

NAEP'S HIDDEN POWER:

Understanding Achievement
at the *Intersections*



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As America's classrooms grow more diverse and educational challenges more complex, our examination and understanding of student learning must evolve. It's no longer enough to look at descriptive measures of performance within broad demographic categories. If real progress is desired, we need to dig deeper. That's why the National Assessment of Educational Progress (NAEP) and the Trial Urban District Assessment (TUDA) program are more vital than ever.

NAEP is the only national assessment that allows us to examine what students know and how they are performing at the intersections—not just by race or income, but by combinations of characteristics like socioeconomic status, gender, language background, and disability status. These layered insights allow us to better understand what's working, where gaps exist, and how different groups of students may be experiencing school.

In this post-pandemic time, when education leaders are under pressure to deliver results for all students, NAEP remains an indispensable source of truth. No other national assessment offers a methodologically rigorous and consistent measure of student performance across states and large urban districts, while also allowing for the analysis of over 100 student groups. The only national common measure of student performance, NAEP helps us drill down on oversimplified narratives of student performance across large student groups and focus on stories hiding in the data. It's clear, now more than ever, that developing smarter policies, being more intentional and effective with investments, and improving student outcomes requires protecting and enhancing the use of this tool.



THE POWER OF INTERSECTIONAL DATA USING NAEP

Addressing disparities in student achievement requires going beyond aggregate-level comparisons to analyze disaggregated intersections of data that capture the diverse experiences of students in our nation's schools. Average, aggregate scores of main student group performance while helpful, can obscure or even mask important variations in student performance, while disaggregated and intersectional data can uncover hidden trends, reveal unexpected progress, and guide interventions and investments more precisely. This is important to understand, especially for urban schools, which often come under scrutiny and are unfairly judged for not meeting or exceeding national benchmarks. A deeper examination of specific student group performance often tells a different, more encouraging, story of growth, achievement, and progress.

The National Assessment of Educational Progress (NAEP) is the only nationally representative assessment in the United States that allows researchers and education leaders to compare student performance across narrowly defined student groups, including groups with intersecting identities. In education, intersectional data analysis (the ability to disaggregate data across multiple dimensions of student identity) has increasingly been embraced by educators and researchers to better understand nuanced achievement patterns and inform more effective, equity-focused policies (Castillo, W. & Gillborn, D., 2022; Evans-Winters, 2021; López, Erwin, Binder & Chavez, 2018; Schudde, 2018). By moving beyond broad demographic categories, intersectional analysis provides a more precise understanding of student performance, and when tracked over time, can reveal persistent gaps in investments, allowing educators to direct resources and policy decisions more strategically.

NAEP offers robust cross-sectional data and enables benchmarking across a generally consistent set of jurisdictions nationwide and over time, going back as far as the early 2000's. NAEP stands apart as the only assessment that allows for the analysis of intersections between two or more student characteristics on a nationally representative scale, allowing for comparisons across various jurisdictions. The Trial Urban District Assessment (TUDA) program further expands this capacity by enabling comparisons within and across many of the nation's major urban districts. Currently twenty-six districts opt to be oversampled through the TUDA program in order to receive district-specific scores.

The TUDA program is a direct result of the strategic efforts of the Council of the Great City Schools (Council), a national non-profit that supports and advocates for the largest urban school districts across the country. In 2000, as state participation in NAEP was rapidly declining, the National Assessment Governing Board (Governing Board) sought new ways to increase engagement. In response, Council leadership submitted a formal proposal to the Governing Board and volunteered a small group of large urban school districts to participate in a pilot of the TUDA program, which was promptly accepted. Building on this momentum, Council leadership met with the House appropriations subcommittee to request federal funding to support NAEP oversampling in six pilot big-city school systems and for permission to report results below the state level, something that was previously prohibited. The initiative gained bipartisan support, and on November 5, 2001, a House-Senate conference committee finalized the authorization and appropriations that led to the official launch of the TUDA program in 2002. This move marked a major milestone in expanding national assessment data and improving efforts to capture more inclusive and accurate performance data from urban school districts.

