

# How Do U.S. Students Compare Internationally?

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# Overview of Results

- In 2011, over 50 countries and other education systems participated in international assessments of reading, math, and science.

## Results

- U.S. 4<sup>th</sup>-Graders' Reading and Math Have Improved; Science Remains Unchanged
- U.S. 8<sup>th</sup>-Graders' Math and Science Unchanged
- The highest performing education systems have greater percentages of students at the *Advanced* level than the U.S.

# Who's in the 4<sup>th</sup>-Grade Reading Study?

Progress in International Reading Literacy Study (PIRLS)



In 2011, 53 education systems participated in PIRLS.

U.S. states that participated Independently as well as part of the nation  
Grade 4: Florida

# Who's in the 4<sup>th</sup> and 8<sup>th</sup> -Grade Math and Science Study?

## Trends in International Mathematics and Science Study (TIMSS)



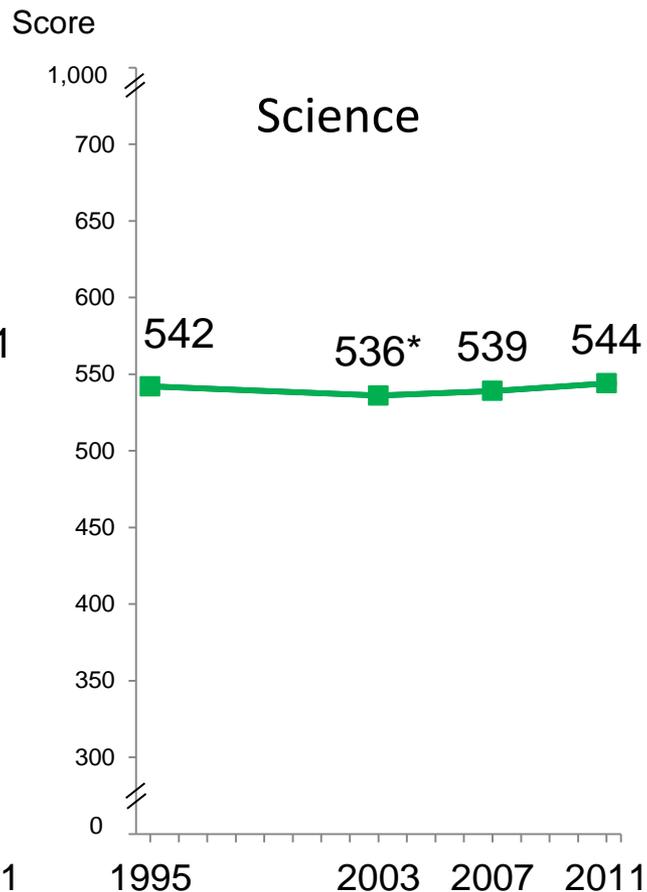
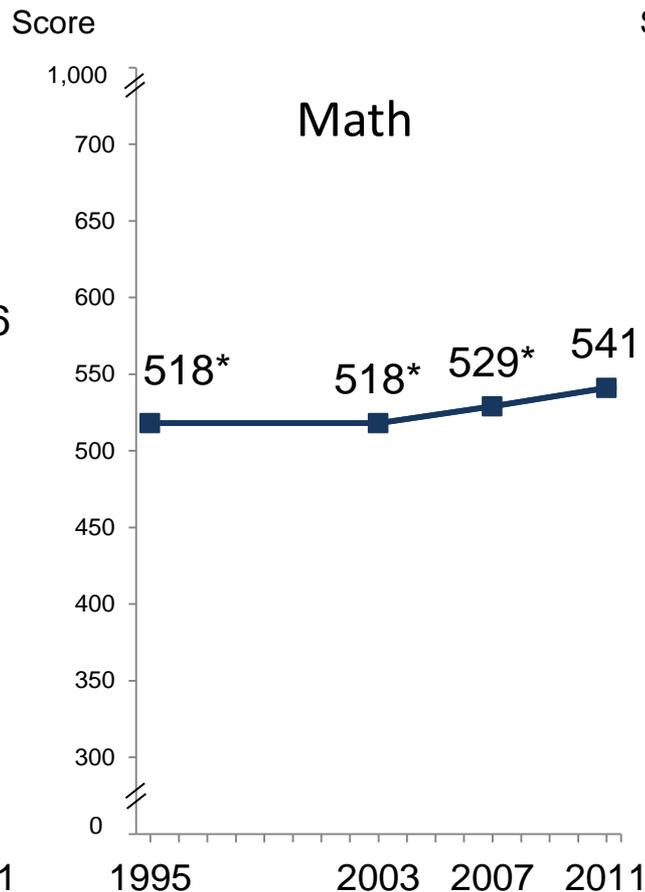
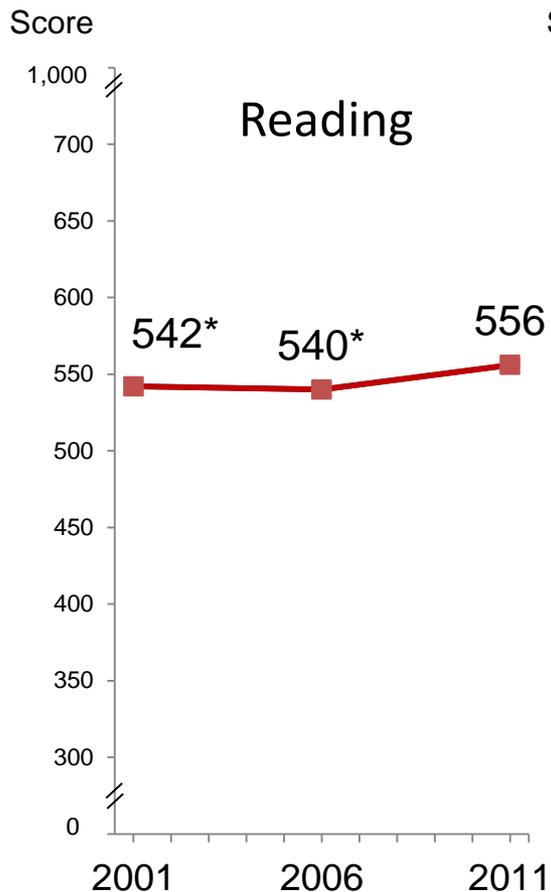
In 2011, 57 education systems participated at grade 4; 56 at grade 8.

