

# **Appendix G**

## **DIFFERENTIAL ITEM FUNCTIONING RESULTS**

**Table G-1. 2012 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	3	3	0	0	0	0
			OR	5	1	0	1	0	0	0
	No Disability	Disability	MC	36	4	4	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 Low-Income	Low-Income	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	2	2	0	0	0	0
			OR	5	0	0	0	0	0	0
4	Male	Female	MC	36	3	2	1	0	0	0
			OR	6	0	0	0	0	0	0
	No Disability	Disability	MC	36	3	3	0	0	0	0
			OR	6	0	0	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	36	8	8	0	0	0	0
			OR	6	0	0	0	0	0	0
	Not Low-Income	Low-Income	MC	36	2	2	0	0	0	0
			OR	6	0	0	0	0	0	0
	White	African American	MC	36	6	6	0	0	0	0
			OR	6	0	0	0	0	0	0
		Hispanic	MC	36	4	4	0	0	0	0
			OR	6	0	0	0	0	0	0
5	Male	Female	MC	36	3	2	1	0	0	0
			OR	4	1	0	1	0	0	0
	No Disability	Disability	MC	36	0	0	0	1	1	0
			OR	4	0	0	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	36	4	4	0	1	1	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 Low-Income	Low-Income	MC	36	2	2	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	2	2	0	1	1	0	
			OR	4	0	0	0	0	0	0	
	6	Male	Female	MC	36	2	2	0	0	0	0
				OR	4	2	0	2	0	0	0
No Disability		Disability	MC	36	1	1	0	0	0	0	
			OR	4	0	0	0	0	0	0	
Not LEPFLEP		LEPFLEP	MC	36	5	5	0	1	1	0	
			OR	4	0	0	0	0	0	0	
		Not Low-Income	Low-Income	MC	36	1	1	0	0	0	0
				OR	4	0	0	0	0	0	0
White	African American	MC	36	3	3	0	1	1	0		
		OR	4	0	0	0	0	0	0		
	Hispanic	MC	36	3	3	0	1	1	0		
		OR	4	0	0	0	0	0	0		
7	Male	Female	MC	36	3	3	0	1	1	0	
			OR	6	2	0	2	0	0	0	
	No Disability	Disability	MC	36	0	0	0	0	0	0	
			OR	6	0	0	0	0	0	0	
	Not LEPFLEP	LEPFLEP	MC	36	9	9	0	1	1	0	
			OR	6	1	0	1	0	0	0	
		Not Low-Income	Low-Income	MC	36	1	1	0	0	0	0
				OR	6	0	0	0	0	0	0
White	African American	MC	36	6	6	0	0	0	0		
		OR	6	0	0	0	0	0	0		
	Hispanic	MC	36	5	5	0	0	0	0		
		OR	6	0	0	0	0	0	0		
8	Male	Female	MC	36	5	5	0	0	0	0	
			OR	4	2	0	2	0	0	0	
	No Disability	Disability	MC	36	3	3	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
8	Not LEPFLEP	LEPFLEP	MC	36	9	9	0	4	4	0
			OR	4	0	0	0	0	0	0
	Not Low-Income	Low-Income	MC	36	2	2	0	0	0	0
			OR	4	0	0	0	0	0	0
	White	African American	MC	36	8	8	0	0	0	0
			OR	4	0	0	0	0	0	0
		Hispanic	MC	36	9	9	0	0	0	0
			OR	4	0	0	0	0	0	0
10	Male	Female	MC	36	8	8	0	0	0	0
			OR	6	2	0	2	0	0	0
	No Disability	Disability	MC	36	1	1	0	0	0	0
			OR	6	0	0	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	36	10	9	1	6	6	0
			OR	6	0	0	0	0	0	0
	Not Low-Income	Low-Income	MC	36	3	3	0	0	0	0
			OR	6	0	0	0	0	0	0
White	African American	MC	36	4	4	0	1	1	0	
		OR	6	0	0	0	0	0	0	
Hispanic	Hispanic	MC	36	5	5	0	1	1	0	
		OR	6	0	0	0	0	0	0	