A CLOSER LOOK AT LOW-INCOME STUDENT ACHIEVEMENT IN URBAN CITIES

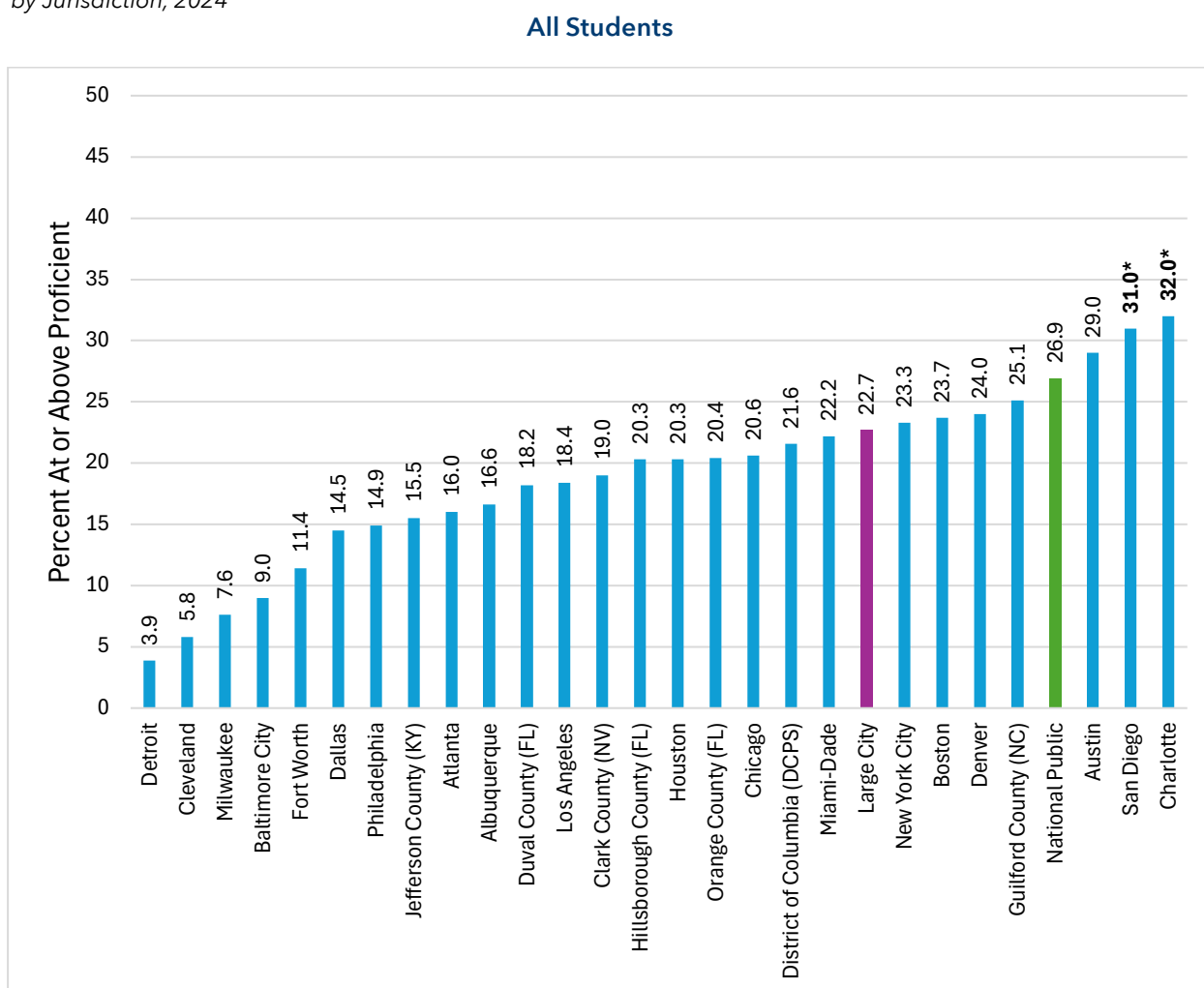
While some intersections of student groups lack reportable NAEP performance data in certain years, particularly at the district level due to sample size limitations, available data on intersecting student groups offers a powerful lens into performance patterns, progress, and persistent gaps across states and large urban school districts. These insights are critical for the development, refinement, and implementation of more targeted policies and programs.

The following example illustrates this point.

The majority of students in urban school districts, for example, are Hispanic (45%), Black/African American (25%), English Learners (17%), Student with Disabilities (17%), or White (17%). Urban school districts also have a larger percentage of low-income (70%) students compared to their national public (53%) peers (Council of the Great City Schools, 2024). Improving student outcomes in urban school districts focuses on all student groups while recognizing the unique needs of historically underserved groups, particularly low-income students, students from all race/ethnic backgrounds, English Learners and students with disabilities. In this report, we examine 2024 NAEP eighth grade mathematics results, emphasizing the importance of disaggregate data with a specific focus on low-income students and their intersectional identities.

Let's start at the aggregate level. The proficiency rate of all students in large cities (22.7%) was four percentage points lower than national public school students (26.9%; Figure 1), a significant difference. The figure also illustrates the performance of students across TUDA districts, where only three districts had higher rates of eighth grade mathematics proficiency than national public school students– Austin Independent School District, San Diego Unified School District, and Charlotte-Mecklenburg Schools. Rates of proficiency in San Diego and Charlotte-Mecklenburg were significantly greater than that of public schools nationally.

