A Tale of Two Species
UTSA TAKES ON THE CASE OF CRUCIAL POLLINATORS
Butterflies for Beginners
Most of us have seen and chased monarch butterflies all our lives. They are Texas’ official state insect, after all. But how much do you really know about America’s most common butterfly? We have a quiz for you to test your knowledge.

Waiting for a Family
While many children who grow up in foster care don’t find a permanent home, UTSA sophomore Blue Hess was one of the luckier ones. Our video interview with Hess and his parents takes a look at the high points and lows of hoping for a family.

Build a Better
The Center for Innovation, Technology, and Entrepreneurship brings together business and engineering students to invent useful products. Undergraduates tackle the challenge as their senior project with many taking the venture further, including to market. We take a look at the most recent winning product and the solutions it offers.

20 It’s More Than Just a Butterfly
Without pollinators like the monarch, our food supply would be in jeopardy. So UTSA researchers are studying the butterfly and its breeding and feeding habitat—milkweed—to find out how much trouble we could be facing.

25 The Amazing Monarch: What these tiny creatures do to survive each year is impressive.

26 What UTSA’s Doing: From seeking out specimens along highways to a special breeding enclosure on Main Campus.

28 Watching Out for the Most Vulnerable
Foster care was designed to nurture susceptible children. Sometimes they end up in worse conditions, though, and the state doesn’t know what to do. But at UTSA, experts are determined to repair the failing system and help kids become capable adults.

30 UTSA on the Case: Meet some of the researchers making foster kids—and the problems they face—a priority.
**EDITOR’S LETTER**

*Rites of Spring*

Despite arriving in the midst of a school year, spring brings a sense of renewal, of freshness and color. Spring takes us outdoors more as the air warms, leaves return to the trees, other flora bursts into bloom, and the fauna is reawakening to stretch its legs and wings. But the reality is that life isn't a Disney movie. Nature is facing an abundance of problems, and those issues usually have a direct impact on humans. Take the plight of pollinators.

There's information aplenty in the media about the disappearance of honeybees and how their absence will affect our food supply. But a similar phenomenon is going on even closer to home. Right here in Texas, milkweed plays an important role in the life cycle of the monarch butterfly, another important pollinator for our food crops. Most of the eastern U.S. population of these creatures travel through Texas each year to get to and from their wintering habitat in Mexico. Studies indicate, though, that 90 percent of monarchs have disappeared over the past two decades. With new grant funding in hand, UTSA researchers are looking into how man's effect on milkweed could affect the monarch population [see page 20]. In our cover story we explore how, ultimately, the university’s insights could determine how we coexist with these two species.

We also take a look at how UTSA experts are exploring ways to help the government repair the “broken” foster system [see page 28], as a federal judge has labeled Texas’ efforts with kids in care. The input by these researchers, though, could potentially have an impact on foster care at the federal level. Senior editor Michelle Mondo has been working on this story for more than a year in order to capture the magnitude of the effect the system has on tens of thousands of children and young adults.

Befitting this spring issue, our team hopes you enjoy the fresh, new look of *Sombrilla Magazine*. Now in its fourth decade, this magazine has made a concerted effort to offer in-depth exploration of the goings-on of ’Runners from all three campuses and alumni. And we absolutely intend to continue to do so—only now with more digital and interactive content on top of our extensive reporting.

We are continuing to increase the amount of content that we produce and publish directly online because we want to be part of your regular feed of insight on UTSA’s events and accolades and, of course, its progress toward becoming a Tier One institution. As always, we welcome your feedback on our efforts. See the ways to reach out to us on page 3.

Now, have a fresh and festive spring season. And maybe keep an eye out for some of those beautiful, special monarchs on their return flight north through Texas.

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38 Will Garrett M.B.A. ’12 is heading up an initiative to teach businesses about cybersecurity.
39 Ramiro García ’91, M.S. ’97 is the man we hope can fix our Texas roadways.
#UTSA WATCH
A SHOWCASE OF ROADRUNNER PRIDE DISPLAYED ON SOCIAL MEDIA

@itsbrittanynicolette: The couple that graduates together stays together. #gorunners #ilovecollege

@weareutsa: asked ‘Runners, “What do you love about #UTSA?” #whyiloveutsa #utsasocial #RR4L

@kellys.adventures: I made homemade Play-Doh in class today! #utsa #somuchfun #futureteacher

@charbar8: Loving the T-shirt blanket my mom and Eric got me to commemorate my education. #utsa

@lalasimage15 (Coach Frank Wilson’s daughter, Alaina, on the family’s visit for Wilson’s introductory press conference): #utsafootball #utsa #footballcoach #coachfrankwilson #welcomewilson #mrswilson

Engaging Deep in Education
Roughly two dozen faculty from five of the six academic departments in the College of Education and Human Development will be taking on teaching roles in the San Antonio Independent School District. Working to fill mentoring gaps in early education and help advance literacy among school-age children, this is one of the largest public school initiatives that UTSA and COEHD have undertaken.

Guiding University Growth
The UTSA 2020 Blueprint will unveil this year to set strategies around advancement to Tier One in areas of educational excellence, superior infrastructure, innovative research and discovery, expanding community involvement, superior student experience, and world-class graduate programs.

