

Excerpted from
A Notion at Risk: Preserving Public Education as an Engine for Social Mobility,
Richard D. Kahlenberg, Editor

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5.

INEQUALITY IN TEACHING AND SCHOOLING: SUPPORTING HIGH-QUALITY TEACHING AND LEADERSHIP IN LOW-INCOME SCHOOLS

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Few Americans realize that the U.S. educational system is one of the most unequal in the industrialized world, and students routinely receive dramatically different learning opportunities based on their social status. In contrast to most European and Asian nations that fund schools centrally and equally, the wealthiest 10 percent of school districts in the United States spend nearly ten times more than the poorest 10 percent, and spending ratios of three to one are common within states. Poor and minority students are concentrated in the less well funded schools, most of them located in central cities and funded at levels substantially below those of neighboring suburban districts.¹ In addition, policies associated with school funding, resource allocations, and tracking leave minority students with fewer and lower-quality books, curriculum materials, laboratories, and computers; significantly

larger class sizes; less qualified and experienced teachers; and less access to high-quality curriculum.

The fact that the least-qualified teachers typically end up teaching the least-advantaged students is particularly problematic. Recent studies have found that the difference in teacher quality may represent the single most important school resource differential between minority and white children and that it explains at least as much of the variance in student achievement as socioeconomic status. In fact, as we describe below, disparate educational outcomes for poor and minority children are much more a function of their unequal access to key educational resources, including skilled teachers and quality curriculum, than they are a function of race or class.

Just as capable teachers are important to students' success, excellent principals are critical to a school's success and to its ability to attract, retain, and mobilize able teachers. Along with other resources, high-poverty schools often also have difficulty attracting the strongest leaders. But this is not a necessary outcome of our educational system. What can be done to ensure that low-income schools are organized to attract and retain more highly qualified teachers and principals and to develop schools organized to support successful teaching and learning? Many states and districts have enacted policies that have sharply reduced or even eliminated the disparities in access to high-quality teachers, teaching, and schooling for low-income and minority students in urban and poor rural areas. Their strategies are as important to understand as the widespread problems. This chapter details both the sources of typical inequalities and the possibilities offered by solutions that have been found successful in the real world.

WHAT MATTERS MOST: HOW TEACHERS AND PRINCIPALS AFFECT TEACHING AND LEARNING

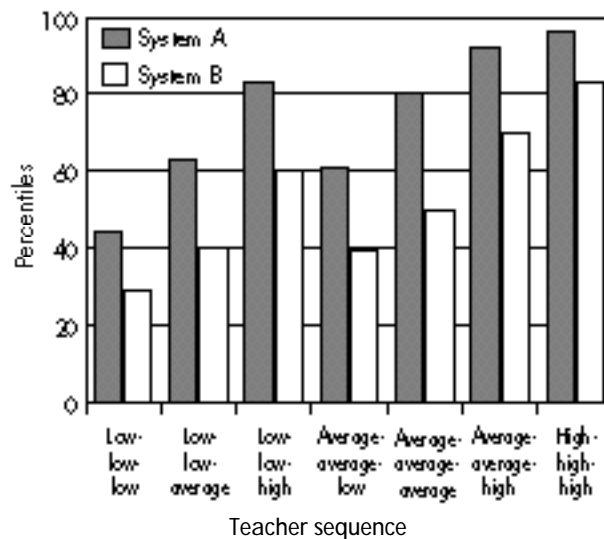
Despite conventional wisdom that school inputs make little difference in student learning, a growing body of research suggests that schools do make a difference, and a substantial portion of that difference is attributable to teachers. Recent studies of teacher effects at the classroom level using longitudinal databases in Tennessee and Dallas, Texas, have found that differences in teacher effectiveness are an extremely strong determinant of differences in student learning, far outweighing the effects of differences in

class size and heterogeneity.² Students who are assigned to several ineffective teachers in a row have significantly lower achievement and smaller gains in mathematics and reading—yielding differences of as much as fifty percentile points over three years—than those who are assigned to several highly effective teachers in sequence.³ These studies also find troubling indicators for educational equity, noting evidence of strong bias in assignment of students to teachers of different effectiveness levels, including indications that African-American students are nearly twice as likely to be assigned to the most ineffective teachers and about half as likely to be assigned to the most effective teachers (see Figure 5.1).

How Teachers Matter

A growing body of research indicates that teacher expertise is one of the most important factors in determining student achievement, followed

FIGURE 5.1. CUMULATIVE EFFECTS OF TEACHER EFFECTIVENESS: STUDENT TEST SCORE PERCENTILES (5TH-GRADE MATH), BY EFFECTIVENESS LEVEL OF TEACHERS OVER A THREE-YEAR PERIOD, FOR TWO METROPOLITAN SCHOOL SYSTEMS

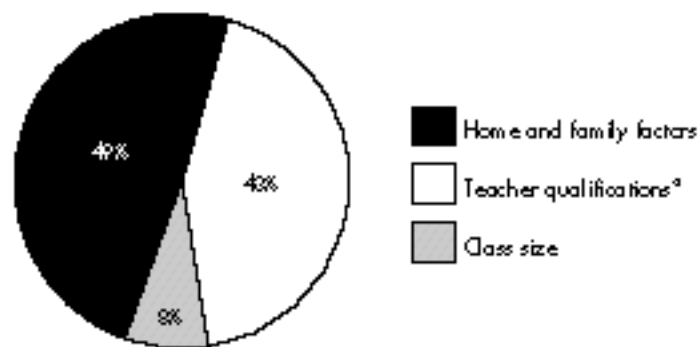


Source: W. L. Sanders and J. C. Rivers, *Cumulative and Residual Effects of Teachers on Future Student Academic Achievement* (Knoxville: University of Tennessee, 1996).

by the smaller but generally positive influences of small schools and small class sizes. That is, teachers who know a lot about teaching and learning and who work in environments that allow them to know students well are the critical elements of successful learning. In an analysis of nine hundred Texas school districts, Ronald Ferguson found that teachers' expertise—as measured by scores on a licensing examination, master's degrees, and experience—accounted for about 40 percent of the measured variance in students' reading and mathematics achievement at grades 1 through 11, more than any other single factor. He also found that every additional dollar spent on more highly qualified teachers netted greater increases in student achievement than did less instructionally focused uses of school resources.⁴ The effects were so strong and the variations in teacher expertise so great that, after controlling for socioeconomic status, the large disparities in achievement between black and white students were almost entirely accounted for by differences in the qualifications of their teachers (see Figure 5.2).

Ferguson and Helen Ladd repeated this analysis with a less extensive data set in Alabama that included much rougher proxies for teacher knowledge (master's degrees and ACT scores instead of teacher licensing examination scores) and still found sizable influences of teacher

FIGURE 5.2. INFLUENCE OF TEACHER QUALIFICATIONS ON STUDENT ACHIEVEMENT: PROPORTION OF EXPLAINED VARIANCE IN MATH TEST SCORE GAINS (FROM GRADES 3 TO 5) DUE TO:



^a Licensing examination scores, education, and experience.

Source: Developed from data presented in Ronald F. Ferguson, "Paying for Public Education: New Evidence of How and Why Money Matters," *Harvard Journal on Legislation* 28 (Summer 1991): 465–98.

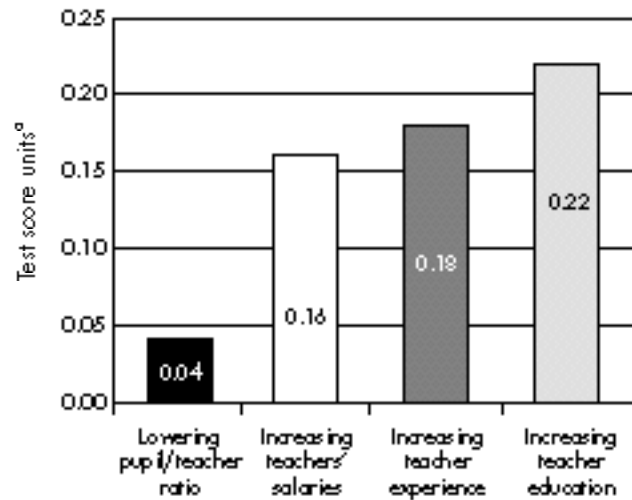
qualifications and smaller class sizes on student achievement gains in mathematics and reading.⁵ These influences held up when the data were analyzed at both the district and school levels. In an analysis illustrating the contributions of these variables to the predicted differences in average student achievement between districts scoring in the top and bottom quartiles in mathematics, they found that 31 percent of the predicted difference was explained by teacher qualifications and class sizes, while 29.5 percent was explained by poverty, race, and parent education.

