# Exhibit B.1.1 Allocation of School Sample in Armenia - Fourth Grade

Franticit Ctuatum	Total Sampled	Ineligible	Participating Schools	Non-
Explicit Stratum	Schools	Schools	7ols	Participating Schools

Exhibit B.2.2 Allocation of School Sample in Australia - Eighth Grade

Explicit Stratum	Total Sampled	Ineligible	Participating Schools			Non-
	Schools	Schools	Sampled	1st Replacement	2nd Replacement	Participating Schools
New South Wales	40	0	27	4	1	8
Victoria	35	0	31	2	1	1
Queensland	35	1	29	1	3	1
South Australia	30	0	25	2	0	3
Western Australia	30	1	23	2	1	3
Tasmania	30	1	25	1	0	3
Northern Territory	15	1	13	1	0	0
Australian Capital Territory	15	0	13	1	1	0
Total	230	4	186	14	7	19

#### B.3 Bahrain

#### **EIGHTH GRADE**

Coverage and Exclusions

- Coverage is 100%
- There were no reported school-level exclusions

- No explicit stratification
- Implicit stratification by school type (girl schools, boy schools, private schools), for a total of three implicit strata
- All schools in the sample

Exhibit B.3.1 Allocation of School Sample in Bahrain - Eighth Grade

Explicit Stratum T	Total Sampled	Ineligible		Participating Schoo	ols	Non-
	Schools	Schools	Sampled	1st Replacement	2nd Replacement	Participating Schools
Bahrain	67	0	67	0	0	0
Total	67	0	67	0	0	0

# B.7 Bulgaria

#### **EIGHTH GRADE**

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (less than five eligible students)

- Explicit stratification by school size (very large, large), for a total of two explicit strata
- Implicit stratification within large schools by entrance examination (with, without), for a total of three implicit strata
- The one "Very Large School" was in fact a cluster of smaller schools. One of them was sampled with PPS

Exhibit B.7.1 Allocation of School Sample in Bulgaria - Eighth Grade

Explicit Stratum	Total Sampled	Ineligible	1	Non-		
	Schools		Sampled	1 <sup>st</sup> Replacement	2 <sup>nd</sup> Replacement	Participating Schools
Very Large Schools	1	0	1	0	0	0
Large Schools						

• Implicit stratification by urbanization (rural, urban), for a total of 12 implicit strata

Exhibit B.8.1 Allocation of School Sample in Chile - Eighth Grade

Explicit Stratum	Total Sampled	Ineligible	Participating Schools			Non-
	Schools	Schools	Sampled	1 <sup>st</sup> Replacement	2 <sup>nd</sup> Replacement	Participating Schools
North & Region 8 - Municipal	45	0	43	2	0	0
North & Region 8 - Subsidized	34	0	33	1	0	0
North & Region 8 - Private	31	0	31	0	0	0
All Other Regions - Municipal	50	0	50	0	0	0
All Other Regions - Subsidized	21	0	21	0	0	0
All Other Regions - Private	14	0	13	1	0	0
Total	195	0	191	4	0	0

# B.9 Chinese Taipei

Exhibit B.9.1 Allocation of School Sample in Chinese Taipei - Fourth Grade

Explicit Stratum To	Total Sampled	Ineligible		Participating Schoo	ols	Non-
	Schools	Schools	Sampled	1st Replacement	2nd Replacement	Participating Schools
Chinese Taipei	150	0	150	0	0	0
Total	150	0	150	0	0	0

#### **EIGHTH GRADE**

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of special education schools and very small schools (less than eight eligible students)

## Sample Design

- No explicit stratification
- Implicit stratification by region (five regions) and gender (girls, boys, mixed), for a total of ten implicit strata
- Small schools were sampled with probabilities proportional to size

Exhibit B.9.2 Allocation of School Sample in Chinese Taipei - Eighth Grade

Explicit Stratum Total Sample Schools	Total Sampled	Ineligible	Participating Schools			Non-
	Schools	Schools	Sampled	1st Replacement	2nd Replacement	Participating Schools
Chinese Taipei	150	0	150	0	0	0
Total	150	0	150	0	0	0

