

SOURCE: IEA's Trends in International Mathematics and Science Study – TIMSS 2015

## Exhibit 1.9: Relative Achievement of 2011 Fourth Grade Cohort as Eighth Grade Students in 2015 – Countries Assessed Both Grades in Both Assessment Years

Follow the green arrow pointing diagonally downwards to compare relative performance among the TIMSS countries at the fourth grade in 2011 (upper-left panel) to relative performance at the eighth grade in 2015 (lower-right panel).

Country	Achievement Difference FIMSS Scale Centerpoint 87 (2.1) 83 (3.4) 59 (1.9) 52 (3.4)	
Singapore Japan Russian Federation	83 (3.4) 59 (1.9)	_
Japan Russian Federation	59 (1.9)	٥
Russian Federation	,	
	ED /2 4\	٥
Chinese Taipei	32 (3. <del>4</del> )	٥
	52 (2.2)	٥
United States	44 (2.1)	٥
Hong Kong SAR	35 (3.7)	٥
Hungary	34 (3.7)	٥
Sweden	33 (2.8)	٥
England	29 (3.0)	٥
Italy	24 (2.7)	٥
Slovenia	20 (2.6)	٥
Australia	16 (2.9)	٥
Lithuania	15 (2.4)	٥
New Zealand	-3 (2.4)	
Kazakhstan	-5 (5.1)	
Norway (4)	-6 (2.5)	♥
Chile	-20 (2.5)	♥
Turkey	-37 (4.7)	€
Georgia	-45 (3.9)	♥
Iran, Islamic Rep. of	-47 (3.8)	♥
Bahrain	-51 (3.5)	€
Saudi Arabia	-71 (5.5)	€
United Arab Emirates	-72 (2.5)	€
Qatar	-106 (4.3)	€
Oman	-123 (4.3)	€
Morocco	-236 (4.4)	€

2015 - Fourth Grade		
Country	Achievement Difference TIMSS Scale Centerpoint	
Singapore	90 (3.7)	٥
Korea, Rep. of	89 (2.0)	٥
Japan	69 (1.8)	٥
Russian Federation	67 (3.2)	٥
Hong Kong SAR	57 (2.9)	٥
Chinese Taipei	55 (1.8)	٥
Kazakhstan	50 (4.4)	٥
United States	46 (2.2)	٥
Slovenia	43 (2.4)	٥
Hungary	42 (3.3)	٥
Sweden	40 (3.6)	٥
England	36 (2.4)	٥
Lithuania	30 (2.7)	٥
Australia	24 (2.9)	٥
Italy	16 (2.6)	٥
New Zealand	6 (2.7)	٥
Norway (4)	-7 (2.2)	€
Turkey	-17 (3.3)	♥
Chile	-22 (2.7)	€
Bahrain	-41 (2.6)	◉
Georgia	-49 (3.7)	€
United Arab Emirates	-49 (2.8)	♥
Qatar	-64 (4.1)	€
Oman	-69 (3.1)	♥
Iran, Islamic Rep. of	-79 (4.0)	€
Saudi Arabia	-110 (4.9)	€
Morocco	-148 (4.7)	♥

<b>2011 - Ei</b> g	2011 - Eighth Grade	
Country	Achievement Difference f TIMSS Scale Centerpoint (:	
Singapore	90 (4.3)	0
Chinese Taipei	64 (2.3)	٥
Korea, Rep. of	60 (2.0)	٥
Japan	58 (2.4)	٥
Slovenia	43 (2.6)	٥
Russian Federation	42 (3.3)	٥
Hong Kong SAR	35 (3.4)	٥
England	33 (4.9)	0
United States	25 (2.4)	٥
Hungary	22 (3.1)	0
Australia	19 (4.7)	٥
Lithuania	14 (2.5)	0
New Zealand	12 (4.6)	٥
Sweden	9 (2.6)	٥
Italy	1 (2.4)	
Norway (8)	-6 (2.6)	♥
Kazakhstan	-10 (4.2)	♥
Turkey	-17 (3.4)	♥
Iran, Islamic Rep. of	-26 (4.0)	♥
United Arab Emirates	-35 (2.4)	♥
Chile	-39 (2.5)	♥
Bahrain	-48 (1.9)	♥
Saudi Arabia	-64 (3.8)	♥
Georgia	-80 (3.0)	♥
Oman	-80 (3.2)	€
Qatar	-81 (3.2)	♥
Morocco	-124 (2.2)	♥

