TIMSS 2011

Meeting TIMSS 2011 Standards for Sampling Participation

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TIMSS 2011 participants understood that the goal for sampling participation was 100 percent for all sampled schools, classrooms, and students. Guidelines for reporting achievement data for participants securing less than full participation were modeled after IEA's previous TIMSS and PIRLS assessment cycles. As summarized below, countries were assigned to one of three categories on the basis of their sampling participation. Countries in Category 1 were considered to have met the TIMSS 2011 sampling requirement and to have an acceptable participation rate. Countries in Category 2 met the participation requirements only after including replacement schools. Countries that failed to meet the participation requirements even with the use of replacement schools were assigned to Category 3. One of the main goals for quality data in TIMSS 2011 was to have as many countries as possible achieve Category 1 status.

Exhibit 1: Categories of Sampling Participation

Category 1	Acceptable sampling participation rate **without** the use of replacement schools. In order to be placed in this category, a country had to have: ◆ An **unweighted** school response rate **without** replacement of at least 85% (after rounding to nearest whole percent) AND an **unweighted** student response rate (after rounding) of at least 85% OR ◆ A **weighted** school response rate **without** replacement of at least 85% (after rounding to nearest whole percent) AND a **weighted** student response rate (after rounding) of at least 85% OR ◆ The product of the (unrounded) **weighted** school response rate **without** replacement and the (unrounded) **weighted** student response rate of at least 75% (after rounding to the nearest whole percent). Countries in this category would appear in the tables and figures in international reports without annotation, and will be ordered by achievement as appropriate.
Category 2	Acceptable sampling participation rate **only when replacement schools are included**. A country would be placed in this category 2 if: ◆ It failed to meet the requirements for Category 1 but had a weighted school response rate **without** replacement of at least 50% (after rounding to the nearest percent) AND HAD EITHER ◆ A **weighted** school response rate **with** replacement of at least 85% (after rounding to nearest whole percent) AND a **weighted** student response rate (after rounding) of at least 85% OR ◆ The product of the (unrounded) **weighted** school response rate **with** replacement and the (unrounded) **weighted** student response rate of at least 75% (after rounding to the nearest whole percent). Countries in this category would be annotated with a "dagger" in the tables and figures in international reports, and ordered by achievement as appropriate.
Category 3	Unacceptable sampling response rate even when replacement schools are included. Countries that could provide documentation to show that they complied with TIMSS sampling procedures and requirements but did not meet the requirements for Category 1 or Category 2 would be placed in Category 3. Countries in this category would appear in a separate section of the achievement tables, below the other countries, in international reports. These countries would be presented in alphabetical order.

Exhibit 2 through Exhibit 5 present the school, classroom, student, and overall participation rates and achieved sample sizes for each of the participants in the TIMSS 2011 fourth and eighth grade assessments, respectively. Almost all participants had excellent participation rates and belonged in Category 1. At the fourth grade, The Netherlands and Northern Ireland achieved the minimum acceptable participation rate only after including replacement schools, and therefore their results were annotated with an obelisk (†) in the achievement exhibits in the international reports (Category 2). Despite efforts to secure full participation, Norway's overall participation at 70 percent fell below the minimum requirement of 75 percent, even after using replacements. Results for the Norway in the international reports were annotated with a double-obelisk (‡), indicating that they nearly satisfied the guidelines for sample participation.

At the eighth grade, all participants but one achieved the minimum acceptable participation rates. Despite efforts to secure full participation, England's overall participation at 70 percent fell below the minimum requirement of 75 percent even after using replacements. Results for England in the international reports were annotated with a double-obelisk(‡), indicating that they nearly satisfied the guidelines for sample participation.

Exhibit 2: Weighted School, Class, and Student Participation Rates - TIMSS 2011 - Fourth Grade

