

Revisiting What States are Doing to Improve the Quality of Teaching: An Update on Patterns and Trends

A Working Paper
prepared in collaboration with the
National Conference of State Legislatures

by
Eric Hirsch
National Conference of State Legislatures

Julia E. Koppich
Koppich & Associates

Michael S. Knapp
University of Washington

February 2001
(Document W-01-1)



Center for the Study of Teaching and Policy

UNIVERSITY OF WASHINGTON



Center for the Study of Teaching and Policy

A National Research Consortium

UNIVERSITY OF WASHINGTON (lead institution)

STANFORD UNIVERSITY

TEACHERS COLLEGE/COLUMBIA UNIVERSITY

UNIVERSITY OF MICHIGAN

UNIVERSITY OF PENNSYLVANIA

Other active participants in CTP's research and dissemination program include researchers affiliated with Indiana University, Michigan State University, Pennsylvania State University, the University of California at Santa Barbara, the University of North Carolina, and Education Matters, Inc.

CTP studies the way policies and conditions in schools, districts, states and the nation shape the quality of teaching and learning in our nation's elementary and secondary schools. The Center pays particular attention to the ways these policies and conditions interact with each other to influence the teaching profession and its practice.

The Center's program of research is carried out in collaboration with various other research organizations, among them other OERI-funded research centers, including the Consortium for Policy Research in Education (CPRE), the Center for Research on Education, Diversity, and Excellence (CREDE), and the Center on English Learning & Achievement (CELA). The Center is affiliated with a variety of professional and advocacy organizations which represent teachers, teacher educators, state and local policymakers, disciplinary groups, and educational reform interests.

The work reported herein was supported under the Educational Research and Development Centers Program, PR/Award Number R308B970003, as administered by the National Institute on Educational Governance, Finance, Policymaking and Management, Office of Educational Research and Improvement (OERI), U.S. Department of Education. However, the contents do not necessarily represent the positions or policies of either national institute, OERI, or the U.S. Department of Education, or the endorsement of the federal government.

CONTENTS

Abstract	3
Summary: What States Are Doing to Improve the Quality of Teaching	5
What States Are Doing to Promote High Standards For Teaching and Learning	5
What States Are Doing to Attract, Reward, and Retain Capable People in Teaching	6
What States Are Doing to Improve the Initial Preparation and Induction of Teachers	7
What States Are Doing to Motivate and Support Teachers' Ongoing Professional Learning	8
What States Are Doing to Enhance the School Workplace Environment	9
Concluding Observations	9
Introduction	11
What States Are Doing to Promote High Standards for Teaching and Learning	13
Student Standards, Assessments, and Accountability	13
Standards for Teaching	14
Assessments of Teacher Knowledge	16
Independent Professional Standards Boards	18
Commentary	18
What States Are Doing to Attract, Reward, and Retain Capable People in Teaching	19
Developing Teacher Recruitment Strategies	20
Salaries and Benefits: Competing in a Crowded Market for Teachers	21
Expanding the Pipeline: Attracting New Teachers to the Profession	24
Redistributing Teachers: Incentives to Move to Critical Shortage Areas	28
Removing Teachers of Lesser Quality	29
Commentary	30
What States Are Doing to Improve the Initial Preparation and Induction of Teachers	31
Standards and Accountability for Teacher Preparation Programs	31
"Alternative Route" Programs	33
Beginning Teacher Induction Programs	34
Commentary	35
What States Are Doing to Motivate and Support Teachers' Ongoing Professional Learning	36
Differences in the Quality of Opportunities for Professional Learning	36
State Guidance and Resources for Professional Development	38
Developing or Mandating Specific Targets for Professional Development	39
Commentary	40
What States Are Doing to Enhance the School Workplace Environment	41
Commentary	43
Some Concluding Remarks	43
Endnotes	45

ABSTRACT

This updated version of the 1998 CTP Working Paper *What States Are Doing to Improve the Quality of Teaching* takes a fresh look at recent developments in realms of state policy related to teacher and teaching quality. Paying closest attention to recent legislative activity, the analysis describes state-level policy action pertaining to: (1) development and promotion of high standards for student learning and for teaching; (2) attempts to attract, reward, and retain capable people in the teaching profession; (3) support for high-quality initial preparation and induction of new teachers; (4) attempts to motivate and support teachers' ongoing professional learning; and (5) enhancements to the school workplace environment. The results indicate that states have been particularly active with respect to the development of teacher standards and assessments, approaches to a growing recruitment challenge, more proactive ways to improve teacher preparation (and hold teacher education institutions accountable), and some targeted efforts to strengthen professional development. While the paper is descriptive, not evaluative, the authors call in their concluding remarks for more coherent, data-informed policy related to the quality of teachers and teaching, yet acknowledge the difficulty of bringing this about at the state level.

SUMMARY: WHAT STATES ARE DOING TO IMPROVE THE QUALITY OF TEACHING

In 1998 the Center for the Study of Teaching and Policy published the initial version of *What States Are Doing to Improve the Quality of Teaching*. Since then, interest in the quality of teachers and teaching has remained strong at the state level and even increased in many quarters. Members of state policy communities and the public are recognizing that efforts to ensure a qualified teaching force complement the aspiration to meet the ambitious goals for student learning that are part of the standards-based reform movement. In this updated version of our working paper, we take a fresh look at the directions in which state policy with regard to teacher quality has moved, concentrating on recent legislative actions while also including relevant actions from before 1998. As before, our goal is largely descriptive, not evaluative. We make no attempt to systematically assess the different policies and strategies employed by states; to do so is a difficult undertaking and for many policies, especially the newer ones, would require that they be in place for longer than they have at present. We present our analysis through the same lens we used in 1998—an examination of state level policy activity in five areas that related to the quality of teachers and teaching:

- The development and promotion of high standards for student learning and for teaching—e.g., through student standards, assessments, and accountability mechanisms alongside explicit statements of standards for teachers’ knowledge and skill.
- The attempt to attract, reward, and retain capable people in the teaching profession—e.g., through various recruitment, compensation, and certification strategies.
- Support for high-quality initial preparation and induction of new teachers—e.g., through standards for teacher preparation programs, related accountability mechanisms, and promotion of “alternative route” programs.
- Attempts to motivate and support teachers’ ongoing professional learning—e.g., through mandates for topics to be addressed by local professional development, allocation of resources for professional development, strengthening of support networks and structures, and requirements for continued professional learning.
- Enhancing the school workplace environment—e.g., through efforts to encourage school-wide planning, target resources to school-level improvement activity, and devolve greater authority to the school level.

What States Are Doing to Promote High Standards For Teaching and Learning

In all but a few states, the anchor for educational reform has been the development and implementation of rigorous academic learning standards for students, generally accompanied by assessments to gauge the extent to which students are meeting, or making progress toward, these standards. Increasing the likelihood that the new standards are taken seriously, many states attach consequences to assessment results—some with “high stakes” implications for students, schools, or districts.

Together, standards and assessments send messages to teachers about what to teach and, often, how to teach it. Sometimes the messages are mixed, as when standards and assessments are not fully aligned or when assessments do not capture the full range of learning assumed by a broad standard. In other instances, states have worked hard to relate standards and assessments closely to one another. Whether or not the two are aligned, debate swirls about whether some assessments unnecessarily narrow the curriculum or simply reinforce the most important (or testable) aspects of it. Nonetheless, it is clear that assessments attract teachers' attention, underscore for them what the state believes is important to teach, and exert considerable influence on actual classroom practice. In many ways, assessments frame for teachers a specific picture of what they should be teaching—the curriculum that supposedly *really* matters.

Alongside standards for student learning, a number of states are also articulating what teachers should know and be able to do. Certification and teacher testing are the principal vehicles to date for promoting standards for teaching. Multi-tiered certification systems are becoming increasingly popular ways to demonstrate the growth of teachers' competence over time. While a growing number of states are establishing teacher assessment systems, states are encountering complicated issues regarding the role, validity, and technical quality of teacher assessments. For example, states have yet to evolve cost-effective means of assessing actual classroom performance—or, even more problematic, predicting future performance, in the case of assessments done at the time of initial licensing. Some states are experimenting with portfolios and other performance-based systems. In lieu of such assessments, states have continued to rely on “input” measures such as course completion, clock hours of professional development, and completion of induction programs, the content and duration of which often vary across districts in the same state.

Approximately a third of states have created professional standards boards as a mechanism for setting and maintaining professional standards. These boards vary somewhat in the degree of real autonomy; as relatively new entities, it remains to be seen how much, and how effectively, they will exercise their discretion on behalf of high standards for the teaching profession.

While raising standards for teachers through more rigorous licensure requirements, states, faced with looming teacher shortages, have used waivers or other means that allow many educators to reach the classroom without meeting these standards at all. Thus, teachers, teacher candidates, schools of education, and the public are sent a mixed message. States are clearly serious about standards for good teaching but not when those standards interfere with the ability to ensure an adult, qualified or not, in every classroom.

What States Are Doing to Attract, Reward, and Retain Capable People in Teaching

States have moved aggressively to address what is viewed as a growing teacher recruitment challenge. Most policymakers and practitioners have heard estimates that at least 2.2 million teachers will be needed in America's public school classrooms over the next decade, raising issues of how schools, districts, and states will meet unprecedented demand for educators. Although school districts—through local collective bargaining agreements and partnerships with teacher preparation programs—have been largely responsible for recruitment and compensation issues, states are playing a larger role as simultaneous shifts in the demographics of students and teachers make replenishing the teacher corps more difficult.

Teacher shortages are evident in (1) subject areas such as math, science, English as a Second Language, and bilingual and special education; (2) particular geographic areas, both urban and rural; and (3) the proportion of minority staff in a teaching corps that does not adequately reflect an increasingly diverse student population. Without sufficient numbers of qualified teachers, schools and districts have been forced to hire teachers who have yet to meet state licensure requirements. These educators tend disproportionately to teach in low performing schools and schools serving low-income students. Out-of-field and unlicensed teachers are particularly prominent in subject areas such as mathematics and science.

Schools, districts, and states are trying various strategies to attract teachers. Many of the most common approaches aim to expand the pipeline of potential teachers, for example, by creating alternative pathways into the profession to attract mid-career professionals. States are also making it easier to receive reciprocity for a license from another state, luring retirees back to the classroom by allowing them to receive pension benefits while earning a salary, establishing scholarships and future teacher programs for potential educators, and increasing salaries to make teaching more attractive relative to other careers. States are also addressing recruitment through strategies that make both the existing teaching corps and teachers in the pipeline more mobile and by providing incentives to teach in areas experiencing critical shortages. In addition, a number of states are offering signing bonuses, housing assistance, scholarships, free graduate courses, and other incentives to attract teachers to the hardest-to-staff areas.

In attracting potential new teachers, salaries that are low relative to the starting pay of other occupations can act as a deterrent. Average beginning teacher salaries are about \$7,500 less than the expected starting salary in marketing and \$15,000 less than that of computer scientists. Many states have acted to raise teacher salaries through various means including bonuses for increased knowledge and skill, (e.g., as demonstrated by achieving advanced certification through the National Board for Professional Teaching Standards). And districts are providing bonuses, increases on the salary schedule, or other incentives to recruit teachers in shortage fields or to less desired locations.

What States Are Doing to Improve the Initial Preparation and Induction of Teachers

State legislatures have often been reluctant to impose regulations on teacher preparation programs, relying instead on accreditation processes that were professionally controlled and on certification and licensure requirements. Nonetheless, legislatures are showing an increasing willingness to leverage change in teacher educational institutions through the creation of performance-based program standards. New policies now in place in at least 24 states encourage teacher education institutions to focus less on inputs, such as the number of courses teacher candidates are required to complete, and more on outcomes—demonstrations of teaching competence. In some states, the new focus on performance is accompanied by tough accountability requirements (e.g., shutting down teacher education programs that don't graduate a sufficiently high proportion of individuals who pass the state's teacher assessments). Accordingly, a sizable number of colleges and universities have undertaken major reforms of their education programs, adding fifth years of study, strengthening internships, and participating in professional development schools. And there is increasing emphasis on subject matter preparation as well.

As both a recruitment device and way to encourage “better” preparation of teachers, states are also showing some enthusiasm for “alternative route” (or “alternative certification”) programs—those that bypass traditional teacher education institutions and offer alternative forms of training that are generally more field-based. The quality of these programs varies considerably. Some alternate route programs approximate the depth and rigor of the best university-based preparation programs, although with alternative delivery mechanisms that put the candidate in the classroom sooner. Others offer only minimal training for teaching, on the assumption that individuals will pick up the skills they need on the job.

More states are also requiring induction support for new teachers. However, these programs vary widely in terms of their duration, funding, and level of participation by new teachers.

What States Are Doing to Motivate and Support Teachers’ Ongoing Professional Learning

While teacher recruitment and preparation policies can help states begin to prepare new educators for work in a demanding standards-based environment, only ongoing learning through a variety of “professional development” activities can make current teachers aware of changing expectations, new content, and teaching methods that are appropriate to these expectations and content. A wide range of activities may impart this learning. Aside from workshops and summer institutes (what policymakers usually think of as “professional development”), teachers may deepen their knowledge and skills through on-site coaching, study groups, graduate coursework, instructional supervision, curriculum development work, observation of master teachers or model programs at work, and participation in professional networks, to mention a few of the more common avenues for professional learning.

But not all professional learning opportunities are equally powerful. For example, emerging research demonstrates that the quality and duration of professional development programs is an important determinant of their ability to improve teaching practice and impact student achievement. Yet most states or policies do not attend to these two critical components. Often, states that require professional development for license renewal, for example, simply mandate “clock hours” with little regulation of the types of activities that will “count.” And school districts, with minimal guidance and often little funding, tend to rely on one-time in-service and workshop models rather than on the intensive, ongoing professional development that research has shown to be more effective.

Mindful of the importance of professional learning opportunities and of their own inattention to this facet of the teacher policy puzzle, states have begun to play a more active role. Some states are seeking to alleviate disparities in both the quality and quantity of professional development opportunities across school districts and to encourage stronger connections between these opportunities and the challenges of standards-based practice. States are attempting to do this by targeting (some) resources to professional development, often in a particular subject area and grade level, such as reading in the early elementary grades or middle schools mathematics. In addition, states are specifying topics for local professional development, encouraging comprehensive local planning for professional development, bolstering teacher networks and other support structures, or attempting to maximize the time allocated to professional development.

