

Out-of-Field Teaching: How Qualified Is *Your* Child's Teacher?

Teacher shortages, primarily in the areas of special education, math, and science, vary by region and by school district, but critical shortages do exist throughout the country. If your child's teacher has inadequate preparation in the subject she or he teaches, is that the equivalent of educational fraud?

School boards throughout the country face increasing difficulty finding and keeping certified teachers, especially in the areas of math, science, and special education. In analyzing data from the U.S. Department of Education, University of Georgia sociologist Richard M. Ingersoll learned that approximately 28 percent of all high school math teachers lack even the equivalent of a college minor in math. In Alaska, that number is greater than 50 percent! Eighteen percent of all science teachers are similarly deficient in their preparation. Further, many of those educators who are certified to teach science are certified to teach in an area of science different from the one they are teaching. For example, a teacher certified to teach earth science may be teaching biology.

Texas's Teacher Recruitment and Retention Study found the situation in their junior high schools even worse. Thirty-nine percent of their seventh and eighth grade math teachers and one out of every three science teachers were not certified to teach those subjects.

Out-of-field teaching is not an aberration, and it is not restricted to only a few subjects. Nationwide, students in one of five classes in U.S. secondary schools have teachers with neither a major nor a minor in the subject. In schools whose students come from low-income households, the percentage of teachers teaching out of their field is much higher.

"Few parents would expect their teenagers to be taught, for example, 11th-grade trigonometry by a teacher who did not have a minor in math, no matter how bright the teacher," University of Georgia sociologist Richard Ingersoll told Education World. "However, that situation is all too commonly the case."

If a teacher with the proper certification is not available, a school district tries to fill the position with teachers certified to teach in other areas. If those teachers are not available, administrators usually employ long-term substitutes rather than enlarge or cancel classes. For example, Linda Darling-Hammond reports in [How Can We Ensure a Caring, Competent, Qualified Teacher for Every Child?](#) that in Louisiana and Texas, a person without even a bachelor's degree can teach for years on an emergency license and never obtain a license.

Furthermore, because of uncertainties about enrollment, school districts frequently defer hiring decisions until just before school starts, leaving those teaching out of their discipline virtually no time to prepare. People who teach subjects in which they have little or no background usually loathe it. It's not sound educational practice. Under-prepared teachers who rely heavily on the textbook severely inhibit student learning.

REDUCING COSTS TAKES PRIORITY

Exacerbating the situation, according to information Director Catherine Clark of the Texas Center for Educational Research shared with Education World, is that to reduce payroll costs, some school districts offer certified teachers incentives to retire early!

"School boards' priorities have so much more to do with money than education that they drool at the prospect of replacing a twenty-year teacher with a neophyte," even if that neophyte knows nothing about the subject. That is the opinion of Joe Bard, Pennsylvania's former Commissioner for Elementary and Secondary Education.

In many states, teachers may teach courses in subjects for which they have no certification. Some, like Texas, permit out-of-field teaching but limit the amount of time educators may teach those subjects. Others, like Virginia and Arkansas, prohibit the practice. Because principals frequently underreport it and it's hard to monitor, lengthy periods of out-of-field teaching occur anyway.

NO ONE CHECKS, NO ONE NOTICES

Familiarity with the most up-to-date materials in a field of expertise provides little help if a person teaches a different subject.

"Some critics have tried to help the public understand that it is a problem when teachers teach out of their field, but for the most part the issue has not been visible to the general public," Emerson J. Elliott, a consultant at the National Council for Accreditation of Teacher Education, told Education World. "There really aren't penalties associated with out-of-field assignments." Out-of-field teaching is tracked sporadically and rarely publicized.

A MATTER OF CONVENIENCE

Some teachers will do an excellent job whether or not they have certification in a subject. If such a teacher does succeed, he or she is frequently kept in that position year after year, whether the person prefers to teach that subject or not. Some school systems just prefer to do what is expedient to address their often-erratic staffing and enrollment needs.

