Changing the Game: The Federal Role in Supporting 21st Century Educational Innovation

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To resolve dramatic disparities in educational achievement and ensure future American workers are globally competitive, the federal government needs, as it has in the past, to *change the game* in public education.

A robust new federal Office of Educational Entrepreneurship and Innovation within the Department of Education would expand the boundaries of public education by scaling up successful educational entrepreneurs, seeding transformative educational innovations, and building a stronger culture to support these activities throughout the public sector.

America's Challenge

Significant educational achievement gaps and stagnating attainment threaten the nation's ability to fulfill its promise of equal opportunity and successfully compete in the global economy. In both reading and math, fourth graders from urban public schools—whose students are disproportionately poor and minority—are roughly a year-and-a-half behind their suburban peers. U.S. 15-year-olds trail their peers in 23 other countries in math and 11 other countries in reading. Slipping trends in educational attainment point to a real possibility that young Americans today may be less well educated than their parents' generation, and experience lower living standards as a result.

Limitations of Existing Federal Policy

Despite the progress that a growing generation of educational entrepreneurs has achieved in educating low-income and minority students, current federal efforts in public education fail to meaningfully support these entrepreneurs, or drive the innovation necessary to generate real increases in educational productivity. The No Child Left Behind Act's accountability measures were not accompanied by the support necessary to spur real innovation to improve student learning. Political, funding, and programmatic hurdles hinder the effectiveness of existing federal initiatives to stimulate educational innovation. Federal support for much-needed educational research and development under-prioritizes the development aspect of implementing and scaling new models.

A New Federal Approach

The federal government should catalyze a culture of innovation and entrepreneurship in public education through a new Office of Educational Entrepreneurship and Innovation (OEEI) within the U.S. Department of Education. With a small and nimble staff and an independent review board, OEEI would strategically collaborate with entrepreneurs, innovators, philanthropists, and state/local governments to:

- ***Scale up successful educational entrepreneurs*** such as charter school networks, human capital suppliers, providers of technology and out-of-school supports, and capacity-building intermediaries through a new **Grow What Works** fund of up to $300 million annually
- ***Foster transformational educational innovations*** by investing $150 million annually into longer-term, high-risk but high potential payoff educational R&D through the new **Education Innovation Challenge**
- ***Build a stronger culture of entrepreneurship and innovation*** at the federal level and nationwide by eliminating barriers to new and innovative educational approaches, highlighting educational issues of national significance, and building networks of educational entrepreneurs to help them exchange best practices; identify high-quality human capital; and realize potential synergies

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America's Challenge

America's public education system faces two distinct but related challenges—of equity and of excellence—that pose a real threat to the nation's ability both to maintain its standard of living, and to fulfill the ideal of equal opportunity to which it aspires.

Significant achievement gaps perpetuate inequality. Nationally, just over half of African American and Hispanic students—55 and 53 percent, respectively—graduate our nation's public high schools within four years of enrolling in them, and the average black high school senior reads at roughly the same level as the average white eighth grader. Achievement gaps between low-income students and their more affluent peers are similarly large.

Urban public school districts are ground zero for these challenges. On national assessments, fourth-grade students from large urban school districts score 14 points lower than suburban students in both math and reading—a difference equivalent to nearly a year-and-a-half of schooling. Further, only 60 percent of students enrolled in urban public schools graduate high school within four years of enrolling in ninth grade—compared with 75 percent of suburban students. The lagging performance of large urban school systems leaves their students struggling to achieve future success, and contributes to sprawling metropolitan development patterns as families move farther away from urban centers to find good public schools.

> ***Despite the progress achieved, educational entrepreneurs continue to face a number of significant challenges that limit their ability to make systemic impacts.***

America is losing its long-standing educational advantage relative to other countries. An international comparison of academic achievement among 15 year-olds in 38 countries shows that U.S. students trail their peers in 23 other countries in mathematics and 11 other countries in reading.

On attainment, U.S. rates of college completion have stagnated over the past two decades, even as they have increased in other countries. While U.S. adults aged 45 to 54 have post secondary completion rates higher than all but three other countries in the Organization for Economic Cooperation and Development (OECD), among younger adults aged 25 to 39, nine other OECD countries now post completion rates higher than those in the U.S. The current generation of young Americans may be the first in the country's history to be less well educated than the retiring workers they replace, at the very time when skills and knowledge are increasingly crucial to compete in the global economy.

