Closing our Educational Achievement Gaps: Fostering Innovation in K-12 Education

Standards, Teaching, and Data

Briefing Paper for Bi-partisan Working Group on Education Reform

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Executive Summary

Closing Our Educational Achievement Gaps: The Case for Action

According to multiple international measures, the United States continues to lose ground to countries that deliver a better education to their young people. In 2006, for example, U.S. fifteen-year olds ranked 25th out of thirty industrialized countries in mathematics and 21st out of thirty in science.[1] Such international comparisons are of particular importance in an era when knowledge-based competition comes from every corner of the globe.

Despite pockets of excellence throughout the national education system, and a dramatic increase in funding over the past several decades, our education system is in fact faced with twin gaps that need to be addressed simultaneously: the "global competitiveness" gap between the U.S. and the world's best systems, and an underlying "opportunity gap" between the education provided in our best and worst performing schools. We must build a new national and multi-state coalition to reform our education system and close these achievement gaps to restore the most critical engine of prosperity in the knowledge economy. Our twin gaps are inseparable, and we cannot bridge one without repairing the other.

We can close these twin gaps, given how much we now know about what constitutes excellence in teaching and learning, and how much we have learned about what truly makes a difference in the education of our nation's young people. In particular, we know that good teachers and good principals matter the most for student learning, and our collective efforts should clearly focus on ensuring that all classrooms contain excellent teachers: iconic, 21st Century professionals who base their practice on real-time information on student progress, who receive appropriate rewards and recognition, along with all necessary supports and opportunities for professional growth.

If we continue to fall short in educating future generations of American workers, we risk our country's long-term economic sustainability and we will relegate our youth to a future of low-skilled labor. The United States cannot continue to be a world leader in highly competitive, knowledge-based, global economy without fundamentally fixing our schools. We can and we must achieve continuous improvement in our schools through better targets, tools, and teaching – with a particular focus on turning around our most challenged, high need schools.

The Challenge: Current Solutions Are Not Expanding Fast Enough

The good news is that there are pockets of innovation and excellence in districts and states around the country that are demonstrating meaningful progress in transforming schools. For example, New York City has made remarkable strides in improving the rigor and quality of public education. The city's Mayor, Michael Bloomberg, and its Department of Education Chancellor, Joel Klein, have led a series of education reforms, including: dissolving the city's 32 school districts; opening new schools; hiring more teachers and principals in hard-to-staff areas; raising salaries; and implementing a strong accountability system. These reforms have yielded significant gains in academic achievement, especially among disadvantaged students. However, New York City is not alone. From Houston to Boston, Norfolk, Louisville, Long Beach, and Charlotte-Mecklenburg, reform programs are making progress in the face of many structural barriers. However, these reforms take years to implement, are more the exception than the rule,

and have not fully closed the global competitiveness gap. The challenge facing our country's education system is how to expedite reforms that work and allow further innovation to discover new models for successful schools and better results for students.

No Child Left Behind (NCLB), the federal government's major reform effort, is a landmark act that developed new testing and reporting in order to have all children performing at proficient levels by 2014, as defined by each state. With over 1,000 schools currently in "restructuring"[2], and thousands of others headed there in the next few years, NCLB has established the essential principle that school systems should be responsible for the academic success of all children. Moreover, NCLB has brought to light the fact that certain populations of students are performing worse than others, a fact that had long been disguised through the aggregation of testing results.

While NCLB asserts a distinct role for the federal government in education, NCLB has three primary shortcomings that limit its effectiveness:

1. The act does not ensure that all schools and school systems produce students who have met the same high standards for college and job readiness in a global economy.

2. It does not meaningfully address the most important improvement we need – attracting and retaining better teachers and principals in our highest need schools and classrooms.

3. It does not provide the data tools for teachers, schools, and school systems to analyze barriers to student achievement and meaningfully take action for change.

The Solution: Target, Talent, and Tools

The next national coalition for school transformation should aim to close our country's global competitiveness and opportunity gaps by unleashing innovations for continuous improvement, so that all students can make rapid progress to global standards of achievement and learning. This coalition should catalyze and support the most ambitious reforms around which states, districts and schools can coalesce to drive student achievement, emphasizing the central role of teachers as "informed professionals" and providing them with the guidance and tools they need.

