Exhibit 9.3: Percentages of Students Taught the TIMSS Mathematics Topics*

Reported by Teachers

Country	All Mathematics (17 topics)	Number (8 topics)	Geometric Shapes and Measures (7 topics)	Data Display (2 topics)
Australia	87 (1.0)	89 (0.9)	83 (1.4)	93 (1.6)
Bahrain	86 (1.4)	87 (1.8)	82 (0.6)	90 (3.0)
Belgium (Flemish)	85 (0.7)	97 (0.7)	74 (1.2)	76 (2.6)
Bulgaria	60 (1.0)	63 (0.5)	56 (1.4)	62 (4.0)
Canada	77 (0.8)	80 (0.7)	69 (1.2)	92 (1.2)
Chile	90 (1.2)	94 (1.0)	88 (1.6)	83 (3.0)
Chinese Taipei	75 (1.0)	85 (0.9)	65 (1.2)	72 (3.5)
Croatia	60 (0.7)	61 (0.6)	67 (1.2)	30 (2.8)
Cyprus	83 (0.9)	84 (0.7)	80 (1.4)	89 (2.2)
Czech Republic	66 (1.0)	71 (1.0)	59 (1.4)	69 (3.1)
Denmark	77 (1.0)	78 (1.0)	79 (1.6)	62 (3.3)
England	89 (1.2)	95 (0.8)	85 (1.9)	80 (3.0)
Finland	76 (1.0)	89 (0.9)	58 (2.1)	85 (2.2)
France	75 (1.0)	75 (1.1)	77 (1.4)	71 (2.8)
Georgia	61 (1.5)	65 (1.3)	49 (2.3)	89 (2.2)
Germany	69 (0.8)	67 (1.0)	64 (1.3)	92 (1.7)
Hong Kong SAR	85 (0.9)	94 (0.8)	71 (1.5)	93 (2.1)
Hungary	75 (1.0)	79 (0.6)	68 (1.6)	85 (2.7)
Indonesia	74 (1.4)	89 (1.1)	65 (1.9)	42 (2.7)
Iran, Islamic Rep. of	76 (1.2)	93 (0.7)	60 (1.7)	61 (3.6)
Ireland	81 (1.0)	92 (0.8)	66 (1.7)	94 (1.9)
Italy	80 (1.0)	88 (1.0)	70 (1.6)	83 (2.5)
Japan	76 (1.0)	85 (0.8)	71 (1.2)	62 (3.2)
Jordan	72 (1.3)	89 (1.1)	59 (1.8)	52 (4.1)
Kazakhstan	79 (1.4)	82 (1.4)	80 (1.6)	65 (3.1)
Korea, Rep. of	73 (1.1)	83 (1.2)	60 (1.2)	80 (2.6)
Kuwait	84 (1.0)	90 (0.9)	74 (1.5)	89 (2.3)
Lithuania	81 (1.1)	88 (1.1)	69 (1.7)	95 (1.5)
Morocco	55 (0.9)	59 (1.1)	56 (1.2)	39 (3.1)
Netherlands	r 64 (1.4)	r 70 (1.5)	r 51 (1.8)	r 84 (2.8)
New Zealand	82 (0.9)	87 (0.8)	74 (1.3)	93 (1.4)
Northern Ireland	r 92 (0.9)	r 97 (0.6)	r 85 (1.7)	r 94 (2.7)
Norway (5)	r 74 (1.2)	r 78 (1.4)	r 70 (1.7)	r 74 (3.0)
Oman	91 (0.8)	97 (0.8)	83 (1.2)	96 (1.1)
Poland	58 (1.3)	71 (1.4)	46 (1.4)	47 (3.7)
Portugal	93 (0.5)	96 (0.5)	88 (1.0)	99 (0.4)
Qatar	75 (1.2)	91 (1.1)	57 (1.8)	75 (2.9)
Russian Federation	- -	- -	- -	- -
Saudi Arabia	82 (1.0)	89 (1.0)	73 (1.6)	84 (2.6)
Serbia	73 (0.8)	81 (0.6)	68 (1.0)	63 (3.6)
Singapore	85 (0.5)	100 (0.1)	66 (1.1)	95 (1.0)
Slovak Republic	56 (0.8)	66 (0.7)	44 (1.1)	57 (2.9)
Slovenia	64 (0.8)	70 (1.0)	48 (1.2)	95 (1.1)
South Africa (5)	90 (0.6)	95 (0.5)	82 (1.2)	95 (1.0)
Spain	74 (1.3)	86 (1.3)	58 (2.1)	83 (2.4)
Sweden	56 (1.3)	65 (1.5)	44 (2.0)	63 (4.3)
Turkey	78 (1.3)	84 (1.2)	65 (1.9)	96 (1.5)
United Arab Emirates	80 (0.7)	90 (0.6)	68 (1.3)	83 (2.0)
United States	83 (0.8)	94 (0.6)	69 (1.4)	86 (1.7)
International Avg.	76 (0.2)	83 (0.1)	68 (0.2)	78 (0.4)

SOURCE: IEA's Trends in International Mathematics and Science Study – TIMSS 2015

* Percentage mostly taught before or in the assessment year averaged across topics.

( ) Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

A dash (-) indicates comparable data not available.

An "r" indicates data are available for at least 70% but less than 85% of the students. An "x" indicates data are available for less than 50% of students.

Exhibit 9.3: Percentages of Students Taught the TIMSS Mathematics Topics* (Continued)

Country	All Mathematics (17 topics)	Number (8 topics)	Geometric Shapes and Measures (7 topics)	Data Display (2 topics)
Benchmarking Participants				
Buenos Aires, Argentina	x x	x x	x x	x x
Ontario, Canada	r 80 (1.1)	r 77 (1.3)	r 78 (1.8)	r 99 (0.5)
Quebec, Canada	85 (1.4)	88 (1.4)	79 (1.9)	91 (3.1)
Norway (4)	72 (1.5)	71 (1.6)	74 (2.0)	71 (3.1)
Abu Dhabi, UAE	80 (1.7)	87 (1.2)	72 (2.5)	78 (3.9)
Dubai, UAE	83 (0.6)	92 (0.6)	71 (1.1)	90 (0.9)
Florida, US	r 86 (1.2)	r 97 (0.7)	r 71 (2.5)	r 90 (2.8)

SOURCE: IEA's Trends in International Mathematics and Science Study – TIMSS 2015

TIMSS 2015 Mathematics Topics

A. Number

1) Concepts of whole numbers, including place value and ordering
2) Adding, subtracting, multiplying, and/or dividing with whole numbers
3) Concepts of multiples and factors; odd and even numbers
4) Concepts of fractions
5) Adding and subtracting with fractions, comparing and ordering fractions
6) Concepts of decimals, including place value and ordering, adding and subtracting with decimals
7) Number sentences
8) Number patterns

B. Geometric Shapes and Measures

1) Lines: measuring, estimating length of; parallel and perpendicular lines
2) Comparing and drawing angles
3) Using informal coordinate systems to locate points in a plane
4) Elementary properties of common geometric shapes
5) Reflections and rotations
6) Relationships between two-dimensional and three-dimensional shapes
7) Finding and estimating areas, perimeters, and volumes

C. Data Display

1) Reading and representing data from tables, pictographs, bar graphs, or pie charts
2) Drawing conclusions from data displays