

3 Highly Qualified Teachers for Every Classroom and Strong, Effective Leaders for Every School

If we are to deliver on the promise of better use of learning time, we must have the highest quality teachers and school leaders.

The Challenge

Teachers

Teachers matter most in fostering student learning. Research has shown that in public schools, teacher quality has a greater effect on student learning than low levels of parental education, poverty, race or other attributes believed to put children at risk. Researchers have concluded that students assigned to the most effective teachers three years in a row performed 50 percentile points higher than did their peers who had been assigned to the least effective teachers. Similar research done in Texas reached the same conclusion: “having a high quality teacher throughout elementary school can substantially offset or even eliminate the disadvantage of low socioeconomic background.”¹²⁷

Despite the proven effectiveness of highly qualified teachers in raising student achievement, far too many children, particularly those in high-poverty, high-minority schools, rarely see such teachers. Too many teachers in these schools are ill prepared, find few colleagues as mentors, and

lack opportunities for effective professional development. As a result, teacher turnover in such schools is a persistent problem.

The problems of teacher preparation and professional development are compounded by the challenge of attracting and retaining the best and brightest to teaching. This challenge was driven in part by the social changes of the late 1960s and early 1970s, when the barriers to many professions that were once male-dominated began crumbling. Women, who made up the majority of teachers, found new career opportunities and better salaries in these other professions.

Today, most teachers’ salaries are determined by education and experience, not performance. There are few “skill premiums,” as in many professions, where people who have new ideas about how to increase quality or who produce particularly good results earn higher salaries. Many instructors work in bureaucratic environments where initiative, creativity and teamwork are not adequately prized. Rewards for excellent teaching and incentives to work in either more difficult settings or in subject areas suffering from teacher shortages are rare, partly due to a lack of funding.¹²⁸

If part of the solution to improving teacher quality is offering better pay, particularly for better teachers, another part is ensuring that teachers have a thorough understanding of the content areas they teach as well as content-specific and age-appropriate pedagogical skills. Teachers cannot teach what they do not know, and too many have not mastered the

¹²⁷ Kevin Carey, “The Real Value of Teachers: Using New Information about Teacher Effectiveness to Close the Achievement Gap,” *Thinking K-16* (Washington, DC: Education Trust, 2004). Available at: <http://www2.edtrust.org/NR/rdonlyres/5704CBA6-CE12-46D0-A852-D2E2B4638885/0/Spring04.pdf>

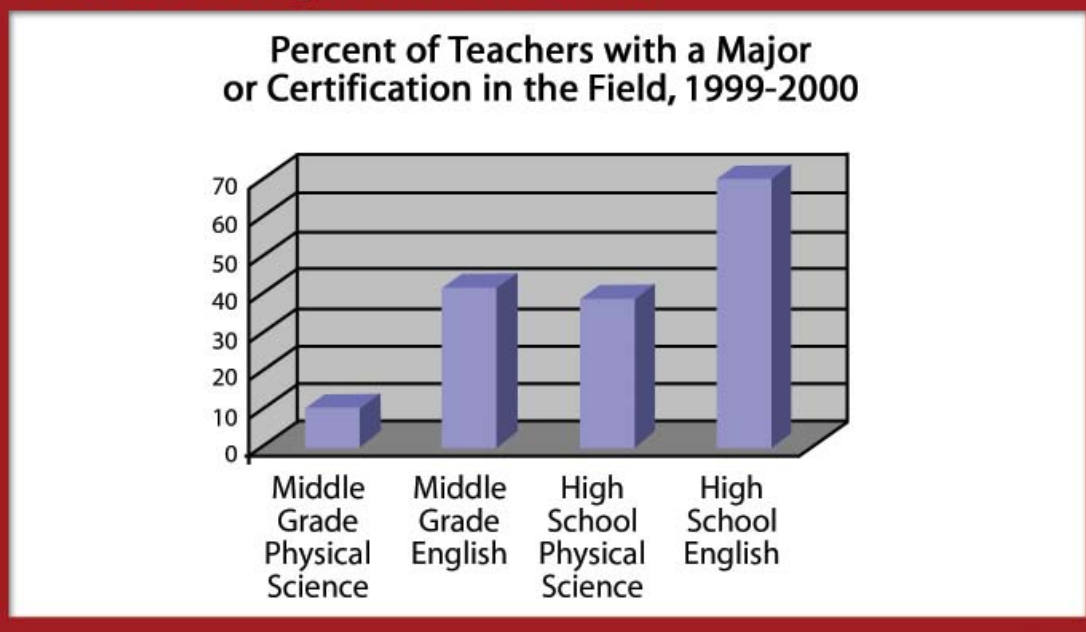
¹²⁸ Andrew Leigh and Sara Mead, “Lifting Teacher Performance,” *Policy Report* (Washington, DC: Progressive Policy Institute, 2005). Available at: http://www.ppionline.org/documents/teachqual_0419.pdf

