

# Illinois

## Grades 4 and 8 Public Schools State Report Mathematics 2022

This report provides selected results for Illinois's public school students at grades 4 and 8 from the 2022 National Assessment of Educational Progress (NAEP) assessment in mathematics. Results are reported by average scale scores and by NAEP achievement levels (*NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced*).

State-level results in mathematics are available for 14 assessment years (at grade 8 in 1990; and at both grades 4 and 8 in 1992, 1996, 2000, 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, 2019, and 2022), although not all states may have participated or met the criteria for reporting in every assessment year. All 50 states, the District of Columbia, Department of Defense Education Activity (DoDEA) schools, and Puerto Rico participated in the 2022 mathematics assessment at grades 4 and 8.

For more information about the assessment, visit the NAEP page of the National Center for Education Statistics (NCES) website at: <https://nces.ed.gov/nationsreportcard/>, which contains

- *The Nation's Report Card™, Mathematics 2022*;
- the full set of national, state, and district results in an interactive database; and
- released test questions, scoring guides, and item-level performance data.

*NAEP is a project of the National Center for Education Statistics (NCES), reporting on the academic achievement of elementary and secondary students in the United States.*

### KEY FINDINGS FOR 2022

#### Grade 4

- In 2022, the average mathematics scale score for fourth-grade students in Illinois was 237. This was not significantly different from that for the nation's public schools (235).
- The average scale score for students in Illinois in 2022 (237) was higher than that in 2000 (223) and was not significantly different from that in 2019 (237).
- In 2022, the percentage of students in Illinois who performed at or above *NAEP Proficient* was 38 percent. This was not significantly different from that for the nation's public schools (35 percent).
- The percentage of students in Illinois who performed at or above *NAEP Proficient* in 2022 (38 percent) was greater than that in 2000 (20 percent) and was not significantly different from that in 2019 (38 percent).
- In 2022, the percentage of students in Illinois who performed at or above *NAEP Basic* was 76 percent. This was not significantly different from that for the nation's public schools (74 percent).
- The percentage of students in Illinois who performed at or above *NAEP Basic* in 2022 (76 percent) was greater than that in 2000 (63 percent) and was not significantly different from that in 2019 (77 percent).

**Grade 8**

- In 2022, the average mathematics scale score for eighth-grade students in Illinois was 275. This was not significantly different from that for the nation's public schools (273).
- The average scale score for students in Illinois in 2022 (275) was higher than that in 1990 (261) and was lower than that in 2019 (283).
- In 2022, the percentage of students in Illinois who performed at or above *NAEP Proficient* was 27 percent. This was not significantly different from that for the nation's public schools (26 percent).
- The percentage of students in Illinois who performed at or above *NAEP Proficient* in 2022 (27 percent) was greater than that in 1990 (15 percent) and was smaller than that in 2019 (34 percent).
- In 2022, the percentage of students in Illinois who performed at or above *NAEP Basic* was 62 percent. This was not significantly different from that for the nation's public schools (60 percent).
- The percentage of students in Illinois who performed at or above *NAEP Basic* in 2022 (62 percent) was greater than that in 1990 (50 percent) and was smaller than that in 2019 (69 percent).

*The U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, and National Assessment of Educational Progress (NAEP) have provided software that generated user-selectable data, statistical significance test result statements, and technical descriptions of the NAEP assessments for this report. Content may be added or edited by states or other jurisdictions. This document, therefore, is not an official publication of the National Center for Education Statistics.*

# Introduction

## What Was Assessed?

The National Assessment of Educational Progress (NAEP) mathematics assessment measures students' knowledge and skills in mathematics and their ability to solve problems in mathematical and real-world contexts. Performance results are reported for the nation overall, for states and jurisdictions, and for 26 districts participating in the Trial Urban District Assessment (TUDA). The 2022 NAEP mathematics assessment was the third digitally based assessment. In 2017, the NAEP mathematics assessment transitioned from a paper-based assessment (PBA) to a digitally based assessment (DBA) at grades 4 and 8. A multi-step process was used for the transition from PBA to DBA, with the careful intent to preserve trend lines that show student performance over time. The process involved administering the assessment in both the DBA and PBA formats to randomly equivalent groups of students and ensured that the results from the 2017 and 2019 mathematics assessments could be compared to results from previous years. The 2022 mathematics DBA continues the mathematics trend line that extends back to 1990 at grade 8 and 1992 at both grades 4 and 8.

## The NAEP Mathematics Assessment Framework

The [National Assessment Governing Board](#) oversees the development of NAEP frameworks that describe the subject-specific knowledge and thinking skills to be assessed in each subject and how the assessment questions should be designed and scored. The [NAEP mathematics assessment framework](#) specifies five broad content areas and three levels of mathematical complexity.

### Mathematics Content Areas

To ensure a balance of content and to allow students to demonstrate a variety of ways of knowing and doing mathematics, the framework specifies assessing fourth- and eighth-grade students in five broad areas of mathematical content. This division into content areas is not intended to separate mathematics into discrete elements, but to provide a helpful classification scheme that describes the full spectrum of mathematical content assessed by NAEP.

- **Number properties and operations** measures students' understanding of ways to represent, calculate, and estimate with numbers.
- **Measurement** assesses students' knowledge, including the use of instruments and the application of processes for attributes such as capacity, length, area, volume, time, angles, and rates.
- **Geometry** measures students' knowledge and understanding of shapes in two and three dimensions and relationships between shapes such as symmetry and transformations.
- **Data analysis, statistics, and probability** measures students' understanding of data representation, characteristics of data sets, experiments and samples, and probability.
- **Algebra** measures students' understanding of patterns, using variables, algebraic representation, and functions.

## Levels of Mathematical Complexity

Each NAEP question assesses an objective that can be associated with one of the mathematics content areas. Each question also makes certain demands on students' thinking. These demands determine the mathematical complexity of an item. Mathematical complexity deals with what the students are asked to do in a question. Incorporating levels of complexity in assessment design allows for a balanced testing of mathematical thinking. The framework describes three levels of mathematical complexity.

- **Low complexity** questions typically specify what a student is to do, which usually involves carrying out a routine mathematical procedure.
- **Moderate complexity** questions involve more flexibility of thinking and often require a response with multiple steps.
- **High complexity** questions make heavier demands on students' thinking and often require abstract reasoning or analysis in a novel situation.

## Assessment Design

Because of the breadth of the content covered in the NAEP mathematics assessment, each student took just a portion of the test, consisting of two 25-minute sections. Most students' testing time was divided evenly between multiple-choice and constructed-response questions. Short constructed-response questions asked students to provide the answer for a numerical problem or to briefly describe the solution to a problem. Longer constructed-response questions required students to write both a solution and its justification, explanation, or interpretation. Released test questions, along with student performance data by state, are available on the NAEP website at <https://nces.ed.gov/nationsreportcard/data/>.

Some questions in the 2022 assessment incorporated the use of calculators (four-function calculators at grade 4 and scientific or graphing calculators at grade 8), rulers, protractors (at grade 8), or manipulatives such as spinners and geometric shapes. Calculator use at all grades was permitted on approximately one-third of the assessment.

## Who Was Assessed?

All 50 states, the District of Columbia, Department of Defense Education Activity (DoDEA) schools, and Puerto Rico participated in the 2022 mathematics assessment at grades 4 and 8. The overall participation rates for schools and students must meet guidelines established by the National Center for Education Statistics (NCES) and the National Assessment Governing Board for assessment results to be reported to the public. A minimum of 85 percent participation is required for schools in each subject and grade combination in NAEP state-level assessment since 2003. Participation rates for the 2022 mathematics assessment are available on the NAEP website at <https://www.nationsreportcard.gov/mathematics/about/samples?anchor=footer&grade=4>.

The schools and students participating in NAEP assessments are selected to be representative both nationally and for public schools at the state level. The comparisons between national and state results in this report present the performance of public school students only. In NAEP reports, the category "nation (public)" does not include DoDEA or Bureau of Indian Education (BIE) schools.

## How Is Student Mathematics Performance Reported?

The 2022 state results are compared to results from 12 earlier assessments at grade 4 and from 13 earlier assessments at grade 8.

**Scale Scores:** Student performance is reported as an average scale score based on the NAEP mathematics scale, which ranges from 0 to 500 for grades 4 and 8. Because NAEP scales are developed independently for each subject and for each content area within a subject, the scores cannot be compared across subjects or across content areas within the same subject. Results are also reported at five percentiles (10th, 25th, 50th, 75th, and 90th) to show trends in performance for lower-, middle-, and higher-performing students.

**NAEP Achievement Levels:** NAEP achievement levels are performance standards that describe what students should know and be able to do. Results are reported as percentages of students performing at or above three achievement levels (*NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced*). Students performing at or above the *NAEP Proficient* level on NAEP assessments demonstrate solid academic performance and competency over challenging subject matter. It should be noted that the *NAEP Proficient* achievement level does not represent grade-level proficiency as determined by other assessment standards (e.g., state or district assessments).

### Interpreting the Results

NAEP achievement-level setting is based on the judgments of a broadly representative panel of teachers, education specialists, and members of the general public. The authorizing legislation for NAEP requires that the achievement levels be used on a trial basis until the Commissioner of the National Center for Education Statistics (NCES) determines that the achievement levels are reasonable, valid, and informative to the public (20 USC § 9622(e)(2)(C)). The NCES Commissioner's determination is to be based on a congressionally mandated, rigorous, and independent evaluation. The latest evaluation of the achievement levels was conducted by a committee convened by the National Academies of Sciences, Engineering, and Medicine in 2016. The evaluation concluded that further evidence should be gathered to determine whether the achievement levels are reasonable, valid, and informative. Accordingly, the NCES Commissioner determined that the trial status of the achievement levels should be maintained at this time. Read more about how [NAEP achievement levels](#) are set. In 2018, the National Assessment Governing Board issued a revised Policy Statement clarifying that the *NAEP Proficient* level is not intended to reflect grade-level performance expectations but is specific to performance on NAEP assessments. Read the [Governing Board Policy Statement here](#).

- *NAEP Basic*, one of the three NAEP achievement levels, denoting partial mastery of prerequisite knowledge and skills that are fundamental for performance at the *NAEP Proficient* level. NAEP also reports the proportion of students whose scores place them below the *NAEP Basic* achievement level.
- *NAEP Proficient*, one of the three NAEP achievement levels, representing solid academic performance for each NAEP assessment. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter.
- *NAEP Advanced*, one of the three NAEP achievement levels, denoting superior performance beyond *NAEP Proficient*.

The NAEP achievement levels are cumulative; therefore, students performing at the *NAEP Proficient* level also display the competencies associated with the *NAEP Basic* level, and students at the *NAEP Advanced* level demonstrate the competencies associated with both the *NAEP Basic* and the *NAEP Proficient* levels.

As provided by law, NCES, upon review of congressionally mandated evaluations of NAEP, has determined that NAEP achievement levels are to be used on a trial basis and should be interpreted with caution. The NAEP achievement levels have been widely used by national and state officials. The mathematics NAEP achievement-level descriptions are summarized in figures 1-A and 1-B.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Figure 1-A. Descriptions of fourth-grade NAEP achievement levels for 2022 NAEP mathematics assessment**

**NAEP Basic Level (214)** *Fourth-grade students performing at the NAEP Basic level should show some evidence of understanding the mathematical concepts and procedures in the five NAEP content areas.*

Fourth-graders performing at the *NAEP Basic* level should be able to estimate and use basic facts to perform simple computations with whole numbers, show some understanding of fractions and decimals, and solve some simple real-world problems in NAEP content areas. Students at this level should be able to use—although not always accurately—four-function calculators, rulers, and geometric shapes. Their written responses are often minimal and presented without supporting information.

**NAEP Proficient Level (249)** *Fourth-grade students performing at the NAEP Proficient level should consistently apply integrated procedural knowledge and conceptual understanding to problem solving in the five NAEP content areas.*

Fourth-graders performing at the *NAEP Proficient* level should be able to use whole numbers to estimate, compute, and determine whether results are reasonable. They should have a conceptual understanding of fractions and decimals, be able to solve real-world problems in NAEP content areas, and use four-function calculators, rulers, and geometric shapes appropriately. Students performing at the *NAEP Proficient* level should employ problem-solving strategies such as identifying and using appropriate information. Their written solutions should be organized and presented both with supporting information and explanations of how they were achieved.

**NAEP Advanced Level (282)** *Fourth-grade students performing at the NAEP Advanced level should apply integrated procedural knowledge and conceptual understanding to complex and nonroutine real-world problem solving in the five NAEP content areas.*

Fourth-graders performing at the *NAEP Advanced* level should be able to solve complex and nonroutine real-world problems in all NAEP content areas. They should display mastery in the use of four-function calculators, rulers, and geometric shapes. These students are expected to draw logical conclusions and justify answers and solution processes by explaining why, as well as how, they were achieved. They should go beyond the obvious in their interpretations and be able to communicate their thoughts clearly and concisely.

NOTE: The scores in parentheses in the shaded boxes indicate the lowest point on the 0 to 500 scale at which the NAEP achievement-level range begins.

SOURCE: National Assessment Governing Board. (2018). *Mathematics Framework for the 2019 National Assessment of Educational Progress*. Washington, DC.

## THE NATION'S REPORT CARD 2022 STATE ASSESSMENT

**Figure 1-B. Descriptions of eighth-grade NAEP achievement levels for 2022 NAEP mathematics assessment**

**NAEP Basic Level (262)** Eighth-grade students performing at the NAEP Basic level should exhibit evidence of conceptual and procedural understanding in the five NAEP content areas. This level of performance signifies an understanding of arithmetic operations—including estimation—on whole numbers, decimals, fractions, and percents.

Eighth-graders performing at the *NAEP Basic* level should complete problems correctly with the help of structural prompts such as diagrams, charts, and graphs. They should be able to solve problems in NAEP content areas through the appropriate selection and use of strategies and technological tools—including calculators, computers, and geometric shapes. Students at this level also should be able to use fundamental algebraic and informal geometric concepts in problem solving.

As they approach the *NAEP Proficient* level, students at the *NAEP Basic* level should be able to determine which of the available data are necessary and sufficient for correct solutions and use them in problem solving. However, these eighth-graders show limited skill in communicating mathematically.

**NAEP Proficient Level (299)** Eighth-grade students performing at the NAEP Proficient level should apply mathematical concepts and procedures consistently to complex problems in the five NAEP content areas.

Eighth-graders performing at the *NAEP Proficient* level should be able to conjecture, defend their ideas, and give supporting examples. They should understand the connections among fractions, percents, decimals, and other mathematical topics such as algebra and functions. Students at this level are expected to have a thorough understanding of *NAEP Basic* level arithmetic operations—an understanding sufficient for problem solving in practical situations.

Quantity and spatial relationships in problem solving and reasoning should be familiar to them, and they should be able to convey underlying reasoning skills beyond the level of arithmetic. They should be able to compare and contrast mathematical ideas and generate their own examples. These students should make inferences from data and graphs, apply properties of informal geometry, and accurately use the tools of technology. Students at this level should understand the process of gathering and organizing data and be able to calculate, evaluate, and communicate results within the domain of statistics and probability.

**NAEP Advanced Level (333)** Eighth-grade students performing at the NAEP Advanced level should be able to reach beyond the recognition, identification, and application of mathematical rules in order to generalize and synthesize concepts and principles in the five NAEP content areas.

Eighth-graders performing at the *NAEP Advanced* level should be able to probe examples and counterexamples in order to shape generalizations from which they can develop models. Eighth-graders performing at the *NAEP Advanced* level should use number sense and geometric awareness to consider the reasonableness of an answer. They are expected to use abstract thinking to create unique problem-solving techniques and explain the reasoning processes underlying their conclusions.

NOTE: The scores in parentheses in the shaded boxes indicate the lowest point on the 0 to 500 scale at which the NAEP achievement-level range begins.

SOURCE: National Assessment Governing Board. (2018). *Mathematics Framework for the 2019 National Assessment of Educational Progress*. Washington, DC.



## Assessing Students With Disabilities and/or English Learners

Testing accommodations, such as extra testing time or individual (rather than group) administration, are provided for students with disabilities (SD) and/or English learners (EL) who could not fairly and accurately demonstrate their abilities without modified test administration procedures. In 1996, administration procedures were introduced at the national level allowing certain accommodations for students requiring such accommodations to participate.

In state NAEP mathematics assessments prior to 2000, no testing accommodations or adaptations were permitted for SD and/or EL students. In 2000, NAEP was administered using a split sample of schools—one sample in which accommodations were permitted for SD and/or EL students who normally received them and another sample in which accommodations were not permitted. Therefore, there were two different sets of results available for 2000, and both are shown in the tables in this report. Please note that bullet statements only reference the results from the 2000 assessment where accommodations were permitted. Results for the assessment years when accommodations were not permitted in state NAEP assessments (1990, 1992, 1996) are reported in the same tables as the results when accommodations were permitted (2000, 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, 2019, and 2022).

## 2022 NAEP Mathematics Digitally Based Assessment

The 2022 NAEP mathematics digitally based assessment was designed to continue reporting trends in student performance dating back to 1990, while keeping pace with the new generation of classroom environments in which digital technology has become an increasing part of students' learning. The 2022 assessment content was developed with the same [mathematics framework](#) used to develop the 2009 through 2015 paper-based assessments and the 2017 and later digitally based assessments. More information about the paper-to-digital transition can be found [here](#).

The assessment was administered on tablet computers supplied by NCES using a secure, local NAEP network. This allowed the NAEP administrators to create a stable administration environment that would not be influenced by school-based equipment or school internet connectivity, thereby maintaining consistency across the assessed schools. Students were able to interact with the tablets via the touchscreen, with an attached keyboard, or using a stylus provided by NCES. The digitally based mathematics assessment provided students with a variety of onscreen tools, including an equation editor for entering numbers and expressions using the correct mathematical symbols; a scratchwork tool for annotating figures, performing computations, drawing diagrams, and highlighting portions of a question; and a calculator. At the beginning of the assessment session, students viewed an [interactive tutorial](#) that provided the information needed to take the assessment on a tablet; for example, it explains how to progress through questions, how to indicate answers for multiple choice questions, and how to use onscreen tools effectively when answering questions. The interactive nature of the tutorial allowed students to familiarize themselves with the digital delivery system before beginning the actual assessment. See how the [mathematics digitally based assessment](#) was presented to students.

After the administration of the assessment, the National Center for Education Statistics (NCES) conducted rigorous analyses of the data and aligned the 2022 results to previous assessment years. The usual NAEP procedure of common item linking was used to calculate the trend line from 2022 to 2019. This kind of linking was appropriate because all of 2022 assessment questions were also administered in 2019 and most showed the same statistical properties.

## Interpreting the Results

The scores and percentages in this report are estimates based on samples of students rather than on entire populations. In addition, the collection of questions used at each grade level is only a sample of the many questions that could have been asked to assess the skills and abilities described in the NAEP framework. Comparisons over time or between groups are based on statistical tests that consider both the size of the differences and the standard errors of the two statistics being compared. Standard errors are margins of error, and estimates based on smaller groups are likely to have larger margins of error. The size of the standard errors may also be influenced by other factors such as how representative the assessed students are of the entire population. Statistical tests that factor in these standard errors are used to determine whether the differences between average scale scores or percentages are significant. All differences were tested for statistical significance at the .05 level using unrounded numbers.

NAEP sample sizes have increased since 2002 compared to previous years, resulting in smaller standard errors. As a consequence, smaller differences are detected as statistically significant than were detected in previous assessments. In addition, estimates based on smaller groups are likely to have relatively large standard errors. Thus, some seemingly large differences may not be statistically significant. That is, it cannot be determined whether these differences are due to sampling error, or to true differences in the population of interest.

Differences between scores or percentages are discussed in this report only when they are significant from a statistical perspective. Significant differences between 2022 and prior assessments are marked with a notation (\*) in the tables. Any differences in scores within a year or across years that are mentioned in the text as "higher," "lower," "greater," or "smaller" are statistically significant.

Score or percentage differences or gaps cited in this report are calculated based on differences between unrounded numbers. Therefore, the reader may find that the score or percentage difference cited in the text or tables may not be identical to the difference obtained from subtracting the rounded values shown in the accompanying tables or figures.

The reader is cautioned against making simple causal inferences between student performance and the other variables (e.g., race/ethnicity, gender, and type of school location) discussed in this report. A statistically significant relationship between a variable and measures of student performance does not imply that the variable causes differences in how well students perform. The relationship may be influenced by a number of other variables not accounted for in this report, such as family income, parental involvement, or student attitudes.

## NAEP 2022 Mathematics Overall Average Score and NAEP Achievement-Level Results for Public School Students

Overall mathematics results for public school students from Illinois are reported in this section, as well as regional and national results. The regions defined by the U.S. Census Bureau are Northeast, South, Midwest, and West (<https://nces.ed.gov/nationsreportcard/hsts/tabulations/regions.asp>). Trend data by region are not provided for assessment years prior to 2003.

Prior to 2000, testing accommodations were not provided for SD and/or EL students in NAEP state mathematics assessments. For 2000, results are displayed for both the sample in which accommodations were permitted and the sample in which they were not permitted. Subsequent assessment results were based on the more inclusive samples. In the text of this report, comparisons to 2000 results refer only to the sample in which accommodations were permitted.

### Overall Average Scale Score Results

Student performance is reported as an average scale score based on the NAEP mathematics scale, which ranges from 0 to 500 for grades 4 and 8.

Tables 1-A and 1-B show the overall performance results of grades 4 and 8 public school students in Illinois, the nation, and the region. Prior to 2003, the list of states that comprise a given region for NAEP differed from the list used by the U.S. Census Bureau, which has been used in NAEP from 2003 onward. Therefore, the data for the state's region are given only since 2003. The first column of results presents the average scale score on the NAEP mathematics scale. The remaining columns show the scores at selected percentiles. Percentiles indicate the percentages of students whose scores fell at or below a particular score. For example, the 25th percentile defines the cut point for the lowest 25 percent of students within the distribution of scale scores.