Even in English and social studies, disciplines considered to have an abundance of candidates, Ingersoll found that nearly 22 percent of high school English teachers and 18 percent of social studies teachers do not even have a minor in those subjects. The situation in junior highs is even worse. Regardless of certification, school systems apparently find it convenient to keep under-trained teachers in those positions. How can we expect U.S. students to do well when compared to their peers in many industrialized countries?

Often it is not economically feasible to hire, say, a physics teachers just teach physics in the nearly one out of three American secondary schools that enroll fewer than 300

students. Get more creative, federal education officials suggest. Use part-timers or conduct classes by television and e-mail. School districts say finding qualified part-timers is difficult and question whether remote learning, such as television courses and e-mail instruction, really provides quality education. Few districts provide funds for teachers to go back to school, and certification or a minor in a subject takes about 12 courses. Teachers who do further their education usually prefer to work toward an advanced degree that will increase their earning potential.

WHY THE PROBLEM?

Why the problem? Look at some past initiatives.

- Texas created the Future Teachers Loan Fund. By the end of the 1995 fiscal year, the money was gone, and Texas appropriated no new funds.
- Texas also authorized the Texas Higher Education Coordinating Board to assist qualified teachers to repay their student loans if they worked in designated shortage areas. Although contained in statute, no appropriation has been made to fund the program.
- The Troops to Teachers Program, a program that effectively attracts males and minorities specifically into shortage areas, was mentioned in more than a dozen pieces of legislation this year. In October 1999, national funding was canceled.
- Because of inadequate funding, new teachers' mentoring and induction programs often last only a few days. Many experts recommend that yearlong support can help stem attrition. According to "How Can We Ensure a Caring, Competent, Qualified Teacher for Every Child?" nearly one out of three new teachers leave within five years of entry.
- Frequently, people create scholarship programs but fail to fund them adequately. An example is the Paul Douglas Teacher Scholarship Program, which provides deferments or cancellations of some federal student loans to teachers at an accelerated rate if they teach in designated shortage areas. Since 1995, the program has accepted no new applicants. Another example is the Rockefeller Brothers' Minority Teachers Fellowship Program, which helps outstanding minority students in New York City become teachers. That program has accepted no one since 1998.

Although having an appropriately certified teacher in each class is extremely important, "How Can We Ensure a Caring, Competent, Qualified Teacher for Every Child?" reports that only Arkansas, Kentucky, New Jersey, Utah, Virginia, and Wisconsin require appropriate certification. Linda Darling-Hammond found that only three states -- Arkansas, North Carolina, and West Virginia -- require that their schools of education be accredited.

CAN IT BE FIXED?

With rapid growth in student enrollment and an extremely high teacher attrition rate, school systems now realize they need to do something different. Texas Education Agency

project manager Glenn Greenwood shared with Education World the Texas Teacher Recruitment and Retention Study's suggestions for remediation.

- Cancel student-loans or provide scholarships for teachers or people with potential (such as retired military, paraprofessionals, and capable high school students) who prepare for and then teach for several years in shortage areas.
- Provide financial incentives to colleges to steer potential teachers specifically toward shortage areas.
- Provide an electronic state-wide job bank and information service, particularly for those seeking employment or certification in high-need areas; aggressively recruit and advertise shortage-area job opportunities in both local and out-of-state newspapers.
- Offer hiring bonuses to attract -- and annual stipends to retain -- teachers who have certification in shortage areas.
- Include stipends for mentor teachers to assist those new to a field -- perhaps targeting teachers in special needs areas especially during the first critical year or two of teaching.
- Offer grants encouraging school districts to develop innovative retention programs especially targeted for teachers in high need areas; study teacher attrition in high need areas, and mitigate the reasons for it.

Too expensive? Think about this: [Statistics on Teaching in America](#) reports that the resources needed to make recommended reforms to the American school system constitute less than 1 percent of the amount spent for the federal savings and loan bail out.

