

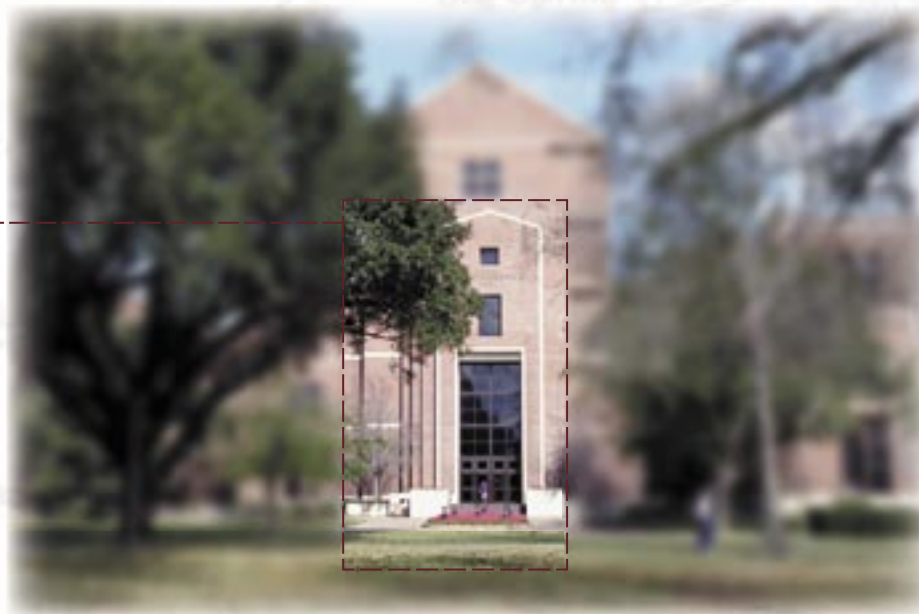
PRAIRIE VIEW A&M UNIVERSITY

Prairie View A&M University is the second-oldest public institution of higher learning in Texas. The university encourages student success through academic studies, research and extracurricular activities.

The university continues to grow and change, largely as a result of state funding in support of the Texas Commitment to Prairie View A&M. These include initiatives to improve student recruitment, retention and graduation rates; strengthen information technology and human resources in the development of students, faculty, and staff; strengthen key academic programs; build new buildings and renovate others; strengthen institutional development; create endowed chairs; and add a merit scholarship program.

Other noteworthy accomplishments took place in fiscal year 2004 as well. The College of Education initiated the second phase of the A&M System's Regents' Initiative for Excellence in Education with the P-16 Educational Improvement Coalition, which focuses on improving standardized test scores in mathematics in 15 low-performing schools.

The chemistry department received \$247,000 from the National Science Foundation to purchase a Fourier transform nuclear magnetic resonance spectrometer. Texas Cooperative Extension

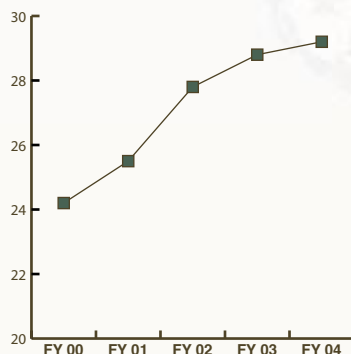


at the university received grants totaling \$744,000 to conduct programs in financial management and marketing for small farm producers; hypertension prevention; HIV/AIDS awareness using Prairie View A&M students as mentors; entrepreneurship and natural resources education for 4-H youth; and helping rural communities start and maintain new businesses.

Faculty, staff and students are also assist-

ing hundreds of area residents in obtaining financial assistance for prescription drugs through a contract with the Center for Medicare and Medicaid.

In addition, Prairie View A&M's Academy for Collegiate Excellence and Student Success, which provides intensive pre-college work for 100 students each summer, received a Star Award from the Texas Higher Education Coordinating Board.★



Federal Revenue
In Millions of Dollars

- Fall 2004 enrollment: 8,351
- Degrees conferred, FY 2004: 1,403
- FY 2005 budget: \$121.4 million
- In 2004, Richard Lee McWhorter earned the university's first Ph.D., in juvenile justice.

- Prairie View A&M produces the largest number of African Americans from Texas entering medical and dental schools around the country.
- The College of Juvenile Justice is the only such college in the nation to award B.S., M.S. and Ph.D. degrees in juvenile justice, juvenile forensic psychology and clinical adolescent psychology.



Small Business Development Center helps business owners help themselves

In October 2004, Prairie View A&M University became home to the state's latest Small Business Development Center. The center, operated by the College of Business, provides a wide variety of technical and management assistance to small business owners and entrepreneurs in southeast Texas.

"We expect the center to leverage the knowledge of our faculty to assist hundreds of individuals and businesses, free of charge, in a multitude of areas over the next year," said Munir Quddus, dean of the College of Business.

The Prairie View A&M center offers one-on-one counseling and seminars, as well as articles in two weekly newspapers in the area. The program is a cooperative effort of the private sector, the educational community and federal, state and local governments. The first center was established in 1977, and today there are

more than 1,100 centers throughout the United States, Puerto Rico and the Virgin Islands.

"Our goal is to provide the guidance and tools so that the clients can perform the work for themselves," said Quddus. "We're here

to help in everything from new business startup information, business planning, market feasibility, loan assistance, bookkeeping and accounting, tax planning and information, marketing to government entities and many other areas."

Special programs and economic development activities include international trade assistance, technical assistance, procurement assistance, venture capital formation and

rural development. The centers also make special efforts to reach minority members of socially and economically disadvantaged groups, veterans, women and the disabled.

The College of Business received grant funding in July 2004 to operate and house the center.

The center conducts a minimum of one or two free or low-cost workshops, conferences or small business seminars weekly. Instructors are private business consultants, business owners and Prairie View A&M faculty. ★

"IT MAKES GOOD SENSE FOR US. THE CENTER'S GOALS TIE PERFECTLY WITH THE UNIVERSITY'S LAND-GRANT MISSION OF SERVICE."

— Munir Quddus, dean of the Prairie View A&M University College of Business



TARLETON STATE UNIVERSITY.

Founded in 1899 as a private liberal arts college, Tarleton State University is now one of the state's fastest growing public institutions, with an enrollment of more than 9,000 (including Tarleton State University-Central Texas).

Located one hour from Fort Worth in Stephenville, Texas, Tarleton serves as the educational and cultural flagship of the Cross Timbers Region. With a population of 16,500, Stephenville is known as one of the country's most desirable places to live and is included in Norman Crampton's "The 100 Best Small Towns in America," published by Prentice Hall.

The Tarleton campus has changed dramatically over the past 10 years. The most recent additions to the campus include the \$16 million Barry B. Thompson Student Center; a \$30.8 million science building, complete with a 64-seat planetarium; a \$6.1 million student housing complex; and installation of AstroTurf at Memorial Stadium.

Construction projects in the works include an observatory at Tarleton's Hunewell Ranch to enhance the Program for Astronomy and Research, student housing, a dining facility, a recreation sports center and major renovations of the old science building and the Dick Smith Library.

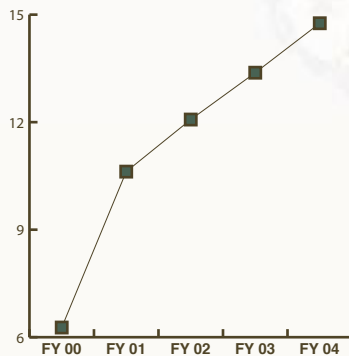
The largest non-land-grant agriculture university in the United States, Tarleton is a leader in teacher education and has one of the



largest and oldest public school improvement partnerships in the nation, benefiting more than 50 area school districts. The university educates more agricultural education teachers than any other institution in the nation.

Most university activities take place on Tarleton's centrally located, 150-acre main campus. A 700-acre university farm and the 1,170-acre Hunewell Ranch provide additional educational facilities.

The university offers upper-level courses in Killeen at Tarleton-Central Texas. Tarleton also offers specialized programs at its Dora Lee Langdon Cultural and Educational Center in Granbury, the W. K. Gordon Center for Industrial History of Texas in Thurber, and an undergraduate degree in clinical laboratory sciences, in addition to new a program in histotechnology, at the Terrell College of Clinical Laboratory Sciences in Fort Worth.★



Federal Revenue
In Millions of Dollars

- Fall 2004 enrollment: 9,008
- Degrees conferred, FY 2004: 1,737
- FY 2005 budget: \$90.7 million
- Data mining and data warehousing research at Tarleton is improving crop insurance for farmers, resulting in nearly \$300 million in cost savings.

- Tarleton offers more than 67 bachelor's degrees and 24 master's degrees through five academic colleges.
- The Texas Institute for Applied Environmental Research on the Tarleton campus plays a national leadership role in environmental issues related to water quality.

www.tarleton.edu



Meeting the need for medical technicians in North Texas

There is already a shortage of qualified histotechnicians—those who prepare sections of tissue for microscopic examination by a pathologist—and the U.S. Department of Labor predicts that employment opportunities in this field will increase 10 to 20 percent over the next decade.

The Clinical Laboratory Science program at Tarleton State University is responding to this need through its new associate of applied science degree, the only one of its kind within a 200-mile radius of Fort Worth.

“Histotechnicians now have to possess at least an associate’s degree and complete an accredited histologic technician program before they can be certified,” said Karen Murray, assistant vice president for curriculum and assessment at Tarleton. “We were approached by the Fort Worth-Dallas medical community and asked to develop a program similar to our

baccalaureate degree that would train students for careers in histotechnology.”

“TARLETON IS GIVING ME AND OTHER STUDENTS AN OPPORTUNITY TO LEARN A VALUABLE SKILL THAT WILL BENEFIT US, AS WELL AS THE MEDICAL COMMUNITIES IN WHICH WE WILL WORK AND SERVE. THE FIELD OF HISTOLOGY WILL OFFER ME YEARS OF LEARNING AND FULFILLMENT.”

— Cindi Herndon, Fort Worth resident and member of the first class of Tarleton State University’s histotechnician program

The Terrell School of Clinical Laboratory Science in Fort Worth has been affiliated with Tarleton for more than 25 years. Its medical technician program has a reputation for excellence and its graduates have a high pass rate on the national board exams, so the addition of the associate’s degree seemed to be a logical step.

Tarleton’s program involves 69 to 72 semester credit hours, with 32 to 35 hours in general education and science prerequisites taken at one of 13 partnering community colleges, and 37 hours of professional major technical courses taken at Tarleton’s clinical laboratory science department in Fort Worth. The 13 community colleges that funnel students to the program cover more than 60 counties.

