

Appendix C
Differential Item Functioning (DIF)

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Table C1
DIF for Mathematics Grade 3

OP/FT	Item Type	Form	Item #	C/U	DIF	Bias Type	Focal	Delta(SR) ES (CR)	N_Ref	N_Foc
OP	MC	1	10	C	+B	Eth	AA	1.20834	18262	13765
OP	MC	1	10	C	+B	Eth	Hisp	1.20302	18262	2847
OP	MC	1	12	C	+B	Eth	AA	1.23760	18262	13765
OP	MC	1	12	C	+C	Eth	Hisp	1.59064	18262	2847
OP	MC	1	13	C	+B	Eth	Hisp	1.19282	18262	2847
OP	MC	1	14	C	+B	Sex	F	1.05036	18938	17992
OP	MC	1	24	C	-B	Sex	F	-1.12216	18938	17992
OP	MC	1	37	C	+B	Sex	F	1.12149	18938	17992
OP	MC	1	55	C	-C	Eth	Hisp	-1.62860	18262	2847
OP	MC	1	61	C	-B	Eth	Hisp	-1.19025	18262	2847
OP	MC	1	62	C	+B	Eth	AA	1.11265	18262	13765
OP	MC	2	10	C	+B	Eth	AA	1.05484	11959	9198
OP	MC	2	10	C	+B	Eth	Hisp	1.30401	11959	1995
OP	MC	2	12	C	+B	Eth	AA	1.26613	11959	9198
OP	MC	2	12	C	+C	Eth	Hisp	1.58001	11959	1995
OP	MC	2	13	C	+B	Eth	Hisp	1.08107	11959	1995
OP	MC	2	18	C	-B	Eth	AA	-1.01699	11959	9198
OP	MC	2	18	C	-B	Sex	F	-1.18607	12449	12123
OP	MC	2	24	C	-B	Sex	F	-1.16638	12449	12123
OP	MC	2	37	C	+B	Sex	F	1.02559	12449	12123
OP	MC	2	42	C	-B	Eth	Hisp	-1.11965	11959	1995
OP	MC	2	43	U	+B	Sex	F	1.02666	12449	12123
OP	MC	2	55	C	-C	Eth	Hisp	-1.53023	11959	1995
OP	MC	2	61	C	-B	Eth	Hisp	-1.11412	11959	1995
OP	MC	2	69	C	+B	Sex	F	1.00156	12449	12123
OP	MC	2	73	C	-B	Eth	Hisp	-1.07562	11959	1995
FT	MC	A	92	U	-B	Eth	AA	-1.0478	1383	1062
FT	MC	A	92	U	-B	Sex	F	-1.2955	1545	1304
FT	MC	B	93	U	-B	Sex	F	-1.4625	1409	1429
FT	MC	C	81	U	-B	Eth	AA	-1.0247	1319	1094
FT	MC	C	82	U	+B	Eth	AA	1.4646	1319	1094
FT	MC	C	84	U	-B	Sex	F	-1.1015	1427	1383
FT	MC	C	89	U	-B	Eth	AA	-1.2239	1319	1094
FT	MC	C	89	U	-B	Sex	F	-1.2659	1427	1383
FT	MC	C	91	U	+B	Eth	AA	1.3735	1319	1094
FT	CR	D	78A	U	-BB	Eth	AA	-0.20703	1301	1047
FT	CR	D	78B	U	-BB	Eth	AA	-0.20182	1301	1047
FT	MC	D	87	U	-B	Sex	F	-1.4210	1361	1388
FT	MC	D	90	U	-C	Sex	F	-1.6359	1361	1388

