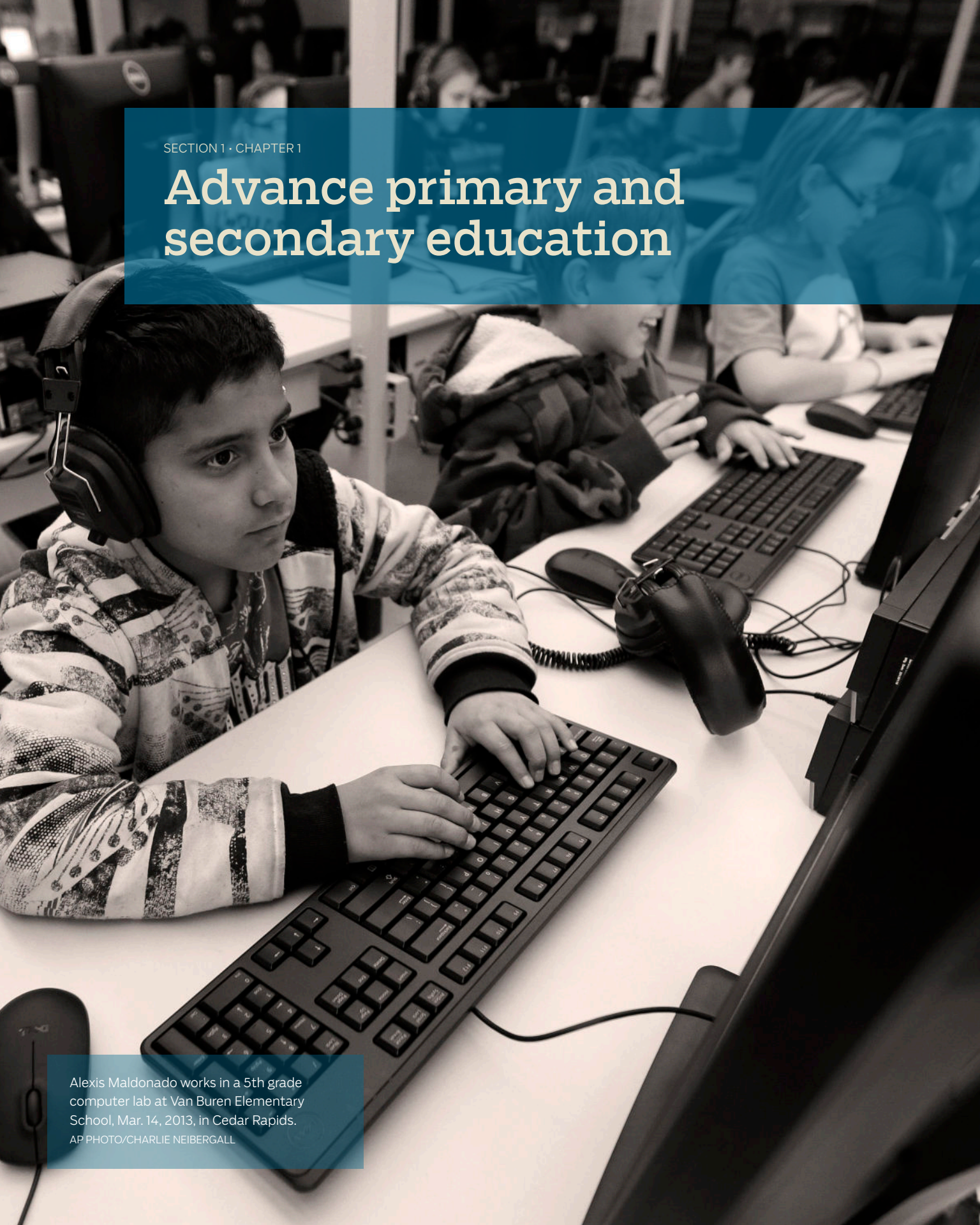
SECTION 1 · CHAPTER 1

Advance primary and secondary education



Alexis Maldonado works in a 5th grade computer lab at Van Buren Elementary School, Mar. 14, 2013, in Cedar Rapids.
AP PHOTO/CHARLIE NEIBERGALL

Children in the United States are not consistently graduating high school with the skills they need to pursue higher education or jobs. A 2009 report by McKinsey & Company on the gaps in primary and secondary school achievement argued that the United States is experiencing "the economic equivalent of a permanent national recession."[13]

The report noted that, "If the United States had in recent years closed the gap between its educational achievement levels and those of better-performing nations such as Finland and Korea, [gross domestic product] in 2008 could have been $1.3 trillion to $2.3 trillion higher. This represents 9 to 16 percent of GDP."[14]

With only about one-third of eighth graders proficient in key subjects, our education system is simply not delivering the goods. Some of what has to be done needs to occur outside of our schools since attainment is strongly affected by the economic circumstances of the children who attend. The policies described later in this report to expand the middle class, improve economic security, and put children in a better position to succeed are important to improving our educational outcomes. But much also needs to be done in the schools themselves.

