# Seizing Opportunity

at the Top How the U.S. Can Reach Every Student with an Excellent Teacher

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**POLICY BRIEF** 

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#### **About the Series**

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## Seizing Opportunity at the Top

## How the U.S. Can Reach Every Student with an Excellent Teacher Policy Brief 1

by Emily Ayscue Hassel and Bryan C. Hassel

merican children deserve the one ingredient we know creates stellar learning results: excellent teachers. These teachers produce well over today's typical year of learning growth. Without them, even with good teachers who produce a full year of progress, children who start behind stay behind, and few students get ahead of their beginnings—the antithesis of the American Dream.

In contrast, if our nation consistently provides students with excellent teachers, we could close most of our stubborn achievement gaps in just five years. Policymakers can lead the way.

This brief explains why every child needs excellent teachers year after year, how the nation can now meet that need at unprecedented scale, and what changes policymakers must support to make this possible.

First, policymakers can speedily improve the identification of excellent teachers; we explain how.

Second, policymakers can clear the policy barriers that keep excellent teachers from reaching more students for more pay. We outline new policies that would clear these barriers.2

Third, and of paramount importance, policymak-

Children with excellent teachers year after year can quickly catch up—and leap ahead. ers can catalyze the will for schools and districts to put excellent teachers in charge of every student's learning. We propose bold solutions to create this will, and we invite others to add to these ideas. Without will-enhancing actions, other policies and education changes will continue to fall short of their potential effects.

#### Why Every Child Needs an Excellent Teacher

Without excellent teachers year after year, children who start out behind simply can't catch up. Here's what we know: On average, children with excellent teachers—those in the top 20 to 25 percent today make approximately three times (3x) the progress of children with teachers in the bottom 20 to 25 percent.3 We call these excellent teachers "3X" teachers: They produce well over a year of progress in their students each year, and every child needs them—not just once every four years, but consistently.

Perhaps it is time to guarantee our nation's students what matters most: excellent teachers.

What difference does the consistency make? Children who start out *one year behind* their peers can catch up—if they have an excellent teacher two years in a row. Children who start out two years be-

*hind* can catch up—*if they have an excellent teacher* four years in a row.4 As Brookings Institution researchers concluded in 2006, "having a top-quartile teacher rather than a bottom-quartile teacher four years in a row would be enough to close the blackwhite test score gap."5 But without those excellent teachers, children who start out behind are likely to stay behind, even with good teachers who produce a year of progress each year.

As things stand, then, most students who enter on track stay on track, but most students starting behind stay behind, while most who enter ahead stay ahead. Overall today, U.S. students end up pretty much where they started in life.

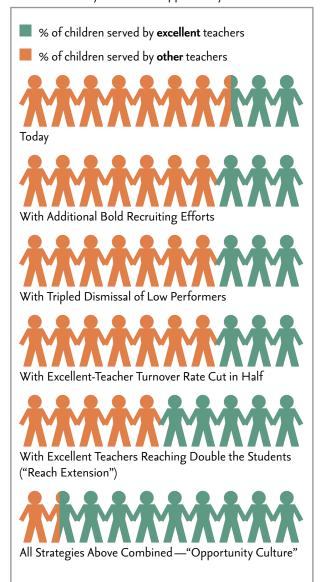
With excellent teachers, though, we can get children up to speed, and more: Children who start out at grade level leap ahead, looking like their "gifted" peers, every year they have an excellent teacher. And children who have the chance to catch up from behind also leap ahead—like those "gifted" peers every year they have an excellent teacher.

In other words: With excellent teachers, we can not only close our gaps—we could move toward being a whole nation of high-achieving children.

#### How We Can Give Every Child an Excellent Teacher—Now, Within Budget

Rigorously recruiting and retaining excellent teachers could, over time, provide an excellent teacher for more children. But even far better recruiting and retention paired with the dismissal of the least effective teachers will still leave most children without an excellent teacher (Figure 1).6 Meanwhile, schools can, with policymakers' help, choose to reach more children with the excellent teachers they already

Using job redesign and technology to leverage excellent teachers' time makes it possible to reach every child with excellent teachers. FIGURE 1. Proportion of Children Served by Excellent Teachers—Today and in an "Opportunity Culture"



See endnote 6 for explanation, sources.

have—right now. Combined with better recruiting, retention, and dismissal, this "reach extension" could put an excellent teacher in charge of nearly every classroom in half a decade.7

Teacher "reach extension" has two elements: job redesign and smart use of technology. These would free excellent teachers' time to reach more children, both in person and through digital instruction.

