

Exhibit M6.3: School Supports Advanced Mathematics and Physics Education – Teacher Version

Reported by Advanced Mathematics Teachers

Students were scored according to their teachers' degree of agreement with seven statements on the *School Supports Advanced Mathematics and Physics Education* scale. Students in schools where their teachers reported that the school is **Strongly Supportive** of advanced mathematics and physics education had a score on the scale of at least 11.6, which corresponds to their teachers "agreeing a lot" with four of the seven statements and "agreeing a little" with the other three, on average. Students in schools that are **Less than Supportive** of advanced mathematics and physics education had a score no higher than 7.4, which corresponds to their teachers "disagreeing a little" with four of the seven statements and "agreeing a little" with the other three, on average. All other students attended schools that are **Supportive** of advanced mathematics and physics education.

Country	Strongly Supportive		Supportive		Less than Supportive		Average Scale Score
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Russian Federation 6hr+	62 (4.4)	549 (6.9)	38 (4.4)	525 (18.4)	0 (0.0)	~ ~	12.1 (0.15)
Russian Federation	52 (2.5)	503 (8.6)	48 (2.5)	464 (7.9)	1 (0.5)	~ ~	11.5 (0.11)
Lebanon	46 (3.2)	533 (4.1)	52 (3.3)	532 (5.0)	1 (0.2)	~ ~	11.5 (0.10)
United States ^r	40 (4.0)	487 (11.4)	56 (3.9)	487 (5.5)	4 (1.1)	433 (25.3)	10.9 (0.17)
Norway	28 (6.5)	476 (6.4)	70 (7.1)	456 (5.8)	3 (1.5)	463 (31.0)	10.6 (0.17)
Portugal	24 (3.1)	486 (5.0)	72 (3.5)	482 (3.0)	5 (1.5)	475 (10.1)	10.3 (0.12)
Italy	6 (1.7)	465 (30.4)	69 (3.3)	427 (6.6)	25 (3.2)	406 (14.5)	8.8 (0.13)
France	4 (1.2)	479 (12.0)	87 (2.1)	461 (3.2)	9 (1.7)	459 (6.0)	9.2 (0.08)
Sweden	3 (1.1)	442 (10.8)	77 (3.2)	435 (4.5)	20 (3.3)	436 (8.8)	8.8 (0.11)
Slovenia	2 (0.1)	~ ~	77 (2.7)	466 (4.6)	22 (2.7)	434 (7.4)	8.4 (0.08)
International Avg.	23 (1.1)	484 (4.8)	67 (1.2)	468 (1.8)	10 (0.7)	444 (6.5)	

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

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.

This TIMSS Advanced questionnaire scale was established in 2015 based on the combined response distribution of all countries that participated in TIMSS Advanced 2015. To provide a point of reference for country comparisons, the scale centerpoint of 10 was located at the mean of the combined distribution. The units of the scale were chosen so that 2 scale score points corresponded to the standard deviation of the distribution.

() 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.

