

TRENDS IN INTERNATIONAL MATHEMATICS AND SCIENCE STUDY

# TIMSS



## TIMSS Advanced 2008 User Guide

for the International Database

# Supplement 4

Sampling Stratification Information



**TIMSS & PIRLS**  
International Study Center  
Lynch School of Education, Boston College

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TIMSS Advanced 2008 User Guide for the International Database

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# Supplement 4

## TIMSS Advanced 2008 Sampling Stratification Information

### Overview

This supplement contains documentation on the explicit and implicit stratification variables included in the TIMSS Advanced 2008 data files at the fourth and eighth grades. The explicit strata are smaller sampling frames, created from the national sampling frames, from which national samples of schools were drawn. The implicit strata are nested within the explicit strata, and were used for sorting the sampling frame prior to the systematic sampling of the schools. Details of the TIMSS Advanced 2008 sample design and implementation are available in the *TIMSS Advanced 2008 Technical Report*.

### Stratification Variables

The explicit and implicit stratification variables are named IDSTRATE and IDSTRATI, respectively. Country-specific codes and labels are provided for each stratum and both populations. These codes and labels are presented in Exhibit S4.1 for advanced mathematics and Exhibit S4.2 for physics.

### Notes and Considerations

The stratification variables contain information useful for secondary analyses. However, users are cautioned that stratification in some countries is very detailed, resulting in strata—either explicit or implicit—with sample sizes that may be too small to produce reliable estimates. Users should exercise caution when drawing conclusions based on estimates obtained from small strata.

Stratification is based on information provided by each country in their school sampling frames. These sampling frames were provided well in advance of data collection—sometimes 2 years prior. Thus, the stratification information may no longer be appropriate, or available, when consulting more current sources and differences in a sampled school's status may occur.

**Exhibit S4.1: TIMSS Advanced 2008 Sampling Stratification Information - Advanced Mathematics**

Countries	Explicit Strata (IDSTRATE)		Implicit Strata (IDSTRATI)	
	Codes	Labels	Codes	Labels
Armenia	1	None	1	Aragatsotn
	1	None	2	Ararat
	1	None	3	Armavir
	1	None	4	Gegharkunik
	1	None	5	Kotayk
	1	None	6	Lori
	1	None	7	Shirak
	1	None	8	Syunik
	1	None	9	Tavush
	1	None	10	Vayots Dzor
	1	None	11	Yerevan
Iran, Islamic Rep. of	1	Public - Girls	1	East Azarbaijan
	1	Public - Girls	2	West Azarbaijan
	1	Public - Girls	3	Ardabil
	1	Public - Girls	4	Esfahan
	1	Public - Girls	5	Ilam
	1	Public - Girls	6	Busher
	1	Public - Girls	7	Chahar Mahal & Bakhtiari
	1	Public - Girls	8	North Khorasan
	1	Public - Girls	9	South Khorasan
	1	Public - Girls	10	Razavi Khorasan
	1	Public - Girls	11	Khuzestan
	1	Public - Girls	12	Zanjan
	1	Public - Girls	13	Semnan
	1	Public - Girls	14	Sistan & Baluchistan
	1	Public - Girls	15	Tehran City
	1	Public - Girls	16	Tehran Province
	1	Public - Girls	17	Fars
	1	Public - Girls	18	Qazvin
	1	Public - Girls	19	Qom
	1	Public - Girls	20	Kurdistan
	1	Public - Girls	21	Kerman
	1	Public - Girls	22	Kermanshah
	1	Public - Girls	23	Kohkiluyeh & Buyer Ahmad
	1	Public - Girls	24	Golestan
	1	Public - Girls	25	Gilan
	1	Public - Girls	26	Lorestan
	1	Public - Girls	27	Mazandaran
	1	Public - Girls	28	Markazi
	1	Public - Girls	29	Hormozgan
	1	Public - Girls	30	Hamadan
	1	Public - Girls	31	Yazd
	2	Public - Boys	1	East Azarbaijan
	2	Public - Boys	2	West Azarbaijan
2	Public - Boys	3	Ardabil	
2	Public - Boys	4	Esfahan	
2	Public - Boys	5	Ilam	
2	Public - Boys	6	Busher	
2	Public - Boys	7	Chahar Mahal & Bakhtiari	
2	Public - Boys	8	North Khorasan	
2	Public - Boys	9	South Khorasan	

