

The Nation's Report Card Mathematics and Reading 2022 Frequently Asked Questions

What is The Nation's Report Card™?

The National Assessment of Educational Progress (NAEP), also known as The Nation's Report Card, is the largest continuing and nationally representative assessment of what our nation's students know and can do in subjects such as mathematics, reading, science, and writing. Teachers, principals, parents, policymakers, and researchers all use NAEP results to assess progress and develop ways to improve education in the United States. Standard assessment administration practices are implemented to provide a common measure of student achievement.

The National Center for Education Statistics (NCES), within the U.S. Department of Education's Institute of Education Sciences (IES), is charged by Congress with administering the NAEP program. The National Assessment Governing Board (NAGB) sets policy for the NAEP program.

How many schools and students participated in the 2022 mathematics and reading assessments?

The 2022 mathematics and reading assessments were administered between January and March 2022. Displayed in the table below are the number of participating schools and the number of students assessed.

Grade	Mathematics		Reading	
	Number of schools participating	Number of students assessed	Number of schools participating	Number of students assessed
Grade 4	5,780	116,200	5,780	108,200
Grade 8	5,190	111,000	5,190	111,300

NOTE: The number of schools are rounded to the nearest ten, and the number of students are rounded to the nearest hundred.

How were the 2022 NAEP assessments administered?

NAEP is administered on a digitally based platform to students across the nation by trained NAEP representatives and with the support of school coordinators. It takes approximately 120 minutes for students to complete an assessment. All necessary equipment, including student tablets with an attached keyboard, stylus, earbuds, administrator tablet, and a router that provides a closed wireless network for the devices to communicate are provided during the time of the assessment.

Students complete a tutorial that helps them understand how to use the tablets and system tools, as well as how to enter their responses. Survey questionnaires are also administered on tablets to students that record information about their learning experiences.

Are 2022 results from the assessments comparable to results from prior years?

Yes. Results from 2022 are comparable to previous years, including the first assessment years in the early 1990s.

When were mathematics and reading previously assessed by NAEP?

The NAEP mathematics and reading assessments in grades 4 and 8 have been conducted every two years since 2003. Both subjects were last assessed in 2019. The NAEP reading assessment was first administered in 1992 and mathematics in 1990.

How are the assessments developed?

The content of each NAEP assessment is based on a subject framework developed by NAGB in conjunction with subject-area experts, school administrators, teachers, parents, policymakers, and others. Frameworks are reviewed periodically and revised or replaced, as needed, to reflect new developments in the field and to keep the assessments in line with current instructional practices.

NCES is responsible for developing NAEP assessment questions based on framework specifications. The questions are developed in consultation with classroom teachers, curriculum specialists, and test development specialists. Once developed, questions are pilot- and field-tested in schools across the country before being administered to students as part of the assessments.

How are the results reported?

Student performance is reported in two ways—as average scale scores and as percentages of students performing at each of three achievement levels.

- Results are reported as average scores on separate scales for each grade. While both mathematics and reading are reported on a 0–500-point scale, scores cannot be compared across subjects or grades.
- NAEP achievement levels are established by NAGB with support from an expert panel and define a set of standards for what students *should* know and be able to do in each subject area assessed. Achievement-level results are reported as the percentages of students performing at or above the *NAEP Basic*, *NAEP Proficient*, and *NAEP Advanced* levels. The Governing Board defines *NAEP Proficient* performance as “competency over challenging subject matter.” The NAEP achievement levels are used on a trial basis and therefore should be interpreted with care to ensure a proper understanding of performance.

What results are reported?

The 2022 mathematics and reading assessments results for fourth- and eighth-grade students are reported for the nation, 50 states, two jurisdictions (U.S. Department of Defense Education Activity schools and the District of Columbia), and the 26 large-city school districts that voluntarily participate in the Trial Urban District Assessment.

Results are provided for students overall and by selected demographic characteristics such as race/ethnicity, gender, and student eligibility for the National School Lunch Program. Results are also available based on information collected from the student, teacher, and school background questionnaires. NCES does not provide individual scores for participating students or schools.

Is it possible to compare scores across subjects and grades?

