

Appendix 3A: PIRLS 2016 Stratification Variables

PIRLS 2016 Stratification Variables

| Country | Explicit Stratification Variables | Number of Explicit Strata | Implicit Stratification Variables |
|-------------------|---|------------------------------|--|
| Australia | State or territory (8) | 8 | Geographic location (3) School type (3) Socioeconomic status (2) |
| Austria | Region (9) | 9 | None |
| Azerbaijan | Language (2) Urbanization (2) City (2) | 4 | None |
| Bahrain | Governorate (5) Gender (2) | 9 | None |
| Belgium (Flemish) | Region (6) School type (3) Socioeconomic status (4) | 18 | None |
| Belgium (French) | School network (3) Socioeconomic status (4) | 10 | None |
| Bulgaria | School type (3) Urbanization (3) | 8 | Urbanization (2) |
| Canada | Province (8) School language (2) within British Columbia School type (3) within English schools in British Columbia School system (2) within Alberta School type (2) within Alberta School type (3) within Ontario (3) Language (2) within Ontario School language (2) within Quebec School type (2) within Quebec School language (2) within New Brunswick | 22 | Region (4) in public and Catholic schools within Ontario |
| Chile | School type (3) Urbanization (2) School size (3) | 8 | None |
| Chinese Taipei | Region (4) | 4 | None |
| Czech Republic | Region (14) | 14 | None |
| Denmark | School type (2) | 2 | None |
| Egypt | Region (3) School type (2) | 6 | Urbanization (2) |
| England | School type (2) Performance (5) | 6 | None |
| Finland | Language (2) Major region (4) Urbanization (2) | 8 | None |
| France | School type (3) | 3 | None |
| | | | |





PIRLS 2016 Stratification Variables (Continued)