To maintain our position as the world's economic leader, we must regain our former status as the world's premier developer of its natural abilities. Below we propose a framework and a set of policies to make this happen.

The education reform policies articulated in this section follow a five-part framework:

- Enroll more children, especially low-income children, in high-quality prekindergarten programs

- Increase funding of underfunded schools
- Address the incoherence of a K-12 governance system in which 14,000 local school districts are responsible for almost 100,000 schools
- Improve the overall quality of the teaching and education-leadership workforces
- Embrace innovation and experimentation

Research shows that early childhood education produces the highest economic rate of return of any educational investment.

Policies to expand access to high-quality prekindergarten programs for 3- and 4-year-old children

All children should have access to high-quality preschool. Children who participate in these programs do better in school, are more likely to graduate and attend college, and are more likely to transition to successful adult lives.[15] Indeed, research shows that early childhood education produces the highest economic rate of return of any educational investment.[16] And the benefits go not only to individual participants but also to their families and society at large.

A study by the Federal Reserve Bank of Minneapolis, for example, calculated that the annual real rate of return on investments in one pilot preschool program exceeded 16 percent, a full 12 percent of which went to the general public and the government.[17] A recent National Institutes of Health study of Chicago's preschool program for low-income families projected that the program will generate up to "$11 of economic benefits over a child's lifetime for every dollar spent initially on the program."[18]

While preschool enrollment in the United States has increased to 74 percent among 4-year-old children and to 51 percent among 3-year-old children, the lowest-income and most disadvantaged children are the least likely to participate in preschool programs—and children from middle-class families aren't faring much better.[19]

The federal government, in partnership with states, should offer every child ages 3 and 4 the opportunity to participate in a high-quality public preschool program. We propose a preschool initiative that enables children whose families are at or below 200 percent of the federal poverty line to enroll free of charge. Children from families above 200 percent of the poverty line should be charged a sliding tuition co-pay.

We estimate the annual federal cost of this expansion to be $12 billion, depend-

AT A GLANCE

Primary and secondary education policies

Problem: American workers are falling behind educationally, threatening their ability to build good lives for themselves as well as a strong economy. Only a third of U.S. eighth graders are proficient in math and reading,[10] and two-fifths of incoming U.S. college students are unprepared for college-level coursework. Our students rank 14th in the world in reading, 17th in science, and 25th in math.[11] Out of 27 industrialized countries, the United States ranks 22nd in high school graduation rates.[12]

Solution: Enhanced, targeted federal funding will leverage greater access to early childhood education, improved classroom teaching, the discovery and adoption of best education practices, and adequate resources for all schools. The measures described later in this report to bring more families into the middle class will also play an important role in improving education outcomes.

Key policy ideas:

- Establish an early childhood education system, in which the federal government and states share the costs, to enroll more children ages 3 to 4 in prekindergarten programs.
- Boost federal Title I funding for low-income schools and reform its dissemination.
- Collect and publish school-level achievement and accountability data to evaluate the educational productivity of schools and districts in order to identify and propagate best practices.
- Use federal grant programs to promote effective teacher evaluation and professional development, upgrade STEM teaching, reform compensation systems, and tie teacher tenure to performance and career progress, not years of service.
- Use a federal formula and competition-based funding streams to encourage states and districts to experiment with longer, redesigned school days and expanded school years.
- Other proposed policies include increasing the use of technology in classrooms, developing standards for instructional tools, and rethinking school governance structures.

Outcomes: The United States will rank first in the world on most international rankings, more than 90 percent of our students will perform at or above grade level for major subjects and will graduate from high school ready for college and careers, and the need for remedial education at the college level will be virtually eliminated. ■

ing on the length of the class day and the sliding tuition rates. This cost should be split between the federal government and the states. The federal government should provide grants to state education agencies based on a matching formula that considers district concentration of poverty, state fiscal effort, and the cost of providing education. States should contribute their own funding to receive the federal match.