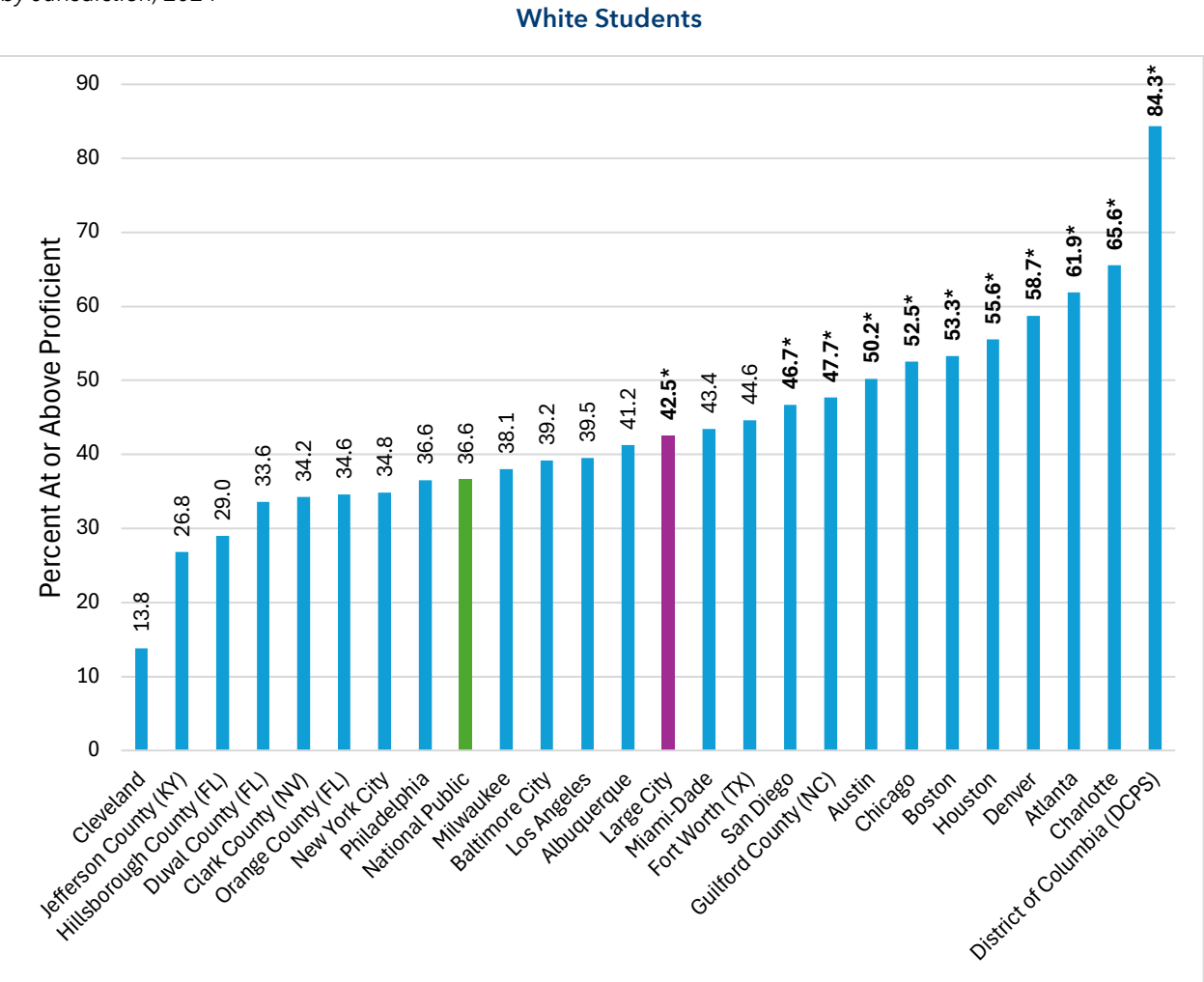
Figure 1. Eighth Grade Mathematics Proficiency Rates on the National Assessment of Educational Progress (NAEP) by Jurisdiction, 2024



* Proficiency rate was significantly greater than that of the National Public jurisdiction in 2024.

However, when disaggregated further, 2024 NAEP results reveal that White students in large cities (42.5%) outperform White students nationally (36.6%) in eighth grade mathematics by 5.9 percentage points (Figure 2), a statistically significant difference. This comparative analysis also shows that two-thirds (67%) of reporting TUDA districts maintained higher proficiency rates among their White students compared to White national public school students, with ten TUDA districts having proficiency rates that were significantly greater than that among public schools nationally.

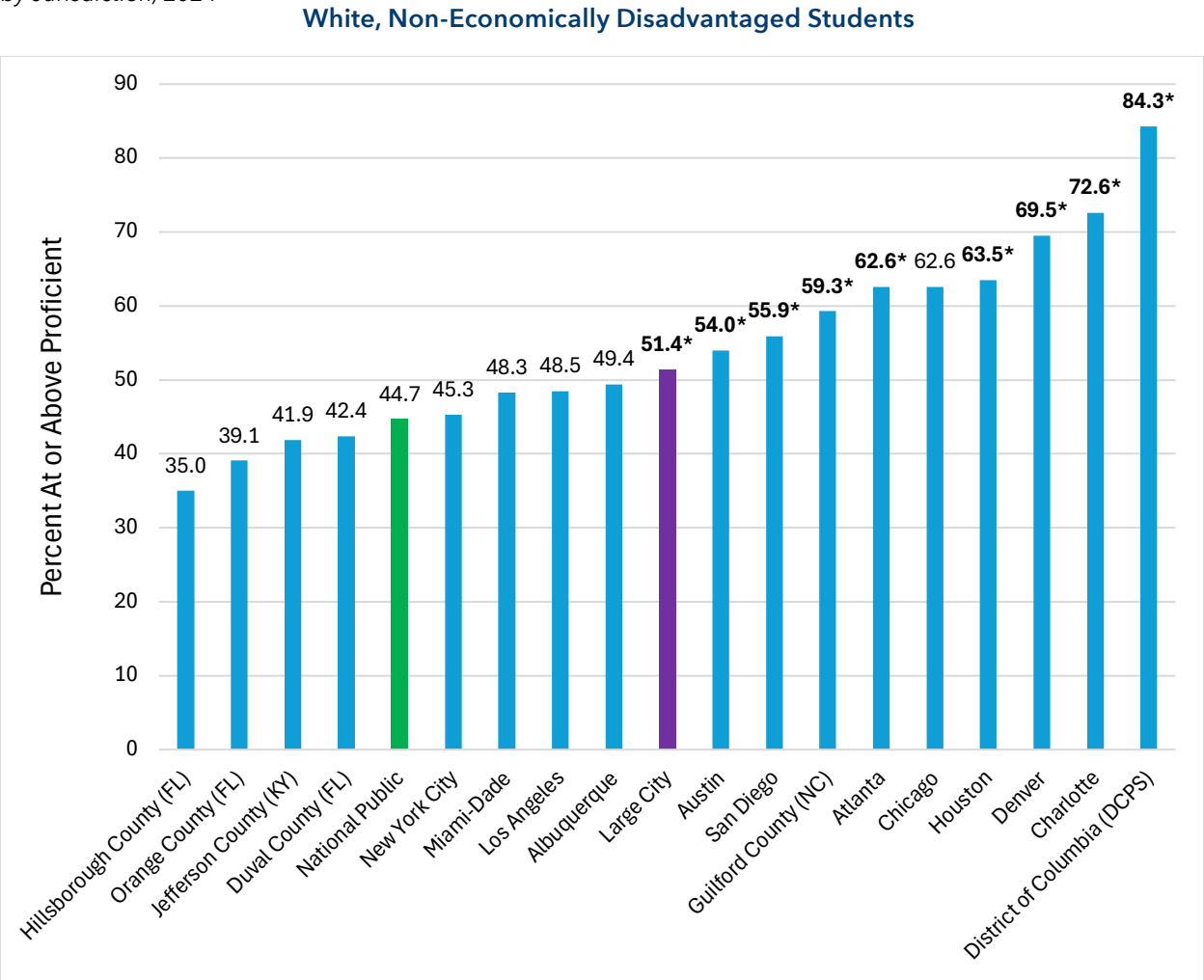
Figure 2.. Eighth Grade Mathematics Proficiency Rates on the National Assessment of Educational Progress (NAEP) by Jurisdiction, 2024



