Leveraging NAEP Data to Study and Improve Educational Equity

Events over the last year have led to greater recognition of longstanding inequities in educational resources, opportunities, and student achievement, as well as a renewed urgency to address them.

The only nationally-representative assessment of education in the U.S., The Nation’s Report Card — or the National Assessment of Educational Progress (NAEP) — provides insights into the achievement and learning experiences of students in various subjects for grades 4, 8, and 12. The education community relies on these data both to understand inequity in education and to take action to improve it — work that’s been made imperative by the COVID-19 pandemic.

“The early measures we have indicate that the pandemic’s impact has not been evenly distributed,” said Ary Amerikaner, vice president for P-12 policy at The Education Trust. “We need NAEP data to dig into this story to understand how the pandemic’s impact has been felt on students’ learning and education so that we can then respond and target resources appropriately.”

—Ary Amerikaner, vice president for P-12 policy at The Education Trust
Transparency

NAEP provides a level of transparency to an otherwise opaque education system, researchers and advocates say. NAEP scores are reported at the national, and, in some cases, state and urban district levels. Scores are disaggregated by a variety of factors, including students’ race/ethnicity, gender, status as a student with a disability, and English learner status.

Sean Reardon, a researcher and professor at the Stanford Graduate School of Education, uses NAEP to understand educational opportunity and achievement across the U.S. Because states use different tests with different scales and proficiency thresholds, comparing student performance across the country on state tests is difficult, if not impossible. Using statistical methods, Reardon and his team combine state test scores with NAEP data to create a common national scale, facilitating comparisons among school districts and states.

“NAEP’s disaggregation by race and ethnicity and [free or reduced-price] lunch eligibility has been key to our work and lots of other people’s work,” Reardon said. “They’ve let us compare patterns of achievement and how they relate to school, district, and state level factors. That helps us learn about how we might improve equity of outcomes.”

Education advocates also rely on NAEP’s disaggregated data for a sense of how well schools are serving particular groups of students.

“Having this data always makes us look at what we’re doing to support Latino students,” said Peggy McLeod, deputy vice president of UnidosUS, a Latino civil rights and advocacy organization. “We use NAEP data not only to inform programmatic work but also to inform our advocacy efforts around equity because clearly even now there are big gaps between student groups.”

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UnidosUS has used previous NAEP releases to analyze and write about the state of education for Latino and English learner students.

Others, like Ian Rowe, a senior fellow at the American Enterprise Institute, a public policy think tank, use NAEP data to understand performance among all students. Rather than focus on closing gaps between student groups, Rowe relies on NAEP data to study how schools can help 100 percent of students reach proficiency—a framework he calls “Distance to 100.”

Rowe said NAEP prompts researchers to dig into the factors driving student performance. “What are the issues of access, family structure, school choice, and access to high quality reading instruction? Those are all very important questions to answer about the factors driving low performance,” Rowe said.

For policymakers, the data can also serve as an educational tool, said Seth Gerson, program director for the National Governors Association (NGA). For example, when 22 new governors were elected to office in 2018, NGA used NAEP data to orient the group on each state’s educational performance, progress over time, and existing inequities between student groups.

The Power of Comparison

The Nation’s Report Card is unique from other assessments because its data are comparable over time and across states and many large urban districts. In the case of math and reading, state scores go back to 1992. The ability to compare performance across time and place is critical for measuring progress, education researchers and advocates say.

“This allows us to identify bright spots and the places that are in fact serving all students well and showing gains for all students,” said Amerikaner of The Education Trust, which cites NAEP as a resource for comparing how well states prepare students for college and careers. “So it’s important for both shining a light on problems and finding the bright spots.”

For example, Chicago and Washington, D.C.—two cities in NAEP’s Trial Urban District Assessment program—have each shown significant score improvements in multiple grades and subjects since 2009.

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Such examples provide advocates with evidence of what’s possible and can be used as blueprints for improving student achievement elsewhere, said Hal Smith, senior vice president of the National Urban League, a civil rights and advocacy organization. Using NAEP along with other data sources “helps us figure out where else we might go and who else we might learn from,” Smith said.

NAEP data also plays a key role in the Urban League’s efforts to measure the state of equality between black, Hispanic, and white Americans. The group’s 2020 Equality Index, for example, used disaggregated NAEP scores as one measure of educational (in)equality between racial groups.

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Catalyst for Action

Equipped with NAEP data and clear examples of what’s possible, advocates and policymakers can make their case for changes to education policy and practice.

AEI’s Rowe calls NAEP “the single most important vehicle for assessing education in our country,” and argues that low NAEP reading scores should galvanize education leaders to ensure all students have access to effective reading instruction and content-rich curriculum.

When the 2019 NAEP math and reading scores showed that scores among students from low-income families and black and Hispanic students continue to lag their higher-income and white peers, Education Trust called on policymakers to “take bold action to address persistent inequities in access to strong and diverse educators, advanced coursework, high-quality early childhood education, [and] school funding.”
That bold action is particularly critical now as schools look to address the effects of the COVID-19 pandemic. Earlier this year, the National Center for Education Statistics (NCES) launched the NAEP 2021 School Survey which lends insights into learning opportunities offered by schools during the COVID-19 pandemic. The monthly survey, separate from contextual questions asked in main NAEP assessments, revealed stark disparities in students’ learning experiences during the 2020-2021 school year. In May 2021, 66 percent of white students attending schools that serve fourth graders were enrolled in full-time in-person instruction, compared to 45 percent of Hispanic students, 41 percent of black students, and 27 percent of Asian students.

Looking ahead, education stakeholders are relying on the next administration of NAEP to reveal more clearly the impact of COVID-19 pandemic on student achievement.

According to Stanford University’s Reardon, “The 2022 NAEP will be the best data we have at a national and state level for a big picture sense of what’s happened and whether inequalities in educational outcomes widened during the pandemic.”