### *Grade 4 Average Scale Score Results*

- In 2022, the average scale score for students in Illinois was 237. This was not significantly different from that for students across the nation (235).
- In Illinois, the average scale score for students in 2022 was not significantly different from that in 2019 (237). However, the average scale score for students in public schools across the nation in 2022 was lower than that in 2019 (240).
- In Illinois, the average scale score for students in 2022 was higher than the scores in 2000, 2003, and 2005. However, it was not significantly different from the scores in 2007, 2009, 2011, 2013, 2015, 2017, and 2019.

**Grade 8 Average Scale Score Results**

- In 2022, the average scale score for students in Illinois was 275. This was not significantly different from that for students across the nation (273).
- In Illinois, the average scale score for students in 2022 was lower than that in 2019 (283). Similarly, the average scale score for students in public schools across the nation in 2022 was lower than that in 2019 (281).
- In Illinois, the average scale score for students in 2022 was higher than the score in 1990. However, it was lower than the scores in 2007, 2009, 2011, 2013, 2015, 2017, and 2019.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 1-A. Average scale scores and selected percentile scores in NAEP mathematics for fourth-grade public school students, by year and jurisdiction: Various years, 2000–2022**

Year and jurisdiction		Average scale score	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile
2000 <sup>1</sup>	Nation (public)	226*	185*	206*	228*	249*	265*
	Illinois	225*	186*	205*	227*	246*	262*
2000	Nation (public)	224*	183*	203*	225*	247*	264*
	Illinois	223*	184*	202*	225*	244*	261*
2003	Nation (public)	234	196*	215*	235*	254*	270*
	Midwest <sup>2</sup>	237	199*	218*	238	256*	272*
	Illinois	233*	192	212	234*	255*	272*
2005	Nation (public)	237*	199*	219*	239*	257*	272*
	Midwest <sup>2</sup>	239*	201*	221*	241	259*	274*
	Illinois	233*	192	213	235	255*	271*
2007	Nation (public)	239*	201*	221*	241*	259	274*
	Midwest <sup>2</sup>	242*	204*	224*	244*	261	276*
	Illinois	237	198*	218	239	258	274
2009	Nation (public)	239*	201*	221*	241*	259	275*
	Midwest <sup>2</sup>	241*	204*	223*	243*	261	277*
	Illinois	238	198	219	240	259	276
2011	Nation (public)	240*	202*	222*	242*	260*	276
	Midwest <sup>2</sup>	242*	204*	224*	244*	262	277
	Illinois	239	199	219*	240	260	277
2013	Nation (public)	241*	202*	222*	243*	262*	278
	Midwest <sup>2</sup>	243*	203*	224*	245*	264*	280
	Illinois	239	197	218	240	261	279
2015	Nation (public)	240*	201*	221*	241*	260*	277
	Midwest <sup>2</sup>	242*	202*	222*	243*	262*	279
	Illinois	237	195	216	238	260	278
2017	Nation (public)	239*	197*	219*	241*	261*	279*
	Midwest <sup>2</sup>	241*	199*	220*	243*	263*	281*
	Illinois	238	194	215	239	262	280
2019	Nation (public)	240*	198*	220*	242*	262*	279*
	Midwest <sup>2</sup>	241*	198*	220*	243*	263*	280
	Illinois	237	194	217	240	261	279
2022	Nation (public)	235	190	213	236	258	277
	Midwest <sup>2</sup>	237	191	215	239	260	279
	Illinois	237	192	215	238	260	280

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2022.

<sup>1</sup> Accommodations were not permitted for this assessment.

<sup>2</sup> Region in which jurisdiction is located. Regional data are not provided for years prior to 2003 to be consistent with the U.S. Census Bureau defined regions.

NOTE: The NAEP grade 4 mathematics scale ranges from 0 to 500. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–2022 Mathematics Assessments.

## THE NATION'S REPORT CARD 2022 STATE ASSESSMENT

Table 1-B. Average scale scores and selected percentile scores in NAEP mathematics for eighth-grade public school students, by year and jurisdiction: Various years, 1990–2022

Year and jurisdiction		Average scale score	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile
1990 <sup>1</sup>	Nation (public)	262*	214*	237*	263*	288*	307*
	Illinois	261*	212*	237*	262*	286*	306*
2000 <sup>1</sup>	Nation (public)	274	225	250*	276*	300	321*
	Illinois	277	233	254*	278	301	319*
2000	Nation (public)	272	221	247	274	299	320*
	Illinois	275	227	253*	277	300	318*
2003	Nation (public)	276*	228*	253*	278*	301*	321*
	Midwest <sup>2</sup>	281*	235*	259*	283*	305*	324
	Illinois	277	228	252*	279*	303	324
2005	Nation (public)	278*	230*	254*	279*	303*	323
	Midwest <sup>2</sup>	281*	235*	259*	283*	306*	325
	Illinois	278	230	254*	280*	302	322
2007	Nation (public)	280*	234*	257*	281*	305*	325*
	Midwest <sup>2</sup>	283*	238*	261*	285*	308*	327
	Illinois	280*	235*	257*	281*	305	326
2009	Nation (public)	282*	235*	258*	283*	307*	328*
	Midwest <sup>2</sup>	285*	240*	262*	287*	309*	329*
	Illinois	282*	237*	259*	284*	307*	327
2011	Nation (public)	283*	236*	259*	284*	308*	329*
	Midwest <sup>2</sup>	286*	241*	263*	287*	309*	329*
	Illinois	283*	238*	260*	283*	307*	329
2013	Nation (public)	284*	236*	260*	285*	309*	330*
	Midwest <sup>2</sup>	286*	240*	263*	288*	311*	332*
	Illinois	285*	236*	261*	286*	311*	332
2015	Nation (public)	281*	234*	257*	282*	307*	328*
	Midwest <sup>2</sup>	284*	237*	261*	286*	309*	330*
	Illinois	282*	235*	259*	283*	306	327
2017	Nation (public)	282*	232*	255*	282*	309*	332*
	Midwest <sup>2</sup>	285*	235*	259*	285*	312*	334*
	Illinois	282*	232	255*	281*	308*	333
2019	Nation (public)	281*	230*	254*	281*	308*	332*
	Midwest <sup>2</sup>	284*	234*	258*	285*	311*	333*
	Illinois	283*	232	256*	282*	309*	333
2022	Nation (public)	273	223	246	273	300	324
	Midwest <sup>2</sup>	276	227	250	276	303	325
	Illinois	275	227	248	273	301	327

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2022.

<sup>1</sup> Accommodations were not permitted for this assessment.

<sup>2</sup> Region in which jurisdiction is located. Regional data are not provided for years prior to 2003 to be consistent with the U.S. Census Bureau defined regions.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2022 Mathematics Assessments.

## Overall NAEP Achievement-Level Results

Student results are reported as the percentages of students performing relative to performance standards set by the National Assessment Governing Board. These performance standards for what students should know and be able to do were based on the recommendations of broadly representative panels of educators and members of the public.

Tables 2-A and 2-B show the percentage of students at grades 4 and 8 who performed below *NAEP Basic*, at or above *NAEP Basic*, at or above *NAEP Proficient*, and at *NAEP Advanced*. Because some percentages presented here are cumulative from *NAEP Basic* or from *NAEP Proficient*, they may sum to more than 100 percent. Only the percentage of students performing at or above *NAEP Basic* (which includes the students at *NAEP Basic*, at *NAEP Proficient*, and at *NAEP Advanced*) plus the students below *NAEP Basic* will sum to 100 percent.

### Grade 4 NAEP Achievement-Level Results

- In 2022, the percentage of Illinois's students who performed at or above *NAEP Proficient* was 38 percent. This was not significantly different from the percentage of the nation's public school students who performed at or above *NAEP Proficient* (35 percent).
- In Illinois, the percentage of students who performed at or above *NAEP Proficient* in 2022 was greater than the percentages in 2000, 2003, and 2005, but was not significantly different from the percentages in 2007, 2009, 2011, 2013, 2015, 2017, and 2019.
- In 2022, the percentage of Illinois's students who performed at or above *NAEP Basic* was 76 percent. This was not significantly different from the percentage of the nation's public school students who performed at or above *NAEP Basic* (74 percent).
- In Illinois, the percentage of students who performed at or above *NAEP Basic* in 2022 was greater than the percentage in 2000, but was smaller than the percentages in 2009 and 2011.

### Grade 8 NAEP Achievement-Level Results

- In 2022, the percentage of Illinois's students who performed at or above *NAEP Proficient* was 27 percent. This was not significantly different from the percentage of the nation's public school students who performed at or above *NAEP Proficient* (26 percent).
- In Illinois, the percentage of students who performed at or above *NAEP Proficient* in 2022 was greater than the percentage in 1990, but was smaller than the percentages in 2009, 2011, 2013, 2015, 2017, and 2019.
- In 2022, the percentage of Illinois's students who performed at or above *NAEP Basic* was 62 percent. This was not significantly different from the percentage of the nation's public school students who performed at or above *NAEP Basic* (60 percent).
- In Illinois, the percentage of students who performed at or above *NAEP Basic* in 2022 was greater than the percentage in 1990, but was smaller than the percentages in 2000, 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, and 2019.

## THE NATION'S REPORT CARD 2022 STATE ASSESSMENT

**Table 2-A. Percentage of fourth-grade public school students at or above NAEP mathematics achievement levels, by year and jurisdiction: Various years, 2000–2022**

Year and jurisdiction		Below NAEP Basic	At or above NAEP Basic	At or above NAEP Proficient	At NAEP Advanced
2000 <sup>1</sup>	Nation (public)	33*	67*	25*	2*
	Illinois	34*	66*	21*	2*
2000	Nation (public)	36*	64*	22*	2*
	Illinois	37*	63*	20*	2*
2003	Nation (public)	24*	76*	31*	4*
	Midwest <sup>2</sup>	21*	79*	35*	4*
	Illinois	27	73	32*	5*
2005	Nation (public)	21*	79*	35	5*
	Midwest <sup>2</sup>	19*	81*	38	5*
	Illinois	26	74	32*	5*
2007	Nation (public)	19*	81*	39*	5*
	Midwest <sup>2</sup>	16*	84*	42*	6*
	Illinois	21	79	36	6*
2009	Nation (public)	19*	81*	38*	6*
	Midwest <sup>2</sup>	17*	83*	42*	7*
	Illinois	20*	80*	38	7
2011	Nation (public)	18*	82*	40*	6
	Midwest <sup>2</sup>	16*	84*	42*	7*
	Illinois	20*	80*	38	7
2013	Nation (public)	18*	82*	41*	8
	Midwest <sup>2</sup>	16*	84*	45*	9
	Illinois	21	79	39	8
2015	Nation (public)	19*	81*	39*	7
	Midwest <sup>2</sup>	18*	82*	42*	8
	Illinois	23	77	37	8
2017	Nation (public)	21*	79*	40*	8*
	Midwest <sup>2</sup>	20*	80*	42*	9*
	Illinois	24	76	39	9
2019	Nation (public)	20*	80*	40*	9*
	Midwest <sup>2</sup>	20*	80*	42*	9
	Illinois	23	77	38	8
2022	Nation (public)	26	74	35	7
	Midwest <sup>2</sup>	24	76	38	8
	Illinois	24	76	38	9

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2022.

<sup>1</sup> Accommodations were not permitted for this assessment.

<sup>2</sup> Region in which jurisdiction is located. Regional data are not provided for years prior to 2003 to be consistent with the U.S. Census Bureau defined regions.

NOTE: The NAEP grade 4 mathematics scale ranges from 0 to 500. NAEP achievement levels correspond to the following points on the NAEP mathematics scales: below NAEP Basic, 213 or lower; NAEP Basic, 214–248; NAEP Proficient, 249–281; and NAEP Advanced, 282 or above. At or above NAEP Basic includes NAEP Basic, NAEP Proficient, and NAEP Advanced. At or above NAEP Proficient includes NAEP Proficient and NAEP Advanced. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–2022 Mathematics Assessments.



**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 2-B. Percentage of eighth-grade public school students at or above NAEP mathematics achievement levels, by year and jurisdiction: Various years, 1990–2022**

Year and jurisdiction		Below NAEP Basic	At or above NAEP Basic	At or above NAEP Proficient	At NAEP Advanced
1990 <sup>1</sup>	Nation (public)	49*	51*	15*	2*
	Illinois	50*	50*	15*	2*
2000 <sup>1</sup>	Nation (public)	35*	65*	26	5*
	Illinois	32*	68*	27	4*
2000	Nation (public)	38	62	25	5*
	Illinois	33*	67*	26	4*
2003	Nation (public)	33*	67*	27*	5*
	Midwest <sup>2</sup>	28*	72*	32*	6*
	Illinois	34*	66*	29	6
2005	Nation (public)	32*	68*	28*	6*
	Midwest <sup>2</sup>	28*	72*	32*	6
	Illinois	32*	68*	29	5
2007	Nation (public)	30*	70*	31*	7
	Midwest <sup>2</sup>	26*	74*	34*	7
	Illinois	30*	70*	31	7
2009	Nation (public)	29*	71*	33*	7*
	Midwest <sup>2</sup>	25*	75*	36*	8*
	Illinois	27*	73*	33*	7
2011	Nation (public)	28*	72*	34*	8*
	Midwest <sup>2</sup>	24*	76*	36*	8*
	Illinois	27*	73*	33*	8
2013	Nation (public)	27*	73*	34*	8*
	Midwest <sup>2</sup>	24*	76*	37*	9*
	Illinois	26*	74*	36*	9
2015	Nation (public)	30*	70*	32*	8*
	Midwest <sup>2</sup>	26*	74*	35*	8*
	Illinois	28*	72*	32*	7
2017	Nation (public)	31*	69*	33*	10*
	Midwest <sup>2</sup>	28*	72*	36*	11*
	Illinois	32*	68*	32*	10
2019	Nation (public)	32*	68*	33*	10*
	Midwest <sup>2</sup>	28*	72*	36*	10*
	Illinois	31*	69*	34*	10*
2022	Nation (public)	40	60	26	7
	Midwest <sup>2</sup>	36	64	28	7
	Illinois	38	62	27	7

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2022.

<sup>1</sup> Accommodations were not permitted for this assessment.

<sup>2</sup> Region in which jurisdiction is located. Regional data are not provided for years prior to 2003 to be consistent with the U.S. Census Bureau defined regions.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. NAEP achievement levels correspond to the following points on the NAEP mathematics scales: below NAEP Basic, 261 or lower; NAEP Basic, 262–298; NAEP Proficient, 299–332; and NAEP Advanced, 333 or above. At or above NAEP Basic includes NAEP Basic, NAEP Proficient, and NAEP Advanced. At or above NAEP Proficient includes NAEP Proficient and NAEP Advanced. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2022 Mathematics Assessments.

## Comparisons Between Illinois, the Nation, and Participating States and Jurisdictions

All 50 states, the District of Columbia, Department of Defense Education Activity schools (DoDEA), and Puerto Rico participated in the 2022 mathematics assessment at grades 4 and 8. References to "jurisdictions" in the results statements may include states, the District of Columbia, and DoDEA schools.

### Comparisons by Average Scale Scores

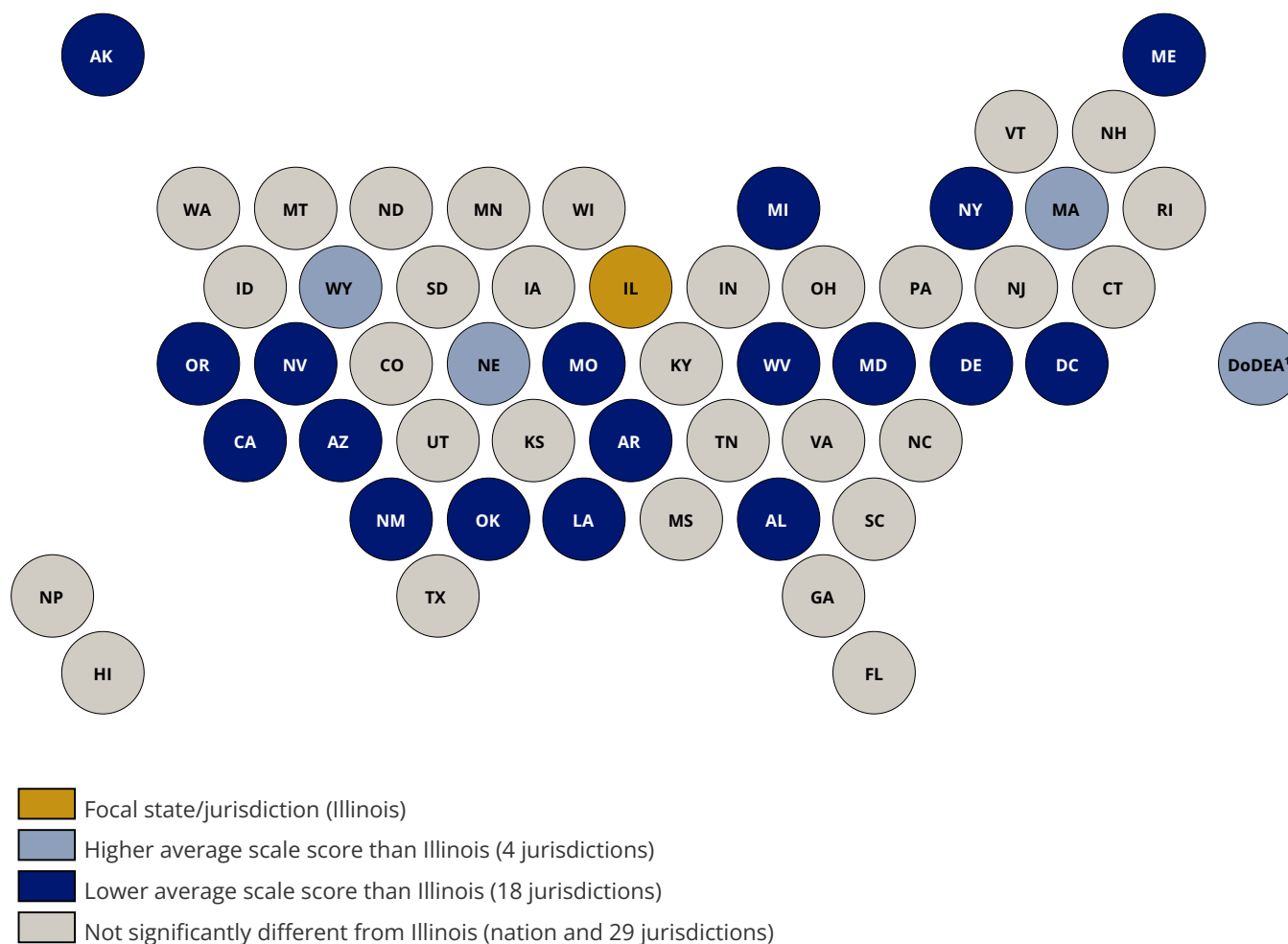
Figures 2-A and 2-B compare Illinois's 2022 overall mathematics scale scores at grades 4 and 8 with those of public schools in the nation and all other participating states and jurisdictions. The different shadings indicate whether the average scale score of the nation (public), a state, or a jurisdiction was found to be higher than, lower than, or not significantly different from that of Illinois in the NAEP 2022 mathematics assessment.

#### *Grade 4 Average Scale Score Comparison Results*

- The average scale score for students in Illinois was higher than 18 jurisdictions, not significantly different from 29 jurisdictions, and lower than 4 jurisdictions.

#### *Grade 8 Average Scale Score Comparison Results*

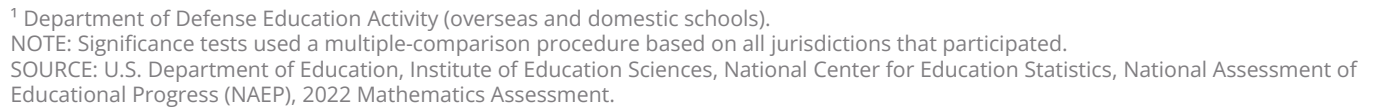
- The average scale score for students in Illinois was higher than 21 jurisdictions, not significantly different from 20 jurisdictions, and lower than 10 jurisdictions.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Figure 2-A. Illinois's average scale score in NAEP mathematics for fourth-grade public school students compared with scores for the nation and other participating jurisdictions: 2022**<sup>1</sup> Department of Defense Education Activity (overseas and domestic schools).

NOTE: Significance tests used a multiple-comparison procedure based on all jurisdictions that participated.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2022 Mathematics Assessment.

**Figure 2-B. Illinois's average scale score in NAEP mathematics for eighth-grade public school students compared with scores for the nation and other participating jurisdictions: 2022**



## Comparisons by NAEP Achievement Levels

Figures 3-A and 3-B permit comparisons of all jurisdictions (and the nation) participating in the 2022 NAEP mathematics assessment in terms of percentages of grades 4 and 8 students performing at or above *NAEP Proficient*. The participating states and jurisdictions are grouped into categories that reflect whether the percentage of their students performing at or above *NAEP Proficient* (including *NAEP Advanced*) was found to be higher than, not significantly different from, or lower than the percentage in Illinois.

Note that the selected state is listed first in its category, and the other states and jurisdictions within each category are listed alphabetically; statistical comparisons among jurisdictions in each of the three categories are not included in this report. However, statistical comparisons among states by NAEP achievement level can be conducted online by using the NAEP Data Explorer at <https://nces.ed.gov/nationsreportcard/naepdata/>.

