

September 12, 2013

MISMATCHES IN RACE TO THE TOP LIMIT EDUCATIONAL IMPROVEMENT

Lack of Time, Resources, and Tools to Address Opportunity Gaps Puts Lofty State Goals Out of Reach

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Executive summary

ace to the Top (RTTT) is a competitive grant program intended to encourage and reward states that are "creating conditions for innovation and reform."¹ When the program was announced in July 2009, the U.S. Department of Education (U.S. ED) asserted that participating states and districts "will offer models for others to follow and will spread the best reform ideas across their States, and across the country" (U.S. ED) 2009). The program's purpose, according to the department, is to advance reforms in four main areas:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy
- Building data systems that measure student growth and success and that inform teachers and principals about how they can improve instruction
- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most
- Turning around the lowest-achieving schools

States were assigned to one of four funding brackets based on their share of the national population of school-age children. Only the four largest states—California, Texas, Florida, and New York—were eligible for the highest award range of \$350 million to \$700 million. States in the lowest bracket received \$20 million to \$75 million. The four-year grant period ends in 2014.

In reviewing applications, the Department of Education awarded points (maximum of 500) based on how well a state met requirements in six categories. The category Great Teachers and Leaders offered the biggest opportunity for points (a maximum of 138), followed by State Success Factors (125 points), Standards and Assessments (70), General Selection Criteria (55), Turning Around the Lowest-Achieving Schools (50), and Data Systems to Support Instruction (47 points).² An additional 15 all-or-nothing points could be awarded to states that promised to emphasize education around science, technology, engineering, and mathematics (STEM) through specific activities. The department advised states to set goals for performance and reforms that were "ambitious but achievable" (U.S. ED 2009).

To obtain points, states had to commit to specific changes:

Develop teacher (and principal) evaluation systems that substantially rely on measures of student achievement and growth.³ States thus promised to develop strong data systems that would enable them to assess student progress and achievement and to evaluate teachers based in part on these data, using "value-added" measures that purport to assess teachers' impact on student learning, distinct from other factors. These systems would eventually collect data based on the new, higher standards that states also had to adopt: 40 points out of the 500 were contingent on developing and adopting standards based on the Common Core State Standards, and RTTT is widely credited with spurring rapid adoption of the Common Core across almost all states (40 states competed in the first round of RTTT).

- Strengthen teacher preparation programs and improve access to and quality of professional development programs.
- Identify alternative routes to certification in order to remove barriers to teaching for potentially strong teachers who might be impeded by existing systems or processes.
- Identify and turn around the lowest-performing schools, using one of several strategies along the lines of federal school improvement grants. Strategies include firing the principal and/or much of the staff, turning the school over to a charter or other outside manager, or closing it altogether.

First- and second-round winners won at least 440 out of the possible 500 points, indicating that they fulfilled these requirements.

This report examines how adhering to these commitments has played out over the first three years of the grant period, and how much progress states have made toward meeting outcome goals. It focuses in particular on what has proven to be a major challenge for many states: the development and implementation of new teacher and leader evaluation systems.

Three years marks a critical time to assess the successes and challenges of RTTT so far. States are largely behind schedule in meeting goals for improving instruction and school and educational outcomes one year before funding ends. Many are experiencing substantial setbacks due to unrealistic promises and unexpected challenges. A critical analysis would enable policymakers to suggest adjustments to current implementation plans and shift the policy focus going forward so that problems are not replicated in other legislation. Such considerations are made even more critical by the adoption and initial implementation of the Common Core standards across all but a few states. The challenges that states are encountering holding schools and teachers accountable under the current standards are likely to grow as demands increase while time, staffing, and other resources remain flat or are further diminished.

One challenge to understanding the realities of Race to the Top implementation is the lack of information available. The U.S. Department of Education provides annual state-by-state reports, and the Center for American Progress (CAP) has produced two in-depth reports. While these reveal some of the challenges that states have encountered, few local leaders or groups that disagree with the initiative's agenda or process have been consulted, and incorporating these voices into the review provides a more complete picture. Many national, state, and local media outlets have covered Race to the Top over the past three years, but fewer reporters cover education issues than in the past, and many reports merely repeat official statements and do not investigate on-the-ground realities or reveal major challenges.⁴ This report draws on the Department of Education, CAP, and media resources, but it supplements them with an email survey of the experiences of district superintendents from the RTTT states and over two dozen interviews with state and community education leaders.⁵ These leaders include parents, legislators, teachers, school board members, principals, superintendents, and state and local union officials. This analysis provides the most comprehensive picture to date of the successes and challenges of RTTT.

This assessment draws three main conclusions about Race to the Top after three years:

States made unrealistic and impossible promises

- With one exception, every grantee state promised to raise student achievement and close achievement gaps to degrees that would be virtually or literally impossible even with much longer timelines and larger funding boosts.
- Virtually every state has had to delay implementation of its teacher evaluation systems, due to insufficient time to develop rubrics, pilot new systems, and/or train evaluators and others.

RTTT policies fall short on teacher improvement and fail to address core drivers of opportunity gaps

- States have focused heavily on developing teacher evaluation systems based on student test scores, but not nearly as much on using the evaluations to improve instruction, as intended.
- Because state assessments tend to test students' math and reading skills, attention has been focused mostly on those subjects, potentially to the detriment of others. States have also struggled to determine how to evaluate teachers of untested subjects and teachers of younger students, a critical issue, given that they constitute the majority of all teachers.
- While some states have developed smart strategies to recruit talented professionals to teach subjects and/or teach in schools that are underserved, the vast majority of alternative certification money and effort has gone to bringing young, largely uncredentialed novices to teach in disadvantaged schools.
- Districts heavily serving low-income and minority students, especially large urban districts, face some of the most severe challenges. Tight timelines and lack of resources compound RTTT's failure to address poverty-related impediments to learning. Heightened pressure on districts to produce impossible gains from an overly narrow policy agenda has made implementation difficult and often counterproductive.

RTTT shortcomings have spurred state-district and union-management conflicts that hinder progress

- The tight budgets that led many states to apply for RTTT funding have proven problematic as state education budgets, and staff, are reduced just as more resources and experts are needed.
- While states have worked hard to reach out to local education agencies (LEAs) to secure their participation—a main requirement for RTTT funding—districts increasingly protest state micromanagement, limited resources, and poor communications.
- The heavy focus on evaluation and punishment over improvement has made teachers, principals, and superintendents suspicious and has reduced support for RTTT.
- States and districts that laid strong foundations for change, including making teachers real partners, and making union-management collaboration fundamental to the success of reform, have seen the most progress, have encountered the fewest bumps, and seem more likely to sustain gains. District and school culture, which varies tremendously within and across states, also plays a role in determining whether implementation efforts are succeeding or struggling.

While educators see great potential in the Common Core State Standards, the limited funding and lack of professional development linked to student data from RTTT raises concerns that the even more intense demands of the Common Core will exacerbate achievement gaps rather than produce benefits.

There are signs of progress and areas of promise, including new investment in teacher preparation and support programs, and better use of data, but these tend to be the exception. Moreover, these successes are mostly seen in states and districts that have advantages that may not be widely replicable. Overall, this assessment finds that the key tenet of Race to the Top—that a state hold teachers and schools accountable before helping them establish foundations for success—is deeply flawed. The push to do too much too quickly with too few resources has led teachers, principals, and superintendents to express frustration and stress. Most critical, many of the major problems limiting student and school success remain unaddressed.

This report aims to inform current policies as well as policies under debate at the federal and state levels. We hope that lessons conveyed here will encourage the adoption of the positive steps taken in a few states and districts and help states navigate challenges as they enter their final year of Race to the Top. These lessons pertain as well to the many more states that are beginning to implement requirements to attain waivers from No Child Left Behind. Finally, the lessons can help guide a stronger, more thoughtful rollout of the Common Core State Standards. President Obama would like to leave as part of his legacy substantial improvements in U.S. education. Recognizing the flaws inherent in Race to the Top, reversing the damage it has done, and enacting more comprehensive education policies in the administration's second term could make that legacy a proud one.

Introduction

The United States Department of Education's signature Race to the Top initiative focuses extra resources on some of the country's most disadvantaged districts and schools. Even so, at its core, Race to the Top mirrors many of the components of—and suffers from many of the same flaws as—No Child Left Behind (NCLB), which President Obama and Secretary of Education Arne Duncan have criticized. Race to the Top relies heavily on test scores to evaluate teachers, principals, and entire schools, and it draws on only a narrow set of policy strategies to achieve ambitious goals of raising student achievement and closing gaps. And while Duncan rightly notes that universal student proficiency is not an attainable goal in the short term, states that won Race to the Top grants were rewarded for setting just such goals, and for promising to attain them in a short period.

The discussion of Race to the Top so far has tended to be at the extremes. The Department of Education portrays the initiative as an unmitigated success (Duncan 2012),⁶ while critics suggest that it has no promise and that its proponents have bad intentions (FairTest 2009; Ravitch 2010; Allen 2011). Neither stance tells the whole story, and neither will help improve education. As this report documents, a more nuanced exploration of the initiative is critical to understanding both what must be added to future policies to successfully improve education, and what should be incorporated from our current policy. In particular, to the degree that they can guide states' implementation of No Child Left Behind waivers and inform a better rollout of the Common Core State Standards, lessons from Race to the Top may contribute more than the initiative itself.

This report draws on dozens of published studies of and articles about the implementation of Race to the Top across 11 Round I and Round II states and the District of Columbia over the program's first three years. It also incorpor-

ates findings from surveys of district superintendents and over two dozen interviews with education leaders in three high-profile Race to the Top states: Delaware, Ohio, and Tennessee. It explores both the substantial challenges and small successes that states have experienced, in order to derive policy lessons that are pertinent to all states and to federal and state policymakers going forward.

The U.S. education system has long been plagued by achievement gaps—gaps between higher- and lower-income students and among white, Asian, African American, and Hispanic students. Reformers have worked to narrow these gaps through policy approaches that have varied from one era to another. A 1983 report, *A Nation at Risk,* concluded that low achievement and large gaps threatened U.S. competitiveness, and it heralded an era of reforms based on standards and accountability. Proponents of this approach blamed low achievement on weak academic standards, lack of accountability, and insufficient competition within the education system. Subsequent presidents and their secretaries of education, as well as many governors, have largely adopted this strategy, with the 2001 passage of No Child Left Behind the highest-profile example.

While some progress has been made in raising achievement, long-term data from the National Assessment of Educational Progress (NAEP) suggest that the standards-and-accountability era has not boosted achievement any more than achievement grew in the decades that preceded it. And although race-based gaps have narrowed over the past several decades, income-based gaps have grown substantially.

President Obama and Secretary of Education Arne Duncan clearly recognize the limitations of the standards-andaccountability approach and of No Child Left Behind. Indeed, though he lauds NCLB for calling attention to the size of gaps and making it impossible for states to ignore them, Duncan has called it a "slow-motion train wreck," and both have criticized the proliferation of and excessive reliance on standardized tests that NCLB has wrought. Pointing to the emergence of achievement gaps long before children enter kindergarten, Duncan and Obama have embarked on an ambitious campaign to enact a universal prekindergarten program that would provide comprehensive early childhood care and education to the country's at-risk children in the near term and eventually to all U.S. children. Their Promise Neighborhoods initiative draws on the successes of the Harlem Children's Zone to replicate wraparound supports for students, their families, and communities that improve life prospects in a holistic manner.⁷

However, federal education policymakers have focused heavily on the department's flagship within-school initiatives, Race to the Top and the School Improvement Grants, which employ identical "turnaround" strategies.

In the meantime, evidence continues to mount that the problems reflected in schools have their roots mostly outside of schools' walls, and that fixing the problems will require a comprehensive approach. In February 2013 the Equity and Excellence Commission, established in the Department of Education's Office of Civil Rights to make recommendations for alleviating disparities in opportunities, issued a report, *For Each and Every Child*. The report focuses on the long-neglected issues of school-funding equity and state school-finance systems, and its core recommendations include school-finance reform, providing access to preschool, and ensuring comprehensive student supports. It also advances more effective means of ensuring strong accountability by not only teachers and schools but also district, state, and federal policymakers in order to foster quality teachers in struggling schools (Cuellar 2013).

Soon after that report's publication, the Council on Foreign Relations released the newest report in its *Renewing America Scorecard* series (Strauss 2013). Its findings echo those of the Equity and Excellence Commission: "The real scourge of the U.S. education system—and its greatest competitive weakness—is the deep and growing achievement gap between socioeconomic groups that begins early and lasts through a student's academic career" (Strauss 2013). The report uses data at each point in the education trajectory—from preschool through college—to illustrate that the United States is not so much falling behind as pulling apart. Disadvantages compared with other countries begin early: Only 69 percent of U.S. children are enrolled in preschool, compared with 81 percent among other developed countries. Moreover, because the American preschool system is heavily private, that 69 percent represents only about half of low-income children. At the other end of the spectrum, while the United States enrolls more students in college than other advanced countries, the combination of lack of preparation, support, and resources raises our dropout rate substantially. And in the 13 years between preschool and college, funding and a host of other inequities sustain and enlarge the gap between disadvantaged children and others that begins in kindergarten.

In July 2013, the Educational Testing Service released a report, *Poverty and Education: Finding the Way Forward*, in which the authors note that the promise of education as the great equalizer "has been more myth than reality" (Coley and Baker 2013, 3). They document the disproportionate and growing burden that poverty places on the U.S. economy, and in particular, the education system: "The manifestations of child poverty influence both the educational opportunities available to children and the educational outcomes that they will likely achieve. [These include income-based disparities in] family structure and behaviors, food security, parent employment, health insurance, exposure to toxins, and child care." Baker and Coley also explore the arbitrary and misleading nature of the current official poverty definition and call for a change. Finally, they note the gap between research and education policy: "Given the strong connection between educational success and economic disadvantage, we might expect education policy to focus on ways to overcome the effects of poverty on children. Yet most of today's education policies have different foci."

These reports make starkly clear the damage inflicted by child poverty on students and the education system. Race to the Top addresses only a narrow range of the damage. Moreover, as other reports reveal, districts that have recently seen real, sustained progress have taken a different approach than Race to the Top. Union City, N.J., has been the subject of several studies. Ten years ago, the Century Foundation identified the heavily Hispanic city as a potential model for educational improvement in a high-poverty urban setting, and David Kirp documented the district's tremendous progress over that decade. *Improbable Scholars: The Rebirth of a Great American School System and a Strategy for America's Schools* illustrates the comprehensive approach Union City has employed. The district offers a high-quality state prekindergarten program for all its 3- and 4-year-olds; extensive professional development and other support for teachers; a well-designed, literacy-rich curriculum; and hands-on instruction that nurtures all domains of students' development. Helping native Spanish speakers transition to English through research-based approaches that include the involvement of parents has been key. "What makes Union City remarkable is, paradoxically, the absence of pizazz," the author says. "It hasn't followed the herd by closing 'underperforming' schools or giving the boot to hordes of teachers. No Teach for America recruits toil in its classrooms, and there are no charter schools" (Kirp 2013).

As described later in this report, Massachusetts; Cincinnati, Ohio; Syracuse, N.Y.; and Montgomery County, Md., have all addressed the challenges associated with poverty through comprehensive education agendas. Though very different in terms of size, resources, politics, and the specific needs of their students, a common set of principles applies across them all: strategies that help wealthy, white students succeed are even more beneficial to low-income and minority students; improvement in education requires first laying the foundations for success, before applying tests of its efficacy; union–management collaboration is critical to attaining and sustaining progress; and the raising of standards must be accompanied by comprehensive supports that enable students, their parents, their teachers, and their schools to rise to the standards.

While the new resources that Race to the Top provides and its focus on using data to improve instruction hold promise, the program also has fundamental flaws. At a basic level, there is a disconnect between factors that drive achievement gaps and the policy tools RTTT promotes to close them. With its focus on in-school policies that target and assess only a narrow set of academic issues, Race to the Top's policy agenda fails to address multiple opportunity gaps that drive the majority of achievement gaps. Even in the best of circumstances, then, Race to the Top could not achieve what it sets out to do.

That mismatch is exacerbated by the initiative's mandate that states fix a complicated, expensive set of problems on the cheap and in an unrealistically short period.⁸ The initiative demands major changes and new investments by states, at a time when their financial, staff, and other resources are at a low. Moreover, it asks states to enact the changes and make new investments in a very short time with a tiny amount of new funding (relative to states' education budgets). These poor circumstances further erode the initiative's potential.

The initiative's rollout illustrates constraints that states faced from the beginning. Race to the Top was first announced in November 2009, and immediately after, in November and December, the department hosted informational conference calls as well as two technical assistance workshops. First-round applications were due in January 2010,⁹ and Round II applications, intended to give states more time if needed, were due in June 2010. In other words, even with the extra time, states had to pull together two hundred-plus page applications and secure potentially hundreds of local district and other sign-ons in the space of a few months. Not only states were pressed—so were reviewers, since first-round winners were announced in April 2010 and Round II winners in September.

It is not surprising, then, that our exploration of RTTT's implementation among the 11 Round I and II grantee states and the District of Columbia finds some successes but many more challenges. The constrained deadlines forced nearly all states to pull back on promises they made in their proposals and to request multiple extensions. Even so, states piloted and implemented new teacher and principal evaluation systems, but often without sufficient planning or input. Districts report a lack of resources to develop them, metrics that make no sense, and results that suggest a lack of validity. Furthermore, the need to focus so much energy on the evaluations themselves left states and districts without sufficient resources to use them as intended. Many teachers are failing to receive the feedback, guidance, or support, based on the evaluations, that could improve their instruction. The exceptions to this pattern tend to be in states or districts that laid strong foundations for implementation through extensive engagement and planning, that were already fairly high-performing, and/or that had additional resources. Other components of the initiative have likewise not produced their desired outcomes. Rather than increasing the number of credentialed, qualified teachers in disadvantaged schools, Race to the Top's pressure to expand alternative credentialing has led, in many states, to even greater reliance on Teach for America and similar programs that bring in non-credentialed college graduates who tend to leave after two years. States and districts have found it harder than anticipated to recruit qualified professionals to work in hard-to-staff subjects and schools, or veteran teachers to serve as mentors for novices in struggling schools. Even districts that have been able to overcome obstacles and implement many of the required changes anticipate that the rollout of the Common Core standards will present even greater challenges, and that their already-stretched resources will be insufficient to sustain, let alone expand on, existing reforms.

In the following sections, this report presents:

- A summary of the mismatch between what states have promised to accomplish (mostly within the four-year RTTT grant period) and what is feasible.
- The evidence base for why the hoped-for improvement in achievement and closing of gaps is not possible given this narrow policy agenda, short timeframe, and small infusion of resources.
- A look at the major challenges confronting states and districts and their small successes during the first three years of RTTT implementation (including preparation for Common Core implementation), and policy implications at both the federal and state levels.
- In-depth looks at the experiences of Ohio and Tennessee, which offer lessons for how other states that are implementing similar agendas might make different choices.

Mismatch 1: States' promises vs. their capacity to deliver

Under Race to the Top, states made huge promises in terms of the changes they will make and improved outcomes they will deliver relative to the added resources the initiative provides.¹⁰ Calculated as a percentage of each state's annual education budget, Race to the Top grants provide between a low of 0.63 percent in New York to a maximum 2.4 percent in Tennessee (**Table 1**). Averaged across the 12 first- and second-round winners (11 states and the District of Columbia), the grants amount to 1.21 percent of the states' budgets for the four-year period (school years 2010–2011 to 2013–2014).¹¹

In return, the states promised, as per the requirements in the application guidelines, to develop strong data systems that assess student progress and achievement, to evaluate teachers based in part on these data, to improve teacher development and recruitment programs, and to implement effective strategies to turn around low-performing schools. The states asserted that these changes would deliver substantial increases in student test scores across the board; narrow (or in some cases eliminate altogether) race- and income-based (and other) gaps in student achievement; and substantially increase high school graduation rates and even college acceptance, attendance, and graduation rates.

The Department of Education's guidance to states was to set goals for performance that are "ambitious but achievable." A review of the student-outcome targets set by states, however, reveals that all are extremely ambitious, but virtually none is achievable in any normal interpretation of that term. This review shows the substantial gap

TABLE 1

State RTT grants as a share of state education budgets

State	FY 2011 education budget (billions)	Total grant/4	Share of annual budget in 2011
Delaware	\$2.060	\$119 million/4 = \$29.7 million/ year	1.44%
District of Columbia	\$1.547	\$75 million/4 = \$18.75 million/ year	1.21%
Florida	\$14.243	\$700 million/4= \$175 million/ year	1.22%
Georgia	\$10.199	\$400 million/4 = \$100 million/ year	0.98%
Hawaii	\$1.712	\$75 million/4 = \$18.75 million/ year	1.1%
Maryland	\$7.119	\$250 million/4 = \$62.5 million/ year	0.87%
Massachusetts	\$6.194	\$250 million/4 = \$62.5 million/ year	1.01%
New York	\$27.522	\$697 million/4 = \$174.25 million/year	0.63%
North Carolina	\$9.360	\$400 million/4 = \$100 million/ year	1.07%
Ohio	\$10.645	\$400 million/4 = \$100 million/ year	0.94%
Rhode Island	\$1.133	\$75 million/4 = \$18.75 million/ year	1.65%
Tennessee	\$5.204	\$501 million/4 = \$125.25 million/year	2.40%

Source: For the 11 state Race to the Top (RTT) Round I and II winners, state education budgets were derived from NASBO (2012). Actual fiscal 2011 data for each state, for elementary and secondary education expenditures (Table 7) were employed. The total expenditure data include general fund, federal funds, other state funds, and bonds (and thus include Race to the Top funds, which inflates the percentage by a miniscule amount over its actual amount). Race to the Top grant amounts were rounded to the nearest million from the award letters (U.S. ED 2010). These awards were divided by 4 to calculate an annual amount for each year of the four-year grant period. District of Columbia data were not available in the NASBO report, and were instead pulled from a report by the DC Fiscal Policy Institute (2011, Table 1).

between the goals states set for improving student achievement and closing gaps, and what the reforms might deliver under the best of circumstances. It also highlights the substantial challenges that states are likely to face as they raise standards and implement more difficult assessments under the rollout of the Common Core State Standards over the next few years.

Raising student achievement

Most states set separate goals for improving average scores and/or "proficiency" levels on the National Assessment of Educational Progress and their own state assessments, those used to measure Adequate Yearly Progress under No Child Left Behind. The NAEP is a sampled test of reading, mathematics, and science knowledge and skills, taken every two years by a representative sample of U.S. students in grades 4, 8, and 12. Because it is not attached to any individual student but rather intended to assess overall knowledge and growth in knowledge over time among all students, students in a given state, and subgroups of students, it is not subject to the various types of manipulation sometimes associated with state assessments. NAEP covers a range of topics within each subject, assesses a broad set of skills, and is designed to be comparable across states and from one testing year to the next in terms of content and levels for "basic," "proficient," and "advanced." As such, it is considered a much more rigorous and reliable test than even the strongest state assessment. Indeed, NAEP scores and state test scores diverge greatly, with most states setting standards for proficiency far below those set by NAEP.

Though policymakers and education experts have come to consider the NAEP proficiency level as a benchmark for what a majority of students should achieve, it was not intended as such (Rothstein, Jacobsen, and Wilder 2008). Moreover, state standards for proficiency do not correspond with NAEP's or with one another. In some states, nearly all students are deemed "proficient" on the state exam, indicating that the state has set an extremely low standard. Indeed, in its Race to the Top proposal, Tennessee acknowledges its historically low standards and performance, and the gap between its standards and NAEP's:

We know that we have a long road ahead of us in Tennessee, which is why we have proposed the reforms outlined in this application. In 2007, our 4th-graders ranked 41st in reading and 46th in math according to the National Assessment of Educational Progress (NAEP). Our 8th-graders ranked 39th in reading and 42nd in math. Yet our state assessments showed close to 90% or better rates of proficiency. This led to Tennessee's receiving an *F* in *Truth in Advertising about Student Proficiency* from the U.S. Chamber of Commerce *Leaders and Laggards* report in 2007. (Office of the Governor of the State of Tennessee 2010, 13)

Statistics in other proposals demonstrate similar gaps around 2009, when the proposals were submitted. Only 8 percent of New York students with disabilities were proficient readers according to NAEP, but 38 percent were proficient in English-language arts as per the state assessment. Ohio demonstrates slightly greater disparities: 50.7 percent of black fourth-graders were at least proficient in math according to the Ohio Achievement Test (OAT), but only 9.5 percent were ranked proficient on NAEP, and while just a handful—5 percent—of English-language learners were proficient in math on the eighth-grade NAEP, 57.2 percent were proficient in 10th-grade math on the OAT.

A report on NAEP and state test equivalents shows that Georgia's proficiency levels in fourth-grade translate into NAEP levels of basic for math and below basic for reading. At the eighth-grade level, proficiency in both subjects is below basic by NAEP standards (De Mello 2011).¹² The proportion of Rhode Island fourth- and eighth-graders reading at the state proficiency level is very similar to those reading at or above the basic level on the NAEP test. Even Massachusetts, whose standards and assessment quality are closest to those of NAEP, rates as proficient students who would likely be at the basic level on NAEP (de Mello 2011).

Not only do the distinct sets of targets for state and NAEP assessments highlight these discrepancies, purported gains on state assessments over a period in which there were no gains in NAEP suggest that states may have changed cut scores and/or standards, but students saw no real gains in learning or skills. As discussed below, however, Department of Education state reports implicitly condone this state sleight-of-hand.

Achievement as measured by NAEP

One of the criteria for awarding Race to the Top grants was evidence of a state's capacity to make progress. States documented their students' recent increases in test scores as one part of that evidence, though many had not seen much progress. Delaware, for example, one of the first two states to win grants, had no significant improvements in student test scores in either math or reading in grades 4 or 8 between 2007 and 2011. Ohio had improvements in fourth-grade math but losses at the eighth-grade reading level. Nonetheless, both states, along with nearly all of the other winners, projected substantial increases in the four years of the grant period.

The least ambitious state, North Carolina, aims for eight-point test score gains over five to six years in fourth- and eighth-grade reading and math. In the six years leading up to Race to the Top implementation (2005 through 2011), North Carolina students gained four points in math and an average of 4.5 in reading (NCES 2011). The slightly higher goals for the subsequent six years are thus lofty but viable. Tennessee aims slightly higher, for an increase in NAEP proficiency to 35 percent for all students in eighth-grade reading and math (up from 26 and 27 percent, respectively).

The other states, however, aim for much larger gains. The 10-point, four-year NAEP gains predicted by DCPS would surpass recent gains of all other large urban school districts. Delaware expects to raise fourth- and eighth-grade NAEP reading proficiency from 36.1 percent and 32.7 percent in 2010–2011 to 55 percent in 2014–2015, increases of 52 and 68 percent, respectively, over four years. Maryland aims to increase the percentage of students who are proficient from 37 and 36 percent in fourth- and eighth-grade reading to 45 percent, and from 44 and 40 percent, respectively, to 55 percent in mathematics between 2009 and 2015.

Some states set goals relative to other states. In its proposal for example, Hawaii says it will "close the gap between Hawaii and the nation by raising Hawaii students' scores to meet or exceed the national median score by the year 2018." In 2009, Hawaii ranked between 33rd and 45th among all states in reading, depending on grade, and between 38th and last, 50th, in math, making the goal of 25th very ambitious. Massachusetts, whose students have scored highest in both math and reading for the past four exam years, aims not only to maintain its status but to score increases in "historic rates of gain in student performance" on NAEP by 15

The 10-point, fouryear NAEP gains predicted by DCPS would surpass recent gains of all other large urban school districts.

percent in the four years of RTTT and another 25 percent in the two years following it (2014–2016). This is particularly ambitious given that Massachusetts saw no gains in most subjects and grades but rather held steady between 2009 and 2011 (Patrick 2011).

Maryland provides a longer time to reach its goals; it wants to raise scores such that, by 2020 "eighty-five percent of Maryland students, in every student group in 4th and 8th grades, will score Basic and above on the NAEP reading test, up from 70 percent and 77 percent, respectively, in 2009." And although it received the smallest boost, as a percentage of its budget, of any state—just 0.63 percent—New York's proposal emphasizes the substantially larger gains that will be made with the Race to the Top funding than would have been made without it:

...overall NAEP proficiency levels of 46% for 4th grade reading and 48% for 4th grade math by 2013, representing an incremental 7% and 4%, respectively, above the gains anticipated in the absence of a Race to the Top award. While the overall gain for 4th grade reading is targeted at 10 percentage points over 6 years, priority subgroup gain targets are higher at 12–13 percentage points. (New York State 2010, 29)

New York's projected gains would more than double proficiency levels of students with disabilities, and triple the proficiency of English Language Learners in four years.

State assessment scores

Goals for gains as measured by state assessments are generally even more ambitious. Washington, D.C. projected five-point gains each year, for a total of 20 over the four-year grant period. Rhode Island explicitly set higher goals for currently lower-achieving students: "Targets for proficiency in reading, mathematics, and science in 2015 are based on a 5 percentage point gain each year for groups that average 50% or higher, and a 10 percentage point gain each year when proficiency is below 50%." Hawaii aimed to get all students to 90 percent proficiency in both math and reading by 2013–2014. This requires an increase of 40 percent in reading, where only 65 percent of students are currently proficient, and over 100 percent in math, where the current level is just 44 percent.

Delaware was one of several states to project having all its students proficient by 2014. Right now, "depending on grade and subject, 55%–87% of students are meeting state standards today [and] the percentage of students meeting standards in grades tested since 1998 has risen by over 20 points on average." Delaware characterizes its plan to raise achievement more in four years than it did in the past 15 as "ambitious…but within reach." Maryland, too, aims for universal proficiency in reading, which requires slightly smaller increases from current proficiency levels of 87 and 82 percent, respectively, in elementary and middle schools. Tennessee is a third state to project universal proficiency, even though it began with very low NAEP scores and is already raising standards:

Delaware characterizes its plan to raise achievement more in four years than it did in the past 15 as "ambitious...but within reach."