* Proficiency rate was significantly greater than that of the National Public jurisdiction in 2024.

A deeper examination of 2024 NAEP eighth grade mathematics results by income status reveals even greater differences in how urban districts support White students compared to national trends. When examining more affluent White students, the performance advantage of large city students (51.4%) over students nationally (44.7%) grows to 6.7 percentage points, a statistically significant difference. In fact, non-economically disadvantaged White students in District of Columbia Public Schools outperform students nationally by nearly 40 percentage points, boasting nearly twice the rate of proficiency (84.3%). Even more, the majority (76%) of reporting TUDA districts had higher proficiency rates compared to national public school non-economically disadvantaged White students (44.7%), with eight TUDAs having rates that are significantly greater (Figure 3).

Figure 3. Eighth Grade Mathematics Proficiency Rates on the National Assessment of Educational Progress (NAEP) by Jurisdiction, 2024

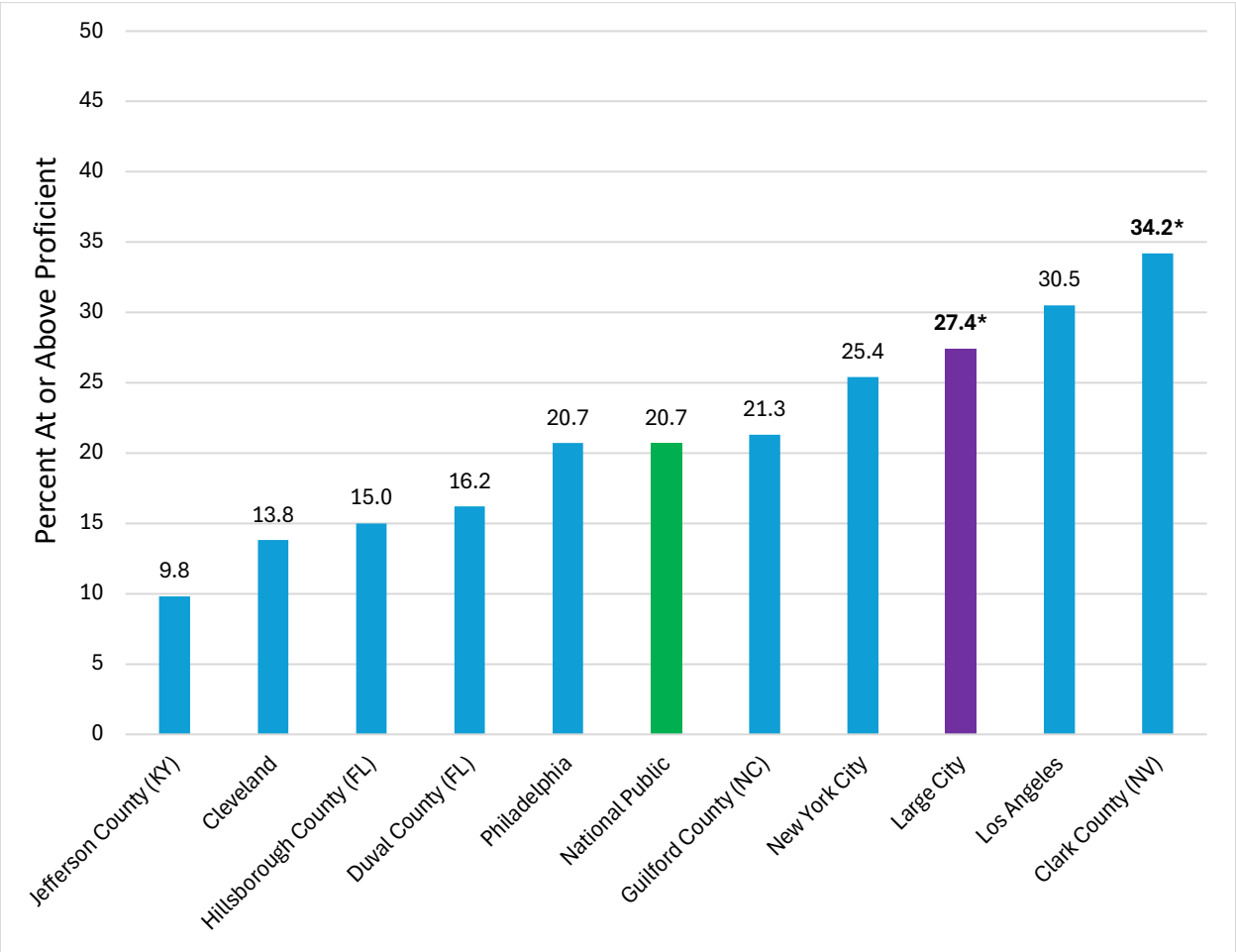


* Proficiency rate was significantly greater than that of the National Public jurisdiction in 2024.