### **Grade 4 NAEP Achievement-Level Comparison Results**

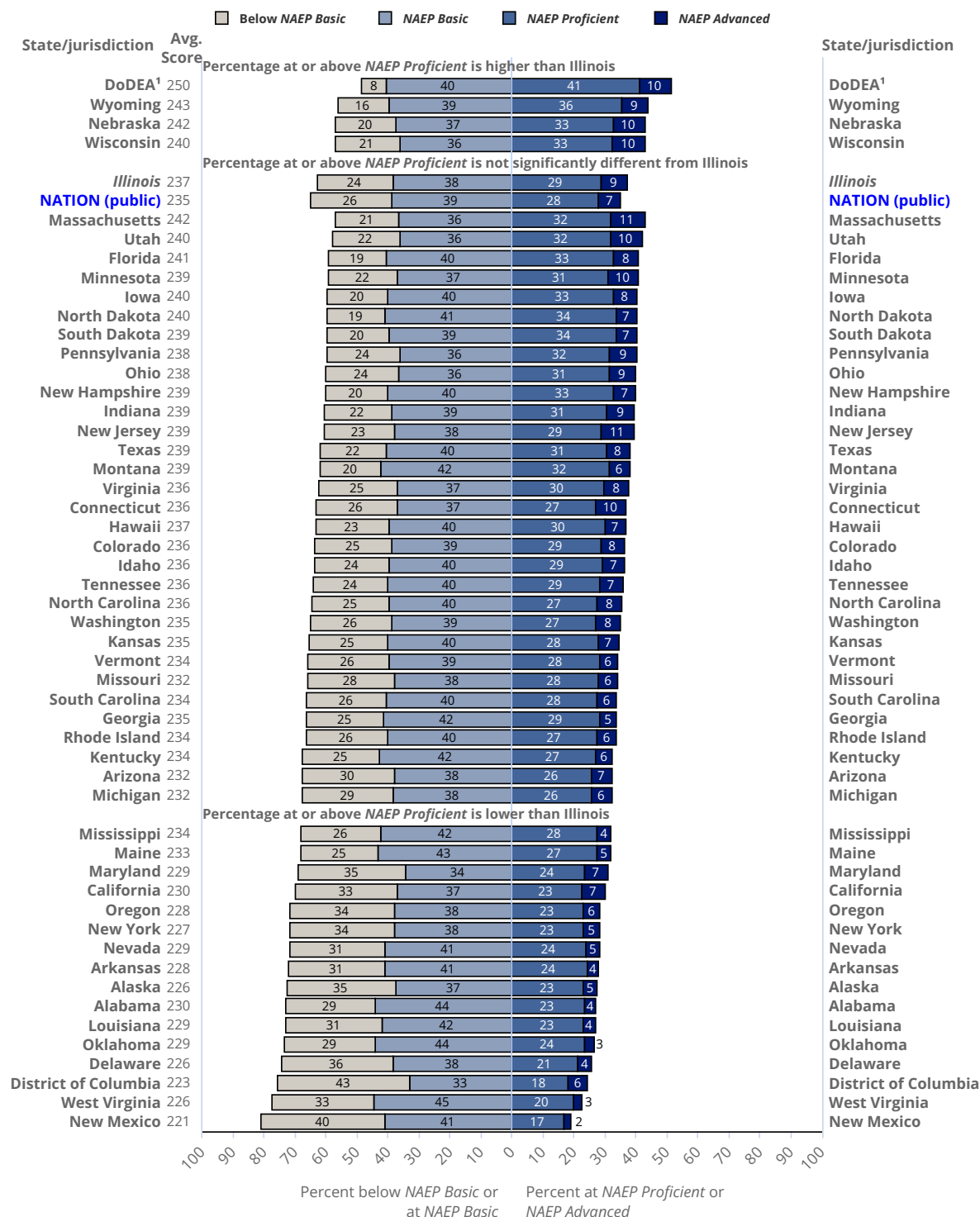
- The percentage of students performing at or above the *NAEP Proficient* level in Illinois was greater than 16 jurisdictions, not significantly different from 31 jurisdictions, and smaller than 4 jurisdictions.
- The percentage of students performing at or above the *NAEP Basic* level in Illinois was greater than 13 jurisdictions, not significantly different from 31 jurisdictions, and smaller than 7 jurisdictions (data not shown).

### **Grade 8 NAEP Achievement-Level Comparison Results**

- The percentage of students performing at or above the *NAEP Proficient* level in Illinois was greater than 11 jurisdictions, not significantly different from 31 jurisdictions, and smaller than 9 jurisdictions.
- The percentage of students performing at or above the *NAEP Basic* level in Illinois was greater than 14 jurisdictions, not significantly different from 22 jurisdictions, and smaller than 15 jurisdictions (data not shown).

## THE NATION'S REPORT CARD 2022 STATE ASSESSMENT

Figure 3-A. Average scale score in NAEP mathematics for fourth-grade public school students, percentage within each achievement level, and Illinois's percentage at or above *NAEP Proficient* compared with the nation and other participating jurisdictions: 2022



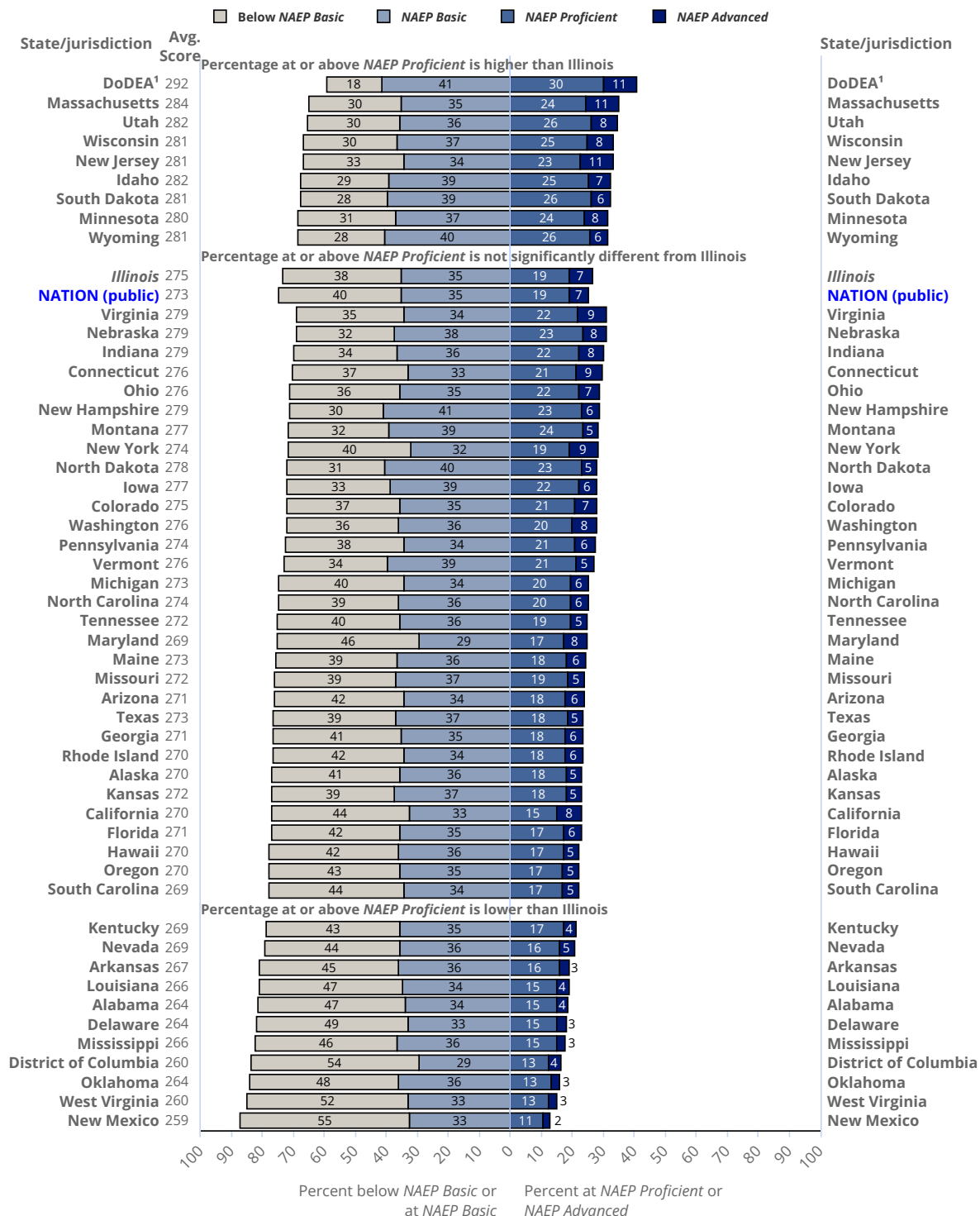
<sup>1</sup> Department of Defense Education Activity (overseas and domestic schools).

NOTE: The bars above contain percentages of students in each NAEP mathematics achievement level. Achievement levels corresponding to each population of students are aligned at the point where the *NAEP Proficient* category begins, so that they may be compared at *NAEP Proficient* and above. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers. The shaded bars are graphed using unrounded numbers. Significance tests used a multiple-comparison procedure based on all jurisdictions that participated.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2022 Mathematics Assessment.

## THE NATION'S REPORT CARD 2022 STATE ASSESSMENT

**Figure 3-B. Average scale score in NAEP mathematics for eighth-grade public school students, percentage within each achievement level, and Illinois's percentage at or above NAEP Proficient compared with the nation and other participating jurisdictions: 2022**



<sup>1</sup> Department of Defense Education Activity (overseas and domestic schools).

NOTE: The bars above contain percentages of students in each NAEP mathematics achievement level. Achievement levels corresponding to each population of students are aligned at the point where the NAEP Proficient category begins, so that they may be compared at NAEP Proficient and above. Detail may not sum to totals because of rounding. All differences were calculated and tested using unrounded numbers. The shaded bars are graphed using unrounded numbers. Significance tests used a multiple-comparison procedure based on all jurisdictions that participated.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2022 Mathematics Assessment.

## Mathematics Performance of Selected Student Groups

This section of the report presents trend results for public school students in Illinois and the nation by demographic characteristics. Student performance data are reported for

- race/ethnicity;
- gender;
- student eligibility for the National School Lunch Program;
- type of school location (for 2007, 2009, 2011, 2013, 2015, 2017, 2019, and 2022); and
- parents' highest level of education (grade 8 only).

NAEP collects information on race/ethnicity, gender, and student eligibility for the National School Lunch Program eligibility from school records. Type of school location is based on standard definitions established by the Office of Management and Budget using population and geographic information from the U.S. Census Bureau. Schools are assigned to these categories in the NCES Common Core of Data based on their physical address. The parent's highest level of education for grade 8 is derived from student questionnaires.

Results for each of the student groups are reported in tables that include the percentage of students in each group in the second column, and the average scale score in the third column. The columns to the right show the percentage of students below *NAEP Basic* and at or above each NAEP achievement level.

Results by students' race/ethnicity and gender include statements about score point differences between student groups (e.g., between White and Black students or White and Hispanic students, or between male and female students) in 2022 and in the first assessment year. Because these differences are calculated using unrounded values, they may differ slightly from what would be obtained by subtracting the rounded values that appear in the tables. Statements indicating a narrowing or widening of the gap in students' scores are only made if the change in the gap from the first assessment year to 2022 was found to be statistically significant.

The reader is cautioned against making simple causal inferences about group differences, as a complex mix of educational and socioeconomic factors may affect student performance. NAEP collects information on many additional variables, including school and home factors related to achievement. This information is in an interactive database available on the NAEP website <https://nces.ed.gov/nationsreportcard/naepdata/>.



## Race/Ethnicity

Prior to 2011, student race/ethnicity was obtained from school records and reported for the six mutually exclusive categories shown below:

- White
- Black
- Hispanic
- Asian/Pacific Islander
- American Indian/Alaska Native
- Unclassified (not shown in tables)

Students who identified with more than one of the other five categories were classified as "Other" and included as part of the "Unclassified" category along with students who had a background other than the ones listed or whose race/ethnicity could not be determined.

In compliance with new standards from the U.S. Office of Management and Budget for collecting and reporting data on race/ethnicity, additional information was collected beginning in 2011 so results could be reported separately for Asian students, Native Hawaiian/Other Pacific Islander students, and students identifying with two or more races. Beginning in 2011, all of the students participating in NAEP were identified as one of the seven racial/ethnic categories listed below:

- White
- Black or African American
- Hispanic
- Asian
- Native Hawaiian or other Pacific Islander
- American Indian or Alaska Native
- Two or More Races

As in earlier years, students identified as Hispanic were classified as Hispanic in 2011 and subsequent assessment years even if they were also identified with another racial/ethnic group. Students who identified with two or more of the other racial/ethnic groups (e.g., White and Black) would have been classified as "Other" and reported as part of the "Unclassified" category prior to 2011, and classified as "Two or More Races" since 2011. Results for these students are presented under the "Two or More Races" category in the graphics and tables in the reports.

When comparing the results for racial/ethnic groups since 2011 to earlier assessment years, the data for Asian and Native Hawaiian/Other Pacific Islander students were combined into the Asian/Pacific Islander category.

Tables 3-A and 3-B show percentage of students, average scale scores, and percentages by NAEP achievement level for public school students at grades 4 and 8 in Illinois and the nation, by race/ethnicity.

### **Grade 4 Average Scale Score Results by Race/Ethnicity**

- In 2022, White students in Illinois had an average scale score that was higher than the average scale scores of Black and Hispanic students, but was lower than the average scale score of Asian/Pacific Islander students.
- In 2022, the average scale score of White students in Illinois was higher than their respective score in 2000, but not significantly different from their respective scores in 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, and 2019.
- In 2022, the average scale score of Black students in Illinois was higher than their respective score in 2000, but lower than their respective score in 2013, and not significantly different from their respective scores in 2003, 2005, 2007, 2009, 2011, 2015, 2017, and 2019.
- In 2022, the average scale score of Hispanic students in Illinois was higher than their respective score in 2000, but lower than their respective scores in 2013 and 2019, and not significantly different from their respective scores in 2003, 2005, 2007, 2009, 2011, 2015, and 2017.
- In 2022, the average scale score of Asian/Pacific Islander students in Illinois was higher than their respective score in 2003, but not significantly different from their respective scores in 2005, 2007, 2009, 2011, 2013, 2015, 2017, and 2019.
- In 2022, Black students in Illinois had an average scale score that was lower than that of White students by 34 points. In 2000, the average scale score for Black students was lower than that of White students by 33 points.
- In 2022, Hispanic students in Illinois had an average scale score that was lower than that of White students by 26 points. In 2000, the average scale score for Hispanic students was lower than that of White students by 24 points.

### **Grade 4 NAEP Achievement-Level Results by Race/Ethnicity**

- In 2022 in Illinois, the percentage of White students performing at or above *NAEP Proficient* was greater than the corresponding percentages of Black and Hispanic students, but was smaller than the percentage of Asian/Pacific Islander students.
- In 2022, the percentages of White and Black students in Illinois performing at or above *NAEP Proficient* were greater than the percentage in 2000, but not significantly different from the percentages of their respective peers in 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, and 2019.
- In 2022, the percentage of Hispanic students in Illinois performing at or above *NAEP Proficient* was greater than the percentage in 2000, but smaller than the percentage in 2019, and not significantly different from the percentages of their respective peers in 2003, 2005, 2007, 2009, 2011, 2013, 2015, and 2017.
- In 2022, the percentage of Asian/Pacific Islander students in Illinois performing at or above *NAEP Proficient* was not significantly different from the percentages of their respective peers in 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, and 2019.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 3-A. Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year and jurisdiction: Various years, 2000–2022**

				PERCENT			
Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
White							
2000 <sup>1</sup>	Nation (public)	67*	234*	22*	78*	32*	3*
	Illinois	57	236*	20	80	32*	3*
2000	Nation (public)	62*	233*	24*	76*	30*	3*
	Illinois	56	235*	20	80	30*	3*
2003	Nation (public)	58*	243*	13*	87*	42*	5*
	Illinois	59*	244	13	87	44	7*
2005	Nation (public)	57*	246	11*	89*	47	7*
	Illinois	54	245	11	89	44	6*
2007	Nation (public)	55*	248*	9*	91*	51*	8*
	Illinois	56*	248	9	91	50	8
2009	Nation (public)	54*	248*	10*	90*	50*	8*
	Illinois	51	249	10	90	52	10
2011	Nation (public)	52*	249*	9*	91*	52*	9
	Illinois	53	249	10	90	51	10
2013	Nation (public)	51*	250*	9*	91*	54*	10
	Illinois	48	248	12	88	51	11
2015	Nation (public)	49*	248*	10*	90*	51*	10
	Illinois	46	248	11	89	49	11
2017	Nation (public)	47*	248*	12*	88*	51*	11
	Illinois	47	249	13	87	52	13
2019	Nation (public)	46	249*	12*	88*	52*	12*
	Illinois	46	246	14	86	51	11
2022	Nation (public)	45	245	15	85	47	10
	Illinois	49	248	12	88	50	12

See notes at end of table.

# THE NATION'S REPORT CARD 2022 STATE ASSESSMENT

**Table 3-A. Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year and jurisdiction: Various years, 2000–2022—Continued**

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
Black							
2000 <sup>1</sup>	Nation (public)	17*	204*	64*	36*	5*	#
	Illinois	22*	203*	66*	34*	4*	#
2000	Nation (public)	17	203*	65*	35*	4*	#*
	Illinois	22*	202*	69*	31*	4*	#
2003	Nation (public)	17*	216	46	54	10*	#*
	Illinois	20*	210	56	44	7	#
2005	Nation (public)	17*	220*	40*	60*	13*	1*
	Illinois	19*	212	54	46	9	1
2007	Nation (public)	17*	222*	37*	63*	15	1*
	Illinois	19*	216	46	54	9	#
2009	Nation (public)	16*	222*	37*	63*	15	1*
	Illinois	19*	216	46	54	11	1
2011	Nation (public)	16*	224*	34*	66*	17*	1
	Illinois	19*	219	42	58	14	2
2013	Nation (public)	16	224*	34*	66*	18*	1
	Illinois	17*	220*	41	59	16	1
2015	Nation (public)	15	224*	35*	65*	19*	1
	Illinois	18	215	49	51	12	1
2017	Nation (public)	15	223*	37*	63*	19*	2
	Illinois	17	217	46	54	15	1
2019	Nation (public)	15	224*	35*	65*	20*	2*
	Illinois	17	217	43	57	14	1
2022	Nation (public)	15	216	46	54	15	1
	Illinois	12	214	49	51	12	1

See notes at end of table.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 3-A. Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year and jurisdiction: Various years, 2000–2022—Continued**

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
Hispanic							
2000 <sup>1</sup>	Nation (public)	11*	209*	55*	45*	8*	#
	Illinois	17*	215*	46	54	7*	#*
2000	Nation (public)	16*	207*	59*	41*	7*	#*
	Illinois	20*	211*	53	47	6*	#
2003	Nation (public)	19*	221*	38	62	15*	1*
	Illinois	18*	218	45	55	13	#*
2005	Nation (public)	20*	225*	33*	67*	19*	1*
	Illinois	22*	219	41	59	14	1
2007	Nation (public)	21*	227*	31*	69*	22	1*
	Illinois	19*	223	36	64	19	1
2009	Nation (public)	22*	227*	30*	70*	21	1*
	Illinois	22*	227	28*	72*	20	1
2011	Nation (public)	24*	229*	28*	72*	24*	2
	Illinois	20*	226	30*	70*	20	1
2013	Nation (public)	25*	230*	27*	73*	26*	2
	Illinois	27	229*	29*	71*	25	3
2015	Nation (public)	26*	230*	27*	73*	26*	3
	Illinois	28	228	30	70	24	3
2017	Nation (public)	27	229*	30*	70*	26*	3
	Illinois	27	227	33	67	23	3
2019	Nation (public)	28	231*	27*	73*	28*	3*
	Illinois	27	231*	26*	74*	28*	4
2022	Nation (public)	28	224	37	63	21	2
	Illinois	29	222	39	61	19	2

See notes at end of table.

# THE NATION'S REPORT CARD 2022 STATE ASSESSMENT

**Table 3-A. Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year and jurisdiction: Various years, 2000–2022—Continued**

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
Asian/Pacific Islander							
2000 <sup>1</sup>	Nation (public)	‡	‡	‡	‡	‡	‡
	Illinois	3	‡	‡	‡	‡	‡
2000	Nation (public)	‡	‡	‡	‡	‡	‡
	Illinois	2*	‡	‡	‡	‡	‡
2003	Nation (public)	4*	246*	13	87	48*	10*
	Illinois	2*	252*	8	92	58	9*
2005	Nation (public)	4*	251*	11	89	54*	14*
	Illinois	4	258	8	92	66	20
2007	Nation (public)	5*	254*	9	91	59	16*
	Illinois	4	257	5	95	62	17
2009	Nation (public)	5*	255	9	91	61	18*
	Illinois	5	265	3	97	73	25
2011	Nation (public)	5	256	9	91	62	20
	Illinois	4	257	7	93	63	19
2013	Nation (public)	5	258	9	91	64	23
	Illinois	5	266	5	95	73	31
2015	Nation (public)	5	256	10	90	61	22
	Illinois	5	262	6	94	69	25
2017	Nation (public)	6	258	10	90	64	24
	Illinois	5	263	8	92	69	28
2019	Nation (public)	5	261*	9	91	67*	27
	Illinois	4	259	12	88	65	25
2022	Nation (public)	6	257	11	89	62	24
	Illinois	6	265	5	95	70	28

See notes at end of table.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 3-A. Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year and jurisdiction: Various years, 2000–2022—Continued**

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
American Indian/Alaska Native							
2000 <sup>1</sup>	Nation (public)	1	‡	‡	‡	‡	‡
	Illinois	#	‡	‡	‡	‡	‡
2000	Nation (public)	1	207*	61*	39*	8*	#
	Illinois	#	‡	‡	‡	‡	‡
2003	Nation (public)	1*	224	35	65	18	1
	Illinois	#	‡	‡	‡	‡	‡
2005	Nation (public)	1*	227*	31*	69*	22	2
	Illinois	#	‡	‡	‡	‡	‡
2007	Nation (public)	1*	229*	28*	72*	26*	3
	Illinois	#	‡	‡	‡	‡	‡
2009	Nation (public)	1*	227*	32*	68*	23	2
	Illinois	#	‡	‡	‡	‡	‡
2011	Nation (public)	1*	227*	32*	68*	24	2
	Illinois	#	‡	‡	‡	‡	‡
2013	Nation (public)	1	228*	30*	70*	24	2
	Illinois	#	‡	‡	‡	‡	‡
2015	Nation (public)	1	228*	30*	70*	24	2
	Illinois	#	‡	‡	‡	‡	‡
2017	Nation (public)	1	228*	31*	69*	25*	3
	Illinois	#	‡	‡	‡	‡	‡
2019	Nation (public)	1	228*	32*	68*	25*	4
	Illinois	#	‡	‡	‡	‡	‡
2022	Nation (public)	1	220	42	58	19	3
	Illinois	#	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met.