Here, we briefly explain three possible modes of

reach extension, which schools could combine to suit their needs:8

In-Person Reach Extension involves changing instructional roles and how schools are organized to allow the greatest use of excellent teachers while keeping them in the classroom. Examples include having excellent teachers specialize in their best subject areas while reducing noninstructional duties so they can teach more classes effectively; choosing excellent teachers with managerial skills to lead multiple classrooms, in which other teachers follow and learn from the excellent teacher's methods and standards; and allowing these top teachers to voluntarily shift more children into their classrooms (reducing class sizes for other teachers). In-person reach extension could increase the number of students with access to top teachers by 10 to 300 percent, in many cases without diluting in-person instruction time or increasing group size.

Remote Reach Extension means using technology to enable excellent teachers to engage directly (though not in person) with students, bringing top teaching to schools that lack sufficient local talent. With remote reach extension, schools could offer courses by excellent teachers who interact personally with students via email and web cameras. Excellent teachers could work from home or live where they want to live, but still teach the students who need them most. Remote Reach Extension could double or triple the number of children taught by excellent teachers, and it could do so where In-Person Reach Extension is not feasible.

Boundless Reach Extension involves using digital recordings of excellent teachers and software based on their insights and practices to deliver top teaching even when top teachers are not available in person or remotely. Examples include video of teachers who are both masters of content and engaging performers, and smart software designed to mimic the way excellent teachers ascertain and respond to each child's level of skill and knowledge.9

Combined modes of reach extension present even more opportunities for effectively extending the reach of excellent teachers. For example, "timetechnology swaps" substitute a portion of excellent teachers' time with computer-based knowledge and skill instruction, allowing in-person excellent teachers to reach 33 to 100 percent more students with enriched and personalized portions of instruction without increasing group size. Combining time-technology swaps with subject specialization can increase the number of children taught by the best teachers even more.10

To give every child an excellent teacher, schools must be able to make some changes, through redesigning jobs, technology, or both. Technology alone, however, would not be enough: With any changes, an excellent teacher must still be accountable for each child's learning.

800,000 excellent teachers already work in U.S. schools. New policies must empower them to reach the most children possible with excellent instruction.

As long as an excellent teacher is accountable and empowered, that teacher can work with materials, tools, and the school's staff to effectively expand what she's always done. Those staff members will be key: For the solid 11 teachers who are not in the top 25 percent, job roles may change, but these good teachers could then focus on their strengths, such as lecturing or small-group tutoring, to contribute to an excellent outcome for each student.

In these new roles, good teachers will work closely with and learn from excellent ones—giving every teacher opportunities for meaningful development and career advancement. Solid teachers in new roles may earn less than the best, but they will work in less complex roles, some will have shorter work hours, and some will be able to advance their careers as they develop.<sup>12</sup>

Meanwhile, excellent teachers can earn more



within budget—from existing per-pupil funds—by reaching more students. That prospect of helping more children through career advancement opportunities with commensurate pay will keep more excellent teachers in instructional roles and attract more to the profession, as well.

We call this an "Opportunity Culture," one in which career and pay opportunities are significant and proportional to each person's actual contributions at work.<sup>13</sup> It is the key quality of other professions that K-12 education lacks today: more power and opportunity for the best to shape the work roles, values, and ultimately the learning outcomes produced by their peers.

#### What Policy Leaders Can Do

Some pioneering schools in the United States and abroad are beginning to use these approaches with success. What most states need, however, is to give their schools ways to change teacher roles and pay

without violating current structures. To date and despite substantial policy advocacy, no state has adopted all the policies needed to give every child an excellent teacher. Instead, states have adopted a mostly uniform set of policies that fall far short.<sup>14</sup>

State policymakers will find much room for leadership on three priorities:

- Identifying excellent teachers
- > Clearing the barriers keeping excellent teachers from reaching more students
- > Creating the will to give every child excellent teachers

U.S. policymakers can focus on incentivizing the first two of these at the state level and on creating the will nationwide. Leaders at all levels can use the bully pulpit to shift our national thinking about K-12 education from gap-maintaining "not bad" to gapbusting "excellent."

