

Appendix B



Characteristics of National Samples

B.1 Algeria

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<15), private schools, and schools with multi-level classes
- No within-school exclusions

Sample Design

- No explicit stratification
- Implicit stratification by region (48 regions), for a total of 48 implicit strata
- Sampled one classroom per school
- Small schools sampled with equal probabilities

B.1.1 Allocation of School Sample in Algeria – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Algeria	150	0	149	0	0	1
Total	150	0	149	0	0	1

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of private schools
- No within-school exclusions

Sample Design

- No explicit stratification
- Implicit stratification by region (48 regions), for a total of 48 implicit strata
- Sampled one classroom per school
- Small schools sampled with equal probabilities

B.1.2 Allocation of School Sample in Algeria – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Algeria	150	0	149	0	0	1
Total	150	0	149	0	0	1

B.2 Armenia

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (Number of students in the school <50) and special boarding schools for disabled students
- Within-sample exclusions consisted of students with special needs

Sample Design

- No explicit stratification
- Implicit stratification by region (11 regions), for a total of 11 implicit strata
- Sampled two classrooms per school whenever possible
- Fourth and eighth grade students found in same schools: maximum school sample overlap

B.2.1 Allocation of School Sample in Armenia – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Armenia	150	2	143	5	0	0
Total	150	2	143	5	0	0

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (Number of students in the school <50) and special boarding schools for disabled students
- Within-school exclusions consisted of students with special needs

Sample Design

- No explicit stratification
- Implicit stratification by region (11 regions), for a total of 11 implicit strata
- Sampled two classrooms per school whenever possible
- Small schools sampled with equal probabilities
- Fourth and eighth grade students found in same schools: maximum school sample overlap

B.2.2 Allocation of School Sample in Armenia – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Armenia	150	2	143	5	0	0
Total	150	2	143	5	0	0

B.3 Australia

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<5), remote indigenous schools, special education schools, hospital schools, language centers and other schools with ‘radically different curricula’
- Within-school exclusions consisted of disabled students, and English as second language (ESL) students

Sample Design

- Explicit stratification by states and territories, for a total of eight explicit strata
- School sample allocation is not proportional at the explicit stratum level
- Implicit stratification by school type (government, Catholic, independent; in small explicit strata, ‘Catholic’ and ‘independent’ schools were grouped into one ‘non-government’ stratum) and geographic location (metro, non-metro) in large ‘school type’ strata, for a total of 31 implicit strata
- Sampled two classrooms per school having at least 86 students ($MOS \geq 86$), and one classroom otherwise
- Small schools sampled with equal probabilities

B.3.1 Allocation of School Sample in Australia – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Australian Capital Territory	15	0	15	0	0	0
New South Wales	40	0	40	0	0	0
Northern Territory	15	0	14	0	1	0
Queensland	35	0	35	0	0	0
South Australia	30	0	30	0	0	0
Tasmania	30	0	30	0	0	0
Victoria	35	0	34	1	0	0
Western Australia	30	1	28	1	0	0
Total	230	1	226	2	1	0

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools ($MOS < 5$), remote indigenous schools, special education schools, hospital schools, language centers and other schools with ‘radically different curricula’
- Within schools exclusions consisted of disabled students, and English as second language (ESL) students

Sample Design

- Explicit stratification by states and territories, for a total of eight explicit strata
- School sample allocation is not proportional at the explicit stratum level
- Implicit stratification by school type (government, Catholic, independent; in small explicit strata, ‘Catholic’ and ‘independent’ schools were grouped into one ‘non-government’ stratum) and geographic location (metro, non-metro) in large ‘school type’ strata, for a total of 31 implicit strata
- Sampled one classroom per school
- Small schools sampled with equal probabilities
- Within the states of Queensland and Victoria, student sampling weights were post-stratified by gender

B.3.2 Allocation of School Sample in Australia – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Australian Capital Territory	15	0	15	0	0	0
New South Wales	40	1	39	0	0	0
Northern Territory	15	1	14	0	0	0
Queensland	35	0	35	0	0	0
South Australia	30	0	30	0	0	0
Tasmania	30	0	30	0	0	0
Victoria	35	0	35	0	0	0
Western Australia	30	0	30	0	0	0
Total	230	2	228	0	0	0

B.4 Austria

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<3) and special education schools
- Within-school exclusions consisted of students with special needs in normal schools (special education classrooms, intellectually or functionally disabled students, and non-native language speakers)

Sample Design

- Explicit stratification by region (nine regions), for a total of nine explicit strata
- Implicit stratification by district (4-25 districts, depending on the region), for a total of 116 implicit strata
- Sampled two classrooms per school whenever possible
- Small schools sampled with equal probabilities

B.4.1 Allocation of School Sample in Austria – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Burgenland	6	0	6	0	0	0
Kärnten	14	1	13	0	0	0
Niederösterreich	38	0	37	0	0	1
Oberösterreich	37	0	37	0	0	0
Salzburg	14	0	14	0	0	0
Steiermark	28	0	28	0	0	0
Tirol	18	0	18	0	0	0
Vorarlberg	10	0	10	0	0	0
Wien	34	1	31	2	0	0
Total	199	2	194	2	0	1

B.5 Bahrain

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<8) and one school under the umbrella of the Secondary Education
- Within schools exclusions consisted of functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by school type (public, private) and governorate (capital, central, Muharraq, Northern, Southern) in the ‘public’ strata, for a total of six explicit strata
- Implicit stratification by gender (boys, girls) in the ‘public’ strata, for a total of 11 implicit strata

- Sampled three classrooms whenever possible
- Sampled all schools

B.5.1 Allocation of School Sample in Bahrain – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Public – Capital	10	0	10	0	0	0
Public – Central	12	0	12	0	0	0
Public – Muharraq	11	0	11	0	0	0
Public – Northern	15	0	15	0	0	0
Public – Southern	9	0	9	0	0	0
Private	17	0	17	0	0	0
Total	74	0	74	0	0	0

B.6 Bosnia and Herzegovina

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<6), special needs schools, music schools, and international schools
- Within schools exclusions consisted of functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by cantons and regions, for a total of 16 explicit strata
- No implicit stratification
- Sampled two classrooms per school having at least 155 students (MOS \geq 155), and one classroom otherwise
- Small schools sampled with equal probabilities

B.6.1 Allocation of School Sample in Bosnia and Herzegovina – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Kanton Sarajevo	15	0	15	0	0	0
Tuzlanski Kanton	23	0	23	0	0	0
Zeničko-Dobojski Kanton	18	0	18	0	0	0
Srednjobosanski Kanton	12	0	12	0	0	0
Hercegovačko-Neretvanski Kanton	9	0	9	0	0	0
Zapadno-Herzegovacki Kanton	4	0	4	0	0	0
Herceg-Bosanski Kanton	3	0	3	0	0	0
Unsko-Sanski Kanton	12	0	12	0	0	0
Posavski Kanton	2	0	2	0	0	0
Bosansko-Podrinjski Kanton	2	0	2	0	0	0
Prijedorska Regija	5	0	5	0	0	0
Banja Luka Regija	18	0	18	0	0	0
Dobojska Regija	6	0	6	0	0	0
Focanska Regija	8	0	8	0	0	0
Bijeljinska Regija	10	0	10	0	0	0
Brčko Distrikt	3	0	3	0	0	0
Total	150	0	150	0	0	0

B.7 Botswana**EIGHTH GRADE****Coverage and Exclusions**

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<10)
- Within-school exclusions consisted of students in special education classes and special education students in regular classes

Sample Design

- Explicit stratification by region (central, north/northwest, south central, south, west), for a total of five explicit strata
- Implicit stratification by school type (public, private) in the ‘south central’ stratum, and urbanization (urban, semi-urban, rural) in the ‘public’ strata, for a total of 15 implicit strata
- Sampled one classroom per school
- Schools sampled with equal probabilities

B.7.1 Allocation of School Sample in Botswana – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Central	40	0	40	0	0	0
North / Northwest	26	0	26	0	0	0
South Central	43	0	43	0	0	0
South	25	0	25	0	0	0
West	16	0	16	0	0	0
Total	150	0	150	0	0	0

B.8 Bulgaria**EIGHTH GRADE****Coverage and Exclusions**

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<5) and special needs schools
- Within schools exclusions consisted of special education classes, functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by school type (general, vocational, profiled), for a total of three explicit strata
- Implicit stratification by location (Sofia, large city, other location), for a total of nine implicit strata
- Sampled two classrooms per school having at least 55 students (MOS \geq 55), and one classroom otherwise
- Small schools sampled with equal probabilities

B.8.1 Allocation of School Sample in Bulgaria – Eighth Grade Mathematics

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
General	118	4	108	4	0	2
Vocational	25	0	23	0	1	1
Profiled	27	0	27	0	0	0
Total	170	4	158	4	1	3

B.8.2 Allocation of School Sample in Bulgaria – Eighth Grade Science

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
General	118	9	103	4	0	2
Vocational	25	0	23	0	1	1
Profiled	27	19	8	0	0	0
Total	170	28	134	4	1	3

B.9 Chinese Taipei**FOURTH GRADE****Coverage and Exclusions**

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<8) and special needs schools
- Within-school exclusions consisted of special education classes, functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by geographic location (north, middle, south, east, isolated islands), for a total of five explicit strata
- No implicit stratification
- Sampled two classrooms per school having at least 450 students (MOS≥450), and one classroom otherwise
- Small schools sampled with equal probabilities

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

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
North	66	0	66	0	0	0
Middle	38	0	38	0	0	0
South	40	0	40	0	0	0
East	4	0	4	0	0	0
Isolated Islands	2	0	2	0	0	0
Total	150	0	150	0	0	0

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<8) and special needs schools
- Within-school exclusions consisted of special education classes, functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by geographic location (north, middle, south, east, isolated island), for a total of five explicit strata
- No implicit stratification
- Sampled one classroom per school
- Small schools sampled with equal probabilities

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

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
North	66	0	66	0	0	0
Middle	38	0	38	0	0	0
South	40	0	40	0	0	0
East	4	0	4	0	0	0
Isolated Islands	2	0	2	0	0	0
Total	150	0	150	0	0	0

B.10 Colombia

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<3), evening schools and weekend schools
- Within-school exclusions consisted of disabled students

Sample Design

- Explicit stratification by grade (grade 4 only, grade 4 & grade 8), for a total of two explicit strata
- Implicit stratification by school type (public, private), urbanization (urban, rural) and school calendar (A, B), for a total of 16 implicit strata
- Sampled two classrooms per school having at least 120 students ($MOS \geq 120$), and one classroom otherwise
- Small schools sampled with equal probabilities