Our state assessment is changing to be aligned to the Common Core assessments, so we expect our scores will slide, then recover. However, [even though new assessments mean that] we do not know what TCAP [Tennessee Comprehensive Assessment Program] scores will resemble....We believe our ultimate goal of 100% proficiency is still the right one—no matter whether the assessment is old or new. (Office of the Governor of the State of Tennessee 2010, 19)

Acknowledging the likelihood that implementing the new Common Core State Standards would push its test scores down, New York set targeted gains rather than the target levels it set for NAEP scores: "By changing the measuring stick, it becomes difficult to compare absolute levels of student achievement from one year to the next; gains show the ambitious goals New York has set while allowing for flexibility within the prevailing assessment system." But this statement is disingenuous; the same concerns that render invalid year-to-year comparisons of proficiency when metrics are changed make it impossible to accurately calculate growth.

Georgia's less ambitious goals reflect inflated current levels of student proficiency. Only 29 percent of the state's fourth-graders were proficient or advanced readers on the 2009 NAEP, but 2008–2009 proficiency levels on the state Criterion-Referenced Competency Test ranged from 93 to 96 percent. This left room to target gains of only 1 to 3 percentage points.

North Carolina is unique in declining to set targets for increasing scores on its own state-administered exams, because "standards and assessments are undergoing significant revisions that will prohibit accurate comparisons across years." Impossibly large year-to-year increases on several state assessments suggest that standards are changed from year to year. Indeed, a note on Department of Education state progress reports indicates as much, but neglects to explain which states have engaged in such shifts.¹³ It is unfortunate that only one state recognizes the invalidity of making comparisons across noncomparable tests, and that the department has acquiesced to this gaming of the testing system in the other states. It is particularly surprising that no complaints have been lodged about the impossible-to-reconcile conflicts in trends between the two types of tests.

High school graduation and college attendance and completion rates

States also committed to increases in the percentage of students who graduated high school and enrolled in college, and some projected gains in other postsecondary achievement measures.

Targeted increases in the percentage of students graduating from high school ranged from gains of roughly one percentage point per year to three or more. Massachusetts, which aims to increase overall high school graduation rates by 5 percent over four years, notes that achieving this very ambitious goal would add 3,000 students to the 2014 graduation rolls.¹⁴ Georgia aims to raise its graduation rate by 6 percentage points over five years (1.15 points per year), Delaware and North Carolina aim for gains of about 2 percentage points a year, for eight over the grant period, and Hawaii predicts gains of 2.5 percentage points a year, for an increase in the graduation rate from 80 percent to 90 percent between 2010–2011 and 2014–2015. Maryland, too, aims for a 90-percent graduation rate by 2014. Washington, D.C., would raise high school graduation rates by 3 percentage points each year, for a total gain of 12 points over the four-year grant period.

Rhode Island's targets for increasing high school graduation rates are among the hardest to attain. As it notes, its current four-year graduation rate of 74 percent "masks the wide variation among our LEAs (from a 48% to a 96% graduation rate)" (State of Rhode Island 2010, 18). Attaining the goal of 85 percent for all students will thus require students to gain over 2 percentage points each year. In just four years some subgroups will need to nearly double the rate at which they currently graduate.

College enrollment rates and other, related goals also vary widely from state to state. Like Washington, D.C., Massachusetts aims to increase college enrollment rates by 5 percent between 2010 and 2014, but Massachusetts aims for doubling that gain in the following two years. This increase would add 2,000 new college entrants. New York projects a higher increase in the college enrollment rate, of over 10 percent, or 8.3 percentage points, as well as a 4.3 percentage-point gain in the college persistence rate (both nearly three times the baseline gains expected in the absence of RTTT grant support).¹⁵ The state also expects more students to pass English-language arts and math regents exams "with scores at levels that indicate post-secondary readiness."

Delaware projects an increase of 11 percentage points in college enrollment, which would enable 70 percent of freshmen who enter high school to go to college, and an increase of 6 percentage points in college retention (the completion of at least one year of college credits within two years). Other states similarly set targets for the proportion of students who would go to college. Maryland aims to have 75 percent of its students in two- or four-year colleges by 2014, with no need for remedial classes.¹⁶ Florida, among the most ambitious states in many areas, aims to double the percentage of incoming high school freshmen who ultimately achieve college credit by 2020.

At the other end of the spectrum, North Carolina sets ambitious yet attainable goals for postsecondary education. It aims for an increase of just over half a percentage point per year in the proportion of high school graduates who attend college, from 65.6 percent in 2006 to 70 percent in 2013–2014.¹⁷ Other goals include production of more college-ready graduates, as measured by increases in the percentage of graduates taking the SAT exam (from 63 percent to 70 percent) and their performance on the SAT (from an average of 1,006 to 1,020); an increase from 17.3 percent to 20 percent of high school graduates scoring a three or above on one or more advanced placement exams; and reduced shares of freshmen enrolled in a remedial course (from 11 percent to 7 percent at the University of North Carolina, and from 64 percent to 48 percent in community colleges).

Closing achievement gaps

In addition to raising student achievement, states committed to closing race, income, and other achievement gaps. While a few states explicitly projected little or no increase in achievement among their highest-scoring students (a tactic that makes it easier to narrow gaps), most would require students in subgroups that have historically lagged to make large gains in order to achieve this second set of goals.

Several states set specific annual target gains for various subgroups in order to reach intended overall levels of proficiency. In Georgia, for example, African American students will gain two to three times as much ground as all students in reading, with eight- and six-point gains, respectively, versus three- and two-point gains for the overall student population. In language arts, too, Georgia's disadvantaged students must gain large amounts, while other students are expected to gain little or nothing:

The largest increases in student achievement...will occur for students with disabilities in third grade (10 points vs. 5 points for students without disabilities), in fifth grade (9 points vs. 0 points) and in eighth grade (10 points vs. 0); for African American students in third grade (10 points vs. 3 for White students), fifth grade (7 points vs. 1) and eighth grade (6 points vs. 1); for limited English proficient (ESOL) students by 8 to 9 points across all grades; and for economically disadvantaged students by 5 to 8 points across all grades. (Office of the Governor of the State of Georgia 2010, 29)

Maryland's goal of getting 85 percent of its students to basic or above on NAEP requires much greater gains for students in some subgroups than in others. For example, 81 percent of white first-graders were already reading at a basic level or above in 2009, so the projection is for a two-point gain by 2010, but then only another two points the following 10 years. At the eighth-grade level, white students already surpassed the goal as of 2009, with 88 percent reading at the basic level or above, so no gains are projected. Among black students, 2009 levels of just 53 percent and 61 percent require the addition of 60 percent more basic or above students at the fourth-grade level and

39 percent more at the eighth-grade level to reach 85 percent, while no gains are projected for Asian students, who already surpassed targets as of 2009.

Another common goal was cutting gaps in half. Delaware and Rhode Island were among the states to set this goal for both race- (black/white and Hispanic/white) and income-based gaps. Massachusetts would reduce gaps in both state and NAEP assessments by 25 percent in the four-year grant period and another 25 percent in the following two years, to cut them by half in six years. The District of Columbia intends to close race- and income-based gaps at different rates (5 percentage points per year versus 3.5), meaning that, while black and low-income students will have to gain more ground than their white, nonpoor peers, it is unclear how quickly students who fall into both minority and low-income categories must progress.

In Ohio, too, reducing by half performance gaps between underrepresented and majority students on both national and statewide assessments places heavy demands on minority, low-income, and disabled students, while assuming small gains among white students. With respect to NAEP fourth-grade math, for example, black students, who gained 8 percentage points in proficiency between 2003 and 2007, would be expected to gain more than three times that amount—over 26 percentage points—between 2009 and 2013. White students, who gained nine points earlier, would only have to gain five by 2013. The gap between goals and what is possible is even larger at the eighth-grade reading level, where black students, who lost 2 percentage points between 2003 and 2007, are expected to more than double their proficiency percentage, from 13.7 percent in 2009 to 29 percent in 2013.

The most ambitious states aim to close achievement gaps altogether. Florida acknowledges that doing so requires "achievement growth in these lower-performing subgroups ... that is substantially higher than has occurred historically" (Executive Office of the Governor of Florida 2010, 27). This includes not only racial minorities and low-income students, but the English-language learners who currently lag the most. This means that white fourth-graders need gain only three percentage points in reading between 2010–2011 and 2018–2019 (from 82 to 85 percent), but black students will have to gain 22 percentage points (rising from 63 to 85 percent at the basic level), and English-language learners will need to gain 45 percentage points to get from their current 40 percent to the 85 percent goal. Among eighth-graders aiming for the advanced level, the gap is much more drastic: Florida aims to boost the share of black eighth-graders who are advanced readers from 13 to 40 percent, an increase of over 200 percent; the share of advanced English-language learners must increase from 7 percent to 40 percent, an increase of 471 percent. White students need to increase by only 11 percent.

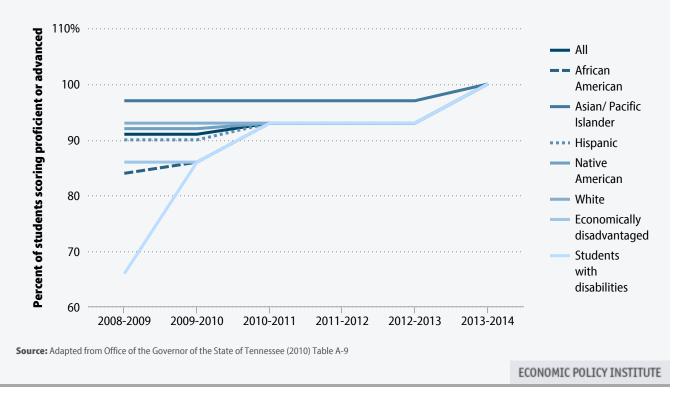
Florida aims to boost the share of black eighth-graders who are advanced readers from 13 to 40 percent, an increase of over 200 percent; the share of advanced Englishlanguage learners must increase from 7 percent to 40 percent, an increase of 471 percent.

Hawaii splits the difference, cutting gaps by half during the four-year grant period and eliminating them altogether by 2018. It intends to narrow not just gaps in state test scores but in high school graduation and college enrollment rates. This is particularly daunting at the postsecondary level, where disadvantaged students will have to gain 42 percent (to increase from 40 percent currently enrolled in college to the 62 percent goal), and Native Hawaiian students will have to gain additional ground, as they are now at 37 percent.

FIGURE A VIEW INTERACTIVE on epi.org

Tennessee's projections for increase in share of third-through eighth-graders scoring proficient or advanced in math

Share scoring proficient or advanced before RTTT (2008–2009) and under RTTT goals, by demographic subgroup



While Maryland provides added time to attain test score improvements, the requirement that all students meet state standards in reading sets a closer goal for closing gaps altogether. It requires middle school students with disabilities and English-language learners to make gains of nearly 100 percent and over 100 percent, respectively. The most ambitious of all is the 2020 goal of having 90 percent of high school students pass all four state assessments—English, algebra, government, and biology—up from 75 percent overall in 2009. In order to achieve this goal, shares of students with disabilities and English-language learners passing all four exams must nearly triple, as only 34 and 36 percent, respectively, currently do so.

The challenges that some subgroups face in meeting Tennessee's goals of 100 percent proficiency are illustrated in a chart the state produced for its Race to the Top application (reproduced as **Figure A** in this report).

The states also project high school graduation and postsecondary gap closures. Ohio's overall high school graduation rate of 84 percent masks a large gap between graduation rates of white and minority students, especially African American students; this gap requires black students to make much faster gains than their white counterparts to fulfill RTTT promises of increasing graduation rates by 0.5 percentage points per year while also halving the gaps (in participating local education agencies or LEAs) between underrepresented and majority students.¹⁸ These goals require that African American students, whose graduation rate increased just 4.4 percentage points, from 62.9 percent to 67.3 percent, between 2002 and 2008, must more than triple those gains to reach 82.3 percent by 2014. Economically disadvantaged students are even more pressed; they must reverse a substantial fall between 2002 and 2008 from 81 percent to just 75.2 percent and gain 12.5 percentage points by 2014.

In Rhode Island, African American students are not alone in having to rise from graduating 60 percent of their ranks in 2006–2007 to 87 percent in 2014–2015. Hispanic students, expected to also reach the 87 percent rate in 2014–2015, started at 58 percent in 2006–2007, while students living in poverty must rise from 59 percent to 87 percent. College enrollment goals are similarly ambitious. Less than half of New England students who do finish high school have completed the necessary courses and mastered the skills to be considered college-ready. According to data from the National Center for Higher Education Management Systems, Rhode Island ranked near the bottom of New England states for the percent of high school graduating students who enrolled in college in 2006 (68 percent) (Reindl 2008, 44). Clearly, the state is in need of a sweeping strategy to raise these figures and meet an ambitious 2015 target of 80 percent high school graduates immediately entering college.

In its goals to close gaps at the high school graduation and postsecondary level, Tennessee acknowledges, then dismisses, the impact of impending higher standards:

Education Week's 2010 Quality Counts report ranked Tennessee number one in the nation for the growth in its graduation rate between 2000 and 2004, when it rose 14 percentage points. Our graduation rate currently stands at 83%. We expect this to drop for the 2009–10 school year because of a change to the longitudinal cohort method for calculating graduation rates; however, we are not backing away from our goal of a 90% four-year cohort graduation rate. (Office of the Governor of Tennessee 2010, 20)

As demonstrated by Tennessee's own chart (reproduced as **Figure B**), the average student will need to gain 10 percentage points over the four-year grant period but Asian American students only 5 percentage points, Hispanic students 17 percentage points, and black students among over 20 percentage points.

In sum, virtually every state has promised to raise student achievement to levels higher than those of the currently highest-achieving state and/or to close race-, income-, and disability-based gaps to degrees that have never before been accomplished and that theory suggests may be actually impossible. All of this is to be attained through the addition of roughly 1 percent to states' education budgets over just four years.

Mismatch 2: RTTT policy agenda vs. policies that close achievement gaps

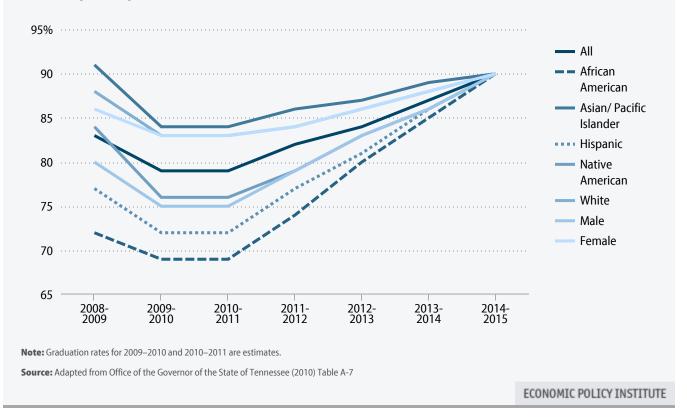
As the previous section showed, under Race to the Top, states promised to substantially narrow race- and incomebased achievement gaps that have long plagued the U.S. education system. Even if the goals were realistic given the time and resources, the policies enacted to achieve them—use of student test score data to inform teacher evaluations, innovative teacher recruitment and retention strategies, focused interventions for and closure of "underperforming" schools, and increased access to charter schools—would fail.

In-school policies that mostly target teachers and assess only a narrow set of academic skills fail to address multiple opportunity gaps that drive the majority of achievement gaps. According to poverty and education expert Helen

FIGURE B VIEW INTERACTIVE on epi.org

Tennessee's projections for high school graduation rates

Graduation rate before RTTT (2008–2009) and under RTTT goals, by race/ ethnicity and gender



Ladd, "Current U.S. policy initiatives to improve the U.S. education system, including No Child Left Behind, testbased evaluation of teachers, and the promotion of competition are misguided because they either deny or set to the side a basic body of evidence documenting that students from disadvantaged households on average perform less well in school than those from more advantaged families" (Ladd 2012, 1). Indeed, even if Race to the Top were successful in greatly improving existing teachers' effectiveness and recruiting strong new ones, evidence indicates that individual teachers' influence account for no more than 10 percent of student achievement, as measured by test scores (Hanushek, Kain, and Rivkin 1998).

Education improvement requires across-the-board attention to the multiple opportunity gaps described below; from the classroom level to district, state, and federal policy. Unfortunately, most current policies blame teachers and principals for the consequences of opportunity gaps, while failing to provide the resources and policy tools needed to address them. As described below, these tools include such basic services as providing school breakfasts, counseling, nurses' care, universal prekindergarten, and high-quality afterschool and summer enrichment opportunities. None of these strategies, nor others to narrow opportunity gaps, feature prominently in the Race to the Top agenda. Race to the Top may thus narrow gaps somewhat, but it cannot close them. It may also, however, do harm in the process.

Out-of-school drivers of achievement gaps

Scholars have long known that factors outside of school walls account for the majority of achievement gaps. In 1966, sociologist James Coleman was tasked by the U.S. Office of Education, in accordance with the 1964 Civil Right Act, with assessing how differences between schools serving white children and those serving African American children contributed to differences in achievement between those two groups. To his surprise, Coleman found that roughly two-thirds of that gap was due not to differences in school quality but rather to the degree of segregation in the school and to the student's out-of-school environment (Coleman 1966). The report, *Equality of Educational Opportunity*, thus introduced the concept of opportunity gaps—differences in opportunities available to children, based heavily on race and income—that drive achievement gaps.

Unfortunately, most current policies blame teachers and principals for the consequences of opportunity gaps, while failing to provide the resources and policy tools needed to address them.

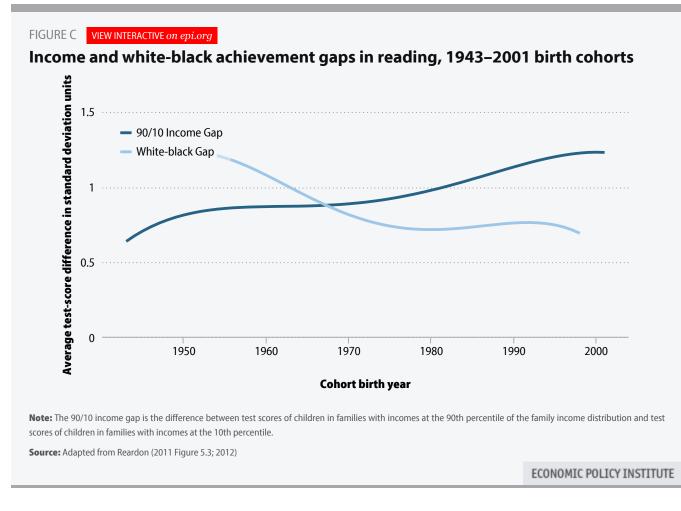
In the decades since, research across a range of education fields has affirmed the link between income and educational attainment. It has also explored the various pathways through which differences in family and community circumstances create income- and race-based opportunity gaps. The weakening of the link between minority status and poverty, through several decades of intentional antipoverty and integration strategies, has helped narrow racebased achievement gaps. At the same time, growing income inequality has helped to nearly double the incomebased achievement gap. As illustrated in **Figure C**, the income gap now eclipses the race gap.

The close connection between poverty and low educational attainment is evident not only at the student level, but at the state level. As **Figure D** shows, 2009 scores on the National Assessment of Educational Progress are closely correlated with state child-poverty rates.

Some attribute poverty's negative impact on educational attainment to the U.S. education system, because school and teacher quality, resources, and other factors are closely correlated with the state poverty level. However, comparisons across developed countries reveal a nearly identical pattern. Scores on the Program for International Student Assessment (PISA) exam, which the U.S. Department of Education cites to warn that Americans are falling behind, show clearly that the same income–education link holds across U.S. competitor countries. As **Figure E** shows, across 14 Western nations, including the United States, the highest-income students' PISA scores are roughly double those of their lowest-income peers (Ladd 2012).

While poverty has similar effects across countries, the overall impact in the United States is larger because a much higher proportion of U.S. children live in poverty than do children in other Western countries. In Finland, for example, roughly 4 percent of school-age children live in poverty, versus over 20 percent in the United States, with averages that are even higher in many midwestern and southern states. Indeed, a 2013 study by Martin Carnoy and Richard Rothstein finds that, after adjusting for those disparities in poverty rates, American students rise in the ranks of OECD nations, from 25th to 13th in math and from 14th to sixth in reading (Carnoy and Rothstein 2013).

While the link between race and income has weakened somewhat in past decades, racial minority and poverty status remain closely correlated. African American, Hispanic, and Native American children are much more likely to be poor or low income than their white or Asian peers. Indeed, as **Figure F** depicts, nearly two-thirds of minority



children grow up in low-income families, versus roughly one-third of their white and Asian counterparts. Nearly four out of ten black children are living in poverty, compared with just over one in 10 white and Asian children.

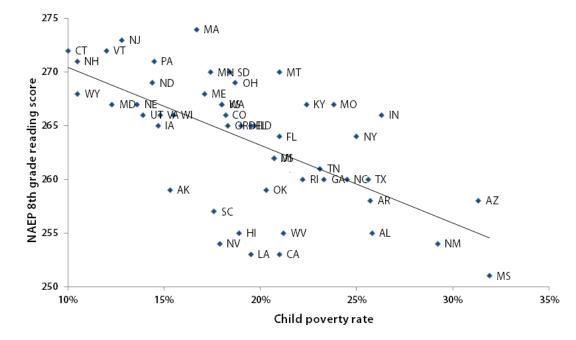
Moreover, among poor children, black and, increasingly, Hispanic children are much more likely to live in neighborhoods of concentrated poverty than are poor white children. Such neighborhoods tend to have fewer public and private resources, to house fewer adults who are employed, and to experience much higher rates of violent crime (Sharkey 2013). As a result, the multiple negative impacts of growing up in poverty are even more intense for minority children than family-level poverty statistics indicate.

Early childhood experiences

Neuroscientists explain much of the race- and income-based prekindergarten learning gaps by noting differences in prenatal experiences; early parent-infant and child interactions; reading, playing, and other early forms of stimulation; and the quality of paid early childhood care and education (Center on the Developing Child 2007). Parents' levels of education and knowledge on child development, degree of isolation, and access to resources contribute to substantial differences in these experiences among young children of different races and socioeconomic backgrounds.

Low-income and minority women have pregnancies that are, on average, much less healthy than those of their higher-income and white peers. African American women and women living in poverty are more likely to be teen-

FIGURE D



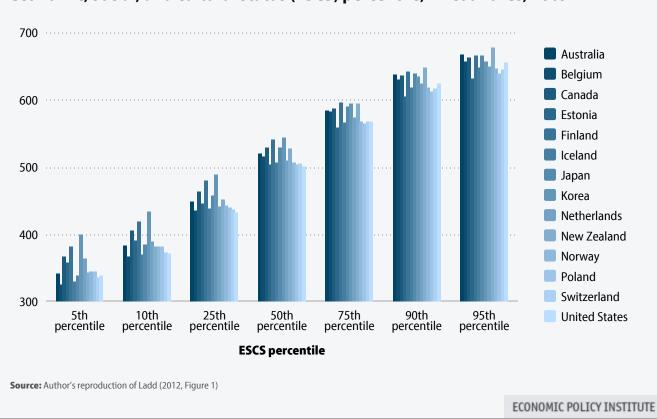
Relationship between 8th-grade NAEP reading scores and child poverty rate, 2009

Source: Author's analysis of Current Population Survey, Annual Social and Economic Supplement Historical Poverty Tables (Table 19) and the National Center for Education Statistic's 2009 *Nation's Report Card* (NCES 2010, Table A-19)

agers, to be overweight or obese, and to eat less nutritional foods, and they are more likely to smoke and/or consume alcohol or drugs while pregnant. They are also substantially more likely to be clinically depressed and less likely to receive treatment to relieve it. All of these constitute risk factors for babies' births and for their health as infants (Bombard et al. 2012). As a result, U.S. rates of premature and low-birthweight births are high and rising. Indeed, rates of low-birthweight deliveries among high-risk women in the United States are comparable to those in Cambodia and Nigeria (Fertig and Corso 2009).

These same parents, often single mothers, are less likely to be knowledgeable about parenting practices that promote healthy development across children's cognitive, emotional, and behavioral domains (Engle and Black 2008). They have less money to pay for stimulating books and toys, and they are less likely to read regularly to their young children and to take them to the parks, zoos, and museums that promote early learning (Rothstein 2004). Because, on average, poor and less-educated parents, compared with higher-income and more educated parents, talk to their children less, use less enriching vocabularies when they do talk to them, and are more likely to punish or scold children, and less likely to encourage or reward them, poor parents stimulate much less vocabulary growth among their children in early years. Indeed, one frequently cited study found that, by age 3, the children of professional parents had over twice the active vocabulary of their poorest peers—children whose parents received welfare benefits (Hart and Risley 1995).

FIGURE E VIEW INTERACTIVE on epi.org



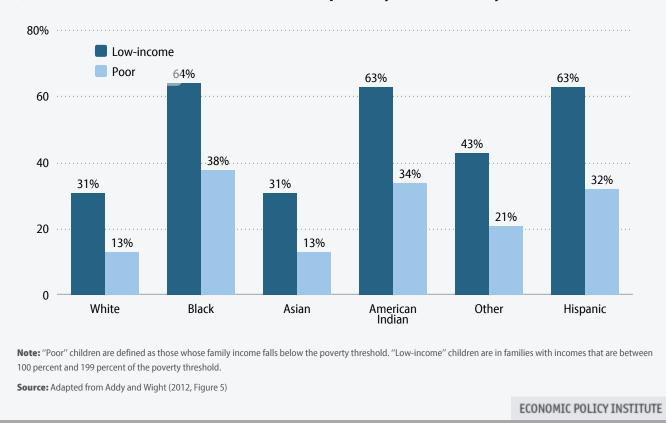
Program for International Student Assessment (PISA) average reading scores by economic, social, and cultural status (ESCS) percentile, 14 countries, 2009

Low-income parents who work outside of the home also lack the means to pay for high-quality child care and preschool. A 2011 study on the U.S. early care and education sector finds that "two-thirds of all low-income children—and an even larger share of poor minorities—are served in early care and education settings that lack the level of quality shown to produce developmental gains" (Weiss and Brandon 2011, 4). The same study reports that the average U.S. family would need to spend one quarter of its annual income to pay for care of the quality that would deliver such benefits, making it clear why so many children fail to receive such care.

In sum, "Early experiences determine whether a child's developing brain architecture provides a strong or weak foundation for all future learning, behavior, and health" (Center on the Developing Child 2007). Those early experiences are extremely disparate for children of different income levels, races, and ethnicities. As a result, by the time they reach kindergarten, children living in low-income families have already fallen far behind their higher-income, nonminority peers. (Racial minority status poses a set of disadvantages distinct from, and in addition to, family poverty status, because minority families have less wealth, on average, than others with similar incomes, and thus face greater risks from health problems or unemployment, and even if they are not poor, minority children disproportionately live in poor neighborhoods.)

Few states, however, are addressing this gap in preparation. While the percentage of children enrolled in state prekindergarten programs grew steadily from 2002 through 2011, when it plateaued, even at that peak only 28 percent

FIGURE F VIEW INTERACTIVE on epi.org



Share of children who are low-income or poor, by race/ethnicity, 2010

of 4-year-olds were enrolled nationwide, as were just a handful—4 percent—of 3-year-olds (Barnett et al. 2012). Moreover, over that decade, spending per child enrolled fell from just over \$5,000 in 2002 to just \$3,841 in 2012. Ten states still offer no public prekindergarten at all. Even when the federal Head Start and special education programs are factored in, fewer than half of four-year-olds and just 15 percent of 3-year-olds participate in publicly funded prekindergarten programs (Barnett et al. 2012, 7). These averages represent very large variations; Rhode Island's prekindergarten serves only 0.9 percent of its 4-year-olds, while Oklahoma serves 74.1 percent and Florida serves 79.4 percent.¹⁹

With preschool out of reach for so many parents, a substantial proportion of children age 3–5 are not in any program. This ranges from a low of 18 percent in the District of Columbia, which makes its high-quality program available to all families, regardless of income, and 28–30 percent in New Jersey, Connecticut, and Massachusetts, where the combination of large, high-quality public programs and high average income cover the vast majority of students, to 50 percent or more in Alaska, Arizona, and Idaho, where little or no public support for preschool combines with substantial poverty to leave many children without options (Kids Count 2011). In all, it is estimated that just under 5 million children age 3-5 are not enrolled in any nursery school, preschool, or kindergarten. The Obama administration has thus made expanding preschool a national priority, including through its Race to the Top Early Learning Challenge Fund.

Physical and mental health

Children who grow up poor, and African American and Hispanic children, are more likely to suffer from a range of health problems that cause them to miss days of school and impede their learning when they are in the classroom, relative to their wealthier, nonminority peers. Lack of access to regular preventive and basic health care leads to more chronic absence and long-term health problems. These factors compound the gaps that disadvantaged students bring with them when they enter kindergarten and put them further behind each year.

Asthma is a common childhood ailment; more than half of persistent asthma cases begin to manifest by age 3, and 80 percent by the age of 6 (Corso and Fertig 2009). Although the symptoms that disrupt daily life, and school, are largely preventable through early detection, appropriate treatment, and consistent monitoring, asthma is often not treated well. It is thus one of the most common causes of school absenteeism (Wang, Zhong, and Wheeler 2005).

Researchers of public health at the University of Georgia estimate that asthma has led to an average of 2.5 days of school missed per child afflicted. Children who miss school risk falling behind and have a more difficult time understanding curEarly experiences that prepare a child's developing brain for future learning are extremely disparate for children of different income levels, races, and ethnicities. As a result, by the time they reach kindergarten, children living in low-income families have already fallen far behind their higher-income, nonminority peers.

ricular material. When they are in school, asthmatic students' learning can be interrupted by constrained breathing and bouts of coughing or wheezing. Moreover, studies reveal that children with asthma perform worse than their peers in tests of memory and concentration, likely due to sleep disruption (Basch 2010). The 2009 National Health Interview Survey found that 7.1 million U.S. children (9.6 percent) live with asthma (Bloom, Cohen, and Freeman 2010). These numbers mask differences across economic and racial lines, however. One study that specifically assessed the impact of income on racial differences found that, while asthma was most prevalent among African American children (14 percent), compared with white (11 percent) or Hispanic children (10 percent), once family income was controlled for, only African American children living below half the poverty level had asthma rates higher than those of children of other races and ethnicities (Smith et al. 2005). In other words, the circumstances of living in poverty are responsible for increased risk.

Disparities are even greater among specific geographic and demographic subgroups due to the concentration of triggers in certain high-poverty communities. In Harlem, for example, surveys and screenings conducted by the Harlem Children's Zone asthma project found that roughly 30 percent of children ages 12 and under had asthma (Nicholas et al. 2005). Triggers believed to cause this higher-than-expected rate include leaky pipes that lead to mold growth, air pollution from buses (there are five bus depots in the neighborhood), pest infestation, and dust mites. At the time the screenings were conducted, nearly one in four elementary and middle-school students had missed a day of school in the past two weeks due to asthma, prompting the public health officials conducting the study to call the situation in Harlem a "childhood asthma crisis." The negative impact is thus highly concentrated in clusters of schools and students.