Recommendations

very subjects through which they attempt to guide their students. While a college major and certification in a subject do not guarantee that a teacher possesses the full knowledge and skills needed to be a great instructor, they are key elements. Yet, far too many teachers lack a major or certification in the subject area they teach. Shortcomings are particularly acute in the areas of special education, English as a Second Language (ESL), math, and science – specifically chemistry, geology and physics. (See Figure 11.) Unless remedies are initiated, this shortage is only projected to worsen with the impending retirement of the nearly one-third of all math and science teachers currently over the age of 50.¹²⁹

The foundation for good teaching is good teacher preparation. Yet, not enough colleges and universities have made developing rigorous teacher preparation programs a priority. These programs are often disconnected from the day-to-day realities of schools, focusing too much on pedagogy and not enough on subject-matter competency. They lack significant rigor in their coursework. Attempts to encourage universities to strengthen their teacher education programs have proven hollow. Federal law requires states to identify and help improve low-performing teacher preparation programs, but so far, states' responses have been minimal.¹³¹ In addition to states, current teachers must also share responsibility and be given opportunities for

Figure 11: Lack of Subject-Matter Expertise among Middle- and High-School Teachers¹³⁰



¹²⁹ R. Blank and D. Langesen, *State Indicators of Math and Science Education, 2003* (Washington, DC: Council of Chief State School Officers, 2003). Available at: <http://www.ccsso.org/content/pdfs/SM03.pdf>

¹³⁰ National Center for Education Statistics: Social Statistics Briefing Room Education, *Out-of-Field Teaching* (Washington DC: National Center for Education Statistics, 2002). Available at: <http://nces.ed.gov/ssbr/pages/field.asp>

¹³¹ Center for American Progress, "Ensuring a High-Quality Education for Every Child by Building a Stronger Teaching Force," *Progressive Priorities Series* (Washington DC: Center for American Progress, 2004). Available at: <http://www.americanprogress.org/site/pp.asp?c=biJRJ8OVF&b=260627>

contributing to how education schools and teacher training programs are designed and operate.

Even the completion of a good teacher preparation program, however, should not be considered the end of a teacher's professional training. Teaching effectively is a complex, demanding skill that requires ongoing and meaningful opportunities for professional growth. But the quality of professional development activities is rarely high enough. Often they are viewed by participants as "seat time," a mandatory exercise in boredom and futility that lacks a connection to their day-to-day work in the classroom. Without ongoing high-quality training, too many teachers work as best they can independently to grow professionally, they settle for average, or, even worse, they leave the profession.

One-third of new teachers leave within the first three years of teaching, and half are gone by the fifth year.¹³² Teachers leave the profession for a variety of reasons, including lack of professional development and advancement opportunities, low pay, lack of support from school administrators, poor working conditions, limited input and decision-making power, and lack of readiness for the demands of teaching. In many instances, these factors converge, overwhelming teachers. The result is the high teacher turnover that plagues our school systems today, particularly in hard-to-serve schools.

Another daunting challenge is the unequal distribution of well-prepared teachers. Every child from the wealthiest to the poorest deserves a high-quality teacher. Yet it is the poorest students, as well as students of color, who are most likely, year after year, to be in classrooms with inexperienced, underprepared teachers. They are much more likely to be taught by an instructor who lacks a college major in the subject he or she teaches. In addition, teachers in high-poverty schools are more likely to be working with temporary or emergency certifications and to be just a year or two into their teaching careers.¹³³ High-poverty schools, particularly in urban areas, typically lose over one-fifth of their faculty every year; at that rate, it is conceivable that the entire faculty of a school could change every four to five years.¹³⁴ Why are these facts the case for high-poverty and high-minority schools? Simply put, they are very challenging places to work. Districts can attract teachers to these schools initially, but they have a very hard time keeping them there.

