

Measuring Change in a Changing World: Impact of Changes in K-12 Education for the NAEP Sample

Goal

The National Assessment of Educational Progress (NAEP) is charged by Congress to measure trends in student academic achievement in public and private schools. Both the structure and composition of public and private schools have changed considerably since the NAEP Law was passed. This session will explain how NAEP fulfills this Congressional mandate, describe challenges encountered in capturing trends over time amidst changes in school enrollment, and prompt discussion about future directions NAEP can take.

Overview

The session will remind Board members very briefly about NAEP's sample, then turn to a comprehensive look at the challenges of measuring achievement trends amidst dramatic changes to school structure, organization, and enrollment. Questions will be posed with the intent to inspire substantive discussion among Board members about next steps.

Background

[The NAEP Law](#) directs the Commissioner for Education Statistics to “conduct a national assessment and collect and report assessment data, including achievement data trends, in a valid and reliable manner on student academic achievement in public and private elementary schools and secondary schools at least once every 2 years, in grades 4 and 8 in reading and mathematics.” (P.L. 107-279, Section 303, Part (b)(2)(B))

The national NAEP sample includes public and private schools. But given low participation rates by private schools, NAEP has not reported results for private schools as a separate subgroup since 2013, except for Catholic schools, which participate in sufficient numbers to allow separate subgroup reporting.

Samples for state-specific reporting include only public schools, not private schools. Thus, private schools sampled in a given state contribute to national results, but not to state representative results. The Trial Urban District Assessment program (TUDA), which collects and reports district-representative NAEP data for 25 of the nation's largest urban districts, includes only public schools.

The NAEP legislation, and the NAEP program itself, assume that most students attend brick-and-mortar schools. However, since the enactment of this law, the landscape of K-12 education has become more varied. Traditional schools in both the public and private

sectors are now joined by virtual schools, microschools, homeschools, and hybrid or combinations of all these options to create a child's K-12 educational experience. Yet, the NAEP sample excludes homeschools and solely virtual schools. Homeschooled students are not barred from taking NAEP; they simply are not required to do so: "nor shall any home-schooled student be required to participate in any assessment referenced or authorized." (P.L. 107-279, Section 303(b)(4)(D)). If students participate in both virtual and traditional school, they may participate in NAEP. But if the school is only available virtually, that school is not sampled for NAEP.

Changes to who attends which schools in what numbers will impact the NAEP program, specifically in how to interpret changes in NAEP performance over time. This background document describes the sampling process so the plenary session at the quarterly meeting can focus on discussion. What follows should serve as a useful primer on NAEP sampling, with more information in much greater detail available [here](#). After this brief primer, the memo shifts to a broad description of the current landscape of school options and concludes with questions for discussion.

NAEP Sampling

NAEP does not report results for individual students or schools. Instead, it reports results that are **representative** of students and schools at the national, state, and TUDA levels. To do so, it must draw a **sample** that will lead to representative results. Using a sample means that NAEP does not need to administer the assessment in every school in a TUDA or state or assess every student in every school selected to participate in NAEP. The following describes the sampling process only for **public schools**.

First, NAEP identifies all **public schools** in the nation by state, using the Common Core of Data (CCD) collection housed at the National Center for Education Statistics (NCES). Within each jurisdiction, the schools are classified into groups by two characteristics: (1) type of location (e.g., rural, urban, suburban), then by (2) racial/ethnic composition.

Next, within each group, schools are sorted by their school-level results on state achievement tests to ensure the NAEP sample includes a wide range of student performance. Then, those groups are placed into a "comprehensive ordered list for sampling". That means within each jurisdiction, those lists of school groupings (locality x racial/ethnic composition x achievement) are combined into a new list where sampling probability proportionate to size is determined. Larger schools are more likely to be selected, because their students represent a large proportion of the state's student population.

