B

Sample Implementation

B.1   Introduction

For each country participating in PIRLS 2001, this appendix describes the target population definition (where necessary), the extent of coverage and exclusions, the use of stratification variables, and any deviations from the general PIRLS sample design.

B.2 ARGENTINA

B.2.1 Coverage and Exclusions

School-level exclusions consisted of very small schools (MOS less than 8), and special schools (schools for disabled children and remedial classrooms).

B.2.2 Sample Design

- Explicit stratification by province (province 02 versus all other provinces), for a total of two strata

- Implicit stratification by province (25 provinces), urbanization (rural/urban), and school type (public/private), for a total of 72 strata

- Small schools sampled with equal probabilities (small school definitions differ by province)

Explicit Stratum	Total Sampled Schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Province 02	30	0	28	2	0	0
All Other Provinces	120	0	105	3	0	12
Total	150	0	133	5	0	12

B.3 BELIZE

B.3.1 Coverage and Exclusions

School-level exclusions consisted of very small schools (MOS less than 10).

B.3.2 Sample Design

- No explicit stratification

- Implicit stratification by school type (public/private), and region (six regions) among public schools, for a total of seven strata

- Schools sampled with equal probabilities

B.4   BULGARIA

B.4.1   Coverage and Exclusions

School-level exclusions consisted of special schools (educable men-tally disabled students, permanent physically or functionally dis-abled students, students with criminal behavior) and very small schools (MOS less than 8).

B.4.2   Sample Design

- Explicit stratification by school size (large schools, small schools), for a total of two strata

- No implicit stratification

- Schools in the "Small Schools" stratum sampled with equal probabilities

Exhibit B.3: Allocation of School Sample in Bulgaria

Explicit Stratum	Total Sampled Schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Large Schools	154	0	148	0	0	6
Small Schools	23	1	22	0	0	0
Total	177	1	170	0	0	6

B.5   CANADA

B.5.1   Coverage and Exclusions

Only Ontario and Quebec participated in the study. All other provinces and Territories are excluded from national coverage.

B.6 COLOMBIA

B.6.1 Coverage and Exclusions

School level exclusions consisted of Amazonian and Orinoquian regions (isolated regions), and evening schools (older student population).

Within-school exclusions consisted of disabled students.

B.6.2 Sample Design

- Explicit stratification by urbanization (rural/urban), for a total of two strata

- Implicit stratification by school type (public/non-public), for a total of four strata

- Two classrooms sampled per selected school

- Small schools (MOS less than 20) sampled with equal probabilities

Exhibit B.5: Allocation of School Sample in Colombia

Explicit Stratum	Total Sampled Schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Rural	59	0	43	12	3	1
Urban	91	0	76	12	1	2
Total	150	0	119	24	4	3

B.7 CYPRUS

B.7.1 Coverage and Exclusions

There were no reported school-level exclusions.

B.7.2 Sample Design

- Explicit stratification by district, for a total of four strata

- Implicit stratification by urbanization (rural/urban), for a total of eight strata

- School sampled with equal probabilities

B.8   CZECH REPUBLIC

B.8.1   Coverage and Exclusions

School-level exclusions consisted of schools for functionally and mentally disabled students, and Polish language schools.

B.8.2   Sample Design

• No explicit stratification

• Implicit stratification by school type (complete basi5yete basi5yete bnsa5 TD0 Tc0 Tw

B.9.2   Sample Design

- Explicit stratification by school size (large/small), for a total of two strata

- Implicit stratification by school type (primary, junior/middle, independent) and school performance (six levels), for a total of 25 strata

- Schools in the "Small Schools" stratum sampled with equal probabilities

Explicit Stratum	Total Sampled Schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Small Schools	25	0	14	9	0	2
Large Schools	125	0	74	29	5	17
Total	150	0	88	38	5	19

B.10   FRANCE

B.10.1 Coverage and Exclusions

School-level exclusions consisted of overseas territories (TOM), private schools "without contract," French schools in foreign countries (Guyanne and La Reunion), specialized schools, and very small schools (MOS less than 4).