Lead exposure and poisoning is a much-overlooked health condition that harms low-income and minority children. While the ban on leaded gasoline has now largely eliminated the risk among the general population, children living in older and/or dilapidated apartments still face significant risks. According to a 2010 report by economist Elise Gould:

As of 2006, between 40,000 and 194,000 U.S. children under age 6 had blood lead levels of at least 10 micrograms per deciliter—the concentration at which the Centers for Disease Control and Prevention (CDC) recommends procedures to remove lead from the bloodstream. An additional 25 percent of young children—or roughly 6.9 million—had blood lead levels considered "low" but still harmful—between 2 and 10 micrograms per deciliter. Children with such low-level exposure were disproportionately male and Hispanic and/or Black. Most children with these low blood lead levels lived in households earning below 200 percent of the federal poverty threshold. (Gould 2010)

Numerous studies have established the clear negative impact of high blood lead levels on IQ, and recent research finds diminished IQ at lower levels. As Gould notes, lead causes delays in cognitive and behavioral development that are estimated to cost between \$30 million and \$146 million per year in added special education services, and up to \$267 million in treatment for lead-induced attention deficit hyperactivity disorder. High lead levels can cause multiple permanent problems—mental retardation, stunted growth, and seizures—and Gould's analysis finds that lead-related behavior problems and crime cost at least \$1.7 billion per year. While the percentage of children damaged by lead exposure is extremely small within the overall student population, it could be substantial in a minority of schools serving neighborhoods with the highest concentrations of poverty.

In fact, a number of state- and city-level studies of children with exposure to lead find substantial diminutions of academic capacity as measured by test scores. In North Carolina, blood lead levels (BLLs) as low as 2 μ g/dL (micrograms per deciliter) were associated with decreases in test scores, and 3-year-olds whose BLLs were 4 μ g/dL or above were at significantly increased risk of being classified as learning disabled (Miranda, Maxson, and Kim 2010). In general, higher BLLs were negatively associated with placement in advanced and intellectually gifted programs, even controlling for race, family income, and other factors. In studies of the state of Connecticut and the cities of Chicago, Detroit, and Providence, R.I., BLLs of 5 μ g/dL or above were associated with reduced test scores at the elementary and middle-school ages (Miranda et al. 2011; Zhang et al. 2013; McLaine et al. 2013). In Milwaukee, moderate lead exposure was found to significantly impede students' ability to score at "proficient" levels (Amato et al. 2012).

Food insecurity—the technical term used to describe households in which there is insufficient food to feed all family members, or to feed them decent meals—is high and rising in the United States. The Food Research and Action Center (FRAC) reports that "Nearly one in four U.S. households with children struggled to afford enough food for themselves and their families in 2010" (FRAC 2011).²⁰ In three states—Alabama, Florida, and Mississippi—and the District of Columbia, food hardship was reported in more than one in three households with children. Children are particularly vulnerable, since they depend on having not only enough food but food with the right balance of nutrients to enable them to grow and be able to focus during class. Infants and toddlers in food-insecure households are nearly twice as likely to be in only fair or poor health and to have iron-deficiency anemia, and twothirds more likely to be developmentally delayed, compared with their peers in food-secure households (Children's Health Watch 2007). Children tend to be cushioned from actual hunger when possible, but even low levels of food insecurity—for instance, from eating foods that are high in calories but low in nutritional value—have been found to demonstrably impede learning. Children at any level of food insecurity learn less during the school year and score lower on tests. Over time, food insecurity has been found to impede growth on reading and math tests as well as development of children's social skills (Cook et al. 2013).

Share our Strength, a national nonprofit organization that works to alleviate child hunger, conducts an annual survey of public school teachers to gauge the level of hunger in their classrooms. Its 2012 survey responses illustrate clearly how widespread the problem is. "[A] majority of [participating] teachers (56%) say 'a lot' or 'most' of their students rely on school meals as their primary source of nutrition" (Share our Strength 2012, 2). A majority of teachers who saw hunger as a problem said it was growing. Three in five K-8 teachers reported having students who regularly came to school hungry, and some spent hundreds of dollars of their own money on food for their students. The vast majority said that school breakfasts increased concentration (95 percent), improved students' academic performance (89 percent), and enhanced behavior (73 percent). Students who ate breakfast were also healthier and less likely to be tardy or absent. Reforms advanced under Race to the Top do not address issues of food security or hunger, and thus cannot alleviate this contributor to achievement gaps.

Poor vision is a problem typically associated with elderly people, but it also poses real challenges for low-income students (though rarely for their better-off peers). "Tests of vision show that [vision] problems are inversely proportional to family income; in the United States, poor children have severe vision impairment at twice the normal rate" (Rothstein 2004, 37, citing Egbuonu and Starfield 1982). A more recent study puts these numbers in even sharper contrast: While only 4 percent of children living at two times the federal poverty level or above have visual impairments, the figure is 12 percent for those living in poverty. And only 5 percent of white children are visually impaired, compared with 8 percent of African American children and 11 percent of Hispanic children. Minority children are also two to three times less likely to have their visual impairments addressed (Basch 2010). The overall impact is substantial but, again, not addressed through reforms such as those advanced by Race to the Top:

Fifty percent or more of minority and low-income children have vision problems that interfere with their academic work....In one experiment where therapy or lenses were provided to randomly selected fourth-graders from lowincome families, children who received optometric services gained in reading achievement beyond the normal growth for their age, while children in the control group, who did not get these services, fell farther behind. (Rothstein 2004, 37–38) Three in five K-8 teachers reported having students who regularly came to school hungry, and some spent hundreds of dollars of their own money on food for their students. Reforms advanced under Race to the Top do not address issues of food security or hunger, and thus cannot alleviate this contributor to achievement gaps.

While overall dental health in the United States has improved, children's dental health has not. Dental problems, particularly tooth decay and the sequelae that result from not treating it properly, are both more prevalent and less likely to be addressed among low-income children than among children overall. According to a 2007 report from the federal Centers for Disease Control and Prevention, the proportion of children age 2–5 with cavities increased 15 percent between 1995 and 2005 (CDC 2007). That study also found that children whose families live in poverty

are twice as likely as their better-off peers to have untreated decay. The Pew Children's Dental Health Campaign summarizes the problem in stark terms:

Dental care is the single greatest unmet need for health services among children. More than 16 million disadvantaged children do not receive the care they need every year. Tooth decay is the most common childhood disease, affecting nearly 60 percent of children. Eighty percent of dental disease in children is concentrated in 25 percent of kids, and children from poor families face disproportionately high barriers to getting care. The consequences can be devastating to those from low-income and minority households. (Pew Center on the States 2011)

These untreated dental health problems present barriers to educational attainment. A 2000 report by the U.S. Surgeon General estimated that more than 51 million school hours per year are lost due to dental problems (U.S. DHHS 2000). A study of nearly 3,000 students in North Carolina found that "children who have both poor oral health and general health are more likely to have poor school performance" (Blumenshine et al. 2008). And a recent study of California students found a substantial number of lost school days due to untreated oral health problems: "In California alone, 504,000 children ages five to 17 were absent at least one school day in 2007 due to a toothache or other dental concern. The state's kids missed a staggering total of 874,000 school days that year due to dental problems" (Pew Center on the States 2011, citing Pourat and Nicholson 2009).

A study published in the 2011 *American Journal of Public Health* further emphasizes the seriousness of schoolrelated problems caused by lack of proper preventive oral health. These include both lost school days and poorer performance in school. Specifically, children with no insurance or public insurance missed more days of school due to dental pain or infection than children with private insurance, and poor oral health reduced a student's achievement, even if he or she did not miss school because of the problem (Jackson et al. 2011).

A substantial percentage of U.S. children suffer from mental and/or emotional health problems that impede their ability to learn and limit academic success. Fifteen percent of children age 2-5 and over 25 percent of children age 8–17 have been diagnosed with some mental health problem. Of those, 12–13 percent of the cases are considered serious. The most common are anxiety disorders, disruptive behavior disorders, attention deficit hyperactivity disorder, and depression, all of which have negative impacts on children's focus and success in school (National Scientific Council on the Developing Child 2012).

At the extreme, children who experience severe and prolonged exposure to abuse, neglect, and other traumas reach a point that scientists term "toxic stress," which permanently damages their brain architecture. The same factors that put low-income and minority children at risk for poor academic outcomes put them at high risk for such long-term damage:

Toxic stress, which is the result of strong, frequent and/or prolonged biological responses to adversity, can damage the architecture of the developing brain and increase the likelihood of significant mental health problems that may emerge either quickly or years later. Because of its enduring effects on brain development and other organ systems, toxic stress can impair school readiness, academic achievement, and both physical and mental health in children and, later, during adulthood. Life circumstances associated with fam-

ily stress, such as persistent poverty, threatening neighborhoods, and very poor child care conditions, elevate the risk of serious mental health problems. (National Scientific Council on the Developing Child 2012)

Access to social workers, counselors, and school psychologists can help alleviate the impacts of growing up under stressful circumstances and of mild-to-moderate mental health problems that impede learning. Indeed, researchers have found that school-based health centers that provide such access significantly increase students' use of mental health care and high-risk behavior screens (Juszczak, Melinkovich, and Kaplan 2003). Students who received counseling services at school-based clinics significantly decreased absenteeism and tardiness compared with students who had not (Gall et al. 2000). Because Race to the Top does not promote school-based clinics or provide funding for school nurses or for mental health supports, it cannot improve student attendance or focus through this path.

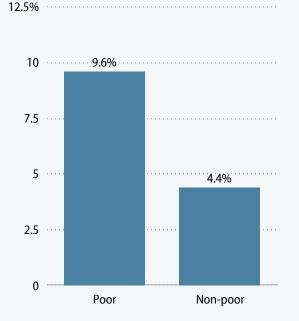
As described here, health disparities impede lowincome children's academic success through several mechanisms. Loss of focus and attention means children learn less in class. Stress can lead to feelings of isolation and a lack of engagement with teachers and fellow classmates. At the most basic level, being sick more often, and more severely, causes students to miss many days of school. Indeed, multiple studies find that each individual health condition—asthma, dental decay, mental and emotional health problems—causes lowincome children to miss more days of school than their peers. **Figure G** shows the cumulative impact: Poor children are over twice as likely as their nonpoor peers to miss 11 days or more of school a year due to illness or injury.

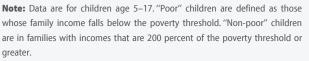
While not all absences are due to health conditions, many are, and they drive high rates of chronic absenteeism among low-income students. Over many years, the cumulative effect on their loss of time in the classroom, and time on task, is substantial, as shown in **Figure H**.

It is estimated that one in 10 U.S. children, or 7.6 million, currently lack health insurance. And even among those who are covered by public insurance, there are substantial gaps in the basic and preventive care needed to address the issues set out here. The Obama administration has tried to address these gaps in several ways. Its signature health reform legislation, the Affordable

FIGURE G VIEW INTERACTIVE on epi.org

Share of children who missed 11 or more school days in the past 12 months due to illness, by poverty status, 2010



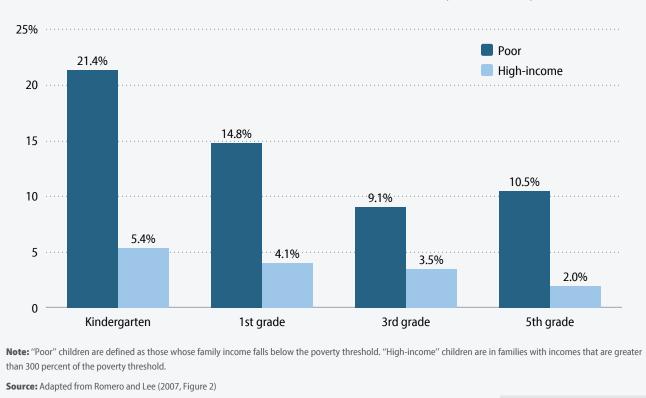


Source: Author's analysis of National Health Interview Survey (Bloom, Cohen, and Freeman 2011, Table 10)

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Care Act (ACA), is targeted mainly to people who are older, sicker, and more costly (though the parents of low-

FIGURE H VIEW INTERACTIVE on epi.org



Share of poor vs. high-income children who are chronically absent, by grade

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income children feature prominently among them), but grants for the construction of and equipment for schoolbased health clinics are a small component. The ACA also provides \$16 billion over 10 years for community-level efforts to prevent childhood obesity and other common health problems through the establishment of a Prevention Trust Fund. In addition, the administration has invested in place-based health care through money for school-based health clinics. President Obama also expanded the Children's Health Insurance Program (CHIP) at the beginning of his first term, and the CHIP Reauthorization Act of 2009 finances it through fiscal year 2013. In addition to preserving coverage for children already enrolled, the law provides resources for states to reach out to and enroll millions more children who are currently not covered (Obama 2009).

Housing and neighborhoods

Where children and their families live is another factor with significant implications for academic achievement. As James Coleman found in 1966, segregated schools put African American students at a substantial disadvantage. Indeed, his report spurred efforts to integrate schools through busing and other mandatory measures that succeeded for a brief period before they provoked backlash and were reversed. The result is several recent decades of regression toward more segregated school districts, and a growing gap between the problem and policy solutions that can address it. As Century Foundation Senior Fellow Richard Kahlenberg writes, "the problem of poverty concentration is growing, and the type of district grappling with the issue is no longer confined to those in urban areas....47 percent of elementary school students now attend majority low-income schools, and the proportion of high-poverty

schools has grown from 34 percent in 1999 to 47 percent in 2008." Yet, "[u]ntil very recently, [Coleman's] finding, about the importance of reducing concentrations of school poverty, has been consciously ignored by policymakers, despite publication of study after study that confirmed [those] findings" (Kahlenberg 2012, 1).

As noted earlier, living in a low-income family means very different things for African American and white children. In addition to being twice as likely as their white peers to be low-income and three times as likely to be poor, black children are much more likely to live in a neighborhood of concentrated poverty and to have parents who grew up in such a neighborhood. Of individuals living in poor neighborhoods, 80 percent of black residents but only 50 percent of white residents have a parent who was also raised in a poor neighborhood (Sharkey 2008). And among parent/child pairs living in poor neighborhoods over consecutive generations, over half are black while only 7 percent are white (Sharkey 2008).

In his new book, *Stuck in Place: Urban Neighborhoods and the End of Progress Toward Racial Equality*, Patrick Sharkey explains the pathways through which a child's own neighborhood affects his or her development, then shows how multigenerational poverty has a much more intense effect, as parents' own experiences and the jobs, income, and parenting styles they obtain as a result exacerbate the obstacles to school success already posed by their children's own poverty. Data on reading and applied problem-solving scores illustrate the magnitude of the problem: While children who never lived in a poor neighborhood score 106 and 104 on reading and applied-problem tests, respectively, their counterparts who did grow up poor scored just 102. Those whose parents lived in poor neighborhoods (but who are not themselves poor) score still lower—101 and 98, respectively—while those burdened by the full impact of dual-generation poverty score just 97 and 96 (Sharkey and Elwert 2011).

In addition to parents' own relative lack of education and their inability to help their children access the social and economic networks that spur school success, neighborhoods can impede learning and achievement. Neighborhoods in which a majority of residents are living in poverty confer a host of disadvantages. Unemployment rates are high, regular well-paid jobs may be the exception rather than the rule, and networks to getting jobs are difficult to access (Sharkey 2013). Such neighborhoods are often "food deserts," with few affordable healthy options, raising rates of both food insecurity and obesity (Roy, Maynard, and Weiss 2008). Perhaps most detrimental to healthy child development and academic well-being, violent crime rates tend to be high in these communities. Recent spikes in shootings in Chicago neighborhoods with "under-performing" schools are no coincidence; if children cannot walk safely to and from school, let alone have safe spaces to play and do their homework in quiet, peaceful settings, it should not be surprising that their performance will be subpar.

Moreover, while black–white residential segregation has declined modestly in the past decade (but remains high), school segregation, which has been increasing since the end of mandatory integration efforts in the 1970s, has intensified. Black and Latino students attend schools with nearly twice as many poor classmates as is true of white students. Despite suburbs that are overwhelmingly white, in 2006 two-fifths of black and Latino students living in suburbs attended intensely segregated schools in which at least 90 percent of students were black and Latino (Orfield 2013). Furthermore, as Gary Orfield writes, the disadvantaged nature of the schools in these neighborhoods further compounds the problem:

Schools with high concentrations of students needing strong academic support are often staffed largely by inexperienced teachers who are not yet effective educators, and some do not want to be there. The combination of weaker teachers and less-prepared classmates exposed many children in disadvantaged schools to less-challenging instruction. High schools where an insufficient number of students are prepared for advanced and honors classes either do not offer them or dilute the curriculum to increase the pool of students eligible for enrollment in those classes. The cumulative effect is a profoundly unequal educational experience, even when there is no overt discrimination. Systematically unequal schooling helps perpetuate inequity. (Orfield 2013, 41)

This problem is illustrated, too, in the concentration of the U.S. dropout problem in a small fraction of the country's high schools. Most of the 2,000 so-called "dropout factories" are high-poverty, urban, black and Latino schools. Students who are otherwise similar but attend more integrated schools are significantly less likely to drop out (Orfield 2013). While the many associations between school diversity and achievement are complex, and causality is hard to determine, research has found clear benefits for low-income and minority students of attending more integrated schools, and deficits from learning in racially isolated settings. Indeed, as Anthony Bryk and his colleagues at the Consortium on Chicago School Research emphasize, schools that served high concentrations of very poor students, and that were located in communities of racial and socioeconomic isolation, found it nearly impossible to improve student outcomes without the infusion of substantial external supports (Bryk et al. 2010).

None of the components advanced by Race to the Top are designed to, or do, promote the economic and racial integration that provide opportunities to close achievement gaps. In fact, some aspects of the reforms that states are pressed to adopt, such as increasing the number of and access to charter schools, may increase segregation for some students. While they do serve many low-income and minority students, charter schools are less likely to serve the most disadvantaged students, whose parents are insufficiently savvy or informed to apply for charter schools, or whose behavior problems, low test scores, or lack of parental commitment cause them to be pushed out of charters at disproportionate rates. As a recent report finds:

[A]cross the United States, charters aggressively screen student applicants, assessing their academic records, parental support, disciplinary history, motivation, special needs and even their citizenship, sometimes in violation of state and federal law.... Thousands of charter schools don't provide subsidized lunches, putting them out of reach for families in poverty. Hundreds mandate that parents spend hours doing "volunteer" work for the school or risk losing their child's seat.... And from New Hampshire to California, charter schools large and small, honored and obscure, have developed complex applications processes that can make it tough for students who struggle with disability, limited English skills, academic deficits or chaotic family lives to even get into the lottery. (Simon 2013a)

A lesser but still significant housing-related impediment to learning is excessive residential mobility. Low-income and minority students are disproportionately likely to move often, and thus to see disruptions to their friendships and peer relationships at school as well as to their curriculum. One report from 1994 found that among children from the poorest families, three in 10 had attended three or more schools by third grade, compared with just one in 10 middle-class children. Among those frequent movers, more than twice as many were black as were white (Rothstein 2004, citing GAO 1994).

Research has found that too many moves, especially at a relatively early age, decrease student achievement. One rigorous study found that subjecting young children to multiple moves significantly reduces their odds of high school graduation, controlling for other factors that affect achievement. Three moves at any point in childhood reduced a student's odds of graduating only slightly, but when those moves happened in adolescence, odds of graduating fell from 82 percent to 74 percent. When they took place before age 7, the risk increased further, with odds of graduation just 71 percent (Haveman, Wolfe, and Spaulding 1991). Indeed, one frequently cited analysis suggests that eliminating the black—white mobility gap (the difference in the frequency of residential moves) by bringing the rate among black students down to that of their white peers would narrow the race-based test score gap by 14 percent (a parallel income-based reduction in mobility would reduce that gap by 8 percent) (Hanushek, Kain, and Rivkin 2004).

Like other income- and race-related impediments to learning, excessive mobility tends to be clustered in lowincome and majority-minority schools. As such, it has negative impacts, too, on students who do not move and on their teachers, who must repeat lessons and slow the pace of instruction in order to repeatedly accommodate new students. Because policy requirements in Race to the Top do not address issues of housing and mobility, these contributions to race- and income-based achievement gaps will not be alleviated.

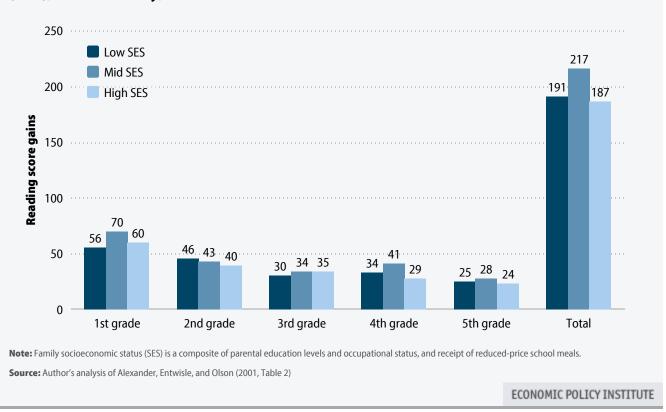
Afterschool and summer learning loss

Studies suggest that differences in afterschool and summer activities are among the most significant contributors to race- and income-based achievement gaps. Over the summer, poor children experience substantial declines in reading comprehension, while their middle-income peers are holding their own or gaining a bit and high-income students are learning at high rates. This loss among low-income students affects all other school subjects, according to a 2011 Rand report (McCombs et al. 2011). "Most disturbing is that summer learning loss is cumulative; over time, the difference between the summer learning rates of low-income and higher-income students contributes substantially to the achievement gap," the report said.

While higher-income families have the resources to enroll their children in camps, athletic leagues, or educational classes during the summer and after school, most low-income children do not have the opportunity to develop the skills and build on school-year knowledge gains that such programs foster. In a survey of nearly 30,000 households examining how America's children spend their afternoons, the Afterschool Alliance, a national nonprofit organization working to ensure that all children have access to quality afterschool programs, found that of the 18.5 million children not currently participating in afterschool programs, but would if one were available to them, a majority (52 percent) are from low-income households (Afterschool Alliance 2009). What's more, children from low-income households make up close to half of children who would enroll in summer learning programs if they could (46 percent) (Afterschool Alliance 2010). Lack of books at home, limited access to a public library in reasonable proximity, and exposure to fewer words at home (usually reflecting parents' educational achievement or English-speaking ability) compound this disparity (Cooper 2003).

One study by researchers at Johns Hopkins University found that students of low and high socioeconomics status (SES) learn at roughly the same rate during the school year, as illustrated in **Figure I**. But over the summer, enormous gaps emerge between higher-SES elementary school students and their middle- and low-SES peers, as shown in **Figure J**. Overall, up to two-thirds of the achievement gap between lower-SES and higher-SES ninth-graders

FIGURE I VIEW INTERACTIVE on epi.org



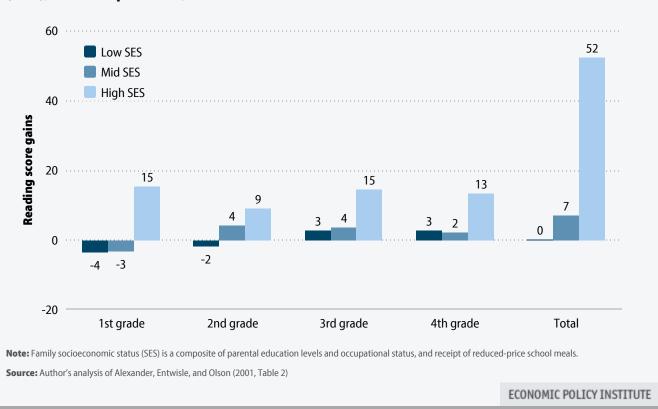
Reading score gains on California Achievement Test, by socioeconomic status (SES), October–May, 1983–1987

(as measured by test scores) can be explained by disparities in elementary school summer learning opportunities (Alexander, Entwisle, and Olson 2007).

In addition to the disparities in summer learning opportunities between lower- and higher-income families, overall investment in out-of-school activities by each group has become a study in contrasts. Harvard political scientist Robert Putnam found that, over the last 40 years, spending by upper-income families on enrichment activities increased by approximately \$5,300 per year, whereas spending by lower-income families increased by only \$480 per year (Brooks 2012). Putnam also notes that these differences extend beyond activities. Youth from lowerincome families have become less hopeful and less connected to their communities, as well as less likely to volunteer, which may cut off opportunities that would give them greater purpose and responsibility.

High-quality afterschool and summer enrichment programs can substantially narrow this opportunity gap by building on what students learn during the school day and year, engaging them in new ways, and nurturing a range of skills—not just cognitive, but social, behavioral, and emotional. Indeed, as the school day is increasingly focused on math and reading, other subjects are minimized, and instruction becomes less hands-on. Afterschool programs offer interactive and student-focused activities, which improve achievement, foster pro-social behavior, bolster self-confidence, and reengage students in learning:

FIGURE J VIEW INTERACTIVE on epi.org



Reading score gains on California Achievement Test, by socioeconomic status (SES), June–September, 1983–1987

Recent research about learning has also identified intellectual curiosity and interest as essential for learning and intellectual development.... The more a student exhibits curiosity, which is rooted in interest, the more he or she can focus on, bring effort to, and engage in meaningful tasks. This aspect of learning, while underutilized in many educational settings, has great potential and has been incorporated into quality afterschool and youth development programs. (Heckman and Sanger 2013)

Studies of afterschool programs report a number of benefits, from improved attendance to higher test scores and graduation rates (Chang and Jordan 2013; Smink 2013). Race to the Top, however, focuses largely on what happens within school walls from 9 a.m. to 3 p.m. between September and June, and does not promote the school–community partnerships that advance high-quality afterschool and summer experiences. It thus misses a key opportunity to keep students (and their parents) engaged during the school year and to avert losses of much of that learning over the summer.

In-school drivers of the achievement gap

As set out above, the majority of achievement gaps are driven by gaps in opportunity along race and class lines that manifest in the family and community. But, even within schools Race to the Top focuses mostly on a relatively narrow set of policies to boost teacher quality, and that focus further limits the initiative's potential. Moreover, research largely fails to back proponents' claims that the changes advanced within schools will narrow gaps and

raise achievement. Specifically, the body of scholarly research is mixed at best with respect to the effectiveness of teacher and principal evaluations that rely heavily on student test scores, and associated reward and punishment systems; increased access to charter schools; and school-turnaround strategies that involve firing large portions of the staff or closing the school altogether. A 2010 report based on findings from a blue-ribbon committee of the National Academies of Science concluded that 10 years of incentives and test-based accountability policies had yielded little overall progress in improving student achievement or closing gaps (Hout and Elliott 2011).

These findings are affirmed in real life contexts by a recent report from the Broader, Bolder Approach to Education (BBA) that assessed student and school outcomes in three large, urban districts that employed this reform agenda over the past decade. The BBA report found that students in New York City, Chicago, and Washington, D.C., gained less ground compared with their peers in similary large, high-poverty districts. Moreover, because the small gains accrued disproportionately to richer and whiter students, achievement gaps failed to narrow and, in some cases, even grew, in contrast with trends in the comparable cities (Weiss and Long 2013).

States that applied for Race to the Top grants had to commit to developing teacher (and principal) evaluation systems that substantially rely on measures of student achievement and growth. These evaluations were to be used for two purposes: decision making regarding tenure and teacher elimination and rewards for highly effective teachers, and improving instruction. Research suggests that test scores, even test-score growth, may be an insufficiently reliable and nuanced way to identify excellent and weak teachers (Braun 2005, BOTA 2009, Baker et al. 2010). New York City's 2012 publication of all of its teachers' value-added scores revealed multiple errors in data and apparent misidentification of both excellent and weak teachers (Pallas 2012; Winerip 2012).

Even if they could be constructed to be valid and reliable, "value-added" scores capture only a narrow fraction of what teachers do and, thus, their effectiveness (Rothstein 2010). No major study to date has found that merit bonuses for teachers raise student test scores, and their capacity to improve low teacher retention is minimal at best (Springer et al. 2010; Sawchuk 2010; Marsh et al. 2011; Glazerman and Seifullah 2012). Finally, as set out later in the section on Race to the Top implementation among Round I and Round II states, value-added scores are often not well designed to help teachers improve their practices.

There is evidence, however, that attaching high stakes to student test scores tends to narrow the curriculum and reduce the number and depth of subjects covered (Baker et al. 2010; Scherrer 2011; Rothstein, Jacobsen, and Wilder 2008). Schools may also encourage struggling students to stay home on testing day to raise average scores, or use disciplinary tactics to remove them from school altogether, and agencies may lower cut scores to make it appear that more students are proficient (Weiss 2013). At the extreme, the increasingly high stakes attached to raising student test scores has likely contributed to a growing number of district-wide cheating scandals (Ariely 2011; FairTest 2012).²¹

As the 1993 and 2005–2011 New York State Teachers of the Year themselves warned their state Board of Regents, accountability systems that rely on student test scores make it less likely that the schools most in need of great teachers will be able to recruit or retain them (Peneston et al. 2011).²² Indeed, findings from a recent Harvard Graduate School of Education study show that "guaranteeing an effective teacher for all students—especially

minority students who live in poverty—cannot be accomplished simply by offering financial bonuses or mandating the reassignment of effective teachers" (Moore Johnson, Kraft, and Papay 2012, 18).

Removing impediments to the expansion of charter schools is another priority for Race to the Top grantees. However, research findings on the effectiveness of charter schools in boosting achievement for low-income students and in narrowing achievement gaps are mixed at best. The most recent large-scale study from the Center for Research on Education Outcomes (CREDO) shows improvements in student outcomes in 2013 compared with earlier, 2009 findings (CREDO 2013). Roughly half of students in charter schools in the 16 states studied in 2009 had growth in test scores equivalent to that of their "virtual" regular public school counterparts, and twice as many had worse outcomes than better ones. This translated into "about 7 fewer days of reading and 22 fewer days of math per year" for charter school students in 2009, versus 7 more days of learning in reading in 2013 and a shrinking of the math gap to just 7 days less in charter schools. The recent results are better, but, even there, gains in reading are tiny.²³

Greater gains were seen among minority students living in poverty, who are the most disadvantaged, with black students living in poverty and Hispanic English-language learners posting the highest gains. If charter schools serve a substantial number of those student groups, these results suggest that good charter schools could narrow gaps to a small degree. However, many charters have policies that make it hard for the most disadvantaged students to get in. In New York City, which has some of the nation's highest-achieving charter schools, studies have documented that, even though charters serve fewer poor and very high-needs students than their traditional public school counterparts, they receive much more funding per-pupil (Merriman et al. 2012; Baker and Ferris 2011).