The curriculum, designed for students in blocks of six, is offered over two long semesters and a 12-week summer term.

“We wanted to produce a small number of technicians throughout the year, not a large class at one time,” said Sally Lewis, department chair. “The idea is to allow entry into the program several times a year and gradually release students into the job market.”

In fall 2004, the department was named a finalist for the Texas Higher Education Coordinating Board’s Star Award, which honors programs that have helped “close the gaps” in education.★



TEXAS A&M INTERNATIONAL UNIVERSITY

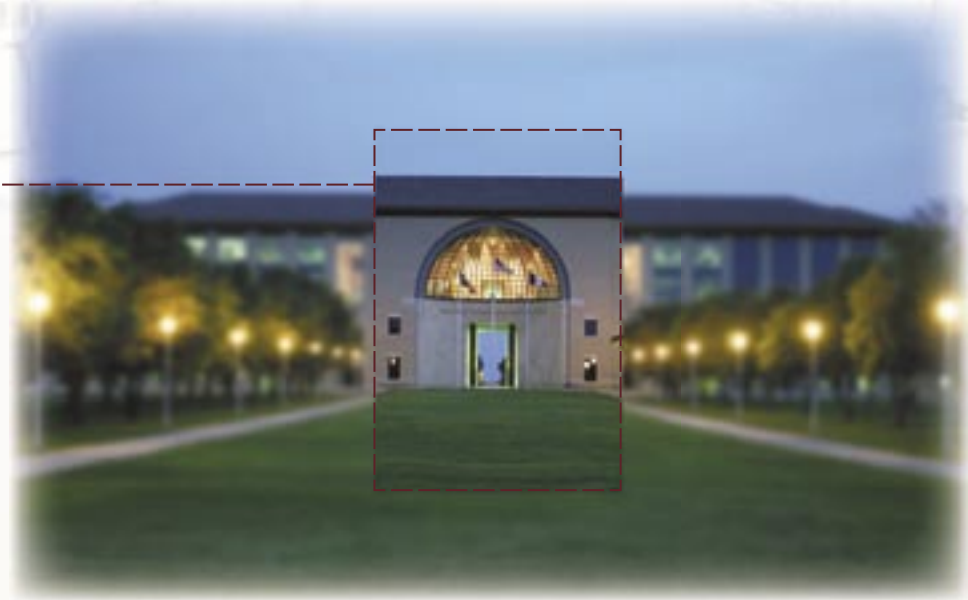
A shimmering pyramid rises from former South Texas ranchland. Inside, a planetarium hints at the heavens beyond, offering a portal to the stars. It's a fitting, physical metaphor for Texas' newest university, Texas A&M International University.

Most agree the stars are well-aligned in Laredo, the state's fastest-growing demographic area and bustling center of international trade, commerce and higher education. Buoyed by impressive enrollment gains and strong community support, TAMIU is becoming a university of choice for South Texas and beyond.

Phase III expansion increased campus facilities by 60 percent. Phase IV, nearing completion, includes the Lamar Bruni Vergara Science Center and Planetarium. The university's second residential living community, a 420-bed facility, opened in fall 2004.

Fall 2004 enrollment was the highest in the university's 35-year history, at 4,270 students, a 4.7 percent increase over the previous fall.

The campus mirrors the diverse communities it serves. The average age of undergraduates is 24, graduates, 32. The university's youngest student is 15, its oldest, 73. Female students outnumber males 64 to 36 percent, while 91 percent identify themselves as minority.

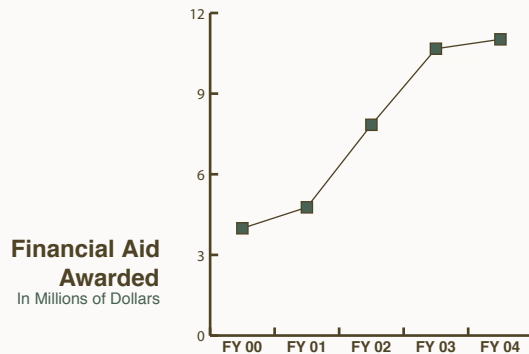


University outreach programs offer community research and service predicated on bringing futures closer still.

The First Year Success Program provides support for at-risk students. The Dr. Eduardo M. Hinojosa Reading Research Center partners with school districts to focus on research and teaching strategies to help students become skilled readers.

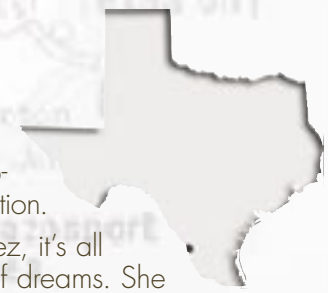
A broad base of public and private university partnerships has helped secure the university's future through student scholarships, program development and construction support totaling \$4.2 million in 2003-2004.

The heavens are within reach at Texas A&M International University.★



- Fall 2004 enrollment: 4,270
- Degrees conferred, FY 2004: 829
- FY 2005 budget: \$46.3 million
- Of those seeking graduate degrees, 52 percent hold undergraduate degrees from TAMIU.

- The Ph.D. in international business, launched in fall 2004, is TAMIU's first stand-alone doctoral program.
- TAMIU now offers 75 undergraduate, master's and doctoral programs.
- The university's fastest-growing graduate program is its master's of science in nursing.



New degree program changes lives

How is a university best measured? By its breadth of programs, community support or degrees granted? Or should it be measured by its power to change one life, fulfill one promise and deliver something previously thought unattainable?

Lola Orellano-Perez, a Texas A&M International University doctoral student, believes the best measure is a life changed. She is living proof of that. And thanks to a new collaborative degree program at TAMIU—the first of its kind in the state—her life is getting even better.

In the fall 2004 semester, TAMIU began offering courses toward a Ph.D. in Hispanic studies. The program equips students with skills needed to address complex issues affecting the nation's fastest-growing minority group. Students focus on one of four overlapping concentrations: Hispanic language and literature; Hispanic cultural studies; linguistics and pedagogy; and bilingual and bicultural studies. They can also take courses in related disciplines like history, sociology, philosophy, education and English.

Joining TAMIU in the collaborative effort is program administrator Texas A&M University,

as well as Texas A&M University-Kingsville and Texas A&M University-Corpus Christi. Administrators hope the new program will improve opportunities for the state's Hispanics.

“WHO WOULD HAVE THOUGHT 10 YEARS AGO THAT I WOULD GO FROM BEING ON FOOD STAMPS TO AN ADMINISTRATIVE POSITION AT AN INSTITUTION OF HIGHER LEARNING. THANK YOU, TAMIU!”
— Lola Orellano-Perez, doctoral student at Texas A&M International University

Orellano-Perez will quickly attest to how this and other TAMIU programs have positively impacted her life.

She was working toward a master's degree in Spanish at TAMIU when her husband died, leaving her with six children and little in the way of financial support. The university's alumni association came to her aid with scholarships, while friends donated time and support. In 1999, she became the first graduate of the new program.

Now an administrator for TAMIU's International Language Institute, Orellano-Perez was one of three Laredo students selected to join the first cohort of the Hispanic studies doctoral program. Another award—a Pathways to the Doctorate

Fellowship—is helping fund her education.

For Orellano-Perez, it's all about the power of dreams. She says the Ph.D. is her final dream—for now. “Dreams can be deferred,” she said, “but they can come true for all of us.”★



TEXAS A&M UNIVERSITY

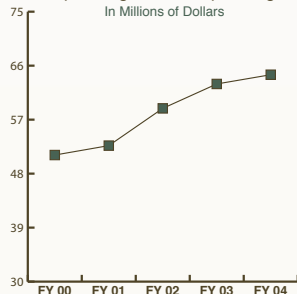
Texas A&M University, the state's first public institution of higher learning, continues to move forward in its quest to attain consensus top-10 status among the nation's public universities by the year 2020.

In keeping with a key provision of its "Vision 2020" road map, the university has completed the first year of its five-year faculty reinvestment program with a goal of adding 447 faculty members—an endeavor intended to enhance both undergraduate and graduate education as well as research initiatives. The faculty includes a Nobel laureate and winners of the National Medal of Science, Wolf Prize, Pulitzer Prize, World Food Prize, Priestly Medal and the Alexander von Humboldt Foundation Award.

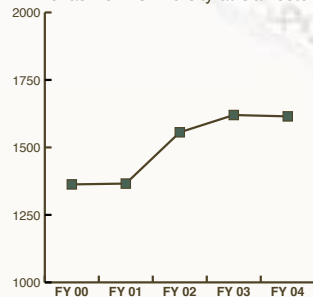
Texas A&M offers degrees in more than 170 fields. With an enrollment of more than 44,000, the student body is among the nation's largest. Average SAT scores are considerably higher than the national average, and the university consistently ranks among the leaders in enrolling National Merit Scholars. The university also ranks high in graduation and retention rates, both overall and for minority students.

Texas A&M and the A&M System members based in College Station have annual research expenditures of more than \$500 million, placing the university among the nation's top 20.

Research Expenditures
Operating and Nonoperating
In Millions of Dollars



Fall Semester Enrollment
Texas A&M University at Galveston



The university was recently selected by the Department of Homeland Security to head a four-university consortium to operate the National Center for Foreign Animal Zoonotic Disease Defense, for which \$18 million has been allocated for the first three years of operation.

The university's endowment is approximately \$3.8 billion. Its 5,200-acre

campus, one of the nation's largest, is valued at more than \$1 billion. It is home to the George Bush Presidential Library and Museum. The university operates a marine-oriented branch campus at Galveston, an engineering-oriented campus in the Middle Eastern country of Qatar and study centers in Italy and Mexico.★

- Fall 2004 enrollment: 44,435
Texas A&M at Galveston: 1,622
- Degrees conferred, FY 2004: 10,372
Texas A&M at Galveston: 235
- FY 2005 budget: \$934.1 million
Texas A&M at Galveston: \$35.5 million
- Texas A&M has more than 85 formal partnerships with institutions in more than 35 nations.

- The university has ongoing research projects on all seven continents.
- Texas A&M holds membership in the Association of American Universities, the organization of the nation's premier public and private institutions of higher learning.
- The university was recently authorized to establish a chapter of Phi Beta Kappa, widely considered the most respected undergraduate honor society in the country.

Office of Graduate Studies provides support

Texas A&M University's Office of Graduate Studies is one of the school's quieter entities, yet its role is crucial and its knowledge base extensive.