Table C2
DIF for Mathematics Grade 4

OP/FT	Item Type	Form	Item #	C/U	DIF	Bias Type	Focal	Delta(SR) ES (CR)	N_Ref	N_Foc
OP	MC	1	45	C	-B	Sex	F	-1.00257	19480	18520
OP	MC	1	76	U	-B	Sex	F	-1.01794	19480	18520
OP	MC	2	48	U	+B	Eth	Hisp	1.10817	12421	1890
OP	MC	2	51	C	+B	Eth	Hisp	1.09609	12421	1890
OP	MC	2	57	U	-B	Sex	F	-1.08198	12969	12353
OP	CR	2	79A	U	+BB	Eth	Hisp	0.18698	12421	1890
FT	MC	A	82	U	-B	Eth	AA	-1.37724	1442	1109
FT	MC	A	82	U	-C	Sex	F	-1.73602	1571	1365
FT	MC	A	91	U	+B	Sex	F	1.42587	1571	1365
FT	CR	B	80A	U	-BB	Sex	F	-0.24822	1471	1400
FT	MC	B	81	U	-B	Eth	AA	-1.02509	1401	1094
FT	MC	B	89	U	+B	Sex	F	1.21653	1471	1400
FT	CR	C	86A	U	-CC	Eth	Hisp	-0.25203	1418	221
FT	CR	C	86B	U	+BB	Sex	F	0.20880	1462	1390
FT	MC	C	89	U	-B	Sex	F	-1.25602	1462	1390
FT	MC	D	82	U	+B	Sex	F	1.07621	1436	1405
FT	MC	D	90	U	-B	Sex	F	-1.03979	1436	1405
FT	MC	D	91	U	+C	Eth	AA	1.51385	1388	1078
FT	MC	D	91	U	+B	Sex	F	1.14818	1436	1405
FT	MC	E	84	U	-B	Sex	F	-1.22588	1388	1404

Table C3
DIF for Mathematics Grade 5

OP/FT	Item Type	Form	Item #	C/U	DIF	Bias Type	Focal	Delta(SR) ES (CR)	N_Ref	N_Foc
OP	MC	1	12	C	-B	Sex	F	-1.04661	20293	18813
OP	MC	1	32	C	-B	Eth	Hisp	-1.30452	18956	2717
OP	CR	1	33B	U	+BB	Eth	AA	0.22393	18956	15306
OP	MC	1	34	U	+B	Eth	AA	1.31321	18956	15306
OP	MC	1	35	U	-C	Eth	AA	-1.63410	18956	15306
OP	MC	1	36	C	+B	Eth	Hisp	1.03543	18956	2717
OP	CR	1	40B	U	-BB	Eth	Hisp	-0.19964	18956	2717
OP	CR	1	47B	U	-BB	Eth	Hisp	-0.17407	18956	2717
OP	MC	1	48	U	+B	Sex	F	1.15235	20293	18813
OP	MC	1	49	C	+B	Sex	F	1.06719	20293	18813
OP	MC	1	53	U	-B	Sex	F	-1.15051	20293	18813
OP	MC	1	55	C	-B	Sex	F	-1.27217	20293	18813
OP	CR	1	57A	U	+BB	Eth	AA	0.17983	18956	15306
OP	MC	1	58	U	-C	Eth	AA	-1.61966	18956	15306
OP	MC	1	58	U	-C	Eth	Hisp	-2.18263	18956	2717
OP	MC	1	65	U	-B	Eth	AA	-1.10868	18956	15306
OP	MC	1	72	C	-B	Eth	Hisp	-1.35293	18956	2717
OP	MC	2	12	C	-B	Eth	AA	-1.04190	12680	10099
OP	MC	2	32	C	-B	Eth	Hisp	-1.39692	12680	1884
OP	CR	2	33B	U	+BB	Eth	AA	0.22334	12680	10099
OP	MC	2	34	U	+B	Eth	AA	1.34573	12680	10099
OP	MC	2	35	U	-C	Eth	AA	-1.99774	12680	10099
OP	MC	2	36	C	-B	Sex	F	-1.03588	13323	12688
OP	CR	2	40B	U	-BB	Eth	Hisp	-0.24428	12680	1884
OP	MC	2	53	U	-B	Sex	F	-1.34034	13323	12688
OP	MC	2	54	U	+B	Eth	AA	1.00775	12680	10099
OP	MC	2	60	C	-C	Sex	F	-1.52762	13323	12688
OP	CR	2	64B	U	+CC	Sex	F	0.25551	13323	12688
OP	MC	2	65	U	-B	Eth	Hisp	-1.02335	12680	1884
OP	MC	2	72	C	-C	Eth	Hisp	-1.64652	12680	1884
FT	MC	A	80	U	-C	Sex	F	-1.56226	1500	1466
FT	MC	B	89	U	+B	Eth	AA	1.05134	1396	1160
FT	CR	C	77B	U	-BB	Eth	AA	-0.17873	1417	1078
FT	MC	C	79	U	-B	Eth	AA	-1.03682	1417	1078
FT	MC	C	79	U	-B	Sex	F	-1.12052	1434	1470
FT	CR	C	87A	U	-BB	Sex	F	-0.20271	1434	1470
FT	CR	D	83B	U	-BB	Eth	AA	-0.21222	1401	1065
FT	MC	E	87	U	-B	Sex	F	-1.17412	1477	1369
FT	MC	E	89	U	-B	Eth	AA	-1.01603	1401	1075