Finally, state grantees must commit to identifying and turning around their lowest-performing schools. These promises are flawed on both theoretical and practical grounds. First, schools are targeted for turnaround based on student test scores, but the influence of factors outside the school is strong, and accurately determining how well a school is serving its students correspondingly difficult. Second, the turnaround strategies mandated range from substantial substitution of staff—principal, teachers, or both—to more drastic measures like turning the school over to a charter or other outside operator, or, should all else fail, closing it altogether.

As Anthony Bryk and his fellow researchers have found, the "cake mix" required to turn around troubled schools is a complex one, and requires, among other ingredients, stable and cohesive teacher and leadership efforts that evolve and coalesce over time (Bryk et al. 2010). This makes sense; with so much else unstable and uncertain in their lives—housing, meals, parental attention—low-income students need their schools to provide stability. New schools and new teachers, especially when they become a pattern repeated over several years, can further disrupt children's already chaotic lives (Hanushek, Kain, and Rivkin 2004).

When implemented thoughtfully with substantial support for new staff and consideration for other factors, including curriculum and professional development, turnaround strategies can improve struggling schools. Even efforts that succeed at the elementary school level, however, may flounder in high schools, where students enter already many years behind (de la Torre et al. 2013). On the whole, changing school staff is unlikely to produce real, sustained improvement. Results from "reconstitution" in District of Columbia Public Schools (DCPS)—replacement of the principal and/or substantial proportions of the teaching staff—suggest the lack of effectiveness of this practice. As *Washington Post* reporter Emma Brown pointed out in a recent article, DCPS reconstituted 18 schools between 2008 and 2010. Of those, two have closed, and 10 have "seen their test scores decline further," while only six have improved (Brown 2013). One, Cardozo High School, is being reconstituted for the second time in five years.

Data from 20 years of 36 partial and full reconstitutions in DCPS are no more promising. Of three middle schools reconstituted in 1993–1994, two made no test score gains, one made gains and then fell back, and all have since been closed. Of three high schools reconstituted in 1995–1996, SAT scores did not change significantly at two and went down noticeably at the third. Since 2008, District of Columbia Comprehensive Assessment System [DC-CAS] scores at 21 reconstituted schools are largely the same, but more are down than up, and none has recorded notable proficiency gains. The one exception is Shadd Elementary School, which rose from below the DCPS average for elementary schools on the SAT-9 to average, and stayed there on the first year of DC-CAS in 2006, when it was closed and consolidated into Drew Elementary School (Levy 2013).

Closing a school as a turnaround strategy assumes that students can be sent from the "failing" school to one that is "higher-performing," and thus able to provide better educational opportunities. However, data from school closures over the past decade—as this has become a widespread reform strategy—show that few students make such moves, and the consequences of closures tend to be more negative than positive. Numerous studies also document downsides, from decreased student and teacher morale and neighborhood stability to upticks in violence (Weiss and Long 2013).

Race to the Top also advances other strategies to improve teacher quality, some of which have more promise. In Delaware, for example, Race to the Top funds have been used to expand Professional Learning Communities (PLCs), structured collaborative learning time in which data experts help guide the development of lesson plans (DDOE 2012). Teacher collaboration and team planning have been found by researchers to be an important driver of instructional quality. In a review of recent literature on improving teacher knowledge and practice, for example, Linda Darling-Hammond and her colleague Nikole Richardson note the effectiveness of professional learning communities, in which:

teachers work together and engage in continual dialogue to examine their practice and student performance and to develop and implement more effective instructional practices. In ongoing opportunities for collegial work, teachers learn about, try out, and reflect on new practices in their specific context, sharing their individual knowledge and expertise. (Darling-Hammond and Richardson 2009, 3)

This level of collaboration requires years of team-building and can be especially difficult in struggling schools, where turnover is high and expectations of students are often low. Studies show that teachers in heavily low-income and racially isolated schools may feel they have less ability or responsibility for improving student achievement, due to the multiple barriers they face. Ensuring that leaders in such schools foster an environment of collective purpose and responsibility can thus shift the school's tone from deficit-oriented to one in which "the notion of success for all is the norm" (Payzant and Jackson 2011). Doing so requires that teachers understand community and student context well. It also requires the principal to lead by emphasizing and nurturing relationships with teachers, through regular classroom visits and feedback and support for tailored professional development; with parents, whose input

should shape how family culture is woven into classroom learning and who must become partners with the school in promoting that learning; and with the community, whose assets need to be leveraged and aligned to provide supplemental supports for students and to counter the notion of a deficit-based context.

One question, then, is the degree to which states have prioritized this aspect of Race to the Top policy change relative to others. Another is whether the individualistic nature of value-added evaluations and test-based bonuses for high-scoring teachers create friction among teachers and across groups of them that weakens the benefits of more collaborative efforts.²⁴

With respect to teacher qualifications, states are encouraged both to strengthen their teacher preparation programs and to improve access to and quality of professional development programs. They also must pledge to identify alternative routes to certification in order to remove barriers to teaching for potentially strong teachers who might be impeded by existing systems or processes. While improving teacher preparation, providing better professional development, and finding new avenues for talented individuals to become teachers all seem like excellent ideas, in practice they have pitfalls as well as promise.

As described in the later section on state implementation of Race to the Top, some states are using value-added scores to judge not only teachers, but teacher preparation programs, based on the average value-added scores of their graduates, thus exacerbating the likely negative aspects of reliance on test scores. Moreover, many states have focused the bulk of their energy on developing and implementing assessments, with less attention to using student growth data to inform teacher support and development. Another finding is a substantial gap between the demand from teachers and principals for more training to prepare them for implementation of the Common Core standards and states' ability to identify and use resources to provide such supports.

Some states have taken innovative approaches to recruiting talented professionals to teach in underserved schools and to increase the number of teachers in hard-to-staff subjects, with a particular focus on STEM fields (science, technology, engineering, and mathematics). As detailed in the case studies in the appendices to this report, these programs vary in their success in terms of both number of individuals they are able to recruit and retention rates. It is not possible at this early stage to determine their ultimate success, but retraining professionals with a strong subject-matter knowledge base to be strong teachers could prove highly effective.

Virtually all states, however, are focusing heavily on recruiting recent college graduates with minimal teacher training or classroom experience through Teach for America (TFA) and/or a similar state program. The result is likely an increase in novice and non-credentialed teachers in the most challenging schools and, in turn, higher rates of turnover. Many scholars have documented the advantages of experienced teachers over less well-paid novices, and of the importance of continuity and stability in improving student outcomes (e.g., Haycock 2006; Holzman 2012).²⁵ In summarizing much of that work, Carroll and Foster (2010) find that teachers' proficiency and effectiveness improve annually over their first seven years, and that "National Board for Professional Teaching Standards (NBPTS) certification demonstrates that many teachers are still gaining in proficiency and improving their effectiveness after an average of 11 years of teaching" (Carroll and Foster 2010, 12).

Moreover, a recent study on the impact of teacher turnover concluded that, distinct from the relative quality of teachers who may be brought in to replace those who leave, teacher turnover itself harms a school.²⁶ Turnover

lowers school morale and professional culture; depletes the staff's store of knowledge about students and the community; and impedes the collegiality, professional support, and trust that teachers need to improve student achievement (Loeb, Ronfeldt, and Wyckoff 2013). In order for increased teacher turnover to improve student outcomes, then, teachers who leave must be replaced by teachers who are substantially more effective.

While Teach for America (TFA) can provide a temporary fix in districts with a dearth of teachers and no immediate way to fill those spots, members' lack of experience and credentials and short average tenure mean few overall benefits, especially for disadvantaged students with particularly high needs. Tom Payzant notes, too, the significant difference between the TFA teachers who were his students at the Harvard Graduate School of Education, most of whom had taught for five years, and the average TFA recruit, who teachers for just two years.²⁷ In her review of studies of the program, Linda Darling-Hammond wrote:

Where some studies have shown better outcomes for TFA teachers—generally in high school, in mathematics, and in comparison with less prepared teachers in the same high-need schools—others have found that students of new TFA teachers do less well than those of fully prepared beginners, especially in elementary grades, in fields such as reading, and with Latino students and English-language learners. (Darling-Hammond 2011)

The teacher education residency program that Payzant started as Boston Public Schools superintendent was unique in its intensive, full-year training that combined classroom experience in schools led by exceptional principals and district-level teamwork. It also intentionally focused on the key need to find and retain teachers of color and teachers in hard-to-fill fields, particularly math, science, and special education (Payzant 2013). Local programs were not fulfilling this need, and the teachers that they recruited tended to leave after just two years. So Payzant offered a sizeable bonus after three years and credit toward a master's degree, and the incentives resulted in an average four-to five-year tenure. This strong preparation and lower turnover contrasts starkly with TFA and similar programs.

Finally, as noted above, even if states are able to greatly improve the effectiveness of many of their teachers, the limits of what even great teachers can achieve will produce only small improvements in student achievement and/or closing gaps (Hanushek, Kain, and Rivkin 1998). Race to the Top fails to address one of the largest in-school contributors to opportunity gaps: differences in funding among districts and, within districts, among schools. While a small, time-limited federal program cannot compensate for these stark inequities, it could certainly reward states that work to alleviate them. Indeed, the authors of a recent analysis of district-level RTTT grant winners assert that "the RTTT grant process ignores the key precondition for sustaining any meaningful education reform—a fair and equitable state school finance system. The winning RTTT districts are in 12 states, all of which have serious deficiencies in the way they fund schools. Some of the districts are in states with the most inequitable school funding in the nation" (Sciarra 2012).

'Noncognitive' skills

Because they focus exclusively on test scores that capture only a slim portion of cognitive skills, efforts under Race to the Top to improve instruction also ignore a significant component in student learning. So-called "soft" or "non-cognitive" skills, such as persistence, the ability to work well with others, and intellectual curiosity, are increasingly seen as key 21st-century skills, and among the outcomes we expect schools to deliver. While it was long believed

that some of these skills were immutable, scientists and education scholars now better understand how many can be taught and learned, and that they need to be developed during the school day. There is growing evidence, in fact, that these skills play a critical role in fostering the "cognitive" skills that tests attempt to measure. A meta-analysis of over 200 interventions aimed at increasing school-aged children's social and emotional learning finds that, on average, participating students saw associated gains in academic performance equivalent to 11 percentile points (Durlak et al. 2011).

Beyond their contributions to academic achievement, soft skills are valuable in life more broadly. As Heckman and Kautz emphasize, "soft skills predict success in life...they produce that success, and...programs that enhance soft skills [thus] have an important place in an effective portfolio of public policies" (Heckman and Kautz 2012, 451). Indeed, employers cite such skills as critical factors in their hiring decisions, more so than virtually any of the cognitive abilities for which schools and teachers are accountable under No Child Left Behind and Race to the Top. Rankings of the ideal skill set needed for new entrants' workforce readiness mostly consist of "soft skills," while most academic skills are relegated further below in the classification (Casner-Lotto and Barrington 2006, 21).

It is not clear, however, that RTTT's heavy emphasis on reading and math achievement, and on expanding teachers' capacity to improve instruction in those areas, leaves sufficient space for, let alone emphasizes, the development of noncognitive skills. To the extent that the Common Core State Standards put more emphasis on this largely neglected but critically important set of skills and their interaction with the development of cognitive skills, they may prove an important contribution to improving student achievement.

RTTT: the wrong policy agenda

A host of factors associated with growing up in low-income and/or minority families and communities in the United States present opportunity gaps that are neither caused nor controlled by schools. As the above review makes clear, those factors account for a substantial majority of the race- and income-based achievement gaps that Race to the Top aims to close. Yet the reforms Race to the Top demands barely touch on policies that have been shown to narrow opportunity gaps. This mismatch between family- and community-based drivers of achievement gaps and RTTT's exclusive focus on within-school factors severely limits the initiative's potential to achieve its goals. As Dayton Teachers Association President David Romick notes:

Poverty is a huge factor in our district. It has to be in the top three influencers of a child's success in school, along with an effective teacher and parent and family support. When Dayton has kindergarteners three years behind, they deal with things very differently from suburbs. We are very careful not to use SES [socioeconomic status] as an excuse, and we still provide great instruction and opportunities for every child to learn. Yet there is no way around the fact that concentrated poverty presents more challenges in implementing RTTT and other competitive grant programs. (Romick 2013).

Within schools, some components of policies advanced by Race to the Top have promise. In particular, strengthening teacher credential programs using evidence-based strategies, as well as recruiting teachers in underserved subjects, could improve teacher quality in high-needs schools. Supporting state efforts to promote collaboration among teachers and promote the proper use of student data to inform lesson plans and instruction can likewise boost student achievement. However, lack of attention to subjects outside of reading and math, especially the so-called "noncognitive" skills, substantially limits the initiative's potential for change. As noted, Common Core State Standards may help address that challenge.

Other within-school reforms advanced by Race to the Top may exacerbate opportunity gaps. Using student test scores to judge teacher effectiveness, for example, puts teachers who serve in low-income and minority classrooms and schools at a disadvantage and, as such, generates perverse disincentives for them to teach in those settings. Indeed, several school leaders interviewed suggested that this problem is already emerging. It inevitably narrows the subjects taught and the breadth and depth of what is taught within tested subjects. Attaching high stakes to teacher, principal, and school evaluation has also been The reforms Race to the Top demands barely touch on policies shown to narrow opportunity gaps. This mismatch between family- and community-based drivers of achievement gaps and RTTT's exclusive focus on withinschool factors severely limits the initiative's potential to achieve its goals.

found to cause low-scoring students to be excluded from test-taking or even expelled, and to encourage other means of gaming the system to artificially inflate test scores, including, in extreme cases, large-scale cheating. The research on charter schools is mixed with respect to benefits for students. It suggests disruption at the district level and provides no evidence that charter schools are the game-changer that will help states achieve their extremely ambitious goals for increased student achievement. Similarly, while comprehensive, long-term strategies to turn around struggling schools can work, the types of drastic, short-term fixes advanced by Race to the Top are unlikely to help and might do harm.

As the next section documents, this mismatch between what the evidence says is possible and what Race to the Top demands states produce has led to a host of problems. In particular, we document the actions states have taken and their impacts on teachers, students, and parents, some of them positive, but many counterproductive. Case studies of the experiences of Ohio and Tennessee, presented in the appendices, illustrate these issues in depth. The next section and the case studies also show the potential that exists in the right circumstance, given sufficient time, money, and other resources, for some aspects of Race to the Top to do good.

Mismatch 3: Reports of smooth sailing vs. reality of bumpy rides

Despite their good intentions, policy changes promoted by Race to the Top are falling short. They have largely failed to produce the substantial improvements that would narrow income- and race-based achievement gaps and, in several ways, have actually harmed students, teachers, and schools. To the extent that some short-term gains have been achieved, it is unclear whether or how they might be sustained.

The failure to achieve the goals should probably have been anticipated. In addition to neglecting the out-of-school factors that affect students' readiness and ability to learn, reforms were implemented without sufficient capacity or resources and under extremely tight timelines.

This section reviews the experience so far by focusing on teacher evaluation and other efforts to improve teacher quality that were promoted within Race to the Top as key means to improve educational attainment, especially for low-income and minority students. Because those groups of students are disproportionately taught by less-experienced teachers with fewer average credentials, compared with their higher-income and nonminority peers, it is particularly important to assess these teachers' effectiveness and to develop programs to enhance and support their work (Haycock 2006).

Teacher evaluation systems incorporate aspects of all four of the Race to the Top goals—better assessments, better data systems, better teachers, and better schools. It is the area in which policymakers have focused much of their attention and hope, and one that has been adopted by many non-RTTT grantee states. It is also the area in which grantee states seem to have encountered the greatest difficulties.²⁸ It thus seems ripe for assessment of the causes of problems and suggestions for improvement.

Challenges to making new teacher evaluation systems work

Thirty-two states and the District of Columbia made changes to their teacher evaluation policies between 2009 and 2011, according to an October 2011 report by the National Center on Teacher Quality (Jacobs 2011). Nine more states have made changes since the report was issued, and 20 states now require student learning to factor into evaluations of teacher performance (Bornfreund 2013). Because it rewards states for using measures of individual student growth based on state standardized test scores to evaluate teacher performance, Race to the Top has greatly spurred this activity.

While RTTT provides grants to states with strong plans to improve teacher and principal effectiveness based on performance, the initiative's mandate does not specify how much standardized tests must contribute to the overall evaluation, and it allows for measures of student growth to include additional measures that are "rigorous and comparable across classrooms." The mandate also includes multiple requirements for the purposes and uses of teacher evaluation systems. States must provide timely and constructive feedback; conduct annual evaluations; and use evaluations to inform the following: professional development; compensation, promotion and retention; tenure and/or full certification; and removal (U.S. ED 2009). This complex framework requires much of states but gives them substantial latitude to accomplish the objectives. The result is a wide variation across states in both strategy and emphasis. At the same time, most grantees have emphasized the evaluation aspects of the requirements while relatively neglecting more important drivers of student and teacher success—those pertaining to feedback and the support needed to build on recommendations from that feedback.

Developing and implementing a valid, reliable, and effective statewide teacher evaluation system under the best of circumstances requires consideration and management of significant technical, administrative, political, and cultural issues. Getting enactment and implementation right requires time—time to develop, test and assure the quality and utility of instruments and measures; time to develop mentoring, professional development, and other tools that build on evaluation results; and time to train administrators and teachers on the proper use of evaluation tools and

supports. Time for communication and dialogue between principals and teachers is needed to create a professional culture of collaboration and trust within schools. Allowing for this time helps ensure that the evaluation process is not a "gotcha" experience, but one centered on reflection and discussion of teacher practice and thereby improvement of instruction. As such, successful development and implementation requires the time necessary to build a statewide policy environment and public understanding of the purpose of teacher evaluation, potential bumps along the way, and realistic expectations of outcomes. Finally, and most importantly, time is needed to engage, starting in the planning and development process, the support and participation of key groups, especially principals and teachers, and to secure the buy-in of local school districts.

Moreover, given the central focus of current teacher evaluation reforms on using standardized tests to measure "value-added" by teachers, the very foundation for these systems may be flawed, and may need adjusting or even total recalibration. Time is thus needed not only for initial testing of systems, but for revisions through an iterative process.

In addition to promoting teacher evaluations and reward programs, Race to the Top encourages states to make it easier for those who want to teach to do so. While some RTTT states have used this component to develop innovative ways to bring credentialed and experienced professionals to hard-to-staff subjects and schools, the majority have not. Instead, alternative teacher certification programs, such as Teach for America and the New Teacher Project, which offer only minimal training and preparation for new teachers, have become major suppliers of teachers for high-needs schools, in particular so-called turnaround schools. Yet there is little evidence either that the new teachers are well-equipped to deal with the added challenges of teaching in those schools, or that they contribute to a long-term, sustainable strategy for improving the quality of instruction in hard-to-serve schools. This report explores the successes and bumps, so far, in implementation of teacher improvement efforts, with an eye both toward the degree to which time and resource needs are being met and toward the need to employ a broader set of strategies in federal education policy going forward.

Tight timelines lead to bad decisions

Though time is a crucial element in the enactment and implementation of meaningful education reform, it has been severely lacking for RTTT grantees and for other states that are not grantees but are building new teacher evaluation systems. In the rush to implementation set by RTTT guidelines, many states and districts are feeling the pressures and strains from a lack of sufficient time, as well as the conIn the rush to implementation set by RTTT guidelines. many states and districts are feeling the pressures and strains from a lack of sufficient time, as well as the constraints of staff, resources, and declining principal and teacher support. As one New York district superintendent said, "Simply put, we do not have the capacity to fulfill the requirements in the time allotted."

straints of staff, resources, and declining principal and teacher support. As one New York district superintendent said, "Simply put, we do not have the capacity to fulfill the requirements in the time allotted."

Delays in implementation. Ironically, it is the ambitious implementation schedule that seems to have led to numerous delays in the milestones in states' RTTT plans. As documented by a June 2011 report by the Government Accountability Office (Scott 2011), in the first two years of the grant program, the dozen winners of the \$4.3 billion

competition changed their plans 25 times, and significant changes are still being made. For example, the District of Columbia received approval from the U.S. Department of Education in May 2012 to change the requirement of "value-added" student growth in its teacher evaluation from 50 percent to 30 percent (Scott 2011). Similarly, Florida was approved for a significant change in its plan in May 2012, when the U.S. Department of Education allowed the state to shift funds to later grant years and to sharply reduce performance goals for having effective teachers in high-poverty, high-minority schools (e.g., from 30 percent in reading in the 2013–2014 school year to 15 percent (Scott 2011).

These changes suggest more than the expected challenges associated with statewide reforms, especially given the ambitious scope of state plans. "Missing interim deadlines has not yet derailed states from their original reform plans. However, short-term delays could eventually lead to longer-term delays, and grantees may risk falling short of their ultimate goals" (Scott 2011). In a move that may have implications for the other RTTT grantees, the U.S. Department of Education in a December 21, 2011, letter designated Hawaii, which failed to get the promised support of its teachers union, as "high risk" for its delays (McNeil 2011a). By the time of the letter, only \$3.8 million of the \$75 million that was awarded to the state had been drawn down, and a high-risk label could eventually require a state to give back virtually all of its grant money. In May 2012, the U.S. Department of Education allowed Hawaii to keep the grant but maintained the state's high-risk status, noting significant problems remaining with teacher evaluation (Klein 2012). In February 2013, the Hawaii Department of Education announced that it had been removed from the high-risk status for two of five "Assurance Areas," but remained at high risk for the remaining three (Hawaii ED 2013).

The delays may have federal consequences for other states as well. In January 2012, U.S. Education Secretary Arne Duncan warned New York, "Backtracking on reform commitments could cost the state hundreds of millions of dollars for improving New York schools" (Armario 2012). The U.S. Department of Education expressed similar concerns in January 2012 over significant delays in Florida, which the state defended as due to competitive bidding requirements that it said would ultimately lead to better implementation (Armario 2012).

The continuing impasse in New York between the state Board of Regents and Governor Andrew Cuomo on one side and the teachers union on the other on the issue of teacher evaluations led Cuomo to threaten to withhold state aid increases from districts that did not adopt the teacher evaluation system by January 2013 (Cavanagh 2012). Cuomo had already shown his willingness to carry out this threat by suspending funding to 10 districts, including New York City, for failing to meet a December 31, 2011, U.S. Department of Education deadline. Although the impasse was resolved in June 2012, and districts continued to negotiate and submit local plans, as of September 2012, the state had approved just 75 plans and offered feedback on another 151 out of a total of 700 districts. The pace subsequently picked up to cover about half of all districts, but state education officials acknowledge that they are overwhelmed and had greatly underestimated the work involved in approving complex and detailed plans.

Despite these delays, Cuomo's office refused to extend the January 17, 2013, deadline (Waldman 2012). New York City was the only district to miss it, and lost \$250 million in state aid. The New York City Department of Education (NYCDOE) went to arbitration to resolve its dispute with the United Federation of Teachers over the evaluation system, and one was ultimately imposed by the state (Light and Guelpa 2013).²⁹

The rush in New York has also raised concerns regarding the quality and utility of programs being put in place. New York City principals assert that the evaluation system has been rushed in "slapdash fashion, with no pilot program." According to a joint letter signed by over 1,500 principals as of October 2012, training sessions were "thrown together" and are "humiliating" and "total nonsense." The principals complained that these sessions were being led by consultants who had far less training and experience than the principals themselves, negating the purpose of learning new skills in evaluation and collaboration (Winerip, 2011a). Superintendents were particularly affected by the impacts of rushing and cutting corners. When asked to describe their experiences implementing Race to the Top provisions, several of those surveyed for this report used terms like "sold our souls" and "building the plane while trying to fly it."

Delays in creating teacher evaluation systems. The challenges have affected even those states the Department of Education has deemed most promising. First-round Race to the Top winners Delaware and Tennessee have encountered problems due to overly ambitious plans. Delaware, which has had a statewide teacher evaluation system since the 1980s, was forced to request a one-year extension in developing the new system required by the grant, which ties teacher advancement, including tenure, to evaluation results. The Delaware Department of Education project to design and identify valid measures of student growth failed to be completed by spring 2011, and was renewed in fall 2012. "It's so complicated," said Steven H. Godowsky, the superintendent of the 3,900-student New Castle County Vocational Technical District. "Test scores can be very narrow. It's hard to determine the effect of one teacher" (McNeil 2011b). Another superintendent reported "some trepidation among teachers" due to the uncertainty involved in the new, test-based system.

Prior to Race to the Top, Delaware had employed student learning objectives (SLOs), jointly set by teachers and the school's principal, as the student growth measure of each teacher's evaluation. This has been revised, however, such that, for teachers of tested grades and subjects—third- through 10th-grade math and reading—value-added scores must be used. Delaware's new system uses five components, including student test scores and observations, to assign teachers one of five ratings—from ineffective to highly effective. As in New York City, however, even if he or she receives high marks on the other four components, a teacher who does not rate "satisfactory" on the student growth component will not be able to receive an overall rating of "effective" (State of Delaware 2010).

One concern teachers in Delaware have expressed from the start is the inability of state tests to detect growth at the bottom and top of the learning spectrum, a shortcoming that produces two distinct problems related to formative assessment and lesson planning and to teacher evaluation. Because the test has a low "ceiling," advanced students often begin the year already above the highest point the test can measure; their growth can thus not be captured, so it is assumed. In other words, an advanced placement teacher might automatically receive a satisfactory rating simply for teaching that class, since all of her students begin the year at the highest level, PL4, and thus meet the growth requirements upon entry (DDOE 2013). At the other end, the high "floor" means that the test also cannot capture growth among students who begin the year behind by more than a year; they might learn an entire year's worth of content, but if that content raises them from two years to one year behind grade level, the test would not show it, so their extremely effective teacher would appear to have produced no growth at all. Special education teachers worry that they will be unfairly penalized by a system that cannot accurately capture the growth of their students and their effectiveness as educators (Stevens 2013).

Among Delaware teachers who do not teach tested grades and subjects, content-specific tests are used to generate scores. While the tests were developed by teachers, the assessments have also proven problematic. Due to excess-ively tight timelines, pretests were not available in the first year of use until late October, potentially rendering them invalid as pretests. And a scan of online questions and answers discovered that the consultant hired by the state to confirm the tests' validity had mixed questions with the wrong answers and generated other problems (Stevens 2013). Among a third group of educators—those for whom neither standardized nor content-specific tests are available to produce value-added scores—the SLOs the state previously had in place have been replaced with data that appear less related to the teacher's impact. For example, a goal for a high school advanced placement teacher might be a 5 percent increase in the number of 11th- and 12th-grade students taking the AP exam in the current year over the number who took it in the prior school year, or targeted increases in the number of students applying for college, or in the average SAT score for the entire 11th- and 12th-grade population over the prior year. Among school nurses, the growth measure might be a percentage decrease in student absenteeism among a target population (Stevens 2013). Across the groups, a common concern is the relative inability of a teacher or other school staffer to influence growth in the way the measure indicates, a shortcoming that makes the result an arbitrary metric for determining a teacher's effectiveness.

Cape School District Elementary School Principal Cristy Greaves, who is also a member of the Education Standards Board, sees the revised Delaware Performance Appraisal System (the DPAS II R) as no more effective than the prior system but substantially more time consuming. It is also, she says, hard to justify in terms of validity:

This is high stakes evaluation and has been difficult not only to implement, but monitor as well. So much paperwork and time! The greatest challenge is on our teachers [of tested subjects] in grades 3-5 as it is one-half of their evaluation. Creating [student achievement] goals [for other teachers] at the beginning of the year was elusive at best—but we did our utmost to follow the mandates of DPAS II. When all was said and done, it was very time consuming and not equitable. Some of our best teachers were effective and some of our more challenged teachers were highly effective. It was a learning experience, but it is still very difficult to determine if [the value-added score] was an accurate measure of a teacher's abilities and impact on our students. (Greaves 2013)

Although Tennessee, in contrast, has kept to its timetable for a new teacher evaluation system, in response to state legislation requiring full implementation by 2011–2012, the program's fast implementation has prompted its own concerns. The state had to use an unfinished teacher evaluation system, resulting in numerous problems that are alienating both principals and teachers. For example, because tests for teachers in nontested subjects had not yet been developed, these teachers were being evaluated based on either school-wide tests that reflect the influence of dozens of teachers, or tests in other subjects of teachers' own choice, which led to teachers trying to predict which subjects would test highest, so that they could, in essence, "pick" high test scores for their evaluations (Winerip 2011b). Grover J. "Russ" Whitehurst, former director of the Institute of Education Sciences in the Department of Education under President George W. Bush, commented, "Using schoolwide math and reading scores for teachers of nontested subjects doesn't pass the common-sense test" (Heitin 2011).

Tennessee has since established growth standards for nontested subjects, though it is not clear that the standards will be easy to use. Under the new rubric for fine arts, educators are now judged, like teachers of reading and math,

by the degree to which their students improve their skills in subjects such as dance and theater; assessments might include a student's capacity to develop choreography for dances (Memphis City Schools 2011). A parallel rubric is being developed for physical education; teachers could be evaluated, for example, on how much students improve their ball tossing and catching skills over the course of the school year (Tennessee ED 2012).

Teacher observations have come under fire as overly burdensome and prescriptive. The *New York Times* described an implementation process marked by poor communication, excessive micromanagement by Tennessee administrators, and a bewildering array of assessment rules (Winerip 2011b). The rules initially required, for example, that the strongest teachers in a school be observed the same four times per year as the weakest. Blackman Middle School Principal Will Shelton, of Rutherford County, who was interviewed for the story, called this "an insult to my best teachers [and] a terrible waste of time.... I've never seen such nonsense. In the five years I've been principal here, I've never known so little about what's going on in my own building" (Winerip 2011b).

