

Appendix G

DIFFERENTIAL ITEM FUNCTIONING RESULTS

Table G-1. 2010 MCAS: Number of Items Classified as “Low” or “High” DIF, Overall and by Group Favored – English Language Arts

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number “Low”			Number “High”		
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal
3	Male	Female	MC	36	0	0	0	0	0	0
	Male	Female	OR	5	0	0	0	0	0	0
	No Disability	Disability	MC	36	4	4	0	0	0	0
	No Disability	Disability	OR	5	0	0	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	36	2	2	0	1	1	0
	Not LEPFLEP	LEPFLEP	OR	5	0	0	0	0	0	0
	Not Low-Income	Low-Income	MC	36	2	2	0	0	0	0
	Not Low-Income	Low-Income	OR	5	0	0	0	0	0	0
	White	African American	MC	36	4	4	0	0	0	0
	White	African American	OR	5	0	0	0	0	0	0
	White	Hispanic	MC	36	2	2	0	0	0	0
	White	Hispanic	OR	5	0	0	0	0	0	0
	4	Male	Female	MC	36	3	3	0	0	0
Male		Female	OR	6	0	0	0	0	0	0
No Disability		Disability	MC	36	0	0	0	0	0	0
No Disability		Disability	OR	6	0	0	0	0	0	0
Not LEPFLEP		LEPFLEP	MC	36	7	7	0	1	1	0
Not LEPFLEP		LEPFLEP	OR	6	0	0	0	0	0	0
Not Low-Income		Low-Income	MC	36	3	3	0	0	0	0
Not Low-Income		Low-Income	OR	6	0	0	0	0	0	0
White		African American	MC	36	5	5	0	0	0	0
White		African American	OR	6	0	0	0	0	0	0
White		Hispanic	MC	36	5	5	0	1	1	0
White		Hispanic	OR	6	0	0	0	0	0	0
5		Male	Female	MC	36	3	3	0	0	0
	Male	Female	OR	4	1	0	1	0	0	0
	No Disability	Disability	MC	36	0	0	0	0	0	0
	No Disability	Disability	OR	4	0	0	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	36	3	3	0	1	1	0
	Not LEPFLEP	LEPFLEP	OR	4	0	0	0	0	0	0
	Not Low-Income	Low-Income	MC	36	2	2	0	0	0	0
	Not Low-Income	Low-Income	OR	4	0	0	0	0	0	0
	White	African American	MC	36	3	3	0	0	0	0
	White	African American	OR	4	0	0	0	0	0	0

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number "Low"			Number "High"			
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal	
5	White	Hispanic	MC	36	4	4	0	1	1	0	
	White	Hispanic	OR	4	0	0	0	0	0	0	
6	Male	Female	MC	36	3	2	1	0	0	0	
	Male	Female	OR	4	1	0	1	0	0	0	
	No Disability	Disability	MC	36	3	3	0	0	0	0	
	No Disability	Disability	OR	4	0	0	0	0	0	0	
	Not LEPFLEP	LEPFLEP	MC	36	6	6	0	1	1	0	
	Not LEPFLEP	LEPFLEP	OR	4	0	0	0	0	0	0	
	Not Low-Income	Low-Income	MC	36	2	2	0	0	0	0	
	Not Low-Income	Low-Income	OR	4	0	0	0	0	0	0	
	White	African American	MC	36	4	4	0	0	0	0	
	White	African American	OR	4	0	0	0	0	0	0	
	White	Hispanic	MC	36	7	7	0	0	0	0	
	White	Hispanic	OR	4	0	0	0	0	0	0	
	7	Male	Female	MC	36	7	6	1	3	3	0
		Male	Female	OR	6	0	0	0	0	0	0
No Disability		Disability	MC	36	1	1	0	0	0	0	
No Disability		Disability	OR	6	0	0	0	0	0	0	
Not LEPFLEP		LEPFLEP	MC	36	9	9	0	1	1	0	
Not LEPFLEP		LEPFLEP	OR	6	0	0	0	0	0	0	
Not Low-Income		Low-Income	MC	36	4	4	0	0	0	0	
Not Low-Income		Low-Income	OR	6	0	0	0	0	0	0	
White		African American	MC	36	6	5	1	0	0	0	
White		African American	OR	6	0	0	0	0	0	0	
White		Hispanic	MC	36	6	6	0	0	0	0	
White		Hispanic	OR	6	0	0	0	0	0	0	
8	Male	Female	MC	36	4	4	0	2	2	0	
	Male	Female	OR	4	2	0	2	0	0	0	
	No Disability	Disability	MC	36	3	3	0	0	0	0	
	No Disability	Disability	OR	4	0	0	0	0	0	0	
	Not LEPFLEP	LEPFLEP	MC	36	7	7	0	4	4	0	
	Not LEPFLEP	LEPFLEP	OR	4	0	0	0	0	0	0	
	Not Low-Income	Low-Income	MC	36	3	3	0	0	0	0	
	Not Low-Income	Low-Income	OR	4	0	0	0	0	0	0	

