



Federal Barriers to Innovation

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Introduction

With educational outcomes inadequate, resources tight, and students' academic needs growing more complex, America's education system is certainly ready for technological innovation. And technology itself is ripe to be exploited.

Devices harnessing cheap computing power have become smart and connected. Voice recognition, artificial intelligence, and ubiquitous access to information have enabled a profusion of mobile, economically important, and educationally remarkable activities. Electronic communications and social media platforms are reshaping culture and affecting relationships at home, in the workplace, and in schools. And advances in the learning sciences—an interdisciplinary field concerned with the physiological, psychological, and sociological underpinnings of human learning and the design of interventions aiming to improve it—have gained purchase in actual practice.

For some students with disabilities, specialized software and cheap, connected devices such as tablet computers have radically altered how their education is delivered. A number of schools have implemented a completely new model of instruction, in which students move through computerized modules at their own pace in computer labs for the bulk of their school day. Video games are being used to teach various concepts, so it's conceivable to think that we might soon see a "smart primer" in the form of a fiendishly addictive game that can efficiently teach most children to read text—think Angry Birds meets *Dick and Jane*.

Replicating these innovations, and going much further, must be a top priority if the United States is to remain economically competitive. Technology-driven innovation has increased demand for workers with cognitive skills that require substantial investments in education. Given its high wage basis, America's economic competitiveness is especially sensitive to its schools' failure to produce graduates who are ready for college or a career. Despite a high rate of unemployment, in several high-tech fields, such as aerospace,

oil, and information technology, employers simply can't find enough skilled workers in some labor markets to fill openings for well-paying, technically demanding jobs.

The federal government should be doing all it can to promote technology-driven innovation for our school children. Instead, federal policy stands in the way of innovation, both actively and passively.

In response to threats to U.S. economic competitiveness, at a time President Obama has called "our generation's Sputnik moment," the federal government should be doing all it can to promote technology-driven innovation for our schoolchildren.² Instead, federal policy stands in the way of innovation, both actively and passively. This doesn't have to be the case. With greater support for the federal efforts that already exist, and modifications to rules that discourage innovation, the U.S. government can lead the charge in ensuring that all stakeholders—school systems, educators, private companies, and above all students—make the most of the technological challenges and opportunities in front of us.

A Sector Poorly Poised to Advocate

Innovation can make people uncomfortable and can be controversial, if only for the very nature of the changes new technologies make possible in classrooms, schools, and institutional systems. Many education interest groups at the state and federal level regularly weigh in on innovation debates. Entrepreneurs and other businesspeople with much to offer and gain from innovation, but who usually stay relatively silent in education policy debates, can be influential too. In the arenas of defense and health, for example, profit-seeking firms have clearly been heard. Firms such as Raytheon and Merck are neither bashful nor impotent when it comes to this facet of furthering their

^{1.} See, for instance, Mary Catherine O'Connor, "Assistive Technology Devices," *Education Week*, August 22, 2011, and "Apps for Autism," *60 Minutes*, CBS News, October 23, 2011.

^{2.} President Obama's 2011 State of the Union address.

shareholders' interests. And the agencies charged with implementing defense and health policy contain mature, specialized divisions that channel private-sector enthusiasm for innovation. But education's private sector is not set up to advocate politically.

And the federal government's research and development (R&D) investment in education is young and thinly funded compared to other sectors. The Defense Advanced Research Projects Agency (DARPA), under the Department of Defense, and the National Institutes of Health (NIH), under the Department of Health and Human Services, represent fundamental nodes in the infrastructures for their respective fields. The NIH has roots going back to 1798, and DARPA was established in 1958. The Department of Education, in contrast, was not founded until 1980. Its analogue to DARPA and NIH, the Institute of Education Sciences, is even newer, and its \$200 million budget amounts to roughly 7 percent of the DARPA budget and less than 1 percent of the NIH budget. Yet total government spending on education from state, local, and federal sources matches the \$900 billion spent on defense, and isn't much below the \$1.1 trillion spent on health.3

The federal government's R&D investment in education is young and thinly funded, and its capacity to promote innovation in public schools quite modest relative to its capacity in other sectors.

Determining the proper level of federal R&D spending on education is beyond the scope of this paper and, in any case, federal budget pressures being what they are, there's little hope of more than slight increases in such spending. The important point here is that the federal government's capacity to promote innovation in public schools is, at best, quite modest relative to its capacity in other sectors.