Doors to Mexico Reopen
After a six-year hiatus on study abroad programs in Mexico, based on State Department recommendations, a group of students will be studying muralism in Mexico City over spring break for a graduate art class. More groups will follow this summer. Such programs are part of larger internationalization efforts at UTSA and involve work with multiple Mexican universities.

SOMBRILLA MAGAZINE is the official publication of The University of Texas at San Antonio. It is published four times a year (two print and two digital issues) and is distributed without charge to alumni, students, faculty, staff, and friends of UTSA.

The Office of University Communications and Marketing produces Sombrilla Magazine and other magazines that highlight the achievements and impact of UTSA Roadrunner family throughout the world. This division is responsible for promoting the university’s mission of education and its Tier One drive by informing, engaging, entertaining, and inspiring the diverse university family and larger community. Through compelling and vibrantly designed stories, UTSA magazines promote an open exchange of ideas. We strive to capture the intellectual, cultural, and social life of the university while tackling relevant global issues.

Are you interested in commenting on articles, sending an update for Class Notes, or have news to share with the Roadrunner family?

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To be removed from our mailing list, to receive the magazine online only, or to update address information, use the same contact details.

About
Sombrilla (sp.): umbrella
(SOHM–BREE–yah)

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SOMBRILLA MAGAZINE
GETTING ROWDY ON THE AIRWAVES

A pair of organizations are helping students to expand their journalistic chops—and entertain fellow Roadrunners at the same time

BY BONNY OSTERHAGE

UTSA students are getting their voices heard, thanks to two broadcasting organizations that allow them to learn the ins and outs of the radio and television industries, all while also providing entertainment and information to the UTSA community.

Rowdy Radio provides students with a platform where they can express themselves via webcasting, podcasting, blogging, playlist streaming, and more, as they learn the technical aspects of the business. “We want our students to experience all of the outside world skills associated with this industry,” says Elora Ballejos, who serves as director of membership.

Although it now broadcasts a handful of shows each day, Rowdy Radio got off to a shaky start in 2014, due to the lack of a faculty adviser, lack of studio space, and some serious funding issues. Undeterred, students succeeded in not only securing Stan Renard, an assistant professor of music marketing, as their adviser but also finding a workspace. Creative fundraising efforts in the form of benefit mixers, music festivals, and DJs for hire have helped to offset some of the costs of new equipment, but the expenses don’t stop there.

“Most radio stations tend to fail because they have expensive operational costs, including all the blanket licenses and software licenses that they need to pay to be allowed to operate and stream musical content,” Renard explains, adding that the group also used a crowdfunding campaign on Launch UTSA.

As Rowdy Radio continues to grow, Renard says he would like to see the programming move toward more hosted shows as well as journalism and interview-oriented broadcasts that feature stories about UTSA. “The organization wishes to become an information source for the community,” he says, applauding the students for what they have been able to accomplish in just over a year. “This is truly an incredible group of students who work countless hours for their organization because they believe in it and love it.”

One of those students, Darryl Sherrod, took UTSA student broadcasting a step further when he, along with fellow student Blair Pan, founded Rowdy TV in April 2015. Filming began in November with a plan to unveil three pilot shows for this semester. The planned shows are Rowdy Roundtable, covering celebrity gossip and pop culture; The Roadrunner Report, a serious news and events show; and sports talk show In the Film Room.

“For the following fall semester we will work on bettering ourselves within these three shows before branching out,” says Sherrod, adding that plans for a hip-hop show and a Saturday Night Live-style format are also in the works.

Unlike Rowdy Radio, Rowdy TV began with an adviser in place, communications associate professor Seok Kang. But even with that advantage, Rowdy TV faced some of the same challenges as its radio counterpart in terms...
This is truly an incredible group of students who work countless hours for their organization because they believe in it and love it.

Both organizations welcome any student who is interested in participating, and being a communication major isn't a prerequisite. “We’re looking for males, females, freshman to seniors, all majors, and people from various backgrounds to have the best blend possible,” describes Sherrod.

Renard agrees: “I want to see students who have all sorts of interests and skill sets have an avenue to express themselves.”

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Honored Peer

National Academies inductee moves goal forward

Professor Rena Bizios has been elected to the National Academy of Medicine, one of the highest honors for medical sciences, health care, and public health professionals. Bizios is the first full-time, tenure-track UTSA faculty member to be elected to the National Academies.

Bizios, a Peter T. Flawn Professor in biomedical engineering, studies cellular and tissue engineering, tissue regeneration, biomaterials, and biocompatibility. She is recognized for making seminal contributions to the understanding of cell-material interactions, protein-cell interactions with nanostructured biomaterials, and for identifying the effects of pressure and electric current on cell functions during new tissue formation. Her research has applications in the tissue engineering and tissue regeneration fields.

“Rena Bizios is a wonderful example of the tremendous faculty that top-tier universities are known for,” says UTSA President Ricardo Romo. “Through her teaching, research, and mentoring at UTSA, Dr. Bizios has made significant contributions that have shaped, and will continue to shape, biomedical engineering. I am so pleased to see her work recognized by her peers.”