B.10.1 Allocation of School Sample in Colombia – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 4 Only	110	6	94	8	1	1
Grade 4 & 8	40	1	38	1	0	0
Total	150	7	132	9	1	1

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools ($MOS < 3$), evening schools and weekend school
- Within-school exclusions consisted of disabled students

Sample Design

- Explicit stratification by grade (grade 8, grade 4 & grade 8), for a total of two explicit strata
- Implicit stratification by school type (public, private), urbanization (urban, rural) and school calendar (A, B), for a total of 16 implicit strata
- Sampled one classroom per school
- Small schools sampled with equal probabilities

B.10.2 Allocation of School Sample in Colombia – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 8 Only	86	1	80	5	0	0
Grade 4 & 8	64	1	62	1	0	0
Total	150	2	142	6	0	0

B.11 Cyprus

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- No school-level exclusions
- Within-school exclusions consisted of intellectually disabled students, functionally disabled students and non-native language speakers (not able to read or write in the Greek language)

Sample Design

- Explicit stratification by district (Nicosia, Limassol, Larnaca-Famagusta, Paphos), for a total of four explicit strata
- Implicit stratification by urbanization (urban, rural), for a total of eight implicit strata
- Sampled four classrooms per school having at least 100 students ($MOS \geq 100$), three classrooms whenever possible otherwise
- Sampled all schools

B.11.1 Allocation of School Sample in Cyprus – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Nicosia	23	0	23	0	0	0
Limassol	19	0	19	0	0	0
Larnaca-Famagusta	15	0	15	0	0	0
Paphos	10	0	10	0	0	0
Total	67	0	67	0	0	0

B.12 The Czech Republic

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools ($MOS < 5$), special education schools, and Polish language schools
- Within-school exclusions consisted of disabled students

Sample Design

- Explicit stratification by grade (grade 4 only, grade 4 & grade 8) and school type (only primary level, complete basic school) in the 'grade 4 only' stratum, for a total of three explicit strata
- Implicit stratification by region (14 regions), for a total of 41 implicit strata
- Sampled one or two classrooms per school
- Small schools sampled with equal probabilities

B.12.1 Allocation of School Sample in the Czech Republic – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Gr4 only – Only primary level	16	2	11	1	0	2
Gr4 only – Complete Basic school	2	0	2	0	0	0
Gr4 & Gr8 – Basic school	132	1	119	11	0	1
Total	150	3	132	12	0	3

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<6), special education schools, and Polish language schools
- Within-school exclusions consisted of disabled students

Sample Design

- Explicit stratification by grade (grade 8 only, grade 4 & grade 8) and school type (basic school; 6, 8-year gymnasium), for a total of three explicit strata
- Implicit stratification by region (14 regions), for a total of 39 implicit strata
- Sampled one or two classrooms per school
- Small schools sampled with equal probabilities

B.12.2 Allocation of School Sample in the Czech Republic – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Gr8 only – Basic school	2	0	2	0	0	0
Gr8 only – 6, 8-year gymnasium	14	0	12	2	0	0
Gr4 & Gr8 – Basic school	134	3	121	10	0	0
Total	150	3	135	12	0	0

B.13 Denmark**FOURTH GRADE****Coverage and Exclusions**

- Coverage is 100%
- School-level exclusions consisted of special needs schools, and schools with less than 70% of students organized specifically in grade levels
- Within-school exclusions consisted of functionally or intellectually disabled students and non-native language speakers

Sample Design

- No explicit stratification
- No implicit stratification
- Sampled two classrooms, if possible, in schools having at least 55 students ($MOS \geq 55$), and one classroom otherwise
- Small schools sampled with equal probabilities

B.13.1 Allocation of School Sample in Denmark – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Denmark	150	0	105	27	5	13
Total	150	0	105	27	5	13

B.14 Egypt

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<12)
- Within-sample exclusions consisted of special education classes and French teaching language schools

Sample Design

- Explicit stratification by school type (public, experimental language, free private, private, private language) and region (Cairo, Alexandria, other regions) in the ‘public’ stratum, for a total of seven strata
- School sample allocation is not proportional at the stratum level
- Implicit stratification in the ‘public’ strata by urbanization (urban, rural), shift (morning, noon, afternoon 2nd, full day), and gender (boys, girls, mixed), for a total of 53 implicit strata
- Sampled one classroom per school
- Small schools sampled with equal probabilities

B.14.1 Allocation of School Sample in Egypt – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Public – Cairo	18	0	18	0	0	0
Public – Alexandria	22	0	22	0	0	0
Public – All other regions	120	0	119	1	0	0
Experimental Language	25	0	25	0	0	0
Free Private	2	0	2	0	0	0
Private	25	0	24	1	0	0
Private Language	25	4	21	0	0	0
Total	237	4	231	2	0	0

B.15 El Salvador

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<7)
- Within-sample exclusions consisted of jail schools

Sample Design

- Explicit stratification by grade (grade 4 only, grade 4 & grade 8) and urbanization (urban, rural), for a total of four explicit strata
- Implicit stratification by school type (public, private) in the ‘urban’ strata, school type (community-based – ACE, council-based – CDE, other) in the ‘rural’ strata, and region (14 regions) in the ‘grade 4 & grade 8’ strata, for a total of 36 implicit strata. ACE schools are run by parents, CDE schools are run by parents and teacher councils
- Sampled one classroom per school
- Small schools sampled with equal probabilities

B.15.1 Allocation of School Sample in El Salvador – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Gr4 Only – Urban	4	0	4	0	0	0
Gr4 Only – Rural	28	0	28	0	0	0
Gr4 & Gr8 – Urban	62	1	60	1	0	0
Gr4 & Gr8 – Rural	56	1	54	1	0	0
Total	150	2	146	2	0	0

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<7)
- Within-sample exclusions consisted of jail schools

Sample Design

- Explicit stratification by grade (grade 8 only, grade 4 & grade 8) and urbanization (urban, rural), for a total of three explicit strata
- Implicit stratification by school type (public, private) in the ‘urban’ stratum, school type (community-based – ACE, council-based – CDE, other) in the ‘rural’ stratum, and region (14 regions) in the ‘grade 4 & grade 8’ strata, for a total of 33 implicit strata. ACE schools are run by parents, CDE schools are run by parents and teacher councils
- Sampled one classroom per school
- Small schools sampled with equal probabilities

B.15.2 Allocation of School Sample in El Salvador – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Gr8 only – Urban	4	2	2	0	0	0
Gr4 & Gr8 – Urban	90	1	88	1	0	0
Gr4 & Gr8 – Rural	56	2	53	1	0	0
Total	150	5	143	2	0	0

B.16 England

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- The population covered is actually the fifth grade, due to early start of schooling
- School-level exclusions consisted of very small schools (MOS<8) and special schools
- Within-school exclusions consisted of students with special needs and non-native language speakers

Sample Design

- Explicit stratification by grade (grade 4 only and grade 4 & grade 8), for a total of two explicit strata
- Implicit stratification by school performance based on national test (5 levels and a category for ‘missing’), and school type (primary/combined, junior, middle, independent), for a total of 25 implicit strata

- Selected up to four classrooms per school
- Small schools sampled with equal probabilities

B.16.1 Allocation of School Sample in England – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 4 Only	154	0	127	12	0	15
Grade 4 & 8	6	1	4	0	0	1
Total	160	1	131	12	0	16

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- The population covered is actually the ninth grade, due to early start of schooling
- School-level exclusions consisted of very small schools (MOS<7) and special schools
- Within-school exclusions consisted of students with special needs and non-native language speakers

Sample Design

- Explicit stratification by grade (grade 8 only, grade 4 & grade 8), for a total of two explicit strata
- Implicit stratification by school performance based on national test (5 levels and a category for ‘missing’), and school type (comprehensive to 16, comprehensive to 18, independent, grammar, other), for a total of 27 implicit strata
- Selected up to four classrooms per school
- Small schools sampled with equal probabilities

B.16.2 Allocation of School Sample in England – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 8 Only	154	0	122	10	0	22
Grade 4 & 8	6	0	4	1	0	1
Total	160	0	126	11	0	23

B.17 Georgia

FOURTH GRADE

Coverage and Exclusions

- Coverage in Georgia was restricted to students whose language of instruction is Georgian (85% of the International Desired Target Population)
- School-level exclusions consisted of very small schools (MOS<4), and specialized schools for disabled students
- Within-school exclusions consisted of special education classes, functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by regions, for a total of 12 explicit strata
- Implicit stratification by urbanization (urban, rural), for a total of 23 implicit strata
- Sampled two classrooms per school having at least 60 students (MOS \geq 60), and one classroom otherwise
- Small schools sampled with equal probabilities
- The same sample of schools was used for the eighth graders

B.17.1 Allocation of School Sample in Georgia – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Kvemo Kartli	10	1	8	0	1	0
Adjara	14	1	13	0	0	0
Apxazeti	2	0	2	0	0	0
Guria	6	0	5	0	1	0
Imereti	27	1	22	3	1	0
Kaxeti	14	1	12	0	1	0
Mckheta-Mtianeti	5	0	4	0	1	0
Racha-Lechkhumi	2	0	1	1	0	0
Samckhe-Javakheti	5	1	4	0	0	0
Shida Kartli	12	0	10	1	1	0
Tbilisi	39	2	36	1	0	0
Samegrelo	16	1	14	0	1	0
Total	152	8	131	6	7	0

EIGHTH GRADE

Coverage and Exclusions

- Coverage in Georgia was restricted to students whose language of instruction is Georgian (85% of the International Desired Target Population)
- School-level exclusions consisted of very small schools (MOS<4) and specialized schools for disabled students
- Within-school exclusions consisted of special education classes, functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by region, for a total of 12 explicit strata
- Implicit stratification by urbanization (urban, rural), for a total of 23 implicit strata
- Sampled two classrooms per school having at least 60 students (MOS \geq 60), and one classroom otherwise
- Small schools sampled with equal probabilities
- The same sample of schools was used for the fourth graders

