

A NEW VIEW OF

State Performance on the Nation's Report Card

Using Composite NAEP Scores
to Examine Current Achievement
and Long-Term Changes in
National Standing

AUGUST 2026

BASIS POLICY RESEARCH

TABLE OF CONTENTS

Introduction _____ 2

Finding 1. The Highest NAEP Composite Rankings Span Several Regions,
but Few Southern States Rank Near the Top _____ 4

Finding 2. Differences in National Rank Do Not Always Reflect
Similar Differences in Composite Scores _____ 6

Finding 3. Tennessee Made the Largest Gain in National
NAEP Composite Rank Between 2003 and 2024 _____ 8

Finding 4. Long-Term Rank Gains Have Not Always Translated into High Current Rankings _____ 10

Finding 5. Overall NAEP Composite Rankings Mask
Substantial Differences Across Student Groups _____ 12

Appendix A: NAEP Composite Methodology _____ 14

Appendix B: State 2024 NAEP Composite Rankings _____ 17

Appendix C: Long-Term NAEP Composite Rankings _____ 19

INTRODUCTION

The release of the 2024 National Assessment of Educational Progress (NAEP) generated a striking counternarrative to the broader story of stalled academic recovery. Although national reading and mathematics scores remained well below their pre-pandemic levels, several Southern states appeared to be moving against the prevailing trend. Commentators described a “Southern Surge,” pointing especially to gains in Mississippi and Louisiana and emerging strengths in states including Florida, Tennessee, Alabama, and Texas.^{1, 2}

Subsequent analyses reinforced this narrative from different perspectives. For example, the Urban Institute adjusted NAEP results to account for differences in student demographics³, while traditional NAEP reporting continues to emphasize results by individual grades and subjects. Together, these approaches provide valuable insights, but neither offers a single summary of statewide academic performance across the four core NAEP assessments. Policymakers and researchers frequently compare states across multiple NAEP assessments, yet there is no widely adopted summary measure for doing so.

This report addresses that challenge by applying a composite NAEP methodology originally developed by the Oklahoma Center for Education Policy.⁴ The methodology standardizes and combines state results from the four primary NAEP assessments (fourth- and eighth-grade reading and mathematics) to create a single measure of statewide academic performance. The composite does not replace the individual NAEP results. Rather, it provides a consistent summary of performance across grades and subjects, making it easier to compare states’ overall performance and examine changes in their relative national standing over time. Additional information on the methodology, including validation analyses, is provided in Appendix A.

Against the backdrop of the Southern Surge, the analyses distinguish between two related but different dimensions of state performance: where states stand today and how their positions relative to other states have changed over time. The report examines several complementary questions:

- Which states rank highest when performance across all four NAEP assessments is considered together?
- How do composite score distributions provide additional context beyond ordinal rankings?
- Which states have made the largest gains in relative national standing since 2003, and did those trends anticipate the recent Southern Surge?
- How do current national standings and long-term rank gains compare across states?
- How consistently do states perform across major student groups?

1 <https://www.karenvaiteas.org/p/the-southern-surge-understanding>

2 <https://www.chalkbeat.org/2025/10/28/lessons-from-the-southern-surge-on-naep/>

3 <https://www.urban.org/research/publication/states-demographically-adjusted-performance-2024-national-assessment>

4 <https://ou.edu/content/dam/education/centers-and-partnerships/education-policy/fall-to-48th-11Feb2026.pdf>

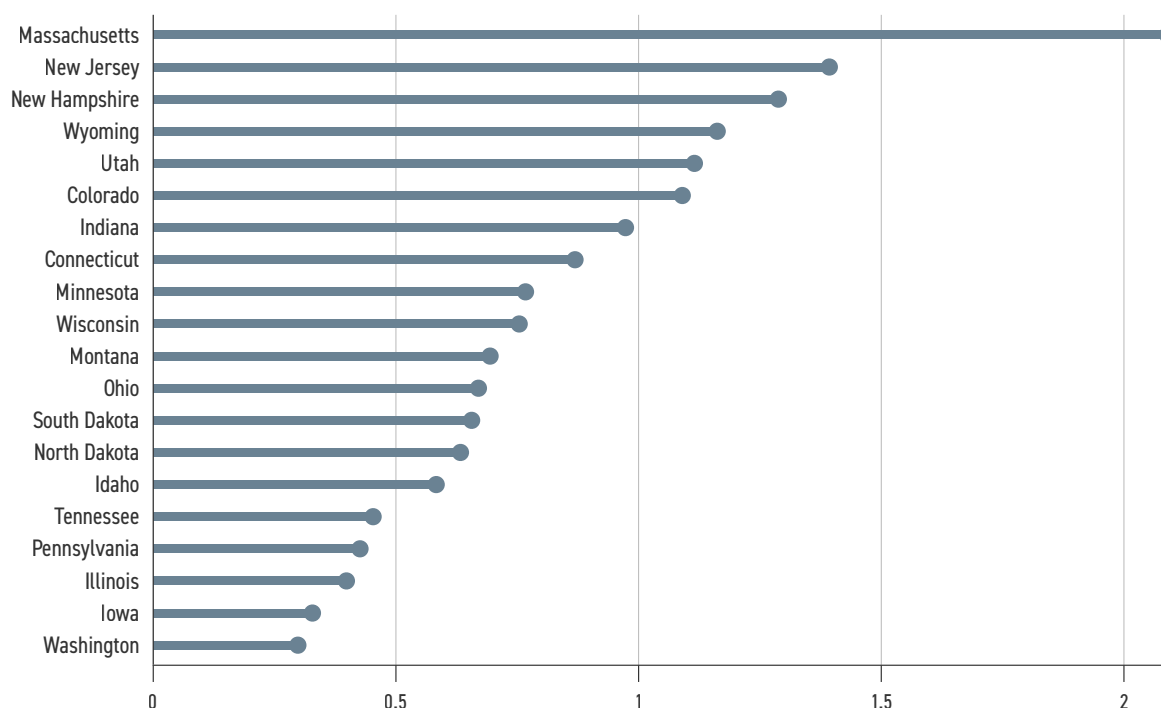
The analyses reveal an important distinction within the Southern Surge narrative. Several Southern states have gained substantial ground relative to the rest of the country since 2003, but those gains have not necessarily translated into high national standing. In 2024, Florida ranked 23rd nationally on the composite, Mississippi 28th, Texas 35th, Louisiana 36th, and Alabama 43rd. Among the Southern states associated with the recent surge, Tennessee is distinctive: it gained 26 positions between 2003 and 2024, the largest increase in national rank of any state, and ranked 16th nationally in 2024. The findings that follow examine both dimensions of state performance while also showing why rankings alone provide an incomplete picture of differences among states.