The OGS maintains the official record for each of the university's more than 8,300 graduate students. Its reach, however, goes much further than the file cabinet. OGS serves as an all-encompassing umbrella for graduate-level information.

From the time a Texas A&M academic department or college accepts a graduate student, the OGS is available to guide him or her through every step, from initial paperwork to diploma. Along the way, its staff members are equipped to point students in the right direction with virtually any question, ranging from research endeavors to international student organizations to intramural offerings.

And when a graduate student is ready to cross the stage, it is the OGS that gives graduation clearance, including final review of the thesis or dissertation.

At any given time, four Texas A&M graduate students are grateful to the OGS for yet another vital service:

helping to fund their education. In the fall 2004 semester, Mark Musumba became one of those four, joining the ranks of almost 14,000 students who work on campus.

Musumba left the prospect of a fully paid education in Uganda to pursue a college degree at Texas A&M. He arrived with misconceptions about life in the

United States, however, and a lack of understanding about the academic process. He learned that expected financial aid would not be forthcoming. He was unable to work because he was on a visitor's visa. And, initially, he was unable to enroll at Texas A&M.

With the help of friends, Musumba persevered. He

was admitted to Texas A&M and, in August 2004, received a bachelor's degree. He is now working toward a master's degree in agricultural economics. Eventually, he'd like to work for the World Bank and help developing countries like Uganda become more industrialized.

Musumba has already shown what he can accomplish with a determined spirit and a willingness to accept help. In his case, the OGS has gone beyond its traditional role of record-keeper to that of employer. That support will soon give Musumba the tools needed to make lives better in Uganda and beyond.★



**“WHEN I TALK TO MY FRIENDS
BACK HOME AND TELL THEM
HOW BUSY I ALWAYS AM, THEY
ASK ME IF I AM BEING SERIOUS.”**

— Mark Musumba, Texas A&M University
graduate student from Uganda



TEXAS A&M UNIVERSITY-COMMERCE

Founded in 1889 by Prof. William L. Mayo as East Texas Normal College, Texas A&M University-Commerce is known for producing leaders, following its founder's credo to make education possible for families that previously lacked such opportunities.

The university later became East Texas State University, adopting its current name when it became part of the A&M System in 1996. Today, A&M-Commerce offers courses on its main campus near Dallas, at a Metroplex Center in Mesquite and at a downtown Dallas branch.

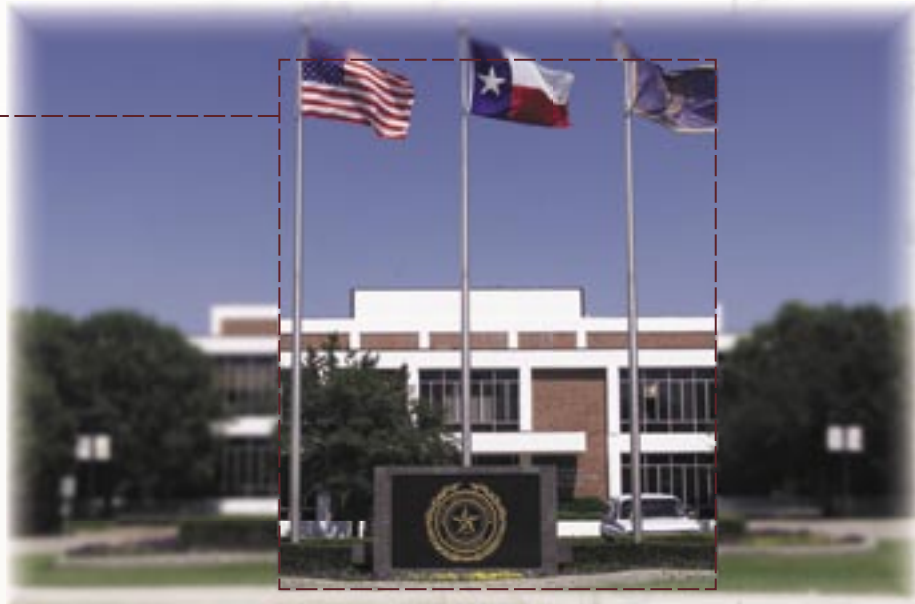
Student enrollment at A&M-Commerce in fall 2004 was 8,547, the highest in 25 years.

A&M-Commerce is home to northeast Texas' only industrial engineering program and bachelor's degree in wildlife and conservation science.

Other recent degrees are the bachelor of applied arts and sciences degree geared to community college students in technical or vocational fields and a master's degree in e-commerce. A master of science degree in finance was introduced in 2004.

An innovative partnership allows students to remain at the Navarro College campus in Corsicana and complete bachelor's and master's degrees. The partnership has graduated needed public school teachers for the central Texas region.

Mayo College, which provides an experience similar to that



at a small liberal arts college, has seen significant growth since the program was initiated in 2000.

A&M-Commerce is also the headquarters of the Texas Intercollegiate Press Association and its Hall of Fame.

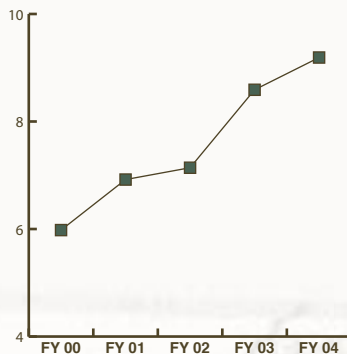
Construction will be completed in 2005 on the \$28 million Science & Technology Center. The state-of-the-art facility will

feature a planetarium, which will provide outreach opportunities for public school students and others. Plans are also being made for a new student center. Students approved an increase in fees to support funding the construction of the new center.

A popular place on campus is the \$12 million Jerry D. Morris Recreation Center, which opened in summer 2003.★

- » Fall 2004 enrollment: 8,547
- » Degrees conferred, FY 2004: 1,965
- » FY 2005 budget: \$82.6 million
- » A&M-Commerce is the state's leader in producing public school principals and has been recognized as having one of the finest teacher education programs in the country.
- » "Entrepreneurship Magazine" ranked the university's entrepreneurial emphasis program among the top 10 in the nation.
- » The university's bachelor of fine arts in new media was the first program of its kind specializing in computer animation and visualization.

Federal Revenue
In Millions of Dollars



www.tamu-commerce.edu



Renovated fine arts building takes program to state-of-the-art

Known nationally for its program in art, Texas A&M University-Commerce has opened a state-of-the-art facility for its studio art students.

After \$2.8 million in renovation and improvements, the Wathena Temple Fine Arts Building opened in fall 2004. Here students can paint, draw, and do print-making and ceramics.

They are taught by faculty, professional artists who display their work in exhibitions. One of these faculty members is Barbara Frey, known nationally and internationally for her work in ceramics.

Of the Temple Fine Arts Building and the ceramics facilities, Frey said, "It's so well equipped. Each graduate studio has its own potter's wheel and sink; we have doubled the number of kilns. The studio space is so attractive. We now have a new lecture hall and a media room with projection facilities, DVD and Internet access."

Christine Blackhurst, a senior from Rowlett, is a former community college student who took a ceramics course as an elective while

planning a career in computers. At the time, Blackhurst and her husband were coping with the loss of a teenage son and their best friends' daughter who had both died in a car accident.

After transferring to A&M-Commerce, this non-traditional student started studying ceramics with Frey.

Speaking at the Temple Fine Arts Building rededication ceremonies in October 2004, Christine said she has been pleased with the "strength and rigorous nature of the fine arts program and the quality of the entire department of art staff."

Of Christine, Frey said, "She is so excited and enthusiastic about all her courses, not just her major. She goes over and above what is expected. She is doing well and finding her own artistic voice."★

"WHEN I PUT MY HAND IN THE CLAY, IT RENEWED MY SPIRIT. I FELT BETTER AND IT TOUCHED MY SOUL."

— Christine Blackhurst, Texas A&M University-Commerce senior



TEXAS A&M UNIVERSITY- CORPUS CHRISTI

The Island University is a rapidly growing comprehensive four-year university located on its own 240-acre island minutes from downtown Corpus Christi.

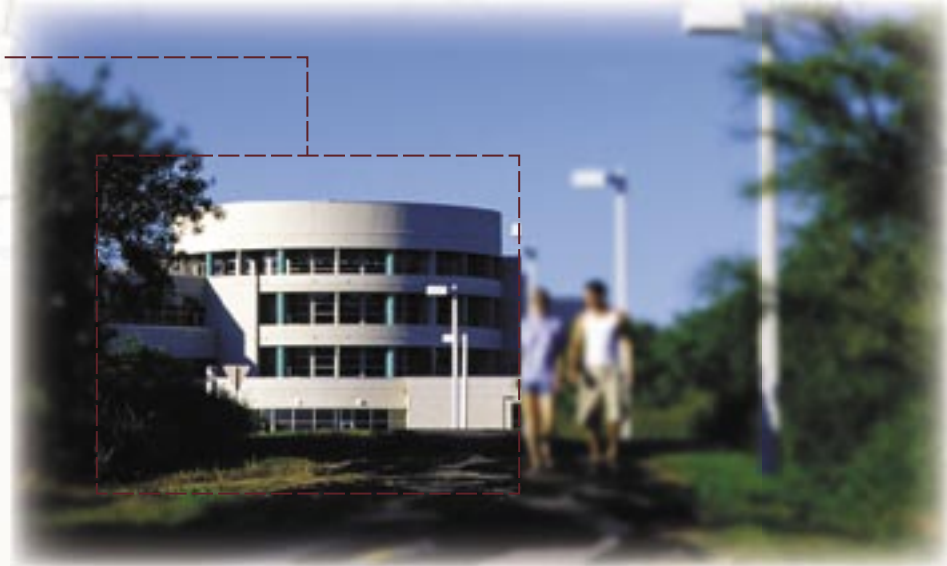
First-year students benefit from the unique First-Year Learning Communities program, which has been recognized as a national model and honored by the Texas Higher Education Coordinating Board for its significant contributions to the statewide Closing the Gaps educational initiative.

Business degrees are backed by the prestigious accreditation of The Association to Advance Collegiate Schools of Business-International Association of Management Education. The university is the only one in Texas with an accredited geographic information science degree. Diverse arts and humanities degrees are available in areas such as social sciences and the visual and performing arts.

In September 2004 the university opened its newest college, the College of Nursing and Health Sciences. Through eLine, a Web-based nursing program, A&M-Corpus Christi now offers its first online degree, the first generic online bachelor of science in nursing degree in the United States.