The National Academy of Medicine is an independent organization of eminent professionals from the fields of health and medicine as well as the natural, social, and behavioral sciences. This accomplishment for Bizios moves UTSA one step closer to Tier One, a designation that includes the number of faculty at a university with memberships in the National Academies.
As a Ph.D. student in Mexico, Rubén Mendoza studies bimetallic nanoparticles and how their atoms mix, research that is important for applications in biomedicine, electronics, and sensors, to name just a few.

Needling advanced electron microscopes to further his exploration, Mendoza came to UTSA as a visiting scholar through a mixed scholarship program at Mexico’s National Council of Science and Technology, also known as CONACYT. Now, he’s utilizing the Kleberg Advanced Microscopy Center for the year that he’s here.

“I got the scholarship for economic support for the stay, the trip, and the medical insurance,” Mendoza says. “Thanks to the Ph.D. program in materials science and engineering at [the Universidad Nacional Autónoma de México] and CONACYT—as well as the support of UTSA and Dr. Miguel Yacamán—it was possible for me to make this research trip and develop knowledge and skills to contribute to science.”

UTSA has a long history of a binational partnership with Mexico. And a University of Texas System memorandum with CONACYT is expected to develop even more research partnerships. According to Yacamán, who is chair of the Department of Physics and Astronomy, the agreement is modeled after one the foundation has with the University of California System. A Lutcher Brown Distinguished Chair, Yacamán has also worked as deputy director for scientific research for CONACYT.

Through the agreement, Yacamán expects an increased number of Mexico’s Ph.D. students to engage in research at UTSA. Undergraduates will benefit as well, he adds. “When they are here,” he explains, “they connect with students and act as role models or mentors to those who don’t see many Hispanic scientists.”

Mendoza is one of 14 graduate students from eight Mexican universities who the mixed scholarship program helped bring to the International Center for Nanotechnology and Advanced Materials—a collaboration between UTSA and CONACYT—in 2015 alone.

Also in 2015, the partnership sponsored six professors on sabbatical, two postdoctoral students, and an inaugural undergraduate research program as well as hosting technical visits. Overall, research productivity in ICNAM translates into about 22 publications per year, according to the center.

There have been joint research projects on early breast cancer and HIV detection, drug-resistant bacteria, and infrared cameras.

CONACYT also has agreements at UTSA with the College of Liberal and Fine Arts and College of Education and Human Development.
Her time as Texas’ poet laureate may be winding down, but UTSA professor and internationally acclaimed writer Carmen Tafolla certainly is not. Since the legislature announced the honor, Tafolla has thrown herself into Poet Trees—a project she created and developed to help students at low-income schools get exposed to poetry. Through an application process, Tafolla chose 20 schools to visit statewide. She will take books for the libraries and help students write their own poetry that will then be published in an anthology. She talked to Sombrilla Magazine’s Michelle Mondo about the project, when she was first exposed to poetry, what she wants to accomplish, and how students can find their voice.

*How did the idea for Poet Trees develop?* We’re lamenting how our kids aren’t reading and aren’t doing well in school. But we have to give them something that lets them make the connection between their world and what they read in school. I wanted to find school districts where some teacher, librarian, or principal is interested in creating writers. I wanted them to be from the schools that don’t get the extras.

*Why do you think poetry is so important to young students?* Poetry will always be relevant. Poetry is based on feelings. Every human being has feelings—loneliness, insecurity, love, passion. There’s a great quote from E.E. Cummings: “Poetry is what you feel. Whenever you feel, you are nobody but yourself.” Poetry is putting that “nobody but yourself” on paper. I think kids turn a lot to poetry if they are exposed to it correctly. Some never see their own experience. When they hit a poem or a book that expresses something they’ve gone through, that kind of affirmation is critical to children relating to books.

*You became inspired by poetry at a young age too but not through school. When was your first exposure to poetry and why did it mean so much?* I was born and raised on San Antonio’s west side. In the late 1950s, when I was 6 years old, my mother ordered...
a Childcraft Encyclopedia set for me. She had to pay 50 cents a month on a payment plan, which was a lot then for us. The first volume we received was Poems of Early Childhood. I read it backward and forward.

There was also poetry I never saw written down. These were poems that I learned when put on an aunt’s lap and taught line by line to say words I didn’t understand the meaning of. I was learning our cultural traditions, family history. It’s an important part of our heritage. My relatives wanted me to learn my languages. I never considered myself to have one native language. I have two, sometimes three—Spanish and English and Tex Mex. They consciously knew they weren’t passing on education but an ability to use words effectively.

When did your poetry become part of your voice? My writing was something I did privately. When I went to school it was against state law to speak a foreign language on school grounds. Basically, all of the children spoke Spanish, and usually the teacher didn’t speak anything but English. We were punished for speaking Spanish. There were all kinds of punishments. By the time I got to college, the thing that fascinated me most was bilingual education, and that is what I studied. In my early 20s, after graduating, the Chicano movement was happening publicly. I got a job teaching Mexican American studies at a nearby college. That was when I really became immersed in the Chicano poetry.

