

The Teachers We Need and How to Get More of Them

Overview*

U.S. schools aren't producing satisfactory results, and this problem is not likely to be solved until U.S. classrooms are filled with excellent teachers. About this, there seems to be a national consensus. How to get from here to there, however, is the subject of far less agreement. Our purpose is to suggest a more promising path than many policymakers and education reformers are presently following.

The good news is that America is beginning to adopt a powerful, commonsensical strategy for school reform. It is the same approach that almost every successful modern enterprise has adopted to boost performance and productivity: set high standards for results to be achieved, identify clear indicators to measure progress towards those results, and be flexible and pluralistic about the means for reaching those results. This strategy in education is sometimes called "standards-and-accountability." It is a fundamental aspect of the charter school movement, and it undergirds many versions of "systemic reform" as well.

The bad news is that states and policymakers have turned away from this commonsensical approach when trying to increase the pool of well-qualified teachers. Instead of encouraging a results-oriented approach, many states and policymakers are demanding ever more regulation of inputs and processes. Other modern organizations have recognized that regulation of inputs and processes is ineffectual and often destructive. There is no reason to believe that it will be anything other than ineffectual as a strategy for addressing the teacher quality problem.

We conclude that the regulatory strategy being pursued today to boost teacher quality is seriously flawed. Every additional requirement for prospective teachers—every additional pedagogical course, every new hoop or hurdle—will have a predictable and inexorable effect: it will limit the potential supply of teachers by narrowing the pipeline while having no bearing whatever on the quality or effectiveness of those in the pipeline. The regulatory approach is also bound, over time, to undermine the standards-and-accountability strategy for improving schools and raising student achievement.

A better solution to the teacher quality problem is to simplify the entry and hiring process. Get rid of most hoops and hurdles. Instead of requiring a long list of courses and degrees, test future teachers for their knowledge and skills. Allow principals to hire the teachers they need. Focus relentlessly on results, on whether students are learning. This strategy, we are confident, will produce a larger supply of able teachers

* This statement is also available at www.edexcellence.net. For more information, call the Thomas B. Fordham Foundation at 202-223-5452.

and will tie judgments about their fitness and performance to success in the classroom, not to process or impression.

The Problem

We know that better quality teachers make a big difference. We know this from decades of research and from the experience of millions of families. Recent studies in Tennessee, Boston, and Dallas, *inter alia*, find dramatic differences between the performance of youngsters who are assigned the best teachers and those assigned the worst teachers.¹ No matter how well-intentioned it is, school reform will likely falter unless more teachers have the knowledge and skills to help all their students meet high academic standards.

Poor Preparation

Yet many teachers are unready to meet these challenges. According to a recent survey, only one in five teachers feels well prepared to teach to high standards.² The head of Teachers College acknowledges that "The nation has too many weak education schools, with teachers, students and curriculums that are not up to the task at hand."³ Children who face high-stakes tests for promotion and graduation will need instructors with more knowledge and skill than ever before. As many as two million new teachers will need to be hired in the next decade. Yet our present system for recruiting, preparing and deploying them is not up to the dual challenge of quality and quantity. We are not attracting enough of the best and the brightest to teaching, and not retaining enough of the best of those we attract.⁴ A third of U.S. teachers—two thirds in inner cities—report that *their* schools have difficulty keeping good teachers.⁵

Lack of Subject Matter Knowledge

Perhaps the gravest failing of our present arrangement is the many teachers who lack preparation in the subjects that they teach. While most public school teachers are certified by their states, extensive college-level study in the teaching field is not always a prerequisite for subject area certification.⁶ Moreover, teachers are often assigned to courses outside their main teaching field as a cost-saving measure or administrative convenience, because of shortages in advanced subjects such as math and science, or because some schools—such as those in the inner-city—have a high turnover of teachers. "Foreign education ministers who visit me are just stumped when I try to explain this practice," notes Education Secretary Richard Riley. "Their translators simply have no words to describe it."⁷

It appears, for example, that more than half of history teachers have neither majors nor minors in history itself.⁸ More than half of the youngsters studying physics have a teacher who has neither a major nor minor in physics. (Is it any wonder that U.S. high seniors trail the world when it comes to *their* knowledge of physics?) More troubling still, children attending school in poor and urban areas are least likely to find themselves studying with teachers who *did* engage in deep study of their subjects.

Today's regulatory approach to entry into teaching compounds these problems. Because it places low priority on deep subject matter mastery and heavy emphasis on the things that colleges of education specialize in, many teachers get certified without having mastered the content that they are expected to impart to their students.