That said, small, well-placed bets can pay off big. President Obama's fiscal year 2012 budget proposal included a \$90 million investment in an Advanced Research Projects Agency for Education (ARPA-ED). The ARPA-ED idea, modeled on Defense's DARPA,

would create a federally funded program solely devoted to piloting, testing, and scaling innovations—and would likely catalyze development of such drivers of innovation as digital tutors, virtual learning laboratories, and highly engaging educational software applications inspired by video games. There's little doubt that the education R&D infrastructure could use such a force. But until ARPA-ED receives serious funding, either in an appropriations bill or as a properly authorized program, we have to look to concrete activities to gauge the federal role in promoting, or hindering, innovation.

i3 and a DevelopingFederal Role

The federal role in elementary and secondary education involves implementing legislation passed by Congress and to a lesser extent pursuing executive initiatives. Activities of both kinds have some bearing on the innovation space. We begin with those activities that can positively impact disruptive innovation.

The Department of Education's small Office of Educational Technology handles a couple of initiatives meant to facilitate innovation. The Innovation Cluster initiative engages stakeholders in conversations about education using the vocabulary of "regional innovation clusters," which stems from the work of Michael Porter, a Harvard Business School professor. 5 The innovation clusters support regional collaborations among educators, researchers, and commercial partners who work together to infuse schools with new learning technologies and test their effectiveness. The initiative, which aims to build more intentional connections between technology providers and schools and school districts, resonates with the embrace of clusters by the broader framework of "innovation ecosystems" fostered by the National Science Foundation.6

^{3.} See "Estimated FY 2013 Spending for Governments in the United States." One-third of the education spending goes to postsecondary education.

^{4.} U.S. Department of Education, "Winning the Education Future: The Role of ARPA-ED," March 28, 2011.

^{5.} Office of Educational Technology, "Education Innovation Clusters;" and Bruce Katz and Mark Muro, *The New "Cluster Moment": How Regional Innovation Clusters Can Foster the Next Economy* (Washington, DC: Brookings Institution, September 2010).

^{6.} Thomas W. Peterson, "Creating an Innovation Ecosystem" (National Science Foundation, undated presentation).

Evidence Framework, another initiative from the Office of Educational Technology, aims to shed light on the challenge of leveraging the mountains of data generated by schools to support decisions about educational investments. Both conceptually and practically, this initiative hitches the What Works Clearinghouse, an initiative to collect and disseminate rigorous research on educational interventions launched in 2002 by the Institute of Education Sciences, with the more recent executive push by the Office of Management and Budget to expand federal agencies' use of "evidence and rigorous evaluation in budget, management, and policy decisions."

i3 was both a creative and sorely needed shot in the arm for education's R&D infrastructure, but it may have limits as a vehicle for innovation.

Although these initiatives are explicitly friendly toward technology-driven innovation in schools, they are unlikely to be considered potent vehicles for promoting innovation in their own right. To find promising candidates in this respect, we look to programs that Congress has furnished with the ability to change incentives.

The Investing in Innovation Fund (i3) was born in the early, chaotic months of 2009. Initially funded at \$650 million, i3 stood out from other line items in the American Recovery and Reinvestment Act as both a creative and sorely needed shot in the arm for education's R&D infrastructure. Congress followed the initial shot with a booster of \$150 million through the appropriations process for the 2011 fiscal year.

The i3 program provides competitive grants to organizations with a record of improving student outcomes, so that they can reach more students. The initial set of grantees represented a wide range of efforts, including charter school networks, literacy initiatives, school turnaround models, and teacher training programs. Organizations can receive one of three types of grants; from largest to smallest, they are scale-up,

It's too soon to tell whether i3 will spark the kind of growth in education R&D spending or impact that many advocates had hoped for, but it is clear that the i3 program has two features that may seriously limit its impact as a vehicle for innovation. First, by reserving the bigger grants for only ideas with the strongest evidence base, the program rewards larger, longerstanding programs over potentially powerful young innovations that have a strong theory of action but insufficient evidence to draw a significant grant. Second, the program excludes profit-seeking private firms from participating, except as subcontractors or service providers of nonprofit entities.9 DARPA and NIH play nicely with private firms, and innovation in defense and health depends on it. It stands to reason that the Department of Education, likewise, has to more thoroughly embrace the private sector if the federal government is to play a more robust role in education R&D.