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number "Low"			Number "High"		
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal
8	White	African American	MC	36	10	10	0	0	0	0
	White	African American	OR	4	0	0	0	0	0	0
	White	Hispanic	MC	36	7	7	0	0	0	0
	White	Hispanic	OR	4	0	0	0	0	0	0
10	Male	Female	MC	36	8	7	1	1	1	0
	Male	Female	OR	6	1	0	1	0	0	0
	No Disability	Disability	MC	36	1	1	0	0	0	0
	No Disability	Disability	OR	6	0	0	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	36	11	10	1	3	3	0
	Not LEPFLEP	LEPFLEP	OR	6	1	0	1	0	0	0
	Not Low-Income	Low-Income	MC	36	5	5	0	0	0	0
	Not Low-Income	Low-Income	OR	6	0	0	0	0	0	0
	White	African American	MC	36	9	8	1	2	2	0
	White	African American	OR	6	1	0	1	0	0	0
	White	Hispanic	MC	36	8	7	1	0	0	0
	White	Hispanic	OR	6	0	0	0	0	0	0

Table G-2. 2010 MCAS: Number of Items Classified as "Low" or "High" DIF, Overall and by Group Favored – Mathematics

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number "Low"			Number "High"		
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal
3	Male	Female	MC	26	0	0	0	0	0	0
	Male	Female	OR	10	0	0	0	0	0	0
	No Disability	Disability	MC	26	1	1	0	0	0	0
	No Disability	Disability	OR	10	0	0	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	26	3	2	1	0	0	0
	Not LEPFLEP	LEPFLEP	OR	10	2	2	0	0	0	0
	Not Low-Income	Low-Income	MC	26	1	1	0	0	0	0
	Not Low-Income	Low-Income	OR	10	1	1	0	0	0	0
	White	African American	MC	26	3	3	0	0	0	0
	White	African American	OR	10	3	3	0	0	0	0
	White	Hispanic	MC	26	3	2	1	0	0	0
	White	Hispanic	OR	10	2	2	0	0	0	0

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number "Low"			Number "High"		
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal
4	Male	Female	MC	32	0	0	0	0	0	0
	Male	Female	OR	10	1	1	0	0	0	0
	No Disability	Disability	MC	32	2	2	0	0	0	0
	No Disability	Disability	OR	10	0	0	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	32	5	4	1	2	2	0
	Not LEPFLEP	LEPFLEP	OR	10	1	0	1	0	0	0
	Not Low-Income	Low-Income	MC	32	2	2	0	0	0	0
	Not Low-Income	Low-Income	OR	10	0	0	0	0	0	0
	White	African American	MC	32	2	1	1	2	2	0
	White	African American	OR	10	2	2	0	0	0	0
	White	Hispanic	MC	32	4	4	0	1	1	0
	White	Hispanic	OR	10	0	0	0	0	0	0
	5	Male	Female	MC	32	1	1	0	0	0
Male		Female	OR	10	1	1	0	0	0	0
No Disability		Disability	MC	32	0	0	0	0	0	0
No Disability		Disability	OR	10	0	0	0	0	0	0
Not LEPFLEP		LEPFLEP	MC	32	3	3	0	0	0	0
Not LEPFLEP		LEPFLEP	OR	10	2	2	0	0	0	0
Not Low-Income		Low-Income	MC	32	0	0	0	0	0	0
Not Low-Income		Low-Income	OR	10	0	0	0	0	0	0
White		African American	MC	32	2	2	0	0	0	0
White		African American	OR	10	3	3	0	0	0	0
White		Hispanic	MC	32	0	0	0	0	0	0
White	Hispanic	OR	10	0	0	0	0	0	0	
6	Male	Female	MC	32	6	5	1	0	0	0
	Male	Female	OR	10	1	0	1	0	0	0
	No Disability	Disability	MC	32	0	0	0	0	0	0
	No Disability	Disability	OR	10	0	0	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	32	2	2	0	0	0	0
	Not LEPFLEP	LEPFLEP	OR	10	0	0	0	0	0	0
	Not Low-Income	Low-Income	MC	32	0	0	0	0	0	0
	Not Low-Income	Low-Income	OR	10	0	0	0	0	0	0
	White	African American	MC	32	3	2	1	0	0	0
	White	African American	OR	10	1	1	0	0	0	0
	White	Hispanic	MC	32	1	1	0	0	0	0