The Romance of Regulation

For decades, the dominant approach to "quality control" for U.S. teachers has been state regulation of entry into the profession. Requirements vary, but almost everywhere a state license is needed to teach in public schools. To obtain such a license, one must complete a teacher education program approved by the state, which typically imposes a host of requirements on these programs.⁹ Their students are commonly required to take specific courses (or a set number of courses) in pedagogy, child development, the "foundations of education", "classroom diversity", etc.¹⁰ Some states require a minimum college grade point average for entry into the program and many require prospective teachers to pass standardized tests of reading, writing and math skills. It is also common, at some point in the process, to test for knowledge of pedagogy and, sometimes, for knowledge of the subject in which they will be certified (which, as we have seen, may or may not be the subject they end up teaching). In addition, these programs typically require supervised student teaching, which teachers often term the most valuable part of their preparation for the classroom. This approach predictably creates a teacher force that is heavily credentialed in pedagogy, but not in the subject matter they are expected to teach. The regulatory strategy will intensify these trends.

More of the Same

Today, in response to widening concern about teacher quality, most states are tightening the regulatory vise, making it harder to enter teaching by piling on new requirements for certification. On the advice of some highly visible education groups such as the National Commission on Teaching and America's Future, these states are also attempting to "professionalize" teacher preparation by raising admissions criteria for training programs and ensuring that these programs are all accredited by the National Council for the Accreditation of Teacher Education (NCATE). That organization is currently toughening its own standards

to make accredited programs longer, more demanding, and more focused on avant-garde education ideas and social and political concerns.

Such measures will centralize and standardize the licensure process even more, curbing diversity in the sources and entry paths followed by teachers and shifting authority from local school boards and state agencies to professional education organizations and standards committees. These groups base their standards and procedures for judging teacher fitness on the principle of peer review, not on proven effectiveness with respect to student learning.

It is no surprise that all this is happening. The regulatory route is public education's traditional solution. Even business groups proposing to improve the quality of teaching offer suggestions that partake of the regulatory mindset. Many vested interests are served and established routines are enhanced by more regulation.

Shortcomings of the Regulatory Strategy

The regulatory strategy that states have followed for at least the past generation has failed. The unfortunate results are obvious: able liberal arts graduates avoid teaching, those who endure the process of acquiring pedagogical degrees refer to them as "Mickey Mouse" programs, and over time the problems of supply and quality have been exacerbated. When a strategy fails, it does not make much sense to do the same thing with redoubled effort. Yet that is what many states are now doing.

The present system does not even do a good job of screening out ill-prepared candidates. While some states have exit exams that appraise the skills, knowledge and competence of fledgling teachers, in many others, "quality control" occurs only at the point of entry into a training program, and entry requirements are low. In a state with no exit exam, completing the list of prescribed courses and earning the requisite degree are all that's needed to get one's teaching certificate. Though many jurisdictions now require future *high school* instructors to have majored (or minored) in the subjects that they plan to teach, the content and rigor of their course work are left entirely to the colleges.

Where there are exit exams, these often represent a modest intellectual threshold. Tests given to teaching candidates are commonly pitched at so undemanding a level—and their passing scores are so low—that they do little to deter individuals with limited intellectual prowess and scant subject matter knowledge. In Pennsylvania, for instance, passing scores were for many years set so that about 95 percent of everyone taking the tests passed them.¹¹ Local school boards can then hire whomever they prefer, often for reasons other than their academic qualifications.

Standards Askew

What really makes state regulation of entry into teaching so dysfunctional is not that its standards are low but that it emphasizes the wrong things. The regulatory strategy invariably focuses on "inputs"—courses taken, requirements met, time spent and activities engaged in—rather than results, meaning actual evidence of a teacher's classroom prowess, particularly as gauged by student learning. It judges one's "performance" by the subjective opinions of other teachers and professors. This is the wrong sort of regulation.

Teachers should be evaluated based on the only measure that really matters: whether their pupils are learning. This is not pie in the sky. William Sanders of the University of Tennessee has developed a technique that uses careful statistical analysis to identify the gains that students make during a school year and then estimate the effects of individual teachers on student progress. This "value-added" technique is extremely precise and its results are statistically robust. Originally used only in Tennessee but now spreading to other locales, it allows policymakers, taxpayers, and parents to see for themselves how much teachers are helping students to learn.¹²

The technique has proven to be a powerful tool for evaluating teachers. Sanders finds, for example, that the top 20 percent of teachers boost the scores of low-achieving pupils by 53 percentile points on average, while the bottom 20 percent of teachers produce gains of only 14 percentile points. Researchers in Dallas and Boston have found the same commonsensical link: good teachers significantly boost student achievement, even for the weakest pupils.¹³