States that share the economic benefits of reach extension with excellent teachers can become talent magnets, within budget.

#### 1. Identify excellent teachers

Although many states are designing new evaluation policies, the process is slow and resistance high as states work to develop legally defensible systems focused largely on dismissing low performers. States need to accelerate identification of their excellent teachers now.

#### What can policymakers do? Enact policies that:

- ▶ Require districts to identify the top 25 percent of teachers using multiple measures, including student learning growth as the main element. Untested grades and subjects in which policymakers want children to make strong progress will need alternative growth measures.
- ▶ Invest state funds to identify alternative measures of performance—such as behavioral competencies —that correlate highly with student growth and with success in traditional and new teaching roles.15 These will aid in identification of excellent teachers, appropriate promotion into new reachextended roles, and development of all teachers.

#### 2. Clear the barriers that keep excellent teachers from reaching more students

a. Redesign organizations and jobs to increase excellent teachers' reach: Today, rigid budget categories, across-the-board class-size limits, "seat time" requirements, and unnecessarily restrictive licensure policies keep schools from using the best mix of staff members and technology—a mix that could be determined by proven top teachers. Additionally, state-specific certification and licensure rules limit the ability of teachers—including excellent ones to teach children across state lines.16

#### What can policymakers do? Enact policies that:

- > Provide state funding for schools as fungible lump sums, including funding for teacher pay. This will allow schools to pay for the best combination of teaching roles and technology.
- > Eliminate class-size limits for excellent teachers; or require average class-size limits across districts or schools, rather than absolute limits per classroom.<sup>17</sup> This lets willing, top teachers take more kids.
- ▶ Eliminate or reduce "seat time" requirements for students to be with licensed staff, focusing on student outcomes instead. This will allow, for example, unlicensed staff to monitor digital labs, freeing funds to pay more—within budget—to the excellent teachers in charge.
- > Revise licensure rules to make excellent out-of-state teachers automatically eligible to teach. This will let excellent remote teachers, with supportive local staff, reach children who cannot have excellent inperson instructors.



b. Pay excellent teachers more: Today, statewide salary scales require pay to be based almost entirely on experience ("steps") and degrees earned ("lanes"); some policies leave discretion to school providers, but those providers generally implement similar scales. Absent temporary or private funding, these scales prevent paying more to teachers whose students learn more and who reach more students.

#### What can policymakers do? Enact policies that:

- > *Eliminate statewide salary scales*, leaving districts and schools free to pay excellent teachers more for reaching more students, within available budgets.
- > Implement state-level incentives for schools and districts that both reach more students with excellent teaching and share rewards with those teachers.
- c. Proactively retain top teachers and offer rich career advancement opportunitites: Two factors make it difficult for schools to keep their best teachers.

First, during hard times, many states require that layoffs be based entirely on seniority, preventing schools from retaining excellent but less-experienced teachers.18

Second, school leaders have little discretion to use pay and career opportunities to keep the best teachers. Today the main way to advance is to become an administrator, pulling excellent teachers out of the classroom. And tenure is granted to almost all who seek it, tying up resources in pay for less-effective teachers.19

#### What can policymakers do? Along with the policies above on salary scales and incentives, enact policies that:

- ▶ Grant absolute protection during layoffs to excellent teachers, regardless of seniority. For example, guarantee protection to teachers who had top-25 percent results for two of the past three years OR the most recent year.<sup>20</sup>
- > Give schools and districts full flexibility to establish (and pay for) advanced roles.
- Make tenure meaning ful via "elite tenure," offered

only to consistent top performers who then can be empowered to choose their peers.<sup>21</sup>

d. Build instructional and data systems: Many states are making significant progress on instructional and data systems, and these investments may prove essential for leveraging excellent teachers' time. However, broadband access—especially outside of school—varies widely by geography and family income. States need to remove this barrier to online instruction, which disproportionately affects their poorest children.



