



SPRING 2009 SOMOTILA TABLE OF CONTENTS

FEATURES

16 WHY JANE AND JOHNNY CAN'T FACTOR A POLYNOMIAL

It's common knowledge that American students lag far behind other countries when it comes to math and science performance. But what is UTSA doing to correct the problem? A lot, it turns out. And surprisingly, its efforts extend beyond its own laboratories and lecture halls into elementary school classrooms.

20 WHAT I BROUGHT TO COLLEGE

Security blankets got us through toddlerhood, kindergarten, and for some of us, even college. Find out what UTSA's newest class of freshmen brought with them to make the transition from home to college easier. (And, head's up, not all of them are blankets.)

26 GOOD IS BUENO

Two alumni prove that Hispanic marketing is more than "La Cucaracha" and talking Chihuahuas. Stereotype-free messages are now making their way into the marketplace and are successfully targeting the largest minority group in the country.

DEPARTMENTS

5 In the Loop

Architecture students propose ways to revitalize a historic downtown firehouse; Diploma Dash celebrates its 25th anniversary; UTSA football gets the green light; and more campus news.

10 Investigations

Research on the bacterium that causes Lyme disease is just one of 10 faculty research projects under the UTSA Minority Biomedical Research Support for Continuous Research Excellence program that received a \$9 million grant from the National Institutes of Health; plus more research at UTSA.

12 Roadrunner Sports

Rae Rippetoe-Blair ditched her business suit for a pair of Nikes and found her passion—coaching. The women's basketball head coach is now in her eighth

14 Syllabus

Along with air and soil, water is a key focus of the graduate class Analysis of Environmental Problems.

New group reaches out to the university's younger alumni. Also, profiles of restaurant executive Jerry Deitchle, M.B.A. '75; swim school entrepreneur Mary Reilly-Magee '90, M.A. '00; and engineer Tony Sayka '93, M.B.A. '02.

How one student managed to combine work and play on a cramped campus in 1975.

On the cover

Illustration by Kevin Ghiglione

On this page

Photo by Patrick Dunn

Sombrilla

Sombrilla Magazine

Spring 2009, Volume 25, Number 1

The University of Texas at San Antonio Ricardo Romo, President

Editor: Rebecca Luther Art director: Karen Thurman Associate editor: Lety Laurel Copy editor: Judith Lipsett Web designer: Larry Lopez Contributors: Rudy Arispe, James Benavides, Tim Brownlee, Christi Fish, Lynn Gosnell, Leigh Anne Gullett, Omar Hernandez, Kate Hunger, Marianne McBride Lewis, Marcia Mattingly Kris Rodriguez, Lorna Stafford Photographers: Patrick Ray Dunn, Mark McClendon Administrative associate: Rita Marquez Assistant director of publications: Frank Segura Director of publications: Elton Smith Executive Director of Communications and Creative Services: Craig Evans

Office of University Advancement

Vice President for University
Advancement: Marjie French
Associate Vice President for Communications
and Marketing: David Gabler
Assistant Vice President for University Advancement:
Eric Gentry
Assistant Vice President of Alumni Programs:
Jane Findling Burton

Sombrilla Advisory Board

Palmira Arellano '86
Ernest Bromley '78, '80
Renée Crittenden-Garcia '96
Marjorie George '84
Richard Lewis, UTSA
Janice Odom, UTSA
Rick Riordan
Noe Saldaña '91, UTSA
Melissa Fletcher Stoeltje '80, '87
Martha Treviño '97

Write back!

We welcome your letters pertaining to Sombrilla's content. Please send them by mail or e-mail to the addresses below. Letters may be edited for length or clarity.

Sombrilla Magazine is published three times a year by the Office of University Publications, UTSA, One UTSA Circle, San Antonio, Texas 78249. It is mailed without charge to alumni, faculty, staff and friends of The University of Texas at San Antonio.

Phone: (210) 458-6043 E-mail: sombrilla@utsa.edu

WE'RE ON THE WEB

www.utsa.edu/sombrilla

Send address changes to sombrilla@utsa.edu. If you want to be removed from the Sombrilla mailing list or prefer to be notified when Sombrilla Online is updated, send a message to sombrilla@utsa.edu.

intheLOOP

EDITOR'S NOTE

Finally, football

t's been a couple of years since I made it back to my own alma mater to attend a football game, but I watch every televised game and sometimes listen to the radio broadcasts online. Football is a big tradition there, and the four generations of my family who have attended the school are loyal fans. Here's an example: My grandfather (who was nicknamed Taterbug, for reasons too lengthy to go into here) was a snare drummer with the 16th Infantry Regiment Band during World War I, and he reportedly began to play the cadence for the school's fight song as the band entered Germany. His drum now is part of the university's archives.



I don't know that any of Taterbug's descendants will live up to his fine example, but football remains a part of our family tradition. We've kept season tickets in the same section and row of the stadium for close to 40 years now; the university once offered Dad the chance to trade up our 10-yard-line seats for 50-yard-line seats, but he declined, since the move would have put us on the opposite side of the stadium and facing the afternoon sun. When my brother became a scholarship donor to the university, he earned a pair of season tickets in the stadium's club level—where the food is free, the seats are more comfortable and the

bathroom lines are much shorter—but he usually gives those tickets away, preferring to sit in our old seats on the lower level, closer to where all the action is.

When I was in college, my idea of a romantic date was going to gaze at the school's pair of Heisman trophies. As it turned out, I married a man who went to a different college in another state, one whose football program considers the season a wild success if they make it to a bowl game in some place like Mobile, Ala. My family's level of excitement over football is a continual source of amusement for him. He laughs at the fact that we keep the season tickets in a vault. He shakes his head when he hears that we delayed my great aunt's funeral by a day so we could go to an important game (honestly, it's what Aunt Margaret would have wanted).

Let me make this clear: I'm not even that big a sports fan. But there's something about rooting for a team and being a part of its triumphs and losses that transcends bragging rights, entertainment value or even four generations of family history. There's something about walking through a tunnel into the bright daylight of an 85,000-seat college stadium on game day, hearing the marching band play the fight song, seeing the crowd in your team's colors and knowing that there's a good chance, a darn good chance, that at the end of the day you and those 85,000 other people will be rejoicing together that overwhelms me and makes me tear up every time I do walk through that tunnel.

UTSA is a few years away from fielding its football team, and likely a number of years away from filling the Alamodome's 65,000 seats to capacity. I'd be pleasantly surprised if the Roadrunners made it to a bowl game in Mobile, Ala., before 2020. Make no mistake, I am a fan and have been looking forward to UTSA football since I started working here nine years ago. But the UTSA football milestone I'm most looking forward to could be a rather inauspicious one: the day when those "UTSA Football—Still Undefeated" T-shirts become obsolete. On that day, I'll be watching and cheering and crying along with everyone else.

—Rebecca Luther

Architecture students propose plans to restore downtown firehouse



uring the fall 2008 semester, graduate students in the College of Architecture had a rare opportunity to reenvision a piece of San Antonio history. Just down the street from the Monterey Building on UTSA's Downtown Campus is Fire Station 11, a structure that dates back more than 80 years. Though the station has fallen into disuse, it is a designated historic property, and students in Professor William Dupont's advanced studio see great potential for revitalizing the structure.

After a conversation with Mayor Phil Hardberger and a few phone calls to City Hall, Dupont, who holds the San Antonio Conservation Society Endowed Chair for Historic Preservation, discovered the disputed ownership of the facility. A hand-written 1892 contract with the Steves family, proprietors of the Steves Sash & Door Company (now Steves & Sons), contained a reversion clause, returning the property to the family if the



city no longer maintained a fire company on the premises.

The station was decommissioned as an active fire station in the late 1970s, as fire engines became too large to be accommodated there. A new fire station was built 200 yards south on Frio Street, and the historic station briefly served as an EMS facility before being consigned to warehouse space. When the city moved to sell the property, the Steves family entered litigation to enforce the terms of the 1892 contract.

After learning of the contested status of the station,
Dupont met with matriarch
Patsy Steves, who then called
upon her sons to endorse a
plan for UTSA students to use
the property as a case study; a
memorandum of agreement
with the family granted Dupont's
students access to the station.

"The firehouse is a laboratory for students to combine the disciplines of historic preservation and architectural design in the same project," said Robert Baron, interim dean for the College of Architecture. "This is what is so important about the way Professor Dupont teaches his

studio. Students first thoroughly analyze the historic building and its context before starting to adapt the building to new uses."

In December, members of the Steves family met with the students, who shared concepts for a residential setting, offices and conference rooms, a health club and a drivethrough café and coffee shop.

Dupont and his students admit that the new uses are a long way off, as the facility would first have to be rehabilitated. This would require masonry and structural work, as well as bringing HVAC, electrical systems and plumbing up to current standards. And while the second level of the structure could be exempted from the Americans with Disabilities Act, Dupont and his students insist that the historic station be accessible.

Neutralizing the danger of the fire poles is another obstacle. To preserve visual elements of the station's original purpose, the students want the poles to remain intact and have suggested sealing the openings with clear acrylic floor plugs, or capping them with structural glass. Dupont believes the fire station would make for an excellent case study across various disciplines. It could serve as an ongoing design-build project for architecture students and as a small business start-up project for the College of Business. Additionally, UTSA students could manage the display of student art and performances within the facility.

"This would be something unique," said UTSA President Ricardo Romo. "We are extremely fortunate to have a historic structure so close to our campus and the family's agreement to use it as a learning opportunity for our students."

The spring 2009 graduate studio will continue an evaluation of Fire Station 11, developing business plans for new uses, determining specific requirements to rehabilitate the building and creating solutions for technical conservation of the historic materials.

—James Benavides

For more information, read the spring 2008 graduate studio's historic structure report at www. utsa.edu/architecture/news/.

Diploma Dash celebrates 25th anniversary





Above right: The Diploma Dash starting line in 2008. Above: Roger Soler '85 and Robert Rivard '96 postrace in 2002. **Below:** Corky Rubio '76 models the 1999 Pepsi Dollars for Scholars T-shirt.



n a chilly February morning in 1983, the first UTSA Alumni Association 10K race, co-sponsored with the University Center Program Council, attracted approximately 400 avid runners.

When UTSA Homecoming came on the scene in 1985, the race was dubbed the Hightailer 10K, going with the theme "Hightail it Home!" It continued as a 10K race until it became the Dollars for Scholars 5K Race in 1993.

Now under the name UTSA Alumni Diploma Dash, the event marks its 25th anniversary in 2009.

On Feb. 21, more than 1,000 runners participated in Diploma Dash 2009 as part of homecoming festivities. The sponsorships and business partners have grown tenfold, and alumni, their families and UTSA students are active participants and volunteers. The race, now professionally chiptimed, continues to expand, adding corporate team, student team and ROTC team challenges; a wheelchair division was added this year.

Through the years, many dedicated volunteers stepped up efforts to make the fundraising event one of the premier races in South Texas. Roger Soler '85 was instrumental in developing the race into what it is today,

working tirelessly with volunteers to make sure the race attracts serious runners and maintains its reputation as a premier running event. Additionally, Soler was the men's open champion in 1985, 1986 and 1990.

It was renamed the San Antonio
City Championship in 1997 and
began attracting a large group of
faithful participants, corporate
sponsors, UTSA students and
faculty, wellness providers, and
retail sports and running stores
to help make each race more
successful than the last. The race
officially was re-branded and
trademarked Diploma Dash in 2000.

J.R. "Corky" Rubio, M.B.A. '76, has run in the race for 20 years. He was a founding member and first vice president of the UTSA Alumni Association and was named the Alumnus of the Year 1984.

"Diploma Dash is a signature event for me, and running each year takes me back to those crisp, cool days when we students were first admitted to the 1604 Campus," said Rubio. "As time went on, I just enjoyed the camaraderie of the morning, especially seeing the crew of volunteers at work. Then the race became a big event, with several San Antonio mayors either running or shooting the

starting gun. After all those years, I have quite a T-shirt collection."

Another long-time runner is San Antonio Express-News editor Robert Rivard '96, Alumnus of the Year 2000. "I ran my fastest 10K ever in Diploma Dash 1992 before the event was shortened to a 5K," he said. "I was running the San Antonio Marathon the same year and was really ready. The 25th anniversary has me ready to strap on running shoes and train."

The race also has attracted many elite runners through the years, and UTSA alumna and 2008 Olympic marathon runner Liza Hunter-Galvan '93, '05, has clocked first in the women's open division for a total of 10 years.

A native New Zealander, Hunter-Galvan earned a track and field scholarship to UTSA and was coached by Shawn Flanagan. After graduating, she settled in San Antonio, married, raised a family and became a teacher. "I love the Diploma Dash," she said. "I feel so indebted to UTSA—it's just a very small thing to do to support UTSA. I'm going to do whatever I can to help. My experiences at UTSA changed my life."

-Marcia Mattingly

Southwest Guitar Festival attracts and rewards top talent

ome of the world's best acoustic guitar performers and top student guitarists gathered in San Antonio Feb. 4–8 as the UTSA Department of Music hosted the 2009 Southwest Guitar Festival. The event, which is the largest acoustic guitar festival in the United States, has been directed by Assistant Professor Matthew Dunne since 1995. Fellow music department faculty member Michael Richter is assistant director.

The Southwest Guitar Festival was formed in 1991 by guitar professors at UTSA, Southwest Texas State University and UT Austin as a small regional festival for the guitar students of central Texas. In 1995, the festival moved permanently to San Antonio, where it has been held every two years or so. In 2000 the festival hosted the Guitar Foundation of America's International Convention and Competition, bringing over 400 classical guitarists, teachers, guitar makers and afficionados to San Antonio.

Nemanja Ostojic, a 24-year-old Serbian graduate student enrolled in the Jacobs School of Music at Indiana University, captured first place honors and the \$5,000 prize at the 2009 festival's international competition. The four-day competition featured 34 of the world's top student guitarists representing 15 countries including Serbia, Norway, Armenia, Singapore, France, Bulgaria, Brazil, Peru, China, Romania, Columbia, Australia, Canada, Mexico and the United States. Among the 34 competitors were UTSA graduate students Jesse Garcia, Michael New and Tomas Vela and undergraduate student Michael Cohen.