U.S. states that participated Independently as well as part of the nation:

Grade 4: FL and NC

Grade 8: AL, CA, CO, CT, FL, IN, MA, MN, and NC

# U.S. 4<sup>th</sup> Graders' Reading and Math Improved; Science Unchanged



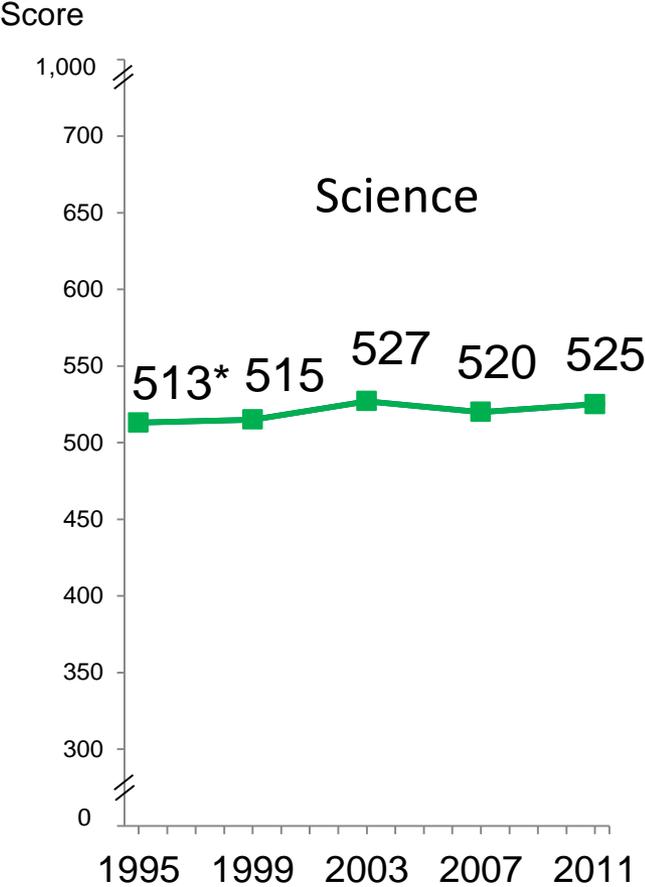
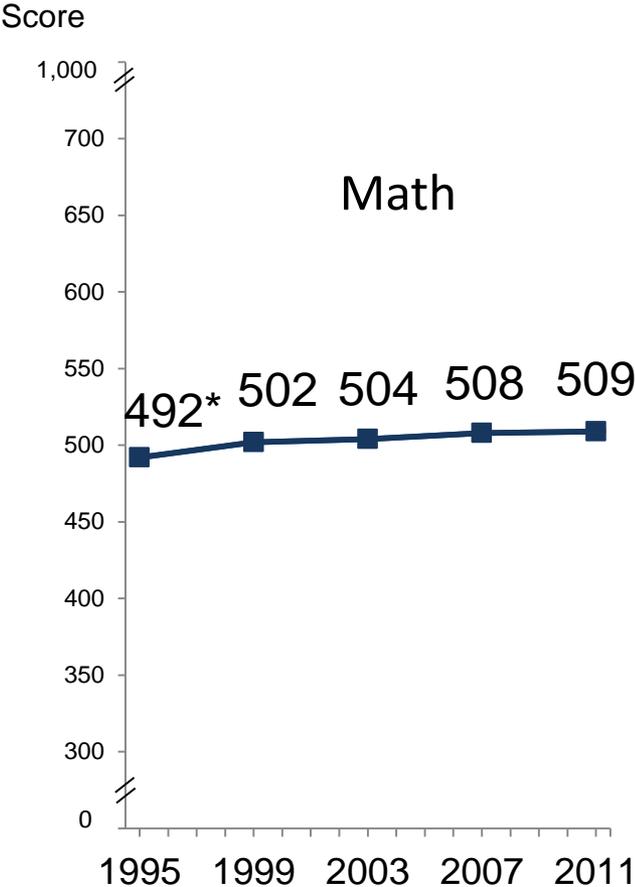
\* $p < .05$ . Score differs from 2011 score.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Progress in International Reading Literacy Study (PIRLS), 2001, 2006, and 2011 and Trends in International Mathematics and Science Study (TIMSS), 1995, 2003, 2007, and 2011.

# Top Systems at Grade 4

Reading	Mathematics	Science
5 systems had higher averages than U.S.	8 systems had higher averages than U.S.	6 systems had higher averages than U.S.
Finland Florida Hong Kong Russian Federation Singapore  (alphabetical order)	Flemish Belgium Chinese Taipei Hong Kong Japan Korea North Carolina Northern Ireland Singapore  (alphabetical order)	Chinese Taipei Finland Japan Korea Russian Federation Singapore  (alphabetical order)