Teachers were similarly unhappy, describing "the amount of prep and work involved just unreasonable" (Heitin 2011). According to Gera Summerford, the president of the Tennessee Education Association, teachers spending four to 12 hours to prepare detailed lesson plans that are "almost a script" to fulfill guidelines were saying "I love teaching, but I'm starting to hate my job." And Principal Shelton was told by one of his teachers that "morale is in the toilet." The state com-

According to Gera Summerford, the president of the Tennessee Education Association, teachers spending four to 12 hours to prepare detailed lesson plans that are "almost a script" to fulfill guideline were saying "I love teaching, but I'm starting to hate my job."

missioner of education defended the measures and dismissed teachers' and principals' complaints as self-serving and protective of the status quo. But Grover Whitehurst called the rubric's measures "extraordinarily complex" and said that he didn't really understand what they meant or "how I as a teacher would be expected to perform them" (Heitin 2011).

Indeed, as a report by the Center for American Progress notes, educators who participated in a five-month listening and feedback process on the new teacher evaluation system "questioned whether principals had the time and ability to effectively assess teachers and believed that there was 'inconsistent interpretation and implementation of the rubric'" (McGuinn 2012, 14). These concerns are affirmed by the considerable variation across districts in midyear principal ratings of teachers; in one district almost half of all teachers received the top possible score, while in another only 1 percent did. This prompted one teacher to remark, "I question how evaluators are evaluating if the scores vary greatly across the state....I feel like the [state] jumped into this new plan too soon" (Hubbard 2012).

In light of this experience, Tennessee stated that it intended to review and make changes as needed to its teacher evaluation system, including the rubric and the policy requiring evaluation of experienced teachers. The state released two formal reports in the summer of 2012 that both recommended changes, but the essential timetable remains the same. In June 2012, after a statewide listening and feedback process, the State Collaborative on Reforming Education (SCORE) released its findings and recommendations regarding Tennessee's teacher evaluation system. Many of the findings were positive: Teachers were receiving more regular and specific feedback on their performance; and clear expectations and regular feedback were leading to more self-reflection and collabora-

tion among teachers. But it recommended providing more time and training for administrators and teachers in the use of the rubric, and linking feedback more explicitly to high-quality individualized learning opportunities that can improve instruction. It also emphasized the importance of training principals as instructional leaders capable of assessing and supporting effective teaching (SCORE 2012).³⁰

Maryland followed the path taken by Delaware, postponing for a year the full implementation of its new teacher evaluation system, in order to allow districts more time to pilot test it. Seven districts piloted the new system in the 2012–2013 school year, with the intention that their feedback and research findings would inform full implementation in the 2013–2014 school year.³¹ Indicative of this more deliberative approach, Mary Gable, assistant superintendent at the Maryland Department of Education, said, "At whatever point we are at with teacher and principal evaluations…we know that this is a system that we will have to continue to review and continue to look at" (Ebner 2012). This sentiment—of an experiment in progress, rather than a done deal or a system ready for high-stakes decision making—might spur productive approaches were it shared universally, but it is not reflected in federal policy or most state implementation plans.

Even so, Maryland, too, has encountered bumps. In December 2012, the U.S. Department of Education threatened to withhold \$40 million in funds due to delays in developing the state's evaluation system (Bui 2013). In February 2013, the state rejected proposals from nine districts on the grounds that they gave insufficient weight to state standardized test scores. These nine included two districts, Montgomery and Frederick counties, that had rejected the use of student test scores in teacher evaluations and, as such, relinquished their rights to Race to the Top funds. David Volrath, head of state teacher and principal evaluation for Maryland, described the state's rapid response to the federal threat: "We've reorganized the project to rocket this at an incredible pace to get us back on track," and he expressed confidence in April 2013 that the state would meet federal deadlines. Despite extending districts' deadlines to submit revised plans from mid-May to early June in response to requests from local superintendents, however, neither county had made the changes as of early May (Bondeson 2013). Montgomery County Public Schools Superintendent Joshua Starr opposes any use of student test scores in evaluations, touting the success of the Peer-Assisted Review program that his district and union jointly negotiated (Starr 2012).

Rhode Island engaged in a gradual process to enable all local education agencies to fully implement both teacher and principal evaluations in 2012–2013. All LEAs implemented parts of the new system in 2011–2012, and two early adopter LEAs that piloted the system provided feedback so that the state could adjust the system for full implementation. Among their recommendations were "adjustments to the number and length of observations, adding a post-observation conference, reducing the number of SLOs on which each educator is evaluated, and streaming rubrics to reduce redundancy" (U.S. ED 2013a, 13). Nonetheless, in year three, "major concerns among LEAs included the aggressive implementation timeline and lack of clarity regarding all of the required components of the [new teacher evaluation] system" (U.S. ED 2013a, 15).

Even in Massachusetts, which started far ahead of all other states with its rigorous standards, high level of achievement, and strong union-management cooperation, representatives of some districts that did not sign on expressed relief that they had more time to implement changes properly. One, Holliston superintendent Bradford Jackson, said that the money would not have compensated his district: "We would have spent that money 10 times over just trying to implement an educator evaluation system that wasn't ready to be implemented" (O'Connell 2013). In Milford, where leaders were initially frustrated at its unions' refusal to sign on, Superintendent Robert Tremblay said two years into the process that "I'm not disappointed we didn't sign on.... With the educator evaluation tool, we have really treated our district like we were a Race to the Top district, but without having the pressure of having to do it this year" (O'Connell 2013).

Overall, those interviewed see lack of sufficient time as a serious impediment to the initiative's success. One Florida district superintendent reported that his county selected the Marzano approach, a system developed by the Marzano Center for Teacher and Leader Evaluation in Florida, to the evaluative design for its teachers:

There was no training time, rather [we had to] start implementing while training observers, thus creating a suspicious environment about the capacity of administrators to know well enough to observe, record, debrief, and communicate for teacher improvement. If this does not result in improved instruction and collaboration among teachers and administrators then the effort is meaningless and indeed may prove to be fatally impactful to public education.

Insufficient capacity and expertise hinder implementation

In addition to time, states and districts need staff and resources to implement their scope-of-work agreements and to accomplish the ambitious goals set forth in their RTTT applications. State and local capacity is always a concern in the implementation of new systems and programs, and given the need for collaboration and consensus for such a comprehensive reform, considerable staff and resources are needed for effective outreach and public education efforts, e.g., town halls, stakeholder meetings, public information, etc. Staff and resources are needed, too, for planning, development, and implementation of the teacher evaluation system, all of which is made more demanding by the challenge of engaging key stakeholders such as teacher unions, advocacy groups, and administrators. Finally, staff and resources are needed for high-quality professional development at the state and local levels, so that administrators and teachers can learn how to use the new system's tools and resources.

The sharp decline in resources and capacity due to the recession, budget cuts, and restructuring led many states to seek the RTTT funds, but the \$4 billion spread across 10 states amounts to an average increase in state education budgets of just over 1 percent. Yet, at the same time the agreements require substantial new investment. This contrast between requirements and the resources to meet them has emerged as gaps in state capacity across several areas.

Race to the Top grantees are experiencing serious strains on their resource and personnel capacity. Most grantee states have faced numerous capacity issues, including difficulty hiring qualified staff, that have led to significant delays in implementation. "As a result, as of June 2011, about 12 percent of first-year grant funds were spent, and some projects were delayed several months" (GAO 2011). This situation is true even in Delaware and Tennessee, which have been touted for their exemplary work in building state and local support for their plans during the proposal and program development stages. Both state administrations worked with unions and garnered their support in developing teacher evaluation systems as part of their RTTT proposal processes. Nevertheless, both are experiencing staff and resource problems. Despite having already experienced significant staff cuts in recent years, and thus slimmed-down capacity, each state promised to limit hiring—Delaware to 10 people and Tennessee to just one—in the context of complex and ambitious teacher evaluation overhauls.

In Tennessee, the transition in January 2011 from Democratic Governor Phil Bredesen, who had led the state's Race to the Top effort together with the business community, to Republican Bill Haslam slowed progress due to the delay in appointing a new commissioner of education (Boser 2012). These complications came on top of existing capacity problems:

After winning its Race to the Top grant, Tennessee contracted with the U.S. Education Delivery Institute to conduct a 'capacity review' of the state's department of education. Their review concluded that 'the organization and the work wasn't organized in a way that supported implementation...[and] reinforced that intentional change had to happen in order to improve capacity, regardless of how that would affect components, departments, and people in the agency. (McGuinn 2012, 13)

Kevin Huffman came on board in April 2012 as education commissioner and reorganized the state education agency. He created a new division of teachers and leaders to bring together functions such as preparation, licensure and certification, recruitment, staffing, compensation, evaluation, and professional development that had not previously worked together. Assistant Commissioner Sara Heyburn said the new division would help the state get the human capital it needed. Instability, however, presented a challenge: "While she [Heyburn] has had a good bit of freedom to recruit and hire the people she needs, several changes of hand around the evaluation work during the first phase of implementation have been a challenge" (McGuinn 2012, 14). Some of the instability may be attributable to unforeseen challenges that dampen enthusiasm and make cohesion within and across departments difficult.

Indeed, a December 2012 report from the Center for American Progress, which has been a strong advocate of Race to the Top, highlights state-level capacity issues across six grantee states. Some of the challenges include simple lack of human capital and expertise in this relatively new area, inability to sufficiently train and support evaluators, and integration of new offices and systems into existing structures (McGuinn 2012).³² CAP's report, *The State of Teacher Evaluation Reform,* also notes that, notwithstanding the multiple and major challenges confronting the six states studied here, they are likely doing better than other states are or will:

[These] early adopter states... are not a random or representative sample of states—by choosing to apply for a Race to the Top grant, they selected to undertake teacher-evaluation reform and [because they won] demonstrated a greater initial ability to deliver compared to other states. As a result, states that subsequently undertake this work may well struggle more than the six states discussed here. (McGuinn 2012, 51)

Indeed, architects of both Delaware's and Tennessee's proposals were among those to express concern about lack of capacity at the state and local levels. Like many other states, both front-runners have relied from the start on outside help: McKinsey & Company helped Delaware draft its RTTT application, and after the state won the company helped prepare the guidelines that districts used to write their scope-of-work plans. Tennessee, the other first-round winner, used a Bill & Melinda Gates Foundation grant to hire consultants to help with implementation (Kronholz 2010). The state's First to the Top initiative lists over a half-dozen contractors engaged by May 2010 (the list appears in Appendix B).³³

In Ohio, budgetary problems that were exacerbated by the recession have contributed to other resource constraints. The loss of substantial staff in the Ohio Department of Education (ODE) over the past decade came to a head just as Race to the Top implementation demanded more expertise and more manpower. This means that the hundreds of districts that need support as they develop and implement new assessments and new teacher observation and evaluation systems will receive less of it. Compounding this gap, Ohio recently appointed its fourth state superintendent of instruction in as many years. Two superintendents under former Democratic Governor Ted Strickland, the latter of whom, Deb Delisle, led the state's Round II Race to the Top proposal, have been succeeded by two others in the first two years of Republican Governor John Kasich's tenure. Local leaders point to the combination of churn and lack of resources as an impediment to their capacity to successfully implement the substantial changes required under Race to the Top (Dyer 2013; Flora 2013; Varda 2013).

Race to the Top requires not only that a range of education players take on more work, but that they take on new roles. Despite already full workloads, for example, teachers unions in both Delaware and Tennessee have taken on additional responsibilities in developing and implementing the new teacher evaluation systems. "The additional work challenges the capacity of our organization. It requires more knowledge, more study and research, more demands on staff," said Howard Weinberg, executive director of the Delaware State Education Association (DSEA) (Kronholz 2010, 4). The strains on capacity are felt all the way down to districts and schools, with considerable staff and other resources required to draft work plans, improve data systems, and participate in and conduct trainings. Delaware's education department has asked some 400 teachers to volunteer for committees that will work on how to evaluate teachers in nontested subject areas, such as art, music, and physical education. During the summer of 2011, concerns were raised because some of the committees had not yet met and still needed members (Kronholz 2010). Reflective of progress made since that time, the Delaware secretary of education announced on May 30, 2012, that teachers in nontested subjects will be evaluated, starting in the 2012–2013 school year, according to approved state education department measures (Delaware Department of Education 2012).

Moreover, the U.S. Department of Education has passed much of the work of building these teacher evaluation systems down to the states. For example, under RTTT, it is the state's responsibility to create a system of tests for subjects that are not currently tested. In New York, that system will have to cover 79 percent of all teachers, a total of 175,000. The state, in turn, can pass this work down to districts. Secretary Duncan has recognized that the dire situation in New York necessitates the state's delegation of these responsibilities, noting that the state "budget had been reduced 40 percent in the past few years, staffing was thin, and the ultimate responsibility for monitoring would be left to principals, superintendents, and school boards. The main state role, he said, will be to 'provide guidance and models'" (Winerip 2012). The budget and staffing situation is dire in districts too, perhaps even more so, as some superintendents' comments suggest.

One district superintendent in Kansas notes the gap between available resources and what is required for a truly reliable and comprehensive teacher evaluation: "Some of the teacher evaluation models are so time-consuming for the teacher and principal that either the entire instrument is done poorly or only two or three constructs are considered out of 30 each year." Tennessee's requirement of four observations per year for experienced teachers, and six for teachers with three or fewer years in the classroom, suggests extreme strain of the same sort.

When resources are sufficient, and the proper foundation has been laid, however, this local devolution has worked well. Worthingon, Ohio Assistant Superintendent Jennifer Wene describes how her district management has collaborated with its union to make lemonade out of what could have been Race to the Top lemons. The relatively prosperous suburban district has relied on its teachers to translate the Common Core standards to a local curriculum and to develop formative and summative assessments aligned with it. Wene and her team have used the opportunity to engage teachers in teamwork around building student learning objectives that truly inform and improve their practice. She credits Race to the Top with providing the funding that enabled them to give teachers a full year to develop this new system and with the helpful push to make it happen (Wene 2013).

"Some of the teacher evaluation models are so time-consuming for the teacher and principal that either the entire instrument is done poorly or only two or three constructs are considered out of 30 each year."—A district superintendent in Kansas

Other district leaders in Ohio are less sanguine, describing a burdensome system that will limit principals' capacity to target mentoring and other resources to teachers who need it most, and that makes struggling schools substantially less attractive to the strong teachers who could help improve them (C. Johnson 2013; Wilson, 2013).

Moreover, even successful aspects of the initiative have limitations. David Ring, the superintendent of the Delmar school district in Delaware, has been able to institute data-driven professional learning communities (PLCs) in every school, and he says that they "have proven to be something beyond our own expectations." Delmar has not used Race to the Top money for the PLCs, however, so sustainability is not at issue, and Ring knows that larger, urban districts with more substantial challenges would not necessarily be able to expend their resources or time the same way (Ring 2013). Chris Kohan, assistant principal at John Dickinson High School outside of Wilmington, put it like this, "Professional learning committees [where data coaches work with teachers] are a great thing. It's great the state is mandating them. I'm going to attend every PLC meeting in my building. That works until I also have a mandate to attend every [individualized education plan] meeting for every [special education] student in my caseload. Then, how often do I have to observe my teachers? My Outlook calendar hates me. It says you can't add that many things at the same time" (Boser 2012, 25).

Principal Cristy Greaves, who lauds the new resources and innovations that Race to the Top has brought to her district, Cape Henlopen in Delaware, also expresses concerns regarding capacity and sustainability:

We have benefited from additional resources, including our math specialists. RTTT keeps us focused on student achievement and has given us the opportunity to think outside of the box and try some new strategies for increasing student success. [But] our district plan included some provisions that were difficult to implement at the school level. We also can't imagine the funds drying up and us losing some of our much needed resources. (Greaves 2013)

States, unions, and districts have tried to address their capacity problems by turning to consultants, foundations, and business and civic partners. "Each of the 12 Race to the Top winners, save Massachusetts, is devoting more than half the state share of its grant to contractors" (Sawchuk 2011). State education departments plan to spend \$1.2 billion on contracts and \$225 million on state personnel to implement their plans. Of the four key areas of focus

in the program, the teacher- and leadership-effectiveness piece is likely to make up the biggest portion of spending because of the large capacity-building needs in that area. As mentioned above, McKinsey & Company played a large role in Delaware, and the Gates Foundation has provided funds and staffing in Tennessee (Kronholz 2010). While they can provide valuable assistance and fill holes in staffing capacity, however, consultants also can disrupt team building and impede trust in the process at a time when consistency may be most needed. Moreover, smaller districts with fewer resources find themselves unable to afford this help (McGuinn 2012).

Teacher improvement: lack of support, short-term strategies

Race to the Top aims to improve the quality of the teacher pool by enhancing recruitment and retention strategies and using data-based evaluations to inform teacher practice. Evidence from state implementation, however, suggests that, in many cases, just the opposite has transpired. With respect to recruiting and retaining better teachers, states have developed some innovative ways to draw on pools of qualified professionals to staff hard-to-fill subjects and schools. Overall, however, they have increased their reliance on hiring young, noncertified teachers who rarely stay long enough to become proficient, rather than developing a strong corps with staying power. And while they have invested heavily in linking student test scores and other measures of "growth" to teacher effectiveness, as promised, states have devoted the bulk of the effort to identifying effective teachers to be rewarded, and ineffective teachers to be eliminated, rather than focusing on the vast majority in the middle who would benefit from targeted feedback, coaching, and professional development.

For example, with respect to "providing high-quality pathways for aspiring teachers and principals, Delaware's two priorities in its first year were the Delaware Teaching Fellows Program," operated by the New Teacher Project, and Teach for America. Of these, only Teach for America yielded new teachers—27 new members "began teaching in the highest-needs schools in New Castle County in fall 2011" (U.S. ED 2012a). Concerns about recruitment, hiring, and sustainability led the state to phase out the Teaching Fellows Program after Year 2, and the STEM residency program it established at the University of Delaware to place residents in schools with a high need for STEM teachers produced only 16 teachers in its first two years, far short of the 100 it was intended to recruit or train in four years (U.S. ED 2013b, 13).

As for Rhode Island:

Rhode Island operates two alternative certification programs through its Race to the Top grant, the Rhode Island Teaching Fellows (sponsored by the New Teacher Project) and Teach for America. These programs brought 44 educators to the State's urban and charter schools in Year 2....In Year 2 Rhode Island experienced lower teacher turnover than anticipated, which limited opportunities for new teacher placement and prevented the State from achieving its goal of placing 30 teachers from each alternative certification program in urban and charter schools. (U.S. ED 2013a, 13)

In Tennessee's Achievement School District, which was established as a distinct entity to focus on turning around the state's most troubled schools, one in five teachers is a Teach for America recruit (Rich 2013). Many of the schools offer performance pay based on the scores on frequently administered student standardized tests, and teachers are not eligible for tenure, making the district and unattractive option for experienced teachers or those who intend to stay in the profession.

Similarly, Ohio's efforts to provide alternative pathways for teacher recruitment may weaken the quality of teachers in high-needs schools rather than strengthen them. In January 2011, the state established the Intensive Pedagogical Training Institute, run by ODE, to enable those who want to teach using alternative certification to do so without having to get college credit. An April 2011 law permits qualifying Teach for America participants and alumni to obtain Ohio resident educator licenses. And a June 2011 law allows all K-12 teachers to "participate in alternative licensure pathways" that do not require teachers to major in the subject they will teach, but rather simply pass content-area tests to demonstrate subject knowledge (U.S. ED 2012b, 13). Candidates can complete licensure professional development requirements through nonprofits rather than through colleges.

While some Ohio leaders felt that, as long as standards remained the same, the alternative pathways did not present a problem in terms of teacher quality, other educators were dismayed by these changes. Worthington school board member Jennifer Wene stated that her district would not hire any teacher who had obtained credentials without going through a college program. Randy Flora, director of education policy research and member advocacy at the Ohio Education Association, believes that these changes reflect a broader pattern of disrespect for teaching as a profession, as well as the misguided belief that subject-matter knowledge is sufficient, absent understanding of pedagogy.

Tennessee piloted a program that seemed like an excellent idea on paper—engaging veterans to mentor novice teachers. Race to the Top provided funding for schools to secure such mentors for one to two years with no classroom responsibilities, so that they would be free to help other teachers. The U.S. Department of Education describes the state's plan to "identify, recruit, and train approximately 35 veteran, highly effective teachers as instructional practice mentors for novice teachers in at least four high-priority [Nashville] schools in each year of the grant" (U.S. ED 2013d, 13). In practice, however, a member of the Parent Teacher Organization describes a system in which, rather than getting "the best, most qualified teachers, it was usually a younger person who was willing to do it for a couple of years, so when funding dried up, they could move on to something else. There was no guarantee they'd honor your seniority if funding ended, so it made no sense for the senior teachers [who were critical to making the program successful] to take it on" (Albert 2013).

Several states have, however, developed innovative programs to strengthen their pool of teachers in science, technology, engineering, and math. Tennessee has partnered with several state universities to recruit undergraduates with majors in STEM subjects into specialized teacher training programs, so that more teachers begin with extensive subject-matter as well as pedagogical knowledge. While the first cohort of the UTeach program is expected to produce only 15 new teachers, several hundred have begun the program at Middle Tennessee State University, the University of Tennessee-Knoxville, and the University of Tennessee-Chattanooga (SCORE 2013). Delaware's STEM residency program recruits professionals with expertise in those subject fields to become STEM teachers through a one-year residency program in which they work with veteran credentialed teachers while earning a master's of teaching degree at the University of Delaware. Like Tennessee's program, it got off to a slow start, "plac[ing] eight new teachers in schools in Year 2 and train[ing] an additional six for Year 3 placement" (U.S. ED 2013b, 13).

State leaders also report that use of student data to support teachers and inform their practice has been a much-neglected component compared with the evaluations themselves. Melissa Cropper, president of the Ohio Federation of Teachers says that, while evaluations that are designed well with that goal in mind can be helpful in informing and improving instruction, that is not what is happening in Ohio. "As it is now, once results are in, teachers are dealing with a new group of students. In addition, results usually come at the beginning of the school year when everything is hectic instead of at a time that would allow for analysis" (Cropper 2013). The Delaware teachers union is hearing that 2012–2013 has been an extremely stressful year for teachers. Morale is low, as teachers are burdened by the process but not necessarily seeing a link between the new requirements and how this helps their teaching. Principals question the quality of conversations they now have time to have with teachers versus what they had under the prior system (Stevens 2013).

In Ohio, teachers, union leaders, and school board leaders assert that recent legislation establishing the Ohio Teacher Evaluation System (OTES) has shifted the emphasis from teacher support and improvement to punishment. Teachers are generally skeptical both that value-added measures accurately measure what teachers contribute and that the system for delivering scores helps them improve instruction (Cropper 2013). Similarly, there are concerns among some principals that the rigid observation systems mandated leave less time for them to interact and discuss with teachers in ways that would guide teachers' development. David Varda, executive director of the Ohio Association of School Business Officials, suspects that superintendents, too, feel like this. Recent third-grade reading guarantee legislation attaches strings to how districts can spend education money, making it potentially difficult for those that have not invested much in professional development to find money for it going forward (Varda 2013).³⁴

Massachusetts stands out as an exception in several respects. Its strong starting position—as the top-scoring state in the nation that was building on a 20-year foundation of reforms involving substantial new investment—has helped it chart a relatively smooth path. Tom Payzant, who was superintendent of Boston Public Schools, the state's largest district, from 1995 to 2006, says:

An important context for the Massachusetts success was a three-year run up to get ready. We were able to develop standards and support teachers who were learning to work with them and to create a variety of interim assessments to determine what was and was not working. [Then-superintendent] Dave Driscoll gave Boston Public Schools a \$500,000 grant to develop our curriculum and assessments and support teacher preparation. Three years of data on assessments enabled us to provide teachers and principals with a real-istic understanding of which changes for improvement would be necessary. (Payzant 2013)

Paul Reville, the former Massachusetts state superintendent who helped craft the state's Race to the Top proposal, agrees. He sees RTTT as a natural extension of that foundational work, a way for the state to help its strong teachers grow further and help extend its high-achieving status to all student subgroups. Reville describes the state's progress toward narrowing achievement gaps as impressive but insufficient, and believes that Race to the Top provides tools to push forward (Reville 2013). Massachusetts' proposal reflects these beliefs. It describes an extremely transparent process for developing its educator evaluation system, with a central role for educators that utilizes an extended timeline in order to deliver targeted professional development to teachers in the most disadvantaged schools first:

In May 2010, Massachusetts Board of Elementary and Secondary Education (BESE) created the Massachusetts Task Force on the Evaluation of Teachers and Administrators, which released its recommendations in March 2011. After the recommendations were released, the Board opened a public comment period and held regional forums for teachers and principals. During the forums, State staff explained the key elements of the proposed regulations to educators and sought their feedback. Following these stakeholder outreach efforts, BESE approved the final regulations on June 28, 2011. (U.S. ED 2012c, 14)

The regulations create different "evaluation schedules and classes of Educator Plans for educators of different experience and performance levels" and require, as a core part of the evaluation process, the development of individual educator plans, "which are connected to professional development" (U.S. ED 2012c, 14). The state also lists a goal, unique among states, of having "[a]n educator workforce that is more diverse, culturally competent and effective" (MDESE 2011, 11). Significantly, Massachusetts's proposal and Race to the Top materials focus nearly exclusively on the use of evaluation to drive teacher support and improvement; this tone, and the detailed plans to deliver that support, contrast sharply with other states' emphasis on the need to eliminate weak teachers.

Massachusetts stands out, also, for the innovative and supportive nature of its teacher quality improvement efforts. A statewide teacher survey informs state "efforts to recruit and retain effective teachers by providing information about teaching and learning conditions, which helps the State develop concrete plans to address specific issues" (U.S. ED 2012c, 14). The state also uses this information to ensure that professional development, which includes supports prekindergarten teachers, is of high quality and useful to educators. Six regional Readiness Centers throughout the state, housed in colleges and universities, leverage the state's strong resources in this area to share best practices (U.S. ED 2012c, 15).

This approach, which emphasizes foundation-building and support, extends to teacher recruitment and licensure. Focusing on the need to strengthen teacher capacity in its most disadvantaged schools, Massachusetts has enacted strategies to support existing teachers, rather than shortcuts to licensing new ones. Indeed, its ultimate goal is to "reduce to zero the number of district-based teachers who are teaching on waivers of State licensure requirements for ESL [English as a second language] and moderate disability special education by the end of the grant period." It is working to enable strong teachers in struggling schools to obtain ESL and special education licenses and national board certification. The challenges of this more complex approach, however, did result in some delays:

For the project to support teachers who hold a licensure to gain English as a second language (ESL) and special education licenses, the State determined after review and feedback that it was not feasible for teachers to both complete coursework and receive licensure in one year due to the quantity of coursework that would be needed. As a result, the State is allowing for additional time for completion of the coursework. The State aims to have 468 newly licensed ESL and special education teachers by the end of the grant period. (U.S. ED 2012c, 15)

Even in this positive context, however, the smaller of the state's two teachers unions—the Massachusetts Federation of Teachers—did not sign on to the proposal. The Massachusetts Teachers Association did sign on, and its president was a member of the committee designing the new evaluation system. But, as in Ohio, it was left up to local affiliates to sign on or not, and one third of the state's LEAs did not do so, including high-poverty districts such as Quincy and Taunton, which lost substantial sums as a result (Jonas 2010). Those districts' concerns over the use of student test scores in teacher evaluations, as in other states, seemed the main reason for local union opposition in those and other districts that declined to take part. Other steps the state took after not securing a Round I win—such as adopting the Common Core and raising caps on charters—were similarly controversial, and may have also contributed to some of the district skepticism (Morell 2010).³⁵

District-state conflicts and the 'implementation gap'

Critics of Race to the Top have pointed to what they see as overly prescriptive federal mandates to states, but there is a parallel in some districts' perception that the state has usurped their local control and authority. Although districts signed on as participants to states' Race to the Top applications, many were unaware of the specific requirements they would have to fulfill. Indeed, after states won grants, among their first tasks was working with each local education agency, or district, to develop the hundreds of scopes of work that, together, would produce the desired reforms and improved outcomes, set forth in the applications. Some state–district conflicts emerged at this early stage, and many others have developed in the subsequent two-plus years. In all, the conflicts reflect what one state leader termed "the implementation gap"—the divide between the apparent simplicity of plans as set out on paper and their actual complexity when the rubber hits the road. A few of the more prominent of such conflicts are described here.

Delaware: The state has had two high-profile conflicts with its largest school district, the Christina district, which encompasses parts of both Wilmington and Newark. The first public sign of discord between state-level proponents of Race to the Top and district-level leaders came in April 2011. When the Christina school board was unable to agree on a plan for two schools that had been targeted for "turnaround," the state decided to close them. This resulted in a public dispute between the state and the board over the firing of the entire staffs of the two schools, with the state threatening to withhold the district's entire \$11 million Race to the Top award unless it agreed to the plan. According to John Young, president of the Christina school board and a critic of Race to the Top, "The unanimity...that allowed Delaware to win that money is not the day-to-day reality.... The state lost a significant amount of trust with school board members [in this conflict]" (McNeil 2011b).

Another requirement under Race to the Top was Delaware's commitment to award bonuses to the teachers and administrators who received the highest rating on student growth (and other components of the evaluation system). In 2012, the state identified 24 teachers and four school administrators from 10 high-needs schools to receive \$10,000 bonuses starting in 2012–2013, as well as five schools to get \$150,000 each based on progress either in meeting Adequate Yearly Progress targets or in closing achievement gaps (U.S. ED 2013b). Districts had to create "talent attraction and retention bonus systems" in their scopes of work, which Christina had done, along with the other LEAs. When the state announced this set of awards, however, Christina objected. The Christina district board wanted to substitute smaller bonuses for many teachers rather than large bonuses for just a few, partly because the latter were available only for the minority of teachers of core, tested subjects. The state again threatened to withhold \$3.4 million, all of the district's remaining RTTT funding, on the grounds that these merit bonuses constitute a core part of the plan that the district signed onto (Albright 2013). Christina claimed that it had adopted a different system, but the state asserted the district had adopted the state's system and was required to abide by it. The U.S. Department of Education weighed in on the state's side, and the board lost that money.

Ohio: Teachers, administrators, and other educators who were interviewed describe a shift in both legislative priorities and tone in the General Assembly that impedes local efforts to successfully implement Race to the Top.