Pablo Garibay, from Mexico City and currently studying at Hochshule, Weimar, in Germany, won second place and a \$2,500 prize. French student Florian Larousse, from the Paris Conservatory, took third place and \$1,500 in prize money, and American Austin Moorhead, enrolled at Yale University in New Haven, Conn., finished fourth, taking home \$1,000 in prize money.

"We were excited to hear these very inspiring young artists and felt that all the participants added something new to this competition," said Dunne.

In addition to the competition, the festival also allowed the students to interact and hear performances by some of the world's top international classical guitar performers, including the Brazilian duo Sergio and Odair Assad, Bosnian Dennis Azabagic and the Los Angeles Guitar Quartet. The opening concert featured the world premiere of "Triqueta for Guitar, Horn and Chamber Orchestra." The original piece, composed by UTSA Professor James Scott Balentine, was performed by UTSA Assistant Professor Matthew Dunne and conducted by UTSA Associate Professor Eugene Dowdy.

The Southwest Guitar Festival was presented in collaboration with Arts! San Antonio, the San Antonio Chamber Music Society and the San Antonio Symphony, with major support from the City of San Antonio Office of Cultural Affairs, the Augustine Foundation and UTSA President Ricardo Romo. For more information, visit www.swgf.org.

Assistant Professor Matthew Dunne (center) performs with UTSA students as Associate Professer Eugene Dowdy conducts.

Wolff, Groves honored at President's Dinner



The sixth annual President's Scholarship and Awards Dinner honored Nelson Wolff and Helen Kleberg Groves.

The 2008 President's Award was presented to Wolff, who led the city for four years as mayor and has headed Bexar County as county judge since 2001. As mayor, he oversaw the creation of the UTSA Downtown Campus, construction of the Nelson W. Wolff Municipal Stadium and the development of the Central Library.

As county judge, Wolff worked to bring Toyota Motor Manufacturing and the PGA Village to San Antonio. In 2008, he was successful in convincing voters to approve a visitor taxbacked bond package of \$415 million. The bond funds will help build up to 13 amateur sports facilities, a performing arts venue, improvements to the San Antonio River, and future improvements to the AT&T Center and the Joe and Harry Freeman Coliseum.

The 2008 Tom C. Frost Award was presented to Groves, who is president of the Robert J. Kleberg, Jr. and Helen C. Kleberg Foundation, established in 1950 by her parents. The foundation has funded countless projects in Texas and across the country, particularly in the areas of biomedical research, health services, higher education, and veterinary and wildlife projects. UTSA has been the recipient of more than \$3.7 million from the foundation and paid a lasting tribute to the Klebergs with the dedication of the Kleberg Commons on the 1604 Campus last March.

iBRAVO!

Faculty, staff and student achievements

College of Engineering Dean **Mauli Agrawal** was appointed by Gov. Rick Perry to serve as a member of the advisory committee for the Emerging Technology Fund, a \$200 million fund used to attract top researchers and scientists to Texas and to support technology startup companies; Kathleen Arnold, Department of Political Science and Geography, was honored by the Northeastern Political Science Association with the 2008 Polity Prize, awarded for the best article to appear in the journal *Polity*; Bruce Barnett, professor of educational leadership and policy studies, was awarded the Master Professor Award by the University Council for Educational Administration. Barnett also was appointed associate director of international affairs for the UCEA; head softball coach Lori Cook was inducted into the Napa (Calif.) High School's Athletic Hall of Fame; Dick **Dawson**, executive director of audit, compliance and risk services, was named 2008-2009 president of the Association of College and University Auditors; Guitarist Matthew Dunne, assistant professor of music, won the Robert L.B. Tobin Grand Prize for Artistic Excellence from the Artist Foundation of San Antonio. Student **Rafael Moras**, a tenor who played Tamino in the UTSA Lyric Theatre's production of "The Magic Flute" last spring, won the foundation's George Cortez Award for classical singing; Laura Groff, volleyball head coach, was honored by Thomas Jefferson High School (San Antonio) as part of the first class of inductees into the school's Hall of Fame; **Steven G. Kellman**, comparative literature, received the Award for Literary Excellence from the San Antonio-based literary arts organization Gemini Ink; Debbie Lopez, associate professor of English, was awarded a Fulbright Scholar grant to lecture at Aristotle University in Thessaloniki, Greece; sophomore Mayllyn Luz was elected to the student advisory committee of the BACCHUS Network, an international organization that promotes peer education regarding healthier behaviors among college-age adults. UTSA BACCHUS student organization also won the Outstanding Creative Publicity for an Event award for the "Keep It Dry" project, for which shower tags with the "Keep It Dry"

message and the housing alcohol policy were distributed throughout university housing before the fall student move-in; Efstathios Michaelides, professor and chair of the Department of Mechanical Engineering, was named the American editor of the Journal of Non-Equilibrium Thermodynamics; College of Sciences Dean George Perry received the Denham Harman Lifetime Achievement in Research Award from the American Aging Association for the work he and collaborator Mark Smith of Case Western Reserve University have done to understand the role of free radicals in Alzheimer's disease. Perry was also recently included as one of only five neuroscientists in Texas in the ISI Highly Cited database of scientific researchers; UTSA President Ricardo Romo was appointed by President George W. Bush to serve on a 23-member commission that will explore the potential of creating a national museum dedicated to American Latinos; researchers Ravi Sandhu and Miguel J. Yacaman were elected fellows of the American Association for the Advancement of Science. Professor Sandhu, Lutcher Brown Endowed Chair in Cyber Security and executive director of UTSA's Institute for Cyber Security, was elected "for distinguished contributions to cyber security including seminal role-based access control and usage control models, and for professional leadership in research journals and conferences." Yacaman, professor and chair of the Department of Physics and Astronomy, was elected to be an AAAS fellow "for his many contributions in nanotechnology and materials science and in improving education and research in physics in Latin America, particularly in Mexico"; David P. Thompson, professor and chair of the Department of Educational Leadership and Policy Studies, was named one of the 2008 Outstanding Alumni of the Texas A&M University College of Education and Human Development; Qing Yi, assistant professor of computer science, was granted a five-year, \$400,000 Faculty Early Career Development award for junior faculty by the National Science Foundation to develop a multilayer code synthesis framework that will improve the correctness and performance of software.

University adds football program

The University of Texas System Board of Regents in December approved UTSA's Athletic Initiative Business Plan granting the university permission to expand athletics and add a football program. The plan calls for UTSA to develop an \$84 million athletics complex and add an NCAA Football Championship Subdivision (FCS, formerly Division I-AA) football program. The intent is to advance the athletics department's existing 16 intercollegiate sports programs plus football to an NCAA Football Bowl Subdivision (FBS, formerly Division I-A) conference.

"We are grateful to the Board of Regents for their support to enhance our entire sports program and bring UTSA football to San Antonio," said UTSA President Ricardo Romo. "Additionally, UTSA would not be here today without the support of the leadership and citizens of San Antonio and Bexar County who approved \$22 million in funding toward building the new Athletic Complex."

UTSA will fund the athletic initiative through student fees, corporate and private support, and other revenue streams that do not draw from the institutional academic budget. In September 2007, UTSA students overwhelmingly supported a referendum to expand the athletics program and double the athletics fee over the next five to seven years from \$10 per semester credit hour up to \$20 per semester hour, capped at 12 semester credit hours.

AO

What is the best-case timeline for UTSA football?

2009: Launch a fundraising campaign; hire a head coach and two assistant coaches

2010: Hire additional staff, sign first recruiting class in February and begin practicing with red-shirted inaugural team in August 2011: Expand team and play independent football schedule 2012: Play Southland Conference football schedule

Where will the football team play home games?

UTSA has a tentative agreement with the City of San Antonio to use the Alamodome for home games.

When will construction begin on the Athletics Complex?

The goal is to begin construction on the complex (to be located at Loop 1604 at Hausman Road) in February 2010. The completion of phase one is slated for October 2011. Phase one will include NCAA Division I-quality facilities for soccer and track, roadways, surface parking and other related infrastructure. After that, depending on successful fundraising, practice football fields will be added.

How will football affect UTSA's commitment to become a national research institution?

UTSA has long been a university of first choice and provides access to excellence for more than 28,400 graduate and undergraduate students, and it is still on target to become a national research university. That means there will be an increase in the number of academic programs, more contributions to the economic success of San Antonio and the region and enhanced student life.

Now, a Division I football program is added to this list.

—Marianne McBride Lewis

For updated information, go to www.goutsa.com and select Football from the Men's Sports dropdown menu.



It bites and keeps on biting...

Researcher studies how ticks transmit bacteria

f you've ever had a black tick—the size of a sesame seed—bite into your flesh, chances are you probably removed the blood-sucking insect with a pair of tweezers and had no ill effects.

But for more than 20,000 people in the United States each year, a bite from a tick can lead to fever, rash, fatigue, and pain and swelling of the joints, all common symptoms of Lyme disease. It's one of the most prevalent infectious diseases caused by arthropods that transmit *Borrelia burg-dorferi*—the bacteria that causes Lyme disease—says a researcher with UTSA's South Texas Center for Emerging Infectious Diseases.

"The biggest problem is a lot of people will not get rid of the entire infection because organisms are still there [after the tick is removed] although in low numbers," says Janakarim Seshu, assistant professor of biology. "It's a chronic disease, and expensive treatment is involved because you

have to take high levels of antibiotics to clear the bacteria."

Seshu recently was awarded \$1.4 million to study how *Borrelia burgdorferi*, the causative agent of Lyme disease, interacts with mammalian host cells. His is one of 10 faculty research projects under the UTSA Minority Biomedical Research Support for Continuous Research Excellence program that received a five-year, \$9 million grant from the National Institutes of Health (NIH).

Seshu and his team of postdoctoral, graduate and undergraduate students are examining how the organism is able to survive in ticks and is able to adapt to the conditions that are radically different in the mammalian hosts.

"Borrelia burgdorferi is in the gut of the tick," Seshu says. "Once the tick takes its blood meal, and [that meal] reaches the mid-gut, the organism senses that it's time to transfer from the tick to a mammal because of several factors or conditions present in the blood such as the temperature, pH, etc. We want to know what makes the organism do that." Seshu and student researchers began by examining how the organism is regulated at the tick-specific temperature of 23°C versus mammalian body temperatures of 37°C. They are studying the genes that allow for the adaptation of Borrelia burg-

"There are a lot of genes that are increased in expression when you transfer the bacteria from in vitro cultivation at tick-specific conditions to mammalian host specific conditions," he says. "So we are inactivating those genes that are elevated in expression in the presence of mammalian host cells or conditions. We think those are the

dorferi in mammalian hosts following transmission from ticks.

genes that facilitate successful transmission of *Borrelia burgdorferi* from a tick to a mammal."

One theory Seshu has is that if they delete certain genes from the organism, *Borrelia burgdorferi* might not be able to survive in the mammalian host because of an inability to respond to a sudden

might not be able to survive in the mammalian host because of an inability to respond to a sudden transfer from a tick to a mammal. The researchers also are involved in studying how the gene expression is regulated under these conditions.

The research on Lyme disease is being done with the assistance of three postdoctoral students who are pursuing careers in biomedical research, three doctoral students, two students who are pursuing master's degrees in biotechnology and three undergraduate students. Although funding for the project continues through 2011, Seshu says he already has began gathering data and formulating ideas that will be included in a proposal to be submitted to the NIH for new funding.

—Rudy Arispe

Illustration by Stephen Durke

Talk this way

Then Michael Cepek arrived in eastern Ecuador some 14 years ago to live and work among the indigenous Cofán Indians, he didn't speak a word of the A'ingae language. He was able to communicate with several of them, however, because they spoke Spanish learned from missionaries.

The chief of the Cofán community soon put a stop to those conversations. "He told everyone, 'Mike needs to learn the language. Do not speak any Spanish to him.' So I was thrown into it," Cepek says.

The chief's strategy worked. Cepek, an assistant professor of anthropology in the College of Liberal and Fine Arts, now speaks A'ingae and has been accepted by the Cofán, a community of about 140 people occupying 120,000 hectares in the village of Zabalo.



Michael Cepek, assistant professor of anthropology, worked to train Cofán men, pictured here in red hats, about anthropological research methods and to collect oral histories.

The outside world first became aware of the Cofán with the arrival of Spanish conquerors in the 1500s. Today they are involved with rain forest conservation, preservation of their rights and traditional territories, and serving as park guards of the wildlife service, Cepek says. As part of his anthropological work, Cepek studies the Cofán culture, language, kinship structure and cosmology. He also works with them on environmental conservation, partnerships with government organizations and school projects.

"They like the idea of someone coming in to document [their way of life] and someone who cares enough about them to learn the language and try to understand how they see the world," he says.

Traditional Cofán attire features head-dresses and long, colorful tunics made from fabric that they weave themselves, accompanied by feathers worn through the nose. Hunting with blowguns and ingestion of hallucinogens in the quest for supernatural powers are other aspects of Cofán culture. Through the years, Cepek also has discovered that the Cofán have a great sense of humor.

"They're very self-deprecating and bawdy, and they like to make jokes about men, women, sex and going to the bathroom," he says. "When I truly felt like I was beginning to be accepted by them is when I would make jokes in their language, and they would laugh."

—Rudy Arispe

Discovery

Safety 'Net From the pages of UTSA Discovery

It's no secret that organized crime is flourishing on the Internet. Cyber thieves pluck bank account, credit card and identity information by hacking into vulnerable systems or using fake Web sites and e-mails to trick users into divulging sensitive information. What many people don't realize is that their own computer could be used in a cyber attack against other systems or even critical infrastructure—and they wouldn't even know it.

