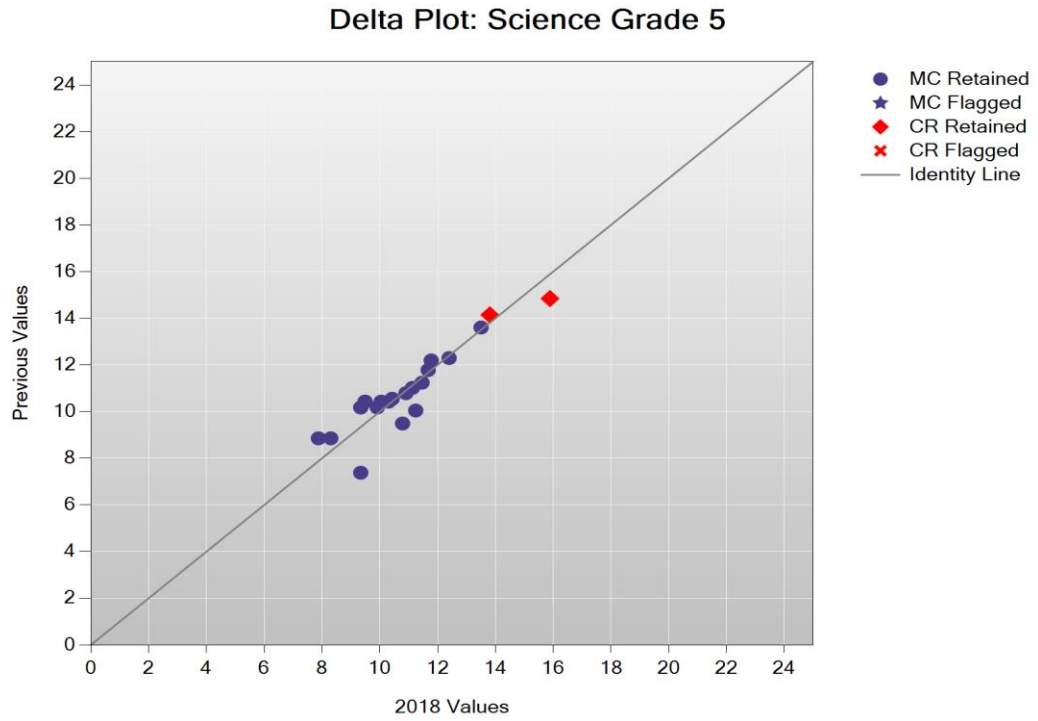
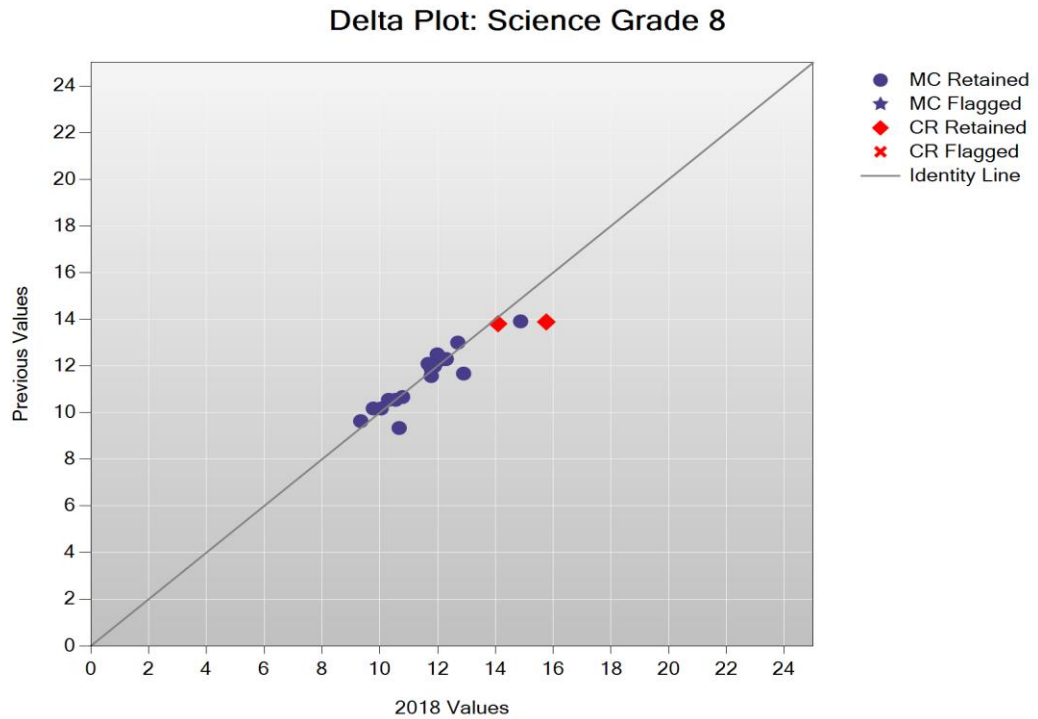