#### B.10 Cyprus

#### **FOURTH GRADE**

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of isolated schools and very small schools (less than seven eligible students)

- Explicit stratification by district, for a total of four explicit strata
- Implicit stratification by urbanization (rural, urban), for a total of eight implicit strata
- Schools sampled with equal probabilities

#### B.11 Egypt

#### **EIGHTH GRADE**

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of schools for the blind, handicraft schools, sport schools, and very small schools (less than 12 eligible students)

## Sample Design

- Explicit stratification by school type, for a total of six explicit strata
- Implicit stratification by gender (boys, girls, mixed), urbanization (rural, urban), school type (public, free private) in the "Afternoon 2nd Shift" stratum, schedule (full time, morning shift, noon shift) in the "Public" stratum, for a total of 42 implicit strata

Exhibit B.11.1 Allocation of School Sample in Egypt - Eighth Grade

Explicit Stratum	o I Sampletheligible		Participating Schools			Non-
	Schools		Sampled	1st Replacement	2nd Replacement	Participating Schools
Afterno o n 2nd Shift	25	0	25	0	0	0
Pu b licScho o ls	115	0	115	1	0	0
E perimental L ng Scho o Is	u ge 25	0	25	0	0	0
Free Private Scho o Is	2	0	2	0	0	0
Private Scho o Is	25	0	25	0	0	0
Private L ngu ge Scho o Is	25	0	25	1	0	0
To tal	217	0	217	2	0	0

#### B.12 England

#### **FOURTH GRADE**

† Coverage is 100"

† Schoolł level ei dusions consisted of special education schools and very

small schools (less than eight eligible students)

- No explicit stratification
- Implicit stratification by region, for a total of ten implicit strata

Exhibit B.14.1 Allocation of School Sample in Ghana - Eighth Grade

Explicit Stratum	Total Sampled	Ineligible Schools	ı	Non-		
	Schools		Sampled	1st Replacement	2nd Replacement	Participating Schools
Ghana	150	0	150	0	0	0
Total	150	0	150	0	0	0

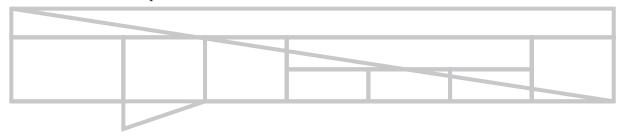
## B.15 Hong Kong, SAR

#### **FOURTH GRADE**

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of special education schools, international schools, and very small schools (less than nine eligible students)

- No explicit stratification
- Implicit stratification by gender (single-sex, mixed), school type (aided, government & private), and schedule (morning, afternoon, whole day), for a total of 12 implicit strata



#### **EIGHTH GRADE**

## Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of special education schools and international schools

## Sample Design

- No explicit stratification
- Implicit stratification by gender (single-sex, mixed), school type (aided, government & private), and language (Chinese, English), for a total of eight implicit strata

Exhibit B.15.2 Allocation of School Sample in Hong Kong, SAR - Eighth Grade

Explicit Stratum	Total Sampled	Ineligible Schools		Non-		
	Schools		Sampled	1st Replacement	2nd Replacement	Participating Schools
Hong Kong, SAR	150	0	112	12	1	25
Total	150	0	112	12	1	25

### B.16 Hungary

#### **FOURTH GRADE**

## Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of special education schools and very small schools (less than 15 eligible students)

- Explicit stratification by grade (Fourth Grade only, Fourth Grade and Eighth Grade), for a total of two explicit strata
- Implicit stratification by province (20 provinces) and urbanization (village, town, county seat, Budapest), for a total of 109 implicit strata
- Small schools were sampled with probabilities proportional to size
- Maximum school sample overlap between Fourth Grade and Eighth Grade

• Explicit stratification by school size (small, large) and school type (public,

- Implicit stratification by province (20 provinces) and urbanization (capital town, other towns), for a total of 40 implicit strata
- $\bullet\,$  Small schools were sampled with probabilities proportional to size