B.17.2 Allocation of School Sample in Georgia – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Kvemo Kartli	10	2	8	0	0	0
Adjara	14	1	13	0	0	0
Apxazeti	2	0	2	0	0	0
Guria	6	1	5	0	0	0
Imereti	27	4	22	1	0	0
Kaxeti	14	2	12	0	0	0
Mckheta-Mtianeti	5	0	4	0	1	0
Racha-Lechkhumi	2	1	1	0	0	0
Samckhe-Javakheti	5	1	4	0	0	0
Shida Kartli	12	2	10	0	0	0
Tbilisi	39	2	36	1	0	0
Samegrelo	16	1	14	0	1	0
Total	152	17	131	2	2	0

B.18 Germany

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<6), and schools for children with disabilities
- Within-school exclusions consisted of special needs students and non-native language speakers

Sample Design

- Explicit stratification by state, for a total of 16 explicit strata
- Implicit stratification by school type (primary, remedial education) and region in the ‘primary’ strata of the larger states, for a total of 45 implicit strata
- Sampled one classroom per school
- Small schools sampled with equal probabilities

B.18.1 Allocation of School Sample in Germany – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Baden-Württemberg	36	0	34	1	1	0
Bayern	41	0	41	0	0	0
Berlin	8	0	7	0	0	1
Brandenburg	5	1	4	0	0	0
Bremen	2	0	2	0	0	0
Hamburg	5	1	4	0	0	0
Hessen	19	0	19	0	0	0
Mecklenburg-Vorpommern	3	0	3	0	0	0
Niedersachsen	28	0	28	0	0	0
Nordrhein-Westfalen	60	1	58	1	0	0
Rheinland-Pfalz	13	0	11	2	0	0
Saarland	3	0	3	0	0	0
Sachsen	9	0	8	1	0	0
Sachsen-Anhalt	5	0	5	0	0	0
Schleswig-Holstein	9	0	8	1	0	0
Thüringen	4	0	4	0	0	0
Total	250	3	239	6	1	1

B.19 Ghana

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<11)
- No within-school exclusions

Sample Design

- Explicit stratification by school type (public, private), for a total of two explicit strata
- Implicit stratification by region (10 regions), for a total of 20 implicit strata
- Sampled two classrooms in 11 large schools, and one classroom in the remaining schools
- Small schools sampled with equal probabilities

B.19.1 Allocation of School Sample in Ghana – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Private	30	0	30	0	0	0
Public	133	0	133	0	0	0
Total	163	0	163	0	0	0

B.20 Hong Kong SAR

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<8), special education schools, international schools, and private independent schools (non-local curriculum)
- Within-school exclusions consisted of functionally or intellectually disabled students

Sample Design

- Explicit stratification by form of financing (government, aided, direct subsidy scheme, private), for a total of four explicit strata
- Implicit stratification by gender (co-educational, boys, girls) and shift (AM, PM, whole day), for a total of 21 implicit strata
- Sampled two classrooms per school having at least 185 students ($MOS \geq 185$), and one classroom otherwise
- Small schools sampled with equal probabilities

B.20.1 Allocation of School Sample in Hong Kong SAR – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Aided	126	0	102	2	1	21
Direct Subsidy Scheme	4	0	4	0	0	0
Government	10	0	8	0	0	2
Private	10	0	8	1	0	1
Total	150	0	122	3	1	24

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of special education schools, international schools, private independent schools (non-local curriculum)
- No within-school exclusions

Sample Design

- Explicit stratification by form of financing (government, aided, direct subsidy scheme, private) for at total of four explicit strata
- Implicit stratification by gender (co-educational, boys, girls) and language (Chinese, English), for a total of 18 implicit strata
- Sampled one classroom per school
- Small schools sampled with equal probabilities

B.20.2 Allocation of School Sample in Hong Kong SAR – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Aided	126	0	94	2	3	27
Direct Subsidy Scheme	12	0	8	2	0	2
Government	12	0	8	1	0	3
Private	2	0	2	0	0	0
Total	152	0	112	5	3	32

B.21 Hungary**FOURTH GRADE****Coverage and Exclusions**

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<6) and special needs schools
- Within-school exclusions consisted of students with special needs, and non-native language speakers

Sample Design

- Explicit stratification by grade (grade 4 only, grade 4 & grade 8), school status (already existed in 2004, established after 2004) in the ‘grade 4 & grade 8’ stratum, and location (capital, county town, town, rural) in the ‘already existed in 2004’ strata, for a total of six explicit strata
- Implicit stratification by region (7 regions), for a total of 35 implicit strata
- Sampled two classrooms per school having at least 40 students (MOS \geq 40), and one classroom otherwise
- Small schools sampled with equal probabilities

B.21.1 Allocation of School Sample in Hungary – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 4 Only	3	1	2	0	0	0
Gr4 & Gr8 – Already existed in 2004 – Capital	20	0	18	1	0	1
Gr4 & Gr8 – Already existed in 2004 – County Town	26	0	22	4	0	0
Gr4 & Gr8 – Already existed in 2004 – Town	49	1	48	0	0	0
Gr4 & Gr8 – Already existed in 2004 – Rural	50	1	45	4	0	0
Gr4 & Gr8 – after 2004	2	2	0	0	0	0
Total	150	5	135	9	0	1

EIGHTH GRADE**Coverage and Exclusions**

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<6) and special needs schools
- Within-school exclusions consisted of special education classes, students with special needs, and non-native language speakers

Sample Design

- Explicit stratification by grade (grade 8 only, grade 4 & grade 8), school status (already existed in 2004, established after 2004) in the ‘grade 4 & grade 8’ stratum, and location (capital, county town, town, rural) in the ‘already existed in 2004’ strata, for a total of six explicit strata
- Implicit stratification by region (7 regions), for a total of 35 implicit strata
- Sampled two classrooms per school having at least 40 students (MOS \geq 40), and one classroom otherwise
- Small schools sampled with equal probabilities

B.21.2 Allocation of School Sample in Hungary – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 8 Only	11	1	8	1	1	0
Gr4 & Gr8 – Already existed in 2004 – Capital	19	0	17	1	0	1
Gr4 & Gr8 – prior to 2005 – County Town	26	0	22	4	0	0
Gr4 & Gr8 – Already existed in 2004 – Town	47	1	46	0	0	0
Gr4 & Gr8 – Already existed in 2004 – Rural	45	1	40	4	0	0
Gr4 & Gr8 – after 2004	2	2	0	0	0	0
Total	150	5	133	10	1	1

B.22 Indonesia**EIGHTH GRADE****Coverage and Exclusions**

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<10), schools in Papua, and schools in Nanggroe Aceh Darussalam
- No within-school exclusions

Sample Design

- No explicit stratification
- Implicit stratification by school type (general, Islamic), school type (public, private), and national examination score (high performance, middle performance, low performance), for a total of 12 implicit strata
- Sampled one classroom per school
- Small schools sampled with equal probabilities

B.22.1 Allocation of School Sample in Indonesia – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Indonesia	150	1	149	0	0	0
Total	150	1	149	0	0	0

B.23 Islamic Republic of Iran

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<5) and schools in the Bam area due to recent severe earthquakes
- No within-school exclusions

Sample Design

- Explicit stratification by school type (public, private) and gender (boys, girls, mixed), for a total of five explicit strata
- School sample allocation is not proportional at the explicit stratum level (Private schools are over-represented)
- Implicit stratification by province (29 provinces), for a total of 145 implicit strata
- Sampled one classroom per school
- Small schools sampled with equal probabilities

B.23.1 Allocation of School Sample in Islamic Republic of Iran – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Public – Boys	70	3	67	0	0	0
Public – Girls	70	4	66	0	0	0
Public – Mixed	50	4	46	0	0	0
Private – Boys	30	3	27	0	0	0
Private – Girls	20	2	18	0	0	0
Total	240	16	224	0	0	0

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<5), schools in the Bam area due to recent severe earthquakes, and schools for distance learning students
- No within-school exclusions

Sample Design

- Explicit stratification by school type (public, private) and gender (boys, girls, mixed), for a total of five explicit strata
- School sample allocation is not proportional at the explicit stratum level (Private schools are over-represented)
- Implicit stratification by province (29 provinces), for a total of 144 implicit strata
- Sampled one classroom per school
- Small schools sampled with equal probabilities

B.23.2 Allocation of School Sample in Islamic Republic of Iran – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Public – Boys	80	5	75	0	0	0
Public – Girls	80	3	77	0	0	0
Public – Mixed	10	0	10	0	0	0
Private – Boys	35	3	32	0	0	0
Private – Girls	15	1	14	0	0	0
Total	220	12	208	0	0	0

B.24 Israel

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<9), special education schools, and Ultra Orthodox schools
- Within-school exclusions consisted of special education classes, functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by school type (Hebrew secular, Hebrew religious, Arab), for a total of three explicit strata
- Implicit stratification by socio-economic status (high SES, medium SES, low or unknown SES), for a total of nine implicit strata

- Sampled one classroom per school
- Small schools sampled with equal probabilities

B.24.1 Allocation of School Sample in Israel – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Hebrew Secular	70	0	64	3	1	2
Hebrew Religious	40	0	37	1	1	1
Arab Secular	40	0	39	0	0	1
Total	150	0	140	4	2	4

B.25 Italy

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<8)
- Within-school exclusions consisted of functionally or intellectually disabled students and non-native language speakers

Sample Design

- No explicit stratification
- Implicit stratification by regions (20 regions) and type of municipality (province capital town, other), for a total of 40 implicit strata
- Sampled one or two classrooms per school
- Sampled two classrooms per school in most schools
- All schools sampled with probabilities proportional to size

B.25.1 Allocation of School Sample in Italy – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Italy	170	0	155	14	1	0
Total	170	0	155	14	1	0

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<8)
- Within-school exclusions consisted of intellectually or functionally disabled students and non-native language speakers

Sample Design

- No explicit stratification
- Implicit stratification by regions (20 regions) and type of municipality (province capital town, other), for a total of 40 implicit strata
- Sampled one or two classrooms per school
- All schools sampled with probabilities proportional to size

B.25.2 Allocation of School Sample in Italy – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Italy	170	0	159	10	1	0
Total	170	0	159	10	1	0

B.26 Japan

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of special needs schools
- Within-school exclusions consisted of classes within general schools for multi-grade setting, and classes within general schools for disabled children

Sample Design

- Explicit stratification by location (very large city, large city, small city, non-city area), for a total of four explicit strata
- No implicit stratification

- Sampled two classrooms per school having at least 110 students ($MOS \geq 110$), and one classroom otherwise
- Small schools sampled with equal probabilities

B.26.1 Allocation of School Sample in Japan – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Very Large City	30	0	29	0	0	1
Large City	26	0	26	0	0	0
Small City	68	0	66	1	0	1
Non-City Area	26	0	24	2	0	0
Total	150	0	145	3	0	2