The detection of botnets—networks of hijacked, or "zombie," computers used to carry out crimes while making them harder to source—is a significant research area for UTSA's newly created Institute for Cyber Security. Under the direction of world-renowned expert Ravi Sandhu, ICS has as its mission the protection of the cyber infrastructure through research and its commercial applications, as well as through education and service.

"We're not just commercializing what we have," Sandhu says. "We have to develop some cutting-edge stuff. It has to be something new."

UTSA last year won a competitive \$3.5 million grant from the Texas Emerging Technology Fund to create the institute and hire as its founding executive director Sandhu, who left the information security faculty at George Mason University to come to UTSA. He also received a \$1 million grant from the University of Texas System. The institute, which involves the departments of computer science, electrical and computer engineering, and information systems and technology management, has a half-dozen full-time equivalent researchers. Reaching his goal of 10 to 15 full-time equivalent researchers would make UTSA's cyber security program one of the biggest in the country among academic institutions, Sandhu says.

nndhu says.

—Kate Hunger

To read the full story and other stories about ongoing research at UTSA, go to www.utsa.edu/discovery.

Frozen assets

A team of UTSA engineering and business students traveled to the Canary Islands for the 2008 Campus of Excellence to present their innovative solution to one of the world's most pressing public health problems: transporting and storing vaccines in developing countries.

According to the World Health Organization, the cold chain system for storing and transporting vaccines from the manufacturer to the people being immunized is a logistical challenge. That's especially true in developing countries, where most individuals live in rural areas lacking good transportation and a steady power supply.

The UTSA group designed and developed the business plan for the LifeCube, a small portable storage box that uses a proven technology, ammonia absorption refrigeration, to lower temperatures below 10 degrees Celsius. To work, the LifeCube requires only a heat source, be it the sun or a small fire. Currently, vaccines are stored and transported in either solar-powered refrigerators or ice-based coolers. In contrast, LifeCube's technology is inexpensive, portable and self-sustaining. The UTSA team hopes to fully develop the product and then hand it off to a nonprofit organization to deploy.

"This project gave our students the opportunity to push their boundaries and learn the impact they can have on the world," said Cory Hallam, director of UTSA's Center for Innovation and Technology Entrepreneurship. "Social entrepreneurs not only create a viable business, but they do so in a way to effect change within society."



ration by Stephen Durke

Photo by Jeff Huehn, UTSA Athletics

COURTING SUCCESS

By Leigh Anne Gullett

Rae Rippetoe-Blair cannot fathom life without basketball. She tried it once back in 1985. Nearing graduation with a business degree from Oklahoma State, where she was a four-year starter on the women's basketball team, Rippetoe-Blair went on a few job interviews. But she just couldn't do it, couldn't bear to walk away from the game she loves.

Head Coach Rae Rippetoe-Blair (left) looks on with Assistant Coach Tai Dillard as her team takes on Texas A&M International in the season opener.

So Rippetoe-Blair ditched the business suit for a pair of Nikes and found an assistant coaching spot at Southern Nazarene University, despite her mother's warning that she wasn't going to like coaching. More than 20 years later, her heart is still in coaching, and her mother is one of her biggest fans. "She loves it," says Rippetoe-Blair. "She just thought I wanted to be in this career world as a business person. I am a career woman. I'm just in the coaching career."

Her current role as head coach of women's basketball at UTSA means that Rippetoe-Blair doesn't get many days off for golf or long rides through the Hill Country on her Harley Heritage Softail. She dreams of one day joining the more than half-million other motorcycle enthusiasts in Sturgis, S.D., for the city's famed annual motorcycle rally. But, she says, there will be plenty of time for those things when she retires.

"I would be lost without basketball," says Rippetoe-Blair, now in her eighth season at UTSA. "It's just my life. I've never had one day that I thought, God, I don't want to go to work. It's a passion. I love the game so much."

UTSA Athletic Director Lynn Hickey remembers Rae Rippetoe-Blair from her playing days at Oklahoma State when Hickey

was coaching at Kansas State. One of the first things Hickey says about Rippetoe-Blair is that, as a player, she never beat one of Hickey's teams. "But, once she got on the coaching side, it was a bit of a tough match-up," Hickey says. "When I moved to Texas A&M, I think we only beat OSU one time."

Rippetoe-Blair spent two years as an assistant coach at Southern Nazarene, then in 1987 became head coach at Phillips University. In 1992, she returned to her alma mater as an assistant coach for the first of eight seasons with the Cowgirls. It was her return to Stillwater that put her on Hickey's radar. "She was kind of the worker bee," says Hickey. "She was just very diligent in her work and always very, very personable."

Former Roadrunners standout Nikki Hendrix remembers Rippetoe-Blair from those eight years at Oklahoma State, too. An all-state forward from Blair's hometown of Ardmore, Okla., Hendrix regularly went to basketball camps at OSU. After high school, she joined Marsha Sharp's famed Texas Tech Lady Raiders, but after her freshman season in Lubbock, Hendrix wanted a change.

Meanwhile, Hickey had taken over as athletic director at UTSA, and the Roadrunner

women's basketball program was a shambles. Not only was the program desperate for wins, the graduation rates were low; of the 1993-1994 freshman women's basketball scholarship players, only 33 percent had graduated six years later. Hickey needed more than just an "X's and O's" coach. She called Rippetoe-Blair.

"I never doubted that I could come in here and—with the support we had—get things turned around," says Rippetoe-Blair, whose 2008 graduation report has raised the rate to 75 percent. "It was one of those things that you come in and you set some standards. I challenged that first group of young ladies to start a tradition, to start pride, and they really bought into that."

Rippetoe-Blair's first Roadrunner team featured seven new players, three of whom came from Seward County Community College, where they had posted a 33-1 record. The team also featured Texas Tech transfer Hendrix, who also happened to be expecting her first child, Ian, that August. Rippetoe-Blair was with her in the delivery room. "She was the one taking pictures," says Hendrix. Hickey was there, too, and it was Hendrix's first time meeting the athletic director. "They

were in the room when I had him," says Hendrix. "She's just such a down-to-earth coach. I kind of struggled through school having a little one, but she stayed on top of me." Hendrix gives her coach a lot of the credit for her graduation from college.

Similarly, Rippetoe-Blair credits a lot of her Roadrunner program's current success to Hendrix and her teammates that first season. She says the group helped her set the work ethic that carried over to other players. "It took us a while," says Rippetoe-Blair. "It didn't happen overnight, but I think they started that work ethic. I think my second year we were No. 2 in the country in defense, so we really bought into the system of what we wanted to do here. They really started that tradition of winning."

The Roadrunners finished 7-20 in 1999-2000 with just three conference wins. In 2000-2001, their first season under Rippetoe-Blair, the Roadrunners went 16-13 overall and 13-7 in the Southland Conference (SLC). The following season, the squad went 16-12 overall and 15-5 in the SLC. Finally, in just her third season at UTSA, Rippetoe-Blair guided the Roadrunners to their first SLC regular

season championship with a school-record 17 conference wins and an overall 18-11 mark.

"I've always told all of our kids you can have the best athlete and the best talent in the world, but that isn't going to win you ballgames."

> Despite the consistent regular-season success, it wasn't until the 2007-2008 season that the Roadrunners finally broke through during SLC Tournament play and earned the school's first NCAA Tournament bid, falling to Texas A&M in the first round. Yet, the message Rippetoe-Blair preaches this season is nearly the same as the one she started with eight years ago, when she inherited a losing program. "I've always told all of our kids you can have the best athlete and the best talent in the world, but that isn't going to win you ballgames," says Rippetoe-Blair. "It's working together as a team and your work ethic. It's all about winning, but you've got to teach them how hard they've got to work."

The coach's formula for success has neatly delivered each year. Improved graduation rates? Check. Conference title? Check. NCAA Tournament bid? Check. But Rippetoe-Blair isn't ready to ride her Harley to Sturgis quite yet.

"I love the game. I love coaching the game," she says. "I love it here. I don't want to leave. I think we've got so much more to do."

SPORTS BRIEFS

UTSA adds football program

The University of Texas Board of Regents in December approved UTSA's Athletic Initiative Business Plan, which grants the university permission to add a football program. See full story, page 9.

Mecke tabbed Capital One/ **SLC Women's Cross Country** Student-Athlete of the Year

Junior Dana Mecke was named the Capital One/Southland Conference Women's Cross Country Student-Athlete of the Year. Mecke, a 4.0 mechanical engineering major, also was the SLC Women's Cross Country Athlete of the Year after she won the league crown in November. A Smithson Valley High School graduate, Mecke completed the 6,000-meter Piney Woods Country Club course in a time of 21:39 to take top honors in her seventh race of the year. It marked the first individual

women's conference cross country title for UTSA since 1996, as she helped the Roadrunners place fifth as a team in the league championship. A five-time SLC Athlete of the Week, Mecke finished 23rd at the NCAA South Central Regional in her final race of the season, the best regional finish by a UTSA female runner in more than a decade. She was a CoSIDA/ESPN The Magazine Academic All-District VI selection last spring and is a four-time SLC Commissioner's Honor Roll and President's List honoree.

Roadrunners named to **SLC Honor Roll**

Forty-four UTSA student athletes were named to the Fall 2008 SLC Commissioner's Honor Roll for recording a 3.0 or higher GPA.

Men's Cross Country

Sophomores Brandon Chiuminetta and Dominick Zucconi; and

freshmen Daniel Balbontin, Albert Cardenas, Eric Doll, Ivan Garcia, Layne Nixon and Cole Reveal **Women's Cross Country**

Junior Dana Mecke; and freshmen

Courtney Nelson and Kayla Pratt Soccer

Juniors Celeste Carruth, Halee Hamm, Kasi Herbert, Ezinne Okpo, Kimberly Selman, Kari Weiland and Chelsea Zimmerman; sophomores Allison Dillon, Allison McCabe and Jenna Pawelek; and freshmen Bonnie Caulfield, Kacey Cherry, Hannah Collazo, Katie Dugan, Katelyn Fray, Nicoline Joergensen, Jodi Leroy, Erin MacKay, Jacqueline Nance, Sheri Olayiwola, Nelle Thomsen and Brittany Wilson Volleyball

Seniors Audrey Hiser and Gena Rhodes; juniors Evelyn Pineda and Stefanie Robbins; sophomores Briana Mason, Valorie Rogers, Kendra Rowland and Jordan White; and freshmen Amber Brooks, Kelsey Jewasko and Kelsey Schwirtlich

Soccer team earns academic honors

The UTSA soccer team in January earned Team Academic Award honors from the National Soccer Coaches Association of America. This accolade is based on a GPA of 3.0 or higher. The Roadrunners, who posted a school record of 10 wins in 2008. tallied a team GPA of 3.14 en route to collecting the honor for the second straight season. UTSA recently placed 22 student-athletes on the 2008 Capital One Bank/Commissioner's Fall Honor Roll, including juniors Ezinne Okpo and Kari Weiland and sophomore Alli Dillon, who were second-team Southland Conference All-Academic honorees in the fall.

What's the latest?

Go to www.goutsa.com for the latest in Roadrunner sports.

Interdisciplinary by Nature

LYNN **GOSNELL**



t's 4 p.m. on a Monday and the normally energetic Heather Shipley is feeling the effects of her caffeine-free lifestyle. As she prepares for class, Shipley remarks that she is 10 hours into her day as an assistant professor in the Department of Civil and Environmental Engineering. As one after another of her students arrives, the roomy conference table slowly fills up with notebooks, papers, computers, and, yes, many versions of liquid caffeine.

Shipley will have to draw her late-afternoon boost from water—the topic of the day, not the drink. Along with air and soil, water is a key focus of the graduate class, Analysis of Environmental Problems (CE 6273). Water, and more specifically water treatment, is also Shipley's area of expertise.

> in the class, Wagner received full funding to attend the international conference, one where she will get to meet polar ice experts from around the world. The class jokes about expecting souvenirs from their classmate. Shipley requires every student to give two half-hour presentations each semester. The first focuses on environmental problems associated with water; the second

is on air. The third major assignment for

the class is a paper on soil or sediment.

Shipley's doctoral research in environ-

mental science was carried out through the

Foundation (NSF) center at Rice University.

Center for Biological and Environmental

Nanotechnology, a National Science

A chemist by training, she researched

the use of nanoparticles to remove arse-

nic, a significant groundwater pollutant

throughout the developing world. Shipley

currently holds an NSF grant to research

Before class begins in earnest, there's

Wagner must reschedule her next in-class

presentation. She's flying to St. Petersburg,

Russia, to attend a training workshop in

sea ice monitoring, the topic of her ongo-

ing research. The only master's-level student

some business to attend to: student Penelope

the application of nanotechnology to

heavy metal contamination in water.

For the fall 2008 semester, students researched and, in effect, taught their classmates about the latest scientific thinking on environmental issues associated with heavy metal contamination in water, ocean acidification, wetlands, acid rain, ozone, air pollution, and volcanic eruptions, to name a few topics.

The ability to understand and be able to communicate the significance of environmental problems and how the scientific community is addressing these issues are key goals of Shipley's class.

"It's important that students learn how to critically review the scientific literature and know what's been done, so they can make an impact through their own work," she said.

Besides diving deeply into the literature for presentations, once a week a student summarizes a current environmental problem, solution or new finding. Shipley finds that the topics are a good way to generate crossdisciplinary debate. As one student puts it, "We have engineers, chemical engineers, geologists and a couple of environmental scientists, so we approach problems very differently."

In today's class, Almoutaz al-Hassan, one of the six international students in the class, presents his summary of an article from the periodical *Geotimes* (a publication of the American Geological Institute, since renamed EARTH) about bacteria's role in the making of rain and snow. Tiny ice crystals are the key to the world's precipitation, the articles states, but these crystals are dependent upon particles or nucleants to form properly.

"It was known that bacteria was one of the nucleants that generate rain," al-Hassan explains, but the new discovery is that

The diverse backgrounds of her students mirror the kind of interdisciplinary profile that real-world environmental problems require.