**Exhibit S4.1: TIMSS Advanced 2008 Sampling Stratification Information - Advanced Mathematics (Continued)**

Countries	Explicit Strata (IDSTRATE)		Implicit Strata (IDSTRATI)	
	Codes	Labels	Codes	Labels
Iran, Islamic Rep. of	2	Public - Boys	10	Razavi Khorasan
	2	Public - Boys	11	Khuzestan
	2	Public - Boys	12	Zanjan
	2	Public - Boys	13	Semnan
	2	Public - Boys	14	Sistan & Baluchistan
	2	Public - Boys	15	Tehran City
	2	Public - Boys	16	Tehran Province
	2	Public - Boys	17	Fars
	2	Public - Boys	18	Qazvin
	2	Public - Boys	19	Qom
	2	Public - Boys	20	Kurdistan
	2	Public - Boys	21	Kerman
	2	Public - Boys	22	Kermanshah
	2	Public - Boys	23	Kohkiluyeh & Buyer Ahmad
	2	Public - Boys	24	Golestan
	2	Public - Boys	25	Gilan
	2	Public - Boys	26	Lorestan
	2	Public - Boys	27	Mazandaran
	2	Public - Boys	28	Markazi
	2	Public - Boys	29	Hormozgan
	2	Public - Boys	30	Hamadan
	2	Public - Boys	31	Yazd
	3	Private - Girls	1	East Azarbaijan
	3	Private - Girls	2	West Azarbaijan
	3	Private - Girls	3	Ardabil
	3	Private - Girls	4	Esfahan
	3	Private - Girls	5	Ilam
	3	Private - Girls	6	Busher
	3	Private - Girls	7	Chahar Mahal & Bakhtiari
	3	Private - Girls	8	North Khorasan
	3	Private - Girls	9	South Khorasan
	3	Private - Girls	10	Razavi Khorasan
	3	Private - Girls	11	Khuzestan
	3	Private - Girls	12	Zanjan
	3	Private - Girls	13	Semnan
	3	Private - Girls	14	Sistan & Baluchistan
	3	Private - Girls	15	Tehran City
	3	Private - Girls	16	Tehran Province
	3	Private - Girls	17	Fars
	3	Private - Girls	18	Qazvin
	3	Private - Girls	19	Qom
	3	Private - Girls	20	Kurdistan
	3	Private - Girls	21	Kerman
	3	Private - Girls	22	Kermanshah
	3	Private - Girls	23	Kohkiluyeh & Buyer Ahmad
	3	Private - Girls	24	Golestan
	3	Private - Girls	25	Gilan
	3	Private - Girls	26	Lorestan
	3	Private - Girls	27	Mazandaran
	3	Private - Girls	28	Markazi
	3	Private - Girls	29	Hormozgan

