

# **APPENDIX G**

## **DIFFERENTIAL ITEM FUNCTIONING RESULTS**

**Table G-1. 2016 MCAS: Number of Items Classified as “Low” or “High” DIF, Overall and by Group Favored – ELA**

Grade	Group		Item Type	Number of Items	Number “Low”			Number “High”		
	Reference	Focal			Total	Favoring		Total	Favoring	
						Reference	Focal		Reference	Focal
3	Male	Female	MC	36	0	0	0	0	0	0
			OR	5	0	0	0	0	0	0
	No Disability	Disability	MC	36	1	1	0	0	0	0
			OR	5	0	0	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	36	3	3	0	0	0	0
			OR	5	0	0	0	0	0	0
	Not Economically Disadvantaged	Economically Disadvantaged	MC	36	0	0	0	0	0	0
			OR	5	0	0	0	0	0	0
	White	African American	MC	36	1	1	0	0	0	0
			OR	5	0	0	0	0	0	0
		Hispanic	MC	36	0	0	0	0	0	0
			OR	5	0	0	0	0	0	0
4	Male	Female	MC	36	0	0	0	0	0	0
			OR	4	0	0	0	0	0	0
	No Disability	Disability	MC	36	2	2	0	0	0	0
			OR	4	0	0	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	36	6	6	0	0	0	0
			OR	4	0	0	0	0	0	0
	Not Economically Disadvantaged	Economically Disadvantaged	MC	36	0	0	0	0	0	0
			OR	4	0	0	0	0	0	0
	White	African American	MC	36	0	0	0	0	0	0
			OR	4	0	0	0	0	0	0
		Hispanic	MC	36	2	2	0	0	0	0
			OR	4	0	0	0	0	0	0
5	Male	Female	MC	36	1	1	0	1	1	0
			OR	4	0	0	0	0	0	0
	No Disability	Disability	MC	36	2	2	0	0	0	0
			OR	4	1	1	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	36	10	10	0	0	0	0
			OR	4	0	0	0	0	0	0

continued

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

continued

Grade	Group		Item Type	Number of Items	Number "Low"			Number "High"		
	Reference	Focal			Total	Favoring		Total	Favoring	
						Reference	Focal		Reference	Focal
8	No Disability	Disability	MC	36	2	2	0	0	0	0
			OR	4	2	2	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	36	7	7	0	2	2	0
			OR	4	0	0	0	0	0	0
	Not Economically Disadvantaged	Economically Disadvantaged	MC	36	2	2	0	0	0	0
			OR	4	0	0	0	0	0	0
	White	African American	MC	36	6	6	0	0	0	0
			OR	4	0	0	0	0	0	0
		Hispanic	MC	36	2	2	0	0	0	0
			OR	4	0	0	0	0	0	0
	Male	Female	MC	36	4	4	0	0	0	0
			OR	6	0	0	0	0	0	0
10	No Disability	Disability	MC	36	0	0	0	0	0	0
			OR	6	0	0	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	36	14	14	0	3	3	0
			OR	6	0	0	0	0	0	0
	Not Economically Disadvantaged	Economically Disadvantaged	MC	36	1	1	0	0	0	0
			OR	6	0	0	0	0	0	0
	White	African American	MC	36	5	5	0	0	0	0
			OR	6	0	0	0	0	0	0
		Hispanic	MC	36	3	3	0	0	0	0
			OR	6	0	0	0	0	0	0

**Table G-2. 2016 MCAS: Number of Items Classified as "Low" or "High" DIF, Overall and by Group Favored – Mathematics**

Grade	Group		Item Type	Number of Items	Number "Low"			Number "High"		
	Reference	Focal			Total	Favoring		Total	Favoring	
						Reference	Focal		Reference	Focal
3	Male	Female	MC	26	0	0	0	0	0	0
			OR	10	0	0	0	0	0	0
	No Disability	Disability	MC	26	1	1	0	0	0	0
			OR	10	1	1	0	0	0	0

continued

Grade	Group		Item Type	Number of Items	Number "Low"			Number "High"			
	Reference	Focal			Total	Favoring		Total	Favoring		
						Reference	Focal		Reference	Focal	
3	Not LEPFLEP	LEPFLEP	MC	26	4	4	0	0	0	0	
			OR	10	2	2	0	0	0	0	
	Not Economically Disadvantaged	Economically Disadvantaged	MC	26	1	1	0	0	0	0	
			OR	10	0	0	0	0	0	0	
	White	African American	MC	26	4	3	1	0	0	0	
			OR	10	2	2	0	0	0	0	
		Hispanic	MC	26	1	1	0	0	0	0	
			OR	10	0	0	0	0	0	0	
	4	Male	Female	MC	32	3	3	0	0	0	0
				OR	10	0	0	0	0	0	0
No Disability		Disability	MC	32	0	0	0	0	0	0	
			OR	10	2	2	0	0	0	0	
Not LEPFLEP		LEPFLEP	MC	32	2	2	0	0	0	0	
			OR	10	1	1	0	0	0	0	
Not Economically Disadvantaged		Economically Disadvantaged	MC	32	1	1	0	0	0	0	
			OR	10	0	0	0	0	0	0	
White		African American	MC	32	2	2	0	0	0	0	
			OR	10	0	0	0	0	0	0	
	Hispanic	MC	32	1	1	0	0	0	0		
		OR	10	0	0	0	0	0	0		
5	Male	Female	MC	32	4	4	0	0	0	0	
			OR	10	1	0	1	0	0	0	
	No Disability	Disability	MC	32	1	1	0	0	0	0	
			OR	10	1	1	0	0	0	0	
	Not LEPFLEP	LEPFLEP	MC	32	2	0	2	0	0	0	
			OR	10	0	0	0	0	0	0	
	Not Economically Disadvantaged	Economically Disadvantaged	MC	32	0	0	0	0	0	0	
			OR	10	0	0	0	0	0	0	
	White	African American	MC	32	0	0	0	0	0	0	
			OR	10	1	1	0	0	0	0	
Hispanic		MC	32	2	1	1	0	0	0		
		OR	10	0	0	0	0	0	0		