Educational entrepreneurs seeking to solve America's education problems face barriers to achieving success and advancing true innovation. In response to these challenges, a new generation of "educational entrepreneurs" is working to improve education from outside the constraints of existing school systems. In general, they are committed to achieving demonstrable results, as measured by improvements in student learning, and they are primarily focused on helping low-income students, particularly in large urban areas, whom the public school system has historically failed. Educational entrepreneurship has grown substantially in the past decade, and several entrepreneurs have received national recognition for their success in improving education for disadvantaged children.

Despite the progress achieved, educational entrepreneurs continue to face a number of significant challenges that limit their ability to make systemic impacts. Federal, state, and local laws, rules, and practices—such as policies to limit charter schools and local unwillingness to contract with new providers—may often serve as barriers to launching new educational ventures. Difficulties in raising start-up and especially growth capital hinder the ability of educational entrepreneurs to establish new operations or grow them to scale. And entrepreneurs face a limited supply of skilled and experienced human capital that will ultimately define their success.

In addition, these entrepreneurs have not yet generated really radical innovations that have the potential to dramatically increase educational productivity. They are constrained by regulatory, political, and marketing barriers that embody certain assumptions about the institutions that educate children, what they look like, and how they operate. Driven by a "whatever works" approach, they typically adopt more traditional educational approaches rather than forge new breakthroughs in instructional practice. Their strategies tend to align with the conservative views of parents and policymakers, who may demand better schools, but not necessarily different ones that embrace truly innovative approaches.

Educational Entrepreneurs Are Redefining the Potential of Public Education

At least five major strands of educational entrepreneurship exist in America today: founders of new public schools or networks of schools; suppliers of human capital; purveyors of student learning tools; providers of supplementary supports for student learning; and supporters of other educational entrepreneurs. Examples include:

Knowledge is Power Program (KIPP): A large national charter school network, KIPP has demonstrated student math and reading learning gains that far exceed national norms based on independent evaluations.

Teach for America (TFA): Over 20 years TFA has recruited, trained, and placed 20,000 recent college graduates as teachers in high-need school districts. Independent studies find that students taught by TFA teachers made greater gains in math achievement over a school year than their peers in non-TFA classrooms.

Wireless Generation: The firm markets technology used by over 100,000 teachers in 49 states, allowing schools to track student reading skills by using handheld computers to automatically upload data to be analyzed by web software.

College Summit: Since its founding in 1993, this nonprofit organization has provided college preparatory counseling to more than 35,000 low-income high school students. Schools partnering with College Summit have significantly increased the percentage of their graduates who enroll in college.

New Schools Venture Fund: A venture philanthropy founded in 1998 that has invested more than $70 million in more than 25 educational entrepreneurs, New Schools also provides these entrepreneurs ongoing strategic advice and management assistance, and works to build connections among the entrepreneurs in its portfolio.

Limitations of Existing Federal Policy

Today's educational challenges demand a federal policy that can unleash innovation in the public education system. Unlike states, localities, or private philanthropies, the federal government possesses the unique scale, scope, and capacity necessary to advance ongoing educational innovation in public schools. Indeed, the federal government has initiated many important historical innovations, including the *Brown vs. Board of Education* decision leading to desegregation and the Individual with Disabilities Education Act expanding access for special needs students. However, recent federal support for educational innovation has a disappointing track record.

The No Child Left Behind (NCLB) law did not come with the support necessary to spur greater innovation. In theory, the pressure of increased accountability from standards-based reforms in the NCLB law of 2001 should have led to increased innovation by giving educators a strong incentive to seek new approaches that improve student learning. Needless to say, this has not happened, for a variety of reasons. Perhaps most importantly, increased federal accountability was not accompanied by a strong federal investment in innovation to help schools, school districts, and states improve student learning. NCLB told schools *what* they should do by requiring states to set performance targets, but it did not do nearly enough to support them in figuring out *how* to do it. Educators and policymakers were left without the help they needed to take real steps to modernize and improve public schooling to meet NCLB's ambitious goals. Not surprisingly, educators and school administrators, conditioned to be risk averse, responded to increased accountability with fear rather than innovation.