Table C4
DIF for Mathematics Grade 6

OP/FT	Item Type	Form	Item #	C/U	DIF	Bias Type	Focal	Delta(SR) ES (CR)	N_Ref	N_Foc
OP	MC	1	20	C	-B	Eth	AA	-1.13381	19201	15665
OP	MC	1	20	C	-C	Sex	F	-2.21263	20329	19164
OP	MC	1	35	C	+B	Eth	AA	1.11801	19201	15665
OP	MC	1	48	U	-C	Eth	AA	-1.91837	19201	15665
OP	MC	1	59	C	-B	Eth	AA	-1.02340	19201	15665
OP	MC	2	20	C	-B	Eth	AA	-1.25358	12709	10486
OP	MC	2	20	C	-B	Eth	Hisp	-1.29551	12709	1763
OP	MC	2	20	C	-C	Sex	F	-2.30188	13526	12805
OP	MC	2	36	C	+B	Eth	AA	1.04443	12709	10486
OP	MC	2	46	U	-B	Eth	AA	-1.03123	12709	10486
OP	MC	2	50	U	-B	Eth	Hisp	-1.13245	12709	1763
OP	CR	2	69A	C	-BB	Sex	F	-0.18312	13526	12805
OP	CR	2	75A	U	+BB	Sex	F	0.23939	13526	12805
FT	MC	A	86	U	+B	Sex	F	1.04146	1676	1608
FT	CR	A	93B	U	-BB	Eth	Hisp	-0.17669	1626	203
FT	CR	B	93A	U	-BB	Eth	AA	-0.23397	1659	1235
FT	CR	B	93B	U	-BB	Eth	AA	-0.22378	1659	1235
FT	MC	C	87	U	-B	Eth	AA	-1.17860	1611	1256
FT	MC	D	89	U	+B	Sex	F	1.13581	1649	1567
FT	MC	E	86	U	-B	Eth	AA	-1.09966	1588	1263