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number "Low"			Number "High"		
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal
6	White	Hispanic	OR	10	0	0	0	0	0	0
	Male	Female	MC	32	6	6	0	0	0	0
7	Male	Female	OR	10	1	0	1	0	0	0
	No Disability	Disability	MC	32	0	0	0	0	0	0
	No Disability	Disability	OR	10	0	0	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	32	3	2	1	2	2	0
	Not LEPFLEP	LEPFLEP	OR	10	1	1	0	0	0	0
	Not Low-Income	Low-Income	MC	32	1	1	0	0	0	0
	Not Low-Income	Low-Income	OR	10	0	0	0	0	0	0
	White	African American	MC	32	4	2	2	1	1	0
	White	African American	OR	10	0	0	0	0	0	0
	White	Hispanic	MC	32	2	2	0	0	0	0
	White	Hispanic	OR	10	0	0	0	0	0	0
	8	Male	Female	MC	32	4	4	0	0	0
Male		Female	OR	10	1	0	1	0	0	0
No Disability		Disability	MC	32	1	1	0	0	0	0
No Disability		Disability	OR	10	0	0	0	0	0	0
Not LEPFLEP		LEPFLEP	MC	32	8	7	1	1	1	0
Not LEPFLEP		LEPFLEP	OR	10	0	0	0	0	0	0
Not Low-Income		Low-Income	MC	32	1	1	0	0	0	0
Not Low-Income		Low-Income	OR	10	0	0	0	0	0	0
White		African American	MC	32	3	3	0	0	0	0
White		African American	OR	10	1	1	0	0	0	0
White		Hispanic	MC	32	1	1	0	0	0	0
White		Hispanic	OR	10	0	0	0	0	0	0
10	Male	Female	MC	32	3	2	1	0	0	0
	Male	Female	OR	10	0	0	0	0	0	0
	No Disability	Disability	MC	32	0	0	0	0	0	0
	No Disability	Disability	OR	10	0	0	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	32	6	1	5	2	2	0
	Not LEPFLEP	LEPFLEP	OR	10	2	2	0	0	0	0
	Not Low-Income	Low-Income	MC	32	0	0	0	0	0	0
	Not Low-Income	Low-Income	OR	10	0	0	0	0	0	0
	White	African American	MC	32	2	2	0	1	1	0

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number "Low"			Number "High"		
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal
10	White	African American	OR	10	0	0	0	0	0	0
	White	Hispanic	MC	32	2	2	0	0	0	0
	White	Hispanic	OR	10	0	0	0	0	0	0

Table G-3. 2010 MCAS: Number of Items Classified as "Low" or "High" DIF, Overall and by Group Favored – Science and Technology/Engineering

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number "Low"			Number "High"		
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal
5	Male	Female	MC	38	1	1	0	1	1	0
	Male	Female	OR	4	1	0	1	0	0	0
	No Disability	Disability	MC	38	0	0	0	0	0	0
	No Disability	Disability	OR	4	1	1	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	38	8	8	0	0	0	0
	Not LEPFLEP	LEPFLEP	OR	4	1	1	0	0	0	0
	Not Low-Income	Low-Income	MC	38	4	4	0	0	0	0
	Not Low-Income	Low-Income	OR	4	1	1	0	0	0	0
	White	African American	MC	38	7	7	0	0	0	0
	White	African American	OR	4	0	0	0	0	0	0
	White	Hispanic	MC	38	9	8	1	0	0	0
	White	Hispanic	OR	4	1	1	0	0	0	0
	8	Male	Female	MC	38	3	3	0	1	1
Male		Female	OR	4	0	0	0	0	0	0
No Disability		Disability	MC	38	3	2	1	0	0	0
No Disability		Disability	OR	4	2	2	0	0	0	0
Not LEPFLEP		LEPFLEP	MC	38	8	8	0	1	1	0
Not LEPFLEP		LEPFLEP	OR	4	0	0	0	0	0	0
Not Low-Income		Low-Income	MC	38	2	2	0	0	0	0
Not Low-Income		Low-Income	OR	4	0	0	0	0	0	0
White		African American	MC	38	9	9	0	0	0	0
White		African American	OR	4	0	0	0	0	0	0
White		Hispanic	MC	38	5	5	0	0	0	0
White		Hispanic	OR	4	0	0	0	0	0	0