The federal emphasis on effective and rigorous research has come at the expense of "D" in federal R&D investment. The Education Sciences Reform Act of 2002 created the Institute of Education Sciences (IES) to depoliticize the federal role in education research, and to improve the quality of federally funded research studies. IES prioritizes research that incorporates randomized trials, which are essential to identify effective educational programs. Yet this has crowded out investment in developing new models in the field—the "D" side of R&D. Moreover, out of IES' $546 million budget for fiscal year 2008 (less than 0.8 percent of total federal education spending), only $228 million is available to support research, development, and dissemination outside of special education—and most of that is focused on evaluating existing programs, not developing new models.

The Office of Innovation and Improvement (OII) in the U.S. Department of Education is too divided and diffuse its in mission and practices to effectively support innovation. Established in 2002, OII was charged with spearheading a new federal role in supporting educational innovation. Unfortunately, OII has fallen short of its goals.

Political considerations at the inception of OII forced the new office to take responsibility for several programs not related to innovation. As a result, OII's role in supporting innovation combines awkwardly with its roles in supporting school choice programs and overseeing small, discretionary grant

The Office of Innovation and Improvement at the Department of Education Operates Many Small and Non-Innovative Programs

Program	Amount ($M)	Program (cont.)	Amount ($M)
Charter School Grants	211	Ready to Teach	10.7
Teaching of Traditional American History	118	Excellence in Economic Education	1.45
Magnet Schools Assistance	105	Academies for American History and Civics	1.95
Teacher Incentive Fund	97.3	Women's Educational Equity	1.85
Transition to Teaching	43.7	**Total program funding**	**$798 million**
Advanced Placement	43.5		
Parental Information and Resource Centers	38.9	**Earmarks**	
Voluntary Public School Choice	25.8	Fund for the Improvement of Education (FIE) Earmarks*	101
Reading is Fundamental/ Inexpensive Book Distribution	24.6	National Writing Project	23.6
Ready-to-Learn Television	23.8	Arts in Education	14.3
Fund for the Improvement of Education (less earmarks)	21.4	Advanced Credentialing	9.65
School Leadership	14.5	Exchanges with Historic Whaling and Trading Partners	8.75
Troops to Teachers	14.4	Close Up Fellowships	1.94
		Total earmarks	**$159 million**

** Includes 383 projects in members of Congress' home districts*   *Source: U.S. Department of Education, Fiscal Year 2009 Budget Summary (2008)*

programs, which include some of the least innovative or effective federal education investments. OII's responsibility for managing these non-innovative programs distracts from its core mission and undermines its effectiveness.

Related to that, a significant amount of OII's nearly $1 billion annual budget is committed to activities that have little to do with innovation or strategic education reform goals. According to the Office of Management and Budget, $159 million of OII's fiscal year 2008 budget was consumed by congressional earmarks, over which OII has no control. Another $183 million was tied up in small, competitive grant programs that have limited effectiveness and are not linked to national education reform priorities.

Political considerations frustrate effective federal support for educational innovation through research and development. More generally, public officials are wary of the risk involved in undertaking educational R&D. Both educators and the federal bureaucracy are highly risk-averse, so federal education officials have been doubly reluctant to invest in radically innovative ideas that could potentially fail or encounter political opposition if they pose a threat to established interests.

Furthermore, political timelines are often too short to achieve effective R&D investments, which can take years and even decades to produce workable models. But presidential administrations operate with a time horizon of four to eight years, at most, and congressional time horizons are often even shorter. In addition, the structure of Congress does not lend itself to focused R&D investments. Because members of Congress tend to fund education programs that deliver dollars to their home districts, there is natural political pressure to distribute any R&D funding far and wide, with little attention to quality or a national focus on solving overarching education challenges.

A New Federal Approach

The federal government cannot change the game in education simply by continuing and expanding the investments and policies that it already has in place. A game-changing strategy requires the federal government to make new types of investments, form new partnerships with philanthropy and the nonprofit sector, and act in new ways to support the growth of entrepreneurship and innovation within the public education system.