B.10.2 Sample Design

- Explicit stratification by school size (large/small), for a total of two strata

- Implicit stratification by school type (public, public ZEP, private), for a total of six strata

- Schools in the "Small Schools" stratum sampled with equal probabilities

- Two classrooms sampled per selected school

B.11   GERMANY

B.11.1 Coverage and Exclusions

School-level exclusions consisted of schools for disabled students and very small schools (definition varies by state).

Within-school exclusions consisted of disabled students within schools and non-native speakers.

B.11.2 Sample Design

• Explicit stratification by state (16 states), for a total of 16 strata

• Implicit stratification by school type (primary, special education), for a total of 32 strata

• Small schools sampled with equal probabilities (small schools defined by numbers shown in parentheses in table below)

• Two classrooms sampled per selected school

• Extra sample of schools in order to meet national objectives

B.12 GREECE

B.12.1 Coverage and Exclusions

School-level exclusions consisted of students taught in foreign languages only, schools for students with special needs, and very small schools (MOS less than 3).

Within-school exclusions consisted of non-native language speakers.

B.12.2 Sample Design

- Explicit stratification by school type (public, private) and school size within public schools (small, large), for a total of three strata

- Implicit stratification by school type (public/private), urbanization (rural/urban) within public schools and region (7 regions) within public urban schools, for a total of 17 strata

- Schools in the "Small Public Schools" stratum sampled with

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B.12.3 Sample Design
Sampled every second PIRLS school, same target grade

B.13 HONG KONG, SAR

B.13.1 Coverage and Exclusions
School-level exclusions consisted of international schools and very small schools (MOS less than 9).

B.13.2 Sample Design
- No explicit stratification

- Implicit stratification by gender (boys, girls, mixed), school type

Exhibit B.12: Allocation of School Sample in Hong Kong, SAR

Explicit Stratum	Total Sampled Schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Hong Kong, SAR	150	0	115	29	3	3
Total	150	0	115	29	3	3

B.14 HUNGARY

B.14.1 Coverage and Exclusions

School-level exclusions consisted of very small schools (MOS less than 12).

B.14.2 Sample Design

- Explicit stratification by urbanization (cities and towns, villages) and village size (four levels) within villages, for a total of four strata

- Implicit stratification by urbanization (Budapest, county seats, towns, villages) within cities and towns, counties (19 counties) within cities and towns and regions (seven regions) within villages, for a total of 67 strata

- Extra sample of schools in order to meet national objectives

Exhibit B.13: Allocation of School Sample in Hungary

Explicit Stratum	Total Sampled Schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Cities and Towns	100	0	98	0	0	2
Villages: 0-999	30	0	29	0	0	1
Villages: 1000-2999	30	0	30	0	0	0
Villages: 3000-4999	30	0	30	0	0	0
Villages: 5000-19999	30	0	29	0	0	1
Total	220	0	216	0	0	4

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B.14.3 Target Population

The target population consisted of students in grade 3.

B.14.4 Sample design

• Sampled a 3rd grade class in each participating PIRLS school

• Allocation of school sample unchanged (see table C13 above)

B.15 ICELAND

B.15.1 Coverage and Exclusions

School-level exclusions consisted of very small schools (MOS less than 5).ed •

B.16 ISLAMIC REPUBLIC OF IRAN

B.16.1 Coverage and Exclusions

School-level exclusions consisted of mentally and physically dis-
ab

B.17   ISRAEL

B.17.1 Coverage and Exclusions

School-level exclusions consisted of special education schools, extreme Orthodox Jewish schools, East Jerusalem Arab schools teaching the Jordanian curriculum, and very small schools (MOS less than 13).

Within-school exclusions consisted of disabled students.

B.17.2   Sample Design

• Explicit stratification by school type (Hebrew religious, Hebrew secular, Arab), for a total of three strata

• Implicit stratification by socioeconomic status (three levels), for a total of nine strata

• Five sampled Jordanian schools were excluded from data collection. As a result, all Jordanian schools (21 with 2,114 students) were identified on the school sampling frame and added to the excluded population

Explicit Stratum	Total Sampled Schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Hebrew, Religious		0	38	0	1	1
Hebrew, Secular		0	68	0	0	2
Arab			38	1	1	0
Total			144	1	2	3

B.18   ITALY

B.18.1 Coverage and Exclusions

There were no reported school-level exclusions.