FINDING 1. THE HIGHEST NAEP COMPOSITE RANKINGS SPAN SEVERAL REGIONS, BUT FEW SOUTHERN STATES RANK NEAR THE TOP

Massachusetts ranked first nationally on the 2024 composite, followed by New Jersey and New Hampshire. Wyoming, Utah, Colorado, and Indiana rounded out the top seven. The highest-ranked states spanned the Northeast, West, and Midwest, while no Southern state appeared among the nation's top 15.

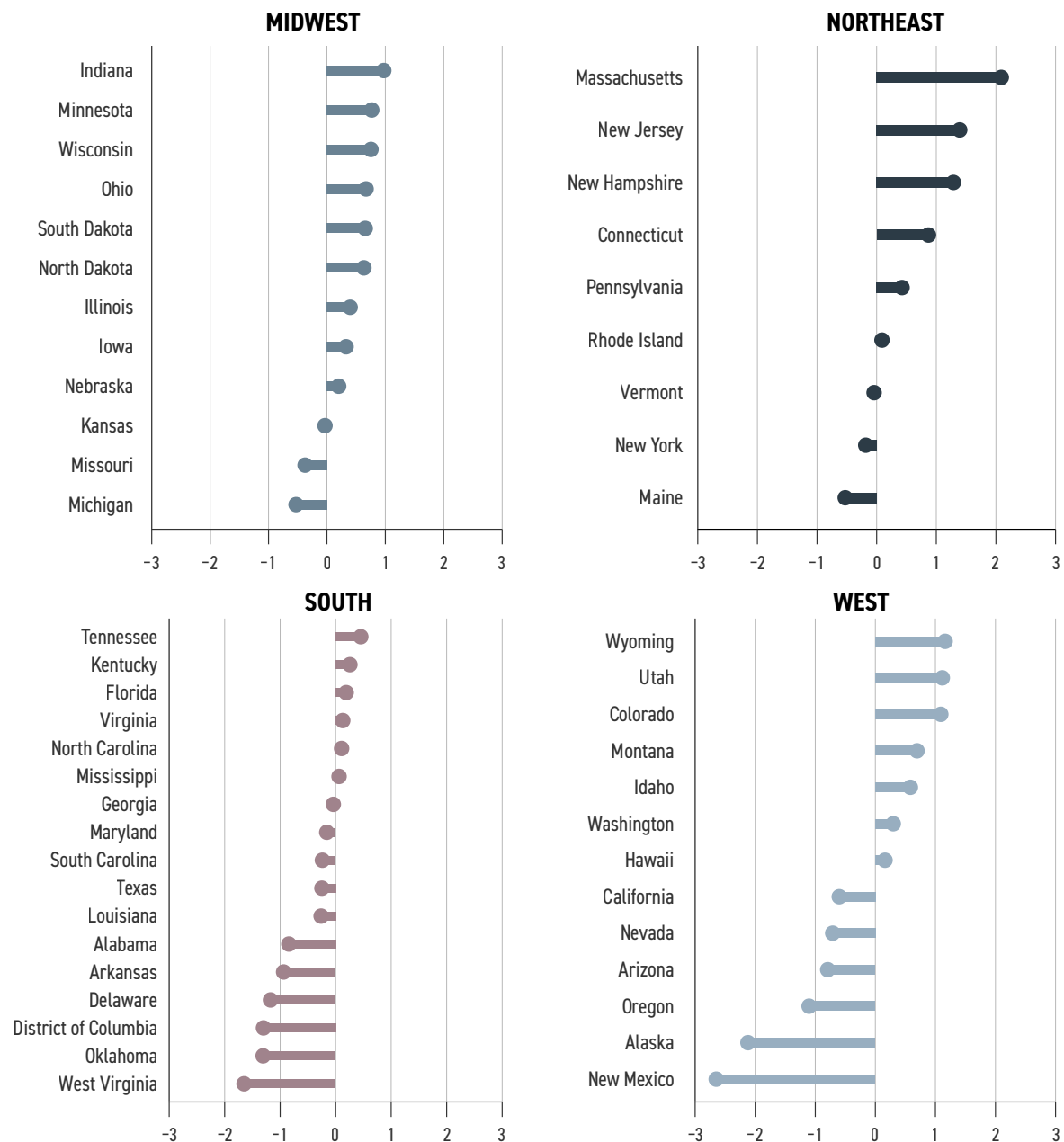
Tennessee ranked 16th nationally in 2024 and was the only Census South state to place among the nation's top 20. Other states frequently associated with the Southern Surge remained farther down the national distribution, including Florida (23rd), Mississippi (28th), Texas (35th), Louisiana (36th), and Alabama (43rd).