Students in high-poverty schools generally have greater needs than those in more affluent communities, yet teachers have fewer supports and little guidance in meeting their needs. The working conditions in these schools are often very difficult – poor facilities, inadequate textbooks and materials, and larger class sizes. Teachers' training is often inadequate for the demands of working with large numbers of at-risk students, especially in an urban

¹³² Richard M. Ingersoll, *Why Do High-Poverty Schools Have Difficulty Staffing Their Classrooms with Qualified Teachers?* (Washington, DC: Center for American Progress and the Institute for America's Future, 2004). Available at: <http://www.americanprogress.org/site/pp.asp?c=biJRJ8OVF&b=19382>

¹³³ National Partnership for Teaching in At-Risk Schools, *Qualified Teacher for At-Risk Schools: A National Imperative* (Washington, DC: National Partnership for Teaching in At-Risk Schools, 2005). Available at: <http://www.ncrel.org/quality/partnership.pdf>

¹³⁴ Richard M. Ingersoll, *Why Do High-Poverty Schools Have Difficulty Staffing Their Classrooms with Qualified Teachers?* (Washington DC: Center for American Progress and the Institute for America's Future, 2004). Available at: <http://www.americanprogress.org/site/pp.asp?c=biJRJ8OVF&b=19382>

environment, leaving teachers, particularly new teachers, overwhelmed and disheartened. Even accomplished teachers committed to working with at-risk students can be worn down over the years. These challenges, along with relatively low wages, provide little incentive for teachers to remain in high-poverty schools.

School Leaders

Successful schools have strong principals. Principals in high-performing schools are focused on their students' learning and continual school improvement. Seven areas of principal responsibility have been identified as key to effective school leadership: managing for student results; managing personnel, especially judging and improving teacher quality; technical knowledge of school law, finance, and facilities; leadership with external constituents and partners; promoting appropriate norms and values; managing classroom instruction, and establishing a positive school culture that inspires shared responsibility for student learning.¹³⁵

But recent studies have revealed that the formal preparation of principals may be even worse than the preparation of teachers. In a scathing indictment, Columbia University Teachers College President Arthur Levine found that “the majority of the programs that prepare school leaders range in quality from inadequate to poor.... Many are engaged...in a counterproductive ‘race to the bottom’ in which they compete for students by lowering admissions standards, watering

down coursework, and offering faster and less demanding degrees.”

This problem is driven by the fact that all states and most districts reward teachers with salary increases for completing graduate school administrative courses.¹³⁶ While a financial boon to universities, these courses relate little to improving student learning. Instead, states and districts should be offering teachers monetary rewards for intensive study in site-based training or off-site institutes where they can strengthen the skills and knowledge that careful examination has indicated their school needs. While some teachers want to advance into principalships and administrative positions, many would prefer to remain in the classroom if they were rewarded both financially and through advancement up a career ladder. States must take steps to ensure that leadership training programs are designed to truly prepare principals, not just provide cheap and easy degrees for salary gains to people who infrequently assume leadership.

Poverty is often cited as the reason so many students are struggling in school. It creates additional challenges – in early learning, health and security in the home. But poverty is not insurmountable; it can be overcome with dramatic, high-quality interventions in schools and in communities. Students at every age must have high-quality teachers who have a comprehensive understanding of the subjects they teach, mastery in content-specific pedagogical techniques, and thorough knowledge of how children learn. These students and teachers also need strong principals to guide them.

¹³⁵ Frederick M. Hess and Andrew P. Kelly, *Learning to Lead: What Gets Taught in Principal Preparation Programs* (Cambridge, MA: Education Policy and Governance, Harvard University, 2005). Available at: http://www.ksg.harvard.edu/pepg/PDF/Papers/Hess_Kelly_Textbook_Leadership_PEPG05.03.pdf

¹³⁶ Ted Sanders, “Preparing School Leaders – Shared Responsibilities,” *Education Week*, April 6, 2005.

