

## Exhibit P1.3: Multiple Comparisons of Average Physics Achievement

Instructions: Read across the row for a country to compare performance with the countries listed along the top of the chart. The symbols indicate whether the average achievement of the country in the row is significantly lower than that of the comparison country, significantly higher than that of the comparison country, or if there is no statistically significant difference between the average achievement of the two countries.

Country	Average Scale Score	Slovenia	Russian Federation	Norway	Portugal	Sweden	United States	Lebanon	Italy	France
Slovenia	531 (2.5)		٥	٥	٥	٥	٥	٥	٥	٥
Russian Federation	508 (7.1)	۲			0	٥	٥	٥	0	0
Norway	507 (4.6)	۲			0	0	0	٥	٥	0
Portugal	467 (4.6)	۲	۲	۲			٥	٥	0	0
Sweden	455 (5.9)	۲	۲	۲				0	0	0
United States	437 (9.7)	۲	۲	۲	۲			٥	0	0
Lebanon	410 (4.5)	۲	۲	۲	۲	۲	۲		٥	0
Italy	374 (6.9)	۲	۲	۲	۲	۲	۲	۲		
France	373 (4.0)	۲	۲	۲	۲	۲	۲	۲		

Average achievement significantly higher than comparison country
Average achievement significantly lower than comparison country

Significance tests were not adjusted for multiple comparisons. Five percent of the comparisons would be statistically significant by chance alone. () Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