Yet few states focus their teacher quality strategies on results. The instruments that states are far likelier to use to assess teaching candidates—input measures, that is—are seriously flawed approximations of how good a teacher one will be. We are struck by the paucity of evidence linking those inputs with actual teacher effectiveness. In a meta-analysis of close to four hundred studies of the effect of various school resources on pupil achievement, very little connection was found between the degrees teachers had earned or the experience they possessed and how much their students learned.¹⁴ Nor is there any evidence that teachers who graduate from NCATE-accredited teacher education programs are more effective than those who do not.¹⁵ Today's regulations, and the additional regulations urged by reformers within the profession, focus on inputs that display little or no relationship to classroom success. This is not education reform. This is the illusion of reform.

Shaky Knowledge Base

The regulatory strategy assumes that good teaching rests on a solid foundation of specialized professional knowledge about pedagogy (and related matters) that is scientifically buttressed by solid research. In reality, however, much of that knowledge base is shaky and conflicted. We should not be surprised that there is no reliable link between pedagogical training and classroom success.

To be sure, the foundation has some sturdy spots. There is a scientific consensus today, for example, about the most effective methods of teaching primary reading to young children.¹⁶ There is strong evidence about the efficacy of such pedagogies as Direct Instruction.¹⁷ Yet much of the surest and best-documented knowledge about education is ignored, even denounced, by many approved teacher education programs, while the lore that they instead impart to new teachers (about favored methods and self-esteem enhancement, for example) has little or no basis in research.¹⁸ Is it any wonder that people mistrust teacher education—or that to rely on it as the exclusive path into U.S. classrooms is to place the next generation of Americans at educational risk? The regulatory approach buttresses an orthodoxy that doesn't work.

The regulatory strategy's reliance on peer review assumes, of course, that good teaching can only be detected via observation by other practitioners. Thus the National Board for Professional Teaching Standards has designed an elaborate method for appraising teacher performance and certifying outstanding teachers. The process is costly and time-intensive. Yet today we have no idea whether the teachers identified as superior by the NBPTS are in fact the best teachers as judged by how much and how well their pupils learn.¹⁹ Here as elsewhere, peer review consists mainly of judging quality by observing inputs and processes, i.e. appraising a teacher's skill in using conventional (and popular) teacher practices.

Discouraging the Best and Brightest

Insofar as there are links between teacher characteristics and classroom effectiveness, the strongest of these involve verbal ability and subject matter knowledge. This has been known since the famed Coleman Report of 1966, when teacher scores on a verbal test were the only school "input" found to have a positive relationship to student achievement.²⁰ In a recent study conducted in Texas, teacher literacy levels were more closely associated with student performance than other inputs.²¹ In an appraisal of Alabama schools, the ACT scores of future teachers were the strongest determinant of student gains.²² These all suggest that recruiting smarter, abler teachers will do more to improve teaching than requiring more or different pre-service training.

Yet outstanding candidates are often discouraged by the hurdles that the regulatory strategy loves to erect. Burdensome certification requirements deter well-educated and eager individuals who might make

fine teachers but are put off by the cost (in time and money) of completing a conventional preparation program. One college senior writes, "What discourages us most are the restrictive paths to the classroom and the poor reputation of schools of education--and as a result, of teaching itself....It is the certification process, then, and not a lack of interest, that steers us away from teaching."²³ The best and the brightest of young Americans have other career options and will pursue them if the costs of becoming a teacher are too high. In his February 1999 State of American Education speech, U.S. Secretary of Education Richard Riley urged state policymakers to rethink teacher licensing requirements. "Too many potential teachers", he observed, "are turned away because of the cumbersome process that requires them to jump through hoops and lots of them."²⁴

Getting Hired: What You Know vs. Who You Know

What little we know about how those who have been certified actually land a teaching job is troubling. There is accumulating evidence that local school boards show little interest in hiring the most academically qualified applicants.²⁵ Districts often eschew professional recruiting and screening practices. Instead, they frequently prefer to hire their own high school graduates after they have become certified in a local education program, a practice which has been found to contribute to lower students scores on competency and achievement tests.²⁶