A&M-Corpus Christi's Early Childhood Development Center is a shining star in education through its partnership with the Corpus Christi Independent School District. The College of Education offers three doctoral degrees, including a Ph.D. in counselor education.

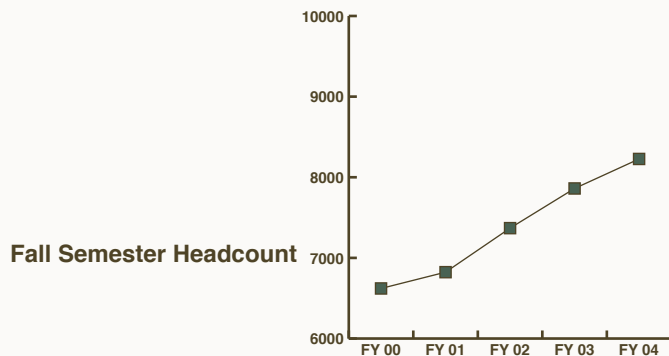
Its proximity to water has enabled A&M-Corpus Christi to become



a hub for the latest coastal, marine and environmental research. In early 2005, construction on the Harte Research Institute for Gulf of Mexico Studies building is expected to be complete. Tri-national research efforts between A&M-Corpus Christi and top oceanic scientists in the United States, Mexico and Cuba are already under way. A new Ph.D. program

in coastal and marine systems science was approved in October 2004.

Construction on the 53,000-square-foot world class Performing Arts Center will be completed in spring 2005, reinforcing the university's standing as a force in the arts in South Texas. The three-level, glass-walled lobby will provide a breathtaking view of the Corpus Christi skyline and bay.★



- » Fall 2004 enrollment: 8,227
- » Degrees conferred, FY 2004: 1,515
- » FY 2005 budget: \$87.5 million
- » The university's accounting students have a CPA exam pass rate that ranks the program consistently among the top 10 public universities in the state.
- » A restored beach across from the campus provides a "live" on-site laboratory for measuring coastal processes.

- » The university was named for the fifth time to the "U.S. News & World Report" list of America's Best Colleges. The magazine also recognized the First-Year Learning Communities program and named A&M-Corpus Christi one of the top 60 schools in the Master's Comprehensive Public Universities ranking in the Western United States.

www.tamucc.edu



First-Year Learning Communities program spurs student success

One of the most pressing issues facing universities is how to successfully address freshman retention.

In 1994, when planning for the inaugural class of first-year students, Texas A&M University-Corpus Christi faculty and administrators were faced with the challenge of creating a program that would help ensure that freshmen became sophomores. Their answer was the First-Year Learning Communities program.

Under this required program, designed to help students make the transition from high school to college, first-year students and their professors work together in small groups called "learning communities" that stay together for several classes. The program consists of a first-year seminar, a first-year writing class and one or two large lecture classes in subjects such as history and sociology.

Research indicates that the program is making a difference. According to the Noel-Levitz survey of student satisfaction and the National Survey of Student Engagement, A&M-Corpus Christi students scored above the national mean on a wide variety of items.

The program is making a positive impact on student grades, and course withdrawal and retention rates. That success is being recognized statewide and nationally.

In 2001, the university received the Star award from the Texas Higher Education Coordinating Board. In 2002, A&M-Corpus Christi was one of only 13 institutions to be recognized nationally as an Institution of Excellence in the First College Year by the Policy Center, alongside such institutions as Indiana

University-Purdue University Indianapolis, Ball State University and the University of South Carolina.

The A&M-Corpus Christi program was selected in 2003 as the only one from a public university in Texas and one of only 12 nationally to participate in the

Foundations of Excellence in the First College Year Project by the Policy Center on the First Year of College and the American Association of State Colleges and Universities.

"When A&M-Corpus Christi first made the transition to a comprehensive four-year institution, our faculty led the charge to plan a truly unique first-year program," said President Robert R. Furgason. "Their commitment to the first-year program's success has made it possible for more than 1,200 of our students to receive the support they need to successfully settle into college life."★

"A BIG PART OF THE FIRST-YEAR LEARNING EXPERIENCE IS THAT I'VE BEEN ABLE TO MAKE FRIENDS SO QUICKLY. I DIDN'T KNOW ANYONE WHEN I GOT HERE AND I'VE GROWN REALLY CLOSE TO THE PEOPLE IN MY GROUP. WE HELP EACH OTHER OUT LIKE A LITTLE FAMILY."

— Dee Olivarez,
Texas A&M University-
Corpus Christi freshman from
Zapata



TEXAS A&M UNIVERSITY- KINGSVILLE



With nationally recognized programs in engineering, agriculture, wildlife and the sciences, Texas A&M University-Kingsville is a proud regional university that strives to serve the educational needs of all South Texans. It offers the only accredited program in natural gas engineering in the United States, and consistently ranks among the nation's top 10 producers of Hispanic engineers.

The university is gaining momentum in its graduate programs. Two new master's degree programs got under way in fall 2004, a degree in industrial management through the industrial technology department and a degree in ranch management through the new King Ranch Institute for Ranch Management. The College of Arts and Sciences began a joint doctorate in Hispanic studies with Texas A&M University, and the College of Agriculture and

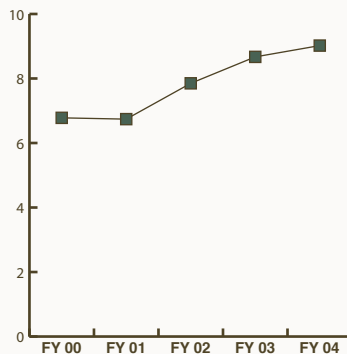
Human Sciences received approval for an independent doctorate in wildlife science. Continuing the momentum, several new doctoral and master's degrees are in the university's pipeline for future adoption.

The university also is helping Texas address its shortage of pharmacists by establishing the Irma Lerma Rangel College of Pharmacy—the first professional school

in South Texas—which will admit its first students in 2005.

The number of students at the Texas A&M University-Kingsville—System Center-San Antonio has increased each year since its inception in 2000 to nearly 960 in fall 2004. The number of academic programs has nearly doubled, with 13 programs now offered.★

Research Expenditures
In Millions of Dollars



- » Fall 2004 enrollment: 7,125
- » Degrees conferred, FY 2004: 1,186
- » FY 2005 budget: \$93.1 million
- » A&M-Kingsville is the only university south of San Antonio listed as doctoral/research intensive by the Carnegie Foundation.

- » A&M-Kingsville developed the nation's first doctoral degree in bilingual education.
- » A&M-Kingsville's Natural Toxins Research Center is known both for its research and for the training of minority biomedical researchers.

www.tamuk.edu

Natural Toxins Research Center seeks medicinal properties of venom

There was a time when snake venom was seen only as harmful. But thanks in part to work being done at the Natural Toxins Research Center at Texas A&M University-Kingsville, the molecules of snake venom are analyzed for the solutions they may hold for treating victims of stroke, heart attack and hosts of diseases.

A venom research program has been in operation at A&M-Kingsville for 32 years, which led to the establishment of the NTRC in March 2000. The center houses a serpentarium that serves as home to the largest research collection of poisonous snakes in the United States. This collection

allows the center to move forward in its mission to provide global research, training and resources that will lead to the discovery of medically important toxins found in snake venoms.

One example is a new collaborative project with Julio Soto at San Jose State University in California, which focuses on venom proteins called disintegrins and their potential ability to treat cancer.

Among the NTRC's objectives is to serve as a reliable international source of venom and other snake products to medical researchers, anti-venom manufacturers and

qualified professionals. According to NTRC founder and director John C. Perez, the center has set itself

apart from other suppliers with its practice of long-term venom collection from a single snake rather than pooling together venoms from different snakes of the same species.

"The NTRC is the only center I know of that works this way," said Perez. "Even if it's from the same species, not all venom is the same."★

"IF AN IMPORTANT DISCOVERY IS MADE BY A RESEARCHER WITH NTRC VENOM, THE NTRC CAN PROVIDE THE RESEARCHER WITH CUSTOM ANALYSIS OF THE VENOM, A HISTORY OF ITS SNAKE AND PRODUCTS LIKE ITS SHED SKIN, BLOOD AND MATERIALS TO REPRODUCE ITS VENOM GLANDS."

— John C. Perez, founder and director of the Natural Toxins Research Center at Texas A&M University-Kingsville



TEXAS A&M UNIVERSITY- TEXARKANA

Texas A&M University-Texarkana is located on the Texas-Arkansas border. It was established by the Texas Legislature in 1971 as East Texas State University at Texarkana, an upper-level operationally separate unit of the East Texas State University Complex. The university received separate accreditation in 1980 and adopted its current name when it joined the A&M System in 1996.

A&M-Texarkana provides a career-oriented curriculum in business administration, arts and sciences, behavioral sciences, education and health. Courses are offered year-round in flexible formats. Faculty members emphasize teaching and advising. During the past three years, the university has developed 10 new degree programs. One of the fastest-growing degree programs is the bachelor of applied arts and sciences, through which students may receive college credit for work experience.

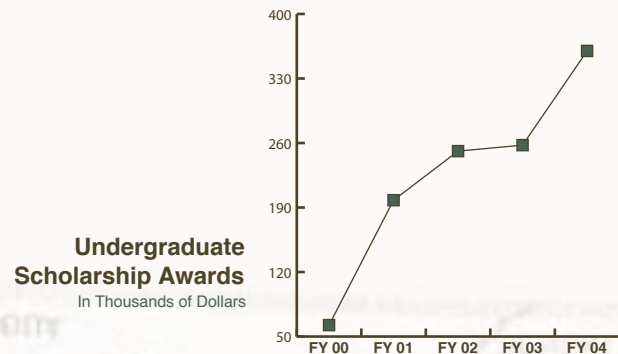
A&M-Texarkana's staff and administration occupy the three-story, 52,000-square-foot A. M. and Welma Aikin Instructional System Center, and faculty offices are in the academic building that was opened in 1998. These buildings are adjacent to the campus of Texarkana College, and A&M-Texarkana students share Texarkana



College's physical education and student centers. The two institutions jointly operate the 175,000-volume John F. Moss/Palmer Memorial Library, for which all facets have been electronically integrated.

