

## The No Child Left Behind Act and the Teacher Shortage

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Spurred on by regulations outlined in the No Child Left Behind Education Act of 2001 (NCLB), educators and policy makers are gearing up to solve the problem of producing enough highly qualified teachers to meet the country's rapidly growing demand. According to the U.S. Department of Education (DOE), rising enrollments and increasing teacher retirements will create a need to produce more than 2 million new public and over a half-million independent school teachers over the next ten years.

NCLB does not mandate a quantity of teachers for the country. The quantitative need comes from demand—for new teachers to replace those who are retiring or otherwise leaving, to teach a growing population of students, to teach more students with special needs, and so forth. However, NCLB does require standards of teacher quality, and these effect current as well as new teachers. The new law mandates that every teacher in our nation's public schools must meet the standard of being "highly qualified" by the 2005–06 school year. For teachers whose salaries are linked to federal Title 1 funds, these requirements must be met in 2002–03.

When the law was first signed by President Bush in early 2002, certain provisions, such as the rules defining *highly qualified*, were still being developed by DOE. In August 2002, the department issued regulations that defined a highly qualified teacher as one who has earned at least a bachelor's degree and has obtained state certification or licensure to teach. The rules now spell out that teachers who teach core academic subjects such as math and biology must also demonstrate mastery of content knowledge.

NCLB regulations provide flexibility for teachers who want to enter the profession through nontraditional, alternative routes, such as Teach for America, or lateral entry programs designed for people who wish to change careers. The new law allows school districts to hire teachers who are making satisfactory progress toward full state certification, and the August 2002 regulations allow the states some flexibility in establishing ways for determining whether teachers meet NCLB standards. However, even with this flexibility, the August 2002 regulations clearly raise the bar for becoming a teacher. Although these requirements may have educational benefits for students, they make the job of recruiting and retaining teachers a greater challenge for school administrators than in the past.

### Demographics: Increasing Enrollments Meet Aging Teachers

The problem of providing a sufficient number of qualified teachers is not the result of the NCLB legislation alone. Many factors underlie the nation's problem filling its classrooms with teachers.

The most common explanation is that two demographic trends are interacting to create a shortage: increasing student enrollment and a large wave of pending teacher retirements. Analysis of data provided by the National Center for Education Statistics (NCES) indicates that in 1990 there were approximately 46 million children attending K–12 schools. This number jumped to approximately 52 million in 1999. NCES projects that in 2005 about 53.5 million children will be in K–12 schools and that school enrollments will set new records every year before peaking in that year. Student enrollments will vary by geographic region and by grade level, with the greatest increases occurring in the South and in the West and in grades 9 through 12.

Meanwhile, there is a measurable graying of the teaching profession. The Bureau of Labor Statistics (BLS) projects that a large proportion of current teachers will be eligible for retirement over the next ten years, per-

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haps as high as 50 percent of the current teaching workforce in certain areas. The American Federation of Teachers (AFT) has analyzed data on teacher age and experience trends and reported that in 1976 15 percent of teachers were over age fifty. By 2000, approximately 30 percent of teachers were over age fifty. In 1976, only 14 percent of teachers had over twenty years of experience; by 2000, approximately 40 percent of teachers had taught for over twenty years. Researchers agree that with the leading edge of the baby boomer generation nearing retirement, most school districts will need many new teachers.

## **Retention: Teachers Are Leaving the Profession before Retirement**

Increasing enrollments and teacher retirement are not the whole picture. In the fall 2001 issue of the *American Education Research Journal*, Richard Ingersoll, an educational sociologist at the University of Pennsylvania, suggested an alternative explanation for the shortage. Ingersoll maintained that the problem isn't due strictly to a shortage in the classical sense of a supply-side deficit. Instead, the problem is one of demand-side excess that results from teachers leaving the profession for reasons other than retirement.

Ingersoll argued that a revolving door exists in the teaching profession. His analysis of data culled from the NCES's Schools and Staffing Survey (<http://nces.ed.gov/surveys/sass>) indicates that the crisis is more a result of teacher turnover rates than of retirements or of increasing enrollments.

He reported that the annual turnover rate for teachers was 13.2 percent in 1992 and 14.3 percent in 1995. These rates are significantly higher than the average annual turnover rate across all occupations, which is 11 percent. Ingersoll concluded that education policies aimed at producing more teachers or creating alternative routes to teacher licensure may be missing the mark. The key issue, he wrote, is one of retaining teachers who are already in classrooms, not simply finding new ones. (For a more detailed report on Ingersoll's work, visit [www.ctpweb.org](http://www.ctpweb.org)).

## **Distribution: Teachers Are Following the Money**

Another key factor in understanding the teacher shortage has to do with the distribution of teachers. The schools that need them the most can't find them. While some school systems have an excess of applicants for teaching positions, others struggle to fill open spots. For example, Quality Teachers, a teacher advocacy organization ([www.qualityteachers.org](http://www.qualityteachers.org)), reported that Nebraska colleges graduated 1,537 teaching degree students in 1999. Of those, only 527 accepted teaching positions in Nebraska, resulting in critical shortages in certain districts.

