To reduce high teacher turnover rates that impose heavy costs on schools, we must improve working conditions, insist on effective teacher preparation, and provide support for new teachers.

How teachers are paid was a part of it, but overwhelmingly the things that would destroy the morale of teachers who wanted to leave were the working conditions . . . working in poor facilities, having to pay for supplies, and so on.

—A Los Angeles teacher talking about a high-turnover school

The 1st grade classroom in which I found myself five years ago had some two dozen ancient and tattered books, an incomplete curriculum, and a collection of outdated content standards. But I later came to thrive in my profession because of the preparation I received in my credential program: the practice I received developing appropriate curriculum; exposure to a wide range of learning theories; training in working with non-English-speaking students and children labeled “at risk.”

It is the big things, though, that continue to sustain me as a professional and give me the courage to remain and grow: my understanding of the importance of asking questions about my own practice, the collegial relationships, and my belief in my responsibility to my students and to the institution of public education.

—A California teacher from a strong urban teacher education program

What keeps some people in teaching while others give up? What can we do to increase the holding power of the teaching profession and to create a stable, expert teaching force in all kinds of districts? Some of the answers to these questions are predictable; others are surprising. The way schools hire and the way they use their resources can make a major difference.

Keeping good teachers should be one of the most important agenda items for any school leader. Substantial research evidence suggests that well-prepared, capable teachers have the largest impact on student learning (see Darling-Hammond, 2000b; Wilson, Floden, & Ferrini-Mundy, 2001). Effective teachers constitute a valuable human resource for schools—one that needs to be treasured and supported.

THE CHALLENGE OF TEACHER ATTRITION

The No Child Left Behind Act’s requirement that schools staff all classrooms with “highly qualified teachers” creates a major challenge, especially for schools in inner-city and poor rural areas. The problem does not lie in the numbers of teachers available; we produce many more qualified teachers than we hire. The hard part is keeping the teachers we prepare.

The uphill climb to staff our schools with qualified teachers becomes steeper when teachers leave in large numbers. Since the early 1990s, the annual number of exits from teaching has surpassed the number of entrants by an increasing amount (see fig. 1), putting pressure on the nation’s hiring systems. Less than 20 percent of this attrition is due to retirement (Henke, Chen, & Geis, 2000; Ingersoll, 2001).
Steep attrition in the first few years of teaching is a long-standing problem. About one-third of new teachers leave the profession within five years. Rates of attrition from individual schools and districts include these leavers, plus movers who go from one school or district to another. Taken together, leavers and movers particularly affect schools that serve poor and minority students. Teacher turnover is 50 percent higher in high-poverty than in low-poverty schools (Ingersoll, 2001), and new teachers in urban districts exit or transfer at higher rates than their suburban counterparts do (Hanushek, Kain, & Rivkin, 1999).

High-poverty schools suffer higher rates of attrition for many reasons. Salary plays a part: Teachers in schools serving the largest concentrations of low-income students earn, at the top of the scale, one-third less than those in higher-income schools (National Center for Education Statistics [NCES], 1997). They also face fewer resources, poorer working conditions, and the stress of working with many students and families who have a wide range of needs. In addition, more teachers in these schools are underprepared and unsupported, factors that strongly influence attrition (Darling-Hammond, 2000a).

THE HEAVY COSTS OF ATTRITION

Early attrition from teaching bears enormous costs. A recent study in Texas, for example, estimated that the state’s annual turnover rate of 15 percent, which includes a 40 percent turnover rate for public school teachers in their first three years, costs the state a “conservative” $329 million a year, or at least $8,000 per recruit who leaves in the first few years of teaching (Texas Center for Educational Research, 2000). High attrition means that schools must take funds urgently needed for school improvements and spend them instead in a manner that produces little long-term payoff for student learning. Given the strong evidence that teacher effectiveness increases sharply after the first few years of teaching (Kain & Singleton, 1996), this kind of churning in the beginning teaching force reduces productivity in education overall. The education system never gets a long-term payoff from its investment in novices who leave.

In addition, large concentrations of underprepared teachers create a drain on schools’ financial and human resources. In a startling number of urban schools across the United States, a large share of teachers are inexperienced, underqualified, or both. One recent estimate indicates that more than 20 percent of schools in California have more than 20 percent of their staffs teaching without credentials. These inexperienced teachers are assigned almost exclusively to low-income schools serving students of color (Shields et al., 2001).