# U.S. 8<sup>th</sup> Graders' Math and Science Unchanged



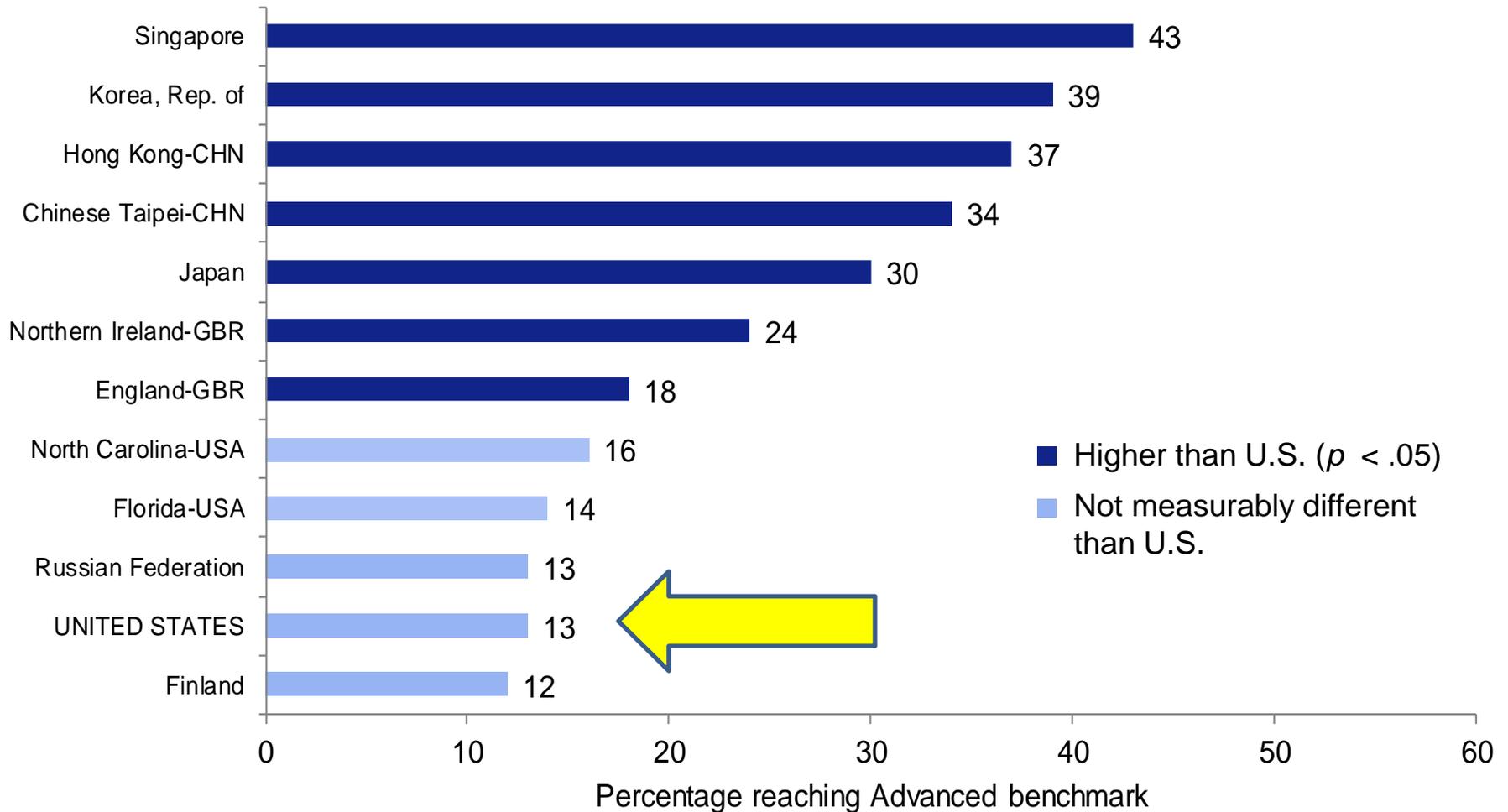
\* $p < .05$ . Score differs from 2011 score.

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 1995, 1999, 2003, 2007, and 2011.

# Top Systems at Grade 8

Mathematics	Science
11 systems had higher averages than U.S.	12 systems had higher averages than U.S.
Chinese Taipei Hong Kong Indiana Japan Korea Massachusetts Minnesota North Carolina Quebec Russian Federation Singapore  (alphabetical order)	Alberta Chinese Taipei Colorado Finland Hong Kong Japan Korea Massachusetts Minnesota Russian Federation Slovenia Singapore  (alphabetical order)