Figure J-8. 2018 Legacy MCAS: Delta Plots –Science Grade 8



**Table J-9. 2018 Legacy MCAS: Rescore Analysis Results –ELA Grade 10**

Item Number	Max	Mean		StDev		Effect Size	Discard
		Old	New	Old	New		
290909	4	1.79512	1.87317	1.07420	1.08624	0.07266	False
299083	4	2.83415	2.93659	1.00577	1.05760	0.10185	False
302652	4	2.35610	2.31220	0.96255	0.94459	-0.04561	False
302886	4	2.46341	2.56098	0.91549	1.01578	0.10657	False
303666	4	1.74634	2.21463	1.05443	1.08138	0.44412	False
304029	4	2.24510	2.23529	0.90903	0.89527	-0.01079	False

**Table J-10. 2018 Legacy MCAS: Rescore Analysis Results –Mathematics Grade 10**

Item Number	Max	Mean		StDev		Effect Size	Discard
		Old	New	Old	New		
294697	4	2.19512	2.20976	1.27609	1.27183	0.01147	False
298055	4	1.46829	1.42439	1.08249	1.08934	-0.04056	False
301486	4	1.84878	1.81951	1.22936	1.28780	-0.02381	False
302066	4	2.22927	2.21463	1.37951	1.41171	-0.01061	False

**Table J-11. 2018 Legacy MCAS: Rescore Analysis Results –Biology Grade HS**

Item Number	Max	Mean		StDev		Effect Size	Discard
		Old	New	Old	New		
234806	4	2.66832	2.62871	1.32856	1.33672	-0.02981	False
289148	4	1.60976	1.68293	0.86540	0.89221	0.08455	False
305077	4	1.86341	1.48293	1.08956	1.08282	-0.34921	False
316268	4	2.39024	2.26341	0.98712	0.86822	-0.12848	False

**Table J-12. 2018 Legacy MCAS: Rescore Analysis Results –Chemistry Grade HS**

Item Number	Max	Mean		StDev		Effect Size	Discard
		Old	New	Old	New		
244944	4	1.70588	1.56863	1.37241	1.27893	-0.10001	False
260796	4	1.79310	1.70936	1.24143	1.15581	-0.06746	False
294709	4	2.10837	2.08374	1.42401	1.39585	-0.01730	False
298326	4	1.47549	1.56373	1.26895	1.17899	0.06953	False
299725	4	2.19024	1.98537	1.37481	1.28138	-0.14902	False

**Table J-13. 2018 Legacy MCAS: Rescore Analysis Results –Intro to Physics Grade HS**

Item Number	Max	Mean		StDev		Effect Size	Discard
		Old	New	Old	New		
287331	4	2.18227	2.20690	1.19042	1.12424	0.02069	False
304741	4	1.87317	1.96585	1.18136	1.13492	0.07845	False
306934	4	2.24510	2.33824	1.28221	1.28205	0.07264	False
316432	4	2.05366	2.07805	1.24146	1.26171	0.01965	False

**Table J-14. 2018 Legacy MCAS: Rescore Analysis Results –Technology and Engineering Grade HS**

Item Number	Max	Mean		StDev		Effect Size	Discard
		Old	New	Old	New		
268493	4	1.52941	1.55392	1.28044	1.31007	0.01914	False
274663	4	1.44878	1.48780	1.32604	1.31212	0.02943	False
290854	4	1.03518	1.00000	0.92865	0.91563	-0.03788	False
305128	4	1.65686	1.71078	1.05508	1.07808	0.05111	False
316542	4	2.21463	2.20000	1.40475	1.41560	-0.01042	False