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2.1 TIMSS TARGET POPULATIONS

2.1.1 Definitions

The international desired target populations for TIMSS are defined below.¹

Population 1: All students enrolled in the two adjacent grades that contain the largest proportion of 9-year-old students at the time of testing

Population 2: All students enrolled in the two adjacent grades that contain the largest proportion of 13-year-old students at the time of testing

Tables 2.1 and 2.2 summarize the grades all participating countries identified as their target populations for the TIMSS Population 1 and Population 2. These tables are those published in the TIMSS international reports (Beaton et al., 1996a; Beaton et al., 1996b; Martin et al., 1997; Mullis et al., 1997). Additional details on these definitions are provided in Appendix B. As shown in the tables, most countries tested the third and fourth grades for Population 1 and the seventh and eighth grades for Population 2. Countries that participated in the performance assessment subsampled students from the upper grade in each of these populations.

Tables 2.3 and 2.4 show the coverage of 9-year-old and 13-year-old students, respectively, across the two grades tested at each population in each country. On occasion, the selected target grades led to the sampling of students older than expected. This was the case for Colombia (Population 2), Germany (Population 2), Kuwait (Population 1 and Population 2), Romania (Population 2), Slovenia (Population 1 and Population 2), and Thailand (Population 1).

¹ A third TIMSS student population – Population 3 – consisted of students in their final year of secondary school. A technical report describing Population 3 activities is forthcoming.

Table 2.1 Information About the Grades Tested - Population 1

Country	Lower Grade		Upper Grade	
	Country's Name for Lower Grade	Years of Formal Schooling Including Lower Grade ¹	Country's Name for Upper Grade	Years of Formal Schooling Including Upper Grade ¹
² Australia	3 or 4	3 or 4	4 or 5	4 or 5
Austria	3	3	4	4
Canada	3	3	4	4
Cyprus	3	3	4	4
Czech Republic	3	3	4	4
England	Year 4	4	Year 5	5
Greece	3	3	4	4
Hong Kong	Primary 3	3	Primary 4	4
Hungary	3	3	4	4
Iceland	3	3	4	4
Iran, Islamic Rep.	3	3	4	4
Ireland	3rd Class	3	4th Class	4
Israel	–	–	4	4
Japan	3	3	4	4
Korea	3rd Grade	3	4th Grade	4
Kuwait	–	–	5	5
Latvia	3	3	4	4
³ Netherlands	5	3	6	4
⁴ New Zealand	Standard 2	3.5-4.5	Standard 3	4.5-5.5
Norway	2	2	3	3
Portugal	3	3	4	4
Scotland	Year 4	4	Year 5	5
Singapore	Primary 3	3	Primary 4	4
Slovenia	3	3	4	4
Thailand	Primary 3	3	Primary 4	4
United States	3	3	4	4

¹ Years of schooling based on the number of years children in the grade level have been in formal schooling, beginning with primary education (International Standard Classification of Education Level 1). Does not include preprimary education.

² Australia: Each state/territory has its own policy regarding age of entry to primary school. In 4 of the 8 states/territories students were sampled from grades 3 and 4; in the other four states/territories students were sampled from grades 4 and 5.

³ In the Netherlands kindergarten is integrated with primary education. Grade-counting starts at age 4 (formerly kindergarten 1). Formal schooling in reading, writing, and arithmetic starts in grade 3, age 6.

⁴ New Zealand: The majority of students begin primary school on or near their 5th birthday so the "years of formal schooling" vary.

Table 2.2 Information About the Grades Tested - Population 2

Country	Lower Grade		Upper Grade	
	Country's Name for Lower Grade	Years of Formal Schooling Including Lower Grade ¹	Country's Name for Upper Grade	Years of Formal Schooling Including Upper Grade ²
² Australia	7 or 8	7 or 8	8 or 9	8 or 9
Austria	3. Klasse	7	4. Klasse	8
Belgium (Fl)	1A	7	2A & 2P	8
Belgium (Fr)	1A	7	2A & 2P	8
Bulgaria	7	7	8	8
Canada	7	7	8	8
Colombia	7	7	8	8
³ Cyprus	7	7	8	8
Czech Republic	7	7	8	8
Denmark	6	6	7	7
England	Year 8	8	Year 9	9
France	5ème	7	4ème (90%) or 4ème Technologique (10%)	8
Germany	7	7	8	8
Greece	Secondary 1	7	Secondary 2	8
Hong Kong	Secondary 1	7	Secondary 2	8
Hungary	7	7	8	8
Iceland	7	7	8	8
Iran, Islamic Rep.	7	7	8	8
Ireland	1st Year	7	2nd Year	8
Israel	–	–	8	8
Japan	1st Grade Lower Secondary	7	2nd Grade Lower Secondary	8
Korea, Republic of	1st Grade Middle School	7	2nd Grade Middle School	8
Kuwait	–	–	9	9
Latvia	7	7	8	8
Lithuania	7	7	8	8
Netherlands	Secondary 1	7	Secondary 2	8
^{3,4} New Zealand	Form 2	7.5 - 8.5	Form 3	8.5 - 9.5
³ Norway	6	6	7	7
³ Philippines	Grade 6 Elementary	6	1st Year High School	7
Portugal	Grade 7	7	Grade 8	8
Romania	7	7	8	8
⁵ Russian Federation	7	6 or 7	8	7 or 8
Scotland	Secondary 1	8	Secondary 2	9
Singapore	Secondary 1	7	Secondary 2	8
Slovak Republic	7	7	8	8
Slovenia	7	7	8	8
Spain	7 EGB	7	8 EGB	8
³ South Africa	Standard 5	7	Standard 6	8
³ Sweden	6	6	7	7
³ Switzerland				
(German)	6	6	7	7
(French and Italian)	7	7	8	8
Thailand	Secondary 1	7	Secondary 2	8
United States	7	7	8	8

¹Years of schooling based on the number of years children in the grade level have been in formal schooling, beginning with primary education (International Standard Classification of Education Level 1). Does not include preprimary education.

²Australia: Each state/territory has its own policy regarding age of entry to primary school. In 4 of the 8 states/territories students were sampled from grades 7 and 8; in the other four states/territories students were sampled from grades 8 and 9.

³Indicates that there is a system-split between the lower and upper grades. In Cyprus, system-split occurs only in the large or city schools. In Switzerland there is a system-split in 14 of 26 cantons.

⁴New Zealand: The majority of students begin primary school on or near their 5th birthday so the "years of formal schooling" vary.

⁵Russian Federation: 70% of students in the seventh grade have had 6 years of formal schooling; 70% in the eighth grade have had 7 years of formal schooling.

