

The U. T. Commitment
DRAFT
(Prepared by Office of Academic Affairs)
April 23, 2002

The pressing need for Texas to increase the success rates of public school students, to increase the size and diversity of the pool of students entering colleges and universities, and to produce more college and university graduates is acknowledged by all leaders in business and government. It is estimated that Texas needs to graduate an additional 20,000 college and university students each year just to reach the national average. That would be an increase of more than 25 percent over current graduation numbers. Texas cannot meet this goal without greatly improved academic performance in the state's public schools, with significant increases in the number of students succeeding in the college-preparatory curriculum.

The multiple dimensions of this problem have been described by Chancellor R. D. Burck as follows:

“Without a well-educated workforce, Texas will fail to be competitive in attracting industry with high-paying jobs for the new information-age economy, as well as in maintaining the quality of life of the people of the state. The future economic prosperity and social cohesion of Texas depend on supplying the growing demand for well-educated ‘knowledge workers.’ Only higher education, working in close collaboration with the public schools of Texas, can meet this demand.”

The U. T. System long-range plan, “Service to Texas in the New Century,” lays out a comprehensive 30-year plan to assist Texas and its people in meeting the educational needs described above. The goals, mandates, and performance targets of this plan are consistent with other statewide planning documents, particularly the long-range plan of the Texas Higher Education Coordinating Board (“Closing the Gaps, By 2015”) and the report of Gov. Rick Perry’s Special Commission on 21st Century Colleges and Universities.

Common elements of these plans include the need to increase higher education participation rates for all Texas students; to increase the number of degrees awarded to students at colleges and universities; and to increase the level of research funding to Texas universities.

The long-range plans of both the U. T. System and the Coordinating Board include strategies for achieving the specified goals. Selected strategies include:

- ◆ Recruiting and better preparing additional well-qualified educators for elementary and secondary schools;
- ◆ Retaining and supporting teachers and other educators through quality professional development and on-line teaching tools;
- ◆ Increasing research on K-16 issues.

At the end of last year, Congress overwhelmingly passed an historic piece of education reform legislation, the *No Child Left Behind Act of 2001*. This law represents a major shift in federal policy

in K-12 education by requiring states to set high standards for student achievement, measure whether the achievement goals are being met, and provide annual report cards to parents about the overall quality of the school their child attends and their child's progress in reading, math and science.

Significant resources will begin flowing to states this summer to address the needs of disadvantaged students, to support reading instruction rooted in research-based methods that work to ensure that all students are reading on grade level or above by the third grade, and to strengthen teacher quality through improved training—initial training in university teacher preparation programs and ongoing training while on the job in public school classrooms.

When President George W. Bush signed this significant legislation in January, he stated,

“These reforms express my deep belief in our public schools and their mission to build the mind and character of every child, from every background, in every part of America.”

In addition, President Bush recently launched his Quality Teacher Initiative. In announcing the initiative, he once again emphasized the importance of improving the quality of teachers and principals through enhanced training.

Texas has a head start in implementing many of the requirements of the *No Child Left Behind Act of 2001*. The State has in place one of the nation's leading public school accountability systems. Reading has been a top priority since 1997 when the Texas Legislature funded the Texas Reading Initiative. As a result of that effort, all of the state's kindergarten through second grade teachers have been trained to instruct students in reading using methods that are based on scientific research, and third grade teachers will be trained by the end of 2002.

The U. T. System is in a unique position to have two nationally-recognized reading centers housed at two of its institutions—the Center for Academic and Reading Skills (CARS) at the U. T. Health Science Center at Houston and the Texas Center for Reading and Language Arts (TCRLA) at U. T. Austin. These two centers have conducted prominent scientific research on reading instruction and have developed the highest quality training programs and materials to prepare educators to teach reading using methods grounded in that research.