Despite attempts in various states to increase professional development support, this aspect of teaching quality improvement remains problematic at the state level. It is difficult to convey the importance of sustained state-level support for professional development to those who see this function as unnecessary and disconnected from student learning or of dubious value. These perceptions present a challenge to policy-makers who believe that substantially greater investments in professional learning are necessary to achieve standards-based reform goals.

What States Are Doing to Enhance the School Workplace Environment

For practicing teachers, various forces and conditions in the school are likely to contribute to their sense of a productive and supportive environment in which to work. Among these are a close-knit community of colleagues, time to reflect and plan, supportive leadership, access to resources and advice, and a manageable load of classes, students, or other assignments. Creating this environment is largely the responsibility of districts and school leaders, though under certain circumstances—notably that of persistently low-performing schools—states are increasingly willing to step in, to identify troubled schools, offer assistance, or if necessary to intervene.

Other than intervention in low performing schools, some states have undertaken initiatives of several kinds which treat the individual school as the target and relevant unit of change, despite the state's general deference to local school boards, districts, and individual schools in matters related to school improvement. In addressing the school program as a whole, these state actions have aimed at the quality of teaching by (1) increasing the school staff's authority over decisions affecting the academic program, (2) pressuring schools to create school-wide improvement plans, and (3) in some instances by allocating resources directly to the school level. In a somewhat specialized case, legislation in two thirds of the states supporting charter schools has sought to free up educators to create more conducive school environments, but these remain controversial and affect relatively few schools.

Concluding Observations

An increasing number of states are attempting to improve the quality of the teaching force and their classroom practice as keys to improving student achievement. As this working paper has indicated, states have policies on the books related to issues ranging from teacher preparation to recruitment to salaries to professional development to teacher evaluation. While we do not yet know whether all this activity is achieving its espoused purpose, the attention to teacher quality suggests a willingness on the part of states to assume leadership in this important area of educational reform.

We note in closing, however, that the capacity of state teacher initiatives to reach their goal may be hampered by a lack of careful connection among different strands of policy. As we observed in the earlier version of this working paper, it appears as if these policies are often reactive, established to address one specific policy problem rather than to create a coherent policy strategy that will work to enhance teacher quality. Important interconnections have yet to be forged—for example, between policies related to workplace enhancement and teacher retention, teacher standards and student learning standards, or teacher preparation and support for ongoing professional learning.

States may also be proliferating new policies related to teacher improvement with little attempt to assemble and use good data. While new policies are enacted each year, little effort is made to evaluate the effects of previous policies or to develop the kinds of databases that would enable this kind of evaluation. Adding policies without careful reflection about their merits can contribute to a lack of coherence among state policies aimed at teacher quality. States might consider devoting some attention in the next legislative session to a systematic review of relevant existing policies as they seek to craft new programs and policies and also to the development of appropriate data sources.

States will always be constrained, as well, by the size and complexity of educational systems that appropriately reserve much of the authority over education to the local level. Nonetheless, the opportunity for state leadership in this arena of educational reform is considerable at the moment. There is much to be learned from current experimentation with teaching improvement initiatives.

INTRODUCTION

In 1998 the Center for the Study of Teaching and Policy published the initial version of *What States are Doing to Improve the Quality of Teaching*. At that time, concern over the quality of teachers and teaching was beginning to assume new state policy prominence. In the intervening two years, improving the quality of teaching and the teacher force has remained high—and, in many instances, assumed new priority—on state policy agendas.

Now, in the year 2001, we revisit the teacher quality issue and take a fresh look at the directions in which state policy has moved. We do this through the lens we used in 1998. In other words, we examine state-level policy activity related to the quality of teaching and the teacher force in five areas:

- **Developing and promoting high standards for teaching and learning.** In what ways and to what extent are states developing and promoting high standards for teaching and learning through standards statements, curricular frameworks, various forms of assessment, and other means?
- **Attracting, rewarding, and retaining capable people in the teaching profession.** In what ways and to what extent are state policies aiming to attract, reward, and retain capable people in teaching through outreach and recruitment efforts, compensation and incentive systems, and various forms of recognition and reward for accomplished work? Conversely, how (if at all) are states trying to weed out teachers who are less qualified?
- **Supporting high-quality initial preparation and induction of new teachers.** In what ways and to what extent are state policies seeking to support high quality preparation and induction of new teachers through accreditation, program approval processes, and programs supporting mentoring?
- **Motivating and supporting teachers' ongoing professional learning.** In what ways and to what extent are state policies attempting to motivate and support teachers' ongoing professional learning through allocating resources for professional development and altering requirements for practicing teachers to continue their learning?
- **Enhancing the school workplace environment.** In what ways and to what extent are state policies enhancing the school workplace environment through regulatory flexibility, attempts to promote school-site discretion, or new ways of allocating resources?

The state policy environment is dynamic, and over the past two years, a great deal of activity has taken place, especially with regard to teacher assessment, recruitment, certification, and preparation. Our goal, as in the original version of this working paper, is to describe and illustrate patterns of state action aimed at these and other facets of teacher and teaching quality. We make no attempt to evaluate these actions, though we do point out where and why certain actions are controversial, as well as how policies conform to, or depart from, relevant research. In most instances, the policies we are describing are too recent to ascertain their effects, effectiveness, or unintended consequences. We leave that to longer-term research efforts, among them, studies under way in the Center for the Study of Teaching and Policy and ongoing work at other national research centers.

This working paper concentrates on actions by state legislatures. At the same time, we recognize that other state-level activity not guided or funded by state lawmakers has an important bearing on teachers' work and careers, for example initiatives mounted by state departments and boards of education. The actions of state-level professional associations also contribute, as does the leadership of executive-branch officials such as the state governors. Nonetheless, what legislatures do has a special importance, as these bodies are the original sources of agency mandates and operating funds. At the same time, legislative action both catalyzes and legitimizes a whole range of activity aimed at the improvement of schooling. Because they have been so instrumental in setting the overall standards-based reform agenda and, more recently, the agenda for teaching quality improvement, legislatures deserve our attention.

Our analysis rests on three premises that strike us as sound today as in 1998:

- The quality of teaching and teachers is central to the success of reform. The quality of the teacher in the classroom is key to improving student achievement. Clear learning standards, good assessments, and sound governance and management arrangements are also crucial. But without high quality teachers, the power of these other improvements is diminished.
- The state has an important role to play in enhancing the quality of teaching and the teacher force. While removed from the classroom and school, state policymakers can take a number of policy actions that bear on the working lives of teachers and their ability or desire to provide students with high-quality learning opportunities. The challenge to states is to make appropriate use of the potential avenues of influence open to them, while acknowledging the limits on their capacity to bring about improvements at the local level.
- Policy coherence matters. Improving the quality of teaching is not likely to be accomplished through attention to only one or two policy areas. States are less likely to improve the quality of teaching practice if they focus solely or narrowly on new recruitment systems or on induction programs or on resources for professional development. To the extent that policies in all the five areas we cite above fit together as a cohesive whole, chances to improve the quality of teaching are enhanced.

WHAT STATES ARE DOING TO PROMOTE HIGH STANDARDS FOR TEACHING AND LEARNING

For several years now states have concentrated considerable energy on establishing standards for student learning. More recently, attention has also turned to establishing standards for teaching. As a result, states now are attempting to articulate visions of what students should be learning and, consequently, what teachers should be doing to promote that learning.

Student Standards, Assessments, and Accountability

Answering the question, “What do we want students to know and be able to do?” has long occupied the time and attention of policymakers in a majority of states. Central features of contemporary state education reform efforts have included developing and implementing higher and more rigorous academic standards for students and creating assessments designed to gauge the extent to which students are meeting, or making progress toward, these standards.

Together, the state standards and associated assessments send messages to teachers about what to teach and, often, how to teach it. Sometimes the messages are mixed, as when standards and assessments are not fully aligned or when assessments do not capture the full range of learning assumed by a broad standard. In other instances, states have worked hard to relate standards and assessments closely to one another.

Prior to efforts to identify and articulate statewide academic standards, each school district within a state could and often did have standards that differed from its neighbor districts, or perhaps no clearly stated standards at all. The absence (or near-absence) of standards often meant that (1) students were unlikely to know what was expected of them, (2) teachers did not have a clear picture of what students were to learn—and, therefore, what they were to teach—and (3) the public’s understanding of the content of the educational program in their community, district, or state educational program was vague at best. The development of statewide academic standards focuses state and local education policy on programs and ancillary policies designed to ensure that all students have opportunities to achieve at high levels. And although many states allow districts to develop goals and create curricula that exceed state standards, state-established standards, when they are well designed, serve the purpose of establishing clear, minimum expectations for teaching and learning.

Forty-nine states have developed common statewide academic standards in at least one subject, and 44 states have standards in all four core academic subjects—English, mathematics, science, and social studies.¹ In Iowa, the only state with no statewide standards, local school districts are nevertheless required to have clear learning goals for each grade level. Standards are not static. States continually revise what is expected of students.

States have also mandated assessments to gauge students’ progress toward these standards. Forty-nine states either have in place or are in the process of developing assessments, although the alignment of these assessments with standards is still highly varied. Thirty-four states are currently assessing achievement in the four core subject areas cited above.² Approximately 42 states use criterion-referenced exams that measure student performance against specific content standards; 21 states have criterion-referenced tests in English, history, mathematics, and science.

While these tests have relied on multiple-choice questions, more states are moving toward more comprehensive measures of student performance. For example, Vermont requires eighth graders to complete portfolio assessments in both English and mathematics. Kentucky overhauled its testing program in 1998, creating an assessment that combines essays, multiple-choice questions, and a writing portfolio. Ten states require students to incorporate portfolios of written projects or write extended responses to questions in subjects other than English.³

While not necessarily intended to, assessments frame for teachers a specific picture of what they should be teaching—the curriculum that supposedly really matters—and even imply teaching approaches to help prepare students for what will be tested. As debate swirls—and it does swirl—about whether some assessments unnecessarily narrow the curriculum or simply reinforce the most important (or most testable) aspects of it, it is clear that assessments do attract teachers’ attention, underscore for them what the state believes is important to teach, and exert considerable influence on actual classroom practice.

The influence of testing on classroom practice is heightened in states where assessment systems link to accountability and, in turn, to assessment consequences for students, schools, or districts. Assessment systems with “high-stakes” consequences, in particular, are especially likely to be noticed. Both at the time of our earlier report and since, states have been especially active in setting or tightening accountability requirements.

- In 1999, 36 states required an annual “report card” on each school that includes average test scores and other indicators on the school; all but 10 of these states made results available on their state’s education department web site. Four more states added such a feature in 2000.
- By 2000, 18 states had instituted strong sanctions (closure, takeover, or reconstitution) for schools with persistent patterns of low performance. Approximately the same number (20) offered or required some form of assistance to low performing schools.
- Test performance results of each school district in 30 states were included in some form of state-published annual “report card” of districts. In a dozen cases, states ranked districts.
- Some states were beginning to establish strict accountability for students: by 1999, eight states had mandated that students must master tenth-grade standards to graduate, with 12 more indicating they planned to do so in the future.

The net effect of tightening accountability requirements has yet to be fully understood, for in most instances these requirements have not been in place long enough to establish long-term trends. But there is the strong likelihood that, for better or worse, teachers will take the assessments seriously and will orient their teaching to what is being tested.

Standards for Teaching

A logical complement to determining what students should know and be able to do is articulating what teachers should know and be able to do. Increasingly, states are turning their attention to establishing standards for teaching through certification policies and teacher testing policies.

States such as Connecticut have used certification as a means to assure teacher performance relative to an accepted set of professional standards, and more than 20 states have adopted the Interstate New Teacher Assessment and Support Consortium (INTASC) standards to help promote a basic level of competence for beginning teachers. Traditionally, licensure has been used to certify minimum competence. Now, licensure based on more rigorous standards, including performance-based standards in an increasing number of states, creates an opportunity to ensure a different, and higher, set of knowledge and skills for new teachers and to identify various levels of teaching proficiency.

These standards also allow states to create different credentials for different stages in a teacher's professional life. A number of states currently use a three-tiered system that provides an initial or provisional license, a professional license, and a master teacher designation (often tied to standards developed by the National Board for Professional Teaching Standards (NBPTS)). This system can create increasingly higher expectations of teacher knowledge and skills as teachers advance in their careers. In Colorado, for example, a system is being piloted whereby teachers might attain a third "master teacher" tier by passing the National Board. As of 1999, 31 other states provided some financial incentives for National Board Certification.

Most states attempting to establish standards-based systems are struggling with the development of assessments that measure whether teacher performance meets state standards. In lieu of these assessments, states have continued to rely on "input" measures such as course completion, clock hours of professional development, and completion of induction programs, the content and duration of which often vary across districts in the same state. Since 1986 when Connecticut enacted its Education Enhancement Act, the state has piloted and is now fully implementing a three-tiered system called Beginning Educator Support and Training (BEST) as a means of developing and assessing new educators. New educators receive an "initial" license after passing a subject-specific exam. To move to a "provisional" license, teachers must complete the BEST program, which involves working with a mentor for one year and completing a portfolio. State assessors review new teachers' portfolios and videotapes, grading them on a scale of one to four. Low scoring teachers may take a third year to redo the assessment, but a second failure means a candidate loses credentials. Approximately 16 percent of new teachers score in the lowest category on their initial attempt, requiring additional mentoring or, for those who do not improve their practice sufficiently, departure from the profession.

While raising standards for teachers through more rigorous licensure requirements, states, faced with looming teacher shortages, have used waivers and other means that allow many educators to reach the classroom without meeting these standards. As the description below of recent policies demonstrates, several recent legislative enactments are increasingly creating ways to circumvent established criteria. Among the ways in which states altered their certification statutes in 2000 (summarized in Table 1), are the following:

- Arizona required the state board of education to adopt rules for teacher certification reciprocity, including a one-year reciprocal certificate with minimum requirements for candidates that include background check procedures.
- California allows individuals to hold an emergency permit so long as they are enrolled in classes to fulfill credential requirements, are employed by a school district in a full-time teaching position, and are eligible for resident status so as to determine tuition and fees. The state also revised requirements for out-of-state applicants seeking a teaching credential.