Top 20 States in Overall NAEP Performance, 2025



Note. NAEP composite equally weights grade 4 and grade 8 mathematics and reading after standardizing each assessment within year.

Regional comparisons provide an additional benchmark for interpreting national standing by showing how states perform relative to others within the same Census region. Massachusetts led the Northeast, Indiana the Midwest, Tennessee the South, and Wyoming the West. The regional distributions also reinforce the relative position of Southern states nationally: Tennessee ranked first in the South and 16th nationally, while the remaining Southern states ranked outside the national top 20.

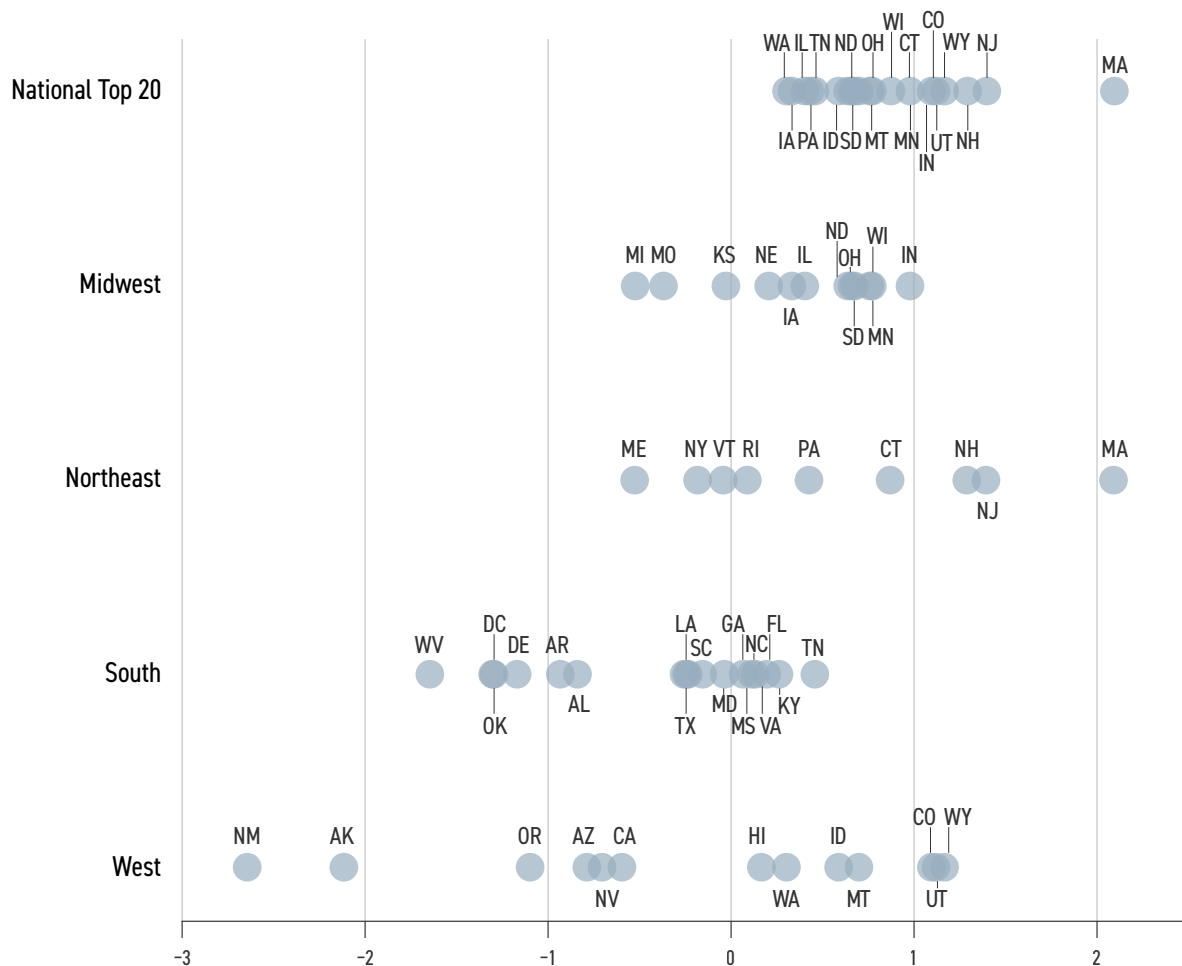


Note. NAEP composite equally weights grade 4 and grade 8 mathematics and reading after standardizing each assessment within year.

FINDING 2. DIFFERENCES IN NATIONAL RANK DO NOT ALWAYS REFLECT SIMILAR DIFFERENCES IN COMPOSITE SCORES

Throughout this report, states have been compared using their national NAEP composite rankings. Rankings provide a straightforward way to summarize performance, but they can obscure how closely states are grouped on the underlying composite scale. Adjacent rankings do not necessarily correspond to equally large differences in composite score.

The figure below displays 2024 composite scores for the nation's top 20 states and for states within each of the four U.S. Census regions. Rather than emphasizing ordinal rankings, the figure highlights the relative spacing between states on the composite measure.



