Stuck Schools Revisited: Beneath the Averages

The Education Trust

TO THE POINT

▶ Many schools whose overall results look reasonably good are actually stuck – low-performing and unable or unwilling to improve – for one or more groups of students.

▶ In Maryland, more than half of the schools serving African-American and Latino children started out low performing in reading for these subgroups.

▶ In Indiana, more than 70 percent of schools serving low-income students started out low performing in reading for this group.

▶ In some of these schools, groups that started out low performing languish year after year. In others, they go on to make big gains, showing that it's possible to improve the achievement of all students.

"Stuck Schools Revisited" shows yet again what many parents, educators and policymakers already know: *Overall averages often mask huge gaps. Schools that are "high performing" are not necessarily high performing for all the children they serve.* In fact, some schools whose overall scores look fairly good are downright stuck – low performing and not improving, or even losing ground – for some groups of students.

These findings, based on analysis of data from Maryland and Indiana, make clear that while concentrating on schools with the lowest overall results is necessary, it is insufficient to close gaps. To raise achievement and close gaps nationwide, we must begin by maintaining a relentless focus on the performance of all groups of students at all schools.

Stuck Schools Revisited: Beneath the Averages

BY NATASHA USHOMIRSKY

The majority of students at Midway Middle School in Maryland are white, and most come from higher income families.[1] On the surface, the school's overall assessment results look pretty good. With scores that rose from 74 percent proficient in reading in 2005 to 82 percent in 2009, Midway ranks among the middle 50 percent of Maryland's schools in both achievement and improvement.

Yet beneath these averages, the 90 or so African-American students at Midway aren't fairing nearly as well. In 2005, only 66 percent of them were proficient in reading, placing them in the bottom quartile of all students in the state. More strikingly, while Midway improved the performance of its students overall by 8 percentage points between 2005 and 2009, it made no gains for its African-American kids. In 2009 as in 2005, one-third of its black students were not proficient in reading.

Nationwide, thousands of public schools look a whole lot like Midway. Overall assessment results at these schools look reasonably good and are often improving over time. But when we dig beneath the averages, we too often find drastic disparities in the performance and improvement of different groups of students.

In the first paper in this series, "Stuck Schools: A Framework for Identifying Schools Where Students Need Change" (March 2010) we explored school-level patterns in overall student performance and improvement over time. Our analysis used data from Maryland and Indiana, two states that exemplify patterns we've observed in multiple states. In each state, we found that a substantial number of schools that started out low performing went on to make big gains in subsequent years. But we also found a group of schools that were *stuck*—low performing and showing minimal gains or, all too often, losing

ground (see sidebar on the next page for key findings).

Readers of that paper might have concluded that since these stuck schools serve disproportionate numbers of low-income and minority students, focusing improvement and accountability efforts on those schools is enough to close gaps. But it turns out that this approach, which identifies schools based solely on averages, would miss lots of schools in which the performance of historically underserved students is stuck, despite the achievements of their classmates.

In this paper, we'll examine what happens when we add subgroup data into our Stuck Schools framework. The results of this analysis demonstrate yet again what many educators, parents, and policymakers have known for a long time: *Overall averages often mask huge gaps. Schools that are "high performing" are not necessarily high performing for all the children they serve.* And though some schools that started out behind for a particular subgroup make substantial gains for these students, others don't improve at all.

To be clear, the national and local conversations on how to identify and turn around our nation's lowest performing schools are much needed and long overdue. However, in concentrating only on those schools with the lowest overall results, we run the risk of overlooking huge numbers of low-income students and students of color who are not getting the education they need.

To ensure all students get the educational opportunities they deserve, we must begin by maintaining a laser-sharp focus on the performance of *all groups of students at all schools*.

Natasha Ushomirsky is a data analyst at The Education Trust.

Key Findings of "Stuck Schools: A Framework for Identifying Schools Where Students Need Change—Now!"

To help inform national and local conversations about improving low-performing schools, The Education Trust's "Stuck Schools" series provides educators, policymakers, and the public with a framework for using data to identify schools that are making academic progress and those that desperately need help.

In our first paper in the series, we examined patterns in overall school-level reading and math performance over time in two states—Maryland and Indiana—whose school improvement trends differ dramatically. While in Maryland, reading and math proficiency rates improved substantially between 2005 and 2009, in Indiana, average performance remained nearly flat during 2004-2008. We selected these states precisely because of these distinct patterns, and remind readers that due to differences in state standards and assessments, we cannot compare one state's results with another's. Our intention was not to show that one state is doing better than another, but rather to highlight these trends so as to help educators and policymakers explore data in their own states.

Our analysis focused on schools that, based on overall proficiency rates, started out in the bottom quartile of performance. We then looked at the extent to which these schools improved—or failed to improve—during subsequent years. In each state, we saw that some schools that started out low performing went on to lead the state in gains, painting a hopeful picture of what's possible for students who begin far behind their peers.

Yet other low performers continued to languish year after year, improving more slowly than 75 percent of schools in their state, or even losing ground. This group comprised the *stuck schools*. What's more, some schools persistently produced worse results than 95 percent of schools in their states, though they managed to make some gains. These schools were *chronically low performing*.

In the table below, we summarize the numbers of stuck and chronically low-performing schools in Maryland and Indiana. As a reminder, a stuck school is one that started out in the bottom quartile of performance and proceeded to decline or to improve slower than 75 percent of other schools in the state. A chronically low-performing school is one that, in each of the most recent three years analyzed, performed worse than the fifth percentile school in the baseline.

	Maryland	Indiana
Total number of schools in analysis	**1,066**	**1,477**
Number of schools that…		
Started out low performing in reading	**267**	**370**
Were stuck (but not chronically low performing) in reading	15	124
Were chronically low performing (but not stuck) in reading	3	14
Were both stuck and chronically low performing in reading	4	17
In total, were stuck or chronically low performing in reading	**22**	**155**
Started out low performing in math	**268**	**370**
Were stuck (but not chronically low performing) in math	14	115
Were chronically low performing (but not stuck) in math	11	17
Were both stuck and chronically low performing in math	6	15
In total, were stuck or chronically low performing in math	**31**	**147**
Were stuck or chronically low performing in reading only	13	81
Were stuck or chronically low performing in math only	22	73
Were stuck or chronically low performing in reading and math	9	74
In total, were stuck or chronically low performing in reading or math	**44**	**228**

These patterns are not unique to Maryland and Indiana. All states have low-performing schools that can't or won't improve. Education leaders at all levels must make it a priority to ensure that students stranded in these schools get the support they need to catch up to their peers.

ABOUT THE ANALYSIS

Building on our previous "Stuck Schools" analysis, we return again in this paper to Maryland and Indiana.[2] Remember that because of differences in content and performance standards, we cannot compare these states' achievement and improvement results with one another. Furthermore, our Maryland analysis relies on the state's Adequate Yearly Progress (AYP) data files for 2005-09. Slight changes to how proficiency and participation rates were calculated for AYP occurred during this time and may affect improvement trends.[3]

Figure 1: Number of schools included in analysis, by subgroup

Subgroup	Maryland	Indiana
White	777	1,386
African American	777	322
Latino	245	174
Higher Income	975	1,311
Low Income	890	1,228
All schools with five years of data	1,066	1,477

Note: Schools included in subgroup-level analysis have 20+ students tested in that group in each of five consecutive years.

Examining Patterns of Subgroup Performance and Improvement

As in the first paper in this series, in this analysis we examine trends in state assessment results over time in two example states. What follows is an overview of how we analyzed the data; a more detailed description of our methodology is available in Appendix A.

KEY ANALYTIC DECISIONS

Because assessment results for very small groups of students can fluctuate substantially from year to year, we only looked at the performance of a particular subgroup in a school if that school had 20 or more students from that subgroup tested in both reading and math each year for five consecutive years (2004-2008 in Indiana and 2005-09 in Maryland; see Figure 1 for number of schools included in the analysis).

To further account for potentially high year-to-year fluctuations in subgroup assessment results, we classified schools as high improving for a subgroup only if that group's four-year and five-year improvement rates were above the five-year annual gains of students overall at the 75th-percentile school. We classified schools as low improving for a subgroup only if that group's four-year and five-year improvement rates were below the overall five-year gains at the 25th-percentile school (or below zero percentage points per year, whichever was greater). All other schools were classified as average improving for that subgroup.

OVERVIEW OF ANALYSIS

What are the statewide trends for each subgroup? We first calculated statewide proficiency rates for each subgroup by averaging each year's assessment results across all schools with five years of data for that group.

How do subgroups fare in schools at different levels of overall performance? We then calculated an average proficiency rate for each subgroup among schools that were classified as high, average, and low performing based on overall assessment results.

How does subgroup performance compare with that of students overall? For each school that had five years of data for a particular subgroup, we calculated a baseline proficiency rate by averaging the first three years of that subgroup's assessment results. We then compared each subgroup's baseline proficiency rate with the baseline performance benchmarks in Figure 2.

If a subgroup's baseline performance was below that of the 25th-percentile school, we classified the school as low performing for that subgroup. If its baseline performance was above that of the 75th-percentile school, we classified the school as high performing for that subgroup. Subgroup performance that ranked between the results of 25th-percentile and 75th-percentile schools earned the school an average-performing classification.

We compared each subgroup's performance and gains with those of all students—rather than with those of students in their own subgroup—because we believe that it is critical to have the same high expectations for all kids, regardless of their race or socioeconomic status.

How does subgroup improvement compare with that of students overall? We calculated a four-year improvement rate and a five-year improvement rate in each subject and compared each subgroup's gains with those of all students in schools at the 25th-percentile and 75th-percentile of improvement.

We used the same approach to classify every school as high, average, or low improving for each of its subgroups as we did for classifying subgroups based on performance. (See discussion in Key Analytic Decisions textbox adjacent.)

How many schools are stuck or chronically low performing for a subgroup? Schools that fall into both the low-performing and low-improving categories for a particular subgroup are stuck for that group of students.

To identify schools that were chronically low performing for a subgroup, we compared each of the last three years of a subgroup's proficiency rates with the baseline performance of all students at the fifth-percentile school. If a subgroup's scores fell below this benchmark for all three years, we classified the school as chronically low performing for that subgroup.