Table 2.3 Coverage of 9-Year-Old Students

Country	Percent of 9-Year-Olds in Lower Grade (Third Grade*)	Percent of 9-Year-Olds in Upper Grade (Fourth Grade*)	Percent of 9-Year-Olds in Both Grades
Australia	65	29	94
Austria	72	15	87
Canada	46	48	94
Cyprus	35	63	98
Czech Republic	75	15	91
England	58	41	99
Greece	11	88	99
Hong Kong	43	50	93
Hungary	70	19	89
Iceland	15	84	99
Iran, Islamic Rep.	51	32	83
Ireland	68	23	92
Israel	-	-	-
Japan	91	9	99
Korea	67	24	91
Kuwait	-	-	-
Latvia (LSS)	55	21	76
Netherlands	63	30	93
New Zealand	50	49	99
Norway	38	62	100
Portugal	45	48	93
Scotland	23	76	99
Singapore	80	17	98
Slovenia	60	0	60
Thailand	60	11	71
United States	61	34	95

*Third and fourth grades in most countries; see Table 2.1 for more information about the grades tested in each country.

A dash (-) indicates data are unavailable. Israel and Kuwait did not test the lower grade.

Because results are rounded to the nearest whole number some totals may appear inconsistent.

Table 2.4 Coverage of 13-Year-Old Students

Country	Percent of 13-Year-Olds in Lower Grade (Seventh Grade*)	Percent of 13-Year-Olds in Upper Grade (Eighth Grade*)	Percent of 13-Year-Olds in Both Grades
Australia	64	28	92
Austria	62	27	89
Belgium (Fl)	46	49	94
Belgium (Fr)	41	46	87
Bulgaria	58	37	95
Canada	48	43	91
Colombia	30	15	45
Cyprus	28	70	98
Czech Republic	73	17	90
Denmark	35	64	98
England	57	42	99
France	44	35	78
Germany	71	2	73
Greece	11	85	96
Hong Kong	44	46	90
Hungary	65	24	89
Iceland	16	83	100
Iran, Islamic Rep.	47	25	72
Ireland	69	17	86
Israel	-	-	-
Japan	91	9	100
Korea	70	28	98
Kuwait	-	-	-
Latvia (LSS)	60	26	86
Lithuania	64	26	90
Netherlands	59	31	90
New Zealand	52	47	99
Norway	43	57	100
Philippines	-	-	-
Portugal	44	32	76
Romania	67	9	76
Russian Federation	50	44	95
Scotland	24	75	99
Singapore	82	15	97
Slovak Republic	73	22	95
Slovenia	65	2	67
South Africa	36	20	55
Spain	46	39	85
Sweden	45	54	99
Switzerland	48	44	92
Thailand	58	20	78
United States	58	33	91

*Seventh and eighth grades in most countries; see Table 2.2 for more information about the grades tested in each country.

A dash (-) indicates data are unavailable. Israel and Kuwait did not test the lower grade.

Because results are rounded to the nearest whole number, some totals may appear inconsistent.

2.1.2 Coverage and Exclusions

Tables 2.5 and 2.6 summarize the extent of national coverage and exclusions in the TIMSS target populations. These tables are those published in the TIMSS international reports. National coverage of the international desired target populations was generally comprehensive, with the few exceptions detailed in the tables. School-level exclusions generally consisted of schools for the disabled and very small schools; however, there were some national deviations that are documented in Appendix B. Within-school exclusions, generally consisted of disabled students and students that could not be assessed in the language of the national tests. A few countries had no within-school exclusions.

Table 2.5 Coverage of TIMSS Target Population - Population 1

The international desired population is defined as follows for Population 1:

All students enrolled in the two adjacent grades with the largest proportion of 9-year-old students at the time of testing.

Country	International Desired Population		National Desired Population		
	Coverage	Notes on Coverage	School-Level Exclusions	Within-Sample Exclusions	Overall Exclusions
Australia	100%		0.1%	1.6%	1.8%
Austria	100%		2.6%	0.2%	2.8%
Canada	100%		2.5%	3.6%	6.2%
Cyprus	100%		3.1%	0.1%	3.2%
Czech Republic	100%		4.1%	0.0%	4.1%
² England	100%		8.6%	3.5%	12.1%
Greece	100%		1.5%	4.0%	5.4%
Hong Kong	100%		2.6%	0.0%	2.7%
Hungary	100%		3.8%	0.0%	3.8%
Iceland	100%		1.9%	4.3%	6.2%
Iran, Islamic Rep.	100%		0.3%	1.0%	1.3%
Ireland	100%		5.3%	1.6%	6.9%
¹ Israel	72%	Hebrew Public Education System	1.1%	0.1%	1.2%
Japan	100%		3.0%	0.0%	3.0%
Korea	100%		3.9%	2.6%	6.6%
Kuwait	100%		0.0%	0.0%	0.0%
¹ Latvia (LSS)	60%	Latvian-speaking schools	2.1%	0.0%	2.1%
Netherlands	100%		4.0%	0.4%	4.4%
New Zealand	100%		0.7%	0.6%	1.3%
Norway	100%		1.1%	2.0%	3.1%
Portugal	100%		6.6%	0.7%	7.3%
Scotland	100%		2.4%	4.3%	6.7%
Singapore	100%		0.0%	0.0%	0.0%
Slovenia	100%		1.9%	0.0%	1.9%
Thailand	100%		6.8%	1.5%	8.3%
United States	100%		0.4%	4.3%	4.7%

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Latvia is annotated LSS for Latvian Speaking Schools only.

² National Defined Population covers less than 90 percent of National Desired Population.

Table 2.6 Coverage of TIMSS Target Population - Population 2

The international desired population is defined as follows for Population 2:

All students enrolled in the two adjacent grades with the largest proportion of 13-year-old students at the time of testing.

