

## INTRODUCTION

Over the past decade, we've heard time and again the dire warning that a major teacher shortage is imminent in our public schools. But is this really the case? Teacher education programs actually produce enough teachers each year to compensate for those who retire. Rather, some researchers suggest that we have focused too much on *teacher shortages* (the inability to recruit enough teachers) and not enough on *teacher attrition* (losing teachers already in the field). According to the National Center for Education Statistics' (NCES) latest School and Staffing Survey (SASS), about one-third of teachers quit during their first three years, and almost half leave within five years (Gruber, Wiley, Broughman, Strizek, & Burian-Fitzgerald, 2002). Turnover is highest in poor, predominantly minority schools. The National Commission on Teaching and America's Future (2002) has characterized this problem as a "revolving door," in which many good teachers keep coming in. . .but then go right back out again.

It appears that we are also facing a *sorting*—or *distribution*—problem, more than a shortage problem. In other words, teachers are highly concentrated in some areas, while there remains a dearth of teachers (much less, "highly-qualified" teachers) in other areas, particularly low-income, high-minority schools and certain fields, such as math and science. In fact, sorting, migration (teachers moving from one school to another), and out-of-field teaching affect teacher shortages more than overall attrition or initial supply (Ingersoll, 2001).

Due to sorting problems and uneven teacher distribution, many teachers must be assigned to teach "out-of-field," or subjects outside of their area of training and certification (i.e., the baseball coach teaching Algebra II). More than half of the nation's middle school students and a quarter of its high

school students are learning core academic subjects from teachers who lack certification in those subjects and did not major in them in college. The problem is even worse for high-poverty schools. For example, in high-poverty secondary schools, 32 percent of students take a class with a teacher who lacks even a minor in the subject. These chronic staffing problems may make it even more difficult for many schools to meet the federal No Child Left Behind (NCLB) requirement that each classroom has a "highly-qualified" teacher by 2006.

## STAFFING PROBLEMS FOR ARKANSAS' SCHOOLS

In Arkansas, the teacher shortage situation is similar to the situation throughout the nation. There was a 19% decline in the number of education degrees awarded between 1993 to 2002 in the state of Arkansas (Arkansas Department of Higher Education, 2003). Moreover, only 60% of students in Arkansas who graduate with education degrees receive an Arkansas teaching license and fewer than half of those teachers actually begin teaching in Arkansas. In 2002, it was reported that more than 27,000 licensed teachers in Arkansas were not teaching in the schools (The New Teacher Project, 2002).

Besides having trouble recruiting and retaining new teachers, Arkansas also has major problems with teacher sorting and out-of-field teaching. Murphy, DeArmond, and Guin (2003) suggest that the teacher shortage is more of a quality shortage than a quantity shortage. We may have enough teachers to fill the classrooms, but they are not necessarily teaching in their particular area of expertise. The Arkansas Department of Education (ADE) has described the state's teacher problem as a "teacher availability dilemma" – or a sorting problem – due to the fact that the state has a sufficient number of certified teachers, but most of these teachers are

located in the urban or university areas of the state (Arkansas Division of Legislative Audit, 2002). A representative from the ADE reported that 58,000 teachers are currently certified in Arkansas, but our colleges/universities teacher preparation programs “are not producing enough graduates from those programs to meet the current needs in our state” (Personal Communication, November 4, 2004). Several options are being used in Arkansas to resolve these teacher shortages such as “the Non-Traditional Licensure Program, applicants from out-of-state, and teachers currently licensed that are adding additional licensure areas to their license” (Personal Communication, November 4, 2004). Arkansas’ biggest problem regarding teacher shortages appears to be that a lot of these teachers are teaching out of their area, have left the state to teach elsewhere, or are not teaching at all.

On the other hand, a regional analysis of the U.S. Department of Education’s 1999 – 2000 School and Staffing Survey (SASS) reported that Arkansas is among the group of states that have the least difficulty in hiring teachers (Murphy, DeArmond, & Guin, 2003). All 50 states were categorized into 4 groups according to their late-fill rate (persons hired after the school year began): less than 1.0%, 1.0 to 1.49%, 1.5 to 2.0%, and greater than 2.0%. Arkansas fell in the less than 1.0% group. Schools that had the most unfilled positions at the beginning of the school year were schools where more than 40% of their students were minorities and more than 40% of the students were eligible for free/reduced lunch (Murphy, DeArmond, & Guin, 2003).