CARS cutting-edge research of reading instruction in the early grades has clarified the components of successful reading programs and led to the identification of teaching strategies that work with children with reading problems. As a partner in the Texas Reading Initiative, CARS developed the Texas Primary Reading Inventory (TPRI), which is the early reading diagnostic instrument used in about 91 percent of the school districts in Texas. In addition, CARS produced staff development materials and strategies to help teachers use TPRI and work with students based on the assessment results. Most recently, CARS developed the Reading Academy materials to be used this summer to train the state's third grade teachers

TCRLA, in supporting the work of the Texas Reading Initiative, developed the content and materials for the summer Reading Academies for Texas kindergarten, first- and second-grade teachers. About 65,000 teachers have been trained over the past three years. The Center continues to create professional development products that are directly informed by research.

Texas has embarked on the Texas Math Initiative. As part of that effort, fifth through eighth grade math teachers will be trained in the latest scientifically based research on math instruction. However, that research is not as deep and the course not as clear on teaching children the skills to be able to master advanced math coursework, such as algebra, geometry and calculus, as it is for reading instruction with elementary students.

The U. T. Commitment

The U. T. System engaged in a two-year effort designed to stimulate and enhance K-16 initiatives at all its component institutions. Based on the results of that initial effort and the challenge before us to ensure that all Texas public school students are prepared to move forward into higher education, the U. T. System will launch a major, system-wide program to enhance the quality of education in the public schools. The three key initiatives are:

1. Strengthen University-based Teacher Preparation Programs

- ◆ Guarantee that preservice training for elementary teachers at all U. T. System universities is based on methods of reading instruction grounded in scientific research.
- ◆ Partner with the National Center for Educational Accountability to establish a system to measure the effectiveness of teacher preparation programs at all U. T. components.

2. Create High Quality Training and Instructional Tools for Public School Teachers

- ◆ Develop additional professional development programs and instructional tools for teachers in schools with high numbers of students reading below grade level and link the technical experts at CARS and TCRLA with the teachers and other educators in these schools.
- ◆ Expand the UTeach model for preparing secondary math and science teachers through programs designed by faculty in education and math and science departments to additional U.T. System universities.
- ◆ Provide online professional development courses via the UT TeleCampus to middle and high school teachers to address the increased core curriculum requirements of the more rigorous secondary Texas Assessment of Knowledge and Skills (TAKS) tests.
- ◆ Create an online student test preparation course via the UT TeleCampus to review materials covered by the new 11th grade exit level TAKS test and provide feedback through practice testing in each subject area.

3. Initiate an Aggressive Research Agenda

- ◆ Establish a new math education research center at a U. T. System institution to conduct scientific based research on the most effective methods for teaching math in kindergarten through 8th grade, with the goal of getting students to proficiency in the gateway course of Algebra.
- ◆ Extend the research efforts of the Center for Academic and Reading Skills at the U. T. Health Science Center at Houston and the Texas Center for Reading and Language Arts at U. T. Austin to identify the most effective methods of teaching English language instruction to Spanish-speaking children by engaging other U.T. System components, such as U. T. Brownsville, U. T. El Paso, U. T. Pan American, and U. T. San Antonio, to participate in additional research and dissemination opportunities.
- ◆ Support the establishment of an elementary charter school, serving a diverse population of students, to be operated by U. T. Austin that will use instructional methods that are research based and will engage in innovative teaching methods that will add to the research knowledge of best instructional practices.

1. Strengthen University-based Teacher Preparation Programs

Improved preparation for teachers is a critical element in increasing higher education participation and graduation rates in Texas. All the state's students, particularly those who have been underrepresented at colleges and universities, must be better prepared academically to be successful participants in higher education.

The *No Child Left Behind Act of 2001* presents important challenges to states to increase the reading, math and science proficiency of all students over the next several years. Central to the legislation is the Reading First Initiative, with a goal of making sure every student can read on grade level or above by the end of the third grade.

Guarantee that preservice training for elementary teachers at all U. T. System universities is based on methods of reading instruction grounded in scientific research

The primary goal for teacher preparation programs is to train teachers to be effective instructional leaders in the classroom. To be successful, prospective teachers must be taught instructional methods that are grounded in scientific based research. For reading, the scientific based research conducted over the past decade presents a clear roadmap for teaching all young children to be successful readers.