In comparison, we find that low-income White students in large cities (27.4%) significantly outperformed their national peers (20.7%) by 6.7 percentage points in eighth grade mathematics. The significant gap in NAEP proficiency between White economically disadvantaged students in Clark County Public Schools (34.2%) and their peers nationally was even wider, twice as large in fact, demonstrating how some urban districts exceed national expectations for this group (Figure 4). These findings suggests that most White students, no matter their economic background, are better served by urban school districts compared to national public schools.

Figure 4. Eighth Grade Mathematics Proficiency Rates on the National Assessment of Educational Progress (NAEP) by Jurisdiction, 2024

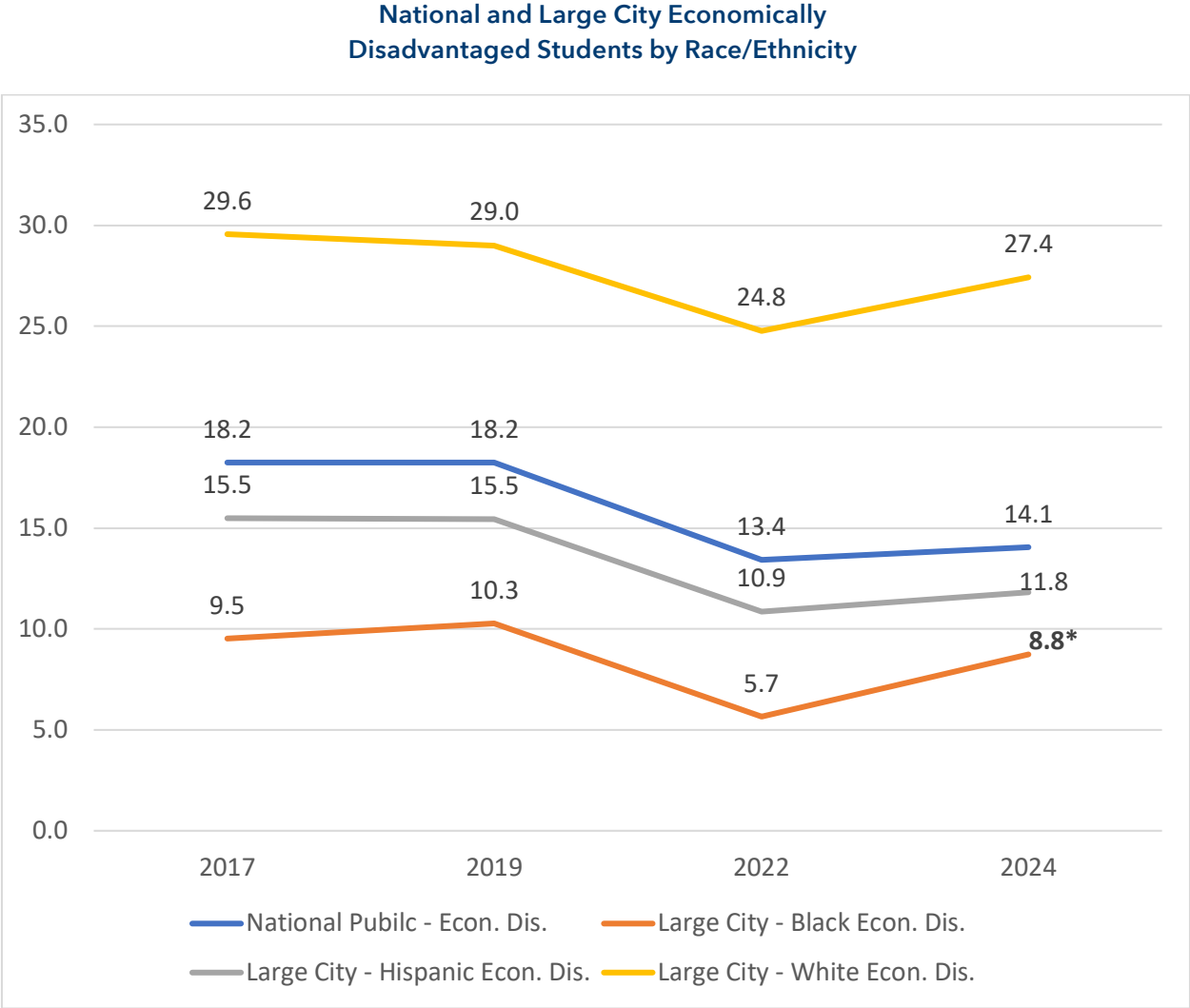
White Economically Disadvantaged Students



* Proficiency rate was significantly greater than that of the National Public jurisdiction in 2024.

We next analyze performance trends for economically disadvantaged students across student groups (Figure 5). In large cities, White economically disadvantaged students maintained the highest proficiency rates from 2017 to 2024. Yet, it should be noted that Black economically disadvantaged students in large urban districts were the only group to post a statistically significant gain of 3.1 percentage points from 2022 to 2024, outpacing recovery among the other student groups as well as economically disadvantaged students nationwide. Nationally, the modest increase for all economically disadvantaged students (13.4% to 14.1%; a 0.7 percentage point increase) likely reflects and is attributable to improvements in large urban districts, where economically disadvantaged White, Black and Hispanic all made gains.

