

Country	School Participation				Overall Participation	
	Before Replacement	After Replacement	Class Participation	Student Participation	Before Replacement	After Replacement
Albania	99%	99%	100%	99%	98%	98%
Armenia	100%	100%	100%	97%	97%	97%
Australia	99%	100%	100%	94%	93%	94%
Austria	99%	99%	100%	97%	97%	97%
Azerbaijan	94%	98%	100%	95%	89%	92%
Bahrain	100%	100%	100%	98%	98%	98%
† Belgium (Flemish)	66%	95%	100%	93%	62%	89%
Bosnia and Herzegovina Bulgaria	<u>100%</u> 97%	100%	99%	96% 95%	95% 92%	95% 95%
Canada	86%	90%	100%	95%	82%	86%
Chile	89%	99%	100%	96%	86%	95%
Chinese Taipei	95%	99%	100%	99%	94%	98%
Croatia	95%	97%	99%	91%	85%	87%
Cyprus	99%	100%	100%	97%	96%	97%
Czech Republic	99%	100%	100%	96%	95%	96%
† Denmark	70%	95%	99%	87%	61%	83%
England	86%	93%	100%	96%	82%	89%
Finland	99%	100%	100%	97%	96%	97%
France	100%	100%	100%	98%	98%	98%
Georgia	97% 97%	99%	100% 100%	97% 97%	94% 94%	96% 97%
† Hong Kong SAR	67%	88%	100%	90%	60%	79%
Hungary	93%	99%	100%	97%	90%	96%
Iran, Islamic Rep. of	100%	100%	100%	99%	99%	99%
Ireland	100%	100%	100%	91%	91%	91%
Italy	96%	100%	100%	97%	92%	97%
Japan	84%	98%	100%	97%	82%	95%
Kazakhstan	100%	100%	100%	99%	99%	99%
Korea, Rep. of	99%	99%	100%	98%	97%	97%
Kosovo	100%	100%	100%	97%	97%	97%
Kuwait	97%	98%	100%	96%	93%	94%
Latvia	92%	99%	100%	94%	87%	93%
Lithuania Malta	100% 100%	100% 100%	100%	94%	94% 96%	94% 96%
Montenegro	100%	100%	100%	98%	98%	98%
Morocco	100%	100%	100%	99%	99%	99%
■ Netherlands	46%	75%	100%	97%	45%	73%
New Zealand	87%	99%	100%	94%	81%	93%
North Macedonia	98%	100%	100%	95%	94%	95%
† Northern Ireland	60%	86%	100%	91%	55%	78%
† Norway (5)	70%	90%	100%	94%	66%	84%
Oman	99%	100%	100%	98%	98%	98%
Pakistan	77%	99%	100%	98%	75%	96%
Philippines Poland	<u>100%</u> 96%	100%	100%	98%	98% 89%	98% 93%
Portugal	87%	100%	99%	94%	81%	94%
Qatar	100%	100%	100%	97%	97%	97%
Russian Federation	99%	99%	100%	98%	97%	97%
Saudi Arabia	98%	99%	100%	99%	97%	98%
Serbia	97%	100%	100%	97%	95%	97%
Singapore	100%	100%	100%	97%	97%	97%
Slovak Republic	97%	99%	100%	97%	93%	96%
South Africa (5)	96%	99%	100%	98%	94%	97%
Spain	97%	99%	100%	95%	92%	95%
Sweden	100%	100%	100%	95%	95%	95%
Turkey (5)	99% 100%	100% 100%	100% 100%	99%	98% 96%	99% 96%
United Arab Emirates  † United States	76%	88%	100%	96%	73%	84%
Benchmarking Participants	10/0		130 /0		1370	J+ /0
Ontario, Canada	93%	95%	100%	95%	88%	90%
Quebec, Canada	82%	86%	100%	96%	79%	83%
Moscow City, Russian Fed.	99%	100%	100%	98%	97%	97%
Madrid, Spain	100%	100%	100%	96%	96%	96%
Abu Dhabi, UAE	100%	100%	100%	95%	95%	95%
Dubai, UAE	100%	100%	100%	97%	97%	97%

TIMSS guidelines for sampling participation: The minimum acceptable participation rates were 85 percent of both schools and students, or a combined rate (the product of school and student participation) of 75 percent.

Participants not meeting these guidelines were annotated as follows:

- $\ensuremath{\uparrow}$  Met guidelines for sample participation rates only after replacement schools were included
- ‡ Nearly satisfied guidelines for sample participation rates after replacement schools were included
- Did not satisfy guidelines for sample participation rates