The TCRLA, as part of the Texas Reading Initiative, initiated a project in fall of 2000 to align teacher preparation course curricula with effective research based practices in reading and provide training materials on teaching reading and language arts to selected faculty who teach future teachers at Texas higher education institutions. This project, the Higher Education Collaborative, initially involved 15 faculty members from three universities. Today, it involves more that 100 faculty from 32 colleges and universities, representing about 50 percent of the university based teacher preparation programs in Texas. Initial findings indicate that participant's students are more knowledgeable about the components of effective reading instruction based on pre- and post-surveys.

To date, twenty-five faculty members at four U. T. System universities are involved in the Higher Education Collaborative. Participation will be expanded to include all reading faculty from each U. T. System university teacher preparation program. For participating in the project, the Higher Education Collaborative agrees to:

- Provide stipends to faculty who teach courses in reading instruction to receive training on the scientific based research in reading;
- Develop the capacity of faculty participants, through site visits and web-based assistance, to work with colleagues in aligning the content of their courses to reflect effective research based reading instruction; and
- Establish a system to evaluate the effectiveness of the project in enhancing preservice reading training for new teachers by reviewing revised course syllabi, visiting reading classes taught by participating faculty to document implementation of effective research based practices, surveying students of participants on their knowledge of effective research based reading instruction, and analyzing the performance of students of participants on certification exams, including the sections of the new elementary teacher exam (beginning in fall, 2002) assessing reading.

Expand the UTeach model for preparing secondary math and science teachers through programs designed by faculty in education and math and science departments to additional U.T. System universities.

Texas and the nation continue to experience a critical shortage of highly qualified math and science teachers while moving forward to meet the challenge of increasing the math and science proficiency of K-12 students.

The UTeach program on the U. T. Austin campus is a model program for training new secondary math and science teachers. The certification program is run by faculty from the colleges of Natural Sciences and Education and participating math and science majors are provided hands-on experience in the public school classrooms as early as their freshman year. They receive courses on how children learn and innovative teaching techniques, and are mentored during a one-year induction period. Profiles of UTeach participants show that these students come in with higher than average SAT scores, maintain a higher grade point average than other U. T. students, and have a variety of majors, including math, biology, chemistry and computer science. By fall of 2002, UTeach enrollment will reach 300, with about 500 expected within three years. This will allow U. T. Austin to produce more than 100 new math and science teachers each year.

The U. T. System will play a key role in producing additional, highly qualified math and science teachers for Texas schools by:

- ◆ Supporting the expansion of the UTeach model to additional U. T. System universities, particularly those located in major urban areas of the state.
- ◆ Working with U. T. Austin and the expansion universities to develop a structure for measuring the effectiveness of each program's newly trained teachers in providing math and science classroom instruction.

Partner with the National Center for Educational Accountability to establish a system to measure the effectiveness of teacher preparation programs at all U. T. components.

Teacher preparation programs in Texas receive annual accreditation ratings under the State Board for Educator Certification's Accountability System for Educator Preparation. Ratings are determined by the performance of a program's candidates on the content and pedagogy assessments required for certification and based on pass rates on the exams. The State Board for Educator Certification maintains a wealth of information on the performance of candidates on each competency measured by each exam. This information and other data about the effectiveness of these new teachers as they move into classrooms can be valuable tools in making sound decisions about programmatic changes to make teacher preparation programs more successful.

The National Center for Education Accountability (NCEA), through a grant from the Rockefeller Foundation, has done extensive work in developing a model to measure the success of preservice teacher training. The U. T. System, in partnership with the NCEA, will develop an information system that allows each U. T. System component to:

- ◆ Analyze the performance of graduates of teacher preparation programs on individual competencies within each certification exam and use the results to drive adjustments in the course content and curriculum requirements for degrees and certification paths.
- ◆ Work with school districts that employ large numbers of teachers who are new graduates of that institution to measure teaching effectiveness.