In North Carolina, Robert Strauss and Elizabeth Sawyer found a similarly strong influence on average school district test performance of teachers' average scores on the National Teacher Examinations that measure subject matter and teaching knowledge.⁶ After taking account of community wealth and other resources, teacher qualifications had a strikingly large effect on students' success on the state competency examinations: a 1 percent increase in teacher quality (as measured by NTE scores) was associated with a 3 to 5 percent decline in the percentage of students failing the exam. The authors' conclusion is similar to Ferguson's:

Of the inputs which are potentially policy-controllable (teacher quality, teacher numbers via the pupil-teacher ratio and capital stock) our analysis indicates quite clearly that improving the quality of teachers in the classroom will do more for students who are most educationally at risk, those prone to fail, than reducing the class size or improving the capital stock by any reasonable margin which would be available to policy makers.⁷

These findings are reinforced by those of a recent review of sixty production function studies, which found that teacher education, ability, and experience, along with small schools and lower teacher-pupil ratios, are associated with significant increases in student achievement.⁸ In this study's estimate of the achievement gains associated with expenditure increments, spending on teacher education substantially outpaced other variables as the most productive investment for schools (see Figure 5.3, page 132). Many other studies came to similar conclusions. For example, a study of high- and low-achieving schools with similar student populations in New York City found that differences in teacher qualifications accounted for more than 90 percent of the variations in student

**FIGURE 5.3. EFFECTS OF EDUCATIONAL INVESTMENTS:
SIZE OF INCREASE IN STUDENT ACHIEVEMENT FOR EVERY \$500 SPENT ON:**



^a Achievement gains were calculated as standard deviation units on a range of achievement tests in the sixty studies reviewed.

Source: Rob Greenwald, Larry V. Hedges, and Richard D. Laine, "The Effect of School Resources on Student Achievement," *Review of Educational Research* 66, no. 3 (1996): 361–96.

achievement in reading and mathematics at all grade levels tested.⁹ Research using national data and studies in Georgia, Michigan, and Virginia have found that students achieve at higher levels and are less likely to drop out when they are taught by teachers with certification in their teaching field, by those with master's degrees, and by teachers enrolled in graduate studies.¹⁰

The National Assessment of Educational Progress has documented that the qualifications and training of students' teachers are also among the correlates of reading achievement: students of teachers who are fully certified, who have master's degrees, and who have had professional coursework in literature-based instruction do better on reading assessment than students whose teachers have not had such learning opportunities. Furthermore, teachers who have had more professional coursework are more likely to use an approach that integrates the teaching of reading with literature and writing, which is associated with stronger achievement. For example, teachers with more staff development hours in reading are much more likely to use a wide variety of

books, newspapers, and materials from other subject areas and to engage students in regular writing, all of which are associated with higher reading achievement. They are also less likely to use reading kits, basal readers, and workbooks, which are associated with lower levels of reading achievement.¹¹

Reviews of research over the past thirty years have concluded that both subject matter knowledge and knowledge of teaching are important to teacher effectiveness, and that fully prepared and certified teachers are better rated and more successful with students than teachers without this preparation.¹² As Carolyn Evertson and colleagues conclude in their research review: “[T]he available research suggests that among students who become teachers, those enrolled in formal pre-service preparation programs are more likely to be effective than those who do not have such training. Moreover, almost all well planned and executed efforts within teacher preparation programs to teach students specific knowledge or skills seem to succeed, at least in the short run.”¹³

Studies of underprepared teachers consistently find that they are less effective with students and that they have difficulty with curriculum development, classroom management, student motivation, and teaching strategies. With little knowledge about how children grow, learn, and develop, or about what to do to support their learning, these teachers are less likely to understand student learning styles and differences, to anticipate students’ knowledge and potential difficulties, and to plan and redirect instruction to meet students’ needs. They are also less likely to see it as their job to do so, often blaming the students if their teaching is not successful.¹⁴ Thus, policies that resolve shortages by allowing the hiring of unprepared teachers serve only to exacerbate the inequalities low-income and minority children experience.

Expert teachers are a prerequisite for the successful implementation of challenging curriculum. Teachers who are well-prepared are better able to use teaching strategies that respond to students’ needs and learning styles and that encourage higher-order learning.¹⁵ Since the novel tasks required for problem-solving are more difficult to manage than the routine tasks associated with rote learning, lack of knowledge about how to manage an active, inquiry-oriented classroom can lead teachers to turn to passive tactics that “dumb down” the curriculum, busying students with workbooks and end-of-chapter fill-in-the-blank tests rather than complex tasks like lab work, research projects, and experiments that require more skill to orchestrate.¹⁶

How Principals Matter

The recruitment and retention of well-prepared teachers and the support of high-quality teaching is the major function of a principal who functions as an instructional leader. In his research on effective schools, Ron Edmonds found that strong instructional leadership on the part of the principal was a crucial element in school effectiveness.¹⁷ Reviewing research by others as well as his own work,¹⁸ Edmonds cited as first among six indispensable characteristics of effective schools the “strong administrative leadership without which the disparate elements of good schooling can neither be brought together nor kept together.”¹⁹

The nature of this leadership matters for the quality of teaching and for the retention of high-quality teachers. Virtually all of the most recent research on school leadership connects teacher commitment with a collaborative and value-based style of leadership—one aimed at enhancing professional commitment, using symbolic and transformational values as touchstones. Collaborative leadership styles focus on developing a clarity of mission; cultural cohesion through shared norms, values, and beliefs; and reward systems that reinforce those cultural values.²⁰ Not surprisingly, administrative leadership styles and teacher participation are strongly related to one another. Mark Smylie found that the principal-teacher relationship was the most powerful predictor of teachers’ willingness to participate in personnel, curriculum, staff development, and administrative decisionmaking.²¹ Michael Fullan and Thomas Sergiovanni have both found that principals who support norms of collegiality and encourage teacher development and self-management raise individual and group commitment to teaching.²² In these studies, teachers who participate in creating the culture of the school and the values that drive that culture tend to be more committed to teaching and to the school organization.

School leadership and culture are two conditions that encompass most other workplace conditions. School culture refers to the dominant ethos of the organization, its values and visions, and the everyday experiences of members of the school community. Studies often find that indicators of school culture are powerful predictors of teachers’ work, career, and organizational commitment.²³ Teachers’ perceptions of their principals are almost always found to be directly related to their perceptions of the school culture.²⁴

These perceptions directly influence the supply and turnover of teachers. Eileen Sclan found that the ways in which schools structure

decisionmaking and collegial relations significantly influence beginning teachers' commitment to the profession. Beginning teachers appear to evaluate school leadership by how effectively it creates a school culture that is collaborative and supportive. The more beginning teachers feel that they can actively participate in making important decisions in their schools, the more positive their view of school leadership; the more collaborative and supportive the school leadership, the more involved teachers appear to be and the more likely they are to want to stay at the school. Whether and how schools provide opportunities for involvement in decisionmaking, for collaborative work with other teachers, and for engagement in curriculum building and other professional tasks strongly determines whether they plan to remain in the profession.²⁵

While there is no evidence about the relative competence of principals in low-income schools versus schools generally, there is evidence that, all else being equal, principals' leadership has a great deal to do with which schools are hard to staff. Study after study has noted that good schools in low-income communities have strong principals who serve as instructional leaders. While resources and working conditions certainly matter, research suggests that teachers who have options choose to enter and remain in schools where they feel well supported by the local administrator, irrespective of student wealth or poverty, and that schools with poor leadership typically have difficulty attracting and retaining teachers.²⁶ In national surveys of teachers about their decisions to remain in teaching, administrative supports matter far more than the characteristics of the student body or even variables like student behavior and parent involvement.²⁷

Clearly, teachers and principals matter. The question for those concerned about equity then becomes, How can schools serving poor and minority students enhance their ability to get and keep well-prepared teachers and capable leaders?

THE PROBLEMS OF STAFFING LOW-INCOME SCHOOLS

Using the most conservative estimates, the nation will need to hire at least two million teachers over the next ten years. Although this level of demand is daunting, the country has for many years graduated more new teachers than it hires. Usually only about 65 to 70 percent of newly prepared teachers take full-time teaching jobs in the year after they

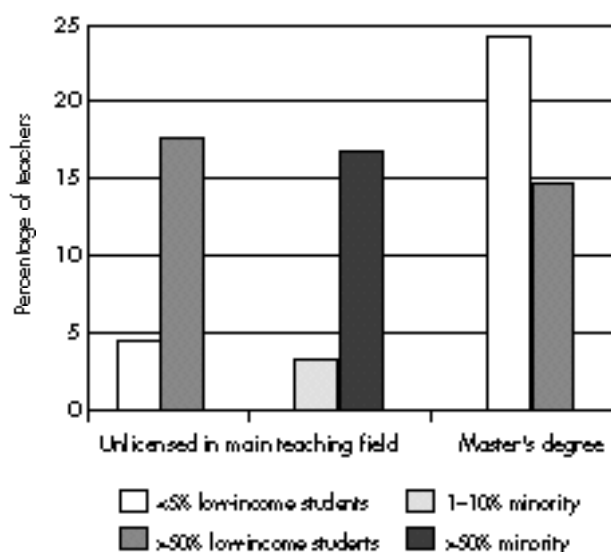
graduate.²⁸ Although there are many new teachers who cannot find jobs, there are also many job openings for which schools have difficulty finding teachers. In almost every field, schools with the largest numbers of low-income and minority students are much more likely than other schools to report that they have difficulty filling vacancies.²⁹ These schools are also more likely to fill vacancies with unqualified teachers, substitutes, or teachers from other fields, or to expand class sizes or cancel course offerings when they cannot find teachers.