Figure 2: Benchmarks used to classify schools based on reading performance and improvement

Benchmark	Description	Maryland	Indiana
Baseline *overall* proficiency rate at 75th-percentile school	Schools with baseline subgroup proficiency rates above this benchmark are *high performing*	87%	80%
Baseline *overall* proficiency rate at 25th-percentile school	Schools with baseline subgroup proficiency rates below this benchmark are *low performing*	69%	66%
Overall five-year average annual improvement rate at 75th-percentile school	Schools with four-year and five-year average annual subgroup improvement rates above this benchmark are *high improving*	3.8 percentage points per year	1.1 percentage points per year
Overall five-year average annual improvement rate at 25th-percentile school, or 0 percentage points per year, whichever is higher.	Schools with four-year and five-year average annual subgroup improvement rates below this benchmark are *low improving*	1.3 percentage points per year	0 percentage points per year
Baseline overall proficiency rate at fifth-percentile school	Schools where the last three years of subgroup proficiency rates are below this benchmark are *chronically low performing*	52%	50%

We begin by exploring trends in the assessment results of different groups of students in schools that had ranked in the top quartile, middle 50 percent, and bottom quartile of performance, based on overall scores. We then identify schools that started out in the top quartile, middle 50 percent, or bottom quartile of performance *for each of their subgroups*. Finally, we focus on schools that started out low performing for a group of students, and see to what extent they have improved that subgroup's performance over time.

It's critical to have the same high expectations for all students, regardless of their race or family income. There-fore, we identify schools as high, average, or low perform-ing or improving for a subgroup based on how that group's scores and trends compare with those of *all students*. For more on this and for an overview of our methodology, please see the sidebar, "Examining Patterns of Subgroup Performance and Improvement," on the previous page.

When looking at Maryland data, we concentrate on the reading performance of white, African-American, and Latino elementary and middle school students.

In Indiana, we look in detail at the reading performance of low-income and higher income children at elementary and middle schools. Data for additional student groups are provided in Appendix B, and math results are available at *http://www.edtrust.org/stuckschoolsmath*.

MARYLAND: ALL GROUPS UP, SOME GAP NARROWING

In Maryland, reading results are up for white, African-American, and Latino students, and the gaps separating these groups have narrowed (see Figure 3). What's more,

as Figure 4 shows, these trends play out across all types of schools—those that started out in the top quartile, middle 50 percent and bottom quartile of performance.

Unequal Access to High-Performing Schools

In Figure 4, we also see that Maryland's African-American and Latino students attending high-performing schools on average did about as well or better in reading than their white peers in other schools. Yet this hopeful picture is tempered by the real inequities in student access to better schools.

Only 7 percent of the state's black elementary and middle-school students and about 12 percent of Latino students attended schools that were in the top quartile of performance based on overall scores. In contrast, 36 per-

Figure 3: 2005-2009 Reading proficiency rates of Maryland students, by ethnicity

◆ White   ▲ Latino   ■ African American
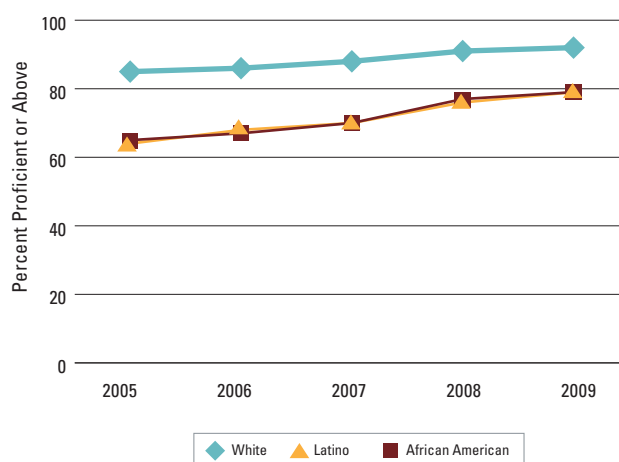
cent of the state's white students attended high-performing schools (see Figure 5).[4]

When we look at how schools were doing *for African-American and Latino students*, rather than just for students overall, the pattern looks even worse. Only 2 percent of black and Latino students in Maryland attended schools that were high performing for their subgroups in the baseline, meaning that their subgroup proficiency rate was in the top quartile of overall performance in the state (see Figure 6).

Where did the remaining 98 percent of black and Latino kids go to school? *More than 50 percent* of Latino students and two-thirds of black children attended schools that were low performing for their subgroups. The other third of African-American and 45 percent of Latino students attended schools that were either average performing for these subgroups, or that we cannot categorize because they tested fewer than 20 of these students, the cutoff for inclusion in this analysis.

The situation looks very different for Maryland's white students. More than half of the white children in the state attended schools that were high performing for their subgroup. And only 3 percent attended schools that demonstrated low levels of performance for them.

Counts of schools that fall into different performance categories for their subgroups reflect these patterns. As Figure 7 shows, of the 777 schools with 20 or more African-American students tested, 415 were low performing for them in our baseline.

Of the 245 schools with data for Latino students, 141 ranked as low performing. Meanwhile, only 24 of the 777 schools with 20 or more white students tested fell into the bottom performance category for these students.

Improvement for many African-American and Latino students

Baseline performance levels, both for students overall and for individual subgroups, show how schools were performing at the beginning of the analysis period. To get a more complete picture of how all groups of students are fairing,

Figure 4: 2005-2009 Reading proficiency rates by ethnicity at high, average, and low-performing schools: Maryland
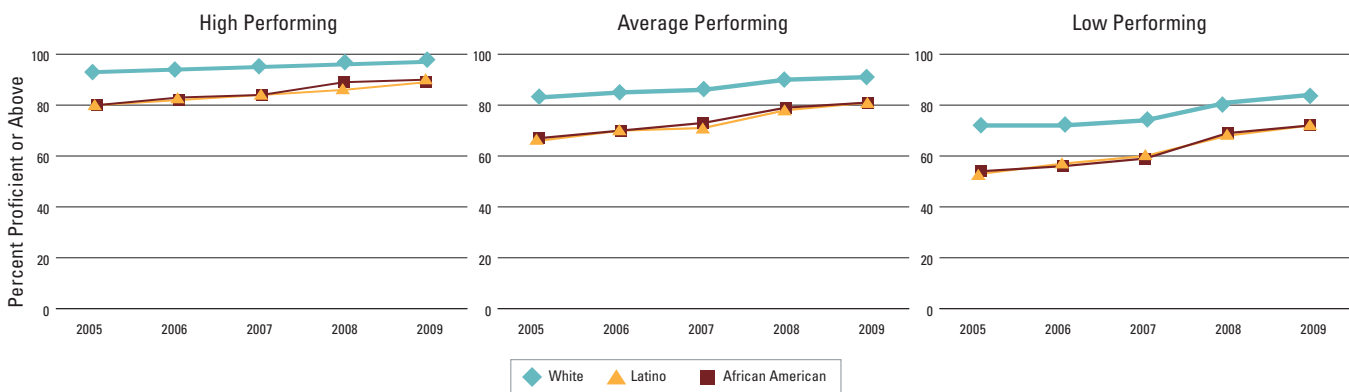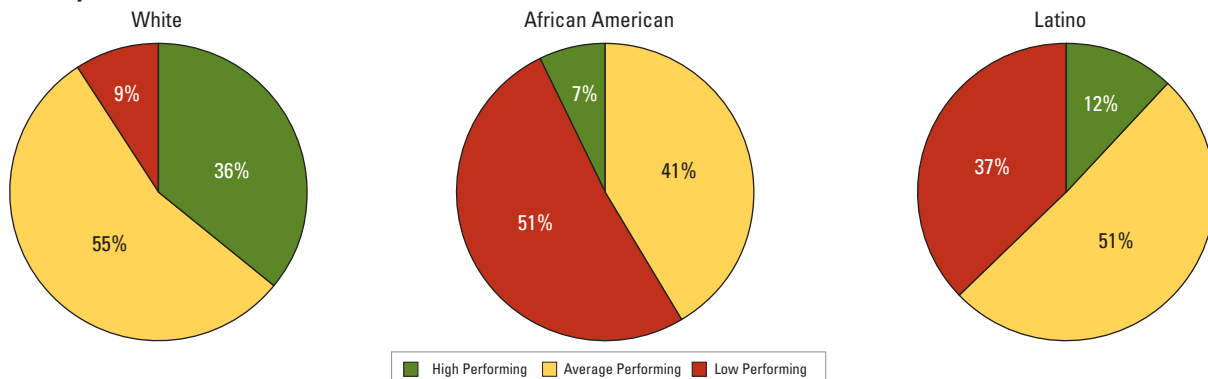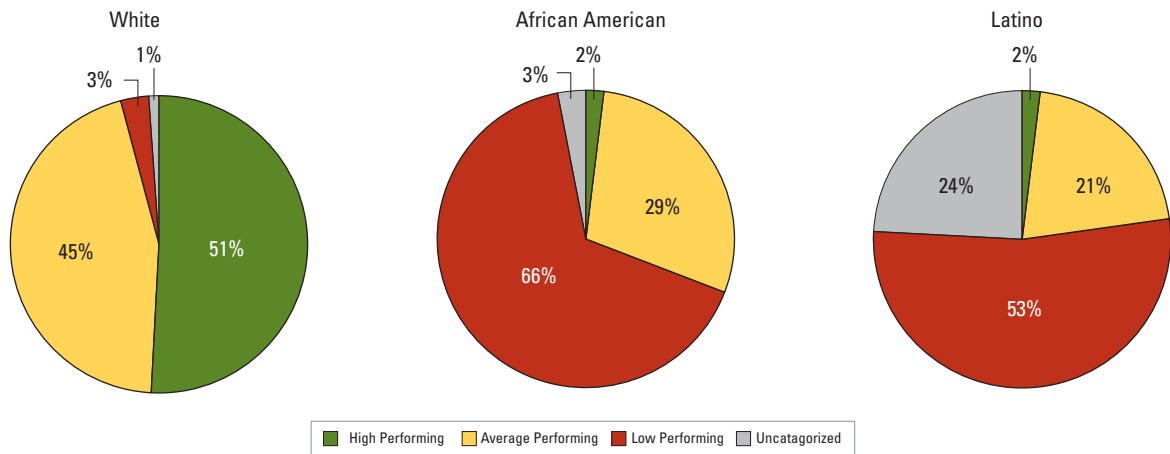

Figure 5: Percentages of students, by ethnicity, attending schools that were high, average, or low performing *for students overall* in the baseline: Maryland

Note: Unlike performance and school count data, student counts include all elementary and middle schools with five years of assessment results, not just those with 20+ students tested in a given subgroup each year (See Key Analytic Decisions box on p.3). Please note that percentages in pie charts and bar graphs may not add up to exactly 100 percent, due to rounding.

Figure 6: Percentages of students, by ethnicity, attending schools that were high, average, or low performing *for each subgroup* in the baseline: Maryland

White

1%	
3%	
45%	51%

African American

2%	
3%	
29%	
66%	

Latino

2%	
24%	21%
53%	

■ High Performing ■ Average Performing ■ Low Performing ■ Uncatagorized

Note: Unlike performance and school count data, student counts include all elementary and middle schools with five years of assessment results, not just those with 20+ students tested in a given subgroup each year (See Key Analytic Decisions box on p.3).

