

## **Appendix PC.5: Participation Rates (Weighted) - Physics**

Country	School Participation		Class	Student	Overall Participation	
	Before Replacement	After Replacement	Participation	Participation	Before Replacement	After Replacement
France	99%	99%	100%	96%	95%	95%
Italy	89%	95%	99%	97%	85%	91%
‡ Lebanon	70%	70%	100%	98%	68%	68%
Norway	98%	98%	100%	94%	93%	93%
Portugal	83%	87%	100%	93%	78%	81%
Russian Federation	97%	100%	100%	98%	95%	98%
Slovenia	86%	86%	100%	86%	74%	74%
Sweden	99%	100%	99%	90%	88%	89%
‡ United States	65%	68%	100%	85%	55%	58%

TIMSS Advanced guidelines for sampling participation: The minimum acceptable participation rates were 85% of both schools and students, or a combined rate (the product of school and student participation) of 75%. Participants not meeting these guidelines were annotated as follows:

OURCE: IEA's Trends in International Mathematics and Science Study

 $<sup>^\</sup>dagger$  Met guidelines for sample participation rates only after replacement schools were included.

<sup>&</sup>lt;sup>‡</sup> Nearly satisfied guidelines for sample participation rates after replacement schools were included.

<sup>&</sup>lt;sup>‡</sup> Did not satisfy guidelines for sample participation rates.