

Fourth-Grade Students in Wyoming Make Gains on NAEP

Between 2009 and 2017, fourth-graders in Wyoming made improvements on the National Assessment of Educational Progress (NAEP)—also known as The Nation’s Report Card—that significantly outpaced national average gains. Their results in reading and mathematics landed Wyoming among the top jurisdictions with one of the largest numeric score increases over that time period.

Wyoming’s impressive progress on NAEP has come despite the rural state’s challenges. Wyoming is the nation’s least-populous state, and some of its school districts include one- and two-room schoolhouses. Three-quarters of the students in Wyoming are educated in rural or town settings, so school districts must be collaborative and creative when addressing critical issues, such as transportation and special education.

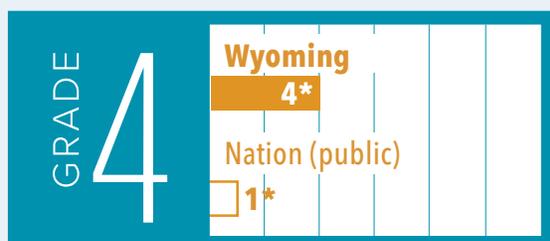
State leaders and educators point to several policies and practices they believe have helped support students’ gains on NAEP. They include:

- **New, more demanding academic standards**
- **Professional learning communities for educators’ professional development**
- **A focus on early elementary literacy and numeracy**
- **An equitable funding model**

NAEP has served as an important foundation for much of the work the state Department of Education does, said Jillian Balow, the state superintendent of public instruction. “We don’t make policy decisions without thinking about NAEP,” she explained.

Score Point Increases on NAEP, 2009-2017

Reading



Mathematics



* The score changes are statistically significant ($p < .05$) | # Rounds to zero.

Wyoming’s score increases for both reading and mathematics are significantly larger than the nation (public).

Source: National Assessment of Educational Progress, 2017 Mathematics and Reading Assessments.

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MORE DEMANDING ACADEMIC STANDARDS

One important role NAEP has played is in the development of Wyoming’s state assessments. Wyoming’s state education leaders revised the state standards three times in the past 12 years: 2008, 2012, and 2018. To align with these evolving state standards, Wyoming launched a new state assessment in 2018 that used NAEP data and assessment frameworks in the development process.

Wyoming’s leaders appreciate that NAEP remains steady as changes in their own state assessments proceed.

“When you go from one state test to another state test, it’s like hitting a moving target,” said R.J. Kost, a state senator and the former curriculum director for the mid-sized Park County School District #1, which educates more than 1,700 students. “But NAEP is still NAEP.”



With these more rigorous standards established, the state has worked to ensure teachers are instructing lessons aligned with them, said Jay Harnack, superintendent of the Sublette County School District #1, comprising approximately 1,000 students and five schools.

BUILDING PROFESSIONAL LEARNING COMMUNITIES

Another key contributor to the improved NAEP scores, according to Kost and Harnack, is the growth and use of professional learning communities (PLCs). At many Wyoming schools, PLCs convene teachers in the same grade to engage in data-driven decision-making by analyzing student data, sharing best practices, and discussing which students are meeting expectations and which need help. Harnack and other Wyoming educators say the PLCs have led to improved learning outcomes, including on NAEP.

But educators also say the rural nature of many Wyoming schools means teachers in middle and high school may be the only teacher in their subject and grade level, making impossible the kind of collaboration that elementary teachers enjoy. Many small districts don’t have a dedicated curriculum director, so that work is spread out among busy principals.

NAEP presents an opportunity for educators to connect with districts facing similar challenges in other states. Harnack uses NAEP data to identify districts that have similarly rural populations but have found success. NAEP serves as a starting place for him to learn more about initiatives that are working elsewhere and may work for his own district, he said.

BRINGING EARLY ELEMENTARY SUCCESS TO MIDDLE SCHOOL

As in many other states, Wyoming educators and decisionmakers used research pointing to the significance of strong reading comprehension and numeracy by the end of third grade to galvanize a statewide effort to help students master the critical and fundamental skills in reading and mathematics earlier in elementary school, rather than later when it becomes harder to make gains toward reading proficiency.



This effort focused on the primary grades and included keeping class sizes at around 16 students for grades K-3 and deploying staff more efficiently. For example, paraprofessionals joined classrooms to assist teachers in working with students in small reading and math groups at different levels.

Kost believes this effort contributed to the strong performance of fourth grade students on NAEP reading and math from 2009-2017.

Still, Balow notes, there is more hard work to be done in grades 6-8 to help eighth grade students improve at similar rates on NAEP to those achieved at fourth grade, including focusing the accountability system on grades 6-8 and ensuring that reading and math interventions for students persist through middle school.



EQUITABLE FUNDING FOR ALL

Underlying all of this work on the ground is an education funding model that distributes excess funding from counties and districts with more wealth to less wealthy areas. This helps all public schools reach a set funding base.

In Balow's opinion, this equitable funding better allows for resources that meet the needs of students who historically have not performed as well as their peers—making a real impact on what those students can achieve. For example, she noted, Hispanic fourth-graders and those with Individualized Education Programs, scored on par with the national average on the 2017 NAEP reading and mathematics assessments, while fourth-graders eligible for free- and reduced-price lunches scored significantly higher than the national average. The improvements these groups are making are “a driving force” in keeping Wyoming “ahead of the pack when it comes to NAEP,” Balow said.

POST-SECONDARY PREPAREDNESS AND STAYING THE COURSE

Wyoming high schools have also seen improved education outcomes over the last several years. Since 2013, the high school graduation rate has increased by 4.1 percentage points. Balow believes this can be traced back to improved and increased connections between adults and students in middle school, where the number of staff, such as counselors, increased in many districts over that time period.



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Education leaders and influencers in the state also want to help more students prepare for life after high school graduation, whether that involves moving into the workforce, joining the military, enrolling in career and technical education, or going to college.

The state Department of Education has identified computer science and computational thinking as skills all students need to succeed after high school. By the 2022-23 school year, all Wyoming students will be required to take computer science under the Boot Up Wyoming initiative.



K-12 education leaders continue to join industry and workforce leaders in conversations about economic diversity and bolstering the technology, alternative energy, and natural resources industries that they hope will diversify and anchor the state’s economy.

“When we’re talking about education, we’re not just talking about K-12 or higher ed,” Balow said. “We’re talking about the economic vitality of the state.”

Amy Surdam, the co-owner of Stitches Acute Care Center, an urgent care center in Cheyenne, and an active member of the Wyoming business

community, said that because Wyoming spends a lot of tax dollars on education, many business leaders pay close attention to whether the outcomes match that investment. And education is a priority for this community both economically and personally.

“One of the reasons [the business community] is drawn to the state is because of the great public school education experience our kids could have,” Surdam said.

Other leaders, such as Sublette County Superintendent Harnack and State Sen. Kost, are eager to see schools and districts continue to stay the course and build on what they’ve already achieved. Harnack wants to see the current standards stay in place for 7 to 10 years so educators can refine the work underway.

Harnack sees the NAEP progress as one way to provide evidence to the legislature and other stakeholders that their investment is paying off—and will pay dividends well into the future.

“I’ve got 25 years’ experience,” he said of his career as an educator, “and I’m not sure I’ve been anywhere where people are as committed to improving student outcomes as they are here in Wyoming.”

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