continued

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

continued

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

**Table G-3. 2016 MCAS: Number of Items Classified as "Low" or "High" DIF, Overall and by Group Favored – STE**

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

continued

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

**Table G-4. 2016 MCAS: Number of Items Classified as "Low" or "High" DIF, Overall and by Group Favored – High School Biology**

	Group		Item Type	Number of Items	Number "Low"			Number "High"		
	Reference	Focal			Total	Favoring		Total	Favoring	
						Reference	Focal		Reference	Focal
Male		Female	MC	40	2	1	1	0	0	0
			OR	5	0	0	0	0	0	0
No Disability		Disability	MC	40	0	0	0	0	0	0
			OR	5	1	1	0	0	0	0
Not LEPFLEP		LEPFLEP	MC	40	3	2	1	0	0	0
			OR	5	1	1	0	0	0	0
Not Economically Disadvantaged		Economically Disadvantaged	MC	40	0	0	0	0	0	0
			OR	5	0	0	0	0	0	0
White		African American	MC	40	1	1	0	0	0	0
			OR	5	0	0	0	0	0	0
White		Hispanic	MC	40	0	0	0	0	0	0
			OR	5	0	0	0	0	0	0



**Table G-5. 2016 MCAS: Number of Items Classified as “Low” or “High” DIF, Overall and by Group Favored – High School Chemistry**

Group		Item Type	Number of Items	Number “Low”			Number “High”		
Reference	Focal			Total	Favoring		Total	Favoring	
					Reference	Focal		Reference	Focal
Male	Female	MC	40	11	9	2	1	1	0
		OR	5	1	0	1	0	0	0
No Disability	Disability	MC	40	0	0	0	0	0	0
		OR	5	0	0	0	0	0	0
Not LEPFLEP	LEPFLEP	MC	40	15	11	4	8	5	3
		OR	5	2	1	1	1	1	0
Not Economically Disadvantaged	Economically Disadvantaged	MC	40	8	6	2	0	0	0
		OR	5	0	0	0	0	0	0
White	African American	MC	40	8	4	4	8	5	3
		OR	5	1	1	0	0	0	0
	Hispanic	MC	40	15	9	6	7	4	3
		OR	5	0	0	0	0	0	0

**Table G-6. 2016 MCAS: Number of Items Classified as “Low” or “High” DIF, Overall and by Group Favored – High School Introductory Physics**

Group		Item Type	Number of Items	Number “Low”			Number “High”		
Reference	Focal			Total	Favoring		Total	Favoring	
					Reference	Focal		Reference	Focal
Male	Female	MC	40	1	1	0	0	0	0
		OR	5	0	0	0	0	0	0
No Disability	Disability	MC	40	1	1	0	0	0	0
		OR	5	0	0	0	0	0	0
Not LEPFLEP	LEPFLEP	MC	40	7	6	1	0	0	0
		OR	5	1	1	0	0	0	0
Not Economically Disadvantaged	Economically Disadvantaged	MC	40	0	0	0	0	0	0
		OR	5	0	0	0	0	0	0
White	African American	MC	40	2	2	0	0	0	0
		OR	5	0	0	0	0	0	0
	Hispanic	MC	40	2	2	0	0	0	0
		OR	5	0	0	0	0	0	0

**Table G-7. 2016 MCAS: Number of Items Classified as “Low” or “High” DIF, Overall and by Group Favored – High School Technology/Engineering**

Group		Item Type	Number of Items	Number “Low”			Number “High”		
Reference	Focal			Total	Favoring		Total	Favoring	
					Reference	Focal		Reference	Focal
Male	Female	MC	40	7	4	3	0	0	0
		OR	5	0	0	0	0	0	0
No Disability	Disability	MC	40	5	5	0	0	0	0
		OR	5	0	0	0	0	0	0
Not LEPFLEP	LEPFLEP	MC	40	7	6	1	2	0	2
		OR	5	2	2	0	0	0	0
Not Economically Disadvantaged	Economically Disadvantaged	MC	40	1	1	0	0	0	0
		OR	5	0	0	0	0	0	0
White	African American	MC	40	9	5	4	1	1	0
		OR	5	0	0	0	0	0	0
	Hispanic	MC	40	4	4	0	0	0	0
		OR	5	1	1	0	0	0	0