Figure 7: Number of schools that were high, average, or low *performing* for each subgroup in the baseline: Maryland

White: 415 (53%) High Performing, 338 (44%) Average Performing, 24 (3%) Low Performing
African American: 30 (4%) High Performing, 332 (43%) Average Performing, 415 (53%) Low Performing
Latino: 10 (4%) High Performing, 94 (38%) Average Performing, 141 (58%) Low Performing

■ High Performing ■ Average Performing ■ Low Performing
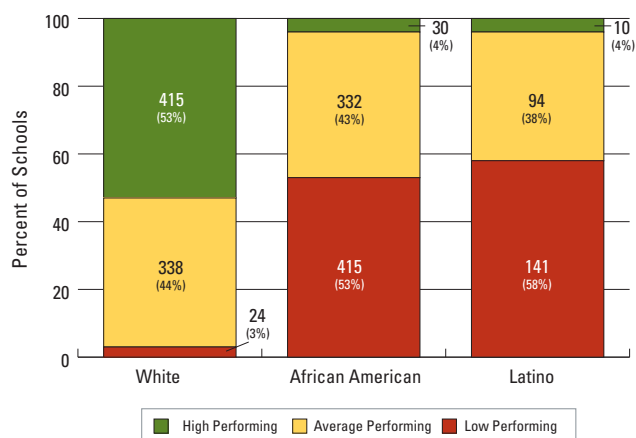
Figure 8: Number of schools that were high, average, or low *improving* for each subgroup during 2005-09: Maryland

White: 64 (8%) High Improving, 442 (57%) Average Improving, 271 (35%) Low Improving
African American: 345 (44%) High Improving, 354 (46%) Average Improving, 78 (10%) Low Improving
Latino: 115 (47%) High Improving, 91 (37%) Average Improving, 39 (16%) Low Improving

■ High Improving ■ Average Improving ■ Low Improving
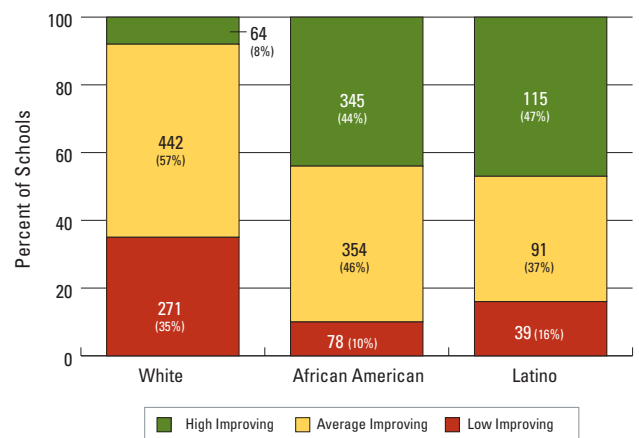
we need to look at the extent to which schools have—or have not—improved the performance of each subgroup in recent years.

As Figure 8 shows, about 44 percent of schools with data for African-American students showed top-quartile improvement for this subgroup, and only 10 percent showed bottom-quartile improvement. Similarly, nearly half of the schools with data for Latino students were high improving for this subgroup, while about 16 percent were low improving. This is particularly important given the differences in gains at high-improving and low-improving schools. During 2005-09, high-improving schools raised proficiency rates of their African-American and Latino students by more than 20 percentage points on average—

while at low-improving schools, these students' performance stagnated or even declined.

Proficiency rates of white elementary and middle school students in Maryland averaged about 85 percent in 2005. Given their high initial performance, it is not surprising that schools generally showed lower improvement rates for these students.

Gains for many—but not all—subgroups that started out low performing

Figure 9 reveals how schools that started out low performing for a subgroup ranked in terms of that subgroup's improvement. The good news is that the vast majority of schools that started out low performing for African-Ameri-

can, Latino, or white students showed top-quartile or average gains for those groups. The vast majority, but not all. Some of these schools stagnated for their low-performing subgroups; a few even lost ground. These schools—which started out low performing and showed minimal to no gains with these students—are stuck for those groups of kids, regardless of how they might be doing with the rest of their students.

Of the 415 schools that started out low performing for African-American kids, 23 are stuck. Thirteen of the 141 schools that were low performing for Latino students are stuck, as are three of the 24 schools that started out low performing for white students.

For schools and subgroups that start far behind, some gains just aren't enough

In identifying schools that are stuck for a subgroup, we call attention to schools that started out low performing for a particular group of kids, and then showed bottom-quartile gains for those students. But if we focus only on schools that have stagnated, we run the risk of passing over some that, despite making some gains, for years have remained among the lowest performing for these kids. *At these chronically low-performing schools*, subgroup test scores persistently fall below those of the fifth-percentile school in our analysis baseline. Although these schools might be making incremental improvements, their students still remain trapped at the bottom of the performance continuum.

In Maryland, the overall baseline proficiency rate at the fifth-percentile school was just 52 percent. When we compare 2007, 2008, and 2009 assessment results of each subgroup against this benchmark, we find that seven schools are chronically low performing (consistently below 52 percent proficiency) for their African-American kids, one for Latino students, and none for white students.

Tallying stuck, chronically low-performing schools

So far, we have identified schools that were either stuck or chronically low performing for a subgroup, regardless of how they performed for the remainder of their students. In reality, however, there is likely to be some overlap among schools that are stuck and those that are chronically low performing for a subgroup, as well as among schools that fall into either of these categories for different groups of students. Some of these schools also overlap with those that we identified as stuck or chronically low performing based on overall assessment results in our last paper.

Figure 9: Number of schools that started out low performing for each subgroup, by level of 2005-09 improvement: Maryland

Legend: ■ High Improving ■ Average Improving ■ Low Improving
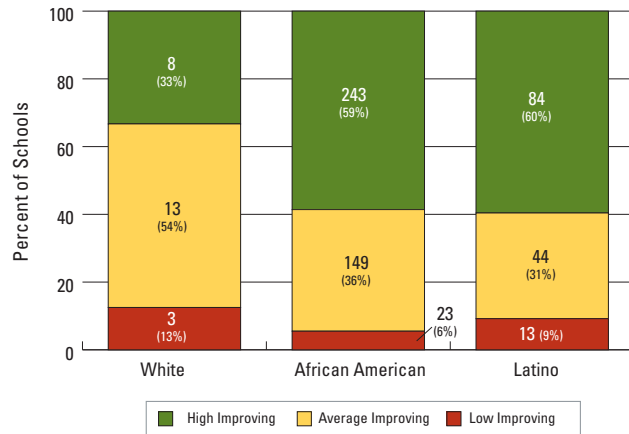
So how many additional *schools are we talking about when we consider subgroup performance?*

To figure out how many Maryland schools are stuck or chronically low performing for a subgroup, but not for all their students, we cross-referenced the schools we identified for African-American, Latino, white, low-income or higher income students with the 22 schools that were stuck or chronically low performing in reading for students overall. We find that our analysis of subgroup reading results identified 40 additional schools. As Figure 10 shows, 36 of these 40 schools are stuck, chronically low performing, or both for one subgroup, while four fall into at least one of these categories for two groups of students.

A similar comparison of schools identified based on subgroup scores in math to those identified based on overall assessment results tells us that 35 schools are stuck or chronically low performing for a subgroup in that subject, in addition to the 31 we had identified based on overall scores. For full math analysis results, see *http://www.edtrust. org/stuckschoolsmath*.

Highlighting the needs of subgroups

As shown in Figure 11, 61 of Maryland's 1,066 schools are stuck or chronically low performing for one or more of their subgroups in reading, math, or both, though their overall scores look better.[5] Such schools include an elementary school whose overall reading proficiency rates were in the high 70s and low 80s between 2005 and 2009, while its African-American students' results remained in the low 60s and upper 50s. At another elementary school overall reading proficiency rates generally stayed in the

low to mid-80s during 2005-09, while their low-income students' scores bounced between the mid-50s and 60s.

At the same time, these 61 schools include some whose overall scores are not strong, but whose "all student" scores rose just enough to keep them out of the stuck-schools category. One elementary school, for example, improved from 68 to 72 percent proficient in reading over 2005-09, and though the school ranked as low performing in the baseline, its 1.6 percentage point per-year gains were just above the "low-improving" cutoff. Assessment results of Latino students at the school resembled those of all students—they mostly hovered in the upper 60s—but unlike overall scores, they remained virtually flat, causing us to identify the school as stuck for this subgroup.

In situations such as this, looking at subgroups enables us to find additional schools that are producing mediocre results for different groups of kids. Their weak performance becomes visible when we probe beneath the averages.

INDIANA: GAPS PERSIST; PROGRESS LAGS

In Indiana, gaps between low-income and higher income students have remained both wide and stagnant (see Figure 12). What's more, as Figure 13 shows, these persistent gaps are evident in schools that started out in the top quartile, middle 50 percent, and bottom quartile of performance.

Unequal Access to High-Performing Schools

Not only do low-income students in Indiana's high-performing schools trail far behind their higher income peers, as Figure 14 shows, but few low-income students had the opportunity to attend these schools at all. In fact, only 12 percent of low-income elementary and middle schoolers were enrolled in schools that started out in the top quartile of performance, even based on overall scores. In contrast, more than a third of higher income students attended these schools.[6]

When we look at how many low-income students had the opportunity to attend a school that was high performing for their subgroup, meaning where their subgroup proficiency rate was in the top quartile of overall performance in the state, this picture looks far worse (see Figure 15). *Of all low-income elementary and middle schoolers in the state, only 1 percent got to attend schools that were high performing for them in the baseline.* Nearly three-quarters of Indiana's low-income students attended schools that were *low performing* for their subgroup.