National Center for Educational Statistics' data confirm that difficulty filling teaching positions varies by field and school location. Overall, 15 percent of all schools reported in 1991 that they had vacancies that they could not easily fill with a qualified teacher. Nearly one-fourth of central-city schools (23.4 percent) found that they had difficulty filling vacancies with qualified persons. Schools with minority enrollments of more than 20 percent, whether in central cities, urban fringe, or rural areas, had the most difficulty filling vacancies.³⁰ Minority and low-income students in urban settings are most likely to find themselves in classrooms staffed by inadequately prepared, inexperienced, and ill-qualified teachers because funding inequities, distribution of local power, and labor market conditions conspire to produce shortages of which they bear the brunt. Shortages of qualified teachers also translate into larger class sizes, lack of access to higher-level courses, and poorer teaching.³¹

These "shortages," though, are largely a problem of distribution rather than of absolute numbers. Wealthy districts that pay high salaries and offer pleasant working conditions rarely experience shortages. Districts that serve low-income students tend to pay teachers less and offer larger class sizes and pupil loads, fewer materials, and less desirable teaching conditions, including less professional autonomy. They also often have cumbersome and inefficient hiring systems that make the selection process particularly slow and grueling for candidates. For obvious reasons, they have more difficulty recruiting teachers. In 1993–94, for example, schools serving larger numbers of minority and low-income students were four times as likely as whiter and wealthier schools to hire unqualified teachers (see Figure 5.4). As we show later, there are exceptions to these practices that illustrate how state and local policies can reverse the usual trends and provide qualified teachers for all students.

Currently, teaching in most parts of the country is faced with the perennial problem it has experienced for centuries: disparities in salaries

FIGURE 5.4. QUALIFICATIONS OF NEWLY HIRED TEACHERS, BY SCHOOL TYPE,^a 1994



^a Newly hired teachers excluding transfers.

Source: Robin R. Henke et al., *Schools and Staffing in the United States: A Statistical Profile, 1993-94* (Washington, D.C.: National Center for Educational Statistics, U.S. Department of Education, 1996).

and working conditions, along with a panoply of backward-looking personnel policies, have recreated teacher shortages in central cities and poor rural areas. And, for a variety of reasons, the response of many governments continues to be to lower or eliminate standards for entry rather than to create incentives that will attract and retain an adequate supply of well-prepared teachers. As a consequence, this era is developing an even more sharply bimodal teaching force than ever before. While some children are gaining access to teachers who are more qualified and well-prepared than in years past, a growing number of poor and minority children are being taught by teachers who are sorely unprepared for the task they face. This poses the risk that we may see heightened inequality in opportunities to learn and in outcomes of schooling—with all of the social dangers that implies—at the very time we most need to prepare all students more effectively for the greater challenges they face. If the emerging reforms of schooling are to

succeed, and if students are to have a fair shot at meeting the high standards states and districts are increasingly insisting they meet, teaching as an occupation must be able to recruit and retain able and well-prepared individuals for all classrooms, not just the most affluent.

Problems in Hiring Qualified Teachers

The number of newly hired teachers entering the field without adequate training has been increasing in recent years. In 1991, 25 percent of new entrants to public school teaching had not completed the requirements for a state license in their main assignment field. This proportion increased to 27 percent in 1994, including nearly 11 percent who had no license at all in their main field.³² The least-qualified teachers were most likely to be found in high-poverty and predominantly minority schools and in lower-track classes. In fact, in schools with the highest minority enrollments students had less than a 50 percent chance of getting a science or mathematics teacher who held a license and a degree in the field he or she taught.³³

On virtually every measure, teachers' qualifications vary by the status of the children they serve. Students in high-poverty schools are not only the least likely to have teachers who are fully qualified, they are also least likely to have teachers with higher levels of education—a master's, specialist, or doctoral degree.³⁴ Whereas only 8 percent of public school teachers in low-poverty schools taught without at least a minor in their main academic assignment field, fully one-third of teachers in high-poverty schools taught without at least a minor in their main field, and nearly 70 percent taught without at least a minor in their secondary teaching field.³⁵ This is problematic given the studies that show lower levels of achievement for students whose teachers are not prepared and certified in the subject area they teach.

While hiring statistics show more teachers entering with marginal qualifications, about 17 percent of beginning teachers and about 25 percent of all newly hired teachers entered the profession with a master's degree in 1993–94, a substantial increase over a decade earlier.³⁶ Most of these were prepared in five- or fifth-year programs that add a year of training beyond the bachelor's degree to allow the completion of a major in the field to be taught as well as intensive education coursework and extended student teaching (usually thirty

weeks rather than the typical twelve to fifteen weeks). This represents a substantial increase in preparation beyond the traditional four-year education degree for a subset of entering teachers. Graduates of the new five-year program models that resulted from the 1980s reform efforts of the Holmes Group of education deans from research universities have been found to enter and stay in teaching at higher rates and to be more effective than graduates of traditional four-year programs.³⁷ However, while some of these programs successfully prepare teachers for urban schools (for example, the programs at Trinity University in San Antonio, Texas, University of Cincinnati in Ohio, University of Texas at El Paso, and University of Washington in Seattle), on average the better-prepared recruits are generally less likely to be hired in high-poverty schools (see Figure 5.4). These statistics illustrate the dual standard increasingly characterizing entry to teaching, one that provides teachers of very different qualifications to different students and that exacerbates educational inequalities between the rich and the poor.³⁸

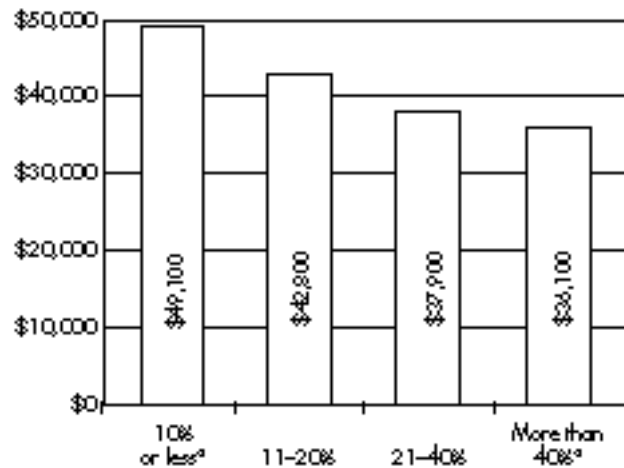
This state of affairs is not true everywhere, however. Inequality is most pronounced in the states and districts that have invested the least in preparing and hiring high-quality teachers. In states like Connecticut, Iowa, Minnesota, Montana, and Wisconsin, nearly all teachers hold both full certification and a major in the field they teach, and few if any are hired on emergency credentials.³⁹ Not surprisingly, students in these states rank at the top of the distribution in mathematics and reading achievement on the National Assessment of Educational Progress. One might speculate that this distribution is largely a function of states' student populations; however, research on the determinants of these outcomes has found that states' levels of student performance are much more strongly predicted by the proportion of well-qualified teachers (those holding full certification plus a major in the field they teach) in the state than by student poverty, language status, or other background variables.⁴⁰ As described later, these states have adopted specific policies that have allowed them to provide well-qualified teachers to all students. By contrast, states like Alaska, California, and Louisiana, which rank much lower on overall achievement, have many fewer teachers who are well qualified (that is, who hold certification plus a major in their field) and large numbers of teachers teaching out of field or on emergency credentials.⁴¹ These differently prepared teachers are allocated along class and racial lines.

In addition to the fact that states have widely varying requirements for licensing, school districts do not always insist on hiring well-qualified teachers. Nationwide, only two-thirds of districts require their new hires to hold at least a college minor in the field to be taught, along with full certification and preparation from a state-approved institution. In some low-scoring states, like Georgia, fewer than half of all districts insist upon these hiring requirements, and these districts serve more advantaged students.⁴² In other states, like Iowa, Minnesota, Kentucky, and Wisconsin, almost all of them do. On the other hand, some districts, such as School District 2 in New York City and the district of New Haven, California, have created comprehensive systems of recruitment, preparation, and induction to ensure that they get and keep the best-qualified teachers, even in difficult labor markets. We describe how they have done this in a later section of this chapter.

RESOURCE DIFFERENTIALS. An ongoing problem in recruiting well-prepared teachers to poor school districts is the continued inequality in funding that plagues American schools. Teacher salaries vary widely across districts and states. For example, average salaries in 1997–98 ranged from \$27,839 in South Dakota to \$51,727 in Connecticut.⁴³ Even within a single labor market, there is often a marked difference in teachers' salaries based on the wealth and spending choices of various districts. Typically, teachers in affluent suburban districts earn more than those in central cities or more rural communities within the same area. In 1994, for example, the best-paid teachers in low-poverty schools earned at least 35 percent more than those in high-poverty schools (see Figure 5.5).

Teachers' salaries are not high relative to those of college graduates in other occupations. Of all college graduates, those with education majors generally receive the lowest average starting salaries.⁴⁴ This situation is partly a function of how school systems allocate their funds. For example, in the United States only 52 percent of education dollars are spent on instruction and only 43 percent of education staff are classroom teachers. Only 36 percent of education dollars are spent on teachers' salaries. In other industrialized nations, about three-fourths of education resources are spent directly on instruction and classroom teachers represent from 60 to 80 percent of all staff. More than half the budget in these countries is spent on a greater number of better-paid and better-prepared teachers.⁴⁵

**FIGURE 5.5. TOP PUBLIC SCHOOL TEACHER SALARIES,
BY POVERTY STATUS OF STUDENTS, 1993-94**



^a Students receiving free/reduced-price lunch.

Source: "America's Teachers: Profile of a Profession, 1993-94," National Center for Education Statistics, U.S. Department of Education, Washington, D.C., 1993.

