

# Gauging the Gaps

A Deeper Look at Student Achievement



The Education Trust

#### TO THE POINT

- ▶ Educators and policymakers need the best information available to measure achievement gaps and make progress in closing them.
- ▶ A comprehensive and accurate look at achievement gaps requires at least four perspectives: simple gap narrowing, gains across groups, gap size, and group comparisons.
- ▶ These perspectives on gap closing can reveal meaningful differences among states, districts, and schools.

To gain a true picture of gaps in student achievement requires looking at the data from at least four different perspectives:

- Simple Gap Narrowing: Have absolute gaps in mean performance between groups decreased over time?
- Progress for All: Have all groups of students gained over time?
- Gap Size: What is the current size of the gap between groups?
- Group Comparisons Across Jurisdictions: How does each group of students currently perform compared with their counterparts in other jurisdictions?

# Gauging the Gaps

## A Deeper Look at Student Achievement

BY ANNA HABASH ROWAN, DARIA HALL, AND KATI HAYCOCK

Leaders in schools, districts, and states, along with policymakers in Washington, D.C., are focusing new energy on closing long-standing gaps in performance that separate low-income students and students of color from others. It's critically important that their efforts succeed—for students, their families, their communities, and for our democracy and future prosperity. Indeed, one recent estimate compared the achievement gap's impact on our economy to that of "a permanent national recession."<sup>1</sup>

Given the high stakes, educators and policymakers need the best information available to learn the true measure of achievement gaps and make progress in closing them.

This brief explores the pitfalls in gauging gaps simplistically and suggests four ways to gain a more sophisticated, comprehensive, and accurate picture. It then illustrates these approaches using data from the National Assessment of Educational Progress (NAEP) to show how some states are making progress in closing gaps—and others are not.

### PERSPECTIVES ON GAP CLOSING: CAUTIONARY TALES

The most common way of measuring gaps is by simple subtraction: the performance of white students *minus* the performance of African-American students *equals* the African American-white achievement gap. If the resulting number is decreasing over time, then the gap is closing; if that number is stagnant or growing, then the gap is not closing.

It turns out, however, that without additional information this formulation can be misleading.

For example, from 2003 to 2009, **Georgia** and **West Virginia** both narrowed the gap separating African-American and white students on the NAEP eighth-grade math test. Before celebrating, though, we would want to be sure that Georgia did so by making progress with African-American and white

students alike. (It did.) West Virginia, however, narrowed the gap in a less desirable way: African-American students improved, but the performance of white students stagnated. Clearly, then, *how gaps close* is important. All groups should be making gains.

Two states or districts that are succeeding in narrowing gaps could differ in another way: They could have remaining gaps of very different sizes. **Delaware** and the **District of Columbia** both made significant<sup>2</sup> progress in closing their Latino-white gaps on the NAEP fourth-grade reading test, but the gaps that remain differ markedly. Despite its progress, the District of Columbia's gap remains more than three times as wide as Delaware's. And size matters. Without that perspective, our view of gap narrowing could miss the substantive differences in achievement that still separate some young people—and some jurisdictions—from others.

What's more, states and districts that are narrowing gaps can have strikingly different performance levels for the same groups of students. Take **Florida** and **Louisiana**, for example. Both have significantly narrowed their African American-white gaps in fourth-grade math, but African-American students in Florida perform substantially above their counterparts in Louisiana. The ten-point difference between the states equates to roughly a year's worth of learning for students. Thus, comparing the performance of student groups with the performance of those same groups in other jurisdictions provides a more complete picture.

In sum, each question asked in isolation provides some useful information. But together they provide a much better foundation for understanding patterns of student achievement.

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## FOUR PERSPECTIVES on State, District, or School Performance

To gain a true picture of gaps in student achievement—whether on state tests, national tests, high school graduation rates, or almost any other measure—requires looking at the data from at least four different perspectives:

- **Simple Gap Narrowing:** Have absolute gaps in mean performance between groups decreased over time?
- **Progress for All:** Have all groups of students gained over time?
- **Gap Size:** What is the current size of the gap between groups?
- **Group Comparisons Across Jurisdictions:** How does each group of students currently perform compared with their counterparts in other jurisdictions?

To illustrate what the data look like from each of the four perspectives, we'll present data on the performance of low-income and higher income students on the NAEP fourth-grade reading assessment. We chose NAEP because its results are comparable across states, thus allowing valid comparisons that would be unavailable using results of each state's own assessments.<sup>3</sup> Unlike state assessments, which vary greatly in quality and rigor, NAEP is widely seen as a high-quality assessment that reveals how well states are doing in boosting student achievement.

Of course, a thorough understanding of achievement patterns in a state requires consideration of *all* subjects, grades, and student groups for which data are available. To enrich our picture, then, we conducted a more comprehensive analysis to identify the states that have consistently high performance—and consistently low performance—for all groups of students on the NAEP tests that are available for all states over time: fourth and eighth-grade reading and math. The results of these more comprehensive analyses are displayed in the “Top and Bottom Performers” tables within each section that follows. In addition, we provide data on the performance of *all* states on each of the four perspectives in the tables that appear at the end of this document.

Finally, each section includes an example that illustrates how a school or district can apply that perspective in analyzing its performance.

## PERSPECTIVE 1: SIMPLE GAP NARROWING Have absolute gaps in mean performance between groups decreased over time?

Nationwide, low-income students and students of color perform, on average, below their peers. So it is imperative to evaluate whether we're helping these young people catch up.

From 2003 to 2009, fourth-grade reading performance for low-income and higher income students alike edged up slightly nationally, though the gap separating these groups of students did not change. This national picture conceals varying rates of gap-closing among the states. On the high end, **Illinois**, **Virginia**, and **Florida** significantly narrowed the gap between low-income and higher income students in fourth-grade reading. Gaps in these states narrowed by at least five points. At the other end of the spectrum were **Vermont** and **Oregon**, where gaps actually grew significantly.