From that list, NAEP statisticians sample schools to participate in NAEP from sampling “frames” (that comprehensive list of all schools). After which, states confirm the eligibility of the sampled schools (e.g., currently open, correct grades, etc.) and add new schools or newly eligible schools for a sample of districts in each jurisdiction from which NAEP selects a sample. Once sampled schools are verified for their eligibility, about 50 students at each school are randomly selected for NAEP. Students take either reading or math or the other subject assessed that year; no student takes two different NAEP assessments.

Sampling **private schools** follows a different process. It relies on the Private School Survey (PSS), which is a survey of all U.S. private schools carried out biennially by the U.S. Census Bureau for NCES. Private schools include Catholic schools, other religious schools, independent private schools as well as some eligible microschools (more on microschools can be found below). Private schools seeking federal grants need an identification number, so private schools, including microschools, can apply for a PSS number.

For NAEP, the private school sample represents private schools in the nation, not for states and not for urban districts. As a result, the private school samples are not drawn to create state-level or district-level private school results and are not large enough to support state-level or district-level estimates for private schools. Thus, inferences for private schools are limited to the national level.

When state-level samples are drawn for public schools, private schools are classified by type (e.g., Roman Catholic, Lutheran) and are grouped for sampling by geography (census region), location, and racial/ethnic composition. About 200 to 300 private schools per grade are included, with typically up to 50 students per school selected for assessment, as grade enrollment allows. Note that Catholic dioceses are asked to provide information for new or newly eligible schools, from which NAEP selects a sample.

Changing Enrollment

In the first weeks after the pandemic shuttered schools in 2020, parents, concerned that schools may not reopen for weeks and months, sought alternative schooling options to keep their students occupied and/or continuing to learn. [Many parents began by necessity to homeschool their children](#). Other parents collaborated to form ‘pods’ in which their students would [learn together from online programs](#) or from fellow parents willing to share knowledge. Front porches became the front lines for this innovative, emergency form of education. Online programs like Outschool and Khan Academy flourished by providing either individual children or pods with ready-made lessons.

For most students, these alternatives faded when schools reopened. But the shift from traditional public schools to other school options, which had begun in trickles prior to the pandemic, became more of a steady stream after the pandemic. Between fall 2012 and fall 2019, total public preK-12 school enrollment increased by 2%, from 49.8 million to 50.8 million students, [according to NCES' 2024 Condition of Education report](#).

[Post-pandemic, this trend changed, although enrollment changes are not attributable only to disenchantment with traditional school after the pandemic or with burgeoning school choice programs](#). Declines in birth rates also factor into school enrollment decreases. [Public preK-8 enrollment decreased 4% between fall 2019 and fall 2020, which did not change from 2020 to 2022](#) (Condition of Education, 2024). These changes, especially in preK and kindergarten, accounted for much of the decrease in total public school enrollment in the wake of the pandemic.

[Projections for the next ten years](#) suggest that national preK-12 public school enrollment will decline approximately 5% by 2031, from about 49.6 million in 2022 to 46.9 million (preK-8 by 5%; 9-12 by 6%). Projections out to 2050 estimate that public school enrollment will continue to drop due to lower birth rates. Compounding this, if parents continue to choose alternatives at the same pace as observed since 2020, traditional public school enrollment could shrink to 34.6 million students by 2050.

State Variation. Enrollment in schools other than public schools varies by state. As of 2025, several states have enacted policies, whether school choice expansion (ID, TN, TX, WY) or school voucher programs (AZ, IA, TX, WV), to support and facilitate enrollment in options outside the traditional public school. In states with policies friendly to school choice, percentages of traditional public school enrollment are declining rapidly as enrollment in charter schools, home-schooling, and private schools increase. [For example, in Florida, only 51% of students attend a traditional neighborhood public school; magnet schools, charter schools, private schools, and virtual schools all draw families in Florida](#). With the [One Big Beautiful Bill Act](#), in 2027, parents can receive federal tax credits for donations to state-certified scholarship-granting organizations; this program was created to support parents' exercise of school choice. States must opt into the program, and several states have already indicated interest in participating.