The Recommendation

States and local school districts, with support from federal financial incentives, should restructure and upgrade preparation programs and on-the-job training opportunities for teachers and school leaders; redesign their compensation and career advancement systems to reward effective teachers and school leaders through fair performance measures; hold all school leaders and teachers accountable for adding value to their students' learning; and guarantee the equitable distribution of high-quality teachers.

Teacher Preparation

While slow to assess or publicly acknowledge their weaknesses, some states and universities are beginning to explore different strategies to improve teacher education programs.

There is agreement that future teachers must have deep content and related pedagogical knowledge if they are to help their students fully comprehend the curriculum spelled out in state standards. To that end, teacher preparation programs must be aligned with state curriculum standards.¹³⁷ June graduates of teacher training programs should be well-prepared in the content area they will begin teaching in September.

To ensure that universities do, in fact, commit to and invest in reforming their teacher preparation programs, a more rigorous accountability system must be developed and implemented. A system should include a review of course offerings, including whether elementary school teacher candidates are taught how to teach reading and whether all candidates are taught how to

incorporate literacy improvement strategies into their classrooms. It should also include quantitative measures such as the passage rate of graduates on state licensure exams, as well as institutional “production” measures to determine whether the program graduates adequate numbers of new teachers, particularly in high-need fields such as special education, bilingual education, math, and science. Also critical is information about the effectiveness of program graduates in improving student achievement in the classroom.

Preparation programs also need to develop teachers' skills in reaching out to families effectively. A recent study for the U.S. Department of Education found that, with the exception of continuing teacher training after being employed, outreach to parents was more consistently linked to achievement gains in math and reading than a variety of factors, including teacher preparation and skill in math instruction, districts' policies on standards, and their focus on assessment and accountability.¹³⁸

¹³⁷ Sandra Stotsky, *The State of English Standards* (Washington, DC: Thomas B. Fordham Foundation, 2005). Available at: [http://www.edexcellence.net/doc/FullReport\[01-03-05\].pdf](http://www.edexcellence.net/doc/FullReport[01-03-05].pdf)

See also, National Commission on Teaching and America's Future, *No Dream Denied: A Pledge to America's Children* (Washington, DC: National Commission on Teaching and America's Future, 2003). Available at: <http://www.nctaf.org/article/index.php?c=4&sc=16&>

¹³⁸ Anne T. Henderson and Karen L. Mapp, *A New Wave of Evidence: The Impact of School, Family and Community Connections on Student Achievement, Annual Synthesis, 2002* (Austin, TX: National Center for Family and Community Connections with Schools, Southwest Educational Development Laboratory, 2002). Available at: <http://www.sedl.org/connections/resources/evidence.pdf>

Schools of education should not have a monopoly on how teachers are trained. In the last several years, a plethora of alternative pathways to the profession have sprouted. We should encourage prospective teachers to find and pursue the most challenging and effective training programs possible, provided that every applicant has extensive opportunities for field experience and student teaching, receives rich course-content and pedagogical training, and is subject to state testing and licensing procedures. In doing so, however, the measures of accountability that apply to university-based teacher education programs must apply equally to alternative offerings.

Teachers and On-The-Job Training

High-quality, employment-based training and learning opportunities are found in all professions. Teachers need them in order to absorb the latest and most promising practices

while having an opportunity to learn from one another, especially master teachers who are coaches. Every teacher in every school district should have ample opportunity to participate in and benefit from high-quality, ongoing professional development programs. The attributes of such programs include extended duration, clear purpose, flexibility, research base, collaboration, content specificity and a rich context.¹³⁹

Teacher Compensation and Career Advancement Systems

In a free market economy that rewards talent and dedication, teachers should be paid more if districts and schools wish to attract high-quality and highly motivated candidates. Between 1994 and 2005, teacher salaries dropped by 3.4% when adjusted for inflation.¹⁴⁰ Research has shown that while the gap between teachers' starting salaries and

Workforce Development: Ensuring Students Have the Tools to Succeed LESSONS FROM NEW MEXICO FORUM

New Mexico's Math and Science Academy, sponsored by the Los Alamos National Laboratory, recognizes the importance of teacher training and ongoing, comprehensive professional development, particularly in the hard to teach subjects of math and science. Intensive training, site-based meetings, cognitive coaching, and development of teacher portfolios are major components of the Academy's professional

development program. The Academy's master teachers work with educators in dozens of the state's kindergarten through 9th grade classes to improve teacher quality and boost student knowledge in the areas of math and science. The efforts of the Academy are proving to increase student academic achievement, as well as increase investment in the fields of math and science.