Preschool expansion should be paired with robust reforms to ensure that the early gains that children make in preschool are supported and enhanced as they transition to kindergarten and the early grades. A highly successful example of this is the Child-Parent Centers, a preschool program that provides services for low-income families with children as young as age 3 and includes a school-age program extending into third grade. Cost-benefit analysis of the Child-Parent Centers has shown it to be highly effective and well worth the investment.[20]

Policies to expand, target, and reform K-12 funding

To give all children access to the quality education needed to reach their full potential, we must ensure that all schools receive the funding they need to educate their students, and we need to be smarter about how we spend that money. Too many schools, typically middle- and low-income schools, are underfunded and, as a result, struggle to provide high-quality education.

Improve the targeting of state and district funding systems

The manner in which schools are governed—entrusting the bulk of the responsibility to local and state governments—is at least part of the school-funding dilemma. The majority of school funding—approximately 90 percent[21]—comes from state and local sources fueled by property, sales, and income taxes, and the manner in which these funds are distributed to schools is grossly inequitable.[22]

To address this problem, states should move their funding to student-based budgeting systems, also known as weighted student-funding systems, that allocate dollars based on the extra educational needs of certain groups of students—for example, those from low-income families, English-language learners, and students with disabilities. We propose adding requirements in federal funding streams such as Title I of the Elementary and Secondary Education Act, or ESEA, that require or encourage states to move to weighted student-funding systems as a condition for receiving funds.

Increase, simplify, and reform ESEA Title I funding

While school funding is heavily dependent on state and local dollars, ensuring that our schools are fully funded is a national priority that demands a national response—especially with respect to low-income schools that cannot raise adequate funds from their own communities.

In this photo taken Mar. 29, 2011, Sparkman High School seniors Sarah Donahue, left, and Leslie Easley, both 18, work in a science class in Sparkman, Arkansas.
AP PHOTO/DANNY JOHNSTON

The $14.5 billion Title I program is the primary method by which federal funding is distributed to low-income schools.[23] We propose increasing the level of Title I funding but also, just as important, allocating it more effectively than it has been thus far.

We propose an increase in Title I funding of $1 billion, an amount designed to accomplish two objectives. The first goal is to mitigate the fact that most low-income schools are severely underfunded, unable to attract the best teachers and administrators, or provide adequate counseling, technology, facilities, and other services and investments that students need. The second objective is to ease the disruptions that the change in the Title I formula we are proposing, discussed next, would cause to schools that lose some of the funding they have come to rely on.

We also propose a new, simplified Title I formula. The current formula results in funds flowing disproportionately to school districts with low concentrations of children in poverty, very large school districts, and districts in wealthy states. In the Center for American Progress report, titled "Bitter Pill, Better Formula: Toward a Single, Fair, and Equitable Formula for ESEA Title I, Part A," we proposed collapsing Title I's four current formulas into one transparent, more fair, and less complex formula that better fulfills the original purpose of the program: providing additional resources

to districts serving concentrations of children from low-income families.[24]

Finally, we propose changing the rules governing one of the conditions to receive Title I aid. Title I's goal of providing additional resources for low-income students is obviously undermined if state and local districts just cut their own funding of schools that receive the federal aid. Ostensibly, there is a rule to prevent that. But the rule's method of calculating how much different schools within a district receive in state and local funding is arcane and has a loophole that allows districts to mask funding inequalities.[25] We propose changing the rule to a much simpler and direct calculation that would more clearly require at least equal per-pupil state and local support at Title I schools.

Improve education productivity

With dollars scarce and education so important, we need to ensure that schools operate as productively as possible. Yet currently only two states, Florida and Texas, produce school-level productivity measures.

We propose that the U.S. Department of Education encourage states to collect more educational-productivity data. It can do this by requiring state-based longitudinal data systems that receive federal grants to collect information about the cost effectiveness of educational expenditures within their states. States might, for example, track the performance of individual students over time to better understand the cost effectiveness of specific programs or curricula.

To be sure, this solution won't by itself allow us to compare the cost effectiveness of educational spending between states. That's because different states currently use different statewide tests to assess their students, so we lack a common baseline to compare cost effectiveness across states. Nonetheless, our proposal is an important first step in encouraging states to at least begin to evaluate and compare the productivity of their schools and districts.

Policies to improve school governance

Successful education reform demands that we re-examine some hoary assumptions and familiar structures. It seems ever clearer that our traditional faith in local control by elected municipal school boards cannot cope with today's realities, whether that involves changing demographics, new opportunities for digital learning, intense fiscal pressures, statewide and nationwide virtual schools, and myriad forms of interdistrict choice. This is especially true in urban America.

