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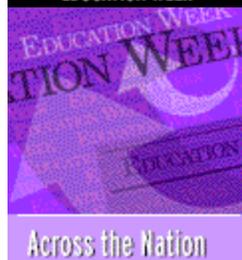
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## Out-of-Field Teaching Is Hard To Curb

By Jeff Archer

*This is the fourth installment in a five-part series about the nation's supply of and demand for qualified teachers. Read ["About This Series"](#) below.*



See an accompanying chart, ["Out-of-Field Teaching,"](#) which lists by state the percentage of teachers teaching out of field.

Faced with a proposal requiring that schools notify parents if a child's class was being taught by "an uncertified or inappropriately certified individual," the Texas school board reacted decisively this month. It voted 12-0 to reject the measure, which the state's teacher-certification board had hoped would call greater attention to the pervasiveness of so-called out-of-field teaching.

The resistance the plan ran into underscores just how tough it would be to eliminate the long-running, albeit lamented, practice. Not only is the issue linked inextricably to the market forces affecting the big demand for new teachers, it also raises fundamental questions about what constitutes a qualified educator.

["Zeroing In on Teachers,"](#) from our special report, *Quality Counts '99*, which examines states' efforts to hold teachers accountable, including efforts to end the practice of out-of-field teaching. January 1999.

In debating the Texas measure, which elicited three abstentions along with the 12 negative votes, some state board members said the word "inappropriately" sounded too vague. Others feared maligning teachers who hadn't earned a certificate but still knew their subject matter, like an aeronautical engineer brought in to teach physics. And many asked why they should force districts to make themselves look bad, when schools are just making the best of a difficult situation.

"People who want this rule are trying to say that superintendents are passing over certified people to hire uncertified ones," board member Grace Shore said. "From what I hear, they're doing their best, but they simply can't find them."

Out-of-field teaching, many national education experts agree, is a problem that defies simple solutions.

Read our Commentary, ["Why So Many Underqualified High School Teachers?"](#) Nov. 4, 1998.

"We can't solve it just by telling people: 'Don't assign teachers to subjects they aren't prepared to teach,'" said Willis D. Hawley, the executive director of the National Partnership for Excellence and Accountability in Teaching, a federally funded research initiative aimed at improving the quality of teaching. "The responsibility that we all have is to understand that this is a complex problem, and it has to be addressed on several different levels."

### A Secret Exposed

["Investing in Teaching."](#) May 27, 1998.

Education groups have long called out-of-field teaching the "dirty little secret" of America's schools, but it's gained urgency with recent forecasts that the country must hire 2 million new teachers in the next decade. Coupled with that challenge are international comparisons showing U.S. high school students lagging behind their peers in many industrialized countries, a connection U.S. Secretary of Education Richard W. Riley made in his State of American Education Address last month.

["National Teaching Commission Launches Counterattack."](#) April 8, 1998.

"Foreign education ministers who visit me are just stumped when I try to explain this practice," he said. "Their translators simply have no words to describe it."

Some education experts go so far as to say it's no coincidence that the U.S. rankings on the Third International Mathematics and Science Study drop after the 4th grade. Generally considered an issue of teachers' knowledge of academic content, out-of-field teaching doesn't become a major problem until the middle grades, when schools departmentalize subjects.

["Students' Fortunes Rest With Assigned Teacher."](#) Feb. 18, 1998.

President Clinton lambasted the practice in his State of the Union Address this year, declaring that "in too many schools, teachers don't have college majors--or even minors, in the subjects they teach."

Recent research does show the practice is rampant. Richard M. Ingersoll, a sociologist at the University of Georgia in Athens, has analyzed U.S. Department of Education data and found that in every subject, large numbers of teachers are leading classes for which they lack even the equivalent of a college minor.

["Bad News About Bad Teaching."](#) Feb. 5, 1998.

Nationwide, for example, he found that about 28 percent of high school mathematics teachers have neither a major nor a minor in math, and 18 percent of all science teachers are similarly deficient in their preparation. Previous Education Department analyses indicated that the practice was most prevalent in poor and urban districts.

In most professions or services, "that sort of behavior would be called consumer fraud," argues John Cole, the president of the Texas Federation of Teachers, an American Federation of Teachers affiliate.

Read our Commentary, ["The Real Teacher Crisis."](#) Oct. 27, 1997.

### **By What Measure?**

The state-level picture, however, is often painted in ways that seem less alarming. Some states, Mr. Ingersoll points out, allow teachers to be assigned out-of-field as long as it's not for the majority of the day. Also, many states define an out-of-field teacher as one who lacks state certification, which sometimes doesn't specify a college minor or major.