Economic aspects of schooling play a significant role in the distribution of teachers. According to a study published by the National Bureau of Economic Research ([www.nber.org](http://www.nber.org)), efforts of urban school districts to both recruit and retain teachers are frequently hurt by a tendency for teachers to move to schools with smaller numbers of low-income children, lower percentages of minority students, and higher test scores. Recruiting New Teachers (RNT), a nonprofit group dedicated to finding highly qualified teachers ([www.recruitingteachers.org](http://www.recruitingteachers.org)), reported that some school districts entice teachers with pay supplements, signing bonuses, and other incentives. And some schools have the resources necessary to make improvements in job conditions by offering office space, laptops, and phones.

RNT indicated that teaching shortages are particularly acute in urban and rural areas. Its 2000 *Urban Teacher Challenge* report indicated that almost all urban school districts have a need for science and math teachers. Finding ways to distribute new teachers to the areas that need them the most is a huge challenge for policy makers and school administrators.

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## **Organizational Demands**

Distribution issues, increased enrollments, teacher attrition, and baby boomer retirements alone do not account for the full extent of the shortage problem, however. The need to prepare and retain qualified teachers, which is at the heart of NCLB, is related to several other education issues, as well. For example, policies that reduce class size typically result in the need for more teachers. Changes in demographics, such as the rising number of Spanish-speaking students in some school districts, create the need for more English as a Second Language teachers. Also, an increasing number of identified special needs students contribute to the widespread scarcity of special education teachers. An analysis of data from the NCES indicates that in recent years, 27 percent of all schools have experienced an increased need for special education teachers and that many of these schools have experienced trouble filling these positions.

Other factors related to the teacher shortage include inconsistencies in licensing requirements across states and the slowness of state and school bureaucracies to deal with credentialing and licensure issues. State legislatures have often responded with policies that allow teachers to teach out of field, and some state departments of education have begun issuing provisional emergency licenses to individuals who have not been thoroughly trained to be teachers.

One of the purposes of NCLB is to curb trends such as these by making teaching a more rigorous profession. The question is, will raising the standards for teachers further limit the ability of school districts to find the teachers they need?

## **Supply**

The BLS reports that approximately 3.8 million teachers were employed in 2000. Of those, about 1.5 million worked in elementary schools, 1.1 million in high schools, 600,000 in middle schools, and 600,000 in preschool and kindergarten. Teachers represent one of the country's largest occupational groups, about 4 percent of the total civilian workforce. The BLS projects that by year 2010 about 4.3 million individuals will hold jobs as K-12 teachers.

Colleges have been producing a steadily increasing number of graduates who are prepared to be teachers. An analysis of data provided by the BLS and the AFT indicates that the number of graduates prepared to become teachers in 1999 was approximately 190,000—a number very close to the all-time peak of approximately 200,000 teacher education graduates in 1972. According to these data, about 1.8 million graduates will be trained as teachers over the next decade.

However, even with steady or slightly increasing production of new teachers, the supply of teachers cannot keep up with increasing demand. In order to meet the projected need for more than 2 million new teachers over the next ten years, most educators and policy makers agree we must not only increase the supply of new teachers, we must reduce the large number of existing teachers who leave the profession for reasons other than retirement. Although researchers dispute the severity, the causes, and potential solutions of the teacher shortage problem, few question whether a shortage actually exists. The consensus is that a significant number of new teachers will be needed in certain core academic subjects, specialist areas, grade levels, and geographic regions.

## **The Path Ahead**

Even with so many factors contributing to the teacher shortage, there is some reason for hope. The demise of the dot.com economy appears to have increased the number of people who view teaching as a possible

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career. A report in *Education Week* indicates that nationwide employment data reflect a trend in which individuals from the corporate sector are now seeking teaching positions. *Education Week* has reported that the teacher shortage in northern California's San Jose school district disappeared because the market was flooded with "dot.com refugees." An Associated Press report indicated that high-tech workers are increasingly turning to teaching as jobs continue to dry up in the technology field. Only time will tell if this and other anecdotal evidence is indicative of a trend that can help meet demand to a significant extent.

Another trend resulting in more teachers is the emergence of alternative pathways to teaching. Nontraditional routes into the teaching profession such as Teach for America ([www.teachforamerica.org](http://www.teachforamerica.org)) and Troops to Teachers (<http://voled.doded.mil/dantes/ttt/>) have helped address the growing need for teachers. Some researchers have argued that the efficacy of these alternative programs has not been clearly established. And educators and policy makers debate the merits of opening the doors to the teaching profession to those who have not been traditionally trained. Nevertheless, while intense disagreement exists over the efficacy of these alternative programs, they are popular, and they are increasing the supply of teachers.

The problem facing the country now is akin to building a bike while riding it: the country must produce and distribute millions of highly qualified teachers while it simultaneously reinvents the ways it prepares them, revamps the conditions in which they work, and restructures the economics underlying school funding. About these organizational challenges, NCLB has little to say.

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## Footnotes

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