Applying this gap-closing perspective across groups, subjects, and grades reveals a broader picture of state performance. Six states—**Delaware**, **Florida**, **Georgia**, **Louisiana**, **New York**, and **West Virginia**—and the **District of Columbia** leap to the top of the “gap narrower” chart. In other words, these seven have narrowed proportionately more of the gaps between groups than have most states. In contrast, **Oregon**, **Pennsylvania**, **Utah**, **Vermont**, and **Washington** were clear laggards, with less progress in closing gaps—and in fact, more gap widening—than anyplace else in the country.

### Perspective 1: Simple Gap Narrowing

NAEP Reading and Math, Grades 4 and 8, All Groups

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Top States	District of Columbia, Delaware, Florida, Georgia, Louisiana, New York, West Virginia
Bottom States	Oregon, Pennsylvania, Utah, Vermont, Washington

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This same approach can spotlight problems and progress within states or districts, too. State policymakers and advocates can use state assessment results to examine which districts are narrowing gaps and which are widening disparities. Similarly, district leaders could use state assessment results to look at gap-closing progress across their schools.

## Determining the Top and Bottom States for Each Perspective

Under each perspective and for each state, we determined the total number of accumulated points across fourth and eighth-grade reading and math. This number was then divided by the points each state could possibly accumulate. Finally, states were ranked according to the resulting ratios.

### Here's how points were awarded:

**Simple Gap Narrowing:** States gained a point for each gap that narrowed significantly and lost a point for each gap that widened significantly.

**Progress for All:** States gained a point for each subgroup that improved significantly and lost a point for each subgroup that declined significantly.

**Gap Size:** States gained a point for each gap that was significantly smaller than the national average and lost a point for each gap that was significantly larger than the national average.

**Group Comparisons Across Jurisdictions:** States gained a point for each subgroup that was performing significantly above the national average and lost a point for each subgroup that was performing significantly below the national average.

Leaders of the Godwin Heights school district in the down-on-its-heels industrial town of Wyoming, Mich., did just that and learned that one school, North Godwin Elementary, was doing a much better job of erasing the academic disparities that separate some students, including English-language learners, from their peers.<sup>4</sup> Based on the school's success, district leaders tapped the North Godwin principal to lead gap-closing efforts districtwide.

## PERSPECTIVE 2: PROGRESS FOR ALL Have all groups of students gained over time?

Our country needs to improve achievement for all students and accelerate gains for those who lag behind. Reading performance for low-income fourth-grade students nationwide inched up by four points from 2003 to 2007. This represents movement in the right direction but at far too slow a pace.

Some states, however, improved much more rapidly than the nation as a whole. Reading scores of low-income students in **Alabama** increased by 11 points—considered roughly a full year's additional learning. Scores for low-income students in **Maryland**, **New Mexico**, and **Pennsylvania** rose by eight

points, and in each of these states, the performance of higher income students improved significantly as well.

As with the case of gap narrowing, the data for other states are troubling. In both **Oregon** and **West Virginia**, for example, reading scores of low-income students dropped by six points from 2003 to 2007, roughly equivalent to a half-year's learning. And in both states, the performance of higher income students did not increase significantly.

Moving from examining fourth-grade reading performance to reviewing state performance across the NAEP-tested grade levels and subjects, a different set of states emerge as leaders in making improvements for all tested groups. Eight states—**Georgia**, **Massachusetts**, **Maryland**, **New Jersey**, **Nevada**, **Pennsylvania**, **Texas**, and **Vermont**, together with the **District of Columbia**—showed significant improvement across groups. On the other hand, five states—**Michigan**, **North Carolina**, **Oregon**, **South Carolina**, and **West Virginia**—saw improvement for a much smaller proportion of their tested student groups than did their counterparts and were more likely to have experienced declines.

### Perspective 2: Gains Across Groups

NAEP Reading and Math, Grades 4 and 8, All Groups

Top States	District of Columbia, Georgia, Massachusetts, Maryland, New Jersey, Nevada, Pennsylvania, Texas, Vermont
Bottom States	Michigan, North Carolina, Oregon, South Carolina, West Virginia

By using state assessment results, educators and policymakers can look at the rate of improvement across districts and schools to find out which ones are boosting student performance for all groups and where performance has stagnated or even dipped.

Ware Elementary School, a public school on the Fort Riley military base in Kansas, provides a dramatic story of improvement. In 2001, this racially diverse school was one of the first in Kansas to be designated as "on improvement," meaning that performance for all groups was among the lowest in the state. By 2008, Ware had improved so much that nearly every student was meeting standards. For example, in fifth-grade reading, 98 percent of white

students, 100 percent of African-American students, and 98 percent of low-income students met state standards.<sup>5</sup> Examining the steps Ware took to achieve such improvement could yield valuable lessons for educators and policymakers everywhere.

### PERSPECTIVE 3: GAP SIZE

#### What is the current size of the gap between groups?

In addition to examining how far a state has come in closing the gaps and looking at whether all students are gaining, it's important to know the extent of the gaps that remain. The current-year size of a state's gap suggests how far we have to go until race and income no longer play a significant role in student achievement.

Nationally and in every state, low-income students trail their higher income peers in reading performance. Yet a closer scrutiny of state data shows that some are closer to achieving equitable results than others. In five states—**North Dakota, Delaware, Hawaii, Oklahoma, and Wyoming**—the gap in reading achievement between low-income and higher income fourth-graders is 18 points or less. That's approximately half the size of the gap in Connecticut, the state with the largest gap.