Table G-4. 2010 MCAS: Number of Items Classified as “Low” or “High” DIF, Overall and by Group Favored – High School Biology

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number “Low”			Number “High”		
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal
HS	Male	Female	MC	40	3	2	1	0	0	0
	Male	Female	OR	5	0	0	0	0	0	0
	No Disability	Disability	MC	40	0	0	0	0	0	0
	No Disability	Disability	OR	5	1	1	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	40	5	5	0	5	5	0
	Not LEPFLEP	LEPFLEP	OR	5	1	1	0	0	0	0
	Not Low-Income	Low-Income	MC	40	0	0	0	0	0	0
	Not Low-Income	Low-Income	OR	5	0	0	0	0	0	0
	White	African American	MC	40	4	4	0	0	0	0
	White	African American	OR	5	0	0	0	0	0	0
	White	Hispanic	MC	40	4	4	0	0	0	0
	White	Hispanic	OR	5	0	0	0	0	0	0

Table G-5. 2010 MCAS: Number of Items Classified as “Low” or “High” DIF, Overall and by Group Favored – High School Chemistry

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number “Low”			Number “High”		
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal
HS	Male	Female	MC	40	6	5	1	0	0	0
	Male	Female	OR	5	1	0	1	0	0	0
	No Disability	Disability	MC	40	16	12	4	4	2	2
	No Disability	Disability	OR	5	1	1	0	1	1	0
	Not LEPFLEP	LEPFLEP	MC	40	18	5	13	7	6	1
	Not LEPFLEP	LEPFLEP	OR	5	0	0	0	1	1	0
	Not Low-Income	Low-Income	MC	40	8	6	2	3	2	1
	Not Low-Income	Low-Income	OR	5	0	0	0	0	0	0
	White	African American	MC	40	11	7	4	8	4	4
	White	African American	OR	5	2	2	0	0	0	0
	White	Hispanic	MC	40	18	10	8	2	1	1
	White	Hispanic	OR	5	1	1	0	0	0	0

Table G-6. 2010 MCAS: Number of Items Classified as “Low” or “High” DIF, Overall and by Group Favored – High School Introductory Physics

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number “Low”			Number “High”		
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal
HS	Male	Female	MC	40	10	6	4	0	0	0
	Male	Female	OR	5	0	0	0	0	0	0
	No Disability	Disability	MC	40	4	4	0	0	0	0
	No Disability	Disability	OR	5	0	0	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	40	13	7	6	1	1	0
	Not LEPFLEP	LEPFLEP	OR	5	2	2	0	0	0	0
	Not Low-Income	Low-Income	MC	40	1	1	0	0	0	0
	Not Low-Income	Low-Income	OR	5	1	1	0	0	0	0
	White	African American	MC	40	10	8	2	1	1	0
	White	African American	OR	5	1	1	0	0	0	0
	White	Hispanic	MC	40	5	5	0	0	0	0
	White	Hispanic	OR	5	1	1	0	0	0	0

Table G-7. 2010 MCAS: Number of Items Classified as “Low” or “High” DIF, Overall and by Group Favored – High School Technology/Engineering

Grade	Reference Group	Focal Group	Item Type	Number of Items	Number “Low”			Number “High”		
					Total	Favoring Reference	Favoring Focal	Total	Favoring Reference	Favoring Focal
HS	Male	Female	MC	40	12	7	5	3	3	0
	Male	Female	OR	5	0	0	0	0	0	0
	No Disability	Disability	MC	40	7	6	1	1	1	0
	No Disability	Disability	OR	5	0	0	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	40	11	8	3	16	11	5
	Not LEPFLEP	LEPFLEP	OR	5	1	0	1	0	0	0
	Not Low-Income	Low-Income	MC	40	1	1	0	0	0	0
	Not Low-Income	Low-Income	OR	5	0	0	0	0	0	0
	White	African American	MC	40	12	7	5	6	4	2
	White	African American	OR	5	1	1	0	1	1	0
	White	Hispanic	MC	40	15	12	3	3	3	0
	White	Hispanic	OR	5	0	0	0	0	0	0