**Exhibit S4.1: TIMSS Advanced 2008 Sampling Stratification Information - Advanced Mathematics (Continued)**

Countries	Explicit Strata (IDSTRATE)		Implicit Strata (IDSTRATI)	
	Codes	Labels	Codes	Labels
Iran, Islamic Rep. of	3	Private - Girls	30	Hamadan
	3	Private - Girls	31	Yazd
	4	Private - Boys	1	East Azarbaijan
	4	Private - Boys	2	West Azarbaijan
	4	Private - Boys	3	Ardabil
	4	Private - Boys	4	Esfahan
	4	Private - Boys	5	Ilam
	4	Private - Boys	6	Busher
	4	Private - Boys	7	Chahar Mahal & Bakhtiari
	4	Private - Boys	8	North Khorasan
	4	Private - Boys	9	South Khorasan
	4	Private - Boys	10	Razavi Khorasan
	4	Private - Boys	11	Khuzestan
	4	Private - Boys	12	Zanjan
	4	Private - Boys	13	Semnan
	4	Private - Boys	14	Sistan & Baluchistan
	4	Private - Boys	15	Tehran City
	4	Private - Boys	16	Tehran Province
	4	Private - Boys	17	Fars
	4	Private - Boys	18	Qazvin
	4	Private - Boys	19	Qom
	4	Private - Boys	20	Kurdistan
	4	Private - Boys	21	Kerman
	4	Private - Boys	22	Kermanshah
	4	Private - Boys	23	Kohkiluyeh & Buyer Ahmad
	4	Private - Boys	24	Golestan
	4	Private - Boys	25	Gilan
	4	Private - Boys	26	Lorestan
	4	Private - Boys	27	Mazandaran
	4	Private - Boys	28	Markazi
	4	Private - Boys	29	Hormozgan
4	Private - Boys	30	Hamadan	
4	Private - Boys	31	Yazd	
Italy	1	Advanced Mathematics Program	1	Valle d'Aosta
	1	Advanced Mathematics Program	2	Piemonte
	1	Advanced Mathematics Program	3	Liguria
	1	Advanced Mathematics Program	4	Lombardia
	1	Advanced Mathematics Program	5	Trentino-Alto Adige
	1	Advanced Mathematics Program	6	Veneto
	1	Advanced Mathematics Program	7	Friuli-Venezia Giulia
	1	Advanced Mathematics Program	8	Emilia-Romagna
	1	Advanced Mathematics Program	9	Toscana
	1	Advanced Mathematics Program	10	Umbria
	1	Advanced Mathematics Program	11	Marche
	1	Advanced Mathematics Program	12	Lazio
	1	Advanced Mathematics Program	13	Abruzzo
	1	Advanced Mathematics Program	14	Molise
	1	Advanced Mathematics Program	15	Campania
	1	Advanced Mathematics Program	16	Puglia
	1	Advanced Mathematics Program	17	Basilicata
	1	Advanced Mathematics Program	18	Calabria

**Exhibit S4.1: TIMSS Advanced 2008 Sampling Stratification Information - Advanced Mathematics (Continued)**

Countries	Explicit Strata (IDSTRATE)		Implicit Strata (IDSTRATI)	
	Codes	Labels	Codes	Labels
Italy	1	Advanced Mathematics Program	19	Sicilia
	1	Advanced Mathematics Program	20	Sardegna
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	2	Piemonte
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	3	Liguria
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	4	Lombardia
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	5	Trentino-Alto Adige
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	6	Veneto
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	7	Friuli-Venezia Giulia
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	8	Emilia-Romagna
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	9	Toscana
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	10	Umbria
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	11	Marche
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	12	Lazio
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	13	Abruzzo
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	14	Molise
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	15	Campania
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	16	Puglia
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	17	Basilicata
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	18	Calabria
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	19	Sicilia
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	20	Sardegna
	3	Advanced Mathematics and Physics Program	1	Valle d'Aosta
	3	Advanced Mathematics and Physics Program	2	Piemonte
	3	Advanced Mathematics and Physics Program	4	Lombardia
	3	Advanced Mathematics and Physics Program	6	Veneto
	3	Advanced Mathematics and Physics Program	8	Emilia-Romagna
	3	Advanced Mathematics and Physics Program	9	Toscana
	3	Advanced Mathematics and Physics Program	10	Umbria
	3	Advanced Mathematics and Physics Program	11	Marche
	3	Advanced Mathematics and Physics Program	12	Lazio
	3	Advanced Mathematics and Physics Program	13	Abruzzo
	3	Advanced Mathematics and Physics Program	14	Molise
	3	Advanced Mathematics and Physics Program	15	Campania
3	Advanced Mathematics and Physics Program	16	Puglia	
3	Advanced Mathematics and Physics Program	17	Basilicata	
3	Advanced Mathematics and Physics Program	18	Calabria	