**Table G-2. 2012 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	1	1	0	0	0	0
	No Disability	Disability	MC	26	1	1	0	0	0	0
			OR	10	0	0	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	26	3	2	1	1	1	0
			OR	10	2	1	1	0	0	0
	Not Low-Income	Low-Income	MC	26	2	2	0	0	0	0
			OR	10	0	0	0	0	0	0
	White	African American	MC	26	8	6	2	0	0	0
			OR	10	0	0	0	0	0	0
		Hispanic	MC	26	4	4	0	0	0	0
			OR	10	1	1	0	0	0	0
4	Male	Female	MC	32	3	3	0	1	1	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
	Not LEPFLEP	LEPFLEP	MC	32	5	5	0	0	0	0
			OR	10	0	0	0	0	0	0
	Not Low-Income	Low-Income	MC	32	4	4	0	0	0	0
			OR	10	0	0	0	0	0	0
	White	African American	MC	32	5	5	0	1	1	0
			OR	10	1	1	0	0	0	0
		Hispanic	MC	32	4	4	0	1	1	0
			OR	10	0	0	0	0	0	0
5	Male	Female	MC	32	4	3	1	0	0	0
			OR	10	0	0	0	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	2	2	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	
5	Not Low-Income	Low-Income	MC	32	1	1	0	0	0	0	
			OR	10	1	1	0	0	0	0	
	White	African American	MC	32	3	3	0	1	1	0	
			OR	10	2	2	0	0	0	0	
		Hispanic	MC	32	2	2	0	0	0	0	
			OR	10	1	1	0	0	0	0	
	6	Male	Female	MC	32	3	3	0	0	0	0
				OR	10	0	0	0	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	3	3	0	0	0	0	
			OR	10	0	0	0	0	0	0	
White		Not Low-Income	Low-Income	MC	32	0	0	0	0	0	0
				OR	10	0	0	0	0	0	0
	African American	MC	32	5	3	2	0	0	0		
		OR	10	1	1	0	0	0	0		
Hispanic	MC	32	1	1	0	0	0	0			
	OR	10	1	1	0	0	0	0			
7	Male	Female	MC	32	6	6	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	0	0	0	0	0	0	
	Not LEPFLEP	LEPFLEP	MC	32	2	2	0	0	0	0	
			OR	10	0	0	0	0	0	0	
	White	Not Low-Income	Low-Income	MC	32	0	0	0	0	0	0
				OR	10	0	0	0	0	0	0
African American		MC	32	4	3	1	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	4	3	1	0	0	0	
			OR	10	1	1	0	0	0	0	
	No Disability	Disability	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	Not LEPFLEP	LEPFLEP	MC	32	4	3	1	1	1	0
			OR	10	2	1	1	0	0	0
	Not Low-Income	Low-Income	MC	32	0	0	0	0	0	0
			OR	10	0	0	0	0	0	0
	White	African American	MC	32	4	2	2	0	0	0
			OR	10	2	2	0	0	0	0
		Hispanic	MC	32	1	1	0	0	0	0
			OR	10	0	0	0	0	0	0
Male	Female	MC	32	0	0	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	0	0	0	0	0	0	
10	Not LEPFLEP	LEPFLEP	MC	32	3	1	2	1	1	0
			OR	10	2	2	0	1	0	1
	Not Low-Income	Low-Income	MC	32	0	0	0	0	0	0
			OR	10	0	0	0	0	0	0
	White	African American	MC	32	4	3	1	0	0	0
			OR	10	1	0	1	0	0	0
		Hispanic	MC	32	0	0	0	0	0	0
			OR	10	0	0	0	0	0	0

**Table G-3. 2012 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	0	0	0
	No Disability	Disability	MC	38	0	0	0	0	0	0
			OR	4	1	1	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	38	6	5	1	0	0	0
			OR	4	1	1	0	0	0	0
	Not Low-Income	Low-Income	MC	38	5	5	0	0	0	0
			OR	4	1	1	0	0	0	0
	White	African American	MC	38	5	5	0	1	1	0
			OR	4	1	1	0	0	0	0
		Hispanic	MC	38	7	7	0	0	0	0
			OR	4	1	1	0	0	0	0
8	Male	Female	MC	38	2	2	0	0	0	0
			OR	4	0	0	0	0	0	0
	No Disability	Disability	MC	38	0	0	0	0	0	0
			OR	4	1	1	0	0	0	0
	Not LEPFLEP	LEPFLEP	MC	38	4	4	0	0	0	0
			OR	4	0	0	0	0	0	0
	Not Low-Income	Low-Income	MC	38	2	2	0	0	0	0
			OR	4	0	0	0	0	0	0
	White	African American	MC	38	2	2	0	1	1	0
			OR	4	1	1	0	0	0	0
		Hispanic	MC	38	4	4	0	0	0	0
			OR	4	0	0	0	0	0	0



**Table G-4. 2012 MCAS: Number of Items Classified as “Low” or “High” DIF, Overall and by Group Favored – High School Biology**