For higher income students, the pattern is nearly the

Figure 10: Schools that were stuck or chronically low performing for one or more subgroups, but not for students overall, in reading: Maryland
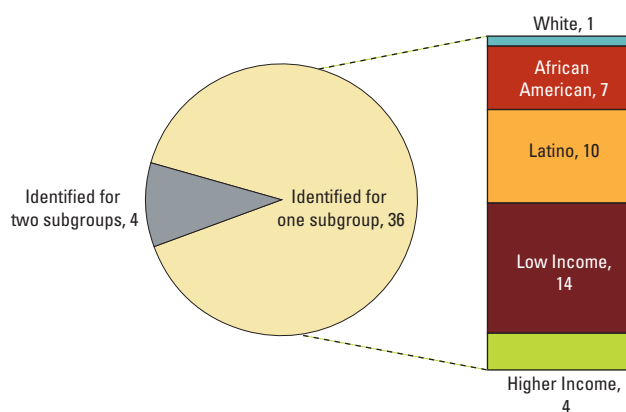

Figure 11: Schools identified as stuck or chronically low performing for one or more subgroups, but not for students overall, in reading, math, or both: Maryland
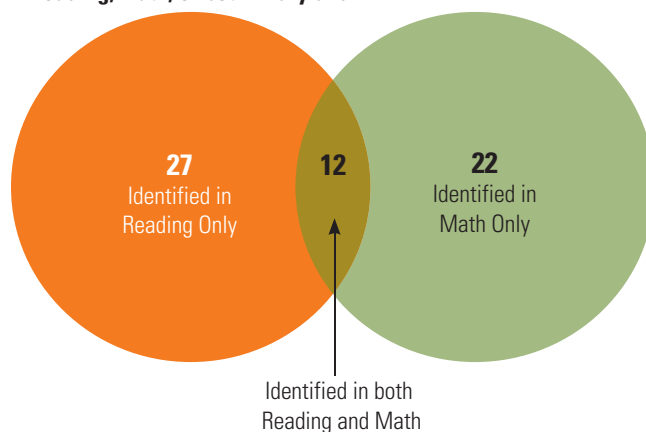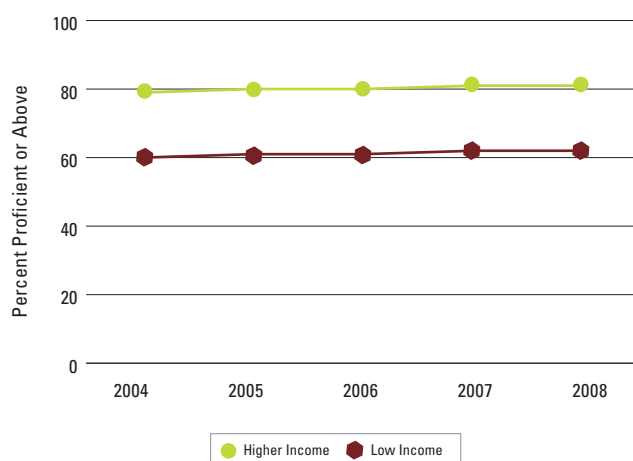

Figure 12: 2004-2008 Reading proficiency rates of Indiana students, by income level

opposite. About 60 percent of these students attended schools that were high performing for their subgroup. Only 3 percent were enrolled in schools that showed low levels of performance for them.

Counts of schools reflect both of these patterns. Of the 1,228 schools with 20 or more low-income students tested, only 18 were high performing for this subgroup, while 871 were low performing. Of the 1,311 schools with 20 or more higher income students tested, on the other hand, 725 were high performing for this group of students, while only 74 were low performing (see Figure 16).

Stagnation for many groups of students

As emphasized throughout this series, baseline performance doesn't tell the whole story. Looking at the extent to which schools have improved the performance of their subgroups, we see that they were slightly more likely to show top-quartile improvement for low-income children

than for their higher income subgroup (see Figure 17). However, schools were also about as likely to stagnate for their low-income students as for their higher income peers.[7]

Some low performers gain; others decline

Improvement rates of schools that started out low performing for their low-income and higher income subgroups offer another discouraging picture. As Figure 18 shows, though nearly 40 percent of schools that started out low performing for low-income students made top-quartile gains, 239 stagnated or declined. These 239 stuck schools serve about 20 percent of the state's low-income elementary and middle schoolers.

Higher income students are less likely to attend schools that are stuck for them. Of the 74 schools that started out low performing for higher income children, 23 are stuck. Although 23 schools represent a sizable percentage of schools that started out low performing for this subgroup,

Figure 13: 2004-2008 Reading proficiency rates by income at high, average, and low-performing schools: Indiana
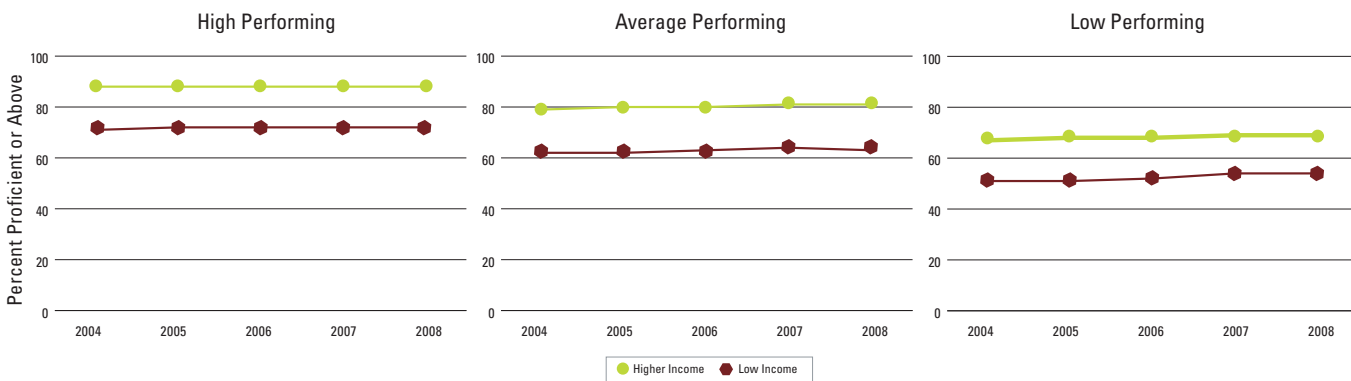

Figure 14: Percentages of students, by income, attending schools that were high, average, or low performing *for students overall* in the baseline: Indiana
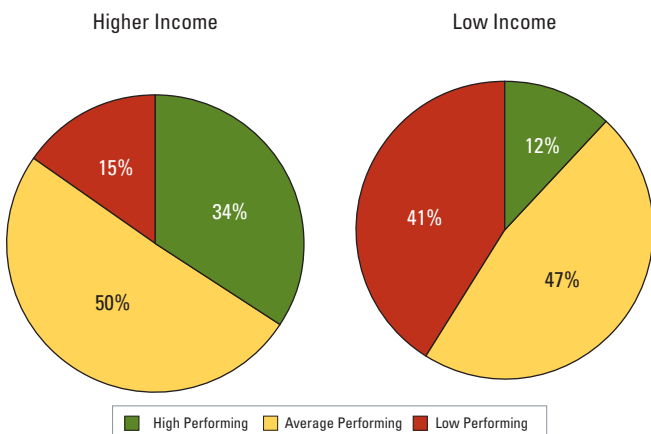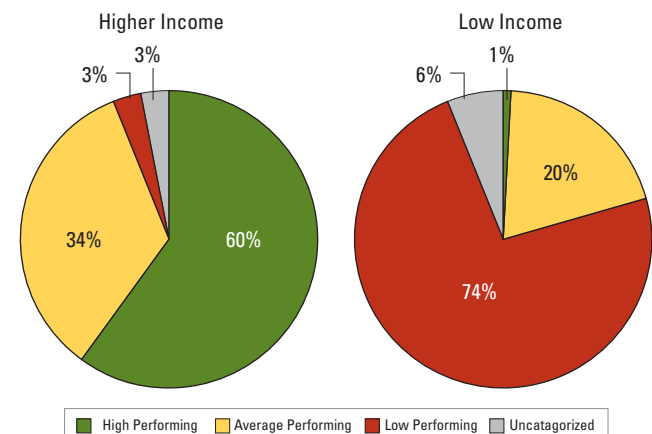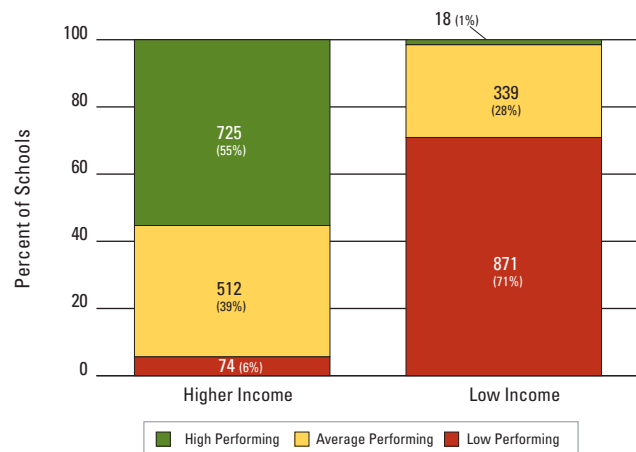

Figure 15: Percentages of students, by income, attending schools that were high, average, or low performing *for each subgroup* in the baseline: Indiana

Note: Unlike performance and school count data, student counts include all elementary and middle schools with five years of assessment results, not just those with 20+ students tested in a given subgroup each year (See Key Analytic Decisions box on p.3).

Figure 16: Number of schools that were high, average, or low *performing* for each subgroup in the baseline: Indiana

Figure 17: Number of schools that were high, average, or low *improving* for each subgroup during 2004-08: Indiana

in total they serve less than 1 percent of the state's higher income students.

Identifying chronically low-performing schools

Because so many schools in Indiana lost ground between 2004 and 2008, schools that were low performing for a subgroup, but made even the tiniest of gains do not show up as stuck in our data. This phenomenon makes it particularly critical to identify chronically low-performing schools.

In Indiana, the overall baseline proficiency rate at the fifth-percentile school was about 50 percent. Seven schools in the state demonstrated 2006, 2007, and 2008 proficiency rates below this benchmark for their higher income kids. In contrast, 70 schools had such low scores for their low-income students.

