

## **Texas Collaborative for Excellence in Teacher Preparation TEACHING SCHOLARS**

The need for diversity in the teaching profession is increasing in Texas as state and national demographics become more dynamic, complex, and diverse. Currently, 55% of K-12 Texas students are Hispanic or African American. However, only an average of 24% of Texas science and mathematics teachers are either Hispanic or African American. In an effort to help meet this need, TxCETP has a goal of attracting and retaining undergraduates, especially from underrepresented groups, into the teaching profession.

**Texas Collaborative for Excellence in Teacher Preparation (TxCETP)** includes ten public universities with teacher preparation programs, graduating 25% of the certified K-8 and certified 9-12 mathematics and science teachers, more than 3,700 annually. A TxCETP program is in every geographic area of the state, including three Hispanic serving universities in South Texas, one HBCU, four rural serving universities, a women's university, and a national research institution. TxCETP is requesting funds from the NSF Teaching Scholars component to provide support and recognition to undergraduate students preparing to be teachers of mathematics and science. These funds support our goal of increasing the number of Texas teachers from underrepresented minority groups to improve the success of underrepresented students in mathematics and science education.

A disproportionate number of minority students in Texas live in poverty, and many live in isolated rural communities. Post-secondary education costs and the need to relocate to pursue this education raise access barriers. The TxCETP Teaching Scholars component will provide greatly needed financial assistance to well-qualified students who may not otherwise pursue education careers. Awards to underrepresented students should reflect the diversity of Texas' population. These students will become TxCETP Teaching Scholars.

***Integration of the Teaching Scholars Program into TxCETP:*** Teaching Scholars at the ten TxCETP institutions will become actively involved in the respective TxCETP programs, including enrolling in TxCETP courses as appropriate. With guidance of TxCETP faculty, they

will participate in course reform development and in other reform efforts. A key role of the Scholars will be to assist in master teachers' classrooms on a regular basis. This close involvement with quality instructors will provide worthwhile learning experiences for Scholars and valuable assistance to teachers. Scholars will be expected to participate in TxCETP workshops, meetings, and other functions. Community service will be encouraged, including judging science fairs, assisting in after school science and math clubs, and tutoring students in mathematics and science. Involvement with TxCETP faculty and activities will give prestige to TxCETP Scholars by involving them more with NSF funded activities than is typical for preservice teachers. This will be an advantage for the students when applying for teaching positions or for future graduate work.

***Number, duration, and amount of scholarships:*** Fifteen to 30 Scholars per year, statewide, may participate for up to six full semesters and three summer terms. The amount of each award is based on the Scholar's financial needs as determined by Financial Aid offices at each institution and Federal guidelines. TxCETP staff at each institution will work closely with their financial aid program to ensure that the TxCETP Teaching Scholars program is advertised and administered appropriately.

Scholars will be involved in TxCETP activities for 10 - 20 hours per week based on their needs, their personal preferences, their course loads, and the partner institution's programs. The partner institutions, based on institutional costs and financial need of each student, will determine the amount of the award. For two semesters plus 10 weeks in the summer, the Scholar could receive an award of up to \$5760.00 per year. Students may enter the Scholars program at any point in their education. Some may be involved for three years while others may enter during their later years of education. Continuation in the program will be contingent upon each student's on-going level of participation in TxCETP and upon maintaining a GPA of 2.75 or better. Justification of the 2.75 GPA is in the following section.

***Selection of TxCETP Teaching Scholars:*** TxCETP Teaching Scholars will be selected for their potential to contribute positively to Texas' mathematics and science teaching force. Most students will be undergraduates who have completed at least one year preparing to become middle school or high school teachers with a mathematics or science teaching field. However, they may also be graduate students or post-Baccalaureate students returning to pursue certification in mathematics or science education. They will have good academic standing, be making satisfactory progress towards a degree, be enrolled full time as defined by the institution (normally 12 hours per full semester and six hours per summer term), and maintain a 2.75 or equivalent grade point average. Most students will be "non-traditional," working at least part time and often supporting a family. They will also typically be under-prepared for college level course work. These factors contribute to the lower than expected GPA, but experience indicates that for these students, higher GPA's are not indicators of increased success in teaching secondary mathematics and science.

