

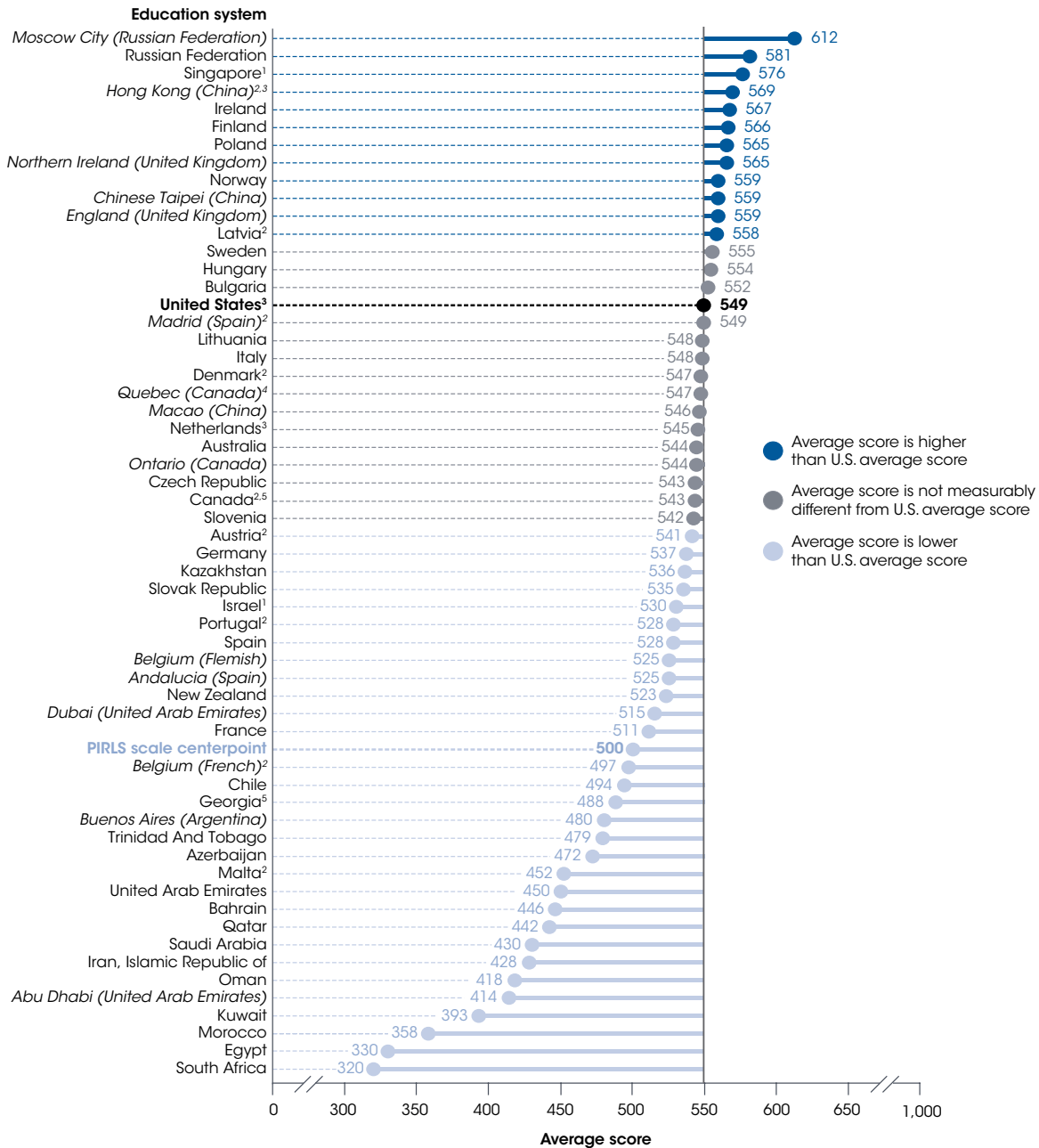
International Comparisons: Reading Literacy at Grade 4

In 2016, the United States, along with 15 other education systems, participated in the new ePIRLS assessment of students' comprehension of online information. The average online informational reading score for fourth-grade students in the United States (557) was higher than the ePIRLS scale centerpoint (500). Only three education systems (Singapore, Norway, and Ireland) scored higher than the United States.