**Exhibit S4.1: TIMSS Advanced 2008 Sampling Stratification Information - Advanced Mathematics (Continued)**

Countries	Explicit Strata (IDSTRATE)		Implicit Strata (IDSTRATI)	
	Codes	Labels	Codes	Labels
Italy	3	Advanced Mathematics and Physics Program	19	Sicilia
	3	Advanced Mathematics and Physics Program	20	Sardegna
Lebanon	1	Large Schools	1	Beirut - Private
	1	Large Schools	2	Beirut - Public
	1	Large Schools	3	Bekaa - Private
	1	Large Schools	4	Bekaa - Public
	1	Large Schools	5	Mount Lebanon - Private
	1	Large Schools	6	Mount Lebanon - Public
	1	Large Schools	7	Nabatieh - Private
	1	Large Schools	8	Nabatieh - Public
	1	Large Schools	9	North - Private
	1	Large Schools	10	North - Public
	1	Large Schools	11	South - Private
	1	Large Schools	12	South - Public
	2	Small Schools	1	Beirut - Private
	2	Small Schools	2	Beirut - Public
	2	Small Schools	3	Bekaa - Private
	2	Small Schools	4	Bekaa - Public
	2	Small Schools	5	Mount Lebanon - Private
	2	Small Schools	6	Mount Lebanon - Public
	2	Small Schools	7	Nabatieh - Private
	2	Small Schools	8	Nabatieh - Public
	2	Small Schools	9	North - Private
	2	Small Schools	10	North - Public
2	Small Schools	11	South - Private	
2	Small Schools	12	South - Public	
Netherlands	1	None	1	None
Norway	1	Advanced Mathematics Classes	1	None
	3	Advanced Mathematics Classes and Physics Classes - 35 or more Physics Students	1	None
	4	Advanced Mathematics Classes and Physics Classes - 20 to 34 Physics Students	1	None
	5	Advanced Mathematics Classes and Physics Classes - 10 to 19 Physics Students	1	None
	6	Advanced Mathematics Classes and Physics Classes - Less than 10 Physics Students	1	None
Philippines	1	Science and Technology Oriented Schools Known Size	1	None
	2	Science and Technology Oriented Schools Unknown Size	1	None
	3	Other Schools - Known Size	1	Philippines Science High School System
	3	Other Schools - Known Size	2	Regional Science High Schools
	3	Other Schools - Known Size	3	Other Science High Schools (public)
	3	Other Schools - Known Size	4	Other High Schools (private)
	3	Other Schools - Known Size	5	University Rural High Schools and Laboratory Schools
	4	Other Schools - Unknown Size	2	Regional Science High Schools
	4	Other Schools - Unknown Size	3	Other Science High Schools (public)
4	Other Schools - Unknown Size	4	Other High Schools (private)	
Russian Federation	.A	Not Available	.A	Not Available



**Exhibit S4.1: TIMSS Advanced 2008 Sampling Stratification Information - Advanced Mathematics (Continued)**

Countries	Explicit Strata (IDSTRATE)		Implicit Strata (IDSTRATI)	
	Codes	Labels	Codes	Labels
Slovenia	1	Advanced Mathematics Classes and Physics Classes - Many Experts	1	None
	2	Advanced Mathematics Classes and Physics Classes - Few Experts	1	None
	3	Advanced Mathematics Classes	1	None
Sweden	1	Advanced Mathematics Classes in Natural Science Program - Public	1	None
	2	Advanced Mathematics Classes in Natural Science Program - Private	1	None
	3	Advanced Mathematics Classes and Physics Classes in Natural Science and Technology Programs	1	None
	4	Advanced Mathematics Classes and Physics Classes in Natural Science Program - Public	1	None
	5	Advanced Mathematics Classes and Physics Classes in Natural Science Program - Private	1	None
	6	Advanced Mathematics Classes and Physics Classes in Technology Program	1	None