Such schools must continually pour money into recruitment efforts and professional support for these new teachers. Other teachers, including those who serve as mentors, are stretched thin and feel overburdened by the needs of their colleagues in addition to those of their students. Schools squander scarce resources trying to reteach the basics each year to teachers who come in with few tools and leave before they become skilled (Carroll, Reichardt, & Guarino, 2000). As a principal in one such school noted,

Having that many new teachers on the staff at any given time meant that there was less of a knowledge base. . . . It meant there was less cohesion on the staff. It meant that every year, we had to recover ground in professional development that had already been covered and try to catch people up to where the school was heading. (cited in Darling-Hammond, 2002)

Most important, such attrition consigns a large share of students in high-turnover schools to a continual parade of
ineffective teachers. Unless we develop policies to stem such attrition through better preparation, assignment, working conditions, and mentor support, we cannot meet the goal of ensuring that all students have qualified teachers.

FACTORS INFLUENCING TEACHER ATTRITION

In all schools, regardless of school wealth, student demographics, or staffing patterns, the most important resource for continuing improvement is the knowledge and skill of the school’s best-prepared and most committed teachers. Four major factors strongly influence whether and when teachers leave specific schools or the education profession entirely: salaries, working conditions, preparation, and mentoring support in the early years.

Salaries

Even though teachers are more altruistically motivated than are some other workers, teaching must compete with other occupations for talented college and university graduates each year. To attract its share of these graduates and to offer sufficient incentives for professional preparation, the teaching profession must be competitive in terms of wages and working conditions.

Unfortunately, teacher salaries are relatively low. Overall, teacher salaries are about 20 percent below the salaries of other professionals with comparable education and training. Data from the Bureau of Labor Statistics show that in 2001, the average teacher salary ($44,040) ranked below that of registered nurses ($48,240), accountants/auditors ($50,700), dental hygienists ($56,770), and computer programmers ($71,130) (National Commission on Teaching and America’s Future [NCTAF], 2003).

Teachers are more likely to quit when they work in districts that offer lower wages and when their salaries are low relative to alternative wage opportunities, especially teachers in such high-demand fields as math and science (Brewer, 1996; Mont & Rees, 1996; Murnane & Olsen, 1990; Theobald & Gritz, 1996). Salary differences seem to matter more at the start of the teaching career (Gritz & Theobald, 1996; Hanushek et al., 1999), whereas experienced teachers appear to place more importance on working conditions (Loeb & Page, 2000).

Working Conditions

Surveys of teachers have long shown that working conditions play a major role in teachers’ decisions to switch schools or leave the profession. Teachers’ feelings about administrative support, resources for teaching, and teacher input into decision making are strongly related to their plans to stay in teaching and to their reasons for leaving (Darling-Hammond, 2000a; Ingersoll, 2001, 2002). High- and low-wealth schools differ greatly, on average, in the support that they give teachers. Teachers in more advantaged communities experience easier working conditions, including smaller class sizes and pupil loads and greater influence over school decisions (NCES, 1997).

The high attrition of teachers from schools serving lower-income or lower-achieving students appears to be substantially influenced by the poorer working conditions typically found in those schools. For example, a survey of California teachers (Harris, 2002) found that teachers in high-minority, low-income schools report significantly worse working conditions, including poorer facilities, less access to textbooks and supplies, fewer administrative supports, and larger class sizes. Further, teachers surveyed were significantly more likely to say that they planned to leave the school soon if the working conditions were poor.

An analysis of these California data found that serious turnover problems at the school level were influenced most by working conditions, ranging from large class sizes and poor facilities to multitrack, year-round schedules and low administrative support (Loeb, Darling-Hammond, & Luczk, in press). Together with salaries, these factors far outweighed the demographic characteristics of students in predicting turnover at the school level. This finding suggests that working conditions should be one target for policies aimed at retaining qualified teachers in high-need schools.

Teacher Preparation

A growing body of evidence indicates that teachers who lack adequate initial preparation are more likely to leave the profession. A recent National Center for Education Statistics report found that 29 percent of new teachers who had not had any student teaching experience left within five years, compared with only 15 percent of those who had done student teaching as part of a teacher education program (Henke et al., 2000). The same study found that 49 percent of uncertified entrants left within five years, compared with only 14 percent of certified entrants. In California, the state standards board found that 40 percent of emergency-permit teachers left the profession within a year, and two-thirds never received a credential (Darling-Hammond, 2002).

In Massachusetts, nearly half of all recruits from the Massachusetts Institute for New Teachers program had left within three years (Fowler, 2002), and in Houston, Texas, the attrition rate averaged 80 percent after two years for Teach for America recruits (Raymond, Fletcher, & Luque, 2001).
Other research evidence suggests that the more training prospective teachers receive, the more likely they are to stay. For example, a longitudinal study of 11 programs found that those who graduate from five-year teacher education programs enter and stay in teaching at much higher rates than do four-year teacher education graduates from the same institutions (Andrew & Schwab, 1995). These redesigned programs provide a major in a disciplinary field, as well as intensive pedagogical training and long-term student teaching. As Figure 2 shows, both four-year and five-year teacher education graduates enter and stay at higher rates than do teachers hired through alternative programs that give them only a few weeks of training (Darling-Hammond, 2000a).