Country	International Desired Population		National Desired Population		
	Coverage	Notes on Coverage	School-Level Exclusions	Within-Sample Exclusions	Overall Exclusions
Australia	100%		0.2%	0.7%	0.8%
Austria	100%		2.9%	0.2%	3.1%
Belgium (Fl)	100%		3.8%	0.0%	3.8%
Belgium (Fr)	100%		4.5%	0.0%	4.5%
Bulgaria	100%		0.6%	0.0%	0.6%
Canada	100%		2.4%	2.1%	4.5%
Colombia	100%		3.8%	0.0%	3.8%
Cyprus	100%		0.0%	0.0%	0.0%
Czech Republic	100%		4.9%	0.0%	4.9%
Denmark	100%		0.0%	0.0%	0.0%
² England	100%		8.4%	2.9%	11.3%
France	100%		2.0%	0.0%	2.0%
¹ Germany	88%	15 of 16 regions*	8.8%	0.9%	9.7%
Greece	100%		1.5%	1.3%	2.8%
Hong Kong	100%		2.0%	0.0%	2.0%
Hungary	100%		3.8%	0.0%	3.8%
Iceland	100%		1.7%	2.9%	4.5%
Iran, Islamic Rep.	100%		0.3%	0.0%	0.3%
Ireland	100%		0.0%	0.4%	0.4%
¹ Israel	74%	Hebrew Public Education System	3.1%	0.0%	3.1%
Japan	100%		0.6%	0.0%	0.6%
Korea	100%		2.2%	1.6%	3.8%
Kuwait	100%		0.0%	0.0%	0.0%
¹ Latvia (LSS)	51%	Latvian-speaking schools	2.9%	0.0%	2.9%
¹ Lithuania	84%	Lithuanian-speaking schools	6.6%	0.0%	6.6%
Netherlands	100%		1.2%	0.0%	1.2%
New Zealand	100%		1.3%	0.4%	1.7%
Norway	100%		0.3%	1.9%	2.2%
Philippines	91%	2 provinces and autonomous regions excluded	6.5%	0.0%	6.5%
Portugal	100%		0.0%	0.3%	0.3%
Romania	100%		2.8%	0.0%	2.8%
Russian Federation	100%		6.1%	0.2%	6.3%
Scotland	100%		0.3%	1.9%	2.2%
Singapore	100%		4.6%	0.0%	4.6%
Slovak Republic	100%		7.4%	0.1%	7.4%
Slovenia	100%		2.4%	0.2%	2.6%
South Africa	100%		9.6%	0.0%	9.6%
Spain	100%		6.0%	2.7%	8.7%
Sweden	100%		0.0%	0.9%	0.9%
¹ Switzerland	86%	22 of 26 cantons	4.4%	0.8%	5.3%
Thailand	100%		6.2%	0.0%	6.2%
United States	100%		0.4%	1.7%	2.1%

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Latvia is annotated LSS for Latvian Speaking Schools only.

² National Defined Population covers less than 90 percent of National Desired Population

*One region (Baden-Wuerttemberg) did not participate.

For the performance assessment, in the interest of ensuring the quality of the administration, countries could exclude additional schools if the schools had fewer than nine students in the upper grade and thus could not provide a full complement of students for the performance assessment rotation or if the schools were in a geographically remote region (see Harmon and Kelly, 1996). The exclusion rate for the performance assessment sample was not to exceed 25 percent of the national desired population. Tables 2.7 and 2.8 show the main assessment school exclusion rates, the performance assessment school exclusion rates, the within-sample exclusion rates, and the overall exclusion rates for the upper grades for Populations 1 and 2, respectively.

Table 2.7 Coverage of TIMSS Target Population - Performance Assessment – Fourth Grade*

The international desired target population is defined as follows:

Fourth Grade - All students enrolled in the higher of the two adjacent grades with the largest proportion of 9-year-old students at the time of testing.

Country	International Desired Target Population		National Desired Target Population			
	Coverage	Notes on Coverage	Main Assessment School-Level Exclusions	Performance Assessment School-Level Exclusions	Within-Sample Exclusions	Overall Exclusions
Australia	100%		0.1%	15.1%	1.4%	16.7%
Canada	100%		2.5%	15.4%	3.1%	21.0%
Cyprus	100%		3.1%	0.0%	0.1%	3.2%
Hong Kong	100%		2.6%	1.9%	0.0%	4.6%
Iran, Islamic Rep.	100%		0.3%	17.5%	0.9%	18.7%
² Israel	72%	Hebrew Public Education System	1.1%	0.0%	0.1%	1.2%
¹ New Zealand	100%		0.7%	25.8%	0.4%	27.0%
Portugal	100%		6.6%	0.0%	0.7%	7.3%
Slovenia	100%		1.9%	0.7%	0.0%	2.6%
United States	100%		0.4%	0.0%	4.3%	4.7%

* Fourth grade in most countries; see Table 2.1 for information about the grades tested in each country.

¹ School-level exclusions for performance assessment exceed 25% of the National Desired Population.

² National Desired Population does not cover all of International Desired Population.

Because results are rounded, some totals may appear inconsistent.

Table 2.8 Coverage of TIMSS Target Population - Performance Assessment – Eighth Grade*

The international desired target population is defined as follows:
 Eighth Grade - All students enrolled in the higher of the two adjacent grades with the largest proportion of 13-year-old students at the time of testing.

Country	International Desired Target Population		National Desired Target Population			
	Coverage	Notes on coverage	Main Assessment School-Level Exclusions	Performance Assessment School-Level Exclusions	Within-Sample Exclusions	Overall Exclusions
Australia	100%		0.2%	16.3%	0.6%	17.0%
Canada	100%		2.4%	15.0%	1.8%	19.1%
Colombia	100%		3.8%	0.0%	0.0%	3.8%
Cyprus	100%		0.0%	0.0%	0.0%	0.0%
Czech Republic	100%		4.9%	0.0%	0.0%	4.9%
² England	100%		8.4%	16.6%	2.4%	27.3%
Hong Kong	100%		2.0%	1.0%	0.0%	3.0%
Iran, Islamic Rep.	100%		0.3%	17.0%	0.0%	17.3%
¹ Israel	74%	Hebrew Public Education System	3.1%	0.0%	0.0%	3.1%
Netherlands	100%		1.2%	0.0%	0.0%	1.2%
New Zealand	100%		1.3%	10.5%	0.4%	12.1%
Norway	100%		0.3%	22.6%	1.5%	24.4%
Portugal	100%		0.0%	0.0%	0.3%	0.3%
³ Romania	100%		2.8%	28.5%	0.0%	31.3%
Scotland	100%		0.3%	9.3%	1.7%	11.3%
Singapore	100%		4.6%	0.0%	0.0%	4.6%
Slovenia	100%		2.4%	0.7%	0.2%	3.2%
Spain	100%		6.0%	1.7%	2.6%	10.3%
Sweden	100%		0.0%	23.5%	0.7%	24.2%
¹ Switzerland	75%	German Cantons	4.4%	8.4%	0.8%	13.6%
United States	100%		0.4%	1.3%	1.7%	3.4%

* Eighth grade in most countries; see Table 2.2 for information about the grades tested in each country.

¹ National Desired Population does not cover all of International Desired Population.

² National Defined Population covers less than 90 percent of National Desired Population for the main assessment (school-level plus within-sample exclusions).

³ School-level exclusions for performance assessment exceed 25% of the National Desired Population.

Because results are rounded, some totals may appear inconsistent.