To date, philanthropy has provided most support for the diverse community of educational entrepreneurs that is redefining how we organize the most troubled schools, educate disadvantaged students, and use people, time, and money. But philanthropy alone cannot bring educational entrepreneurship to scale.

Meanwhile, the federal government's investments in educational innovation have lacked the strategic, long-term, risk-taking philosophy that is the hallmark of its support for agencies and efforts with a long track record of game-changing advances, such as the Defense Advanced Research Projects Agency (DARPA), the National Institutes of Health (NIH), and the Small Business Innovation Research (SBIR) Program.

To change the game in K-12 education, the federal government should create a new, small, nimble Office of Educational Entrepreneurship and Innovation (OEEI) within the Department of Education. OEEI would have the explicit mission of catalyzing a culture of innovation and entrepreneurship within public education. Because the federal government cannot simply issue a traditional, top-down mandate for an innovative culture, OEEI would take a novel, bottom-up and outside-in approach by serving as a partner, contact point, advocate, and network-builder for educational entrepreneurs, innovators, and philanthropists. It would collaborate with them and make hands-on investments in promising entrepreneurs and innovators that demonstrate the potential to transform public education.

OEEI should be headed by an appointed Assistant Secretary or Deputy Undersecretary for Education and be governed by an Independent Review Board composed of leaders in education research, policy, philanthropy, business, technology, and entrepreneurship as selected by the Secretary of Education and the House and Senate Education Committees. Among its responsibilities, the Board would oversee OEEI's budget and operations, approve certain funding awards, set a research agenda, and publish an annual report documenting the office's activities and the results they have produced.

Most importantly, OEEI would operate two signature programs that would aim to scale up educational entrepreneurship and seed the next generation of transformational education innovations:

- **Scale up successful educational entrepreneurs.** OEEI would oversee the **Grow What Works** fund to invest in educational entrepreneurs that have shown demonstrated success and have the capacity and desire to take their operations to a national scale. Funding for Grow What Works would cost $100 to $200 million in its first year, scaling up over five years to $300 million. This new federal investment, and the private dollars it would leverage from venture philanthropists and foundations, would address the limited access to capital that constrains the growth of many educational entrepreneurs. The Fund would also help to provide these entrepreneurs with other types of resources they need to achieve impact.

  The largest portion of Grow What Works funding would go to educational entrepreneurs who operate networks of schools or build the supply of high-quality human capital in education—the two areas with the greatest need and the greatest concentration of educational entrepreneurs demonstrating results. By making strategic investments into proven charter school networks, the Fund's resources could dramatically expand the supply of high-quality schools in the nation's most disadvantaged communities. And the fund could help boost teacher quality by supporting programs that implement new ways of training, mentoring, credentialing, evaluating, or paying teachers.

  A smaller share of funding would go to expand entrepreneurs providing out-of-school supports for student learning or building tools to boost student achievement. Funds would also be available for intermediary organizations that provide capacity building and technical support to educational entrepreneurs either nationally or in particular metropolitan areas.

  A huge benefit of providing some funding to each type of educational entrepreneur is the potential of Grow What Works to create dense metro-wide networks of educational entrepreneurs by targeting dollars to particular areas. For example, in a particular metro area, the Fund could help a successful charter school network establish or expand its operations, and at the same time provide funding to a group that supplies qualified human capital for those schools, and to other social entrepreneurs for supplemental student support and parent advocacy services. Such a critical mass of educational entrepreneurs in a particular metro area could serve a significant percentage of area children and drive changes within the entire regional public education environment.

  Less than 5 percent of the Grow What Works budget would be devoted to rigorous independent evaluations of the results achieved by the entrepreneurs in which the Grow What Works Fund invests. Entrepreneurs would need to agree to participate in these evaluations in exchange for federal investment. With the exception of funding for evaluations, all Grow What Works awards would require at least a 50 percent match from private philanthropy, business, state or local funds. All entrepreneurs receiving Grow What Works funds would be required to submit a plan showing how, within a reasonable time frame, their programs would achieve financial sustainability using only state and local funds or fees from schools and districts purchasing their services.

- **Foster transformational educational innovations.** OEEI would also operate a new **Education Innovation Challenge** to invest in the development of potentially high-payoff educational innovations targeted on a limited set of the most pressing challenges facing American education.