TRACKING. The practice of tracking is another well-documented phenomenon that contributes to unequal access to educational opportunities for low-income and minority students. A number of studies have found that students placed in lower tracks ultimately achieve less than students of similar aptitude who are placed in academic programs or untracked classes.⁴⁶ Tracking persists in the face of growing evidence that it tends not to benefit high achievers and puts low achievers at a serious disadvantage.⁴⁷ This is in part because good teaching is a scarce resource that tends to get allocated to the students whose parents or advocates have the most political clout. In addition, teachers who are adequately prepared to use the wide variety of strategies needed to succeed with diverse learners are relatively few. Evidence suggests that teachers themselves are tracked, with those judged to be the most competent and experienced assigned to the top tracks.⁴⁸ Within a school the more expert experienced teachers, who are in great demand, are rewarded with opportunities to teach the most enriched curricula to the most advantaged students. Meanwhile, underprepared and inexperienced teachers are often assigned to the students whom others do not care to

teach, which leaves them practicing on the students who would benefit most from highly skilled teachers.

Although part of the reason for curriculum differentiation is the strongly held belief that only some students can profit from a challenging curriculum, another reason for the restricted access to the more rigorous courses is the scarcity of teachers who can teach in the fashion such a curriculum demands. This was the case at one very diverse school that tried to “detrack” its mathematics curriculum. The school had offered a rote-oriented curriculum to most students and a conceptually oriented program to selected students. Despite a short-lived effort to offer the more advanced program to all students, after a few years the school returned to a tracked system, in which most white students received a substantially more challenging curriculum than most students of color. The principal explained that most of the teachers found the more conceptual curriculum too difficult to teach; they lacked the mathematics and teaching skills needed to use it well. And so tracking for the students was revived primarily as a means for dealing with unequal capacities of teachers.⁴⁹

In classrooms where teachers are poorly trained, students tend to receive a steady diet of worksheets and rote learning guided by superficial texts. In large part as a function of the limited skills of their teachers, students in poor schools and those placed in the lowest tracks too often sit at their desks for long periods of the day, matching the picture in column A to the word in column B, filling in the blanks, copying off the board. They work at a low cognitive level on boring tasks that are not connected to the skills they need to learn. Rarely are they given the opportunity to talk about what they know, to read real books, or to construct and solve problems in mathematics or science.⁵⁰ When their teachers do not know other ways to teach, the curriculum students are taught—and what they consequently learn—is quite different from what students learn in schools where good teaching is widespread.

CONDITIONS OF TEACHING. Teaching conditions are also distributed differently across different types of schools and of students. The lower fiscal capacity of inner-city schools that deters qualified teachers is further compounded by the nonprofessional working conditions many such schools offer, ranging from lower levels of teacher participation in decisionmaking to more dysfunctional administration. Teachers in more advantaged communities have much easier working conditions,

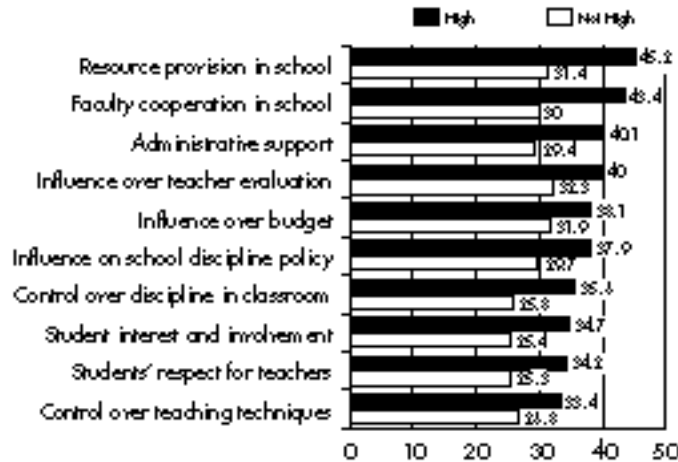
including smaller class sizes and pupil loads, and much more control over decisionmaking in their schools.⁵¹ In addition, reforms in teachers' workplace conditions are more evident in schools outside central cities. The uneven pace and distribution of reform across the public school system may contribute to both the causes and the effects of what is becoming a bimodal distribution of teachers.

Between 1988 and 1994, teacher attrition rates climbed from 5.6 percent to 6.6 percent of all teachers.⁵² This was partly due to growing retirements and partly due to the continuing high rates of attrition for beginning teachers, more than 30 percent of whom leave within the first five years of teaching.⁵³ Of those who left, about 27 percent retired, 37 percent left for family or personal reasons, and 26 percent were dissatisfied with teaching or sought another career.⁵⁴ Not surprisingly, attrition rates were higher in high-poverty than low-poverty schools, and those who left high-poverty schools were more than twice as likely to leave because of dissatisfaction with teaching as those in low-poverty schools.⁵⁵

Teachers' plans to remain in the profession are highly sensitive to their perceptions of their working conditions. About 33 percent of public school teachers and 49 percent of private school teachers plan to remain in teaching as long as they are able, but these plans are highly dependent on how they feel about administrative support, teacher influence in decisionmaking, faculty cooperation, and resource provision. These professional factors matter even more to teachers in their decisions about where to teach than characteristics of students or communities (see Figure 5.6, page 144).⁵⁶

Control over salient elements of the work environment is also an important factor in teacher retention. Those who left teaching for other employment in 1994 were more satisfied in their new jobs with their influence over policy, professional prestige, resources available, support from administrators, and manageability of work than were current teachers.⁵⁷ Many talented teachers leave teaching because their workplaces do not sustain teachers' adaptability, individuality, and the autonomy that they need to teach.⁵⁸ Research over the past twenty years shows that most teachers want more opportunities to be involved in decisionmaking, especially in areas of school policy that affect teaching, and this is related to their satisfaction, stress, and loyalty.⁵⁹ Yet in 1993–94, fewer than 40 percent of all teachers (and an even smaller proportion of public school teachers) felt they had much influence in determining

FIGURE 5.6. PERCENTAGE OF TEACHERS WHO PLAN TO REMAIN IN TEACHING AS LONG AS THEY ARE ABLE, BY PERCEPTIONS OF THEIR WORK ENVIRONMENTS, 1993–94



Source: "America's Teachers: Profile of a Profession, 1993–94," National Center for Education Statistics, U.S. Department of Education, Washington, D.C., 1993.

school policies such as curriculum, content of in-service training, or discipline policy.⁶⁰ Nearly half of all teachers in 1990 (up from one-quarter in 1987) said they were not satisfied with the control they had over their professional lives.⁶¹ And one out of four first-year teachers in 1990–91 reported that they had to follow rules that conflicted with their best professional judgment—a situation highly correlated with lower levels of commitment and planned retention in teaching.⁶²

Teachers in central city schools and those schools with higher minority enrollments are least likely to report having influence over school policies in any category and most likely to believe that they have too little power at the school level.⁶³ Teachers in high-poverty schools are much less likely than others to say that they have influence over decisions concerning curriculum, texts, materials, or teaching policies. They are also much less likely to be satisfied with their salaries or to feel they have the necessary materials available to them to do their job.⁶⁴ This compounds the other disincentives for teaching in these schools—disincentives that include lower salaries and larger class sizes—which feed, in turn, into the disparities in teacher

qualifications and teaching quality that students in different schools experience.⁶⁵

In cities that have mandated the use of “teacher-proof curricula” in the form of highly detailed, prescribed lesson plans, curriculum packages, scripted lessons, pacing schedules, and the like, the disincentives for attracting and retaining thoughtful teachers have been noted in a number of studies.⁶⁶ While untrained teachers sometimes welcome scripted lessons, better-prepared teachers complain that they cannot meet the nonstandardized needs of their students if they are constrained by highly prescribed curricula that are based on unvarying assumptions about when, how, and how quickly individual students will learn particular material. In recent years, such curriculum controls have been reinstated in Chicago, Washington, D.C., and Philadelphia (after similar programs were abandoned in the 1980s). Anecdotal evidence suggests that these efforts have encouraged some talented teachers to leave these districts. Similar disincentives for responsive teaching can occur if schools use scripted teaching programs, such as the most prescriptive versions of Open Court’s reading program, as mandates rather than as tools that can be adapted to support instruction for different students.

Finally, there is very different access to the kinds of mentoring supports that new teachers need, especially in challenging environments. Traditionally, the newest teachers are assigned to the neediest schools and students and are left, without mentoring, to sink or swim. Many leave after a short time, and others learn to cope rather than to teach effectively.⁶⁷ The good news is that some states are creating induction programs to provide mentoring and support for beginning teachers. Among teachers with less than five years of experience, 55 percent report that they experienced some kind of formal induction program during their first year of teaching.⁶⁸ By contrast, only 16 to 17 percent of teachers with more than ten years of experience had had such help when they entered the profession.⁶⁹

Like all other education policies, however, access to high-quality induction programs varies widely across the country. More than three-quarters of beginners report having experienced induction supports in states that put such programs in place several years ago—Connecticut, Florida, Indiana, Kentucky, Missouri, North Carolina, Oklahoma, and Pennsylvania. However, in states like Rhode Island and Massachusetts that have relied on local initiatives, fewer than 15 percent of beginning teachers have received any kind of systematic mentoring. Inner-city

schools with stretched resources and disproportionate numbers of inexperienced teachers (and commensurately fewer expert veterans) are least likely to offer adequate mentoring supports.