Few incentives for great teaching

Once teachers have entered the classroom, the regulatory strategy—like all such regimens—prizes uniformity and conformity. Personnel decisions for public schools are made by central office bureaucrats according to strict rules. Assignments are often based on seniority. Rigid salary schedules mean that teacher pay reflects years of experience and degrees earned rather than any measure of performance, and salaries bear no relationship to marketplace conditions in the teaching field. There are few tangible rewards for good teaching. And, because quality control focuses on the point of entry, and on-the-job teachers are protected by powerful political interests, there are fewer sanctions for bad teaching. As the N.C.T.A.F. itself pointed out in *What Matters Most: Teaching for America's Future*, "hiring and tenure decisions are often disconnected from any clear vision of quality teaching."²⁷

A Common Sense Proposal: Freedom in Return for Results

As Secretary Riley said in February, "We can no longer fiddle around the edges of how we recruit, prepare, retain, and reward America's teachers."²⁸ The time has come to consider radically different policies to boost the quality of teaching in U.S. schools. In the remainder of this paper, we advance a fresh view of how America can acquire more and better teachers in the years ahead.

Holding Schools Accountable

The teaching profession should be deregulated, entry into it should be widened, and personnel decisions should be decentralized to the school level, the teacher's actual workplace. Freeing up those decisions only makes sense, however, when schools are held accountable for their performance--truly accountable, with real consequences for success and failure. The proper incentives are created by results-based accountability systems in which states independently measure pupil achievement, issue public report cards on schools, reward successful schools, and intervene in or use sanctions against failing schools. In private schools today--and in most charter school programs--schools are held accountable by the marketplace while hiring decisions are made at the building level. Public schools, too, should be accountable in this manner.

Power to the Principals

For principals (or other education leaders) to manage their personnel in such a way as to shoulder accountability for school results, they must not only be free to select from a wide range of candidates, they must also have the flexibility to compensate those they hire according to marketplace conditions (and individual performance), and they must be able to remove those who do not produce satisfactory results. Everyone who has studied effective schools attests to the central importance of a cohesive "school team" that shares a common vision, and almost everyone who has studied current teacher personnel systems has witnessed the danger of tying that school team's hands when it comes to deciding who will join (or remain in) it.²⁹

Common sense also argues that teachers of subjects in short supply should be paid more than those in fields that are amply supplied, that teachers working in hard-to-staff schools should be paid more than those working in schools with hundreds of applicants for teaching slots, and that outstanding teachers should be paid more than mediocre ones. Yet today, the typical public school salary schedule (and teachers' union contract) allows for none of these commonsensical practices.

We look forward to the day when great teachers, teachers in scarce fields, and teachers who shoulder difficult challenges, are paid six-figure salaries. But this is not apt to happen so long as mediocre practitioners and superb instructors are harnessed to the same pay scale.

As for the occasional incompetent teacher, the more freedom a school has in initial hiring, the more flexibility it needs with respect to retention. That's common sense, too. Yet today's school systems typically award tenure after a few years of service; thereafter, teachers are almost never dismissed for ineffectiveness. While teachers should be protected from abusive and capricious treatment at the hands of principals, they cannot be protected from losing their jobs for cause. Union contracts often allow veteran teachers to transfer into a school regardless of their instructional prowess, the school's actual needs, or their impact on the school team. Such policies will need to be changed so that principals can be empowered and made accountable.

School-level managers are in the best position to know who teaches well and who teaches badly. They have access to far more significant information than state licensing boards and government agencies. They should be empowered (and if need be trained) to appraise each teacher's singular package of strengths and weaknesses rather than having distant bureaucracies decide who should be on their team. Once hired, teachers should be evaluated based on the only measure that really matters: whether their pupils are learning.

A Market Test

The common sense view acknowledges that there is no "one best system" for preparing and licensing quality teachers. A review of the research on the teacher qualities that affect student outcomes is humbling; lamentably little is known for sure about what makes an effective teacher, when gauged by pupil achievement. This argues against mandating any single path into the profession; education schools certainly ought not monopolize the training of teachers. In any case, teachers regularly report that the best place to learn about good teaching practices is on the job and in the company of other good teachers.

Rather than buttressing an orthodoxy that does not work, the common sense approach embraces pluralism. In a deregulated environment, good teacher education programs will thrive and prosper. Those that do a poor job will not, once they lose the protection that the regulatory monopoly confers on them. Principals should be able to decide for themselves whether to hire teachers who have been trained in certain pedagogical methods and theories.

The popularity of such programs as Teach for America, which places liberal arts graduates without formal education course work in public school classrooms in poor rural communities and inner cities, indicates that the prospect of teaching without first being obliged to spend years in pedagogical study

appeals to some of our brightest college graduates. Over 3,000 people apply for 500 Teach for America slots each year. Since 1994, more than 3,000 veterans of the armed forces have also made the transition from military to classrooms through the Troops to Teachers program.