2015 - E	ighth Grade	
Country	Achievement Difference TIMSS Scale Centerpoint	
Singapore	97 (3.2)	٥
Japan	71 (1.8)	٥
Chinese Taipei	69 (2.1)	٥
Korea, Rep. of	56 (2.2)	٥
Slovenia	51 (2.4)	٥
Hong Kong SAR	46 (3.9)	٥
Russian Federation	44 (4.2)	٥
England	37 (3.8)	٥
Kazakhstan	33 (4.4)	٥
United States	30 (2.8)	٥
Hungary	27 (3.4)	٥
Sweden	22 (3.4)	٥
Lithuania	22 (3.0)	٥
New Zealand	13 (3.1)	٥
Australia	12 (2.7)	٥
Italy	-1 (2.4)	
Turkey	-7 (4.0)	
Norway (8)	-11 (2.4)	◉
United Arab Emirates	-23 (2.3)	◉
Bahrain	-34 (2.2)	•
Qatar	-43 (3.0)	€
Iran, Islamic Rep. of	-44 (4.0)	◉
Oman	-45 (2.7)	◉
Chile	-46 (3.1)	◉
Georgia	-57 (3.1)	◉
Saudi Arabia	-104 (4.5)	•
Morocco	-107 (2.5)	€

- ${\color{red} \bullet} \ \ {\color{red} Country average significantly higher than the centerpoint of the TIMSS scale}$

Trend results for Lithuania do not include students taught in Polish or in Russian.

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





## **Exhibit 1.9:** Relative Achievement of 2011 Fourth Grade Cohort as Eighth Grade Students in 2015 - Countries Assessed Both Grades in Both Assessment Years (Continued)

2011 - Fou	ırth Grade	
Country	Achievement Difference TIMSS Scale Centerpoin	
Benchmarking Participants		
Florida, US	45 (3.7)	٥
Ontario, Canada	28 (3.1)	٥
Quebec, Canada	16 (2.7)	٥
Dubai, UAE	-39 (2.5)	◉
Abu Dhabi, UAE	-89 (5.0)	▼ (

2011 - Eig	hth Grade	
Country	Achievement Difference TIMSS Scale Centerpoint	
Benchmarking Participants		
Florida, US	30 (7.4)	0
Ontario, Canada	21 (2.4)	٥
Quebec, Canada	20 (2.6)	٥
Dubai, UAE	-15 (2.6)	€
Abu Dhabi, UAE	-39 (3.9)	•

	2015 - Fo	ourth Grade	
Country		Achievement Differe TIMSS Scale Centerpo	
Benchmarki	ng Participants	3	
Florida, U	5	49 (4.8)	0
Ontario, C	anada	30 (2.5)	٥
Quebec, C		25 (4.1)	٥
Dubai, UA	E	18 (1.8)	٥
Abu Dhab	i, UAE	-85 (5.6)	€

2015 - Fou	ırth Grade	
Country	Achievement Difference from TIMSS Scale Centerpoint (50	
Benchmarking Participants		
Florida, US	49 (4.8)	٥
Ontario, Canada	30 (2.5)	٥
Quebec, Canada	25 (4.1)	٥
Dubai, UAE	18 (1.8)	٥
Abu Dhabi, UAE	-85 (5.6)	♥
2015 - Eig	hth Grade	
Country	Achievement Difference from TIMSS Scale Centerpoint (50	
Country  Benchmarking Participants		
, in the second second		
Benchmarking Participants	TIMSS Scale Centerpoint (50	
Benchmarking Participants Quebec, Canada	TIMSS Scale Centerpoint (50 30 (4.4)	
Benchmarking Participants Quebec, Canada Dubai, UAE	30 (4.4) 25 (2.0)	0)

<sup>•</sup> Country average significantly higher than the centerpoint of the TIMSS scale

<sup>©</sup> Country average significantly lower than the centerpoint of the TIMSS scale