2.2 SAMPLING OF SCHOOLS AND STUDENTS

2.2.1 General Sample Design²

The basic sample design used in TIMSS was a two-stage stratified cluster design. The first stage consisted of a sample of schools; the second stage consisted of samples of intact mathematics classrooms from each eligible target grade in the sampled schools. The design required schools to be sampled using a probability proportional to size (PPS) systematic method, as described by Foy, Rust and Schleicher (1996), and classrooms to be sampled with equal probabilities (Schleicher and Siniscalco, 1996). The

² The TIMSS sample design is described in detail by Foy, Rust, and Schleicher (1996). See Schleicher and Siniscalco (1996) for TIMSS within-school sampling procedures. This chapter describes the outcome of the sampling for Population 1 (third and fourth grades in most countries) and Population 2 (seventh and eighth grades in most countries), including country-by-country descriptions of the national samples.

TIMSS sampling approach was designed to yield 150 schools for each of Populations 1 and 2, and one classroom for each grade, for a total of 3,750 students per grade per population.

The TIMSS sampling approach allowed countries to stratify the school sampling frame explicitly or implicitly or both. Explicit stratification consisted of categorizing schools according to some criterion (e.g., region of the country), and ensuring that a predetermined number of schools were selected from each explicit stratum. Implicit stratification consisted of sorting the school sampling frame according to a set of criteria prior to sampling. This produces an allocation of the school sample proportional to the implicit strata when schools are selected using a systematic PPS sampling method.

Most participants sampled 150 schools, with one classroom per grade within sampled schools and all students within sampled classrooms. There were, however, some variations in the sampling of schools and students, which are documented in Appendix B. Classrooms were generally selected with equal probabilities, unless student subsampling occurred; in that case classrooms were sampled with PPS. Any student subsampling within selected classrooms was done with equal probabilities within classrooms. Some participants chose to subsample a fixed number of students within sampled classrooms. This usually occurred in countries where large classrooms are the norm and subsampling within classrooms was a means of reducing the data collection effort. Some participating countries chose to sample two classrooms at the upper grade in each school. One country did not sample intact classrooms, but rather sampled students within schools.

For the performance assessment, TIMSS participants were to sample at least 50 schools from those already selected for the written assessment, and from each school a sample of either 9 or 18 upper-grade students already selected for the written assessment. This yielded a sample of about 450 students in each of the eighth and fourth grades in each country.

2.2.2 Target Population Sizes

Tables 2.9 and 2.10 summarize the national target population sizes based on the sampling frame counts, as well as the sample sizes for participating schools and students. From the computed sampling weights (see Chapter 4) an estimated student population size was computed, which was expected to match closely the student population size from the sampling frame. All counts are aggregates over the two grades selected, except for Israel and Kuwait where only one grade was tested. The student population size for the Russian Federation's Population 2 is an estimate based on total enrollment in their schools. The number of schools in the United States' Population 1 and Population 2 are estimates based on the number of schools in the primary sampling units that they sampled. Because of difficulties in computing sampling weights for the Philippines, the population size for its Population 2 cannot be estimated from the sample.

Table 2.9 Population and Sample Sizes - Population 1 (Third and Fourth Grades*)

Country	Population		Sample		
	Schools	Students	Schools	Students	Est. Pop.
Australia	7,588	495,803	178	11,248	483,463
Austria	3,395	184,598	133	5,171	177,434
Canada	10,388	765,653	391	16,002	760,325
Cyprus	193	19,308	147	6,684	19,736
Czech Republic	4,256	259,641	188	6,524	236,457
England	12,844	1,006,305	128	6,182	1,066,604
Greece	6,626	246,998	174	6,008	205,181
Hong Kong	882	158,391	124	8,807	173,749
Hungary	2,999	244,190	150	6,044	234,007
Iceland	153	7,784	144	3,507	7,474
Iran	59,367	3,742,497	180	6,746	2,825,173
Ireland	2,669	121,657	161	5,762	119,000
¹ Israel	1,081	70,327	87	2,351	66,967
Japan	24,676	2,929,794	142	8,612	2,827,215
Korea	4,910	1,357,238	150	5,589	1,222,011
¹ Kuwait	150	24,168	150	4,318	24,071
Latvia	632	35,434	125	4,270	34,003
Netherlands	7,873	345,600	130	5,314	344,969
New Zealand	2,121	100,591	149	4,925	100,640
Norway	2,817	101,773	139	4,476	98,933
Portugal	3,210	277,961	143	5,503	247,961
Scotland	2,004	126,007	152	6,433	118,447
Singapore	191	83,025	191	14,169	83,147
Slovenia	422	53,066	122	5,087	55,139
Thailand	31,417	1,760,339	154	5,862	1,748,290
United States	55,526	7,163,600	186	11,115	7,207,188

*Third and fourth grades in most countries; see Table 2.1 for more information about the grades tested in each country.

¹ Israel and Kuwait tested only the upper grade of the target population.

**Table 2.10 Population and Sample Sizes - Population 2
(Seventh and Eighth Grades*)**

Country	Population		Sample		
	Schools	Students	Schools	Students	Est. Pop.
Australia	2,341	473,731	161	12,852	469,644
Austria	1,433	180,773	125	5,786	176,332
Belgium (Fl)	770	139,192	141	5,662	139,246
Belgium (Fr)	558	108,234	120	4,883	109,167
Bulgaria	2,563	231,885	115	3,771	288,073
Canada	6,993	755,100	367	16,581	755,158
Colombia	6,803	1,072,824	140	5,304	1,146,607
Cyprus	55	19,362	55	5,852	19,380
Czech Republic	3,124	303,326	150	6,672	304,986
Denmark	2,115	109,215	144	4,370	99,153
England	3,941	993,992	122	3,579	950,737
France	7,893	1,634,436	127	6,014	1,676,167
Germany	11,234	1,378,020	134	5,763	1,468,435
Greece	1,769	293,642	156	7,921	252,134
Hong Kong	392	172,806	86	6,752	177,164
Hungary	2,999	244,190	150	5,978	231,164
Iceland	161	8,719	144	3,730	8,447
Iran	18,303	2,492,070	192	7,429	1,987,889
Ireland	752	140,670	132	6,203	136,121
¹ Israel	656	67,348	46	1,415	60,585
Japan	11,292	3,092,592	151	10,271	3,204,359
Korea	2,388	1,617,301	150	5,827	1,608,813
¹ Kuwait	69	15,085	69	1,655	13,093
Latvia	553	34,428	142	4,976	32,456
Lithuania	1,096	80,254	145	5,056	76,251
Netherlands	1,235	375,201	95	4,084	367,083
New Zealand	1,297	100,377	274	6,867	99,642
Norway	6,117	102,842	249	5,736	101,389
² Philippines	23,556	2,524,238	387	11,853	-
Portugal	1,009	295,088	142	6,753	284,341
Romania	7,018	636,278	163	7,471	591,881
Russian Federation	68,270	4,030,000	174	8,160	4,172,955
Scotland	445	131,715	129	5,776	126,576
Singapore	137	75,464	137	8,285	72,719
Slovak Republic	1,349	155,037	145	7,101	162,840
Slovenia	422	55,085	122	5,606	54,060
South Africa	11,742	1,384,532	227	9,792	1,415,513
Spain	11,946	1,141,065	153	7,596	1,096,145
Sweden	4,720	198,544	270	6,906	194,688
Switzerland	3,543	135,298	324	8,940	136,414
Thailand	2,128	1,158,397	147	11,695	1,342,740
United States	27,330	6,574,200	183	10,973	6,345,142

*Seventh and eighth grades in most countries; see Table 2.2 for more information about the grades tested in each country.

