

## 2002 Teacher Supply and Demand Study April 2002

### Conclusions - Identified Teacher Education Shortage Areas

Similar to findings in the 1998 study, there is no shortage in the production of new teachers; however, there are shortages due to difficulties in hiring and retaining teachers. Based on the trends from the past four years, shortages can be expected in the following areas. (Table 17)

**Early childhood.** Urban areas show increased demand for teachers in this area; the number of births has increased in three of the last five years. To maintain current student to educator ratios, over 250 more early childhood teachers will be needed from 2000-01 to 2004-05.

**Special education.** The overall reserve pool of special education teachers is relatively large; however, several areas, including deaf-blind, visually impaired, hearing impaired, and autism, have few reserves. To maintain current student to educator ratios, 1,735 special education teachers will need to be hired from 2000-01 to 2004-05.

**Foreign language.** Reserve pools for this area are low. About 15 percent of middle school and 16 percent of high school foreign language classes have over 25 students. Over the next five years, 78 middle school and 275 high school teachers in a variety of different languages will be needed.

Possible shortages are projected in the following areas.

**Guidance counselors.** The number of counselors eligible for normal retirement increases significantly throughout the next five years. The reserve pool is inadequate considering the number of school districts, although a projected overall decline in student enrollments will be directly tied to the demand for counselors. To maintain current supply levels, 566 new counselors will be needed in the next five years.

**Librarians.** Projected normal retirements over the next five years are high, and the reserve pool of librarians is small. Given the projected decline in overall student enrollments, the demand for librarians, assuming historical ratios of student to librarian, may decline. To maintain current ratios, 274 new hires will be needed.

**Art/Music.** Approximately 28 percent of middle school and 20 percent of high school classes have over 25 students, and the percentages of current teachers eligible for retirement in 2005 are 28 and 27, respectively. To maintain current supply levels, 139 middle school and 402 high school art and music teachers will need to be hired.

**Science.** In 2005, 20 percent of middle school science and high school biology teachers and 30 percent of high school chemistry teachers will be eligible for normal retirement. Middle school enrollment is predicted to increase over the next five years. Urban school districts

will show the greatest change in demand for high school biology and chemistry teachers; mid-size districts will have an increased demand for high school physics teachers.

**Vocational Education.** Thirty-six percent of middle school and 29 percent of high school vocational education teachers will be eligible for normal retirement in 2005. The total reserve pool is adequate, but there are many areas with less than five teachers in reserve. Mid-size and rural school districts will show the greatest demand for middle school vocational education teachers, and urban districts will show increased demand for high school teachers in this area. Over the next five years, 627 high school vocational education teachers will be needed to maintain current student to educator ratios.

**Mathematics.** Approximately 13 percent of middle school math classes consist of more than 25 students, and about 16 percent of high school math classes have more than 25 students. The demand for both middle and high school math teachers is predicted to increase in urban school districts. To maintain current supply levels, 308 middle school and 736 high school math teachers will need to be hired in the next 5 years.

**Speech pathologists.** Due to how data are collected for speech pathologists, similar projections are not possible. However, based on the low percentage (40 percent) of certified graduates hired and previous shortages, speech pathology is considered a shortage area.

### **Projected Demand by School District**

The largest school districts are projected to need 3.1 percent more educators in 2004-05 than in 1999-00. Other school districts are expected to have a slight decrease in demand ranging from 0.4 to 7.8 percent with the rural smallest school districts having the largest overall decrease. (Tables 18-20)

#### **Rural Districts**

- Administrators show decreases in demand of 2 percent and 5 percent for the two rural clusters.
- Early childhood education shows no change for one rural cluster and a 3 percent decline for the other rural cluster over the projection period.
- Elementary grades show a 3 percent decline in demand.
- Demand for middle school positions show mixed results. The most rural cluster shows a 4 percent increase in demand over the projection period, while the other cluster shows a 2 percent decline.
- High school positions for rural clusters show substantial decreases of 6 and 10 percent over the projection period. These changes represent very small numbers.

#### **Mid-size District Clusters**

- Administrators show a small decrease in demand for most mid-size clusters and one cluster shows no change in demand.
- Early childhood education shows changes in demand over the projection period ranging from no change to a 9 percent increase.

- Elementary grades show virtually no change in demand over the projection period with changes ranging from a 3 percent decline to no change at all.
- Middle school positions show mixed results with changes ranging from a 5 percent decline to a 2 percent increase over the projection period.
- High school positions for mid-size clusters show decreases ranging from 3 to 4 percent. These changes represent very small numbers.