Alternative certification programs streamline the classroom entry of more prospective teachers. Such programs normally require a bachelor's degree, passage of a competency test, and an intensive (but compressed) regimen of specialized preparation, often undertaken while on the job. They attract talented and enthusiastic individuals into teaching who might otherwise be lost to this calling. Teachers with alternative certification are more likely to have bachelor's degrees in math and science, two fields with chronic shortages of qualified teachers. They are also more likely to be members of minority groups.³⁰ Yet the regulatory strategy would shut down such programs or force them to imitate conventional education programs.

Where personnel decisions have been deregulated, schools rush to hire well-educated persons whether or not they possess standard certification. Private schools routinely employ unlicensed instructors, which tends to increase the proportion of their teachers who graduated from selective colleges and gained academic training.³¹ In New Jersey, the first state to implement a serious alternative certification program, from 23 to 40 percent of teachers now enter the profession through that route.³² The few studies of alternative certification that have been done find that students of such teachers perform at least as well as students of conventionally licensed teachers.³³ In New Jersey, alternative-certification teachers also have lower attrition than traditionally certified teachers during their first year and are as likely to stay in the field over time.³⁴

Not All Regulations Are Bad

Trading accountability for autonomy does not mean sloughing off all regulation. Every child should be able to count on having a teacher who has a solid general education, who possesses deep subject area knowledge, and who has no record of misbehavior. The state has an obligation to ensure that all prospective teachers meet this minimal standard. Thus states should perform background checks on candidates for teaching positions. To boost the likelihood that those who teach our children are themselves well educated, states should require that teaching candidates have at least a bachelor's degree in some academic subject.

States should also ensure subject matter competence. There are two ways to do this: requiring teachers to major in the subjects they teach or requiring them to pass challenging tests of subject matter knowledge. Neither method is perfect. Obliging all teachers to major in the subject they will teach may—regrettably—set the bar too low. At some universities, one can graduate as a history major without learning much of the

history we'd expect a high school history teacher to have mastered. The same is true of other academic majors. And a minor is unlikely to reflect any subject mastery. On the other hand, a prospective teacher who graduates in, say, American studies may have learned ample history or literature to be an outstanding history or English teacher, even though his diploma doesn't actually say "history" or "English".

Such variation in college majors tempts us to embrace testing as a more reliable measure of preparedness to teach. The value of any test, however, hinges on its content, rigor and passing score. Our instinct is to set those cut-offs as high as possible. But since tests are an imperfect gauge of teaching ability, some applicants will fail the test yet possess superior teaching potential. We all know individuals whose other qualities would cause them to be effective with children even if they do poorly on a paper-and-pencil test of knowledge. That is why we are wary of putting all the education eggs in the testing basket or making a certain fixed score an absolute prerequisite to being hired.

Neither academic majors nor subject test scores is a faultless means of assuring that teachers possess the requisite knowledge and will be good at delivering it. But either strategy is superior to today's widespread disregard of subject-matter mastery.

Putting principles into practice

The common sense strategy for improving teacher quality is surprisingly straightforward: states should empower principals to employ teachers as they see fit, and then hold those principals to account for their schools' results. Since every regulation that restricts entry to the profession excludes some potentially good teachers from public education, regulation should be reduced to the bare minimum.

What would state policies look like if based on these assumptions? Four are key.

1) States should develop results-based accountability systems for schools and teachers as well as students.

States should have accountability systems operating at the student, classroom, and building levels. School-level accountability involves measuring pupil achievement and issuing report cards for schools. Such information should be disseminated to students, parents and the public. States should reward successful schools and should have—and use—the authority to reconstitute or otherwise intervene in failing schools. They may also institute market-based accountability via various forms of school choice.³⁵ States must also define the role that school districts will play in these accountability systems.

Principals need accountability, too. Their jobs and salaries ought to be tied to their schools' performance. But they need the information by which to hold their faculty and staff accountable. The state

can help by providing student achievement data, disaggregated by teacher, like those generated by the value-added system that Sanders developed for Tennessee.

2) States should empower school-level administrators with the authority to make personnel decisions.

Authority must accompany accountability. All key personnel decisions (including hiring, promotion, retention, and compensation) should be devolved to schools. Quality control should be the responsibility of school leaders, who have freedom to hire from a wide pool of teaching candidates and pay teachers based on marketplace conditions or individual performance. States should pass whatever legislation is needed to assign all these decisions to the school level.