A book produced by the Center for American Progress in collaboration with the Thomas B. Fordham Institute, titled *Education Governance for the Twenty-First Century*,[26] outlines in detail the problems with our current system of 14,000 local school districts, mostly overseen by elected boards of education, responsible for almost 100,000 schools, with blurred lines of responsibility, uneven funding, and shocking inefficiencies. The current ungainly structure broadly hinders efforts to nationally improve how we educate.

The U.S. Department of Education should partner with states to lead a national conversation on educational governance. It should address the hard questions and debate the merits of governance reforms such as mayoral control, district consolidation, and school-funding systems. And it should produce and disseminate research and best practices that explore alternative forms of governance.

Policies to reform the teacher and education-leader workforces

Teaching is at the heart of education. Yet public education has failed to accommodate changes in the labor force and embrace ways to ensure we have the best possible teachers and school leaders, and that they are appropriately rewarded and supported, in our school systems.

There has, however, been substantial progress of late. States have launched efforts to reform their education systems, and issues of quality and effectiveness of teachers and principals have entered the vocabulary of reformers and political leaders. It is now recognized that tenure and experience do not automatically equal effectiveness, and better tools for evaluating educators are being developed and implemented. In many states, teacher evaluation has become the mechanism for determining professional-development needs, identifying areas of the teacher pipeline that need shoring up, and determining if high-performing educators are being fairly distributed among schools. These issues were not the focus of discussion two years ago.

There is still, however, much work to be done, and the federal government has levers available to facilitate reforms at the state and local level.

First, investments from ESEA's formula-funded $2.5 billion Title II Teacher Quality State Grants program should be refocused. Despite large federal investments in this program over time, there is near-universal agreement that these dollars have not significantly improved teacher effectiveness.[27] We therefore propose shifting at least 25 percent of Title II funds from formula to competitive grants and adjusting the rules governing the formulaic dollars to ensure that they are used in ways proven to improve teacher effectiveness.

We also propose that an additional 2.5 percent of these funds be dedicated to improving state capacity to develop and implement better educator-evaluation systems. And, along with the Obama administration, we propose eliminating or consolidating a number of programs within Title II of ESEA that are too small to have much of an impact.[28]

We also embrace the administration's proposal to create a $400 million competitive Teacher and Leader Innovation Fund.[29] These funds should be used to support innovative strategies by states or districts to develop more aggressive recruitment strategies, strengthen tenure processes, retain and reward effective teachers and principals, and institute career ladders for teachers, among other reforms.

Finally, we embrace the administration's proposal to create an $80 million STEM Teacher

In this Apr. 18, 2013 photo, Burgess-Peterson Elementary School first grader Ju' Ryver Battle, center, works through a lesson with instructor Kamean Daniels, left, as part of Atlanta Public School's after-school remediation program.
AP PHOTO/DAVID GOLDMAN

Pathways program that focuses on recruiting, preparing, and placing talented STEM educators in high-needs schools.[30]

The above funding streams should be used in the following ways to improve teaching in America.

Strengthen teacher compensation and incorporate career ladders

The current pay system used by most school systems is the single-salary schedule, which fails to recognize the differences among teachers in terms of skill and knowledge, as well as market demand for specific disciplines such as math and science. Most systems remain wedded to two measures—years on the job and advanced-degree attainment. Scores of school districts have taken strides toward sensibly differentiating teachers' pay, often with the support of philanthropic foundations or the Teacher Incentive Fund program. But more needs to be done.

Teachers should receive differential compensation based on their levels of effectiveness; career-ladder positions should be determined by roles and responsibilities, areas of specialty, and service in hard-to-staff schools. And student academic growth should be a significant factor when measuring teacher effectiveness.

To maximize effectiveness, compensation policies must be aligned with improvements in other human-resource policies such as teacher evaluation, tenure policies, and professional development. Evaluation and teacher training are discussed below. With respect to professional development, formal career ladders should be developed that offer teachers paths to advance into different roles and responsibilities.

Policymakers must view compensation reform as a strategy to recruit, motivate, and reward talented teachers. Compensation reform can also build the capacity of public schools to take on the hard work of systemic improvement that is so critical for raising student achievement. Current initiatives in science, technology, engineering, and math are not succeeding in providing enough of our students with the knowledge needed to compete in these critical areas. We must make teaching science and math an attractive option by offering higher levels of compensation to teach these subjects.[31]

The proposed Teacher and Leader Innovation Fund and other competitive grant programs should support more research and technical assistance to explore innovative models of compensation reform.