### **Urban District Clusters**

- Administrators show a small increase in demand for most urban clusters; however, some urban clusters show a small decline in demand.
- Early childhood education shows increases ranging from 4 to 10 percent.
- Elementary grades show virtually no change in demand over the projection period.
- Middle school positions show an increase of about 5 percent in the most urban districts over the projection period. The other urban clusters range from no change in positions to declines as great as 10 percent.
- High school positions for urban clusters show increases as high as seven percent for the most urban cluster over the projection period. However, all other urban clusters show declines in demand for high school positions ranging from 3 to 7 percent. These changes represent very small numbers.

The National Center for Education Statistics data indicate that public schools across the country will need at least 2 million new teachers by 2010. Nationally, schools in poor, high minority, and urban districts are already in dire need of qualified teachers. Non-white students are expected to comprise the majority of all K-12 students in the United States by 2035; however, 90 percent of current teachers are Caucasian.

### **Contributing Factors to Shortage Areas**

**Teacher salaries.** A 2000 analysis of teacher salaries by the American Federation of Teachers, reports that the national average for teacher salaries during the 1999-2000 school year was \$41,820. Oklahoma was ranked 50<sup>th</sup> of 51 states (the report included the District of Columbia), with an average salary of \$29,525, or 70.6 percent of the national average. The report shows Oklahoma in a three-year sinking trend; Oklahoma ranked 48<sup>th</sup> in 1997-98 and 49<sup>th</sup> in 1998-99.

Although the minimum salary mandated in Texas is lower than that in Oklahoma, local districts in Texas are paying more. For instance, in Houston, first year teachers with a baccalaureate are paid \$34,588 per year; in Denton, \$33,500; and in Fort Worth, \$36,250. Oklahoma districts generally pay just above the minimum state mandate of \$27,060 (by law, this figure can include benefits). A first year teacher in Oklahoma City with a baccalaureate makes \$26,700 (plus benefits); in Tulsa, \$26,000 (plus benefits); and in Lawton, \$27,301. An Oklahoma teacher with a master's degree and 20 years of experience could earn a lower salary than a first year teacher in Fort Worth, Texas. As evidenced above, in some instances, Oklahoma school districts include benefits in the salary minimum, which means teachers are paid even less.

Other states offer financial incentives beyond salary and benefits. For example, the Dallas Independent School District pays new teachers a minimum of \$34,100 and offers hiring bonuses based on the date of hire: \$1,500 in June; \$1,000 in July; and \$500 in August. Additionally, the district offers an annual stipend of \$3,000 for bilingual teachers; \$1,000 for math and science teachers (grades 7-12); and \$500 for special education or Spanish teachers.

The Houston Independent School District pays new teachers \$34,588 and offers first year teachers a signing bonus of \$3,000 over two years. Teachers in critical shortage areas receive a \$5,000 bonus over two years. Other special incentives include a \$500 bonus for new hires with a college GPA over 3.0; a retention bonus of \$3,000 to every teacher with more than three years of experience; and an extra \$500 bonus for teachers with more than 24 years of experience.

**Employment incentives in other states.** In 2001, the Texas legislature passed a bill allowing its State Board for Educator Certification to issue Texas teaching certificates to candidates from other states or countries who have passed certification examinations comparable to Texas exams. Test comparability was based on stipulated exam content that is “similar to and at least as rigorous” as the ExCET Texas certification tests.

The Texas state board surveyed the certification requirements of several states. The first phase of the comparability study focused on tests from Oklahoma, Arizona, Colorado, and New Mexico. The Oklahoma Professional Teacher Examination (OPTE) for elementary educators was deemed comparable to the ExCET Professional Development Elementary and Elementary Comprehensive tests, and the OPTE for middle/secondary educators was deemed comparable to the ExCET Professional Development Secondary. This essentially means that in the future, new Oklahoma teachers may not be required to take additional tests to teach in Texas. Additionally, foci for future comparability studies include other high-incidence and shortage areas, such as special education and English as a second language, as well as specific content areas.

Other states are offering attractive incentives for educators, as well. Oklahoma college newspapers are advertising California teaching positions with a salary range of \$34,000 to \$44,000 for first year teachers. Additional incentives for California teachers include up to \$19,000 in grants for education loans and low-interest mortgages.