| School type (2) Germany Socioeconomic Status (4) School Type (2) Hong Kong SAR School gender (2) School type (4) School Type (4) Hungary Community type (3) National assessment reading score (4) Hungary Community type (3) Region group (3) Region group (3) Region group (3) Province (6) Ireland School-level socioeconomic status (4) Language (3) School sector (3) School sector (3) School sector (3) School sector (3) School sector (3) School sector (3) School sector (3) School sector (3) School sector (3) School sector (3) School sector (3) School sector (3) School sector (3) School sector (3) School type (2) Region (5) Region (6) Region (6) Region (9) Region (1) Language (3) Urbanization (2) Language (3) Language (4) Urbanization (4) Macao SAR None Mata School type (2) Region (16) Region | Country | Explicit Stratification Variables | Number of Explicit Strata | Implicit Stratification Variables |
|--|-----------------------|---|------------------------------|--------------------------------------|
| School Type (2) Some None | Georgia | Teacher certification (2) Urbanization (2) | 7 | None |
| Hungary Community type (3) National assessment reading score (4) Iran, Islamic Rep. of School type (2) Gender (3) Region group (3) Province (6) Ireland School-level socioeconomic status (4) Language (3) Gender (3) School sector (3) School sector (3) Israel School sector (3) School type (2) Region (5) Italy School type (2) Region (6) Kazakhstan Region (4) Language (3) Urbanization (2) Kuwait Region (6) Gender (2) Language (3) Latvia Language (3) School level (2) Urbanization (3) Language (2) School type (2) Italy Racao SAR None Macao SAR None Malta School type (3) Mone Macao SAR None Malta School type (3) School type (2) Region (6) Gender (2) Language (4) Urbanization (3) Language (4) Urbanization (3) Language (4) Urbanization (4) Macao SAR None Malta School type (3) School type (2) Region (16) Region (16) Morocco School type (2) Region (16) Region (16) | Germany | • • | 5 | None |
| Iran, Islamic Rep. of School type (2) Gender (3) Region group (3) Province (6) School-level socioeconomic status (4) Language (3) School sector (3) Socioeconomic status (3) Subgroups within Arab sector (3) School type (2) Region (6) School sector (3) School type (2) Region (6) School sector (3) School sector (3) School type (2) Region (6) School type (2) Region (6) School type (2) School type (3) School type (4) School type (2) Region (6) School type (2) School type (2) School type (2) School type (3) School type (4) School type (5) School type (4) School type (5) School type (4) School type (4) School type (5) School type (5) School type (6) School type (7) School type (8) School type (9) School type (1) School type (2) School type (3) School type (4) School type (5) School type (5) School type (6) School type (7) School type (7) School type (8) School type (9) School type (9) School type (1) Sch | Hong Kong SAR | | 5 | None |
| Iran, Islamic Rep. of Sender (3) Region group (3) Province (6) Ireland School-level socioeconomic status (4) Language (3) School sector (3) Socioeconomic status (3) Subgroups within Arab sector (3) Italy School type (2) Region (5) Socioeconomic status (4) Language (3) Urbanization (4) Italy Region (5) Socioeconomic status (3) Socioeconomic status (3) Socioeconomic status (3) Subgroups within Arab sector (3) Italy Region (5) Socioeconomic status (4) Language (3) Italy Region (6) Socioeconomic status (4) Italy | Hungary | | 11 | None |
| Ireland Language (3) Gender (3) 8 None Israel School sector (3) Socioeconomic status (3) Subgroups within Arab sector (3) 10 None Italy School type (2) Region (5) 6 None Kazakhstan Region (4) Language (3) Urbanization (2) 17 None Kuwait School type (2) Region (6) Gender (2) Language (3) 15 None Latvia School level (2) Urbanization (3) Language (2) School type (2) 10 None Lithuania Language (4) Urbanization (4) 7 None Macao SAR None 1 None Malta School type (3) 3 None Morocco School type (2) Region (16) 18 None Netherlands Socioeconomic status level (5) Urbanization (5) 12 None New Zealand Socioeconomic status (4) Urbanization (2) 11 None | Iran, Islamic Rep. of | Gender (3) Region group (3) | 22 | None |
| Israel Socioeconomic status (3) Subgroups within Arab sector (3) Italy School type (2) Region (5) 6 None Region (4) Language (3) 17 None School type (2) Region (6) 15 None School type (2) Region (6) Gender (2) Language (3) 15 None Latvia School level (2) Urbanization (3) Language (2) School type (2) Latvia Language (4) 7 None Lithuania Language (4) 7 None Macao SAR None 1 None Malta School type (2) Region (6) 3 None Morocco School type (2) 18 None Morocco School type (2) Region (6) 19 None Morocco School type (2) 18 None Netherlands School type (4) 10 None School type (2) 10 None Netherlands School type (4) 11 None None Netherlands School type (4) 11 None | Ireland | Language (3) | 8 | None |
| Region (5) Region (4) Language (3) Urbanization (2) Kuwait School type (2) Region (6) Gender (2) Language (3) Urbanization (3) Latvia School level (2) Urbanization (3) Language (2) School type (2) Lithuania Language (4) Urbanization (4) Macao SAR None Malta School type (3) Mone Malta School type (3) Mone Macao SAR None Morocco Region (16) School type (3) Region (16) None Morocco School type (4) Socioeconomic status level (5) Urbanization (5) New Zealand Region (5) Region (5) None | Israel | Socioeconomic status (3) | 10 | None |
| Kazakhstan Language (3) Urbanization (2) 17 None Kuwait School type (2) Region (6) Gender (2) Language (3) 15 None Latvia School level (2) Urbanization (3) Language (2) School type (2) 10 None Lithuania Language (4) Urbanization (4) 7 None Macao SAR None 1 None Malta School type (3) 3 None Morocco School type (2) Region (16) 18 None Netherlands Socioeconomic status level (5) Urbanization (5) 12 None New Zealand School type (4) Socioeconomic status (4) Urbanization (2) 11 None | Italy | | 6 | None |
| Kuwait Region (6) Gender (2) Language (3) 15 None Latvia School level (2) Urbanization (3) Language (2) School type (2) 10 None Lithuania Language (4) Urbanization (4) 7 None Macao SAR None 1 None Malta School type (3) 3 None Morocco School type (2) Region (16) 18 None Netherlands Socioeconomic status level (5) Urbanization (5) 12 None New Zealand Socioeconomic status (4) Urbanization (2) 11 None | Kazakhstan | Language (3) | 17 | None |
| Latvia Language (2) School type (2) Lithuania Language (4) Urbanization (4) Macao SAR None Malta School type (3) School type (3) Morocco School type (2) Region (16) Netherlands Socioeconomic status level (5) Urbanization (5) New Zealand Region (5) Region (5) Rone None | Kuwait | Region (6) Gender (2) | 15 | None |
| Macao SAR None 1 None Malta School type (3) 3 None Morocco School type (2) 18 None Netherlands Socioeconomic status level (5) 12 None School type (4) Socioeconomic status (4) Urbanization (2) New Zealand Region (5) 14 None | Latvia | Urbanization (3) Language (2) | 10 | None |
| Malta School type (3) 3 None Morocco School type (2) Region (16) 18 None Netherlands Socioeconomic status level (5) Urbanization (5) 12 None School type (4) Socioeconomic status (4) Urbanization (2) 11 None None Region (5) 14 None | Lithuania | | 7 | None |
| Morocco School type (2) Region (16) Netherlands Socioeconomic status level (5) Urbanization (5) School type (4) Socioeconomic status (4) Urbanization (2) None Region (5) 18 None None None | Macao SAR | None | 1 | None |
| Netherlands Socioeconomic status level (5) Urbanization (5) School type (4) New Zealand Socioeconomic status (4) Urbanization (2) None Region (16) 12 None None None None | Malta | School type (3) | 3 | None |
| New Zealand School type (4) New Zealand Socioeconomic status (4) Urbanization (2) Region (5) 12 None 13 None 14 None | Morocco | | 18 | None |
| New Zealand Socioeconomic status (4) 11 None Urbanization (2) Region (5) 14 None | Netherlands | | 12 | None |
| | New Zealand | Socioeconomic status (4) | 11 | None |
| | Northern Ireland | | 14 | None |