"bacteria is an initiator of ice crystals" from which snowflakes grow.

Although bacteria have long been known to form ice crystals on plants, this study is the first to link the bacteria more directly to precipitation around the world, raising enticing questions. Quoting from the Geotimes article, al-Hassan asks, "Does bacteria use the ability to initiate rain as a way to get around?" And does this mean that deforestation and land usage play more of role in climate change than previously realized?

Shipley asks her students how they feel about the possibility of non-sterilized bacteria being used in cloud-seeding to increase rain during drought. Already, sterilized bacteria are being used in cloud-seeding for commercial

purposes. Some class members remark on China's cloud-seeding efforts using silver iodide at the Beijing Olympics.

"It's an unnatural procedure," notes

Student Danielle Wyrick wonders about the unintended consequences of cloudseeding—what if it rains somewhere else than intended? Wyrick, a planetary geologist who works at Southwest Research Institute, is one of several working scientists in the classroom. For her next class presentation, Wyrick will discuss the impact of volcanoes on the ozone in the Earth's atmosphere.

The presentations and current events summaries enrich the lecture format, Shipley says. Because CE 6273 is one of just two core classes in the environmental science and engineering doctoral program, the lectures impart critical knowledge for the students who will be taking their qualifying exams this spring.

Today's lecture: Filtration and disinfection in the water treatment plant. In fairly short order, Shipley details filter mechanisms, typical filter media (for example, sand, coal, activated carbon and synthetic materials), effective backwashing, and the pros and cons of disinfection agents like chlorine and ozone. She also brings in photos of water treatment plants to put the material in a real-world context.

One student, Keith Muhlestein, asks about the use of carbon nanotubes in filtration, which generates a brief discussion about this promising area of research. Muhlestein is licensed by the State of Texas as a professional geologist. He operates a consulting firm that focuses on water quality and quantity issues, aquifer studies and regulatory compliance for government, manufacturers, realtors and others. His next class presentation focuses on ozone compliance issues in San Antonio and surrounding counties. For his doctoral research, he's using thermal imaging to study cave ventilation over the Edwards Aquifer recharge zone.

The diverse backgrounds of her students mirror the kind of interdisciplinary profile that real-world environmental problems require, says Shipley.

"Environmental problems are complex, and so to solve something you have to put together a team and a mix of collaborative backgrounds," Shipley says. "I don't think one technology is going to solve everything."



Why Jane and Johnny Can't Factor a Polynomial

University taking steps to address the nationwide shortage of scientists and engineers

BYLETY LAUREL

he word problem is familiar: A train leaves the station at 3 p.m. going at a speed of 65 mph. Two hours later, another train leaves the same station traveling the same direction at 80 mph. At what time will the second train catch up to the first?

"Who cares?" you might say—at least if you're American.

It's no secret. The U.S. is lagging far behind the rest of the world in the number of professionals trained in science, technology, engineering and math, often called STEM fields. According to a 2005 study by the National Academies, which advises the federal government on issues of science and technology, 32 percent of U.S. undergraduates receive their degrees in science and engineering each year. Compare that to China, which boasts a rate of 59 percent, or Japan's 66 percent. In another study, called Tapping America's Potential, conducted by the nation's business leaders, more than 90 percent of all scientists and engineers in the world are expected to be living in Asia by 2010.

Educators, scientists, engineers, politicians and business leaders know that the ability to answer the simple word problem above is crucial to the nation's future. It's not because trains themselves are the issue, they say, but it shows a skill-set and critical thinking capability that American students lack today. And, as the saying goes, knowledge is power.

"Our dominance in the world—our economic dominance as well as military dominance—everything is based on our technological dominance, which started during the Second World War," says Mauli Agrawal, dean of the College of Engineering. "We have been No. 1 in the world. We create the new technologies, hence the new businesses. And that dominance is now not assured because other countries are catching up, and they have larger numbers in terms of people, so there will be a lot of competition."

As America's competitive edge plummets, it is followed by a decline in the number of jobs available in the country. Along with that comes a drop in average household income. To help curb this downward spiral, UTSA is making strides to increase the number of students involved in STEM fields, from elementary to graduate school.

"There's a very urgent need for more students in STEM areas," Agrawal says. "Our future, the future of this country, will depend on that."

The Pipeline

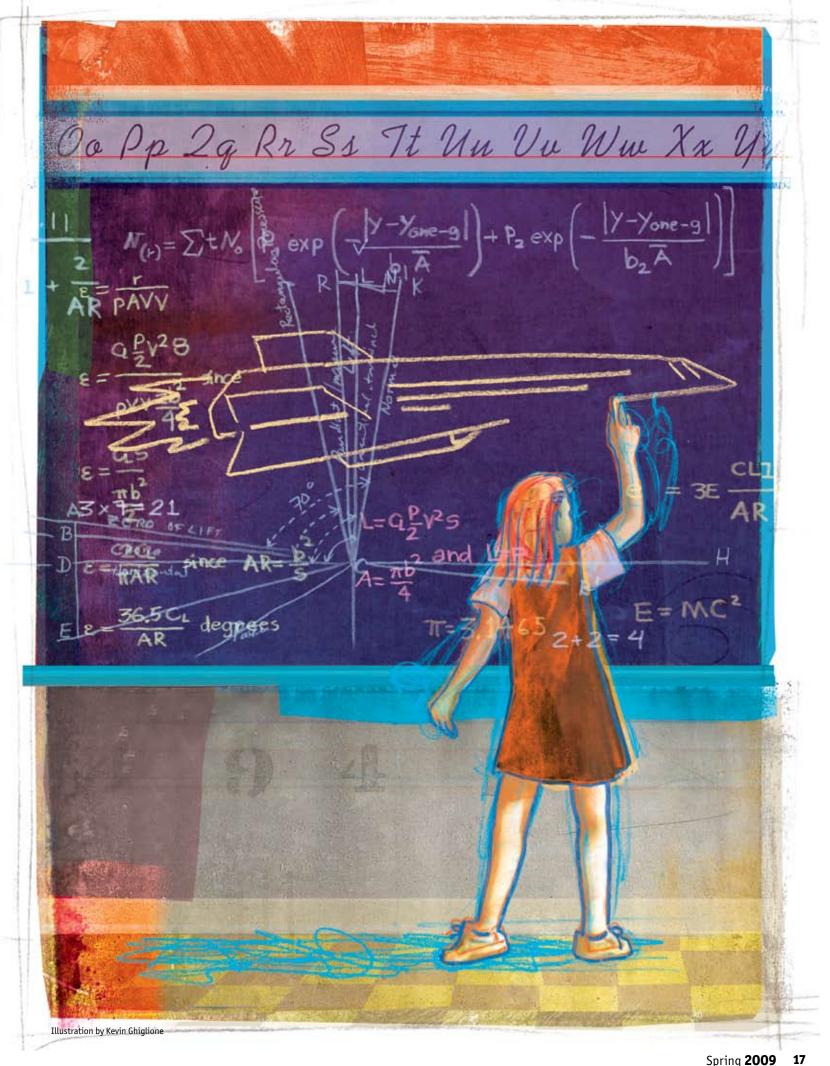
Changing the course of the nation won't be easy. In Texas alone, the numbers are grim. In 2000, the Texas Higher Education Coordinating Board adopted Closing the Gaps by 2015: The Texas Higher Education Plan. Among other things, it called for increasing the number of students completing bachelor's and associate degrees and certificates in STEM areas from 12,000 in 2000 to 24,000 by 2010, with an ultimate goal of 29,000 by 2015.

Yet in a 2008 progress report, the board reported that the number of degrees and certificates awarded from public institutions in technology, including the areas of computer science, engineering, math and physical science, had risen to only 12,666 in 2007. To stay on track, institutions must award 89.5 percent more technology degrees and certificates

"We're trying to close the gap in a lot of these things, but we're not there yet," says Robert Gracy, UTSA's vice president for research. "It's not uniquely UTSA. It's all across the country and certainly in Texas."

If educators wait until students reach college to whet their interest in STEM fields, it's already too late. Many of the country's future scientists and engineers are being lost in second and third grade, says Aaron Cassill, director of STEM initiatives for the College of Sciences.

"We will succeed [at the college level] when we have the good clientele, the good students coming through the door," Cassill says. "In order to have the good students, we have to think all the way back to elementary school and make sure that there's a pipeline that goes from elementary to junior high through high school and then finally deposits to us students who are excited and ready to go on in our areas of study."



16 UTSA Sombrilla

It's a popular theory. In every pipeline, if there are leaks anywhere within, there's nothing coming out of the tap at the end. So UTSA is taking a multipronged approach. Get children interested—and suitably educated—when they're first introduced to math and science, and keep their interest until they graduate high school, enter college, receive their undergraduate degrees and then continue on to graduate-level coursework and, hopefully, careers. And "what drives the pipeline is teachers," Cassill says.

Teachers can disseminate complex information to their students, and they can convey the importance of the information or skill. The greatest impact comes in the number of students they can influence.

But there are holes in this part of the pipeline, too. According to the Closing the Gaps report, Texas also is lagging in the number of teachers certified in math and science. Since 2000, certifications have grown by 41 percent, but they needed to grow by 120 percent to stay on track to meet the state's 2010 goal of a total of 5,400.

Another challenge is teacher retention. Nationwide, 46 percent of those teaching STEM courses in kindergarten through 12th grade leave within five years, according to the Business-Higher Education Forum, a group of CEOs, college and university presidents and others working to strengthen the nation's competitiveness.

That is higher than teachers of other subjects, says Joe Lazor, director of UTSA's math and science teacher preparatory program. One reason attrition rates are so high for all teachers is the strain of working with children all day, with little or no adult interaction. But the reason it's particularly high among those teaching STEM fields is because of the misconception that math and science are too difficult and, for some, unnecessary, Lazor says.

"There is a bias against STEM," he says. "There's a frustration built into math and science teaching because you're looking out there and there are students who have the same perception: 'I can't do this.' It's a real task to teach math and try to convince an entire class that everybody can do algebra, not just the 'smart' ones."

So in 2003, UTSA established the teacher preparatory program, which allows undergraduates to explore teaching careers in math and science while completing their degrees in the College of Sciences. By the first semester, students are already integrated in an elementary classroom, first observing the teachers, and eventually leading the class.

From there, they go on to help teach high school classes. By the time they graduate, they have received a degree from the College of Sciences and teaching certification from the College of Education and Human Development. But more important, Lazor says, they have received classroom experience. So far, the program has about 80 students enrolled. Already about a dozen have graduated and have moved on to teach.

"I have the goal that we'll be the biggest program producing science and math teachers in the state, and I think we can do that," says John Frederick, provost and vice president for academic affairs.

To play a more active role in early science and math education, Cassill says there's also a move to get university faculty more involved in primary and secondary education by mentoring teachers already leading STEM classes.

"If we can, say, spend an hour and get 35 teachers excited, and each of those teachers goes and they have six periods a day with 20 kids in each class, you just multiplied your efforts by 120," Cassill says. "Teachers are the crux point, they are the amplification point. If we can get them excited, and they can get their 120 kids that they're working with excited, that might stretch on for five or six years. You've just done a heck of a lot of good in terms of the number of students who might be able to go on and work in our fields later on."

It's this same theory that drives another initiative spearheaded by UTSA, this one designed to bridge the gap between secondary and higher education. The San Antonio Math and Science Education Partnership is supported by a two-year, \$300,000 planning grant received from the National Science Foundation. Its purpose is to bring together educators citywide, from teachers and school district superintendents to faculty and staff from community colleges and universities, to meet with business leaders. Together, they tackle critical education and workforce development issues, such as the sometimes rocky transition from high school to college, and work to determine how to make students successful in STEM fields.

Educators know that while it's important to attract and hold students' interest in the STEM fields early, it's also critical that all schools collaborate to align their curriculums so that when it is time for students to specialize in a field in college, they will be prepared.

"We must light the fire early but also keep the fire alive," Agrawal says.

If the partnership can demonstrate that citywide collaboration can make a significant impact on the number of those entering STEM fields, San Antonio could receive a \$12.5 million grant from the NSF to launch a citywide program.

It's Not Just Child's Play

Math doesn't have to be intimidating. And science and engineering can be enjoyable. But those messages seem to have been lost and forgotten, educators say. So they're trying to fuel the fun factor. Individually, the colleges of sciences and engineering have reached into elementary, middle and high schools to attract future UTSA students through science fairs, camps, math competitions and robotics challenges. And when the university's new engineering building opens later this year, it will house the Interactive Technology Experience Center, which will cater to students from kindergarten to 12th grade by providing a place for them to explore the STEM fields using university-grade equipment.

"Our intention is to make it a gee-whiz place where students from schools can come in and do some interactive things as well as some scientific experiments," Agrawal says. "The goal is they leave the place saying 'Wow, science and engineering are cool."

The center will house a \$180,000 scanning electron microscope, allowing students to see specimens in micro levels they'd never see otherwise, he says. In time, students will be able to link into the microscope from their classrooms through the Internet and manipulate images of their specimens. ITEC also will host robotic sumo wrestling competitions. This contest will eventually go online, allowing students from all around the world to compete against each other.

Agrawal says the center will be part science museum, with machines and devices produced by UTSA engineering students on display, and part interactive learning center. George Perry, dean of the College of Sciences, says this approach introduces children early to STEM fields but also acquaints them with the university. It's good exposure for them as well as for the school, he says.

"At the end of our science camp, two or three students thought UTSA was where they wanted to go," he says. "Whether they come to us or don't come to us, they are going to tell their cousins, siblings and friends at school positive things about us and will be actively involved in the sciences.

"That's how I feel we can change things. It's not going to happen in one day but over a decade of effort of slugging it out and doing a good job."

Similarly, the university's Prefreshman Engineering Program (PREP) has reached out to middle and high school students since 1979. Created by UTSA math professor Manuel Berriozábal, PREP provides an advanced curriculum to teach problem-solving skills over a seven-week period

"It's a real task to teach math and try to convince an entire class that everybody can do algebra, not just the 'smart' ones."

during the summer. It has been replicated nationwide.