2. Create High Quality Training and Instructional Tools for Public School Teachers

Professional development for existing educators plays a key role in improving the academic performance of students. The State of Texas targeted much needed resources toward the training of teachers in the all-important area of reading and has seen significant gains in student achievement in reading. However, the state must move to the next phase of professional development and technical support in reading in order to meet the requirement of the federal Reading First Initiative that **all** children read on grade level or above by third grade.

In 1999, the Texas Legislature passed Senate Bill 103, which requires the state to move toward a more rigorous assessment system that is tied directly to the state mandated curriculum and linked to the new exit level test requirements for graduation that incorporates higher learning expectations. Unlike the current exit level tests administered in 10th grade in reading, writing, and mathematics, the new grade 11 tests will assess high school students on the required knowledge of Algebra I and Geometry, Biology and integrated Chemistry and Physics, English III, and early American and United States History. The high school graduating class of 2005 will be the first class required to pass the new test and the first test opportunity for these students will be in spring of 2004 when they are 11th graders.

To address these increased curriculum requirements, many teachers will need additional training and teaching tools. However, the professional development and resources must be of high quality and accessible.

The U. T. System understands the need to provide training and instructional tools to educators at a time and place that is convenient for working professionals. To that end, the System partnered with the Texas Education Agency, the Region XIII Education Service Center, and the Charles A. Dana Center at U. T. Austin to develop TPD Online, a web-based skills development program for Algebra I teachers. For the 2001-2002 school year, 250 teachers will be trained through TPD Online.

Develop additional professional development programs and instructional tools for teachers in schools with high numbers of students reading below grade level and link the technical experts at CARS and TCRLA with the teachers and other educators in these schools.

As part of the Texas response to the federal requirements for the Reading First Initiative, CARS and TCRLA have proposed to partner with the Texas Education Agency to meet the next-step challenge of developing additional teacher training programs and instructional tools and providing direct technical assistance to at-risk schools. Specific activities include:

- ◆ Analyzing the text characteristics and decodability of state-adopted basal readers and other widely used supplemental reading materials. This information would be used by school districts to evaluate whether instructional materials meet scientifically based reading criteria and can most-appropriately address the needs of struggling readers.
- ◆ Developing a two-day training program for K-3 teachers that is focused on the appropriate use of each of the state-adopted basal readers and is tied to the generic training through the Reading Academies and TPRI results.

- ◆ Creating a professional development sequence for K-3 general and special education teachers who work with struggling readers on implementing effective accelerated reading instruction that is tied to the results of the TPRI and appropriate elements of state-adopted reading programs.
- ◆ Providing training to K-3 teachers on the use of the Personal Digital Assistant (PDA) version of the TPRI, which generates reports on student phonemic awareness and reading comprehension, and can automatically guide a teacher to appropriate phonics instruction and associated practice text in basal reading materials.
- ◆ Extending the use of the PDA version of the TPRI to assist teachers in continuously monitoring student progress in reading fluency.
- ◆ Establishing a technology based interactive network that links Reading First schools with staff of CARS and TCRLA and demonstration schools that have been successful in implementing early intervention reading programs, and expanding the online Reading Academies to include third grade and the Accelerated Reading Instruction Program.
- ◆ Creating a Reading First evaluation system that provides the Texas Education Agency with data on the progress of these schools and informs school stakeholders about student performance on critical benchmarks, including recommended corrective action for schools not meeting these benchmarks.

Provide online professional development courses via the UT TeleCampus to middle and high school teachers to address the increased core curriculum requirements of the more rigorous secondary Texas Assessment of Knowledge and Skills (TAKS) tests, and

Create an online student test preparation course via the UT TeleCampus to review materials covered by the new 11th grade exit level TAKS test and provide feedback through practice testing in each subject area.

The UT TeleCampus currently provides education courses for a Master's degree in Educational Technology, a Master's degree in Curriculum and Instruction with coursework leading to an endorsement for English as a Second Language and the Master Reading Teacher Certificate, and a Master's in Kinesiology. In addition, the UT TeleCampus has an extensive First Year Online program that provides general curriculum courses for college freshmen and sophomores. Some of these courses are available to high school students through the TeleCampus Dual Credit Program. Enrollment in the UT TeleCampus topped 2,500 this spring, with almost 20 percent of that enrollment in education courses. Additional services of the UT TeleCampus include any hour/any day technical support and online tutorial and digital library services.