Explicit Stratum	Total SamplR			

- Explicit stratification by urbanization (big city area, city area, non-city area), for a total of three explicit strata
- No implicit stratification

#### B.23 Jordan

#### **EIGHTH GRADE**

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (less than nine eligible students)

- No explicit stratification
- Implicit stratification by school type (public, private, UNRWA), urbanization (rural, urban) in the "Public" and "Private" strata, and gender (boys, girls,

Exhibit B.25.2 Allocation of School Sample in Latvia - Eighth Grade

Explicit Stratum	Total Sampled Schools	Ineligible <sub>-</sub> Schools	Participating Schools			Non-
			Sampled	1st Replacement	2nd Replacement	Participating Schools
Eighth Grade Only	15	1	14	0	0	0
Fourth & Eighth Grade - Very Large	27	0	26	0	0	1
Fourth & Eighth Grade - Large	108	0	97	1	2	8
Total	150	1	137	1	2	9

#### B.26 Lebanon

## **EIGHTH GRADE**

# Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (less than nine eligible students)

- No explicit stratification
- Implicit stratification by school type (public, private), urbanization (rural, urban), and gender (boys, girls, mixed), for a total of ten implicit strata

#### B.27 Lithuania

#### **FOURTH GRADE**

Coverage and Exclusions

- Coverage in Lithuania was restricted to students whose language of instruction is Lithuanian (92% of International Desired Target Grade).
- School-level exclusions consisted of special education schools and very small schools (less than five eligible students)

- Explicit stratification by grade (Fourth Grade only, Fourth Grade and Eighth Grade), for a total of two explicit strata
- Implicit stratification by school type (basic, secondary, primary), for a total of five implicit strata
- Maximum school sample overlap between Fourth Grade and Eighth Grade

-				

Eighth Grade" stratum, and language (National, Russian, mixed) in the "Fourth Grade and Eighth Grade" stratum, for a total of 18 implicit strata

• Maximum school sample overlap between Fourth Grade and Eighth Grade

Explicit Stratum	x	

Exhibit B.31.1 Allocation of School Sample in Morocco - Fourth Grade

	Total Sampled Schools	Ineligible Schools	Participating Schools			Non-
Explicit Stratum			Sampled	1st Replacement	2nd Replacement	Participating Schools
Fourth Grade Only - Region Stratum 1	25	0	24	0	0	1
Fourth Grade Only - Region Stratum 2	25	0	8	0	0	17
Fourth Grade Only - Region Stratum 3	35	0	34	0	0	1
Fourth Grade Only - Region Stratum 4	25	0	24	0	0	1
Fourth Grade Only - Region Stratum 5	30	0	29	0	0	1
Fourth Grade Only - Region Stratum 6	30	0	28	0	0	2
Fourth Grade Only - Region Stratum 7	25	0	23	0	0	2
Fourth Grade Only - Region Stratum 8	30	0	27	0	0	3
Fourth & Eighth Grade	2	2	0	0	0	0
Total	227	2	197	0	0	28

#### **EIGHTH GRADE**

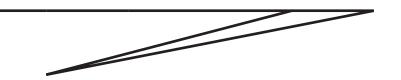
## Coverage and Exclusions

- Coverage in Morocco was restricted to students outside the regions of Souss Massa Draa, Casablanca and Gharb-Chrardais (69% of the International Desired Target Grade).
- School-level exclusions consisted of special education schools and very small schools (less than six eligible students in both Fourth Grade and Eighth Grade)

## Sample Design

• Explicit stratification by grade (Eighth Grade only, Fourth Grade and Int de only, Forhth°

- No explicit stratification
- Implicit stratification by mean National Student Weight (low, medium, high), for a total of three implicit strata



(rural, urban) in the "State" stratum, and gender (boys, girls, mixed) in the "State" stratum, for a total of ten implicit strata

