

Table 1: Summary of Differential Item Functioning (DIF) Analyses Results

The analysis below shows the summary of DIF Analyses Results conducted in the 2020-2021 program year for the date range of September 1, 2015 through August 31, 2020. DIF analyses are generated for items on MTEL test forms that are taken by at least 100 candidates in both the focal and reference groups. Refer to the Technical Manual: DIF Analyses for a full description of test quality review, including the DIF analysis and review process.

Field Name	Total Comparisons Made	*Number of Items Identified for C-Level DIF	Comparison Group
Early Childhood (MA002)	82	3	W/B
History (MA006)	137	6	M/F
		1	W/B
		2	W/H
English (MA007)	162	1	M/F
		2	W/B
Mathematics (MA009)	111	5	M/F
General Science (MA010)	77	5	M/F
Physics (MA011)	64	3	M/F
Chemistry (MA012)	62	1	M/F
Biology (MA013)	59	10	M/F
Music (MA016)	81	2	M/F
Visual Art (MA017)	63	2	M/F
Health/Family and Consumer Sciences (MA021)	62	6	M/F
Physical Education (MA022)	80	6	M/F
Spanish (MA028)	104	2	M/F
		11	W/H
Mathematics (Middle School) (MA047)	86	1	M/F
		3	W/B
Middle School Humanities (MA050)	70	6	M/F
Mathematics/Science (Middle School) (MA051)	55	2	M/F

Field Name	Total Comparisons Made	*Number of Items Identified for C-Level DIF	Comparison Group
Mathematics (Elementary) (MA053)	57	4	M/F
English as a Second Language (MA054)	131	1 2 2	M/F W/B W/H
Sheltered English Immersion (MA056)	72	4 1 1	M/F W/B W/H
Foundations of Reading (MA090)	182	1 2	M/F W/H
Communication and Literacy Skills - Reading Subtest (MA101)	192	11 4	M/F W/H
General Curriculum Test - Multiple Subjects (MA103)	35	5	M/F
Vocational Technical Literacy Skills (MA191)	37	3	M/F
Communication and Literacy Skills - Writing Subtest (MA201)	118	3 2	M/F W/H
General Curriculum Test – Mathematics (MA203)	30	1	M/F
Vocational Tech – Writing (MA291)	21	1	M/F
Total	2230	127	-

*Note. Values represent an instance of an item flagging at the C level for DIF. One item may flag on more than one test form.

Table 2: Differential Item Analysis (DIF) Outcomes

Following review by the Department items identified by the DIF analysis based on ethnicity were forwarded to the MTEL Bias Review Committee for review. Table 2 summarizes the outcome of the review.

Note that items identified with the 2020-2021 DIF analysis that were previously identified and reviewed by a Bias Review Committee as part of previous administration years' DIF activities were not included in the 2020-2021 Bias review.

FIELD	Number of Items Reviewed by the MTEL Bias Review Committee Identified by Comparison Group		N of Items Deleted	
	White/Black	White/Hispanic	Potential Bias Identified	Other*
(MA002) Early Childhood	2	-	1	-
(MA006) History	1	2	-	-
(MA007) English	1	1	1	-
(MA009) Mathematics	-	1	-	-
(MA047) Middle School Mathematics	1	-	-	-
(MA054) English as a Second Language	1	2	-	-
(MA056) Sheltered English Immersion	2	1	-	-
(101) Communication and Literacy Skills – Reading subtest	3	3	1	-

*Items may have been deleted due to reasons other than potential bias, including topicality.