#### What can policymakers do? Enact policies that:

- > Provide universal wireless broadband access for all school-age children.
- ▶ Invest in data and instructional information systems to monitor student progress and customize instruction for students.

#### 3. Create the will to give every child excellent teachers: Taking bold action

Despite myriad efforts to spur states, districts, and schools to do better, our nation has not yet made the changes needed as quickly as our students deserve. Policymakers must take bold, will-inducing actions to reach every child with excellent teaching.

Other nations making educational surges use topdown, national mandates to limit who can teach.<sup>22</sup> States could follow the lead of these nations by, for example, allowing only top-tier high school graduates to become teaching candidates. But this alone would likely not be adequate to reach every child with an excellent teacher in our economy, absent other changes that made the teaching profession an attractive long-term career for more top candidates.

How can we induce the will to provide excellent teaching to every student in our own country, but do it "American-style"? Dramatic change in U.S. economic and social structures has historically occurred either because of readily available financial rewards for success or because the government has given power to the people in the form of civil rights. We propose that policymakers deploy both of these, rewarding schools and teachers financially for achieving high levels of student growth with more children and providing a new right to excellent teachers. We hope others will offer additional ideas with equal or higher power to build the will for change.

#### a. Declare a new civil right: access to excellent teachers.

Civil rights shift power from government to the people and obligate the government to enforce the right. The U.S. Congress could create such a right at the federal level, but state policymakers do not have to wait.

#### Policymakers should enact policies that:

- > Create a new civil right for all students to excellent teachers, or
- > Enforce existing civil rights laws with an excellentteacher remedy

Policymakers should guarantee that students get excellent teachers often enough to catch up and get ahead.

For any child who did not make grade level in the previous school year, who did not make at least a year's worth of growth in any designated subject in the previous school year, or who has not been assigned an excellent teacher in a designated subject during the prior two school years, policymakers should require schools and districts to put a consistently excellent teacher in charge of instruction. That teacher must be fully accountable for the child's learning outcomes, in person, online, or in combination. If schools and districts do not provide such a child with an excellent teacher, the child should be empowered to take legal action to enforce the right. In some states, it may be possible to enforce existing rights with a similar remedy.

#### b. Report and reward excellent teachers' reach. We must use a new formula: Teacher Success = Effectiveness $\times$ Children Reached.

Effectiveness = how much a teacher's students learn, at a minimum measured in student growth. Reach = how many students receive instruction delivered or directed by the teacher. We need to know not just the number of excellent teachers a school has; the critical figure is the number of students they reach successfully. State or federal policy could induce districts and schools to use this formula both by changing teacher-quality reporting requirements and by rewarding successful reach extension financially.

## We must use a new formula: Teacher Success = Effectiveness × Children Reached.

#### Policymakers should enact policies that:

- > Require reporting of the number of children in different subgroups reached by teachers of differing prior effectiveness. These teachers must be the ones who deliver or direct instruction, the adults who are fully accountable for outcomes for each child.
- Pay more per pupil for achieving student growth that is as good as that produced by today's teachers in the top 25 percent. Weight the rewards to pay more for learning growth by disadvantaged children, up to and beyond basic proficiency.



#### Conclusion

Extending the reach of our nation's best teachers, combined with the career and pay reforms of an Opportunity Culture, could enable our nation's schools to reach nearly every child with excellent teachers every year—within budget.

Our nation, states, and many districts face budget crises, and yet, as others have written, the financial cost of our educational shortfall is tremendous.<sup>23</sup> The moral cost is just as high. The American Dream promises that all children can rise above their beginnings, but today's classroom structure guarantees that, on average, children will finish high school at the same educational level, relative to their peers, as they began kindergarten.

To be "the land of opportunity" and have broad civic participation, our nation needs major change. That change is *entirely possible* if we just take the first steps. Instead of focusing on all the factors—hard policy and soft culture—that got us here, we can turn the conversation to how our schools can become an Opportunity Culture. By generating the will to succeed and the policies to back up that will, we can ensure that excellent teachers become available to all, not just a lucky few.