Information here is from:

Presentation by Lorenzo Gonzales, Master Teacher, The Math and Science Academy at the Renewing Our Schools, Securing Our Future forum in Albuquerque, NM, September 28, 2004. Available at: <http://www.americanprogress.org/atf/cf/{E9245FE4-9A2B-43C7-A521-5D6FF2E06E03}/NM%20Report%20FINAL.pdf>

¹³⁹ Claire Handley and Robert A. Kronley, *Framing the Field: Professional Development in Context* (Washington, DC: The Finance Project, 2001). Available at: <http://www.financeproject.org/Framing%20the%20Field.pdf>

¹⁴⁰ Education Research Service, *Education Research Service: National Survey of Salaries & Wages in Public Schools 2004-2005* (Arlington, VA: Education Research Service, 2005) as published in Education Week April 13, 2005.

those of their peers is not huge, the gap widens significantly as their careers progress.¹⁴¹ One way to help all teachers is to employ them on a 12-month contract.

Traditional salary structures should also be reexamined and aligned with the state standards and accountability systems now geared toward raising student achievement. A rigorous, fair and transparent system of assessing teachers, one that incorporates qualitative and quantitative measures, including indicators of student achievement and progress, should be developed, and negotiated with teacher unions. National Education Association affiliates in places like Arizona, Denver and Seattle have put in place or are currently developing such programs. Such initiatives should be coordinated with a system of bonus pay that rewards teachers who demonstrate high levels of proficiency and expertise and provides incentives to other teachers to improve their own skills and knowledge.¹⁴²

While many teachers express concern that bonuses could be based on arbitrary definitions of merit or rely solely on student test scores, pay-for-performance systems can be fair and take into account a myriad of factors that influence teaching and learning. Some studies indicate that “value-added” assessments can measure each teacher’s annual contribution to student learning.¹⁴³ They consider students’ starting points and their progress. Such

assessments, along with peer and principal reviews, can provide a rich basis for evaluation. They are similar to systems used in other professions where performance pay is well-established.

Promising initiatives are now taking place in this realm. The Milken Family Foundation’s Teacher Advancement Program offers bonuses of up to \$20,000 to teachers based on a combination of evaluations and test scores, both in the classroom and school-wide. In most schools utilizing the program, student achievement has increased.

Teacher salary structures should be aligned with new career advancement models being created within the teaching profession so that good teachers can progress through their careers without leaving the classroom. A promising proposal is to establish a career ladder of four stages with requisite compensation increases: new teachers, career teachers, mentor teachers and master teachers. Such a structure will provide new teachers with much-needed comprehensive support and guidance either through residency or induction programs. Mentor teachers and master teachers would provide guidance and coaching to nurture newer teachers, enabling experienced teachers to advance professionally without having to leave the classroom. Mentor and master teachers could assist with a variety of issues ranging from professional development

¹⁴¹ Kathleen Kennedy Manzo, “Study Finds Teachers Are Losing Ground on Salary Front,” *Education Week*, September 1, 2004. Available at: http://www.agentk-12.edweek.org/edweek_article.cfm?slug=01Salary.h24&sec=seekers

¹⁴² Center for American Progress, “Ensuring a High-Quality Education for Every Child by Building a Stronger Teaching Force,” *Progressive Priorities Series* (Washington DC: Center for American Progress, 2004). Available at: <http://www.americanprogress.org/site/pp.asp?c=biJRJ8OVF&b=260627>. See also National Commission on Teaching and America’s Future, *No Dream Denied: A Pledge to America’s Children* (Washington, DC: National Commission on Teaching and America’s Future, 2003). Available at: <http://www.nctaf.org/article/index.php?c=4&sc=16&>

¹⁴³ June C. Rivers and William L. Sanders, *Cumulative and Residual Effects of Teachers on Future Student Academic Achievement* (Knoxville, TN: University of Tennessee Value-Added Research and Assessment Center, 1996). Available at: <http://www.heartland.org/pdf/21803a.pdf>

A High-Quality Teacher for Every Classroom: Hiring, Supporting, Retaining and Assigning Them Equitably

LESSONS FROM ARIZONA FORUM

Arizona has 20 years of experience with alternative compensation systems such as the Career Ladder program, which was implemented there in 1985. The program is currently in place in 28 school districts and is a tiered, multi-level system that has several key components, including: a rigorous peer evaluation system, a higher level of expected instruction, a level of expected student achievement that includes identification

of student needs, outcomes for students to meet, charting of student progress during the year, and the submission of a portfolio demonstrating student success by the end of the year. In addition, teachers must offer some type of extended service to their school or district and commit to professional support (e.g., peer evaluation or mentoring/coaching to support peers).