Because gap size can vary from group to group, subject to subject, and grade level to grade level, it is important to weigh all three to get a comprehensive estimate of the work that remains. By that measure, eight states stand out for smaller-than-average gaps: **Delaware, Florida, Kentucky, Maine, Oklahoma, Vermont, West Virginia, and Wyoming**. By contrast, five other states—**California, Connecticut, Illinois, Rhode Island, Wisconsin**—as well as the **District of Columbia** have gaps between groups much wider than those of the country as a whole.

#### Perspective 3: Gap Size

NAEP Reading and Math, Grades 4 and 8, All Groups

Top States	Delaware, Florida, Kentucky, Maine, Oklahoma, Vermont, West Virginia, Wyoming
Bottom States	California, Connecticut, District of Columbia, Illinois, Rhode Island, Wisconsin

In much the same way, looking at gap size across districts and schools can enrich any picture of student achievement. Although doing so often reveals findings similar to those of the state as a whole (low-income students performing below higher income students and students of color performing below white students), such an analysis typically turns up schools or districts with much smaller gaps than others and, occasionally, even places where the gap is “reversed.”

For example, at Roxbury Preparatory Charter School, which serves Boston's Roxbury and Dorchester neighborhoods, one-quarter of low-income students performed at the advanced level on the seventh-grade English Language Arts exam in 2009, compared with 14 percent of the school's higher income students.<sup>6</sup> Sometimes called a “reverse” or “negative” gap, this exceptionally high performance for low-income students shows what is possible for such students when schools really focus—as Roxbury Prep does every single day—on providing all students with access to a rich, engaging curriculum and the support necessary to successfully meet high expectations.

### PERSPECTIVE 4: GROUP COMPARISONS ACROSS JURISDICTIONS

#### How does each group of students currently perform compared with their counterparts in other jurisdictions?

Although many assume that certain groups of children perform about the same no matter where they attend school, comparisons of group performance across jurisdictions can reveal striking differences. In fact, dramatic variations in the achievement of similar groups of children occur across states or from one district to the next.

On the NAEP fourth-grade reading assessment, for example, low-income students in a diverse group of states—from sparsely settled states such as **Montana, North Dakota, Wyoming, and Maine** to the more densely populated **Delaware, Massachusetts, Florida, and Virginia**—perform from ten to 20 points ahead of their counterparts in **Alaska, Nevada, Arizona, and California**, where performance for low-income students remains lowest. That point spread represents one to two years' worth of learning.

As for group performance across grade levels and subjects, six states clearly lead the rest. In these states—**Delaware, Massachusetts, Maryland, New Jersey,**

Texas, and Vermont—low-income and minority students typically perform substantially higher than such students in other states. At the same time, five states are clearly lagging on this indicator: **Arizona, California, Louisiana, Mississippi, and Nevada.** In these states, low-income students and students of color typically perform well below their counterparts elsewhere.

**Perspective 4: Interjurisdictional Group Comparisons**  
NAEP Reading and Math, Grades 4 and 8, All Groups

Top States	Delaware, Massachusetts, Maryland, New Jersey, Texas, Vermont
Bottom States	Arizona, California, Louisiana, Mississippi, Nevada

At the local level, probing the results of state assessments can reveal variations in group performance across districts and schools. Such a comparative look at the data reveals that some districts and schools are succeeding better than others in educating similar groups of students to high levels. Likewise, the data may show that districts or schools perform well for some student groups and fall short for others.

Fairfax County, Virginia, for example, encompasses one of the state’s wealthiest and highest performing school districts. On the 2008 Virginia Standards of Learning fourth-grade reading test, Fairfax students tied for sixth among 48 districts that either are adjacent to the county or are among the largest in the state. But that commendable performance for Fairfax’s fourth-graders overall masks glaring differences in group performance.

For example, while Fairfax’s white fourth-graders performed much better than white students in most Virginia school districts (tied for third among the 48 other districts), its African-American fourth-graders actually rank below the state average for their peers. In fact, African-American students in 20 other large Virginia districts—including Richmond, Virginia Beach, and Chesapeake City, three districts with far higher poverty rates—outperformed African-American fourth-graders in Fairfax.<sup>7</sup>

**BRINGING IT ALL TOGETHER**

**What can we learn about success in raising achievement and narrowing gaps by bringing these four perspectives together?**

Weaving together insights from all four perspectives can create a far more complete and nuanced picture of state progress in closing the gaps. In fourth-grade reading, for example, both **Florida and Virginia** stand out in terms of performance for low-income students. In both states, low-income students improved more rapidly than their higher income peers, thus narrowing the gap significantly. Not only have these states raised achievement and narrowed gaps, but they are among the country’s top performers in terms of achievement of low-income students and in regard to smallest gap size between low-income and higher income students. It is important to note, however, that neither state significantly increased the performance of higher income students from 2003 to 2007.

Another group of states—**Idaho, Kansas, Montana, New Hampshire, North Dakota, and Oklahoma**—have not significantly narrowed the fourth-grade reading gap but are showing other good progress for low-income students. Low-income students in these states improved significantly, and their 2007 performance ranks among the highest in the nation. What’s more, these states can point to gaps between low-income students and higher income students that are among the smallest in the nation. In Idaho, Kansas, and North Dakota, the performance of higher income students increased significantly, while in Montana, New Hampshire, and Oklahoma, they did not.

The picture is more worrisome in other states. In **Alaska, Arizona, and South Carolina**, performance of low-income fourth-grade students is among the worst in the country in reading, and there has been no significant improvement since 2003. Low-income students in **Oregon**, sadly, rank among the lowest performing in the country and actually have lost ground since 2003. Meanwhile, the gap separating these students from their higher income peers has grown significantly.

To be sure, the four-perspective approach to achievement and gaps creates a more complex picture than does looking at any one indicator in isolation. But failing to apply all four analyses may cause education leaders and policymakers to interpret data in ways that are incomplete, if not misleading.