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of special needs schools
- Within-school exclusions consisted of classes within general schools for multi-grade setting, and classes within general schools for disabled children

Sample Design

- Explicit stratification by school type (public, private or national) and location (very large city, large city, small city, non-city area) in the ‘public’ stratum, for a total of five explicit strata
- No implicit stratification
- Sampled two classrooms per school having at least 230 students ($MOS \geq 230$), and one classroom otherwise
- Small schools sampled with equal probabilities

B.26.2 Allocation of School Sample in Japan – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Public – Very large City	25	0	23	0	0	2
Public – Large City	24	0	24	0	0	0
Public – Small City	64	0	62	1	0	1
Public – Non-city Area	26	0	26	0	0	0
Private or National	11	0	9	1	0	1
Total	150	0	144	2	0	4

B.27 Jordan

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<9)
- Within-school exclusions consisted of disabled students and non-native language speakers

Sample Design

- Explicit stratification by school type (Discovery, public, UNRWA, private), for a total of four explicit strata
- All Discovery schools were selected
- Implicit stratification by urbanization (urban, rural), gender (boys, girls, mixed), and school form (basic, secondary) in the ‘public,’ ‘UNRWA’ and ‘private’ strata, for a total of 27 implicit strata
- Sampled one classroom per school
- Small schools sampled with equal probabilities

B.27.1 Allocation of School Sample in Jordan – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Discovery	61	0	61	0	0	0
Public	110	0	110	0	0	0
UNRWA	17	0	17	0	0	0
Private	12	0	12	0	0	0
Total	200	0	200	0	0	0

B.28 Kazakhstan

FOURTH GRADE

Coverage and Exclusions

- Coverage in Kazakhstan was restricted to students whose language of instruction is Kazakh or Russian (94% of the International Desired Target Population)
- School-level exclusions consisted of very small schools (MOS<5) and special education schools

- Within-sample exclusions consisted of students in very remote schools, disabled students and non-native language speakers

Sample Design

- Explicit stratification by urbanization (urban, rural) and size (large schools, small school) in the ‘rural’ stratum, for a total of three explicit strata
- Implicit stratification by region (16 regions) and language (Kazakh, Russian, Kazakh & Russian), for a total of 126 implicit strata
- Sampled two classrooms per school having at least 135 students ($MOS \geq 135$), and one classroom otherwise
- Small schools sampled with equal probabilities

B.28.1 Allocation of School Sample in Kazakhstan – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Urban Schools	92	3	89	0	0	0
Rural – Large Schools	52	6	45	0	1	0
Rural – Small Schools	6	0	6	0	0	0
Total	150	9	140	0	1	0

B.29 Republic of Korea

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools ($MOS < 10$), geographically inaccessible schools, and physical education middle schools
- Within-school exclusions consisted of functionally or intellectually disabled students

Sample Design

- Explicit stratification by province, for a total of 16 explicit strata
- Implicit stratification by urbanization (urban, suburban, rural), and gender (boys, girls, co-educational), for a total of 81 implicit strata
- Sampled one classroom per school
- Small schools sampled with equal probabilities

B.29.1 Allocation of School Sample in Republic of Korea – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Seoul	28	0	28	0	0	0
Pusan	11	0	11	0	0	0
Taegu	8	0	8	0	0	0
Inchon	9	0	9	0	0	0
Kwangju	5	0	5	0	0	0
Taejon	5	0	5	0	0	0
Ulsan	4	0	4	0	0	0
Kyunggi-do	34	0	34	0	0	0
Kangwon-do	4	0	4	0	0	0
Chungchongbuk-do	5	0	5	0	0	0
Chungchongnam-do	6	0	6	0	0	0
Chollabuk-do	6	0	6	0	0	0
Chollanam-do	6	0	6	0	0	0
Kyongsangbuk-do	7	0	7	0	0	0
Kyongsangnam-do	10	0	10	0	0	0
Cheju-do	2	0	2	0	0	0
Total	150	0	150	0	0	0

B.30 Kuwait**FOURTH GRADE****Coverage and Exclusions**

- Coverage is 100%
- The population covered is actually the fifth grade, due to late data collection
- School-level exclusions consisted of very small schools (MOS<10)
- No within-school exclusions

Sample Design

- No explicit stratification
- Implicit stratification by region (six regions) and gender (boys, girls), for a total of 12 implicit strata
- Sampled two classrooms per school having at least 174 students (MOS≥174), and one classroom otherwise

B.30.1 Allocation of School Sample in Kuwait – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Kuwait	150	0	150	0	0	0
Total	150	0	150	0	0	0

EIGHTH GRADE**Coverage and Exclusions**

- Coverage is 100%
- No school-level exclusions
- Within-school exclusions consisted of intellectually disabled students

Sample Design

- No explicit stratification
- Implicit stratification by region (six regions) and gender (boys, girls), for a total of 12 implicit strata
- Sampled one classroom per school
- Sampled all schools

B.30.2 Allocation of School Sample in Kuwait – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Kuwait	163	0	158	0	0	5
Total	163	0	158	0	0	5

B.31 Latvia**FOURTH GRADE****Coverage and Exclusions**

- Coverage in Latvia was restricted to students whose language of instruction is Latvian (72% of the International Desired Target Population)
- School-level exclusions consisted of very small schools (MOS<4) and schools for functionally or intellectually disabled students
- Within-school exclusions consisted of functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by location (Riga, rural, small town, town), for a total of four explicit strata
- Implicit stratification by urbanization code, for a total of 12 implicit strata
- Sampled three classrooms per school whenever possible
- Small schools sampled with equal probabilities

B.31.1 Allocation of School Sample in Latvia – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Riga	28	0	25	2	0	1
Rural	58	0	55	1	1	1
Small Town	45	0	42	2	0	1
Town	19	0	18	0	0	1
Total	150	0	140	5	1	4

B.32 Lebanon

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<9)
- No within-school exclusions

Sample Design

- Explicit stratification by school type (public, private), for a total of two explicit strata
- No implicit stratification
- Sampled two classrooms per school having at least 60 students (MOS \geq 60), and one classroom otherwise
- Small schools sampled with equal probabilities

B.32.1 Allocation of School Sample in Lebanon – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Public	64	0	59	1	0	4
Private	86	2	61	12	3	8
Total	150	2	120	13	3	12

B.33 Lithuania

FOURTH GRADE

Coverage and Exclusions

- Coverage in Lithuania was restricted to students whose language of instruction is Lithuanian (93% of the International Desired Target Population)
- School-level exclusions consisted of very small schools (MOS<5) and special education schools
- Within-school exclusions consisted of functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by grade (grade 4 only, grade 4 & grade 8), for a total of two explicit strata
- Implicit stratification by county (10 counties) and location (Vilnius-capital, other major cities, cities, small cities, others), for a total of 61 implicit strata
- Sampled two classrooms whenever possible
- Small schools sampled with equal probabilities

B.33.1 Allocation of School Sample in Lithuania – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 4 Only	37	3	33	1	0	0
Grade 4 & 8	126	4	121	1	0	0
Total	163	7	154	2	0	0

EIGHTH GRADE

Coverage and Exclusions

- Coverage in Lithuania was restricted to students whose language of instruction is Lithuanian (92% of the International Desired Target Population)
- School-level exclusions consisted of very small schools (MOS<6) and special education schools

- Within-school exclusions consisted of functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by grade (grade 8 only, grade 4 & grade 8), for a total of two explicit strata
- Implicit stratification by county (10 counties) and location (Vilnius-capital, other major cities, cities, small cities, other), for a total of 62 implicit strata
- Sampled two classrooms whenever possible
- Small schools sampled with equal probabilities

B.33.2 Allocation of School Sample in Lithuania – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 8 Only	24	3	19	0	0	2
Grade 4 & 8	126	3	122	1	0	0
Total	150	6	141	1	0	2

B.34 Malaysia

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of religious schools, special education schools, private schools, and private Chinese schools
- No within-school exclusions

Sample Design

- Explicit stratification by state, for a total of 14 explicit strata
- Implicit stratification by urbanization (urban, rural), for a total of 27 implicit strata
- Sampled two classrooms per school having at least 450 students ($MOS \geq 450$), and one classroom otherwise
- Small schools sampled with equal probabilities

B.34.1 Allocation of School Sample in Malaysia – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Johor	18	0	18	0	0	0
Kedah	12	0	12	0	0	0
Kelantan	11	0	11	0	0	0
Melaka	5	0	5	0	0	0
Negeri Sembilan	6	0	6	0	0	0
Pahang	9	0	9	0	0	0
Perak	15	0	15	0	0	0
Perlis	2	0	2	0	0	0
Pulau Pinang	7	0	7	0	0	0
Sabah	13	0	13	0	0	0
Sarawak	14	0	14	0	0	0
Selangor	22	0	22	0	0	0
Terengganu	8	0	8	0	0	0
WP Kuala Lumpur	8	0	8	0	0	0
Total	150	0	150	0	0	0

B.35 Malta**EIGHTH GRADE****Coverage and Exclusions**

- Coverage is 100%
- The population covered is actually the ninth grade, due to early start of schooling
- School-level exclusions consisted of schools not following the mainstream curriculum
- Within-school exclusions consisted of special education students and non-native language speakers

Sample Design

- Explicit stratification by island (Malta, Gozo), for a total of two explicit strata
- Implicit stratification by sector (state, church, independent), school type (junior lyceums, secondary schools) in the 'state' sector, and gender (boys, girls, mixed), for a total of 15 implicit strata
- Sampled all schools and all classrooms

B.35.1 Allocation of School Sample in Malta – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Malta	54	1	53	0	0	0
Gozo	6	0	6	0	0	0
Total	60	1	59	0	0	0

B.36 Morocco**FOURTH GRADE****Coverage and Exclusions**

- Coverage is 100%
- School-level exclusions consisted of very small schools (Number of students in the school <30)
- No within-school exclusions

Sample Design

- Explicit stratification by school type (public, private) and groups of regions (eight groups) in the ‘public’ strata, for a total of nine explicit strata
- Implicit stratification by regions (16 regions) and urbanization (urban, rural) in the ‘public’ stratum, for a total of 33 implicit strata
- Sampled one classroom per school