Several criticized recent bills that mandate that fully half of a teacher's evaluation be based on his or her valueadded score, and others point to the seemingly arbitrary decision to make the scores of even students who are absent up to nine weeks in the school year—roughly one fourth of the entire year—count in the student growth portion of the teacher's evaluation. There was a general sense that the punitive nature of much legislative action conflicts with and undermines district-level messages of support for teachers and principals. One assistant superintendent who is generally positive about RTTT described the legislature's actions as having "the potential to sabotage" all the progress her district has made.

Tennessee: Nashville has experienced a multilayered conflict between the district board and the state Department of Education. The Metro Nashville Public Schools (MNPS) board, which had approved applications from other charter schools, voted against one particular charter school, Arizona-based Great Hearts Academies. The board was dissatisfied with Great Hearts' responses regarding diversity and with its track record: In Arizona, a heavily Hispanic state, its schools served virtually all white students, and it had requested to locate in the wealthiest part of the district (Frogge 2013). The board was particularly incensed that State Commissioner Kevin Huffman had engaged in behind-the-scenes maneuvers that it perceived as efforts to usurp its authority. (Garrison 2012). After the board determined that Great Hearts had not met contingencies set by the state for allowing it to locate in Nashville, Huffman fined the district, taking away \$3.4 million in Race to the Top funding for local schools, "money that came directly out of poor kids' schools," according to Nashville parent-teacher organization member (Albert 2013).

New York: High-profile battles between the New York City's teachers union and its principals have escalated in conjunction with the development of new teacher and principal evaluation systems based heavily on student test scores, as required under the state's Race to the Top contract. As described earlier, the district's inability to come to an agreement on this issue resulted in the loss of substantial money for the city's schools, and in the state's intervention to establish a system. The high-poverty district, the state's largest, is not alone in protesting the weight accorded student test scores, however. Over 1,500 New York State principals–one third of them—have signed a statement protesting both the process and substance of the annual professional performance review regulations adopted in a bid for Race to the Top funding:

Over the past year, New York State has implemented dramatic changes to its schools. As building principals, we recognize that change is an essential component of school improvement. We continually examine best practices and pursue the most promising research-based school improvement strategies. We are very concerned, however, that at the state level change is being imposed in a rapid manner and without high-quality evidentiary support. Our students, teachers, and communities deserve better. They deserve thoughtful reforms that will improve teaching and learning for all students. It is in this spirit that we write this letter, which sets forth our concerns and offers a path forward. We believe that it is our ethical obligation as principals to express our deep concerns about the recently implemented Annual Professional Performance Review (APPR) regulations. These regulations are seriously flawed, and our schools and students will bear the brunt of their poor design. (New York Principals 2013)

And Scarsdale superintendent Michael McGill, who presides over one of the state's most affluent school districts, has also been among the system's harshest and most vocal critics. McGill asserted in a May 2012 *Newsday* column that such evaluations will not help schools, but will certainly harm them:

If the point is to help [teachers] improve, they need insightful advice and good coaching, not numerical rankings. If it's to screen out less competent teachers, the only relevant yardstick is whether performance is up to standard. Who cares whether Ms. Jones is number 34, 35, or 36 out of 150? The state's rationale is that the metrics will drive people to compete for better scores. But what's the point when the numbers lack meaning?... Few, if any, researchers believe they can be used to make fine distinctions among practitioners, as the state plan tries to do. This numbers game already drives teachers to spend increasing time prepping their kids for exams at the expense of other learning, and to play the system so they can amass points strategically. It'll discourage collaboration, as well. As one veteran recently said, "Why should I do anything that could help someone else get a higher score than I do?" (McGill 2012)

As described earlier, Montgomery County, Maryland's largest school district, continues to refuse to submit a teacher evaluation plan that incorporates student test score data, despite the potential loss of funds. Other, less visible conflicts are also emerging in multiple states as the complex realities of developing and implementing teacher and principal evaluation systems based on student test scores push against time, resource, and other constraints.

Going forward: implications for districts and Common Core implementation

In May 2012, the U.S. Department of Education opened the RTTT competition to districts with another \$400 million, for a total of about \$5 billion. Reflecting one lesson learned from the state competition, the department placed more emphasis on classroom instruction and innovation, prioritizing "personalized, student-focused approaches to teaching and learning that will use collaborative, data-based strategies and 21st century tools to deliver instruction and supports tailored to the needs and goals of each student" (U.S. ED 2013c). Districts must also show how they will focus resources on students facing significant challenges, such as students with disabilities, English language learners, and students affected by poverty or family instability. The department further provides for a communityschools approach to reform, specifying that proposals show "how the partnership would...develop a strategy to scale the model beyond the participating students to at least other high-needs students and communities in the region over time." It also added requirements for the evaluation of school board and district leadership, extending accountability to a wider circle of educators. In its guidance, the department defined teacher evaluation as a multifaceted system that supports "the continual improvement of instruction"; includes multiple measures; provides "clear, timely, and useful feedback, including feedback that identifies needs and guides professional development; and will be used to inform personnel decisions" (U.S. ED 2013c, 19).

With these changes, the department recognizes and tries to address some of the flaws in its state-level initiative. However, the district competition is even more ambitious in scope, and therefore the required promises made in applications will likely make the districts even more vulnerable to the capacity, time, and other challenges encountered by state grantees.

Moreover, as states implement the Common Core, the challenges they have experienced in these first three years will likely be amplified. Indeed, education stakeholders across the states pointed to concerns that have already emerged in this respect. In Delaware, union locals worry that, given insufficient professional development this past year, the combination of heightened demands posed by the Common Core and limited state resources will widen the gap between demand and supply. Ohio union leaders say that delays in rolling out the Common Core due to too many policies being implemented led to a lack of professional development; understanding new teaching methods

and standards is thus a major concern. As the higher costs of the assessments associated with the new standards become clear, many non-Race to the Top states, too, are backing out or considering doing so (Simon 2013b).

While proponents point out that states are unlikely to be able to develop similarly high-quality assessments on their own or for less money, the degree to which Race to the Top has already cost more than many states and districts anticipated is likely to weigh on the side of nonadoption of the Common Core. The need for full access to technology is likewise a factor among both grantee and nongrantee states and, as the past few months have shown, politics is playing an increasing role. The case studies in the appendices illustrate these and other challenges that states have already faced and will likely encounter going forward.

Conclusion

While our exploration of Race to the Top implementation discovered some pockets of hope and excitement, the overwhelming feelings were of frustration and disillusionment. People we interviewed confirmed newspaper and even Department of Education reports of a severe mismatch between promises made and states' and districts' time and capacity to deliver. A second, potentially more problematic set of concerns revolves around the mismatch between Race to the Top's narrow policy agenda targeting teachers, principals, and schools and the reality that the opportunity gaps it aims to close have their roots mostly outside of school walls. As well, some aspects of implementation may be widening those gaps rather than narrowing them.

These mismatches led to delays and to rushed and often counterproductive implementation of key components of Race to the Top. Teachers and principals report increasing distrust of their district and state leaders, and districts report multiple conflicts with state officials. Many point to negative implications for the rollout of the Common Core State Standards, which have already begun in most states. While most of those interviewed see real potential in the standards, they are also skeptical that the current context will allow that potential to be realized. Rather, problems encountered over the past three years have set the stage for an even greater gap between the foundation and capacity needed to properly implement the Common Core and what states can provide. Moreover, unless an accompanying set of student, family, and school supports is rolled out with the Common Core, a policy agenda that again addresses only a minority of the drivers of race- and income-based achievement gaps will further widen those gaps.

While the department acknowledges that states and districts have often been strapped for time, it has been less forthcoming regarding the severity of the resulting problems. Even in districts such as Ohio's Worthington, which sees mostly positive change from Race to the Top, district leaders describe the rush as "destructive." Building the plane while flying it was such a common refrain that one consulting company hired by New York to provide coaching to the city's principals developed a short video praising the concept—engineers extoll the virtues of building a plane as passengers' coffee flies away and seats are almost lost. Principals who saw the video did not buy that premise (Winerip 2011a). And school leaders interviewed for this report described just that feeling—of being forced to put teachers' jobs and students' futures on the line in an inappropriate manner—as major changes were shoved into a constricted timeframe.

The result across states and districts has been poor execution of the initiative and bad results. New assessments and scoring rubrics were put in place without sufficient time to pilot or adapt them, and many teachers and principals

were (and, in many states, continue to be) evaluated on the basis of data largely unrelated to their efforts. In some cases, the test score data themselves are suspect. Rather than improving instruction or district–union relations, educators' lack of trust in their political leaders is heightened, and the potential for Race to the Top to improve education is limited.

States were driven largely by lack of funds and other resources to apply for Race to the Top grants, so they suffered a lack of capacity to enact major changes just when that capacity was needed most. District and school leaders describe their inability to make good on promises of targeted support for teachers and anticipate larger gaps in capacity as the Common Core demands more. Turnaround programs and STEM initiatives are among the many projects that have already been delayed, scaled back, or cancelled altogether.

As the review of literature pertinent to opportunity gaps reveals, even the best-designed and most thoughtfully implemented reforms that focus only on traditional within-school factors cannot close more than a minority share of large U.S. achievement gaps. Substantial differences in student readiness to learn that emerge long before kinder-garten are compounded by differences across racial and income lines in student physical and mental health, and by stark divides in access to enriching opportunities in the hours after school and between June and September. Scholars agree that these factors, along with the impacts of high U.S. rates of racial segregation and concentrated poverty, account for the majority of disadvantaged students' underachievement and thus for achievement gaps. Indeed, these out-of-school factors likely drive two-thirds of gaps; policies that fail to address them thus could potentially close no more than one-third.

The Department of Education cannot be expected to tackle all of the complex issues related to child poverty, nor can it realistically ask states to take them all on. Indeed, a major critique of Secretary Duncan's policy agenda is that it is already too demanding and prescriptive. Given strong evidence that specific policies could substantially improve school and teacher capacity to address these poverty-related issues, however embracing those politics as core federal initiatives would seem the logical approach. Indeed, reactions to Race to the Top from superintendents, parents, teachers, and principals suggest that many would put more stock in the department's policy agenda if it addressed concerns beyond the school walls. Those interviewed for this report saw high-quality prekindergarten programs, health and nutrition supports for disadvantaged students, and afterschool and summer programs as key means to complement and strengthen RTTT's agenda.

As noted, Massachusetts stood out among states studied for its strong position at the start of Race to the Top implementation, its transparent and teacher-friendly process for developing the new evaluation system, and its consistent emphasis on teacher support and development. It also had already implemented 20 years of standards-based education reforms that include as a core component a broad range of student and family supports. Former State Superintendent Dave Driscoll's interest and investment in the state's largest school district, Boston, was also key to establishing a strong foundation. The state's proposal lays out its intent to build on these by continuing to increase investment in high-quality prekindergarten and by pairing federal turnaround strategies with wraparound supports for schools in disadvantaged districts. While it is too early to determine the effect of the current changes, the state's top-scoring status and narrowing achievement gap indicate the likely positive impact of these prior decisions. Indeed, as former Boston Public Schools Superintendent Thomas Payzant points out, in the lead-up to Race to the Top, initiatives incorporating these key ingredients were already underway in the state. Boston University's Lynch School of Education initiated a partnership with Gardner Elementary School in 2008–2009 that has blossomed into a multifaceted, mutually beneficial endeavor that enables teachers and principals to set and reach for high standards. Developing and working through collaborative relationships, the school spent the first two years ensuring access to afterschool and summer enrichment and a range of health care services, enacting relevant and engaging evening classes for parents, and raising funds for the multiple needs anticipated. Parent and community leaders were central participants. "There is a strong commitment to improve the capacity of the school staff to meet the needs of children over time. There is no sign of a quick fix. There is a commitment to dig in and grapple with the problems that present themselves so that meaningful and long-term solutions can be developed" (Payzant and Jackson 2011, 82).

Other districts that have seen more success—including Cincinnati, Ohio; Syracuse, N.Y; Union City, N.J; and Montgomery County, Md.—have likewise taken a long-term, comprehensive approach (Hernandez 2013; Riede 2013; Kirp 2013; Starr 2012). All offer quality prekindergarten, and most employ physical and mental health supports and afterschool and summer enrichment to close opportunity gaps. All have invested substantially in support for their teachers, focusing on targeted professional development around serving high-poverty students, rather than recruiting non-credentialed novices or turning struggling schools over to charters or closing them. All believe that the same factors that help advantaged children to thrive are core to providing the best possible education to disadvantaged students and that, indeed, low-income and minority students need more of the same, not something different.

As leaders in these and other successful education systems attest, setting and reaching higher standards can only happen after school boards, principals, teachers, parents, and community leaders work to ensure that basic student, family, and educator support systems are in place and resourced, and that a plan to sustain progress has been established. Strong, collaborative union–management relationships are at the core of such coalitions. These realities should guide implementation of the Common Core standards in both Race to the Top and other states. If such a foundation is laid, all the right parties are thoughtfully and meaningfully engaged as partners, and a plan for sustainability is established early, the standards can greatly improve U.S. education. If not, however, they may do more damage than good, and put the goal of closing achievement gaps still further beyond reach.

Finally, the competitive nature of the grant raises important concerns about how federal funding of education is most effective and the intersection between resources and policy. First, while federal dollars represent just 8–10 percent, on average, of a school's operating budget, they are a critical sliver, especially in the disadvantaged schools for which Title I and IDEA (the Individuals with Disabilities Education Act) were intended to help level the educational playing field. As long as both remain underfunded, competitive funding will only exacerbate the gaps federal funding should close. Second, as the process for submitting applications reveals, RTTT funding hinges in large part on the intensive involvement of highly paid consultants. Access to federal education funds should not depend on whether a state, district, or school can afford a well-connected grant writer. A fully reauthorized, flexible Elementary and Secondary Education Act (ESEA)—coupled with adequate Title I funding—can support innovation in STEM and early education and better accomplish the administration's goals for RTTT while avoiding the over-

head and costly technical assistance associated with competition, and without exacerbating the system of haves and have-nots and widening achievement gaps.

As the impact of sequestration hits states with another round of austerity, the problems seen in the first three years of RTTT will be compounded by even higher standards meeting still fewer resources. As the consequences of the quick fixes instituted through RTTT begin to play out, one hope is that the lessons set out in this report will finally trigger the recognition that long-term, comprehensive approaches are needed to attain real educational improvement, and that Congress must play a key positive role in making these approaches come to fruition.

Acknowledgments

The author would like to thank Donald Long, who conducted much of the initial research for Section III of this report as a consultant to the Broader Bolder Approach to Education, and Nicholas Finio, Nicholas Buffie, former research assistant and intern, respectively, at EPI, who collected the state budget and outcome information for Section II and helped to synthesize it. Thanks also to current EPI research assistants Alyssa Davis and Hilary Wething for great work on the figures. Without their help, this report would not be possible. Thanks as well to Pedro Noguera, Helen Ladd, Thomas Payzant, Lora Engdahl, and Emma Garcia for their helpful suggestions, and to Patrick Watson and Lora Engdahl for excellent copyediting, all of which greatly improved the quality of the final report. All errors or omissions are solely the responsibility of the author.

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The Broader Bolder Approach to Education is a national campaign that acknowledges the impact of social and economic disadvantage on schools and students and proposes evidence-based policies to improve schools and remedy conditions that limit many children's readiness to learn. It was launched in 2008 by the Economic Policy Institute, but is guided by outside co-chairs and an independent Advisory Council that shape policies distinct from those of EPI.

Appendix A: A case study of Race to the Top in Ohio

Background

Ohio won \$400 million in Round 2 of the RTTT application process in August 2010. Of this amount, just over half—\$206 million—was allocated to participating districts and charter schools to work toward state goals, with the remaining \$194 million going to the Ohio Department of Education (ODE) for capacity building, creating new standards and assessments, using data to improve instruction, improving teacher and principal quality, strengthening STEM, and turning around the state's lowest-performing schools.³⁶

Ohio is a large and diverse state. Participating Race to the Top districts range from large, high-poverty urban cities, such as Cleveland, Dayton, and Cincinnati, to prosperous suburbs and rural areas. Financial and other resources vary greatly across districts, influencing their capacity to implement the changes set forth under the state's plan. These differences, as well as ranges in leadership capacity and the degree to which foundations for change were well established, are reflected in districts' embrace of new evaluation systems as opportunities for helpful change, rejection of them as punitive burdens, or something in between.

Ohio did not win a Round I grant, and the decision to reapply in Round II entailed lengthy discussions among Department of Education officials, both teachers' unions, the two principals' associations, and the state's superintendent of public instruction. The resulting proposal reflected a written understanding that protected teachers' collective bargaining rights and put collaborative union–management relationships at the center of plans to turn around the state's most troubled schools (Flora 2013). State Superintendent Deb Delisle was central in these discussions. The Ohio Education Association (OEA) and the Ohio Federation of Teachers (OFT) also signed on with the understanding that union locals would be provided extensive information, but would be free to decide whether or not to participate. The result was a proposal that included 476 of 966 local education agencies (LEAs), representing just over half of the state's districts and charter schools, and substantial unity among those that chose to participate.

Many of Ohio's challenges and successes mirror general trends among the Round I and II states that have implemented Race to the Top over the past three years. Others are unique to the state. All highlight the potential for both positive and negative impacts from the initiative. This in-depth look at the state is designed to illustrate the complexities of Race to the Top and to help guide future education policy decisions at the federal, state, and local levels.

Like all states, Ohio brings both advantages and disadvantages to the implementation of its Race to the Top grant. Former state legislator Stephen Dyer, who helped craft the House bill two years prior to Race to the Top that gave districts time to engage teachers in leading the effort to incorporate student test scores in evaluations, says that the legislature's then-desire to nurture labor-management relations gave Ohio's effort an advantage. The bill tasked the Educator Standards Board, which includes teachers, principals, and superintendents and has traditionally developed standards for the profession of teaching, with designing the new evaluation system. Dyer suspects that the fact that the work was done by the standards board created more statewide buy-in than other states enjoy, and it has made teachers more accepting. He acknowledges that "there isn't a whole lot of logic behind some of this stuff [assessing teachers in nontested grades and subjects]" and that "the state legislature came in and sort of muddied the waters,

but the fact that teachers have had a strong and powerful voice has made it less combative than in other states" (Dyer 2013).

At the same, the state has had a long history of disputes over school funding levels and equity, occurring in the aftermath of the Ohio Supreme Court's 1997 *DeRolph* decision, which held that funding was inadequate. In the years after, the state made substantial new investments in education but, since 2004–2005, maintenance plans have provided only small annual increases. Governor Ted Strickland came to office in 2006 pledging to fix Ohio's education funding problem, but the 2008 recession and the election of Republican John Kasich in 2010 did away with his capacity to follow through (Fleeter 2013). Like many states, Ohio saw Race to the Top as particularly attractive during a time of fiscal constraints, but still began implementation on shaky economic ground. Moreover, it is unclear how either districts or the state will be able to sustain the new, costly measures put into place after the grant period ends next year. This, too, is a concern common among states, in spite of the initiative's intent to have states be self-sufficient after 2013–2014.

Political changes have compounded these economic ups and downs. The switch from a Democratic to a Republican governorship, combined with Republicans' new control of the state House of Representatives between the time Ohio submitted its proposal for Race to the Top and when it began implementation, has posed some of the biggest challenges. It forced delays in appointing officials to lead key components of implementation, a situation also found in Tennessee, which changed governors during the same period. The shift in legislators' tone has reduced enthusiasm among the teachers, principals, and administrators who were key to the state's ability to commit to the major changes. Finally, the legislature has recently enacted education laws regarding Race to the Top implementation and other issues that add to the burden teachers, principals, and school officials already face, further challenging successful implementation.

Teacher evaluation: budgetary and political decisions exacerbate time and resource limitations

Ohio's schools have suffered from a series of budget cuts in recent years. The small cuts that most districts encountered under the final budget of former Governor Strickland's administration have been compounded by \$1.4 million in further reductions, including the loss of \$600 million in federal stimulus money and \$1.2 million from changes in the tax structure under Governor Kasich (Varda 2013). Indeed, even the recent \$700 million infusion of new funds in the recently signed budget leaves schools \$515 million short of where they were in 2009 (Lopez 2013).

The resulting budgetary challenges at the state and local levels, combined with other issues, led to major delays and pullbacks in Ohio in the first year of RTTT implementation. At the state level, ODE cut many staff members. David Varda, executive director of the Ohio Association of State Business Officers, who worked in the department in the early 2000s, notes the loss of roughly 200 out of 600 full-time employees over the past decade. Moreover, he says, many of those remaining are supported by federal funds, making their use less flexible and leaving ODE "a mere shell of what it used to be" (Varda 2013). This lack of capacity impedes districts' ability to enact the major changes required under Race to the Top, due to lack of support and assistance from the top.

At the local level, the budget problems are seen as partly to blame for the loss of a number of smaller LEAs. In its first-year report, the U.S. Department of Education noted that, despite state-level efforts to provide regional aid, "supporting and maintaining engagement from participating LEAs with low funding allocations proved challenging.... In dividing resources among LEAs, Ohio generally found that LEAs with small allocations may not be as strongly committed to the State's Race to the Top plan as those who receive more resources" (U.S. ED 2012b, 6).

At the same time, the challenging fiscal climate means that Race to the Top funds have been critical in enabling a few strapped districts to enact much-needed improvements. In Dayton, for example, local union leader David Romick reports that the new money has been directed toward the "family and community involvement piece" of the RTTT plan, which, in Dayton, has received a very heavy focus. Prior to RTTT, the district had no such department as part of central administration. It now has a functioning department, with a program called "parent university" that brings many hundreds of parents in each year to "teach them how to support their child's learning." Romick says that the program "has been *extremely* popular," and that the new department has also boosted broader community outreach, enabling schools to communicate with parents and others about the impacts of state-level policies and other factors that affect schools' capacity to improve. As described below, the district of Worthington used RTTT funds to hire a number of substitute teachers, freeing up experienced teachers to craft new standards and curricula.

Budgetary issues have both short- and long-term implications. The new budget provides the smallest increases to small and rural districts, which tend to be the most strapped, according to former Democratic legislator Stephen Dyer (Lopez 2013). Reduced state subsidies for local property tax levies, which are a major source of support for school districts, will make it harder for districts to raise money going forward. Indeed, Dyer sees Ohio's history of and ongoing disinvestment in its schools as a reason that Race to the Top, despite its promise, is likely not to produce real educational improvement. "Without money, it's going to be hard to see any of this work. My guess is the state will not fund a meaningful evaluation system, that it will put in so many loopholes that districts that can't fund support won't do it. And the districts that *can* afford to won't need it much" (Dyer 2013).

Varda, too, worries that inconsistent and often insufficient funding will hamper sustainability. School business officials in both Race to the Top and nonparticipating districts note that the multiple new initiatives being implemented—teacher and principal evaluations, third-grade reading guarantees, and others—all require money. The PARCC (Partnership for Assessment of Readiness of College and Careers) assessments that are coming soon add to those burdens the need to create infrastructure—computer access, Internet capacity, etc.—that is currently lacking in many poor rural districts (Varda 2013).

These economic realities have been accompanied by changes in leadership that compound their impact. Ohio recently approved its fourth state superintendent of public instruction in as many years; that degree of churn, Varda notes, "cripples everything, and it takes time for the agency to recover." When Ohio first applied for Race to the Top, Governor Strickland had recently replaced outgoing Superintendent Susan Zelman with a new state superintendent, Deb Delisle, who came from the Cleveland Heights–University Heights schools district. Delisle, who led the state's Race to the Top application, was highly regarded and worked closely with unions and with both political parties. However, when Kasich was elected governor in 2010, he appointed one of Delisle's deputies, Stan Hefner, to replace her. Hefner had just begun to build a staff when he ran into ethics problems, and he was gone

within a week of the news. Michael Sawyers, another Delisle deputy who had been brought in to run RTTT, became interim superintendent, and quickly gained key stakeholders' confidence. He did not win Kasich's nod for permanent superintendent, however, and was recently replaced with the governor's top education advisor, Richard Ross, a long-time Reynoldsburg superintendent. Repeated derailing of superintendents' plans, and thus the foundations for infrastructure, has severely impeded RTTT implementation at many levels.

Political changes have prompted policy changes with major implications for Race to the Top implementation. *StateImpact Ohio* reporter Molly Bloom notes that, "Since joining the Kasich administration last year, Ross has been responsible for many of the recent changes to Ohio education policy including new A-F school report cards, a new proposed school funding system and expansion of school vouchers, the third grade reading guarantee, revisions to Ohio's new teacher evaluation system, and the Cleveland Plan" (Bloom 2013b).

These changes include a perceived shift in emphasis from a supportive system of teacher and principal evaluations to one that is more punitive. For example, during the recent budget negotiations, the Senate pushed to reduce the weight of student growth from 50 to 35 percent and to take into more account chronic absenteeism. The more conservative House, however, insisted on keeping the weight at 50 percent and determined that students had to have been absent at least nine weeks in order to have their test scores discounted in a teacher's value-added rating (Livingston 2013). Melissa Cropper, OFT president, says that the decision to allow the scores of students who are absent for so much of the year "is one of the factors that leads to teachers not trusting the data and questioning the intent of the evaluation process.... Granted, absenteeism is an issue that needs to be addressed...[but] by including it as part of the teacher data, it is convoluting the data, making it not an accurate representation of the teacher's actual ability to teach (Cropper 2013). Randy Flora says that Jim Mahoney of Battelle for Kids, who worked with districts to promote the use of value-added data as a formative measure, "gets livid every time a high-stakes decision is connected to those data."

What has hurt is the legislature putting RTTT on steroids and alcohol, by requiring an evaluation system with 50 percent based on student growth measures, and causing the implementation of those evaluation systems to go rather quickly. That just about killed participation initially. Because we had advocated changes, we've continued to support work, and found ways to delay the negative impact of those test scores, but we see major problems developing. (Flora, 2013)

Former Ohio School Board Association President Cathy Johnson, whose union would not sign on to the secondround Race to the Top proposal, says that her district was initially disappointed about the lack of money, since the changes would have to be enacted a year later anyway. After recent changes, however, her board is no longer upset and instead somewhat relieved that it does not have to "charge forward" with all the changes without someone else doing it first. The principals associations with which OEA works closely feel much the same, Flora says; it is hard to get people to implement changes with so many new requirements. Indeed, one education reporter has heard the term "the perfect storm" used by many educators to describe the combination of multiple layers of new requirements and tight deadlines just as resources are at their lowest.

David Romick, president of the Dayton Teachers Association, who notes both potential and problems in Race to the Top, also sees excessively rapid change as an impediment to strong implementation: "The timeline on the grant

was 'way too accelerated' from the start. You had two and a half minutes to think about it and get your application in, and that's the way it's been administered since then." Romick echoes other local leaders' assessment that "changing rules in the middle of the game" has exacerbated the problem, citing as one example a period in which "ODE directions regarding curriculum changed three times in two weeks. That leaves both administrators and teachers throwing our hands up in the air" (Romick 2013).³⁷

Under the new Ohio Teacher Evaluation System (OTES), how much a teacher's students improve counts for half of the teacher's overall ranking: ineffective, satisfactory, proficient/effective, accomplished/ highly effective, or distinguished (Bloom 2013a). Among teachers for whom value-added data are available, those data must be included in the student growth measure (ODE 2012). Because many teachers' students do not produce regular value-added scores, however, other measures of student growth have been established, including state-approved measures produced by national vendors and locally determined measures, including student learning objectives.³⁸ As such, teachers fall into three categories for the purposes of evaluation:

- Teachers in category A must use value-added for the entire 50 percent that is student growth if they teach only value-added useable subjects and grades, or a mix of teacher-level value-added and LEA measures if they teach a mix of value-added and non-value-added subjects.
- Teachers in category B, for whom value-added is not possible but approved vendor assessments are, must use Approved Vendor Assessments for between 10 percent and 50 percent of their total score, and LEA measures for the remaining 0–40 percent of the student growth share.
- Those in category C, for whom neither VA nor any vendor-approved measures are available, must use LEA measures for the entire 50 percent.

The other half of the evaluation score is based on educator observations and measures of professionalism.

Lack of information on how Ohio's value-added scores are calculated makes it difficult to determine their validity. They essentially compare a student's actual growth scores with his or her expected growth scores, which are based on how much other students at similar levels learned over the year. The work of calculation is contracted out, however, and the Ohio Department of Education's top research official said that he does not know exactly how it works, but he does not see this as a problem (Bloom 2013a). Steve Dyer says that the "proprietary" nature of the value-added formula, and thus the fact that teachers do not know how their scores are calculated, makes their sign-off more difficult (Dyer 2013). Romick agrees that "they are a mystery."

Unlike many other value-added models, Ohio's does not take into account student demographic information, which has been found to be a strong determinant of student achievement. As Ohio's teacher evaluations come in, it is not clear that they are accurately assessing teacher effectiveness, or that omitting this part of the data makes sense. According to an analysis by the *Cleveland Plain Dealer* and *StateImpact Ohio*, "2011–12 value-added results show that districts, schools, and teachers with large numbers of poor students tend to have lower value-added results than those that serve more-affluent ones" (O'Donnell 2013a). Matt Cohen, ODE's chief research officer, says that "value-added is not influenced by socioeconomic status. That much is pretty clear." In other words, Cohen believes that Ohio's intentional choice to exclude student race and income factors does not bias the calculation, but rather reflects the fact that low-income students are disproportionately taught by weaker teachers. The analysis, however,

shows that, while other factors play a larger role, value-added scores were 2.5 times higher, on average, for districts where the median family income was above \$35,000 than for districts with incomes below that amount, and while two-thirds of teachers in low-poverty districts had positive value-added scores, two-thirds had negative scores in high-poverty districts.

Other states and districts—including Washington, D.C., Florida, and New York City—do include income-based factors, which they believe are critical. But the software company SAS, which built the EVAAS (Education Value-Added Assessment System) that Ohio uses, says that "by including all of a student's testing history, each student serves as his or her own control," and that including other controls are unnecessary and could mask school problems. Eric Isenberg, who helped Mathematica develop the District of Columbia's value-added model, does include student attendance and absence records to control for motivation and says that failing to incorporate such controls would penalize teachers for students' backgrounds. "We'd see teachers that have all the wealthy kids look pretty good and teachers who are teaching all the poor and disadvantaged kids are going to look weak" (O'Donnell 2013a). And Dan Goldhaber, who compared various value-added formulas using teacher data from North Carolina, found the differences in value-added scores between teachers teaching high- and low-income students were much less—usually less than half—when the socioeconomic backgrounds of students were included (O'Donnell 2013a).