What impact do you hope this project has? Language and expression of emotion are a basic human right. When we silence children’s tongues or we silence entire groups of people—we be it through exclusion in the educational system or convincing them they have nothing to say—we are stealing a voice, we are stealing a history and stealing belief in themselves. I would like to make sure that at least some of the children in this state who are unaware of their own voice have a chance to develop it and go on and influence other children.

When predental student Taylor Trimmer joined the Global Health Brigades student group at UTSA, it was because she wanted to travel while gaining experience in her field. She had no idea that she would “fall in love with the organization,” she says. “I am involved with Global Brigades simply because it is an amazing organization,” says Trimmer, who now serves as one of the treasurers and fundraising chairs. “Our members get a chance to change the lives of thousands of people across the world while getting hands-on experience that they most likely wouldn’t get here in the United States.”

Global Health Brigades is a national organization with chapters at multiple universities across the country. According to Larriel Shaw, national education chair, the purpose is to develop sustainable health initiatives and provide relief in countries where there is limited access to health care. Students in the medical and dental brigade spend seven to nine days in areas such as Honduras, Panama, and Nicaragua, where they gain experience in taking patient vital signs and history and work with licensed doctors on consultations.

Hands-on learning aside, there is another, even greater component to the trips, according to Shaw. “The purpose is to not only gain clinical experience by shadowing physicians and dentists,” she explains, “but also open the eyes of the members to what it is like to live without health care. We show them some of the things we take for granted as Americans.” Some of those things include restrooms, septic tanks, and laundry rooms, which students were able to build for three families in need on a recent trip to Nicaragua.

“The most rewarding part of that trip was seeing not only the end results of our hard work but even more so how much these families appreciated what we did for them,” Shaw says. “Our team leaders were so proud of how we worked together, placing the mission first and accomplishing our goals.”

The organization is open to all interested students, who receive training. Destinations are chosen via officer vote, and members are provided with fundraising opportunities, including an online portal where family and friends can donate to a trip that, for many of these students, is a life changer. “This organization has taught me to be grateful for every second of every day that I get to make an impact on others,” Trimmer says. “I’ve learned that no person is too small to make a difference.”
Do children repay acts of kindness? Can they read body language to figure out who is in charge? Does it always feel good to get what you want? Those are just a few of the questions about child development that have been tackled through research as part of the Living Laboratory initiative, which has now come to San Antonio’s DoSeum through a partnership with UTSA’s College of Education and Human Development.

And while the word laboratory may sound ominous, it’s anything but. A small room on the first floor of the children’s museum will house UTSA researchers, who will in turn ask families visiting the museum if they would like to take part in studies that usually will take about 15 minutes. “We are going to be looking at current research about children and families and use the lab to replicate that on a larger scale,” says Mari Riojas-Cortez, chair of the interdisciplinary learning department. “We’re in the preliminary stages, and we know it will evolve over time.”

The Living Laboratory began at the Museum of Science in Boston and has grown to include a community of 600 institutions, museums, and universities that share information about their cutting-edge research, according to Marta Biarnes, the co–principal investigator of the national Living Laboratory project. “Now we have the DoSeum and UTSA as part of our community,” she says, “and it’s the only collaboration of its kind in San Antonio.”

It is only the second overlapping partnership in Texas, with the other at UT Arlington, according to Living Laboratory. With its project, UTSA joins universities such as Yale, Johns Hopkins, and Carnegie Mellon. After recruiting doctoral and graduate students, UTSA has already started its pilot studies at the DoSeum.

Ryan Smith, the DoSeum’s vice president for education, says the fit was a natural one because of the past collaboration the university has had with the museum (formerly the San Antonio Children’s Museum). “Our three target audiences are kids from birth to 10 years old, their caregivers, and educators,” Smith says. “With the living lab, caregivers will get direct access to research on early learning, and kids will be able to interact with toys in the research study. Our museum educators and UTSA educators will also be able to learn from one another.”

Previously, COEHD professors developed curriculum for the museum, applied for grant funding to take area elementary school math classes to the museum, and sent students to volunteer.
Setting the Standard

Experts to develop guidelines as part of a federal initiative

UTSA’s Center for Infrastructure Assurance and Security has been tapped by the Department of Homeland Security to lead a collaborative mission to develop national cybersecurity information-sharing standards.

The agency chose UTSA to direct the Information Sharing and Analysis Organizations’ Standards Organization with the goal of creating guidelines for private and public entities to share information about cybersecurity risks. The government awarded UTSA a $2 million grant, renewable up to five years, to fund the process.

Greg White, director of the CIAS, says the organization will be encouraging organizations with similar backgrounds to share information, in turn increasing security. White uses banks as an example. “If a bank detects an attempted intrusion into their network, there is a good chance that other banks may also be targets of the same attack,” he explains. “Those other banks may not have detected the attack yet and would benefit from the warning.”

The team has launched a website to help facilitate discussion and participation, along with providing updates on the process. “We want anyone who is interested in cybersecurity standards to be able to provide input,” White says. The ISAO has already held two public forums for feedback. The most recent was held on UTSA’s Main Campus in February. The end result will be published principles and data standards.