Moreover, ongoing funding for i3 is by no means a slam dunk. And thus we turn from the embryonic federal role in promoting innovation in schools to federal barriers to it—notably, the way that the annual outlay of massive federal grants is driven by decades of conditioned agency behavior.

Favoring the Status Quo

To a great extent, the federal role in elementary and secondary education can be characterized by what happens with two programs. The first of these programs is Title I of ESEA; the second is Part B of the Individuals with Disabilities in Education Act (IDEA). For fiscal year 2012, Congress appropriated \$14.5 billion and \$11.6

validation, and development grants. The size of the grant correlates to how convincing the evidence is that the applicant's strategy has improved achievement or reduced achievement gaps.

^{7.} Office of Educational Technology, "Evidence Framework for Innovation and Excellence in Education."

^{8.} Memorandum by Jeffrey D. Zients, acting director of the Office of Management and Budget, May 18, 2012.

^{9.} John Bailey, *Odd Man Out: How Government Supports Private-Sector Innovation*, Except in Education, Private Enterprise in American Education Special Report 3 (Washington, DC: American Enterprise Institute, October 2011).

billion, respectively, for these programs, a combined sum that represents approximately 68 percent of all federal spending on elementary and secondary education.¹⁰

The burden of compliance is a prominent theme; some of the requirements attached to Title 1 and IDEA Part B funds are viewed as fundamentally hostile to innovation.

Dollars appropriated for Title I and IDEA Part B flow to state education agencies and spill down to school districts, as prescribed by statutory formulas. Allocated funds bring with them a host of requirements spelled out in statutes, regulations, and guidance. Some requirements entail the reporting of information to offer assurance that funds are used in ways consistent with congressional intent. Other requirements reflect Congress's ability to use its checkbook to influence state and local behavior.

The burden of compliance is a prominent theme in discussions about these requirements. Their sheer number—588 for Title I alone, according to the Office of the Inspector General—raises a natural question about duplication of effort, and many individual requirements have drawn scrutiny. And in recent years, it has been charged that certain requirements are fundamentally hostile to innovation. There are three fiscal requirements of tremendous importance in this sense because they speak to how state and local agencies must spend their own money, not just those program funds allocated to them. Each of the requirements instills in districts a profound deference for existing staffing and spending patterns.

The Title I comparability requirement

School districts receiving Title I funds are required to ensure that "[t]aken as a whole, services provided

in Title I schools from state and local funds be at least comparable to those provided in non–Title I schools" before the federal funds are added in.¹² This requirement makes sense insofar as Title I funds are meant to enhance the educational experience of eligible students in high-needs schools, not to compensate for an inequitable distribution of resources between those schools and schools serving more affluent students.

The comparability requirement, however, contains a loophole. Specifically, when determining what constitutes comparable services, districts cannot consider salary differentials associated with teacher experience. So, for instance, if a district fills a high-poverty school with 30 inexperienced and therefore low-paid teachers and an equal-sized affluent school with 30 higher-paid veterans, the staffing levels are considered comparable.

The Title 1 comparability requirement loophole enables and encourages districts to operate in the dark with respect to the actual costs accruing to schools.

This exclusion has made compliance with the comparability requirement very convenient for districts that allocate resources to schools largely in terms of staffing units, as opposed to actual dollars. Provided that a district uses a uniform salary schedule and staffs schools with comparable *numbers* of teachers, nobody has to worry, at least as far as Title I compliance goes, whether Title I schools are disproportionately filled with novices. Numerous reports have shown that the comparability loophole renders the requirement ineffective with respect to its nominal purpose.¹³

The loophole also buttresses resource management practices that discourage innovators. First, the loophole enables and encourages districts to continue

^{10.} Department of Education FY 2012 Congressional Action. We are excluding from our calculations federal funds distributed through the Department of Agriculture for school meal programs.

^{11.} See Frederick M. Hess and Whitney Downs, "The Culture of 'Can't' in American Schools," *The Atlantic, April 12, 2012, and K-12 Education: Selected States and School Districts Cited Numerous Federal Requirements As Burdensome, While Recognizing Some Benefits, GAO-12-672 (Washington, DC: U.S. Government Accountability Office, June 2012).*

^{12.} Elementary and Secondary Education Act of 1965, Section 1120A(c)2(B).