Tie teacher tenure to performance and student achievement

The initial impulse for developing tenure laws was to protect teachers from unfair dismissal, but current tenure laws are anachronistic and create more problems than they solve. It makes the process of dismissing an ineffective tenured teacher prohibitively lengthy and expensive in most states and districts, and teacher tenure-evaluation processes remain largely disconnected from teachers' performance in the classroom or student achievement.

The Teacher and Leader Innovation Fund and other competitive-based programs should be used to encourage states to change their tenure statutes to explicitly mandate that teacher retention and dismissal decisions are driven by teacher effectiveness. Connecticut and Michigan have recently made such changes.[32]

Improve teacher evaluations

The changes in teacher compensation and tenure that we describe above are premised on the availability of rigorous systems of teacher evaluation. The Center for American Progress, together with The Education Trust, has developed a specific set of actions for states to implement robust evaluation systems that incorporate measures of teacher impact on student growth, as well as rigorous observations of practice based on multiple observations per year, among other measures. The results of such evaluation systems can be used not just for compensation and tenure decisions but also to guide professional development, identify inequities in how the best teachers are distributed among schools, and to hold teacher preparation programs accountable for the performance of their graduates, which we discuss more below.

Recent federal policy has already pushed states to adopt most of these recommendations.[33] But we should build on this momentum by using the competitive grant programs described above to create additional incentives for adoption of these practices.

Strengthen teacher education and training

We propose greater accountability for teacher-preparation institutions. Our current system for holding U.S. teacher-education programs accountable has failed to guarantee program quality. Despite wide variation in quality, of the more than 2,000 teacher-training programs, states only identified 38 in 2010 as low performing.[34] Moreover, 27 states have never identified a single low-performing program since these requirements went into effect more than a decade ago.[35]

States must replace the current toothless accountability policies and assert their authority to impose real consequences on ineffective programs. Specifically, we call for states to establish a single set of common standards for teacher-preparation programs to ensure that quality is defined the same way, no matter where the program is located or where the graduate is employed. We also recommend that every state's teacher-preparation program accountability system includes a teacher-effectiveness measure that reports the extent to which program graduates help their pre-K-12 students learn. In addition, program graduates' persistence rates in teaching, which track their continued employment, should be reported for every teacher-preparation program. Feedback surveys from preparation-program graduates and from their employers should be part of state program accountability. Lastly, a new system of teacher-licensure tests should be designed and implemented for state accountability.

States can be moved in these directions by amending the requirements of Title II of the Higher Education Act. These requirements can be specified through regulations—indeed, the administration began this process in 2010. The U.S. Department of Education should move forward quickly with this regulatory effort.

Improve postgraduate professional development

The state of professional development in the nation's schools systems is highly problematic. Professional development often includes one-time workshops that focus mostly on awareness or general knowledge rather than specific skills, courses that are not adequately connected to practical and relevant skills improvement, and models that have little basis in what is known about effective instruction, curriculum, or classroom interactions.

Professional development should be provided continuously over the course of the entire school year with groups of educators sharing best practices and getting guidance from peers, and it should include work with a

In this photo taken on Mar. 27, 2012, kindergartners at Moss Haven Elementary school work in a student garden in Dallas.
AP PHOTO/LM OTERO

coach—all across multiple lessons and subject areas. Professional development should also be integrated with evaluations so it is focused on where it is most needed.

Competitive-grant ESEA Title II dollars should be used to create incentives for these improvements in professional development. In addition, formulaic Title II funds should be more contingent on results. Districts should be required to conduct comprehensive audits of all of their investments in professional development to determine whether their spending provides real opportunities for teachers to improve. Funding would be contingent on training that makes a difference or plans to improve that training.

Policies to encourage educational innovation and adoption of best practices

Given the performance of many of the nation's schools, we should not be afraid of change.