Meanwhile, professional development investments are often paltry, and most districts' offerings, limited to "hit and run" workshops, do not help teachers learn the sophisticated teaching strategies they need to address very challenging learning goals with very diverse populations of students. And teachers have little time to learn from one another. In U.S. schools, most teachers have only three to five hours a week in which to prepare their lessons, usually in isolation from their colleagues. They rarely have opportunities to plan or collaborate with other teachers, to observe and study teaching, or to talk together about how to improve curriculum and meet the needs of students.

In combination, these findings intersect with a growing body of research on teacher efficacy, retention, and commitment that suggests that retaining and supporting effective teachers will require restructuring schools to provide teachers with greater administrative supports, more decisionmaking input and control over their work, more useful feedback and opportunities for collegial work, and provision of material resources and supports.⁷⁰

District Management Also Matters

While there are labor force issues and resource inequities that often put urban school systems at a disadvantage, the ways in which districts choose to organize their efforts and use their resources also matter greatly. Districts' hiring practices strongly affect the quantity and quality of teachers in the labor pool and the distribution of teachers to different types of school systems. Studies have found that some districts hire unqualified teachers for reasons other than shortages, including out-and-out patronage; a desire to save money on salaries by hiring low-cost, less qualified recruits; and beliefs that more-qualified teachers are more likely to leave and less likely to take orders.⁷¹ A RAND Corporation study, for example, found that many districts emphasize teachers' ability to "fit in" and their willingness to comply with local edicts rather than their professional expertise.⁷² When these and other new teachers leave in frustration because they are underprepared for teaching and undersupported by the current induction practices, the hiring scramble begins all over again.

Furthermore, many school districts fail to hire the most qualified and highly ranked teachers in their applicant pool because they have inadequate management information systems and antiquated hiring procedures that discourage or lose good applicants in a sea of paperwork.⁷³ These problems are particularly likely to occur in large, urban districts. Reports of vacancies and information on candidates are not always accessible to district decisionmakers. Hiring procedures are often cumbersome and bureaucratic, sometimes including fifty or more discrete steps that take many months to complete. Candidates repeatedly have their files lost, fail to receive responses to repeated requests for information, cannot secure interviews, and cannot get timely notice of job availability. Late budget notification from state or city governments and union contracts requiring placement of all internal teacher transfers prior to hiring of new candidates can put off hiring decisions until August or September, by which time candidates have decided to take other jobs. As a result of these inefficiencies, large, urban districts often lose good candidates to other districts and to nonteaching jobs.⁷⁴

Other state and school district practices also can undermine high-quality teacher recruitment and development. For example:

- u Many states will not accept licenses from other states without requiring new fees, tests, and often redundant course requirements. The lack of reciprocity makes it hard to get teachers from states with surpluses to those with shortages. Many districts will not hire veterans with more than seven to ten years of experience.
- u Most impose a cap on salaries they offer experienced candidates; as a consequence, highly educated and experienced teachers often find themselves passed over in favor of inexperienced and even uncertified teachers. Some are forced to take a cut in pay if they move to a new locality and want to continue to teach. Many end up leaving the profession.
- u Few districts provide reimbursement for travel and moving expenses.
- u Many districts place beginning teachers in the most difficult schools with the highest rates of teacher turnover, the greatest numbers of inexperienced staff, and the least capacity to support teacher growth and development. Without induction supports, many teachers leave.

Just as policies can create shortages, they also can eliminate them. Case studies of urban districts that are successful in hiring the teachers they most want and need have found that they have developed proactive outreach systems for recruiting from local colleges and from other regional and national sources, streamlined personnel systems using sophisticated information technology to make information about vacancies available to candidates and information about candidates readily available to decisionmakers, and developed systems for predicting teacher demand and making offers early in the spring, as well as strategies for ensuring that those who receive offers are made to feel welcome, wanted, and well-inducted into the school district.⁷⁵

WHAT ARE THE ALTERNATIVES?

While there are many challenges in recruiting teachers to urban and rural schools, education policy can make a difference. For example, in the post-Sputnik years, highly focused teacher recruitment programs created new pathways for attracting and preparing teaching talent (for example, the National Defense Education Act of the 1950s and the Education Professions Development Act of the 1960s). During the early 1970s, the federal Career Opportunities Program provided a total of \$129 million to support fifteen thousand teacher aides on pathways into teaching and the Urban Teachers Corps. Federal support also created Masters of Arts in Teaching programs and supported pathways for college graduates into teacher preparation and teaching. National Science Foundation initiatives in the 1960s and 1970s targeted the preparation and recruitment of mathematics and science teachers. In part because of these programs, shortages of teachers that began to appear in the 1960s were eliminated by the 1970s. In more recent years, many states and districts have overcome teacher shortages even in central cities. Proactive policy can make a difference in the availability of qualified teachers to all schools.

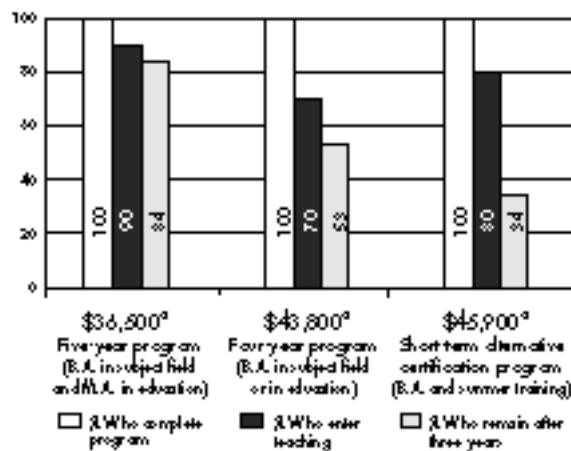
Subsidies for High-Quality Training

An important point to consider when solving problems related to the supply of qualified teachers is that better-prepared teachers enter and stay in teaching at much higher rates than those who are less prepared.

For example, studies suggest that teachers from five-year programs have entry and retention rates significantly higher than those from four-year undergraduate programs, who in turn have retention rates significantly higher than those from short-term alternative or emergency certification programs. These differences are so substantial that it is actually less expensive to prepare a teacher in a high-quality program—once the costs of preparation, recruitment, induction, and replacement due to turnover are taken into account—than to train a teacher through a quick route that will leave her underprepared and vulnerable to dropping out of the profession (see Figure 5.7).

Lowering the financial and opportunity costs of acquiring teacher preparation is one means to improve recruitment, particularly for minority students. Although the funding for federal recruitment programs was discontinued in the early 1980s, some states created their own recruitment incentives when demand for teachers began to grow again in the late 1980s. One such initiative is the North Carolina Teaching Fellows program. The Fellows program, funded by the state legislature at \$8 million a year, provides \$20,000 service scholarships to four hundred highly able high school seniors a year who enroll in intensive

FIGURE 5.7. AVERAGE RETENTION RATES FOR DIFFERENT PATHWAYS INTO TEACHING



^a Estimated cost per third-year teacher per program.

Source: Linda Darling-Hammond, *Solving the Dilemmas of Teacher Supply, Demand, and Quality* (New York: National Commission on Teaching and America's Future, 2000).

teacher education programs throughout the state. These programs include special coursework and summer programs in addition to the usual preparation teaching entrants would receive. The fellows do not have to pay back their scholarships if they teach for at least four years in North Carolina schools. The program has recruited more than four thousand fellows to teaching—a disproportionate number of them males and minorities and many in high-need fields like math and science and in urban school districts.

A recent study of the program found that 75 percent of all fellows had completed their four-year obligation and were still teaching in the public schools.⁷⁶ In another recent evaluation, principals reported that the fellows' first-year classroom performance far exceeded that of other new teachers in every area assessed. The fellows, who had had more extensive preparation than most other new teachers in areas relating to student diversity and assessment, felt that their teacher education programs had prepared them well for the multiple and demanding roles they play as teachers. They stressed both the importance of this preparation and a desire for additional learning opportunities.⁷⁷

Some urban districts have pursued their own recruitment initiatives for teacher preparation. In recent years, New York City—once a hiring source for thousands of unlicensed teachers annually—has worked to ensure qualified teachers for all of its students by streamlining hiring procedures and aggressively recruiting well-prepared teachers through partnerships with local universities. In 1997, New York filled two-thirds of its fifty-five hundred vacancies with fully qualified teachers, whereas in 1992 it had filled only one-third of a smaller number of positions with qualified teachers. During these years the number of uncertified teachers in the city was decreased by more than half.

Key to this success are a series of efforts that bring the city's recruiters directly to students in local preparation programs each spring; offer interviews and tests on college campuses; recruit teachers in high-need areas like bilingual and special education by offering them scholarships and forgivable loans to complete their training; work with universities and local districts to bring well-trained prospective teachers into hard-to-staff schools as student teachers, interns, and visitors; make offers to well-qualified candidates much earlier in the year; and streamline the exchange of information and the processing of applications. More efforts are under way to create automated systems for projecting vacancies and processing information, to decentralize interviews

to principals and committees of teachers in local schools, and to strengthen partnerships with local colleges.

Salaries

Clearly, recruitment into teaching is also a function of the competitiveness of wages and other job benefits. In fact, based on his research in Texas, Ron Ferguson argues that districts with greater numbers of low-income and minority students need to pay a higher salary to attract the same quality of teachers as districts with students from more affluent families.⁷⁸ In recent years, a few districts have experimented with bonuses or added salary increments to attract recruits for fields with shortages or for hard-to-staff schools; however, only about 10 percent of all school districts are trying any of these strategies (see Figure 5.8, page 152).