The Progress in International Reading Literacy Study (PIRLS) is an international comparative assessment that evaluates reading literacy at grade 4. The assessment is coordinated by the TIMSS¹ and PIRLS International Study Center at Boston College with the support of the International Association for the Evaluation of Educational Achievement (IEA). PIRLS has been administered every 5 years since 2001. In 2016, there were 58 education

systems that had PIRLS reading literacy data at grade 4.² These 58 education systems included both countries and other benchmarking education systems (portions of a country, nation, kingdom, emirate, or other non-national entity).³ Sixteen of these education systems, including the United States, also administered ePIRLS, a new computer-based extension of PIRLS designed to assess students' comprehension of online information.

Figure 1. Average reading scale scores of fourth-grade students on PIRLS, by education system: 2016



¹ National Defined Population covers less than 90 percent of the National Target Population (but at least 77 percent).

² National Defined Population covers 90 to 95 percent of the National Target Population.

³ Met guidelines for sample participation rates only after replacement schools were included.

⁴ Did not satisfy guidelines for sample participation rates.

⁵ National Target Population does not include all of the International Target Population.

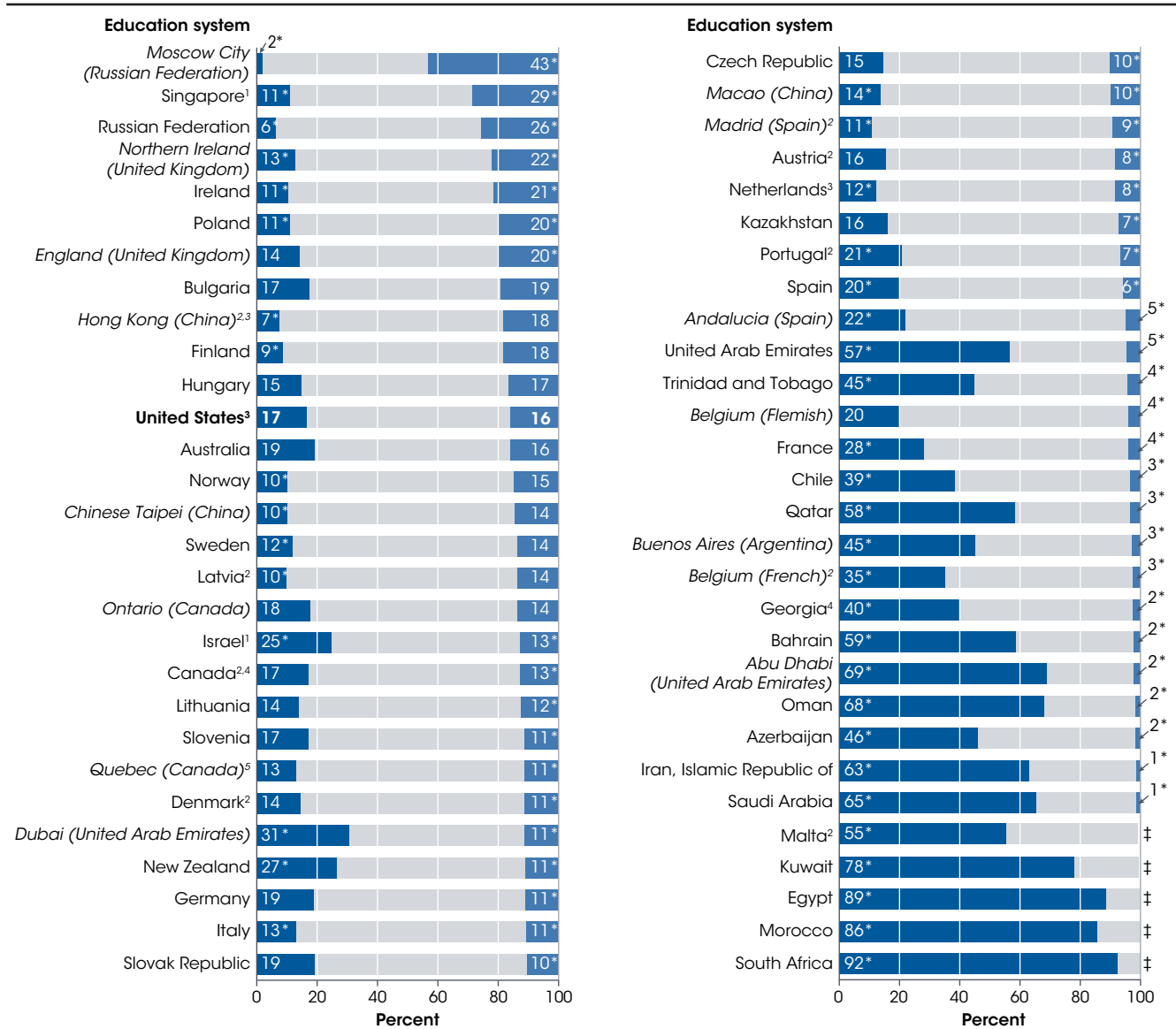
NOTE: Education systems are ordered by PIRLS average scale score. Italics indicate participants identified as a non-national entity that represents a portion of a country. The PIRLS scores are reported on a scale from 0 to 1,000, with the scale centerpoint set at 500 and the standard deviation set at 100. Education systems that did not administer PIRLS at the target grade are not shown. For more information about individual countries and assessment methodology, please see *Methods and Procedures in PIRLS 2016* (<https://timssandpirls.bc.edu/publications/pirls/2016-methods.html>).

