

The Grand Canyon State Charts Progress On NAEP

Over the last 12 years, Arizona has made steady progress on the National Assessment of Educational Progress (NAEP). Between 2009 and 2017, in fact, Arizona was among the top 10 jurisdictions with the largest score gains for fourth- and eighth-grade students in mathematics and reading.

Arizona’s education leaders and influencers pointed to several factors they believe may have contributed to the state’s improvement on NAEP, known as the Nation’s Report Card:

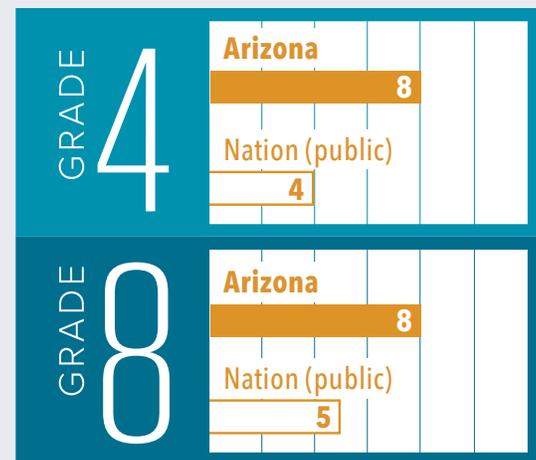
- **More rigorous standards**
- **State assessments aligned to those standards**
- **State-supported initiatives and legislation, such as a focus on struggling readers**

NAEP results, they say, have played an important role in the decisions to make these policy changes. Moreover, Arizona students’ improvements on NAEP have helped build momentum to continue these efforts.

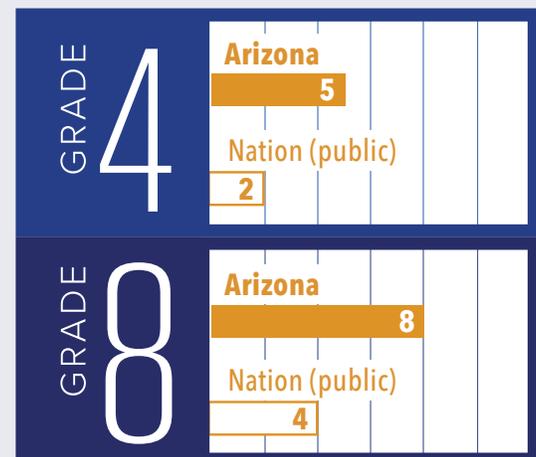
“All that ever gets the headlines are the doom and gloom stats,” said Sean Ross, the director of English language arts at Arizona’s Department of Education. “So it’s really effective to be able to begin discussions with positive trends to show that the hard work is paying off.”

Score Point Increases on NAEP 2005-2017

Reading



Mathematics



Note: Score changes are statistically significant ($p < .05$). The score gains for Arizona were significantly larger than the Nation (public), except for grade 4 mathematics.

Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress

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MORE RIGOROUS STANDARDS

Some of this hard work can be traced to 2010, when the Arizona Department of Education shifted to a much more rigorous set of standards for English language arts and mathematics. Teachers knew this would be an adjustment, said Joe O’Reilly, former executive director of student achievement for Mesa Public Schools, Arizona’s largest public school district.

“They acknowledged, ‘Our kids aren’t here, but that’s where they should be,’” O’Reilly said.

The previous standards focused on performance objectives, or a “checklist” of skills for teachers to cover over the school year. The new standards set expectations for students at the end of each grade level. They emphasize comprehension and critical thinking with the goal of preparing students for college and careers. For example, in previous standards, students were simply required to “participate in group discussions.” The new standards require students to “pose and respond to specific questions to clarify or follow up on information and make comments that contribute to the discussion and link to the remarks of others.”

In addition to more specific and robust standards, texts that were previously assigned in higher grades shifted to lower ones. For example, “Letter to Thomas Jefferson” was previously read in high school but is now taught in middle school.

Those who led the revision of these standards sought to align them with the NAEP frameworks—the foundations for what knowledge and skills are included in the NAEP Reading and Mathematics assessments. While Arizona’s standards still differ from NAEP frameworks, says Suzi Mast, the director of mathematics at the Arizona Department of Education, there is also greater similarity, such as an emphasis on number sense.