Each Scholar will submit an application, a brief personal statement indicating dedication to teaching K – 12 and their preparation for and comfort with teaching science or mathematics, and two letters of reference. In this statement and the references, students must indicate potential for doing "A" level work in TxCETP courses and that scholarship money will contribute to an increased GPA. For example, the scholarship would allow the student to work fewer hours and devote more time to courses. Applications will be at the ten TxCETP partner institutions and on the TxCETP website. After review and recommendations by partner institutions, applications will go to a central selection committee composed of members from across the partners of the collaborative.

**Selection criteria will include:**

- Successful completion of at least one year (24 hours) with a minimum GPA of 2.75
- U.S. citizenship and Texas residency or graduation from a Texas high school
- Full time enrollment (or ability to enroll full time with financial assistance)
- Financial need, with data that lack of assistance reduces the chance of completion
- Recommendation letters that give evidence of future success in teaching secondary mathematics or science
- Commitment to teaching at least two years in Texas schools

***Plans for mentoring the Scholars from the time of recruiting through the first years of teaching to increase retention:*** Since each partner institution will have only three or four Scholars, this will greatly increase the opportunities for mentoring and prestige. Research demonstrates that faculty advising and mentoring is an important component of the success and retention of all students, especially underrepresented students. Therefore, ongoing academic advisement will be an integral component of the TxCETP Scholars Program. The academic advisement will encourage increased credit hours in math, science, and engineering courses. Also, these TxCETP advisors will be aware of the new TxCETP courses and can ensure that Scholars are fully involved in course reform efforts.

Each institution will track their Scholars through the close communication that will be part of their involvement in TxCETP. Each Scholar will keep a portfolio describing their involvement in TxCETP and documenting their achievements. The portfolio will include: a) an autobiography that includes their reasons for entering the program and their personal goals, b) descriptions of significant TxCETP experiences, c) samples of their best efforts in understanding mathematics and science content, teaching, and learning theory, unit and lesson development, and collaborative work with colleagues or mentors, and d) a reflective essay on their TxCETP work including the effects of the financial support and mentoring experiences and their commitment to teaching. This portfolio will form the basis for job applications and applications to prestigious programs such as National Teacher Certification and the NSF Presidential Award for Excellence in Mathematics and Science Teaching. The Texas Presidential Awardees, an organization founded by and partnering with TxCETP, will provide workshops for scholars on building an effective portfolio. Plus, each Scholar will be on an institutional database linked statewide.

TxCETP Scholars will be required to commit to a minimum of two years teaching in Texas, and will be automatically included in the TxCETP Novice Teacher Program upon graduation or certification. The Texas Beginning Educator Support System developed by the Texas State Board for Educator Certifications outlines twelve standards for supporting

beginning educators, including guidelines for support team training and relationships. Teacher support activities will be based on these state-adopted standards.

**Evaluating the program:** The key question that TxCETP will address with continual evaluation and improvement of the Scholars Program is: to what extent has the TxCETP Teaching Scholars Program enhanced the number of outstanding undergraduate mathematics and science students committed to and well prepared for a teaching career? Data will be obtained from several sources and compared with information collected by the Texas Higher Education Coordinating Board's "Closing the Gap" effort to increase graduates in critical fields such as mathematics and science. Student demographic data will be gathered as each Scholar enters the program. The academic advising program will provide information on prior education and standardized test scores. Survey and interview data will be gathered from the Scholars as needed. The Scholars' portfolios will be key sources in evaluating the program. Portfolios will provide data on how the program has attracted superior students into teacher preparation, how it has helped overcome financial barriers, how it has supported them in becoming teachers, and their achievement and potential for becoming outstanding teachers from samples of best work.

Summaries and reports that track Scholar's progress and experiences will be reviewed regularly by each partner institution to help monitor and improve the program. Progress reports will be presented at an annual conference each year.

**Sustainability:** The Texas A&M University System is working with business and industry to recruit and scholarship future teachers. Presidents of each of the system schools have committed to this effort through the Regents' Initiative. The TxCETP Scholars will partner with this effort; the existence of NSF funded scholarships will lend prestige to the effort. In addition, TxCETP is currently partnering with business and industry to provide Mathematics and Science Teacher Internships. The goal is to have 100 of these summer internships funded by businesses in the next five years. The TxCETP Scholars will be eligible for these internships.