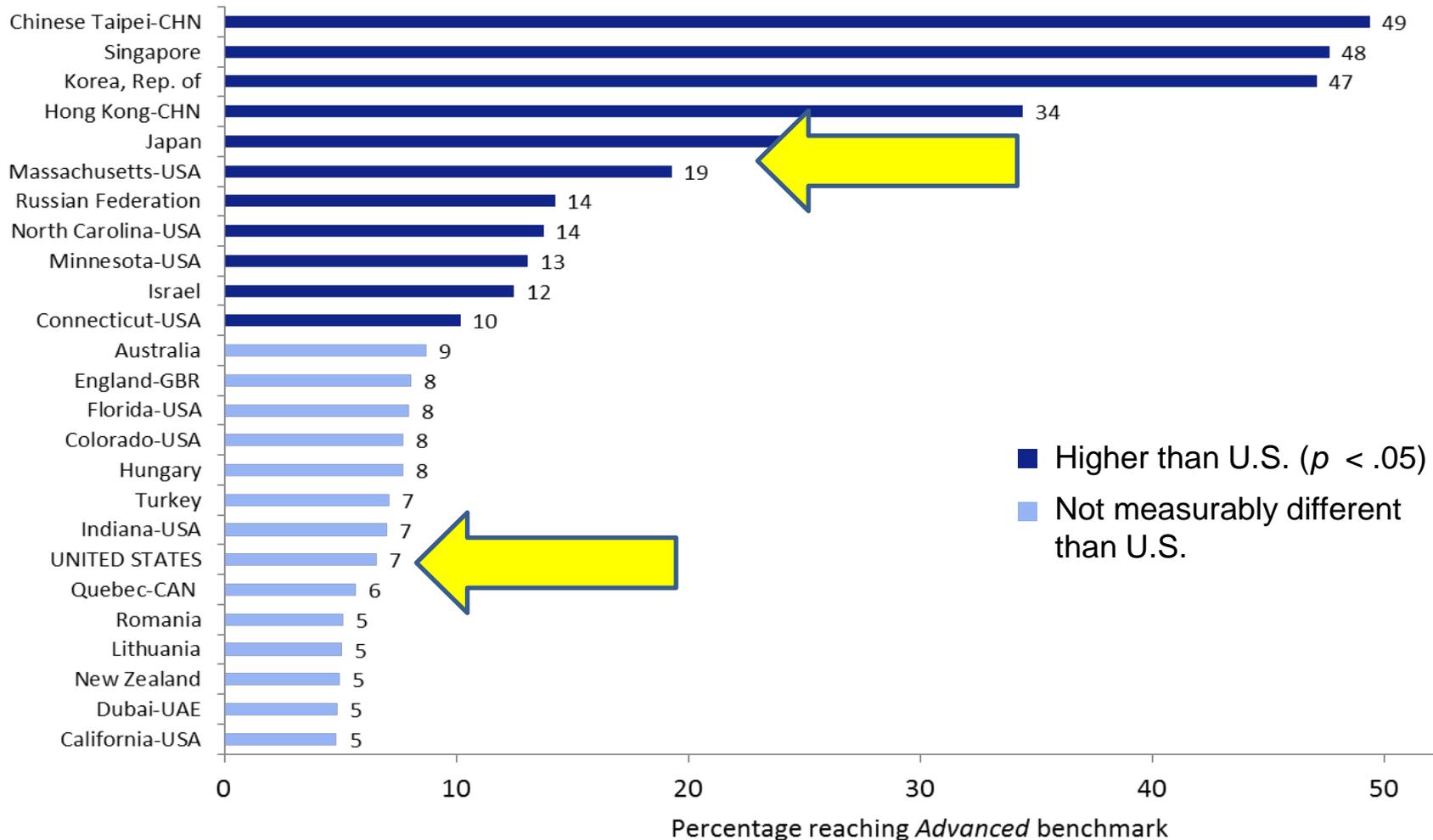
# 7 Systems Had Higher Percentage at Advanced in 4<sup>th</sup>-Grade Math



NOTE: Education systems with lower percentages of students reaching the *Advanced* benchmark than the percentage of U.S. students reaching the *Advanced* benchmark are not included in figure.