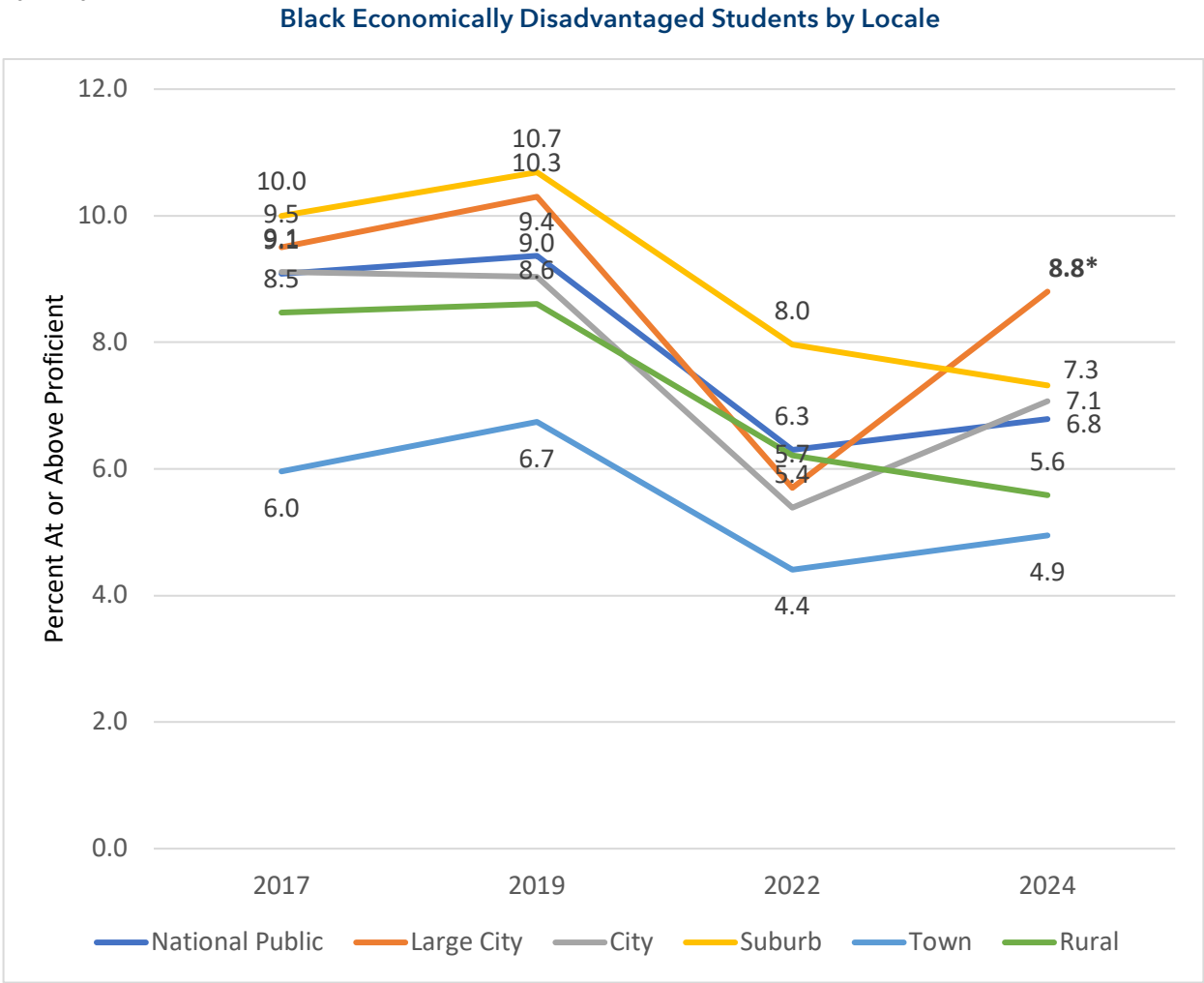
Figure 5. Eighth Grade Mathematics Proficiency Rates on the National Assessment of Educational Progress (NAEP), 2017-2024



* Proficiency rate was significantly greater in 2024 compared to 2022

A similar observation is made when comparing Black economically disadvantaged students across locales. In 2024 eighth grade NAEP mathematics, those in large city districts (8.8%) outperform peers in suburban districts (7.3%), rural (5.6%), town (4.9%), and city districts overall (7.3%), as well as the national average (6.8%; Figure 6). Over time, from 2017 to 2024, Black economically disadvantaged students in large city districts made the largest recovery from 2022 to 2024, with a significant gain of 3.1 percentage points. Although historically lower-performing, Black economically disadvantaged students in large city districts outperform their peers in every other locale and is the only locale to show a significant increase over that period.