Within-school exclusions consisted of disabled students and non-native language speakers.

B.18.2   Sample Design

- No explicit stratification•

- Schools sampled with equal probabilities

- Two classrooms sampled per selected school

B.20   LATVIA

: Allocation of School Sample in Latvia

icit Stratum	Total Sampled Schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
ls, Latvian	25	1	21	2	0	0
ls, Latvian	73	0	68	4	1	1
Schools, Latvian	4	0	4	0	0	0
ls, Russian	4	0	3	0	0	1
ols, Russian	42	0	37	1	0	4
	148	1	133	7	1	6

B.21   LITHUANIA

B.21.1   Coverage and Exclusions

Coverage in Lithuania was restricted to students whose language of instruction is Lithuanian. School-level exclusions consisted of very small schools (MOS less than 4).

B.21.2   Sample Design

- No explicit stratification

- No implicit stratification

- 49 schools were treated as replacement schools because they had at least one classroom with no chance of being sampled, due to an inaccurate count of classrooms in the school

- Small schools (MOS less than 26) sampled with equal probabilities

- Nine schools were treated as replacement schools because they had at least one classroom with no chance of being sampled, due to an inaccurate count of classrooms in the school
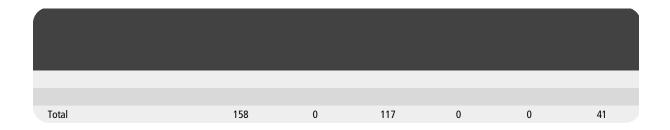
B.24 MOROCCO

B.24.1 Coverage and Exclusions

School-level exclusions consisted of very small schools (MOS less than 5).

B.24.2 Sample Design

- Explicit stratification by school type (public/ private), for a total of two strata

- Implicit stratification by regions (16 regions) and urbanization (rural/urban), for a total of 33 strata

- Schools in the "Private schools" stratum sampled with equal probabilities

- Small schools (MOS less than 30) sampled with equal probabilities

| Total | 158 | 0 | 117 | 0 | 0 | 41 |

B.25 THE NETHERLANDS

B.25.1 Coverage and Exclusions

School-level exclusions consisted of special schools.

Within-school exclusions consisted of non-native language speakers.

B.25.2 Sample Design

- No explicit stratification

- Implicit stratification by mean student weight (three levels) and by urbanization (five levels), for a total of 15 strata

- Small schools (MOS less than 23) sampled with equal probabilities

Exhibit B.24: Allocation of School Sample in The Netherlands

Explicit Stratum	Total Sampled Schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
The Netherlands	150	0	80	32	22	16
Total	150	0	80	32	22	16

B.26 NEW ZEALAND

B.26.1 Target Population

Children scheduled to begin secondary school in 2005 (four years of formal schooling)

B.26.2 Coverage and Exclusions

School-level exclusions consisted of correspondence schools, special schools, Rudolph Steiner schools, and very small schools (MOS less than 4).

Within-school exclusions consisted of special needs students.

B.27 NORWAY

B.27.1 Coverage and Exclusions

School-level exclusions consisted of Sami language schools.

Within-school exclusions consisted of non-native language speakers.

B.27.2 Sample Design

- Explicit stratification by language (Bokmal/Nynorsk), by count of classrooms (three levels), by economic status in municipalities (four levels), and by immigration status (two levels), for a total of 44 strata

- Implicit stratification by counties (19 counties), for a total of 1 115 strata

- Two classrooms sampled per selected school

- One explicit stratum had no participating schools, it was added to the exclusion population

- Alternate method for identifying replacement schools

- The jackknife zones ignore the last two levels of explicit stratification to reduce the number of single-school zones