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Progress in International Reading Literacy Study (PIRLS), 2016. See *Digest of Education Statistics 2017*, table 602.10.

In 2016, the average reading literacy score for fourth-grade students in the United States (549) was higher than the PIRLS scale centerpoint (500).⁴ The U.S. average score was higher than the average scores of 30 education systems (over half of the participating education systems) and not measurably different from the average scores of

15 education systems. The United States scored lower than 12 education systems: Moscow City (Russian Federation), the Russian Federation, Singapore, Hong Kong (China), Ireland, Finland, Poland, Northern Ireland (United Kingdom), Norway, Chinese Taipei (China), England (United Kingdom), and Latvia.

Figure 2. Percentage of fourth-grade students performing at selected PIRLS international benchmarks in reading, by education system: 2016



■ Low or below
■ Advanced

* $p < .05$. Significantly different from the U.S. percentage.

† Reporting standards not met (too few cases for a reliable estimate).

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³ Met guidelines for sample participation rates only after replacement schools were included.

⁴ National Target Population does not include all of the International Target Population.

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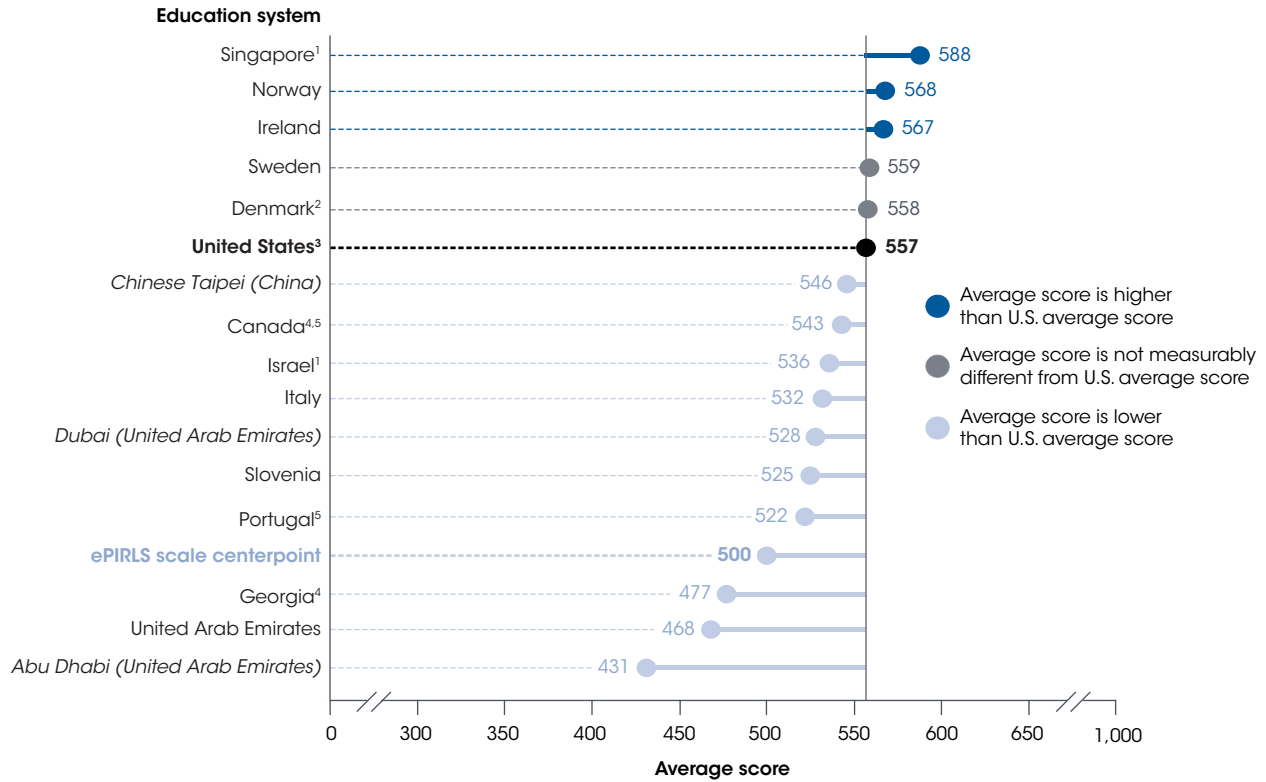
NOTE: Education systems are ordered by the percentage of students reaching the *Advanced* international benchmark. Although rounded numbers are displayed, the figures are based on unrounded data. The PIRLS scores are reported on a scale from 0 to 1,000. PIRLS describes achievement at four international benchmarks along the reading achievement scale: *Low* (400), *Intermediate* (475), *High* (550), and *Advanced* (625). The score cut-points were selected to be as close as possible to the 