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2022.<sup>1</sup> Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 4 mathematics scale ranges from 0 to 500. NAEP achievement levels correspond to the following points on the NAEP mathematics scales: below *NAEP Basic*, 213 or lower; *NAEP Basic*, 214-248; *NAEP Proficient*, 249-281; and *NAEP Advanced*, 282 or above. At or above *NAEP Basic* includes *NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced*. At or above *NAEP Proficient* includes *NAEP Proficient* and *NAEP Advanced*. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–2022 Mathematics Assessments.

**Grade 8 Average Scale Score Results by Race/Ethnicity**

- In 2022, White students in Illinois had an average scale score that was higher than the average scale scores of Black and Hispanic students, but was lower than the average scale score of Asian/Pacific Islander students.
- In 2022, the average scale score of White students in Illinois was higher than their respective score in 1990, but lower than their respective scores in 2009, 2011, and 2013, and not significantly different from their respective scores in 2000, 2003, 2005, 2007, 2015, 2017, and 2019.
- In 2022, the average scale score of Black students in Illinois was higher than their respective score in 1990, but lower than their respective scores in 2011, 2013, and 2019, and not significantly different from their respective scores in 2000, 2003, 2005, 2007, 2009, 2015, and 2017.
- In 2022, the average scale score of Hispanic students in Illinois was higher than their respective score in 1990, but lower than their respective scores in 2009, 2011, 2013, 2015, 2017, and 2019, and not significantly different from their respective scores in 2000, 2003, 2005, and 2007.
- In 2022, the average scale score of Asian/Pacific Islander students in Illinois was higher than their respective score in 1990, but not significantly different from their respective scores in 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, and 2019.
- In 2022, Black students in Illinois had an average scale score that was lower than that of White students by 32 points. In 1990, the average scale score for Black students was lower than that of White students by 38 points.
- In 2022, Hispanic students in Illinois had an average scale score that was lower than that of White students by 23 points. In 1990, the average scale score for Hispanic students was lower than that of White students by 33 points.

**Grade 8 NAEP Achievement-Level Results by Race/Ethnicity**

- In 2022 in Illinois, the percentage of White students performing at or above *NAEP Proficient* was greater than the corresponding percentages of Black and Hispanic students, but was smaller than the percentage of Asian/Pacific Islander students.
- In 2022, the percentage of White students in Illinois performing at or above *NAEP Proficient* was greater than the percentage in 1990, but smaller than the percentage in 2013, and not significantly different from the percentages of their respective peers in 2000, 2003, 2005, 2007, 2009, 2011, 2015, 2017, and 2019.
- In 2022, the percentage of Black students in Illinois performing at or above *NAEP Proficient* was greater than the percentage in 1990, but not significantly different from the percentages of their respective peers in 2000, 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, and 2019.
- In 2022, the percentage of Hispanic students in Illinois performing at or above *NAEP Proficient* was greater than the percentage in 1990, but smaller than the percentages of their respective peers in 2013, 2015, 2017, and 2019, and not significantly different from the percentages of their respective peers in 2000, 2003, 2005, 2007, 2009, and 2011.
- In 2022, the percentage of Asian/Pacific Islander students in Illinois performing at or above *NAEP Proficient* was greater than the percentage in 1990, but not significantly different from the percentages of their respective peers in 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, and 2019.



**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 3-B. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year and jurisdiction: Various years, 1990–2022**

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
White							
1990 <sup>1</sup>	Nation (public)	73*	269*	41*	59*	18*	3*
	Illinois	70*	270*	39*	61*	18*	2*
2000 <sup>1</sup>	Nation (public)	69*	284	24*	76*	33	6*
	Illinois	61*	287	20	80	37	5*
2000	Nation (public)	63*	283	25	75	33	6*
	Illinois	61*	285	22	78	35	5*
2003	Nation (public)	62*	287*	21*	79*	36*	7*
	Illinois	62*	289	20	80	40	8
2005	Nation (public)	60*	288*	21*	79*	37*	7*
	Illinois	61*	289	18*	82*	39	8
2007	Nation (public)	58*	290*	19*	81*	41*	9
	Illinois	60*	291	19*	81*	41	9
2009	Nation (public)	56*	292*	18*	82*	43*	10*
	Illinois	58*	294*	15*	85*	44	10
2011	Nation (public)	54*	293*	17*	83*	43*	10*
	Illinois	51	294*	16*	84*	44	11
2013	Nation (public)	53*	293*	17*	83*	44*	11*
	Illinois	52*	296*	15*	85*	48*	13
2015	Nation (public)	51*	291*	19*	81*	42*	10*
	Illinois	50	290	18*	82*	40	9
2017	Nation (public)	50*	292*	20*	80*	43*	13*
	Illinois	51	291	21	79	42	13
2019	Nation (public)	48*	291*	21*	79*	43*	13*
	Illinois	48	291	22	78	42	12
2022	Nation (public)	45	284	28	72	34	9
	Illinois	45	286	26	74	36	10

See notes at end of table.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 3-B. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year and jurisdiction: Various years, 1990–2022—Continued**

Race/ethnicity, year, and jurisdiction				PERCENT			
				Percentage of students	Average scale score	Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>
Black							
1990 <sup>1</sup>	Nation (public)	16*	236*	79*	21*	5*	#
	Illinois	19	232*	81*	19*	3*	#
2000 <sup>1</sup>	Nation (public)	14	245*	70*	30*	5*	#*
	Illinois	19	256	58	42	7	#
2000	Nation (public)	17*	243*	70*	30*	5*	#*
	Illinois	20	252	59	41	8	#
2003	Nation (public)	17*	252	61	39	7*	#*
	Illinois	20	249	66	34	6	#
2005	Nation (public)	17*	254*	59*	41*	8	1*
	Illinois	21*	249	66	34	6	#
2007	Nation (public)	17*	259*	53*	47*	11*	1
	Illinois	16	253	59	41	7	#
2009	Nation (public)	16*	260*	51*	49*	12*	1
	Illinois	18	255	59	41	9	1
2011	Nation (public)	16*	262*	50*	50*	13*	1
	Illinois	18	260*	52*	48*	10	1
2013	Nation (public)	15	263*	49*	51*	14*	2
	Illinois	17	260*	51*	49*	12	1
2015	Nation (public)	15	260*	53*	47*	12*	1
	Illinois	16	261	51*	49*	12	1
2017	Nation (public)	15	260*	54*	46*	13*	2
	Illinois	15	257	58	42	11	1
2019	Nation (public)	15	259*	54*	46*	13*	2*
	Illinois	18	262*	51*	49*	14	2
2022	Nation (public)	15	252	62	38	9	1
	Illinois	16	254	62	38	8	1

See notes at end of table.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 3-B. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year and jurisdiction: Various years, 1990–2022—Continued**

Race/ethnicity, year, and jurisdiction				PERCENT			
				Percentage of students	Average scale score	Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>
Hispanic							
1990 <sup>1</sup>	Nation (public)	7*	245*	67*	33*	7*	1
	Illinois	8*	238*	76*	24*	3*	#
2000 <sup>1</sup>	Nation (public)	11*	252*	60*	40*	8*	#*
	Illinois	16*	259	51	49	9	#
2000	Nation (public)	14*	252*	60*	40*	8*	#*
	Illinois	15*	258	49	51	11	1
2003	Nation (public)	15*	258*	53	47	11*	1*
	Illinois	15*	259	52	48	9	#
2005	Nation (public)	17*	261	50	50	13	1*
	Illinois	14*	265	45	55	13	1
2007	Nation (public)	19*	264*	46*	54*	15	2
	Illinois	18*	265	45	55	13	1
2009	Nation (public)	21*	266*	44*	56*	17*	2
	Illinois	18*	269*	41*	59*	17	1
2011	Nation (public)	23*	269*	40*	60*	20*	3
	Illinois	24	272*	36*	64*	19	3
2013	Nation (public)	23*	271*	38*	62*	21*	3*
	Illinois	24	272*	36*	64*	22*	2
2015	Nation (public)	25*	269*	40*	60*	19*	3
	Illinois	26	273*	35*	65*	22*	3
2017	Nation (public)	25*	268*	43*	57*	20*	3*
	Illinois	27	272*	40*	60*	21*	4
2019	Nation (public)	27*	268*	43*	57*	19*	3*
	Illinois	25	273*	38*	62*	24*	5
2022	Nation (public)	29	261	52	48	14	2
	Illinois	28	262	51	49	14	2

See notes at end of table.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 3-B. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year and jurisdiction: Various years, 1990–2022—Continued**

Race/ethnicity, year, and jurisdiction				PERCENT			
				Percentage of students	Average scale score	Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>
Asian/Pacific Islander							
1990 <sup>1</sup>	Nation (public)	2*	275*	36*	64*	30*	6*
	Illinois	2*	279*	32*	68*	31*	3*
2000 <sup>1</sup>	Nation (public)	4*	286*	27*	73*	40*	12*
	Illinois	3*	‡	‡	‡	‡	‡
2000	Nation (public)	4*	287*	27*	73*	40*	12*
	Illinois	3*	‡	‡	‡	‡	‡
2003	Nation (public)	4*	289*	23*	77*	42*	12*
	Illinois	3*	302	11	89	58	15
2005	Nation (public)	5*	294*	19*	81*	46*	16*
	Illinois	4*	300	10	90	50	15*
2007	Nation (public)	5*	296*	18	82	49*	17*
	Illinois	5	303	13	87	55	23
2009	Nation (public)	5*	300*	16	84	53	20*
	Illinois	4*	304	11	89	60	19
2011	Nation (public)	6*	302	15	85	55	22
	Illinois	5	314	8	92	67	31
2013	Nation (public)	5*	306	13*	87*	60	25
	Illinois	5	313	11	89	69	33
2015	Nation (public)	6*	305	14*	86*	58	25
	Illinois	5	309	12	88	59	28
2017	Nation (public)	6	310*	14*	86*	62*	30
	Illinois	4	313	13	87	65	33
2019	Nation (public)	6	309*	15	85	61*	32*
	Illinois	6	320	8	92	73	36
2022	Nation (public)	6	304	16	84	56	26
	Illinois	7	308	13	87	61	30

See notes at end of table.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 3-B. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year and jurisdiction: Various years, 1990–2022—Continued**

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
American Indian/Alaska Native							
1990 <sup>1</sup>	Nation (public)	1	‡	‡	‡	‡	‡
	Illinois	#	‡	‡	‡	‡	‡
2000 <sup>1</sup>	Nation (public)	1	264	47	53	14	2
	Illinois	#	‡	‡	‡	‡	‡
2000	Nation (public)	1	263	47	53	13	3
	Illinois	#	‡	‡	‡	‡	‡
2003	Nation (public)	1*	265*	46*	54*	16*	2
	Illinois	#	‡	‡	‡	‡	‡
2005	Nation (public)	1*	266*	45*	55*	14	2
	Illinois	#	‡	‡	‡	‡	‡
2007	Nation (public)	1*	265*	44*	56*	17*	2
	Illinois	#	‡	‡	‡	‡	‡
2009	Nation (public)	1*	267*	43*	57*	20*	3*
	Illinois	#	‡	‡	‡	‡	‡
2011	Nation (public)	1*	266*	45*	55*	17*	4*
	Illinois	#	‡	‡	‡	‡	‡
2013	Nation (public)	1*	270*	40*	60*	21*	3*
	Illinois	#	‡	‡	‡	‡	‡
2015	Nation (public)	1*	267*	43*	57*	19*	3
	Illinois	#	‡	‡	‡	‡	‡
2017	Nation (public)	1*	268*	43*	57*	19*	4*
	Illinois	#	‡	‡	‡	‡	‡
2019	Nation (public)	1	263*	48*	52*	15*	3
	Illinois	#	‡	‡	‡	‡	‡
2022	Nation (public)	1	257	56	44	11	1
	Illinois	#	‡	‡	‡	‡	‡

# Rounds to zero.

‡ Reporting standards not met.

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2022.<sup>1</sup> Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. NAEP achievement levels correspond to the following points on the NAEP mathematics scales: below *NAEP Basic*, 261 or lower; *NAEP Basic*, 262-298; *NAEP Proficient*, 299-332; and *NAEP Advanced*, 333 or above. At or above *NAEP Basic* includes *NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced*. At or above *NAEP Proficient* includes *NAEP Proficient* and *NAEP Advanced*. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2022 Mathematics Assessments.

Tables 4-A and 4-B show percentage of students, average scale scores, and percentages by NAEP achievement level for the seven racial/ethnic categories used since 2011: White, Black, Hispanic, Asian, American Indian/Alaska Native, Native Hawaiian/Other Pacific Islander, and Two or More Races at grades 4 and 8 in Illinois and the nation.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 4-A. Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year and jurisdiction: Various years, 2011–2022**

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
White							
2011	Nation (public)	52*	249*	9*	91*	52*	9
	Illinois	53	249	10	90	51	10
2013	Nation (public)	51*	250*	9*	91*	54*	10
	Illinois	48	248	12	88	51	11
2015	Nation (public)	49*	248*	10*	90*	51*	10
	Illinois	46	248	11	89	49	11
2017	Nation (public)	47*	248*	12*	88*	51*	11
	Illinois	47	249	13	87	52	13
2019	Nation (public)	46	249*	12*	88*	52*	12*
	Illinois	46	246	14	86	51	11
2022	Nation (public)	45	245	15	85	47	10
	Illinois	49	248	12	88	50	12
Black							
2011	Nation (public)	16*	224*	34*	66*	17*	1
	Illinois	19*	219	42	58	14	2
2013	Nation (public)	16	224*	34*	66*	18*	1
	Illinois	17*	220*	41	59	16	1
2015	Nation (public)	15	224*	35*	65*	19*	1
	Illinois	18	215	49	51	12	1
2017	Nation (public)	15	223*	37*	63*	19*	2
	Illinois	17	217	46	54	15	1
2019	Nation (public)	15	224*	35*	65*	20*	2*
	Illinois	17	217	43	57	14	1
2022	Nation (public)	15	216	46	54	15	1
	Illinois	12	214	49	51	12	1
Hispanic							
2011	Nation (public)	24*	229*	28*	72*	24*	2
	Illinois	20*	226	30*	70*	20	1
2013	Nation (public)	25*	230*	27*	73*	26*	2
	Illinois	27	229*	29*	71*	25	3
2015	Nation (public)	26*	230*	27*	73*	26*	3
	Illinois	28	228	30	70	24	3
2017	Nation (public)	27	229*	30*	70*	26*	3
	Illinois	27	227	33	67	23	3
2019	Nation (public)	28	231*	27*	73*	28*	3*
	Illinois	27	231*	26*	74*	28*	4
2022	Nation (public)	28	224	37	63	21	2
	Illinois	29	222	39	61	19	2

See notes at end of table.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 4-A. Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year and jurisdiction: Various years, 2011–2022—Continued**

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
Asian							
2011	Nation (public)	5	257	8	92	64	21
	Illinois	4	258	6	94	65	20
2013	Nation (public)	5	260	7	93	67	24
	Illinois	5	266	4	96	73	31
2015	Nation (public)	5	259	8	92	64	23
	Illinois	5	262	6	94	70	25
2017	Nation (public)	5	260	8	92	67	26
	Illinois	5	263	8	92	70	28
2019	Nation (public)	5	263*	7	93	70*	29
	Illinois	4	259	12	88	65	25
2022	Nation (public)	6	259	9	91	64	25
	Illinois	6	265	6	94	70	28
American Indian/Alaska Native							
2011	Nation (public)	1	227*	32*	68*	24	2
	Illinois	#	‡	‡	‡	‡	‡
2013	Nation (public)	1	228*	30*	70*	24	2
	Illinois	#	‡	‡	‡	‡	‡
2015	Nation (public)	1	228*	30*	70*	24	2
	Illinois	#	‡	‡	‡	‡	‡
2017	Nation (public)	1	228*	31*	69*	25*	3
	Illinois	#	‡	‡	‡	‡	‡
2019	Nation (public)	1	228*	32*	68*	25*	4
	Illinois	#	‡	‡	‡	‡	‡
2022	Nation (public)	1	220	42	58	19	3
	Illinois	#	‡	‡	‡	‡	‡
Native Hawaiian/Other Pacific Islander							
2011	Nation (public)	#	235*	24*	76*	33*	7
	Illinois	#	‡	‡	‡	‡	‡
2013	Nation (public)	#	235*	23*	77*	32*	4
	Illinois	#	‡	‡	‡	‡	‡
2015	Nation (public)	#	226	35	65	24	3
	Illinois	#	‡	‡	‡	‡	‡
2017	Nation (public)	#	228	30	70	27*	4
	Illinois	#	‡	‡	‡	‡	‡
2019	Nation (public)	#	230*	30	70	29*	5
	Illinois	#	‡	‡	‡	‡	‡
2022	Nation (public)	#	222	40	60	18	2
	Illinois	#	‡	‡	‡	‡	‡

See notes at end of table.



**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 4-A. Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year and jurisdiction: Various years, 2011–2022—Continued**

Race/ethnicity, year, and jurisdiction				PERCENT			
				Percentage of students	Average scale score	Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>
Two or More Races							
2011	Nation (public)	2*	244*	15*	85*	43*	9
	Illinois	3	244	15	85	45	8
2013	Nation (public)	3*	244*	14*	86*	45*	9
	Illinois	3	246	13	87	46	12
2015	Nation (public)	3*	244*	15*	85*	44*	9
	Illinois	3	244	17	83	47	11
2017	Nation (public)	4*	244*	16*	84*	44*	10
	Illinois	3	243	16	84	40	11
2019	Nation (public)	4*	243*	17*	83*	44*	10
	Illinois	4	238	24	76	40	12
2022	Nation (public)	5	238	23	77	38	9
	Illinois	3	250	14	86	53	15

# Rounds to zero.

‡ Reporting standards not met.

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2022.

NOTE: The NAEP grade 4 mathematics scale ranges from 0 to 500. NAEP achievement levels correspond to the following points on the NAEP mathematics scales: below *NAEP Basic*, 213 or lower; *NAEP Basic*, 214–248; *NAEP Proficient*, 249–281; and *NAEP Advanced*, 282 or above. At or above *NAEP Basic* includes *NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced*. At or above *NAEP Proficient* includes *NAEP Proficient* and *NAEP Advanced*. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2011–2022 Mathematics Assessments.

# THE NATION'S REPORT CARD 2022 STATE ASSESSMENT

**Table 4-B. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year and jurisdiction: Various years, 2011–2022**

Race/ethnicity, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
White							
2011	Nation (public)	54*	293*	17*	83*	43*	10*
	Illinois	51	294*	16*	84*	44	11
2013	Nation (public)	53*	293*	17*	83*	44*	11*
	Illinois	52*	296*	15*	85*	48*	13
2015	Nation (public)	51*	291*	19*	81*	42*	10*
	Illinois	50	290	18*	82*	40	9
2017	Nation (public)	50*	292*	20*	80*	43*	13*
	Illinois	51	291	21	79	42	13
2019	Nation (public)	48*	291*	21*	79*	43*	13*
	Illinois	48	291	22	78	42	12
2022	Nation (public)	45	284	28	72	34	9
	Illinois	45	286	26	74	36	10
Black							
2011	Nation (public)	16*	262*	50*	50*	13*	1
	Illinois	18	260*	52*	48*	10	1
2013	Nation (public)	15	263*	49*	51*	14*	2
	Illinois	17	260*	51*	49*	12	1
2015	Nation (public)	15	260*	53*	47*	12*	1
	Illinois	16	261	51*	49*	12	1
2017	Nation (public)	15	260*	54*	46*	13*	2
	Illinois	15	257	58	42	11	1
2019	Nation (public)	15	259*	54*	46*	13*	2*
	Illinois	18	262*	51*	49*	14	2
2022	Nation (public)	15	252	62	38	9	1
	Illinois	16	254	62	38	8	1
Hispanic							
2011	Nation (public)	23*	269*	40*	60*	20*	3
	Illinois	24	272*	36*	64*	19	3
2013	Nation (public)	23*	271*	38*	62*	21*	3*
	Illinois	24	272*	36*	64*	22*	2
2015	Nation (public)	25*	269*	40*	60*	19*	3
	Illinois	26	273*	35*	65*	22*	3
2017	Nation (public)	25*	268*	43*	57*	20*	3*
	Illinois	27	272*	40*	60*	21*	4
2019	Nation (public)	27*	268*	43*	57*	19*	3*
	Illinois	25	273*	38*	62*	24*	5
2022	Nation (public)	29	261	52	48	14	2
	Illinois	28	262	51	49	14	2

See notes at end of table.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 4-B. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year and jurisdiction: Various years, 2011–2022—Continued**

Race/ethnicity, year, and jurisdiction				PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
Asian							
2011	Nation (public)	5*	305	12	88	58	24
	Illinois	4	315	7	93	68	32
2013	Nation (public)	5*	308	12*	88*	62	27
	Illinois	5	313	10	90	70	34
2015	Nation (public)	5	307	12	88	60	26
	Illinois	5	309	10	90	59	28
2017	Nation (public)	5	312*	12	88	65*	32*
	Illinois	4	314	13	87	66	34
2019	Nation (public)	6	313*	12	88	64*	33*
	Illinois	6	320	8	92	73	36
2022	Nation (public)	6	306	14	86	58	27
	Illinois	7	308	12	88	62	31
American Indian/Alaska Native							
2011	Nation (public)	1*	266*	45*	55*	17*	4*
	Illinois	#	‡	‡	‡	‡	‡
2013	Nation (public)	1*	270*	40*	60*	21*	3*
	Illinois	#	‡	‡	‡	‡	‡
2015	Nation (public)	1*	267*	43*	57*	19*	3
	Illinois	#	‡	‡	‡	‡	‡
2017	Nation (public)	1*	268*	43*	57*	19*	4*
	Illinois	#	‡	‡	‡	‡	‡
2019	Nation (public)	1	263*	48*	52*	15*	3
	Illinois	#	‡	‡	‡	‡	‡
2022	Nation (public)	1	257	56	44	11	1
	Illinois	#	‡	‡	‡	‡	‡
Native Hawaiian/Other Pacific Islander							
2011	Nation (public)	#	265	45	55	19	3
	Illinois	#	‡	‡	‡	‡	‡
2013	Nation (public)	#	274*	34*	66*	24*	4
	Illinois	#	‡	‡	‡	‡	‡
2015	Nation (public)	#	277*	35*	65*	30*	6
	Illinois	#	‡	‡	‡	‡	‡
2017	Nation (public)	#	272*	38*	62*	23	5
	Illinois	#	‡	‡	‡	‡	‡
2019	Nation (public)	#	263	47	53	18	4
	Illinois	#	‡	‡	‡	‡	‡
2022	Nation (public)	#	262	54	46	15	5
	Illinois	#	‡	‡	‡	‡	‡

See notes at end of table.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 4-B. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by race/ethnicity, year and jurisdiction: Various years, 2011–2022—Continued**

Race/ethnicity, year, and jurisdiction				Percentage of students	Average scale score	PERCENT		
						Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>
Two or More Races								
2011	Nation (public)	2*	286*	24*	76*	37*	10*	
	Illinois	2*	281	30	70	33	7	
2013	Nation (public)	2*	286*	24*	76*	37*	10*	
	Illinois	3	285	26	74	33	12	
2015	Nation (public)	2*	283*	28*	72*	35*	9	
	Illinois	2*	‡	‡	‡	‡	‡	
2017	Nation (public)	3*	285*	28*	72*	36*	12*	
	Illinois	3	287	32	68	39	19	
2019	Nation (public)	3*	285*	28*	72*	36*	11*	
	Illinois	3	286	29	71	38	17	
2022	Nation (public)	4	275	37	63	27	6	
	Illinois	4	276	36	64	27	3	

# Rounds to zero.

‡ Reporting standards not met.