The federal government's current role in bringing about change has been primarily to encourage experimentation and the development and dissemination of best practices. We propose an expansion of this role using $8.5 billion of additional funding for the following existing or proposed federal programs:

- Race to the Top, or RTT
- Teacher Quality State Grants

Kimberly Delgado, 14, left, Marlin Molina, 15, and Evelina Mendez, 16, right, react with cheers and applause as they win the concentration game in history class at the Academy for Career and Sports High School in the Bronx on Apr. 11, 2006.
AP PHOTO/BEBETO MATTHEWS

- Investing in Innovation Fund, or i3
- Supporting Effective Charter School Grants
- Charter Schools Program
- Promise Neighborhoods
- Social Innovation Fund
- Teacher Incentive Fund
- Advanced Research Projects Agency for Education
- Time for Innovation Matters in Education

Of the existing funds, many have been very effective at promoting positive change. The RTT and i3 programs have spurred significant education reforms. More than 25 states changed their education laws or policies to prepare for the first two rounds of the RTT competition even before the grant winners were announced. The Teacher Incentive Fund has spurred dramatic changes to teacher compensation, evaluation, and other human-capital approaches that improve teacher effectiveness. Advanced Research Projects Agency for Education, or ARPA-ED, is now a small program that funds industry, universities, or other innovators to identify learning science and technological breakthroughs that can transform teaching and learning. In total, all of these programs represent less than 3 percent of federal education spending but have the potential to identify and expand significant innovation. We believe these funds

should largely continue on the paths they have been on but offer the following as areas of focus for additional funding.

Encourage rigorous curriculum and national standards

A growing body of research suggests that a teacher's instructional tools—textbooks, homework, practice sheets, etc.—make an enormous difference in student learning. One recent study found that the selection of a certain math curricula over another can lead to higher achievement among first- and second-grade students.[36] The federal government can play a key role here. For one, it can help fund and distribute best practices around the Common Core State Standards,[37] as it has through Race to the Top. For another, the federal government can fund research around effective curricula. The Department of Education's Doing What Works program devotes some effort to curriculum development, as has Race to the Top, but these efforts should be expanded with a particular focus on STEM subjects.

Make better use of technology

Technology can help provide students with the skills and knowledge they need in more cost-effective ways. Technology can also create more personalization of educational material. Students vary as learners, yet schools basically treat all students the same. Technology can help teachers personalize their teaching to individual students and their particular needs and skills.

The National Educational Technology Plan recommended that every student and educator have at least one internet-access device.[38] Some states and districts have already taken some important steps in this regard. Idaho, for instance, recently used federal, state, and private funds to launch an initiative to establish high-speed broadband connections for every school.[39] But policymakers can do more.

To start, we need better metrics on how technology is used currently in schools, a research program the federal government should fund. We also need more innovative programs similar to i3 that reward forward-thinking schools and districts. And we need to use technology to augment the way schools deliver instruction. One model is the Rocketship schools in San Jose, California, which incorporate online learning in the school day. As a start, future i3 rounds should have a specific technology focus.

Encourage experimentation with school hours and days

Expanded and quality learning time in the form of longer school days or expanded school weeks or years has proved to be highly effective, especially for students in high-poverty schools. The Center for American Progress Action Fund, with the National Center on Time & Learning, has proposed the Time for Innovation Matters in Education Act, or TIME Act. The act would amend ESEA to provide

In this May 11, 2011 photo, 3-year-old Ben Johnson, right, joins in a song at an Early Childhood Family Education program in Waconia, Minnesota.
AP PHOTO/CRAIG LASSIG

funding to states and districts for the creation of expanded-learning-time initiatives to lengthen the school calendar by a minimum of 300 hours for all students in participating schools.[40] The U.S. Department of Education should also continue to use federal competitive-based grants and its waiver authority to encourage increased learning time.[41]

We also propose reconfiguring school time in other nontraditional ways. Experts believe that Carnegie Units—a system of earning high-school credits based on the length of time a student has studied a given subject—and other seat-time-based policies are one of the biggest barriers to better, improved learning.[42] Some states and districts have taken important steps forward. In New Hampshire, for example, high schools recently began giving students credit based on demonstrated mastery of course-level "competencies," which are the skills and knowledge that are outlined in the state's curriculum frameworks.[43] Idaho also recently passed a law to change the state's public-school funding formula so that funds follow a student taking online or dual-credit courses in which the student received both high school and college credit.[44] Federal funding streams—both formula- and competitive-based—should encourage states and districts to experiment with learning time.

Promote experimentation with new schooling models

Over the past 20 years, states and districts have experimented with new models of schooling, including charter schools, career academies, virtual schools, early college high schools, dual-enrollment programs, and schools working in partnership with community groups to provide a wide range of services to children. Some pioneering districts have authorized and oversee a portfolio of various school models that increase choice and spur innovation across the system.

The federal government should continue to support such work through programs such as the Charter Schools Program, Promise Neighborhoods, and i3. By supporting such reforms, the federal government can send a strong signal to states and districts that reinventing school models is critical to meeting the needs of all students. ■

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