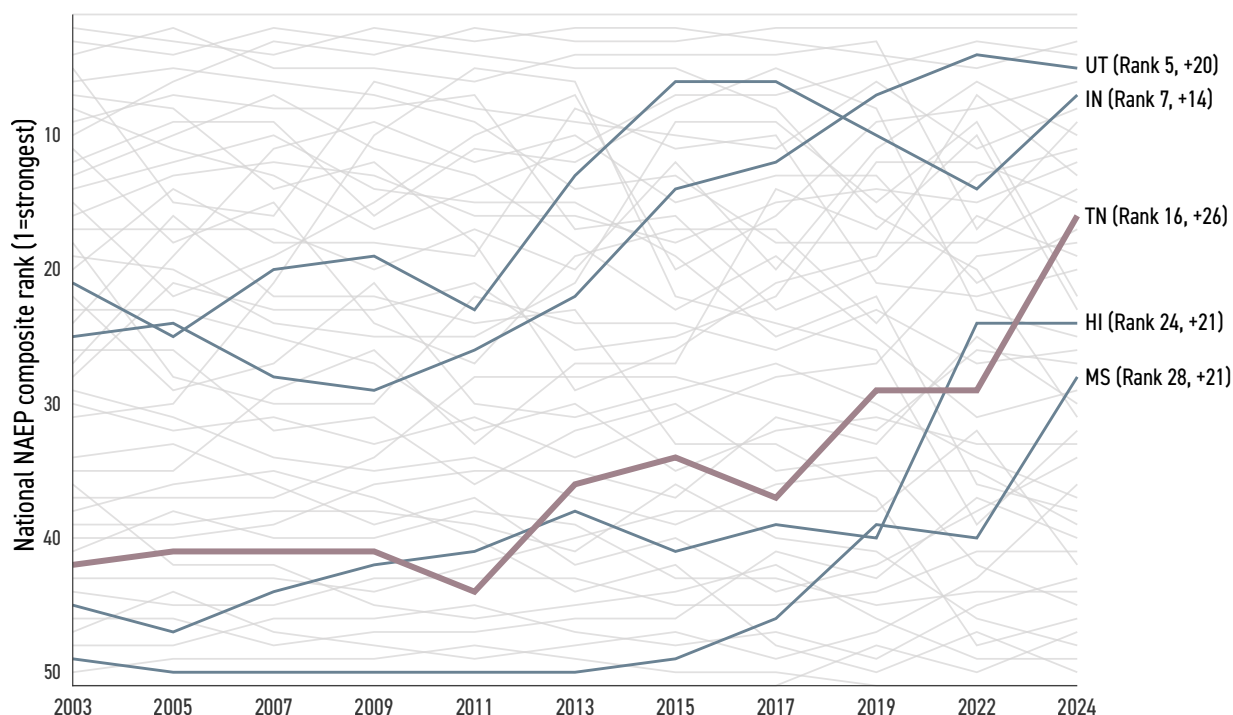
Note. NAEP composite equally weights grade 4 and grade 8 mathematics and reading after standardizing each assessment within year. Horizontal distances reflect differences in composite scores. The national row includes the 20 highest-ranked states. Regional rows include all states in each Census region.

The figure illustrates that the spacing between states varies across the composite distribution. Among the national top 20, some consecutively ranked states have nearly identical composite scores, while others are separated by larger gaps. For example, Minnesota and Wisconsin, ranked ninth and tenth nationally, had composite scores of 0.767 and 0.754, respectively, a difference of just 0.013. By comparison, Tennessee, ranked 16th, had a composite score of 0.453, compared with 0.257 for Kentucky, the next-highest-ranked Southern state. Similar variation in spacing appears throughout the regional distributions.

These patterns illustrate that neighboring rankings do not always correspond to equally large differences in composite score. Small changes in composite score may move a state several places in the rankings, while larger gaps may separate adjacent states. Rankings remain useful for identifying broad patterns and changes in relative national standing over time, but the underlying composite scores provide important context for interpreting how much states actually differ in overall achievement.

FINDING 3. TENNESSEE MADE THE LARGEST GAIN IN NATIONAL NAEP COMPOSITE RANK BETWEEN 2003 AND 2024

The 2024 rankings provide a snapshot of where states currently stand but do not show how their relative positions have changed over time. As Finding 2 illustrates, changes in rank should not be interpreted as equivalent-sized changes in achievement. Rank changes nevertheless provide a useful measure of how states' positions relative to one another have shifted over time.



Note. NAEP composite equally weights grade 4 and grade 8 mathematics and reading after standardizing each assessment within year.

In 2003, Tennessee ranked 42nd nationally on the NAEP composite. By 2024, it had risen to 16th, a gain of 26 positions and the largest increase of any state over the period. Hawaii and Mississippi each climbed 21 positions, Utah climbed 20 positions, and Indiana rose 14 positions. Although these five states experienced the largest rank gains nationally, other Southern states also posted notable gains, including Florida (+12), Kentucky (+11), Louisiana (+11), and Georgia (+10).

These results indicate that the Southern Surge did not emerge suddenly in the 2024 data. Several Southern states had been gaining ground relative to the rest of the country over a much longer period. At the same time, the trend was not exclusively Southern. Hawaii, Utah, and Indiana were also among the states with the largest gains in relative national standing.

Large gains in national rank did not necessarily result in high current rankings. Among the five states with the largest rank gains, 2024 rankings ranged from fifth in Utah to 28th in Mississippi. Finding 4 examines this relationship between long-term rank gains and current standing across all states.