-
- Colorado permits the state board of education to grant professional licenses to teachers and administrators if the applicants hold comparable licenses from another state and have had at least three years of continuous, successful, evaluated experience.
 - Georgia provides that the state’s professional standards commission grant a renewable certificate to applicants who have not completed a teacher preparation program if they (1) hold a bachelor’s degree from an accredited college or university in a subject area field corresponding to an appropriate subject area certification classification; (2) have satisfactorily completed a one-year supervised classroom internship; (3) have obtained satisfactory results on tests and assessments required of certification applicants; and (4) have satisfied any additional requirements or standards of the alternative certification program established by the commission.
 - Hawaii allows its Teacher Standards Board to extend teaching credentials on a case-by-case basis for teachers who are unable to become licensed due to extenuating circumstances.
 - Maine created a new certificate authorizing a person to teach in an area determined to be a shortage area.
 - Minnesota required its Board of Teaching to issue a license to applicants who have completed all examinations or have held equivalent licenses in another state. The Minnesota Board of Teaching is required to issue a temporary license for a maximum three-year term to an applicant who has not completed all examinations, student teaching, or field-specific methods.
 - Oklahoma required that any school district offering “honors” courses ensure that teachers of these courses are certified in the subject area of the course.
 - Virginia established a mechanism for local school boards to issue three-year local eligibility teacher licenses to applicants who hold a baccalaureate degree from an accredited institution, have subject area expertise deemed necessary by the district, and complete training specified by the district (including several areas specified by the state). These licenses are probationary, nonrenewable, and restricted to the district which issues them. Not more than 10 percent of the teachers in the district can hold such licenses, and the state can revoke the district’s ability to issue such licenses, if the state’s criteria are not met.

Assessments of Teacher Knowledge

In attempting to demonstrate that prospective teachers meet standards for professional practice, states continue to rely on tests of teachers’ knowledge and are beginning to seek ways to more directly assess teachers’ skill in the classroom. Teacher assessment is still an inexact science, and serious questions persist concerning the tests’ rigor, validity, predictive power, and costs.

Only five states—South Dakota, Utah, Washington, Wisconsin, and Wyoming—do not require applicants to pass at least a basic skills test prior to becoming licensed to teach.⁴ Thirty-three states use some combination of the PRAXIS series of exams developed by the Education Testing Services (ETS). Ten other states—California,

Table 1. Legislative Enactments in the Year 2000 Relating to Teacher Licensure

State	Certification and Licensure Standards
ALABAMA	H285, H490
ARIZONA	H2265
CALIFORNIA	A632, A877, A1324
COLORADO	H1151, S195
CONNECTICUT	H5317
DELAWARE	S260
GEORGIA	S336
HAWAII	H2490
IDAHO	S1477, S1486
ILLINOIS	H2940, HJR61, S1447, SR284
INDIANA	S352
IOWA	H2146, H2279, S292
KENTUCKY	H76, H161
LOUISIANA	HCR27
MAINE	LD2301, LD2387
MASSACHUSETTS	S207
MICHIGAN	H5740
MINNESOTA	H3800
MISSISSIPPI	H106, H419, H845, H1212
NEW MEXICO	H409, SM36
NEW YORK	S1031
OHIO	HCR41
OKLAHOMA	S1392
RHODE ISLAND	H7394
SOUTH CAROLINA	H4946, S1111
SOUTH DAKOTA	H1255, H1257
TENNESSEE	H2680, HR184, S2115, S2182
UTAH	H303
VIRGINIA	H473, HJR159, S113, S289, H867
WASHINGTON	H2760

Colorado, Illinois, Massachusetts, Michigan, New York, Oklahoma, Oregon, Texas, and West Virginia—have contracts with National Evaluations Systems (NES) to develop state-specific exams to assess teacher basic skills and subject area mastery.⁵

Several questions have been raised about the role, validity, and technical quality of teacher examinations. In some instances, as in Massachusetts, objections have been raised about the psychometric properties of the tests and, therefore, their appropriateness in high-stakes decisions about teachers' entry into the profession.⁶ Other critics have argued that the tests are not rigorous enough to ensure that teachers have a significant grasp of concepts within their subject area or know enough about teaching these subjects to students.⁷ Given that states are free to choose their own assessments and set their own passing scores, it is difficult to generalize across states regarding the level of quality assessed by exams. For example, Virginia requires the highest

passing scores of any state on all three sections of the PRAXIS. Between 43 and 56 percent of the state's beginning teachers fail to attain passing marks. Other states, such as Tennessee and Montana, set lower passing scores that yield pass rates of better than 95 percent.

Many critique the ability of a paper and pencil test to accurately gauge whether or not a teacher will be able to perform in the classroom. This issue is becoming increasingly important as states attempt to move toward implementing performance-based standards for teachers. Only two states—Connecticut and New York—require teachers to submit videotaped lessons, and only Connecticut requires portfolio evaluation before a candidate receives second-stage licensure.⁸ As states attempt to use licensure to assess not only what teachers know, but also what they are able to do in the classroom, assessments that reflect actual practice are likely to become an increasingly popular part of the policy mix. Perhaps the greatest barrier toward creating these measures is the costs of development and of assessing evidence of teachers' performance. Education Testing Service is currently piloting a revamped PRAXIS that will include an assessment of beginning teachers' classroom performance, thus providing one tool states can use for this purpose.

Independent Professional Standards Boards

State actions have focused not only on teaching standards themselves but also on the mechanisms by which professional standards are set and maintained. To the extent that teaching standards can be insulated from the continually shifting politics of a state, they can serve as a foundation for building a profession capable of increasing student learning. Accordingly, a number of states have paid attention to the governance of the teaching profession—who sets requirements for initial and continuing licensure and how standards of good practice are enunciated and enforced. As of January 2000, 16 states had established autonomous professional standards boards, generally composed, at a minimum, of representatives of the teaching profession and the public. Other groups such as the higher education system may also be represented. Most of these boards are relatively new entities. The degrees to which they are truly independent and have decision-making authority, rather than a solely advisory function (e.g., to inform the state board of education) is still an open question. There are semi-autonomous boards in two states and advisory boards in 24 states, 16 of which have independent rule-making authority.⁹

Recently created boards include those in Washington State and Delaware. In 2000, the Washington Professional Educator Standards Board was created to serve as an advisory board to the superintendent of public instruction and as the sole advisory body to the state board of education on issues related to educator recruitment, hiring, preparation, certification, mentoring and support, professional growth, retention, governance, prospective teacher pedagogy assessment, prospective evaluation, and revocation and suspension of licensure. Delaware also established a professional standards board this year in its Educator Accountability Act.

Commentary

It is clear that many states are paying close attention to implementing measurable and demonstrable standards of good teaching and assessments designed to gauge beginning teachers' knowledge, skills, and prospects for being successful in the classroom. Some states are trying to move toward these standards but

are only at the beginning stages and struggling most with assessments that can measure whether teachers can perform (Title II of the federal Higher Education Act may provide some impetus for states to keep moving in this direction).

At the same time, however, in the face of teacher shortages, states have grown increasingly reliant on waivers and other means that circumvent the standards they have established. Thus, teachers, teacher candidates, schools of education, and the public are sent a mixed message. While states are generally serious about standards of good teaching, they are not willing to insist on these standards when doing so interferes with the ability to ensure an adult, qualified or not, in every classroom. This tendency appears to be growing more acute, as states face the recruitment challenges we describe in the next section. In this sense, the ability to maintain high professional standards may be heavily dependent on the success of recruitment strategies.

WHAT STATES ARE DOING TO ATTRACT, REWARD, AND RETAIN CAPABLE PEOPLE IN TEACHING

As schools across the country scrambled in the fall of 2000 to staff classrooms, looming teacher shortages were never so apparent, even in districts that have traditionally enjoyed hundreds of applicants for open positions. Most policymakers and practitioners have heard estimates that at least 2.2 million teachers will be needed in America's public school classrooms over the next decade, raising issues of how schools, districts, and states will meet unprecedented demand for educators.¹⁰ Although school districts—through local collective bargaining agreements and partnerships with teacher preparation programs—have been largely responsible for recruitment and compensation issues, states are playing a larger role as two simultaneous shifts in the demographics of teachers and students make replenishing the teacher corps more difficult.

- *The teaching population is aging rapidly.* More than one-quarter of teachers are at least 50 years old, and nearly half will retire over the next decade.¹¹ While this suggests a teaching corps with vast experience—nearly one-third of teachers have been in the profession for more than 20 years—it also points to new staffing dilemmas for schools.
- *Student enrollments are increasing,* especially in the western part of the United States as a result of the “baby boom echo,” thereby creating additional demands for educators. While eight of the nine northeastern states are expecting a decline in student population, states like Nevada, Idaho, California, and New Mexico are projected to have double-digit enrollment increases.¹²

The recruitment dilemma is compounded by the number of individuals trained in preparation programs that never enter the profession or leave within the first few years. Across the nation, the more than 200,000 teachers trained per year exceed the approximately 150,000 positions open. However, only about 60 percent of those prepared to teach actually enter the classroom.¹³ And of these, 30 to 50 percent leave teaching within the first five years.

The fact that large numbers of individuals trained as teachers never enter the profession has led some analysts to question whether there is a teacher shortage, citing this “reserve pool.” But questions concerning the quality of those in the pool remain unanswered, as do questions about their potential fit with the needs of schools and districts experiencing shortages.

Disputes notwithstanding, teacher shortages are evident across several dimensions: (1) subject areas such as math, science, English as a Second Language, and bilingual and special education; (2) geographic areas, both urban and rural; and (3) numbers of minority teachers as districts struggle to create a teaching corps that adequately reflects an increasingly diverse student population.

Without an adequate supply of qualified teachers, schools and districts have been forced to hire teachers who have yet to meet state licensure requirements. These educators tend disproportionately to teach in low performing schools and schools serving low-income students. In California, 16 percent of teachers did not have appropriate credentials in schools serving populations with high proportions of poor students versus four percent of teachers in schools serving a smaller percentage of low-income children. Given burgeoning enrollment and class size reduction policies, more than 10 percent of the California teaching force (more than 30,000 in 1998-99) is unlicensed.¹⁴ In North Carolina, a 1998 study found that teachers in low-performing districts are more likely to be teaching 'out of field' (in a subject for which they do not have a college minor or major) or with a substandard license.¹⁵

Out-of-field and unlicensed teachers are particularly prominent in certain subject areas. Due in large part to the lure of higher paying private sector jobs, a severe shortage can be found across virtually all states in math and science fields. More than half of districts in Colorado report difficulty finding qualified math teachers.¹⁶ In urban areas, the problem is even greater where it is estimated that more than half of all math teachers nationally do not have a college degree in mathematics and about two-thirds of districts cannot find an adequate supply of teachers in the field. The demand for science and special education teachers is even greater with almost every urban district claiming a need for science teachers.¹⁷

Developing Teacher Recruitment Strategies

Schools, districts, and states have tried various strategies to attract teachers. Many of the most common approaches aim to expand the pipeline of potential teachers by creating alternative pathways into the profession to attract mid-career professionals, making it easier to receive reciprocity for a license from another state, luring retirees back to the classroom by allowing them to receive pension benefits while earning a salary, establishing scholarships and future teacher programs for potential educators, and increasing salaries to make teaching more attractive relative to other careers. States are also addressing recruitment through strategies that make both the existing teaching corps and teachers in the pipeline more mobile and by providing incentives to teach in areas experiencing critical shortages. In addition, a number of states are offering signing bonuses, housing assistance, free graduate courses and other incentives to attract teachers to the hardest to staff areas. States will go to some extraordinary lengths to address recruitment issues, as witnessed by advertisements wooing teachers in the Las Vegas airport to signing bonuses of \$20,000 in Massachusetts.

At least 426 bills in 41 states were proposed during the 2000 legislative session to address teacher recruitment issues (see Table 2). California—facing severe teacher shortages and a higher percentage of teachers on emergency permits—enacted perhaps the most comprehensive recruitment package (SB 1666). The components of its recruitment strategy (see Exhibit 1) illustrate the range of approaches under consideration in a number of states:

The nine components of California's strategy combine multiple approaches to addressing the teacher recruitment challenge. Together, they seek to (1) enhance compensation (salary and/or benefits); (2) attract new teachers to the profession; and (3) encourage the movement of qualified new or currently employed individuals to areas of teacher shortage. To characterize the range of approaches taken by other states, we examine each of these categories of state action in Exhibit 1.

Exhibit 1. California's Teacher Recruitment Package

- **Teacher Recruitment Initiative Program (TRIP):** \$9.4 million: Establishes teacher recruitment centers in six regions of the state where there is a demonstrated need to aggressively recruit fully qualified teachers to the most challenging schools. Centers will recruit college students and others to pursue teaching as a career and entice qualified veteran teachers to teach in schools with the greatest need.
- **Teaching as a Priority Block Grant Program (TAP):** \$118.6 million: The TAP program awards grants to low performing schools so they may provide teacher recruitment and retention incentives at their discretion. Incentives may include, but are not limited to, signing bonuses and improved working conditions.
- **Teacher Tax Credit:** \$218/State Revenue Reduction: Beginning with the 2000 tax year, teachers who serve at least four years in public or private schools will be entitled to tax credits ranging from \$250 to \$1,500 based on their years in the profession.
- **Beginning Teacher Salary Increase:** \$55 million: Funding to award grants to school districts to increase beginning teacher salaries to \$34,000.
- **National Board Certification Bonuses:** \$15 million: One-time bonuses of \$10,000 to National Board Certified teachers and an additional \$20,000 to Board-certified teachers who agree to teach at low performing schools for four years.
- **Teacher Intern and Pre-Internship Expansion:** \$43.6 million: Increases annual grants to teacher interns from \$1,500 to \$2,500 and expands the intern and pre-intern programs from 7,300 to 12,700 to provide additional teacher trainees who work in classrooms under mentor supervision while earning their teaching credentials.
- **California Teaching Fellowships:** \$20 million: Provides \$20,000 fellowships in competitive awards to 1,000 teaching candidates who earn credentials and agree to teach in a low performing school for four years.
- **Loan Forgiveness (APLE) Expansion:** The budget expands the assumption program for loans in education to provide an additional 1,000 teacher education loan forgiveness awards, for a total of 6,500 in 2000-01.
- **Teachers' Supplemental Retirement Account Program:** Members of the State Teachers' Retirement System (STRS) will have 25 percent of their STRS contributions, or two percent of earnings, placed in a supplemental retirement account that will be available as a lump sum payment or an annuity when the member retires.