**Exhibit S4.2: TIMSS Advanced 2008 Sampling Stratification Information - Physics**

Countries	Explicit Strata (IDSTRATE)		Implicit Strata (IDSTRATI)	
	Codes	Labels	Codes	Labels
Armenia	1	None	1	Aragatsotn
	1	None	2	Ararat
	1	None	3	Armavir
	1	None	4	Gegharkunik
	1	None	5	Kotayk
	1	None	6	Lori
	1	None	7	Shirak
	1	None	8	Syunik
	1	None	9	Tavush
	1	None	10	Vayots Dzor
	1	None	11	Yerevan
Iran, Islamic Rep. of	1	Public - Girls	1	East Azarbaijan
	1	Public - Girls	2	West Azarbaijan
	1	Public - Girls	3	Ardabil
	1	Public - Girls	4	Esfahan
	1	Public - Girls	5	Ilam
	1	Public - Girls	6	Busher
	1	Public - Girls	7	Chahar Mahal & Bakhtiari
	1	Public - Girls	8	North Khorasan
	1	Public - Girls	9	South Khorasan
	1	Public - Girls	10	Razavi Khorasan
	1	Public - Girls	11	Khuzestan
	1	Public - Girls	12	Zanjan
	1	Public - Girls	13	Semnan
	1	Public - Girls	14	Sistan & Baluchistan
	1	Public - Girls	15	Tehran City
	1	Public - Girls	16	Tehran Province
	1	Public - Girls	17	Fars
	1	Public - Girls	18	Qazvin
	1	Public - Girls	19	Qom
	1	Public - Girls	20	Kurdistan
	1	Public - Girls	21	Kerman
	1	Public - Girls	22	Kermanshah
	1	Public - Girls	23	Kohkiluyeh & Buyer Ahmad
	1	Public - Girls	24	Golestan
	1	Public - Girls	25	Gilan
	1	Public - Girls	26	Lorestan
	1	Public - Girls	27	Mazandaran
	1	Public - Girls	28	Markazi
	1	Public - Girls	29	Hormozgan
	1	Public - Girls	30	Hamadan
	1	Public - Girls	31	Yazd
2	Public - Boys	1	East Azarbaijan	
2	Public - Boys	2	West Azarbaijan	
2	Public - Boys	3	Ardabil	
2	Public - Boys	4	Esfahan	
2	Public - Boys	5	Ilam	
2	Public - Boys	6	Busher	
2	Public - Boys	7	Chahar Mahal & Bakhtiari	
2	Public - Boys	8	North Khorasan	
2	Public - Boys	9	South Khorasan	