25th, 50th, 75th, and 90th percentiles. Each successive point, or benchmark, is associated with the knowledge and skills that students successfully demonstrate at each level. Italics indicate participants identified as a non-national entity that represents a portion of a country. Education systems that did not administer PIRLS at the target grade are not shown. For more information about individual countries and assessment methodology, please see *Methods and Procedures in PIRLS 2016* (<https://timssandpirls.bc.edu/publications/pirls/2016-methods.html>).

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Progress in International Reading Literacy Study (PIRLS), 2016. See *Digest of Education Statistics 2017*, table 602.10.

PIRLS describes achievement at four international benchmarks along the reading achievement scale: *Low* (400), *Intermediate* (475), *High* (550), and *Advanced* (625). In 2016, about 16 percent of U.S. fourth-graders reached the *Advanced* benchmark. The percentages of students reaching this benchmark ranged from 1 percent in Saudi Arabia and in the Islamic Republic of Iran to

43 percent in Moscow City (Russian Federation). Seven education systems (Moscow City [Russian Federation], Singapore, the Russian Federation, Northern Ireland [United Kingdom], Ireland, Poland, and England [United Kingdom]) had a higher percentage of fourth-graders who reached the *Advanced* benchmark than the United States did.

Figure 3. Average online informational reading scale scores of fourth-grade students on ePIRLS, by education system: 2016



¹ National Defined Population covers less than 90 percent of the National Target Population (but at least 77 percent).

² Did not satisfy guidelines for sample participation rates.

³ Met guidelines for sample participation rates only after replacement schools were included.

⁴ National Target Population does not include all of the International Target Population.