¹ Israel and Kuwait tested only the upper grade of the target population.

² Population size for the Philippines cannot be estimated.

2.2.3 Participation Rates

Weighted school, student, and overall participation rates were computed for each participating country for each grade. The procedures for computing participation (response) rates is documented by Foy, Rust, and Schleicher (1996). The level of participation of schools and students was one aspect of the national samples used to evaluate the quality of the samples and potential biases. Countries were required to obtain a school participation rate of 85%, a student participation rate of 85%, or an overall participation rate (product of school and student participation rates) of 75%. In cases where these rates were not obtained, with or without the use of replacement schools, achievement results were reported in a separate section of the tables in the international reports. Foy, Martin, and Kelly (1996) further document the procedures for evaluating the quality of the national samples and reporting the achievement results. Tables 2.11 through 2.15 present the school, student, and overall participation rates and achieved sample sizes for the Population 1 main assessment; Tables 2.16 through 2.20 show the corresponding information for the Population 2 main assessment. Tables 2.21 and 2.22 show that information for the performance assessment.

Appendix B contains further information on the characteristics of individual national samples, including target population definitions, population coverage and exclusions, use of stratification variables, and any deviations from the general TIMSS design.

**Table 2.11 School Participation Rates and Sample Sizes - Population 1
Upper Grade (Fourth Grade*)**

Country	School Participation Before Replacement (Weighted Percentage)	School Participation After Replacement (Weighted Percentage)	Number of Schools in Original Sample	Number of Eligible Schools in Original Sample	Number of Schools in Original Sample That Participated	Number of Replacement Schools That Participated ¹		Total Number of Schools That Participated
						Proce- dural	Other	
Australia	66	69	268	268	169	9	0	178
Austria	51	72	150	150	71	31	31	133
Canada	90	90	423	420	390	0	0	390
Cyprus	97	97	150	150	146	0	0	146
Czech Republic	91	94	215	215	181	7	0	188
England	63	88	150	145	92	35	0	127
Greece	93	93	187	187	174	0	0	174
Hong Kong	84	84	156	148	124	0	0	124
Hungary	100	100	150	150	150	0	0	150
Iceland	95	95	153	151	144	0	0	144
Iran, Islamic Rep.	100	100	180	180	180	0	0	180
Ireland	94	96	175	173	161	4	0	165
Israel	40	40	100	100	40	0	47	87
Japan	93	96	150	150	137	4	0	141
Korea	100	100	150	150	150	0	0	150
Kuwait	100	100	150	150	150	0	0	150
Latvia (LSS)	74	74	169	169	125	0	0	125
Netherlands	31	62	196	196	63	67	0	130
New Zealand	80	99	150	150	120	29	0	149
Norwa	85	94	150	148	126	13	0	139
Portugal	95	95	150	150	143	0	0	143
Scotland	78	83	184	184	143	9	0	152
Singapore	100	100	191	191	191	0	0	191
Slovenia	81	81	150	150	121	0	0	121
Thailand	96	96	155	155	154	0	0	154
United States	85	85	220	213	182	0	0	182

*Fourth grade in most countries; see Table 2.1 for more information about the grades tested in each country.

¹ Replacement schools selected in accordance with the TIMSS sampling procedures are listed in the "procedural" column. Those selected using unapproved methods are listed in the "other" column and were not included in the computation of school participation rates.

**Table 2.12 School Participation Rates and Sample Sizes - Population 1
Lower Grade (Third Grade*)**

Country	School Participation Before Replacement (Weighted Percentage)	School Participation After Replacement (Weighted Percentage)	Number of Schools in Original Sample	Number of Eligible Schools in Original Sample	Number of Schools in Original Sample That Participated	Number of Replacement Schools That Participated ¹		Total Number of Schools That Participated
						Proce-dural	Other	
Australia	66	69	268	264	166	9	0	175
Austria	49	70	150	149	68	29	31	128
Canada	88	88	423	418	375	0	0	375
Cyprus	98	98	150	150	147	0	0	147
Czech Republic	91	93	215	215	180	7	0	187
England	64	88	150	145	93	35	0	128
Greece	91	91	187	187	171	0	0	171
Hong Kong	84	84	156	147	123	0	0	123
Hungary	99	99	150	150	149	0	0	149
Iceland	95	95	153	152	144	0	0	144
Iran, Islamic Rep.	99	99	180	180	178	0	0	178
Ireland	94	96	175	173	160	4	0	164
Israel	-	-	-	-	-	-	-	-
Japan	93	95	150	150	137	5	0	142
Korea	100	100	150	150	150	0	0	150
Kuwait	-	-	-	-	-	-	-	-
Latvia (LSS)	73	73	169	168	123	0	0	123
Netherlands	29	62	196	195	60	69	0	129
New Zealand	80	99	150	150	120	29	0	149
Norway	83	92	150	148	124	12	0	136
Portugal	95	95	150	150	143	0	0	143
Scotland	77	81	184	184	142	8	0	150
Singapore	100	100	191	191	191	0	0	191
Slovenia	81	81	150	149	122	0	0	122
Thailand	96	96	155	154	153	0	0	153
United States	86	86	220	217	186	0	0	186

*Third grade in most countries; see Table 2.1 for more information about the grades tested in each country.

A dash (-) indicates data are unavailable. Israel and Kuwait did not test the lower grade.

¹ Replacement schools selected in accordance with the TIMSS sampling procedures are listed in the "procedural" column. Those selected using unapproved methods are listed in the "other" column and were not included in the computation of school participation rates.