B.36.1 Allocation of School Sample in Morocco – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Public – Region Stratum 1	22	0	22	0	0	0
Public – Region Stratum 2	24	0	18	0	0	6
Public – Region Stratum 3	30	0	29	0	0	1
Public – Region Stratum 4	22	0	17	0	0	5
Public – Region Stratum 5	36	2	27	0	0	7
Public – Region Stratum 6	30	0	25	0	0	5
Public – Region Stratum 7	22	0	12	0	0	10
Public – Region Stratum 8	28	0	26	0	0	2
Private	12	0	8	0	0	4
Total	226	2	184	0	0	40

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (Number of students in the school <33)
- Within-school exclusions consisted of special education classes

Sample Design

- Explicit stratification by school type (public, private) and groups of regions (eight groups) in the ‘public’ stratum, for a total of nine explicit strata
- Implicit stratification by regions (16 regions) and urbanization (urban, rural) in the ‘public’ strata, for a total of 31 implicit strata
- Sampled one classroom per school
- Small schools sampled with equal probabilities

B.36.2 Allocation of School Sample in Morocco – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Public – Region Stratum 1	9	0	7	0	0	2
Public – Region Stratum 2	20	0	11	0	0	9
Public – Region Stratum 3	42	0	38	0	0	4
Public – Region Stratum 4	17	0	11	0	0	6
Public – Region Stratum 5	30	0	25	0	0	5
Public – Region Stratum 6	34	0	24	0	0	10
Public – Region Stratum 7	20	0	3	0	0	17
Public – Region Stratum 8	28	0	8	0	0	20
Private	5	0	4	0	0	1
Total	205	0	131	0	0	74

B.37 The Netherlands

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<6) and special schools for primary education

- Within-school exclusions consisted of special education classes, disabled students and non-native language speakers (less than one year of instruction in Dutch)

Sample Design

- Explicit stratification by schools average socio-economic status (low mean SES, medium mean SES, high mean SES), for a total of three explicit strata
- No implicit stratification
- Sampled all classrooms
- Small schools sampled with equal probabilities

B.37.1 Allocation of School Sample in the Netherlands – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Low Mean SES	38	2	12	12	10	2
Medium Mean SES	51	0	27	16	5	3
High Mean SES	61	0	33	17	9	2
Total	150	2	72	45	24	7

B.38 New Zealand

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- The population covered is actually the fifth grade, due to early start of schooling
- School-level exclusions consisted of very small schools (MOS<4), special education schools, Rudolf Steiner schools, the Correspondence School, and schools that provide more than 80% of their instruction in the Māori language
- Within-school exclusions consisted of special education classes, special needs students, foreign fee paying students, students with insufficient instruction in test language, and units within schools that provide more than 80% of their instruction in the Māori language

Sample Design

- No explicit stratification

- Implicit stratification by school decile indicator (which gives the extent to which a school draws students from low socio-economic communities – high, medium, low, not assigned) and level of urbanization (urban, rural), for a total of eight implicit strata
- Sampled at least two classrooms whenever possible

B.38.1 Allocation of School Sample in New Zealand – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
New Zealand	220	0	213	6	1	0
Total	220	0	213	6	1	0

B.39 Norway

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<5), special needs schools, Sami schools, and a very remote school in Longyearbyen
- Within-school exclusions consisted of functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by grade (grade 4 only, grade 4 & grade 8), for a total of two explicit strata
- No implicit stratification
- Sampled all classrooms
- Small schools sampled with equal probabilities

B.39.1 Allocation of School Sample in Norway – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 4 Only	119	0	105	9	2	3
Grade 4 & 8	31	0	26	2	1	2
Total	150	0	131	11	3	5

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<5), special needs schools, Sami schools, and a very remote school in Longyearbyen
- Within-school exclusions consisted of functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by grade (grade 8 only, grade 4 & grade 8), for a total of two explicit strata
- No implicit stratification
- Sampled up to four classrooms per school
- Small schools sampled with equal probabilities

B.39.2 Allocation of School Sample in Norway – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 8 Only	119	0	108	4	0	7
Grade 4 & 8	31	0	25	2	0	4
Total	150	0	133	6	0	11

B.40 Oman

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<8) and special needs schools
- Within-school exclusions consisted of functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by region (11 regions), for a total of 11 explicit strata

- Implicit stratification by gender (boys, girls, mixed) in the eight largest explicit strata, for a total of 23 implicit strata
- All classrooms were selected in five of the schools, and one classroom otherwise
- Small schools sampled with equal probabilities

B.40.1 Allocation of School Sample in Oman – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Muscat	26	0	26	0	0	0
Al-Batinah North	33	0	33	0	0	0
Al-Batinah South	20	0	20	0	0	0
Al-Dakhiliya	20	2	18	0	0	0
Al-Sharqiya South	12	1	11	0	0	0
Al-Sharqiya North	11	0	11	0	0	0
Al-Dhahara South	9	0	9	0	0	0
Al-Dhahara North	3	0	3	0	0	0
Dhofar	12	1	11	0	0	0
Musandam	2	0	2	0	0	0
Wosta	2	0	2	0	0	0
Total	150	4	146	0	0	0

B.41 Palestinian National Authority

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<10)
- Within-school exclusions consisted of special education classes, functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by school type (private, public, UNWRA (United Nations Relief and Works Agency) – regular program, UNRWA – special program), for a total of three explicit strata
- All schools in the ‘UNRWA – special program’ stratum (Schools of Excellence) were selected

- Implicit stratification by gender (boys, girls, mixed) in the ‘public’ and ‘UNRWA’ strata and region (West Bank, Gaza) in the ‘public’, ‘UNRWA-boys’ and ‘UNRWA-girls’ strata, for a total of 13 implicit strata
- Sampled one classroom per school
- Small schools sampled with equal probabilities

B.41.1 Allocation of School Sample in Palestinian National Authority – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Private	6	0	5	1	0	0
Public	100	7	93	0	0	0
UNRWA – Regular Program	44	0	44	0	0	0
UNRWA – Special Program	5	0	5	0	0	0
Total	155	7	147	1	0	0

B.42 Qatar

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<10)
- Within-school exclusions consisted of functionally or intellectually disabled students

Sample Design

- Explicit stratification by grade (grade 4 only, grade 4 & grade 8), for a total of two explicit strata
- Implicit stratification by school type (independent, Ministry of Education, private Arabic) and gender (boys, girls), for a total of nine implicit strata
- Sampled all schools and all classrooms

B.42.1 Allocation of School Sample in Qatar – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 4 Only	102	0	102	0	0	0
Grade 4 & 8	12	0	12	0	0	0
Total	114	0	114	0	0	0

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<10) and international schools
- Within-school exclusions consisted of functionally or intellectually disabled students

Sample Design

- Explicit stratification by grade (grade 8 only, grade 4 & grade 8), for a total of two explicit strata
- Implicit stratification by school type (independent, Ministry of Education, private Arabic) and gender (boys, girls), for a total of nine implicit strata
- Sampled all schools and all classrooms

B.42.2 Allocation of School Sample in Qatar – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 8 Only	55	0	54	0	0	1
Grade 4 & 8	12	0	12	0	0	0
Total	67	0	66	0	0	1

B.43 Romania

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<7) and special education schools
- Within-school exclusions consisted of very few intellectually disabled students

Sample Design

- No explicit stratification
- Implicit stratification by region (7 regions) and urbanization (rural, urban), for a total of 14 implicit strata

- Sampled two or three classrooms per school having at least 45 students (MOS \geq 45), and one classroom otherwise
- Small schools sampled with equal probabilities

B.43.1 Allocation of School Sample in Romania – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Romania	150	0	149	0	0	1
Total	150	0	149	0	0	1

B.44 Russian Federation

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (definition depending on the region) and special needs schools
- Within-school exclusions consisted of special education classes, functionally or intellectually disabled students and non-native language speakers

Sample Design

- A sample of 45 regions out of 86 (Regions 81, 85 and 88 were collapsed prior to region sampling) was first sampled with PPS. The largest 17 regions were sampled with certainty. A sample of schools was then drawn within each region
- Explicit stratification by region type (certainty versus sampled) for a total of 18 explicit strata. However, the table below gives the school sample allocation for the 45 regions in the sample
- Implicit stratification by urbanization (seven different types) in all but the ‘Moscow’ and ‘St. Petersburg’ strata, for a total of 232 implicit strata
- Sampled two classrooms per school out of the two largest schools in any given certainty region and sampled two classrooms per school out of the largest school in any sampled region having at least a certain number of students depending on the region, and one classroom otherwise
- Small schools sampled with equal probabilities

B.4.4.1 Allocation of School Sample in Russian Federation – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Adygea	4	0	4	0	0	0
Alania	4	0	4	0	0	0
Marii Al	4	0	4	0	0	0
Amur oblast	4	0	4	0	0	0
Kabardino oblast	4	0	4	0	0	0
Kaliningrad oblast	4	0	4	0	0	0
Moscow	10	0	10	0	0	0
St. Petersburg	4	0	4	0	0	0
Chelyabinsk oblast	4	0	4	0	0	0
Bashkortostan	10	0	10	0	0	0
Irkutsk oblast	4	0	4	0	0	0
Krasnodar kr	8	0	8	0	0	0
Krasnoyarsk kr	4	0	4	0	0	0
N Novgorod oblast	4	0	4	0	0	0
Orenburg oblast	4	0	4	0	0	0
Belgorod oblast	4	0	4	0	0	0
Altai kr	4	0	4	0	0	0
Kirov oblast	4	0	4	0	0	0
Kurgan oblast	4	0	4	0	0	0
Kurst oblast	4	0	4	0	0	0
Novosibirsk oblast	4	0	4	0	0	0
Omsk oblast	4	0	4	0	0	0
Chita oblast	4	0	4	0	0	0
Hakasia	4	0	4	0	0	0
Hanty-Mansii ok	4	0	4	0	0	0
Pskov oblast	4	0	4	0	0	0
Razan oblast	4	0	4	0	0	0
Saratov oblast	4	0	4	0	0	0
Tambov oblast	4	0	4	0	0	0
Perm oblast	4	0	4	0	0	0
Rostov oblast	8	0	8	0	0	0
Stavropol kr	4	0	4	0	0	0
Sverdlovsk oblast	6	0	6	0	0	0
Tatarstan	6	0	6	0	0	0
Arhangelsk oblast	4	0	4	0	0	0
Chuvashia	4	0	4	0	0	0
Kemerovo oblast	4	0	4	0	0	0
Lipstek oblast	4	0	4	0	0	0
Sakha	4	0	4	0	0	0
Tula oblast	4	0	4	0	0	0
Udmurtia	4	0	4	0	0	0
Volgograd oblast	4	0	4	0	0	0
Orel oblast	4	0	4	0	0	0
Moskva oblast	8	0	8	0	0	0
Dagestan	2	0	2	0	0	0
Total	206	0	206	0	0	0