Specifically, reform activities should support a three-part, inter-linked program: 1) all states should have high standards for achievement and clear targets for instructional success, which make a high school diploma a true gateway to success, 2) all districts should have the necessary data infrastructure (e.g., with student and teacher identifiers linked to achievement) to provide teachers with the information necessary to provide highly tailored instruction and continuous improvement of practice, and 3) all schools should have good teachers in each classroom, well motivated and well supported to help every child to learn to their full potential.

These reforms will require specific actions at the district and state levels, where most initiatives will take place. The federal government should catalyze, inspire and support the right actions in districts and states, and within regions where a multi-state approach is appropriate. The federal government's approach should foster innovation at the state and local level with the targets, tools

and teaching talent that are needed to improve student achievement.

The federal government's role in the three inter-linked reform areas includes fostering innovation by funding R&D and pilots, highlighting success, and providing incentives for bold reforms:

- **TARGETS: Adopt globally-competitive standards, assessments, and supports in all 50 states.** The federal government should encourage all 50 states to establish rigorous, peer-reviewed state standards and assessments based on real-world demands that pass the global competitiveness test. As an incentive to adopt such rigorous standards, states that choose to do so should be allowed more time to achieve proficiency levels, and should measure schools on progress ("growth model") in student achievement.

- **TALENT: Transform teaching into an "iconic profession of the 21st Century" to attract, retain, and develop excellent teachers in our most challenging schools, and actively develop principals as instructional leaders.** A National Teaching and School Leadership Fund should allocate resources to the states, districts and organizations that are taking on specific reforms aimed at improving the excellence of teaching. To encourage talented people to enter teaching and work in high need schools, we need to integrate national teacher and principal certification exams, introduce portable pension plans and develop a spirited National Campaign for Teaching Excellence. In addition, the federal government must support innovation to elevate the teaching profession. One way this can be done is through the establishment of U.S. Teacher and School Leadership Academies that produce outstanding teachers and principals based on a "gold standard."

- **TOOLS: Provide timely student, teacher, and school data that support high-quality instruction.** None of these changes can be made and sustained without much better data on how students, teachers and schools are doing. In order to inform the strategies of education leaders in chronically under-performing schools, the federal government should select and fund – on a competitive basis – two consortia of states, school districts, non-profits and businesses to design and create model data systems that can voluntarily be implemented with federal matching funds across other states in the nation.

Policy Design

Recommendation #1: Establish Targets through Standards and Assessments

All 50 states need standards, curricula, and graduation requirements that are well aligned with "real-world" demands. Colleges, the military, the private sector, and other employers define the skills needed by our graduates. This marketplace for skills requires states and educational agencies to integrate these real-world requirements into standards, helping to avoid sending high-skill jobs to individuals in India, China or elsewhere rather than to Detroit, Portland or Los Angeles. Otherwise, a high school diploma is just a false promise to our county's youth.

All American youth should have the same opportunities to get ready for college and eventually well-paid employment. There should not be widely different performance expectations for a

student from Massachusetts and a student from Mississippi. Students that meet state standards, pass state tests, and complete state-required courses should not find themselves taking remedial courses in college (and spending approximately $1 billion a year in taxpayer dollars on remedial classes[3]) because their high school diplomas did not reflect a level of college-preparedness.

We know a great deal about what standards should be in the context of our innovation-driven global economy, and we should actively engage employers in developing these standards to ensure they meet real-world challenges. In addition, the federal government needs to encourage higher state standards, rather than inadvertently encouraging states to "dumb down" state assessments in order to meet NCLB proficiency measures.

Finally, a core premise of NCLB has been to have *all* children reading at proficient levels by 2014. While this is a laudable objective, setting an absolute goal has challenges: it unfairly punishes those students and schools that are starting from further behind and sets an arbitrary target that is not based on global demands. Accountabilities for meeting standards must be measured against growth of individual student results to reflect important differences in school populations while insisting on meaningful progress for all students.