During the 2003 legislative session, State Rep. Barry Telford filed legislation to allow A&M-Texarkana to expand downward. In June 2003, Gov. Rick

Perry signed House Bill 1566 authorizing A&M-Texarkana to begin working toward becoming a four-year institution. In support of the expansion, the City of Texarkana, Texas, donated 300 acres of property at Bringle Lake for the proposed location of a new campus. Construction is scheduled to begin at the site in fall 2005.★



- Fall 2004 enrollment: 1,540
- Degrees conferred, FY 2004: 452
- FY 2005 budget: \$17.1 million
- 89.9 percent of A&M-Texarkana's faculty hold a doctoral degree.
- The teacher-to-student ratio is 1 to 15.
- 61 percent of A&M-Texarkana students attend college part-time.

www.tamut.edu



Program gives college credit for work experience

At Texas A&M University-*Texarkana*, the average student is 32 years old and has years of experience in the workforce. Many students drop out of college elsewhere but want to finish their degree at A&M-*Texarkana* because they want to change career paths or take advantage of opportunities for promotions that come with a degree.

have to start from scratch. Instead, students who have at least five years of experience and meet other criteria often can receive college credit for experience gained through their occupation, for training received in a non-college setting such as business and industry, or for military training.

The BAAS program is a perfect fit for Tina, who maintains a 4.0 average at *Texarkana College* and plans to enter A&M-*Texarkana* in fall 2005.

"IF A&M-TEXARKANA DID NOT EXIST, I WOULD NOT BE ABLE TO OBTAIN MY DEGREE AND FULFILL MY DREAM OF BECOMING A TEACHER."
— Tina Shelby, fall 2005 entering student at Texas A&M University-*Texarkana*

Through the university's bachelor of applied arts and sciences program, these students don't

Glenda Ballard, associate professor of adult education at A&M-*Texarkana*, is an enthusiastic supporter of the BAAS program.

"The program simplifies the re-entry to college," said Ballard. "Students can apply for experiential credit for skills they acquired through their work experiences."

A case in point is Tina Shelby, a soon-to-be student at A&M-*Texarkana*. In 1977, Tina began a career as a secretary with the *Texarkana, Texas*, Police Department. After 26 years there, she decided to pursue her dream of becoming a teacher.

"As a little girl, I always pretended to be a teacher," Tina said. "I was the one who graded the papers."



Upon receiving her degree and teaching certification from A&M-*Texarkana*, she plans to teach elementary school in the area. As she begins this journey to her dream career, Tina says she's grateful that A&M-*Texarkana* is there to provide her the educational opportunity she's seeking.★

WEST TEXAS A&M UNIVERSITY

Established in 1910, West Texas A&M University is the northernmost senior institution of higher education in Texas and the most accessible and affordable university for many residents in the five-state region.

In addition to more than 100 undergraduate and graduate degree programs in traditional disciplines such as agriculture, business, fine arts, nursing and teacher preparation, WTAMU provides unique educational opportunities in environmental science, equine industry and business, emergency management administration, and music therapy. The university's newest offerings include baccalaureate degree programs in agriculture education, athletic training, biotechnology, communication disorders, mechanical engineering and pre-law studies; master's programs in communication disorders and special education; and the university's first doctoral program, in agriculture.

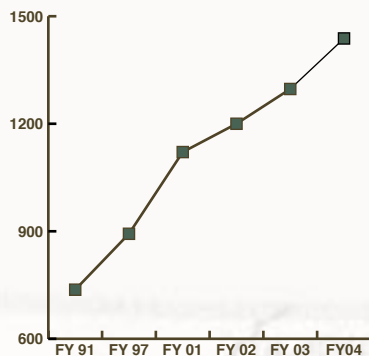
Long recognized as an outstanding teaching institution, WTAMU has expanded into distance learning. Three undergraduate degree programs and three master's-level programs can be completed totally online. Between these and other partial degree programs, more than 775 courses have been offered via the Internet since the program's inception in 1997. Research is another important aspect



of the WTAMU experience. Scientists at the Alternative Energy Institute and Dryland Agriculture Institute provide cutting-edge information and instruction at home and abroad. The Cattleman's Carcass Data Service collects and distributes information designed to improve breeding and management practices. And the Office of Business Resources provides know-how

and training to help companies compete in the global marketplace.

The campus landscape is also changing. The Agriculture and Natural Sciences Building and the Engineering Building have undergone extensive renovations, and construction of a \$30 million Fine Arts Complex is expected to be complete by fall 2005.★



- Fall 2004 enrollment: 7,300
- Degrees conferred, FY 2004: 1,254
- FY 2005 budget: \$74.8 million
- WTAMU won 2003-2004 national championships in broadcasting, horse judging and rodeo.

- WTAMU has one doctoral, 43 master's and 61 baccalaureate degree programs.
- The Honors Program was started in spring 2001 with 15 students and three classes; it now involves more than 100 students in 20 classes.

www.wtamu.edu



“Living laboratory” helps address environmental concerns of the cattle industry

More than one-third of the nation’s beef supply is produced within 150 miles of West Texas A&M University in the Panhandle town of Canyon, so faculty members and students at all levels there are positioned in a “living

at West Texas A&M is presently engaged in studies on feedyard dust, nuisance flies, odor, ammonia and even highway visibility, while the respiratory health of livestock and humans is also under the microscope.

“Overcoming these challenges will improve the long-term sustainability of this industry,” said James Clark, dean

“I GREW UP ON RANCHES AND WORKED IN FEEDLOTS. I THINK THIS IS AN AREA WHERE I CAN MAKE A REAL CONTRIBUTION TO THE CATTLE INDUSTRY.”
— Zena Perschbacher, West Texas A&M University doctoral student in agriculture

Anyone who lives or even drives by an open-lot feeding operation knows that odor is a cattle-industry concern. The first step in corralling that problem is to determine and categorize air samples taken from surrounding feeding operations. Such research is ongoing at the Odor Lab.



The concentration of nitrogen and phosphorus in disposed waste will add to industry concerns in the future as environmental regulations become more stringent, and West Texas A&M is working on that problem, too. The three-phase research project includes two

of the College of Agriculture, Nursing, Science and Engineering. “As the University of the Texas Panhandle, we have to take a leading role and be a part of the solutions that enable our region to prosper and to grow.”★

laboratory” where the subjects of numerous environmental studies also are the potential beneficiaries.

feeding trials and a laboratory study measuring emissions on simulated feedyard surfaces, all aimed at developing a feeding-management plan that minimizes the introduction of potentially harmful elements to the environment.

Concentrated animal-feeding operations in the Southern Great Plains face increasing air quality challenges. The Division of Agriculture

THE TEXAS A&M UNIVERSITY SYSTEM HEALTH SCIENCE CENTER

The Texas A&M University System Health Science Center is committed to improving health through excellence in educating members of the health professions, engaging in basic and applied research, encouraging technology transfer, and developing public and community health programs.

The A&M System Health Science Center brings together the health components of the A&M System into a comprehensive institution. The schools and centers that make up this "university of the health sciences" vary from relatively new to a century old. It is the only health science center in Texas with such numerous and diverse—literally statewide—locations.

Students at the A&M System Health Science Center benefit from the institution's adoption of new technologies and methods in health professions education. Simulation centers at Baylor College of Dentistry and the College of Medicine are making these schools national leaders in simulation capabilities, as students are taught skill sets in laboratories before applying them to human beings. The School of Rural Public Health conducts innovative distance educa-

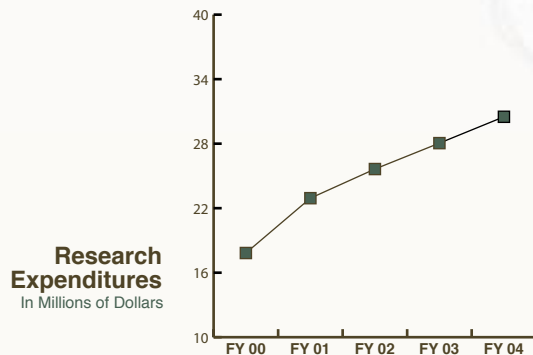


tion programs to reach students for whom public health education would otherwise be difficult or impossible to access.

The Health Science Center reaches across Texas through its components: the Baylor College of Dentistry; the College of Medicine; the Graduate School of Biomedical Sciences; the Institute of Biosciences and Technology; and the

School of Rural Public Health.

In addition, two regional centers serve South Texas: the Coastal Bend Health Education Center, which reaches the 19-county region surrounding Corpus Christi and Kingsville, and the South Texas Center in McAllen, which provides health education and support in the Rio Grande Valley.★



- » Fall 2004 enrollment: 1,147
- » Degrees conferred, FY 2004: 295
- » FY 2005 budget: \$110.96 million
- » In 2004, the A&M System Health Science Center's Rural and Community Health Institute entered into peer review program affiliations with medical care facilities in small communities at the rate of approximately one new affiliation per month.

- » Baylor College of Dentistry celebrates its 100th anniversary in 2005, while its Caruth School of Dental Hygiene observes its 50th anniversary.
- » Inhibitex, Inc., an emerging biopharmaceutical company that is bringing Institute of Biosciences and Technology researchers' work to the marketplace, made its first public stock offering in June 2004.

Partnership for Primary Care helps relieve physician shortage

The College of Medicine at The Texas A&M University System Health Science Center continues to move forward with an initiative inaugurated several years ago to help relieve the physician shortage in rural and underserved areas of Texas—the Partnership for Primary Care.

The goal of the program is to increase the number of physicians practicing in parts of Texas that are medically underserved by giving promising high school graduates from rural areas an alternative path into medical school. Students are required to meet the same academic standards as other applicants to the College of Medicine, but they do not have to take the Medical College Admission Test, as long as their undergraduate work at an A&M System university also meets College of Medicine admission standards. Program graduates are strongly encouraged to return to their

community or another rural area to practice.

In addition to partnerships with eight A&M System universities, the Partnership for Primary Care has a new non-A&M System partner:

“BECOMING A DOCTOR IS SOMETHING I ALWAYS KNEW I’D DO. MY FATHER IS A PHYSICIAN AND MY MOTHER IS A NURSE. I THINK PRACTICING IN A RURAL AREA AFFORDS YOU THE OPPORTUNITY TO BE THAT PERSON WHO IS READY WHEN SOMEONE ASKS, ‘IS THERE A DOCTOR IN THE HOUSE?’”