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (definition depending on the region) and special needs schools
- Within-school exclusions consisted of special education schools, functionally or intellectually disabled students and non-native language speakers

Sample Design

- A sample of 45 regions out of 86 (Regions 81, 85 and 88 were collapsed prior to region sampling) was first sampled with PPS. The largest 16 regions were sampled with certainty. A sample of schools was then drawn within each region
- Explicit stratification by region type (certainty versus sampled) for a total of 17 explicit strata. However, the table below gives the school sample allocation for the 45 regions in the sample
- Implicit stratification by urbanization (seven different types) in all but the 'Moscow' and 'St. Petersburg' strata, for a total of 231 implicit strata
- Sampled two classrooms per school out of the two largest schools in any given certainty region and sampled two classrooms per school out of the largest school in any sampled region and one classroom otherwise
- Small schools sampled with equal probabilities

B.44.2 Allocation of School Sample in Russian Federation – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Primorskii kray	4	0	4	0	0	0
Rostov oblast	6	0	6	0	0	0
Samara oblast	4	0	4	0	0	0
Saratov oblast	4	0	4	0	0	0
Perm oblast	4	0	4	0	0	0
Hanty-Mansii ok.	4	0	4	0	0	0
Udmurtia	4	0	4	0	0	0
Chelyabinsk oblast	6	0	6	0	0	0
Chita oblast	4	0	4	0	0	0
Smolensk oblast	4	0	4	0	0	0
Sverdlovsk oblast	6	0	6	0	0	0
St. Petersburg	4	0	4	0	0	0
Stavropol Kray	4	0	4	0	0	0
Tatarstan	8	0	8	0	0	0
Pensa oblast	4	0	4	0	0	0
Arhangelsk oblast	4	0	4	0	0	0
Evrey-Auto oblast	4	0	4	0	0	0
Novosibirsk oblast	4	0	4	0	0	0
Omsk oblast	4	0	4	0	0	0
Orenburg oblast	4	0	4	0	0	0
Sakha	4	0	4	0	0	0
Altay kray	4	0	4	0	0	0
Astrahan oblast	4	0	4	0	0	0
Bashkortostan	8	0	8	0	0	0
Belgorod oblast	4	0	4	0	0	0
Bransk oblast	4	0	4	0	0	0
Vladimir oblast	4	0	4	0	0	0
Volgograd oblast	4	0	4	0	0	0
Irkutsk oblast	4	0	4	0	0	0
Karelia	4	0	4	0	0	0
Kemerovo oblast	4	0	4	0	0	0
Kirov oblast	4	0	4	0	0	0
Komi	4	0	4	0	0	0
Krasnodar kray	8	0	8	0	0	0
Krasnoyarsk kray	6	0	6	0	0	0
Kurgan oblast	4	0	4	0	0	0
Kursk oblast	4	0	4	0	0	0
Karachaevo-Cherkessia	4	0	4	0	0	0
Lipetsk oblast	4	0	4	0	0	0
Moscow	10	0	10	0	0	0
N. Novgorod oblast	6	0	6	0	0	0
Kostroma oblast	4	0	4	0	0	0
Moskva obl.	8	0	8	0	0	0
Dagestan	2	0	2	0	0	0
Voronezh obl.	4	0	4	0	0	0
Total	210	0	210	0	0	0

B.45 Saudi Arabia

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<7)
- Within-school exclusions consisted of functionally or intellectually disabled students

Sample Design

- Explicit stratification by gender (boys, girls) and school type (government, private), for a total of four explicit strata
- Implicit stratification by urbanization (rural, suburban, urban) and school type (general, Quranic), for a total of 21 implicit strata
- Sampled two classrooms per school having at least 140 students (MOS \geq 140), and one classroom otherwise
- Small schools sampled with equal probabilities

B.45.1 Allocation of School Sample in Saudi Arabia – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Boys – Government	76	0	75	0	0	1
Boys – Private	10	1	9	0	0	0
Girls – Government	75	0	75	0	0	0
Girls – Private	6	0	6	0	0	0
Total	167	1	165	0	0	1

B.46 Scotland

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- The population covered is actually the fifth grade, due to early start of schooling
- School-level exclusions consisted of very small schools (MOS<6), special schools, and Gaelic schools
- Within-school exclusions consisted of students with special needs and non-native language speakers

Sample Design

- No explicit stratification
- Implicit stratification by grade (grade 4 only, grade 4 & grade 8), urbanization (large urban area, other urban area, accessible small town, remote small town, accessible rural area, remote rural area), and school deprivation index (low, middle, high, unknown), for a total of 33 implicit strata
- Sampled up to four classrooms per school
- Small schools sampled with equal probabilities

B.46.1 Allocation of School Sample in Scotland – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Scotland	150	2	114	18	7	9
Total	150	2	114	18	7	9

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- The population covered is actually the ninth grade, due to early start of schooling
- School-level exclusions consisted of very small schools (MOS<7), and special schools
- Within-school exclusions consisted of students with special needs and non-native language speakers

Sample Design

- No explicit stratification
- Implicit stratification by grade (grade 8 only, grade 4 & grade 8), urbanization (large urban area, other urban area, accessible small town, remote small town, accessible rural area, remote rural area), and school deprivation index (low, middle, high, unknown), for a total of 29 implicit strata
- Sampled up to three classrooms per school
- Small schools sampled with equal probabilities

B.46.2 Allocation of School Sample in Scotland – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Scotland	150	0	109	14	6	21
Total	150	0	109	14	6	21

B.47 Serbia**EIGHTH GRADE****Coverage and Exclusions**

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<10), special education schools, schools for talented students, Albanian schools and Romanian schools
- Within-school exclusions consisted of special education classes, functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by region (Belgrade, Central Serbia, Vojvodina), for a total of three explicit strata
- Implicit stratification by urbanization (rural, urban), for a total of six implicit strata
- Sampled two classrooms per school having at least 95 students (MOS \geq 95), and one classroom otherwise
- Small schools sampled with equal probabilities

B.47.1 Allocation of School Sample in Serbia – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Belgrade	30	0	30	0	0	0
Central Serbia	79	2	77	0	0	0
Vojvodina	41	1	40	0	0	0
Total	150	3	147	0	0	0

B.48 Singapore

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of special education schools, private schools, and religious schools
- No within-school exclusions

Sample Design

- No explicit stratification
- Implicit stratification by school rank (22 different ranks based on students performance), for a total of 23 implicit strata
- Sampled two classrooms per school. Classrooms were sampled with PPS. A sample of 19 students was drawn in each class
- Sampled all schools

B.48.1 Allocation of School Sample in Singapore – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Singapore	177	0	177	0	0	0
Total	177	0	177	0	0	0

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of special education schools, private schools, and religious schools
- No within-school exclusions

Sample Design

- No explicit stratification
- Implicit stratification by school rank (30 different ranks based on students performance), for a total of 30 implicit strata

- Sampled two classrooms per school. Classrooms were sampled with PPS. A sample of 19 students was drawn in each class
- Sampled all schools

B.48.2 Allocation of School Sample in Singapore – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Singapore	164	0	164	0	0	0
Total	164	0	164	0	0	0

B.49 The Slovak Republic

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<5), schools where students taught in another language than Slovak or Hungarian, and private Slovak schools
- Within-school exclusions consisted of functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by region (eight regions) and urbanization (urban, rural), for a total of 16 explicit strata
- School sample allocation is not proportional at the explicit stratum level (minimum school sample size of 10 per stratum)
- Implicit stratification by language (Slovak only, Hungarian only, Slovak and Hungarian), for a total of 30 implicit strata
- Selected one or two classrooms per school, depending on the explicit stratum
- Small schools sampled with equal probabilities

B.49.1 Allocation of School Sample in the Slovak Republic – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Bratislavsky – Rural	10	0	10	0	0	0
Bratislavsky – Urban	16	0	16	0	0	0
Trnavsky – Rural	10	0	10	0	0	0
Trnavsky – Urban	10	0	10	0	0	0
Trenciansky – Rural	10	0	10	0	0	0
Trenciansky – Urban	12	0	12	0	0	0
Nitriansky – Rural	10	0	10	0	0	0
Nitriansky – Urban	10	0	10	0	0	0
Zilinsky – Rural	12	0	12	0	0	0
Zilinsky – Urban	12	0	12	0	0	0
Banskobystricky – Rural	10	0	9	0	1	0
Banskobystricky – Urban	12	0	12	0	0	0
Presovsky – Rural	12	0	11	1	0	0
Presovsky – Urban	14	0	14	0	0	0
Kosicky – Rural	10	0	9	1	0	0
Kosicky – Urban	14	0	14	0	0	0
Total	184	0	181	2	1	0

B.50 Slovenia**FOURTH GRADE****Coverage and Exclusions**

- Coverage is 100%
- School-level exclusions consisted of very small schools ($MOS < 8$), special needs schools, Italian language schools, and Waldorf schools
- Within-school exclusions consisted of students with functional disabilities and students not able to talk or understand Slovene language

Sample Design

- No explicit stratification
- Implicit stratification by region (eight regions), for a total of eight implicit strata
- Sampled three classrooms per school having at least 75 students ($MOS \geq 75$), two classrooms whenever possible otherwise
- Small schools sampled with equal probabilities

B.50.1 Allocation of School Sample in Slovenia – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Slovenia	150	0	138	9	1	2
Total	150	0	138	9	1	2

EIGHTH GRADE**Coverage and Exclusions**

- Coverage is 100%
- The population covered is eighth grade. Some students, who were put into the new school system after they started school in the old system, were promoted from their grade 5 of the old system to grade 7 of the new system. Those students were in their 7th year of schooling in grade 8 of the new system
- School-level exclusions consisted of very small schools (MOS<8), special needs schools, and Waldorf schools
- Within-school exclusions consisted of students with functional disabilities and students not able to talk or understand Slovene language

Sample Design

- No explicit stratification
- Implicit stratification by region (eight regions), for a total of eight implicit strata
- Sampled two classrooms per school having at least 40 students (MOS \geq 40), one classroom otherwise
- Small schools sampled with equal probabilities

B.50.2 Allocation of School Sample in Slovenia – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Slovenia	150	0	138	9	1	2
Total	150	0	138	9	1	2