**Table 2.13 Student Participation Rates and Sample Sizes - Population 1
Upper Grade (Fourth Grade*)**

Country	Within School Participation (Weighted Percentage)	Number of Sampled Students in Participating Schools	Number of Students Withdrawn from Class/School	Number of Students Excluded	Number of Students Eligible	Number of Students Absent	Total Number of Students Assessed
Australia	96	6930	37	104	6789	282	6507
Austria	96	2779	12	6	2761	116	2645
Canada	96	9193	81	268	8844	436	8408
Cyprus	86	3972	4	3	3965	589	3376
Czech Republic	92	3555	7	0	3548	280	3268
England	95	3489	73	122	3294	168	3126
Greece	95	3358	6	116	3236	183	3053
Hong Kong	98	4475	0	1	4474	63	4411
Hungary	92	3272	0	0	3272	266	3006
Iceland	90	2149	23	101	2025	216	1809
Iran, Islamic Rep.	97	3521	5	36	3480	95	3385
Ireland	93	3134	14	40	3080	207	2873
Israel	94	2486	0	3	2483	132	2351
Japan	97	4453	0	0	4453	147	4306
Korea	95	2971	133	0	2838	26	2812
Kuwait	95	4578	34	0	4544	226	4318
Latvia (LSS)	93	2390	12	1	2377	161	2216
Netherlands	96	2639	0	4	2635	111	2524
New Zealand	96	2627	82	20	2525	104	2421
Norway	97	2391	16	42	2333	76	2257
Portugal	96	2994	15	16	2963	110	2853
Scotland	92	3735	0	139	3596	295	3301
Singapore	98	7274	14	0	7260	121	7139
Slovenia	94	2720	3	0	2717	151	2566
Thailand	100	3042	0	50	2992	0	2992
United States	94	8224	61	412	7751	455	7296

*Fourth grade in most countries; see Table 2.1 for more information about the grades tested in each country.

Table 2.14 Student Participation Rates and Sample Sizes - Population 1 Lower Grade (Third Grade*)

Country	Within School Participation (Weighted Percentage)	Number of Sampled Students in Participating Schools	Number of Students Withdrawn from Class/School	Number of Students Excluded	Number of Students Eligible	Number of Students Absent	Total Number of Students Assessed
Australia	95	5138	31	92	5015	274	4741
Austria	96	2655	10	6	2639	113	2526
Canada	96	8433	77	307	8049	455	7594
Cyprus	85	3913	5	2	3906	598	3308
Czech Republic	93	3484	8	0	3476	220	3256
England	94	3468	70	158	3240	184	3056
Greece	94	3263	4	133	3126	171	2955
Hong Kong	99	4455	0	2	4453	57	4396
Hungary	94	3270	0	0	3270	232	3038
Iceland	91	2017	19	89	1909	211	1698
Iran, Islamic Rep.	98	3504	12	49	3443	82	3361
Ireland	94	3127	14	39	3074	185	2889
Israel	-	-	-	-	-	-	-
Japan	97	4433	0	0	4433	127	4306
Korea	94	2969	138	2	2829	52	2777
Kuwait	-	-	-	-	-	-	-
Latvia (LSS)	94	2218	8	0	2210	156	2054
Netherlands	96	2923	0	14	2909	119	2790
New Zealand	95	2733	91	9	2633	129	2504
Norway	97	2362	8	59	2295	76	2219
Portugal	97	2790	13	31	2746	96	2650
Scotland	90	3663	0	187	3476	344	3132
Singapore	98	7223	14	0	7209	179	7030
Slovenia	95	2659	5	0	2654	133	2521
Thailand	100	2945	0	74	2871	1	2870
United States	95	4280	40	201	4039	220	3819

*Third grade in most countries; see Table 2.1 for more information about the grades tested in each country.

A dash (-) indicates data are unavailable. Israel and Kuwait did not test the lower grade.

**Table 2.15 Overall Participation Rates - Population 1
Lower and Upper Grades (Third and Fourth Grades*)**

Country	Upper Grade		Lower Grade	
	Overall Participation Before Replacement (Weighted Percentage)	Overall Participation After Replacement (Weighted Percentage)	Overall Participation Before Replacement (Weighted Percentage)	Overall Participation After Replacement (Weighted Percentage)
Australia	63	66	62	65
Austria	49	69	46	67
Canada	86	86	84	84
Cyprus	83	83	83	83
Czech Republic	84	86	85	87
England	60	83	61	83
Greece	88	88	86	86
Hong Kong	83	83	83	83
Hungary	92	92	93	93
Iceland	86	86	86	86
Iran, Islamic Rep.	97	97	97	97
Ireland	88	90	88	91
Israel	38	38	-	-
Japan	90	92	90	93
Korea	95	95	94	94
Kuwait	95	95	-	-
Latvia (LSS)	69	69	69	69
Netherlands	29	59	28	60
New Zealand	77	95	76	95
Norway	82	91	81	89
Portugal	92	92	92	92
Scotland	71	76	69	73
Singapore	98	98	98	98
Slovenia	76	76	77	77
Thailand	96	96	96	96
United States	80	80	81	81

*Third and fourth grades in most countries; see Table 2.1 for information about the grades tested in each country.

A dash (-) indicates data are unavailable. Israel and Kuwait did not test the lower grade.

**Table 2.16 School Participation Rates and Sample Sizes - Population 2
Upper Grade (Eighth Grade*)**

Country	School Participation Before Replacement (Weighted Percentage)	School Participation After Replacement (Weighted Percentage)	Number of Schools in Original Sample	Number of Eligible Schools in Original Sample	Number of Schools in Original Sample That Participated	Number of Replacement Schools That Participated	Total Number of Schools That Participated
Australia	75	77	214	214	158	3	161
Austria	41	84	159	159	62	62	124
Belgium (Fl)	61	94	150	150	92	49	141
Belgium (Fr)	57	79	150	150	85	34	119
Bulgaria	72	74	167	167	111	4	115
Canada	90	91	413	388	363	1	364
Colombia	91	93	150	150	136	4	140
Cyprus	100	100	55	55	55	0	55
Czech Republic	96	100	150	149	143	6	149
Denmark	93	93	158	157	144	0	144
England	56	85	150	144	80	41	121
France	86	86	151	151	127	0	127
Germany	72	93	153	150	102	32	134
Greece	87	87	180	180	156	0	156
Hong Kong	82	82	105	104	85	0	85
Hungary	100	100	150	150	150	0	150
Iceland	98	98	161	132	129	0	129
Iran, Islamic Rep.	100	100	192	191	191	0	191
Ireland	84	89	150	149	125	7	132
Israel	45	46	100	100	45	1	46
Japan	92	95	158	158	146	5	151
Korea	100	100	150	150	150	0	150
Kuwait	100	100	69	69	69	0	69
Latvia (LSS)	83	83	170	169	140	1	141
Lithuania	96	96	151	151	145	0	145
Netherlands	24	63	150	150	36	59	95
New Zealand	91	99	150	150	137	12	149
Norway	91	97	150	150	136	10	146
Philippines	96 **	97 **	200	200	192	1	193
Portugal	95	95	150	150	142	0	142
Romania	94	94	176	176	163	0	163
Russian Federation	97	100	175	175	170	4	174
Scotland	79	83	153	153	119	8	127
Singapore	100	100	137	137	137	0	137
Slovak Republic	91	97	150	150	136	9	145
Slovenia	81	81	150	150	121	0	121
South Africa	60	64	180	180	107	7	114
Spain	96	100	155	154	147	6	153
Sweden	97	97	120	120	116	0	116
Switzerland	93	95	259	258	247	3	250
Thailand	99	99	150	150	147	0	147
United States	77	85	220	217	169	14	183

* Eighth grade in most countries; see Table 2.2 for more information about the grades tested in each country.