A MAJOR FIRST STEP

Today more U.S. school systems are instituting some of these initiatives. More are trying to establish systems that link preparation and certification with actual employment requirements. More are investigating ways to recruit, educate, and support new teachers in critical shortage areas so that they are more likely to remain in teaching. That is a major first step. Implementing those proposals and supply sustained support will make the difference.

"Unlike Canada and many European and Asian nations, the United States treats elementary and secondary school teaching as low-status work and teachers as semi-skilled workers," Ingersoll told Education World. "Few would require cardiologists to deliver babies, real estate lawyers to defend criminal cases, chemical engineers to design bridges, or sociology professors to teach English.

"The commonly held assumption is that such traditional professions require a great deal of skill," added Ingersoll. "In contrast, the commonly held assumption is that teaching in elementary and secondary schools requires far less skill, training, and expertise. Those who have spent time in classrooms know that high quality teaching requires a great deal of expertise and skill."

Although teachers are not interchangeable blocks that can be placed in any empty slot regardless of their type of training, out-of-field teaching is still endemic. It happens in well over half of our secondary schools in any given year, in many settings: rural and urban and affluent and low income. The level of out-of-field teaching has remained constant from the late 1980s to now.

At a time when research clearly demonstrates that teacher quality is the factor that matters most for student learning, assigning just anyone to teach a class is not sufficient. Individuals may have a great deal of content knowledge and little ability to get that knowledge across. Individuals may be talented teachers but have no content knowledge. Students deserve teachers who possess both. They deserve a competent teacher in every classroom.

STORY RESOURCES

- [Out -of-Field Teaching Is Hard To Curb](#) This March 31, 1999, *Education Week* article explores the practice of out-of-field teaching and links to other articles on the topic.
- [Lacking Licenses](#) This April 7, 1999, chart lists U.S. Department of Education data depicting a state-by-state account of the percentage of newly hired teachers unlicensed in their main assignment field.
- [Out-of-Field-Teaching](#) This March 31, 1999, chart lists U.S. Department of Education data on the percentage of public school teachers per state in grades 9-12, including veteran teachers, who do not have majors or minors in the subject that they teach.
- [Out-of-Field Teaching and Educational Equality](#) This National Center for Education Statistics report (October, 1996) is based on data from the 1990-91 Schools and Staffing Survey. The report presents national data about the number of students in the nation's secondary school whose teachers lack basic qualifications in their assigned teaching fields.
- [Crackdowns on Emergency Licenses Begin as Teacher Shortages Loom](#) This April 1999 *Education Week* article describes licensure procedures in different states.
- [Why So Many Underqualified High School Teachers?](#) This November 4, 1998, *Education Week* story, written by University of Georgia sociology professor Richard M. Ingersoll, discusses why school systems hire teachers who are not trained to teach the subjects they teach.
- [The Problem of Out-of-Field Teaching](#) This 1998 *Phi Delta Kappan* article by Richard M. Ingersoll summarizes the problem of out-of-field teaching.
- [The Problem of Underqualified Teachers in American Secondary Schools](#) This 1999 *Educational Researcher* article by Richard M. Ingersoll is a detailed summary of his research on out-of-field teaching conducted during the past six years.

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ADDITIONAL RESOURCES

"Right Teacher, Wrong Class" This February 15, 1999, *Washington Post* article discusses the fact that many U.S. secondary schools hire teachers who are not certified to teach the subjects that they are assigned.

- "Texas Teacher Recruitment and Retention Study, February, 1999." This voluminous report is full of data and statistics on education in Texas and in the nation. To receive a copy, contact: Catherine Clark, director of the Texas Center for Educational Research 512-467-3596 or e-mail catherine.clark@tasb.org or Glenn Greenwood, project manager of the Texas Education Agency 512-463-9224 or e-mail glenn@tenet.edu
- "States Get D+ On Efforts to Make Teachers Better," *USA Today* (11/16/99). This is a summary of a state-by-state report card on education put together by a conservative think tank.