The university is already recognized as the nation’s leader in cybersecurity education and research. Cybersecurity initiatives are housed within the College of Business, the College of Engineering, and the College of Sciences.
Touch a butterfly or moth wing, and what feels and looks like a powdery substance remaining on your fingertips is actually the tiny scales that the insect sheds throughout its life. Magnify the wing—of a monarch butterfly in the photo here—with a scanning electron microscope housed at UTSA's Kleberg Advanced Microscopy Center and see just how the Lepidoptera order of insects got its name. The term derives from the Greek words meaning scale and wing.

Since adding two new microscopes to the laboratory in the past year—including one that has cutting-edge capabilities to perform computed tomography imaging—UTSA now has one of the most complete electron microscopy centers in the country for the study of nanomaterials.

Used for a variety of studies, including tackling breast cancer, improving diesel fuel, and investigating osteoporosis, the microscopy center’s advanced capabilities are attracting researchers from international institutions. [For more on visiting international scholars, see “Research Without Borders” on page 7, and for more on UTSA’s monarch research, see our cover story, “Of Monarchs & Milkweed,” on page 20.]

Quantum Deep
BIRD’S-EYE VIEW
Teddy Williams positions himself in a set of blocks at the start of the 60-meter dash at the 2010 NCAA Indoor Championships in Fayetteville, Ark. Now a UTSA alumnus, who graduated with a B.S. in kinesiology in 2011, the sprinter wrapped up his collegiate career with three All-American titles, nine Southland Conference championships, and four conference Athlete of the Year awards.

Williams, who has been called “the greatest track athlete in school history,” aimed for more glory on February 7 with the NFL’s Carolina Panthers in a bid for a Super Bowl ring that fell short in 24–10 play against the Denver Broncos.

Sombrilla Magazine asked Williams about his fondest memory of his days at UTSA: “I’d have to say my sophomore year, because so many great things happened. It started off when I made the indoor national meet for the first time. That really helped me get into a groove for the rest of the season. We then swept the conference indoor and outdoor championships for the first time, which was a great experience. I’d won a few individual championships before that, but this was the first time we won both team championships in the same year. We achieved the first national ranking in UTSA history during the outdoor season. I really began to grow with my teammates that year, especially the older ones, as we traveled all over the country.”
Preserving Our Heritage

Mission Concepción has stood in San Antonio since 1731, when Franciscan friars moved from the mission’s original location in East Texas, where it was established during the Spanish colonial period for converting local peoples to Catholicism. It’s now part of the San Antonio Missions National Historical Park with its three local sister missions and the Alamo.

The Missions Historic District gained status as a UNESCO World Heritage Site in 2015 with the help from UTSA architecture professor William Dupont, who has advised local and federal bodies in the analysis of heritage status.

And UTSA’s relationship with the missions is ongoing. Sedef Doganer, another architecture professor, has studied the economic impact of the missions for San Antonio. She has received a grant to complete a handbook on heritage tourism for the Missions Historic District to assist local residents and officials realize the benefits of cultural heritage.
Scholar in Residence

Internationally renowned British baroque violinist Rachel Podger conducts—and plays along with—a UTSA orchestral rehearsal. She’s one of a handful of guest scholars who visit the university each year to collaborate with students and faculty. Some give public performances, as Podger did while in residency with the College of Liberal and Fine Arts during the spring semester. When not touring the globe with various orchestras and other classical players, Podger works with her husband to help young musicians through the Mozart Music Fund, which they founded.
Of
Monarch
Mill

Without the birds and bees and butterflies, many of our food sources would disappear. UTSA experts are now heading up research behind preserving some of our crucial pollinators.
COVER STORY
ENVIROMENTAL SCIENCE

ARCHS & WEED

BY MICHELLE MONDO
PHOTOGRAPHY BY COURTNEY CAMPBELL
With the cacophony of Interstate 35 traffic as a backdrop, Tyler Seiboldt stands on the side of the freeway with three other UTSA researchers, all scanning the ground. “Three ragweed,” Seiboldt says to the group. “Litter one,” adds Julian Chavez ’15, a research assistant in the environmental science department.

Their seemingly indecipherable utterances are the start of two days’ study of plants along the interstate from San Antonio to Laredo and back again. The goal is to note herbaceous vegetation, dead or alive, but specifically, milkweed. Individual teams document anything significant, including the amount of litter, ragweed, or unknown specimens that are inside a square perimeter. “Yellow bundle one,” Chavez calls out, giving a generic description that the researchers will try to identify later.

The survey is one part of a multifaceted, two-year study examining the Texas milkweed population and how that affects America’s most well-known butterfly—the monarch. But ultimately, the analysis of the two species will highlight whether they need to be protected to save the population as well as important segments of the human food chain.

“We know that milkweed is the baby food for the monarchs; it’s what the eggs and larvae develop on, so it’s critical,” explains Janis Bush, director of UTSA’s environmental science academic programs. “If we want to know something about the monarchs, we definitely have to consider the food source.”

And with a recent petition to the U.S. Fish and Wildlife Service to get the monarch listed as a federally protected species, the number of people interested in the minutiae of the official state insect of Texas has skyrocketed.