For example, while Georgia education officials report that just 8 percent of the state's high school science teachers don't hold a science certificate, Mr. Ingersoll's analysis shows that 18 percent of them lack a science major or minor--about the same as the nation as a whole.

The view gets even gloomier when Mr. Ingersoll examines the types of science majors and minors teachers have. In Georgia, he says, only about 66 percent of high school educators teaching a physical science class--such as physics--have at least the equivalent of a college minor in a physical science.

Georgia is trying to improve the situation through the work of its P-16 Council, a task force of leaders from pre-K-12 and higher education institutions. The group includes Georgia's Professional Standards Commission, which sets teacher-certification rules, and the state university system's board of regents. By June, it plans to have drafted a long-range strategy for ensuring that all Georgia teachers are adequately prepared for the classes they teach.

Margaret M. Torrey, the standards commission's executive secretary, said she hopes the focus isn't only on how many teachers majored or minored in a subject. In addition to content knowledge, she said, teachers need significant training in how to instruct students.

"The public often thinks that content is enough," she said. "But it isn't. So I hope that in all this discussion about out-of-field teaching, we don't go overboard."

Through the P-16 Council, the standards commission and the state university system expect to design new teacher education courses specifically for middle school educators who missed sufficient coursework in either math or science. Though inadequate to qualify for a major or a minor, the courses would give teachers additional knowledge of both content and pedagogy to teach middle school students.

And yet some experts have little faith in either college coursework or states' current certification requirements.

"Those pieces of paper that we pass out don't necessarily ensure that everyone who has them is the most qualified person," said C. Emily Feistritzer, the president of the Washington-based National Center for Education Information, a private research organization. "I think there are better ways to ascertain whether someone is qualified."

Ms. Feistritzer favors testing teachers for both their knowledge of content and of pedagogy.

That sentiment is, in part, why the Texas Board for Educator Certification is drafting a plan to make the state's certification exams more rigorous.

"Our board is interested in certifying competent individuals, and how they achieve the required knowledge and skills is not as important to us as whether they have them," said Stephanie Korcheck, the panel's director of policy and planning.

Meanwhile, Texas has made it somewhat more difficult for districts to

misassign teachers. Although it rejected the parent-notification measure, the state school board did agree to limit to one year the amount of time that educators may teach subjects for which they have no certification. But the new rule doesn't apply to teachers on emergency permits, who have up to three years to become certified.

### **'No Man's Land'**

At one level, though, there is broad consensus that a dearth of content knowledge is a major problem in teaching. A 1985 report by the American Federation of Teachers and the Council for Basic Education called middle school the "no man's land" of out-of-field teaching, and recent surveys suggest little has changed since then.

Based on a sampling of college transcripts of Georgia middle school teachers, a recent survey estimated that at least 37 percent of those teaching math had less than the equivalent of a college minor in the subject. Among science teachers, about 27 percent were similarly unprepared. A recent study in Kentucky also showed that fewer than 40 percent of middle school math teachers there had at least the equivalent of a math minor.

Some experts blame the limited amount of requisite coursework on the way states certify middle school teachers.

Georgia, for example, uses a "broad field" middle-grades certificate. The credential only requires teachers to have concentrated in college in two of four areas--English, math, social studies, or science--but it permits them to teach any of those subjects. Under the regulations, a social studies major who minored in English could be assigned to teach math.

Some states' certification rules also allow educators prepared to teach in elementary school to work in middle school. The Southern Regional Education Board in December reported that an estimated one-third of the middle school teachers in its 16 member states hold elementary teaching licenses.

Georgia's university regents last summer proposed eliminating broad-field middle school certificates. They also called on Georgia's schools to adopt voluntarily "truth in advertising" policies by which, like the rejected Texas measure, they would notify parents of out-of-field teaching. Neither Georgia proposal has been enacted.

"We cannot realistically say to folks that, in a year, you are not to have anyone in math or science who has not concentrated in those areas," Ms. Torrey said. "The bodies just aren't there."

### **Making Do**

But Mr. Ingersoll believes shortages don't explain the whole problem.

An analysis he carried out for an article in this month's *Educational*

*Researcher* shows widespread out-of-field teaching even in disciplines considered to have an abundance of candidates. Nearly 22 percent of high school English teachers did not have as much as a minor in the subject. And although 28 percent of the nation's high school math teachers lack even a minor in that subject, he found that only 16 percent of schools report having difficulty filling vacant math teaching positions.

His hypothesis: Convenience could play a significant role in teacher misassignment.

"It's a problem in how schools are managed and operated," Mr. Ingersoll contends. "The source of out-of-field teaching isn't so much a lack of coursework and training, but is a lack of fit between what teachers are educated or trained in and what they are assigned to teach."