Accordingly, we make the following recommendations:

1. Implement rigorous, peer-reviewed state standards and assessments in all 50 states, based on real-world demands in a knowledge-based economy. States should develop globally-competitive standards through a voluntary process of external peer-review, led by a council of state leaders, major employers, philanthropic organizations, and university educators. Since real-world standards do not vary significantly from state to state, this collaborative effort would harmonize standards across states while maintaining the specific nuanced needs of each individual state. Such an effort has already started to be coordinated by the American Diploma Project of the non-profit organization Achieve, and would benefit from expanded state-level advocacy by the business community and civil society in states that have not yet adopted this approach.

2. Develop rigorous state assessments and supports aligned with those standards. To exert meaningful impact, rigorous standards need to be integrated into policy tools – including course descriptions, as well as high school graduation and college entrance requirements. States should autonomously design high-quality assessments and curricular frameworks that measure student progress toward this standard and allow teachers to follow up with high-quality instruction. Local districts should still retain the flexibility to adopt the curricular approach that best meets the needs of their students. Business and civil society leaders who advocate for higher standards in their states should also unite behind strengthening supports to achieve them, especially in the highest need schools.

3. Measure progress against growth in student achievement, not just an absolute target. Our education system must recognize that it will take longer for students who are further behind to catch up to their peers. The federal government should measure success based on how far students advance in a given year. All schools – low- and high-performing alike – should be expected to improve over time. It is important to measure the progress of

individual students, not groups aggregated by ethnicity, school or other criteria. In this way, the true progress of all students can be measured, not only those students who move from just below to just above proficiency. Such a system would ensure that schools that are on a trajectory of improved performance will be rewarded and will be able to continue their growth, while those schools showing no progress will receive additional supports.

4. Adapt NCLB requirements to allow states that adopt rigorous standards more time to achieve proficiency. The federal government should make a deal with states that choose to adopt higher standards that meet the real-world test described above. For example, it could grant seven more years past 2014 for states to reach 90% proficiency rates if they implement more rigorous standards, and a plan for aligning assessments, curriculum, instructional systems, and teaching. This could be done through federal waivers to states in the near term, and ultimately reflected in the next national education reform law.

Recommendation #2: Transform Teachers into Iconic Professionals

Teacher quality is the most important variable affecting student achievement, particularly in schools with a high proportion of low-income children.[4] For example, a recent research study found that 90% of low achieving 4th graders who had an effective math teacher three years in a row were able to pass a 7th grade math proficiency test, while only 42% of those with ineffective teachers three years in a row were able to achieve proficiency by 7th grade.[5] In addition, in virtually every school where low-income children are succeeding at high levels, we know there is an outstanding principal leading change and serving as an inspirational, instructional leader. In other words, it is the *people* that matter the most in our schools and our classrooms; setting world-class standards and implementing robust data systems are necessary but not sufficient reforms. The system requires dramatic innovation in the ways in which we recruit, prepare, place, support, and manage the nation's teaching corps. It is by ensuring the best possible teachers for all students that we make sure poor students are not "left behind"; it is through a laser-like focus on teaching excellence that we will overcome the twin gaps in the areas of global competitiveness and opportunity.

What comprises an excellent teacher? What changes would make teaching an attractive or even "iconic" profession? Within such a profession, teachers would be recruited from amongst the top ranks of candidates, and would receive "apprenticeship"-based training in classrooms to be fully prepared for their first year. Their practice would be governed by continuously-available performance data, and they would be provided on-going coaching in the real world of their classrooms. In addition, such teachers would be managed according to their performance, with appropriate incentives (i.e., dismissal for any ineffective teachers, large rewards for the highest performing teachers) and multiple opportunities for professional growth.

We are currently at a distance from this goal. The new teacher pipeline is not nearly strong enough to meet the needs of a transformed profession. The vast majority of teachers are hired from Schools of Education,[6] which typically are unselective in enrollment, draw mainly from the bottom third of college graduates, and often do not prepare students well for the practical realities of the classroom. In addition, the highest-need schools end up with a disproportionately

high number of low-performing teachers. Our education system has no effective mechanism to channel the most capable teachers to the schools and classrooms that need them most. Further, teaching incentives are aligned with seniority, not performance; tenure is a meaningless "rubber stamp" not linked to teacher performance as virtually all eligible teachers achieve tenure. Even the great teachers who enter the profession often leave because they can't find the growth opportunities that would stimulate them over the course of their career. The teachers scoring highest on certification exams left teaching at 50% higher rates than the lowest scorers.[7] Principals, who with the right tools and flexibility are in the strongest position to affect change in the profession, too often function as administrators rather than as inspiring instructional leaders.