The UT TeleCampus, because of its technical resources and course development experience, is in a unique position to address a statewide need by providing easily accessible, high quality courses to teachers and students targeted specifically to the subject areas included in the exit-level TAKS test.

The UT TeleCampus will work closely with the Texas Education Agency and Regional Education Service Centers to select members of an advisory board that will be established to provide guidance on this project and will assist in selecting content instructional experts for each course. The TeleCampus also will seek assistance from the Texas Education Agency, Regional Education Service Centers, and professional organizations to market the courses.

The online professional development courses for middle and high school teachers will:

- ◆ Focus on areas covered by the new 11th grade TAKS test— Algebra I and Geometry, Biology and integrated Chemistry and Physics, English III, and early American and United States History.
- ◆ Include content and “best practices” instructional models for the subject and feature linkages to experts to address questions or provide additional information on topics included in the course.
- ◆ Contain chat and threaded discussion opportunities for the participants.
- ◆ Be available in some subjects by fall of 2003 with full deployment of all subject area courses by fall of 2005.

The online student test preparation course for the new 11th grade exit level TAKS test will:

- ◆ Provide a review of the knowledge and skills required for each area tested on the exam.
- ◆ Include practice tests to provide feedback on potential problem areas for students.
- ◆ Be available by fall of 2003 prior to the first test administration in spring of 2004.

A provision of the *No Child Left Behind Act* requires states to ensure, by the end of the 2005-2006 school year, that all teachers teaching in the state are highly qualified. In responding to this challenge, Texas and other states may want to explore devising a system, especially for middle and high school teachers, to assess content mastery that extends beyond the state certification process. The U. T. System will initiate discussions with the State Board for Educator Certification and the Texas Education Agency to determine whether subject level content courses, developed and delivered by the UT TeleCampus, along with an end-of-course exam, could be used as a mechanism for determining the highly qualified status of teachers.

In addition, the UT TeleCampus will look at using the content from the professional development and test preparation courses to create content modules that can be used by teachers in the classroom. Modules can be used in a teacher-led format or packaged in a stand-alone course for high school credit.

3. Initiate an Aggressive Research Agenda

The *No Child Left Behind Act of 2001* uses the phrase “scientifically based research” over 100 times throughout the 1,200-page bill. The Act requires states and local school districts to establish elementary reading programs that are grounded in “scientifically based reading research.” Even anti-drug abuse programs are required to be selected based on the results of scientific research. This reflects a desire at the federal level to build school improvement efforts on research-based evidence.

President Bush’s choice of Dr. Russ Whitehurst, a leading scientific researcher, to head up the U. S. Department of Education’s research program, is indicative of the strong push at the national level for education reform based on solid research. Dr. Whitehurst has stated that the Department of Education’s research spending will be focused a limited number of core problems in education—

issues that relate to achieving the goals set forth in *No Child Left Behind*—in which research has the potential to generate breakthroughs in teaching, learning, and management.

Scientific research has provided clear evidence regarding the components of a successful reading program for young children. Unfortunately, there is far less scientific research in the area of math instruction. The National Institutes of Health’s National Institute of Child Health and Human Development is in the beginning stages of spearheading a national research effort in math education, much as they did in reading research. The research community will be invited to come forward to participate in well-structured, scientific research on math instruction.

The National Academy of Sciences also has concluded that additional research must be undertaken to understand how children best become proficient in math.

In addition to the enormous need for research on math instruction, there is keen interest nationally in research on English language instruction for Spanish-speaking students. The *No Child Left Behind Act of 2001* requires that all limited English proficient students be tested in English in reading and language arts after being served in a language instruction program for limited English proficient students for three consecutive years. While this somewhat mirrors the current practice in Texas, the national focus on this issue presents a significant opportunity for the U. T. System to be an active role in research on improving English language instruction for this growing population of students.