These concerns have translated into pushback from teachers, unions, and other local leaders. In Akron, Bill Siegferth, former president of the Akron Education Association, has been working with district leaders to develop the new OTES teacher evaluation system required under RTTT. As the *Akron Beacon Journal's* Doug Livingston reported, "Throughout these talks, teacher evaluations remain 'the biggest piece,' Siegferth said. 'You like to see less emphasis put on that,' Siegferth said of the student performance data. 'There are just so many elements there that impact the kid's performance. I understand taking responsibility for [student performance], but that's a tough call'" (Livingston 2013). Romick says that, while he supports some use of student growth data in teacher evaluation, the lack of transparency and emphasis on judgment over support has made his district reluctant. He does not believe that many districts are able to use the data well but says that Dayton's "great data and accountability capacity" have enabled it to use value-added to guide professional development and curriculum development (Romick 2013).

Cathy Johnson is a member of the school board of the South-Western City School District, which did not sign on, and is still in negotiation over a contract with the union as of July 2013, due to continuing concerns regarding the new teacher evaluation system. The lack of a good measure for the majority of teachers in untested grades and subjects, in particular, is holding up negotiations, and Johnson was worried that the new system wouldn't be ready by the start of the school year (Johnson 2013). She notes that testing is expensive, and the fact that districts already lack funds to provide the basics in education makes her skeptical that evaluations can be conducted in a productive manner:

I have school buildings that have one principal and probably 50-60 staff members that they are supposed to evaluate. I'm not sure how they're going to be able to get that done, and do everything else that's expected of them—be the instructional leader, etc.... I have seen teachers put in "marginal" status, and they are observed weekly, [but with Race to the Top requirements] that would be on top of the regular two observa-

tions for everyone else. Is that struggling teacher now going to be able to get that kind of support? There's an awful lot already expected, making this new addition seem totally bizarre. (Johnson 2013)

Divides are seen at the individual teacher level as well. Maria Plecnik, a Cleveland-area middle school teacher who was rated highly by her principal for seven years, has decided to quit her "dream job" after receiving a "least effective" rating (Bloom 2013a). One of her students, who started the year with serious behavior problems but has evolved into a strong student, called her rating "outrageous." "Plecnik was already frustrated by the focus on testing, mandatory meetings, and piles of paperwork. She developed medical problems from the stress of her job, she said. But receiving the news that despite her hard work and the praise of her students and peers the state thought she was Least Effective pushed her out the door" (Bloom 2013a).

Another teacher, a 28-year Toledo schools veteran, who hadn't seen her ratings when interviewed for the *Cleveland Plain Dealer* story, doesn't believe that the ratings capture what teachers do. But a teacher who had not received praise from her boss felt that her "most effective" rating was a long-overdue compliment. Arizona State University Professor Audrey Amrein-Bearsley, who studies value-added systems, says that if current flaws—lack of alignment with other measures of teacher quality, dependence on factors outside the teacher's control, inconsistency from year to year—were resolved, they would be good measures, "but in the current place we are, we are not ready for prime time" (Bloom 2013a).

Even teachers who received "most effective" ratings and believe themselves to be strong teachers express concern that value-added might not be as valid or reliable as its proponents suggest. Both Carrie Marochino and Adam Hartman have the advantages of teaching advanced math—i.e., of having students who are likely to be motivated and prepared and to score well—and of having taught the same subject for many years. Even so, Hartman told the *Cleveland Plain Dealer* that, while value-added can motivate teachers to try to do better, he "worries that out-of-class issues can make a teacher look bad. 'I can control the things that go on in my classroom, but when there are things that go on at home, I can't control those,' he said" (O'Donnell 2013b). The same story noted that "Marochino thinks teachers need to be evaluated, just like other professionals. But she said she worries that basing so much of a teacher's evaluation on students' performance on state tests is unfair, especially when some students don't try hard on those tests" (O'Donnell 2013b).

Charlie Wilson, president of the Ohio School Boards Association, says his biggest practical concern regarding teacher evaluations is their negative impact on the quality of teachers of the disadvantaged students who need high-quality teachers most:

Before we had this standardized test-based teacher evaluation system, we would give our very best teachers the most challenging students to teach. Because they need them. But what good teacher in her right mind would willingly want to teach these kids now, when they have no stability at home, no parental support, homelessness, hunger, all these problems? A lot of teachers got into this business, frankly came into the business to teach disadvantaged kids, but now they won't want to teach kids from challenging home situations. We're not seeing it yet, but it's inevitable that our best teachers will do everything they can to avoid teaching these kinds of kids. (Wilson 2013)

Several interviewees also worried that lack of funds from multiple years of budget cuts, combined with the added requirements under Race to the Top and state initiatives, will make it hard for districts to provide the support that is supposed to come with new teacher evaluations. Cathy Johnson, whose district did not sign on, has been able to invest extra money in recent years in professional development, including helping teachers use student data to tailor and improve instruction, and to hire literacy and math coaches to provide support in weak areas. She believes that Race to the Top would let them do less of that "because we're going to be so darned busy, and so concerned about teacher evaluations. I don't see it allowing us to do more professional development to help students. It might, I just don't see it" (C. Johnson 2013). Stephen Dyer, who helped draft the original House bill that took student test scores into account in teacher evaluation system that make it worthwhile—those that use the data to help teachers improve (Dyer 2013). And financial officer David Varda suspects that many superintendents feel the same. Recent legislative changes "attach strings" to the extra funds allocated for education initiative, limiting, among other things, the capacity of districts that have not yet invested much in professional development initiatives to do so going forward (Varda 2013).

But in Wilson's district, Worthington, the director of academic achievement, Jennifer Wene, paints a much more positive picture. Wene sees Race to the Top funding as a critical lever to enable positive change, though she, too, worries that recent state actions may "sabotage" much of the progress she carefully helped nurture (Wene 2013). In exchange for delaying OTES implementation, the district renegotiated a contract with its teachers for no raises for three years. The state's subsequent mandate that all RTTT districts fully implement OTES in 2013–2014 put the district in a difficult situation. Not only would it be forced to renege on the agreement, but the contract, like similar ones in other districts, had helped Worthington to pass a levy. Building on the good faith it had established with its union, district leadership offered the option to leave Race to the Top, but the union voted to stay in. Wene says that the district has worked hard to make clear to teachers that it supports them, and that "we're all in this together," a very different message, she says, from that conveyed by the state.

When developing their plan, teacher and district leadership jointly agreed to focus on vocabulary acquisition, given its key role in helping disadvantaged students achieve. The teachers spent a full year developing the new Worthington curriculum, which is based on the Common Core. This work prompted excitement about the development of new Student Learning Objectives, and about working in teams. RTTT money enabled this, Wene says, by paying for many long-term substitute teachers so that district teachers could devote themselves to this work. The project has "transformed their knowledge and understanding of the curriculum. They now see that they have to work collaboratively, and they are doing SLOs, formative and summative assessments together" (Wene 2013).

Worthington is different from many other districts, Wene says, in that it was intentional from the start about facilitating change and addressing teachers' fears and, thus, reactions to change. Without this foundation, progress is difficult, and pushback common, she says. Another big difference in Worthington is its use of value-added scores. Wene, who has concerns about the method the state uses to calculates them, says that "Worthington would never make hire-or-fire decisions based on one year scores," so it uses them for only the minimum required by the state in the teacher's total evaluation score. This method ensures that the focus stays on using data to inform instruction and not to push teachers to focus more on test scores and less on meaningful instruction. Finally, because the district relied on its own teachers to do the bulk of the work, it has not been dependent on outside experts and thus does not anticipate any major sustainability problems. Wene points out how different things would be if Worthington were a poor, urban district that faced a different, much more pressing set of problems and had fewer resources with which to address them. Wilson, too, notes that upper-middle-class Worthington likely has a different perspective from most other districts, in that it was planning to make many of these changes anyway; Race to the Top gave it some funding to do so. Despite these advantages, Wilson says that, now that they're faced with these deadlines, the impending teacher evaluations will be difficult because the procedures haven't been tested. Wene, too, feels that the tight timeline may actually be counterproductive to the goal of getting major change accomplished well. Given all of these factors, teachers' reactions to the changes naturally vary greatly. According to Charlie Wilson:

They range from "oh, my god, another one of these reform impositions that teachers were not directly involved with imposed by people who don't know what is going on in classrooms," to "we need to make some changes, and education needs to be always improving and reforming." The overwhelming sense, however, is "they're expecting us to build the airplane in midair while we're flying it." Yeah, we do build new airplanes, but we build and test them before we put a whole bunch of children in them. (Wilson 2013)

Implications for Common Core rollout

Concerns about current capacity to faithfully implement valid, supportive evaluation systems are elevated with respect to the impending rollout of the Common Core State Standards (CCSS), to which Ohio has committed. This will likely exacerbate existing gaps between high- and low-capacity districts. Indeed, Melissa Cropper worries that, because "CCSS implementation was somewhat put on hold in order to deal with evaluation, time is now getting shorter. [This] has left many districts, especially those with limited capacity, behind schedule. Others that used their RTTT monies to help create the professional learning schedule needed to implement are ahead of the game" (Cropper 2013).

She and others note the state's failure to develop the necessary new standards on time and, thus, the misalignment between evaluations and what they are supposed to capture. Randy Flora describes a system of "gerry-built" tests that attempt to transition from old standards to the new (PARCC) ones by developing a hybrid that keeps some old pieces, throws others out, and fills gaps by identifying items with some relationship to new standards (Flora 2013). The result is tests that are not aligned with any set of standards, according to Flora, but rather, exist for the purpose of testing only. "What possible information could that give anyone and why would you do that?" (Flora 2013). He notes that this is all taking place within a context of teachers and administrators struggling to make changes in curricula and develop new professional development programs when they do not have the three-to-four years needed to ensure confidence that the new tests accurately measure the heightened standards. David Romick says of the Common Core:

We're going into CC implementation the same way we went into RTTT, at about 100 miles an hour without being able to see out the windshield. In terms of nationwide curriculum, it needs to be approached cautiously, carefully, and implemented with some thought, instead of 'here's the fix of the day.' And it gets implemented without fidelity and unsuccessfully. (Romick 2013)

Some of Ohio's more conservative legislators have joined a growing national trend of opposition to the Common Core, based largely on concerns about federal control of education but also on the belief that implementation rep-

resents an unfunded mandate (Bloom 2013c). On July 25, 2013, State Representative Andy Thompson filed a bill to repeal the standards in Ohio; he is backed by Heidi Huber, the leader of a group called Ohioans Against the Common Core, and cited increasing concern among his constituents that the standards have not really been "state-led" (White 2013). The bill is unlikely to pass: Not only does Governor Kasich strongly support the standards, but both the state Senate and House Education chairpersons reject these concerns and the latter, Gerald Stebelton (R-Lancaster), says that there is no way that Ohio would renege on its commitment to implement the standards. Even he, however, admits that the concern that schools and students are not ready for all-online Common Core tests "has some legs under it" (White 2013).

Student achievement/standards

The challenges that Ohio has experienced in implementing Race to the Top reforms are mirrored in the gap between the extremely high goals it set for raising student achievement by 2014–2015 and its progress so far in attaining those goals. In its RTTT proposal, Ohio sets targets of:

- Reducing academic performance gaps by 50 percent on national and statewide assessments for the same students
- Reducing the gap between Ohio and the nation's best-performing states by 50 percent on national reading and mathematics assessments
- Increasing high school graduation rates by 0.5 percentage points per year to approximately 88 percent by the end of the grant period
- Reducing the graduation rate gap by 50 percent between underrepresented and majority students in participating LEAs and community schools
- More than doubling the increase in college enrollment of students ages 19 and below to 14.5 percent by fall 2013, and more than doubling the increase in college persistence of enrolled students to 10.35 percent by the same time period.

However, Ohio's students saw no statistically significant improvement in proficiency in either math or reading between school years 2008–2009 and 2010–2011, as measured by fourth- and eighth-grade NAEP scores. Through those years, just over one-third of fourth- and eighth-graders were proficient in reading, and the same shares of eighth-graders but 45 percent of fourth-graders were proficient in math. As a result, Ohio missed three of its four 2010–2011 targets (U.S. ED 2012b, 7). In fact, rather than making progress toward its objective of cutting in half the gap between it and Massachusetts, Ohio widened gaps in fourth-grade math and reading and in eighth-grade reading, narrowing only the eighth-grade math gap (due to a combination of a statistically insignificant three-point gain in Ohio and the loss of a point in Massachusetts) (ODE 2013, 21). While state assessments are less reliable measures than NAEP, as set forth above, parallel results on Ohio's test suggest that the pattern is a real one, and that, unlike other states, Ohio has not changed cut scores to suggest false gains. State assessments register a lack of progress similar to that of NAEP toward the state's targets between 2010–2011 and 2011–2012. Students failed to attain growth targets the state set in English-language arts in grades 3-10 with the exception of eighth grade, and that was only because the target had been set well below the level of the prior year. Other than narrowly achieving

the fifth-grade target, students missed every math goal, and in third and sixth grades performance declined slightly from the prior year, causing the state to miss those targets by more than 7 percentage points (U.S. ED 2013e, 6).

Similarly, the state made no progress toward closing achievement gaps, indicating that all student subgroups experienced similar lack of gains (U.S. ED 2013e, 9). In fact, a 2013 RTTT progress report by the Ohio Education Research Center (OERC), a collaboration of researchers from six universities and five other state research institutions, notes that income-based achievement gaps grew slightly. The gap in math increased by 0.3 percent, and the reading gap grew by 0.5 percent, putting the goal of closing them further out of reach (ODE 2013, 16). Race-based gaps grew at a slightly lower rate: by 0.3 percent in math and 0.2 percent in reading. These increases indicate either that low-income and minority students actually lost ground, and/or that any small achievement gains that did accrue went disproportionately to advantaged students, not to those the reforms target.

The OERC report also finds that, while the graduation rate in the state is rising, it rose at a slightly higher rate from 2010 to 2011 in non-RTTT districts than in participating LEAs (OERC 2013, 8). And while the race-based graduation gap narrowed slightly, the income-based gap grew a bit. Disadvantaged students also gained slightly less ground in Race to the Top districts in terms of graduation rates—an increase of 1.5 percent in RTTT districts vs. 2 percent in other districts. However, the state did make progress toward its goal of doubling the increase in college enrollment, adding 1,200 additional students between 2010 and 2011; it still has 2,400 to add by 2014 (ODE 2013, 24).

As set out above, the evidence base does not suggest that changes enacted under Race to the Top could come anywhere close to producing the improvements in student outcomes that Ohio predicted. Nor does any research support the potential for even the most effective reforms to boost achievement in such a short time. That said, the lack of virtually any progress in Ohio in the first three of four years of the initiative's grant period should give serious pause to its proponents. It should also serve as a caution for states implementing similar policy agendas, and for the Department of Education's implicit agreement with states that such ambitious goals could be achieved.

Appendix B: A case study of Race to the Top in Tennessee

Background

In March 2010, Tennessee was awarded \$500 million as one of two first-round Race to the Top winners. Two months prior, the state had passed the First to the Top (FTTT) Act, codifying into law the reform strategies of Race to the Top. FTTT established an Achievement School District (ASD), which enabled the state commissioner of education to directly intervene to "turn around" the state's lowest-performing schools and required annual teacher and principal evaluations based partly on student achievement data (Boser 2012).

From the start, as in other states, there were serious concerns about capacity. Tennessee received a Gates Foundation grant to hire a consultant, support from Education First for implementation, and \$1 million from the Battelle Memorial Institute to staff and support a STEM initiative (Kronholz 2010). By May 2010, FTTT had engaged multiple contractors:

Battelle for Kids contract [Integrating Data to Improve Instruction] discussions continue. New Teacher Center contract developed to provide Teacher Working Conditions Survey. Grant to Save the Children for rural literacy designed. Education Delivery Institute contract negotiations begin. Tennessee DoE works with SAS on the data dashboard proposal and on providing Battelle and other First to the Top contractors with Teacher Value Added Assessment System data necessary to train teachers. Tennessee Higher Education Commission works with the University of Tennessee, Chattanooga and the University of Memphis to begin contract discussions for UTeach replication. (TFTTT 2010a)

Indeed, "After winning its Race to the Top grant, Tennessee contracted with the U.S. Education Delivery Institute to conduct a 'capacity review' of the state's department of education. Their review concluded that 'the organization and the work wasn't organized in a way that supported implementation" (McGuinn 2012, 13).

In July 2010, the state Board of Education voted to adopt the Common Core standards, with a "very rigorous definition of proficiency for TCAP [Tennessee Comprehensive Assessment Program] benchmarking" (TFTTT 2010b). Despite anticipating a substantial decline (as much as 50 points on average per grade and subject) in state test scores, however, Tennessee asserted in its Race to the Top application that "We believe our ultimate goal of 100% proficiency is still the right one—no matter whether the assessment is old or new" (Office of the Governor of the State of Tennessee 2010, 20).

Like other states, Tennessee found that the tight timeline made it hard to fulfill its lofty promises. For example, the longer-than-expected time it took the state to fill key leadership positions meant delays in timelines and problems providing capacity to support local districts (U.S. ED 2012d). The transition in January 2011 from Governor Phil Bredesen (D), who had led the state's Race to the Top effort, to Governor Bill Haslam (R), also delayed the appointment of the new commissioner of education (Boser 2012). As in Ohio, delays at the leadership level led to others. Tennessee scaled back turning around its lowest-performing schools, even though it had passed a bill authorizing state-level intervention before even getting the grant. The state identified 13 ASD schools in its proposal, but only five entered the ASD in 2011–2012; the other eight were to join the ASD in 2012–2013 (Boser 2012).

Kevin Huffman came on board in April 2012 as Tennessee's education commissioner. The first Teach for America alumnus to lead a state education agency, Huffman reorganized the state Department of Education. The new structure included a division of teachers and leaders to bring together functions that had not previously worked together, including preparation, licensure and certification, recruitment, staffing, compensation, evaluation, and professional development (McGuinn 2012). Assistant Commissioner Sara Heyburn said the new division would help the state obtain much-needed human capital: "These new evaluation models require unique skills and expertise but there are not a lot of people yet with experience in this work." This change did not entirely fix the problem, however: "Heyburn reports that while she has had a good bit of freedom to recruit and hire the people she needs, several changes of hand around the evaluation work during the first phase of implementation have been a challenge" (McGuinn 2012, 14).

Teacher evaluations: rapid implementation, meager resources, and lack of support

The Tennessee Educator Acceleration Model (TEAM) applies the First to the Top mandate that teachers be evaluated based 50 percent on quantitative and 50 percent on qualitative data. Teachers of tested subjects—math, language arts, science, and social studies—are evaluated based 50 percent on observations, 35 percent on the Tennessee Value-Added Assessment System (TVAAS)—the state's value-added model—and 15 percent based on student achievement (rather than growth), which is established based on teacher–principal agreement.³⁹ Value-added applies only to about 40 percent of elementary teachers, however, as K-2 students and students in art, music, and other specialties do not take the TCAP, and counselors and other staff similarly have no standardized test scores to apply.

Implementing test-based teacher evaluations has proven complicated, even in the state that developed the first value-added models. However, unlike other states, Tennessee did not request an extension from the federal Department of Education but rather moved forward with statewide implementation in school year 2011–2012 (Heitin 2011).⁴⁰ As a result, observation tools developed by the Teacher Advancement Project (rubrics with 19 variables) had not been fully field tested—only three months had been allocated—and training on their use was insufficient.

Unlike other states, Tennessee's Department of Education trained all observers and evaluators, using a four-day summer session to train over 5,000 total. It also developed an online training portal with instructional resources and a certification test. Timothy Gaddis, Williamson County Schools assistant superintendent for teaching, learning, and assessment, felt that the training and support provided was very good. However, he also wished for "one more year or so to roll out" the new system, acknowledging his discomfort with the system's numerous bugs and his own inability to assure observers that the program would work and be credible (McGuinn 2012, 13).

New York Times reporter Michael Winerip found that tight legislative timelines to implement the new teacher evaluation systems prompted by Race to the Top caused a destructive rush. Winerip described a process that was marred by poor communication, excessive state micromanagement, and a bewildering array of assessment rules (Winerip 2011b). Those rules required, for example, that the strongest teachers in a school be observed the same four times per year as the weakest. Will Shelton, a middle-school principal who was interviewed for the story, called this "an insult to my best teachers [and] a terrible waste of time." He stated of the rules and the paperwork they required, "I've never seen such nonsense. In the five years I've been principal here, I've never known so little about what's going on in my own building." Teachers, too, were unhappy, describing "the amount of prep and work involved [in planning lessons that meet the complex rubric's requirements as] just unreasonable" (Heitin 2011). Gera Summerford, the president of the Tennessee Education Association, reported teachers spending four to 12 hours to prepare detailed lesson plans that are "almost a script" to fulfill guidelines, and saying that "I love teaching, but I'm starting to hate my job." One of Shelton's teachers said that "morale is in the toilet." The state commissioner of education defended the measures and dismissed teachers' and principals' complaints as self-serving protection of the status quo. But Grover Whitehurst, former director of the U.S. Department of Education's Institute of Education Sciences under President George W. Bush, called the measures "extraordinarily complex," and said that he didn't really understand what they meant or "how I as a teacher would be expected to perform them" (Heitin 2011).

Moreover, there was no time to develop alternative measures for the many teachers of untested grades and subjects, so the student growth portion of the evaluations—35 percent—was based on schoolwide TCAP data. Such data cannot help teachers tailor future instruction, let alone accurately measure their impact on student growth. White-hurst, who currently directs the Brookings Institution's Brown Center on American Education, criticized Tennessee for rushing into this untested system. He noted that it "doesn't pass the common-sense test for being a measure of what it's intended to measure," and warned that it would give strong teachers perverse disincentives to serve in hard-to-staff schools (Heitin 2011).

Getting teacher evaluations right is particularly critical in Tennessee because, in addition to evaluating all teachers using student test scores, and making tenure decisions based on them, the state used RTTT funds to develop performance-based salary schedules in four pilot districts (Boser 2012).⁴¹

In response to teachers' complaints that the new evaluation system was intrusive and taking time away from instruction, Governor Bill Haslam ordered the State Collaborative on Reforming Education (SCORE) to review it in November 2011 (Boser 2012). SCORE's statewide process to solicit educator feedback produced mixed reviews. While some teachers reported receiving more regular and specific feedback, others "questioned whether principals had the time and ability to effectively assess teachers and believed that there was 'inconsistent interpretation and implementation of the rubric"' (McGuinn 2012, 14). These concerns are affirmed by the considerable variation across districts in midyear principal ratings of teachers: Almost half of all teachers received the top possible score in one district, while in another district only 1 percent did. This prompted one teacher to remark, "I question how evaluators are evaluating if the scores vary greatly across the state.... I feel like the [state] jumped into this new plan too soon" (Hubbard 2012).

SCORE's June 2012 report recommended providing more time and training for administrators and teachers to use the rubric, and linking feedback more explicitly to high-quality individual learning opportunities to improve instruction (SCORE 2012).⁴² Concerns about the rush to implementation, however, did not alter the timetable. Indeed, Commissioner Huffman rejected in advance any suggestion to delay TEAM implementation. Despite reports from superintendents, teachers, and coaches of "angst…loss of sleep, vomiting from extreme nervousness and even stress-related shingles," Huffman insisted that "the new evaluation system is already improving instruction" and that delaying it would deny districts access to a powerful tool (Sher 2011).

Like other states, Tennessee has struggled to determine how to assess the effectiveness of teachers of untested subjects. Teachers with no value-added scores are evaluated based 60 percent, rather than half, on observations, usually by the principal, 25 percent on schoolwide growth, and 15 percent on their chosen achievement option. One mother who asked not to be quoted by name reported that her daughter's music teacher "was frustrated because her scores came down [under this new system], and the principal said, 'Look, I really just don't know this area.' So this is insane for them, they are getting scored on factors they have no control over."

One step the state took to reduce the number of teachers who fall into that category was to allow the use of the Stanford-10 (SAT-10) for students in kindergarten through second grade, a method that enables the production of math and reading value-added scores for teachers. It subsequently developed detailed metrics for assessing student growth in the fine arts, where a complex portfolio system requires teachers to collect "evidence" at least five times each year that demonstrates student growth in multiple domains. This evidence is submitted online and evaluated both by the teacher and by an external evaluator. Teachers of some other subjects will also begin to use portfolio or similar approaches. These new rubrics were not yet available in the 2012–2013 school year, however, so teachers of subjects other than math, language arts, science, and social studies continued to be evaluated based on schoolwide value-added scores calculated based on tests in those subjects.

Also reflecting the experiences of teachers in other states, many teachers in Tennessee do not feel that the incorporation of student test scores and new, more structured observations have helped improve their instruction. The state's TEAM web page emphasizes teacher support and development, but input from district-level educators paints a much more mixed picture. A state teachers' association representative says that the evaluation system has been used more as a "gotcha." One concern his group had when formulating the evaluation policy was that "nothing forces the principal to give the teacher a future growth plan," so that, for example, low ratings would trigger an end-of-year conference with suggestions for professional development opportunities and resources to obtain them. Some good principals are doing this, he says, but because the system does not require it, too many are not.

Two years into implementation, reactions to the new teacher evaluation system range from cautiously optimistic to suspicious and dismissive. Wayne Miller, executive director of the Tennessee Office of School Superintendents, says that, when data truly reflect the teacher's contribution to student performance and are used appropriately, and when scores are combined with thorough principal observations that provide useful feedback and tools to improve practice, the system has real potential. In many cases, however, those criteria are not fulfilled. Many parents worry that value-added scores do not accurately reflect teacher skill or contributions, and that they are dissuading good teachers from serving or staying in schools that need them most.⁴³ One consultant who works in multiple areas of the state reports that, in rural districts where teaching has traditionally been a respected profession, "teachers are fed up and now leaving in droves"; turnover rates have risen sharply, he says, such that 20 percent or even 25 percent of teachers are now leaving each year.⁴⁴

State-district conflict: teachers and parents perceive a punitive approach

Recent news articles and interviews suggest that many of those who signed on to Race to the Top are disillusioned by new laws and regulations being issued as part of implementation. These shifts have further demoralized teachers and principals who were already frustrated, created stressful conditions for students, and prompted vocal opposition among a growing group of parents. More than one interviewee described "a culture of fear" in which superintendents and others who are at the forefront of implementation are afraid to speak out for fear of retribution.⁴⁵ At the heart of the conflicts are substantial increases in the number of standardized tests and charter schools, and the substitution of veteran, experienced educators and education leaders with novices, sometimes at high cost.

Parents cite the increased amount of class time devoted to test taking as one indication of the new and undesired direction of Race to the Top. One parent with whom we spoke reported that her 8-year-old daughter, an advanced third grader, devotes roughly 25 days of her school year to test taking. Teachers tell the mother that 30 days is about average, and this excludes extensive additional time devoted to preparing for the tests. This increase is reflected in the growing cost of the tests. Since RTTT implementation began, Tennessee has tripled payments to the testing company Pearson; annual costs have risen from just over \$7 million in 2009 to nearly \$22 million in 2013 (Tennessee Central Procurement Office n.d.). By 2012, the state will have paid Pearson a total of \$115 million, including a \$55 million amendment signed in 2012 that indicates optional development of a K-2 standardized test, as well as test practice materials. (Tennessee Central Procurement Office n.d.).

Another common concern was lack of faith in the validity of scores on the TCAP, Tennessee's standardized test. As a result of changes in assessment style, scores fluctuate; they drop when new tests or standards are introduced, but, says one educator who asked not to be quoted by name, "Once teachers get it down, and they know what you're looking for, they can knock it out of the box." Proficiency standards on the TCAP, which are set by the state Board of Education, are also frequently changed. This makes it difficult to assess the validity of claims, such as those issued by the state Department of Education in the past two years, of record gains on the TCAP (Duncan 2012; SCORE 2013). Moreover, several superintendents assert, the cut score for what constitutes proficiency can be (and is) set after students have taken the test.⁴⁶ If true, that enables the state to adjust cut scores down to create the appearance of added growth, such as that seen over the past two years, or up, which would artificially reduce gains and justify interventions.⁴⁷

The lack of transparency regarding the calculation of value-added scores —TVAAS uses proprietary and closely guarded equations—has led parents to ask questions. This past year, after the state scores were released and the state touted large gains for a second consecutive year, one Metro Nashville Public Schools (MNPS) parent made repeated requests to the state Department of Education to release district scores. He was told that they were not yet available, as they were "not yet final" (Weber 2013). When asked how state scores could have been calculated without final district scores, the state official explained that districts had been asked to review and confirm the accuracy of all the scores (although those scores had already been used to report the large state-level gains). A recent *Tennessean* article reports, however, that two superintendents complained that they were denied the opportunity to make changes to inaccurate coding (Giordano 2013).⁴⁸

In addition to their use to measure Adequate Yearly Progress under No Child Left Behind and to provide 50 percent of value-added scores for teachers in tested grades and subjects, a new state law requires that TCAP scores be incorporated into students' end-of-year grades. Proponents of the requirement say that it forces students who may not otherwise take the high-stakes tests seriously to work hard. Opponents, including Memphis Promise Academy Charter School Executive Director Thomas Beazley, worry that the policy places additional stress on students and further burdens teachers. Beazley expressed this in a 2012 waiver request:

[T]ying student TCAP scores to second semester grade average is not developmentally sound for elementary school students [as it] places undue importance on standardized tests...[and has the potential for] significantly diminishing or overshadowing the hard work they have done all year. Our students are and should be inspired to learn as our mission states. Tying a snapshot score to final grade average is far from inspirational. In addition, TCAP scores are not public for several weeks after the school year concludes and will create undue hardships for teachers, administrators and other school personnel to update report cards well after the school year ends. (Beazley 2012)

Huffman granted the waiver request, but when parents of public school students used Beazley's letter to make similar requests on behalf of their children and others across the state, they were denied. Assistant Commissioner Stephen Smith wrote, "The commissioner's authority is very limited in terms of waiving statutes and, under current law, applies only to charter schools. There is legislation awaiting the Governor's signature that would also extend this authority to school districts designated as "High Performing" [under specific state measures]" (Smith 2013).