There is little evidence about the effectiveness of most of these targeted efforts. In his research on what are sometimes called “combat pay” programs, James Bruno found that incentives such as paying bonuses to teachers in hard-to-staff schools are not sufficient to retain them or enhance their teaching. Rather, combat pay programs “tend to be superficial approaches to a problem that demands careful study to determine why teachers are leaving certain schools in the first place.”⁷⁹ Bruno identifies several problems that have resulted from this strategy: draining teachers from similar schools that do not qualify for combat pay; district difficulties in maintaining the financial obligation over time (particularly once any special funding for the program has expired); and the lack of support and supervision after teachers are hired to ensure that the goals of the program—teacher retention and instructional improvement—are being met. He concluded that if teacher support and classroom performance are not addressed as well, combat pay or similar programs based on financial compensation will not be successful in improving students’ education.

A more systematic approach seeks to address teacher salaries and supports through reallocation of state resources. One major cause of teacher shortages in cities and poor rural districts is that few states have equalized school funding or teachers’ salaries so that districts can compete equally in the market for well-prepared teachers. Having experienced severe shortages of qualified teachers in its cities for more than two decades, Connecticut sought to rectify this situation in 1986. With

FIGURE 5.8. PERCENTAGE OF PUBLIC SCHOOL DISTRICTS THAT OFFERED VARIOUS FINANCIAL INCENTIVES TO RECRUIT AND RETAIN TEACHERS IN LESS DESIRABLE LOCATIONS OR IN



FIELDS OF SHORTAGE, 1987-88 AND 1993-94

a major investment through its Educational Enhancement Act, Connecticut spent over \$300 million in 1986 to boost minimum beginning teacher salaries for qualified teachers in an equalizing fashion that allocated more funds to needy districts than to wealthy ones. This made it possible for low-wealth districts to compete in the market for qualified teachers and for all districts to offer market-competitive wages. This initiative eliminated teacher shortages in the state, even in the cities, and created surpluses of teachers within three years. At the same time, the state raised licensing and teacher education standards, instituted performance-based examinations for licensing and a state-funded mentoring program for beginning teachers, required teachers to earn a master's degree in education for a continuing license, invested in training for mentors, and supported new professional development strategies in universities and school districts. Since then, Connecticut has posted significant gains in state rankings, becoming one of the top-scoring states in the nation in mathematics and reading despite an increase in the proportion of students with special needs during the 1990s.⁸⁰ Equalization of salaries and improvements in teacher education and induction have led to similar reductions in teacher shortages and improvements of teacher qualifications in states such as Kentucky and North Carolina as well.⁸¹

Streamlined Selection and Proactive Recruitment

As noted above, many large districts have hiring procedures that are so cumbersome and dysfunctional that they chase the best-prepared candidates away instead of aggressively recruiting them. Large districts like New York City, Chicago, and Los Angeles with underfunded, non-automated personnel offices may have thousands of qualified candidates annually who are not hired because their files are lost, their calls are not returned, or they become discouraged after waiting months to get an interview. New York City's efforts to address these problems made a major dent in the city's teacher shortage during the late 1990s.

Another glimpse of the possible can be seen in the New Haven Unified School District, located midway between Oakland and San Jose, California, which serves approximately fourteen thousand students from Union City and south Hayward. Three-quarters of these students are minorities, and most of them are from low-income and working-class

families. Twenty years ago, the district was the most impoverished district in a low-income county, and it had a reputation to match. Families who could manage to do so sent their children elsewhere to school. Today, the New Haven Unified School District, while still a low-income district, has a well-deserved reputation for excellent schools—despite its lower per pupil expenditures than many surrounding districts. Every one of its ten schools has been designated a California Distinguished School. All have student achievement levels well above California norms for similar schools. The district has had to close its doors to out-of-district transfers because schools are bulging at the seams. Still, families try every trick in the book to establish a New Haven district address because they know their children will be well taught.

When school districts across California scrambled in recent years to hire qualified teachers, often failing to do so, New Haven had in place an aggressive recruitment system and a high-quality training program with local universities that allowed it to continue its long-term habit of hiring well-prepared and committed teachers from diverse backgrounds to staff its schools.⁸² One factor in this success is that New Haven spends the lion's share of its budget on teachers' salaries. But the efficient recruitment system is also instrumental in maintaining a high-quality teaching staff. For example, while nearby Oakland spends substantially more money per pupil, New Haven's beginning teacher salaries are nearly one-third higher. And as Oakland hires large numbers of unqualified teachers as its dysfunctional personnel operations keep many qualified teachers from entering the system,⁸³ New Haven's personnel office uses technology and a wide range of teacher supports to recruit from a national pool of exceptional teachers. Its website posts all vacancies and draws inquiries from around the country. Each inquiry receives an immediate e-mail response. With the use of electronic information transfer (for example, the personnel office can send vacancy information directly to candidates and applicant files to the desktop of any administrator electronically), the district can provide information to potential applicants that urban districts might never think would be available to them. Viable applicants are interviewed within days in person or via video-conference (through a local Kinko's), and if they are well qualified with strong references, they may be offered a job that same day. Despite the horror stories one often hears about the difficulty of out-of-state teachers earning a California teaching credential, New Haven's credential analyst in the

personnel office has yet to lose a teacher recruited from out of state in the state's credentialing maze.

Mentoring and Induction for Beginning Teachers

Another significant strategy for recruiting teachers to the New Haven Unified School District is its long-term investment in teacher education. The district was one of the first in the state to implement a Beginning Teacher Support and Assessment Program that provides support for teachers in their first two years in the classroom. All beginning teachers receive support from trained mentors who are given a lighter teaching load to free-up enough released time for this responsibility. Many beginning teachers report that they chose to teach in New Haven because of the availability of this strong support for their initial years in the profession. In addition, with the California State University at Hayward, the district designed an innovative teacher education program that combines college coursework and an intensive internship conducted under the close supervision of school-based educators. Because interns function as student teachers who work in the classrooms of master teachers rather than as independent teachers of record, the program simultaneously educates teachers while protecting students from untrained novices and providing quality education. The fruits of these efforts show in New Haven's steadily rising student achievement as well as its success in finding and keeping good teachers.

New Haven's investment in mentoring beginning teachers has been replicated elsewhere, with similar results. The number of teachers who participated in formal induction programs almost doubled during the decade from 1981 to 1991 and more than tripled since the early 1970s.⁸⁴ By 1991, 48 percent of all teachers with fewer than three years' experience and 54 percent of public school teachers had participated in some kind of induction program during their first year. Depending on how the programs are designed and the kinds of supports they provide, these induction initiatives may make a substantial difference in teacher recruitment and retention.

The importance of mentors to new teachers is now well documented in research on induction and learning to teach.⁸⁵ When teacher educators were surveyed about critical issues in teacher education in 1989, the issue ranked highest was the need for mentoring beginning

teachers during their first year of practice.⁸⁶ Teachers of all experience levels agree on the importance of supervised induction. When asked what would have been most helpful in their first years of teaching, 47 percent of respondents in a Metropolitan Life survey of teachers said a skilled, experienced teacher assigned to provide advice and assistance and 39 percent said more practical training, such as a year's internship before having their own classroom.⁸⁷ In addition to providing vital guidance and learning for new teachers, teacher mentoring reduces the attrition of beginning teachers from the profession.⁸⁸

The likelihood that mentor programs will have these salutary effects depends on how they are designed. Across the country, mentor programs vary in the amount of resources they provide for participating teachers. Some are unfunded and voluntary, and mentors and participants consult on their own time. Others provide compensation for the mentor in the form of additional pay and release time. In some districts, mentors are released from classroom responsibilities full- or part-time for one or two years. In other districts, mentors and beginning teachers are provided a limited amount of release time, so they can visit and observe in each others' classrooms.

Previous research on state-level teacher induction programs shows major differences in the strategies adopted during the 1980s. While places like California and Connecticut funded mentor programs, many other first-wave induction programs focused on evaluation rather than mentoring, requiring new teachers to pass an observational evaluation before they received a continuing license. Most such programs did not fund mentoring, and the mandated evaluation strategies typically rated new teachers on how well they demonstrated a predetermined list of behaviors rather than on whether they developed effective practices appropriate to their contexts and content areas. Since then, more states and districts have sought to create programs that support new teachers in the guided development of good practice through mentoring and self-assessment that promote higher levels of effectiveness.⁸⁹

Successful programs allow mentors to be flexible in addressing the individual needs of each new teacher. Gayle Wilkinson surveyed first-year teachers about their needs for assistance in planning lessons and for help with classroom procedures, teaching methods, making difficult decisions, and making decisions about discipline.⁹⁰ She found that new teachers had very diverse responses regarding the amount of assistance they desired in these categories. Instead of a prescriptive induction program,

Wilkinson recommends programs that are designed to “accommodate beginning teachers who are developmentally at different stages, who have different needs and require various types of assistance.”⁹¹ This recommendation is supported by Terry Wildman and colleagues who studied 150 mentor-beginner pairs and concluded that the diversity of contexts for mentoring requires flexibility in mentors’ roles, which should not be overly prescribed. They conclude that “[m]entoring, like good teaching, should be defined by those who carry it out.”⁹²