**Exhibit S4.2: TIMSS Advanced 2008 Sampling Stratification Information - Physics (Continued)**

Countries	Explicit Strata (IDSTRATE)		Implicit Strata (IDSTRATI)	
	Codes	Labels	Codes	Labels
Iran, Islamic Rep. of	2	Public - Boys	10	Razavi Khorasan
	2	Public - Boys	11	Khuzestan
	2	Public - Boys	12	Zanjan
	2	Public - Boys	13	Semnan
	2	Public - Boys	14	Sistan & Baluchistan
	2	Public - Boys	15	Tehran City
	2	Public - Boys	16	Tehran Province
	2	Public - Boys	17	Fars
	2	Public - Boys	18	Qazvin
	2	Public - Boys	19	Qom
	2	Public - Boys	20	Kurdistan
	2	Public - Boys	21	Kerman
	2	Public - Boys	22	Kermanshah
	2	Public - Boys	23	Kohkiluyeh & Buyer Ahmad
	2	Public - Boys	24	Golestan
	2	Public - Boys	25	Gilan
	2	Public - Boys	26	Lorestan
	2	Public - Boys	27	Mazandaran
	2	Public - Boys	28	Markazi
	2	Public - Boys	29	Hormozgan
	2	Public - Boys	30	Hamadan
	2	Public - Boys	31	Yazd
	3	Private - Girls	1	East Azarbaijan
	3	Private - Girls	2	West Azarbaijan
	3	Private - Girls	3	Ardabil
	3	Private - Girls	4	Esfahan
	3	Private - Girls	5	Ilam
	3	Private - Girls	6	Busher
	3	Private - Girls	7	Chahar Mahal & Bakhtiari
	3	Private - Girls	8	North Khorasan
	3	Private - Girls	9	South Khorasan
	3	Private - Girls	10	Razavi Khorasan
	3	Private - Girls	11	Khuzestan
	3	Private - Girls	12	Zanjan
	3	Private - Girls	13	Semnan
	3	Private - Girls	14	Sistan & Baluchistan
	3	Private - Girls	15	Tehran City
	3	Private - Girls	16	Tehran Province
	3	Private - Girls	17	Fars
	3	Private - Girls	18	Qazvin
	3	Private - Girls	19	Qom
	3	Private - Girls	20	Kurdistan
	3	Private - Girls	21	Kerman
	3	Private - Girls	22	Kermanshah
	3	Private - Girls	23	Kohkiluyeh & Buyer Ahmad
	3	Private - Girls	24	Golestan
	3	Private - Girls	25	Gilan
	3	Private - Girls	26	Lorestan
	3	Private - Girls	27	Mazandaran
	3	Private - Girls	28	Markazi
	3	Private - Girls	29	Hormozgan

**Exhibit S4.2: TIMSS Advanced 2008 Sampling Stratification Information - Physics (Continued)**

Countries	Explicit Strata (IDSTRATE)		Implicit Strata (IDSTRATI)	
	Codes	Labels	Codes	Labels
Iran, Islamic Rep. of	3	Private - Girls	30	Hamadan
	3	Private - Girls	31	Yazd
	4	Private - Boys	1	East Azarbaijan
	4	Private - Boys	2	West Azarbaijan
	4	Private - Boys	3	Ardabil
	4	Private - Boys	4	Esfahan
	4	Private - Boys	5	Ilam
	4	Private - Boys	6	Busher
	4	Private - Boys	7	Chahar Mahal & Bakhtiari
	4	Private - Boys	8	North Khorasan
	4	Private - Boys	9	South Khorasan
	4	Private - Boys	10	Razavi Khorasan
	4	Private - Boys	11	Khuzestan
	4	Private - Boys	12	Zanjan
	4	Private - Boys	13	Semnan
	4	Private - Boys	14	Sistan & Baluchistan
	4	Private - Boys	15	Tehran City
	4	Private - Boys	16	Tehran Province
	4	Private - Boys	17	Fars
	4	Private - Boys	18	Qazvin
	4	Private - Boys	19	Qom
	4	Private - Boys	20	Kurdistan
	4	Private - Boys	21	Kerman
	4	Private - Boys	22	Kermanshah
	4	Private - Boys	23	Kohkiluyeh & Buyer Ahmad
	4	Private - Boys	24	Golestan
	4	Private - Boys	25	Gilan
	4	Private - Boys	26	Lorestan
	4	Private - Boys	27	Mazandaran
	4	Private - Boys	28	Markazi
	4	Private - Boys	29	Hormozgan
4	Private - Boys	30	Hamadan	
4	Private - Boys	31	Yazd	
Italy	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	2	Piemonte
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	3	Liguria
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	4	Lombardia
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	5	Trentino-Alto Adige
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	6	Veneto
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	7	Friuli-Venezia Giulia
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	8	Emilia-Romagna
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	9	Toscana
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	10	Umbria
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	11	Marche