^{13.} Paul Hill and Marguerite Roza, "Equalizing Education Dollars," Washington Post, August 21, 2005; Raegen Miller, Comparable, Schmomparable: Evidence of Inequity in the Allocation of Funds for Teacher Salary Within California's Public School Districts (Washington, DC: Center for American Progress, May 2010); and Jennifer S. Cohen and Raegen Miller, Evidence of the Effects of the Title I Comparability Loophole: Shining a Light on Fiscal Inequity Within Florida's Public School Districts (Washington, DC: Center for American Progress and American Enterprise Institute, March 2012).

operating in the dark with respect to the actual costs accruing to schools. This state of affairs makes it very difficult for anybody to convincingly answer questions about the cost-effectiveness of interventions involving staff. Second, the compliance regime around comparability provides a layer of insulation around the traditional salary schedule, in which experience and post-baccalaureate attainment completely determine teacher compensation. A compelling body of research documents that the typical master's degree earned by a teacher has no value as a mark of instructional effectiveness, 14 nor does additional experience beyond the first few years. 15

The Title 1 comparability requirement loophole is a barrier to implementing "reach extension," an innovative idea to pay more effective teachers higher rates for providing instruction to a larger number of students, largely through the use of technology.

Traditional teacher compensation systems are inimical to innovation, in general, because they tie financial resources to uses that have a slim connection to strategic goals such as improving student achievement. It's bad enough that a district's payroll will rise from one year to the next only because its complement of teachers gains experience. Worse, traditional compensation prevents districts from differentiating pay in strategic ways, such as through "reach extension," an innovative idea in which particularly effective teachers are paid at substantially higher rates for providing instruction to substantially more students, in large part through the use of technology.¹⁶

There is, of course, a much broader argument to be made about the role of traditional compensation systems in stunting the teacher workforce, and districts retain these systems for reasons other than their role in facilitating compliance with the Title I

The Title I supplement-not-supplant requirement

Unseemly spending scandals early in the life of ESEA prompted Congress to enact a special requirement, aiming to safeguard Title I funds from future hijinks.¹⁷ In particular, agencies must show that Title I funds are used to purchase only goods and services that would not have otherwise been purchased in the absence of Title I funds.¹⁸ Like the comparability requirement, supplement-not-supplant, as it is called, aims to ensure that Title I funds represent an extra jolt of support for their intended beneficiaries: academically suffering children in schools serving high concentrations of low-income students.

Districts can comply with the comparability provision basically by conducting business as usual. The machinery and culture of compliance around the supplement-not-supplant requirement, on the other hand, are so rigid and stultifying as to frustrate the essential policy goal of the Title I program: to enhance the educational experience of eligible students in high-needs schools. Part of the problem is that the tests that auditors use to check for supplanting are subjective. Different auditors can make different rulings, and this ambiguity naturally makes districts exceedingly cautious about using Title I funds in ways that haven't previously survived scrutiny for supplanting.

Clearly, novel uses of funds that leverage technology to yield better academic results are vulnerable to excessive caution, thus creating a roadblock to innovation. Title I funds themselves become, to some extent, off-limits for bold new kinds of expenditures, depending on officials' tolerance for negative audit findings and their willingness to attempt to rebut them.

comparability requirement. Nevertheless, it's fair to call out the requirement as a barrier to implementing reach extension.

^{14.} Raegen Miller and Marguerite Roza, *The Sheepskin Effect and Student Achievement: De-Emphasizing the Role of Master's Degrees in Teacher Compensation* (Washington, DC: Center for American Progress, July 2012).

^{15.} Jennifer King Rice, *The Impact of Teacher Experience: Examining the Evidence and Policy Implications* (Washington, DC: Urban Institute, August 2010).

^{16.} Emily Ayscue Hassel and Bryan Hassel, "New Models for Extending the Reach of Excellent Teachers Seeking Implementers," *Education Next*, December 14, 2012.

^{17.} Is It Helping Poor Children? Title I of ESEA: A Report (Washington, DC: Washington Research Project and NAACP Legal Defense and Education Fund, 1969).

^{18.} Elementary and Secondary Education Act, Section 1120A.

^{19.} Melissa Junge and Sheara Krvaric, How the Supplement-Not-Supplant Requirement Can Work Against the Policy Goals of Title I: A Case for Using Title I, Part A, Funds More Effectively and Efficiently (Washington, DC: Center for American Progress and American Enterprise Institute, March 2012).