Country	School Participation		Class Participation	Student Participation	Overall Participation	
	Before Replacement	After Replacement			Before Replacement	After Replacement
Armenia	100%	100%	100%	98%	98%	98%
Australia	96%	98%	100%	95%	91%	93%
Austria	100%	100%	100%	98%	98%	98%
Azerbaijan	84%	100%	100%	100%	84%	100%
Bahrain	92%	92%	100%	98%	90%	90%
Belgium (Flemish)	76%	95%	99%	98%	75%	92%
Chile	86%	99%	100%	96%	82%	95%
Chinese Taipei	100%	100%	100%	99%	99%	99%
Croatia	99%	100%	100%	95%	94%	95%
Czech Republic	90%	99%	100%	95%	85%	94%
Denmark	79%	92%	100%	95%	75%	87%
England	81%	83%	100%	94%	76%	78%
Finland	97%	99%	100%	96%	93%	96%
Georgia	97%	98%	100%	99%	95%	96%
Germany	96%	99%	100%	96%	92%	95%
Hong Kong SAR	87%	88%	100%	93%	81%	82%
Hungary	98%	99%	100%	97%	94%	96%
Iran, Islamic Rep. of	100%	100%	100%	99%	99%	99%
Ireland	97%	99%	100%	95%	93%	95%
Italy	81%	98%	100%	97%	78%	95%
Japan	96%	99%	100%	97%	93%	97%
Kazakhstan	99%	100%	100%	99%	98%	99%
Korea, Rep. of	100%	100%	100%	98%	98%	98%
Kuwait	99%	99%	99%	94%	91%	91%
Lithuania	94%	100%	100%	94%	89%	94%
Malta	100%	100%	100%	95%	95%	95%
Morocco	100%	100%	100%	97%	96%	96%
† Netherlands	49%	82%	99%	97%	47%	79%
New Zealand	83%	96%	100%	94%	77%	90%
† Northern Ireland	62%	85%	100%	93%	58%	79%
‡ Norway	57%	82%	100%	85%	48%	70%
Oman	98%	98%	100%	98%	96%	96%
Poland	100%	100%	100%	96%	96%	96%
Portugal	87%	98%	99%	94%	81%	92%
Qatar	100%	100%	100%	99%	99%	99%
Romania	99%	100%	100%	98%	97%	97%
Russian Federation	100%	100%	100%	98%	98%	98%
Saudi Arabia	95%	100%	100%	99%	94%	99%
Serbia	97%	100%	100%	97%	94%	97%
Singapore	100%	100%	100%	96%	96%	96%

Exhibit 2: Weighted School, Class, and Student Participation Rates - TIMSS 2011 - Fourth Grade (Continued)

Country	School Participation		Class Participation	Student Participation	Overall Participation	
	Before Replacement	After Replacement			Before Replacement	After Replacement
Slovak Republic	95%	99%	100%	96%	91%	96%
Slovenia	96%	97%	100%	97%	93%	94%
Spain	96%	99%	100%	97%	94%	97%
Sweden	97%	99%	100%	92%	89%	91%
Thailand	85%	100%	100%	99%	84%	99%
Tunisia	100%	100%	100%	99%	99%	99%
Turkey	97%	100%	100%	98%	95%	98%
United Arab Emirates	100%	100%	100%	97%	97%	97%
United States	79%	84%	100%	95%	76%	80%
Yemen	99%	99%	100%	97%	95%	95%

TIMSS 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:
† Met guidelines for sample participation rates only after replacement schools were included.
‡ Nearly satisfied guidelines for sample participation rates after replacement schools were included.
ǂ Did not satisfy guidelines for sample participation rates.

Country	School Participation		Class Participation	Student Participation	Overall Participation	
	Before Replacement	After Replacement			Before Replacement	After Replacement
Sixth Grade Participants						
Botswana	100%	100%	100%	99%	99%	99%
Honduras	91%	100%	100%	97%	88%	97%
Yemen	99%	99%	100%	96%	96%	96%
Benchmarking Participants						
Alberta, Canada	98%	99%	100%	96%	93%	95%
Ontario, Canada	97%	98%	100%	96%	93%	94%
Quebec, Canada	95%	96%	100%	95%	90%	91%
Abu Dhabi, UAE	99%	99%	100%	98%	97%	97%
Dubai, UAE	100%	100%	100%	96%	96%	96%
Florida, US	96%	96%	100%	95%	91%	91%
North Carolina, US	94%	94%	100%	95%	89%	89%

Exhibit 3: Weighted School, Class, and Student Participation Rates - TIMSS 2011 - Eighth Grade