Teacher tenure ought not be allowed to interfere. Multi-year contracts are far preferable. It must be possible to remove incompetent teachers at reasonable cost and within a reasonable period of time, without sacrificing their right to due process protection against capricious and ad hominem treatment.

States should encourage differential pay so that schools can pay outstanding teachers more. It should also be possible to adjust teacher pay for labor market conditions, subject specialty, and the challenge of working in tough schools. A flexible salary structure would allow paychecks to respond to marketplace signals while creating financial incentives for excellent teaching and practical sanctions for poor teaching.

To work well, this system obviously requires capable principals, education leaders who know how to judge good teaching and are prepared to act on the basis of such evaluations. We're not naïve about the supply of such people in management positions in public education today. But they exist in large numbers in U.S. society and can be drawn into the schools if the incentives are right. Executive training for some current principals will also help them handle this difficult evolution of their role.³⁶

3) States should enforce minimal regulations to ensure that teachers do no harm.

States should perform background checks for all teaching candidates and require prospective teachers to have a bachelor's degree in an academic field. They should also ensure that new teachers are adequately grounded in the subject matter they are expected to teach, either by requiring that they major in the subject(s) that they will teach or by mandating rigorous subject matter examinations. (They may be wise to use both mechanisms and also let principals make exceptions when other compelling evidence is at hand.)

4) States should open more paths into the classroom, encourage diversity and choice among forms of preparation for teaching, and welcome into the profession a larger pool of talented and well-educated people who would like to teach.

Policymakers should take forceful action to eliminate monopoly control and challenge "one best system" attitudes toward teacher preparation. Traditional training programs should be closely scrutinized for their length, cost, burden and value. Is a two year time commitment really necessary, for example? States should publish detailed factual information about individual programs and their graduates, data that outsiders can use to evaluate their effectiveness. Information about the effectiveness of recent graduates (as measured by the value-added achievement scores of their pupils) should be made public; until this is available, institution-specific data should include the placement rate of graduates and the percentage of graduates passing state teacher tests. (Some of this information was mandated by the Higher Education Amendments of 1998.)

States should expand the pool of talented teaching candidates by allowing individuals who have not attended schools of education to teach, provided that they meet the minimum standards outlined above. States should encourage programs that provide compressed basic training for prospective teachers. States should also attract outstanding college graduates to the profession by using financial incentives such as scholarships, loan forgiveness programs and signing bonuses.

Conclusion

For too long, policymakers have focused overmuch on training teachers and not enough on recruiting them. They have tackled the quality problem by increasing regulation and expanding pedagogical requirements, even though this approach shrinks the pool of candidates while having scant effect on their quality. Forty years of experience suggests that this strategy is a failure. It cannot work. Indeed, it has compounded today's dual crisis of teacher quality and quantity.

We offer something different. States that reduce barriers to entry will find not only that their applicant pool is larger but also that it includes many more talented candidates. Turning our back on excessive and ill-conceived regulations and focussing instead on student outcomes is the key. To attract and keep the best teachers, states must also be willing to pay strong teachers well—and to muster the necessary resources to do this.

Raising the quality of the U.S. teaching force is an urgent priority today and some policymakers have begun to signal their receptivity to change. In his February 1999 State of American Education speech, for example, Secretary Riley proclaimed, "We must make sweeping efforts to make teaching a first-class profession. And, then, we must hold schools accountable for results."³⁷ He later added, "What else can we do? We can create rigorous alternative paths to give many more Americans the opportunity to become a teacher."³⁸ We agree.

¹Sanders, William L. and Rivers, Joan C., "Cumulative and Residual Effects of Teachers on Future Student Academic Achievement," 1996; Heather Jordan, Robert Mendro, & Dash Weerasinghe, "Teacher Effects on Longitudinal Student Achievement," 1997; and Boston Public Schools, "High School Restructuring," March 9, 1998. These research studies were all cited in Kati Haycock, "Good Teaching Matters a Lot," *Thinking K-16*, A Publication of The Education Trust, 3 No. 2 (1998).

²National Center for Education Statistics, *Teacher Quality: A Report on the Preparation and Qualifications of Public School Teachers*, (Washington, DC: U.S. Department of Education, January 1999),iii.

