Exhibit M6.2: School Supports Advanced Mathematics and **Physics Education – Principal Version**



2015

TIMSS Advanced

nce Study –

Reported by Principals

Students were scored according to their principals' degree of agreement with seven statements on the School Supports Advanced Mathematics and Physics Education scale. Students in schools where their principals reported that the school is Strongly Supportive of advanced mathematics and physics education had a score on the scale of at least 11.0, which corresponds to their principals "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 6.5, which corresponds to their principals "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
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Scale Score
Russian Federation 6hr+	86 (2.4)	544 (8.6)	14 (2.4)	513 (18.1)	0 (0.0)	~ ~	12.3 (0.13)
Russian Federation	73 (3.2)	494 (7.5)	27 (3.2)	460 (11.2)	0 (0.0)	~ ~	11.8 (0.13)
Norway r	62 (7.2)	474 (6.7)	38 (7.2)	442 (5.3)	0 (0.3)	~ ~	11.3 (0.24)
United States r	47 (5.2)	495 (7.9)	51 (5.2)	481 (8.5)	3 (1.1)	435 (20.9)	10.6 (0.15)
Lebanon	39 (2.5)	536 (4.8)	60 (2.6)	531 (4.0)	2 (0.3)	~ ~	10.6 (0.10)
Portugal	35 (3.7)	483 (3.4)	61 (4.0)	484 (3.3)	4 (1.6)	470 (11.0)	10.2 (0.12)
Italy	21 (4.2)	437 (13.6)	72 (4.6)	417 (8.1)	6 (2.5)	413 (26.9)	9.5 (0.17)
France	8 (2.3)	479 (11.0)	84 (3.4)	460 (3.2)	8 (2.5)	456 (10.0)	8.7 (0.14)
Slovenia	7 (4.4)	505 (44.9)	89 (5.2)	458 (5.2)	4 (2.8)	410 (46.0)	8.9 (0.14)
Sweden	6 (3.0)	456 (13.6)	80 (4.3)	431 (4.6)	13 (3.1)	419 (13.8)	8.6 (0.14)
International Avg.	33 (1.4)	484 (5.8)	62 (1.5)	463 (2.2)	4 (0.6)	434 (10.1)	

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.

How much do you agree with these statements about advanced mathematics and physics education

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.

within your school?				
	Agree a lot	Agree a little	Disagree a little	Disagree a lot
 The school encourages students to study advanced mathematics and physics 	•		-0	O
 The school promotes professional developmer for teachers of advanced mathematics and phy The school provides students with information 	-		_0	—0
about career options in advanced mathematics and physics			-0-	
 The school has initiatives to promote student interest in advanced mathematics and physics (e.g., student clubs, competitions) 			-0	
 The school has partnership initiatives with industry/businesses in advanced mathematics and physics 			_0	
 Advanced mathematics and physics teachers are admired by other teachers in the school 			_0	
 Students at this school respect students who excel in advanced mathematics and physi 	cs ()		_0	
	Strongly Supportive	Supportive	Less than Supporti	-



1SS&PIRLS

Lynch School of Education, Boston College