Country	School Participation		Class Participation	Student Participation	Overall Participation	
	Before Replacement	After Replacement			Before Replacement	After Replacement
Armenia	100%	100%	100%	97%	97%	97%
Australia	96%	98%	100%	90%	87%	88%
Bahrain	99%	99%	100%	98%	97%	97%
Chile	88%	99%	100%	95%	84%	95%
Chinese Taipei	100%	100%	100%	99%	99%	99%
‡ England	75%	79%	100%	89%	67%	70%
Finland	97%	98%	100%	95%	91%	93%
Georgia	97%	98%	100%	98%	96%	97%
Ghana	100%	100%	100%	97%	97%	97%
Hong Kong SAR	77%	78%	100%	96%	74%	75%
Hungary	98%	99%	100%	96%	94%	95%
Indonesia	100%	100%	100%	96%	96%	96%
Iran, Islamic Rep. of	100%	100%	100%	99%	98%	99%
Israel	94%	100%	100%	92%	87%	92%
Italy	83%	97%	100%	96%	80%	93%
Japan	85%	92%	100%	94%	80%	87%
Jordan	100%	100%	100%	96%	96%	96%
Kazakhstan	99%	100%	100%	98%	98%	98%
Korea, Rep. of	100%	100%	100%	99%	99%	99%
Lebanon	90%	98%	100%	96%	87%	94%

Exhibit 3: Weighted School, Class, and Student Participation Rates - TIMSS 2011 - Eighth Grade (Continued)

Country	School Participation		Class Participation	Student Participation	Overall Participation	
	Before Replacement	After Replacement			Before Replacement	After Replacement
Lithuania	92%	99%	100%	93%	85%	92%
Macedonia, Rep. of	100%	100%	100%	95%	95%	95%
Malaysia	100%	100%	100%	98%	98%	98%
Morocco	100%	100%	100%	94%	94%	94%
New Zealand	87%	98%	100%	90%	78%	88%
Norway	89%	89%	100%	94%	84%	84%
Oman	99%	99%	100%	98%	97%	97%
Palestinian Nat'l Auth.	100%	100%	100%	98%	98%	98%
Qatar	99%	99%	100%	99%	99%	99%
Romania	99%	100%	100%	99%	97%	99%
Russian Federation	100%	100%	100%	98%	98%	98%
Saudi Arabia	98%	100%	100%	98%	96%	98%
Singapore	100%	100%	100%	95%	95%	95%
Slovenia	96%	98%	100%	94%	91%	92%
Sweden	97%	98%	100%	94%	91%	92%
Syrian Arab Republic	99%	99%	100%	93%	92%	92%
Thailand	92%	100%	100%	99%	90%	99%
Tunisia	99%	99%	100%	97%	97%	97%
Turkey	99%	100%	100%	97%	96%	97%
Ukraine	98%	100%	100%	98%	97%	98%
United Arab Emirates	100%	100%	100%	97%	97%	97%
United States	87%	87%	100%	94%	81%	81%

TIMSS 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:
† 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.

Country	School Participation		Class Participation	Student Participation	Overall Participation	
	Before Replacement	After Replacement			Before Replacement	After Replacement
Ninth Grade Participants						
Botswana	100%	100%	100%	98%	98%	98%
Honduras	88%	100%	100%	96%	84%	96%
South Africa	100%	100%	100%	95%	94%	95%
Benchmarking Participants						
Alberta, Canada	91%	99%	100%	93%	85%	92%
Ontario, Canada	97%	98%	100%	95%	92%	93%
Quebec, Canada	96%	96%	99%	93%	88%	88%
Abu Dhabi, UAE	99%	99%	100%	97%	96%	96%
Dubai, UAE	99%	99%	100%	96%	95%	95%
Alabama, US	92%	92%	100%	92%	84%	84%
California, US	85%	88%	99%	94%	79%	82%
Colorado, US	84%	89%	100%	94%	79%	84%
Connecticut, US	100%	100%	100%	94%	94%	94%
Florida, US	94%	94%	98%	91%	84%	84%
Indiana, US	94%	97%	100%	96%	91%	93%
Massachusetts, US	100%	100%	100%	96%	96%	96%
Minnesota, US	91%	98%	100%	95%	86%	94%
North Carolina, US	98%	98%	100%	95%	93%	93%

Exhibit 4: Unweighted School, Class, and Student Participation Rates - TIMSS 2011 - Fourth Grade