<i>Group</i>		<i>Item Type</i>	<i>Number of Items</i>	<i>Number “Low”</i>			<i>Number “High”</i>		
<i>Reference</i>	<i>Focal</i>			<i>Total</i>	<i>Favoring</i>		<i>Total</i>	<i>Favoring</i>	
					<i>Reference</i>	<i>Focal</i>		<i>Reference</i>	<i>Focal</i>
Male	Female	MC	40	2	1	1	0	0	0
		OR	5	0	0	0	0	0	0
No Disability	Disability	MC	40	2	2	0	0	0	0
		OR	5	1	1	0	0	0	0
Not LEPFLEP	LEPFLEP	MC	40	11	7	4	0	0	0
		OR	5	0	0	0	0	0	0
Not Low-Income	Low-Income	MC	40	0	0	0	0	0	0
		OR	5	0	0	0	0	0	0
White	African American	MC	40	1	0	1	0	0	0
		OR	5	1	1	0	0	0	0
	Hispanic	MC	40	1	1	0	0	0	0
		OR	5	0	0	0	0	0	0

**Table G-5. 2012 MCAS: Number of Items Classified as “Low” or “High” DIF, Overall and by Group Favored – High School Chemistry**

<i>Group</i>		<i>Item Type</i>	<i>Number of Items</i>	<i>Number “Low”</i>			<i>Number “High”</i>		
<i>Reference</i>	<i>Focal</i>			<i>Total</i>	<i>Favoring</i>		<i>Total</i>	<i>Favoring</i>	
					<i>Reference</i>	<i>Focal</i>		<i>Reference</i>	<i>Focal</i>
Male	Female	MC	40	5	5	0	1	1	0
		OR	5	0	0	0	0	0	0
No Disability	Disability	MC	40	7	4	3	5	3	2
		OR	5	2	2	0	0	0	0
Not LEPFLEP	LEPFLEP	MC	40	10	5	5	17	11	6
		OR	5	1	1	0	0	0	0
Not Low-Income	Low-Income	MC	40	11	5	6	3	3	0
		OR	5	0	0	0	0	0	0
White	African American	MC	40	6	2	4	7	5	2
		OR	5	0	0	0	0	0	0
	Hispanic	MC	40	9	4	5	2	2	0
		OR	5	1	1	0	0	0	0

**Table G-6. 2012 MCAS: Number of Items Classified as “Low” or “High” DIF, Overall and by Group Favored – High School Introductory Physics**

<i>Group</i>		<i>Item Type</i>	<i>Number of Items</i>	<i>Number “Low”</i>			<i>Number “High”</i>		
<i>Reference</i>	<i>Focal</i>			<i>Total</i>	<i>Favoring</i>		<i>Total</i>	<i>Favoring</i>	
					<i>Reference</i>	<i>Focal</i>		<i>Reference</i>	<i>Focal</i>
Male	Female	MC	40	3	2	1	1	1	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	10	7	3	0	0	0
		OR	5	1	1	0	0	0	0
Not Low-Income	Low-Income	MC	40	0	0	0	0	0	0
		OR	5	0	0	0	0	0	0
White	African American	MC	40	6	5	1	0	0	0
		OR	5	1	1	0	0	0	0
	Hispanic	MC	40	4	4	0	0	0	0
		OR	5	0	0	0	0	0	0

**Table G-7. 2012 MCAS: Number of Items Classified as “Low” or “High” DIF, Overall and by Group Favored – High School Technology/Engineering**

<i>Group</i>		<i>Item Type</i>	<i>Number of Items</i>	<i>Number “Low”</i>			<i>Number “High”</i>		
<i>Reference</i>	<i>Focal</i>			<i>Total</i>	<i>Favoring</i>		<i>Total</i>	<i>Favoring</i>	
					<i>Reference</i>	<i>Focal</i>		<i>Reference</i>	<i>Focal</i>
Male	Female	MC	40	5	3	2	3	2	1
		OR	5	1	0	1	0	0	0
No Disability	Disability	MC	40	4	2	2	1	1	0
		OR	5	1	1	0	0	0	0
Not LEPFLEP	LEPFLEP	MC	40	12	9	3	7	7	0
		OR	5	1	1	0	0	0	0
Not Low-Income	Low-Income	MC	40	3	3	0	0	0	0
		OR	5	0	0	0	0	0	0
White	African American	MC	40	15	14	1	3	1	2
		OR	5	0	0	0	0	0	0
	Hispanic	MC	40	12	8	4	2	1	1
		OR	5	0	0	0	0	0	0