Information here is from:

Presentation by John Wright, President, Arizona Education Association at the Renewing Our Schools, Securing Our Future forum in Phoenix, AZ, November 18, 2004. Available at: <http://www.americanprogress.org/site/pp.asp?c=biJRJ8OVF&b=172204#2>

to instructional leadership to developing curricula and aligning assessments.¹⁴⁴

Equitable Distribution of High-Quality Teachers

While the reasons for the high teacher turnover in high-poverty schools are understandable, the consequences are unacceptable. Every student must have high-quality teachers, not merely the advantaged few, and districts must pursue policies that encourage the most effective teachers to work in the lowest performing schools. Many districts have begun to experiment with strategies to do just that. For example, when public schools in Hamilton County, Tennessee, which includes Chattanooga, offered \$5,000 bonuses,

free graduate-school tuition, and mortgage assistance to teachers in high-poverty schools, teacher vacancies dropped by 90%.¹⁴⁵

Preparing Education Leaders

As with teaching, leadership preparation programs should not be solely based in universities. Disturbed by the shortage of skilled principals, some states are supporting new programs that recruit and prepare principals in innovative ways by modifying their leadership credentialing requirements. The innovative and entrepreneurial programs that they encourage recruit potential leaders other than the experienced teachers produced by the traditional pipeline of university-based coursework. As a recent report from the U.S.

¹⁴⁴ Center for American Progress, “Ensuring a High-Quality Education for Every Child by Building a Stronger Teaching Force,” *Progressive Priorities Series* (Washington, DC: Center for American Progress, 2004). Available at: <http://www.americanprogress.org/site/pp.asp?c=biJRJ8OVF&b=260627>

¹⁴⁵ The Teaching Commission, *Teaching at Risk: A Call to Action* (New York, NY: The Teaching Commission, 2004). Available at: http://www.theteachingcommission.org/press/FINAL_Report.pdf

Innovative District Initiatives Lead to Success

Recently, the Charlotte-Mecklenburg School District (CMS) announced a bold proposal to break the stranglehold of socio-economic status on student achievement by recruiting and retaining teachers and principals who have demonstrated success with high-poverty students in high-poverty schools. The CMS proposal would provide incentives – including larger signing bonuses, pay for performance, tax-deferred annuities and support of doctoral studies – for master teachers willing to serve in the most challenging schools.

The initiative would also involve low-cost housing loans and repayment of teachers’ college loans. In addition, the district is exploring legislation for special retirement credits for teachers working in designated schools. The district is also stepping up efforts to ensure that the best principals provide leadership to the most highly stressed schools. These efforts include large signing bonuses for principals coming from out of the district and a performance-based retention bonus that will be kept in a growth fund for three years.

Information here is from:

James L. Pughsley, “Closing Teacher Gap Key to Increasing Student Achievement in High Poverty Schools,” *From the States* (Washington, DC: Center for American Progress, 2005). Available at: <http://www.americanprogress.org/site/pp.asp?c=biJRJ8OVF&b=494131>

Department of Education described, programs such as New Leaders for New Schools, which has contracts to train principals in New York, Chicago, Washington, DC, Memphis, and the San Francisco Bay Area, use highly selective criteria and provide training that concentrates on practical knowledge and skills needed for leadership success in challenging

circumstances. They also “provide intensive supports such as mentoring and coaching” by successful principals. “Moreover, they...prepare principals to hold themselves accountable for student achievement results.”¹⁴⁶

¹⁴⁶ U.S. Department of Education, Office of Innovation and Improvement, *Innovative Pathways to School Leadership*, 2005. Available at: http://www.ed.gov/admins/recruit/prep/alternative/report_pg4.html#figure1