Salaries and Benefits: Competing in a Crowded Market for Teachers

Compensation is an important element of various states' recruitment strategies. Low teacher salaries have been viewed by many as a prime deterrent to attracting a large number of quality teachers. Interestingly, teacher job satisfaction surveys show a weaker than expected relationship to salary and benefits, with job satisfaction heavily influenced by working conditions and feelings of control.¹⁸ However, in attracting potential new teachers, low salaries, relative to the starting pay of other occupations, can act as a deterrent. Average beginning teacher salaries are about \$7,500 less than the expected starting salary in marketing and \$15,000 less than that of computer scientists. To enter teaching, a graduating mathematician would forego almost \$15,000 in initial earnings.¹⁹ The average beginning salary for teachers nationwide was \$26,639 in 1998-99, ranging from over \$31,000 in Connecticut and Alaska to under \$20,000 in North Dakota.²⁰

Table 2. Legislative Enactments in the Year 2000 Relating to Teacher Recruitment, Compensation, and Tenure

State	Recruitment	Compensation and Benefits	Tenure and Dismissal
ALABAMA	H 285 S485	H138, H203, H204, H285, H497, H614, S485	H285
ALASKA		H226, H236	
ARIZONA	H2265, S1007	S1007	
CALIFORNIA	A141, A899, A1087, A1733, A2060, A1330, S1666	A141, A1087, A1509, A1733, A2060, A2700, A2879, S1666, S1643	
COLORADO	H1151		
CONNECTICUT	S619/H5531		
DELAWARE		S260	
FLORIDA	H63	H63	
GEORGIA	H1619, H1187	H908, H999, H1187	H1187
HAWAII	HR83/HCR93, H2490		
ILLINOIS	H4021, SR284		
KENTUCKY	H25, H519/H548, H76, H161	H519/H548*, H739	
LOUISIANA	H27	H27, SR29/HR29, SR7	
MAINE	LD2327, LD2301	LD2327	
MARYLAND	S205	H1297, H1247/S810, S220	
MASSACHUSETTS	H5116	H5116	
MINNESOTA	H3800		
MISSISSIPPI		H1134	
NEBRASKA		LB1399	
NEW HAMPSHIRE		H1114	
NEW MEXICO	HJR20		
NEW YORK	A11005	A8669	
OHIO		S190	
OKLAHOMA	S817	H2653, S817	
RHODE ISLAND		S2376	
SOUTH CAROLINA	H3649	H3649	
SOUTH DAKOTA			
TENNESSEE	S2124, H2680	S2124	
UTAH	H119		
VERMONT		H688	
VIRGINIA	S737/H1404, S630, S652, H473, HJR159, S113, S289		
WEST VIRGINIA		H4101	

Many states are beginning to see their salary rankings relative to other states rise after raising teacher salaries during previous years. North Carolina moved from having the 37th highest average salary to 26th with an 11.3 percent salary increase over the previous year under the Excellent Schools Act enacted in 1997.²¹ Alabama, providing an 8.5 percent cost of living adjustment in 1998, gained significantly on other southeastern states. In 2000, Alabama approved additional pay raises, pending increases in education trust fund revenues, until the state reaches the national average for teachers' salaries (requiring an approximately \$5,000 increase). Other recent state action on teacher salaries include:

-
- Maryland created an incentive for school districts to raise salaries by creating a teacher salary challenge program that gives an additional one percent increase for teachers out of state funding if districts raise salaries four percent.
 - Arizona increased the “transaction privilege” tax rate from 5 to 5.6 percent to provide greater funding for teacher salaries as well as to increase the school year and other education programs, assuming voter approval. The legislature proposed, and state voters approved, Proposition 301 that provides for an increase in teacher base level compensation and compensation based on performance.
 - California increased beginning teachers’ salaries to \$34,000.
 - Both Maine and Nebraska created study commissions/task forces on teacher recruitment, including compensation, which will report back to the legislature during the 2001 session.
 - Oklahoma increased salaries for the 2000-01 school year by \$3,000 for certified personnel, raising the minimum starting salary for a candidate with a bachelor’s degree and no experience to \$27,060.
 - Louisiana, in a resolution that passed each legislative chamber, expressed support to raise the salaries of public school teachers to the southern regional average. While not allocating funds per se, the resolution generated public pressure on the governor and other politicians, who may feel forced to address the issue in the next legislative session.

Despite limitations in license reciprocity and the portability of teachers’ pensions, which make it difficult for teachers to move to another state to accept a job, these salary increases are creating intense competition among states for educators. This competition is contributing to teacher salary “bumps.” Oklahoma, for example, as noted above, raised salaries this year after studying the movement of educators across the border to Texas, where \$1.7 billion has been allocated to provide \$3,000 annual raises for full-time teachers over the next two years.

Rather than raise salaries for all educators, some states are targeting teachers through one-time signing bonuses or other rewards. Massachusetts awarded \$20,000 signing bonuses to 63 newly hired teachers who met high qualification standards established by the state. Maryland is attempting to attract new teachers by providing a \$1,000 signing bonus for candidates who graduated in the top 10 percent of their classes and who agree to teach for at least three years.

Districts are also providing bonuses (although nationally only about 10 percent of districts report the use of cash bonuses), increases on the salary schedule, or other incentives to recruit teachers in shortage fields or to less desired locations.²² Baltimore, for example, offers \$5,000 toward the closing costs on a home in the city and \$1,200 to cover new educators’ relocation expenses. This is in addition to a recent \$3,000 starting salary increase. Detroit and Dallas have offered signing bonuses to new hires.

An increasingly popular trend across states is the effort to link teacher salaries to performance. Over the past 60 years, states and school districts have tried various forms of so-called “merit pay” but have found them wanting due to a lack of standards about what constitutes “merit” and a limit on the number of teachers

who can receive the salary boost. As much of the authority for teacher hiring, evaluation and salary decisions rests with school districts, many of the new performance pay plans have been developed and implemented at the district level in places such as Cincinnati; Denver; Douglas County, Colorado; and Charlotte-Mecklenburg.

States have tackled performance pay primarily through providing monetary rewards for achieving performance criteria including increased teacher knowledge and skill, student achievement goals, and other indicators such as decreased drop-out and higher attendance rates. In nine of those states—Florida, Georgia, Indiana, Kentucky, Pennsylvania, South Carolina, Tennessee, Texas, and Utah—some portion or the entire reward can be used for salary bonuses for teachers.²³ North Carolina’s ABCs program, for example, rewards employees with \$1,500 per certified educator in schools in which student achievement exceeds predetermined improvement goals and \$750 per certified educator in schools that meet these goals.

The most common way states are rewarding teachers for increased knowledge and skills is through incentives for achieving National Board for Professional Teaching Standards certification. In 23 states and about 85 school districts, teachers receive bonuses or salary increases for attaining Board certification.²⁴ Examples from 2000 of state policies to provide teacher bonuses include:

- Florida clarified requirements of performance pay policies as part of legislation that allows teachers to transfer from schools receiving an “F” grade on the state’s “report card” and gives bonuses for those teaching advanced placement courses.
- Teachers in Kentucky will now receive an annual salary supplement of \$2,000 per year for the 10-year life of a National Board certificate through the newly established Teachers’ National Certification Trust Fund.
- Georgia’s A+ Education Reform Act includes bonuses for teachers at schools awarded an A (\$1,000) or B (\$500) based on their new grading system.
- Delaware expanded the salary system to include compensation for skills and knowledge.

As states continue to debate performance pay, several dilemmas confront state policymakers, especially ones concerning performance measurements and the level at which plans will be forged (school, district, or state). Further, as with any initiatives on the state teacher quality agenda, the impact of these policies on other areas such as recruitment and retention are not well studied or understood.

Expanding the Pipeline: Attracting New Teachers to the Profession

While schools and districts are ultimately responsible for hiring and compensation decisions, states are playing an increasingly large role in expanding the supply of teachers available. States have invested heavily in scholarships and loans for potential educators and in programs to recruit teachers from other states and countries. Without this state support, local districts must craft and fund their own recruitment programs, potentially creating disparities within the same state. In Colorado, for example, with no statewide programs to attract teachers, only 24 percent of districts have established a specific recruitment program. While 75 percent of districts nationwide with 6,000 students or more recruit, only 17 percent of smaller districts (600 or fewer students), mostly in hard-to-staff rural areas, have equivalent programs.²⁵

College scholarships and forgivable loans. Twenty-seven states offer prospective teachers college scholarships or forgivable loan programs. In 1999, \$81 million was budgeted nationwide for these programs.²⁶ This assistance varies widely in its scope and target audience. Eleven states have programs aimed specifically at academically high performing candidates. One of the most well-known and successful programs is the North Carolina Teaching Fellows Program, established in 1986. The program provides scholarships of \$6,500 per year for four years to 400 outstanding North Carolina high school seniors. One of the unique aspects of the program is that the scholarships are awarded to 14 participating campuses that provide unique learning and enrichment opportunities specifically designed for the scholarship recipients. Fellows, for example, take a discovery trip in May that offers a firsthand look at the variety of districts across North Carolina; seeing the diversity of school settings across the state might explain why Fellow graduates work in 96 of the state's 100 counties. Upon acceptance of the scholarship, the student agrees to teach for four years in one of the state's public schools. If the student does not serve, the loan is repaid to the state with 10 percent interest.²⁷ Other states have taken smaller steps towards this end:

- Maryland increased the maximum amount of a Maryland teacher scholarship to \$5,000 for a student enrolled in a four-year institution and to \$2,000 at two-year institutions.
- Virginia altered its Teaching Scholarship Loan Program, allowing part-time students to be eligible and clarifies that the program will support individuals interested in teaching critical shortage disciplines or in high-poverty areas; the program also supports paraprofessional development and the pursuit of teaching by candidates who have been at-risk students or underrepresented in the teaching profession.
- Georgia maintained the pool of eligible candidates for the PROMISE teacher's scholarships by changing college GPA eligibility from 3.6 to 3.2 for junior year recipients.

Ten states have developed scholarships or forgivable loans specifically for minority candidates. The diversity of the teaching force is a particularly difficult issue for many states given the changing demographics of the student population. Approximately 86 percent of the teachers in public schools are non-Hispanic Caucasian, while more than 32 percent of the students in K-12 schools are minorities. Connecticut implemented a program in 1998 that provides incentive grants of up to \$20,000 to encourage minority students to become teachers. Grants are available for up to 50 students who enter teacher education programs in their junior or senior years at four-year colleges or who are enrolled in post-baccalaureate certification programs. Both Virginia and West Virginia enacted teacher scholarship programs to recruit minority teachers and other educators to areas of high need. Florida established a minority teacher scholarship that provides \$4,000 per year to students pursuing a career in education.

There are also many district programs addressing the need for minority teachers. The Chicago Public Schools have joined with nine higher education institutions and the Chicago Teachers Union to attract qualified minority candidates to teaching. Paid interns work in teams of four under the supervision of experienced mentors and pledge to work in the Chicago Public Schools for two years upon completion of the program.

Alternative certification programs. Alternative routes to achieving teacher licensure, often designed to encourage minorities and mid-career professionals to enter teaching, have grown in popularity in recent years. A combination of teacher shortages (regionally and in particular subject areas) and criticism of traditional teacher preparation programs have made these alternative routes an increasingly attractive option for policymakers.

According to polling data from the National Center for Education Information (NCEI), 41 states and the District of Columbia report having some type of alternative teacher certification. States report a total of 117 programs now available for those with a Bachelor's degree who desire to become licensed to teach. NCEI estimates that 75,000 people have been licensed through these programs, with 25 states reporting an increase in the number of alternative licensees over the last five years.²⁸

Among state-supported alternative certification programs are two broad types: (1) post-baccalaureate programs for mid-career entrants that generally take longer, require more of their graduates, and have high completion rates, and (2) programs that provide a "short cut" to the classroom, often with relatively short summer training experiences, that usually last from nine to 18 months. The quality of these programs across both categories varies considerably. Some alternate route programs manage to put the candidate in the classroom sooner while still approximating the depth and rigor of the best university-based preparation programs. Others offer only minimal training for teaching, on the assumption that individuals will pick up the skills they need on the job.

A few states that face severe teacher shortages such as Texas and New Jersey have invested heavily in the shorter duration programs. The controversies that surround alternative certification hinge on this question of program length. Some research demonstrates that the most effective alternative programs, judged in terms of teacher competence and retention, are generally longer term and involve considerable pre-service coursework coupled with supervised internships in a master teacher's classroom. Critics contend that states which permit alternative licensure programs to eliminate much of the coursework and clinical experience necessary for adequate preparation run programs that have a negative effect on both teacher retention and student achievement. To date, there is not a lot of systematic research on the relative impact of different kinds of alternative programs on teachers, teaching, or student learning, no less the comparative impact of alternative versus traditional preparation programs.²⁹

In 2000, Kentucky created an alternative teaching certification for military veterans with at least five years of active duty, an honorable discharge, at least a bachelor's degree in the subject area for which certification is sought, and a passing score on the state's teaching exam. Louisiana passed a concurrent resolution requesting that the board of elementary and secondary education restructure the current alternate teacher certification process.

Programs aimed at cultivating future teachers. Many state policies are beginning to look to high schools and community colleges as sources of candidates for the teaching profession. Currently, 12 states have programs that recruit at the high school level. Six states have analogous programs in community colleges.³⁰ The South Carolina Teacher Cadet Program, for example, targets high school students interested in teaching. The program includes a year-long, college credit course focused on aspects of teaching. At 148 high schools, teachers conduct these yearlong courses that incorporate content in specific school subjects and hands-on

opportunities to observe teaching, construct lesson plans, and tutor younger students. By the end of the 1997-98 school year, 21,000 students were graduates of the Teacher Cadet program, and about 32 percent of the graduates are enrolled in teacher preparation programs or are already teaching.

