Mathematics • Grade 8

Exhibit 3.1: Average Mathematics Achievement and Scale Score Distributions

€iea TIMSS 2019

Country	Average Scale Score		Mathematics Achievement Distribution							
² Singapore	616 (4.0)									
Chinese Taipei	612 (2.7)									
Korea, Rep. of	607 (2.8)		-							
Japan	594 (2.7)							_		
† Hong Kong SAR	578 (4.1)		-							
² Russian Federation	543 (4.5)									
Ireland	524 (2.6)									
Lithuania	520 (2.9)								_	
³ Israel	519 (4.3)									
Australia	517 (3.8)									
Hungary	517 (2.9)	<u> </u>								
† United States	515 (4.8)									
England	515 (5.3)									
Finland	509 (2.6)					_	-			
[†] Norway (9)	503 (2.4)						-			
² Sweden	503 (2.5)						-			
Cyprus	501 (1.6)					_	-			
Portugal	500 (3.2)									
TIMSS Scale Centerpoint	500									
Italy	497 (2.7)					_	_			
Turkey	496 (4.3)						_			
² Kazakhstan	488 (3.3)	\bigtriangledown				_	_			
France	483 (2.5)	∇	-				_			
† New Zealand	482 (3.4)	∇					_			
Bahrain	481 (1.7)	∇	-				-			
Romania	479 (4.3)	∇	· · · · ·							
United Arab Emirates	473 (1.9)	V								
¹ Georgia	461 (4.3)	V								
•	461 (4.3)	V								
Malaysia		∇					_			
Iran, Islamic Rep. of	446 (3.7)	∇								
Ψ Qatar	443 (4.0)									
Ψ Chile	441 (2.8)	\bigtriangledown								
Lebanon	429 (2.9)	\bigtriangledown								
Ψ Jordan	420 (4.3)	\bigtriangledown				_		-		
² Ψ Egypt	413 (5.2)	∇								
Ψ Oman	411 (2.8)	\bigtriangledown						-		
Ψ Kuwait	403 (5.0)	\bigtriangledown				-		•		
² Ψ Saudi Arabia	394 (2.5)	\bigtriangledown				-				
^ж South Africa (9)	389 (2.3)	\bigtriangledown								
Ψ Morocco	388 (2.3)	\bigtriangledown				-				
Benchmarking Participants			100	200	300	400	500	600	700	8
Moscow City, Russian Fed.	575 (4.2)									
‡ Quebec, Canada	543 (3.7)					_				
² Dubai, UAE	537 (2.0)		-			_				
Ontario, Canada	530 (4.3)								_	
Ψ Western Cape, RSA (9)	441 (4.4)		·							
 Ψ Abu Dhabi, UAE 	436 (2.9)	V								
		∇								
Gauteng, RSA (9)	421 (3.0)		100	200	300	400	500	600	700	
			Average	significantly highe erpoint of the TIMS	er than	400	500	Percentiles of P 25 th		
		\bigtriangledown	Average	significantly lower erpoint of the TIMS	than		95%	Confidence Interval	for Average (±2SE)	

The TIMSS achievement scale was established in 1995 based on the combined achievement distribution of all countries that participated in TIMSS 1995. To provide a point of reference for country comparisons, the scale centerpoint of 500 was located at the mean of the combined achievement distribution. The units of the scale were chosen so that 100 scale score points corresponded to the standard deviation of the distribution.

Ψ Reservations about reliability because the percentage of students with achievement too low for estimation exceeds 15% but does not exceed 25%.

X Reservations about reliability because the percentage of students with achievement too low for estimation exceeds 25%.

See Appendix B.7 for population coverage notes 1, 2, and 3. See Appendix B.10 for sampling guidelines and sampling participation notes †, ‡, and ≡.

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

SOURCE: IEA's Trends in International Mathematics and Science Study - TIMSS 2019 Downloaded from http://timss2019.org/download

