## Appendix C.7: Participation Rates (Weighted)

| Country | School Participation |  | Class <br> Participation | Student Participation | Overall Participation |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Before Replacement | After Replacement |  |  | Before Replacement | After Replacement |
| Australia | 98\% | 99\% | 100\% | 95\% | 94\% | 94\% |
| Bahrain | 100\% | 100\% | 100\% | 99\% | 99\% | 99\% |
| † Belgium (Flemish) | 74\% | 97\% | 100\% | 98\% | 73\% | 95\% |
| Bulgaria | 97\% | 97\% | 100\% | 96\% | 93\% | 93\% |
| + Canada | 80\% | 86\% | 99\% | 94\% | 74\% | 80\% |
| Chile | 87\% | 94\% | 100\% | 94\% | 82\% | 88\% |
| Chinese Taipei | 99\% | 100\% | 100\% | 99\% | 98\% | 99\% |
| Croatia | 99\% | 100\% | 99\% | 95\% | 93\% | 94\% |
| Cyprus | 100\% | 100\% | 100\% | 98\% | 98\% | 98\% |
| Czech Republic | 100\% | 100\% | 100\% | 95\% | 95\% | 95\% |
| $\dagger$ Denmark | 53\% | 91\% | 100\% | 95\% | 50\% | 86\% |
| England | 95\% | 98\% | 100\% | 98\% | 92\% | 96\% |
| Finland | 99\% | 100\% | 100\% | 97\% | 95\% | 97\% |
| France | 96\% | 99\% | 100\% | 98\% | 93\% | 97\% |
| Georgia | 99\% | 100\% | 100\% | 98\% | 97\% | 98\% |
| Germany | 97\% | 99\% | 100\% | 96\% | 93\% | 95\% |
| † Hong Kong SAR | 76\% | 82\% | 100\% | 93\% | 70\% | 76\% |
| Hungary | 99\% | 99\% | 100\% | 97\% | 96\% | 96\% |
| Indonesia | 100\% | 100\% | 100\% | 99\% | 99\% | 99\% |
| Iran, Islamic Rep. of | 100\% | 100\% | 100\% | 99\% | 99\% | 99\% |
| Ireland | 100\% | 100\% | 100\% | 96\% | 96\% | 96\% |
| Italy | 80\% | 99\% | 99\% | 95\% | 75\% | 94\% |
| Japan | 96\% | 99\% | 100\% | 98\% | 94\% | 97\% |
| Kazakhstan | 97\% | 99\% | 100\% | 98\% | 95\% | 97\% |
| Korea, Rep. of | 100\% | 100\% | 100\% | 97\% | 97\% | 97\% |
| Kuwait | 94\% | 94\% | 100\% | 97\% | 90\% | 90\% |
| Lithuania | 99\% | 100\% | 100\% | 94\% | 93\% | 94\% |
| Morocco | 100\% | 100\% | 100\% | 99\% | 99\% | 99\% |
| $\dagger$ Netherlands | 48\% | 87\% | 100\% | 96\% | 46\% | 83\% |
| New Zealand | 81\% | 96\% | 100\% | 94\% | 76\% | 90\% |
| $\ddagger$ Northern Ireland | 65\% | 76\% | 100\% | 93\% | 60\% | 71\% |
| Norway (5) | 93\% | 93\% | 100\% | 95\% | 89\% | 89\% |
| Oman | 97\% | 98\% | 100\% | 99\% | 96\% | 97\% |
| Poland | 91\% | 100\% | 100\% | 92\% | 84\% | 92\% |
| Portugal | 89\% | 99\% | 100\% | 93\% | 83\% | 92\% |
| Qatar | 100\% | 100\% | 100\% | 99\% | 99\% | 99\% |
| Russian Federation | 100\% | 100\% | 100\% | 98\% | 98\% | 98\% |
| Saudi Arabia | 95\% | 100\% | 100\% | 93\% | 88\% | 93\% |
| Serbia | 99\% | 100\% | 100\% | 96\% | 95\% | 96\% |
| Singapore | 100\% | 100\% | 100\% | 96\% | 96\% | 96\% |
| Slovak Republic | 98\% | 100\% | 100\% | 97\% | 95\% | 97\% |
| Slovenia | 96\% | 99\% | 100\% | 95\% | 91\% | 93\% |
| Spain | 98\% | 99\% | 100\% | 96\% | 95\% | 95\% |
| Sweden | 100\% | 100\% | 100\% | 95\% | 95\% | 95\% |
| Turkey | 100\% | 100\% | 100\% | 98\% | 98\% | 98\% |
| United Arab Emirates | 100\% | 100\% | 100\% | 97\% | 97\% | 97\% |
| $\dagger$ United States | 77\% | 85\% | 100\% | 96\% | 74\% | 81\% |

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:
$\dagger$ Met guidelines for sample participation rates only after replacement schools were included.
$\ddagger$ Nearly satisfied guidelines for sample participation rates after replacement schools were included.
$\ddagger$ Did not satisfy guidelines for sample participation rates.

| Country | School Participation |  | Class <br> Participation | Student Participation | Overall Participation |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Before Replacement | After <br> Replacement |  |  | Before Replacement | After <br> Replacement |
| Benchmarking Participants |  |  |  |  |  |  |
| Buenos Aires, Argentina | 86\% | 91\% | 93\% | 93\% | 75\% | 79\% |
| Ontario, Canada | 95\% | 95\% | 100\% | 95\% | 90\% | 90\% |
| \# Quebec, Canada | 48\% | 62\% | 100\% | 95\% | 46\% | 59\% |
| Norway (4) | 94\% | 94\% | 100\% | 95\% | 89\% | 89\% |
| Abu Dhabi, UAE | 100\% | 100\% | 100\% | 97\% | 97\% | 97\% |
| Dubai, UAE | 100\% | 100\% | 100\% | 97\% | 97\% | 97\% |
| Florida, US | 100\% | 100\% | 100\% | 95\% | 95\% | 95\% |

Benchmarking Participants

| Country | School Participation |  | Class <br> Participation | Student Participation | Overall Participation |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Before Replacement | After <br> Replacement |  |  | Before Replacement | After <br> Replacement |
| Benchmarking Participants |  |  |  |  |  |  |
| Buenos Aires, Argentina | 86\% | 91\% | 93\% | 93\% | 75\% | 79\% |
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| Abu Dhabi, UAE | 100\% | 100\% | 100\% | 97\% | 97\% | 97\% |
| Dubai, UAE | 100\% | 100\% | 100\% | 97\% | 97\% | 97\% |
| Florida, US | 100\% | 100\% | 100\% | 95\% | 95\% | 95\% |