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2022.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. NAEP achievement levels correspond to the following points on the NAEP mathematics scales: below *NAEP Basic*, 261 or lower; *NAEP Basic*, 262-298; *NAEP Proficient*, 299-332; and *NAEP Advanced*, 333 or above. At or above *NAEP Basic* includes *NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced*. At or above *NAEP Proficient* includes *NAEP Proficient* and *NAEP Advanced*. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2011–2022 Mathematics Assessments.

## Gender

Results are reported separately for male and female students.

Tables 5-A and 5-B show percentage of students, average scale scores, and percentages by NAEP achievement level for public school students at grades 4 and 8 in Illinois and the nation, by gender.

### ***Grade 4 Average Scale Score Results by Gender***

- In 2022, male students in Illinois had an average scale score in mathematics (240) that was higher than that of female students (234). In 2000, male students in Illinois had an average scale score in mathematics (224) that was not significantly different from that of female students (222).
- In 2022, male students in Illinois had an average scale score in mathematics (240) that was not significantly different from that of male students in public schools across the nation (238). Similarly, female students in Illinois had an average scale score (234) that was not significantly different from that of female students across the nation (232).
- In Illinois, the average scale score of male students in 2022 was higher than the scores of male students in 2000, 2003, and 2005, but not significantly different from the scores of male students in 2007, 2009, 2011, 2013, 2015, 2017, and 2019.
- In Illinois, the average scale score of female students in 2022 was higher than the score of female students in 2000, but lower than the score of female students in 2013, and not significantly different from the scores of female students in 2003, 2005, 2007, 2009, 2011, 2015, 2017, and 2019.

### ***Grade 4 NAEP Achievement-Level Results by Gender***

- In the 2022 assessment, 42 percent of male students and 33 percent of female students performed at or above *NAEP Proficient* in Illinois. The difference between these percentages was statistically significant.
- The percentage of male students in Illinois's public schools who were at or above *NAEP Proficient* in 2022 (42 percent) was not significantly different from that of male students in the nation (39 percent).
- The percentage of female students in Illinois's public schools who were at or above *NAEP Proficient* in 2022 (33 percent) was not significantly different from that of female students in the nation (31 percent).
- In Illinois, the percentage of male students performing at or above *NAEP Proficient* in 2022 was greater than the corresponding percentages of students in 2000, 2003, and 2005, but not significantly different from the corresponding percentages of students in 2007, 2009, 2011, 2013, 2015, 2017, and 2019.
- In Illinois, the percentage of female students performing at or above *NAEP Proficient* in 2022 was greater than the percentage of students in 2000, but not significantly different from the corresponding percentages of students in 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, and 2019.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 5-A. Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by gender, year and jurisdiction: Various years, 2000–2022**

				PERCENT			
Gender, year, and jurisdiction		Percentage of students	Average scale score	Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
Male							
2000 <sup>1</sup>	Nation (public)	51	227*	32*	68*	27*	3*
	Illinois	50	227*	32*	68*	25*	2*
2000	Nation (public)	51	225*	35*	65*	25*	3*
	Illinois	52	224*	36*	64*	23*	2*
2003	Nation (public)	51	235*	23	77	34*	5*
	Illinois	52	234*	26	74	34*	5*
2005	Nation (public)	51	238	20*	80*	37*	6*
	Illinois	51	234*	25	75	33*	5*
2007	Nation (public)	51	240*	18*	82*	41*	7*
	Illinois	50	239	21	79	40	7
2009	Nation (public)	51	240*	19*	81*	40	7*
	Illinois	50	240	20	80	41	7*
2011	Nation (public)	51	241*	18*	82*	41*	7*
	Illinois	52	240	19	81	39	8
2013	Nation (public)	51	242*	18*	82*	42*	8
	Illinois	51	239	22	78	39	9
2015	Nation (public)	51	241*	19*	81*	41*	8
	Illinois	51	238	24	76	38	9
2017	Nation (public)	51	240*	21*	79*	41*	9
	Illinois	50	240	24	76	41	11
2019	Nation (public)	51	242*	20*	80*	43*	10*
	Illinois	50	239	22	78	41	10
2022	Nation (public)	51	238	24	76	39	9
	Illinois	51	240	23	77	42	12

See notes at end of table.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 5-A. Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by gender, year and jurisdiction: Various years, 2000–2022—Continued**

Gender, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
Female							
2000 <sup>1</sup>	Nation (public)	49	225*	34*	66*	22*	2*
	Illinois	50	222*	37*	63*	17*	1*
2000	Nation (public)	49	223*	38*	62*	20*	1*
	Illinois	48	222*	39*	61*	17*	1*
2003	Nation (public)	49	233	25*	75*	29*	3*
	Illinois	48	232	28	72	29	4
2005	Nation (public)	49	236*	21*	79*	33*	4*
	Illinois	49	232	28	72	30	4
2007	Nation (public)	49	238*	19*	81*	36*	4*
	Illinois	50	235	22	78	33	4
2009	Nation (public)	49	238*	19*	81*	37*	5
	Illinois	50	237	21	79	35	6
2011	Nation (public)	49	239*	18*	82*	39*	6
	Illinois	48	238	21	79	37	6
2013	Nation (public)	49	241*	18*	82*	40*	7*
	Illinois	49	239*	21	79	39	8
2015	Nation (public)	49	239*	19*	81*	38*	6
	Illinois	49	237	22	78	36	6
2017	Nation (public)	49	238*	21*	79*	38*	7*
	Illinois	50	237	24	76	36	7
2019	Nation (public)	49	238*	20*	80*	38*	7*
	Illinois	50	236	23	77	36	6
2022	Nation (public)	49	232	28	72	31	5
	Illinois	49	234	26	74	33	6

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2022.

<sup>1</sup> Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 4 mathematics scale ranges from 0 to 500. NAEP achievement levels correspond to the following points on the NAEP mathematics scales: below *NAEP Basic*, 213 or lower; *NAEP Basic*, 214–248; *NAEP Proficient*, 249–281; and *NAEP Advanced*, 282 or above. At or above *NAEP Basic* includes *NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced*. At or above *NAEP Proficient* includes *NAEP Proficient* and *NAEP Advanced*. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–2022 Mathematics Assessments.

**Grade 8 Average Scale Score Results by Gender**

- In 2022, male students in Illinois had an average scale score in mathematics (278) that was higher than that of female students (273). In 1990, male students in Illinois had an average scale score in mathematics (261) that was not significantly different from that of female students (260).
- In 2022, male students in Illinois had an average scale score in mathematics (278) that was higher than that of male students in public schools across the nation (274). However, female students in Illinois had an average scale score (273) that was not significantly different from that of female students across the nation (272).
- In Illinois, the average scale score of male students in 2022 was higher than the score of male students in 1990, but lower than the scores of male students in 2009, 2011, 2013, 2015, 2017, and 2019, and not significantly different from the scores of male students in 2000, 2003, 2005, and 2007.
- In Illinois, the average scale score of female students in 2022 was higher than the score of female students in 1990, but lower than the scores of female students in 2007, 2009, 2011, 2013, 2015, 2017, and 2019, and not significantly different from the scores of female students in 2000, 2003, and 2005.

**Grade 8 NAEP Achievement-Level Results by Gender**

- In the 2022 assessment, 29 percent of male students and 24 percent of female students performed at or above *NAEP Proficient* in Illinois. The difference between these percentages was not statistically significant.
- The percentage of male students in Illinois's public schools who were at or above *NAEP Proficient* in 2022 (29 percent) was not significantly different from that of male students in the nation (27 percent).
- The percentage of female students in Illinois's public schools who were at or above *NAEP Proficient* in 2022 (24 percent) was not significantly different from that of female students in the nation (24 percent).
- In Illinois, the percentage of male students performing at or above *NAEP Proficient* in 2022 was greater than the percentage of students in 1990, but smaller than the corresponding percentages of students in 2009, 2013, 2017, and 2019, and not significantly different from the corresponding percentages of students in 2000, 2003, 2005, 2007, 2011, and 2015.
- In Illinois, the percentage of female students performing at or above *NAEP Proficient* in 2022 was greater than the percentage of students in 1990, but smaller than the corresponding percentages of students in 2009, 2011, 2013, and 2019, and not significantly different from the corresponding percentages of students in 2000, 2003, 2005, 2007, 2015, and 2017.



**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 5-B. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by gender, year and jurisdiction: Various years, 1990–2022**

				PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
Gender, year, and jurisdiction		Percentage of students	Average scale score				
Male							
1990 <sup>1</sup>	Nation (public)	51	262*	49*	51*	17*	2*
	Illinois	52	261*	50*	50*	15*	2*
2000 <sup>1</sup>	Nation (public)	50	276	34*	66*	29	6*
	Illinois	51	276	33	67	26	4*
2000	Nation (public)	50	273	38	62	26	5*
	Illinois	52	272	35	65	24	3*
2003	Nation (public)	50*	277*	33*	67*	29*	6*
	Illinois	50	278	33	67	31	7
2005	Nation (public)	51*	278*	32*	68*	30*	6*
	Illinois	51	279	30*	70*	30	6
2007	Nation (public)	51*	281*	29*	71*	33*	8
	Illinois	50	282	29*	71*	33	8
2009	Nation (public)	51*	283*	28*	72*	34*	8*
	Illinois	51	284*	26*	74*	35*	9
2011	Nation (public)	51*	283*	28*	72*	34*	9*
	Illinois	51	283*	28*	72*	33	10
2013	Nation (public)	51	284*	27*	73*	35*	9*
	Illinois	51	285*	27*	73*	37*	10
2015	Nation (public)	51	281*	30*	70*	32*	8
	Illinois	51	282*	28*	72*	34	8
2017	Nation (public)	51	282*	31*	69*	34*	11*
	Illinois	51	284*	30*	70*	36*	12
2019	Nation (public)	51	280*	33*	67*	33*	10*
	Illinois	51	283*	31*	69*	35*	12
2022	Nation (public)	51	274	39	61	27	8
	Illinois	50	278	36	64	29	9

See notes at end of table.

# THE NATION'S REPORT CARD 2022 STATE ASSESSMENT

**Table 5-B. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by gender, year and jurisdiction: Various years, 1990–2022—Continued**

Gender, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
Female							
1990 <sup>1</sup>	Nation (public)	49	261*	49*	51*	14*	2*
	Illinois	48	260*	49*	51*	14*	1
2000 <sup>1</sup>	Nation (public)	50	273	36*	64*	24	4*
	Illinois	49	278	31*	69*	28	4
2000	Nation (public)	50	271	38	62	23	4*
	Illinois	48	278	31*	69*	28	4
2003	Nation (public)	50*	275*	34*	66*	26*	4*
	Illinois	50	276	34*	66*	28	5
2005	Nation (public)	49*	277*	33*	67*	27*	5
	Illinois	49	276	34*	66*	27	5
2007	Nation (public)	49*	279*	30*	70*	29*	6
	Illinois	50	279*	31*	69*	29	6
2009	Nation (public)	49*	281*	29*	71*	31*	7*
	Illinois	49	280*	29*	71*	31*	6
2011	Nation (public)	49*	282*	28*	72*	33*	7*
	Illinois	49	283*	26*	74*	32*	7
2013	Nation (public)	49	283*	27*	73*	34*	7*
	Illinois	49	285*	26*	74*	36*	9
2015	Nation (public)	49	281*	29*	71*	32*	7*
	Illinois	49	282*	27*	73*	31	6
2017	Nation (public)	49	282*	31*	69*	33*	9*
	Illinois	49	279*	33*	67*	29	8
2019	Nation (public)	49	282*	31*	69*	33*	9*
	Illinois	49	282*	30*	70*	32*	9
2022	Nation (public)	49	272	40	60	24	6
	Illinois	50	273	41	59	24	6

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2022.

<sup>1</sup> Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. NAEP achievement levels correspond to the following points on the NAEP mathematics scales: below *NAEP Basic*, 261 or lower; *NAEP Basic*, 262-298; *NAEP Proficient*, 299-332; and *NAEP Advanced*, 333 or above. At or above *NAEP Basic* includes *NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced*. At or above *NAEP Proficient* includes *NAEP Proficient* and *NAEP Advanced*. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2022 Mathematics Assessments.

## Eligibility for Free/Reduced-Price School Lunch

NAEP collects data on eligibility for the federal program providing free or reduced-price school lunches. The free/reduced-price lunch component of the National School Lunch Program (NSLP) offered through the U.S. Department of Agriculture (USDA) is designed to ensure that children near or below the poverty line receive nourishing meals. Eligibility is determined through the USDA's Income Eligibility Guidelines, and data for this category of students are included as an indicator of lower family income. NAEP first collected information on participation in this program in 1996; therefore, cross-year comparisons to assessments prior to 1996 cannot be made.

As a result of the passage of the [Healthy, Hunger-Free Kids Act of 2010](#), schools can use a new universal meal service option, the "Community Eligibility Provision" (CEP). Through CEP, eligible schools can provide meal service to all students at no charge, regardless of economic status and without the need to collect eligibility data through household applications. CEP became available nationwide in the 2014-2015 school year; as a result, the percentage of students in many states categorized as eligible for NSLP may have increased in comparison to 2013. Therefore, readers should interpret NSLP trend results with caution.

Tables 6-A and 6-B show percentage of students, average scale scores, and percentages by NAEP achievement level for public school students at grades 4 and 8 in Illinois and the nation, by student eligibility for the NSLP.

### ***Grade 4 Average Scale Score Results by Free/Reduced-Price School Lunch Eligibility***

- In 2022, students in Illinois eligible for free/reduced-price school lunch had an average mathematics scale score of 221. This was lower than that of students in Illinois not eligible for this program (250).
- In 2022, students in Illinois who were eligible for free/reduced-price school lunch had an average scale score that was lower than that of students who were not eligible by 30 points. In 2000, the average scale score for students in Illinois who were eligible for free/reduced-price school lunch was lower than the score of those not eligible by 25 points.
- Students in Illinois eligible for free/reduced-price school lunch had an average scale score (221) in 2022 that was not significantly different from that of students in the nation who were eligible (223).
- In Illinois, students eligible for free/reduced-price school lunch had an average mathematics scale score in 2022 that was higher than that of eligible students in 2000 and 2003, but lower than that of eligible students in 2011, 2013, 2015, and 2019, and not significantly different from that of eligible students in 2005, 2007, 2009, and 2017.

### ***Grade 4 NAEP Achievement-Level Results by Free/Reduced-Price School Lunch Eligibility***

- In Illinois, 18 percent of students who were eligible for free/reduced-price school lunch and 53 percent of those who were not eligible for this program performed at or above *NAEP Proficient* in 2022. These percentages were significantly different from one another.
- For students in Illinois in 2022 who were eligible for free/reduced-price school lunch, the percentage at or above *NAEP Proficient* (18 percent) was not significantly different from the corresponding percentage for their counterparts around the nation (20 percent).
- In Illinois, the percentage of students eligible for free/reduced-price school lunch who performed at or above *NAEP Proficient* in 2022 was greater than the corresponding percentages in 2000 and 2003, but smaller than the percentage in 2019, and not significantly different from the corresponding percentages in 2005, 2007, 2009, 2011, 2013, 2015, and 2017.

# THE NATION'S REPORT CARD 2022 STATE ASSESSMENT

**Table 6-A. Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by National School Lunch Program eligibility status, year and jurisdiction: Various years, 2000–2022**

Eligibility status, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
Eligible							
2000 <sup>1</sup>	Nation (public)	35*	210*	54*	46*	9*	#*
	Illinois	37	209*	57*	43*	7*	#*
2000	Nation (public)	40*	208*	57*	43*	7*	#*
	Illinois	38	208*	60*	40*	6*	#
2003	Nation (public)	44*	222	38	62	15*	1*
	Illinois	41	216*	48*	52*	11*	1
2005	Nation (public)	46*	225*	33*	67*	19	1*
	Illinois	45	218	44	56	15	1
2007	Nation (public)	46*	227*	30*	70*	22	1*
	Illinois	44	223	36	64	17	1
2009	Nation (public)	48*	228*	29*	71*	22*	1*
	Illinois	46	224	34*	66*	18	1
2011	Nation (public)	52	229*	27*	73*	24*	2
	Illinois	49	225*	33*	67*	20	1
2013	Nation (public)	54*	230*	27*	73*	26*	2
	Illinois	51*	226*	33*	67*	22	2
2015	Nation (public)	55*	229*	28*	72*	24*	2
	Illinois	56*	225*	34	66	21	2
2017	Nation (public)	54*	228*	31*	69*	25*	3
	Illinois	50*	224	37	63	20	2
2019	Nation (public)	54*	229*	29*	71*	26*	3*
	Illinois	52*	226*	33*	67*	24*	3
2022	Nation (public)	52	223	38	62	20	2
	Illinois	44	221	40	60	18	1

See notes at end of table.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 6-A. Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by National School Lunch Program eligibility status, year and jurisdiction: Various years, 2000–2022—Continued**

				PERCENT			
Eligibility status, year, and jurisdiction		Percentage of students	Average scale score	Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
Not eligible							
2000 <sup>1</sup>	Nation (public)	52	236*	21*	79*	33*	4*
	Illinois	52	235*	20*	80*	30*	2*
2000	Nation (public)	49	235*	23*	77*	32*	4*
	Illinois	49	234*	21*	79*	29*	2*
2003	Nation (public)	52*	244*	12	88	45*	6*
	Illinois	55	246	11	89	48	8*
2005	Nation (public)	52*	248	10*	90*	50	8*
	Illinois	55	245*	12	88	45*	7*
2007	Nation (public)	53*	249	9*	91*	53	9*
	Illinois	56	249	10	90	51	9*
2009	Nation (public)	51*	250*	9*	91*	54*	10*
	Illinois	54	251	9*	91*	54	11
2011	Nation (public)	47	252*	8*	92*	57*	12
	Illinois	51	252	8*	92*	56	12
2013	Nation (public)	46*	254*	7*	93*	60*	14
	Illinois	49*	252	10	90	57	15
2015	Nation (public)	44*	253*	8*	92*	58*	13
	Illinois	44*	252	9	91	56	15
2017	Nation (public)	45*	253*	9*	91*	57*	14*
	Illinois	49*	253	10	90	57	17
2019	Nation (public)	45*	253*	9*	91*	58*	15*
	Illinois	48*	249	12	88	54	14
2022	Nation (public)	47	248	13	87	51	13
	Illinois	55	250	12	88	53	15

See notes at end of table.