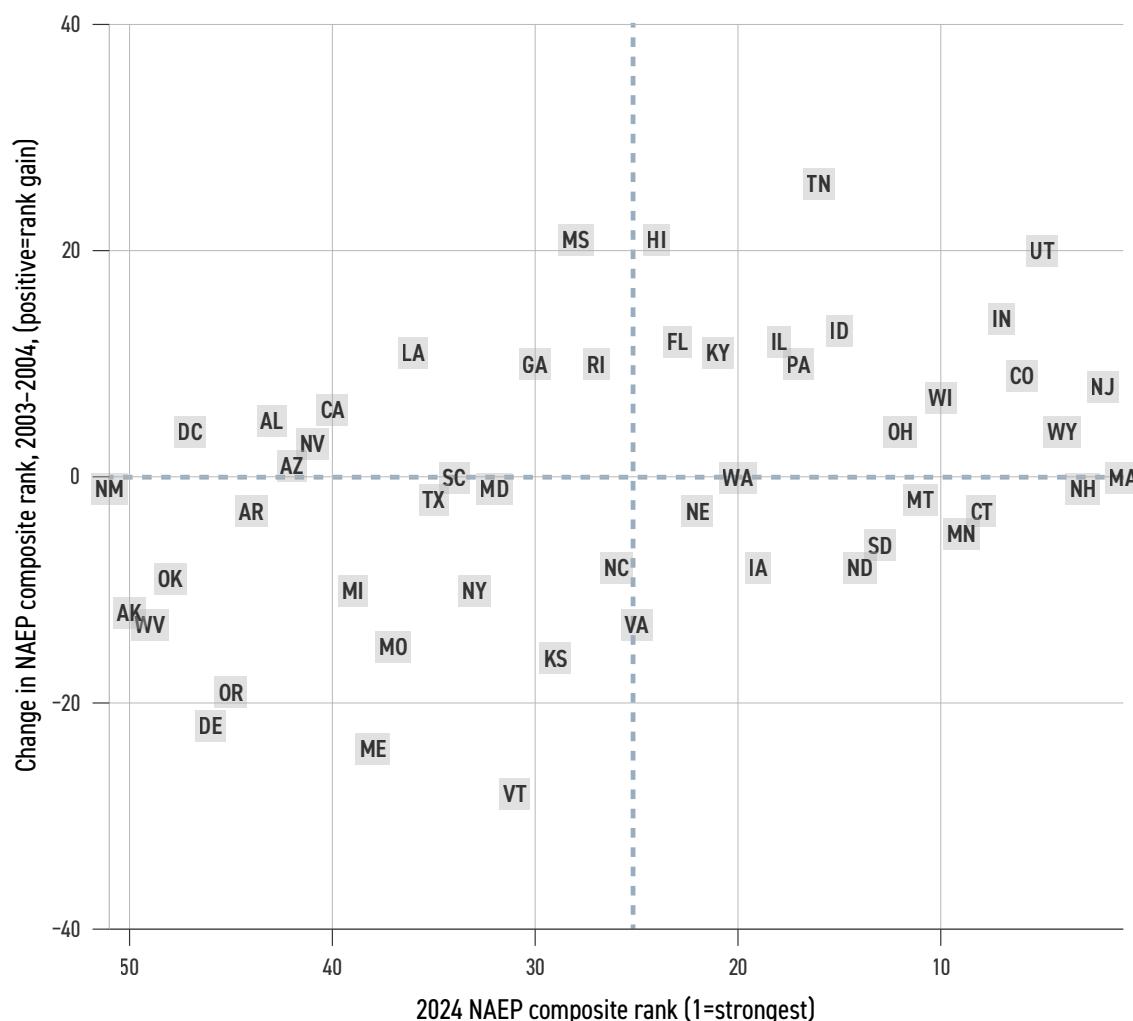
HOW DID THE FIVE STATES WITH THE LARGEST RANK GAINS CHANGE?

Relative rank gains appeared to be concentrated in different student groups across the five states. Tennessee's largest rank gains occurred among Black students, Mississippi's rank gains were particularly pronounced among economically disadvantaged students, Hawaii's rank gains were concentrated among White students, Utah's rank gains were strongest among White and non-economically disadvantaged students, and Indiana showed its largest rank gain among economically disadvantaged students. These patterns illustrate that similar overall gains in relative standing can emerge through different combinations of subgroup gains.

FINDING 4. LONG-TERM RANK GAINS HAVE NOT ALWAYS TRANSLATED INTO HIGH CURRENT RANKINGS

Changes in rank are most informative when considered alongside states' current positions. A state can gain substantial ground in national rank while remaining below the national midpoint, while another may achieve a high current ranking after beginning the period relatively close to the top.

The figure below plots each state's 2024 national NAEP composite rank against its change in rank between 2003 and 2024. States positioned farther to the right achieved higher rankings in 2024, while those positioned higher in the figure experienced larger gains in national rank over time. These two dimensions show both states' current performance and the extent of their gains in relative national standing.



States with large long-term rank gains occupy very different positions in the 2024 national rankings. Tennessee, Utah, and Indiana combined substantial rank gains with top-20 current rankings. Tennessee posted the nation's largest gain, climbing 26 positions to 16th nationally; Utah climbed 20 positions to fifth; and Indiana climbed 14 positions to seventh. Hawaii also gained 21 positions and ranked 24th in 2024.

