

Exhibit M8.2: Advanced Mathematics Teachers' Formal Education*

Reported by Advanced Mathematics Teachers

Country	Completed Postgraduate University Degree**		Completed Bachelor's Degree or Equivalent but Not a Postgraduate Degree		Did Not Complete Bachelor's Degree	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement
France	75 (2.9)	462 (3.3)	25 (2.9)	460 (4.7)	0 (0.0)	~ ~
Italy	11 (2.0)	388 (18.2)	87 (2.2)	428 (6.4)	2 (0.9)	~ ~
Lebanon	59 (4.1)	529 (3.6)	34 (4.2)	542 (7.3)	7 (1.5)	524 (12.6)
Norway	77 (3.2)	464 (4.7)	22 (3.2)	452 (9.4)	0 (0.0)	~ ~
Portugal	20 (2.8)	483 (5.4)	78 (2.9)	482 (2.9)	2 (0.8)	~ ~
Russian Federation	71 (3.3)	483 (8.0)	29 (3.3)	485 (12.0)	0 (0.0)	~ ~
Russian Federation 6hr+	81 (2.7)	547 (9.2)	19 (2.7)	513 (13.4)	0 (0.0)	~ ~
Slovenia	99 (0.8)	460 (3.5)	1 (0.8)	~ ~	0 (0.0)	~ ~
Sweden	67 (3.5)	436 (4.8)	32 (3.4)	437 (7.2)	2 (0.6)	~ ~
United States _r	73 (4.3)	493 (5.4)	27 (4.3)	464 (13.2)	0 (0.0)	~ ~
International Avg.	61 (1.1)	466 (2.6)	37 (1.1)	469 (3.0)	1 (0.2)	524 (12.6)

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

* Based on countries' categorizations according to UNESCO's International Standard Classification of Education (Operational Manual for ISCED-2011).

** For example, doctorate, master's, or other postgraduate degree.

The Russian Federation 6hr+ results are for a subset of the Russian Federation students. This subset of students are in an Intensive stream that have at least 6 hours of mathematics lessons per week.

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

A tilde (~) indicates insufficient data to report achievement.

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