In order for our schools to produce graduates with the globally competitive skills that colleges and employers require, we must make teaching and school leadership among the top five attractive, respected, and results-oriented professions in our country. We must attract the most talented and motivated graduates, and give them the mix of challenge, reward, impact and input that will motivate them to stay in the profession. We must deploy the best of them to the highest need schools, where they can make the greatest difference. We must make them accountable for results – not only to the school system, but to themselves, to each other, and to the students and parents – as true professionals always are. There is excitement and passion for a new generation of teachers, and with a bulk of teachers retiring there is a great opportunity to reposition the profession – now is the time to seize this opportunity.

We believe that the federal government can catalyze such innovations at the state and local level by creating the right incentives, removing barriers that interfere with a well-functioning human capital system, and building up the prestige of the teaching profession.

1. **Create a National Teaching and School Leadership Fund.** Governed by principles of strong accountability and transparency, such a fund would allow the federal government to play a crucial role as the catalyst for change and innovation on the state and district levels. This would be similar to a "venture capital" fund for the federal government to invest in credible plans to reform teaching in high need schools. As a first step, the Fund could commit to 50/50 matching funds for the first five years of credible state and/or district plans to reform teaching in high need schools, with possibility for renewal after the initial five-year period. The specifics of state plans could vary, but could provide:

   The Fund would take account of critical environmental factors in determining its awards. For example, it would make sense to invest in human capital reform in areas that have already implemented data systems under NCLB, or as part of the consortia that constitute another of the recommendations in this document. The specifics of state and/or district plans could vary, but would have to meet a minimum set of necessary criteria, including:

   - <u>Student and teacher identifiers</u>. Commitment to put in place necessary data systems to link individual student achievement to specific teachers, providing teachers and principals with the information they need to improve practices.
   - <u>Meaningful tenure decisions and performance management</u>. Tenure would need to be granted based on success in improving student achievement. Coaching, training and support should be made available to teachers

throughout their trial period and beyond. Also, districts would need to implement methods for teachers who are not able to successfully improve student achievement to be removed based on principal and peer reviews.

- <u>Flexibility in teacher placement</u>. Districts should be able to allocate high-performing teachers across their system based on meaningful, instruction-based criteria, and not allow seniority (i.e., "bumping") alone to dictate which schools teachers end up teaching in.
- <u>Pay-for-performance</u>: Districts should provide opportunities for individual teachers or groups of teachers to earn more money based in part on student results; also, teachers should earn significantly more money for working and achieving results high-need schools and hard-to-staff subject areas.

In addition, states and/or districts could include a variety of additional, optional ideas, such as <u>more pay for more time</u> - an extension of the length of the contract year (e.g., to 11 months) in exchange for more pay in high need schools, and/or a restructuring of pay so that teachers could opt to be paid more today in exchange for lower pension benefits.

2. **Reduce the barriers to entering teaching and becoming school leaders.** Our current system makes it unnecessarily difficult to enter the profession, and to move from district to district and state to state. The system also makes it too difficult for people to become school leaders. The federal government can help recruit and retain great people in three ways:

- Create a <u>national teacher and principal certification exam</u> and provide incentives for states to accept this national certification as an alternative to their state exams, encouraging qualified teachers and principals to move to new states (as they often do) without going through cumbersome state certification requirements.

- Work with states to design and establish a <u>portable pension option</u> for teachers and principals, which would make it more attractive for them to stay in the profession if they move between states.

- Establish a National Campaign for Teaching and School Leadership, modeled on the very successful U.K. campaign, systematically marketing teaching and school leadership as a career for talented graduates and professionals in other fields. Effective advertising and distribution of information about programs around the country could help to motivate new applicants find the teacher training and entry programs that fit their situation. These steps would also send a powerful message to our best teachers nationwide, encouraging them to take pathways toward increasing responsibility, leadership and pay, including entering the principalship.