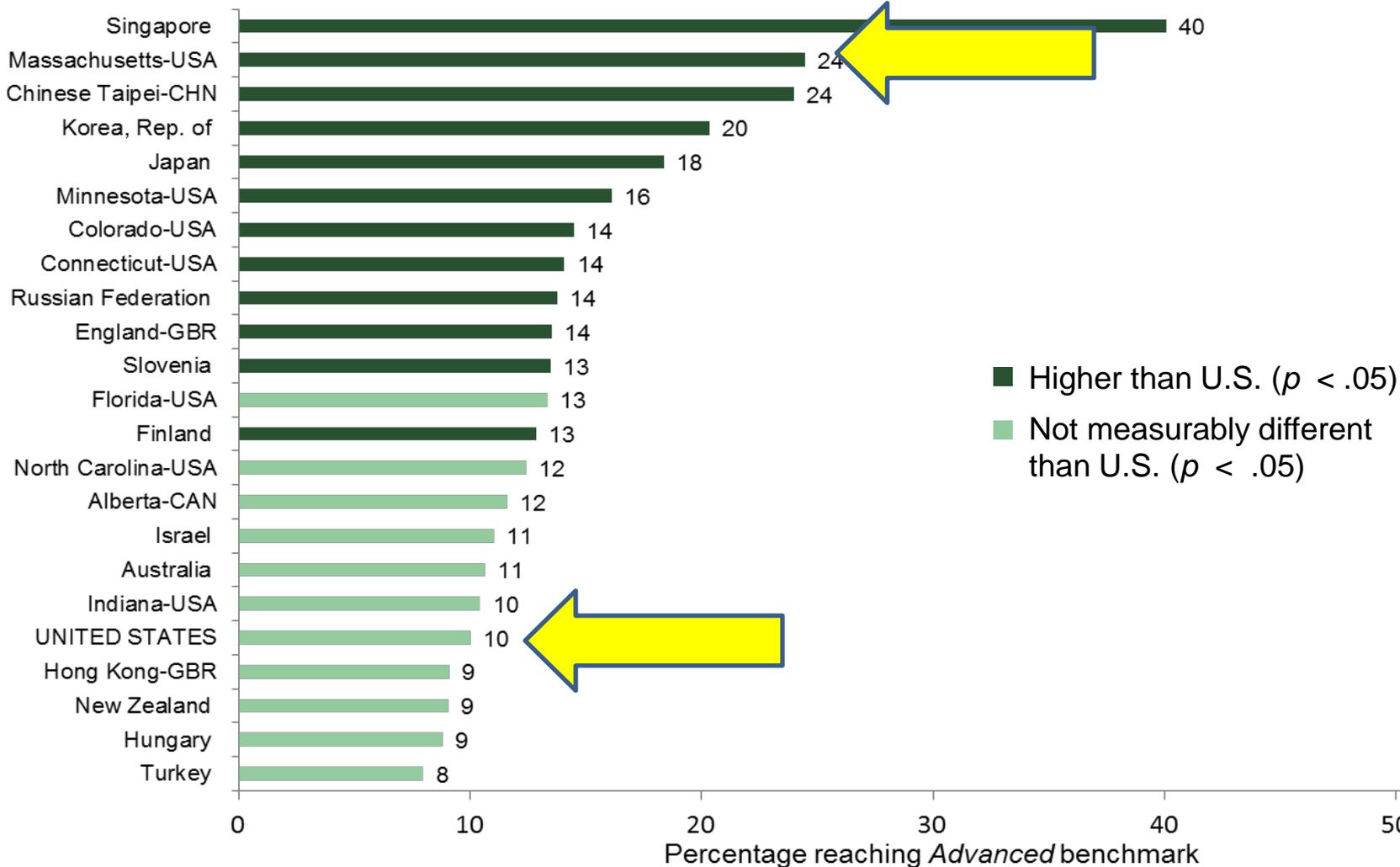
SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2011

# 11 Systems Had Higher Percentage at *Advanced* in 8<sup>th</sup>-Grade Math



NOTE: Education systems with lower percentages of students reaching the *Advanced* benchmark than the percentage of U.S. students reaching the *Advanced* benchmark are not included in figure.  
 SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2011

# 12 Systems Had Higher Percentage at *Advanced* in 8<sup>th</sup>-Grade Science



NOTE: Education systems with lower percentages of students reaching the *Advanced* benchmark than the percentage of U.S. students reaching the *Advanced* benchmark are not included in figure.  
 SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2011

# Next International Assessment Results

Oct. 8:  
PIAAC

- Program for the International Assessment of Adult Competencies
- Assessment of adults ages 16-65
- Literacy, numeracy, problem-solving in technology rich environments

Dec. 3:  
PISA

- Program for International Student Assessment
- Assessment of 15-year-old students
- Mathematics, reading, and science literacy