Many state officials counter that misassignment is rarely the result of laziness. "I have yet to find a principal, personnel director, or a superintendent who randomly puts people in classrooms and who doesn't want what's best for kids," Ms. Torrey said.

Instead, administrators often must make the best of it, as did Principal Melton Callahan at Colquitt County High School, located in southern Georgia and geographically isolated from the state's largest cities.

The administrator was in a bind this year when one of his math teachers left between semesters and no one certified in the subject applied for the job. He wound up hiring a teacher with social studies certification. Though not an ideal situation, Mr. Callahan trusted that the woman was a competent educator because she had done her student-teaching at the school. He also assigned her one of the school's lowest-level math courses, and she is working toward the proper certification.

"I don't feel these kids are being slighted at all," he said. "If we weren't able to use a provisionally certified person, we'd have to use a substitute."

### **Tinkering Not Enough**

While conceding that many schools do encounter difficulties hiring the right teacher for every spot, Mr. Ingersoll doubts the problem is simply that there aren't enough qualified potential candidates. More likely, he suggests, the teaching jobs that are the toughest to fill just aren't enticing enough to attract--and keep--amply qualified people.

"The way to ensure that we have well-qualified people in the classroom is to improve the job," he said. "A good, well-paying job is like a magnet."

It would take a mighty powerful magnet to draw only fully qualified teachers to a place like Southland, a

#### **About This Series**

**Part 1:** ["States' Uneven Teacher"](#)

tiny town outside Lubbock where the school system serves just 190 students. Its small size, remoteness, and low salaries help explain why someone like Neal Wilcox--certified to teach high school biology, physical education, and health--has taught economics, geography, and government there this year.

"Everybody out here has to do a lot of extra things," said the 62-year-old Mr. Wilcox, who also coaches basketball, track, and football.

Making the best of the situation, he tries to draw on his real-world experiences in teaching social studies, such as his U.S. Army service in the 1950s and 1960s, when he was stationed in 14 countries, and the period when he ran his own construction business.

"With my age and experience and with the materials you've got, you're not likely to miss anything," he said. "I'd retire if I thought I wasn't being effective at teaching students what I do."

Though Southland sounds like an extreme example, some experts say school size is a major contributor to out-of-field teaching. Ms. Feistritz says that nearly one-third of American secondary schools enroll fewer than 300 students. "So the chances of having only physics majors teaching physics in each of those schools is not economically feasible," she said.

Technology may offer partial relief for small, isolated districts. The Southland system is one of about 60 in the region gaining two-way teleconferencing labs, worth \$90,000 each, through a state initiative, said Southland Superintendent Berhl Robertson. Once in place, the network of labs will allow multiple districts to share fully qualified teachers, he said.

Ultimately, such creative approaches may go further than simply trying to outlaw out-of-field teaching, says Terry K. Dozier, who serves as Secretary Riley's special adviser on teaching.

"When I travel across the country, what is extremely frustrating to me is when people say, 'It's impossible'; it is impossible under the current system, but it's not impossible to do," she said. "You can't just tinker around the edges. We've got to look at state and local policies, at how we license teachers, how we support them, and how we compensate them."

[Supply Complicates Staffing of Schools.](#) March 10, 1999.

**Part 2:** ["New Teachers Abandon Field at High Rate."](#) March 17, 1999.

**Part 3:** March 24, 1999

- ["All Classes of Spec. Ed. Teachers in Demand Throughout Nation";](#)

- ["Burgeoning Nevada District Concentrates on 'Growing' Its Own";](#)

- ["Prospective Teachers in Rural Areas Tune In to Satellite Classes."](#)

**Part 4:** "Out-of-Field Teaching Runs Rampant," March 31, 1999.

**Part 5:** April 7, 1999

- As standards for students go up, schools are under pressure to reduce the number of people without professional training who are hired to teach.

## On the Web

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Education Secretary Riley's [State of American Education Address](#) included ["Steps To Address Accountability and Teacher Quality."](#)

Christopher J. Klicka of the Home School Legal Defense Association provides a legal perspective: ["The Myth of Teacher Qualifications."](#) in a 1997 editorial piece.

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PHOTOS: Out-of-field teaching is as much "a problem in how schools are managed and operated" as it is a shortage of certified teachers, says Richard M. Ingersoll of the University of Georgia.

--University of Georgia

Neal Wilcox is certified in biology and health, but this year has taught economics and world geography at Southland High School in Texas.

"Everybody out here has to do a lot of extra things," says teacher and coach Neal

Wilcox of the rural community of Southland, Tex.

--Joe Don Buckner

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