It's unlikely that any state, district, or school will rise to the top in every one of these analyses, especially if additional grades, subjects, and student groups enter the mix. Yet the multiple perspectives unquestionably show that some places have much better track records than others concerning equity and achievement for all.

Looking across subjects, grades, and groups, **Delaware, Florida, Massachusetts, Texas, and Vermont** emerge as clear leaders. These states differ in many ways, including size and diversity. Looked at from our four perspectives, though—absolute gap narrowing, gains across groups, remaining gap size, and group performance compared with other jurisdictions—these states have compiled the best track records to date.

On the other end of the spectrum appear the laggards on our composite measure—**Arizona, California, Michigan, Mississippi, and Rhode Island**. These states, regrettably, stand apart from others in compiling the worst track records in closing the achievement gaps.

**Bringing It All Together: Raising Achievement and Narrowing Gaps Across Groups**<sup>8</sup>  
NAEP Reading and Math, Grades 4 and 8

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Top States	Delaware, Florida, Massachusetts, Texas, Vermont
Bottom States	Arizona, California, Michigan, Mississippi, Rhode Island

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## BEYOND NAEP

Although we have used NAEP data to illustrate the four perspectives on performance and gap closing, a richer picture of achievement certainly would emerge by looking at other data in those ways. State assessment data can provide information about performance and gaps in grades three through eight as well as in high school, whereas state-level NAEP information is limited only to grades four and eight. Using state assessment data also would allow an exploration of results in other subjects, such as science.

Likewise, educators and policymakers could find it useful to look not only at score averages but also at the percentage of students meeting or exceeding state standards—and to do so over a longer time, where comparable data are available.

A cautionary note: An honest look at high school assessment data requires the extra step of scrutinizing the graduation rates of each subgroup. Otherwise, decision makers run the risk of seeing narrowing gaps when, in reality, lower performing students are dropping out of school before taking the high school assessment.

On the positive side, this more sophisticated analysis can yield examples of success in achievement and high school completion alike. For example, among African-American secondary school students in New York State in 2008, just 59 percent met state math standards, and just 55 percent had graduated. But Elmont Memorial Junior-Senior High School, a large, comprehensive high school serving mostly African-American and Latino students just outside of New York City, generated much higher numbers. Ninety-three percent of Elmont's African-American students met state math standards, and 97 percent graduated by 2008.<sup>9</sup> Schools like Elmont show what's possible and provide roadmaps for how to get there.

## CONCLUSION

As the country grapples with the challenge of closing gaps in achievement, multiple perspectives on performance data can inform the discussion. Tracking the narrowing of gaps between groups, gains for all groups, gap size, and comparisons between jurisdictions can provide education leaders with a true picture of the inequity they seek to reduce and, ultimately, end.

As the data show, meaningful differences between states—as well as between districts and schools—emerge when looking at performance in these ways. These differences should be considered when evaluating how much state and local leaders have advanced academic equity to date, as well as their readiness to make additional progress.

A frank assessment of the effectiveness of our efforts and a commitment to measuring accurately the effects of any new policies and programs will go a long way in closing achievement gaps. By considering multiple perspectives on available data, educators and policymakers can better judge whether efforts to lift today's students will produce the better educated citizenry our country needs.



## NOTES

- <sup>1</sup> McKinsey & Company (2009). "The Economic Impact of the Achievement Gap in America's Schools." [www.mckinsey.com/clientservice/Social\\_Sector/our\\_practices/Education/Knowledge\\_Highlights/Economic\\_impact.aspx](http://www.mckinsey.com/clientservice/Social_Sector/our_practices/Education/Knowledge_Highlights/Economic_impact.aspx)
- <sup>2</sup> Throughout this brief, the term "significant" refers to statistical significance, as determined by the National Center for Education Statistics NAEP Data Explorer.
- <sup>3</sup> Each state currently has its own set of reading and math assessments for grades three through eight and high school. These assessments are based on state-developed sets of standards, which are unique to that state. Thus, what it means for a student to meet one state's standards is not the same as what it means to meet another state's standards.
- <sup>4</sup> See Michigan Department of Education, <https://oeaa.state.mi.us/ayp/>
- <sup>5</sup> See Kansas Department of Education, <http://online.ksde.org/rcard/>
- <sup>6</sup> See Massachusetts Department of Education, <http://profiles.doe.mass.edu>.
- <sup>7</sup> See Virginia Department of Education, [https://p1pe.doe.virginia.gov/datareports/assess\\_test\\_result.do](https://p1pe.doe.virginia.gov/datareports/assess_test_result.do).
- <sup>8</sup> Determining top and bottom states for bringing it all together: For each state, the total number of points earned across all four indicators was divided by the total points possible. States were then ranked according to the resulting ratios.
- <sup>9</sup> See New York State Testing and Reporting Accountability Tool, <https://www.nystart.gov/>.

<b>Green</b>	Yes, statistically significant	<b>Red</b>	No, statistically significant
<b>Yellow</b>	No change/At national average	<b>White</b>	Data unavailable