As it happens, Promise Academy did not appear to be "high-performing." Around the same time it had applied for the waiver, two news articles documented the school's bid to stay open; it had been struggling for several years and was at risk of losing its charter. "The school, which is 98 percent African-American, has gone through two principals in five years and turned up on the state 'target' list this winter because of its low reading scores. Two years on that list and Promise can be shut down" (Roberts 2011a). A subsequent article asserted that the school actually had high scores, and that the threat of closure was due to grades that had been wrongly calculated: "according to test results from 2010, the charter outperformed most of the city's elementary schools, school officials say. But because of a quirk in the way the state scores TCAP tests, Promise is one of three charter schools in Memphis in danger of closing" (Roberts 2011b). But John Barker, Memphis City Schools executive director of research, evaluation, assessment, and student information, refuted these points in a commentary that he posted in response:

There is no "quirk" in the way TCAP tests are scored. Students take the test, the scanner records the answers, and the results are used to determine Adequate Yearly Progress (AYP). There is absolutely no evidence presented of the 'quirk" and whatever Jane [Roberts, the reporter] is referencing, it is most certainly not involved with the scoring of the tests. (Barker 2011)

Promise Academy avoided being shut down and is currently on the list of charters authorized to take over "failing" public schools as part of the state's Achievement School District for school year 2013–2014 (Dries 2013).⁴⁹

Several of Promise Academy's board officers were contributors to Governor Haslam's campaign. Charles Gerber, president and chairman of the board, gave \$2,000 to Haslam's 2010 campaign, and Andrew Taylor, Promise Academy treasurer and Gerber's partner at Gerber/Taylor, contributed \$1,000 in July and \$2,000 in September 2010. Grady Garrison, secretary of the Promise Academy Board, is an attorney at Baker Donelson, which contributed \$5,000 in cash to the campaign and provided \$1,000 in in-kind donations. And three other Gerber/Taylor employees—William E. Pickens, Michael J. Douglass, and J. Beasley Wellford—each donated between \$1,000 and \$1,500. (Tennessee.gov 2013)

This is only one of several incidents in which favorable treatment of a charter school coincides with personal or political connections. In 2012, the MNPS school board became embroiled in a public battle with Commissioner

Huffman over the board's refusal to grant one of many charter operators' applications, in this instance, to open a school in a wealthy section of the district. Great Hearts Academies, an Arizona-based charter operator, applied to open its first out-of-state school in West Nashville in 2012. The district school board, which had approved several other charter applications, turned down Great Hearts twice over concerns that its request to locate in a wealthy neighborhood and refusal to provide transportation would prevent it from serving the disadvantaged students who might benefit the most. Tennessee law enables charter applicants who are turned down twice at the local level to appeal to the state to bypass the board's decision, which Great Hearts did. The state mandated that the local board approve the application provided it met several contingencies, including the creation of a diversity plan like those other charters had to produce (Strauss 2012). A review of Great Hearts' record in Arizona, however, only furthered the board's concerns; in 11 of the operator's 12 schools, only 7 percent of students qualified for free and reduced-price lunch and, as board member Amy Frogge noted, less than 1 percent of students the schools served were English-language learners, "a shockingly low percentage for a border state" (Frogge 2012).

After the board issued its rejection, Education Commissioner Huffman announced a \$3.4 million fine on MNPS, accusing the district of violating state law. He claimed that the loss of funds would affect only administrative matters and would not hurt students, but as *Washington Post* education reporter Valerie Strauss noted, "The money is coming from funds that affect student transportation, utilities and classroom maintenance" (Strauss 2012). While Huffman couched his decision as unavoidable, evidence suggests personal and political motivations. "High-ranking officials were steamed that MNPS rejected the charter school. Emails obtained by *The City Paper* revealed both Mayor Karl Dean and Education Commissioner Kevin Huffman working behind the scenes to help Great Hearts win approval" (Zelinski 2013).⁵⁰

The Memphis Academy of Science and Engineering (MASE) is another example of apparent special treatment for a charter school. MASE was among the bottom 5 percent statewide considered "failing" in school year 2012–2013 (Schooling Memphis 2013a). Tennessee charter schools are up for renewal every 10 years, and in January the Memphis City Schools administration recommended that the city board not renew MASE's charter.⁵¹ The chairman of MASE's board of directors, Steve Bares, a prominent city Chamber of Commerce member, defended MASE's dismal performance, asserting that changes in how the school was ranked put it at a disadvantage and depicting it as the best of bad options for students who would leave were it closed. The *Schooling Memphis* blogger was unpersuaded, noting that the MASE website gives no indication either of its rock-bottom status or "of the well-deserved outcry against MASE's decision to send its students on a variety of non-instructional field trips while it ironed out its problems in planning for appropriate space for classrooms" (Schooling Memphis 2013a). Low test scores and logistical concerns notwithstanding, the school board ultimately voted with only one "no" vote to extend MASE's charter for another 10 years, meaning that "the earliest that MASE could come up for discipline is at the second year of its new term—that would be in 2015 [after 2014–2015 test results are available]" (Schooling Memphis 2013a).

As the state increases its push to rapidly open more charters, other concerns have surfaced. The *New York Times* recently reported that charter schools that have taken over "failing" Memphis schools as part of the Achievement School District have had a rough first year, being accused of cultural and racial insensitivity and of causing instability. "The leadership turnover has been bumpiest at Cornerstone Prep…[where] no teachers remain from the previous year, and more than a quarter of the new staff was hired through the Memphis Teacher Residency, a program for

young college graduates, and Teach for America" (Rich 2013). This makes sense, given the state's rules for ASD schools; all emphasize frequent testing, many are instituting performance pay based on those tests, and teachers in ASD schools are not eligible for tenure, policies that provide strong disincentives for the qualified, credentialed teachers who are already in these schools to stay there, or for other district teachers to serve in them.

While some parents, teachers, administrators and community leaders hail signs of progress in the [past] seven months...others have complained about a lack of racial sensitivity and have accused the new district of sidelining experienced teachers, many of whom are black.... At one explosive community meeting in December, parents complained that children had suffered repeated bathroom accidents under strict new disciplinary policies. Other fumed that teachers were taking shoes from students caught fiddling with them. (Rich 2013)

In Nashville, a recent report finds that low-scoring students are being pushed out of charter schools and into traditional public schools just before end-of-the-year tests. This practice inflates average scores in the charter schools while lowering them among some of the public schools that were already struggling (Ferrier 2013). In 2013, the eight MNPS schools with the highest rates of attrition were all charters, which are the only schools to lose between 10 percent to 33 percent of their students during the year. KIPP Academy, which displays in the entrance to its building a "graph that shows how KIPP is outperforming Metro schools in every subject," had an 18 percent attrition rate in 2012–2013. Of the 20 students who left, 19 had multiple out-of-school suspensions, and 11 of those 19 were classified as special-needs students. This has implications for Memphis, too, as KIPP is one of two charter organizations slated to take over six ASD schools there in 2013–2014.

In all, those interviewed voiced repeated concerns that many charter schools were not serving all students, had been granted favors that public schools were denied, and exerted financial strain on stretched urban district budgets, but because of well-connected corporate backers, charters were not subject to the same scrutiny as regular public schools.

Deprofessionalization of teachers

Since the inception of Race to the Top, Tennessee has enacted changes to teacher pay, certification, and tenure that have generated a sense among teachers that they are not being supported or respected as professionals. In June 2011, the legislature passed laws limiting teachers' collective bargaining rights and extending the time required to get tenure (Ghianni 2011). In April 2013, state education leaders instituted a new pay schedule that sharply cuts teachers' compensation. While it increases base pay minimally, the new system reduces incremental pay steps and eliminates pay increases for training higher than a master's degree (Jensen 2013). State Representative Gloria Johnson, who is a Knoxville public schools teacher, rejects Commissioner Huffman's assertion that the change does not undermine teachers. Johnson issued a public statement of opposition to the measure, which, she notes, cuts pay for some teachers as much as \$3,000 per year. She worries that the "extreme salary schedule will shortchange students by undermining our ability to attract the best and brightest educators to our state for years to come" (G. Johnson 2013).

At the same time, Tennessee is paying large sums to contract with Teach for America for recruits to serve in its schools. As per a no-bid 2012 contract, the state paid nearly \$7 million in American Recovery and Reinvestment

Act funds to recruit 350 students this past year and 390 more next year, or just over \$9,000 per recruit, to highneeds schools in Memphis and Nashville (Tennessee Central Procurement Office 2012).⁵² On top of this state contract, districts have their own contracts with TFA. In Nashville, where Mayor Karl Dean was instrumental in bringing Teach for America to Metro Schools and arranged for partial funding of the fees during the first three years (2008–2011), the district paid \$5,000 per recruit for the first two-year period of the contract and \$6,000 for the second and third cohorts.⁵³ Memphis is paying \$4,000 per recruit (Shelby County Board of Education 2013).⁵⁴

Mayor Dean, whose son Rascoe is a former TFA teacher, shows his commitment to TFA in other actions as well. Dean and his wife hosted a fundraiser for TFA Nashville at their home in 2012, and, under his leadership, Nashville established a "Sponsor-a-Teacher" program to engage the city's community leaders to help defray the program's costs. ⁵⁵ Nashville also hosted the April 2013 regional ED Leadership Retreat, where Dean won the first Honorary TFA Alumni award for "Transformational Change.⁵⁶ TFA has benefitted financially from this support: an amendment to the district's 2012–2013 and 2013–14 contracts raised the per-recruit cost from \$3,000 to \$5,000 per year, or \$10,000 for a two-year contract. The number of teachers recruited also increased, from 50 in each of the prior two years to between 80 and 100. As the contract amendments note, as a result of these changes, "Total compensation available under this contract is increased by \$1,000,000 (Metropolitan Board of Public Education 2012, 2013).⁵⁷

Like other RTTT states, Tennessee has also turned to noncertified educators to fill other roles in the education arena. In Memphis, the district is recruiting students and recent graduates of business masters programs to serve as "Education Pioneers," taking leadership roles in schools and the central office. These recruits are tasked with budgeting, analyzing student achievement and teacher effectiveness data, and even drafting curricula (Schooling Memphis 2013b). This trend extends even to roles that are specifically intended for the most qualified veteran teachers. In an MNPS program for mentoring teachers, needy schools received money to hire outstanding teachers to serve for one to two years with no classroom responsibilities so that they could devote their time only to helping other teachers. While this was "great in theory," schools were not able to actually recruit the best, most qualified teachers, Nashville parent Maura-Lee Albert says. Rather, the mentor was usually a younger person who was willing to participate for a couple of years, who could go to something else when funding dried up. Schools did not guarantee that they would honor seniority, so it made no sense for the senior teachers they purportedly intended to attract to take the project on.

Tennessee has traditionally underinvested in public education. In 2010–2011, it ranked 44th of the 50 states in teacher salary, 47th in public school revenue per student, and tied for 45th in state and local revenue for public schools per \$1,000 of personal income (NEA 2012). Recent shifts suggest even less investment—salaries of veteran teachers are being cut—as well as a short-term strategy focused on investing large sums in novices who leave quickly.

Conclusion

As in Ohio, changes in Tennessee's leadership at the state executive level and in the Department of Education, combined with limited resources and lack of capacity and expertise among staff, caused delays and forced the state to pull back on some of its ambitious promises. Interviewees report that money is drying up for promising pro-

grams, and many see a lack of commitment to major changes initially promised, such as STEM investment. One consultant describes the state's RTTT application as "a champagne idea with a beer budget."

At the same time, the very accelerated pace at which Tennessee rolled out components of Race to the Top, particularly those associated with educator evaluation, led to premature use of untested tools. Student test scores that are unrelated to the teacher were used and continue to be used for evaluation. New rubrics developed for teachers of select subjects may help alleviate this problem, but it is not clear how viable they will be, and many teachers remain without such options. What is clear is that both the time devoted to tests and the cost of tests have increased substantially, with teachers, students, and principals reporting record levels of stress. And while principal observations of teachers have been adjusted somewhat in response to substantial opposition, there is little indication that the burden has been sufficiently lightened, or that most evaluations are leading to the useful feedback and tailored professional development that was intended.

Most troubling, interviewees confirm a trend depicted in news reports of the adoption of ever-narrower strategies that ignore the large-scale child poverty plaguing both urban and rural schools in Tennessee. Leaders are pursuing short-term fixes with no evidentiary backing at the expense of developing a strong, sustainable pool of teachers and school and district leaders. An apparent lack of real accountability—for charter schools that are failing and/or pushing out students, for example—stands in contrast to the commissioner's calls for increasing levels of accountability for public schools and teachers.

As the Common Core is rolled out in Tennessee, the weak foundations the state has laid (which many say have been eroded substantially in the past three years) hint at even greater challenges to come.

Endnotes

- 1. Districts were added in the 2012 round.
- 2. The rubric for grading state applications was even more complex, with subsections—each with specific numbers of points attached—under each larger section. Additionally, the department deemed some policies and areas absolute priorities and others less than absolute. A focus on science, technology, engineering, and math (STEM) education, for example, was absolute and graded on an "all-or-nothing" scale. As is true of any such complicated competitive processes, some critics alleged that politics played a key role, sometimes eclipsing the degree to which states had demonstrated capacity for and a strong record of reform (see, e.g., Bowen 2010).
- **3.** While many states that applied for RTTT money did not receive it, several have gone ahead with some of the commitments they made in their applications, and others were subsequently granted money in later rounds of the competition. Many have made changes in anticipation of implementing the Common Core State Standards, which was among the requirements for RTTT applications but are being implemented in virtually all states. A few states, such as Tennessee, Delaware, and Ohio, made major changes to their laws in anticipation of winning the grants, with those decisions cited as among the reasons for their winner status.
- 4. A number of examples of this problem are detailed in the third section on state implementation and in the two case studies.
- **5.** The superintendents asked not to be identified by name, but are cited throughout the report by their district's state. Community leaders who agreed to be cited by name are referenced as such in the references list at the end of the report; responses from those who did not are noted anonymously or by the type of position they hold and the state in which they work.
- 6. "For the last four years, the Obama administration has provided funding and incentives for states to help build a teaching profession that is both respected and rigorous. Today, we're starting to see that investment pay off—in expanded collaboration among teachers and improved performance among students. More teachers today are treated as true professionals, instead of as interchangeable cogs in an educational assembly line. Exhibit A: Tennessee. Tennessee—one of the first two states to win a federal Race to the Top grant—recently released an important report on the first year of implementing its new teacher evaluation system. The report found that, after one year, Tennessee's students made their biggest single-year jump in achievement ever recorded in the state. That is a remarkable achievement." (Duncan 2012)
- 7. While the term "wraparound supports" means different things in various contexts, it is used in this report to refer broadly to a set of student- and family-oriented initiatives targeted to closing race- and income-based opportunity gaps within the education and school context. These include child care and prekindergarten programs, nutrition and health care programs, social work and counseling, and afterschool and summer enrichment, among others initiatives.
- 8. A parallel problem is seen in states' reactions to requirements to obtain waivers from the No Child Left Behind mandates. In order to obtain a waiver, states had to promise to either reduce the achievement gap in math and reading between subgroups of at-risk students and all students by half within six years; to achieve 100 percent proficiency for all subgroups by 2020; or to adopt some "other" state-designed method that was just as rigorous as the first option. The second option just delays by six years the standard that experts have criticized as among NCLB's core flaws, so 11 chose the first. This has resulted in 11 states setting lower proficiency targets for disadvantaged subgroups; i.e., the lower expectations for low-income and minority students that NCLB was designed to address have become institutionalized in Delaware, the District of Columbia, Georgia, Minnesota, Mississippi, New Jersey, North Carolina, Utah, and other states. (McNeil 2012)

- **9.** According to its Wikipedia entry, http://en.wikipedia.org/wiki/Race_to_the_Top, 44 states and the District of Columbia applied for grants in Round I, but nine states dropped out after that round, failing to submit a Round II application.
- **10.** This section draws on data states reported in their Race to the Top applications regarding student achievement and graduation rates and projections they made for improvements in those areas and in closing achievement gaps. See references at the end of this report for full citations.
- 11. As detailed in Table 1 in this report, actual fiscal 2011 data from state expenditure reports from the National Association of State Budget Officers were used to determine state education budgets, and Race to the Top grants were then divided by four to calculate the percentage addition to the annual state budget that the grant represented.
- 12. This report illustrates the sizeable gaps between state and NAEP standards for "proficiency" across grades and subjects among the vast majority of states. Georgia is by no means alone in claiming proficiency on its state test while having few students meet that standard on NAEP. Massachusetts is the only state to set equivalent standards for its state test and NAEP, and only for math.
- 13. The department's Year 2 report for Delaware, for example, shows increases of 10 percentage points or more in both English-language arts and mathematics for virtually every grade from third through 10th. A note at the bottom of the chart states that, "Over the last two years, a number of States adopted new assessments and/or cut scores," but declines to indicate whether that includes Delaware, and thus how these large increases should be interpreted (U.S. ED 2013b, 5).
- 14. The state aims for a second 5 percent increase in the subsequent two years, between 2014 and 2016.
- **15.** New York defines the college persistence rate as the percent of students returning in the fall who started a first-time, full-time program the year prior.
- **16.** The proposal's authors note that Maryland's annual Documented Decisions Survey indicates that 64.7 percent of current high school graduates plan to attend either a four-year college or a two-year college immediately following high school, so 75 percent would represent a substantial increase.
- 17. Much of that increase is expected to occur between 2010–2011 and 2013–2014, however, raising the pace to one point per year.
- **18.** Ohio notes that, by focusing on high increases among participating LEAs, it can substantially raise the statewide average, even without gains, or comparable gains, among nonparticipating LEAs.
- 19. Florida's program is of such low quality, however, that National Institute for Early Education Research (NIEER) Director Steven Barnett notes it would not pass standards for child care in some states (Kourkounias 2013). Oklahoma's high-quality program, on the other hand, has been found by rigorous research to deliver benefits in the domains of both cognitive and noncognitive development (Gormley and Gayer 2011).
- **20.** FRAC notes that it uses the term "food hardship" when asking families whether they have struggled to afford sufficient food, rather than the Census Bureau/USDA term "food insecurity," but that the two concepts are comparable.
- 21. "Widespread cheating is an inevitable consequence of overuses of high-stakes testing, as predicted by renowned social scientist Donald Campbell. In 1976 he wrote in what is now called *Campbell's Law*, "The more any quantitative social indicator is used for social decision-making, the more subject it will be to corruption pressures and the more apt it will be to distort and corrupt the social processes it is intended to monitor...when test scores become the goal of the teaching process,

they both lose their value as indicators of educational status and distort the educational process in undesirable ways." (FairTest 2012)

- 22. "It is with sadness, pain, and frustration that we write this letter. We are deeply concerned about recent changes to the State Education Department's Annual Professional Performance Review system. These changes, while politically popular, will neither improve schools nor increase student learning; rather, they will cause tangible harm to students and teachers alike.... To illustrate the challenges of the new APPR system, we offer these stories from our schools:Trudy is a veteran teacher. She volunteered to teach a class of at-risk learners because she has the skills to do so. Her passing rate on the Regents exam will be significantly lower than her peers teaching the stronger students. Under the new APPR, what motivation will teachers have to take on the most challenging students?" (Peneston et al. 2011)
- 23. These gains amount to just 0.01 standard deviations (SDs), and new charters that joined the study post-2009 continued to post slight losses for their students. In math, charter school students were at a greater disadvantage, posting 0.01 SD losses in older schools and 0.03 SD gaps with their public school counterparts in the new states (CREDO 2013, 13, Figures 1 and 2).
- **24.** See, for example, the description below in the Delaware discussion regarding concerns in the Christina School District that large, individual bonuses mandated by the state would prove problematic because only third- through eighth-grade math and reading teachers were eligible to receive them.
- **25.** "[D]istricts with comparatively few highly educated teachers have relatively high turnover rates for inexperienced teachers; districts with comparatively many highly educated teachers have relatively low turnover rates for their inexperienced teachers" (Holzman 2012, 11).
- **26.** Of course, if teacher quality improves with the replacement of older teachers, those disadvantages may be offset or even gone, depending on the degree of improvement relative to the disruption to the teacher pool (and student body) from the loss of teachers. The problem found in these three cities is that teachers fired were often not replaced by better teachers, and this was compounded by the voluntary departure of more experienced and qualified teachers, leading to a teaching force that was less experienced, credentialed, and effective.
- **27.** Even so, he notes, the TFA alumni who went on to study policy in his classes tended to be great in terms of developing policy, "but they had a lot to learn about what it looked like on the ground" (Payzant 2013).
- **28.** See, for example, Michael Winerip's reporting on RTTT teacher evaluation "bumps in the road" in Tennessee and New York, and the 2012 report by Patrick McGuinn for the Center for American Progress (Winerip 2011b, McGuinn 2012).
- **29.** Under the new system, teachers will be rated "Highly Effective," "Effective," "Developing," or "Ineffective." The latter two categories can trigger firings and are supposed to draw support to improve teaching. Forty percent of ratings are based on student growth measures, a combination of value-added and other assessments. Principals have discretion, however, to make state tests count for the full 40 percent, and while 60 percent of the rating is based on (an increased number of) observations, teachers who receive an "ineffective" rating on the 20 percent that is based on student standardized tests must be rated ineffective overall.
- **30.** A month later, a Tennessee Education Department first-year implementation report found that the rubric "effectively represents high-quality instruction and facilitates rich conversations about instruction," and recommended only minor streamlining (Tennessee ED 2010).
- **31.** As McGuinn reports, other states are piloting their teacher evaluation systems to different degrees and for differing periods of time. Colorado is piloting various aspects of its system over two years (2011–2013); New Jersey is piloting the system in

10 districts for two years (2010–2013) and another 10 for just one year, but all on a competitive basis, with districts that submit proposals winning the right to pilot; Pennsylvania is piloting its system over three years in a total of 300 districts, with just 10 participating the first year (2010–2011); and Delaware piloted its system statewide in 2011–2012, in order to enable full implementation in 2012–2013 (McGuinn 2012).

- **32.** For a detailed assessment of state capacity-related issues in Race to the Top teacher evaluation in Tennessee, Colorado, New Jersey, Pennsylvania, Delaware, and Rhode Island, see McGuinn (2012).
- **33.** "Consultants haven't completely resolved [the state's] capacity issues, though. Union leaders and superintendents in particular said that it has been hard to do their day jobs and still find time to meet their RttT commitments, under tight timelines" (Kronholz 2010, 4).
- **34.** The legislation assesses students each year to determine their readiness to read at grade level by third grade, as measured by the state assessment. The state has established a variety of interventions and supports for students who are not on track to read at grade level, and will hold students back if they are not on track by third grade.
- **35.** In order to address concerns that the Common Core State Standards might "water down" the rigorous and comprehensive standards that the state had spent years developing, Massachusetts took a more active role in the development of the standards as part of its decision to submit a Round II Race to the Top application (Morell 2010).
- **36.** StateImpact Ohio, the online Ohio NPR website, provides an overview of Ohio Race to the Top, as well as stories that track RTTT progress since its inception in 2010; see http://stateimpact.npr.org/ohio/race-to-the-top/.
- **37.** Romick notes, too, that implementing multiple initiatives with often conflicting requirements and timelines has further complicated his district's efforts regarding Race to the Top. "In addition to [RTTT], Dayton has seven SIG [School Improvement Grant] schools, with a timeline that is totally skewed against the RTTT timeline. For example, for teacher evaluation to reflect student growth, SIG was accelerated a whole year over RTTT, so the most struggling schools had to do it quickly. This causes a host of problems in such a big district, since RTTT gives the district a large umbrella of reforms, while SIG is a smaller umbrella of reforms, in a smaller number of schools, and a different timeline. The whole thing is extremely complex, and impossible to keep track of." (Romick 2013)
- 38. Vendors who produce the approved assessments include Renaissance, Pearson, CTB (Terra Nova only), ACT, Riverside, NWEA, Global Schools, Curriculum Associates, Amplify (formerly Wireless Generation), Let's Go Learn, Scholastic Inc., ProCore, and Key Data. The Ohio Department of Education lists these vendors in its Approved Vendor Assessments webpage, along with a set of criteria for approving outside vendor assessments, and a second list of assessments that did not meet these standards and thus may be used by LEAs in the absence of approved available assessments; see http://education.ohio.gov/Topics/Teaching/Educator-Evaluation-System/Ohio-s-Teacher-Evaluation-System/Student-Growth-Measures/Approved-List-of-Assessments.
- **39.** "Principals and Assistant Principals will be evaluated according to several measures: 35% of their evaluation will be determined by their scores on a rubric that is based on the standards outlined in the Tennessee Instructional Leadership Standards (TILS). Another 15% of administrator evaluations will be based on an assessment of the quality of teacher evaluations. School wide growth data will account for 35% of the evaluation and the remaining 15% will be based on an achievement measure agreed upon by the administrator and their evaluator." (TEAM 2013a)
- **40.** Tennessee's adoption of the legislation requiring this system was a reason cited for its first-round winner status, and this may have made the state reluctant to delay implementation.

- **41.** The evaluations have recently taken on added importance: In August 2013, Tennessee became the fourth state to withdraw licensure from teachers who repeatedly fail to achieve satisfactory value-added scores (Banchero 2013).
- **42.** Among the changes instituted were reductions in observations for the most effective teachers from four to one plus two walk-throughs and to two observations for mid-range teachers; the removal from the list of approved achievement measures those that clearly had no bearing on a teacher's effectiveness ("For example, it would not be appropriate for a seventh grade math teacher to choose writing scores for his/her achievement measure,"); the option to use the Stanford-10 test for kindergarten through second grade to determine student growth; and additional measures to ensure better alignment between quantitative and qualitative measures of teacher effectiveness, with those schools that deviate too far losing their "ability to apply for or implement alternate evaluation models or TEAM Flexibility the following year." These changes reflect a mix of some new flexibility but also increased stakes attached to test scores. (TEAM 2013b)
- **43.** Several parents with whom we spoke voiced this concern but asked not to be quoted. Dozens of parents and others express this perspective on the recently established Facebook page dedicated to removing Commissioner Huffman from office (https://www.facebook.com/RemoveKevinHuffman).
- 44. This consultant also asked not to be quoted by name.
- **45.** Tennessee was the only one of the three states for which interviews were conducted in which several interviewees asked not to be quoted by name or identified by title. Those who did grant interviews said that many others may be afraid to speak openly or to voice opposition to RTTT-related policies. Tennessee is also the only state studied in which a group of parents had initiated a petition to remove the state commissioner from office. Two Facebook pages and a Moveon.org page are currently devoted to this cause.
- **46.** This assertion cannot be confirmed, because it is not listed anywhere on the state's website, and parents who submitted requests to the state regarding this and other test score-related questions have not received responses.
- **47.** The combination of intense pressure and test scores that are easily manipulable has led to widescale cheating in other districts. An in-depth analysis by the *Atlanta Journal-Constitution* found "problems" at more than 10 percent of Memphis City Schools (MCS), as well as in the West Memphis and Jackson school districts (DiPrizio 2012). MCS School Board member Kenneth Whalum, who has been an outspoken critic of the high stakes attached to tests, says that he is "not surprised that [this could happen] in the environment of test scores and that everyone has to teach to the test." MCS Superintendent Kriner Cash, however, disagreed with the methods used in the newspaper's investigation and said he was confident that no cheating had taken place.
- **48.** The state said it had to draw a new "line in the sand," allowing such changes only under specific circumstances. As a result, the Metro Nashville Public Schools district was allowed to make corrections that improved its status from "needs improvement" to "intermediate," but Williamson and several other counties were not.
- **49.** It is unclear why this is the case; state data indicate that the school has made no real progress over the past three years and has registered a C in math, a D in reading, and Fs in both science and social studies.
- **50.** The state's inability to force Nashville Metro to accept Great Hearts prompted a handful of legislators to debate having all district rejections reviewed by the state, and the state would then simply authorize them. "Speaker Beth Harwell, the most powerful Republican in the House of Representatives and one of the most influential in the state, made assigning a state panel to review applications of rejected charter schools a priority this year after watching from the sidelines as Metro's elected school board repeatedly turned down a favored charter school" (Zelinski 2013). The bill, which focuses on the five

counties with schools in the bottom 5 percent statewide, and is backed by Nashville Mayor Dean and Governor Haslam, is unlikely to pass in the Senate, where leaders see it as a wrongheaded attempt to fix a one-time, one-district conflict.

- **51.** Superintendent Kriner Cash asked the ASD to take over MASE, but the request was declined.
- 52. The no-bid aspect of TFA contracts is not always accepted as a given. Minnesota Governor Mark Dayton vetoed a bill that included \$750,000 appropriations in two subsequent years for TFA, on the grounds that the process was wrong: "Teach for America (TFA) is a well-established, national program with revenues totaling \$270 million for fiscal year 2011.... With total expenses of \$219 million, TFA's net assets increased by over \$50 million and now total over \$350 million. With those financial resources available, it is not clear why a \$1.5 million grant from the State of Minnesota is required to continue or expand the organization's work here. My principal concern, however, is the way in which TFA was selected as the recipient of this grant. To my knowledge, no competitive grant program was established; no other applications were solicited, and no objective review was made by an independent panel of experts.... If the Legislature deems it is in our state's best interest to encourage programs like TFA, a formal grant program should be established within the Minnesota Department of Education, and all qualifying organizations should be allowed to apply for funding" (Dayton 2013).
- 53. Some of this was funded through outside sources; the Community Foundation of Middle Tennessee donated \$1 million for MNPS for the New Teacher Project and \$125,000 for Teach for America for the 2008–2009 school year, in a letter that was signed March 2009 (Community Foundation of Middle Tennessee 2009).
- 54. Typical fees to districts are between \$2,000 and \$5,000 per year, according to a recent article (Simon 2012).
- 55. In exchange, they receive information about the sponsored teacher, and invitations to visit the teacher's classroom.
- **56.** This information was obtained from emails that were provided by officials with the Metro Nashville TFA office to a district parent who requested them, and who prefers to remain anonymous.
- 57. Moreover, Teach for America has negotiated very favorable conditions for recruits. The MNPS contract stipulates that, despite the purported intent of hiring TFA teachers to fill hard-to-staff subjects and classrooms, "MNPS hereby agreed that it will hire Teachers across the full range of grade levels and subject matters offered by Teach for America. Specifically, MNPS may not limit its request to Teachers credentialed in so-called 'critical' or 'shortage' subjects or grade levels" (Metropolitan Board of Public Education 2008). And an email exchange between an MNPS parent and a district official reveals that principals looking to hire can bypass displaced teachers and go straight to the TFA (or Nashville Teaching Fellow) lists, and that, for 2013–2014, when 64 teachers had been displaced and only 17 had found spots by June 2013, the district had contracted for 80 TFA teachers (Cour 2013).

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