⁵ National Defined Population covers 90 to 95 percent of the National Target Population.

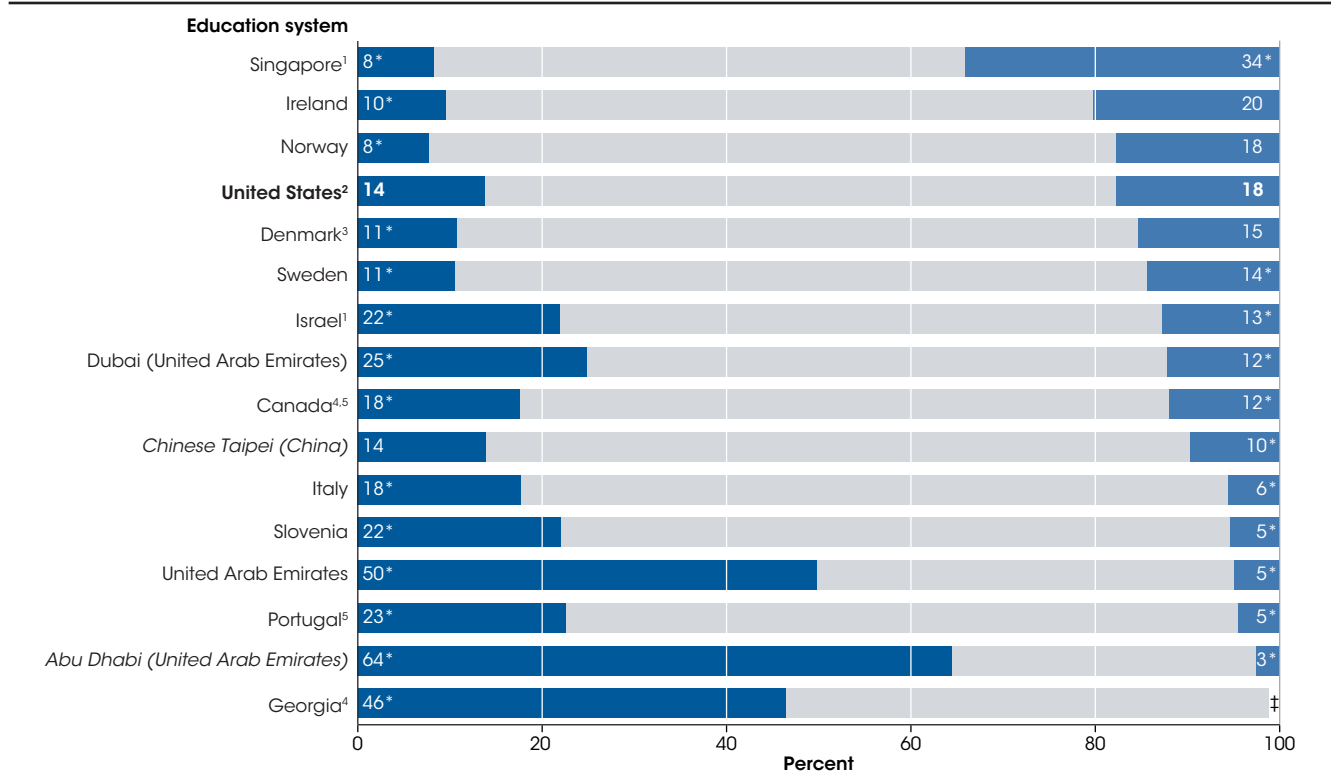
NOTE: Education systems are ordered by ePIRLS average scale score. Italics indicate participants identified as a non-national entity that represents a portion of a country. The ePIRLS scores are reported on a scale from 0 to 1,000, with the scale centerpoint set at 500 and the standard deviation set at 100. For more information about individual countries and assessment methodology, please see *Methods and Procedures in PIRLS 2016* (<https://timssandpirls.bc.edu/publications/pirls/2016-methods.html>).

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Progress in International Reading Literacy Study (PIRLS), 2016. See *Digest of Education Statistics 2017*, table 602.15.