GAP BETWEEN STATE, NAEP RESULTS NARROWS

In 2007, the U.S. Chamber of Commerce released a report called *Leaders & Laggards: A State-by-State Report Card on Educational Effectiveness*, ranking states’ education standards, including how well each state assessment’s proficiency measure aligned with NAEP’s. At the time, Arizona received a grade of “D” for what the report called “Truth in Advertising,” indicating this alignment was practically non-existent.

Indeed, in 2009, the gap between the proportion of Arizona students judged to be proficient on the state assessment and on NAEP was substantial. For eighth-graders, 72 percent were reported as proficient in reading on Arizona’s state assessment (AIMS), while 27 percent were judged to be *NAEP Proficient* on the NAEP reading assessment. The gap for fourth-grade students in math was even greater, at 38 points.

After the adoption of new standards, Arizona’s score on the 2014 report for Truth in Advertising improved from a D to a C. But, there was more work to be done.



Education is about unlocking the potential of students and communities. The better system we have, the better opportunity for individuals and businesses, and for the state to have a thriving economy.



—Christine Thompson, president and CEO of Expect More Arizona

With the shift in standards came an overhaul of Arizona’s state assessment. The new assessment, AzMERIT, first administered in 2015, became more aligned with NAEP in question style and in rigor, according to Ross and Mast. NAEP assessments use multiple-choice, short-answer, and long-form questions to assess what students know and can do. Similarly, Arizona’s state assessment moved beyond only multiple-choice questions by adding components, such as asking students to show their work, that tap into higher-order thinking skills.

Schools were given two years before the new assessment would be used as an accountability measure for school performance.

In 2017, about a third of Arizona’s eighth-graders ranked proficient in reading on AzMERIT, compared to 30 percent on NAEP. The difference between the two assessments decreased by 41 points from 2009. The gap between Arizona state assessment performance in fourth-grade mathematics and Arizona’s performance on the NAEP Mathematics assessment in grade 4 narrowed by 25 percentage points. These results indicated that the new state assessments were moving closer to NAEP.

FOCUS ON EARLY LITERACY

Arizona’s educators attribute these improvements in part to the state’s focus on early literacy, particularly on how students are reading by the end of third grade. Research shows that reading problems in that grade serve as an early warning indicator for many negative outcomes later in life, including dropping out of high school and incarceration.

In 2010, state lawmakers approved legislation called Move on When Reading (MOWR). Led first by the Arizona State Board of Education, and then by the Arizona Department of Education, the \$45 million statewide program was fully implemented by 2013 and is designed to help struggling readers reach or exceed proficiency on the state assessment by the end of third grade. Struggling students are identified early and provided with targeted interventions to get them on track by that time.

Sean Ross of the Arizona Department of Education, who directs the program, claims NAEP data played a big role in development of the reading initiative. The data helped contextualize Arizona’s reading scores, he explains, and NAEP reading scores are included in the annual report on MOWR as one measure of student improvement in reading.



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—Kathy Hoffman, superintendent

NAEP AS A CONNECTION POINT

As the only nationally representative assessment, NAEP helps put Arizona’s educational progress in context.

Education and business leaders can look to NAEP results to do an “apples-to-apples” comparison with other states and see how competitive Arizona is, according to Christine Thompson, the president and CEO of Expect More Arizona, an education advocacy organization.

“NAEP provides some positive peer pressure from other states,” she said.

Ross and Mast use the data from NAEP to share experiences with similarly performing states and to learn from better-performing states.

Many of these education leaders agree that Arizona’s progress on NAEP is a reason to celebrate and is motivating for teachers, students, parents, and community members. Because Arizona ranks high in poverty and low in per-pupil spending, the NAEP improvements have become a point of pride for educators as well as the state chamber of commerce and state legislators.

“Education is about unlocking the potential of students and communities,” says Thompson of Expect More Arizona. “The better system we have, the better opportunity for individuals and businesses, and for the state to have a thriving economy.”

Superintendent Kathy Hoffman applauds the state’s gains while noting the challenges ahead.

“We must now focus our attention on addressing inequity throughout our education system,” she said. “Ensuring equitable access to a high-quality public education regardless of a student’s race, ability, gender, or zip code is essential to building the future of Arizona.”



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