						Sampled	1st Replacement	2nd Replacement	
Bokmal	Two+ Class			No Immigrants	2	0	2	0	0	0
				Immigrants	2	0	2	0	0	0
				No Immigrants	3	0	2	0	0	1
				Immigrants	3	0	3	0	0	0
				No Immigrants	2	0	2	0	0	0
				Immigrants	2	0	2	0	0	0
		Four Largest Cities Four La40	1	No Immigrants	2	0	1	0	0	1
				Immigrants	2	0	0	1	0	1
				No Immigrants	3	0	2	1	0	0
				Immigrants	7	0	7	0	0	0
				No Immigrants	3	0	3	0	0	0
				Immigrants	6	0	5	1	0	0
		High Expenditures		No Immigrants	2	0	0	0	1	1
				Immigrants	2	0	2	0	0	0
		Four Largest Cities		No Immigrants	2	0	2	0	0	0
				Immigrants	2	2	0	0	0	0
		Low Expenditures		No Immigrants	5	0	4	1	0	0
				Immigrants	31	0	25	2	0	4
				No Immigrants	2	0	1	0	0	1
				Immigrants	10	0	7	1	0	2
	No Class	High Expenditures		Immigrants	2	0	1	0	0	1
		Four Largest Cities		No Immigrants	2	0	1	1	0	0
				Immigrants	20	0	17	1	0	2
		Low Expenditures		No Immigrants	2	0	1	0	0	1
				Immigrants	2	0	2	0	0	0
		Medium Expenditures		No Immigrants	2	0	2	0	0	0
				Immigrants	2	0	2	0	0	0
		High Expenditures		No Immigrants	2	0	0	1	0	1
				Immigrants	2	0	1	0	0	1
		Four Largest Cities		No Immigrants	2	0	1	1	0	0
				Immigrants	1	0	1	0	0	0
		Low Expenditures		No Immigrants	2	0	2	0	0	0
				Immigrants	3	0	2	0	0	1
	One Class	Medium Expenditures		No Immigrants	2	0	0	1	0	1
				Immigrants	3	0	3	0	0	0
		High Expenditures		No Immigrants	2	0	1	0	0	1
				Immigrants	2	0	0	2	0	0
		Four Largest Cities		Immigrants	1	0	1	0	0	0
		Low Expenditures		No Immigrants	2	0	1	0	0	1
				Immigrants	5	0	5	0	0	0
	Two+ Class	Medium Expenditures		Immigrants	2	0	1	1	0	0
				No Immigrants	2	0	1	0	0	1
				Immigrants	2	0	1	0	0	1
		Four Largest Cities		Immigrants	2	0	0	0	1	1
Total					162	2	119	15	2	24

B.28 ROMANIA

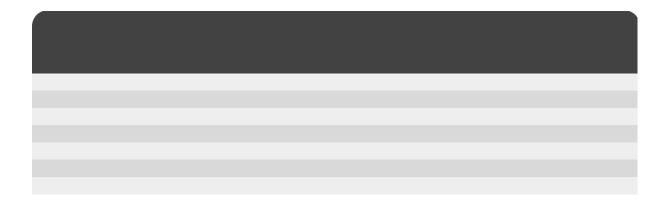### B.28.1 Coverage and Exclusions

Within-school exclusions consisted of disabled students and non-native language speakers.

B.29.3 Sample Design

• Preliminary sampling of 45 regions from a frame of 89 regions, 17 regions large enough to be sampled with certainty

• No explicit stratification (the explicit strata in table C28 correspond to the primary sampling units)

• Implicit stratification by school size (small, large), by urbanization (six levels), and by school type (Primary, Basic, Secondary), for a total of 1,094 strata

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B.30   SCOTLAND

B.30.1 Coverage and Exclusions

School-level exclusions consisted of special schools, Gaelic schools, and very small schools (MOS less than 7).

Within-school exclusions consisted of special needs students.

B.30.2 Sample Design

- No explicit stratification

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B.31.3 Target Population

The target population consisted of students in grade 3.

B.33 SLOVENIA

B.33.1 Target Population

The target population consisted of students in grade 3.

B.33.2 Coverage and Exclusions

School-level exclusions consisted of schools where the language of instruction is Italian, and very small schools (MOS less than 5).