# THE NATION'S REPORT CARD 2022 STATE ASSESSMENT

**Table 6-A. Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by National School Lunch Program eligibility status, year and jurisdiction: Various years, 2000–2022—Continued**

Eligibility status, year, and jurisdiction				Percentage of students	Average scale score	PERCENT		
						Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>
Information not available								
2000 <sup>1</sup>	Nation (public)	13*	235	23	77	35	3*	
	Illinois	12*	231	29	71	31	4	
2000	Nation (public)	11*	236	22	78	35	4*	
	Illinois	12*	224	35	65	26	3	
2003	Nation (public)	4*	235	23	77	34	4*	
	Illinois	4	220*	41	59	15	2	
2005	Nation (public)	2*	237	21	79	36	5	
	Illinois	#	‡	‡	‡	‡	‡	
2007	Nation (public)	1	243	17*	83*	44	8	
	Illinois	#	‡	‡	‡	‡	‡	
2009	Nation (public)	1*	240	22	78	42	7	
	Illinois	#*	‡	‡	‡	‡	‡	
2011	Nation (public)	#*	247*	12*	88*	49	10	
	Illinois	#	‡	‡	‡	‡	‡	
2013	Nation (public)	1*	255*	9*	91*	60*	18	
	Illinois	#	‡	‡	‡	‡	‡	
2015	Nation (public)	1	246*	15*	85*	49*	11	
	Illinois	#*	‡	‡	‡	‡	‡	
2017	Nation (public)	1	238	22	78	38	8	
	Illinois	1	‡	‡	‡	‡	‡	
2019	Nation (public)	1*	239	20	80	40	9	
	Illinois	1	‡	‡	‡	‡	‡	
2022	Nation (public)	1	236	25	75	37	8	
	Illinois	1	237	25	75	35	10	

# Rounds to zero.

‡ Reporting standards not met.

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2022.

<sup>1</sup> Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 4 mathematics scale ranges from 0 to 500. NAEP achievement levels correspond to the following points on the NAEP mathematics scales: below *NAEP Basic*, 213 or lower; *NAEP Basic*, 214–248; *NAEP Proficient*, 249–281; and *NAEP Advanced*, 282 or above. At or above *NAEP Basic* includes *NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced*. At or above *NAEP Proficient* includes *NAEP Proficient* and *NAEP Advanced*. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–2022 Mathematics Assessments.

**Grade 8 Average Scale Score Results by Free/Reduced-Price School Lunch Eligibility**

- In 2022, students in Illinois eligible for free/reduced-price school lunch had an average mathematics scale score of 259. This was lower than that of students in Illinois not eligible for this program (289).
- In 2022, students in Illinois who were eligible for free/reduced-price school lunch had an average scale score that was lower than that of students who were not eligible by 30 points. In 2000, the average scale score for students in Illinois who were eligible for free/reduced-price school lunch was lower than the score of those not eligible by 30 points.
- Students in Illinois eligible for free/reduced-price school lunch had an average scale score (259) in 2022 that was not significantly different from that of students in the nation who were eligible (260).
- In Illinois, students eligible for free/reduced-price school lunch had an average mathematics scale score in 2022 that was lower than that of eligible students in 2009, 2011, 2013, 2015, 2017, and 2019, but not significantly different from that of eligible students in 2000, 2003, 2005, and 2007.

**Grade 8 NAEP Achievement-Level Results by Free/Reduced-Price School Lunch Eligibility**

- In Illinois, 12 percent of students who were eligible for free/reduced-price school lunch and 40 percent of those who were not eligible for this program performed at or above *NAEP Proficient* in 2022. These percentages were significantly different from one another.
- For students in Illinois in 2022 who were eligible for free/reduced-price school lunch, the percentage at or above *NAEP Proficient* (12 percent) was not significantly different from the corresponding percentage for their counterparts around the nation (13 percent).
- In Illinois, the percentage of students eligible for free/reduced-price school lunch who performed at or above *NAEP Proficient* in 2022 was smaller than the corresponding percentages in 2011, 2013, 2015, 2017, and 2019, but not significantly different from the corresponding percentages in 2000, 2003, 2005, 2007, and 2009.

# THE NATION'S REPORT CARD 2022 STATE ASSESSMENT

**Table 6-B. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by National School Lunch Program eligibility status, year and jurisdiction: Various years, 2000–2022**

Eligibility status, year, and jurisdiction				PERCENT			
				Percentage of students	Average scale score	Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>
Eligible							
2000 <sup>1</sup>	Nation (public)	28*	255*	56	44	10*	1*
	Illinois	30*	259	53	47	12	1
2000	Nation (public)	31*	253*	59*	41*	10*	1*
	Illinois	31*	255	55	45	12	1
2003	Nation (public)	36*	258	53	47	11*	1*
	Illinois	37*	256	57	43	10	1
2005	Nation (public)	39*	261*	49*	51*	13	1*
	Illinois	38*	258	54	46	10	1
2007	Nation (public)	41*	265*	45*	55*	15*	2
	Illinois	39*	262	49*	51*	13	2
2009	Nation (public)	43*	266*	43*	57*	17*	2
	Illinois	39*	264*	47*	53*	14	2
2011	Nation (public)	48*	269*	41*	59*	19*	2
	Illinois	48	269*	39*	61*	17*	2
2013	Nation (public)	50	270*	39*	61*	20*	3*
	Illinois	46	268*	42*	58*	18*	2
2015	Nation (public)	52*	268*	42*	58*	18*	2
	Illinois	51	269*	40*	60*	18*	2
2017	Nation (public)	49	267*	45*	55*	18*	3*
	Illinois	49	267*	45*	55*	18*	3
2019	Nation (public)	50	266*	46*	54*	18*	3*
	Illinois	48	269*	44*	56*	20*	4
2022	Nation (public)	50	260	54	46	13	2
	Illinois	46	259	56	44	12	2

See notes at end of table.



**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 6-B. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by National School Lunch Program eligibility status, year and jurisdiction: Various years, 2000–2022—Continued**

Eligibility status, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
Not eligible							
2000 <sup>1</sup>	Nation (public)	55*	285	24	76	35	7*
	Illinois	65*	285	23	77	34	5*
2000	Nation (public)	54*	283*	26	74	34*	7*
	Illinois	63*	284	23	77	34	5*
2003	Nation (public)	58*	287	22*	78*	37	7*
	Illinois	60*	290	19	81	41	9
2005	Nation (public)	59*	288	21*	79*	39	8*
	Illinois	62*	290	18	82	40	8
2007	Nation (public)	58*	291*	19*	81*	42*	10
	Illinois	61*	292	17*	83*	42	10
2009	Nation (public)	56*	293*	17*	83*	45*	12
	Illinois	61*	294*	15*	85*	45	11
2011	Nation (public)	52*	295*	16*	84*	47*	13*
	Illinois	52	296*	16*	84*	47*	14
2013	Nation (public)	50	297*	14*	86*	49*	14*
	Illinois	54	299*	13*	87*	52*	15
2015	Nation (public)	47*	296*	16*	84*	48*	13*
	Illinois	49	296*	15*	85*	47*	12
2017	Nation (public)	50	297*	17*	83*	48*	16*
	Illinois	51	296*	19	81	46	16
2019	Nation (public)	49	296*	18*	82*	48*	16*
	Illinois	52	295*	18	82	46	15
2022	Nation (public)	49	287	25	75	38	11
	Illinois	53	289	23	77	40	12

See notes at end of table.

# THE NATION'S REPORT CARD 2022 STATE ASSESSMENT

**Table 6-B. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by National School Lunch Program eligibility status, year and jurisdiction: Various years, 2000–2022—Continued**

				PERCENT			
Eligibility status, year, and jurisdiction		Percentage of students	Average scale score	Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
Information not available							
2000 <sup>1</sup>	Nation (public)	16*	273	37	63	26	4
	Illinois	5*	278	30	70	25	3
2000	Nation (public)	15*	271	38	62	24	4
	Illinois	5*	278	30	70	23	4
2003	Nation (public)	6*	278	32	68	29	6
	Illinois	3	269	43	57	24	4
2005	Nation (public)	3*	277	34	66	28	6
	Illinois	1	‡	‡	‡	‡	‡
2007	Nation (public)	1	274	36	64	28	6
	Illinois	#*	‡	‡	‡	‡	‡
2009	Nation (public)	1	284*	28*	72*	35	10
	Illinois	#	‡	‡	‡	‡	‡
2011	Nation (public)	#*	275	37	63	26	6
	Illinois	#*	‡	‡	‡	‡	‡
2013	Nation (public)	1*	285	29	71	39	13
	Illinois	#*	‡	‡	‡	‡	‡
2015	Nation (public)	1	293*	21*	79*	45*	17*
	Illinois	#	‡	‡	‡	‡	‡
2017	Nation (public)	1	293*	23*	77*	46*	17*
	Illinois	#*	‡	‡	‡	‡	‡
2019	Nation (public)	1	286*	29*	71*	38*	15*
	Illinois	1	278	36	64	31	8
2022	Nation (public)	2	274	39	61	26	7
	Illinois	1	267	46	54	21	6

# Rounds to zero.

‡ Reporting standards not met.

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2022.

<sup>1</sup> Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. NAEP achievement levels correspond to the following points on the NAEP mathematics scales: below *NAEP Basic*, 261 or lower; *NAEP Basic*, 262–298; *NAEP Proficient*, 299–332; and *NAEP Advanced*, 333 or above. At or above *NAEP Basic* includes *NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced*. At or above *NAEP Proficient* includes *NAEP Proficient* and *NAEP Advanced*. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–2022 Mathematics Assessments.

## Type of Location

NAEP results are reported for four mutually exclusive categories of school location: city, suburb, town, and rural. The categories are based on standard definitions established by the Federal Office of Management and Budget using population and geographic information from the U.S. Census Bureau. Schools are assigned to these categories in the NCES Common Core of Data based on their physical address.

In 2007, the classification system was revised; therefore, trend comparisons to previous years are not available. The new locale codes are based on an address's proximity to an urbanized area (a densely settled core with densely settled surrounding areas). The original system was based on metropolitan statistical areas. To distinguish the two systems, the new system is referred to as "urban-centric locale codes." The urban-centric locale code system classifies territory into four major types: city, suburban, town, and rural. Each type has three subcategories. For city and suburb, these are gradations of size—large, midsize, and small. Towns and rural areas are further distinguished by their distance from an urbanized area. They can be characterized as fringe, distant, or remote.

Tables 7-A and 7-B show percentage of students, average scale scores, and percentages by NAEP achievement level for public school students at grades 4 and 8 in Illinois and the nation, by type of location since 2007.

### ***Grade 4 Average Scale Score Results by Type of Location***

- In 2022, the average scale score of students in Illinois attending public schools in city locations was lower than the scores of students in suburban and rural schools.
- In 2022, students attending public schools in city, suburban, and rural locations in Illinois had average scale scores that were not significantly different from the average scale scores of students in city, suburban, and rural locations in the nation.
- In 2022, students attending public schools in city, suburban, and rural locations in Illinois had average scale scores that were not significantly different from the average scale scores of students in city, suburban, and rural locations in 2007, 2009, 2011, 2013, 2015, 2017, and 2019 in Illinois.

### ***Grade 4 NAEP Achievement-Level Results by Type of Location***

- In 2022, the percentage of students in Illinois's public schools in city locations who performed at or above *NAEP Proficient* was smaller than the corresponding percentages of students in suburban and rural schools.
- The percentages of students in Illinois's public schools in city, suburban, and rural locations who performed at or above *NAEP Proficient* in 2022 were not significantly different from those of students in city, suburban, and rural locations in the nation.
- The percentages of students in Illinois's public schools in city, suburban, and rural locations who performed at or above *NAEP Proficient* in 2022 were not significantly different from those of students in city, suburban, and rural locations in 2007, 2009, 2011, 2013, 2015, 2017, and 2019 in Illinois.

# THE NATION'S REPORT CARD 2022 STATE ASSESSMENT

**Table 7-A. Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by type of location, year and jurisdiction: Various years, 2007–2022**

				PERCENT			
Type of location, year, and jurisdiction		Percentage of students	Average scale score	Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
City							
2007	Nation (public)	29	233*	26*	74*	32*	5*
	Illinois	29	225	36	64	22	3
2009	Nation (public)	30	234*	25*	75*	32*	5
	Illinois	31	230	30	70	28	5
2011	Nation (public)	29	235*	24*	76*	33*	5
	Illinois	30	233	28	72	33	7
2013	Nation (public)	30	236*	24*	76*	35*	7
	Illinois	32	234	27	73	33	7
2015	Nation (public)	31*	236*	24*	76*	35*	7
	Illinois	31	232	29	71	30	6
2017	Nation (public)	30	234*	27*	73*	33*	7
	Illinois	31	235	28	72	34	9
2019	Nation (public)	30	235*	26*	74*	35*	7*
	Illinois	31	232	29	71	33	8
2022	Nation (public)	29	229	34	66	29	6
	Illinois	29	228	34	66	27	6
Suburban							
2007	Nation (public)	37*	243*	15*	85*	44*	7*
	Illinois	46	242	17	83	42	7
2009	Nation (public)	36*	243*	16*	84*	44*	7*
	Illinois	45	243	17	83	43	9
2011	Nation (public)	36*	244*	15*	85*	45*	8
	Illinois	44	241	18	82	41	8
2013	Nation (public)	35*	244*	15*	85*	46*	9
	Illinois	43	242	20	80	44	12
2015	Nation (public)	41	243*	16*	84*	44*	9
	Illinois	51	242	20	80	43	11
2017	Nation (public)	40	243*	18*	82*	45*	10
	Illinois	49	240	23	77	41	11
2019	Nation (public)	40	244*	16*	84*	46*	11*
	Illinois	51	242	19	81	43	10
2022	Nation (public)	40	239	23	77	40	9
	Illinois	48	241	21	79	42	11

See notes at end of table.

## THE NATION'S REPORT CARD 2022 STATE ASSESSMENT

Table 7-A. Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by type of location, year and jurisdiction: Various years, 2007–2022—Continued

Type of location, year, and jurisdiction				PERCENT			
				Percentage of students	Average scale score	Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>
Town							
2007	Nation (public)	12	238*	18*	82*	36*	4
	Illinois	11	239	15	85	34	4
2009	Nation (public)	12	237*	19*	81*	35*	4
	Illinois	10	240	16	84	39	4
2011	Nation (public)	13*	237*	19*	81*	35*	4
	Illinois	9	240	15	85	37	4
2013	Nation (public)	11	240*	17*	83*	39*	6*
	Illinois	10	239	17	83	38	4
2015	Nation (public)	11	237*	20*	80*	35*	5
	Illinois	7	232	26	74	27	4
2017	Nation (public)	11	237*	21*	79*	36*	6*
	Illinois	11	238	19	81	39	3
2019	Nation (public)	10	237*	21*	79*	37*	6*
	Illinois	9	234	23	77	35	4
2022	Nation (public)	11	232	27	73	31	4
	Illinois	9	‡	‡	‡	‡	‡
Rural							
2007	Nation (public)	22*	240*	16*	84*	39	5*
	Illinois	13	248	9	91	50	8
2009	Nation (public)	22*	240*	16*	84*	39	5*
	Illinois	14	242	13	87	41	6
2011	Nation (public)	23*	243*	15*	85*	42*	6
	Illinois	18	241	15	85	40	5
2013	Nation (public)	25*	243*	14*	86*	44*	7
	Illinois	15	240	18	82	39	5
2015	Nation (public)	18*	241*	16*	84*	40	6
	Illinois	11	237	17	83	34	4
2017	Nation (public)	19	240*	18*	82*	41*	7
	Illinois	10	240	18	82	40	6
2019	Nation (public)	19	240*	18*	82*	40*	7
	Illinois	9	236	20	80	35	3
2022	Nation (public)	20	238	21	79	37	7
	Illinois	13	242	17	83	43	10

‡ Reporting standards not met.

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2022.

NOTE: The NAEP grade 4 mathematics scale ranges from 0 to 500. NAEP achievement levels correspond to the following points on the NAEP mathematics scales: below *NAEP Basic*, 213 or lower; *NAEP Basic*, 214–248; *NAEP Proficient*, 249–281; and *NAEP Advanced*, 282 or above. At or above *NAEP Basic* includes *NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced*. At or above *NAEP Proficient* includes *NAEP Proficient* and *NAEP Advanced*. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2007–2022 Mathematics Assessments.

***Grade 8 Average Scale Score Results by Type of Location***

- In 2022, the average scale score of students in Illinois attending public schools in city locations was lower than the scores of students in suburban and rural schools, but was not significantly different from the score of students in town schools.
- In 2022, students attending public schools in suburban locations in Illinois had an average scale score that was higher than the average scale score of students in suburban locations in the nation.
- In 2022, students attending public schools in city, town, and rural locations in Illinois had average scale scores that were not significantly different from the average scale scores of students in city, town, and rural locations in the nation.
- In 2022, students attending public schools in city locations in Illinois had an average scale score that was lower than the average scale score of students in city locations in 2009, 2011, 2013, 2015, 2017, and 2019 in Illinois, but not significantly different from the average scale score of students in city locations in 2007 in Illinois.
- In 2022, students attending public schools in suburban locations in Illinois had an average scale score that was lower than the average scale score of students in suburban locations in 2013 in Illinois, but not significantly different from the average scale score of students in suburban locations in 2007, 2009, 2011, 2015, 2017, and 2019 in Illinois.
- In 2022, students attending public schools in town locations in Illinois had an average scale score that was lower than the average scale score of students in town locations in 2007, 2009, 2011, 2013, 2017, and 2019 in Illinois, but not significantly different from the average scale score of students in town locations in 2015 in Illinois.
- In 2022, students attending public schools in rural locations in Illinois had an average scale score that was lower than the average scale score of students in rural locations in 2009, 2011, and 2013 in Illinois, but not significantly different from the average scale score of students in rural locations in 2007, 2015, 2017, and 2019 in Illinois.

**Grade 8 NAEP Achievement-Level Results by Type of Location**

- In 2022, the percentage of students in Illinois's public schools in city locations who performed at or above *NAEP Proficient* was smaller than the percentage of students in suburban schools, but was not significantly different from the corresponding percentages of students in town and rural schools.
- The percentages of students in Illinois's public schools in city, suburban, town, and rural locations who performed at or above *NAEP Proficient* in 2022 were not significantly different from those of students in city, suburban, town, and rural locations in the nation.
- The percentage of students in Illinois's public schools in city locations who performed at or above *NAEP Proficient* in 2022 was smaller than that of students in city locations in 2011, 2013, 2017, and 2019 in Illinois, but not significantly different from that of students in city locations in 2007, 2009, and 2015 in Illinois.
- The percentage of students in Illinois's public schools in suburban locations who performed at or above *NAEP Proficient* in 2022 was smaller than that of students in suburban locations in 2013 in Illinois, but not significantly different from that of students in suburban locations in 2007, 2009, 2011, 2015, 2017, and 2019 in Illinois.
- The percentage of students in Illinois's public schools in town locations who performed at or above *NAEP Proficient* in 2022 was smaller than that of students in town locations in 2011, 2013, and 2017 in Illinois, but not significantly different from that of students in town locations in 2007, 2009, 2015, and 2019 in Illinois.
- The percentage of students in Illinois's public schools in rural locations who performed at or above *NAEP Proficient* in 2022 was smaller than that of students in rural locations in 2011 and 2013 in Illinois, but not significantly different from that of students in rural locations in 2007, 2009, 2015, 2017, and 2019 in Illinois.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 7-B. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by type of location, year and jurisdiction: Various years, 2007–2022**

Type of location, year, and jurisdiction				PERCENT			
				Percentage of students	Average scale score	Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>
City							
2007	Nation (public)	28	273*	38*	62*	25*	5*
	Illinois	27	269	41*	59*	20	4
2009	Nation (public)	27*	276*	36*	64*	28*	6
	Illinois	28	272*	39*	61*	24	5
2011	Nation (public)	29	277*	34*	66*	29*	7
	Illinois	30	278*	33*	67*	28*	7
2013	Nation (public)	28	278*	34*	66*	29*	7
	Illinois	30*	274*	37*	63*	26*	6
2015	Nation (public)	29	276*	35*	65*	28*	7
	Illinois	28	277*	35*	65*	27	8
2017	Nation (public)	29	277*	37*	63*	29*	9*
	Illinois	27	277*	38*	62*	28*	10
2019	Nation (public)	29	276*	38*	62*	28*	9*
	Illinois	28	278*	36*	64*	30*	9
2022	Nation (public)	29	268	45	55	22	6
	Illinois	26	264	49	51	17	4
Suburban							
2007	Nation (public)	36*	285*	26*	74*	36*	9
	Illinois	42*	285	26*	74*	37	9
2009	Nation (public)	36*	286*	25*	75*	37*	10
	Illinois	48	287	24*	76*	39	10
2011	Nation (public)	36*	286*	25*	75*	37*	9
	Illinois	47	285	26*	74*	36	9
2013	Nation (public)	35*	288*	24*	76*	39*	10*
	Illinois	46*	290*	22*	78*	42*	12
2015	Nation (public)	41	285*	26*	74*	37*	10*
	Illinois	53	285	24*	76*	36	8
2017	Nation (public)	41	287*	27*	73*	39*	12*
	Illinois	50	283	31	69	34	11
2019	Nation (public)	40	286*	28*	72*	38*	12*
	Illinois	49	286	29	71	38	12
2022	Nation (public)	39	278	36	64	30	9
	Illinois	53	282	33	67	34	11

See notes at end of table.