Faced with various shortage and sorting problems, the Arkansas Department of Education has had little choice but to allow more and more teachers to teach out-of-field. In the 2004-2005 school year, the Arkansas Department of Education received 249 waivers requests from teachers from 69 districts around the state of Arkansas requesting to teach out-of-field. More than half (139) of these requests can be viewed as academically problematic. We classified waiver requests as “problematic” if teachers of core subjects such as math, science, language, and social studies were not trained in those areas. Similarly problematic were situations in which teachers in “special” areas such as ESL, gifted and talented, special education, foreign

languages, or counseling were not trained in that field.

Around the nation, the subject areas with the highest shortage of teachers appear to be math, science, special education, and foreign languages (Murphy, DeArmond, & Guin, 2003). Superintendents around the state of Arkansas have reported the following subject areas as areas of shortage: science, secondary math, English, art, music, counseling, gifted and talented, library/media, special education, and foreign languages. The State Board of Education has identified all foreign languages, secondary mathematics, all secondary science, all special education, and English as a Second Language as areas that have teacher shortages around the state (Arkansas Department of Education, 2004). In Arkansas, the subject areas that have been indicated as shortage areas tend to be the ones that have the most waivers for teachers to teach out-of-field.

#### **SOLVING THE SHORTAGE & SORTING PROBLEM**

To decrease the teacher shortage nationally, Congress has increased the amount of federal student-loan forgiveness for teachers in science, math, and special education, who work in high-poverty schools for at least 5 years, from \$5,000 to \$17,500 (Cavanagh, 2004). The state of Arkansas has also developed solutions to decrease teacher shortages. For example, the Non-Traditional Licensure Program allows applicants from out-of-state to teach in Arkansas and allows candidates with a bachelor’s degree to pursue their teaching credentials on Saturdays and over the summer (Sandham, 2003). Arkansas has also created alternative routes to certification, but this solution only supplies a little over 200 teachers a year (The New Teacher Project, 2002).

In addition to alternative routes to certification, Arkansas has recently developed a new scholarship program for the state called State Teacher Assistance Resource (STAR) designed to recruit future teachers into pursuing a license in certain subject areas such as math, special education, science, or foreign languages (Robinson, 2004). This scholarship also is given to teachers who will agree to teach in areas that have teacher shortages. Each scholarship is worth \$3,000 per year and a

student can agree to both stipulations and receive \$6,000 per year. So far 264 have applied and among those about half have chose to agree to both stipulations of the program. State officials are also considering a loan repayment program, which will provide \$3,000 for teachers teaching in a public school that has a critical teacher shortage or for teachers teaching in a subject area in which there is a critical teacher shortage, for students who graduate with a degree from a teacher education program after April of 2004 (Robinson, 2004). As with the previous, if they choose both, then the amount of loan repayment would be \$6,000.

Another solution to alleviate teacher shortage problems in Arkansas is a scholarship program called the University Assisted Teacher Recruitment and Retention Grant Program that provides \$2,000 academic scholarships annually to students who decide to pursue a Masters of Teaching degree at any accredited university in Arkansas. Upon graduation, these students are placed to teach in areas of the state that have critical shortages (see <http://www.arkleg.state.ar.us/ftproot/bills/2001/html/HB1939.pdf>). For teachers who are National Board Certified, Act 1803 provides annual bonuses that increase over a three year period, as long as the teacher remains employed and meets the eligibility requirements for the bonuses (Arkansas Department of Education, 2003). Legislation was also passed in Arkansas so that teachers who decide to move and teach in the Delta and in other regions that have teacher shortage areas can be reimbursed by the school district for their interviewing and moving expenses.

#### RECOMMENDATIONS

Teacher shortages are distributed unevenly across school districts, the number of students graduating with education degrees is declining, and a number of teachers are teaching out-of-field. As a result, policymakers need to target a comprehensive solution to this ongoing problem. Some states' policymakers have instituted bonuses as part of their recruitment and retention efforts, while others have tried professional development as an opportunity for teachers who are uncertified to upgrade their education levels, improve their skills, and receive certification (Williams & King, 2002). The New Teacher Project (2002) recommended identifying teachers who were planning to retire earlier in the school year so that schools could be prepared for the shortages created. Superintendents in Arkansas suggested

recruiting nationwide, using a "grow your own" model to attract young people in high school to the teaching profession, and substantially raising teacher salaries so Arkansas salaries are competitive with those in surrounding states.

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