Figure 18: Number of schools that started out low performing for each subgroup, by level of 2004-08 improvement: Indiana
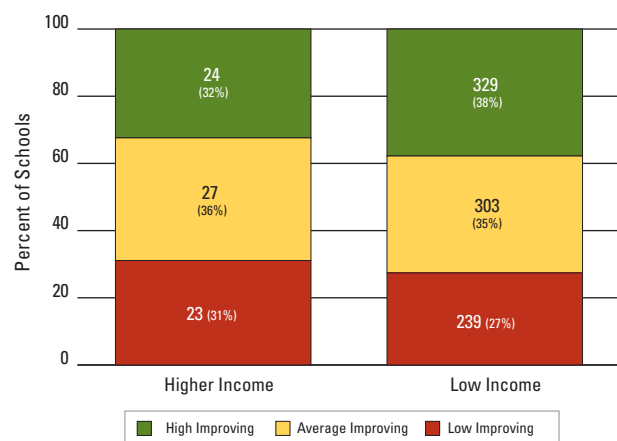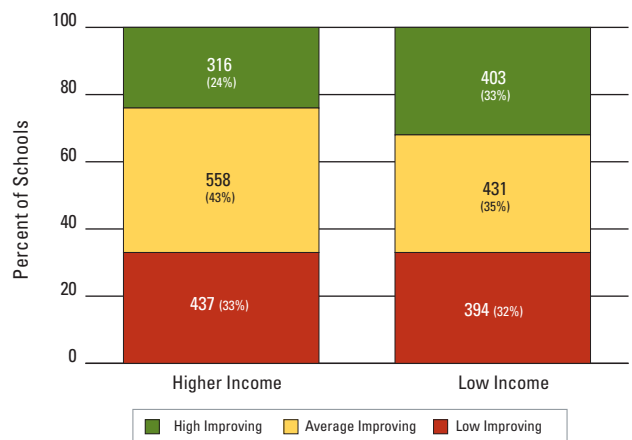

Tallying stuck, chronically low-performing schools

In our previous paper, we identified 155 Indiana schools that were stuck or chronically low performing for students overall in reading. When we cross-reference these schools with those that have at least one stuck or chronically low-performing subgroup, we find that an *additional* 229 schools started out in the bottom quartile—and sometimes in the bottom 5 percent—of reading assessment results for at least one group of students, and then failed to improve (see Figure 19).
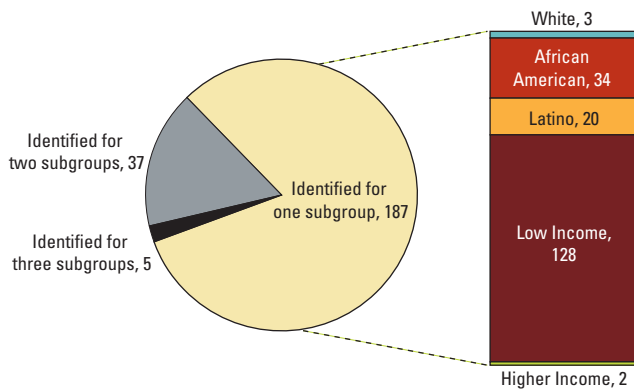
Math scores point to a similar picture. In addition to the 147 schools that were stuck or chronically low performing in math during 2004-08 for all students, 189 were stuck or chronically low for at least one subgroup.

Data point to challenges—and possibilities

In total, 278 of Indiana's elementary and middle schools are stuck for at least one of their subgroups in reading and/ or math, though their overall scores in both subjects look better (see Figure 20).[8] At one middle school, for example, overall reading proficiency rates were in the low to mid-80s during 2004-08, while proficiency rates of low-income students stagnated in the mid-60s. At another middle school, higher income students' scores fluctuated slightly in the upper 70s and lower 80s, but proficiency rates of low-income kids actually sank from 61 to 51 percent.

The patterns we see in these schools are not inevitable. Even in Indiana, where overall student performance and subgroup scores were virtually flat over 2004-08, some schools improved the performance of all their kids, showing that narrowing achievement gaps is possible. One

Figure 19: Schools that were stuck or chronically low performing for one or more subgroups, but not for students overall, in reading: Indiana

Identified for two subgroups, 37

Identified for three subgroups, 5

Identified for one subgroup, 187

White, 3
African American, 34
Latino, 20
Low Income, 128
Higher Income, 2

Figure 20: Schools identified as stuck or chronically low performing for one or more subgroups, but not for students overall, in reading, math, or both: Indiana

121 Identified in Reading Only

76

81 Identified in Math Only

Identified in both Reading and Math

elementary school, for example, increased reading proficiency rates of black students from 53 to 77 percent over these five years, while white students' scores held steady in the low 90s. At another elementary school, low-income students trailed their higher income peers by a whopping 29 percentage points in 2004. Yet by 2008, this school had raised reading scores of their low-income kids from 51 to 74 percent, while the proficiency rates of higher income students improved from 80 to 86 percent, narrowing the gap to under 12 percentage points.

Of course, these schools still have a long way to go. But thousands of students in Indiana would benefit if state and district leaders figured out what these schools are doing right and helped educators around the state implement practices that are likely to lead to meaningful gains in learning for all kids.

CONCLUSION

Looking beneath average assessment results often reveals patterns of school performance more complex—and alarming—than suggested by overall data. *That's because "high-performing" schools sometimes are not high performing for substantial numbers of their students.* What's more, in some schools, student groups that start out low performing go on to make big gains; in other schools, they languish year after year.

If policymakers and educators were to consider only overall scores, many of the schools that remain stuck or chronically low performing for groups would simply slip under the radar.
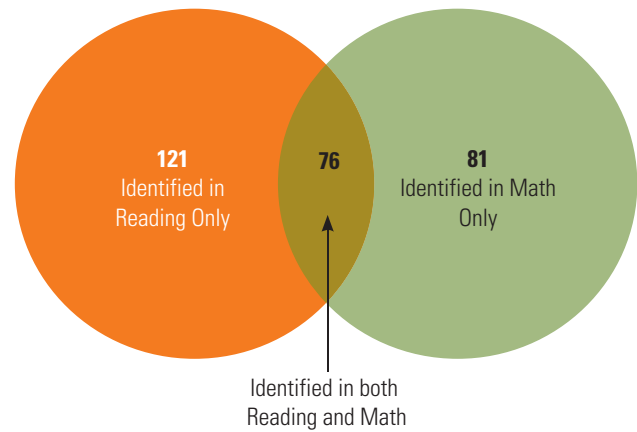
Probing beneath the averages to discern the patterns of subgroup performance can help guide the effort to close achievement gaps in our nation's schools. Across the country, some educators are already succeeding in closing these gaps and helping all students achieve at high levels. Yet academic success can only become the norm if we transform the ways our schools do business. At federal, state, and local levels, bringing about these changes will require policies and practices with an unswerving focus on the performance of *all* groups of students.

NOTES

[1]   School name has been changed.

[2]   In Maryland, this analysis is based on the results (percent proficient and above) of the 2005-09 administrations of the Maryland School Assessment, or MSA. For Indiana, we rely on results of 2004-08 administrations of the Indiana Statewide Testing for Educational Progress-Plus (ISTEP+).

A couple of notes on the data used in this analysis: Indiana made substantial changes to the ISTEP in 2009, rendering these results incomparable with prior years' data. In 2008, Maryland eliminated a number of norm-referenced test items that had not counted toward a student's score on the Maryland State Assessments in reading and math. It also replaced several additional items that had counted with field-tested questions developed by the state. Following a review of the 2008 test, Maryland's Psychometric Advisory Council concluded that the slightly shorter 2008 assessments in both subjects were comparable in difficulty with prior administrations of the MSA. But it acknowledged the possibility that the "reduced testing burden on the students" may have contributed to the observed gains in test scores that year (National Psychometric Council. August 1, 2008. Memorandum to the Maryland State Board of Education Re: 2008 MSA Linking. Available at *http://www.msde.maryland.gov/NR/rdonlyres/3253C1DD-CA2E-4E64-A066-D6F36EBADF9B/17997/2008MSAresultsbriefing paperAug08F.pdf*). Maryland, along with organizations such as the Center on Education Policy, compares 2008 results with those of prior years. However, because of the changes mentioned above, we urge readers to use caution when interpreting the data presented in this section. Furthermore, note that this analysis relies on proficiency-rate data used to make AYP determinations in the state. Changes to how these proficiency rates are calculated may affect improvement-rate estimates.

[3]   For example, prior to the 2005-06 school year, the state counted any student who was absent at the time of MSA administration as scoring at the "basic" level. (Sandy Shepherd, Maryland Department of Education Office of Academic Policy. Personal Communication, January 2011.) This ensured a 100 percent participation rate, but lowered the proficiency rates of schools with absent students. In 2005-06, the state discontinued this practice. It is thus possible that some of the improvement schools appear to have made between 2005 and 2006 is actually due to a change in the proficiency rate calculations. However, we should note that 2006 participation rates are fairly high across all schools and subgroups, so this policy change is unlikely to have had a major impact on school trends.

[4]   Because downloadable demographic data were not available, the number of students in tested grades (the denominator for the state's 2005-07 participation rate calculations) is used as a proxy for enrollments. Furthermore, because Maryland holds primary schools (e.g. those serving PK-1 or PK-2) accountable for the MSA results of third-graders who leave their schools, a small number of students (less than one percent) are counted twice—once for their current elementary school and then again for their primary school.

[5]   One of the schools that was stuck or chronically low performing based solely on subgroup performance in reading had already been identified based on overall scores in math. An additional school identified in math based solely on subgroup performance had been identified as stuck or chronically low in reading based on overall results. These two schools are not included in the counts in Figure 11.

[6]   All schools are ranked based on assessment results for grades three to eight. However, student enrollment data, used to determine the percentage of students attending schools at different levels of performance, include all grades served by the schools in the analysis. In most elementary schools, these enrollment counts include some combination of grades PK-2 in addition to grades three to five or three to six. In a small number of secondary or K-12 schools, some combination of enrollment for grades nine to twelve is also included.

[7]   Note that when we rank schools by their gains in Indiana, the improvement rate at the 25th-percentile school is negative: That school is actually losing ground. This means that some schools in the middle 50 percent are also declining. Since any school that is losing ground is, by definition, low improving, we identify all schools whose improvement rate is equal to or less than 0 percentage points per year as a low improver.

[8]   Thirty-two of the schools that were stuck or chronically low performing based solely on subgroup performance in reading had already been identified based on overall scores in math. An additional 32 schools identified in math based solely on subgroup performance had been identified as stuck or chronically low in reading based on overall results. These 64 schools are not included in the counts in Figure 20.

"Stuck Schools Revisited: Beneath the Averages" examines the performance and improvement trajectories of different groups of elementary and middle school students in a state, relative to the performance and improvement of all elementary and middle schoolers in that state. The analysis is based on school-level state assessment data for five consecutive years (2004-2008 in Indiana and 2005-2009 in Maryland) and builds on the analysis described in our earlier paper (March 2010), "Stuck Schools: A Framework for Identifying Schools Where Students Need Change—Now!" and detailed in the accompanying Appendix I.

In this analysis, schoolwide reading and math proficiency rates for each student subgroup are used to (1) assign schools to a baseline performance category for that subgroup, and (2) assess change in performance over time. Schools are identified as being stuck for a group of students in one or both of these subjects based on that group's low baseline performance and low improvement over time. Schools with particularly low performance are identified as chronically low performing. Schools that are stuck or chronically low performing for each subgroup are then cross-referenced with each other, as well as with schools that are stuck or chronically low performing for students overall (identified in the first "Stuck Schools") to determine the total number of schools that fall into these categories of concern for one or more groups of students, but not for students overall.

This analysis relies on the same data sources as the first "Stuck Schools." For a detailed description of these data, as well as for the methodology used to identify schools that are stuck or chronically low performing for students overall, see Appendix I in that paper.

SCOPE OF THE ANALYSIS

I. Subgroups Considered
"Stuck Schools Revisited: Beneath the Averages" analyzes the performance of five different groups of students in two example states, Maryland and Indiana. These five subgroups are African-American students, Latino students, white students, low-income students (students who qualify for free or reduced-price meals) and higher income students (students who do not qualify for free or reduced-price meals).

