

# **The Nation's Report Card™ 2013 Mathematics and Reading Frequently Asked Questions**

## **What is The Nation's Report Card™?**

The Nation's Report Card™ presents results from the National Assessment of Educational Progress (NAEP). NAEP is the largest continuing and nationally representative assessment of what our nation's students know and can do in mathematics, reading, science, writing, geography, U.S. history, civics, and other subjects. Standard administration practices are implemented to provide a common measure of student achievement. NAEP results can be used by teachers, principals, parents, policymakers, and researchers to assess progress and develop ways to improve education in the United States.

NAEP is a congressionally authorized project of the National Center for Education Statistics (NCES), within the Institute of Education Sciences (IES) of the U.S. Department of Education. The National Assessment Governing Board (NAGB) sets policy for the NAEP program.

## **When were mathematics and reading previously assessed in NAEP?**

The NAEP mathematics and reading assessments are each conducted every two years. Both subjects were last assessed in 2011. The NAEP reading assessment was first administered in 1992, while the first mathematics assessment dates to 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, 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 questions based on framework specifications. The questions are developed in consultation with classroom teachers, curriculum specialists, and test-development specialists, and are pilot-tested in schools across the country before an actual assessment is given.

## **What subject areas are assessed?**

The 2011 NAEP mathematics assessment tests students on five main mathematics content areas.

<b>Mathematics Content Areas</b>	<b>Grade 4</b>	<b>Grade 8</b>
<b>Number properties and operations</b>	40%	20%
<b>Measurement</b>	20%	15%
<b>Geometry</b>	15%	20%
<b>Data analysis, statistics, and probability</b>	10%	15%
<b>Algebra</b>	15%	30%

The table above lists the five main mathematics content areas and the percentage of the assessment devoted to each of these areas in each grade.

The NAEP reading assessment was designed to measure student reading comprehension across the literary and informational texts, and was divided into three cognitive target areas 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.

<b>Reading Cognitive Target Areas</b>	<b>Grade 4</b>	<b>Grade 8</b>
<b>Locate and recall</b>	30%	20%
<b>Integrate and interpret</b>	50%	50%
<b>Critique and evaluate</b>	20%	30%

### **What types of questions did students answer?**

Students answered multiple-choice and constructed-response questions in both assessments. In the reading assessment, for example, students read a passage and responded to a series of related questions.

NCES makes a selection of actual test questions available to the public following each release. 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.

### How many schools and students participated?

The 2013 NAEP mathematics and reading assessment results are based on nationally representative samples of fourth- and eighth-grade students enrolled in schools across the country.

	Mathematics		Reading	
Grade	Students	Schools	Students	Schools
Grade 4	186,500	7,930	190,400	7,920
Grade 8	170,100	6,520	171,800	6,510

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

### Why are the sample sizes for grade 4 and grade 8 different?

Some fourth-grade schools are offered a “take-all” option. In many cases the majority – but not all – of fourth-grade students in a school are sampled. The “take-all” option allows the school to have all fourth-grade students take the assessment to minimize classroom disruption. Sample sizes for grade 4 are typically larger than for grade 8 as a result.

### 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 scale, scores cannot be compared across subjects or grades.
- NAEP achievement levels are established by the National Assessment Governing Board 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 *Basic*, *Proficient*, and *Advanced* levels. The Governing Board defines *Proficient* performance as “competency over challenging subject matter” and should not be construed to mean grade-level performance.

### What results are reported?

The mathematics and reading assessments provide national and state results for the nation’s fourth- and eighth-grade students.

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. NAEP does not provide individual scores for participating students or schools.

### **How can I run data analyses of my own?**

NAEP results are now easier than ever to access in the revamped website at [http://nationsreportcard.gov/reading\\_math\\_2013/](http://nationsreportcard.gov/reading_math_2013/). The results from the 2013 assessments in mathematics and reading at grades 4 and 8 can be explored in more detail with new user-friendly features such as interactive graphics, downloadable data, and an enhanced state comparison tool. The data tools on the new website provide in-depth views into gains, gaps, student knowledge, and state performance. You can also look behind the results at student, teacher, and school variables to see which factors relate to student performance. In addition, users can answer sample questions, download data, and use the new State Comparison tool to create tables and maps comparing average state scores for students overall and for selected student groups in various states.

### **Are results for private schools included in this report?**

Both public and private school students participated in the assessment and are included as part of the national results. Results for states and other jurisdictions reflect the performance of students in public schools only.

### **Are students with disabilities (SD) and English language learners (ELL) included in the NAEP samples?**

NAEP has always endeavored to assess all students selected as a part of its sampling process, including students who are classified by their schools as SD and/or ELL. The decision to exclude any of these students is made by school personnel. School personnel are encouraged to use inclusion criteria provided by NAEP and may discuss their inclusion decisions with NAEP State Coordinators or field staff. Some students may participate with testing accommodations.

Below you can see the percentages of students (as a percent of all students assessed) who were identified as SD and/or ELL and excluded or assessed in 2013, by subject and grade.

SD and/or ELL	Mathematics		Reading	
	Grade 4	Grade 8	Grade 4	Grade 8
Identified	22%	16%	22%	16%
Excluded	1%	1%	3%	2%
Assessed	20%	15%	19%	14%
Without accommodations	7%	3%	7%	4%
With accommodations	13%	12%	12%	11%

NOTE: Detail may not sum to totals because of rounding.

### **What testing accommodations were offered?**

Accommodations are adaptations to standard testing procedures that remove barriers to participation in assessments without changing what is being tested. NAEP allows SD and ELL students to use most of the same testing accommodations that they receive in state or district tests. For mathematics and reading, giving the assessment in a small-group format and allowing extra time were the two most commonly used accommodations.

### **What are the Governing Board inclusion goals? Did states meet the inclusion goal in 2013?**

The National Assessment Governing Board, which sets policy for NAEP, has been exploring ways to ensure that NAEP continues to include as many students as possible and to do so in a consistent manner for all jurisdictions assessed and reported. In March 2010, the Governing Board adopted a new policy outlining specific inclusion goals for the program. This policy was the culmination of work with NCES, with experts in testing and curriculum, and with those who work with students with disabilities and students learning to speak English. The policy aims to:

- Maximize participation of sampled students in NAEP;
- Reduce variation in exclusion rates for SD and ELL students across states and districts;
- Develop uniform national rules for including students in NAEP; and
- Ensure that NAEP is fully representative of SD and ELL students.

The policy defines specific inclusion goals for NAEP samples. At the national, state, and district levels, the goal is to include 95 percent of all students selected for the NAEP samples, and 85 percent of those in the NAEP samples who are identified as SD or ELL.

Almost all of the states and jurisdictions that participated in the 2013 NAEP mathematics and reading assessments met or exceeded the 95 percent inclusion goal for both subjects. Full state inclusion rates are available at

[http://nationsreportcard.gov/reading\\_math\\_2013/#/about#naep\\_inclusion](http://nationsreportcard.gov/reading_math_2013/#/about#naep_inclusion).

### **What additional results are available?**

There are a variety of tools available on the NAEP website at <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 (<http://nces.ed.gov/nationsreportcard/itmrlsx/>) provides a sample of actual questions that were answered by students. The tool also has performance results on all publicly released NAEP questions.

Links to other resources:

NAEP Release Site

<http://nationsreportcard.gov/>

NAEP Frameworks

<http://www.nagb.org/publications/frameworks.htm>

NAEP Achievement Levels

<http://www.nagb.org/publications/achievement.htm>