— Hannah Grubb, a third-year student at The A&M University System Health Science Center College of Medicine from Paris, Texas

South Texas Community College in McAllen. STCC’s Valley Scholars Program selects high-achieving students who are economically disadvantaged for financial sponsorship by area businesses. The College of Medicine has forged an agreement with Texas A&M

University’s College of Science and College of Veterinary Medicine and Biomedical Sciences to work with students seeking to transfer to Texas A&M from STCC. These students are guaranteed admission to Texas A&M for completion of their bachelor’s degree and admission to the College of Medicine, again, contingent upon maintaining academic performance standards.★



TEXAS AGRICULTURAL EXPERIMENT STATION

The Texas Agricultural Experiment Station is dedicated to research and technology development in food, agriculture and natural resources. Its mission is to conduct basic and applied scientific research to improve the productivity, efficiency and profitability of agriculture, while maintaining a sustainable environment.

TAES scientists are continuing their quest to enhance human health. TAES is partnering with the A&M System Health Science Center and Baylor College of Medicine in the \$51 million Bovine Genome Project. These scientists are analyzing the sequenced genome to increase the quality and quantity of beef and milk production and to improve human health. Other health-related research initiatives involve studying how compounds in fruits and vegetables are effective in the protection against and treatment of cancer. Scientists have also isolated three classes of citrus phytonutrients that have shown potential in the prevention of oral, colon and prostate cancers.

Improving the productivity and competitiveness of Texas agriculture is a priority. Breeding improvements in Texas crops over the last three decades have had an annual economic impact of more than \$88 million. TAES scientists are developing early season corn hybrids that are drought, heat and insect resistant. The TAM Mild Habanero, a milder, more user-friendly version of the fiery habanero pepper, is a result of a five-year breeding program by TAES researchers. Improvements in sorghum, corn and wheat are

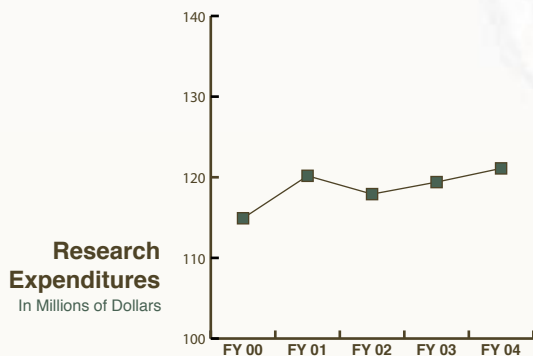


producing more nutritious, longer-lasting food products such as tortillas, bread and snack foods.

TAES researchers and Texas Cooperative Extension specialists are addressing critical water issues in the Rio Grande Basin, where agriculture currently claims 85 percent of the water supply. Researchers have documented seepage losses from canals and are developing

alternative canal linings that will increase water delivery and extend limited water supplies.

By collaborating with more than 40 countries around the world, the Texas Agricultural Experiment Station is strengthening the state's position in the world market by developing strong customers for Texas products and by helping other countries meet their own agricultural needs. ★



- » FY 2005 budget: \$132.8 million
- » In 2003, TAES had more than \$67 million in state research expenditures, \$33 million in federal research expenditures and almost \$37 million in private research expenditures.

- » TAES annually files more than 80 patents and patent applications, invention disclosures and license agreements for technologies, which generate more than \$4 million in income.

agresearch.tamu.edu

Improved sorghum: A healthier take on a familiar grain

Most Americans think of sorghum as feed for chickens and livestock, but the rest of the world values the crop as a staple of both human and animal diets. The Cereal Quality Laboratory

at Texas A&M University, along with Texas Agricultural Experiment Station research, is advancing the production of a wide array of healthy foods made from improved sorghums—from brownies and bread to tortillas and even beer. The lab focuses on food processing technology and ways to improve the nutritive value and shelf life of foods made from cereal grains such as wheat, sorghum and corn.

Lloyd Rooney and other TAES researchers are identifying traits in improved sorghums that enhance crop yield, agricultural competitiveness and human health. For example, improved tan/white sorghums have excellent milling and baking properties, while improved black/brown

varieties are high in dietary fiber and antioxidants. These have potential as ingredients in nutraceuticals, which are fortified foods or dietary supplements that offer medical benefits, including preventing or treating diseases.

Results of TAES improved-sorghum research have encouraged the food industry in the United States and abroad to develop more products from sorghum. Japanese processors now use white sorghums in more than 20

traditional foods and several new snack foods. Food processors' need for a consistent supply of quality food-grade sorghums has opened up new markets for farmers.

TAES research also provides a foundation for the next generation of scientists in the food and agriculture industries. Many of the more

than 100 graduate students who have acquired degrees by studying under Rooney and his peers now work in research and development of sorghum-based foods in their home countries.★



“I’M VERY PROUD OF OUR SORGHUM RESEARCH, ESPECIALLY THE PROGRESS WE’VE MADE WITH FOOD-GRADE SORGHUM DURING THE LAST FOUR OR FIVE YEARS. WE HAVE HELPED TO DEFINE AND SET STANDARDS FOR SORGHUM IMPROVEMENT AROUND THE WORLD.”

— Lloyd Rooney, sorghum researcher with the Texas Agricultural Experiment Station



TEXAS COOPERATIVE EXTENSION

With a mission to provide quality, relevant outreach and continuing education programs and services, Texas Cooperative Extension employs more than 900 professional educators across the state to serve families, youth, communities and businesses in all 254 of the state's counties.

County Extension agents serve as local educators and are supported by Extension specialists. Their expertise encompasses the broad areas of food and fiber production, marketing and policy, environmental and natural resource conservation and management, family and consumer sciences, human nutrition and health, 4-H and youth development, and community economic development.

Together, Extension faculty develop research-based resources and programs, and work with some 150,000 volunteers each year to address local issues and needs. Residents in each county decide what Extension should do for them and guide the planning of program implementation.

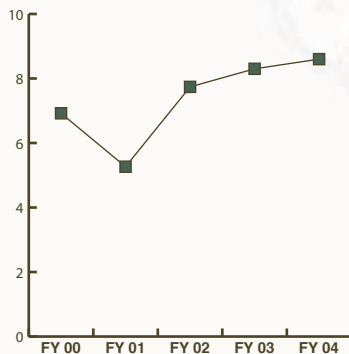
Extension education is made possible in each state by a partnership between the U.S. Department of Agriculture, county governments, and the state land-grant university system. Extension collaborates across the A&M System and with many other public and private organizations.



For example, Better Living for Texans is a federally funded cooperative program with the Texas Health and Human Services Commission. Conducted by Extension in 208 counties, the program targets food stamp recipients and other limited-resource audiences with education about nutrition, food safety and food budgets. Last year, more than 213,803 educational contacts

were made through an in-depth series of lessons and various educational activities.

All Extension programs impart self-help knowledge and problem-solving skills. In addition, the agency's services include the Texas Plant Disease Diagnostic Laboratory, the only such laboratory in Texas and a leader among similar laboratories in the South-Central United States. ★



Federal Revenue
In Millions of Dollars

- » FY 2005 budget: \$95.3 million
- » In FY 2004, more than 12.4 million teaching contacts were made through Extension educational programs. Millions of additional contacts were generated indirectly via the news media, Web sites and other resources.

- » One million Texans between the ages of five and 19 enroll in 4-H programs annually, about 15 percent of all Texas youth at that age. More than half are in major urban areas. Each year, the Texas 4-H Youth Development Foundation awards more than \$1 million in scholarships to college-bound Texas students.

texasextension.tamu.edu

Catfish co-op nets millions

Producers along the Texas Gulf Coast have formed a successful catfish production cooperative that has pumped more than \$17 million into the region's economy. The story behind the group's start-up is a case study in how Texas Cooperative Extension takes applied research to local producers.

Seeking to diversify their traditional operations, some 31 producers along the Texas Gulf Coast tried their hand at raising catfish. Raising the fish was not the problem so much as finding enough buyers. The producers turned to Extension fisheries specialists at Texas A&M University and county agents in Matagorda, Wharton and Calhoun counties, who trained them on how to start and maintain a catfish production business. They also established partnerships with local and regional economic development representatives. Support for the group grew to include the Lower Colorado River Authority, several electric cooperatives, city and county elected officials, the Coastal Plains Agribusiness Incubator, and the Texas Agriculture Commission, which provided expertise in grant writing, logo and label design, and Web site development.

With this momentum, in late 2001, the catfish producers formed the Catfish Association of Texas and established a catfish section within the Texas Aquaculture Association. A positive economic feasibility study conducted by Extension provided the impetus for creating the Texas Aquaculture Cooperative the next year.

U.S. Department of Agriculture for working capital to add frozen catfish to its array of products.★



“TEXANS CONSUME ABOUT 45 PERCENT OF ALL THE CATFISH PRODUCED IN THE UNITED STATES, BUT WE PRODUCE LESS THAN 2 PERCENT. WE’RE OUT TO CHANGE THAT.”

— Peter Woods, Texas Cooperative Extension fisheries program specialist

Extension also worked with co-op members to improve and expand their production ponds.

With a business and marketing plan in hand, co-op members pooled \$415,000 of their own start-up capital and built a 5,250-square-foot processing facility near Markham, Texas, in 2002. The plant churned out more than 867,000 pounds of catfish in 2003 and employs 24 full-time workers. The co-op recently received a \$245,000 matching grant from the



TEXAS ENGINEERING EXPERIMENT STATION

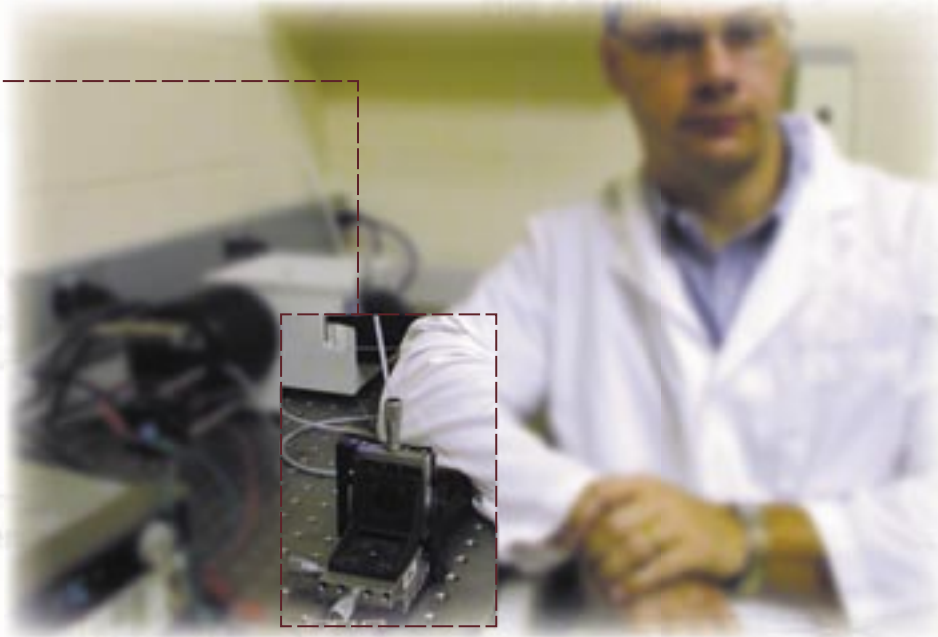
The Texas Engineering Experiment Station identifies and develops technologies critical to the state's economy and to the safety, well-being and quality of life for Texans.