The implementation of curricula and assessments tied to Common Core standards represents quicksand in this sense. Using Title I funds for district-wide initiatives under this banner may be permissible in some circumstances, according to recent Department of Education guidance, ²⁰ but these circumstances vary with the details of states' "ESEA flexibility" waiver plans, all less than a year old. Innovation is thus hostage to the capacity and courage of local administrators to face down remote bureaucrats, such as state auditors.

When it comes to novel uses of Title 1 funds, innovation is held hostage to the capacity and courage of local administrators to face down remote bureaucrats.

One can hardly blame local officials for erring on the side of caution. Districts can be required to pay fines or repay federal funds if it's determined they were used improperly. Even the Department of Education sends fuzzy signals about the supplement-not-supplant requirement, as in this statement from a 2004 webinar:

[Supplement-not-supplant] sounds like a very simple requirement, but ... it's very fact-specific. And, you really can't talk about it well in general terms because it is so dependent upon the facts of the specific situation.²¹

A district's best bet to stay on the good side of an idiosyncratic, subjective Title I audit is to avoid year-to-year deviations in its spending patterns, and to keep a cost-by-cost tally of each individual expenditure of Title I funds. Such behavior consciously ignores the flexibility available for schools operating schoolwide Title I programs, in which all students are permitted to partake in the fruits of Title I. And it creates a disincentive for districts to create more efficient services for Title I students who are English language learners, or who receive special education and related services due to a disability. A district that finds ways to save money by coordinating services, however sensible it might be from a service quality or efficiency point of view, may fear that their auditors will not see a Title I

At bottom, cautious spending behavior induced by the supplement-not-supplant requirement hardly sounds like a recipe for improving student achievement and other outcomes, much less for doing so in profound ways through disruptive innovation. Mercifully, the third fiscal requirement of agencies receiving Title I funds is not a barrier to innovation. Under the Title I maintenance-of-effort requirement, districts may reduce their spending from state and local sources by up to 10 percent from one year to the next without seeing their Title I allocations penalized. Cost-reducing innovations, provided they can get past the obstacles mentioned above, have to be mighty serious to run afoul of the Title I maintenance-of-effort requirement. Not so the analogous requirement under IDEA Part B.

The IDEA Part B maintenance-of-effort requirement

Maintenance-of-effort requirements have a sensible place in many intergovernmental grant programs, for an obvious reason. Governors, state legislators, and members of locally elected school boards have short-term political incentives to reduce those taxes and fees over which they have some authority. One way to offer tax relief is to substitute grant allocations coming from a higher level of government for funds ordinarily raised at the lower level. Maneuvers of this sort are entirely predictable in the absence of countermeasures such as maintenance-of-effort requirements.

The chief element of such a requirement is the percentage of the previous year's outlays that agencies are required to spend. Under Title I's maintenance-of-effort requirement, states and districts have to spend at least 90 percent of what they spent the year before, apart from federal funds. This level allows them to absorb substantial shocks to non-federal revenue created by events such as a fall in housing prices (and thus property tax revenue).

IDEA Part B is not so forgiving: it requires districts to spend 100 percent of prior-year spending from state and local sources to provide special education and related services. In other words, its maintenance-of-effort rule requires that districts almost never lower their spending in a prominent category. Moreover, districts cannot escape

[&]quot;extra" bang for the buck and instead will give them an audit finding and possible fine.

^{20.} Andrew Brownstein, "Supplanting Solved? Not So Fast..." Title 1-Derland blog, Thompson Publishing Group, August 24, 2012.

^{21.} Susan Wilhelm et al., "Key Title I Fiscal Issues: Supplement, Not Supplant," Office of Elementary and Secondary Education webcast, October 13, 2004.

their obligations under IDEA Part B maintenance of effort. There are no local waivers, and shortfalls must be repaid. The requirement does accommodate reductions in spending, for example, when a student with disabilities who required extraordinarily expensive services leaves a district, or when a retiring veteran teacher at the top of the salary scale is replaced with a novice teacher at the bottom.²²

IDEA Part B maintenance-of-effort rule requires that districts almost never lower their spending in a prominent category. For instance, if a district figures out how to provide services for less money, it might run afoul of the requirement.