NATION	Did the gap narrow from 2003 to 2007?				Did achievement increase from 2003 to 2007?						Were 2007 gaps smaller than the national average?				Was 2007 achievement above the national average?						
	AA -WH	LA-WH	NA -WH	LI-HI	AA	LA	NA	WH	LI	HI	AA-WH	LA-WH	NA -WH	LI-HI	AA	LA	NA	WH	LI	HI	
AL	-5			-2	+13			+8	+11	+8	26	30		29	201	197		227	203	232	
AK	+4	+5	-1	-2	-2	-4	+3	+2	+5	+3	22	23	40	30	207	206	188	228	197	227	
AZ	-10	-1	-4	-3	+11	+2	+5	+1	+2	-1	17	27	37	29	206	197	187	224	196	224	
AR	-2	+5		-4	+5	-2		+3	+1	+5	31	24		26	195	202		226	205	232	
CA	-4	-1		-1	+8	+4		+4	+4	+3	27	32		30	200	195		227	195	225	
CO	0	+3		+3	+2	-1		+2	0	+3	24	30		28	210	204		234	206	235	
CT	-3	+2		+5	+2	-3		-1	-5	0	34	35		38	203	203		238	201	239	
DE	-2	-9		-1	+2	+9		0	+2	+1	20	15		18	213	218		233	214	232	
DC	-3	-15		+5	+7	+19		+4	+5	+10	67	52		28	192	206		258	188	216	
FL	-7	-4		-5	+10	+8		+3	+8	+3	24	14		21	208	218		232	213	234	
GA	-2	-7		-4	+6	+12		+4	+7	+4	25	18		24	205	212		230	207	231	
HI	+5	+4		-4	0	+1		+5	+6	+2	15	22		18	212	205		227	203	221	
ID		0		+1		+5		+6	+5	+6		23	26			204	202		227	212	232
IL	-5	-7		-7	+7	+8		+1	+6	0	29	24		28	201	205		230	204	232	
IN	-3	+6		-1	+5	-5		+1	+3	+2	24	18		22	201	207		226	209	231	
IA	-8	-2		-3	+9	+3		+1	+4	+1	22	19		19	205	208		227	212	231	
KS	-6	+2		-2	+11	+2		+4	+5	+3	22	20		22	208	209		229	212	233	
KY	+2			+2	+2			+3	+2	+5	21			22	203			225	212	234	
LA	-9			-4	+5			-3	+5	+1	26	7		25	194	213		220	200	225	
ME				+2				+2	+1	+3				19				226	213	233	
MD	-3	+2		-4	+8	+3		+5	+8	+4	28	23		27	208	213		236	207	234	
MA	+4	0		+3	+4	+7		+7	+5	+7	31	32		29	211	209		241	214	243	
MI	-10	-7		-3	+8	+5		-2	+3	0	30	17		26	197	210		227	204	229	
MN	-2	-3		0	+4	+5		+2	+2	+2	33	31	26	27	198	200	205	231	206	233	
MS	-2			-4	+3			+1	+4	-1	27			25	195			222	200	225	
MO	+3	+5		-3	-3	-5		0	+1	-2	26	14		21	200	213		226	208	230	
MT			-6	-5			+10	+3	+7	+2		10	26			220	204		230	215	234
NE	+15	+4		+2	-9	+1		+5	+1	+4	36	27		24	194	203		230	208	232	
NV	-3	+2		0	+9	+4		+6	+4	+4	22	27		25	202	196		224	197	222	
NH		-3		-6		+4		+1	+6	0	14	20		21	215	209		230	212	233	
NJ	-10	0		-3	+12	+3		+3	+7	+4	26	24		27	212	214		238	210	238	
NM	0	-2	-10	-1	+6	+8	+16	+6	+8	+7	20	23	30	25	208	204	197	228	203	228	
NY	-7	0		-2	+6	-1		-1	+1	-1	26	27		28	208	206		234	209	237	
NC	-3	+3	-5	-3	-1	-7	+2	-4	-1	-3	26	23	26	25	202	205	202	228	205	229	
ND			+3	-1			+1	+5	+5	+4				16			204	229	215	231	
OH	+3	-2		-2	+2	+7		+5	+5	+3	27	17		22	204	214		231	211	234	
OK	-6	+4	-5	-5	+8	-2	+7	+2	+5	0	19	25	10	18	204	198	213	223	209	227	
OR	+5	+9		+9	-4	-8		+1	-6	+4	25	32	17	28	198	190	206	222	200	228	
PA	-2	+1		-3	+9	+5		+6	+8	+6	33	33		30	200	200		233	207	237	
RI	+1	+1		-1	+2	+2		+3	+2	+1	29	29		27	198	198		227	202	230	
SC	-1	-2		+1	-1	0		-2	-1	-1	26	19		27	199	205		224	201	228	
SD			+2	+2			-1	+1	-1	+1		19	32			209	196		228	209	231
TN	0	+2		+2	+4	+2		+4	+4	+6	32	16		27	192	208		224	202	229	
TX	0	-2		+2	+5	+7		+5	+4	+6	25	21		24	207	212		232	209	232	
UT		-4		0		+7		+3	+2	+3		26				201		226	208	229	
VT				+5				+3	-1	+4				23				229	212	235	
VA	-5	-4		-7	+7	+6		+2	+8	+1	20	17		20	213	216		233	213	233	
WA	+9	-2	+6	+2	-7	+5	-3	+3	+2	+4	23	23	24	24	206	206	205	229	210	234	
WV	-4			+3	-1			-4	-6	-3	13			19	202			216	206	225	
WI	+13	+5		+4	-9	-1		+4	0	+4	38	21		26	191	208		229	205	232	
WY		+7	-7	+1		-3	+11	+4	+2	+3		18	28			210	200		228	214	231

NAEP Grade 4 Math (Key: AA = African American, WH = White, NA = Native American, LA = Latino, LI = Low Income, HI = High Income)

Green	Yes, statistically significant	Red	No, statistically significant
Yellow	No change/At national average	White	Data unavailable

