

## Mathematica Reanalysis Suggests State and Local NAEP Declines Were More Universal Than Reported

PRINCETON, NEW JERSEY, UNITED STATES, December 16, 2022 /EINPresswire.com/ -- The 2022 National Assessment of Educational Progress (NAEP), also known as the Nation's Report Card, showed nationwide declines in both reading and math scores at both the 4th- and 8th-grade levels. Many reports examining state and local NAEP results described "bright spots" where

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scores seemed to be "holding steady." But Mathematica's reanalysis of the data, using Bayesian analysis methods, finds that these reports were overly optimistic, and often wrong. Declines in state and local NAEP scores were more universal than previously reported, particularly in NAEP's large urban districts, with "bright spots" few and far between.

Prior reports erred in interpreting nonsignificant declines as "holding steady." In fact, many places saw educationally

meaningful declines—amounting to a quarter of a year of learning or more—even if they were not "statistically significant." In 4th-grade reading, for example, we should take no comfort in the fact that most of the participating districts did not show statistically significant declines: Nearly all of the districts had declines, and most of them had educationally meaningful declines that exceeded a quarter of a year of learning.

Mathematica's new results provide a clearer picture not only of national patterns but also of results for every state and every participating urban district. Very few of them actually "held steady" in the wake of the pandemic.

"Researchers owe it to the public to report findings in ways that reduce misunderstandings and make full use of the available information," said Brian Gill, a senior fellow at Mathematica who co-authored the study. "Our results make it clear that declines were much more common across the country than counts of statistically significant results would suggest."

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