**Admission to teacher education programs.** As noted in the 2002 Teacher Education Admission Study, during 2000-01, a total of 1,923 students were admitted to teacher education programs at 12 Oklahoma universities, a decrease of 43 percentage points from the 3,370 students admitted in 1995-96. Among the reasons cited by education program deans for this decrease were low teacher salaries, availability of alternative certification, test costs, higher admission standards, and the public’s negative view of public education. The number of students admitted to teacher education and the number of students taking the PPST decreased; the percentage of students failing the PPST also decreased. Therefore, the decline in admitted students is not due to admission standards.

**Teacher retirements and the retention shortfall.** The rising number of current teachers eligible for retirement is another critical concern. As previously mentioned, up to 32 percent of

current educators will be eligible for retirement in five years. Not surprisingly, 9 of the 14 fields with the highest percentage of educators eligible for retirement are also identified as areas of projected shortage or possible shortage over the next five years.

The shortage of educators also reflects difficulties in retaining teachers. Teacher retention is affected by many factors, including insufficient classroom experience, lack of support from administrators, work environment, student discipline problems, initial assignment of difficult students and subjects, and insufficient interest in teaching. Oklahoma is currently losing teachers at a significantly higher rate than presented in the 1998 study (22 percent and 16 percent, respectively).

### **Positive Steps to Address Shortages**

**Alternative certification.** Individuals with baccalaureate degrees in a field of study corresponding to an area of Oklahoma teacher certification may be eligible for alternative certification, a program that places career professionals with wide ranges of practical experience in the classroom. To obtain alternative certification, in addition to holding a related baccalaureate degree from an accredited institution recognized by the State Regents, a candidate must have two years of work experience in the subject area of specialization and pass the competency examinations in general education, professional education, and subject area(s) administered by the Oklahoma Commission on Teacher Preparation.

The number of alternative certifications has increased 11 percentage points since the 1998 study. The attrition rate of alternatively certified teachers is slightly higher than that of regularly certified teachers (10 percent and 7 percent, respectively). The 90 percent retention rate demonstrates the viability of alternative certification.

**Teacher Shortage Employment Incentive Program.** To participate in the incentive program, a student must be enrolled in a mathematics or science program; declare intent to serve in an Oklahoma secondary public school for a minimum of five years; and serve in an Oklahoma secondary public school for five years, teaching 75 percent in mathematics or science. After five years, the student receives as loan reimbursement or incentive pay an average cost of tuition/fees for a three year period.

**The Teacher Job Connection.** In June 1998, the State Regents approved the development of the Oklahoma Marketplace website to inform Oklahoma students and alumni about employment opportunities in the state and to connect employers with highly qualified candidates. One component of the website is the Teacher Job Connection, a free service that matches qualified Oklahoma teacher candidates to teaching vacancies in public and private Oklahoma schools.

At the Teacher Job Connection site, teachers can post resumes, match resumes to online job listings, and search listed vacancies. Schools can post job listings, match listings to posted resumes of Oklahoma-certified teachers, and access resumes for prospective candidates. Since its inception, the Teacher Job Connection site has served almost 7,000 teachers and over 400

school districts. Nearly 2,000 resumes and over 750 jobs have been posted to the site. Currently, the site includes 270 active resumes and 148 active job listings.

**Home loans.** Select Oklahoma banks offer innovative home loans to help teachers overcome the high cost of home ownership. One such program allows teachers to buy homes with no down payment and 100 percent financing. A second program makes borrowing money easier for teachers with limited savings and no credit history.

### **Conclusions and Recommendations for Action**

As previously noted, there are no shortages in the **production** of teachers; there are shortages in **hiring** and **retaining** teachers. Low salaries, difficult work environments, and more attractive job opportunities in other fields cause many trained teachers to select other careers. Given that educator shortages are the result of issues unrelated to the number of teachers supplied by Oklahoma higher education institutions, the hiring and retention shortfall will continue until those issues are addressed directly by the appropriate governing entities. The following initiatives are recommended for State Regents' endorsement.

- Teachers should be paid salary supplements in high demand subject areas and in low supply geographic sections of the state. Simply stated, pay shortage area teachers well, and pay shortage area teachers in high need school districts even more.
- Consider initiating and expanding alternative financial incentives to attract students to teaching. Examples of monetary inducements successful in other states include entry-year and retention bonuses, stipends for bilingual teachers, and low-interest, no-money-down mortgages.