

Exhibit 5.15: Trends in Student Populations – TIMSS Advanced 2015 – Physics

Country	Years of Formal Schooling*			Average Age at Time of Testing			Overall Exclusion Rates**			Physics Coverage Index			Overall Participation Rates		
	2015	2008	1995	2015	2008	1995	2015	2008	1995	2015	2008	1995	2015	2008	1995
France	12		12	18.0		18.2	4.7%		1.0%	21.5%		19.9%	95%		77%
Italy	13	13		18.9	18.9		0.8%	0.9%		18.2%	3.8%		91%	97%	
Lebanon	12	12		17.8	17.9		1.3%	1.3%		3.9%	5.9%		68%	82%	
Norway	13	12	12	18.8	18.8	19.0	3.4%	0.5%	3.8%	6.5%	6.8%	8.4%	93%	73%	83%
Russian Federation	11	10/11	10	17.7	17.1	16.9	0.4%	0.0%	2.0%	4.9%	2.6%	1.5%	98%	97%	95%
Slovenia	13	12	12	18.8	18.7	18.8	2.0%	0.5%	6.0%	7.6%	7.5%	38.6%	74%	67%	43%
Sweden	12	12	12	18.8	18.8	18.9	2.0%	2.3%	0.2%	14.3%	11.0%	16.3%	89%	89%	89%
United States	12		12	18.1		18.0	0.1%		3.7%	4.8%		2.7%	58%		64%

* Represents years of schooling counting from the first year of ISCED Level 1.

** In 1995 exclusion rates for Physics were computed based on exclusion rates among all students in the final year of schooling. In the case of the Russian Federation, the figure presented in the 1995 International Report (43.0%) greatly overestimates the level of exclusions in the advanced mathematics population. The figure presented above (2.0%) includes two regions, North Ossetia and Chechen Republic, as well as non-Russian speaking students.

The United States adjusted the 1995 sample to correspond with the course-taking definitions used in 2015, and the 1995 results were recomputed.

An empty cell indicates a country did not participate in that year's assessment.