Taking into account the costs to states, universities, and school districts for preparation, recruitment, induction, and replacement due to attrition, the actual cost of preparing a career teacher in the more intensive five-year programs is actually less than the cost of preparing a greater number of teachers in short-term programs of only a few weeks duration. Graduates of extended five-year programs also report higher levels of satisfaction with their preparation and receive higher ratings from principals and colleagues.

In 2000, new teachers who had received training in specific aspects of teaching (for example, selection and use of instructional materials, child psychology, and learning theory), who experienced practice teaching, and who received feedback on their teaching left the profession at rates one-half as great as those who had no training in these areas (NCTAF, 2003). Similarly, first-year teachers who felt that they were well prepared for teaching were much more likely to plan to stay in teaching than those who felt poorly prepared. On such items as preparation in planning lessons, using a range of instructional methods, and assessing students, two-thirds of those reporting strong preparation intended to stay, compared with only one-third of those reporting weak preparation (see fig. 3). In these studies and others, graduates of teacher education programs felt significantly better-prepared and more efficacious, and they planned to stay in teaching longer than did those entering through alternative routes or with no training (Darling-Hammond, Chung, & Frelow, 2002; NCTAF, 2003).

**Mentoring Support**

Schools can enhance the beneficial effects of strong initial preparation with strong induction and mentoring in the first years of teaching. A number of studies have found that well-designed mentoring programs raise retention rates for new teachers by improving their attitudes, feelings of efficacy, and instructional skills.

Such districts as Rochester, New York, and Cincinnati, Columbus, and Toledo, Ohio, have reduced attrition rates of beginning teachers by more than two-thirds (often from levels exceeding 30 percent to rates of under 5 percent) by providing expert mentors with release time to coach beginners in their first year on the job (NCTAF, 1996). These young teachers not only stay in the profession at higher rates, but also become competent more quickly than those who must learn by trial and error.

Mentoring and induction programs will only produce these benefits if they are well designed and well supported. Although the number of state induction programs has increased (from 7 states in 1996–1997 to 33 states in 2002), only 22 states provide funding for these programs, and not all of the programs provide on-site mentors (NCTAF, 2003). In an assessment of one of the oldest programs,
California’s Beginning Teacher Support and Assessment Program, early pilots featuring carefully designed mentoring systems found rates of beginning teacher retention exceeding 90 percent in the first several years of teaching. As the program has scaled up across the state, however, only half of districts have provided mentors with time to coach novices in their classrooms (Shields et al., 2001).

Most effective are state induction programs that are tied to high-quality preparation. In Connecticut, for example, districts that hire beginning teachers must provide them with mentors who have received training in the state’s teaching standards and its portfolio assessment system, which were introduced as part of reforms during the 1990s. These reforms also raised salaries and standards for teachers and created an assessment of teaching for professional licensure modeled after that of the National Board for Professional Teaching Standards. A beginning teacher noted of this connected system,

One of the things that helped me a lot is that my cooperating teacher last year is a state assessor and she used to do live assessments.... She used to assess me using [state standards] for every lesson, every single day, which gave me a good idea of what is expected of me and how I will be assessed by the state. Also, I learned about the components that make good teaching. (Wilson, Darling-Hammond, & Berry, 2001)

As an additional benefit, these programs provide a new lease on life for many veteran teachers. Veterans need ongoing challenges to remain stimulated and excited about the profession. Many say that mentoring and coaching other teachers creates an incentive for them to remain in teaching as they learn from and share with their colleagues.

WHAT SCHOOL LEADERS CAN DO

The research reviewed here suggests several lessons for education policy and practice:

• Although investments in competitive salaries are important, keeping good teachers—both novices and veterans—also requires attention to the working conditions that matter to teachers. In addition to those often considered—class size, teaching load, and the availability of materials—key conditions include teacher participation in decision making, strong and supportive instructional leadership from principals, and collegial learning opportunities.

• Seeking out and hiring better-prepared teachers has many payoffs and savings in the long run in terms of both lower attrition and higher levels of competence.

• When the high costs of attrition are calculated, many of the strategic investments needed to keep good teachers—such as providing mentoring for beginners and creating ongoing learning and leadership challenges for veterans—actually pay for themselves to a large degree.

School systems can create a magnetic effect when they make it clear that they are committed to finding, keeping, and supporting good teachers. In urban centers, just as in suburban and rural areas, good teachers gravitate to schools where they know they will be appreciated and supported in their work. These teachers become a magnet for others who seek environments in which they can learn from their colleagues and create success for their students. Great school leaders create nurturing school environments in which accomplished teaching can flourish and grow.
REFERENCES