As a pollinator, the monarch is part of the backbone of the human food supply and has joined the bee as a symbol in a global debate about conservation, genetically modified crops, pollution, population, and the climate. “Pollination is not just fascinating natural history,” the U.S. Forest Service says on its website. “It is an essential ecological survival function. Without pollinators, the human race and all of Earth’s terrestrial ecosystems would not survive.”

Evidence shows monarch populations have declined overall, but the reason and whether the decline can be stopped is part of a debate in which UTSA’s research is critical. The results will be sent to the Fish and Wildlife Service to help decide if the monarch should be classified as a threatened species, which would mean protecting habitat and food supply. Given that the monarch’s migration route stretches from Canada to Mexico [see map on page 24], hitting America’s Corn Belt and cutting a swath through Texas, where more than 94 percent of land is privately owned, the butterfly’s impact is considerable.

Enter the Texas comptroller’s office, which awarded UTSA a $300,000 grant for milkweed research. In its press release announcing the grant, the comptroller said, “There are economic concerns if the butterfly is listed because many industries important to our state’s economy could be affected, from agriculture to land development to energy production. This crucial research will help us develop voluntary
A lot of people don’t understand the importance these pollinators are to our food supply... That UTSA can have a hand in this research is very, very exciting.

PLIGHT OF THE POLLINATORS
First, it was the honeybee. A sharp decline in their North American population had scientists raising an alarm. Scholars continue to publish articles about what the loss of bees means, conservationists mobilize, and across continents governments are trying to figure out how much of an impact there has been or could be on the global food supply.

Now, the monarch joins the conversation. As pollinators—an insect or animal that can transfer pollen from plant to plant—monarchs and bees help plants reproduce. Almost 80 percent of the 1,400 crop plants grown around the world require pollination by animals, according to the Forest Service. In the United States, crops that depend on pollinators are worth more than $10 billion a year, according to the agency.

Milkweed growing in a greenhouse on UTSA’s Main Campus illustrates what a dearth of pollinators would mean for farmers. “For those flowers that aren’t self-pollinating, we have to do that artificially: we take a brush, get pollen on the brush, take it to another flower, and put the pollen on that flower,” Bush says. “On a large scale, that’s what pollinators are doing. So we can imagine what impact that would have if we didn’t have them. You can’t have people out there in a huge field of a particular crop taking little camel-hair brushes and pollinating plants one to another.”

Recent studies have shown that over the past 20 years the population of eastern North American migrating monarchs has dropped 90 percent, according to the Fish and Wildlife Service. Illegal logging in Mexico, changes in the climate, and destruction
Super Mon
Amazing feats and great mysteries of the monarch butterfly

Considered a biological phenomenon, the monarch’s year-long migration cycle is completed in five stages over four generations of offspring. One of the great mysteries is how a butterfly born in the United States—that is four generations removed from its ancestor that previously lived in Mexico—even knows it should fly south for the winter as well as how to get to the same location year after year. Here’s a glimpse into the monarch’s migration.

1ST GENERATION
February to April: The offspring of the wintering monarchs hatch on milkweed plants in Texas. The caterpillar will metamorphose into a rigid green chrysalis and, in less than two weeks, emerge as a fully grown butterfly.

2ND GENERATION
May to June: The next generation advances the push north. Using sensory organs on their feet and heads that help them identify different plants, they find milkweed along the way for breeding.

3RD GENERATION
July to August: The third generation nears its summer destination of northern U.S. and Canada. The average lifespan of the first three generations of monarch is two to six weeks, unlike the fourth generation, which could live up to eight or nine months.

4TH GENERATION
September to October: The final generation—born in northern U.S. and Canada—will start its journey using several flyways but converge on one path through central Texas. Monarchs can travel between 50 to 100 miles a day for roughly 3,000 miles.

November to January: This same generation leaves the wintering site, returning north through Texas, to start the cycle again.

SOURCE: UTSA AND U.S. FOREST SERVICE
UTSA’s Look at Monarchs and Milkweed

In their study of milkweed and monarch butterfly populations, university researchers are looking at these key areas:

- the current milkweed population compared to 1996, when one of the only other studies was done;
- habitat characteristics in different milkweed populations in different Texas ecoregions;
- whether the monarchs prefer specific species of milkweed, seed viability of the preferred species, optimum growth requirements, optimum patch size for milkweed, what the effect of mowing or time of mowing might have on monarch larvae and eggs; and
- if there is a correlation between fire ant mound density/proximity and number of monarch eggs and larvae.

A larval monarch strips the leaves of a milkweed plant, eating its way to adulthood.

To closely study monarchs’ use of various types of milkweed, researchers placed the butterflies’ eggs on plants kept in a greenhouse on Main Campus.
of milkweed are all considered contributors. Leaders at the highest levels of government in Canada, the United States, and Mexico have all agreed the problem needs to be addressed. The three countries have created a high-level, interagency working group.

Everyone agrees that Texas plays an important role in sustaining the monarch population because it is the first breeding ground stop in the spring migration after the butterfly leaves Mexico, where they stay for the winter. Yet what effect, if any, the Texas milkweed habitat might have on the declining population of monarchs in North America is difficult to say because there’s a lack of state-specific information. This is where UTSA comes in. Texas has mobilized stakeholders as part of the Texas Parks and Wildlife’s Texas Monarch and Native Pollinator Conservation Plan, which includes the university’s research. The plan states “the scope of this project and the importance of the topic at hand outlines the necessity for the program at UTSA to partner with federal, state, and nongovernmental agencies to contribute toward the goal of monarch conservation in the U.S.”