Efforts to streamline hiring processes. The complexity and timing of hiring decisions, despite the best recruitment efforts of school districts, can create barriers to getting qualified teachers into classrooms and, thus, affect the pipeline of teachers within the state or from out of state. In an attempt to streamline the process, several states have become more involved in creating uniform hiring approaches in all districts to ensure that prospective teachers are aware of all opportunities within the state. North Carolina, Pennsylvania, and South Carolina, for example, have a common application form that can be used in any district in the state. More than half of the states have used new technology to create web sites where all hiring districts can post open positions on line in a central place. Nine states allow candidates to post resumes, applications, and other information online for prospective districts to examine.³¹

Luring retired teachers back to the classroom. A new trend for states, given the difficulties of finding new teachers, is to ease the ability to use the growing retired educator workforce to staff classrooms. To this end, some states are allowing teachers to continue to draw full pension benefits and collect full salaries while working full or part time. In 1999, California, South Carolina, Maryland, North Carolina, Texas, and Missouri passed legislation that created new policies or altered existing programs that had capped returning retirees' salaries. South Carolina's plan, like several others, helps with the distribution of qualified teachers as well by channeling retired educators to "critical need areas." In Texas, the new law specifies retired teachers who specialize in math, science, or technology can return to their full salaries while still drawing pensions. Advocates argue that the policies allow part-time teachers to bring home pay equivalent to their final paycheck and at the same time help districts get a teacher with decades of experience at the cost of a new educator. These teachers don't get full-time pay from their district—but their state-paid retirement benefits coupled with a part-time salary at the bottom of the schedule tends to add up to approximately what they were making when they retired. Other states enacted related policies in the year 2000:

- Alabama set out provisions under which educators in the retirement system may be employed without having their retirement allowance suspended.
- Kentucky allows retired teachers to return to critical shortage areas without loss of retirement benefits.
- Louisiana provides for reemployment in certain positions of retirees who are members of the Teachers' Retirement System.
- Maryland allows for the reemployment of retirees in specified personnel positions.
- Massachusetts created an alternative retirement benefit program for retirees rehired in critical shortage areas (time in post-retirement service cannot count toward further creditable service time).
- Oklahoma increased the earnings limit for certain retired members who enter into post-retirement employment at a public school in the state.

-
- Tennessee allowed retired teachers to resume teaching without loss of benefits under certain conditions.

Redistributing Teachers: Incentives to Move to Critical Shortage Areas

While increasing the number of teachers in the pipeline can help alleviate shortages by increasing the pool of candidates, it is only part of the equation. States are also creating programs that provide incentives for teachers to work in areas that have traditionally had staffing problems. Policies allowing for a more mobile teacher workforce can allow teachers to respond to higher salaries and other incentives offered in critical shortage areas as well.

Incentives for working in critical shortage areas. Several states are providing incentives for new or accomplished teachers to work in hard-to-staff areas. For example, in 1998 Mississippi passed legislation that targets teachers seeking a master's degree to move to critical shortage areas. In exchange for three years of service, recipients receive a tuition scholarship toward their degree, professional development opportunities, a computer, placement in a mentoring program, home loans, and up to \$1,000 for moving expenses. Many states considered legislation that would provide bonuses and other incentives not only for teaching in hard-to-staff geographical areas, but in critical shortage fields like math and science. Enacted legislation from 2000 includes:

- As noted earlier, California is paying a \$20,000 bonus for National Board certified teachers who agree to teach in schools designated as low performing.
- As part of New York's Teachers of Tomorrow program, an annual stipend of \$3,400 will be given to any certified teacher who signs a one-year renewable contract to teach in a critical shortage area for up to three years. An annual stipend of \$10,000 will be granted to any "master" teacher who does the same. Further, a "Summer in the City" student internship program was established for students in good standing, that is, on their way to achieving a bachelor's degree and certification, with at least 60 credit hours completed who will sign a one-year contract to teach in a critical shortage area upon graduation.

Not all of these bonuses are in the form of salary. California authorized the California Debt Limit Allocation Committee to establish the Extra Credit Teacher Home Purchase Program to provide federal mortgage credit certificates and reduced interest rate loans to eligible educators who agree to work in low performing schools.

Attempts to maximize the portability of experience. The amount of credit offered by districts (e.g., position on the salary schedule and other benefits) for teaching experience in other districts within or outside of the state can impact the desire or ability of experienced teachers to take advantage of incentives to staff schools experiencing shortages. While some states—such as Nevada, Texas, and Washington—have complete portability for in-state teaching experience, other states, such as Michigan and Colorado, leave to districts the decisions about the amount of credit granted. In those cases, disparities across states can develop. While the average maximum years of experience allowed in Colorado is six years, it does not fully reflect the range of credit granted (from four years to an unlimited amount), nor the differences by district type (urban districts provided more than 2.5 additional years of credit when compared to rural areas in the state).³²

Programs to help districts prepare their own teacher force. “Grow your own” programs allow those districts experiencing severe shortages to create their own pipeline of new teachers by partnering with preparation programs to recruit, prepare, and retain teachers in the district. These programs also enable administrators to tailor preparation programs to the specific needs and resources in their communities and schools.

In California, under funding from the Department of Education’s Title II Teacher Quality Enhancement Grants, district recruitment programs are being implemented across the state. Growing student enrollment and class size reduction have created a critical need to recruit qualified teachers for the Los Angeles Unified School District. The district partnered with the California State University System to begin its own recruitment program, the In-House Teacher Recruitment Program (ITRP). The ITRP offers internships to high school students who are prepared, upon graduation, to begin working as paraeducators while studying at a California State University. Participants then enroll as university students in an integrated major while concurrently working as paraeducators in the schools. Throughout the program, support services, such as stipends, scholarships, and mentors, are provided for participants. At the completion of the program students will have a bachelor’s degree and a preliminary teaching credential. In California, these ‘grow your own’ recruitment programs are being implemented in Oakland, San Jose, and Salinas Valley.

Removing Teachers of Lesser Quality

States have focused not only on recruiting quality teachers into the profession but also on revising policies directed at the quality of teachers already in the classroom. Many states, for example, have examined teacher tenure policies, to consider streamlining dismissal timelines and changing the statutory reasons for dismissal.

Several states, for example Michigan, Rhode Island, and North Carolina, have increased the time teachers are on probationary contracts in order to provide more time to adequately evaluate new teacher performance. Montana requires tenured teacher dismissal appeals to be submitted to final and binding arbitration. In 1998, Colorado not only streamlined dismissal hearings, but required that the loser of an appeal ruling pay court costs for both parties.

Some states have attempted to abolish tenure altogether. Such moves have been controversial; critics, for example, argue that abolishing tenure can as easily lead to the dismissal of good teachers as poor ones for a variety of reasons ranging from patronage to politics. Some believe that removal of tenure will harm recruitment as well. In 1998, Oregon required that school districts employ teachers on renewable two-year contracts. In the case of non-renewal, the teacher is placed on an improvement assistance program. If a contract is not extended for a two-year term after the program, then written notice must be given to the teacher and appeal to the Fair Dismissal Board is possible. Oregon administrators were placed on three-year renewable contracts as part of the same reform effort. Since the law passed, it appears that teachers have been dismissed at about the same rate as before—less than one percent each year.

In 2000, Georgia eliminated tenure but, unlike Oregon, also eliminated many of the due process rights afforded teachers in the dismissal hearing. If a teacher receives two unsatisfactory evaluations in a five-year period, his or her license will not be renewed until it has been demonstrated that the performance deficiency has been addressed. All teachers will be evaluated annually using at least seven criteria outlined in the law,

including student performance and participation in professional development. Teachers are employed and assigned by its governing board. No later than April 15, the district must notify teachers whether or not their contract has been renewed for the ensuing school year. Written notification for nonrenewal may be requested.

Alabama also reexamined tenure and dismissal in 2000. The Teacher Accountability Act in Alabama altered dismissal grounds and procedures for teachers and eliminated tenure altogether for new principals. Failure to perform duties in a satisfactory manner was added as a cause for dismissal, and the time for appeals of dismissal decisions was streamlined. Further, emergency transfers of teachers up to 15 days after the beginning of the school year are allowed in the legislation.

There was less attention to tenure and dismissal reforms in 2000 than in years past, perhaps due to the intense focus on recruiting and retaining teachers. Given the small number of teachers affected by dismissal, this may make sense. In Colorado, from 1994 through 1999, only seven teachers were subject to dismissal hearings while 79 resigned before the hearings began. Approximately 160 nonprobationary teachers either resigned under threat of dismissal or were counseled out of the profession.³³

While teacher dismissal has remained a state policy concern, less attention has been paid to the larger issue—developing and implementing more comprehensive teacher evaluation policies and procedures. Assessing teacher quality is more than a matter of identifying and eliminating teachers whose performance is so egregious that they should not be in a classroom. For the vast majority of teachers, whose teaching performance is not critically in question, developing policies and procedures that assess their particular areas of strength or weakness, and remediate areas of weakness, is of critical importance.

Commentary

State policymakers clearly understand that attracting, rewarding, and retaining high quality teachers is a priority. And states have been active in this area, attempting to address subject-specific shortages, challenges of staffing urban and rural schools, ever-present compensation dilemmas, and ongoing issues of the effectiveness of experienced teachers. To be sure, states do not hold all of the policy cards. Many decisions, for example those about compensation and evaluation, are matters of local district discretion. Nonetheless, some issues deserve, and are likely to get, continued attention from state policymakers. There is room for further experimentation and some clues to possible pitfalls. For example, more states may find ways to streamline hiring, by allowing applicants to use a single form to apply to multiple districts or by encouraging pension portability through regionalized pension systems or other measures. While states often do not control teacher salaries, they can offer incentives to districts to establish professional salary schedules that not only increase teacher pay but also do so within a framework of rewarding individual teachers for increased knowledge and skills and groups of teachers for improved student performance.

But there is a need for caution in aggressive attempts to recruit and retain a capable teacher force. As states seek to expand alternative certification programs, there is the ever-present danger that these programs become a less rigorous, and back door, route to teaching. To the extent states allow retired teachers to return to teaching, doing so does not necessarily ensure these individuals are qualified to teach the grades and subjects to which they will be assigned and receive professional development. And in their zeal to assure the basic competence of all practicing teachers, states may consider policies that do not simply target “bad” teachers, but provide dollars and support to assist all teachers to improve their practice.

WHAT STATES ARE DOING TO IMPROVE THE INITIAL PREPARATION AND INDUCTION OF TEACHERS

Because programs that offer prospective teachers initial preparation for classroom work constitute the major gateway into the profession, and because the lessons learned in preparation programs are powerfully reinforced (or contradicted) in first teaching assignments, states have directed considerable attention recently to these aspects of the teacher quality challenge. Among state actions to enhance and expand teacher preparation are the development of program standards and systems of accountability, the design of alternative routes to certification (discussed above in the section on recruiting and retaining teachers), and the creation of beginning teacher induction programs.

Table 3. Legislative Enactments in the Year 2000 Relating to the Preparation and Induction of Teachers

State	Teacher Preparation	Teacher Induction
CALIFORNIA		S573
COLORADO	S195	
FLORIDA		
HAWAII	HR83/HCR93	
IDAHO	H473	
ILLINOIS	SR284, H4021	
INDIANA	S352	
KANSAS		S432
MINNESOTA	H3800	
MISSISSIPPI		
NEW MEXICO	SM36	
NEW YORK		A11005
VIRGINIA	H1408, HJR159, SJR248	
WASHINGTON	H2760	

Standards and Accountability for Teacher Preparation Programs

Historically, state legislatures have been reluctant to impose regulations on teacher preparation programs, relying instead on altering certification and licensure requirements. Nonetheless, there are numerous examples of legislative action requiring teacher preparation programs to address a particular need, such as child abuse or drug abuse prevention. By mandating specific course requirements, states can leverage teacher preparation programs at least to offer courses in areas policymakers deem important; many such topics bear directly on classroom teaching, including instructional uses of technology, approaches to reading instruction, and the education of at-risk children. The Maryland State Board of Education, for example, now requires that all new teachers and all practicing teachers seeking recertification complete 12 semester hours in reading instruction. Indiana passed similar legislation in 2000. In this and other ways, states have begun, sometimes in tentative fashion, to deal with the tensions that often exist between state legislative directives and the historical program independence of colleges and universities that prepare teachers.

Paralleling their efforts to hold K-12 schools accountable for results while leaving decisions about how to achieve results up to local educators, legislatures are attempting to leverage change in teacher preparation programs through the creation of performance-based standards. Policies now in place in at least 24 states³⁴ encourage teacher education institutions to focus less on inputs—such as the number of courses teacher candidates are required to complete—and more on outcomes that demonstrate teaching competence. Accordingly, a sizable number of colleges and universities have undertaken major reforms of their education programs, adding fifth years of study, extensive internships, and participation in professional development schools.³⁵ And there is increasing emphasis on subject matter preparation as well. For example, the Georgia State Regents approved a 10-principle plan to improve teacher preparation, which among other things, requires that all education majors take additional coursework in areas they expect to teach. Further, the system offers a guarantee on behalf of its graduates, by providing additional training for those unable to demonstrate effective teaching skills within their first two years in the classroom.³⁶

Some states have attempted to improve the quality of teacher preparation programs by insisting that all or most of the graduates of these programs demonstrate their competence, for example, by passing the state's certification examination. Under legislation passed in 1998, teacher preparation programs in New York State must have 80 percent of their graduates do so (starting in 2001) or face the prospect of being shut down. Several other states have instituted similar provisions.

Currently, all states have some sort of approval mechanism in place for teacher education institutions, often based on either regional or national standards such as those of the National Association of State Directors of Teacher Education and Certification (NASDTEC) or the National Council for the Accreditation of Teacher Education (NCATE). Forty-six states, including the District of Columbia, now have partnerships with NCATE, and 18 states use NCATE professional standards as the basis for state program decisions.³⁷ NCATE's new standards are performance-based, furthering the movement of states in using performance-based criteria to assess teacher preparation.