  Based on the examples of federal agencies effective in supporting groundbreaking innovations in their fields (such as DARPA and NIH), as well as the cross-agency Small Business Innovation Research program, the Education Innovation Challenge would be small, nimble, and flexible in hiring and contracting. It would also be non-ideological, solutions-oriented, and accountable for results.

  The Challenge would make investments in two phases. Phase-one investments would issue contracts to researchers, inventors, or entrepreneurs for relatively modest amounts, for a period of less than one year, to develop an idea and explore its feasibility. In the second phase, the most promising phase-one ideas would receive much more substantial funding for two to five years to develop prototypes of their innovations and field test them in actual school settings. In this regard, the Challenge would support a network of schools as innovation laboratories for clinical field trials of new tools and models. After the second phase, projects must either seek private venture capital investments or apply for funding from the Grow What Works fund if they are ready for broader implementation. Through this deliberate process, the Challenge could bring together teams of cross-disciplinary experts to undertake the most difficult questions in public education, like how to design program interventions to improve the parenting behavior of high-risk families to improve children's outcomes.

  Separately, annual competitions conducted by the Challenge would award substantial prizes to the most effective model or innovation addressing a particular national education challenge. For example, partnerships of school districts, nonprofits, and testing companies could enter into a competition for the best new public-private approaches to assessing students, using testing data, and linking these activities to school improvement.

  The federal government should invest $150 million annually in the Education Innovation Challenge. Roughly 90 percent of funding would be spent to develop educational innovations and field test them in schools. Less than 10 percent of Education Innovation Challenge funding would be set aside for research, primarily evaluations of the results and effectiveness of funded innovations.

Alongside these central activities, OEEI would work to build a stronger culture of entrepreneurship and innovation within the Department of Education, and within the education field more broadly. Along these lines, it would:

- **Eliminate barriers to innovation in federal, state, and local policies.** Not only would OEEI work within the federal government to change policies that create barriers to innovation and entrepreneurship, it would also deploy funding streams at its authority to provide incentives for state and local policymakers to eliminate barriers. For example, the Office might work with leaders in a particular metropolitan area struggling with poor school performance to recruit a critical mass of high-performing educational entrepreneurs to expand operations there. But it could make such investments conditional upon state and local policy changes—such as elimination of charter school caps—that would remove important barriers to educational entrepreneurs and innovators.

- **Highlight educational issues of national significance.** OEEI would use the federal bully pulpit to shine a national spotlight on the most problematic barriers to entrepreneurship and innovation; highlight outstanding educational entrepreneurs; spread the word about proven innovations that improve teaching and learning; and encourage an innovation mindset within public education. While such activities may seem superficial, when done strategically they can have substantial positive impact. Perhaps the best known example is the 1983 *A Nation At Risk* report, which transformed the national discourse on education and launched the standards movement. President Bill Clinton's support for charter schools in the 1992 presidential campaign and during his administration also helped to create a more politically friendly dynamic for charter schools at the state level across the country, demonstrating the power of the federal platform to change the shape of political debates about entrepreneurship and innovation.

- **Build networks of educational entrepreneurs.** OEII would foster collaboration across the entrepreneurs and innovators it funds by building networks that allow them to share lessons and best practices; identify high-quality human capital; and develop new enterprises that take advantage of the natural synergies between innovation, entrepreneurship, and different types of entrepreneurial education activities. These networks would provide a safe and fertile climate for entrepreneurship and innovation to flourish. These networks could become powerful agents for change as they connect to policymakers, funders, media, and others in a position to influence their success and the climate in which they do their work.

Federal policy must move beyond just continuing and expanding the investments and programs already in place. The daunting challenges in educational achievement and attainment facing America will not be solved with just more successful charter schools, better ways of paying teachers, or more sophisticated accountability models—although these are all good ideas. Instead, federal policy should expand the boundaries of what is possible in public education by making new investments in scaling up successful educational entrepreneurs, developing transformational educational innovations, and eliminating barriers that prevent entrepreneurship and innovation from taking hold in the public school system. As it has done several times in the past, the federal government could really change the game in American public education for current students and future generations.

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For More Information

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