International Achievement in Advanced Mathematics

Average Advanced Mathematics Achievement by Advanced Mathematics Coverage Index*

<table>
<thead>
<tr>
<th>Coverage Index</th>
<th>Average Advanced Mathematics Scale Score</th>
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<tbody>
<tr>
<td>5</td>
<td>550</td>
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<tr>
<td>10</td>
<td>500</td>
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<tr>
<td>15</td>
<td>450</td>
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<tr>
<td>20</td>
<td>400</td>
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</tbody>
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TIMSS Advanced students:
- In final year of secondary education
- Have studied advanced mathematics
- Special tracks/programs — 2 to 6 years

*The TIMSS Advanced Mathematics Coverage Index quantifies the differences across countries in the percentage of students enrolled in advanced programs/tracks.

In today’s technological world, countries need STEM experts. The big question: How many to educate at how high a level?

- The 2% of Russian students in intensive study (6 hours-plus per week) and the 4% of Lebanese students in TIMSS Advanced had the highest achievement
- The Russian Federation, with a total of 10% of its students in TIMSS Advanced, the United States with 11%, and Portugal with 29% (nearly 3 times that of Russia and the U.S.) had the next highest achievement
- Norway (11%), France (22%), and Slovenia (34%) had comparable achievement
- Sweden (14%) and Italy (25%) had comparable achievement

TIMSS Advanced 2015 Reveals Disappointing Trends in Mathematics Achievement

Of the 6 countries with 20-year trend data, France, Italy, and Sweden had lower average achievement in 2015 than in 1995.

Attracting Women to STEM Education Remains a Challenge

More Males than Females were enrolled in Advanced Mathematics programs in 6 countries.

More Males enrolled

6 Countries
France, Sweden, Norway, Italy, Lebanon, the United States

More Females enrolled

2 Countries
Slovenia, Portugal

Males had higher achievement than Females in 6 countries.

Males higher achievement

6 Countries
Russian Federation, Norway, Sweden, France, Slovenia, the United States

Females higher achievement

0 Countries