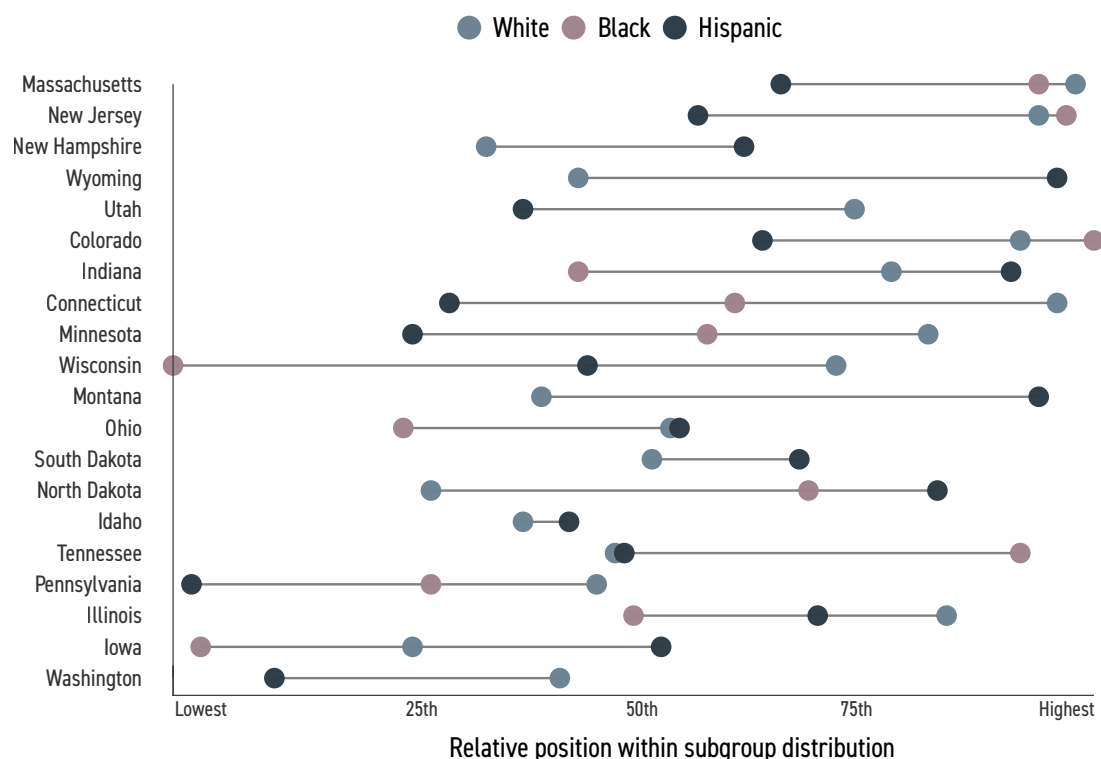
The contrast is particularly evident among states associated with the Southern Surge. Mississippi posted the nation's second-largest rank gain, climbing 21 positions, but ranked 28th nationally in 2024. Florida gained 12 positions but ranked 23rd; Louisiana gained 11 positions but ranked 36th; and Alabama gained five positions but ranked 43rd. Texas, also frequently associated with the Southern Surge, ranked 35th in 2024 and had changed little in relative national standing since 2003. Tennessee was distinctive among these states because its long-term rank gain was accompanied by a comparatively high current ranking.

The comparison underscores why current standing and long-term rank change should be considered together. States with similar long-term gains can occupy very different positions today, just as states with similar current rankings can have arrived there through very different trajectories.

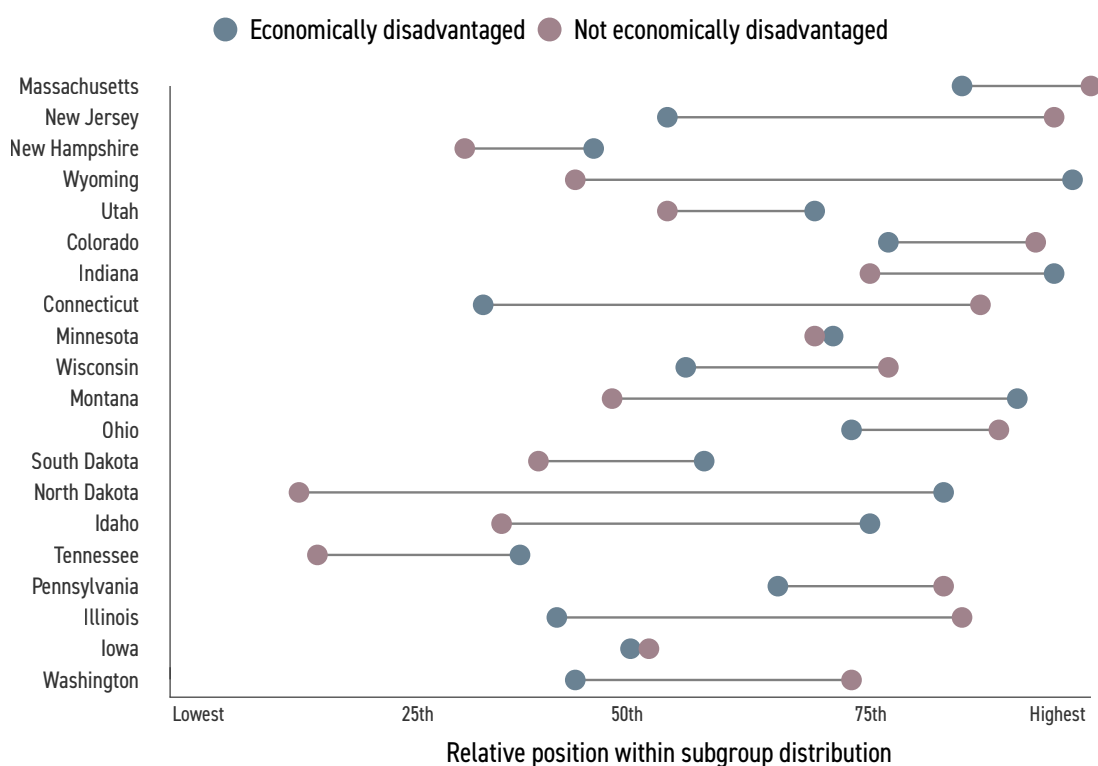
FINDING 5. OVERALL NAEP COMPOSITE RANKINGS MASK SUBSTANTIAL DIFFERENCES ACROSS STUDENT GROUPS

Current standing and long-term rank change provide two perspectives on state performance, but neither captures how states' relative standing varies across student groups. States with similar overall rankings do not necessarily occupy similar positions nationally for different student populations. Examining subgroup results provides another perspective on the variation beneath overall state rankings.