**A Growing Interest**

Alfredo Carbajal opens his notebook and places an unidentified plant between the pages as both Seiboldt and Chavez continue to call out descriptions found in the weeds along the I-35 access road. December graduate Mere Doria rounds out the team—one of two—conducting the first I-35 survey. “I just thought it would be cool and something different,” Carbajal says as he catalogs the plants. “It definitely has its hard parts, but I wanted to have this kind of hands-on experience.” Chavez, Doria, and Carbajal all volunteered to spend their weekend stopping every 10 miles to document a stretch of highway.

Research associate and project manager Seiboldt says news of the research generated buzz among all levels of students. “We’ve had a lot of people volunteering, and it’s been really great. It’s not just good for the students but also really helpful because it’s a lot of work, especially the roadside surveys.” The first surveys were completed this past fall. In addition to the I-35 route, teams completed surveys on U.S. 281 from Wichita Falls to Alice. They also replicated an east-to-west study done in 1996.

“We are trying to connect the dots to make sure that if there is an issue with the milkweed population, Texas will be part of the solution and not the problem,” Chavez says. “I personally want my nieces to be able to experience the beauty of the monarch butterfly in nature and to understand the monarch butterfly’s role as a pollinator. When we work together we can achieve so much more and make such a great impact.”

Along with the roadside surveys that are being conducted, the project encompasses the study of seed viability and germination, field experiments, and the greenhouse, which includes the butterfly house Seiboldt and others helped to build. Their first inhabitants came from the wild. In the fall about a dozen bright green chrysalises dotted the butterfly house, and the researchers have already had one generation go through their life cycle. Another has matured to adulthood.

With another year and a half to go, the milkweed project has captivated students, and Bush says there are currently a handful of graduate students focusing on milkweed, which would not have been possible without the grant, partnerships with stakeholders, and support from George Perry, the dean of the College of Science.

“This did really open up a new research agenda and interest for myself and my students,” Bush says.

**Building Awareness**

On October 31, as Seiboldt and the research teams landed in Alice, the southernmost point for the U.S. 281 roadside survey, just a couple of hours south in Mission, the 20th Annual Texas Butterfly Festival began. Hundreds of butterfly enthusiasts from around the world converged at the National Butterfly Center, a project of the North American Butterfly Association, a nonprofit dedicated to the conservation and study of wild butterflies in their native habitats. The organization also runs the annual butterfly count programs in Canada, the United States, and Mexico with the help of thousands of volunteers.

“Violent storms had gone through the area, but the monarchs waited it out. Afterward, the last stragglers to head to Mexico for the winter traveled through. The center’s director, Marianna Treviño-Wright, says there weren’t as many monarchs overall this season as in years past. “There would be big plumes of butterflies, clouds of them,” she says. But this year “the volume has not been here.”

The center is one of those statewide partners that work with the federal government to help the monarch make it to and from Mexico. They have planted hundreds of native plants for all kinds of pollinators and have become a model for those who want to expand into educational efforts to raise awareness. They also have fall and spring nectar for all butterflies. And of course, there is community education, something Treviño-Wright believes grows more important every day as people become more sheltered from the natural environment.

For many devotees at the festival—and there was no shortage of opinions on saving pollinators—the interest in the monarch was deemed too narrow, with one participant even describing monarchs as the “least interesting” butterfly. Yet everyone could agree that the conservation and awareness efforts surrounding the monarch could only help a broader swath of butterflies and other pollinators. There was something to be said about rallying behind a mascot, and the monarch had certainly become one, they agreed.

“When you have a species that crosses borders, the conservation becomes an issue for a lot of different entities,” Bush says. “We have Mexico, the United States, and Canada. Conserving a species that crosses international borders brings us together. It’s exciting for me and UTSA that we are at the forefront.”
UTSA RESEARCHERS ARE WORKING TO ADDRESS
THE SYSTEMIC PROBLEMS WITH FOSTER CARE
AT THE LOCAL, STATE, AND NATIONAL LEVELS

FIXING A BROKEN SYSTEM

BY MICHELLE MONDO
ANTHONY THORNTON PHOTOGRAPHED BY COURTNEY CAMPBELL

Anthony Thornton M.S.W. ’15 was only 5 years old when a caseworker from Texas Child Protective Services found him walking alone in a neighborhood park. “We did that—wander the streets when my mom wasn’t around,” he explains. She hadn’t been around for about two weeks, though, having left Thornton and his four siblings in the care of a teenager they didn’t know; she stuck around for only a few days. When the caseworker approached Thornton, he was suspicious. “Even at that age I was pretty street-smart and knew not to talk to strangers,” he says, “so it took her some time to get me into her car.”

That day marked Thornton’s entrance into the foster care system with the Texas Department of Family and Protective Services, a beleaguered agency under attack for taking children from homes filled with abuse and neglect but thrusting them into an equally bad—or worse—environment. In the midst of a push for reform, UTSA professors and students—some of whom were in foster care themselves—from across disciplines have been looking at ways to help fix a system that’s been labeled broken.