By focusing on a rigorous mathematics-based curriculum, which includes building bridges out of spaghetti and launching rockets, students learn that they can achieve in STEM fields, and enjoy them too. In the 30 years since PREP was founded, more than 25,800 students have completed at least one year in the program. A large majority of PREP alumni—99 percent—go on to colleges or universities and of those, 82 percent graduate. Almost half of all program participants pursue STEM fields. PREP will also extend to an elementary school program to reach students at an even younger age.

"Now we will have a pipeline that extends from elementary, through middle school and high school," Reyna says.

Closing the Gaps

Despite a dwindling enrollment in STEM fields statewide, UTSA's College of Engineering has seen its numbers double since 2000 from 1,020 to 2,200, and Agrawal says he doesn't see any leveling off in the future. The college also is ranked among the nation's top 10 universities graduating Hispanic engineers.

In the College of Sciences, enrollment is close to 5,200, and officials want to increase the number of students seeking advanced degrees. This year there was a doubling of applications for master's and doctoral programs. The college is ranked No. 1 in the U.S. in the number of minority undergraduates obtaining a degree in biology and No. 2 for the number of undergraduates earning a degree in math.

But even with those impressive figures, there's still work to be done at UTSA and other institutions around the state. Closing the Gaps might be just a recommendation, but failing to work toward it will be detrimental to the country, and specifically to San Antonio, Perry says.

"We have a choice, and people don't have to meet the goal, but what would be the consequence for our community? I think it would be incredibly negative," he says. "UTSA is our community college, not meaning junior college, but it is a university that really reaches out to our community. And for our community—greater San Antonio and South Texas—to move forward requires that we embrace that.

"When companies want to relocate to San Antonio and share the wonderful culture that is here, they also have to look for an educated workforce. And that's what UTSA's role is, providing that educated workforce."

To reverse the national downward trend of students involved in STEM fields will continue to take effort at local, statewide and national levels. But Frederick says the university is doing its part to churn out the world's next engineers and scientists.

"I think that this institution has tried to rise to that challenge," says Frederick. "I think one of the areas that we continue to focus on, though, is making sure that students are prepared when they come to the university. And so I think you'll see us engaging in a lot of efforts to work with high schools and community colleges so that we are providing a good system of education for all of our students so that when they come to UTSA and encounter the rigors of our classrooms, they are ready to meet those challenges." **



BY **REBECCA** LUTHER

oving away to college used to mean packing up a typewriter, hot pot, desk lamp and a spare bath towel. Maybe a set of extra-long twin sheets, too, although John Kaulfus remembers that most of the boys in his dorm just slept in sleeping bags on top of bare mattresses.

"When I went to college, I was able to fit everything I owned in the trunk of my car," he says.

All that has changed, says Kaulfus, executive director of housing and residential life and associate dean of students at UTSA. When the 3,500 students living on the UTSA campus moved into their residence halls at the beginning of the fall semester, they brought microwaves, flat screen TVs, and matching comforter and sheet sets (the female students often go for coordinating window treatments, too, Kaulfus adds).

"The students of today, they're used to those luxuries at home and they're not giving any of those up," he says. "They don't feel like they can live without their computer; they don't feel like they can live without their PlayStation. ... So when they come, they make this a home away from home—and it's what we encourage, because if they're happy, they're more likely to stay."

What hasn't changed since Kaulfus went to college is the mementoes that students still bring from home, security-blanket items that might not be a necessity for modern living but that they still don't want to do without. Sombrilla asked nine UTSA freshmen living on campus to share with us the items they brought to college that most remind them of home. Here are the things that they say ground them and guide them as they're living on their own for the first time.

Clarisa

Clarisa Medina isn't the first in her family to go to college, but she's pretty sure she's the first female on either her mother's or father's side of their large extended family to move away from the Rio Grande Valley. "It was a big deal for me to leave, because I'm a girl and I'm the youngest," she says. Despite missing their youngest daughter, she says, her family has been supportive of her decision to go away to college. "I wanted to get out and experience life," says Medina, a biology/prenursing student. "I knew if I didn't get out of the Valley now, I wouldn't have got out at all." What she brought to college to remind her of home is her Batman blanket, a gift from a friend during her freshman year of high school. One of her older brothers has long been a fan of the Dark Knight, and he passed his enthusiasm for Batman cartoons, action figures and movies to his little sister. "It's kind of my security blanket; I had to bring it with me 'cause it keeps me warm, and if I'm ever feeling lonely—especially because of college and I'm away from all my family and friends—it gives me comfort." And even though it was her decision to move away from home, Medina insists, "I need my comfort."





Anton

All through high school, his Dell laptop was **Anton Moczygemba**'s constant companion.

Moczygemba graduated from the Engineering and Technologies Academy at Roosevelt High School in San Antonio (after transferring from Churchill so that he could take more technology courses) with more than a diploma. During high school, he also earned five certifications as a Microsoft Certified Professional, and he did all the work for those on his laptop.

"I've put this thing literally through laptop hell," says Moczygemba, a computer science major who chose UTSA for its infrastructure assurance and security program, which he plans to minor in.

At UTSA, he is still the go-to IT guy among his friends, but now his laptop has been supplanted by new technology—his iPhone, which, he says, "has changed my life."

"Three days after I got this, I didn't even use my PC; I didn't need it anymore."

The laptop and the iPhone, Moczygemba says, are symbols of his past and his future, and even though the iPhone is his favorite new gadget, he says he's not ready to let go of the laptop. "This reminds me of all I've been through."

Kris McMeans of Austin says she can't function without her wristwatch and her laptop. She also has a baby photo of her younger brother that she cherishes now that she's left home. But McMeans insists that the most important thing she brought to college was herself. "I'm bringing my attitude and bringing my personal outlook on life, my openness to new things—basically my versatility as a person," she says. For McMeans, that means expressing herself through fashion, whether she's wearing boy jeans or dresses. It means exposing herself to new experiences and meeting new people, something college affords lots of opportunity for. "You can be your own person, and everyone accepts you for who you are. And that's why I love it so much, is that you get to be yourself," she says. "I love that there's no drama in college whatsoever." As for her college studies, McMeans also is remaining flexible and keeping her options open. She has considered business and criminal justice. A high school athlete whose primary indulgence is going to the Rec Center too often, she also has thought about kinesiology. Law school holds a lot of appeal, too. But for all her flexibility, McMeans is diligent about certain things. She's never late for class and keeps her cell phone turned off between classes so she can study. She doesn't drink and "drugs are a flat-out no-no," she says. "I know not to go outside the lines. Well, OK, I go outside the lines, but I don't go across the page."





The inscription in **Diane Gilbreath**'s Bible is dated April 2006—when she became an evangelical Christian—and it reads, "Diane, God's face shines upon you." The Bible is a gift from her older brother, who intervened after she'd quit going to church a couple of years earlier.

"He could tell my life was not where it needed to be," she says. "One day he woke me up and dragged me to church. I was hooked the first day I went. I felt like I finally had a purpose in life. I was saved a couple of months later."

As she begins her college studies, Gilbreath, who is from Dallas, is as persistent in continuing to study her Bible, and notes that it contains as many notations and highlighted passages as her textbooks do.

"If I ever have doubts about things, I know that I can come to this and find truth in it," she says. "It's kind of like my safety blanket or my teddy bear. I like to look in it as often as I can, to keep me strong in my faith."



Sitting on a shelf in his room is the teddy bear that **David Suarez**'s mother gave him the night he graduated from Austin's Lake Travis High School.

"I got a laptop, too, but this is more meaningful to me," says Suarez. "It reminds me that I graduated from high school and succeeded in going to college."

The cap-and-gown-wearing bear serves as another reminder, too, he says: that he needs to work hard in school so that he can take part in another commencement ceremony several years from now.



Stephanie

When Stephanie Rivera went through sorority rush at the beginning of the school year, she had to go buy dress shoes to wear to rush parties. Disappointed that she wouldn't be able to go along for the shopping trip, Rivera's mother asked her daughter to indulge her with a simple favor: "E-mail me a picture of your shoes." Then, when Rivera pledged a sorority and her mother wanted to know all about pledge night, Rivera promised her, "I'll just send you pictures; it's easier to relate to you that way." Her mother has always been a shutterbug, Rivera says, and has an entire bookshelf dedicated to photo albums at their home in Corpus Christi. Now that she's away from home, Rivera says she is documenting her life the same way her mother used to—by carrying her pink Cybershot camera with her wherever she goes. And her memory card is full of photos of her friends—from high school and college. "I can look back on my friends from home, but it also reminds me that I can make more new memories."





When his mother and aunt helped Michael Adame move from Houston into his new residence hall at UTSA, they were disappointed to discover that he'd brought with him what they considered a vestige of his childhood—his Harry Potter wand—and they made him promise he'd keep it hidden in a drawer. "They said, 'Do not take it out!" Adame says. The wand is a reminder of his childhood, he admits, and of the days he and his younger twin brothers spent running around their home on broomsticks, pretending they were students at Hogwarts School of Witchcraft and Wizardry. The wand was a gift from his father for Christmas four years ago, and Adame remembers that it was the very last present he was handed that Christmas morning. "My dad got me all these other things—and they were good things, too, like video games and stuff other people would have liked—but I had my mind set on this wand," he says. "I was so happy. ... I walked around with it forever." Since he's keeping his promise to keep the wand under wraps (except for the day of our photo shoot), Adame has another security-blanket item: a comforter cover he keeps on his bed. Which, he notes, can also double as a Harry Potter cloak.





"I picked a major when I was 10," says **Megan Moore**. That's when the Pflugerville native started paying attention to and analyzing television commercials. When she got a little older, she asked her mother to buy her a video camera and she began scripting her own commercials and recruiting friends to star in them.

Now majoring in marketing in the College of Business, Moore says she has requested that her roommates at UTSA not mute the television during commercials, and she enjoys it when people ask what her major is. "I say, 'Oh, I'd love to tell you all about it."

Moore counts among her prized possessions a Willow Tree Angel of Learning figurine, a graduation gift from her aunt, who happens to do public relations for an advertising agency. "It's really important to me to have someone that's close in my life that's doing something along the lines of what I want to be doing," she says, adding that she calls both her aunt and her mom whenever she aces a test or completes a project.

The five-inch tall resin figurine is more than just a reminder to put everything she has into her schoolwork; Moore's mother and aunt both collect Willow Tree and, with this gift, she feels like she's been brought into their family tradition. ★







MANNY FLORES

UTSA alumni Ernest Bromley and Manny Flores prove marketing en español is no longer a niche

BY LETY LAUREL

rnest Bromley still has the 200 or so rejection letters he received when trying to land his first marketing job. They sit in a box in his basement and remind him of how hard he had to struggle and how far he's come.

But they're not just a marker of his success. They also symbolize the strides made in Hispanic marketing over the decades. As Bromley rose to become CEO of San Antonio-based Bromley Communications, one of the nation's leading Hispanic marketing firms, ad spending toward the Hispanic market soared nationwide. Today, it is a \$4 billion industry, one that has continued to post gains even with the country in the midst of recession. And, UTSA alumni who years ago identified Hispanics as the newest niche market are reaping the benefits.

"What you're seeing is such a tidal wave of change in terms of the demographic shifts that have put this company in a great position," Bromley says. "Yes, we're a Hispanic agency, but you know what? We speak English, too."

In 2007, there were 45.5 million Hispanics nationwide, comprising the largest racial minority group at 15 percent of the population. That number is expected to grow to 132.8 million by 2050, according to the U.S. Census Bureau. Along with the population growth comes an increased estimated purchasing power. Currently about \$923 billion, it is expected to top \$1 trillion by 2011, according to studies conducted by the University of Georgia and by market research groups.

"It's really becoming this new America that we talk about, and we really have to represent creative [messages] that are not stereotypical, but that have respect for that consumer," says Manny Flores, CEO of LatinWorks, a top-rated Hispanic advertising agency in Austin. "It's not about sombreros and Hispanic ladies in kitchens, cooking."

Instead, it's about effectively communicating with a population that for so many years was underrepresented in advertising, these strategists say. Bromley, who received his bachelor's in political science in 1978 and his

M.B.A. in 1980 from UTSA, likes to use sketches to describe the dimensions of the Hispanic market.

"You have the total market, which they have been calling the general market," he says, drawing a large circle. Then, drawing a smaller circle within, he says, "Then you have the Hispanic consumer market. This little bubble has been growing. These folks have their cultural impacts that are way beyond their numbers."

Within the smaller circle is an even tinier group of Spanish-dominant Hispanics, for whom, Bromley says, the English message isn't clear. It's that population that his company targets.

Both Bromley Communications and LatinWorks have thrived. The trade publication *AdvertisingAge* ranked both within the top 10 Hispanic agencies in the U.S. in 2007 according to revenue. Bromley was listed at No. 5, with \$22.6 million in revenue, a slight drop from the previous year. LatinWorks ranked ninth, with \$17.2 million in revenue. That represented a 9.3 percent increase from the previous year.

In Bromley Communications' 27-year history, the company has grown from three full-time employees to 140 in two cities. They serve more than 20 clients, including Procter & Gamble, General Mills, Yoplait, Nestlé, Payless ShoeSource, Coors Brewing Company, AstraZeneca, Novartis, Babies 'R Us and BMW.

Flores' LatinWorks, which he opened in 1998 with one other person, has now grown to 100 employees, and clients include Domino's Pizza, the Spanish-language sports network ESPN Deportes, U.S. Cellular, Hyundai Motor Co., H-E-B, Lowe's, MARS, the Texas Lottery, Kimberly-Clarke, Budweiser, Bud Light Lime and Shell Motor Oil.

Tapping into Hispanic Roots

With a mother from Puerto Rico and a father from Canada, Bromley grew up in a bilingual as well as bicultural household in Pensacola, Fla. The family later moved to Mexico before relocating to San Antonio. That's when they discovered the various colorful dialects spoken by U.S. Latinos.