³Arthur Levine, "Dueling Goals for Education", *The New York Times*, April 7, 1999, A23

⁴Although teacher "literacy" levels mirror those of other college graduates, that's not actually saying much; more than forty percent of teachers scored below "level 4" on the 1992 National Adult Literacy Survey (NALS), a national assessment of prose literacy, document literacy and quantitative literacy among adult Americans. For the study, a random sample of U.S. adults were surveyed and based on their performance on a set of literacy tasks, were graded as level one through level five. Individuals scoring at level 4, for example, display the ability to state in writing an argument made in a lengthy newspaper article (prose literacy), use a schedule to determine which bus to take in a given situation (document literacy) and use an eligibility pamphlet to calculate how much money a couple would receive as supplemental security income (quantitative literacy). More than forty percent of teachers (and of the general population) scored below this level on the national assessment. Barbra A. Bruschi and Richard J. Coley, *How Teachers Compare: The Prose, Document, and Quantitative Skills of America's Teachers*, (Princeton, N.J.: Educational Testing Service, 1999).

⁵Carol A. Langdon, "The Fifth Phi Delta Kappa Poll of Teachers' Attitudes Toward The Public Schools", *Phi Delta Kappan*, Vol. 80, No. 8, April 1999, p. 615.

⁶Teacher certification and teacher licensure are used interchangeably throughout this essay.

⁷Richard W. Riley, U.S. Secretary of Education, "New Challenges, A New Resolve: Moving American Education Into the 21st Century," Sixth Annual State of American Education Speech, Long Beach, California, February 16, 1999.

⁸Diane Ravitch, "Lesson Plan for Teachers," *Washington Post*, August 10, 1998. These numbers can be difficult to pin down since the NCES sometimes includes teachers who major in history education as having majored in history.

⁹To be sure, not all teachers pass through conventional teacher training programs. Some obtain temporary or emergency licenses that allow them to teach before they have completed all of the normal requirements for certification. These are normally issued when districts have urgent needs for teachers that they say they cannot meet with conventional candidates. Some states also offer alternative certification routes which allow liberal arts graduates, military retirees and others to teach without having to complete a full-length teacher education program. Often, however, the "alternative" programs simply defer the conventional requirements; the individual may begin teaching but may not continue without taking the standard courses, etc. In any case, the intensified regulatory approach outlined in the text would curb the use of alternative programs unless they conform closely to the model of conventional programs.

¹⁰The number of required units varies from 6 semester units in Texas to 36 in some states. C. Emily Feistritzer and David T. Chester, *Alternative Teacher Certification: A State-by-State Analysis 1998-99*, (Washington, DC: National Center for Education Information, 1998).

¹¹Teaching candidates needed to answer correctly only a quarter of the questions in the reading section of the National Teacher Exam in order to pass it. For a decade, the state set no minimum scores at all in chemistry and physics; every applicant who took one of these tests passed. Robert P. Strauss, "Teacher Preparation and Selection: A Case Study of Pennsylvania," Thomas B. Fordham Foundation Volume on Teacher Quality (forthcoming).

¹²Organizing an education system on the basis of student achievement requires better measures of student achievement than most states have today (in particular, annual assessments of students in every grade), though a number of jurisdictions are moving in that direction. Implementing the principles of this "manifesto" will mean more such movement. We also recognize, of course, that student test scores can never be a full or perfect measure of teacher effectiveness; teachers add many valuable things to students that cannot be captured by any test.

¹³Kati Haycock, "Good Teaching Matters a Lot," *Thinking K-16*, A Publication of The Education Trust, 3 No. 2 (1998).

¹⁴Eric A. Hanushek, "Assessing the Effects of School Resources on Student Performance: An Update," *Educational Evaluation and Policy Analysis*, Summer 1997, vol. 19 no. 2, 141-164.

¹⁵Dale Ballou and Michael Podgursky, "The Case Against Teacher Certification," *The Public Interest*, Summer 1998, 17-29.

¹⁶Louisa Cook Moats and G. Reid Lyon, "Wanted: Teachers with Knowledge of Language," *Topics in Language Disorders*, February 1996.

¹⁷Some teachers object to "D.I." methods, but the evidence indicates that they're effective. See American Institutes for Research, *An Educators' Guide to Schoolwide Reform* (Washington, DC: Educational Research Service, 1999) 4, C12-C18 and Debra Viadero, "A Direct Challenge," *Education Week*, March 17, 1999 pp. 41-43.

¹⁸William Damon, *Greater Expectations* (New York: Free Press, 1995).

¹⁹The NBPTS reports that a study examining the effectiveness of its standards is underway.