• Schools were sampled with equal probabilities

Exhibit B.33.2 Allocation of School Sample in New Zealand - Eighth Grade

Explicit Stratum	Total Sampled	Ineligible	Participating Schools				
		Schools	Sampled	1st Replacement	2nd Replacement	Participating Schools	
New Zealand	175	1	149	20	0	5	
Total	175	1	149	20	0	5	

# B.34 Norway

### **FOURTH GRADE**

## Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of special education schools, Sami schools, and very small schools (less than five eligible students in both Fourth Grade and Eighth Grade)

- Explicit stratification by grade (Fourth Grade only, Fourth Grade and Eighth Grade) and language (Bokmål, other), for a total of four explicit strata
- No implicit stratification
- Small schools were sampled with probabilities proportional to size in the "Fourth Grade & Eighth Grade Bokmål" stratum
- Maximum school sample overlap between Fourth Grade and Eighth Grade

Exhibit B.34.2 Allocation of School Sample in Norway - Eighth Grade

Explicit Stratum	Total Sampled	Ineligible	Participating Schools			Non-
	Schools Schools	Sampled	1st Replacement	2nd Replacement	Participating Schools	
Eighth Grade Only - Bokmål	42	0	40	0	0	2
Fourth & Eighth Grade - Bokmål	8	0	6	0	0	2
Eighth Grade Only - Other	73	0	68	0	0	5
Fourth & Eighth Grade - Other	27	0	24	0	0	3
Total	150	0	138	0	0	12

## B.35 Ontario Province, Canada

#### **FOURTH GRADE**

## Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of special education schools, remote schools (northern regions), and very small schools (less than ten eligible students in both Fourth Grade and Eighth Grade)

- Explicit stratification by grade (Fourth Grade only, Fourth Grade and Eighth Grade) and language (English, French), for a total of four explicit strata
- Implicit stratification by school type (public, private, separate), for a total of 12 implicit strata
- Maximum school sample overlap between Fourth Grade and Eighth Grade

Exhibit B.35.1 Allocation of School Sample in Ontario Province, Canada - Fourth Grade

Explicit Stratum	Total	Ineligible		Participating Schools		
	Sampled Schools	Schools	Sampled	1st Replacement	2nd Replacement	Participating Schools
Fourth Grade Only - English	32	2	27	1	1	1
Fourth Grade Only - French	25	0	24	1	0	0
Fourth & Eighth Grade – English	88	2	75	4	1	6
Fourth & Eighth Grade - French	55	0	53	2	0	0
Total	200	4	179	8	2	7

### **EIGHTH GRADE**

## Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of special education schools, native schools, overseas schools, and very small schools (less than ten eligible students in both Fourth Grade and Eighth Grade)

- Explicit stratification by grade (Eighth Grade only, Fourth Grade and Eighth Grade) and language (English, French), for a total of four explicit strata
- Implicit stratification by school type (public, private, separate), for a total of 11 implicit strata
- All schools sampled in the "Eighth Grade Only French" stratum
- Maximum school sample overlap between Fourth Grade and Eighth Grade

## Exhibit B.35.2 Allocation of School Sample in Ontario Province, Canada - Eighth Grade

Explicit Stratum	Total Sampled Schools	Ineligible	-

## B.37 Philippines

#### **FOURTH GRADE**

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of schools in the ARMM region and very small schools (less than ten eligible students)

# Sample Design

- Explicit stratification by school type (public, private), for a total of two explicit strata
- Implicit stratification by region (16 regions), for a total of 32 implicit strata

Exhibit B.37.1 Allocation of School Sample in the Philippines - Fourth Grade

Explicit Stratum	Total Sampled	Ineligible		Non-		
	Schools	Schools	Sampled	1st Replacement	2nd Replacement	Participating Schools
Public	149	0	111	9	4	25
Private	11	0	11	0	0	0
Total	160	0	122	9	4	25

#### **EIGHTH GRADE**

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of schools in the ARMM Region and very small schools (less than ten eligible students)

- Explicit stratification by school type (public, private), for a total of two explicit strata
- Implicit stratification by region (16 regions), for a total of 32 implicit strata