Demographic Variation. In addition to variation across states, within states, variation emerges by family characteristics. Research into enrollment changes and demographic shifts indicate more higher-income, non-minority students move out from public schools to private schools, homeschool options, etc. In [Massachusetts](#), since 2019, enrollment is down 2% in local public schools, up 14% in private schools, and up 45% in home schools, with the highest-income districts losing more public school students, especially at the middle school level. [Michigan data from 2021](#) show similar patterns in who departs public

schools (white and Asian students, higher-income students) and finds that students are more likely to persist in private schools than in homeschooling.

Beyond Private Schools. Enrollment patterns by state are captured by NCES, and some data exist about charter school and private school enrollments. However, data about other schooling options remain opaque, non-existent, or partial.

NCES data, collected by the U.S. Census, show a dramatic rise in **homeschooling**. In 2020–21, among adults with students under 18 in the home, 6.8 percent reported having at least one child homeschooled. When examined at the child level, the data show that 5.4 percent of children were reported to be homeschooled in 2020–21.¹ The prevalence of homeschooling varies by state, by region, by locality, among other characteristics. The percentage of children in rural areas who were homeschooled (5 percent) is higher than the percentages for those living in cities, suburban areas, and towns (2 percent in each). The National Household Education Survey (the NCES/Census data collection) estimates that 29% of the current homeschool population includes minority students. Data from the Census’ Household Pulse Survey suggests that these estimates may be as high as 40%.

Insights into homeschooling come from the Homeschool Hub at the Johns Hopkins Institute for Education Policy, led by Angela Watson. The Hub’s research finds that 20 states either do not collect or do not report homeschool participation data. The other thirty states do collect and report, and Watson has collected data from 21 states thus far, 19 of which report an increase in homeschooling.

Homeschooling numbers often include, with definitions varying by state, students attending microschools, hybrid schools, and learning cooperatives — models that look like traditional schools but may be officially labeled homeschool. Homeschoolers can participate in online virtual schools, charter schools, even traditional public schools, which challenges a clear understanding of the scope and uptake of homeschool options.

To add complexity to the school choice landscape, **microschools** are most commonly described as small learning environments which provide flexible and personalized instruction to about 15 or fewer students of different ages. They are businesses, often supported by a network of microschools, and may exist anywhere from homes to storefronts, from libraries to church basements. A 2025 research report from RAND estimates that between 1 million and 2 million students attend microschools full time, and many more attend part time. RAND concludes their report with the concern: “Data on microschool students’ backgrounds, proficiency, and academic growth are often unavailable, inconsistent, or unrepresentative.”

¹ Note: homeschooling data are reported for K-12; school enrollment data are reported for prek-12.

Finally, **virtual schooling** muddies the issues further. If students are co-enrolled in a traditional school and in virtual school, they can participate in NAEP. Students enrolled only in virtual schools cannot; the NAEP sampling frame excludes virtual schools. Yet an untold percentage of students who participate in NAEP likely engage in a form of virtual schooling. The extent to which this affects interpretations of NAEP results over time is unknown.

Policy Issues to Discuss

Changes in school enrollment complicate national and state comparisons of NAEP performance over time. Currently, the state sample includes only public schools; should that continue? Should the NAEP program explore options to include non-public schools in state samples?

These questions lead to additional questions:

- To what extent are these enrollment changes a problem to be solved or informative context to understand and interpret results?
- How can the program address participation rates among non-traditional schooling options which fall outside the Congressional requirements for Title I funding?
 - Note: Monumental efforts to recruit private schools have been attempted in the past, fruitlessly.
- If non-public schools continue to refuse participation, what other options exist to capture a representative sample of students across the nation and/or within states?
- As these changes continue, what are the best next steps?