NATION	Did the gap narrow from 2003 to 2009?				Did achievement increase from 2003 to 2009?						Were 2009 gaps smaller than the national average?				Was 2009 achievement above the national average?					
	AA -WH	LA-WH	NA -WH	LI-HI	AA	LA	NA	WH	LI	HI	AA-WH	LA-WH	NA -WH	LI-HI	AA	LA	NA	WH	LI	HI
AL	+2			0	+3			+5	+4	+4	26	21		22	211	227	227	248	228	250
AK	+3	+3	+9	0	+4	+4	-2	+7	+6	+6	24	17	33	21	225	232	216	249	226	247
AZ	-4	0	-2	+1	+7	+3	+5	+3	+2	+2	21	23	28	24	222	220	215	243	219	243
AR	-3	-4		+3	+11	+12		+8	+8	+11	28	12		22	217	233		245	229	250
CA	0	+1		+1	+5	+3		+4	+3	+5	30	28		26	217	219		247	220	246
CO	+1	-3		+1	+8	+11		+8	+9	+10	27	23		25	225	228		252	228	252
CT	-1	-1		-2	+5	+4		+3	+5	+3	31	26		28	222	227		253	225	253
DE	+1	-1		0	+3	+5		+4	+4	+4	23	18		19	226	231		249	229	248
DC	-3	-14		+10	+11	+22		+8	+12	+22	57	43		31	213	227		270	211	242
FL	-6	+1		-7	+13	+6		+7	+12	+5	22	12		16	228	238		250	235	251
GA	+1	-6		+1	+4	+12		+6	+7	+8	25	15		24	221	231		247	225	249
HI	-2	-2		0	+11	+11		+9	+8	+8	15	17		21	232	230		247	224	245
ID		-2		-1		+7		+6	+7	+6		19		13		225		244	234	246
IL	-1	-5		-3	+6	+10		+4	+8	+4	33	21		27	216	227		249	224	251
IN	-2	0		-1	+7	+4		+5	+7	+6	24	16		18	222	230		247	232	251
IA	-7	+3		0	+11	+1		+4	+5	+5	19	22		17	226	223		245	232	249
KS	-2	+2		-1	+7	+3		+5	+6	+5	27	18		18	224	233		251	236	254
KY	+5			+4	+5			+10	+9	+12	21	14		21	220	227		241	229	249
LA	-6			0	+5			-1	+3	+3	23	10		22	218	230		241	223	245
ME				+1				+7	+7	+8	17			16	228			245	235	251
MD	-1	0		-4	+12	+11		+11	+13	+9	27	17		24	228	238		255	229	253
MA	-4	0		0	+15	+10		+11	+11	+11	21	26		23	236	232		258	237	260
MI	-3	-4		0	+2	+3		-1	+2	+2	32	16		25	212	227		243	222	247
MN	0	-3		+1	+8	+12		+9	+8	+9	28	23	22	23	227	232	233	255	234	257
MS	+1			0	+3			+4	+4	+4	26			22	215			241	221	242
MO	0	-12		+3	+5	+17		+5	+4	+7	24	8		21	221	237		245	229	250
MT		+4	-2	+1		+5	+11	+9	+8	+9		6	19	15		241	228	247	235	251
NE	+2	-8		-2	+2	+11		+3	+5	+3	32	21		20	213	224		245	227	247
NV	+6	-2		-5	+3	+11		+9	+10	+5	27	19		16	218	227		245	226	242
NH		-1		0		+9		+8	+8	+8		18		18		234		252	237	255
NJ	-3	0		0	+11	+7		+8	+8	+8	27	24		26	228	232		255	229	255
NM	0	+1	+1	+3	+8	+8	+7	+8	+6	+10	20	21	28	22	225	231	217	245	223	245
NY	-4	-8		-6	+6	+10		+2	+8	+2	22	17		16	225	231		248	233	249
NC	+1	+1		0	+1	+1		+3	+3	+3	27	18	22	22	226	236	232	254	232	255
ND			-3	0			+10	+8	+8	+8			22	14			226	248	236	250
OH	+1	-2		+1	+6	+8		+6	+6	+7	27	16		23	222	233		249	230	253
OK	-4	-3	-3	-3	+11	+10	+9	+7	+8	+5	19	12	7	13	222	229	234	241	231	244
OR	+3	0		+5	0	+3		+3	+1	+6	19	21	20	20	223	221	223	243	227	248
PA	-5	-5		-1	+11	+11		+6	+8	+8	26	22		25	223	227		249	228	253
RI	-3	-4		+1	+10	+11		+8	+7	+7	26	28		25	221	219		247	224	249
SC	+2	0		+1	-2	0		0	0	+1	25	13		22	220	232		245	226	248
SD		-5	+2	0		+10	+4	+6	+4	+5	22	13	26	17	225	233	220	247	232	248
TN	-2	-3		0	+5	+7		+4	+6	+6	26	14		20	213	225		239	222	242
TX	+1	+3		+2	+5	+3		+6	+3	+6	23	20		20	231	233		254	233	252
UT		+5		+6		+3		+8	+1	+8	25	27	27	21	221	219	219	246	227	248
VT				0				+6	+7	+7				19				248	235	254
VA	+3	+1		-1	+2	+4		+5	+5	+4	26	17		20	225	234		251	230	250
WA	0	+1	+7	0	+5	+4	-2	+5	+5	+5	20	20	21	20	227	227	227	247	231	251
WV	-2			+3	+4			+2	+1	+4	8			15	225			233	227	241
WI	-2	-1	+2	0	+8	+7	+4	+6	+8	+8	33	22	22	23	217	228	228	250	229	252
WY		-1		-1		+2		+1	+1	0		13		12		231		244	234	246

NAEP Grade 8 Reading (Key: AA = African American, WH = White, NA = Native American, LA = Latino, LI = Low Income, HI = High Income)

<b>Green</b>	Yes, statistically significant	<b>Red</b>	No, statistically significant
<b>Yellow</b>	No change/At national average	<b>White</b>	Data unavailable