To explore these patterns, we calculated composite rankings separately for White, Black, Hispanic, economically disadvantaged, and non-economically disadvantaged students and converted each ranking to a relative position within the jurisdictions reporting that subgroup. Because race/ethnicity and economic disadvantage represent different dimensions of student populations, the following figures present these results separately. States are ordered by overall composite rank; horizontal lines show the range in relative standing across the subgroups shown, and markers identify each subgroup's position.



Note. States are ordered by their overall 2024 NAEP composite rank. Horizontal lines show the range of relative positions across White, Black, and Hispanic students, and markers show each subgroup's position. Relative position is calculated within the jurisdictions reporting each subgroup, placing subgroup rankings with different numbers of reporting jurisdictions on a common 0–100 scale, where higher values indicate stronger relative standing. In 2024, subgroup results were available for 51 jurisdictions for White students, 48 for Hispanic students, and 37 for Black students. Black-student composites were unavailable for seven of the top 20 states; for those states, the range reflects the two reported racial/ethnic subgroups.



Note. States are ordered by their overall 2024 NAEP composite rank. Horizontal lines show the range between economically disadvantaged and non-economically disadvantaged students, and markers show each subgroup's position. Relative position is calculated within the jurisdictions reporting each economic-status subgroup on a common 0–100 scale, where higher values indicate stronger relative standing. In 2024, results for both economic-status groups were available for 51 jurisdictions.

The two figures reveal substantial variation beneath states' overall rankings, but the patterns differ across the two dimensions. Relative standings across White, Black, and Hispanic students varies considerably for many of the top-performing states. The subgroup associated with a state's strongest relative position also differs across states. For example, Tennessee's relative standing is substantially higher for Black students than for White or Hispanic students, while Wisconsin's relative standing is much higher for White and Hispanic students than for Black students. These patterns reinforce that a state's overall national position does not necessarily characterize its standing for each racial and ethnic student group.

Differences by economic disadvantage status provide a complementary perspective. Some states occupy relatively similar national positions for economically disadvantaged and non-economically disadvantaged students, while others show substantial separation. The direction of those differences also varies: a state may rank relatively higher nationally for economically disadvantaged students, while another may rank higher for non-economically disadvantaged students.

These results illustrate the limits of any single statewide summary measure. The overall composite provides a concise measure of statewide achievement across grades and subjects, while the subgroup results show that a state's relative national standing can look quite different depending on the student population examined. Variation across racial and ethnic groups and variation by economic disadvantage status provide distinct perspectives and should not be interpreted as interchangeable measures of subgroup performance.

APPENDIX A: NAEP COMPOSITE METHODOLOGY

DATA

This study used publicly available state-level NAEP estimates reported by the National Center for Education Statistics (NCES), along with associated standard errors used in the composite validation analyses. The analysis included all 50 states and the District of Columbia and four assessments:

- Grade 4 Mathematics
- Grade 4 Reading
- Grade 8 Mathematics
- Grade 8 Reading

All 51 jurisdictions reported results for each of the four assessments in every assessment year from 2003 through 2024. The longitudinal analysis therefore uses a consistent comparison pool across years to examine changes in states' relative national standing over time.

SUBGROUP DATA AVAILABILITY

NAEP does not report some subgroup estimates when reporting standards are not met. Subgroup composites were calculated only for jurisdictions with reported estimates for all four NAEP assessments included in the composite; missing or suppressed estimates were not imputed. As a result, the number of jurisdictions included in subgroup rankings varies across student groups. In 2024, composite results were available for 51 jurisdictions for White, economically disadvantaged, and non-economically disadvantaged students; 48 jurisdictions for Hispanic students; and 37 jurisdictions for Black students.

COMPOSITE CONSTRUCTION

The NAEP composite summarizes statewide academic performance across the four primary NAEP assessments. For each state, the composite was calculated as the equally weighted average of four standardized domain scores:

$$Composite_i = \frac{1}{4} \sum_{d=1}^4 DomainScore_{id}$$

where i denotes the state and d denotes one of the four NAEP domains.

Each domain score was standardized within the assessment year using a z-score transformation:

$$DomainScore_{id} = \frac{Score_{id} - \overline{Score_{dy}}}{SD_{dy}}$$

where $\overline{Score_{dy}}$ is the mean state score and SD_{dy} is the standard deviation of state scores for assessment d in year y .

This transformation places fourth-grade mathematics, fourth-grade reading, eighth-grade mathematics, and eighth-grade reading on a common scale before averaging, ensuring that each assessment contributes equally to the composite regardless of differences in score distributions.

Because standardization is based on the distribution of state-level mean scores, the resulting standardized values describe a state's position relative to other state means; they should not be interpreted as student-level standard deviation units.

This report uses the within-year standardized, equal-weight composite originally developed by the Oklahoma Center for Education Policy.⁵ The specification was selected because it is straightforward to interpret and replicate while maintaining equal representation of each NAEP assessment. Validation analyses examining the robustness of this specification are described below. The primary composite is calculated from published state mean estimates and does not incorporate standard errors into the composite weights; reported standard errors were used in the precision-weighted specifications examined as part of the validation analysis.

States were ranked from highest to lowest composite score, with a rank of 1 indicating the highest composite score. Regional and subgroup rankings were calculated using the same approach within their respective comparison groups. No tied overall composite scores occurred in the 2003 or 2024 national rankings.