** Participation rates for the Philippines are unweighted.

**Table 2.17 School Participation Rates and Sample Sizes - Population 2
Lower Grade (Seventh Grade *)**

Country	School Participation Before Replacement (Weighted Percentage)	School Participation After Replacement (Weighted Percentage)	Number of Schools in Original Sample	Number of Eligible Schools in Original Sample	Number of Schools in Original Sample That Participated	Number of Replacement Schools That Participated	Total Number of Schools That Participated
Australia	75	76	214	213	156	3	159
Austria	43	86	159	159	63	62	125
Belgium (Fl)	61	93	150	150	91	49	140
Belgium (Fr)	57	80	150	150	85	35	120
Bulgaria	75	77	150	150	101	3	104
Canada	90	90	413	390	366	1	367
Colombia	91	93	150	150	136	4	140
Cyprus	100	100	55	55	55	0	55
Czech Republic	96	100	150	150	144	6	150
Denmark	88	88	158	154	137	0	137
England	57	85	150	145	81	41	122
France	87	87	151	151	126	0	126
Germany	70	90	153	153	101	31	132
Greece	87	87	180	180	156	0	156
Hong Kong	83	83	105	104	86	0	86
Hungary	99	99	150	150	149	0	149
Iceland	97	97	161	149	144	0	144
Iran, Islamic Rep.	100	100	192	192	192	0	192
Ireland	82	87	150	148	122	7	129
Israel	-	-	-	-	-	-	-
Japan	92	95	158	158	146	5	151
Korea	100	100	150	150	150	0	150
Kuwait	-	-	-	-	-	-	-
Latvia (LSS)	83	84	170	169	141	1	142
Lithuania	96	96	151	151	145	0	145
Netherlands	23	61	150	150	34	58	92
New Zealand	90	99	150	150	135	13	148
Norway	84	96	150	147	124	17	141
Philippines	97 **	97 **	200	200	194	0	194
Portugal	94	94	150	150	141	0	141
Romania	94	94	176	175	162	0	162
Russian Federation	97	100	175	175	170	4	174
Scotland	79	85	153	153	120	9	129
Singapore	100	100	137	137	137	0	137
Slovak Republic	91	97	150	150	136	9	145
Slovenia	81	81	150	150	122	0	122
South Africa	83	85	161	161	133	4	137
Spain	96	100	155	154	147	6	153
Sweden	96	96	160	160	154	0	154
Switzerland	90	94	217	217	200	6	206
Thailand	99	99	150	150	146	0	146
United States	77	84	220	214	165	14	179

* Seventh grade in most countries; see Table 2.2 for more information about the grades tested in each country.

** Participation rates for the Philippines are unweighted.

A dash (-) indicates data are unavailable. Israel and Kuwait did not test the lower grade.

**Table 2.18 Student Participation Rates and Sample Sizes - Population 2
Upper Grade (Eighth Grade*)**

Country	Within School Participation (Weighted Percentage)	Number of Sampled Students in Participating Schools	Number of Students Withdrawn from Class/School	Number of Students Excluded	Number of Students Eligible	Number of Students Absent	Total Number of Students Assessed
Australia	92	8027	63	61	7903	650	7253
Austria	95	2969	14	4	2951	178	2773
Belgium (Fl)	97	2979	1	0	2978	84	2894
Belgium (Fr)	91	2824	0	1	2823	232	2591
Bulgaria	86	2300	0	0	2300	327	1973
Canada	93	9240	134	206	8900	538	8362
Colombia	94	2843	6	0	2837	188	2649
Cyprus	97	3045	15	0	3030	107	2923
Czech	92	3608	6	0	3602	275	3327
Denmark	93	2487	0	0	2487	190	2297
England	91	2015	37	60	1918	142	1776
France	95	3141	0	0	3141	143	2998
Germany	87	3318	0	35	3283	413	2870
Greece	97	4154	27	23	4104	114	3990
Hong Kong	98	3415	12	0	3403	64	3339
Hungary	87	3339	0	0	3339	427	2912
Iceland	90	2025	10	65	1950	177	1773
Iran, Islamic Rep.	98	3770	20	0	3750	56	3694
Ireland	91	3411	28	10	3373	297	3076
Israel	98	1453	6	0	1447	32	1415
Japan	95	5441	0	0	5441	300	5141
Korea	95	2998	31	0	2967	47	2920
Kuwait	83	1980	3	0	1977	322	1655
Latvia (LSS)	90	2705	19	0	2686	277	2409
Lithuania	87	2915	2	0	2913	388	2525
Netherlands	95	2112	14	1	2097	110	1987
New Zealand	94	4038	121	12	3905	222	3683
Norway	96	3482	26	49	3407	140	3267
Philippines	91 **	6586	93	0	6493	492	6001
Portugal	97	3589	70	13	3506	115	3391
Romania	96	3899	0	0	3899	174	3725
Russian	95	4311	42	10	4259	237	4022
Scotland	88	3289	0	46	3243	380	2863
Singapore	95	4910	18	0	4892	248	4644
Slovak Republic	95	3718	5	3	3710	209	3501
Slovenia	95	2869	15	8	2846	138	2708
South	97	4793	0	0	4793	302	4491
Spain	95	4198	27	102	4069	214	3855
Sweden	93	4483	71	28	4384	309	4075
Switzerland	98	4989	16	24	4949	94	4855
Thailand	100	5850	0	0	5850	0	5850
United States	92	8026	104	108	7814	727	7087

* Eighth grade in most countries; see Table 2.2 for more information about the grades tested in each country.