**Exhibit S4.2: TIMSS Advanced 2008 Sampling Stratification Information - Physics (Continued)**

Countries	Explicit Strata (IDSTRATE)		Implicit Strata (IDSTRATI)		
	Codes	Labels	Codes	Labels	
Italy	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	12	Lazio	
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	13	Abruzzo	
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	14	Molise	
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	15	Campania	
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	16	Puglia	
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	17	Basilicata	
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	18	Calabria	
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	19	Sicilia	
	2	Advanced Mathematics Program and Advanced Mathematics and Physics Program	20	Sardegna	
	3	Advanced Mathematics and Physics Program	1	Valle d'Aosta	
	3	Advanced Mathematics and Physics Program	2	Piemonte	
	3	Advanced Mathematics and Physics Program	4	Lombardia	
	3	Advanced Mathematics and Physics Program	6	Veneto	
	3	Advanced Mathematics and Physics Program	8	Emilia-Romagna	
	3	Advanced Mathematics and Physics Program	9	Toscana	
	3	Advanced Mathematics and Physics Program	10	Umbria	
	3	Advanced Mathematics and Physics Program	11	Marche	
	3	Advanced Mathematics and Physics Program	12	Lazio	
	3	Advanced Mathematics and Physics Program	13	Abruzzo	
	3	Advanced Mathematics and Physics Program	14	Molise	
	3	Advanced Mathematics and Physics Program	15	Campania	
	3	Advanced Mathematics and Physics Program	16	Puglia	
	3	Advanced Mathematics and Physics Program	17	Basilicata	
	3	Advanced Mathematics and Physics Program	18	Calabria	
	3	Advanced Mathematics and Physics Program	19	Sicilia	
	3	Advanced Mathematics and Physics Program	20	Sardegna	
	Lebanon	1	Large Schools	1	Beirut - Private
		1	Large Schools	2	Beirut - Public
1		Large Schools	3	Bekaa - Private	
1		Large Schools	4	Bekaa - Public	
1		Large Schools	5	Mount Lebanon - Private	
1		Large Schools	6	Mount Lebanon - Public	
1		Large Schools	7	Nabatieh - Private	
1		Large Schools	8	Nabatieh - Public	
1		Large Schools	9	North - Private	
1		Large Schools	10	North - Public	
1		Large Schools	11	South - Private	
1		Large Schools	12	South - Public	
2		Small Schools	1	Beirut - Private	
2		Small Schools	2	Beirut - Public	
2		Small Schools	3	Bekaa - Private	
2		Small Schools	4	Bekaa - Public	
2		Small Schools	5	Mount Lebanon - Private	
2		Small Schools	6	Mount Lebanon - Public	

**Exhibit S4.2: TIMSS Advanced 2008 Sampling Stratification Information - Physics (Continued)**

Countries	Explicit Strata (IDSTRATE)		Implicit Strata (IDSTRATI)	
	Codes	Labels	Codes	Labels
Lebanon	2	Small Schools	7	Nabatieh - Private
	2	Small Schools	8	Nabatieh - Public
	2	Small Schools	9	North - Private
	2	Small Schools	10	North - Public
	2	Small Schools	11	South - Private
	2	Small Schools	12	South - Public
Netherlands	1	None	1	None
Norway	2	Physics Classes	1	None
	3	Advanced Mathematics Classes and Physics Classes - 35 or more Physics Students	1	None
	4	Advanced Mathematics Classes and Physics Classes - 20 to 34 Physics Students	1	None
	5	Advanced Mathematics Classes and Physics Classes - 10 to 19 Physics Students	1	None
	6	Advanced Mathematics Classes and Physics Classes - Less than 10 Physics Students	1	None
Russian Federation	.A	Not Available	.A	Not Available
Slovenia	1	Advanced Mathematics Classes and Physics Classes - Many Experts	1	None
	2	Advanced Mathematics Classes and Physics Classes - Few Experts	1	None
Sweden	3	Advanced Mathematics Classes and Physics Classes in Natural Science and Technology Programs	1	None
	4	Advanced Mathematics Classes and Physics Classes in Natural Science Program - Public	1	None
	5	Advanced Mathematics Classes and Physics Classes in Natural Science Program - Private	1	None
	6	Advanced Mathematics Classes and Physics Classes in Technology Program	1	None







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