**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 7-B. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by type of location, year and jurisdiction: Various years, 2007–2022—Continued**

Type of location, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
Town							
2007	Nation (public)	13*	280*	29*	71*	29*	5*
	Illinois	15	283*	25*	75*	29	7
2009	Nation (public)	14*	279*	30*	70*	29*	5*
	Illinois	10	282*	22*	78*	29	4
2011	Nation (public)	13	281*	28*	72*	31*	6*
	Illinois	11	283*	24*	76*	31*	7
2013	Nation (public)	13	281*	28*	72*	32*	6*
	Illinois	10	284*	24*	76*	34*	5
2015	Nation (public)	12	279*	30*	70*	28*	5*
	Illinois	10	275	32*	68*	21	3
2017	Nation (public)	11	278*	33*	67*	28*	6*
	Illinois	11	279*	31*	69*	30*	6
2019	Nation (public)	12	276*	35*	65*	28*	6*
	Illinois	10	278*	32	68	29	8
2022	Nation (public)	12	268	43	57	20	4
	Illinois	9	265	47	53	16	2
Rural							
2007	Nation (public)	22*	282*	26*	74*	32*	6*
	Illinois	15	285	24	76	34	6
2009	Nation (public)	23*	284*	25*	75*	33*	7*
	Illinois	15	286*	21	79	35	7
2011	Nation (public)	23*	286*	23*	77*	35*	7*
	Illinois	12	289*	18*	82*	37*	7
2013	Nation (public)	24*	286*	24*	76*	36*	8*
	Illinois	14	291*	19*	81*	42*	11
2015	Nation (public)	19	282*	27*	73*	31*	6*
	Illinois	10	285	23	77	38	5
2017	Nation (public)	19	282*	29*	71*	32*	8*
	Illinois	12	289	21	79	38	11
2019	Nation (public)	19	282*	29*	71*	33*	8*
	Illinois	13	283	26	74	30	6
2022	Nation (public)	20	274	37	63	25	5
	Illinois	12	277	32	68	25	4

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2022.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. NAEP achievement levels correspond to the following points on the NAEP mathematics scales: below *NAEP Basic*, 261 or lower; *NAEP Basic*, 262-298; *NAEP Proficient*, 299-332; and *NAEP Advanced*, 333 or above. At or above *NAEP Basic* includes *NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced*. At or above *NAEP Proficient* includes *NAEP Proficient* and *NAEP Advanced*. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2007–2022 Mathematics Assessments.

## Parents' Highest Level of Education

Parents' highest level of education is defined by the highest level reported by eighth-graders for either parent. Fourth-graders were not asked to indicate their parents' highest level of education because their responses in previous studies were not reliable, and a large percentage of them chose the "I don't know" option. Parental education attainment is one component used to measure students' socioeconomic status (SES).

The results by highest level of parental education are shown in Table 8.

### ***Grade 8 Average Scale Score Results by Parents' Highest Level of Education***

- In 2022, students in Illinois who reported that a parent had graduated from college had an average scale score that was higher than the average scores of students with a parent in any of the following education categories: did not finish high school, graduated from high school, and some education after high school.
- In 2022, the average scale score for students in Illinois who reported that a parent had graduated from college was higher than the score of students in the nation.
- In 2022, the average scale scores for students in Illinois who reported that a parent had not finished high school, had graduated from high school, or had some education after high school were not significantly different from the corresponding scores of students in the nation.
- In 2022, the average scale score for students in Illinois who reported that a parent had not finished high school was higher than the score of students in 1990, but was lower than the score of students in 2009, 2011, 2013, 2015, and 2019, and was not significantly different from the score of students in 2000, 2003, 2005, 2007, and 2017.
- In 2022, the average scale score for students in Illinois who reported that a parent had graduated from high school was lower than the score of students in 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, and 2019, but was not significantly different from the score of students in 1990 and 2000.
- In 2022, the average scale score for students in Illinois who reported that a parent had some education after high school was higher than the score of students in 1990, but was lower than the score of students in 2000, 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, and 2019.
- In 2022, the average scale score for students in Illinois who reported that a parent had graduated from college was higher than the score of students in 1990, but was lower than the score of students in 2009, 2011, 2013, and 2019, and was not significantly different from the score of students in 2000, 2003, 2005, 2007, 2015, and 2017.

**Grade 8 NAEP Achievement-Level Results Parents' Highest Level of Education**

- In 2022, the percentage of students performing at or above *NAEP Proficient* in Illinois who reported that a parent had graduated from college was greater than the percentage for students whose parents' highest level of education was in any of the following education categories: did not finish high school, graduated from high school, and some education after high school.
- In 2022, the percentages of students in Illinois reporting that a parent had not finished high school, had graduated from high school, had some education after high school, or had graduated from college and who performed at or above *NAEP Proficient* were not significantly different from the corresponding percentages of students in the nation.
- In 2022 in Illinois, the percentage of students reporting that a parent had not finished high school and who performed at or above *NAEP Proficient* was smaller than the percentage of students in 2015 and 2019, but was not significantly different from the percentage of students in 1990, 2000, 2003, 2005, 2007, 2009, 2011, 2013, and 2017.
- In 2022 in Illinois, the percentage of students reporting that a parent had graduated from high school and who performed at or above *NAEP Proficient* was smaller than the percentage of students in 2003, 2009, 2013, 2015, and 2019, but was not significantly different from the percentage of students in 1990, 2000, 2005, 2007, 2011, and 2017.
- In 2022 in Illinois, the percentage of students reporting that a parent had some education after high school and who performed at or above *NAEP Proficient* was smaller than the percentage of students in 2000, 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, and 2019, but was not significantly different from the percentage of students in 1990.
- In 2022 in Illinois, the percentage of students reporting that a parent had graduated from college and who performed at or above *NAEP Proficient* was greater than the percentage of students in 1990, but was smaller than the percentage of students in 2009 and 2013, and was not significantly different from the percentage of students in 2000, 2003, 2005, 2007, 2011, 2015, 2017, and 2019.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT**

**Table 8. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by highest parental education level, year and jurisdiction:**  
**Various years, 1990–2022**

Highest parental education level, year, and jurisdiction				PERCENT			
				Percentage of students	Average scale score	Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>
Did not finish high school							
1990 <sup>1</sup>	Nation (public)	10*	241*	76*	24*	3*	#
	Illinois	8	242*	71	29	4	#
2000 <sup>1</sup>	Nation (public)	7	255	55	45	8	1
	Illinois	8	256	55	45	6	#
2000	Nation (public)	8*	253	57	43	7	#
	Illinois	8	254	51	49	8	#
2003	Nation (public)	7	256	56	44	9	1
	Illinois	6	256	60	40	8	#
2005	Nation (public)	8*	259*	52*	48*	11	1
	Illinois	7	255	59	41	6	#
2007	Nation (public)	8*	263*	48*	52*	12	1
	Illinois	8	262	50	50	10	1
2009	Nation (public)	8*	265*	45*	55*	14*	1
	Illinois	6	266*	43*	57*	15	#
2011	Nation (public)	8*	265*	44*	56*	15*	2
	Illinois	7	271*	36*	64*	16	2
2013	Nation (public)	8*	267*	42*	58*	16*	2
	Illinois	8	267*	41*	59*	15	1
2015	Nation (public)	8*	265*	44*	56*	14*	1
	Illinois	8	270*	38*	62*	18*	2
2017	Nation (public)	7	265*	48*	52*	16*	2
	Illinois	6	264	51	49	18	3
2019	Nation (public)	7	264*	48*	52*	15*	2*
	Illinois	7	268*	45	55	19*	4
2022	Nation (public)	7	256	57	43	10	1
	Illinois	6	256	60	40	9	2

See notes at end of table.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 8. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by highest parental education level, year and jurisdiction: Various years, 1990–2022—Continued**

Highest parental education level, year, and jurisdiction				Percentage of students	Average scale score	PERCENT		
						Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>
Graduated from high school								
1990 <sup>1</sup>	Nation (public)	25*	255	59	41	8*	#	
	Illinois	25*	252	59	41	7	#	
2000 <sup>1</sup>	Nation (public)	21*	263*	47*	53*	16*	1	
	Illinois	19*	268*	42*	58*	16	1	
2000	Nation (public)	21*	260	49*	51*	15*	1	
	Illinois	20*	263	44*	56*	15	2	
2003	Nation (public)	18*	267*	42*	58*	16*	2	
	Illinois	17*	269*	40*	60*	19*	2	
2005	Nation (public)	18*	267*	42*	58*	17*	2	
	Illinois	17*	265*	44*	56*	15	1	
2007	Nation (public)	18*	270*	40*	60*	19*	2*	
	Illinois	15	267*	44*	56*	16	2	
2009	Nation (public)	17*	270*	38*	62*	19*	2*	
	Illinois	16*	269*	40*	60*	17*	1	
2011	Nation (public)	17*	271*	38*	62*	20*	2*	
	Illinois	15	268*	41*	59*	15	2	
2013	Nation (public)	17*	270*	39*	61*	19*	2*	
	Illinois	15	272*	38*	62*	22*	3	
2015	Nation (public)	16*	268*	42*	58*	17*	2*	
	Illinois	15	268*	41*	59*	17*	2	
2017	Nation (public)	15	266*	45*	55*	17*	3*	
	Illinois	14	266*	46*	54*	16	2	
2019	Nation (public)	15*	265*	46*	54*	17*	3*	
	Illinois	13	269*	43*	57*	22*	5	
2022	Nation (public)	15	258	55	45	12	1	
	Illinois	13	257	58	42	10	1	

See notes at end of table.

# THE NATION'S REPORT CARD 2022 STATE ASSESSMENT

**Table 8. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by highest parental education level, year and jurisdiction:**  
**Various years, 1990–2022—Continued**

Highest parental education level, year, and jurisdiction				PERCENT			
				Percentage of students	Average scale score	Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>
Some education after high school							
1990 <sup>1</sup>	Nation (public)	17*	267*	43	57	15*	3
	Illinois	19*	263*	47	53	13	1
2000 <sup>1</sup>	Nation (public)	18*	279*	28*	72*	27*	3
	Illinois	19*	280*	26*	74*	28	2
2000	Nation (public)	18*	277*	30*	70*	26*	3
	Illinois	18*	282*	24*	76*	30*	2
2003	Nation (public)	18*	280*	27*	73*	28*	4
	Illinois	17*	278*	30	70	27*	5
2005	Nation (public)	18*	280*	27*	73*	28*	4*
	Illinois	18*	279*	28*	72*	27*	4
2007	Nation (public)	17*	283*	24*	76*	32*	5*
	Illinois	17*	282*	26*	74*	30*	4
2009	Nation (public)	17*	283*	24*	76*	32*	5*
	Illinois	17*	280*	26*	74*	29*	3
2011	Nation (public)	16*	285*	22*	78*	33*	5*
	Illinois	17*	285*	21*	79*	33*	5
2013	Nation (public)	15*	285*	22*	78*	33*	6*
	Illinois	14	285*	22*	78*	31*	6
2015	Nation (public)	15*	282*	25*	75*	30*	5*
	Illinois	15	282*	24*	76*	28*	4
2017	Nation (public)	14*	281*	29*	71*	30*	6*
	Illinois	13	280*	29	71	28*	6
2019	Nation (public)	14*	279*	30*	70*	29*	6*
	Illinois	14	276*	33	67	26*	4
2022	Nation (public)	13	271	39	61	20	3
	Illinois	13	269	40	60	16	2

See notes at end of table.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 8. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by highest parental education level, year and jurisdiction: Various years, 1990–2022—Continued**

Highest parental education level, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
Graduated from college							
1990 <sup>1</sup>	Nation (public)	39*	274*	34*	66*	25*	4*
	Illinois	39*	273*	36*	64*	24*	4*
2000 <sup>1</sup>	Nation (public)	43*	286	24*	76*	39	9
	Illinois	42*	287	22	78	39	7*
2000	Nation (public)	41*	285	25	75	38	9
	Illinois	42*	284	25	75	37	7
2003	Nation (public)	45*	287	23*	77*	39*	8*
	Illinois	48*	288	23	77	41	10
2005	Nation (public)	45*	289*	22*	78*	41*	10*
	Illinois	47*	289	20	80	41	9
2007	Nation (public)	46*	291*	20*	80*	43*	11
	Illinois	46*	293	18*	82*	45	12
2009	Nation (public)	46*	294*	18*	82*	46*	13*
	Illinois	50	294*	18*	82*	46*	13
2011	Nation (public)	47*	294*	18*	82*	46*	13*
	Illinois	48*	294*	19*	81*	46	14
2013	Nation (public)	49*	295*	17*	83*	47*	14*
	Illinois	51	297*	17*	83*	50*	15
2015	Nation (public)	49*	293*	19*	81*	45*	13*
	Illinois	51	293	18*	82*	44	12
2017	Nation (public)	53*	294*	21*	79*	45*	16*
	Illinois	54	293	21	79	44	15
2019	Nation (public)	52*	293*	22*	78*	45*	15*
	Illinois	54	294*	21	79	45	16
2022	Nation (public)	51	285	28	72	37	11
	Illinois	53	289	25	75	39	13

See notes at end of table.

## THE NATION'S REPORT CARD 2022 STATE ASSESSMENT

**Table 8. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by highest parental education level, year and jurisdiction:**  
**Various years, 1990–2022—Continued**

Highest parental education level, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
Unknown							
1990 <sup>1</sup>	Nation (public)	9*	240*	71*	29*	5*	#
	Illinois	9*	241*	70*	30*	4*	#
2000 <sup>1</sup>	Nation (public)	11*	255	55	45	11	1
	Illinois	12	264	47	53	15	1
2000	Nation (public)	12*	253	59	41	9*	1*
	Illinois	12*	262	48	52	14	2
2003	Nation (public)	11*	258	53*	47*	12	1*
	Illinois	12*	257	57	43	11	1
2005	Nation (public)	11*	260*	51*	49*	13	1
	Illinois	11*	261	49	51	13	2
2007	Nation (public)	12*	263*	48*	52*	15*	2
	Illinois	13	266*	45*	55*	15	3
2009	Nation (public)	12*	264*	47*	53*	16*	2
	Illinois	11*	266*	43*	57*	14	3
2011	Nation (public)	12*	265*	46*	54*	16*	2
	Illinois	13	268*	42*	58*	16	2
2013	Nation (public)	12*	266*	45*	55*	17*	2
	Illinois	13	267*	43*	57*	18	3
2015	Nation (public)	12*	263*	49*	51*	15*	2
	Illinois	12	263	50	50	17	2
2017	Nation (public)	11*	263*	50*	50*	16*	3*
	Illinois	13	263	50	50	16	4
2019	Nation (public)	13*	263*	50*	50*	16*	3*
	Illinois	11*	265*	46	54	17	4
2022	Nation (public)	14	257	57	43	12	2
	Illinois	15	258	56	44	14	2

# Rounds to zero.

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2022.

<sup>1</sup> Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. NAEP achievement levels correspond to the following points on the NAEP mathematics scales: below *NAEP Basic*, 261 or lower; *NAEP Basic*, 262-298; *NAEP Proficient*, 299-332; and *NAEP Advanced*, 333 or above. At or above *NAEP Basic* includes *NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced*. At or above *NAEP Proficient* includes *NAEP Proficient* and *NAEP Advanced*. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2022 Mathematics Assessments.



## A More Inclusive NAEP: Students With Disabilities and/or English Learners

It is important for NAEP to assess as many students selected to participate as possible. Assessing representative samples of students, including students with disabilities (SD) and English learners (EL), helps to ensure that NAEP results accurately reflect the educational performance of all students in the target population, and can continue to serve as a meaningful measure of U.S. students' academic achievement over time.

In March 2010, the National Center for Education Statistics (NCES), working with the National Assessment Governing Board, adopted a new policy to maximize the participation of students with disabilities (SD) and English learners (EL).

Today, NAEP continues to explore ways to ensure consistent, inclusive assessment and reporting across all jurisdictions and student populations.

Tables 9-A and 9-B display data for grades 4 and 8 students in Illinois who were identified as SD and/or EL, by whether they were excluded, assessed with accommodations, or assessed under standard conditions, as a percent of all grades 4 and 8 students in the state.

Tables 10-A and 10-B show the percentages of students assessed in Illinois by disability status and their performance on the NAEP assessment in terms of average scale scores and percentages performing below *NAEP Basic*, at or above *NAEP Basic*, at or above *NAEP Proficient*, and at *NAEP Advanced* for grades 4 and 8.

Tables 11-A and 11-B present the percentages of students assessed in Illinois by EL status, their average scale scores, and their performance in terms of the percentages below *NAEP Basic*, at or above *NAEP Basic*, at or above *NAEP Proficient*, and at *NAEP Advanced* for grades 4 and 8.

Tables 12-A and 12-B present the total number of grades 4 and 8 students assessed in each of the participating states and the percentage of students sampled who were excluded.

## THE NATION'S REPORT CARD 2022 STATE ASSESSMENT

**Table 9-A. Percentage of fourth-grade public school students identified as students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP mathematics as a percentage of all students, by assessment year and testing status: Various years, 2000–2022**

Year and testing status		SD and/or EL		SD		EL	
		Illinois	Nation (public)	Illinois	Nation (public)	Illinois	Nation (public)
2000 <sup>1</sup>	Identified	17	16	11	12	7	6
	Excluded	10	7	7	6	4	2
	Assessed without accommodations	6	9	4	6	2	3
2000	Identified	17	19	11	13	7	7
	Excluded	3	4	2	3	2	1
	Assessed without accommodations	5	10	3	5	2	5
2003	Assessed with accommodations	9	5	6	4	3	1
	Identified	23	22	15	14	9	11
	Excluded	4	4	3	3	2	1
2005	Assessed without accommodations	7	10	4	4	4	7
	Assessed with accommodations	11	8	9	7	3	2
	Identified	22	23	14	14	9	10
2007	Excluded	3	3	2	3	1	1
	Assessed without accommodations	9	10	4	4	6	7
	Assessed with accommodations	10	10	8	8	3	3
2009	Identified	23	23	15	14	9	11
	Excluded	5	3	3	3	1	1
	Assessed without accommodations	8	10	4	3	4	7
2011	Assessed with accommodations	10	10	8	8	3	3
	Identified	22	23	15	13	8	10
	Excluded	3	2	2	2	1	1
2013	Assessed without accommodations	6	9	4	3	2	6
	Assessed with accommodations	13	11	9	8	5	4
	Identified	21	23	14	13	8	11
2015	Excluded	2	2	2	2	1	#
	Assessed without accommodations	6	9	4	3	2	6
	Assessed with accommodations	13	12	8	9	6	4
2017	Identified	20	23	14	14	9	11
	Excluded	1	2	1	1	#	#
	Assessed without accommodations	4	7	2	2	1	5
2019	Assessed with accommodations	15	14	11	10	7	5
	Identified	22	24	13	14	10	12
	Excluded	1	2	1	1	1	1
2021	Assessed without accommodations	6	8	3	3	3	6
	Assessed with accommodations	14	14	9	11	6	5
	Identified	24	25	15	15	12	12
2022	Excluded	2	2	1	2	1	1
	Assessed without accommodations	7	10	2	4	5	7
	Assessed with accommodations	16	13	12	9	6	5
2023	Identified	28	27	15	16	16	13
	Excluded	1	2	1	2	#	1
	Assessed without accommodations	12	10	3	3	9	7
2024	Assessed with accommodations	16	15	11	11	7	6
	Identified	32	29	15	16	21	15
	Excluded	1	2	1	1	1	1
2025	Assessed without accommodations	12	12	3	4	9	8
	Assessed with accommodations	19	15	11	11	11	5

# Rounds to zero.

<sup>1</sup> Accommodations were not permitted for this assessment.

NOTE: Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–2022 Mathematics Assessments.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 9-B. Percentage of eighth-grade public school students identified as students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP mathematics as a percentage of all students, by assessment year and testing status: Various years, 1990–2022**

Year and testing status		SD and/or EL		SD		EL	
		Illinois	Nation (public)	Illinois	Nation (public)	Illinois	Nation (public)
1990 <sup>1</sup>	Identified	9	—	8	—	1	—
	Excluded	5	—	4	—	1	—
	Assessed without accommodations	4	—	4	—	#	—
2000 <sup>1</sup>	Identified	15	15	11	12	5	4
	Excluded	8	7	6	6	2	2
	Assessed without accommodations	7	8	5	6	3	3
2000	Identified	15	14	11	11	5	4
	Excluded	5	4	3	3	2	1
	Assessed without accommodations	7	7	5	5	3	3
2003	Assessed with accommodations	3	3	3	2	#	1
	Identified	18	19	15	14	4	6
	Excluded	4	4	4	3	1	1
2005	Assessed without accommodations	4	8	3	5	1	4
	Assessed with accommodations	9	7	8	6	2	1
	Identified	18	19	15	13	3	6
2007	Excluded	3	4	3	3	1	1
	Assessed without accommodations	4	7	2	3	1	4
	Assessed with accommodations	11	8	10	7	1	1
2009	Identified	18	18	14	13	4	7
	Excluded	6	4	5	4	1	1
	Assessed without accommodations	3	6	2	2	2	4
2011	Assessed with accommodations	9	8	8	6	1	2
	Identified	16	18	14	13	3	6
	Excluded	3	3	3	3	1	#
2013	Assessed without accommodations	3	5	2	2	1	3
	Assessed with accommodations	11	10	9	8	2	2
	Identified	17	18	14	13	4	6
2015	Excluded	2	3	2	2	#	#
	Assessed without accommodations	3	5	1	2	2	3
	Assessed with accommodations	12	10	10	9	2	2
2017	Identified	17	17	13	13	5	6
	Excluded	1	2	1	1	#	#
	Assessed without accommodations	2	3	1	1	1	2
2019	Assessed with accommodations	14	12	12	10	3	3
	Identified	17	19	13	13	5	7
	Excluded	1	2	#	1	#	#
2022	Assessed without accommodations	3	5	1	1	2	3
	Assessed with accommodations	13	13	11	11	3	3
	Identified	18	20	14	14	5	7
2022	Excluded	1	2	1	1	1	1
	Assessed without accommodations	3	6	1	3	2	3
	Assessed with accommodations	14	12	12	10	3	3
2022	Identified	19	21	14	15	7	8
	Excluded	1	2	1	1	#	1
	Assessed without accommodations	3	6	1	2	2	4
2022	Assessed with accommodations	15	13	12	11	4	3
	Identified	25	24	15	15	12	10
	Excluded	1	2	1	1	#	1
2022	Assessed without accommodations	7	8	2	2	6	6
	Assessed with accommodations	16	14	13	12	6	4

— Not available.

# Rounds to zero.

<sup>1</sup> Accommodations were not permitted for this assessment.