#### Notes

- I. This is a condensed version of the full paper Seizing opportunity at the top: How the U.S. can reach every student with an excellent teacher, by Bryan C. Hassel & Emily Ayscue Hassel. (2011). Chapel Hill, NC: Public Impact. Retrieved from <a href="http://opportunityculture.org/seizing\_opportunity\_fullreport-public\_impact.pdf">http://opportunityculture.org/seizing\_opportunity\_fullreport-public\_impact.pdf</a>
- 2. We also invite readers to review emerging policy recommendations of teacher groups providing voice to excellent teachers themselves, such as the Teach Plus Policy Fellows Program.
- 3. To reach this approximation, we looked at numerous studies of teacher effectiveness. Study results vary, but the top 20 percent of teachers produce about three times the progress of the bottom 20 percent of teachers, and a poor or black child who has a top 25 percent teacher rather than a bottom 25 percent teacher four years in a row will close the achievement gap with non-poor and white peers. Sources include: Sanders, W. L., & Rivers, J. C. (1996). Cumulative and residual effects of teachers on future student academic achievement. Knoxville: University of Tennessee Value-Added Research and Assessment Center; Kane, T., Rockoff, J. E., & Staiger, D. O. (2006). What does certification tell us about teacher effectiveness? Retrieved from <a href="http://www.dartmouth.edu/~dstaiger/Papers/">http://www.dartmouth.edu/~dstaiger/Papers/</a> nyc2ofellows2omarch202006.pdf; Gordon, R., Kane, T., and Staiger, D. O. (2006). Identifying teacher performance on the job. Washington, DC: The Brookings Institution. Retrieved from <a href="http://www.brookings.edu/views/">http://www.brookings.edu/views/</a> papers/200604hamilton\_1.pdf
- 4. Stanford economist Eric Hanushek has found that teachers at the 84th percentile achieve average student gains equal to about 1.5 years' worth of progress. Hanushek, E. (1992, February). The trade-off between child quantity and quality. *Journal of Political Economy*, 100(1), 84–117. Based on this estimate, the number of years a child needs to catch up equals the number of years behind divided by .5. Thus, 2 years behind divided by .5 equals 4 years. This formula is an approximation, and a teacher at the 75th percentile produces less progress on average than one at the 85th or 95th. Which of these teachers a child has each year will affect the actual catch-up time.
  - 5. Gordon, Kane, & Staiger. (2006), p. 8.
- 6. Hassel, B. C., & Hassel, E. A. Opportunity at the top: How America's best teachers could close the gaps, raise the bar, and keep our nation great. (2010). Chapel Hill, NC: Public Impact. Retrieved from http://opportunityculture.org/

- images/stories/opportunity at the top-public impact. pdf. See pages 13-17 for details. Figure 1 originally appeared as Figure B in Opportunity at the top: Executive summary, p. 2. See that publication for a complete explanation of the data and calculations underlying this figure. That report projected the payoff of the different strategies shown in the figure for giving more children access to excellent teachers. Those strategies include our current, boldest policy goals of recruitment and dismissal: increasing the proportion of excellent teachers we attract each year from about 25 percent to 40 percent, which in practical terms means recruiting 50,000 more new teachers each year who end up in the top 25 percent, and tripling the percentage of teachers dismissed for low performance each year from 2.1 percent to 6.3 percent; and our emerging policy goals aimed at retaining the excellent teachers we already have, to cut the annual loss of them in half, and at extending top-teacher instruction to more children, doubling the average number of children reached by each excellent teacher.
  - 7. See note 6 for explanation of calculations.
- 8. For more details on reach extension, see Hassel, E. A. & Hassel, B. C. (2009). 3x for all: Extending the reach of education's best. Chapel Hill, NC: Public Impact. Retrieved from <a href="http://opportunityculture.org/images/stories/3x\_for\_all-public\_impact.pdf">http://opportunityculture.org/images/stories/3x\_for\_all-public\_impact.pdf</a>. In addition, Public Impact is producing numerous school models for extending the reach of excellent teachers to more children, available for free on <a href="http://opportunityculture.org">http://opportunityculture.org</a>.
- 9. For more on ways that technology could change education, see Christensen, C., Johnson, C. W., & Horn, M. B. (2008). Disrupting class: How disruptive innovation will change the way the world learns. New York: McGraw-Hill; see also Dillon, E., & Tucker, B. (2011). Lessons for online learning. Education Next, 11(2). Retrieved from <a href="http://educationnext.org/lessons-for-online-learning/">http://educationnext.org/lessons-for-online-learning/</a>; and Vander Ark, T. (2011, July 11). 10 reasons teachers love blended learning. edReformer. Retrieved from <a href="http://www.edreformer.com/10-reasons-teachers-love-blended-learning/">http://www.edreformer.com/10-reasons-teachers-love-blended-learning/</a>. For more on digital instruction policy, see Foundation for Excellence in Education. (2010, December 1). Digital learning now! Tallahassee, FL: Author. Retrieved from <a href="http://www.excelined.org/Docs/Digital%20Learning%20">http://www.excelined.org/Docs/Digital%20Learning%20</a> <a href="http://www.excelined.org/Docs/Digital%20Learning%20">Now%20Report%20FINAL.pdf</a>
- 10. School models for extending the reach of excellent teachers to more children will be posted for free as they are developed on <a href="http://opportunityculture.org">http://opportunityculture.org</a>.