Maryland became one of several states to rely on NCATE accreditation when in 1998 it required institutions of higher education that offer teacher training programs to receive national accreditation or, under certain specified circumstances, a waiver from the requirement through state legislation. The Maryland Department of Education, in connection with this accreditation program, is developing and administering a program of technical assistance and is allowed to adopt specified regulations. Some other states, such as Washington, that do not require NCATE accreditation have developed state program approval standards that closely parallel those of the national body.

Further reform in teacher education across the states is likely to be spurred by recent Congressional action. Provisions in the reauthorization of the Higher Education Act (HEA) target schools of education by requiring report cards on teacher colleges as well as parental access to teachers' professional qualifications. In this legislation, a dozen federal programs affecting teacher preparation were replaced with state block grants targeted at more rigorous certification requirements and incentives for teachers to study, while in college, the subjects they intend to teach. As part of the HEA, a competitive grant program for states was created that provides resources for states to improve teacher quality. To date, 31 states have received state teacher quality enhancement grants, almost all of which focus on creating performance-based standards for teacher preparation and licensure.

Legislation in Colorado is typical of the new performance-based approach to teacher preparation. In 1999, the state passed SB 154, creating new program approval standards based on performance-based standards adopted by the state board of education. Programs must meet system-wide goals of high quality, access, diversity, efficiency, and accountability to gain approval. The legislature, however, did not leave program design entirely to preparation programs: the state requires that students must have an academic major and be able to graduate within four academic years, during which time they must have at least 800 hours of clinical time. The state further revised the program in 2000 by defining professional competencies and applying the 800-hour rule to nonpublic schools educating teacher candidates. Policies from 2000 include the following:

- Through a concurrent resolution, the Hawaii Legislature requested that the University of Hawaii develop a 10-year plan for implementing and sustaining teacher education outreach programs on the neighbor islands.
- Indiana mandated 12 semester hours of academic preparation in the teaching of reading techniques, including phonics, to qualify for an elementary teacher license.
- Minnesota required the creation of teaching preparation programs at various universities, community colleges, and technical colleges.
- New York funded a “Summer in the City” internship program for students in good academic standing, recommended by their college of education program, who will sign a one-year contract to teach in a critical shortage area upon graduation. Again, by exposing recommended students to at-risk areas in the hope that they will work there, state policy sought to add a new dimension to teacher preparation programs.

A recent study by the American Council on Education’s (ACE) Presidents’ Task Force on Teacher Education identified several characteristics of successful teacher preparation programs. These include: collaboration between arts-and-sciences faculty and education faculty; the central administration of universities working together with school leaders; an effective process of admission to teacher candidacy; establishment of an induction support process; articulation of program elements; and an evaluation process for program quality and outcomes.³⁸ While these recommendations and some research have encouraged institutions of higher education to engage in professional development school partnerships and other reforms, states have largely left these reforms to preparation programs themselves. States have worked to establish standards—sometimes performance-based, sometimes related to coursework and licensure exam scores—and have left preparation design largely to higher education.

“Alternative Route” Programs

Already discussed above under efforts to attract, recruit, and retain a capable teaching force, alternative certification programs, often referred to as “alternate route” programs, are simultaneously a form of teacher preparation and a means of attracting individuals who otherwise might not enter teaching. Whatever they do to encourage entry into teaching, they do what any teacher preparation program does—convey images to prospective teachers of the nature of “good” teaching practice, introduce teachers to some aspects of classrooms, provide initial experiences in the classroom, and so on. As pointed out earlier, alternate route programs vary tremendously in intensity, approach, design, curriculum, and approach to clinical field experience. They

range from programs of relatively quick duration, offering only minimal preparation for the rigors of classroom life, to those that are demanding and intensive, offering the functional equivalent of high-quality preparation programs based in teacher education institutions.

As a matter of state policy, alternate route programs are enjoying considerable popularity as an approach to teacher preparation. To some policymakers, they appear to promise a quick way to deal with teacher shortages (this view rests on questionable assumptions about how well prepared teachers trained in this way will be and how long they will stay in their teaching jobs). Others see in alternative route programs an answer to criticisms of conventional teacher education programs. Still others view alternate route programs as a laboratory for innovation in the design and methods of teacher preparation. Whatever the motivation for their creation, the flourishing of alternative route programs raises important questions about the nature of high-quality teacher preparation and poses a significant challenge to conventional teacher education.

Beginning Teacher Induction Programs

Data from the National Center for Education Statistics indicate that 56 percent of public school teachers in their first three years of teaching have participated in a formal teacher induction program (though the duration and quality of programs vary) compared to 44 percent of those with four to nine years experience and 17 percent with from 10 to 19 years experience.³⁹ With estimates that 30 to 50 percent of beginning teachers leave the profession within their first five years,⁴⁰ a means of providing new educators with support is essential. While these beginning teachers leave the profession for numerous reasons—salary, workplace conditions, personal and family reasons, lack of parental support⁴¹—one of the most common reasons offered is lack of administrative and school support. Induction and mentoring programs help fill this gap.

Prior to 1980, there were few induction programs, and those that were in place were typically created and funded by schools or districts. Just 15 states had established induction programs in the 1980s. By 1999, 38 states and the District of Columbia had established some sort of induction program targeted at supporting beginning teachers.⁴² However, these programs vary in terms of the percentage of beginning teachers who participate. In several states, districts are not mandated to participate because the state does not assume the full costs of the program. In Colorado and Maine, for example, no state funds are allocated specifically for districts to implement the program. In other cases, districts are mandated to participate, even though the state does not cover all the costs of the program. Other programs mandated by states are accompanied by funding from \$20,000 in New Hampshire to millions in states like New York, California, Connecticut, and Florida.

Despite state specifications, there is wide disparity across school districts in the quality and criteria established for induction programs. School districts often have broad latitude, for example, in setting the criteria for participation in the program and in establishing the qualifications of mentor teachers. Often times, especially when no funds are available for a mentor stipend, little support and evaluation are offered. And, more importantly, few teachers have access to the programs. States such as Rhode Island and Massachusetts with locally established induction efforts find that fewer than 15 percent of beginning teachers have received any kind of systematic mentoring.⁴³

It appears that there may be a payoff in establishing a comprehensive teacher induction program. California's Beginning Teacher Support and Assessment Program (BTSA) has proved successful in retaining teachers, with an attrition rate of nine percent of beginning teachers in five years, versus a rate of 37 percent without BTSA or a similar induction program.⁴⁴ Given these results, California in 1998 expanded BTSA. The program, previously operating on a pilot basis, served only 17 percent of eligible teachers. Legislation enacted in that year dramatically increased funds and expanded BTSA to include all new teachers. In addition, the state enacted a peer review program in 1999, which can be coordinated with BTSA. California currently spends approximately \$72 million to provide induction activities to every first- and second-year teacher.⁴⁵

The 2000 legislative session saw states continue to establish new, and expand existing, mentoring or induction programs:

- California authorized the Los Angeles County Office of Education to design and implement a pilot telecommunications-based intensive professional growth program for hard-to-staff schools that supports the BTSA and Pre-Internship Teaching Program.
- Kansas required school districts to establish a professional mentor program for beginning teachers. Experienced teachers who meet the criteria for eligibility may mentor one or two first-year teachers and will receive \$1,000 for each teacher mentored.
- In the "Teachers of Tomorrow" program in New York, an intensive summer teacher training for selected beginning teachers was created.

State policymakers especially favor policies that support formal induction for beginning teachers. While these programs vary considerably from state to state, and even among districts within a state, it is clear that state policymakers are in accord with regard to the value of a supported introduction to teaching. However, there are many questions about what constitutes adequate induction support for new entrants to the teaching profession; the existence of a state-supported induction program does not mean, by itself, that teachers are getting regular advice, coaching, or other forms of support they may need.

Commentary

If teachers are well trained when they first enter the classroom, they have a solid foundation on which to build for the duration of their careers. Well-supported induction programs are a logical complement to this preparation. States hold only modest sway over teacher preparation. The specifics of programs typically are left to colleges and universities. However, states can influence the content of these programs by, for example, requiring that programs be accredited based on recognized standards of good practice. Many have chosen this path already.

To the extent that states require new teacher induction, they send a powerful message to districts, schools, and new teachers themselves. However, if the induction requirement is just another unfunded mandate, programs are likely to reach fewer new teachers than they otherwise might. Finding funding, even partial funding, to help new teachers start on the right professional foot would seem to be a good strategy for

state investment and state policy attention, as would consideration of the other attributes of effective mentoring in addition to more funding (qualification and support of mentors, release time for mentors, recognition for mentoring work, etc.).

WHAT STATES ARE DOING TO MOTIVATE AND SUPPORT TEACHERS' ONGOING PROFESSIONAL LEARNING

While teacher recruitment and preparation policies can help states begin to prepare new educators for work in a standards-based environment, only ongoing learning through a variety of “professional development” activities can make current teachers aware of changing expectations, new content, and teaching methods that are appropriate to these expectations and content. A wide range of activities may impart this learning. Aside from workshops and summer institutes (what policymakers and many educators usually think of as “professional development”), teachers may deepen their knowledge and skills through on-site coaching, study groups, graduate coursework, instructional supervision, observation of master teachers or model programs at work, and participation in professional networks or curriculum development work. Access to these kinds of activities is particularly important in this era of standards-based education when more is expected of teachers.

But not all professional learning opportunities are equally powerful. For example, emerging research demonstrates that the quality and duration of professional development programs is an important determinant of their ability to improve teaching practice and impact student achievement.⁴⁶ Yet most policies do not attend to these two critical components. Often, states that require professional development for license renewal, for example, simply mandate “clock hours” with little regulation on the types of activities that will “count.” And school districts, with minimal guidance and often little funding, tend to rely on one-time, in-service and workshop models rather than on the intensive, ongoing professional development research has shown to be more effective.

Mindful of the importance of professional learning opportunities and of their relative inattention to this facet of the teacher policy puzzle, states have begun to play a more active role, trying to alleviate disparities in both the quality and quantity of professional development opportunities across school districts through more targeted regulation and resource allocation. However, states are but one of several actors influencing the delivery of professional development to teachers. School principals, teachers, and district personnel are far more likely to determine the content and delivery of professional development across the country.⁴⁷ Without clear delineation of responsibility for professional development and potential inequities in learning opportunities, policymakers will continue to grapple with how to best move toward more effective professional development delivery.

Differences in the Quality of Opportunities for Professional Learning

State policies on professional development are emerging against a backdrop of recent research that demonstrates that the quality and duration of professional development programs are important determinants of their ability to improve teaching practice and impact student achievement. In an analysis of mathematics instructional policy and professional development in California, for example, researchers found that teachers

who participated in professional development that was sustained and based on curriculum standards for students were more likely to adopt new, reform-oriented teaching practices. Students of teachers who received this type of professional development achieved at higher levels on the state mathematics achievement test.⁴⁸ Other studies examining student achievement on the state assessment measures then in use, the California Learning Assessment System, support these findings: students performed at higher levels across all grades when they had teachers who had extended opportunities to learn about specific standards-based curriculum and instruction.⁴⁹

In line with this research, the National Staff Development Council has developed professional development standards designed to lead to improved student achievement.⁵⁰ These standards make the case for professional development that is results-driven, standards-based, job-embedded, content-rich, and school-focused.

Despite research evidence about the hallmarks of effective professional development,⁵¹ few educators are likely to encounter the types of opportunities that have been demonstrated to promote significant and sustained professional learning. The most recent national teacher surveys, corroborated by evidence from the state level, indicate that, although 96 percent of public school teachers reported participating in professional development activities, only 30 percent participated in professional development that involved in-depth study in a specific field, and only 15 percent received nine hours or more of this type of training.⁵²

Variations in professional development focus, intensity, delivery, and participation patterns are evident across states. For example, according to the National Commission on Teaching and America's Future, more than 70 percent of teachers in Kentucky reported pursuing professional development opportunities about uses of technology, teaching methods, student assessment, and cooperative learning. About one-third of teachers in Nevada and Arkansas received training in the uses of technology. Only 10 percent of teachers in Illinois, New Mexico, and Tennessee had the chance to spend more than one day studying their subject area.⁵³

Despite variations across states, district-sponsored professional development remains the norm for most teachers. School- or local district-sponsored workshops and in-service programs are what more than 80 percent of public school teachers encounter. The learning opportunities these activities afford tend to be of the one-shot, and generally brief, variety. To be sure, more extended learning opportunities can be found in coursework offered by higher education institutions. National survey data indicate that about one-quarter of teachers engage in professional development through university extension or college courses in their subject field.⁵⁴ But this kind of coursework, while presumably beneficial, has varying degrees of applicability to the immediate challenges of classroom teaching.

The uneven quality of professional development may be traceable in part to existing state requirements, in particular, those regarding the renewal of teaching certificates. Although 35 states mandate professional development for teacher certificate renewal,⁵⁵ most requirements are for "clock hours" of staff development, with few regulations guiding the quality and content of these offerings. And although state education agencies in 29 states review components of the professional development requirement,⁵⁶ even minimal standards regarding acceptable criteria are often absent from the review process. In many states, virtually any kind of formalized learning experience can count toward a teacher's clock hours; not all such experiences have much relevance to the problems of teaching practice.

State Guidance and Resources for Professional Development

To address the perceived lack or low quality of professional development opportunities, a number of state legislatures have attempted over the past decade to provide school districts with more guidance and financial support related to the professional development function. These actions are especially important in light of research demonstrating that the local creation of professional development programs for teachers may depend heavily on the degree to which the state makes these activities a priority and the level at which it provides financial support to ensure their implementation.⁵⁷

To begin with, some attention to professional development has been included in the original initiatives that set standards-based reform in motion across the past decade. For example:⁵⁸ The Kentucky Education Reform Act of 1990 increased professional development activities and funding. KERA requires local school districts to offer four days of site-based professional development annually and provides \$24 of funding per participant for this purpose. The state department of education assists districts and schools in the development of long-term improvement plans that include professional development strategies to address curriculum content. In the Outstanding Schools Act of 1993, Missouri established nine regional professional development centers. The state mandates that one percent of total district budgets be set aside for school-based professional development. The Florida legislature passed the School Community Professional Development Act in 1995, establishing collaborative partnerships among the state education agency, colleges and universities, school districts, individual schools and consortia to promote joint responsibility and coordination. The legislature allocates professional development funds to school districts at approximately \$6 per participant per year.