Country	School Participation Before Replacement	School Participation After Replacement	Class Participation	Student Participation	Overall Participation Before Replacement	Overall Participation After Replacement
Armenia	100%	100%	100%	97%	97%	97%
Australia	97%	99%	100%	95%	92%	94%
Austria	100%	100%	100%	98%	98%	98%
Azerbaijan	84%	100%	100%	100%	84%	100%
Bahrain	92%	92%	100%	98%	91%	91%
Belgium (Flemish)	76%	95%	99%	98%	74%	92%
Chile	84%	99%	100%	95%	80%	95%
Chinese Taipei	100%	100%	100%	99%	99%	99%
Croatia	99%	100%	100%	95%	93%	95%
Czech Republic	90%	99%	100%	95%	86%	94%
Denmark	79%	92%	100%	95%	75%	87%
England	81%	83%	100%	94%	76%	78%
Finland	97%	99%	100%	96%	93%	95%
Georgia	97%	98%	100%	98%	96%	96%
Germany	95%	99%	100%	96%	91%	95%
Hong Kong SAR	87%	88%	100%	93%	81%	82%
Hungary	97%	99%	100%	97%	94%	96%
Iran, Islamic Rep. Of	100%	100%	100%	99%	99%	99%
Ireland	97%	99%	100%	96%	93%	95%
Italy	81%	99%	100%	97%	78%	95%
Japan	96%	99%	100%	97%	93%	97%
Kazakhstan	99%	100%	100%	99%	97%	99%
Korea, Repubic of	100%	100%	100%	98%	98%	98%
Kuwait	99%	99%	98%	93%	90%	90%
Lithuania	94%	100%	100%	94%	89%	94%
Malta	100%	100%	100%	95%	95%	95%
Morocco	100%	100%	100%	96%	96%	96%
Netherlands	51%	86%	98%	97%	48%	82%
New Zealand	81%	95%	100%	94%	76%	89%
Northern Ireland	63%	85%	100%	92%	58%	79%
Norway	58%	82%	100%	83%	48%	69%
Oman	98%	98%	100%	98%	96%	96%
Poland	100%	100%	100%	96%	96%	96%
Portugal	88%	98%	99%	94%	82%	91%
Qatar	99%	99%	100%	99%	99%	99%
Romania	99%	100%	100%	98%	97%	97%
Russian Federation	100%	100%	100%	98%	98%	98%
Saudi Arabia	95%	100%	100%	99%	94%	99%

Exhibit 4: Unweighted School, Class, and Student Participation Rates - TIMSS 2011 - Fourth Grade (Continued)

Country	School Participation Before Replacement	School Participation After Replacement	Class Participation	Student Participation	Overall Participation Before Replacement	Overall Participation After Replacement
Serbia	97%	100%	100%	97%	94%	97%
Singapore	100%	100%	100%	96%	96%	96%
Slovak Republic	94%	99%	100%	96%	91%	96%
Slovenia	96%	97%	100%	97%	93%	94%
Spain	97%	99%	100%	98%	94%	97%
Sweden	97%	99%	100%	92%	89%	91%
Thailand	85%	100%	100%	99%	84%	99%
Tunisia	100%	100%	100%	99%	99%	99%
Turkey	98%	100%	100%	98%	96%	98%
United Arab Emirates	100%	100%	100%	97%	97%	97%
United States	79%	84%	100%	95%	75%	80%
Yemen	99%	99%	100%	96%	95%	95%
Sixth Grade Participants						
Botswana	100%	100%	100%	99%	99%	99%
Honduras	90%	100%	100%	96%	87%	96%
Yemen	99%	99%	100%	96%	95%	95%
Benchmarking Participants						
Alberta Province, Canada	98%	99%	100%	96%	94%	95%
Ontario Province, Canada	97%	98%	100%	96%	93%	94%
Quebec Province, Canada	96%	96%	100%	95%	91%	92%
Abu Dhabi, United Arab Emirates	99%	99%	100%	98%	97%	97%
Dubai, United Arab Emirates	100%	100%	100%	96%	96%	96%
Florida, United States	96%	96%	100%	95%	91%	91%
North Carolina, United States	94%	94%	100%	95%	89%	89%

Exhibit 5: Unweighted School, Class, and Student Participation Rates - TIMSS 2011 - Eighth Grade