3. **Innovations to enhance the prestige and attractiveness of the teaching profession.** While it is up to school districts and states to provide attractive working conditions and professional development for their teachers, the federal government can both generate innovations and spur the development of best practices. For example:

- Catalog, highlight, and make broadly available an understanding of innovations and best practice in promoting teacher development, such as specialized career paths, teacher assessments and peer reviews, effective pay for performance criteria, and the use of growth models. Much of this research could be done more effectively collaborating with school systems and leading education non-profits.

- <u>Develop the training "gold standard" with U.S. Teacher and School Leadership Academies,</u> modeled on the military service academies with the expectation of a longer career of service in the field, as well as an ethos of taking on the toughest, most important assignments during that career. These Academies would develop a mix of deep subject matter expertise, extensive in-classroom apprenticeship and a culture of informed professionalism (e.g., the use of data to diagnose and differentiate instruction) to produce outstanding teachers and principals. They would offer rigorous training programs of different lengths (e.g., 15-month programs for trainees who have scarce subject-matter expertise).

  Six teaching Academies and six school leadership Academies could be chartered in different regions of the country, located based on state and local plans to reform teaching. Over time, other schools of education could choose to create "Academy-certified" program tracks, which could adopt such methods and receive the seal of approval. Academy graduates would be expected to spend most of their prime teaching years in high need schools, growing to be mentors, master teachers and outstanding principals – the "special forces" that are required to transform those schools. An exceptionally competitive process would be implemented to select institutions to host and manage these Academies around the country.

Recommendation #3: Create Tools by Investing in 21st Century Data Systems

No modern business can deliver outstanding products or services without accurate data guiding its investments and activities. We wouldn't fly in a plane whose pilots could not measure its distance, speed, and altitude. Yet, we allow our schools to operate without the data systems required to understand the progress of individual students ("value-added growth measures"), to tailor teaching to student needs ("real-time" data), or to allocate funds effectively and give principals control over dollars spent in their schools ("school-based budgets"). As a result, a typical school district or state cannot measure its drop-out rate with any accuracy, and no one measures the effectiveness of new teachers in order to improve teacher education.

The federal government can catalyze innovation and investments in modern data systems that could be deployed by states and districts in partnership with business and non-profits:

   1. Federally fund the creation of pilot data systems on a competitive basis. The federal government can award multi-year competitive grants to create school district and state-level data systems that enable "real-time" information, value-added measures and school-based budgets. These data systems would include unique student identifiers and

teacher identifiers consistent across different school systems that account for the tremendous mobility of students across the system. The systems would also incorporate very transparent budgeting structures so that dollars can be tracked on a per pupil basis. Federal funding would cover a major portion (e.g., 75%) of the start-up costs, with the balance of start-up funds and all maintenance funds coming from state and local funding sources. For example, for $500-800 million annually over a four-year period, the federal government could fund two consortia to create student, teacher, and financial data management systems that would be consistent within and across districts and states. Each winning consortium might include 2 states, 4 districts, and private sector technology partners. Non-profit school reform partners would ensure that these systems deliver the requirements of education system accountability and support, particularly for the most challenged students, consistent with the terms of the RFP.

2. Matching funds for other states and districts to adopt modern data systems. Once the two data systems are in operation across at least four states – two states in each of the consortia - the federal government could provide a one-time 75%/25% support for other states (and a lead district each state) to migrate to one of these pilot systems, including the technical design and training. This would provide a compelling financial incentive for states and districts to adopt compatible systems, avoiding a costly and counterproductive proliferation of data approaches. At the same time, it would still provide each state a reasonable choice to fit its needs. Such an approach would cost roughly $200 million per state, or around $1.2 billion annually if all states upgraded their systems over an 8-year period.

Most of the recommended changes require better data to be implemented respectfully and fairly in a way that can support and maintain public support. As the current economic downturn puts financial pressure on state budgets, funding for these essential data systems could grind to a halt, setting back progress in school reform. The federal government can play an important role in advancing data systems development by providing initial funding, in a way that gives states choices while creating incentives for non-duplicative, cost effective systems. Once the economic outlook ameliorates, states will have already developed effective models that can be replicated.