Exhibit B.37.2 Allocation of School Sample in the Philippines - Eighth Grade

Explicit Stratum	Total Sampled	Ineligible Schools	Participating Schools Non-			
	Schools		Sampled	1st Replacement	2nd Replacement	Participating Schools
Public	126	0	100	5	0	21
Private	34	0	32	0	0	2
Total	160	0	132	5	0	23

# B.38 Québec Province, Canada

#### **FOURTH GRADE**

## Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of special education schools, remote schools (northern regions), and very small schools (less than 11 eligible students in both Fourth Grade and Eighth Grade)

- Explicit stratification by grade (Fourth Grade only, Fourth Grade and Eighth Grade) and language (English, French, English & French), for a total of five explicit strata
- Implicit stratification by school type (public, private), for a total of nine implicit strata
- Maximum school sample overlap between Fourth Grade and Eighth Grade

Exhibit B.38.2 Allocation of School Sample in Québec Province, Canada - Eighth Grade

Explicit Stratum	Total Sampled	Ineligible	Participating Schools			Non-
	Schools		Sampled	1st Replacement	2nd Replacement	Participating Schools
Eighth Grade Only - English	66	8	58	0		

APPENDIX B: CHARACTERISTICS OF NATIONAL SAMPLES

Exhibit B.40.2 Allocation of School Sample in the Russian Federation – Eighth Grade (...Continued)

Explicit Stratum	Total Sampled	Ineligible Schools	Participating Schools			Non-
	Schools		Sampled	1st Replacement	2nd Replacement	Participating Schools
Altay Kr*	4	0	4	0	0	0
Omsk Obl	4	0	4	0	0	0
Hanty_Mansii Ok	4	0	4	0	0	0
Tomsk Obl	4	0	4	0	0	0
Krasnoyarsk Obl*	4	0	4	0	0	0
Irkutsk Obl*	4	0	4	0	0	0
Chita Obl	4	0	4	0	0	0
Primorsk Kr	4	0	4	0	0	0
Habarovsk Kr	4	0	4	0	0	0
Sahalin Obl	4	0	4	0	0	0
Total	216	0	214	0	0	2

Strata marked with (\*) were selected with certainty

### B.41 Saudi Arabia

### **EIGHTH GRADE**

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (less than seven eligible students)

- No explicit stratification
- Implicit stratification by gender (boys, girls) and school type (government, private), for a total of four implicit strata

Exhibit B.41.1 Allocation of School Sample in Saudi Arabia - Eighth Grade

F. II 1: 6: .	Total Sampled	Ineligible		Participating Schools			
Explicit Stratum	Schools	Schools	Sampled	1st 2nd Replacement Replacement	Participating Schools		
Saudi Arabia	160	0	154	1	0	5	
Total	160	0	154	1	0	5	

## B.42 Scotland

## **FOURTH GRADE**

Coverage and Exclusions

- Coverage is 100%
- $\bullet\,$  School-level exclusions consisted very small schools L

0

Ú

- Explicit stratification by grade (Eighth Grade only, Fourth Grade and Eighth Grade) and school size (large, other) in the "Eighth Grade Only" stratum, for a total of three explicit strata
- Implicit stratification by school performance (six levels) and school type (four types), for a total of 28 implicit strata
- Maximum school sample overlap between Fourth Grade and Eighth Grade
- Minimum school sample overlap between TIMSS and PISA

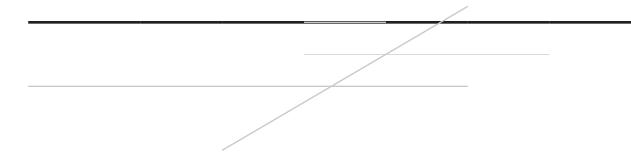


Exhibit B.43.1 Allocation of School Sample in Serbia - Eighth Grade

E all di Grant an	Total Sampled	Ineligible		Non-		
Explicit Stratum	Schools	Schools	Sampled	1st 2nd Replacement Replacement	Participating Schools	
Serbia	150	0	149	0	0	1
Total	150	0	149	0	0	1