The NAEP composite should be interpreted as a summary measure of statewide academic achievement across the four primary NAEP assessments.

The composite is particularly useful for:

- comparing overall state performance
- examining long-term changes in states' relative national standing
- identifying broad patterns across states

Because the composite summarizes performance across grades and subjects, it should not be interpreted as a substitute for analyses of individual grades, subjects, or student groups. Those analyses provide important context for understanding the patterns that underlie a state's overall performance.

5 Tyner, A. (2026, February). *The fall to 48th: Documenting Oklahoma's educational decline*. Oklahoma Center for Education Policy, University of Oklahoma. <https://ou.edu/content/dam/education/centers-and-partnerships/education-policy/fall-to-48th-11Feb2026.pdf>

COMPOSITE VALIDATION

Basis Policy Research conducted a separate validation analysis to assess whether state rankings were sensitive to alternative approaches to standardizing and combining the four NAEP assessments. The analysis compared five achievement-based composite specifications that varied how assessment scores were standardized, as well as precision-weighted variants that used the reported NAEP standard errors to give greater weight to more precisely estimated assessment scores.

State rankings were highly stable across these alternative specifications. Spearman rank correlations among the five achievement-based composites ranged from 0.998 to 1.000, while Pearson correlations among composite scores ranged from 0.999 to 1.000. Correlations between equal-weight and precision-weighted versions of the same composites exceeded 0.99. These results indicate that state rankings are largely insensitive to reasonable alternative approaches to standardizing and weighting the four NAEP assessments.

APPENDIX B: STATE 2024 NAEP COMPOSITE RANKINGS

State	Composite Score	National Rank	Census Region	Census Region Rank
Massachusetts	2.090	1	Northeast	1
New Jersey	1.393	2	Northeast	2
New Hampshire	1.288	3	Northeast	3
Wyoming	1.162	4	West	1
Utah	1.115	5	West	2
Colorado	1.090	6	West	3
Indiana	0.973	7	Midwest	1
Connecticut	0.869	8	Northeast	4
Minnesota	0.767	9	Midwest	2
Wisconsin	0.754	10	Midwest	3
Montana	0.694	11	West	4
Ohio	0.670	12	Midwest	4
South Dakota	0.656	13	Midwest	5
North Dakota	0.633	14	Midwest	6
Idaho	0.583	15	West	5
Tennessee	0.453	16	South	1
Pennsylvania	0.426	17	Northeast	5
Illinois	0.398	18	Midwest	7
Iowa	0.328	19	Midwest	8
Washington	0.298	20	West	6
Kentucky	0.257	21	South	2
Nebraska	0.201	22	Midwest	9
Florida	0.190	23	South	3
Hawaii	0.161	24	West	7
Virginia	0.128	25	South	4
North Carolina	0.107	26	South	5
Rhode Island	0.089	27	Northeast	6
Mississippi	0.061	28	South	6
Kansas	-0.033	29	Midwest	10
Georgia	-0.042	30	South	7
Vermont	-0.043	31	Northeast	7
Maryland	-0.160	32	South	8
New York	-0.183	33	Northeast	8
South Carolina	-0.239	34	South	9

State	Composite Score	National Rank	Census Region	Census Region Rank
Texas	-0.248	35	South	10
Louisiana	-0.262	36	South	11
Missouri	-0.374	37	Midwest	11
Maine	-0.527	38	Northeast	9
Michigan	-0.529	39	Midwest	12
California	-0.601	40	West	8
Nevada	-0.710	41	West	9
Arizona	-0.793	42	West	10
Alabama	-0.844	43	South	12
Arkansas	-0.938	44	South	13
Oregon	-1.103	45	West	11
Delaware	-1.174	46	South	14
District of Columbia	-1.301	47	South	15
Oklahoma	-1.308	48	South	16
West Virginia	-1.651	49	South	17
Alaska	-2.121	50	West	12
New Mexico	-2.649	51	West	13

APPENDIX C: LONG-TERM NAEP COMPOSITE RANKINGS

State	2003 Rank	2024 Rank	Change
Tennessee	42	16	26
Hawaii	45	24	21
Mississippi	49	28	21
Utah	25	5	20
Indiana	21	7	14
Idaho	28	15	13
Florida	35	23	12
Illinois	30	18	12
Kentucky	32	21	11
Louisiana	47	36	11
Georgia	40	30	10
Pennsylvania	27	17	10
Rhode Island	37	27	10
Colorado	15	6	9
New Jersey	10	2	8
Wisconsin	17	10	7
California	46	40	6
Alabama	48	43	5
District of Columbia	51	47	4
Ohio	16	12	4
Wyoming	8	4	4
Nevada	44	41	3
Arizona	43	42	1
Massachusetts	1	1	0
South Carolina	34	34	0
Washington	20	20	0

State	2003 Rank	2024 Rank	Change
Maryland	31	32	-1
New Hampshire	2	3	-1
New Mexico	50	51	-1
Montana	9	11	-2
Texas	33	35	-2
Arkansas	41	44	-3
Connecticut	5	8	-3
Nebraska	19	22	-3
Minnesota	4	9	-5
South Dakota	7	13	-6
Iowa	11	19	-8
North Carolina	18	26	-8
North Dakota	6	14	-8
Oklahoma	39	48	-9
Michigan	29	39	-10
New York	23	33	-10
Alaska	38	50	-12
Virginia	12	25	-13
West Virginia	36	49	-13
Missouri	22	37	-15
Kansas	13	29	-16
Oregon	26	45	-19
Delaware	24	46	-22
Maine	14	38	-24
Vermont	3	31	-28