There is no one formula for mentoring, but successful models have some common features. Connecticut’s statewide induction program, Beginning Educator Support and Training (BEST), which began in 1986, is designed with a three-tiered training model for mentors to accommodate their different degrees of prior mentoring experience. The BEST program also includes an assessment component, which ultimately determines licensure for new teachers. From the beginning, BEST has involved classroom teachers in the planning and development of the program. Teachers serve both as mentors and evaluators, but different people serve each function. The fact that mentors are responsible for helping teachers develop classroom competencies that will ultimately be observed and assessed creates an incentive for the recruitment and selection committee to choose strong mentors.⁹³ Mentoring in the BEST program provides many different kinds of assistance to new teachers. Mentors confer with beginners, demonstrate lessons, model strategies, and observe and are observed by the beginners. University-based seminars designed to help each new cohort of beginning teachers understand the state standards and assessments—and the teaching they call for—are also now a part of the beginning teacher program. An emphasis is placed on reflection in the seminars as well as in the mentoring program; a recent study found that “the thinking of both the beginning teacher and the mentor is enhanced as they ‘puzzle about’ and discover reasons for classroom decisions together.”⁹⁴

The BEST program serves a vital role for the mentors as well as the beginners: “New opportunities for professional growth, specifically in developing analytical, reflective, and communication skills, have been cited by nearly all mentors as having had a major impact on their perception of themselves and as having improved their teaching.”⁹⁵ Extremely low attrition of beginning teachers in Connecticut contributes to continuing surpluses; and the state has eliminated the revolving door

that had once required the state to replace large numbers of teachers each year.

Connecticut's practice of establishing cohort groups comprised of new teachers is supported by research suggesting that novice teachers benefit from working with other novices to solve problems collaboratively as well as to develop a sense of solidarity with others in similar circumstances.⁹⁶ Providing opportunities for beginning teachers to observe skilled veterans as well as to be observed by them is another important component of new teacher induction. It combats the isolation that has traditionally kept teachers from growing professionally while fostering norms of collegiality and continual learning.⁹⁷ Leslie Huling-Austin reports that when mentors discuss their practices with novices, it is important for them to make their thought process explicit.⁹⁸ She and others also recommend that new teachers should be paired with mentors of the same grade level or subject if possible. This enables new teachers to pursue specific questions about content.⁹⁹

One local program that includes these features is the Los Angeles Unified School District's partnership with California State University, Dominguez Hills, a program that focuses on the retention of new teachers in two low-income regions of the school district that suffered from high annual teacher attrition rates (in many years, attrition rates were in excess of 50 percent).¹⁰⁰ In this program, lead teachers were selected based on experience, excellence in teaching, and leadership, as well as their abilities to be nurturing and nonjudgmental.¹⁰¹ These lead teachers were trained in observation and coaching, so they were able to provide feedback and support confidentially. They did not have an evaluative role. Each lead teacher was matched with two to four teachers in their first or second year of teaching based on common grade level and subject area as well as classroom proximity. The teams met every week to plan together and solve problems collaboratively. Teacher teams, including the lead teacher, enrolled together in specially designed university classes; lead teachers were thus able to help the new teachers implement the strategies they learned there.

This program included a provision for stipends to be paid to all participants for work during noncontract hours. The costs of the university courses were also covered. The program costs were justified by research that has shown that "the most cost effective projects provided high-intensity assistance by experienced teachers who were paid for their time."¹⁰² After three years of this program, over 95 percent of the

beginning teachers who participated were still teaching (89 percent remained in their original districts) and only 1 percent had left teaching.¹⁰³ In addition, the quality of teaching among new teachers was positively affected. An evaluation of the project found that “project beginning teachers used more effective instructional planning practices, provided more learning opportunities for students, and had higher student engagement rates than non-project participants.”¹⁰⁴

Several other urban districts have created models of beginning-teacher induction and career-long learning that have been replicated with significant success in other urban settings. Peer review and assistance programs initiated by the American Federation of Teachers (AFT) and the National Education Association (NEA) locals in Toledo, Cincinnati, and Columbus, Ohio; Rochester, New York; and Seattle, Washington, are successful in helping beginners learn to teach. They also have helped veterans who are having difficulty either to improve their teaching or to leave the classroom without union grievances or delays. Each program was established through collective bargaining and is governed by a panel of seven to ten teachers and administrators. The governing panel selects consulting teachers through a rigorous evaluation process that examines teaching skills and mentoring abilities. The panel also approves the assignment to intervention status (through self-referrals or referrals made by principals) of tenured teachers who are having difficulty, and it oversees appraisals of beginning and intervention teachers.

New teachers are designated *interns*, and they receive close mentoring from an expert consulting teacher who also evaluates them to determine if their employment contract will be renewed and if they will advance to the *residency* level. A less than satisfactory rating leads either to a second year of assistance or to termination. A satisfactory evaluation is needed to move up on the salary schedule. Consulting teachers are given release time so they can focus on this job. This ensures that they are able to provide extensive help and to document problems and progress over the course of a full academic year. They are selected for teaching excellence and generally matched by subject area and grade level with the teachers they are to help, which increases the value of the advice offered and the credibility of the judgment rendered.

Since the program began, overall attrition of beginning teachers has decreased and beginners become much more competent sooner. In

Rochester, for example, retention of interns is 90 percent, as compared with only 60 percent of beginners before the program was put in place. In Cincinnati, attrition of beginning teachers has been about 5 percent annually since the program was put into effect.¹⁰⁵

Incentives for Expanding and Sharing Knowledge and Skills

In addition to mentoring supports, the Career-in-Teaching programs in Rochester, New York, and Cincinnati, Ohio, provide incentives to retain expert veteran teachers in the profession, to improve teachers' professional growth opportunities, and to give teachers broader roles and responsibilities that will improve student achievement and develop better schools. The program provides supports for learning, evaluation based on professional standards, and salary incentives. Teachers advance in their career in a series of steps—intern, resident, career teacher, and lead teacher—as they gain and demonstrate growing expertise.

After a new teacher graduates from intern status and is tenured, he or she becomes a resident teacher. Over the next three to four years, resident teachers develop their teaching skills and become active in professional decisionmaking. In Cincinnati, a formal evaluation by the principal is required at the third and fifth years, when the teacher applies for career status and tenure. Those who wish to can apply for lead teacher status after seven or more years. Lead teachers are not only excellent teachers, they also know how to mentor adults and facilitate school change. They serve as consulting teachers for beginners and veteran teachers who are having difficulty, as curriculum developers, as clinical faculty who work with student teachers in the districts' teacher education partnerships with local schools of education, and as leaders for school-based initiatives, all while continuing their own teaching.

To become a lead teacher in Rochester, candidates must provide confidential recommendations from five colleagues, including teachers and principals. Specific positions as mentors, curriculum designers, and project facilitators come with stipends ranging from 5 to 15 percent of total salaries—a range of about \$3,000 to about \$9,000. About thirty Rochester teachers are currently lead teachers. In Cincinnati, salary

increments for lead teachers range from \$4,500 to \$5,000. About three hundred of Cincinnati's three thousand teachers have passed the rigorous evaluation process to attain lead teacher status—four to six classroom observations by expert teachers, interviews of colleagues about the applicant, and an extensive application that reveals the candidate's philosophy and experience.

The creation of these positions and processes also produces professional accountability for the overall quality of the teaching force. Although many claim it is impossible truly to evaluate teachers or get rid of those who are incompetent, these districts have transformed old, nonfunctional systems of teacher evaluation into peer review systems that improve teaching performance and counsel out those who should not be in the profession.

In each city, more teachers have been given help and have made major improvements in their teaching and more teachers have been dismissed than ever had occurred under the old systems of administrative review. In Cincinnati, roughly one-third of the teachers referred to intervention each year have left teaching by the end of the year through resignation, retirement, or dismissal. In Columbus, where a similar program was initiated, about 150 teachers (approximately 2 percent of the teaching force) were assigned to intervention over an eight-year period. Of those, about 20 percent retired or resigned; the other 80 percent have improved substantially. During the first five years of the program in Cincinnati, 61 percent of teacher dismissals for performance reasons resulted from peer review, as compared with 39 percent from evaluation by administrators. Five percent of beginning teachers under peer review were dismissed, as compared with 1.6 percent of those evaluated by principals. Of 60 Rochester teachers assigned to the Intervention Program since 1988, about 10 percent determined through their work with lead teacher mentors that they should leave the profession. (Rochester teachers may request the assistance of a lead teacher mentor voluntarily through the Professional Support Program, which has served about one hundred teachers each year since 1991.)

While some reformers have advocated the removal of teacher tenure as a means of getting rid of poor teachers, research suggests that these efforts to create a more accountable teaching force are more productive for retaining good teachers and weeding out poor ones than the removal of tenure would be.

Tenure provides not a guarantee of employment but protection against dismissal without cause. Statistics indicate that teacher dismissal rates are not correlated with the existence of tenure. The districts described above use focused evaluation to remove teachers who are not competent despite tenure. Meanwhile districts that have no collective bargaining or formal tenure generally do not evaluate many teachers out of the profession. The critical variable is the existence of a productive evaluation system that provides expertise and time for performance review and assistance while protecting due process.