II. Variables needed
The following variables are needed to conduct the analysis (in addition to those necessary for the overall student performance analysis described in the first "Stuck Schools"):

- **School characteristics:** Number of students at each school who are African American, white, Latino, low income, and higher income in each of the school years analyzed. In Indiana, Free Lunch Counts by School and Enrollment by Grade data were downloaded for SY 2005-2009.[1,2] In Maryland, 2005-07 counts of Total Students in tested grades, by subgroup, were used as proxies for enrollments.[3]

- **Subgroup performance:** School-wide proficiency rates (percent of all students in grades 3-8 scoring proficient or above on the state assessment), by subgroup, for reading and math, respectively, in each of the five years analyzed (2004-08 in Indiana and 2005-09 in Maryland).

Maryland does not report proficiency rates for higher income students. However, the low-income and higher income student subgroups are mutually exclusive: Students are assigned to one category or the other. Thus, proficiency rates for higher income students were estimated based on overall data and data for low-income students.

Maryland uses a reporting n-size of five (when fewer than five students in a school or group are tested, assessment results are suppressed). In schools where more than five low-income students were tested, the number and proficiency rates of higher income students were calculated as follows:

Number of higher income students tested	=	Total students tested	-	Number of low-income students tested

Proficiency rate of higher-income students	=	(Total students tested * Overall proficiency rate – Number of low-income students tested * Proficiency rate of low-income students tested)
		Number of higher income students tested

In schools where fewer than five low-income students were tested, all students were assumed to be higher income and proficiency rates for this subgroup were set equal to those of students overall.

III. INCLUSION CRITERIA

The datasets created for the first "Stuck Schools" served as a starting point for these analyses. The original school sample included all regular education elementary and middle schools in each state with five years of proficiency rates reported in each subject (a total of 1,066 schools in Maryland and 1,477 schools in Indiana).

However, not all schools included each of the five subgroups examined in this analysis. School performance and improvement status were identified for a given subgroup if 20 or more students in that subgroup were assessed in both reading and math in each of the five years analyzed. Table A-1 presents the numbers of schools in each state that satisfy these criteria for each subgroup.

Figure A-1: Number of schools with 20+ students tested annually, for five consecutive years, by subgroup

Subgroup	Maryland	Indiana
White	777	1,386
African American	777	322
Latino	245	174
Higher Income	975	1,311
Low Income	890	1,228
All schools with five years of data	1,066	1,477

III. ANALYSIS OF PERFORMANCE AND IMPROVEMENT OVER TIME

The following steps and calculations were used to look at school performance over time and to identify schools that were stuck, chronically low performing, or both, for any of the five subgroups analyzed in each state. Steps 1-15 were performed separately for reading and math-assessment results.

A. Calculating Baseline Performance and Improvement Rates

1. Calculate the *aggregate schoolwide proficiency rate* for each subgroup of students with sufficient data (20 or more students tested in reading and math in each of the five years analyzed):[4]

Aggregate schoolwide proficiency rate (Subgroup A)(Subject A) (Year N)	=	Sum of all students in grades 3-8 that scored proficient or above$_{(Subgroup A)(Subject A)(Year N)}$
		Total number of students tested in grades 3-8$_{(Subgroup A)(Subject A)(Year N)}$

2. Calculate a *baseline performance* for each subgroup in each school by averaging that subgroup's proficiency rates across the first three years of the analysis time period (2004-2006 for Indiana and 2005-2007 for Maryland).

3. Calculate a *five-year improvement rate* (over 2004-2008 for Indiana and 2005-2009 for Maryland) for each subgroup for which a school has sufficient data using the following formula for the slope of the best-fit line:

$$\text{Improvement rate} = \frac{n(\sum xy) - (\sum x)(\sum y)}{n(\sum x^2) - (\sum x)^2}$$

Where
x=School year (2004-2008 for Indiana; 2005-2009 for Maryland)
y=Subgroup proficiency rate
n=Number of observations

And where
$\sum \textbf{xy}$ = sum of products = $x_1 y_1 + x_2 y_2 + \ldots + x_n y_n$
$\sum \textbf{x}$ = sum of x-values = $x_1 + x_2 + \ldots + x_n$
$\sum \textbf{y}$ = sum of y-values = $y_1 + y_2 + \ldots + y_n$
$\sum \textbf{x}^2$ = sum of squares of x-values = $x_1^2 + x_2^2 + \ldots + x_n^2$

4. Calculate a *four-year improvement rate* (over 2004-2007 for Indiana and 2005-2008 for Maryland) using the formula for the slope of the best-fit line in Step 3.

B. Categorizing Schools Based on Performance and Improvement

5. Compare each subgroup's *baseline performance* against the baseline performance of all students at the 25th-percentile and 75th-percentile schools, as calculated in the first "Stuck Schools" (see Table A-2 for summary of overall baseline performance bench-

marks). Classify a school whose proficiency rate for a particular subgroup is equal to or higher than the overall proficiency rate of the 75th-percentile school as "high performing" for that subgroup. Classify a school whose proficiency rate for a subgroup is equal to or lower than the overall proficiency rate at the 25th-percentile school as "low performing" for that subgroup. Classify all other schools as "average performing."

6. Compare each subgroup's *four-year and five-year improvement rates* against the overall improvement rates at the 25th-percentile and 75th-percentile schools, as calculated in the first "Stuck Schools" (see Table A-3 for summary of overall improvement benchmarks). Classify a school whose four-year and five-year improvement rates for a particular subgroup are equal to or greater than the overall improvement rate at the 75th-percentile school as "high improving"

for that subgroup. Classify a school whose four-year and five-year improvement rates for a particular subgroup are equal to or lower than the overall improvement rate at the 25th-percentile school (or equal to or less than 0 percentage points per year if the 25th-percentile improvement rate is negative), as "low improving" for that subgroup. Classify all other schools as "average improving" for that subgroup.

In classifying schools as high, average, and low improving for subgroups, we look at both four-year and five-year improvement rates since assessment results of small groups of students can fluctuate substantially from year to year. Calculating improvement rates using the slope of the best-fit line takes some of these fluctuations into account, but we consider both four-year and five-year rates to minimize the chance that a school would rank as high or low improving because its performance in the final year of the time period analyzed is particularly high or particularly low.

Figure A-2: Select Descriptive Statistics for Baseline Overall Performance: Maryland and Indiana

Benchmark	Description	Maryland	Indiana
Reading			
Baseline *overall* proficiency rate at 75th-percentile school	Schools with baseline subgroup proficiency rates above this benchmark are *high performing*	87%	80%
Baseline *overall* proficiency rate at 25th-percentile school	Schools with baseline subgroup proficiency rates below this benchmark are *low performing*	69%	66%
Baseline overall proficiency rate at fifth-percentile school	Schools where the last three years of subgroup proficiency rates below this benchmark are *chronically low performing*	52%	50%
Math			
Baseline *overall* proficiency rate at 75th-percentile school	Schools with baseline subgroup proficiency rates above this benchmark are *high performing*	86%	82%
Baseline *overall* proficiency rate at 25th-percentile school	Schools with baseline subgroup proficiency rates below this benchmark are *low performing*	65%	69%
Baseline overall proficiency rate at fifth-percentile school	Schools where the last three years of subgroup proficiency rates below this benchmark are *chronically low performing*	42%	53%

Figure A-3: Select Descriptive Statistics for Overall Improvement: Maryland and Indiana

Benchmark	Description	Maryland	Indiana
Reading			
Overall five-year average annual improvement rate at 75th-percentile school	Schools with four-year and five-year average annual subgroup improvement rates above this benchmark are *high improving*	3.8 percentage points/year	1.1 percentage points/year
Overall five-year average annual improvement rate at 25th-percentile school, or 0 percentage points per year, whichever is higher.	Schools with four-year and five-year average annual subgroup improvement rates below this benchmark are *low improving*	1.3 percentage points/ year	0 percentage points/ year[5]
Math			
Overall five-year average annual improvement rate at 75th-percentile school	Schools with four-year and five-year average annual subgroup improvement rates above this benchmark are *high improving*	4.2 percentage points/year	1.5 percentage points/year
Overall five-year average annual improvement rate at 25th-percentile school, or 0 percentage points per year, whichever is higher.	Schools with four-year and five-year average annual subgroup improvement rates below this benchmark are *low improving*	1.1 percentage points/ year	0 percentage points/ year[5]

D. Examining subgroup performance at, and access to, high-performing, average and low-performing schools

7. Calculate the average annual proficiency rate (for 2004-2008 in Indiana and 2005-2009 in Maryland) of each subgroup across all schools with 20 or more students tested each year over this five-year period.

8. Calculate the average annual proficiency rate (for 2004-2008 in Indiana and 2005-2009 in Maryland) of each subgroup at schools ranked as high, average, and low performing based on overall assessment results. For each subgroup, include only those schools where 20 or more students were tested each year over this five-year period.

9. Estimate the number of students in each subgroup that attended each school in the analysis baseline (2004-06 in Indiana and 2005-07 in Maryland).

   a. In Indiana, average the number of African-American, Latino, and white students, respectively, attending each school in 2004-05, 2005-06 and 2006-07 (school years corresponding to Fall 2004-06 administrations of the ISTEP+). Because low-income enrollment data are missing for some schools for 2004-05, estimate the number of low-income students attending each school in the baseline as follows:

   b. In Maryland, average the number of students in tested grades (Total Students field in 2005-07 AYP datasets) in each subgroup in 2005, 2006 and 2007. Where the number of students in a given subgroup is not reported (that is, fewer than five were tested), assume that there were no students from that subgroup in the school that year.

10. Estimate the percent of students in each subgroup that attend schools ranked as high, average and low performing based on overall assessment results. Include all schools that have students in the respective subgroup—not just the ones with 20+ students tested (see Figures 5 and 14).

11. Estimate the percent of students in each subgroup that attend schools ranked as high, average and low performing *for their subgroup*, as well as the percent of students attending schools that could not be assigned to a performance category because fewer than 20 students were assessed in at least one subject, year analyzed, or both (see Figures 6 and 15).

$$\text{Baseline Low Income Enrollment} = \frac{[(\text{Number of students qualifying for FRPL}_{2005\text{-}06} + \text{Number of students qualifying for FRPL}_{2006\text{-}07}) / 2]}{[(\text{Total students}_{2005\text{-}06} + \text{Total Students}_{2006\text{-}07}) / 2]} * \frac{(\text{Total students}_{2004\text{-}05} + \text{Total students}_{2005\text{-}06} + \text{Total Students}_{2006\text{-}07})}{3}$$

E. Identifying Stuck and Chronically Low-Performing Schools

12. Identify schools that rank as low performing for a given subgroup and as high, average, or low improving, respectively, for that group. Classify schools ranked as both low performing and low improving for a given group of students as stuck for that subgroup.