NATION	Did the gap narrow from 2003 to 2007?				Did achievement increase from 2003 to 2007?						Were 2007 gaps smaller than the national average?				Was gaps 2007 achievement above the national average?					
	AA-WH	LA-WH	NA-WH	LI-HI	AA	LA	NA	WH	LI	HI	AA-WH	LA-WH	NA-WH	LI-HI	AA	LA	NA	WH	LI	HI
	0	-2	0	-1	0	+2	0	0	+1	0	26	25	22	24	244	246	248	270	247	271
AL	0			-2	-1			-1	0	-2	26	12		22	236	250		261	241	263
AK	+1	-9	+1	0	+2	+11	+1	+2	+5	+5	20	13	34	23	250	257	236	270	244	268
AZ	-2	0	+6	0	+3	+1	-6	+1	0	0	21	28	36	24	248	241	233	269	241	265
AR	-3	+9		+4	+3	-8		+1	-2	+2	31	18		22	236	249		266	247	269
CA	+3	-2		-2	-2	+3		+1	+2	-1	29	26	15	25	237	239	251	266	239	264
CO	-4	-2		-2	+4	+2		0	+2	-1	22	25		22	252	249		275	251	273
CT	-1	+2		+2	+2	-1		+1	-2	+1	30	33		32	246	243		276	243	275
DE	-1	-10		-5	+2	+11		+1	+4	-1	23	17		16	250	257		274	254	270
DC				+3	+2	+9			+2	+5				18	238	249			234	253
FL	-5	-5		-4	+5	+5		0	+4	0	24	12		18	244	256		268	249	268
GA	0	-3		-3	+2	+5		+2	+4	+1	25	21		23	246	250		271	247	270
HI		+3		-5		0		+3	+3	-2	7	13		14	255	249		262	243	257
ID		0		-3		+1		+1	+2	0		25		14		243		268	256	270
IL	-2	-5		-4	-3	0		-5	0	-5	27	21		23	244	250		271	249	272
IN	+2	-9		-4	-2	+9		-1	+3	0	26	13		21	242	255		268	251	271
IA	-2	-6		0	+2	+6		0	+1	+1	22	19		21	247	250		270	253	274
KS	-1	-2		+2	+2	+3		+2	+1	+3	27	24		22	246	248		272	253	275
KY	-7			+3	+2			-5	-5	-2	17			19	247			264	252	271
LA	-5			-1	+2			-3	0	-1	23			20	240			264	245	265
ME				-1				+2	+3	+2				14				270	261	274
MD	+1	-1		-6	+4	+7		+5	+9	+3	27	18		20	249	258		276	251	271
MA	-1	-4		-6	+1	+4		0	+5	-1	25	27		24	253	251		278	256	279
MI	+1	+11		-1	-6	-16		-5	-3	-4	31	26		25	236	241		267	244	268
MN	-2	-4		-6	+2	+4		0	+6	0	28	28	25	20	245	245	247	273	254	273
MS	+1			+4	-4			-4	-4	-1	25			24	238			264	242	266
MO	0			+2	-1			-2	-3	-1	28	22		20	242	248		270	252	271
MT			-1	0			+2	+2	+1	+2			25	17			249	274	260	277
NE	-4	-14		0	+4	+14		0	+1	+1	28	16		20	243	255		271	254	273
NV	-14	-1		+3	+15	+2		0	-1	+2	15	24		20	248	238		263	240	260
NH				-3				-1	+2	-1		18		15		252		270	257	272
NJ	0	-6		-4	+1	+8		+2	+5	+2	29	22		26	249	257		278	251	277
NM	-5	-5	+5	+1	+2	+3	-7	-3	+1	+2	17	20	31	22	248	246	234	265	242	264
NY	-3	+1		-4	0	-4		-3	+1	-2	29	29		25	246	246		274	250	275
NC	+5	-3	+5	+1	-6	+2	-6	-1	-1	0	29	24	35	25	241	246	236	270	246	270
ND			-6	0			+4	-2	-1	-2			22	14			248	270	258	272
OH	+5	+11		+2	-3	-8		+3	+1	+3	27	14		24	246	260		274	251	275
OK	-4	+8	-1	-3	+3	-9	0	-1	0	-3	22	25	9	16	243	241	256	266	252	268
OR	+5	+9		+7	-2	-6		+3	0	+6	20	26	10	21	250	243	260	270	253	274
PA	0	+17		-2	+4	-13		+4	+5	+3	25	28		22	248	244		272	253	275
RI	+2	+4		+1	-3	-5		0	-4	-3	29	34		25	239	233		267	242	267
SC	+1			+4	-2			-1	-3	+1	26	24		25	242	244		268	245	269
SD			-3	+2			+3	-1	-2	0			24	15			249	272	259	274
TN	+1			+1	+1			+2	+2	+4	27	15		21	240	252		267	247	269
TX	+1	-1		0	+2	+4		+3	+4	+4	26	24		24	249	251		275	249	273
UT		-3		-3		+1		-2	+1	-2		24		15		242		266	252	267
VT				-3				+2	+5	+2				17				273	260	278
VA	-4	+5		-3	+2	-7		-2	+1	-2	20	14		20	252	258		273	252	272
WA	+6	+1	-3	-2	-4	+1	+5	+2	+2	+1	23	23	18	21	247	247	252	270	251	272
WV	+3			+1	-8			-5	-6	-5	15			17	241			256	246	263
WI	+1	-5		-2	-3	+3		-2	+2	0	38	22		26	231	247		270	246	272
WY		+7	-11	-1		-7	+11	0	0	-1		21	16	15		248	253	269	255	270

<b>Green</b>	Yes, statistically significant	<b>Red</b>	No, statistically significant
<b>Yellow</b>	No change/At national average	<b>White</b>	Data unavailable

**NAEP Grade 8 Math** (Key: AA = African American, WH = White, NA = Native American, LA = Latino, LI = Low Income, HI = High Income)