# B.44 Singapore

## **FOURTH GRADE**

Coverage and Exclusions

- Coverage is 100%
- No school-level exclusions

# Sample Design

• All schools in the sample

Exhibit B.44.1

Exhibit B.44.2 Allocation of School Sample in Singapore - Eighth Grade

Fundinia Cama	Total Sampled	Ineligible		Participating Schools			
Explicit Stratum	Schools	Schools	Sampled	1st 2nd Replacement Replacement	Participating Schools		
Singapore	164	0	164	0	0	0	
Total	164	0	164	0	0	0	

# B.45 Slovak Republic

### **EIGHTH GRADE**

## Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of special education schools

- Explicit stratification by school type (gymnasium, basic) and language (Slovak, Hungarian), for a total of four explicit strata
- Implicit stratification by regions (eight regions), for a total of 25 implicit strata
- The school measure of size was based on the number of classes in the schools

Exhibit B.45.1 Allocation of School Sample in the Slovak Republic - Eighth Grade

	Total Sampled	Ineligible	Participating Schools			Non-
Explicit Stratum	Schools	Schools	Sampled 5 13t	2nd Replacement	Participating Schools nt	
Gymnasium – Slovak	30	0	26	3	1	0
Gymnasium - Hungarian	10	1	9	0	0	0
Basic - Slovak	120	0	116	4	0	0
Basic - Hungarian	20	0	19	1	0	0
Total	180	1	170	8	1	0

#### B.46 Slovenia

#### **FOURTH GRADE**

# Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of special education schools, Italian schools, and very small schools (less than eight eligible students in both Fourth Grade and Eighth Grade)

- Explicit stratification by school structure (new system in both Fourth Grade & 2, new system in Fourth Grade, new system in Eighth Grade, old system) and school size (very large, large) in the "Old System" stratum, for a total of five explicit strata
- Implicit stratification by region (eight regions), for a total of 29 implicit strata
- All schools sampled in the "New System In Both Fourth Grade and 2", "New System In Fourth Grade", "New System In Eighth Grade", and "Old System – Very Large" strata
- Same schools sampled in Fourth Grade and Eighth Grade

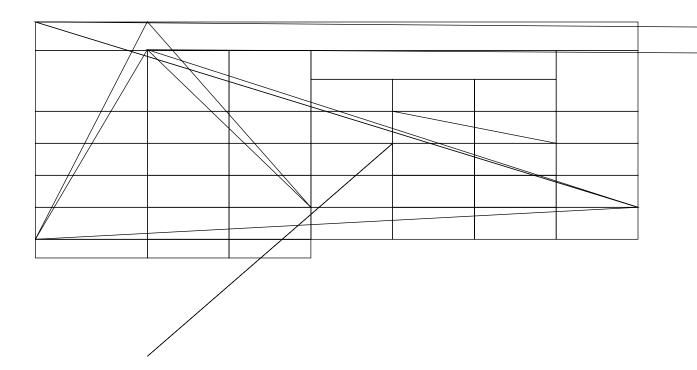


Exhibit B.50.1			
			-

- Implicit stratification by school type (public, private), region (four regions), urbanization (eight levels), and minority status (above 15%, below 15%), for a total of 192 implicit strata
- Small schools were sampled with probabilities proportional to size

Exhibit B.51.1 Allocation of School Sample in the United States- Fourth Grade

	Total Sampled	al Sampled Ineligible		Participating Schools			
Explicit Stratum	Schools	Schools	Sampled	1st Replacement	2nd Replacement	Participating Schools	
High Poverty	120	3	85	1	16	15	
Low Poverty	190	7	127	3	16	37	
Total	310	10	212	4	32	52	

### **EIGHTH GRADE**

Coverage and Exclusions

- Coverage is 100%
- There were no reported school-level exclusions

- No explicit stratification
- Implicit stratification by school type (public, private), region (four regions), urbanization (eight levels), and minority status (above 15%, below 15%), for a total of 128 implicit strata
- Small schools were sampled with probabilities proportional to size

Exhibit B.51.2			
			-