13. Identify schools where the performance of any subgroup was, in each of the last three years analyzed (2006, 2007, and 2008 for Indiana and 2007, 2008, and 2009 for Maryland), below the overall proficiency rate of the fifth-percentile school in the baseline (see Table A-2 for baseline overall proficiency rates at the fifth-percentile school in each state). Schools whose performance was below this benchmark in all three years are classified as chronically low performing for that subgroup.

F. Determining Overlap Between Stuck and Chronically Low-Performing Schools

14. **How many schools are stuck or chronically low performing for at least one subgroup in reading? How about in math?** Cross-reference the list of schools identified as stuck and those identified as chronically low performing for each subgroup in a given subject to calculate the total number of schools identified for each of the five groups.

15. **How many schools are stuck or chronically low performing in each subject just for subgroups?** Cross-reference the lists of schools identified for each subgroup in a given subject with each other and with schools identified as stuck or chronically low performing based on overall test scores in "Stuck Schools." Calculate the total number of schools that are identified based on the performance of one or more subgroups, but not based on overall performance.

16. **In total, how many schools are stuck or chronically low performing just for subgroups in math, reading or both?** Cross-reference the lists of schools identified based on subgroup performance only in each subject (see Step 15) with each other to determine the number of schools that are stuck or chronically low performing for at least one sub-

group in at least one subject. Exclude from the count any schools identified as stuck or chronically low performing for students overall in either subject.

APPENDIX A NOTES

(Some links may have expired. Some links that appear on multiple lines may not be reachable directly from this document. It may be necessary to copy and paste the entire link into your browser.)

[1] Indiana Department of Education. 2005-2009 Free Lunch Counts by School. Available at: *http://mustang.doe.state.in.us/SAS/sas2. cfm?type=s&tab=sl&already=* (Accessed June 2010).

[2] Indiana Department of Education. 2005-2009 Enrollments by Grade. Available at: *http://mustang.doe.state.in.us/SAS/sas2. cfm?type=s&tab=peschl&already=* (Accessed June 2010).

[3] Maryland Department of Education. 2005-07 Adequate Yearly Progress files (Total Students data field). Available at: *http://www. mdreportcard.org/downloadindexprevious.aspx?WDATA=download* (Accessed June 2010).

[4] The number of tested grades in each school varied depending on the school's grade configuration. For example, the aggregate proficiency rate at a K-5 school would only include assessment results for grades three to five, while a K-8 school's aggregate proficiency rate would include results for grades three to eight. Furthermore, these calculations were performed only in Indiana since the Maryland Adequate Yearly Progress data files provide school-wide proficiency rates by subgroup. When aggregating grade-level scores for each subgroup in Indiana, we included only those grades where average reading and math scale scores were reported. For most schools, these data were available for each subgroup with more than 10 students tested (Indiana's reporting n-size) in a given grade. In rare cases, students were assigned to a "Meals Invalid Data" or "Ethnicity Invalid Data" category, and no data were available for low-income and higher income students or for one or more ethnic groups.

[5] The actual overall improvement rate at the 25th-percentile school in Indiana was -1.0 percentage points per year in reading and in math, respectively.

Appendix B: Additional Subgroup Data

This appendix presents the results of our analysis of reading performance for low-income and higher income students in Maryland, and for African-American, Latino and white students in Indiana. Figures B-1 through B-7 parallel Figures 3 through 8 in the main report, while Figures B-8 through B-14 parallel Figures 12 through 18. Mathematics results for all five subgroups are available at *http://www.edtrust.org/stuckschoolsmath.*

Figure B-1: 2005-2009 Reading proficiency rates of Maryland students, by income level
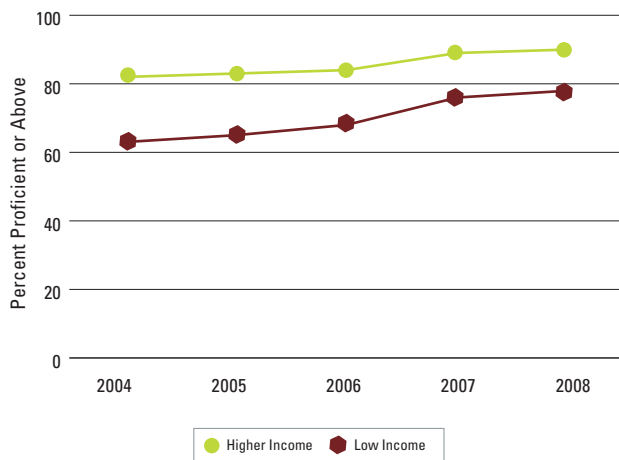
Figure B-2: 2005-2009 Reading proficiency rates by income at high, average, and low-performing schools: Maryland

Figure B-3: Percentages of students, by income, attending schools that were high, average, or low performing *for students overall* in the baseline: Maryland
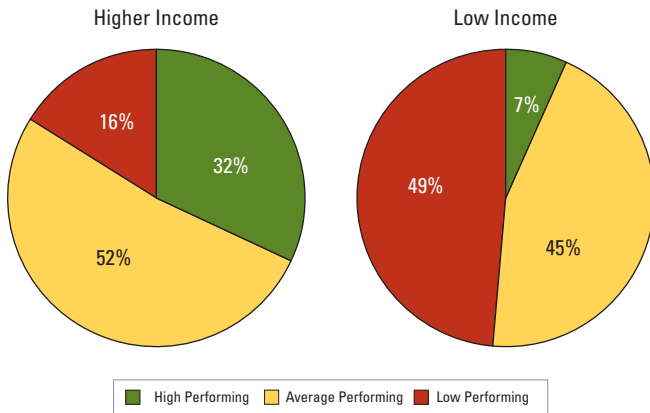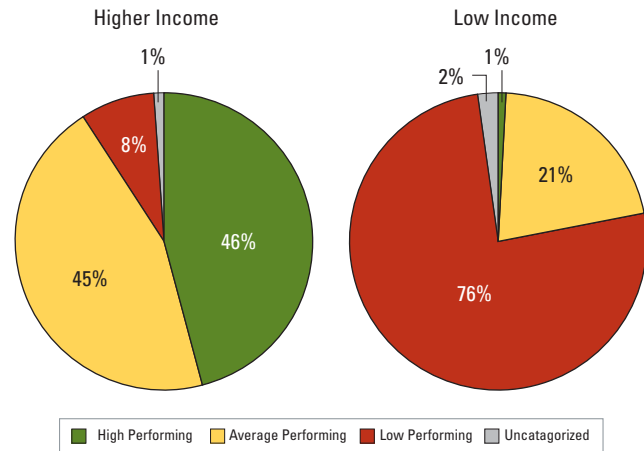
Higher Income

32% High Performing
52% Average Performing
16% Low Performing

Low Income

7% High Performing
45% Average Performing
49% Low Performing

- High Performing
- Average Performing
- Low Performing

Figure B-4: Percentages of students, by income, attending schools that were high, average, or low performing *for each subgroup* in the baseline: Maryland

Higher Income

46% High Performing
45% Average Performing
8% Low Performing
1% Uncategorized

Low Income

21% Average Performing
76% Low Performing
2% Uncategorized
1%

- High Performing
- Average Performing
- Low Performing
- Uncatagorized

Note: Unlike performance and school count data, student counts include all elementary and middle schools with five years of assessment results, not just those with 20+ students tested in a given subgroup each year (See Key Analytic Decisions box on p.3). Please note that percentages in pie charts and bar graphs may not add up to exactly 100 percent, due to rounding.

Figure B-5: Number of schools that were high, average, or low *performing* for each subgroup in the baseline: Maryland
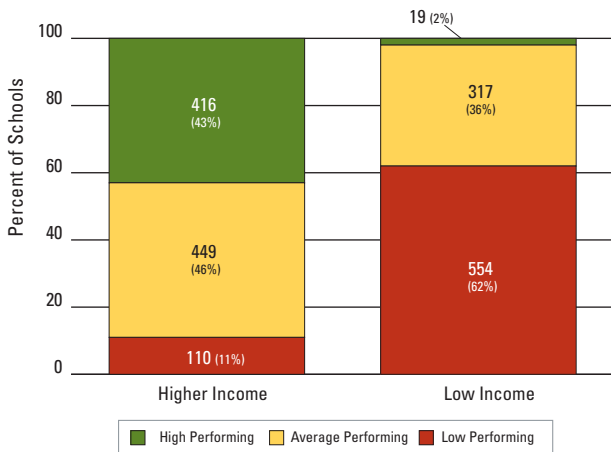
Percent of Schools	Higher Income	Low Income
High Performing	416 (43%)	19 (2%)
Average Performing	449 (46%)	317 (36%)
Low Performing	110 (11%)	554 (62%)

- High Performing
- Average Performing
- Low Performing

Figure B-6: Number of schools that were high, average, or low *improving* for each subgroup during 2005-09: Maryland

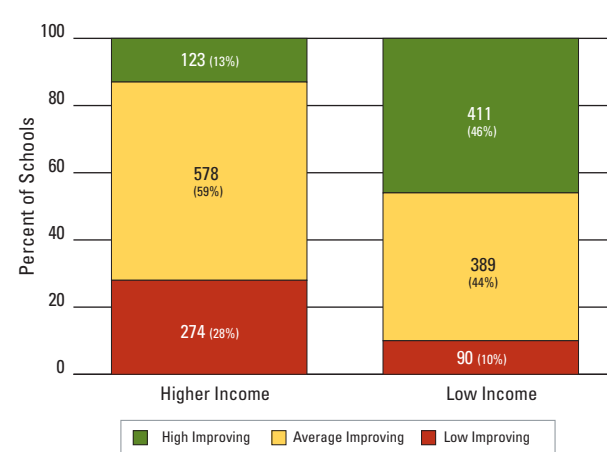| Percent of Schools	Higher Income	Low Income
High Improving	123 (13%)	411 (46%)
Average Improving	578 (59%)	389 (44%)
Low Improving	274 (28%)	90 (10%)

- High Improving
- Average Improving
- Low Improving

Figure B-7: Number of schools that started out low performing for each subgroup, by level of 2005-09 improvement: Maryland

Percent of Schools	Higher Income	Low Income
High Improving	53 (48%)	316 (57%)
Average Improving	50 (45%)	208 (38%)
Low Improving	7 (6%)	30 (5%)