Table C5
DIF for Mathematics Grade 7

OP/FT	Item Type	Form	Item #	C/U	DIF	Bias Type	Focal	Delta(SR) ES (CR)	N_Ref	N_Foc
OP	MC	1	24	C	-B	Eth	AA	-1.39357	20220	16096
OP	MC	1	24	C	-B	Sex	F	-1.48397	21118	19798
OP	MC	1	37	C	-C	Sex	F	-1.53357	21118	19798
OP	MC	1	41	U	+B	Sex	F	1.01758	21118	19798
OP	SPR	1	67	C	+BB	Eth	AA	0.17017	20220	16096
OP	MC	1	71	C	-B	Sex	F	-1.10310	21118	19798
OP	MC	2	15	C	+B	Eth	AA	1.01675	13308	10735
OP	MC	2	24	C	-B	Eth	AA	-1.18795	13308	10735
OP	MC	2	24	C	-B	Sex	F	-1.39124	14008	13185
OP	MC	2	35	C	-B	Sex	F	-1.37665	14008	13185
OP	MC	2	40	U	+B	Sex	F	1.08176	14008	13185
OP	CR	2	43B	U	-BB	Eth	AA	-0.19770	13308	10735
OP	MC	2	45	U	-B	Eth	AA	-1.05797	13308	10735
OP	SPR	2	64	C	+BB	Eth	AA	0.18751	13308	10735
OP	SPR	2	67	U	+BB	Eth	AA	0.19572	13308	10735
OP	MC	2	71	C	-B	Sex	F	-1.02891	14008	13185
OP	MC	2	75	U	-B	Eth	AA	-1.15939	13308	10735
OP	MC	2	75	U	-B	Sex	F	-1.27075	14008	13185
OP	CR	2	76B	U	+BB	Eth	AA	0.17446	13308	10735
FT	MC	A	83	U	-B	Sex	F	-1.49744	1819	1672
FT	MC	A	85	U	+B	Eth	AA	1.27297	1746	1350
FT	CR	B	82B	U	+BB	Sex	F	0.22318	1715	1701
FT	MC	B	84	U	+B	Eth	AA	1.38356	1724	1343
FT	MC	B	84	U	+B	Sex	F	1.03774	1715	1701
FT	CR	B	87B	U	+BB	Eth	Hisp	0.19611	1724	209
FT	CR	C	86A	U	-BB	Eth	Hisp	-0.21709	1693	217
FT	SPR	C	87	U	-CC	Eth	AA	-0.27703	1693	1342
FT	CR	C	88B	U	+BB	Sex	F	0.17824	1657	1752
FT	MC	C	89	U	-B	Sex	F	-1.23234	1657	1752
FT	MC	D	84	U	+B	Eth	AA	1.47355	1683	1325
FT	CR	D	88B	U	+BB	Sex	F	0.21532	1710	1675
FT	MC	E	85	U	+B	Sex	F	1.17371	1704	1670
FT	SPR	E	94	U	-BB	Eth	Hisp	-0.23316	1710	247

Table C6
DIF for Mathematics Grade 8

OP/FT	Item Type	Form	Item #	C/U	DIF	Bias Type	Focal	Delta(SR) ES (CR)	N_Ref	N_Foc
OP	MC	1	26	C	-B	Sex	F	-1.42968	17605	16872
OP	MC	1	37	C	-B	Sex	F	-1.45274	17605	16872
OP	MC	1	44	C	+B	Eth	AA	1.29079	17261	13337
OP	MC	1	44	C	+B	Eth	Hisp	1.04102	17261	2162
OP	MC	1	52	U	+B	Sex	F	1.19109	17605	16872
OP	MC	2	16	C	-B	Sex	F	-1.08943	11723	11215
OP	MC	2	26	C	-B	Sex	F	-1.32656	11723	11215
OP	MC	2	41	C	-B	Sex	F	-1.32991	11723	11215
OP	MC	2	42	C	+B	Eth	AA	1.33692	11479	8893
OP	MC	2	45	U	-B	Eth	AA	-1.12848	11479	8893
OP	MC	2	45	U	-B	Eth	Hisp	-1.21877	11479	1396
OP	CR	2	57A	U	-CC	Sex	F	-0.25279	11723	11215
FT	CR	A	77B	U	+BB	Sex	F	0.22237	1854	1711
FT	MC	A	81	U	-B	Eth	AA	-1.08515	1740	1426
FT	CR	A	86B	U	+BB	Eth	Hisp	0.20786	1740	253
FT	CR	A	86B	U	+BB	Sex	F	0.18744	1854	1711
FT	CR	A	90B	U	+BB	Sex	F	0.19013	1854	1711
FT	MC	B	88	U	+B	Eth	AA	1.44470	1830	1323
FT	SPR	C	83	U	+BB	Eth	Hisp	0.24792	1777	216
FT	MC	C	87	U	-B	Sex	F	-1.06889	1782	1730
FT	SPR	D	83	U	+BB	Eth	AA	0.17483	1771	1355
FT	CR	D	84B	U	+BB	Eth	Hisp	0.19968	1771	221
FT	MC	D	86	U	+B	Eth	AA	1.23828	1771	1355
FT	CR	E	77B	U	-BB	Eth	AA	-0.22857	1773	1310