NOTE: Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2022 Mathematics Assessments.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 10-A. Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by students with disabilities (SD) status, year and jurisdiction: Various years, 2000–2022**

SD status, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
SD							
2000 <sup>1</sup>	Nation (public)	‡	‡	‡	‡	‡	‡
	Illinois	‡	‡	‡	‡	‡	‡
2000	Nation (public)	10*	198*	71*	29*	6*	1*
	Illinois	9*	208	50	50	7*	#
2003	Nation (public)	11*	214*	50*	50*	12*	1*
	Illinois	13	215	49	51	14	2
2005	Nation (public)	12*	218*	44*	56*	16	2*
	Illinois	12*	218	43	57	16	1
2007	Nation (public)	11*	220*	40*	60*	19*	2
	Illinois	12*	221	41	59	22	4
2009	Nation (public)	12*	220*	41*	59*	19*	2
	Illinois	13	223*	38*	62*	23	4
2011	Nation (public)	12*	218*	45*	55*	17*	2
	Illinois	12*	218	43	57	19	2
2013	Nation (public)	13*	218*	45*	55*	18*	2
	Illinois	13	213	53	47	16	3
2015	Nation (public)	13*	217*	46*	54*	16	2
	Illinois	13	210	55	45	13	2
2017	Nation (public)	13*	214*	52	48	16	2
	Illinois	14	209	59	41	14	3
2019	Nation (public)	14*	214*	51*	49*	16	3
	Illinois	14	202*	63*	37*	12	2
2022	Nation (public)	15	211	54	46	15	2
	Illinois	14	214	51	49	17	3

See notes at end of table.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 10-A. Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by students with disabilities (SD) status, year and jurisdiction: Various years, 2000–2022—Continued**

SD status, year, and jurisdiction				PERCENT			
				Percentage of students	Average scale score	Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>
Not SD							
2000 <sup>1</sup>	Nation (public)	‡	‡	‡	‡	‡	‡
	Illinois	‡	‡	‡	‡	‡	‡
2000	Nation (public)	90*	227*	33*	67*	24*	3*
	Illinois	91*	225*	36*	64*	21*	2*
2003	Nation (public)	89*	236*	21	79	34*	4*
	Illinois	87	236*	24	76	34*	5*
2005	Nation (public)	88*	240	17*	83*	38	5*
	Illinois	88*	235*	24	76	34*	5*
2007	Nation (public)	89*	241*	16*	84*	41*	6*
	Illinois	88*	239	19	81	38	6*
2009	Nation (public)	88*	242*	16*	84*	41*	6*
	Illinois	87	241	18	82	40	7
2011	Nation (public)	88*	243*	15*	85*	43*	7*
	Illinois	88*	242	17	83	41	8
2013	Nation (public)	87*	244*	14*	86*	45*	8
	Illinois	87	243	17	83	43	9
2015	Nation (public)	87*	243*	15*	85*	43*	8
	Illinois	87	241	18	82	40	9
2017	Nation (public)	87*	243*	16*	84*	43*	9
	Illinois	86	243	18	82	43	10
2019	Nation (public)	86*	244*	15*	85*	45*	10*
	Illinois	86	243	16*	84*	43	9
2022	Nation (public)	85	239	21	79	39	8
	Illinois	86	241	20	80	41	10

# Rounds to zero.

‡ Reporting standards not met.

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2022.<sup>1</sup> Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 4 mathematics scale ranges from 0 to 500. NAEP achievement levels correspond to the following points on the NAEP mathematics scales: below *NAEP Basic*, 213 or lower; *NAEP Basic*, 214–248; *NAEP Proficient*, 249–281; and *NAEP Advanced*, 282 or above. At or above *NAEP Basic* includes *NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced*. At or above *NAEP Proficient* includes *NAEP Proficient* and *NAEP Advanced*. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–2022 Mathematics Assessments.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 10-B. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by students with disabilities (SD) status, year and jurisdiction: Various years, 2000–2022**

SD status, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
SD							
2000 <sup>1</sup>	Nation (public)	‡	‡	‡	‡	‡	‡
	Illinois	‡	‡	‡	‡	‡	‡
2000	Nation (public)	8*	229*	80*	20*	4*	#*
	Illinois	8*	223*	77	23	2	#
2003	Nation (public)	11*	242	71	29	6	1*
	Illinois	12*	241	72	28	5	1
2005	Nation (public)	11*	244	69*	31*	7	1*
	Illinois	13	244	69	31	5	#
2007	Nation (public)	9*	246*	67*	33*	8	1
	Illinois	10*	246	68	32	7	#
2009	Nation (public)	10*	249*	64*	36*	9*	1
	Illinois	11*	250	62	38	8	1
2011	Nation (public)	11*	249*	65*	35*	9*	2
	Illinois	12*	252	64	36	10	2
2013	Nation (public)	12*	248*	66*	34*	8*	1
	Illinois	13*	248	67	33	10	3
2015	Nation (public)	12*	246*	68*	32*	8	1
	Illinois	13*	241	76	24	7	2
2017	Nation (public)	13*	246*	70*	30*	8*	2
	Illinois	13	242	76	24	7	1
2019	Nation (public)	14*	247*	68*	32*	9*	2*
	Illinois	14	242	75	25	7	#
2022	Nation (public)	14	242	73	27	7	1
	Illinois	15	246	70	30	7	1

See notes at end of table.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 10-B. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by students with disabilities (SD) status, year and jurisdiction: Various years, 2000–2022—Continued**

SD status, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
Not SD							
2000 <sup>1</sup>	Nation (public)	‡	‡	‡	‡	‡	‡
	Illinois	‡	‡	‡	‡	‡	‡
2000	Nation (public)	92*	275*	35	65	26*	5*
	Illinois	92*	279	30	70	28	4*
2003	Nation (public)	89*	280*	29*	71*	30	5*
	Illinois	88*	282	28*	72*	33	7
2005	Nation (public)	89*	281*	28*	72*	31*	6*
	Illinois	87	283	26*	74*	32	6
2007	Nation (public)	91*	284*	26*	74*	33*	7
	Illinois	90*	284	26*	74*	33	8
2009	Nation (public)	90*	285*	24*	76*	35*	8
	Illinois	89*	287*	23*	77*	36*	8
2011	Nation (public)	89*	287*	23*	77*	36*	9*
	Illinois	88*	288*	22*	78*	36*	9
2013	Nation (public)	88*	288*	22*	78*	38*	9*
	Illinois	87*	290*	20*	80*	40*	10
2015	Nation (public)	88*	286*	24*	76*	36*	9*
	Illinois	87*	288*	21*	79*	36*	8
2017	Nation (public)	87*	287*	25*	75*	37*	11*
	Illinois	87	288*	25*	75*	36*	11
2019	Nation (public)	86*	286*	26*	74*	37*	11*
	Illinois	86	289*	24*	76*	38*	12*
2022	Nation (public)	86	278	34	66	29	7
	Illinois	85	280	33	67	30	8

# Rounds to zero.

‡ Reporting standards not met.

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2022.<sup>1</sup> Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. NAEP achievement levels correspond to the following points on the NAEP mathematics scales: below *NAEP Basic*, 261 or lower; *NAEP Basic*, 262–298; *NAEP Proficient*, 299–332; and *NAEP Advanced*, 333 or above. At or above *NAEP Basic* includes *NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced*. At or above *NAEP Proficient* includes *NAEP Proficient* and *NAEP Advanced*. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–2022 Mathematics Assessments.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 11-A. Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by English learner (EL) status, year and jurisdiction: Various years, 2000–2022**

EL status, year, and jurisdiction				PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
EL							
2000 <sup>1</sup>	Nation (public)	‡	‡	‡	‡	‡	‡
	Illinois	‡	‡	‡	‡	‡	‡
2000	Nation (public)	6*	199*	70*	30*	4*	#
	Illinois	6*	‡	‡	‡	‡	‡
2003	Nation (public)	9*	214	51	49	9*	#*
	Illinois	7*	204*	66*	34*	5*	#
2005	Nation (public)	10*	216	46	54	11*	1*
	Illinois	9*	204*	64*	36*	5*	1
2007	Nation (public)	10*	217*	44*	56*	13	1
	Illinois	8*	213	50	50	9	1
2009	Nation (public)	10*	218*	43*	57*	12*	1*
	Illinois	7*	215	47	53	11	1
2011	Nation (public)	11*	219*	42*	58*	14	1
	Illinois	7*	215	46	54	12	1
2013	Nation (public)	11*	219*	41*	59*	14	1
	Illinois	8*	211*	54	46	7*	#
2015	Nation (public)	11*	218*	43*	57*	15	1
	Illinois	10*	211*	53	47	8*	#
2017	Nation (public)	12*	217	47	53	14	2
	Illinois	11*	209*	59*	41*	8*	1
2019	Nation (public)	13*	219*	41*	59*	16	1
	Illinois	16*	221	36	64	16	1
2022	Nation (public)	14	215	48	52	14	1
	Illinois	20	219	43	57	15	2

See notes at end of table.



**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 11-A. Percentage of fourth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by English learner (EL) status, year and jurisdiction: Various years, 2000–2022—Continued**

EL status, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
Not EL							
2000 <sup>1</sup>	Nation (public)	‡	‡	‡	‡	‡	‡
	Illinois	‡	‡	‡	‡	‡	‡
2000	Nation (public)	94*	226*	34*	66*	24*	3*
	Illinois	94*	224*	35*	65*	21*	2*
2003	Nation (public)	91*	236*	21*	79*	34*	4*
	Illinois	93*	235*	24*	76*	34*	5*
2005	Nation (public)	90*	239*	18*	82*	38	5*
	Illinois	91*	236*	22	78	34*	5*
2007	Nation (public)	90*	242*	16*	84*	42*	6*
	Illinois	92*	239	19	81	39	6*
2009	Nation (public)	90*	242*	16*	84*	41*	6*
	Illinois	93*	240	18	82	40	7*
2011	Nation (public)	89*	243*	15*	85*	43*	7*
	Illinois	93*	241	18	82	40	7
2013	Nation (public)	89*	244*	15*	85*	45*	8
	Illinois	92*	242	19	81	42	9
2015	Nation (public)	89*	243*	16*	84*	43*	8
	Illinois	90*	240	20	80	40	9
2017	Nation (public)	88*	242*	18*	82*	43*	9
	Illinois	89*	242	19	81	42	10
2019	Nation (public)	87*	243*	17*	83*	44*	10*
	Illinois	84*	240	20	80	43	9
2022	Nation (public)	86	238	23	77	39	8
	Illinois	80	242	20	80	43	11

# Rounds to zero.

‡ Reporting standards not met.

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2022.<sup>1</sup> Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 4 mathematics scale ranges from 0 to 500. NAEP achievement levels correspond to the following points on the NAEP mathematics scales: below *NAEP Basic*, 213 or lower; *NAEP Basic*, 214–248; *NAEP Proficient*, 249–281; and *NAEP Advanced*, 282 or above. At or above *NAEP Basic* includes *NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced*. At or above *NAEP Proficient* includes *NAEP Proficient* and *NAEP Advanced*. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–2022 Mathematics Assessments.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 11-B. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by English learner (EL) status, year and jurisdiction: Various years, 2000–2022**

EL status, year, and jurisdiction		Percentage of students	Average scale score	PERCENT			
				Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>	At or above <i>NAEP Proficient</i>	At <i>NAEP Advanced</i>
EL							
2000 <sup>1</sup>	Nation (public)	‡	‡	‡	‡	‡	‡
	Illinois	‡	‡	‡	‡	‡	‡
2000	Nation (public)	3*	234*	80	20	2*	#
	Illinois	3*	‡	‡	‡	‡	‡
2003	Nation (public)	5*	241	74	26	5	1
	Illinois	3*	237	80	20	4	#
2005	Nation (public)	6*	244*	71*	29*	6*	1
	Illinois	2*	249	70	30	8	3
2007	Nation (public)	6*	245*	70*	30*	6*	1
	Illinois	3*	257*	56*	44*	12*	3
2009	Nation (public)	6*	243	72*	28*	5	1
	Illinois	3*	249	68	32	7	#
2011	Nation (public)	6*	244	72*	28*	5	1
	Illinois	4*	243	70	30	4	#
2013	Nation (public)	5*	245*	69*	31*	5	1
	Illinois	5*	241	74	26	3	1
2015	Nation (public)	6*	246*	69*	31*	5	1
	Illinois	5*	247	70	30	7	#
2017	Nation (public)	6*	245*	72*	28*	6*	1*
	Illinois	5*	247	73	27	6	1
2019	Nation (public)	7*	243	73	27	5	1
	Illinois	6*	244	72	28	5	#
2022	Nation (public)	9	241	76	24	4	#
	Illinois	12	242	76	24	1	#

See notes at end of table.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 11-B. Percentage of eighth-grade public school students, average scale score, and achievement-level results in NAEP mathematics, by English learner (EL) status, year and jurisdiction: Various years, 2000–2022—Continued**

EL status, year, and jurisdiction				PERCENT			
				Percentage of students	Average scale score	Below <i>NAEP Basic</i>	At or above <i>NAEP Basic</i>
Not EL							
2000 <sup>1</sup>	Nation (public)	‡	‡	‡	‡	‡	‡
	Illinois	‡	‡	‡	‡	‡	‡
2000	Nation (public)	97*	273*	37	63	26*	5*
	Illinois	97*	275*	33	67	27	4*
2003	Nation (public)	95*	278*	31*	69*	29	5*
	Illinois	97*	279	31	69	30	6
2005	Nation (public)	94*	280*	30*	70*	30*	6*
	Illinois	98*	278	31	69	29	5*
2007	Nation (public)	94*	282*	27*	73*	33*	7
	Illinois	97*	281	29	71	31	7
2009	Nation (public)	94*	284*	26*	74*	34*	8
	Illinois	97*	283	26*	74*	34	7
2011	Nation (public)	94*	285*	25*	75*	35*	8*
	Illinois	96*	285*	25*	75*	34	8
2013	Nation (public)	95*	286*	25*	75*	36*	9*
	Illinois	95*	287*	24*	76*	38*	10
2015	Nation (public)	94*	284*	27*	73*	34*	8*
	Illinois	95*	284	25*	75*	34	8
2017	Nation (public)	94*	284*	28*	72*	35*	10*
	Illinois	95*	283	30	70	34	10
2019	Nation (public)	93*	284*	29*	71*	35*	10*
	Illinois	94*	285*	28*	72*	36*	11
2022	Nation (public)	91	276	36	64	28	7
	Illinois	88	280	33	67	30	8

# Rounds to zero.

‡ Reporting standards not met.

\* Value is significantly different ( $p < .05$ ) from the value for the same jurisdiction in 2022.<sup>1</sup> Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 8 mathematics scale ranges from 0 to 500. NAEP achievement levels correspond to the following points on the NAEP mathematics scales: below *NAEP Basic*, 261 or lower; *NAEP Basic*, 262–298; *NAEP Proficient*, 299–332; and *NAEP Advanced*, 333 or above. At or above *NAEP Basic* includes *NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced*. At or above *NAEP Proficient* includes *NAEP Proficient* and *NAEP Advanced*. All differences were calculated and tested using unrounded numbers.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2000–2022 Mathematics Assessments.

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 12-A. Number of fourth-grade public school students assessed in NAEP mathematics and weighted percentage excluded, by state/jurisdiction: 2022**

State/jurisdiction	Number assessed	Weighted percentage excluded
<b>Nation (public)</b>	112,100	2
Alabama	2,000	1
Alaska	1,700	1
Arizona	1,900	1
Arkansas	1,800	1
California	3,900	2
Colorado	2,500	2
Connecticut	1,800	2
Delaware	1,800	2
Florida	4,600	3
Georgia	2,700	1
Hawaii	1,700	2
Idaho	1,700	1
Illinois	2,800	1
Indiana	1,800	#
Iowa	1,800	1
Kansas	1,900	1
Kentucky	2,400	2
Louisiana	1,800	2
Maine	1,700	2
Maryland	2,500	1
Massachusetts	2,700	2
Michigan	2,600	3
Minnesota	1,900	2
Mississippi	2,000	1
Missouri	1,700	1
Montana	1,800	1
Nebraska	1,900	1
Nevada	2,100	2
New Hampshire	1,800	1
New Jersey	1,800	2
New Mexico	2,200	2
New York	2,400	1
North Carolina	3,500	2
North Dakota	1,800	1
Ohio	2,400	1
Oklahoma	1,800	2
Oregon	1,800	2
Pennsylvania	2,600	2
Rhode Island	1,900	2
South Carolina	1,800	1
South Dakota	1,900	1
Tennessee	2,500	2
Texas	5,800	3
Utah	1,900	1
Vermont	1,700	1
Virginia	1,700	3
Washington	1,900	2
West Virginia	1,800	2
Wisconsin	2,300	1
Wyoming	1,700	1
Other jurisdictions		
District of Columbia	1,700	2
DoDEA <sup>1</sup>	2,400	2

# Rounds to zero.

<sup>1</sup> Department of Defense Education Activity (overseas and domestic schools).

NOTE: The number of students assessed is rounded to the nearest hundred.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2022 Mathematics Assessment

**THE NATION'S REPORT CARD 2022 STATE ASSESSMENT****Table 12-B. Number of eighth-grade public school students assessed in NAEP mathematics and weighted percentage excluded, by state/jurisdiction: 2022**

State/jurisdiction	Number assessed	Weighted percentage excluded
<b>Nation (public)</b>	107,700	2
Alabama	1,800	2
Alaska	1,500	1
Arizona	1,800	2
Arkansas	1,800	1
California	3,600	2
Colorado	2,300	1
Connecticut	1,700	2
Delaware	1,700	2
Florida	4,500	3
Georgia	2,500	2
Hawaii	1,700	2
Idaho	1,800	1
Illinois	2,700	1
Indiana	1,700	1
Iowa	1,800	1
Kansas	1,800	1
Kentucky	2,300	2
Louisiana	1,700	2
Maine	1,700	1
Maryland	2,500	2
Massachusetts	2,500	3
Michigan	2,400	2
Minnesota	1,500	2
Mississippi	1,800	1
Missouri	1,800	1
Montana	1,700	1
Nebraska	1,900	2
Nevada	1,900	1
New Hampshire	1,700	1
New Jersey	1,800	2
New Mexico	2,200	2
New York	2,300	2
North Carolina	3,300	1
North Dakota	1,700	1
Ohio	2,400	1
Oklahoma	1,700	2
Oregon	1,600	2
Pennsylvania	2,400	1
Rhode Island	1,800	2
South Carolina	1,700	1
South Dakota	1,900	2
Tennessee	2,500	2
Texas	5,500	2
Utah	1,700	2
Vermont	1,800	2
Virginia	1,700	2
Washington	1,800	1
West Virginia	1,800	2
Wisconsin	2,500	1
Wyoming	1,700	1
<b>Other jurisdictions</b>		
District of Columbia	1,600	1
DoDEA <sup>1</sup>	1,700	1

<sup>1</sup> Department of Defense Education Activity (overseas and domestic schools).

NOTE: The number of students assessed is rounded to the nearest hundred.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2022 Mathematics Assessment

## Where to Find More Information

### The NAEP Mathematics Assessment

More information about the 2022 NAEP mathematics assessment and the results can be found on the NAEP website at <https://nces.ed.gov/nationsreportcard/mathematics>. The individual snapshot reports for each participating state and other jurisdictions are also available in the state results section of the website at <https://nces.ed.gov/nationsreportcard/states/>.

The *Mathematics Framework for the National Assessment of Educational Progress*, on which this assessment is based, is available at the National Assessment Governing Board website at <https://www.nagb.gov/naep-frameworks/mathematics.html>.

### The NAEP Data Explorer (NDE)

The NAEP Data Explorer (NDE), available at <https://nces.ed.gov/nationsreportcard/naepdata/>, is an interactive database with which users can design and create tables and perform tests of statistical significance. The NDE includes student, teacher, and school variables for all participating districts, states, and the nation. Data tables are also available for participating districts, with all contextual questions cross-tabulated with the major demographic variables.

### Technical Documentation on the Web (TDW)

The [Technical Documentation on the Web \(TDW\)](#) section of the NAEP website is written for researchers and assumes knowledge of educational measurement and testing. TDW contains information about the technical procedures and methods of NAEP: how the assessment is designed and conducted, and how data are analyzed.

### Publications on the inclusion of students with disabilities and English learners

References for a variety of research publications related to the assessment of SD and/or EL students may be found at <https://nces.ed.gov/nationsreportcard/about/inclusion.asp#research>.

**To order publications:**

Some recent NAEP publications related to mathematics are accessible via the mathematics page of the NAEP website (<https://nces.ed.gov/nationsreportcard/mathematics/>, under "Mathematics Publications"). These and others are available through the IES Publications and Products Search site at: <https://ies.ed.gov/pubsearch/>. Publications can also be ordered from:

Education Publications Center (ED Pubs)  
U.S. Department of Education  
P.O. Box 22207  
Alexandria, VA 22304

Call toll free: 1-877-4ED-Pubs (1-877-433-7827)  
TTY/TDD: 1-877-576-7734  
FAX: 1-703-605-6794  
Order online at: <https://www.ed.gov/edpubs/>.

**The NAEP State Report Generator was developed for the NAEP 2022 reports by Phillip Leung, Tao Wang, Hui-Jou Chou, Nicole Fiorentino, Carol Eckerly, Xueli Xu, Laura Jerry, Jillian McCarthy, and Ming Kuang.**

**What is the Nation's Report Card™?**

The Nation's Report Card™ informs the public about the academic achievement of elementary and secondary students in the United States. Report cards communicate the findings of the National Assessment of Educational Progress (NAEP), a continuing and nationally representative measure of achievement in various subjects over time.

Since 1969, NAEP assessments have been conducted periodically in reading, mathematics, science, writing, U.S. history, civics, geography, and other subjects. NAEP collects and reports information on student performance at the national, state, and local levels, making the assessment an integral part of our nation's evaluation of the condition and progress of education. Only academic achievement data and related background information are collected. The privacy of individual students and their families is protected.

NAEP is a congressionally authorized project of the National Center for Education Statistics (NCES) within the Institute of Education Sciences of the U.S. Department of Education. The Commissioner of Education Statistics is responsible for carrying out the NAEP project. The National Assessment Governing Board oversees and sets policy for NAEP.

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