Because NAEP scales are developed independently for each subject, scores cannot be compared across subjects.

Are results for private schools included in the report?

Both public and private school students participated in the assessments and are included as part of the national results. In 2022, the school participation rates for private schools at both grades 4 and 8 did not meet the 70 percent or higher reporting criteria in both mathematics and reading, so their results cannot be reported separately.

Results for states and other jurisdictions only reflect the performance of students in public schools. The national level results also include students from sampled charter schools.

Are results for Catholic schools included in the report?

Yes. Students attending Catholic schools participated in the assessments and are included as part of the national results. Results are also available for Catholic schools specifically, as the Catholic school sample size is large enough to support good precision levels for reporting Catholic school results.

What do the NAEP mathematics and reading assessments measure?

The 2022 NAEP mathematics assessment tested students on five main mathematics content areas, as shown in the following table. The table also indicates the proportion of the assessment devoted to each of these five areas in each grade.

Mathematics Content Areas	Grade 4	Grade 8
Number properties and operations	38%	24%
Measurement	17%	15%
Geometry	15%	17%
Data analysis, statistics, and probability	13%	15%
Algebra	17%	29%

The NAEP reading assessment was designed to measure student comprehension of both literary and informational texts. Literary texts include fiction, literary nonfiction, and poetry. Informational texts include exposition, argumentation and persuasive text, and procedural text and documents. Assessment questions target three cognitive aspects in order to assess students' reading ability, as shown in the table below. The proportion of the assessment questions devoted to each of the three cognitive targets varied by grade to reflect the developmental differences of students.

Reading Cognitive Targets	Grade 4	Grade 8
Locate and recall	21%	18%
Integrate and interpret	62%	61%
Critique and evaluate	17%	21%

What types of questions did students answer?

Students answered multiple choice and open-ended questions in both reading and mathematics assessments. In the reading assessment, students read a passage and responded to a series of related questions. In the mathematics assessment, students were asked to apply their mathematical knowledge in problem-solving situations.

NCES has made test questions from past assessments available to the public. These questions can be viewed by visiting the NAEP Questions Tool (<http://nces.ed.gov/nationsreportcard/itmrlsx>), which includes sample student responses, the scoring guide, and percentages of students answering correctly.

Media FAQ for the Trial Urban District Assessments

What is the NAEP Trial Urban District Assessment?

The NAEP Trial Urban District Assessments (TUDA) in reading and mathematics are the assessments at grades 4 and 8 that have the unique capability of tracking and comparing the performance of students in selected urban districts across the nation. TUDA is a special project of NCES, NAGB, and the Council of the Great City Schools, and is funded by Congress. It began in 2002 for reading and in 2003 for mathematics. The 2022 assessment marks the 11th assessment cycle of the TUDA program in reading and the 10th in mathematics.

Were the national, state, and TUDA assessments the same?

Yes, the forms of NAEP questions for TUDA were the same as those used for national and state NAEP.

How do the TUDA samples contribute to state and national results?

The sample of students in the 26 participating TUDA school districts is an extension of the sample of students who would usually be selected by NAEP as part of state and national samples. Students in the TUDA samples also contribute to state and national results. For example, the results reported for students in Boston also contribute to the results reported for Massachusetts and to the results for the nation.

What proportion of national public school students did the TUDA students make up?

In 2022, students from public schools in the 26 participating districts represented about 9 percent of public school students in the nation at grade 4 and 8 percent of public school students in the nation at 8.

How many districts participate?

Participating in the TUDA program is voluntary. The following table shows the participating districts in 2022 and the year that they joined the TUDA program. The same 26 districts that participated in the 2019 mathematics and reading assessments also participated in 2022.

Participating District	Joined
Albuquerque Public Schools	2011
Atlanta Public Schools	2002
Austin Independent School District	2005
Baltimore City Public Schools	2009
Boston Public Schools	2003
Charlotte-Mecklenburg Schools	2003
Chicago Public Schools	2002
Clark County (NV) School District	2017
Cleveland Metropolitan School District	2003
Dallas Independent School District	2011
Denver Public Schools	2017
Detroit Public Schools	2009
District of Columbia Public Schools	2002
Duval County Public Schools	2015
Fort Worth Independent School District	2017
Guilford County (NC) Schools	2017
Hillsborough County (FL) Public Schools	2011
Houston Independent School District	2002
Jefferson County Public Schools (Louisville, KY)	2009
Los Angeles Unified School District	2002
Miami-Dade County Public Schools	2009
Milwaukee Public Schools	2009
New York City Department of Education	2002
San Diego Unified School District	2003
School District of Philadelphia	2009
Shelby County (TN) Schools	2017

How were the participating districts chosen?