Country	School Participation Before Replacement	School Participation After Replacement	Class Participation	Student Participation	Overall Participation Before Replacement	Overall Participation After Replacement
Armenia	100%	100%	100%	97%	97%	97%
Australia	96%	97%	100%	87%	83%	84%
Bahrain	99%	99%	100%	98%	97%	97%
Chile	85%	98%	100%	95%	81%	94%
Chinese Taipei	100%	100%	100%	99%	99%	99%
England	75%	79%	99%	90%	67%	70%
Finland	97%	98%	100%	95%	91%	93%
Georgia	98%	98%	100%	98%	96%	96%
Ghana	100%	100%	100%	97%	97%	97%
Hong Kong SAR	77%	78%	100%	96%	75%	75%
Hungary	98%	99%	100%	96%	94%	95%
Indonesia	100%	100%	100%	96%	96%	96%

Exhibit 5: Unweighted School, Class, and Student Participation Rates - TIMSS 2011 - Eighth Grade (Continued)

Country	School Participation Before Replacement	School Participation After Replacement	Class Participation	Student Participation	Overall Participation Before Replacement	Overall Participation After Replacement
Iran, Islamic Rep. Of	100%	100%	100%	98%	98%	98%
Israel	95%	100%	100%	92%	87%	92%
Italy	81%	97%	100%	96%	78%	93%
Japan	85%	92%	100%	94%	80%	87%
Jordan	100%	100%	100%	95%	95%	95%
Kazakhstan	99%	100%	100%	99%	98%	99%
Korea, Repubic of	100%	100%	100%	99%	99%	99%
Lebanon	91%	98%	100%	96%	87%	94%
Lithuania	93%	99%	100%	92%	86%	91%
Macedonia, Republic of	100%	100%	100%	95%	95%	95%
Malaysia	100%	100%	100%	98%	98%	98%
Morocco	100%	100%	100%	94%	94%	94%
New Zealand	87%	98%	100%	90%	79%	88%
Norway	89%	89%	100%	93%	83%	83%
Oman	97%	97%	100%	98%	95%	95%
Palestinian Natl Auth.	100%	100%	100%	99%	99%	99%
Qatar	99%	99%	100%	99%	98%	98%
Romania	99%	100%	100%	98%	97%	98%
Russian Federation	100%	100%	100%	98%	98%	98%
Saudi Arabia	98%	100%	100%	98%	96%	98%
Singapore	100%	100%	100%	95%	95%	95%
Slovenia	96%	97%	100%	94%	90%	92%
Sweden	97%	98%	100%	94%	91%	92%
Syrian Arab Republic	99%	99%	100%	93%	92%	92%
Thailand	93%	100%	100%	99%	92%	99%
Tunisia	98%	98%	100%	97%	96%	96%
Turkey	99%	100%	100%	97%	96%	97%
Ukraine	99%	100%	100%	98%	97%	98%
United Arab Emirates	100%	100%	100%	97%	96%	96%
United States	87%	87%	100%	94%	81%	82%
Ninth Grade Participants						
Botswana	100%	100%	100%	98%	98%	98%
Honduras	86%	100%	100%	95%	82%	95%
South Africa	99%	100%	100%	94%	93%	94%
Benchmarking Participants						
Alberta Province, Canada	90%	99%	100%	92%	84%	91%
Ontario Province, Canada	97%	98%	100%	95%	92%	93%
Quebec Province, Canada	95%	95%	99%	92%	87%	87%
Abu Dhabi, United Arab Emirates	99%	99%	100%	97%	97%	97%
Dubai, United Arab Emirates	99%	99%	100%	96%	95%	95%
Alabama, United States	92%	92%	100%	92%	84%	84%

Exhibit 5: Unweighted School, Class, and Student Participation Rates - TIMSS 2011 - Eighth Grade (Continued)

Country	School Participation Before Replacement	School Participation After Replacement	Class Participation	Student Participation	Overall Participation Before Replacement	Overall Participation After Replacement
California, United States	85%	88%	99%	93%	79%	82%
Colorado, United States	83%	88%	100%	95%	79%	84%
Connecticut, United States	100%	100%	100%	94%	94%	94%
Florida, United States	94%	94%	98%	91%	84%	84%
Indiana, United States	95%	97%	100%	96%	91%	93%
Massachusetts, United States	100%	100%	100%	96%	96%	96%
Minnesota, United States	91%	98%	100%	95%	87%	93%
North Carolina, United States	98%	98%	100%	95%	94%	94%