- 11. Here we use the term "solid" to refer to teachers at and near the middle of the performance distribution, those who produce about a year of student learning progress, on average.
- 12. On the potential value of changing roles for teachers, see various writings of Frederick M. Hess, especially: How to get the teachers we want. *Education Next* (2009, summer), 35–39. Retrieved from <a href="http://educationnext.org/how-to-get-the-teachers-we-want/">http://educationnext.org/how-to-get-the-teachers-we-want/</a>; and Hess, F. M., Gunn, G. M., & Meeks, O. M. (2011, May 11). How to improve teacher quality? Treat teachers as individuals. *Education Week*. Retrieved from <a href="http://www.edweek.org/ew/articles/2011/05/11/30hess\_ep.h30.html">http://www.edweek.org/ew/articles/2011/05/11/30hess\_ep.h30.html</a>
- 13. For more details on the Opportunity Culture, see Hassel, B. C., & Hassel, E. A. (2010). Opportunity at the top: How America's best teachers could close the gaps, raise the bar, and keep our nation great. Chapel Hill, NC: Public Impact. Retrieved from <a href="http://opportunityculture.org/images/stories/opportunity\_at\_the\_top-public\_impact.pdf">http://opportunity\_at\_the\_top-public\_impact.pdf</a>
- 14. For examples, see the full *Seizing Opportunity at the Top*, retrieved from <a href="http://opportunityculture.org/seizing-opportunity-fullreport-public\_impact.pdf">http://opportunityculture.org/seizing-opportunity\_fullreport-public\_impact.pdf</a>
- 15. For more on competencies, see Steiner, L. (2010). Using competency-based evaluation to drive teacher excellence: Lessons from Singapore. Chapel Hill, NC: Public Impact. Retrieved from <a href="http://opportunityculture.org/images/stories/singapore\_lessons-public-impact.pdf">http://opportunityculture.org/images/stories/singapore\_lessons-public-impact.pdf</a>; and Kowal, J., & Hassel, E. A. (2010). Measuring teacher and leader performance: Cross-sector lessons for excellent evaluations. Chapel Hill, NC: Public Impact. Retrieved from <a href="http://opportunityculture.org/images/stories/performance\_measurement-public-impact.pdf">http://opportunityculture.org/images/stories/performance\_measurement-public-impact.pdf</a>
- 16. In addition, changing licensure to enable rapid transition of highly capable professionals from other fields could increase the entry of teachers likely to produce excellent outcomes. For discussion of some licensure restrictions, see Center for American Progress, American Enterprise Institute, New Profit and Public Impact. (2009). Stimulating excellence: Unleashing the power of innovation in education. Retrieved from <a href="http://www.americanprogress.org/issues/2009/05/pdf/education\_entrepreneurs.pdf">http://www.americanprogress.org/issues/2009/05/pdf/education\_entrepreneurs.pdf</a>; Smith, K., & Peterson, J. (2011). Pull and push: Strengthening demand for innovation in education. Bellwether Education Partners. Retrieved from <a href="http://bellwethereducation.org/wp-content/uploads/2011/09/pulll-and-push.pdf">http://bellwethereducation.org/wp-content/uploads/2011/09/pulll-and-push.pdf</a>
- 17. Average class size limits may constrain schools that are the most successful in attracting and retaining excellent teachers. In these schools, eliminating class size constraints for excellent teachers would allow them to reach more students.