Within-school exclusions consisted of children taught in English (temporary residents).

B.33.3 Sample Design

• Explicit stratification by school size (very large schools, large schools), for a total of two strata

• Implicit stratification by urbanization (five levels), for a total of ten strata

• Schools in "Very large schools" sampled selected with equal probabilities

Exhibit B.32: Allocation of School Sample in Slovenia

Explicit Stratum	Total Sampled Schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Large Schools	138	0	136	1	0	1
Very Large Schools	12	0	11	0	0	1
Total	150	0	147	1	0	2

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B.33.4 Sample Design

Sampled every second PIRLS school, same target grade

Exhibit B.32B: Allocation of School Sample in Slovenia (Trend)

Explicit Stratum	Total Sampled Schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Large Schools	69	0	69	0	0	0
Very Large Schools	6	0	6	0	0	0
Total	75	0	75	0	0	0

B.34   SWEDEN

B.34.1   Coverage and Exclusions

School-level exclusions consisted of special schools for disabled students, Non-Swedish speaking schools, hospital and refugee schools, and very small schools (MOS less than 9 in public schools and MOS less than 5 in independent schools).

Within-school exclusions consisted of disabled students and non-native language speakers.

B.34.2   Sample Design

- Explicit stratification by school composition (grade 4 only, grades 3 and 4), school type (public/independent), and school size (large, very large) within independent schools, for a total of six strata

- No implicit stratification

- Schools in "Very Large Schools" stratum sampled with equal probabilities

- Small schools sampled with equal probabilities

- All classrooms sampled in selected schools

Exhibit B.33A: Allocation of School Sample in Sweden

Explicit Stratum	Total Sampled Schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Independent, Grade 4 Only, Very Large Schools	1	0	1	0	0	0
Independent, Both Grades, Very Large Schools	2	0	2	0	0	0
Independent, Grade 4 Only	2	0	2	0	0	0
Independent, Both Grades	25	1	20	2	0	2
Public, Grade 4 Only	12	0	12	0	0	0
Public, Both Grades	108	0	105	2	0	1
Total	150	1	142	4	0	3

Trends in IEA's Reading Literacy Study

B.34.3 Target Population

The target population consisted of students in grade 3.

B.34.4 Sample Design

- Independent sample of 150 schools, but same sample design as in PIRLS (there is no overlap between PIRLS and Trends in IEA's Reading Literacy Study school samples)

B.35   TURKEY

B.35.1 Coverage and Exclusions

School-level exclusions consisted of schools for handicapped, schools with combined classes, schools with a bussing system (remote), and very small schools (MOS less than 16).

B.35.2 Sample Design

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- Schools in the "Private schools" stratum sampled with equal probabilities

- Small schools (MOS less than 40) in the "Public Schools" stratum sampled with equal probabilities

B.36   UNITED STATES

B.36.1   Coverage and Exclusions

School-level exclusions consisted of students in special education schools, students in vocational/technical schools, and students in alternative schools.

Within-school exclusions consisted of disabled students unable to take the assessment and English language learners.

B.36.2   Sample Design

- An additional sampling stage was added prior to sampling schools. Fifty-two PSUs were drawn at this stage following systematic probability proportional to size sampling procedures.

- Further explicit stratification of schools within sampled PSUs by school type (public/private)

- Further implicit stratification of schools within sampled PSUs by PSU and minority status (high, low) for public schools, and by religious denomination (Catholic, other religions, non-sectarian), and PSU for private schools

- The stratification shown in the table below was used for the computation of school participation adjustments (the last two levels of stratification were combined in order to derive the jackknife zones).

Exhibit B.35A: Allocation of School Sample in United States

Explicit Stratum	Total Sampled Schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Public, Certainty PSUs	46	0	28	11	2	5
Private, Certainty PSUs	20	0	15	4	0	1
Public, Non-Certainty PSUs	104	0	63	16	9	16
Private, Non-Certainty PSUs	30	0	19	4	3	4
Total	200	0	125	35	14	26

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B.36.3   Sample Design

Sampled every second PIRLS school, same target grade

	Sampled	1st Replacement	2nd Replacement