TEES maximizes the return on investment in research and education by creating partnerships with researchers and educators across the globe, bringing specialized expertise to bear on critical technology issues affecting Texans.

Through its interdisciplinary research centers, its 16 partner institutions across Texas, and its partnerships with industry and government agencies, TEES builds research teams that get results.

From developing early cancer detection methods to designing new sources of power for cars, TEES researchers are solving real-world problems. TEES is leading Texas research efforts in areas that include energy conservation, nanotechnology, clean water, and improving math and science education for middle and high school students—preparing young Texans for exciting careers while ensuring a strong Texas economy well into the future.

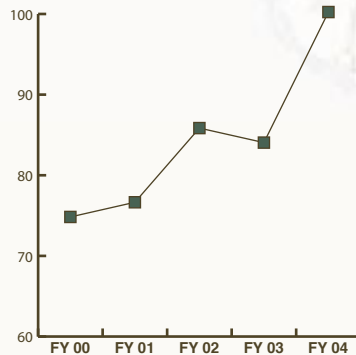
Current research programs led by TEES include the Academic Center for Aging Aircraft in San Antonio, established with a \$4.2 million grant from the U.S. Department of Defense to evaluate cost-effective technologies for prolonging the airworthiness of aging aircraft. Through a new collaborative effort funded by the Department of Homeland Security, TEES helps develop methods



to test and validate emergency response equipment. The SAVER (System Assessment and Validation for Emergency Responders) program tests equipment and systems critical to the protection of citizens and emergency response teams.

TEES petroleum engineering researchers are working on new technology to make contaminated water from oil fields clean

and useful. With new methods, water can be treated and reused, especially in areas like West Texas, where water is at a premium. And, TEES proposals have ensured that thousands of students and their history teachers in the Abilene area will have better resources for teaching and learning with a \$1 million grant from the U.S. Department of Education.★



Research Awards
In Millions of Dollars

- FY 2005 budget: \$90.5 million
- The agency supports assistantships for 840 engineering graduate students and employs more than 570 undergraduates in research activities each year.
- For every dollar of general revenue provided by the state, TEES generates nearly \$16 in other funds, primarily external research contract funds.
- TEES administers more than \$100 million in externally sponsored research awards.
- The percentage of research conducted by TEES for federal sponsors has increased to 81 percent over the past two years.
- More than 1,700 industry partners help sponsor TEES research programs.

Student researchers help Texas industries save big

It's not often you're honored by the U.S. Department of Energy, but it's all in a day's work for student researchers in the Industrial Assessment Center at the Texas Engineering Experiment Station, named one of the best in the country by the DOE.

The center provides no-cost studies of manufacturing plants within about 150 miles of College Station. Engineering students at Texas A&M University, under the guidance of mechanical engineering faculty and TEES Energy Systems Laboratory researchers, analyze a plant's energy waste and productivity issues.

Associate professor and TEES researcher Warren Heffington heads the DOE-sponsored center, which gives students credible real-world experience. There are 26 other IACs around the United States, and the College Station-based center has been recognized as among the best for the past three years.

As part of the TEES program, the students identify energy conservation projects; gather data in plants, including interviewing management and staff; calculate energy and cost savings; provide conceptual designs and management techniques to capture the savings; analyze utility data; and write reports.

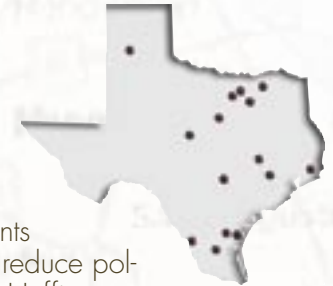
Heffington said the program is one of the most hands-on, and the students' work is highly regarded nationally.

"The true strength of the center is its student

engineering employees," Heffington said. "The IAC has been here since 1986, and in that time about 200 students have made a significant contribution to its success."

Heffington said the Texas companies that students assess implement two-thirds of their ideas and average 40 percent cost savings, thereby helping Texas industry and teaching a new generation of engineers.

"Our students have helped 475 manufacturing plants save energy, and reduce pollution and waste," Heffington said. "It's a win-win program for teaching and research."★



"MY WORK WITH THE CENTER HAS GIVEN ME VALUABLE RESEARCH AND PROBLEM-SOLVING SKILLS, EXPERIENCE WITH MULTIDISCIPLINARY TEAMWORK AND EXPOSURE TO A VARIETY OF MANUFACTURING PLANTS IN TEXAS."

— Cheryl Keel, senior chemical engineering major at Texas A&M University



TEXAS ENGINEERING EXTENSION SERVICE

The Texas Engineering Extension Service is an internationally recognized leader in the delivery of emergency response and workforce training, exercises, technical assistance and technology transfer. The agency offers a wide range of hands-on, customized training solutions for homeland security and the occupational and economic development of Texas and beyond.

Major TEEEX programs include fire protection, homeland security, law enforcement, public works, safety and health, search and rescue, and technology transfer.

The agency's ongoing efforts for more than 80 years have resulted in cleaner drinking water, better roads and infrastructure and improved workplace safety, as well as enhanced homeland security and public safety. TEEEX offers a wide range of technical skills training programs aimed at employed workers and those entering the workforce and helps Texas manufacturers adopt new technologies to improve productivity and profits.

Public and private sector customers count on TEEEX for the excellent training and technical expertise of more than 1,000 employees and adjunct instructors, many of whom are the top experts in their respective fields. TEEEX provides its unique, specialized training and



technical assistance to workers worldwide, ranging from the smallest volunteer fire departments to some of the largest international companies. Training is conducted on-site or at world-renowned facilities such as the Brayton Fire Training Field and Disaster City, both in College Station.

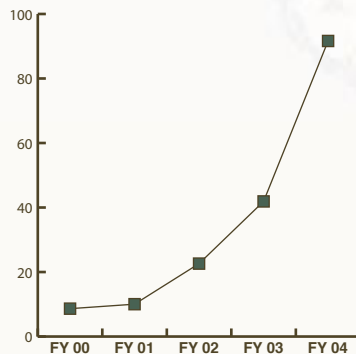
Home to the National Emergency Response and Rescue Training Center,

TEEEX has been at the forefront of preparing emergency responders to combat terrorist incidents involving weapons of mass destruction, even prior to the events of Sept. 11, 2001. TEEEX also is the sponsoring agency for Texas Task Force 1, which serves as a state and national urban search and rescue team, as well as Texas' swift water rescue strike team.★

- » FY 2005 budget: \$200.6 million
- » In 2004, TEEEX trained more than 176,000 individuals from all 50 states, six U.S. territories and 46 countries through more than 8,800 classes.

- » Agency programs serve more than 5,700 companies and more than 7,300 municipalities and public agencies.
- » Every dollar of state general revenue that the agency receives generates \$23.

teexweb.tamu.edu



Federal Revenue
In Millions of Dollars

Emergency responder training programs help keep Texans safe

A top priority of the Texas Engineering Extension Service is the safety and security of Texas citizens—a responsibility TEEEX takes seriously.

The agency trains 30,000 Texas firefighters each year at the renowned Brayton Fire Training Field in College Station and at extension schools held across the state. Thousands more emergency responders are trained through law enforcement, emergency response and search and rescue programs.

The agency's National Emergency Response and Rescue Training Center prepares Texas communities to prevent and respond to incidents of terrorism involving weapons of mass destruction. TEEEX coordinates the WMD/Terrorism Incident Exercise Program for the Governor's Division of Emergency Management, which enables communities and jurisdictions to test their emergency operations plans through reality-based scenarios.

To date, TEEEX has conducted WMD/terrorism training and exercises for more than 50,000 Texas first responders, emergency managers, elected officials and medical personnel. Programs include a comprehensive curriculum developed by TEEEX to train public works employees to respond to potential attacks on the state's water systems, electric power distribution systems and other public infrastructure.

“PARTICIPATION IN THIS STATE EXERCISE PROGRAM IS A CRITICAL OPPORTUNITY FOR OUR COUNTY'S FIRST RESPONDER AGENCIES TO PREPARE FOR THE ACTIONS REQUIRED TO EFFECTIVELY RESPOND TO A TERRORIST ATTACK.”

— Jeff Braun, emergency management coordinator for Fort Bend County

TEEEX is the designated State Administrative Agency for the State Homeland Security Grant Program, which provides federal funds for homeland security equipment and training. In the 2004 fiscal year, this program allocated

\$115 million to jurisdictions throughout Texas for WMD incident prevention and response.

TEEEX is also responsible for search and rescue operations under the Texas Emergency Management Plan. The agency sponsors Texas Task Force 1, a state and federal urban search and rescue team, which responds to natural or man-made disasters anywhere in Texas and across the country. Texas Task Force 1 includes a swift water rescue team that was created to reduce the number of flood-related fatalities in Texas, which is double that of any other state.★



TEXAS FOREST SERVICE

Texas Forest Service develops, protects and perpetuates the state's forest resources through forest fire prevention and rural fire protection and training, urban forestry, tree improvement, forest management and reforestation, assistance to landowners, and forest insect and disease control.

TFS received the 2003 Gold Smokey Bear award, the most prestigious fire prevention award in forestry, for its wildfire prevention program. For three of the past four years, the agency has received Franklin Awards for fire protection assistance to underserved communities.

TFS is the incident management agency for state emergencies and has led the management of such incidents as the Space Shuttle

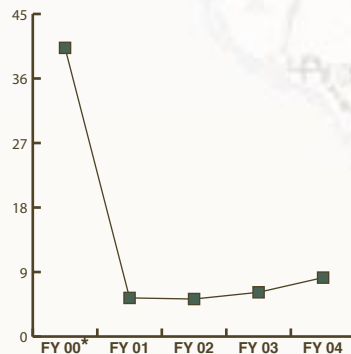


Columbia recovery in East Texas, Hurricane Claudette in South Texas and the exotic Newcastle disease outbreak in West Texas.