PIRLS 2016 Stratification Variables (Continued)

| Country | Explicit Stratification Variables | Number of Explicit Strata | Implicit Stratification Variables |
|----------------------|--|------------------------------|--|
| Norway (5) | Grade 5 only/grade 4 and 5 schools (2) Language (2) | 3 | None |
| Oman | Governorates (11) School type (3) | 13 | None |
| Poland | Urbanization (4) School performance level (5) | 15 | None |
| Portugal | Region (7) School type (2) | 8 | None |
| Qatar | School type (3) Gender (3) | 4 | None |
| Russian Federation | Region (42) | 42 | None |
| Saudi Arabia | Region (13) Gender (2) | 17 | None |
| Singapore | None | 1 | None |
| Slovak Republic | Language (2) Socioeconomic status (3) Grouped region (5) | 14 | None |
| Slovenia | School type (2) Region (4) | 8 | None |
| South Africa (5) | Language (11) Province (9) | 23 | None |
| Spain | Region (7) School type (2) Bilingual status (2) within Madrid strata | 19 | None |
| Sweden | Grade average (4) | 4 | None |
| Trinidad and Tobago | School type (2) Region (8) | 9 | None |
| United Arab Emirates | Emirates (7) School type (2) Language of instruction (2) Region (3) within Abu Dhabi School type (3) within Abu Dhabi Curriculum (4) within Abu Dhabi School type (2) within Dubai Language (3) within Dubai | 28 | None |
| United States | Poverty level (2) School type (2) Census region (4) | 12 | Urbanization (4) Ethnicity Status (2) |





PIRLS 2016 Stratification Variables (Continued)

| Country | Explicit Stratification Variables | Number of Explicit Strata | Implicit Stratification Variables |
|---------------------------|--|------------------------------|--------------------------------------|
| Benchmarking Particip | pants | | |
| Andalusia, Spain | School type (2) | 2 | None |
| Denmark (3) | School type (2) | 2 | None |
| Eng/Afr/Zulu - RSA (5) | Language (3) | 5 | None |
| Madrid, Spain | School type (3) Bilingual status (2) within Madrid strata | 5 | None |
| Moscow City, Russian Fed. | None | 1 | None |
| Buenos Aires, Argentina | School type (2) Socioeconomic status (3) | 6 | None |
| Ontario, Canada | School type (3) Language (2) | 4 | Region (4) in public and Catholic |
| Quebec, Canada | Language (2) School type (2) | 4 | None |
| Norway (4) | Grade 4 only/Grade 4 and 5 schools (2) Language (2) | 3 | None |
| Abu Dhabi, UAE | Region (3) School type (3) Curriculum (4) | 9 | None |
| Dubai, UAE | School type (2) Language (3) | 4 | None |

