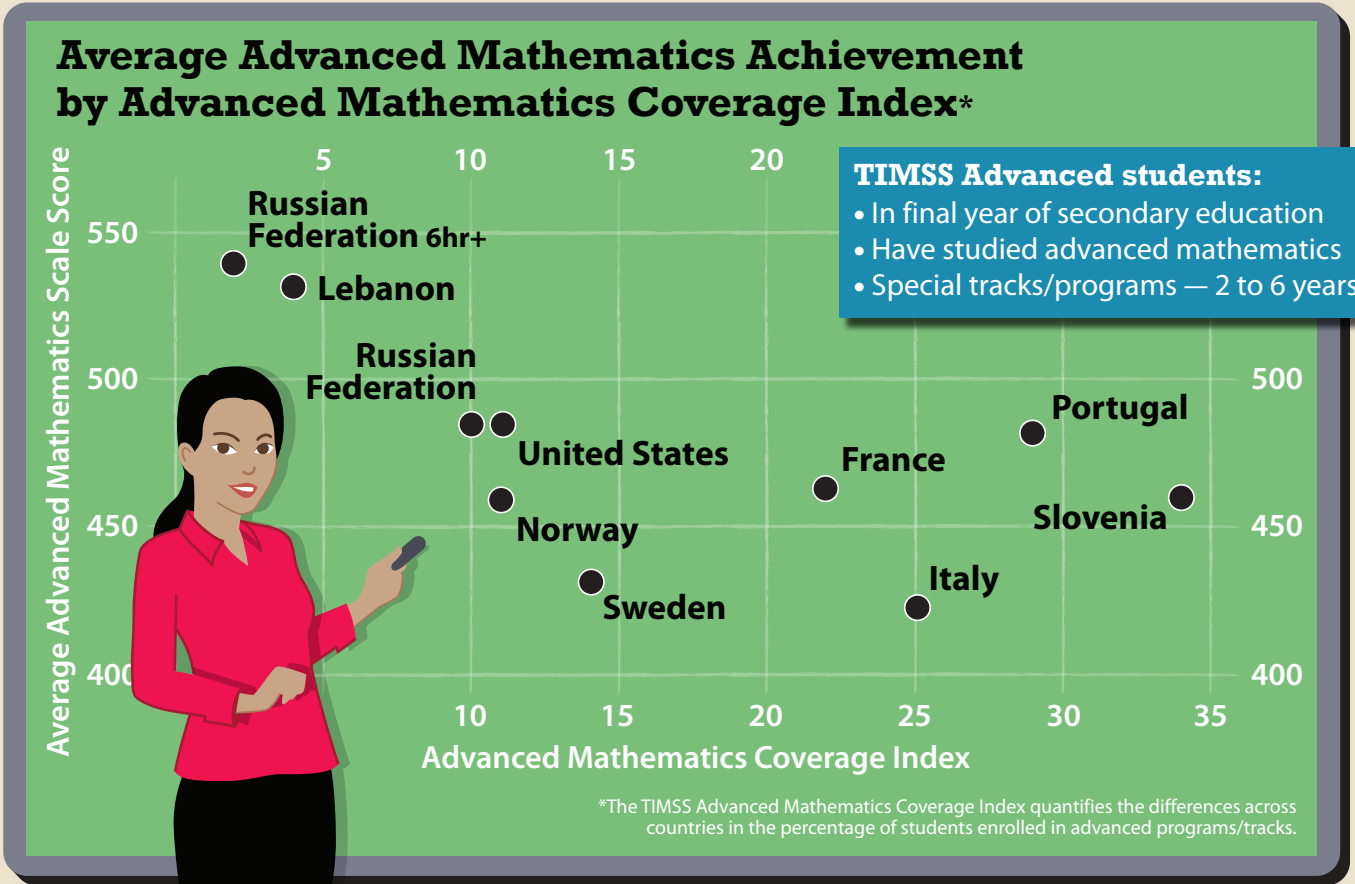


# International Achievement in Advanced Mathematics



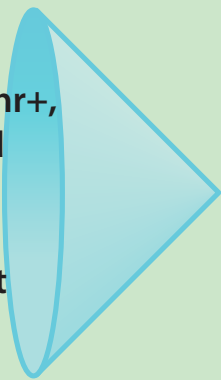
- In today's technological world, countries need STEM experts.  
The big question: How many to educate at how high a level?
- The **2%** of Russian students in intensive study (6 hours-plus per week) and the **4%** of Lebanese students in TIMSS Advanced had the highest achievement
  - The Russian Federation, 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

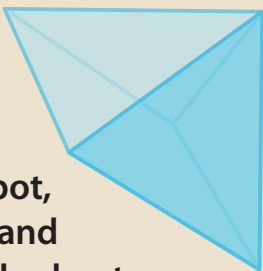
Of the 6 countries with 20-year trend data, France, Italy, and Sweden had lower average achievement in 2015 than in 1995.



The Russian Federation 6hr+, Slovenia, and the United States had no significant difference.



As a bright spot, Norway and Sweden had upturns between 2008 and 2015.



## 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

2

Countries  
Slovenia,  
Portugal

More  
Females  
enrolled

**Males** had higher achievement than **Females** in **6** countries.

Males  
higher  
achievement

6

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

0

Countries

Females  
higher  
achievement