- 18. Roza. M. (2009). Seniority-based layoffs will exacerbate job loss in public education. Seattle, WA: Center on Reinventing Public Education. Retrieved from <a href="http://www.crpe.org/cs/crpe/download/csr">http://www.crpe.org/cs/crpe/download/csr</a> files/rr crpe layoff febog \_.pdf; The New Teacher Project. (2010). A smarter teacher layoff system: How quality-based layoffs can help schools keep great teachers in tough economic times. Brooklyn, NY: Author. Retrieved from <a href="http://tntp.org/files/TNTP\_Smarter\_Teacher\_Layoffs\_Mar10.pdf">http://tntp.org/files/TNTP\_Smarter\_Teacher\_Layoffs\_Mar10.pdf</a>
- 19. Public Impact. (2011). Teacher tenure reform:
  Applying lessons from the civil service and higher education.
  Chapel Hill, NC: Author. Retrieved from <a href="http://opportunityculture.org/images/stories/teacher\_tenure\_reform-public\_impact.pdf">http://opportunityculture.org/images/stories/teacher\_tenure\_reform-public\_impact.pdf</a>.
- 20. National Council on Teacher Quality. (2010). *Teacher layoffs: Rethinking "last-hired, first-fired" policies.* Washington, DC: Author. Retrieved from <a href="http://www.nctq.org/p/docs/nctq\_dc\_layoffs.pdf">http://www.nctq.org/p/docs/nctq\_dc\_layoffs.pdf</a>; The New Teacher Project. (2010).
- 21. Public Impact. (2011). Teacher tenure reform. Applying lessons from the civil service and higher education. Chapel Hill, NC: Author. Retrieved from <a href="http://opportunityculture.org/images/stories/teacher\_tenure\_reform-public\_impact.pdf">http://opportunityculture.org/images/stories/teacher\_tenure\_reform-public\_impact.pdf</a>. A discussion of "elite tenure" and an example of its design can be found on page 15 and in Table 3.
- 22. Barber, M, & Mourshed, M. (2007). How the world's best-performing school systems come out on top. McKinsey & Company. Retrieved from <a href="http://www.mckinsey.com/App\_Media/Reports/SSO/Worlds\_School\_Systems\_Final.pdf">http://www.mckinsey.com/App\_Media/Reports/SSO/Worlds\_School\_Systems\_Final.pdf</a>; Tucker, M. S. Standing on the shoulders of giants: An American agenda for education reform. (2011). Washington, DC: National Center on Education and the Economy. Retrieved from <a href="http://www.ncee.org/wp-content/uploads/2011/05/Standing-on-the-Shoulders-of-Giants-An-American-Agenda-for-Education-Reform.pdf">http://www.ncee.org/wp-content/uploads/2011/05/Standing-on-the-Shoulders-of-Giants-An-American-Agenda-for-Education-Reform.pdf</a>; Paine, S. L., & Schleicher, A. (2011). What the U.S. can learn from the world's most successful education reform efforts. New York: McGraw-Hill Research Foundation. Retrieved from <a href="http://www.mcgraw-hillresearchfoundation.org/wp-content/uploads/pisa-intl-competitiveness.pdf">http://www.mcgraw-hillresearchfoundation.org/wp-content/uploads/pisa-intl-competitiveness.pdf</a>
- 23. McKinsey & Company. (2009). The economic impact of the achievement gap in America's schools. Retrieved from <a href="http://www.mckinsey.com/app\_media/images/">http://www.mckinsey.com/app\_media/images/</a> page\_images/offices/socialsector/pdf/achievement\_gap\_report.pdf. By the estimate here, the economic cost of the achievement gap is the equivalent of a permanent national recession.