- ²⁰Christopher S. Jencks, "The Coleman Report and the Conventional Wisdom," in *On Equality of Educational Opportunity*, Frederick Mosteller and Daniel P. Moynihan, editors (New York: Random House, 1972) 101.
- ²¹Ronald F. Ferguson, "Can Schools Narrow the Black-White Test Score Gap?" in *The Black-White Test Score Gap*, Christopher Jencks and Meredith Phillips, editors (Washington, DC: Brookings Institution, 1998).
- ²²Ronald F. Ferguson and Helen F. Ladd, "How and Why Money Matters: An Analysis of Alabama Schools," in *Holding Schools Accountable: Performance Based Reform in Education* (Brookings Institution: Washington, DC, 1996).
- ²³Elizabeth Greenspan, "No Thanks," *Teacher Magazine*, April 1999.
- ²⁴Richard W. Riley, U.S. Secretary of Education, "New Challenges, A New Resolve: Moving American Education Into the 21st Century," Sixth Annual State of American Education Speech, Long Beach, California, February 16, 1999.
- ²⁵See Dale Ballou, "Do Public Schools Hire the Best Applicants," *Quarterly Review of Economics*, February 1996, 97-134 and Dale Ballou and Michael Podgursky, "Recruiting Smarter Teachers," *Journal of Human Resources*, Winter 1995, 326-338.
- ²⁶See Robert P. Strauss, Lori Bowes, Mindy Marks, and Mark Plesko, "Improving Teacher Preparation and Selection: Lessons from the Pennsylvania Experience," *Economics of Education Review*, forthcoming.
- ²⁷National Commission on Teaching and America's Future, *What Matters Most: Teaching for America's Future*, New York: National Commission on Teaching and America's Future, September 1996) 14.
- ²⁸Richard W. Riley, U.S. Secretary of Education, "New Challenges, A New Resolve: Moving American Education Into the 21st Century," Sixth Annual State of American Education Speech, Long Beach, California, February 16, 1999.
- ²⁹The importance of the power to remove teachers is emphasized by the most mainstream research in the field. Gordon Cawelti, former Executive Director of the Association for Supervision and Curriculum Development, concludes in a recent study of what makes schools effective: "A school seeking a turnaround in student performance must seek out teachers who want to work in such an environment. A school must also be able to remove teachers who are unwilling to commit the energy and dedication needed to make sure that a productive and challenging education is provided to all children who attend. This policy issue must not be overlooked. Without committed teachers, you are unlikely to raise student achievement significantly." Gordon Cawelti, *Portraits of Six Benchmark Schools: Diverse Approaches to Improving Student Achievement*, (Arlington, Va.: Educational Research Service, 1999), 64-65.
- ³⁰Jianping Shen, "Has the Alternative Certification Policy Materialized Its Promise? A Comparison Between Traditionally and Alternatively Certified Teachers in Public Schools," *Educational Evaluation and Policy Analysis*, 19 (3) 1997, 276-283.
- ³¹Dale Ballou and Michael Podgursky, "Teacher Training and Licensure" Thomas B. Fordham Foundation volume on Teacher Quality (forthcoming), 13.
- ³²Dale Ballou and Michael Podgursky, Thomas B. Fordham Foundation volume on Teacher Quality (forthcoming), 13.
- ³³Stephen D. Goebel, Karl Ronacher, and Kathryn S. Sanchez, *An Evaluation of HISD's Alternative Certification Program of the Academic Year: 1988-1989*. Houston: Houston Independent School District Department of Research and Evaluation, 1989. ERIC Document No. 322103. Susan Barnes, James Salmon, and William Wale, "Alternative Teacher Certification in Texas," presented at the annual meeting of the American Educational Research Association, March 1989. ERIC Document No. 307316.
- ³⁴Ellen Schech, director, alternate route program, New Jersey Board of Education, in "No Thanks," *Teacher Magazine*, April 1999.
- ³⁵How extensive a school choice policy will be is determined primarily by state laws and constitutions—and of course by politics. The more choice the better—including, where possible, private schools—is the view of most signers of this manifesto. Some signers, however, believe that publicly-funded choice should extend only to publicly-accountable schools
- ³⁶Many signers of this manifesto are concerned that today's school administrators—at the building and central office levels alike—often lack the necessary skills and experience to make sensitive personnel decisions based on student performance and other indicators of effectiveness. A state moving in the direction mapped by this manifesto would probably be wise to include this type of in-service training for its current principals, superintendents, etc.
- ³⁷Richard W. Riley, U.S. Secretary of Education, "New Challenges, A New Resolve: Moving American Education Into the 21st Century," Sixth Annual State of American Education Speech, Long Beach, California, February 16, 1999.
- ³⁸Richard W. Riley, U.S. Secretary of Education, "New Challenges, A New Resolve: Moving American Education Into the 21st Century," Sixth Annual State of American Education Speech, Long Beach, California, February 16, 1999.