Rebuilding an Education Reform Coalition

The new national coalition for school reform has an important role to play in rejuvenating the debate on channels of innovation in our public school system. Reforming our schools for economic competitiveness has been on the national agenda since the mid-1980s; investments have been substantial, and there are pockets of outstanding results, but our progress has been too modest, given the high stakes for our country. Even the most successful school districts have large numbers of students dropping out and many children who are not proficient in reading and math. The broad direction of needed changes in our education system is clear: our focus now must be on how to make it happen on a national scale.

We must be bolder. The answer cannot simply lie in spending more money. Over the past 25 years, public spending per student in the U.S. increased by almost 75%, yet educational

outcomes improved very modestly[8]. The answer cannot be just more tests. While accountability is essential for reform, NCLB has shown both the potential and the limits of testing. We have to change how we spend both current and new dollars, and how we ensure quality and accountability in our schools.

NCLB has provided us with a new understanding of the large gaps in our system, and has created a mandate to tackle the chronic underperformance of our highest need schools. While public education is not a business, principles of successful management must apply to reforming our education system: we need the targets, talents, and tools to deliver an education to all of our children that is consistent with the skills they need in a more demanding economy, and with our national values of equal opportunity and self-reliance.

The constraints of politics and the interests of adults can conspire to frustrate the changes needed to serve the interests of our kids, but we cannot afford to stop such essential changes. Instead, we must assemble the best leaders from state and local governments, innovative non-profit organizations, community associations (all of which have parents, grandparents and employers as their members), businesses, labor organizations, students and philanthropy to tackle this challenge, with the federal government as a catalyst. The current national coalition for education reform has "hit the wall." Despite ongoing efforts to revive negotiations, the No Child Left Behind Act is very unlikely to be reauthorized this year, a victim of its own technical shortcomings, disagreements on funding priorities, and the erosion of bipartisanship which made possible its original passage in 2001.

Too many stakeholders have a great deal to lose if our education system is not reformed and new coalitions need to take shape to give these stakeholders a voice in change. Parents, a powerful constituency that has thus far remained in the background, need to unite and push for answers that are crucial to their children's futures. The business community, the economic backbone of our nation, are standing by as human resources dwindle in the U.S. Instead of looking outside of the country, the business community needs to look within and fight for the only raw resources that can maintain growth and economic sustainability. Finally, members of civil society form all political parties need to unite behind the moral imperative that is embodied in education, seeing equal opportunities in education as a civil right. Too much is at stake for partisan wrangling to stop progress—this is an issue Democrats and Republicans can and must get behind, and quickly.

Rebuttals

"NCLB's push for accountability has mainly led to teaching to the test, why should we encourage more of this by continuing to push the need for data collection?"

Response: Reliable and consistent data are critical to providing supportive accountability to states and districts and to promoting innovation. "Teaching to the test," is not an outcome of data collection, rather it is symptomatic of the misuse of existing data. Rather than trying to create new tests and data demands on schools, we need to effectively structure the way existing data is integrated and interpreted. To meet these demands, we must address the following gaps:

- Lack of value-added growth measures. Most districts are not able to track individual student data over time to see how much value teachers are contributing year-upon-year, making it difficult to accurately determine how schools and teachers are affecting student growth.

- Lack of "real time" data. Most NCLB data takes almost 6 months to get back into the hands of teachers. Meanwhile, tested students have already left that class and that grade. "Real time" data can help improve individualized instruction at school sites by rapidly giving teachers information on student strengths and needs.

"Why should the federal government promote innovation? Isn't that a state and local role?"

Response: The federal government cannot spend time and resources micromanaging individual schools, districts or states to higher performance. Instead, the federal government is ideally positioned to seed innovation, evaluate outcomes, gather best practices and help states and districts that choose to adopt these best practices. The federal government is the only body that is capable of committing the kind of funds and networks that are necessary to implement meaningful efforts that can lead to radical school transformations.

"Why should the federal government play a role in teaching educators? It is not its role."

Response: Educators are the single most important resource we have to improve our education system. An opportunity gap for educators will most likely translate into an opportunity gap for our children. The federal government can play an important role in gathering the people and practices that will initially nourish the "gold standard" that eventually can be adapted in states and districts. The creation of military academies is a valuable example of the quality of instruction the federal government can create by disseminating best practices across the country.

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