"My brothers and I were struck by the fact that there were Mexican Americans that spoke beautiful Spanish, there were Mexican Americans that were bilingual, then there was a bilingual side that we didn't quite understand—the Spanglish kind of bilingual," Bromley says. "Then there were Mexican Americans that spoke no Spanish at all and were completely English monolingual. For me, I was very intrigued by all that."

In college, Bromley studied politics and the history of the Southwest. After graduation, he worked as a pollster focusing on Latino voting behaviors. But after supporting liberal candidates who lost "in a blaze of glory," he decided to return to UTSA for an M.B.A.

While working on his degree, Bromley began researching consumer behavior among Hispanics. "I positioned myself as an M.B.A. with an emphasis on cross-cultural marketing. And I wanted a market research job," he says. "So I sent my résumé out talking about this market and how it was growing, and the need for a bilingual cross-cultural market research expert in their research department. Nobody believed me."

That's when Bromley accumulated his collection of rejection letters. In a bind, he accepted a job offer from UTSA to become a teaching assistant for a microeconomics class. Fearful that a student would ask a question he couldn't answer, he over-prepared for the course, which he now credits with teaching him how to build a successful business.

A networking opportunity set him up with Lionel Sosa, a local advertising guru focused on the Hispanic market. Sosa was about to launch his own company, called Sosa & Associates, and offered Bromley a job with one large catch—no salary.

Bromley took it. For about six months, he juggled his teaching job with his position as a research analyst for Sosa. Then in 1981 they won their first account, for the Universal Studios film *Zoot Suit*, a movie set in 1940s Los Angeles about a group of Mexican American men rushed to jail for murder without substantial evidence.

"That movie has a special place in my heart because it funded my job,

plus it's a good story," Bromley says. "My salary was much lower than the rest of my M.B.A. cohorts, but I didn't care. This is what I wanted to do."

Four years later, Bromley was named a partner and chief operating officer in the company that would eventually carry his name. By 1998, he owned 51 percent of the company. The remaining 49 percent is owned by Publicis Groupe, a Paris-based holding company and the fourth-largest marketing communications service agency in the world.

At about the same time Bromley was offered his first marketing job, Manny Flores stumbled into the marketing world as well. He had entered UTSA as a small-business entrepreneur and wanted to get his degree in marketing and management to help with his fiberglass repair shop. A chance encounter with an employee of Anheuser-Busch led to a job offer, and after he graduated in 1980 with a bachelor's degree in business management, he went to work for the beer giant.

"They hired me because I had some Spanish-language skills," he says. He began in an entry-level position, working on merchandising, sales promotion programs and special event programming and quickly moved up in the company.

Shortly after starting what would become a 19-year career with Anheuser-Busch, Flores helped launch a new brand of beer, Budweiser Light, communicating with consumers and giving them compelling reasons to try Bud Light instead of Miller Lite. His success with the launch propelled his quick ascent. He was named a team supervisor, then became area manager in El Paso, and soon after was named district manager for Corpus Christi and San Antonio.

Six years later, he was selected to become the national Hispanic marketing manager for Anheuser-Busch, running all ethnic marketing programming out of the company's St. Louis, Mo. headquarters. Eventually he moved on to general market assignments but continued to be the

"go-to guy" for Hispanic and contemporary adult marketing. A job as vice president of marketing development soon followed.

After working for the company for almost two decades, Flores decided to open his own advertising agency with a friend. "We had worked with a lot of agencies at the time and most agencies back then really lacked strategic thinking. They didn't listen and managed resources poorly and didn't meet expectations," he says. "We wanted to do battle in that area and challenge the traditional mindset of clients in our space. We did just that."

LatinWorks was founded by Flores and partner Alejandro Ruelas in 1998 in a basement in St. Louis. In 1999, they moved to Austin and opened their fledgling business with Miller Brewing Company, Beech-Nut baby food and Ralston Purina Co. as their first clients.

In 2007, advertising conglomerate Omnicom Group Inc. bought a minority stake in the company. And this year, LatinWorks bought the Dallasbased Hispanic ad agency Cultura. It was the company's first acquisition. "It's been a great run," Flores says. "We've received some accolades."

Those accolades have included winning highly competitive and coveted 30-second commercial spots during the Super Bowl, typically the most-watched television program, in 2007 and 2008. Both spots for Anheuser-Busch, featuring comedian Carlos Mencia, were named No.1 in polls across the country in consumer reaction. Last year's ad earned a bronze advertising award at the Cannes Lions International Advertising Festival in France. The company has also earned honors in *AdvertisingAge* magazine, advertising and marketing awards and interactive media awards, including some from Latin America.

The Changing Market

Ethnic marketing is so effective because it sends a message of respect for different cultures, says Daniel Tablada, lecturer in the College of Business.

"It's pride in their roots, that's the main reason [this marketing appeals

to Hispanics]," says Tablada, who teaches the university's Spanish-only marketing class, the first of four Spanish-language courses being offered in the College of Business. "In most instances, even though they do speak English and they do understand English, they feel that if you give it to them in Spanish, you're respecting or understanding their roots and making an effort to communicate with them.

While Bromley and Flores had to work their way into an emerging and growing niche, UTSA business and marketing students today are in a prime position to enter the field. One such student, Michelena Ramirez, quickly recognized that in this part of the world, knowing both languages, as well as the values that make up the individual cultures, is important. Worldwide, the size of the Hispanic population of the United States is second only to Mexico's, according to the U.S. Census.

"We know what they want, what they need and what they are looking for," she says. "We are one of them." And although many Hispanics may speak English at work and school, they're living in a Spanish world at home. "You speak the language, but then you go home, listen to your country's music, watch your country's TV programs. You're involved in everything that surrounds you that is American, but back home, it's you and your roots."

Agencies that once appealed only to mainstream audiences are taking notice. As the number of Hispanics and their purchasing power has soared, so has the desire to reach that once-small, underserved bubble.

Twenty-five years ago, advertising budgets were small. Bromley's clients typically spent \$500,000 to \$2 million on large-scale Hispanic marketing. Today, a smaller client might spend \$2 million, while larger clients spend between \$20 and \$50 million.

"And let me tell you, agencies besides Hispanic agencies would like to win the \$20 million business," Bromley says. So now, general market agencies are competing for the same business, resulting in a metamorphosis in mainstream marketing, he says.

"The general market is being redefined," he says. "And [it] is starting to look more Latino, or more ethnic, so the days of Ozzie and Harriet and blond hair and blue-eyed surfers dominating the market have stopped."

Almost half of the nation's Hispanics live in California and Texas. Texas is home to 8.6 million Hispanics, 36 percent of the state's population. It's a new America now, Manny Flores likes to say. "Multiculturalism is much more than a fad. It's a whole new cultural revolution," he says.

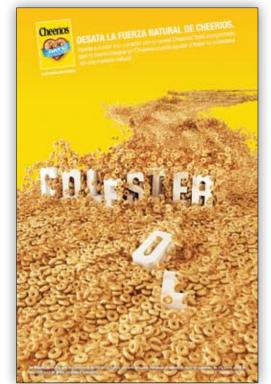
Again using a sketch, Bromley draws two C-shaped lines curving toward each other. One represents Anglos, the other, Latinos. He points to an area where the two lines almost meet. "This is us, in the middle," he says. "We straddle this world. We have gone to schools with Anglos over here, we know what makes them laugh, cry, we know their dreams, we know their jokes.

"This company that you're in is full of people like this, so we can do marketing communications targeting Anglos as easily as we can toward Hispanics."

As the country's population changes, a new communication is evolving. "The United States is becoming, ready or not, a very bilingual country," Bromley says. "You see it in popular culture. You see it in Anglos saying 'Mi casa es su casa' and they're welcoming other Anglos to their house and they know what they're saying. It's a very pretty evolution."

But three decades ago, Bromley couldn't convince the companies he applied to that this change was coming. It hurt then to get the rejection letters that still sit in that box in his basement, he says from a glass-enclosed conference room overlooking a sea of cubicles where dozens of his employees work. It doesn't hurt much anymore, though. Today, many of those companies are now his clients. **

BROMLEY COMMUNICATIONS Print advertising for Cheerios and Go-Gurt®, translated.



UNLEASH THE NATURAL POWER OF CHEERIOS.

An easy way to take care of your heart is with Cheerios® cereal, because it's been proven that whole grain oats in Cheerios can help naturally lower your cholesterol.



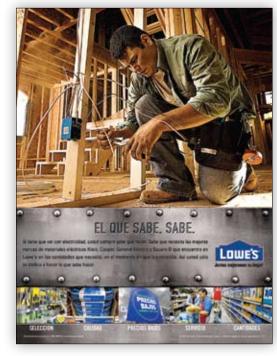
LET THEM GO ON.
Go-Gurt® is a creamy, delicious and nutritious yogurt that they can eat however, whenever and wherever they want.

LATINWORKS Lowe's print advertising



TURN YOUR PLACE AROUND

Giving your home a true transformation can be easier than you think. At Lowe's, we help you add your personal style with hundreds of options in paint, carpet, window treatments and storage solutions. All at prices that can't be beat—guaranteed. Come in to Lowe's and let your (wheels of) inspiration turn at a thousand (miles) per hour.



E WHO KNOWS, KNOWS.

If it has to do with electricity, you always know what to do. You know you need the best brands in electric materials from Klein, Cooper, General Electric and Square D. You'll find these at Lowe's, all in job lot quantities and all when you need them most. So you can focus on doing what you know/do best.

WEB EXTRA

To see commercials created by Bromley Communications and LatinWorks, go to www.utsa.edu/sombrilla.



Roadrunner Runway was a huge fall hit with Young Alumni. Coordinating the event were (left to right) Joey Ramos '00, Tammy Fernandez '06, Kristy Pacheco '03, Paul Ayala '03,'05, Jennifer Villarreal '06, Melissa Escobedo '03 and Rob Mendiola '01.

hen Melissa Escobedo Rosales graduated from UTSA in 2003, she couldn't afford a \$100 ticket to the Alumni Gala. So she got in the door by volunteering for the event instead.

"When I first graduated, I'd go to the general alumni mixers, and I found that I was at a different place professionally than the more experienced alumni," she says. "I didn't have that work experience, I didn't have that financial stability like a lot of these seasoned alumni have, who are established in their careers and are able to give back."

Recognizing that recent graduates have different needs than older alumni, the Alumni Association in 2007 established the UTSA Young Alumni. More than half of the university's 71,000 living alumni are age 40 or younger, notes Young Alumni President Paul Ayala '03, '05, and with each commencement ceremony, the numbers grow. The purpose of Young Alumni is to help those graduates reconnect with the university in ways that are meaningful to them.

To that end, Ayala notes, the group holds monthly events that are open to all Alumni Association members but targeted toward younger graduates. The events are

usually social in nature but also offer networking and professional development opportunities. Their biggest event to date was a fashion show where group members modeled business, business casual and lifestyle wear. "We did a wine tasting, which obviously was a good time, but also for young professionals it's important that they learn about wine and not to order a white wine with a steak."

Rosales, who serves as vice president of Young Alumni, points to the impact the group potentially can have with this success story: At a Young Alumni mixer last spring, she met a student who had just graduated with his accounting degree. Though he'd sent out a number of résumés his senior year, his commencement ceremony had come and gone and he didn't have a job. Rosales put him in touch with a contact at a local chamber of commerce, where he applied for a financial officer position. At the next Young Alumni event, the young graduate was back passing out his new business cards.

"It's a big deal, getting your first business cards, and he was so proud," Rosales says. "It's really rewarding to see that we are actually helping people, helping our fellow alumni." And that, she says, ultimately helps the university, too. 75 Linda Schultz Anderson, M.A. in education, is the founder of Mom to Mom Ministries, a biblically-based parenting program. A teacher and reading specialist by profession, Linda established Mom to Mom at Grace Chapel in Lexington, Mass., in 1991 and served as its teaching leader for 12 years. Since then it has spread to churches across the country. For more info, go to www. momtomom.org.

Patricia Morse-McNeely, M.A. in educational psychology, M.A. in counseling '81, has released a book of poetry, *The Inconstant Moon*.

82Marion Lee, B.B.A. in management, was honored with the Business Achievement award at the 2008 Small Business Leaders Awards luncheon by the North San Antonio Chamber of Commerce. Marion is a principal of charitable resource management group Bacon Lee & Associates.

83Les Coalson, M.B.A., was recently selected as chief, Services Division, at HQ Air Education and Training Command, Randolph Air Force Base, after serving eight years as the deputy chief. He has command responsibility for mortuary, child care and youth, dining, recreation, clubs and other programs at HO and is liaison with 12 AETC bases. He is busy promoting his second novel, Color of Blood, released by Eakin Press in June 2008. This suspense thriller is set along the Texas coast at one of the Environmental Protection Agency's largest Super Fund sites. Describing the book's plot, Les writes, "an environmental activist disappears while sampling for mercury contamination, launching a coastal search impacted by murder, kidnapping, pollution dumping, arson and racial issues." Les describes his writing as a blend of mystery and environmental fiction, and says he uses his academic studies in natural resources development as well as the M.B.A., along with his experience in operating recreation and park programs. His first novel, Sever the Darkness, was set in the Texas Hill Richard Holt, M.B.A. in business, was

named Bank of America market president for Dallas. As market president, Holt will serve as the senior executive for business, civic and philanthropic activities. Richard joined a Bank of America predecessor bank in 1978, and has been involved in real estate and commercial lending throughout his 30-year career. He has served as a commercial market executive for the past six years. He is a member of the Dallas Regional

Momentum Council for the Dallas
Regional Chamber, and has been affiliated with numerous educational, civic and community organizations, most recently the San Antonio Economic Foundation and the World Affairs Council. His past community service also involves serving on the Advisory Council for the UTSA College of Business, the Finance Committee of the Greater Chamber of Commerce San Antonio and the United Way of San Antonio. Richard lives in Dallas with his wife, Kathy; they have two children: daughter Korey, 21, and son Cullen, 16.