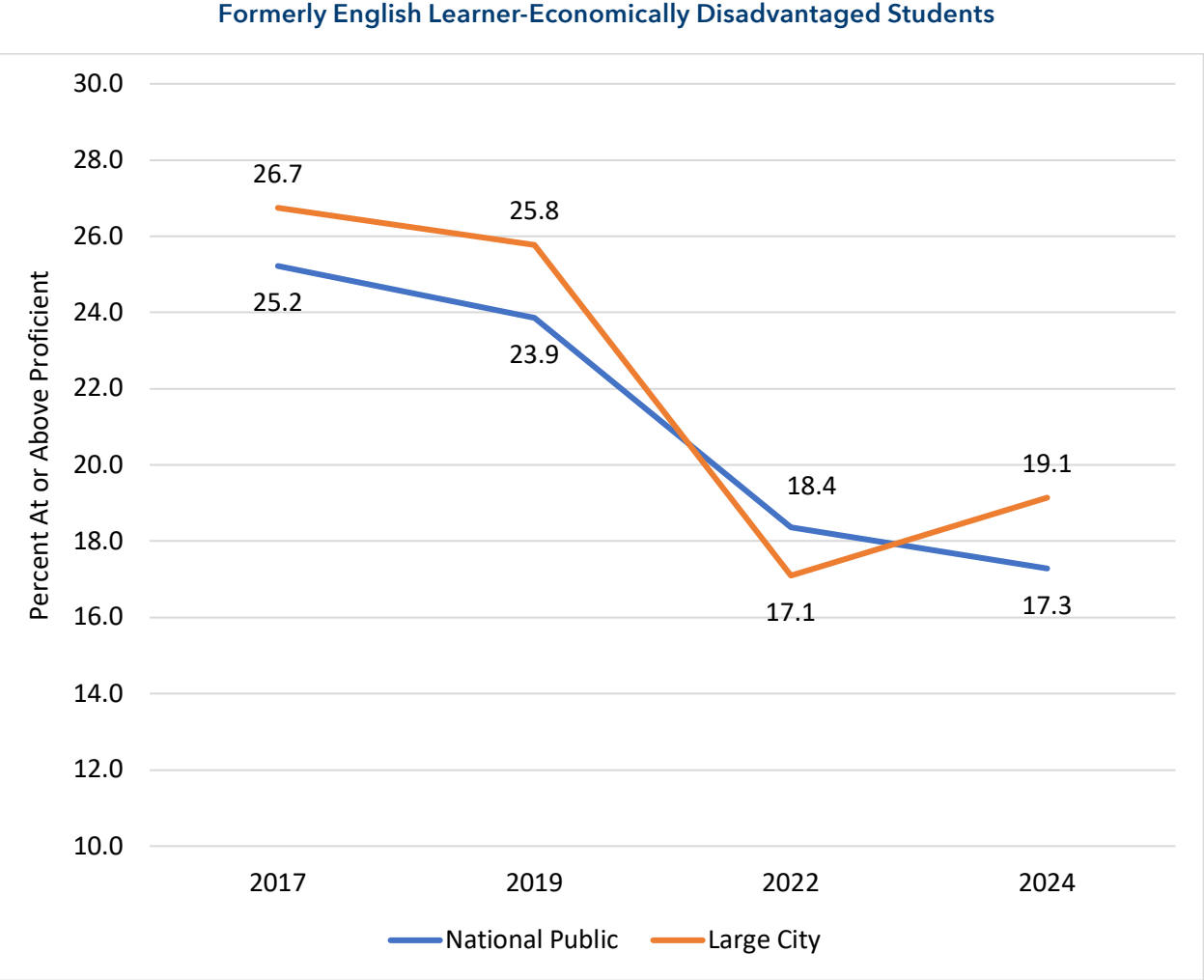
Figure 6. Eighth Grade Mathematics Proficiency Rates on the National Assessment of Educational Progress (NAEP), 2017-2024



* Proficiency rate was significantly greater in 2024 compared to 2022.

When disaggregating low-income students by language status, former English Learners in urban districts have historically outperformed their national peers in eighth grade mathematics. Although they fell slightly behind in 2022, they made a 2-point gain in 2024 (19.1%), surpassing the national average (17.3%) by nearly the same margin (Figure 7).

Figure 7. Eighth Grade Mathematics Proficiency Rates on the National Assessment of Educational Progress (NAEP), 2017-2024



Positive narratives about the performance and progress of specific student groups in urban schools are often absent or overlooked in national conversations. Without intersectional analysis, important distinctions, such as low-income students of various racial/ethnic or language backgrounds often outperforming their peers nationally, remain hidden in the broad, aggregate summaries typically presented. Currently, the only means by which these data and analysis are available is with the continued administration of the NAEP assessment and TUDA programs.



DISCUSSION

This analysis underscores the value of disaggregating by multiple student characteristics. Policymakers and educators might overlook meaningful differences in student experiences and outcomes by only looking at broad student group performance. Programs developed based on general trends may not fully support the distinct needs of individual student groups. The goal of education programs is to provide all students with high quality education programming and academic preparation for their adult lives. Research supports the assertion that intersectional disaggregation provides better insights to leaders and can lead to improved outcomes (Mahendran et al., 2022; National Forum on Education Statistics, 2016; National Science and Technology Council, 2023; Nguyen et al., 2014). For instance, this report shows that White students in large urban school districts, regardless of their economic background, consistently outperform their national public school peers. This challenges long-standing assumptions that urban school students are universally underserved and offers valuable lessons to inform both policy and practice. If the charge of education agencies is to provide quality education to all students, and student populations are not homogeneous, it follows that there is benefit to identifying differences in outcomes between groups in service of that goal. The power of NAEP – and the data systems, reporting mechanisms, derived from it – resides in its ability to increase understanding of performance at intersections within the broader population of our students. Just as powerful is its potential for use across districts who have embedded these sophisticated understandings of their students into their processes, operations, and strategy.

Using intersectional NAEP data enhances the effectiveness and relevance of education decision-making. When states and districts examine how specific student groups perform relative to their peers nationwide, they gain valuable insights and are able to develop more targeted instructional strategies, identify and build upon unexpected areas of success, and reveal trends in student performance that can help inform professional development, curriculum adoption, and resource investments. This level of detail ensures that support is not only data-driven, but also better aligned to the nuanced needs of diverse student populations. Additionally, these data uncover untold stories of progress in urban schools that are only possible with the robust set of intersectional data provided by NAEP.