B.51 Sweden

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<5), special schools for disabled students, and non-Swedish language schools (international schools)
- Within-school exclusions consisted special education classes, disabled students and non-native language speakers (less than one year instruction in Swedish)

Sample Design

- Explicit stratification by principal organiser (public, independent), for a total of two explicit strata
- No implicit stratification
- Sampled two classrooms per school whenever possible
- Small schools sampled with equal probabilities

B.51.1 Allocation of School Sample in Sweden – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Public	130	5	122	3	0	0
Independent	30	0	29	1	0	0
Total	160	5	151	4	0	0

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<5), special schools for disabled students, and non-Swedish language schools (international schools)
- Within-school exclusions consisted special education classes, disabled students and non-native language speakers (less than one year instruction in Swedish)

Sample Design

- Explicit stratification by principal organizer (public, independent), for a total of two explicit strata
- No implicit stratification
- Sampled two classrooms per school whenever possible
- Small schools sampled with equal probabilities

B.51.2 Allocation of School Sample in Sweden – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Public	130	1	129	0	0	0
Independent	30	0	29	1	0	0
Total	160	1	158	1	0	0

B.52 Syrian Arab Republic

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<15)
- No within-school exclusions

Sample Design

- Explicit stratification by urbanization (urban, rural) and gender (boys, girls, mixed), for a total of six explicit strata
- Implicit stratification by governorate (14 governorates) and school type (public, private), for a total of 91 implicit strata
- Sampled one classroom per school
- Small schools sampled with equal probabilities

B.52.1 Allocation of School Sample in Syrian Arab Republic – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Urban – Girls	20	0	20	0	0	0
Urban – Boys	20	0	20	0	0	0
Urban – Mixed	13	0	13	0	0	0
Rural – Girls	14	0	14	0	0	0
Rural – Boys	13	0	13	0	0	0
Rural – Mixed	70	0	70	0	0	0
Total	150	0	150	0	0	0

B.53 Thailand

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<15), special education schools, special curriculum schools, and religious schools
- No within-school exclusions

Sample Design

- Explicit stratification by geographical location (Bangkok, northern, northeastern, central, southern), for a total of five explicit strata
- Implicit stratification by school type (Office of the Basic Education Commission, Office of the Private Education Commission, Office of the Higher Education Commission, Department of Local Administration, Department of Education – Bangkok Metropolitan Administration) and urbanization (urban, rural), for a total of 29 implicit strata
- Sampled one classroom per school
- Small schools sampled with equal probabilities
- Post-stratification adjustments to sampling weights were done by gender in Bangkok, Northern and Central strata

B.53.1 Allocation of School Sample in Thailand – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Bangkok	14	0	11	3	0	0
Northern	28	0	26	2	0	0
North-Eastern	36	0	32	4	0	0
Central	54	0	49	4	1	0
Southern	18	0	16	2	0	0
Total	150	0	134	15	1	0

B.54 Tunisia

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<8) and schools with multilevel classes
- Within-school exclusions consisted of functionally or intellectually disabled student

Sample Design

- No explicit stratification
- Implicit stratification by school type (public, private), school priority education programme (PEP, non-PEP), and geographic location (northeast, northwest, southeast, southwest), for a total of ten implicit strata
- Sampled two classrooms per school having at least 70 students (MOS \geq 70), and one classroom otherwise
- Small schools sampled with equal probabilities

B.54.1 Allocation of School Sample in Tunisia – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Tunisia	150	0	150	0	0	0
Total	150	0	150	0	0	0

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- No school-level exclusions
- No within-school exclusions

Sample Design

- No explicit stratification
- Implicit stratification by school priority education zone programme (PEP, non-PEP) and geographic location (northeast, northwest, southeast, southwest), for a total of eight implicit strata
- Sampled two classrooms per school having at least 375 students ($MOS \geq 375$), and one classroom otherwise
- Small schools sampled with equal probabilities

B.54.2 Allocation of School Sample in Tunisia – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Tunisia	150	0	150	0	0	0
Total	150	0	150	0	0	0

B.55 Turkey

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools ($MOS < 10$), special education schools, and schools that were difficult to reach (travelling difficulties)
- Within-sample exclusions consisted of functionally or intellectually disabled students

Sample Design

- Explicit stratification by region, for a total of seven explicit strata
- Implicit stratification by school type (public, private), for a total of 14 implicit strata
- Sampled one classroom per school
- Small schools sampled with equal probabilities

B.55.1 Allocation of School Sample in Turkey – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Marmara Bölgesi	40	1	39	0	0	0
İç Anadolu	26	0	26	0	0	0
Ege Bölgesi	18	0	18	0	0	0
Akdeniz Bölgesi	18	0	18	0	0	0
Karadeniz Bölgesi	16	0	16	0	0	0
Doğu Anadolu	14	2	12	0	0	0
Güney Doğu Anadolu	18	1	17	0	0	0
Total	150	4	146	0	0	0

B.56 Ukraine**FOURTH GRADE****Coverage and Exclusions**

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<6)
- No within-school exclusions

Sample Design

- Explicit stratification by grade (grade 4 only, grade 4 & grade 8) and urbanization (towns, villages, big villages) in the ‘grade 4 & grade 8’ stratum, for a total of four explicit strata
- Implicit stratification by region (27 regions) in the ‘grade 4 & grade 8 – towns’ and ‘grade 4 & grade 8 – villages’ strata, for a total of 55 implicit strata
- Sampled two classrooms per school having at least 65 students (MOS≥65), and one classroom otherwise
- Small schools sampled with equal probabilities

B.56.1 Allocation of School Sample in Ukraine – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 4 Only	4	0	4	0	0	0
Grade 4 & 8 – Towns	90	0	87	0	0	3
Grade 4 & 8 – Villages	54	0	52	0	0	2
Grade 4 & 8 – Big Villages	2	0	1	0	0	1
Total	150	0	144	0	0	6

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<6)
- No within-school exclusions

Sample Design

- Explicit stratification by grade (grade 8 only, grade 4 & grade 8) and urbanization (towns, villages, big villages) in the ‘grade 4 & grade 8’ stratum, for a total of four explicit strata
- Implicit stratification by region (27 regions) in the ‘grade 4 & grade 8 – towns’ and ‘grade 4 & grade 8 – villages’ strata, for a total of 56 implicit strata
- Sampled one or two classrooms per school
- Small schools sampled with equal probabilities

B.56.2 Allocation of School Sample in Ukraine – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 8 Only	10	0	10	0	0	0
Grade 4 & 8 – Towns	86	0	85	0	0	1
Grade 4 & 8 – Villages	52	0	50	0	0	2
Grade 4 & 8 – Big Villages	2	0	1	0	0	1
Total	150	0	146	0	0	4

B.57 United States

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- No school-level exclusions
- Within-school exclusions consisted of special education classes, disabled students within regular classes, and students unable to be tested in English

Sample Design

- No explicit stratification

- Implicit stratification by school type (public, private), geographic location (northeast, southeast, mid-west, west), location indicator relative to populous areas (8 categories), and minority status (above/below 15% minority), for a total of 128 implicit strata
- Sampled two classrooms per school
- Small schools sampled with equal probabilities

B.57.1 Allocation of School Sample in United States – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
United States	300	10	202	46	9	33
Total	300	10	202	46	9	33

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- No school-level exclusions
- Within-school exclusions consisted of special education classes, disabled students within regular classes, and students unable to be tested in English

Sample Design

- No explicit stratification
- Implicit stratification by school type (public, private), geographic location (northeast, southeast, mid-west, west), location indicator relative to populous areas (8 categories), and minority status (above/below 15% minority), for a total of 128 implicit strata
- Sampled two classrooms per school
- Small schools sampled with equal probabilities

B.57.2 Allocation of School Sample in United States – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
United States	300	13	197	33	9	48
Total	300	13	197	33	9	48

B.58 Yemen

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<8) and private schools (English sections only)
- Within-school exclusions consisted of functionally or intellectually disabled students

Sample Design

- Explicit stratification by urbanization (urban, rural), for a total of two explicit strata
- Implicit stratification by school type (public, private), gender (boys, girls, mixed) in the ‘public’ strata, and region (22 regions) in the ‘rural – public – mixed’ stratum, for a total of 29 implicit strata
- Sampled one classroom per school (in two of the sampled schools, two classrooms were selected)
- Small schools sampled with equal probabilities

B.58.1 Allocation of School Sample in Yemen – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Rural	113	6	106	1	0	0
Urban	37	0	37	0	0	0
Total	150	6	143	1	0	0

Benchmarking Participants

B.59 Alberta, Canada

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<6) and schools for online/correspondence students
- Within-school exclusions consisted of physically or cognitively disabled students and non-native language speakers

Sample Design

- No explicit stratification
- Implicit stratification by school type (charter, francophone, public, private, separate), for a total of five implicit strata
- Sampled two classrooms per school having at least 60 students (MOS≥60), and one classroom otherwise
- Small schools sampled with equal probabilities

B.59.1 Allocation of School Sample in Alberta, Canada – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Canada, Alberta	150	2	146	0	0	2
Total	150	2	146	0	0	2

B.60 Basque Country, Spain

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<10), special needs schools and schools for students taught in another language than Basque or Castilian
- Within-school exclusions consisted of disabled students and non-official language speakers

Sample Design

- Prior to school selection, schools were split into up to three parts. These parts (based on languages) were then considered as primary sampling units (PSU). As a result, schools had chances to be selected up to three times in the sample of PSUs. In fact, 16 schools were sampled twice and one school was sampled three times
- Explicit stratification by school type (public, private) and language (type A: Castilian, type B: mixed, type D: Basque), for a total of six explicit strata
- School sample allocation is not proportional at the explicit stratum level
- Implicit stratification by province (Araba, Bizkaia, Gipuzkoa), for a total of 18 implicit strata
- Sampled two classrooms in schools with at least 60 students in the Private, mixed stratum, with at least 50 students in the Private, Basque stratum, and with at least 80 students in the Public, Basque stratum, and one classroom otherwise
- Small schools sampled with equal probabilities

B.60.1 Allocation of School Sample in Basque Country, Spain – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Private – Type A (Castilian)	20	0	20	0	0	0
Private – Type B (Mixed)	20	0	20	0	0	0
Private – Type D (Basque)	20	0	20	0	0	0
Public – Type A (Castilian)	20	0	20	0	0	0
Public – Type B (Mixed)	20	0	20	0	0	0
Public – Type D (Basque)	30	0	30	0	0	0
Total	130	0	130	0	0	0