In 2016, the United States, along with 15 other education systems, participated in the new ePIRLS assessment of students' comprehension of online information. The average online informational reading score for fourth-grade students in the United States (557) was higher than the ePIRLS scale centerpoint (500). The U.S. average score

was higher than the average scores of 10 education systems and not measurably different from the average scores of 2 education systems. Only three education systems (Singapore, Norway, and Ireland) scored higher than the United States.

Figure 4. Percentage of fourth-grade students performing at selected ePIRLS international benchmarks in online informational reading, by education system: 2016



■ Low or below
■ Advanced

* $p < .05$. Significantly different from the U.S. percentage.

‡ Reporting standards not met (too few cases for a reliable estimate).

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² Met guidelines for sample participation rates only after replacement schools were included.

³ Did not satisfy guidelines for sample participation rates.

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NOTE: Education systems are ordered by the percentage of students reaching the *Advanced* international benchmark. Although rounded numbers are displayed, the figures are based on unrounded data. The ePIRLS scores are reported on a scale from 0 to 1,000. ePIRLS describes achievement at four international benchmarks along the reading achievement scale: *Low* (400), *Intermediate* (475), *High* (550), and *Advanced* (625). The score cut-points were selected to be as close as possible to the 25th, 50th, 75th, and 90th percentiles. Each successive point, or benchmark, is associated with the knowledge and skills that students successfully demonstrate at each level. Italics indicate participants identified as a non-national entity that represents a portion of a country. For more information about individual countries and assessment methodology, please see *Methods and Procedures in PIRLS 2016* (<https://timssandpirls.bc.edu/publications/pirls/2016-methods.html>).

SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Progress in International Reading Literacy Study (PIRLS), 2016. See *Digest of Education Statistics 2017*, table 602.15.

Similar to PIRLS, ePIRLS also describes achievement at four international benchmarks along the reading achievement scale: *Low* (400), *Intermediate* (475), *High* (550), and *Advanced* (625). In 2016, about 18 percent of U.S. fourth-graders reached the *Advanced* benchmark. The percentages of students reaching this benchmark ranged from 3 percent in Abu Dhabi (United Arab Emirates) to

34 percent in Singapore. Singapore was the only education system with a higher percentage of fourth-graders who reached the *Advanced* benchmark than in the United States. Ireland, Norway, and Denmark had percentages of fourth-graders who reached the *Advanced* benchmark that were not measurably different from the percentage in the United States.

Endnotes:

¹ The Trends in International Mathematics and Science Study (TIMSS) assesses mathematics and science knowledge and skills at grades 4 and 8. For more information on TIMSS, see indicator [International Comparisons: U.S. 4th-, 8th-, and 12th-Graders' Mathematics and Science Achievement](#).

² PIRLS was administered in 61 education systems. However, three education systems did not administer PIRLS at the target grade and are not included in this indicator.

³ The IEA differentiates between IEA members, referred to always as “countries,” and “benchmarking participants.” IEA member countries include both “countries,” which are complete, independent political entities, and “other education systems,” or non-national entities (e.g., England, the Flemish community

of Belgium). Non-national entities that are not IEA member countries (e.g., Abu Dhabi [United Arab Emirates], Ontario [Canada]) are designated as “benchmarking participants.” These benchmarking systems are able to participate in PIRLS even though they may not be members of the IEA. For convenience, the generic term “education systems” is used when summarizing across results.

⁴ PIRLS and ePIRLS scores are reported on a scale from 0 to 1,000, with the scale centerpoint set at 500 and the standard deviation set at 100. The scale centerpoint represents the mean of the overall PIRLS achievement distribution in 2001. The PIRLS scale is the same in each administration; thus a value of 500 in 2016 equals 500 in 2001.

Reference tables: *Digest of Education Statistics 2017*, tables 602.10 and 602.15

Related indicators and resources: [International Comparisons: Science, Reading, and Mathematics Literacy of 15-Year-Old Students](#); [International Comparisons: U.S. 4th-, 8th-, and 12th-Graders' Mathematics and Science Achievement](#); [Reading Performance](#)

Glossary: N/A