NATION	Did the gap narrow from 2003 to 2009?				Did achievement increase from 2003 to 2009?						Were 2009 gaps smaller than the national average?				Was 2009 achievement above the national average?					
	AA -WH	LA-WH	NA -WH	LI-HI	AA	LA	NA	WH	LI	HI	AA-WH	LA-WH	NA -WH	LI-HI	AA	LA	NA	WH	LI	HI
AL	-2			-3	+8			+6	+9	+6	32	20		27	248	260		280	255	282
AK	-2	-9	0	-2	+5	+12	+3	+3	+9	+6	25	18	31	23	268	275	262	293	269	292
AZ	-5	0	+7	+5	+12	+8	0	+8	+4	+9	23	26	37	29	269	265	254	292	262	291
AR	-2	-12		+6	+11	+21		+9	+8	+13	34	15		26	251	269		284	264	290
CA	+2	0		-3	+4	+7		+6	+7	+5	39	33		27	250	256		289	258	285
CO	-1	-1		0	+8	+7		+6	+6	+6	36	32		30	263	267		299	267	298
CT	-2	0		+2	+7	+5		+5	+3	+5	37	34		34	261	263		298	263	298
DE	0	-13		-3	+7	+20		+7	+10	+7	27	16		21	267	278		294	271	292
DC				+6	+9	+20			+12	+18				24	249	265			247	272
FL	-12	-7		-8	+15	+10		+3	+13	+5	25	15		20	264	274		289	269	289
GA	-7	-2		-6	+12	+8		+6	+12	+6	27	19		26	262	270		289	265	290
HI		-4		0		+13		+9	+7	+7	11	6		21	271	276		282	261	282
ID		-5		-2		+13		+8	+9	+7		28		18		264		292	276	294
IL	-1	-5		-4	+5	+10		+5	+8	+4	39	25		30	255	269		294	264	294
IN	-10	-7		0	+15	+12		+5	+7	+7	25	18		22	266	273		291	273	295
IA	-2	-11		-1	+3	+11		0	+3	+2	28	21		23	259	266		287	269	292
KS	-8	-7		+2	+13	+11		+4	+5	+7	30	20		23	264	274		294	276	298
KY	-2			-1	+8			+5	+7	+6	24	10		22	258	272		282	268	290
LA	-5			+1	+7			+2	+7	+8	27			25	257			283	263	288
ME				+2				+5	+4	+6	27			22	261			287	272	294
MD	+4	+1		+1	+9	+13		+14	+12	+13	37	28		31	266	275		303	267	298
MA	0	-3		-4	+12	+16		+13	+17	+13	33	34		29	272	271		305	278	307
MI	-1	-3		+1	+1	+3		0	+3	+5	40	17		29	246	269		286	260	289
MN	-7	-2		+3	+12	+6		+5	+2	+6	37	31	24	29	264	269	277	300	273	302
MS	-1			+3	+5			+4	+6	+8	28			27	251			279	256	283
MO	-4			-1	+9			+6	+9	+8	30	6		22	260	284		290	272	294
MT			+7	+4			0	+7	+4	+7		17	36	22		278	260	296	277	299
NE	-2	-3		+2	+6	+7		+4	+2	+5	38	29		27	253	262		291	267	294
NV	+2	-3		-3	+7	+12		+9	+9	+6	31	25		17	256	262		287	263	280
NH				-1				+6	+8	+7		23		20		270		293	276	296
NJ	-4	0		-4	+14	+10		+10	+14	+10	34	30		30	267	272		302	270	300
NM	+1	-1	-5	+1	+5	+8	+11	+6	+9	+10	29	26	32	24	259	262	256	288	261	284
NY	-5	+1		-8	+6	0		+1	+8	0	32	32		23	262	262		294	270	293
NC	+1	-8	+6	+2	+2	+11	-3	+3	+4	+7	34	23	41	30	262	274	256	297	268	298
ND			+4	+1			+2	+6	+6	+6			33	18			263	296	280	298
OH	+2	+7		0	+2	-3		+4	+5	+6	32	24		26	260	267		291	269	294
OK	-8	-1	0	-3	+11	+5	+4	+4	+6	+3	21	19	13	19	261	263	269	282	266	285
OR	+6	0	-4	+6	-1	+6	+10	+6	+4	+10	26	26	17	26	264	264	273	290	270	296
PA	-4	-4		-1	+13	+13		+9	+12	+11	34	28		30	260	266		294	268	298
RI	-6	-4		-4	+12	+10		+6	+8	+4	30	31		26	256	255		286	261	288
SC	-4			0	+5			+2	+5	+5	29	23		26	263	269		293	268	294
SD			-4	+2			+11	+7	+5	+6		27	29	21		268	266	295	276	297
TN	-7			-5	+12			+5	+11	+6	28	12		24	254	270		282	261	285
TX	-2	0		0	+13	+10		+11	+11	+11	28	24		24	272	277		301	276	299
UT		-6		+2		+10		+5	+1	+4		30	26	22		259	263	289	268	290
VT				0				+7	+8	+8				23				293	277	300
VA	-3	-2		-1	+6	+6		+4	+7	+6	26	19		26	268	274		294	268	294
WA	+4	+10	+6	+6	+6	0	+5	+10	+6	+11	27	32	26	28	269	264	269	295	271	299
WV	-11			0	+10			-1	+1	0	7			18	263			271	262	280
WI	-8	-2		-6	+13	+7		+5	+11	+5	41	26		28	254	268		294	269	297
WY		0		0		+4		+4	+3	+3		20		17		269		289	274	291

## **ABOUT THE EDUCATION TRUST**

The Education Trust promotes high academic achievement for all students at all levels—pre-kindergarten through college. We work alongside parents, educators, and community and business leaders across the country in transforming schools and colleges into institutions that serve all students well. Lessons learned in these efforts, together with unflinching data analyses, shape our state and national policy agendas. Our goal is to close the gaps in opportunity and achievement that consign far too many young people—especially those who are black, Latino, American Indian, or from low-income families—to lives on the margins of the American mainstream.



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**The Education Trust**

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