B.61 British Columbia, Canada

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<6), alternate and distance education schools, district distance education schools, and long term provincial resource program (PRP) schools
- Within-school exclusions consisted of functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by grade (grade 4 only, grade 4 & grade 8), for a total of two explicit strata
- Implicit stratification by school type (public, independent), for a total of four implicit strata
- Sampled two classrooms per school having at least 52 students (MOS \geq 52), and one classroom otherwise
- Small schools sampled with equal probabilities

B.61.1 Allocation of School Sample in British Columbia, Canada – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 4 Only	140	0	137	3	0	0
Grade 4 & 8	10	0	10	0	0	0
Total	150	0	147	3	0	0

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<6), alternate and distance education schools, district distance education schools, and long term provincial resource program (PRP) schools
- Within-school exclusions consisted of special education classes, functionally or intellectually disabled students, and non-native language speakers. Classes from semester schools were also considered excluded

since they were not considered for sampling as they were not attending a mathematics class during the semester

Sample Design

- Explicit stratification by grade (grade 8 only, grade 4 & grade 8), for a total of two explicit strata
- Implicit stratification by school type (public, independent) and facility type (continuing education, standard) in the 'grade 8 only' stratum, for a total of five implicit strata
- Sampled two classrooms per school having at least 270 students ($MOS \geq 270$), and one classroom otherwise
- Small schools sampled with equal probabilities

B.61.2 Allocation of School Sample in British Columbia, Canada – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 8 Only	140	0	137	3	0	0
Grade 4 & 8	10	0	10	0	0	0
Total	150	0	147	3	0	0

B.62 Dubai, United Arab Emirates

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of schools teaching neither in Arabic nor in English language
- Within-school exclusions consisted of disabled students

Sample Design

- Explicit stratification by grade (grade 4/5 only, grade 4/5 & grade 8/9) and by schedule (Indian, Non-Indian)
- No implicit stratification
- All schools sampled
- Sampled one or two classrooms per school
- In schools that followed the Indian time schedule, students were tested at the end of their fourth school year. In schools that followed the non-Indian time schedule, students were tested at the beginning of their fifth school year

B.62.1 Allocation of School Sample in Dubai, United Arab Emirates – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 4 Only - Indian	4	1	3	0	0	0
Grade 5 Only - Non- Indian	49	2	38	0	0	9
Grade 4 & 8 - Indian	15	3	10	0	0	2
Grade 5 & 9 - Non- Indian	75	5	46	0	0	24
Total	143	11	97	0	0	35

EIGHTH GRADE**Coverage and Exclusions**

- Coverage is 100%
- School-level exclusions consisted of schools teaching neither in Arabic nor in English language
- Within-school exclusions consisted of disabled students

Sample Design

- Explicit stratification by grade (grade 8/9 only, grade 4/5 & grade 8/9) and by schedule (Indian, Non-Indian)
- No implicit stratification
- All schools sampled
- Sampled one or two classrooms per school
- In schools that followed the Indian time schedule, students were tested at the end of their eighth school year. In schools that followed the non-Indian time schedule, students were tested at the beginning of their ninth school year

B.62.2 Allocation of School Sample in Dubai, United Arab Emirates – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 8 Only - Indian	2	0	2	0	0	0
Grade 9 Only - Non- Indian	31	2	28	0	0	1
Grade 4 & 8 - Indian	15	2	11	0	0	2
Grade 5 & 9 - Non- Indian	74	3	47	0	0	24
Total	122	7	88	0	0	27

B.63 Massachusetts, United States

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100% of public schools
- No school-level exclusions
- Within-school exclusions consisted of special education classes, disabled students within regular classes, and students unable to be tested in English

Sample Design

- Sample design based on the 2007 NAEP sample design. To reduce duplication, the sample of schools was drawn at the midpoints between the 2007 NAEP sample schools. A sub-sample of schools was then drawn to bring the final school sample to 50
- Sampled two classrooms per school whenever possible
- Sampling variance was computed by pairing these 50 schools following the order of selection. Sampling weights were derived from the NAEP design
- Sampling weights were derived from the NAEP design including adjustments for sub-sampling

B.63.1 Allocation of School Sample in Massachusetts, United States – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
USA (Massachusetts)	50	1	45	2	0	2
Total	50	1	45	2	0	2

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100% of public schools
- No school-level exclusions
- Within-school exclusions consisted of special education classes, disabled students within regular classes, and students unable to be tested in English

Sample Design

- Sample design based on the 2007 NAEP sample design. To reduce duplication, the sample of schools was drawn at the midpoints between the 2007 NAEP sample schools. A sub-sample of schools was then drawn to bring the final school sample to 50
- Sampled two classrooms per school whenever possible
- Sampling variance was computed by pairing these 50 schools following the order of selection. Sampling weights were derived from the NAEP design
- Sampling weights were derived from the NAEP design including adjustments for sub-sampling

B.63.2 Allocation of School Sample in Massachusetts, United States – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
USA (Massachusetts)	50	1	45	3	0	1
Total	50	1	45	3	0	1

B.64 Minnesota , United States

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100% of public schools
- No school-level exclusions
- Within-school exclusions consisted of special education classes, special education students needing accommodations within regular classes, and students unable to be tested in English

Sample Design

- Sample design based on the 2007 NAEP sample design. To reduce duplication, the sample of schools was drawn at the midpoints between the 2007 NAEP sample schools. A sub-sample of schools was then drawn to bring the final school sample to 50
- Sampled two classrooms per school whenever possible

- Sampling variance was computed by pairing these 50 schools following the order of selection. Sampling weights were derived from the NAEP design
- Sampling weights were derived from the NAEP design including adjustments for sub-sampling

B.64.1 Allocation of School Sample in Minnesota, United States – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
USA (Minnesota)	50	0	30	15	5	0
Total	50	0	30	15	5	0

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100% of public schools
- No school-level exclusions
- Within-school exclusions consisted of special education classes, special education students needing accommodations within regular classes, and students unable to be tested in English

Sample Design

- Sample design based on the 2007 NAEP sample design. To reduce duplication, the sample of schools was drawn at the midpoints between the 2007 NAEP sample schools. A sub-sample of schools was then drawn to bring the final school sample to 50
- Sampled two classrooms per school whenever possible
- Sampling variance was computed by pairing these 50 schools following the order of selection Sampling weights were derived from the NAEP design
- Sampling weights were derived from the NAEP design including adjustments for sub-sampling

B.64.2 Allocation of School Sample in Minnesota, United States – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
USA (Minnesota)	50	0	32	8	9	1
Total	50	0	32	8	9	1

B.65 Ontario, Canada

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<10)
- Within-school exclusions consisted of special education classes, functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by grade (grade 4 only, grade 4 & grade 8) and language (French, English), for a total of four explicit strata
- School sample allocation is not proportional at the explicit strata level
- Implicit stratification by school type (public, private, separate), for a total of 11 implicit strata
- Sampled two classrooms per school having at least 75 students (MOS \geq 75), and one classroom otherwise
- Small schools sampled with equal probabilities

B.65.1 Allocation of School Sample in Ontario, Canada – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 4 Only – English	23	2	21	0	0	0
Grade 4 Only – French	32	0	28	4	0	0
Grade 4 & 8 – English	97	1	89	2	0	5
Grade 4 & 8 – French	48	0	41	3	0	4
Total	200	3	179	9	0	9

EIGHTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<10)
- Within-school exclusions consisted of special education classes, functionally or intellectually disabled students and non-native language speakers

Sample Design

- Explicit stratification by grade (grade 8 only, grade 4 & grade 8) language (French, English), for a total of four explicit strata
- School sample allocation is not proportional at the explicit strata level
- Implicit stratification by school type (public, private, separate), for a total of 11 implicit strata
- Sampled two classrooms per school having at least 140 students ($MOS \geq 140$), and one classroom otherwise
- Small schools sampled with equal probabilities

B.65.2 Allocation of School Sample in Ontario, Canada – Eighth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 8 Only – English	23	0	20	2	0	1
Grade 8 Only – French	32	1	26	1	0	4
Grade 4 & 8 – English	97	2	87	2	0	6
Grade 4 & 8 – French	48	6	35	3	0	4
Total	200	9	168	8	0	15

B.66 Québec, Canada

FOURTH GRADE

Coverage and Exclusions

- Coverage is 100%
- School-level exclusions consisted of very small schools ($MOS < 11$), special needs schools, native schools, and non-ministry schools
- Within-school exclusions consisted of special needs students. Some special need classes as well as some classes with international curricula were also excluded.

Sample Design

- Explicit stratification by grade (grade 4 only, grade 4 & grade 8) and language (French, English), for a total of four explicit strata
- School sample allocation is not proportional at the explicit stratum level
- Implicit stratification by school type (public, private), for a total of eight implicit strata
- Sampled two classrooms per school having at least 80 students ($MOS \geq 80$), and one classroom otherwise
- Small schools sampled with equal probabilities

B.66.1 Allocation of School Sample in Québec, Canada – Fourth Grade

Explicit Stratum	Total sampled schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 4 Only – English	74	7	63	0	0	4
Grade 4 Only – French	114	1	111	0	0	2
Grade 4 & 8 – English	6	0	6	0	0	0
Grade 4 & 8 – French	6	0	5	1	0	0
Total	200	8	185	1	0	6

EIGHTH GRADE**Coverage and Exclusions**

- Coverage is 100%
- School-level exclusions consisted of very small schools (MOS<11), special needs schools, native schools, and non-ministry schools
- Within-school exclusions consisted of special needs students. Some special need classes as well as some classes with international curricula were also excluded.

Sample Design

- Explicit stratification by grade (grade 8 only, grade 4 & grade 8) and language (French, English), for a total of four explicit strata
- School sample allocation is not proportional at the explicit stratum level
- Implicit stratification by school type (public, private), for a total of eight implicit strata
- Sampled two classrooms per school having at least 280 students (MOS \geq 280), and one classroom otherwise
- Small schools sampled with equal probabilities

B.66.2 Allocation of School Sample in Québec, Canada – Eighth Grade

Explicit Stratum	Total Sampled Schools	Ineligible Schools	Participating Schools			Non-Participating Schools
			Sampled	1st Replacement	2nd Replacement	
Grade 8 Only – English	65	5	56	0	0	4
Grade 8 Only – French	114	3	103	0	0	8
Grade 4 & 8 – English	6	0	6	0	0	0
Grade 4 & 8 – French	6	0	5	0	0	1
Total	191	8	170	0	0	13