** Participation rates for the Philippines are unweighted.

**Table 2.19 Student Participation Rates and Sample Sizes - Population 2
Lower Grade (Seventh Grade *)**

Country	Within School Participation (Weighted Percentage)	Number of Sampled Students in Participating Schools	Number of Students Withdrawn from Class/School	Number of Students Excluded	Number of Students Eligible	Number of Students Absent	Total Number of Students Assessed
Australia	93	6067	26	21	6020	421	5599
Austria	95	3196	22	5	3169	156	3013
Belgium (Fl)	97	2857	3	0	2854	86	2768
Belgium (Fr)	95	2418	0	1	2417	125	2292
Bulgaria	87	2080	0	0	2080	282	1798
Canada	95	8962	89	248	8625	406	8219
Colombia	93	2840	2	0	2838	183	2655
Cyprus	98	3028	17	0	3011	82	2929
Czech Republic	92	3641	11	0	3630	285	3345
Denmark	86	2408	0	0	2408	335	2073
England	92	2031	31	67	1933	130	1803
France	95	3164	0	0	3164	148	3016
Germany	87	3388	0	37	3351	458	2893
Greece	97	4166	30	78	4058	127	3931
Hong Kong	98	3507	11	0	3496	83	3413
Hungary	94	3266	0	0	3266	200	3066
Iceland	92	2243	11	72	2160	203	1957
Iran, Islamic Rep.	99	3789	18	0	3771	36	3735
Ireland	91	3480	23	17	3440	313	3127
Israel	-	-	-	-	-	-	-
Japan	96	5337	0	0	5337	207	5130
Korea	94	2996	51	0	2945	38	2907
Kuwait	-	-	-	-	-	-	-
Latvia (LSS)	91	2853	7	0	2846	279	2567
Lithuania	89	2852	3	0	2849	318	2531
Netherlands	95	2220	23	0	2197	100	2097
New Zealand	95	3471	98	17	3356	172	3184
Norway	96	2629	8	53	2568	99	2469
Philippines	93 **	6283	29	1	6253	401	5852
Portugal	96	3594	80	4	3510	148	3362
Romania	95	3938	0	0	3938	192	3746
Russian Federation	96	4408	39	11	4358	220	4138
Scotland	90	3313	0	81	3232	319	2913
Singapore	98	3744	19	0	3725	84	3641
Slovak Republic	95	3797	10	3	3784	184	3600
Slovenia	95	3058	12	4	3042	144	2898
South Africa	96	5532	0	0	5532	231	5301
Spain	95	4087	38	116	3933	192	3741
Sweden	95	3055	27	36	2992	161	2831
Switzerland	99	4199	14	44	4141	56	4085
Thailand	100	5845	0	0	5845	0	5845
United States	94	4295	42	85	4168	282	3886

* Seventh grade in most countries; see Table 2.2 for more information about the grades tested in each country.

** Participation rates for the Philippines are unweighted.

A dash (-) indicates data are unavailable. Israel and Kuwait did not test the lower-grade.

**Table 2.20 Overall Participation Rates - Population 2
Upper and Lower Grades (Seventh and Eighth Grades *)**

Country	Upper Grade		Lower Grade	
	Overall Participation Before Replacement (Weighted Percentage)	Overall Participation After Replacement (Weighted Percentage)	Overall Participation Before Replacement (Weighted Percentage)	Overall Participation After Replacement (Weighted Percentage)
Australia	69	70	69	71
Austria	39	80	41	82
Belgium (Fl)	59	91	59	91
Belgium (Fr)	52	72	54	76
Bulgaria	62	63	65	67
Canada	84	84	86	86
Colombia	85	87	84	86
Cyprus	97	97	98	98
Czech Republic	89	92	88	92
Denmark	86	86	76	76
England	51	77	52	78
France	82	82	82	82
Germany	63	81	61	78
Greece	84	84	84	84
Hong Kong	81	81	81	81
Hungary	87	87	93	93
Iceland	88	88	89	89
Iran, Islamic Rep.	98	98	99	99
Ireland	76	81	75	79
Israel	44	45	-	-
Japan	87	90	88	91
Korea	95	95	94	94
Kuwait	83	83	-	-
Latvia (LSS)	75	75	75	76
Lithuania	83	83	86	86
Netherlands	23	60	22	58
New Zealand	86	94	85	94
Norway	87	93	81	92
Philippines	87 **	88 **	90 **	90 **
Portugal	92	92	90	90
Romania	89	89	89	89
Russian Federation	93	95	93	95
Scotland	69	73	71	76
Singapore	95	95	98	98
Slovak Republic	86	91	86	92
Slovenia	77	77	77	77
South Africa	58	62	79	82
Spain	91	94	91	95
Sweden	90	90	91	91
Switzerland	92	94	89	93
Thailand	99	99	99	99
United States	71	78	72	79

* Seventh and eighth grades in most countries; see Table 2.2 for information about the grades tested in each country.

** Participation rates for the Philippines are unweighted.

A dash (-) indicates data are unavailable. Israel and Kuwait did not test the lower grade.

Table 2.21 School Participation Rates and Sample Sizes - Performance Assessment Fourth Grade*

Country	School Participation Rate Before Replacement (Weighted Percentage)	School Participation Rate After Replacement (Weighted Percentage)	Within-School Student Participation Rate (Weighted Percentage)	Overall Participation Rate Before Replacement (Weighted Percentage)	Overall Participation Rate After Replacement (Weighted Percentage)
Australia	47	56	76	36	43
Canada	91	92	95	87	88
Cyprus	98	100	86	85	86
Hong Kong	61	77	95	58	73
Iran, Islamic Rep.	97	100	93	90	93
Israel	50 **	83 **	30 **	15 **	25 **
New Zealand	72	93	90	65	83
Portugal	96	96	94	91	91
Slovenia	98	100	91	89	91
United States	83	84	88	73	74

* Fourth grade in most countries; see Table 2.1 for information about the grades tested in each country.

** Unweighted participation rates.

Table 2.22 School Participation Rates and Sample Sizes - Performance Assessment Eighth Grade*

Country	School Participation Rate Before Replacement (Weighted Percentage)	School Participation Rate After Replacement (Weighted Percentage)	Within-School Student Participation Rate (Weighted Percentage)	Overall Participation Rate Before Replacement (Weighted Percentage)	Overall Participation Rate After Replacement (Weighted Percentage)
Australia	51	58	73	37	43
Canada	97	97	92	89	89
Colombia	91	91	96	88	88
Cyprus	96	96	93	88	88
Czech Republic	94	100	82	77	82
England	46	85	84	38	71
Hong Kong	44	44	77	34	34
Iran, Islamic Rep.	98	98	93	91	91
Israel	44 **	46 **	30 **	13 **	14 **
Netherlands	18	48	89	16	43
New Zealand	90	100	88	79	88
Norway	87	96	91	79	88
Portugal	96	96	91	87	87
Romania	90	90	94	84	84
Scotland	78	96	85	66	81
Singapore	90	100	87	79	87
Slovenia	98	100	93	91	93
Spain	94	100	93	87	93
Sweden	99	99	88	87	87
Switzerland	65	81	97	63	78
United States	71	77	86	61	66

* Eighth grade in most countries; see Table 2.2 for information about the grades tested in each country.

** Unweighted participation rates.

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