Furthermore tenure provides an attraction to teaching that still operates: Tenure was introduced to provide protections for competent teachers against dismissal for political, patronage, and financial reasons—reasons that are still salient, especially in many highly politicized urban districts. Prior to tenure, it was not uncommon for administrators or school board members to dismiss a teacher in order to save money by hiring a less experienced one, to enforce a political ideology, or to place a friend or relative in the job instead. Whereas the removal of tenure could cost competent teachers their jobs, effective evaluation of the kind described above should push out incompetent teachers while maintaining protections for others who are doing an effective job.

When teachers take on the task of assuring professional accountability for themselves and their peers, it not only improves instruction but it profoundly changes the roles of teachers' unions. Rather than protecting incompetent teachers, unions take responsibility for assuring quality. "We can't legitimately protect teachers who are not performing," says Denise Hewitt, a Cincinnati Federation of Teachers member and director of Cincinnati's Peer Review Panel. At the same time, the improvements in teaching can sometimes be striking. According to Cincinnati consulting teacher Jim Byerly, "We had a teacher who was in intervention ten years ago, who . . . had considerable skills and experience but she had gotten lazy. . . . She needed to start planning the lessons and stick to them and do the hands-on stuff that was needed. . . . Her final appraisal was strong, better than average. I think she felt empowered by the outcome. She went on to be a lead teacher."¹⁰⁶ In addition, the chance to contribute to the profession in this way gives lead teachers a new lease on their own professional lives, while their work improves teaching quality throughout the district. The result is a career model that promotes the recruitment and retention of talented teachers while increasing professionwide knowledge and skill.

Redesigning Schools to Support Teaching and Learning

A final critical area for recruiting and retaining excellent teachers is the restructuring of school organizations and of teaching work, including a reallocation of personnel and resources so that teachers have time to work intensively with students and collaboratively with one another. Teaching in large, bureaucratic settings that do not enable teachers to come to know their students well or to work and plan with other teachers is exhausting work with few rewards. It is especially counterproductive in urban areas where students face many challenges and need a great deal of personal attention. Large, warehouse high schools in which teachers see 150 or more students daily, cycling anonymously through the classroom in fragmented forty-five-minute periods, create alienation and anomie because they support neither learning nor teaching well.

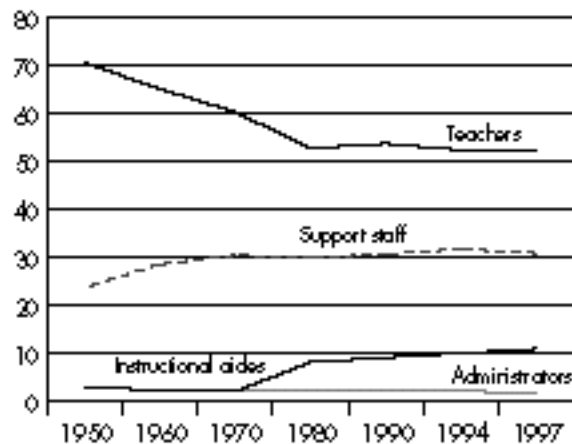
For more than thirty years, studies of school organization consistently have found that small schools (with enrollments of roughly three hundred to five hundred) promote higher student achievement, higher attendance, lower dropout rates, greater participation in school activities, more positive feelings toward self and school, more positive behavior, less violence and vandalism, and greater postschool success.¹⁰⁷ These outcomes also are found in settings where students have close sustained relationships with a smaller than average number of teachers throughout their school careers.¹⁰⁸ This can be achieved when teachers work for longer periods of time with smaller total numbers of students, either by teaching a core curriculum to one or two groups of students rather than a single subject to several groups or by teaching the same students for more than one year. Schools in which students remain with a cohort of their peers also foster a sense of community and a set of continuing relationships that are important to learning and to the affiliations needed to sustain trust and effort.

Evidence shows that better outcomes are achieved by “personal-communal” school models that foster common learning experiences, opportunities for cooperative work and continual relationships, and greater participation of parents, teachers, and students.¹⁰⁹ A recent study of 820 high schools in the National Education Longitudinal Study database found that schools that had restructured to personalize education and develop collaborative learning structures for adults and students produced significantly higher achievement gains that also were distributed much more equitably.¹¹⁰ Their practices included keeping

students in the same homeroom or advisory group throughout high school, establishing smaller school units through school-within-a-school structures, forming interdisciplinary teaching teams, giving teachers common planning time, involving staff in schoolwide problem solving, involving parents, and fostering cooperative learning. Not incidentally, schools with these features have lower teacher turnover and are easier to staff, regardless of the neighborhood or students they serve, since they provide teachers the opportunity to be successful.

Developing such schools requires rethinking organizational forms and norms that have developed over many decades. In contrast to European and Asian countries, which allocate 60 to 80 percent of their education personnel to classroom teaching, the extremely bureaucratic organization of U.S. schools means that only about 43 percent of education staff are regularly assigned as classroom teachers. This allocation of staff and resources to the periphery of the classroom maintains high class sizes and pupil loads for teachers and reduces their opportunity to plan and work together (see Figure 5.9). Successful urban schools not only have changed curriculum, assessments, and schedules to focus on providing longer periods of time for in-depth learning and teaching, they also have developed new patterns of staffing and resource use, including greater investments in teaching and technology rather

FIGURE 5.9. PROPORTIONS OF STAFF, BY FUNCTIONAL AREA



Source: *Digest of Education Statistics, 1996* (Washington, D.C.: National Center for Education Statistics, U.S. Department of Education, 1996), Table 81.

than in nonteaching functions.¹¹¹ In order to afford both smaller pupil loads for teachers and greater time for collegial work, these schools assign to the classroom more of the staff who in other schools work in pull-out programs and administrative and support roles.

All the strategies described above have been used in the more than one hundred new, small, restructured high schools in New York City that have been created since 1990 to replace failing comprehensive high schools. The new schools often create interdisciplinary teams of teachers who share students, and they establish block schedules that reduce teachers' pupil loads while creating more shared planning time. In one model, each teacher teaches two classes (either humanities or math/science) that meet for nearly two hours daily, four times per week. With class sizes of around 20 students, teachers have a total pupil load of 40 instead of the 160 to 170 students most New York City high school teachers face. Virtually everyone in the school works directly with students: about 75 percent of all staff are engaged full-time in classroom teaching, and 100 percent teach part-time or lead advisories—small groups of students who meet weekly with teacher advisers. This compares with the usual 55 percent of staff engaged in teaching in a large traditional high school. Teachers have about seven hours a week to plan together in addition to five hours of individual “prep” time. The codirectors (school leaders) teach some classes and counsel students in advisories. There are no guidance counselors, attendance officers, assistant principals, supervisors, or department heads, and few security guards are needed because students are so well known. Studies have found that attendance, grades, graduation rates, and the number of college-bound students are all higher in these restructured schools than in the traditional schools they are replacing.¹¹² In addition, teachers want to teach in these restructured schools. Whereas traditionally structured schools in these inner-city neighborhoods remain difficult to staff, these schools have a surplus of new and experienced teachers eager to teach in settings where they and their students are likely to succeed.

Recruiting School Leaders

Developing and leading the types of schools discussed here requires, in turn, efforts to recruit and train school principals who understand both the nature of good instruction and the strategies for developing collaborative organizations. Principals are gatekeepers of reform in schools. If schools

are to become genuine learning organizations, school leaders must have a deep understanding of teaching and learning, for adults as well as children. In a learning organization, the primary job of management is professional development, which is concerned with the basic human resources of the enterprise and people's capacities to do the central job of the organization. For all members of the organization, that job is teaching and learning. To lead the schools of the future, principals will need to know how to nurture a collaborative environment that fosters continual self-assessment. Time and again, teachers confirm that the capacity of the school principal to lead in this way is critical to their desire to stay in a given school.

Successful efforts to recruit and train teachers and principals are embedded within the strategy of reform embraced by New York City's Community School District 2.¹¹³ Far from seeing administrators as bureaucrats, the superintendent of District 2 expects all administrators to be instructional leaders in the schools. To develop this capacity, principals, like teachers, are engaged in mentoring and peer coaching, support and study groups, and opportunities for professional growth and learning.¹¹⁴ With these supports, the principalship becomes an intellectual and personal challenge that can be satisfying and successful because it is supported, stemming the extraordinary attrition of urban principals. In addition, District 2 explicitly recruits excellent teachers with leadership abilities into principal training programs, paying for their credential programs and proactively grooming them for the job. This strategy both ensures that the people entering the principalships have the capacity to be credible and effective instructional leaders and that such individuals are given the supports and encouragement to make the transition into this challenging and critical job. With proactive policies for recruiting and supporting both high-quality teachers and principals, District 2 has become one of the most academically successful of New York's community school districts, even though most of its students are minority and come from low-income families, and a large share of them enter school without speaking English.

PUTTING IT ALL TOGETHER: HOW SUCCESSFUL URBAN SCHOOLS GET AND KEEP GREAT TEACHERS AND PRINCIPALS

The goal of offering caring, competent, and qualified teachers and administrators to all students in all communities is one that requires systemic strategies for improving the functioning of schools and school

systems and the preparation of individuals for the real demands of the work. Quick fixes such as truncated training and combat pay have been tried for many decades without addressing the conditions that would prevent shortages in the first place: competitive salaries, proactive and streamlined recruiting that values teachers, preparation and professional development that enables success on the job, and supportive working conditions. With these parameters in place, districts that serve low-income and minority students have shown that they can provide excellent teaching and substantial success for all students.