Don Barnes, B.S. in electrical engineering, was promoted to director of operations for the Harman-Becker facility in Franklin, Ky.

Meredith Hay, M.S. in neurobiology,

was named executive vice president and provost for the University of Arizona. She is a tenured professor in the university's College of Medicine and specializes in gender physiology and the differences in males and females in neurocontrol on the cardiovascular system. Meredith previously served as vice president for research at the University of Iowa from 2005 to 2008. She earned her doctorate in cardiovascular pharmacology from the UT Health Science Center at San

Cynthia Greenwood, M.A. in English, is the author of *The Complete* Idiot's Guide to Shakespeare's Plays (Penguin/Alpha Books, April 2008). She is an editor, writer and performing arts critic based in Houston. For the last 10 years, she has reviewed opera, theatrical productions, ballet and classical music. She also taught English and American literature and introduction to film to undergraduates at Wharton County Junior College for nine years. "While I left full-time teaching in 1998, I continued to seek out opportunities to write about my literary passions," Cynthia writes. "Two years ago while in New York, I pitched an editor on my idea for a new Idiot's Guide to Shakespeare's plays. I learned that I would receive a contract to write the book in early 2007, but then quickly learned I would only have about seven months to write the book. The experience was tough, invigorating and terribly satisfying, nonetheless." Learn more at www.cynthiagreenwood.com.

James Helton, B.M. in piano performance, is associate professor of music performance at Ball State University, where he teaches studio piano. He has performed throughout the United States, as well as in Spain and the Czech

Republic, and has had the pleasure of working with Pulitzer Prize-winning composers George Crumb, William Bolcom, Lucas Foss and Joseph Schwantner in concerts broadcast over public radio and television. James completed his master's and doctoral degrees at the University of Illinois at Urbana-Champaign and served on the faculties there and at Vanderbilt University before joining Ball State in 2000. He is a member of the College Music Society, Phi Mu Alpha, Phi Kappa Phi and Pi Kappa Lambda. He is a member of the Music Teachers National Association and currently serves the East Central Division as coordinator of the high school performance competitions. He serves on the Indiana MTA state board as chairperson of MTNA collegiate performance com-

90 Marco Alarcón, B.F.A. in architectural design, is the owner of Alarcón Design, an Atlanta-based graphic design studio. Founded in San Antonio in 1991, Alarcón Design serves clients nationwide, including Taco Cabana, JP Morgan Global, Church's Chicken, the United States Air Force, the San Antonio Tourism Council, the University of Texas, Emory University and the YMCA, among others. Marco moved the business and his family to Atlanta when his wife, Amy, formerly director of research and development for Taco Cabana, was offered a job as culinary director at a national restaurant chain. "I have found a few authentic taco joints [in Atlanta] but no Tex-Mex, obviously," he writes. "Since I married the chef from Taco Cabana, the best tacos come from home." Marco was also happy to find plenty of Spanish speakers in Atlanta: "We live by Emory University and the CDC, so my neighborhood has a huge mix of cultures very cool for us and especially our girls." Marco and Amy have two daughters, Sophia, 7, and Lily, 5, as well as one dog, one cat and four fish.

Michael Bruce, B.S. in physical education, M.A. in education '95, returned to his home state of Michigan to accept a job as principal of Mount Clemens High School. Michael previously served as vice principal at Tom C. Clark High School in San Antonio.

91 Eric Mapes, B.B.A. in management, is the author of *Streets of San Antonio*, which offers a historical perspective on the 19th-century immigrants who helped build San Antonio. Eric began working on the book four years ago when he started researching the history of Coker Elementary School and Coker United Methodist Church, both of which he

Jerry Deitchle, M.B.A. '75

Savoring His Role

or one UTSA graduate, the year 1975 can be described in one word: exciting. That's the year the university opened its main campus, allowing Jerry Deitchle to leave the Koger Center, where classes had been held, and take his final M.B.A. courses at the new site.

"That was really nice to be able to leave the Koger Center, which was an office park, and to really go to the main campus of the university. It was new and wonderful. It was just a wonderful time back then."

Deitchle, chairman and CEO of California-based BJ's Restaurants Inc., continues to marvel at the growth of the university.

"In business today, an M.B.A. is kind of a union card. If you don't have that union card, it's very, very difficult to compete for a lot of positions in business. UTSA enabled me to have the opportunity to get that union card. It has significantly made a difference to me as I have worked throughout my career," he says. "As the reputation of the institution has grown, the value of that M.B.A. has also grown."

As chairman and CEO, Deitchle is responsible for BJ's more than 75 restaurants (the 75th opened in San Antonio in 2008). The popular national chain features more than 100 items, but its deepdish California-style pizzas,

handcrafted beers and its Pizookie dessert are its signatures and, Deitchle says, his favorites.

The John Marshall High School graduate has been married 37 years to Jefferson High grad Sandra Schoenert; the couple has a grown son and daughter. Now living in Ventura County, Calif., Deitchle likes to golf, play the guitar and surf.

"When I grew up in San Antonio we would watch the *Gidget* movies and the Frankie Avalon and Annette Funicello beach movies; this was back in the mid-'60s. So a couple of my buddies and I went down to Port Aransas and started surfing," Deitchle recalls.

Although free time has become a luxury over the years due to the demands of running a national

company, Deitchle says the restaurant business is something he enjoys. Before BJ's, he worked in restaurant and recreational management as an Air Force civilian, then as an accountant for Church's Fried Chicken. He later served as president of The Cheesecake Factory Inc., before becoming president of Fired Up, Inc., which owns Johnny Carino's Italian restaurants.

"The restaurant business is a highenergy business. It's a fast-paced business. It's a business that can be easily identified and connected with," he says. "It requires a lot of physical energy, a lot of mental energy, and it keeps you young. So I guess that's kind of why I've been in it for over 30 years now." —Lorna Stafford

attended as a child; the project soon evolved to include more of the city's original settlers for whom so many streets are named, from Ackerman to Wurzbach. "My hope for the readers of this book is that they not only will learn about these founding families, but also come to understand the importance of conserving as much of their legacy as possible," Eric writes. E-mail Eric at eric@streetsofsanantonio.com.

Darla Royal, B.F.A. in art, is an art

Darla Royal, B.F.A. in art, is an art teacher at Pleasanton High School in Pleasanton, Texas. She has worked for the Pleasanton Independent School District for 17 years. Darla was selected

by the Brush Country Art Club as the featured artist of the month for September 2008. Children at play and scenes from nature are recurring themes in Darla's work. Her children, grandchildren, nieces and nephews are often the inspiration for new compositions. Darla earned her master's degree in instructional technology from Texas A&M University at Kingsville.

Barbara Spinner, B.A. in sociology, is director of stewardship and development for the Archdiocese of San Antonio. In August 2008, she was honored at Assumption Seminary's Leadership in Faith and Service Awards Gala for her contributions to the archdiocese. She was development director for two of the largest fundraising campaigns in the history of the San Antonio Archdiocese: San Fernando Cathedral's City Center campaign, which raised \$21 million, and Assumption Seminary's \$13 million capital campaign.

92Victoria Ford, B.A. in political science, M.P.A. '00, is a government affairs adviser at K&L Gates. Victoria previously worked in the Texas governor's office, most recently as Deputy Legislative Director and Senior Advisor for Health and Human Services.

During that time she oversaw the consideration and negotiation of more than 5,000 bills and amendments by the Office of the Governor during the legislative session and was responsible for the governor's health-related public policy agenda. In July 2008, Victoria visited Ecuador for two weeks, where she traveled to Quito, high in the Andes mountains, and then to an eco-lodge in a community called Rio Blanco in the Amazon jungle. While in Ecuador, Victoria also visited the Galapagos Islands, where she saw many of the islands' famous indigenous species. Dal Ruggles, B.A. in psychology, is a partner in the law firm of Sumpter & Gonzalez in Austin, where he has worked since 2004. Dal has handled hundreds of adult and juvenile cases ranging from Class C misdemeanors to first-degree felonies. He brings a diverse background to the firm; his previous jobs include stockbroker, business manager, Porsche auto mechanic and self-employed portrait artist. He earned his juris doctorate from the University of Texas School of Law in

Clif Tinker, B.F.A. in art, M.A. in art history '01, was promoted to fine arts chair at Madison High School in San Antonio, where he has taught for eight years. Clif continues to be active in the art community, exhibiting in nine gallery art shows in the past five years, including two solo exhibitions during Contemporary Art Month in 2005 and 2007, as well as a mid-career retrospective at the San Antonio Central Library Gallery in 2005. In 2008, UTSA commissioned Clif to paint five campus scenes for the university's permanent art collection. In 2009, San Antonio publisher Wings Press will publish Clif's master's thesis on the art of the Aztec Theater in San Antonio as a book, The Aztec Theater, San Antonio's Grand Illusion

Edward Ybarra, M.Ed. in educational leadership, this summer stepped down after 13 years as head basketball coach at San Antonio's Central Catholic High School to devote more time to his new position as the school's assistant principal for student development. In his 21-year coaching career at Central Catholic, Edward also coached football, track and golf. With 230 wins, he goes out as the second most successful basketball coach in the school's history.

93 Elisa Chan, M.S. in computer science, was honored at the 2008 Small Business Leaders Awards luncheon by the North San Antonio Chamber of Commerce. She received the Career Achievement award. Elisa is president and co-owner of Unintech Consulting Engineers with her husband, Clifford Hew. They have an

8-year-old daughter, Nikola. Elisa also is running for the San Antonio District 9 city council seat.

Christopher Michael Ranney, B.A. in kinesiology, and Monica Reygadas Ranney, B.A. in interdisciplinary studies '98, announce the birth of their second son, Aaron Mark Ranney.

- **94**Rolando B. Pablos, M.B.A. in business, was named presiding officer of the Texas Racing Commission by Gov. Rick Perry. The commission regulates race meetings involving wagers on the result of greyhound or horse racing, and makes rules, issues licenses and takes any other necessary action relating exclusively to horse or greyhound racing. Rolando is an attorney at R.B. Pablos P.C. He is vice chair of international relations for the Texas Association of Mexican American Chambers of Commerce, and a member of the Free Trade Alliance board of directors and City of San Antonio Small Business Advisory Committee. He is also a past appointee to the Nueces River Authority board of directors.
- Angela M. Walker Forbus, B.B.A. in accounting, is the controller for Carson Distributing Company in Kerrville, Texas. Colonel (Ret.) Lionel Fred Solis, M.P.A., spoke at UTSA for the Veteran's Day Ceremony on Nov. 11, 2008. He is currently working on a Ph.D. in human resource development at Texas A&M and is a member of the UTSA Alumni Association.
- Michael Dunning, B.A. in political science, has been named by the Washington State Attorney General's Office as its 2007 Outstanding Employee. Mike is an assistant attorney general and serves as the section chief for the Waste Cleanup and Management Section. Mike has also been named a "Rising Star" for 2008 by Washington Law & Politics. Mike and his wife, Gloria, B.A. in German '95, live in Olympia, Wash.
- **97**Robert Killen, B.A. in political science, became a shareholder at the San Antonio law firm of Kaufman & Killen Inc. in October 2008. The firm specializes in land use issues, including zoning, vested rights and contract issues before the City of San Antonio. Rob received his J.D. from the University of Tulsa.
- 98 Keyhla Calderon-Lugo, B.A. in communication, was nominated for a regional Emmy award for her work as weekday weather anchor/reporter for Univision 41, KWEX, in San Antonio. She got her start in television at KLDO Univision 27 in Laredo and spent five

years there before making the decision to return to her hometown and join KWEX in January 2006. She plays the flute and is a member of the Symphonic Winds of San Antonio.

Heather Leopold, B.A. in accounting, M.A. in accounting '01, is working at USAA as an accounting/financial director. She and her husband, Ronald, have a son, Mason Billy Leopold, born July 2, 2008.

PAlton Carroll, B.A. in history, recently published Medicine Bags and Dog Tags: American Indian Veterans from Colonial Times to the Second Iraq War. He is currently a Fulbright Senior Scholar in Indonesia, guest lecturing on American and American Indian history at Hasanuddin University. He also is studying tribes of Asia with modern veteran traditions for his next book, Tribal Soldiers of Southeast Asia. Alton earned his M.A. in history at Purdue University and a Ph.D. at Arizona State University.

OOmichael R. Catcott, E.M.B.A., was named project executive for the Schlitterbahn Vacation Village project in Kansas City, Kan., which is scheduled to open in the summer of 2009. Michael previously worked at PGAV Destination Design and Consulting in St. Louis, where he was a designer and business analyst focusing on domestic and international projects. Prior to that, he worked for Anheuser-Busch Theme Parks, where he served in a variety of positions, including executive vice president and general manager of Sea World of Texas prior to being promoted to corporate vice president of merchandise. Jeremy Duncan, B.A. in criminal justice, was appointed director of IPv6 (Internet Protocol version 6) Products and Services for the Herndon, Va.-based Command Information. A former U.S. Marine Corps captain, Jeremy will provide strategic direction to expand Command Information's service offerings in two focus areas: the Communications Provider market and Defense Information Systems Agency (DISA) Joint Interoperability Test Command (JITC) certification process. Prior to joining Command Information, Ieremy served as a systems analyst for ManTech Telecommunication & Information Systems Corporation. In this role, he coordinated the successful test, evaluation and certification of over 30 Information Technology (IT) products a year for IPv6 capability. Duncan served as a U.S. Marine Corps communications officer for seven years, most recently as a systems analyst and

advanced Internet protocol technology

testing officer at the JITC in

Robert Gibson, B.M. in music, teaches guitar at Troy State University in Troy, Ala., and B.T.W. Performing Arts Magnet High School in Montgomery, Ala. Robert earned master's and doctoral degrees in music from UT Austin, where he was an assistant from 2005 to 2007. He has given performances in the United States, Mexico, Spain and Italy. He also

has performed as a soloist with several

orchestras, including the San Antonio

Fort Huachuca, Ariz.

