

### **International Mathematics Achievement**

East Asian Countries Widen Global Advantage in Mathematics Achievement at Eighth Grade

TIMSS 2015 Mathematics has achievement results for **39** countries at the eighth grade.

Singapore 621

Korea 666 Chinese Taipei 699

Hong Kong SAR 694 Japan 686

The gap between the East Asian countries and the next highest country was 48 in 2015, increasing from 31 in 2011.

Russian Federation 538
Kazakhstan 528

Canada 527 Ireland 523

England 518 United States 518

Slovenia 616 Hungary 614 Norway 612

Lithuania 11 Israel 11 Australia 505 Sweden 501

Italy 494 Malta 494 New Zealand 493 Malaysia 465

United Arab Emirates 465 Turkey 458 Bahrain 454

Georgia 453 Lebanon 442 Qatar 437 Iran 436 Thailand 431

Chile 427 Oman 403 Kuwait 692 Egypt 392 Botswana 391

Jordan 686 Morocco 684 South Africa 672 Saudi Arabia 688

Please see Exhibit 1.4 for statistically significant differences.

## Trends at Eighth Grade Show Increases in Mathematics Achievement Around the World

**Trends 2011-2015: 34 Countries** 

#### 18 Countries Higher Average Achievement



Bahrain, Chile, Georgia, Iran, Japan, Kazakhstan, Lithuania, Malaysia, Morocco, Norway, Oman, Qatar, Singapore, Slovenia, South Africa, Sweden, United Arab Emirates, the United States

## 13 Countries Same Average Achievement



Australia, Botswana, England, Hong Kong SAR, Hungary, Israel, Italy, Korea, Lebanon, New Zealand, Russian Federation, Thailand, Turkey

### 3 Countries Lower Average Achievement



### **Trends 1995-2015: 16 Countries**

### 9 Countries Higher Averag Achievement



England, Hong Kong SAR, Iran, Korea, Lithuania, Russian Federation, Singapore, Slovenia, the United States

# 4 Countries Same Average Achievement



Australia, Ireland, Japan, New Zealand

# 3 Countries Lower Average Achievement



Hungary, Norway, Sweden

# Little Difference in Mathematics Achievement by Gender

## Of the 39 TIMSS 2015 Countries:

- 26 countries had no difference between girls and boys in higher achievement.
- ullet Girls had higher achievement in  ${f 7}$  countries, with an average difference of  ${f 17}$  points.
- Boys had higher average achievement in 6 countries, with an average achievement of 9 points.













# Mathematics Achievement Trends by Gender Show Little Change

### **Trends 2011-2015: 34 Countries**

For **25** of the **34** countries with comparable data in 2011 and 2015, the gender **gaps did not change**.

- 16 countries had no difference in average mathematics achievement between girls and boys in either 2011 or 2015.
- In 7 countries girls had higher achievement in both assessments compared to 2 countries for boys.

## **Trends 1995-2015: 16 Countries**

- In 1995, boys had higher achievement than girls in 4 countries with an average achievement advantage of 17 points. There was no difference in 12 countries.
- In 2015, boys had higher achievement than girls in **3** countries, with an average achievement advantage of **9** points. Girls had higher achievement in Singapore, with an average achievement advantage of **10** points.



SOURCE: IEA's Trends in International Mathematics and Science Study – TIMSS 2015. http://timss2015.org/download-center/