The districts were chosen and invited to participate by NAGB after a selection process that considered various factors, including size and racial/ethnic diversity. The eligibility criteria for selecting districts for participation are shown below.

1. Only large cities having 250,000 or more population shall be represented in TUDA.
2. Districts participating in TUDA shall be large enough to support a three-subject assessment cycle for NAEP in grade levels included in the state assessment program.
3. Districts participating in TUDA shall have a majority (50 percent or more) of students meeting at least one of the following criteria:
 - a. Either African American or Hispanic
 - b. Eligible for participation in the free and reduced-price lunch program (or other appropriate indicator of poverty status)

Districts that are very close to meeting a particular eligibility requirement may be considered eligible if they request to participate in the program and if funds are sufficient to permit participation. Eligibility data shall be updated and verified regularly.

Congress appropriated funding for the current set of 26 districts that participated in the TUDA (including the District of Columbia Public Schools).

What are “large cities” and why are they used as a point of comparison?

Just as the national public sample is used as a benchmark for comparing results for states, results for urban districts are compared to results from large cities nationwide. Schools in participating TUDA districts are also included in the results for large cities, even though some districts include some schools not classified as large city schools. Large city is not synonymous with the term inner city. Large city includes students from all cities in the nation with populations of 250,000 or more, including participating districts.

Students in the 26 TUDA districts represent nearly half of the students who attend schools in large cities nationally. The comparison to students in large cities is made because the demographic characteristics of those students are most like the characteristics of students in the urban districts. Both the districts and large cities overall generally have higher concentrations of Black or Hispanic students, low-income students, and English language learners than in the nation as a whole.

Of all the sampled students in NAEP 2022 whose school locations were classified as large cities, the combined sample of the TUDA districts represented about 50 percent at both grades 4 and 8.

Are private schools and charter schools included in the Trial Urban District Assessment?

The Trial Urban District Assessment included only public schools, and the comparisons with large city and with the nation include only public schools. Because charter schools are publicly funded, they are included among public schools. Some charter schools that operate within the geographic boundaries of a school district are independent of the district and are not included in the district’s Adequate Yearly Progress (AYP) report to the U.S. Department of Education under the Elementary and Secondary Education Act. Beginning in 2009, charter schools of this type were no longer included in the results for TUDA districts, even though they had been included in past TUDA assessments.

School districts vary in whether the charter schools within their boundaries are independent of the districts. Prior to 2009, charter schools were included in the TUDA district results if they were listed as part of the district’s Local Education Agency in the NCES Common Core of Data. Beginning in 2009, charter schools are included in TUDA district results if they contributed to the district’s AYP results as part of the Elementary and Secondary Education Act.

NAEP Tools and Resources

What additional tools are available?

There are a variety of tools available on the NAEP website (<http://nces.ed.gov/nationsreportcard>) that allow for further exploration of the results.

- The NAEP Data Explorer (<http://nces.ed.gov/nationsreportcard/naepdata/>) allows users to examine results by student demographic characteristics and by responses to questionnaires completed by students, teachers, and school administrators.
- The NAEP Questions Tool (<https://nces.ed.gov/nationsreportcard/nqt/>) provides a sample of actual questions that were answered by students. The tool also has performance results on all publicly released NAEP questions.

Other available resources:

The Nation's Report Card

<http://nationsreportcard.gov/>

NAEP Frameworks

<https://www.nagb.gov/naep-frameworks/frameworks-overview.html>

NAEP Achievement Levels

<https://www.nagb.gov/focus-areas/NAEP-achievement-levels.html>

NAEP Digitally Based Assessments

<https://nces.ed.gov/nationsreportcard/dba/>