In these and subsequent actions, states have attempted to bolster the support for professional learning by some combination of requirements, resource allocation, and the creation of regionalized support structures. These measures are meant to stimulate demand for professional development, enhance the supply of high-quality learning opportunities (e.g., by underwriting more or different kinds of providers), and increase the incentives for participation. Recent actions by states reflect different kind of assumptions about how to increase demand and supply or mobilize incentives:

- Some state actions, as in Kentucky and Washington State, have put more resources at the discretion of school staffs, under the assumption that school-initiated planning for professional development would generate opportunities for professional learning that were more closely matched to the school staff's needs. (This feature remains, in Kentucky's case, with schools having direct access to two-thirds of the resources made available for professional development under the Kentucky Education Reform Act; in Washington, the early investment in "Student Learning Improvement Grants" (SLIGs) was abandoned after several years.)
- Other states have tried instead to stimulate planning or leverage resources at the district level. In its teacher quality initiative of 1998, New York State called for comprehensive local planning for professional development, which requires districts to have developed such a plan by 2000 (the plans are not accompanied by state moneys). Minnesota, in contrast, increased from one to two percent the amount of basic revenue that a district is required to reserve for in-service programs and staff development plans.

-
- Still other states have approached the problem by funding a certain number of days to be set aside for professional development. Washington State converted its SLIG funding into three more days of professional development in the 1998 legislative session.
 - States have also considered more intentional links between professional development and teacher evaluation or standards. Delaware, in the Educator Accountability Act of 2000, established a professional development system in conjunction with changes to standards, licensure, and evaluation. The new three-tiered licensure system requires teachers to participate in additional professional development.
 - Some states are seeking to underwrite teachers' engagement with professional learning through graduate coursework, as in Mississippi, where teachers already serving in geographical critical shortage areas are eligible for scholarships toward master's degrees.

Beyond issuing requirements, allocating some resources, or seeking to enhance the infrastructure for professional learning opportunities, a few states have been attempting to remove one of the most critical barriers to enhanced professional development: the limited time for teachers to take advantage of professional learning opportunities. Without adequate non-instructional time during the school day, it is difficult to provide sustained, curriculum-oriented opportunities. Unlike Germany, where there is greater flexibility in scheduling, or Japan with shorter school days, most U.S. teachers are not afforded the same opportunities to work with colleagues.⁵⁹ Arkansas is one state that took up this challenge and in 1997 began to require school districts to provide a minimum of 200 minutes of scheduled time each week for teacher conferences and instructional planning and preparation.

These initiatives notwithstanding, it is often difficult to convince legislatures and the public of the importance of sustained state-level support for professional development. Unlike standards and assessments, which appear to have a clear role and rationale, the meaning of, rationale for, or payoff from investment in professional development is often questioned. Policymakers and the public wonder why teachers who are certified and trained need anything more. And, they may worry that money allocated to professional development does not "reach the kids" or will get "frittered away" on activities of dubious value. Or they may believe that sufficient resources for professional development already exist, once federal funds (e.g., Eisenhower Program or Goals 2000 funds) and other targeted program findings (e.g. for teachers working with special needs children or for enhancing technology into schools) are taken into account. These perceptions present a challenge to those policymakers who believe that substantially greater investments in professional learning are necessary to achieve standards-based reform goals. When policymakers in New York State and Idaho were unsuccessful in their straightforward requests for professional development funding, they were successful in getting legislative approval for funding to "implement standards," much of which supported professional development activities that directly related to standards.

Developing or Mandating Specific Targets for Professional Development

Several states have begun to specify particular targets for locally initiated professional development, with or without money attached. In particular, states may seek to shape the professional learning opportunities available to teachers by mandating specific topics for teachers' in-service education, often related to particular

education interests of policymakers or their constituents. Virginia, for example, passed legislation during the 2000 session that focuses on technology, while California allowed for professional development on tolerance and first-aid to count toward state-mandated hours. Such an approach can lead to a fragmented array of in-service workshops that does not necessarily help teachers address the central problems of their practice.

Other states have attempted to address a targeted professional development need, often in relation to a particular subject area and grade level, in a more comprehensive way, generally with some allocation of funding. During the 2000 legislative session, state actions in this realm of teacher policy included the following:

- Under the Teacher Development Act of 2000, Colorado created two-year renewable grants for up to \$20,000 to schools to provide skills development activities. To apply for the grants, schools must create a professional development plan that can only include research-based activities that are demonstrably effective in improving student skills, with particular emphasis on the instruction of reading, writing, mathematics, and science.
- Kentucky created the Middle School Mathematics Professional Development Fund to provide money to math teachers in the middle grades for tuition reimbursements and stipends for approved university and college courses, approved professional development activities, and certification by the National Board for Professional Teaching Standards. The state also provided for the creation of a Center for Middle School Mathematics Achievement at a public university, which would improve the content knowledge and instructional practice of middle school math teachers through technical assistance and dissemination of information and research.
- Maine appropriated funds to the Maine Writing Project for teacher professional development in writing, requiring matching funds from the University of Maine System.
- Oklahoma provided for a stipend equal to the cost of a substitute teacher to be paid to teachers attending a professional development institute in elementary reading during the summer or when school is not in session. The legislation also clarified how professional development funds directed toward on-site elementary reading could be used.
- Rhode Island directed the department of education to convene an Early Reading Success Panel composed of elementary school teachers, administrators, national experts, and higher education representatives to review research on how reading is learned and on the knowledge and skills necessary for teachers to deliver effective instruction. The panel created a state-wide Reading Success Institute for training K-3 teachers.
- Utah created a reading performance improvement scholarship program to assist selected elementary teachers in obtaining a reading endorsement.

Commentary

The dilemma of providing high quality professional development for teachers—with time enough for teachers to take advantage of it—remains an area of policy concern. States have taken some steps to address the issue. A few have provided added dollars (or tried to leverage local dollars), created or expanded support

structures, or enacted policies related to time. And several states have targeted professional development to subject areas the state deems critical, such as reading and mathematics. The question remains, however, about how states can provide sufficient support and incentives for districts or schools to implement the kind of ongoing, standards-driven, school-based professional development that research suggests is most effective. At present, state policy has largely worked at the margin of this issue rather than tackling it head-on.

WHAT STATES ARE DOING TO ENHANCE THE SCHOOL WORKPLACE ENVIRONMENT

For practicing teachers, various forces and conditions in the school are likely to contribute to their sense of a productive and supportive environment in which to work. Among these are a close-knit community of colleagues, time to reflect and plan, supportive leadership, access to resources and advice, and a manageable load of classes, students, or other assignments. As recent research on turnover suggests, teachers who find themselves in workplaces lacking these characteristics are more likely to transfer elsewhere or leave teaching altogether.⁶⁰

Table 4. Legislative Enactments in the Year 2000 Related to Teacher Professional Development

State	Professional Development
CALIFORNIA	A1941, A1945, S573, S1733
COLORADO	H1173
DELAWARE	S260, S343
IDAHO	H743, S1486
ILLINOIS	H4021
KENTUCKY	H25, S77
MAINE	LD2414 (H1708)
MINNESOTA	H3800
MISSISSIPPI	H1134, H294
NEW MEXICO	SJM20 (Second Special Session)
OKLAHOMA	H2000, S843
RHODE ISLAND	H7735, H7394
SOUTH CAROLINA	H4946 (Joint Resolution)
TENNESSEE	S2485
UTAH	H397, SB3
VIRGINIA	H106, H866, H936, S460
WASHINGTON	H2760, S6770

Although the federal government addresses the issue of school-level reform through its Title I “schoolwide” provisions and through funding for comprehensive school reform,⁶¹ states have been slower to become involved in education policy at this level of specificity. Even in the most centralized state policy contexts, legislatures have taken few actions that might be construed as imposing school-level requirements on local districts. Local policies related to the quality of the school as a workplace for teachers generally are set by locally elected school boards, and many of these decisions are the result of district-specific collective bargaining contracts. Rather than deriving from state actions, the bulk of school-based and school-specific

reform activity has come about through district initiatives, individual schools' efforts to restructure themselves, or schools' choices to participate in larger reform or restructuring networks (such as those associated with the Coalition of Essential Schools, Accelerated Schools, or "Success for All" schools, to name only a few of the most widely known networks).

As noted earlier in this report, however, states are not reluctant to identify low-performing schools and to seek to improve them through a combination of accountability pressures (e.g., annual school report cards), specialized assistance (e.g., expert consultation), or more drastic measures (e.g., take-over or reconstitution). Here, "enhancing the school workplace" generally means turning a dysfunctional school climate into one that will support teachers' work and student learning at acceptable levels. The state's involvement in these situations reflects the extremely adverse nature of the conditions in the schools and the apparent inability of the local districts to bring about significant improvements.

Other than intervention in the case of persistently low performing schools, some states have undertaken initiatives of several kinds that treat the individual school as the target and relevant unit of change, despite the state's general deference to local school boards, districts, and individual schools in matters related to school improvement. In addressing the school program as a whole, these state actions have aimed at the quality of teaching by increasing the school's authority on decisions affecting the academic program, pressuring schools to create school-wide improvement plans, and in some instances by allocating resources directly to the school level.

First, some states are allowing schools greater autonomy to redesign the workplace environment, conduct professional development tailored to the school's needs, adjust the academic program, and take other steps to make the school function more effectively (including, in some cases, the hiring of staff). This devolution of control may be a prominent feature of the state's reform plan, as in the case of Kentucky, or it may be made possible through regulation waivers. Several states allow districts to request an exemption of state rules and regulations. Many of these programs, however, are exemptions on a rule-by-rule basis, making the process cumbersome and complicated and resulting in few districts applying for waivers.⁶² Even in states like Texas, where districts have been able since 1996 to apply for "home-rule" status (involving a virtual automatic waiver of state rules and regulations), districts are reluctant to apply.

Second, whether or not states seek to increase decision-making authority at the school site, they may encourage mission development, school-wide improvement planning, and collaboration among school staff. Legislative initiatives in several states, for example, specify that schools develop such plans for improving the teaching and learning at the site. Teachers are almost inescapably central players in these kinds of interactions, which can result in various adjustments to the organization of the school program, the nature of the curriculum, or teaching approaches. To be sure, mandated planning can also spawn "paper plans," which meet the requirement but do not guide actual practice.

Third, some states have made resources available for school-based professional development or other improvement activities, along with guidance or sometimes requirements that encourage these activities to be tailored to the needs of the individual school. As noted in the earlier discussion of what states are doing to promote professional development, this provision has long been part of Kentucky's reform. The annual School Learning Improvement Grant (SLIG) offered by Washington State is another example.

A special case of the states' attempts to improve the school workplace—the enactment of charter school legislation—deserves mention. Currently 36 states and the District of Columbia have enacted charter school laws.⁶³ Defining a charter school is difficult given the variety of statutes and types of schools that have been created under the charter umbrella. Simply stated, however, charter schools are public schools that are freed from local and state laws and regulations. In return for this freedom, charters are held accountable for student performance; if the goals of the school set forth in the charter agreement are not reached, the school's charter, which is granted by a public entity (e.g., a local school board or college or university), can be revoked or not renewed. Some states may also maintain certain safeguards for children's education (e.g., requirements that teachers be qualified, that equity and safety be protected), and others do not. These safeguards may help to ensure that a charter school program has a reasonable chance of meeting its goals. In their current form, charter school initiatives affect relatively few schools, and there remains significant debate about the ability of charter schools to realize their aspirations.

Commentary

The school workplace environment plays a considerable role in teachers' decisions to remain at a particular school, in a district, and even in the profession. While at the school, the conditions surrounding teachers work further contribute to their motivation, what they learn on the job, and ultimately to their efficacy in the classroom. States cannot, by edict, make the school environment more hospitable or supportive or professional. That is largely the job of the district and school leaders. But states can help districts create conditions conducive to effective teaching through various forms of incentives. For example, states can provide funds targeted to school-based professional development. They can provide incentive dollars to enable schools (through their districts) to take on new decision-making roles in arenas such as resource allocation and personnel selection. And, through policy, states can send a strong message that creating a professional work environment for teachers ought to be a high priority in districts.

States have been relatively timid about venturing into this area. And while new mandates are probably not the surest approach, strong encouragement and the strategic use of resources in various forms may contribute to improving the immediate environment for teachers' work.

SOME CONCLUDING REMARKS

In the first issue of *What States are Doing to Improve the Quality of Teaching*, published in 1998, we, at the Center for the Study of Teaching and Policy raised two concluding issues. One was the general lack of coherence of state policies on teacher quality. The other was states' relative inattention to developing and using data to assess the impact of their policies. These issues remain potent today.

An increasing number of states are devoting attention to the issue of improving the quality of the teaching force as key to improving student achievement. As this report has indicated, states have policies on the books related to issues from teacher preparation to recruitment to salaries to professional development to evaluation. Yet, as we observed in the earlier version of this working paper, it appears as if these policies are often reactive, established to address one specific policy problem rather than create a coherent policy strategy that will work to enhance teacher quality. States seem still to be searching for the right formula, the right set

of incentives and rewards, and the right balance between state authority and local discretion. There is still a lot of room for good thinking and policy adjustment that minimize the possible interference of one policy with another. And, at the same time, there is potential for different strands of policy to mutually reinforce each other.

On the issue of the availability and use of data, states appear to be in roughly the same place where they were in 1998. While new policies are enacted each year, little effort is made to evaluate the effects of previous policies or to develop the kinds of databases that would enable this kind of evaluation. Adding policies without careful reflection about their merits can contribute to a lack of coherence among state policies aimed at teacher quality. States might consider devoting some attention in the next legislative session to a systematic review of relevant existing policies as they seek to craft new programs and policies and also to the development of appropriate data sources. In short, it is probably time for states to take stock of what they have and gather data to better understand which of these types of policies would be practical in their state.