While state standardized assessments, formative assessments, and other tools that rely on standardized results provide useful insights, they lack the depth and comparability that NAEP provides. NAEP is based on the direct testing of students using a common, nationally administered assessment. This contrasts with more recently introduced efforts such as the Standard Education Data Archive (SEDA) and its extension, the Education Recovery Scorecard, which are based on standardized state test scores that are statistically linked and normed to NAEP. Even more, SEDA and the Education Recovery Scorecard are not able to maintain trend lines for some states and their respective districts due to participation rate rules or changes to their state assessments from year to year. Finally, and most relevant to this conversation, NAEP includes an extensive set of background variables not typically available in other datasets, allowing users to examine student performance across two or three intersecting characteristics (Casserly, 2025).



CONCLUSIONS

In an educational landscape that continues to be uncertain and evolve, NAEP remains one of the most important and distinctive tools for understanding student performance. NAEP's unique capacity to disaggregate data across multiple dimensions makes it an essential resource for education leaders, policymakers, and researchers. NAEP helps reveal where challenges persist and where progress is being made. It remains the only assessment tool that offers this level of insight on a national scale and is critical for developing data-informed strategies, targeting resources effectively, and advancing efforts to improve outcomes for all students, especially those from historically underserved populations.

The findings highlighted in this report carry significant policy implications. Evidence that specific intersections of student groups in urban districts outperform those same groups in national public schools suggest that targeted investments, strategic and effective strategies and supports, as well as context-specific interventions can yield meaningful results.

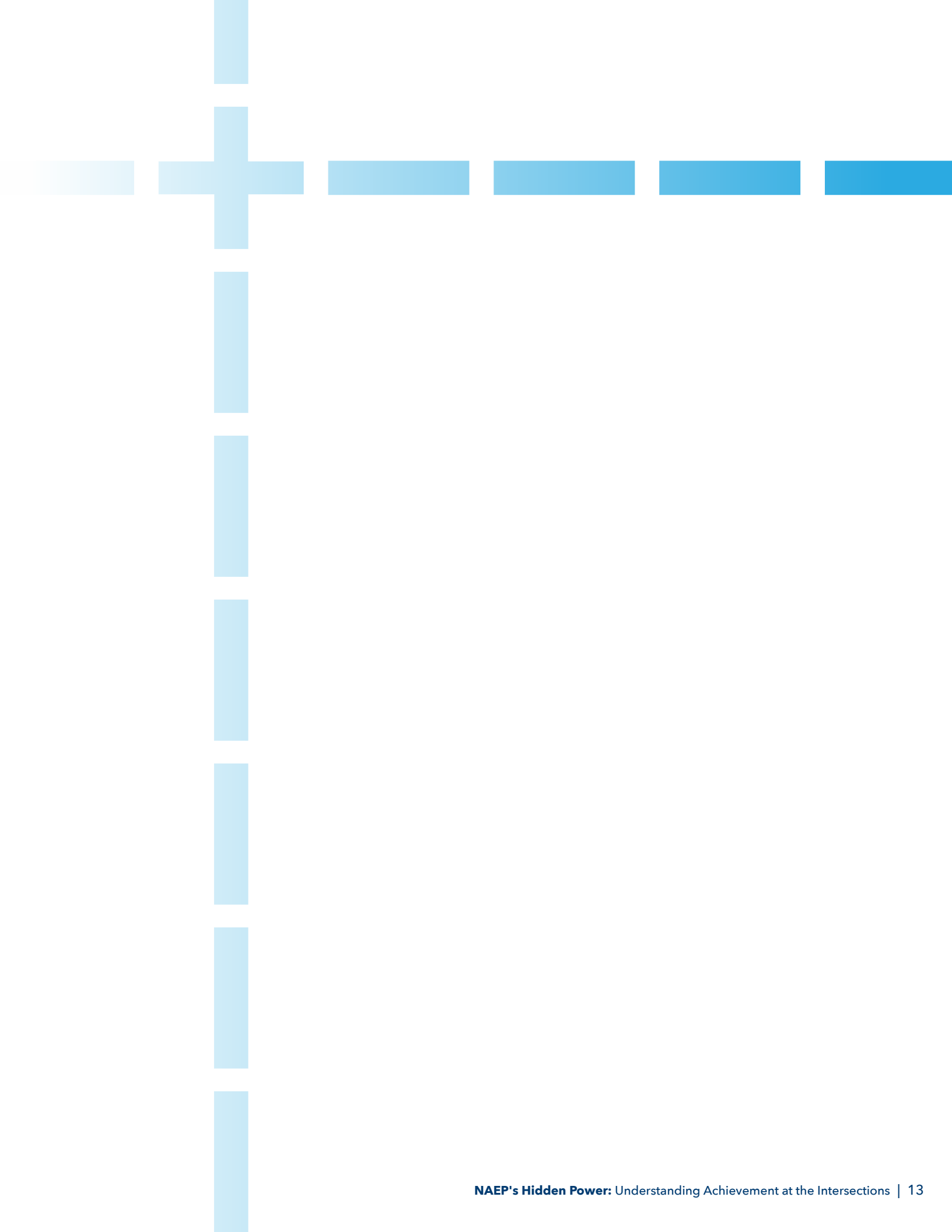
To fully capitalize on these insights, a policy commitment to improving data systems and reporting requirements might be warranted. Specifically, state and federal agencies could revise reporting requirements to include intersectional student achievement data, such as race combined with income or language status combined with disability status. Without this level of granularity, crucial patterns of student performance remain hidden, limiting the ability for education leaders to make well informed decisions.

NAEP is a valuable assessment tool and a powerful lever for system change across public education, especially for urban school districts. NAEP's capacity to report intersectional data informs policy and practice and drives data-driven reform in schools. The assessment results are critical to advancing educational equity and excellence across the nation. Policymakers who are serious about closing opportunity gaps and accelerating student achievement should prioritize NAEP as a central part of the nation's education infrastructure.



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