- High Improving
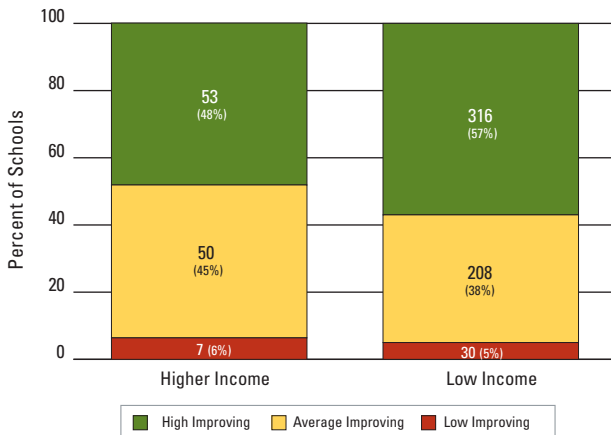- Average Improving
- Low Improving

Figure B-8: 2004-2008 Reading proficiency rates of Indiana students, by ethnicity
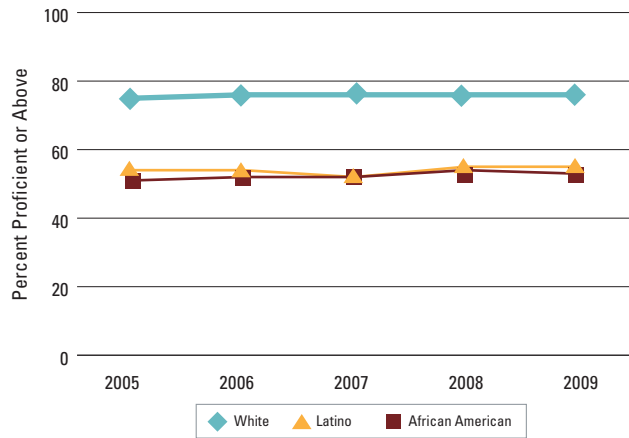

Figure B-9: 2004-2008 Reading proficiency rates by ethnicity at high, average, and low-performing schools: Indiana
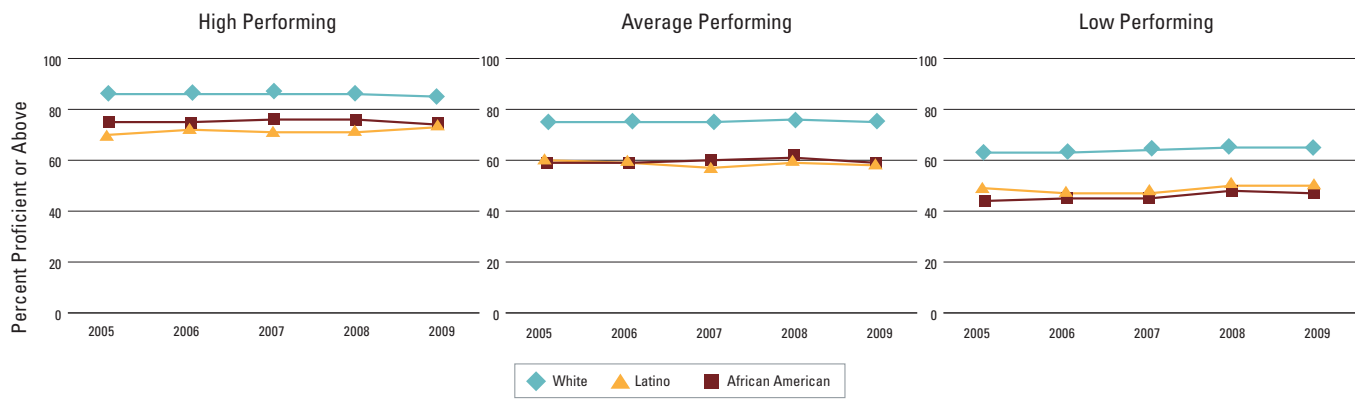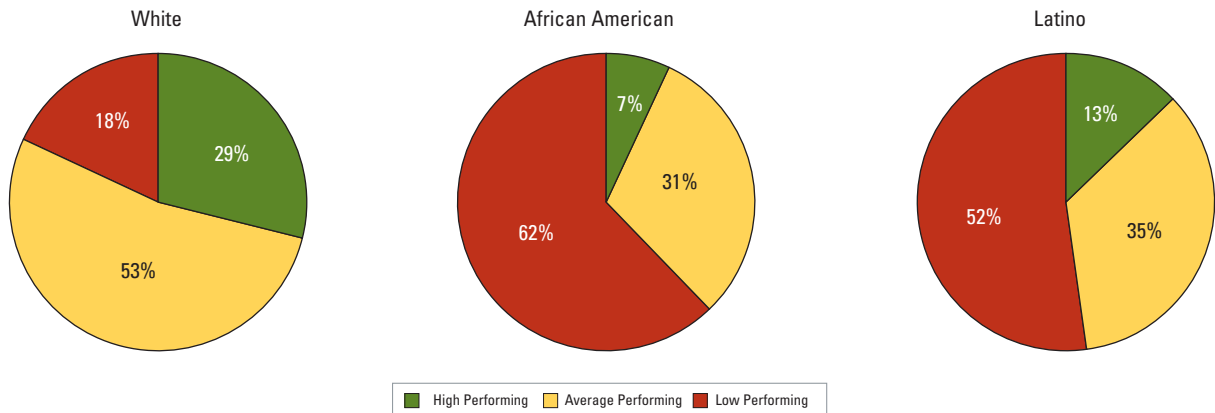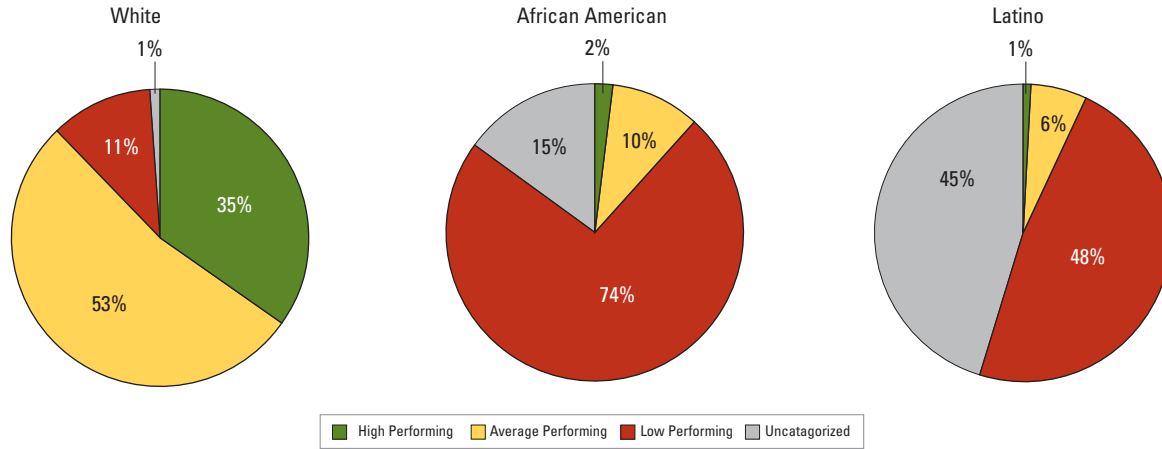

Figure B-10: Percentages of students, by ethnicity, attending schools that were high, average, or low performing *for students overall* in the baseline: Indiana

Note: Unlike performance and school count data, student counts include all elementary and middle schools with five years of assessment results, not just those with 20+ students tested in a given subgroup each year (See Key Analytic Decisions box on p.3).

Figure B-11: Percentages of students, by ethnicity, attending schools that were high, average, or low performing *for each subgroup* in the baseline: Indiana

White

African American

Latino

■ High Performing ■ Average Performing ■ Low Performing ■ Uncategorized

Note: Unlike performance and school count data, student counts include all elementary and middle schools with five years of assessment results, not just those with 20+ students tested in a given subgroup each year (See Key Analytic Decisions box on p.3).

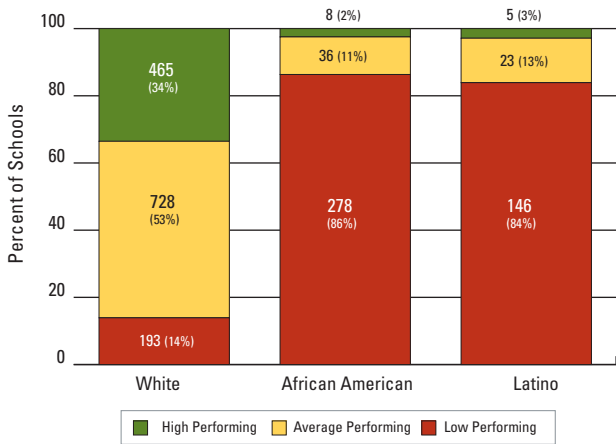**Figure B-12: Number of schools that were high, average, or low *performing* for each subgroup in the baseline: Indiana**

■ High Performing ■ Average Performing ■ Low Performing

Figure B-13: Number of schools that were high, average, or low *improving* for each subgroup during 2004-08: Indiana
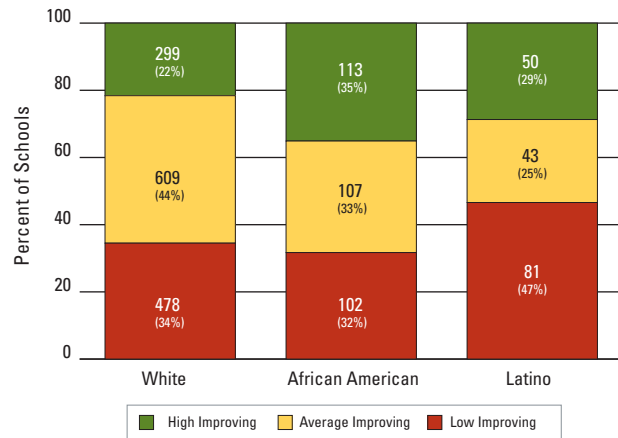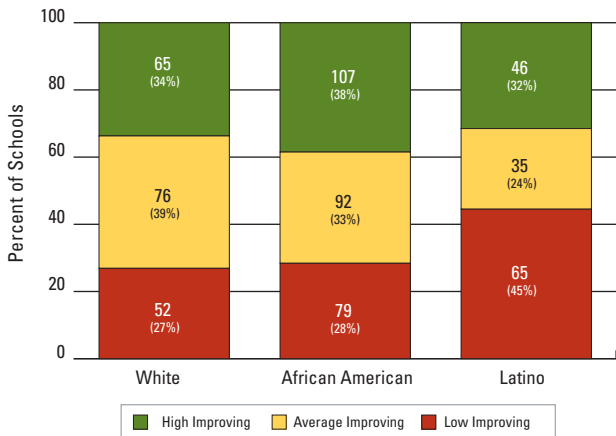

■ High Improving ■ Average Improving ■ Low Improving

Figure B-14: Number of schools that started out low performing for each subgroup, by level of 2004-08 improvement: Indiana

■ High Improving ■ Average Improving ■ Low Improving

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 margin of the American mainstream.

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