The requirement does not generally accommodate other efforts to reduce spending on special education and related services. For instance, if a district figures out how to provide services internally and more cheaply for a student who had previously received services in a private placement, it would run afoul of the requirement. Similarly, a district that chooses to consolidate a number of paraprofessional positions into a less expensive but arguably more cogent professional position would be flagged for violating the maintenance-of-effort requirement.²³

These relatively straightforward examples highlight the snag that more exotic, technology-driven innovations would hit if they involved reducing customary expenditures tied to a given service or support, even if they radically improved student outcomes. The Thomas B. Fordham Institute, a think tank, has helpfully argued that more latitude around spending on special education and related services simply has to be on the table if districts must "do more with less," as Secretary of Education Arne Duncan has warned.²⁴

The Department of Education relaxed the requirement slightly in 2011, through new guidance.²⁵ Consultant Stephen Frank of Education Resource Strategies lauded the change. "Fiscal prudence benefits all students, including special education students," he wrote, "because while it's important to spend sufficiently to educate students, how well we spend our scarce dollars seems even more important."²⁶

But the special education advocacy community was not terribly receptive to the new guidance. In explaining a letter from the Center for Law and Education to the Department of Education, Kathleen B. Boundy, a co-director of the center, revealed an important premise for its recalcitrance: "...costs [of providing special education and related services] rarely decrease."²⁷

Binding instructional choices to a specific level of spending is anathema to innovation, and it curbs the immense promise for technology-driven productivity gains in schools.

In 2012, the Department of Education rescinded its 2011 guidance, an act that can reasonably be attributed to the potency of the special education lobby in Washington.²⁸ So the IDEA Part B maintenance-of-effort requirement remains a noteworthy barrier. Binding instructional choices to a specific level of spending is anathema to innovation, and it curbs the immense promise for technology-driven productivity gains in schools.

^{22.} Nirvi Shah, "Feds Back Off Easing Penalties for Districts that Cut Special Ed. Funding," *Education Week*, April 4, 2012.

^{23.} Melissa Junge and Sheara Krvaric, attorneys at Federal Education Group PLLC, provided these examples in a personal communication, August 8, 2012.

^{24.} Janie Scull and Amber M. Winkler, *Shifting Trends in Special Education* (Washington, DC: Thomas B. Fordham Institute, May 2011). For Duncan's admonishment, see "The New Normal: Doing More With Less," speech at the American Enterprise Institute in Washington, DC, November 17, 2010.

^{25.} Nirvi Shah, "Feds Loosen Rules on Cutting Special Ed. Spending," Education Week, August 31, 2011.

^{26.} Stephen Frank, "Cutting Rules Doesn't Necessarily Mean Cutting Services" (Education Resource Strategies, 2011).

^{27.} Shah, "Feds Loosen Rules on Cutting Special Ed. Spending."

^{28.} Shah, "Feds Back Off Easing Penalties."

Recommendations

The edifice of fiscal requirements associated with Title I and IDEA Part B has fierce protectors, both in advocates for children served by the programs and in the membership organizations whose political stakes are tied to conventional staffing and spending patterns. This means that those concerned with breaking down federal barriers to innovation have a tough row to hoe, and probably need help.

Fortunately, the fiscal requirements at issue merit revision for reasons apart from their hostility to disruptive innovation. Here are several recommendations on how to remove the barriers, and why.

Close the Title I comparability loophole

Comparisons of services offered in Title I versus non-Title I schools should be reckoned in terms of actual dollars, including dollars tied up in experience-based salary differentials.²⁹ No penalties for districts' failure to uphold a meaningful standard of comparability should be enforced until after a transitional period, during which districts would refine their abilities to furnish their state education agency with timely annual reports detailing school-level expenditures. Such expenditure information would feed a growing interest in the efficacy and cost of interventions aiming to improve academic achievement and other student outcomes. A transitional period would allow districts to implement compensation schemes that differentiate on bases related to goals, such as demonstrated effectiveness, and other measures with the potential to ensure that Title I schools receive their fair share of state and local resources. And continued accountability for student achievement would provide a hedge against a much-feared unintended consequence of closing the loophole: the forced transfer of teachers for the sake of compliance. Principals and district officials work against school improvement goals if they unilaterally move teachers about as means of directing funds to schools.30

Streamline the Title I supplement-not-supplant requirement

The current requirement actually includes the seeds of its own replacement. Specifically, districts should be in the clear if they can document that the manner in which they allocate state and local resources to schools is neutral with respect to which schools receive Title I funds. This streamlined requirement offers state agencies a more cut-and-dried, less subjective gauge to test whether federal funds represent an extra jolt of services for program-eligible students, as intended. Furthermore, it is rooted in a test originally devised for schoolwide Title I programs. The neutrality test has the added merit of being less burdensome than the current cost-by-cost approach, thus freeing up administrative and clerical capacity currently absorbed in compliance.