O1 Belinda Garza, B.B.A. in management, manages pharmacy and health care federal government relations for Wal-Mart.

Jennifer Tijerina, B.A. in psychology, earned an M.B.A. from the UTSA College of Business in 2007.

- **O2Sean Wade**, B.S. in biology, is the retail sales manager for AT&T in San Antonio.
- O3 Stacey Czaja, B.B.A. in accounting, M.S. in accounting '05, is now a CPA. Sgt. Jennifer Krausch, B.S. in kinesiology, was featured in the San Antonio Express-News in September 2008 for her work as a Texas Army National Guard flight medic in Iraq.
- **Q4** Patriza Raquel Gonzalez, M.A. in counseling, is a special education teacher at Bonham Academy in the San Antonio Independent School District

Ann Maria Hernandez, M.A. in education, is an adjunct reading instructor for Northeast Lakeview College, part of the Alamo Community College System. She was a 2007–2008 member of National Reading Conference and was acknowledged in the preface of the 2007 book Talking Texts: How Speech and Writing Interact in School Learning, written by UTSA education professor Rosalind Horowitz.

O5 Pinky Rodriguez Martinez, B.S. in biology, is a registered nurse for the Dell Children's Hospital in Austin, Texas. She is currently working on a master's degree in parent/child nursing.

Katrina Rios, B.A. in interdisciplinary studies, is currently a kindergarten teacher at Scarborough Elementary School in San Antonio. She expects to earn a master's degree in spring 2009.

Christopher C. Johnson, B.A. in technical communication, was accepted into the Ph.D. program in clinical psychology at the University of Central Florida at Orlando.

Erin Alicia Williams, B.B.A. in accounting, married Justin Allen Moser on April 13, 2008, at Mayport Naval Station, Fla.



Mary Reilly-Magee '90, M.A. '00

When Mary Reilly-Magee used to tell people that she was an English major, they would invariably ask, "What are you going to do when you graduate? Teach?"

Her answer at the time was a vehement no, but sometime after earning her undergraduate degree, she realized she really was a teacher at heart. She got her teaching certification and eventually went back to school to earn a graduate degree—also in English literature. And she's made a name for herself in San Antonio as a teacher. But not for teaching English. She teaches children how to swim.

In January 2006, Reilly-Magee opened the Love to Swim school on San Antonio's North Side as the culmination of more than two decades as a swim instructor.

Growing up in Illinois,
Reilly-Magee started swimming

competitively at the age of 5.

Her first job was working as a lifeguard at a neighborhood pool, and before long she was tapped to help teach swim classes. In Texas, she continued teaching swimming during college and afterwards. For 18 years, she worked for Northside Aquatics under longtime director George Block. Even when she did get a job as an English teacher, at Holmes High School, she also coached the school's swim and water polo teams. But she found teaching in the pool more gratifying than teaching in the classroom because she felt that she could see the fruits of her labor more readily.

"I just fell in love with working with kids," she says. "Preschoolers are our favorite challenge. We love seeing those kids grow from having separation anxiety when they start classes to loving it and even not wanting to leave when their class is over. I feel for the momma, but

it makes me really happy to see her have to drag her kid out of here."

Reilly-Magee began her own business by holding classes at neighborhood pools and fitness clubs, but it wasn't ideal. Club members did not want to share the pool with children's swim classes, and Reilly-Magee was frustrated that she had no control over the water temperature. (Even in indoor pools, competitive swimmers prefer cooler temperatures than what's optimal for teaching children, she says.)

So Reilly-Magee found a landlord who believed in her business plan, and three years ago opened Love to Swim, where the water temperature in both of the indoor pools is a comfortable 92 degrees, she notes. Her staff has grown to almost 50, and each year they teach about 4,400 students—from babies as young as 6 months to adults. In December 2008, Reilly-Magee opened a second Love to Swim location in Schertz.

Her two English degrees from UTSA now hang in her office, and when asked about them, she jokes, "Well, I can read a book." Since opening the business, she says, she feels like she's earned honorary degrees in business, psychology, human resources and chemistry, too. But in truth, she believes her liberal arts background serves her well.

"I think it makes me a better employer," she says. "What's wonderful about studying literature is you're studying humanity, and we certainly have a lot of humanity around here."

—Rebecca Luther

WEB EXTRA: Go to www.utsa. edu/sombrilla to see a video of Mary Reilly-Magee. She works for the Bibb County Board of Education as an accountant. They live in Warner Robins, Ga.

- Obouglas A. Beyer Jr., B.A. in violin performance, received a graduate certificate in performance at UT Arlington and in 2007 received a master's degree in music education, also at UT Arlington. Ashlesh Murthy, Ph.D. in cell and molecular biology, is a postdoctoral researcher in the laboratory of UTSA immunologist Bernard Arulanandam. In April, the Association of Scientists of Indian Origin in America honored Ashlesh with the Biotex Junior Scientist Award in Immunology. This summer, he traveled to Aarhus, Denmark, to present his research findings at the sixth meeting of the European Society for Chlamydia Research. The research focuses on vaccine development for Chlamydia trachomatis, the most prevalent sexually transmissible disease agent with an estimated 91 million cases worldwide. The research team found success in administering a chlamydia vaccine in mice, and testing is underway at UTSA to determine its success in guinea pigs.
- **O**7**Micol Bratten**, B.S. in chemical engineering, is the new project manager for Terracon Consultants with CME Department in San Antonio. Lesli Hicks, M.A. in history, and her husband adopted a second child from China before the 2008 Olympics. "We'd waited more than two years for a daughter to join our first, when we heard the matching process could be another year," Lesli writes. Since they adopted 10-month-old Joy in 2000, increased international adoption and higher adoption rates inside China changed the average wait from six months to three years, "Feeling life on hold again, we painfully considered giving up on the yet-assigned girl we were already calling Grace." Instead, the couple decided to apply for a harder-to-place older child, possibly with special needs or male—the latter a rarity in Chinese orphanages. "Within days, they sent us photos of a smiling 7-year-old boy," Lesli says, adding: "Two months later, we welcomed Gravson home." Laura Dawn Howard, M.A. in education.

school administration, married Brandon Charles Dieringer on Sept. 20, 2008. She is employed by the Midland Independent School District.

Robin M. Patterson, B.B.A. in human resources, works for the YMCA of Greater San Antonio as the staffing manager.

Donny Geyer, B.B.A. in marketing, is the longtime lead guitarist for Gabe Garcia, who was a finalist in the 2008

Tony Sayka '93, M.B.A. '02

Out of the frying pan, into the car

nder the plan to become the state's next premier public research university, UTSA is seeking to foster more collaborations, acquire more research dollars and implement stronger measures to help commercialize research and bring it to the marketplace. Tony Sayka's efforts in those three areas could make him the poster child of the UTSA dream.

In 1993, Sayka, who had already earned an undergraduate degree in chemistry from the University of Colorado, graduated with a bachelor's degree in physics. But he didn't leave campus for long; several years later, he began helping out in the UTSA Laser Lab, which is run by physics professor Dhiraj Sardar, and even took a few more undergraduate courses from Sardar after earning his B.S. He continued assisting in the lab even as he formally re-enrolled at UTSA as an M.B.A. student to increase his business know-how.

In Sardar's lab, Sayka was part of a four-member team that patented a semiconductor wafer cleaning system that could save companies millions of dollars. Currently, Sayka is working on a proposal to submit to the National Science Foundation that would fund the building of a prototype of their patented system.

Last year, he traveled to Cali, Colombia, at his own expense to meet with faculty from the Universidad del Valle to discuss ways that the two universities could collaborate on nanotechnology research and semiconductor projects. More recently, Sayka and Sardar welcomed representatives from Sematech in Austin to the Laser Lab to discuss collaborations with privately owned companies.

"Ultimately, we want to receive a large grant from the National Institutes of Health, Department of Defense or National Science Foundation to take us in a new direction," says Sayka. "To land one for one of our ideas would be fantastic and serve as a big catalyst for future projects to be developed in the

All of Sayka's projects with UTSA have taken place in his spare time, outside his regular job as a sustaining engineer with Maxim Integrated



Products of San Antonio, where he has worked for almost three years. Additionally, Sayka is an adjunct faculty member at San Antonio College and teaches two classes in developmental mathematics.

"I think you always have to think what the end result is with scientific research and if it can lead to new business opportunities and employment," says Sayka. "Nanotechnology research at the UTSA Laser Lab is in the foundation stages, but if it grows and we can secure applications and devices, that could be a whole new avenue for job employment."

To balance the workload, Sayka plays tennis on the weekends with co-workers as well as with his mentor and friend, Sardar. With Sardar's encouragement, Sayka has worked on several papers, patents and proposals over the past year. He says he enjoys keeping in touch with the Laser Lab, because there are exciting things taking place in the areas of biomedicine, nanotechnology and semiconductor processing, and he wants to continue to work with the students and assist them with their projects whenever he can.

IN MEMORIAM

season of "Nashville Star." After graduating from UTSA in May, Donny, a Pearsall native, moved to Nashville to pursue songwriting and to prepare to tour with Garcia. For more information on the band and appearances, go to

www.gabegarciaband.com. Patrick Owen, B.B.A. in general business, is launching an independent record label and a Web-based reality show that follows his efforts starting the company. So far, his webisodes have received well over 300,000 views on YouTube. Follow the fun at www.undergradrecords.tv. Mario Vazquez, B.A. in political science, was promoted to the position of supervisor-contract administration at NuStar Energy, covering the U.S. and Canada. He serves on KLRN's Alamo Public Telecommunications Council, the board of directors of the San Antonio Symphony and the board of governors of the City Club at the Majestic Building.

Kenneth M. Meyerson, M.A. in

education, passed away on Sept. 13, 2008. 83 Jane Alden-Goldman, M.A. in English, passed away on Sept. 20, 2008. Jane retired from Millersville University in Pennsylvania as assistant professor of English in May 2008 due to health reasons. She was the original developer of the print media studies program at Millersville and taught courses on journalistic ethics, crime and court reporting, and computer-assisted journalism. Born in Scotland, Jane had developed a career as a professional journalist in the United Kingdom, holding several positions as a journalist and editor, and was the first female journalist to cover the High Court. She immigrated to the U.S. in 1979.

84Robert William Whelan, M.P.A. in public administration, of Helotes, passed away on Sept. 25, 2008 in Katy, Texas, after a brief battle with cancer. He was born in Kerrville, Texas, on Aug. 2, 1936. Bob graduated from Texas A&M in 1960 in mechanical engineering and, after serving in the U.S. Army, began working at Kelly Air Force Base, where he was to spend his entire career. At Kelly, Bob worked as an engineer and manager in the directorates of Material Management; Maintenance; Plans and Programs; and Logistics. After retiring in 1994, he embarked on a second career as a professional artist. He studied watercolor under Warren Hunter and later served as manager of the Warren Hunter Art Group at the Coppini Academy in San Antonio. He was a member of the River Arts Group and also showed his paintings at the Starving Artists Gallery. A member since 1968, Bob was actively involved at Our Lady of Guadalupe Catholic Church in the parish council and as a lector.

85 Richard M. Keenan, B.A. in accounting, passed away on Oct. 30, 2008. He was a captain in the U.S. Air Force.

-Kris Rodriguez

90William "Bill" Kretzer Jr., B.B.A. in accounting, passed away Oct. 4, 2008, in San Antonio at the age of 70. Bill was born in San Antonio and raised in Blanco, where he graduated from Blanco High School and helped his mother operate the Blanco Theater. Bill served his country in the U.S. Army with two years active and four years reserve duty. Following the military, Bill received his bachelor's degree from UTSA and became an accountant. He was passionate about reading and enjoyed studying his family genealogy. Bill was a member of First Baptist Church, Blanco, and Bulverde United Methodist Church.

A LEGACY OF MUSIC



Lota Rea Wilkinson and her mother, Lota M. Spell, saw music as a gift to be shared for generations. To honor her mother, a Texas musician and educator, Lota Rea made an investment that will inspire children through the ages and offer them lifechanging experiences. Her estate gift to UTSA will ensure that education and teacher training.

Estate gifts to UTSA, such as this one, leave a lasting legacy for generations. The Sombrilla Society at UTSA honors and recognizes planned gifts through estates, wills and bequests.

To learn how you can make an investment in UTSA that will inspire future generations and ask about becoming a member of the Sombrilla Society, contact

The University of Texas at San Antonio

One UTSA Circle

San Antonio, Texas 78249-0641

Phone: (210) 458-5147, E-mail: eric.gentry@utsa.edu

UTSA GIVING ON THE WEB: www.utsa.edu/development

UTSA The University of Texas at San Antonio



The Next Great Texas University[™]

Non-Profit Org. U.S. Postage **PAID** San Antonio, Texas PERMIT NO. 2474



Looking back

Nothing but net

hen UTSA moved from its leased space at the Koger Center to its permanent digs in the summer of 1975, the brand-new campus wasn't exactly move-in ready. The John Peace Library Building was still under construction, as were the arts and science buildings. There was no parking, either; students and faculty parked their cars on the side of the road along UTSA Boulevard to the south of campus and were shuttled to the Humanities-Business Building (now the Humanities and Social Sciences Building, or more commonly, the HSS). The only other structure on campus that was complete was the PE Building. And since the university didn't yet have an athletics program, it was that facility that served as an administration building until the JPL opened in 1976. UTSA President Peter Flawn had his offices in the athletic director's office, the locker room served as the bookstore, and the library was set up in the gymnasium. The university didn't have many books of its own, so a courier made regular trips to Austin to pick up requested books from the UT library. This 1975 photo shows graduate student Sheila Kries taking time out from her studies to practice her shot. Or, more likely, Sheila stood still for 20 minutes holding up her arm while the photographer stood on a ladder and dropped balls into the basket.

Gil Barrera Collection of UTSA Photographs, Archives and Special Collections, UTSA Library