The federal funding for English language acquisition for limited English proficient students was increased substantially, from \$460 million in 2001 to \$665 million in 2002. Texas will benefit not only from the sizable increase in funding but because each state’s allocation is now based on the number of limited English proficient and immigrant children in the state. These additional resources will be used by school districts to meet the testing requirement of *No Child Left Behind*. This hastens the need to identify the elements of effective instructional programs based on scientific research so that curricular materials and professional development services can be developed for this purpose.

Establish a new math education research center at a U. T. System institution to conduct scientific based research on the most effective methods for teaching math in kindergarten through 12th grade.

The U. T. System is committed to establishing a new center, patterned after the highly successful Center for Academic and Reading Skills at the U. T. Health Science Center at Houston, to conduct relevant, scientific research on effectively teaching math in our K-12 schools. Steps to be taken by the U. T. System during the next six months include:

- ◆ Launching a national search for a Center director.
- ◆ Identifying prominent math and math education faculty at all U. T. System institutions to participate in research projects with the new Center.
- ◆ Appointing a panel of scientific researchers to create a set of rigorous evidence-based research standards, similar to those used in psychological and medical research, to ensure that all math instructional research conducted by faculty U. T. System institutions follows these strict methodological guidelines.

Extend the research efforts of the Center for Academic and Reading Skills at the U. T. Health Science Center at Houston and the Texas Center for Reading and Language Arts at U. T. Austin to identify the most effective methods of teaching English language instruction to Spanish-speaking children by engaging other U.T. System components, such as U. T. Brownsville, U. T. El Paso, U. T. Pan American, and U. T. San Antonio, to participate in additional research and dissemination opportunities.

Currently, CARS and TCRLA are participating in an extensive, multi-year project funded by the National Institute of Child Health and Human Development and the U. S. Department of Education Office of Educational Research and Improvement to identify effective classroom instructional programs for Spanish-speaking children to develop literacy and language skills in English. Other U.T. System components, such as U. T. Brownsville, U. T. El Paso, U. T. Pan American, or U. T. San Antonio, can participate in this effort by:

- ◆ Engaging in additional research that results from the initial findings of this comprehensive study.
- ◆ Providing professional development for teachers in selected school districts on specific strategies of English language instruction initially identified in the study.

Support the establishment of an elementary charter school, serving a diverse population of students, to be operated by U. T. Austin that will use instructional methods that are research based and will engage in innovative teaching methods that will add to the research knowledge of best instructional practices.

U. T. Austin, as the major research university in the U. T. System, will continue to play a crucial role in researching best instructional practices, as they have in reading instruction through the work of TCRLA. To further their capacity to move research findings to classroom practice, the U. T. Austin College of Education will submit a proposal in May to the Texas Education Agency and the State Board of Education for approval of a charter school. The Texas Legislature in 2001 amended the charter school law to all public senior colleges and universities to apply to operate an open-enrollment charter school. If the application is approved, the charter school will open for the 2003-2004 school year.

Austin was chosen as the site for the school based on the Austin school district's lagging performance in teaching low-income students compared with other large school districts in Texas. Only 28 percent of Austin's low-income eighth graders, for example, show proficiency on the state's math exam compared to 49 percent for a Houston school district and 45 percent for a San Antonio district. Reading proficiency for Austin eighth graders stands at 42 percent compared to 62 percent for a Houston and San Antonio district. Austin city leaders are pushing for research based classroom changes and Superintendent Pat Forgione has announced plans for a new initiative beginning next fall for several of Austin's economically disadvantaged schools.

The U. T. Austin charter school will:

- ◆ Serve a diverse population of students in kindergarten through fourth grade in Travis County.
- ◆ Establish a reading program for young children that is grounded in the scientific research conducted by TCRLA and others and will serve as a model for the rest of the country.
- ◆ Adopt a math instructional program based on the groundbreaking, benchmarking study of the National Center for Educational Accountability/Just for the Kids to identify characteristics of math programs in high-performing schools serving disadvantaged students until scientific based research on math instruction becomes available.