Operationalize a "challenge waiver" system for IDEA Part B maintenance of effort

The rescinded 2011 guidance expanding districts' ability to lower spending from non-federal sources on special education and related services was onto something. To be politically feasible, however, any change probably needs to be more of a two-way street. Districts should be routinely allowed waivers of the 100 percent spending threshold provided they furnish a coherent, strategic special education plan documenting the rationale for a lower threshold. Such plans would be an ideal place for agencies receiving federal education funds to exercise and improve their use of data-driven decision-making. And districts would also have to submit to random audits to ensure fidelity of implementation.

Keep the ball rolling with innovation-friendly programs

Tearing down high-profile statutory barriers to technology-driven innovation may not do much to change the culture of compliance prevailing in state

^{29.} Saba Bireda and Raegen Miller, Walking the Talk: Closing the Loophole in the Comparability Requirement of ESEA, Title I (Washington, DC: Center for American Progress, March 2010).

^{30.} Raegen Miller, "Pulling Back the Curtain: Promoting Fiscal Equity and Providing All Students with Access to Effective Teachers Will Not Require Forcible Reassignment," Center for American Progress, July 28, 2010.

^{31.} Raegen Miller, Frederick Hess, and Cynthia Brown, Reauthorization of the Elementary and Secondary Education Act Offers a New Chance to Improve Education (Washington, DC: Center for American Progress and American Enterprise Institute, March 2012).

^{32.} Junge and Krvaric, 2012.

education agencies and districts, so policymakers should complement these changes with continued or enhanced support for programs and initiatives that foster behaviors associated with a climate of innovation. We've mentioned some of these programs above: i3, ARPA-ED, and the initiatives housed in the Office of Educational Technology. We've also pointed out that government funding in support of innovation is liable to have greater effect if regulation and guidance around these funds are more friendly toward for-profit firms. Critics of a more open stance in this sense are quick to raise the specter of \$500 hammers, but they miss the point that lessons from other sectors are just that; lessons, not destiny.

Pressure to reduce the federal budget will make it difficult to find new funding for innovation-friendly initiatives. One possible source of needed funds is Title II of ESEA, whose funds could be redirected with little ill effect. Title II now supports an amalgam of ineffectual professional development and ineffective class-size reduction programs. Redirecting a portion of the roughly \$3 billion in Title II would go some distance toward scaling up an R&D infrastructure.³³ Such a move also would signal the federal government's intent to take down statutory barriers to innovation.

employers and important economic agents in the fabric of communities—to endure disruptive innovation. First and foremost, the recommendations promote smarter, fairer uses of taxpayer money to support public education.

Our recommendations to modify specific fiscal requirements of the largest federal education programs promote smarter, fairer uses of taxpayer money to support public education.

Conclusion

Considering the state of the education R&D infrastructure, the dire need for technology-driven innovation in schools, and the deep foundations of the federal barriers to innovation identified above, it would be easy to feel like the optimistic Soviet economist: "Things could be much worse." Yet we see plenty of reasons to eschew fatalism. In particular, our recommendations to modify specific fiscal requirements of the largest federal education programs respond to more general concerns with the state of education than simply school districts' understandable reticence—as

^{33.} Jeremy Ayers and Raegen Miller, *Cut and Run: House Republicans' Education Plan Would Shortchange Disadvantaged Students and Schools* (Washington, DC: Center for American Progress, February 2012).

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Improving education through transformative, evidence-based ideas

Through research and policy analysis, CRPE seeks ways to make public education more effective, especially for America's disadvantaged students. We help redesign governance, oversight, and dynamic education delivery systems to make it possible for great educators and programs to do their best work with students and to create a wide range of high-quality public school options for families.

Our work emphasizes evidence over posture and confronts hard truths. We search outside the traditional boundaries of education to find pragmatic, equitable, and promising approaches to address the complex challenges facing public education. Our goal is to create new possibilities for the parents, educators, and public officials who strive to improve America's schools.