In pointing out the possibility of more coherent, data-informed policy related to the quality of teachers and teaching, we do not wish to minimize the difficulties of bringing this about at the state level. For one thing, coherence is hard to achieve when the relevant players in the teacher policy story are dispersed among often separate jurisdictions (consider, for example the organizational relationships among those responsible at the state level for K-12 and higher education). For another, the best data in the world will not eliminate political exigencies or the need for policy to reflect and mediate multiple voices in a pluralistic system of governance. Finally, there are limits to the reach and power of state government in a system that appropriately reserves to local schools and districts much authority over education.

That said, the members of state educational policy communities, both inside and outside government, are in a position to exercise considerable leadership over efforts to improve education—in particular, the quality of teaching and the teacher force. The challenge to states is to seize this opportunity and to exercise their leadership wisely and to the fullest.

ENDNOTES

- ¹ Shelby Samuelsen *Education Standards, Assessment and Accountability*. NCSL State Legislative Report. Denver, CO: National Conference of State Legislatures, October 2000.
- ² American Federation of Teachers. *Making Standards Matter* 1997, p. 12.
- ³ "Quality Counts 2000: Who Should Teach?" *Education Week* 19. January 13, 2000.
- ⁴ National Association of State Directors of Teacher Education and Certification, *The NASDTEC Manual on the Preparation and Certification of Educational Personnel*, 5th edition, Dubuque, IA: Kendall/Hunt Publishing, 2000. p.G-2. NASDTEC lists Vermont as not requiring a licensure exam, but the state now requires candidates to pass the PRAXIS exam.
- ⁵ Ruth Mitchell and Patte Barth, "Thinking K-6: How Teacher Licensing Tests Fall Short," *Education Trust* 3, Issue 1, Spring 1999.
- ⁶ Walt Haney, C. Fowler, & A. Wheelock, *Less Truth than Error? An Independent Study of the Massachusetts Teacher Tests*. Chestnut Hill, MA: Boston College, Center for the Study of Testing, Evaluation, & Policy, 1999 (February).
- ⁷ Mitchell & Barth, *op cit*.
- ⁸ "Quality Counts 2000: Who Should Teach?" *Education Week* 19. January 13, 2000.
- ⁹ Kathy Christie. ECS State Notes "Professional Standards Boards." Denver, CO: Education Commission of the States, January 2000.
- ¹⁰ National Center for Education Statistics. *Projection of Education Statistics to 2008*.
- ¹¹ Recruiting New Teachers (RNT). *Take This Job and Love It! Making the Mid-Career Move to Teaching*, Belmont, MA: RNT, 1998, p.8.
- ¹² NCES, *Projections of Education Statistics to 2008*.
- ¹³ C. Emily Feistritzer, "The Truth Behind the 'Teacher Shortage'." Originally published in *The Wall Street Journal*, January 28, 1998.
- ¹⁴ The Center for the Future of Teaching & Learning. *Teaching and California's Future: The Status of the Teaching Profession*. Santa Cruz, CA: CFTL, 1999.
- ¹⁵ North Carolina NCTAF Policy Group. *North Carolina Teaching Policy Inventory*. New York, National Commission on Teaching and America's Future, 1998.
- ¹⁶ Eric Hirsch and Shelby Samuelsen. *Teaching in Colorado: An Inventory of Policies and Practices*. Denver, CO: National Conference of State Legislatures, 2000.
- ¹⁷ Recruiting New Teachers (RNT). *Take This Job and Love It! Making the Mid-Career Move to Teaching*, Belmont, MA: RNT, 1998.
- ¹⁸ NCES, *Characteristics of Stayers, Movers, and Leavers*.
- ¹⁹ American Federation of Teachers. *Survey and Analysis of Teacher Salary Trends 1999*. Table III-3.
- ²⁰ American Federation of Teachers. *Survey and Analysis of Teacher Salary Trends 1999*. Table III-1.
- ²¹ American Federation of Teachers. *Survey and Analysis of Teacher Salary Trends 1999*.
- ²² NCES. *America's Teachers*, p.101.
- ²³ "Quality Counts 2000: Who Should Teach?" *Education Week* 19. January 13, 2000.
- ²⁴ Eric Hirsch and Connie Koprowicz. "State Efforts to Support National Board Certification." *NCSL State Legislative Report Vol.24, No.6*. Denver, CO: NCSL, July 1999.

-
- ²⁵ Eric Hirsch and Shelby Samuelsen. *Teaching in Colorado: An Inventory of Policies and Practices*.
- ²⁶ "Quality Counts 2000: Who Should Teach?" *Education Week*.
- ²⁷ For information on the program, see <http://www.teachingfellows.org/>.
- ²⁸ C. Emily Feistritzer, "Alternative Teacher Certification - An Overview," February 1998.
- ²⁹ Suzanne Wilson, Joan Ferrini-Mundy, & Robert Floden (2001), *Teacher Preparation Research: Current Knowledge, Gaps, and Recommendations*. Seattle, WA: Center for the Study of Teaching and Policy, University of Washington.
- ³⁰ "Quality Counts 2000: Who Should Teach?" *Education Week*.
- ³¹ *Ibid.*
- ³² Eric Hirsch and Shelby Samuelsen. *Teaching in Colorado: An Inventory of Policies and Practices*.
- ³³ Information compiled by the Colorado Education Association and reported in Eric Hirsch and Shelby Samuelsen. *Teaching in Colorado: An Inventory of Policies and Practices*.
- ³⁴ Edie Harding, Barbara McClain and Sue Anderson. *Teacher Preparation and Development*. Olympia, WA: Washington State Institute for Public Policy, June 1999.
- ³⁵ Linda Darling-Hammond. *Doing What Matters Most: Investing in Quality Teaching*, p.30.
- ³⁶ Kathleen Kennedy Manzo, "Georgia, Maryland Beef Up Teacher Education Programs." *Education Week*, Vol. 17, No. 43, 1998, p.12.
- ³⁷ National Council for Accreditation of Teacher Education. Information compiled from NCATE web site. See <http://www.ncate.org>.
- ³⁸ American Council on Education. *To Touch the Future: Transforming the Way Teachers are Taught: Facts and Figures*. Washington, D.C.: ACE, 1999.
- ³⁹ Linda Darling-Hammond. *Doing What Matters Most: Investing in Quality Teaching*, p.34.
- ⁴⁰ For example, see Yvonne Gold, "Beginning Teacher Support: Attrition, Mentoring and Induction," in John Sikula, Ed. *Handbook of Research on Teacher Education*, 2nd Ed. Association of American Teachers. New York: Simon & Schuster Macmillan, 1996.
- ⁴¹ For example, see National Center for Education Statistics, *Characteristics of Stayers, Movers, and Leavers: Results from the Teacher Followup Survey: 1994-95*, Washington DC: U.S. Department of Education, 97-450, 1997.
- ⁴² SRI International. *Preparing and Supporting New Teachers: A Literature Review*. Washington, D.C.: Planning and Evaluation Service, U.S. Department of Education, 2000.
- ⁴³ Linda Darling-Hammond, *Doing What Matters Most: Investing in Quality Teaching*, p.34.
- ⁴⁴ Chloe Bullard, *Qualified Teachers for All California Students: Current Issues in Recruitment, Retention, Preparation and Professional Development*. Sacramento: California Research Bureau, CRB-98-012, 1998, p.21.
- ⁴⁵ SRI International. *Preparing and Supporting New Teachers: A Literature Review*.
- ⁴⁶ For example, David K. Cohen and Heather C. Hill, "State Policy and Classroom Performance: Mathematics Reform in California," CPRE Policy Briefs, RB-23-January 1998.
- ⁴⁷ NCES. *Toward Better Teaching: Professional Development in 1993-94*. Washington, D.C.: NCES (NCES 98-230), 1998.
- ⁴⁸ Cohen & Hill, *op cit.*

-
- ⁴⁹ David Wiley and B. Yoon, "Teacher Reports of Opportunity to Learn: Analyses of the 1993 California Learning Assessment System," *Educational Evaluation and Policy Analysis* 17 (3) (1995), pp. 355-370.
- ⁵⁰ National Staff Development Council. [Staff Development Standards.]
- ⁵¹ See Willis D. Hawley & Linda Valli, "The Essentials of Effective Professional Development: A New Consensus." In Darling-Hammond, L. & Sykes, G. (Es.): *Teaching as the Learning Profession: Handbook of Policy and Practice* (pp. 127-150), San Francisco: Jossey-Bass, 1999.
- ⁵² National Center for Education Statistics. *Toward Better Teaching: Professional Development in 1993-94*. Washington, D.C.: U.S. Department of Education, 1998. This report analyzes data for the 1993-94 Schools and Staffing Survey (SASS). A more recent round of SASS data has been assembled from 1998 and will be available for analysis soon. While it may indicate growing access to more powerful forms of professional development, it is unlikely to paint a substantially different picture of what is typicality available to most teachers nationwide.
- ⁵³ Linda Darling-Hammond. *Doing What Matters Most: Investing in Quality Teaching*, p.34.
- ⁵⁴ Linda Darling-Hammond, *Doing What Matters Most: Investing in Quality Teaching*, p.35.
- ⁵⁵ NCES, *Toward Better Teaching: Professional Development in 1993-94*.
- ⁵⁶ National Association of State Directors of Teacher Education and Certification, *The NASDTEC Manual on the Preparation and Certification of Educational Personnel*, 5th edition, Dubuque, IA: Kendall/Hunt Publishing, 2000. p.E-1.
- ⁵⁷ NASDTEC, *The NASDTEC Manual*, p. E-2.
- ⁵⁸ Education Commission of the States. *Investing in Teacher Professional Development: A Look at 16 School Districts*. Denver: ECS, 1997, p.9.
- ⁵⁹ Information has been compiled from numerous sources. For a brief summary of state professional development policy see Consortium for Policy Research in Education. *Policies and Programs for Professional Development of Teachers: A 50 State Profile*, 1997.
- ⁶⁰ Harold W. Stevenson, "Guarding Teachers' Time," *Education Week*, Vol. 18, No. 2, 1998, p.52.
- ⁶¹ Richard M. Ingersoll, *Teacher Turnover, Teacher Shortages, and the Organization of Schools*. Seattle, WA: Center for the Study of Teaching and Policy, University of Washington, 1999.
- ⁶² For a discussion of the impact and design of Comprehensive School Reform see CPRE. "States and Districts and Comprehensive School Reform." RB-24, May 1998. Or Amy Berk Anderson, "Comprehensive School Reform: Allocating Federal Funds." Denver: Education Commission of the States, 1998.
- ⁶³ CPRE Policy Briefs. "Decentralization and Policy Design." RB-05, May, 1990.
- ⁶⁴ For a detailed discussion of state charter school statutes, see Debra Banks and Eric Hirsch, *The Charter School Roadmap*. Washington, DC: US Department of Education, Office of Educational Research and Improvement. GFI98-9815, September, 1998. See also Julia Koppich, Patricia Holmes, and Margaret Plecki, *New Rules, New Roles? The Professional Work Lives of Charter School Teachers*, National Education Association, 1998.
-

CTP Working Papers

The Center's Working Paper Series allows Center researchers to release interim results of their ongoing investigations when these are sufficiently well developed to be informative to the field. Also, it gives education and policy audiences the opportunity to make use of these "works in progress" in a timely manner. Prior to publication, CTP Working Papers go through one round of external review. We warmly encourage feedback on these documents to help us refine them further in preparation for final research reports, which require a further round of reviews. Papers in this series, as well as CTP Research Reports, Policy Briefs, and Occasional Papers are available for download from the Center's web site: www.ctpweb.org

Center Team

Principal Investigators and Co-Principal Investigators

UNIVERSITY OF WASHINGTON

Michael Knapp, Center Director

James Banks

Margaret Plecki

Sheila Valencia

STANFORD UNIVERSITY

Linda Darling-Hammond

Pamela Grossman

Milbrey McLaughlin

Joan Talbert

UNIVERSITY OF MICHIGAN

Deborah Loewenberg Ball

David Cohen

Edward Silver

UNIVERSITY OF PENNSYLVANIA

Thomas Corcoran

Richard Ingersoll

Principal Investigators at Other Institutions

Barnett Berry, University of North Carolina

David Monk, Pennsylvania State University

Jon Snyder, University of California at Santa Barbara

Judy Swanson, Education Matters, Inc.

Suzanne Wilson, Michigan State University

Contact Information

Michael S. Knapp, Center Director

Miller Hall M201, College of Education
University of Washington, Box 353600
Seattle, WA 98195-3600

Email: mknapp@u.washington.edu

Sally Brown, Communications Director

Miller Hall 404B, College of Education
University of Washington, Box 353600
Seattle, WA 98195-3600

Phone: (206) 543-5319

FAX: (206) 616-6762

Email: salbrown@u.washington.edu

Michele C. Ferguson, Center Manager

Miller Hall 203C, College of Education
University of Washington, Box 353600
Seattle, WA 98195-3600

Phone: (206) 221-4114

FAX: (206) 616-6762

Email: ctpmail@u.washington.edu

Web Address

<http://www.ctpweb.org>



Make forgiveness an important part of your life because letting go of anything that weighs you down can bring peace of mind and other health benefits. There is no set period when you should forgive someone. I know this first hand because it took me over two decades to find the strength to forgive my father for his emotional mistreatment of me when I was growing up. Potential is activated when you risk going outside the known to discover your true strength of character. To liken it to a fitness metaphor, many people don't realise how much they can lift in the gym until they train for months and developed the strength and conditioning in those muscles. With the right training they are capable of the same feats of strength as many strong men or women. But what can universities do to improve their position? Here we provide a list of suggestions, originally written by Amanda Goodall in the 18 February 2010 issue of Times Higher Education and drawn from evidence, experience and anecdote.

1. To change a university, you need to change people's incentives. Ultimately, if this process is going to work, it has to be driven and monitored by a leader. Finally, ban the phrase "is there anyone on the list who is appointable?". It encourages tolerance for mediocrity. Leaders need power if they are to be effective. Don't force them to go through loads of committees before a decision can be made. Give a leader power and his or her own modest pot of money, but ensure that you have a decent chair of the board or council acting as overseer.