Through the agency's rural volunteer fire department assistance and insurance programs, counties across the state have been able to increase their capacity to respond

to emergencies and fight fires in their communities.

TFS foresters offer vital services to private landowners (who own 63 percent of the state's commercial forestland) by providing technical assistance in keeping the state's forest resources healthy and water clean.★



Federal Revenue

In Millions of Dollars

*Includes a \$33.3 million FEMA grant for FY 98 fire season expenses

- FY 2005 budget: \$42.6 million
- The agency's headquarters are in College Station, with programs administered from three regional and 25 district offices, two nurseries, urban forestry offices in nine metropolitan centers and 14 regional wildfire coordinator offices throughout Texas.

- The agency's Indian Mound Nursery has grown more than one billion pine seedlings since 1940.
- The Texas forest industry adds \$21.8 billion annually to the state's economy and provides more than 80,000 jobs.

texasforests.tamu.edu

Urban forestry teaches city dwellers the benefits of being green

Who would have thought 12 years ago that the desert city of El Paso could be well on its way to becoming one of the greenest, tree-friendliest cities in Texas? The greening of El Paso has not happened by chance, but through the commitment of Oscar Mestas, an urban forester with the Texas Forest Service.

“When I took the job in 1991, I knew I would have my work cut out for me trying to change the attitudes of city officials and residents on the benefits of planting trees,” said Mestas.

With the help of TFS urban grant funding and a handful of dedicated volunteers, Mestas has been able to turn things around. “It wasn’t too long ago that the El Paso landscape went from lush lawns and trees to the extreme of rock and cactus,” said Mestas.

There have been notable accomplishments along the way, including the formation of the West Texas Urban Forestry Council and tree-planting programs like Neighborwoods and Texans for Trees.

by planting and caring for trees where Texans live, work and play.★



“WE’RE PLANTING THE PROMISE OF A HEALTHY FUTURE FOR EL PASO THROUGH COMMUNITY TREE-PLANTING EFFORTS.”

— Oscar Mestas, regional urban forester, Texas Forest Service

In fall 2003, 12 years after Mestas arrived, El Paso’s forestry program hit several milestones: the city’s first arborist was hired; the city’s first Tree Board was established (after being unanimously approved by the City Council); and Green Sweep, a major tree-planting and clean-up initiative, was founded by Dee Wardy, wife of the mayor.

“It’s not just about beautifying yards and streets, but just as much about teaching people how to strategically use trees to improve air quality, reduce erosion and reduce energy consumption,” said Mestas.

Today, TFS’ Urban and Community Forestry Program has 11 full-time urban foresters providing leadership and improving the capacity of communities across the state to fulfill the promise of a healthy future



TEXAS TRANSPORTATION INSTITUTE

For more than 50 years, the Texas Transportation Institute has been serving the people of Texas and the nation by advancing transportation safety, efficiency and economy. TTI is the largest university-affiliated transportation research agency in the nation and is recognized around the world for its significant contributions to all modes of transportation.

Established during the early years of the ambitious interstate highway program, the agency has played a major role in the successful development of federal and state road systems. As the nation's transportation needs grew, TTI researchers responded to the challenges posed by developing innovative methods and technologies to address specific industry needs.

Research, implemented by sponsors, has resulted in roadways that are safer, longer lasting and better managed. Additionally, researchers have helped develop systems to reduce urban congestion, improve mobility, speed cross-border traffic with Mexico, and help reduce the effects of vehicle pollution. Working with state, local and regional transportation agencies and private industry, TTI researchers are currently studying a range of issues in all modes of transportation—highway, air, rail, water and pipeline.



TTI staff create innovative concepts and advanced technologies, aid economic growth and improve the overall quality of life for Texans through a broad range of engineering, economics and planning research programs. One of the agency's notable strengths is its ability to develop multidisciplinary teams to address today's complex transportation issues.

Through regional divisions at 10

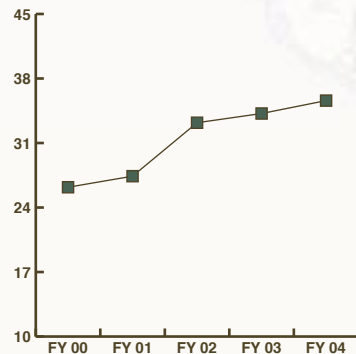
universities across the state, the Institute helps develop a much-needed and diverse transportation workforce and also addresses regional transportation issues. Although headquartered in College Station on the campus of Texas A&M University, the agency's work is also conducted at five research and implementation offices in the state's major urban areas.★

- FY 2005 budget: \$42.6 million
- TTI is home to nine national research centers and several national transportation information clearinghouses.
- Roadside safety innovations developed by TTI have prevented death or serious injury in hundreds, if not thousands, of auto collisions since the 1960s.

- More than 600 researchers and technical staff (including more than 200 graduate and undergraduate students) represent a wide range of academic disciplines; approximately 40 TTI researchers hold joint academic appointments at Texas A&M University.

tti.tamu.edu

Sponsored Research Expenditures
In Millions of Dollars
(including the Texas A&M University Research Foundation)



TTI research helps avert railroad crossing disaster

When a truck hauling sodium hydroxide stalled on a highway-rail grade crossing in Sugar Land, Texas, police dispatchers were immediately able to alert railroad and police units that a train was approaching the grade crossing at 44 miles per hour—thanks to a new rail monitoring system. After placing flares on the railroad tracks, the train crew was able to safely stop the train before a collision occurred.

Research that developed the warning system was sponsored and deployed by the Texas Department of Transportation through a joint effort involving the Texas Transportation Institute Houston office and TransLink®, the intelligent transportation systems—better known as ITS—research program at TTI.

Using a train detection/projection system, TTI researchers and students created a kiosk-based graphic display of train location and downstream projections for use at two fire stations and at the police/fire communications center. Wireless communications via cellular digital packet data technology connect field

equipment to TTI's central system.

Sodium hydroxide carried by the stalled truck is classified as an extremely hazardous chemical, and any possibility of a spill would have required a

full evacuation of the area. Law enforcement officials said the warning system was the key to preventing a major and potentially fatal disaster.

“The involvement of all groups in sponsoring the research, supporting the field installation, and responding quickly to the available information contributed to stopping the train before it reached the stalled truck,” said Gary Trietsch, district engineer for the Texas Department of Transportation Houston District.★



“THIS INCIDENT ILLUSTRATES BOTH THE BENEFITS OF TRANSPORTATION RESEARCH AND THE TEAMWORK NEEDED TO TRANSFER RESEARCH RESULTS INTO PRACTICE.”

— Gary Trietsch, district engineer,
Texas Department of Transportation
Houston District



TEXAS VETERINARY MEDICAL DIAGNOSTIC LABORATORY

The Texas Veterinary Medical Diagnostic Laboratory is one of the largest and busiest veterinary diagnostic labs in the world, receiving more than 180,000 requests per year from Texas animal industries for assistance in diagnosing animal diseases.

TVMDL is one of only 32 full-service diagnostic labs in the United States and Canada accredited by the American Association of Veterinary Laboratory Diagnosticians. The laboratory provides all drug testing for the pari-mutuel horse and greyhound racing industries in Texas. It also acts as the first defense against the introduction of foreign animal diseases.

In 2002, the laboratory joined a new national network funded by the Office of Homeland Security to assist the U.S. Department of Agriculture.

The laboratory offers the broadest spectrum of DNA testing in the United States to identify the genetic codes of pathogens, and also has been instrumental in helping ranchers identify drought-related poisons in grasses and crops. This effort led to the discovery and quick containment of a relatively new feed-related disease in dogs.

TVMDL also strives to facilitate livestock commerce by administer-



ing tests for interstate transfer and international export. Other tests identify chemical or microbial toxins, antibiotics or hormonal residues in animal products and feed.

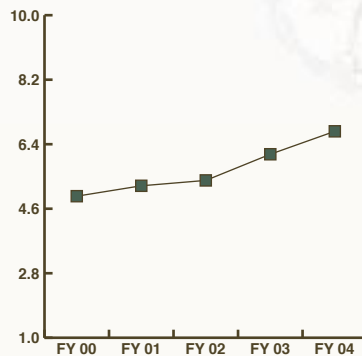
The laboratory develops new diagnostic tests, then transfers that technology from

research labs to routine use. It also serves as an animal disease information center. The laboratory's full-service facilities are located in College Station and Amarillo, and poultry diagnostic labs are located in Center and Gonzales.★

- » FY 2005 budget: \$13.1 million
- » The lab led the initiative that discovered a new genetic disease in cattle known as beta-mannosidosis.
- » After the anthrax scare in October 2001, the lab was the only animal facility cleared to test environmental samples for the disease.

- » The lab has developed a computer-assisted diagnostic program that allows veterinarians to match clinical signs seen in a diseased animal with potential diagnoses.

tvmdlweb.tamu.edu



Professional Fees
In Millions of Dollars

Cutting-edge technology and rapid response

Thanks to the technology-rich Texas Veterinary Medical Diagnostic Laboratory, veterinarians have fast, accurate and affordable access to the latest advances in diagnostic medicine.

Consequently, animal owners have more opportunity to prevent or stop disease and be more profitable. Tests include everything from diagnosing thyroid problems in pets or anthrax in cattle to pregnancy testing on miniature horses and deer. The fast turn-around and specificity of tests help practitioners respond rapidly with the most appropriate treatment.

"Real-time means if we have the sample today, we're going to have the answer today, positive or negative," said Dr. Lelve Gayle, lab director. "That's important if you have animals dying in the field."

This ability to respond quickly is especially crucial in light of growing threats such as the introduction of foreign animal diseases or home-

land security issues. The need to provide rapid response to diagnose and contain disease outbreaks is the impetus for a recently completed laboratory upgrade.

at specific levels to test and determine samples from areas where a disease is to be contained. ★



"A DAY SELDOM GOES BY THAT WE DON'T SUBMIT SOMETHING TO THE DIAGNOSTIC LAB."

— Don Goodman, Beard-Navasota Veterinary Hospital, Navasota, Texas

With a \$2 million U.S. Department of Agriculture grant, the facility is now a Biosafety Level Three unit able to verify on the spot the most highly infectious animal diseases rather than sending samples to the USDA's Plum Island lab in New York. The new facility features a shower-in/shower-out facility for employees, as well as self-contained air filtering to prevent viruses from escaping and plumbing systems to collect and disinfect wastewater. The lab has also increased the number of people trained