“While it is important to ensure that children and young people are not neglected or abused by adults in their family, if we take them away from the only family they know, we have to be really sure we are doing the most we can to give them what a loving family would provide,” says UTSA sociology professor Harriett Romo, who is also director of the university’s Child and Adolescent Policy Research Institute.

Romo became interested in the foster system about six years ago after a student who worked in her office revealed that he had been a foster youth. Since then, Romo, along with CAPRI staff and students, has overseen or participated in major grant projects for the federal government and formed partnerships with state and local agencies that focus on the transition of children out of the system and into adulthood, including preparing them for college.

In March, Romo, CAPRI assistant director Sophia Ortiz, and graduate students at CAPRI will be presenting a paper at the Southwestern Social Science Association meeting that identifies gaps in services provided to youth with experience with Child Protective Services and who are transitioning into adulthood.

UNCOVERING THE PROBLEMS
The research being done by faculty, staff, and students in the College of Liberal and...
Fine Arts and the College of Public Policy has created a robust body of work that examines problem areas—from finding stable housing to forming lasting bonds with adults. The COPP faculty also help train and educate Child Protective Services caseworkers who are working toward a degree in social work.

UTSA’s work has become even more critical since a federal judge ruled in December 2015 that the entire Texas system is unconstitutional and violates the rights of the children placed under its care. “Texas’ foster care system is broken, and it has been that way for decades,” U.S. District Judge Janis Graham Jack wrote in her ruling. “It is broken for all stakeholders, including DFPS employees who are tasked with impossible workloads. Most importantly, though, it is broken for Texas children [in permanent managing conservatorships], who almost uniformly leave state custody more damaged than when they entered.”

Child Protective Services had already embarked on a foster system redesign when the judge ordered a special master to help with reform. Other states are facing the same dilemma because of lawsuits filed by a child advocacy agency that sued on behalf of a group of Texas children. The Texas attorney general has appealed the ruling.

Former and current foster youth who have been forthcoming with their stories—including UTSA students who have spoken to state lawmakers—have been sounding the alarm for years. And those who have defied the odds show that the situation—while in desperate need of attention—is not hopeless.

Now engaged with two children, Thornton graduated in December with his master’s in social work. His journey highlights the challenges faced by thousands of abused and neglected children who enter foster care each year but do not find the support they need.

This situation has to change, the experts say. After all, helping youth to thrive is the responsibility of the entire community, Romo points out.

“Children and teens need the care and commitment of many positive adults in their lives, especially if their biological parents cannot care for them,” she says. “Our lack of commitment and responsibility to these children is a problem—and it is everyone’s problem.”

**UTSA Makes the Case**

Harriett Romo
Professor, Department of Sociology, College of Liberal and Fine Arts
Director, Child and Adolescent Policy Research Institute

“While it is important to ensure that children and young people are not neglected or abused by adults in their family, if we take them away from the only family they know, we have to be really sure we are doing the most we can to give them what a loving family would provide.”

**AN INSIDE LOOK**

Eventually, Thornton’s mom regained custody of her children, and the family moved from Amarillo to El Paso. But once again, Thornton arrived home one day to find police and CPS caseworkers taking his siblings into custody. “I walked over to my mom and told her, ‘You promised this would never happen again,’” he says. “And then I walked out without shedding a tear.” He was 10 years old.

More than 31,000 children were in foster care statewide in fiscal year 2014, according to a DFPS report. Region 8, which includes San Antonio, had the second highest number at more than 4,800; it’s second only to the region that includes Houston. Depending on the circumstances, children can be placed in a variety of settings, including foster homes, emergency shelters, state schools and hospitals, group homes, and juvenile detention centers. Overall in Texas, 151 children died from confirmed abuse or neglect in fiscal year 2014, according to the DFPS. Of those cases, seven were in foster care, the DFPS reported, adding that injuries could have occurred prior to placement.

According to experts, finding a way to balance protection and safety with making sure children have as stable a life as possible is not easy but is necessary.

UTSA social work professor Jolyn Mikow has a unique perspective on the DFPS, given her experience as a former CPS caseworker. She left the agency to pursue her degree and now directs the university’s Title IV Social Work Education Program, which funds education for caseworkers seeking a social work degree. As part of that program, Mikow and Alfred Pérez, also a social work professor, travel to Corpus Christi to teach classes, since no nearby college or university has a social work program. They’ve graduated 17 students, according to Mikow, and are working on a second group now.

Education is needed because years ago the DFPS “deprofessionalized the supervision” of CPS caseworkers and stopped requiring degrees in social work, Mikow says. “From my perspective, having been an employee, the public throws around the term ‘social worker for CPS,’ but the vast majority of caseworkers aren’t social workers. I’ve worked with people with degrees in physical education or Spanish, for example. You have people working the jobs without any education about working with families.”
His journey highlights the challenges faced by thousands of abused and neglected children who enter foster care each year but do not find the support they need.

Anthony Thornton on the UTSA campus. He entered the foster care system in Texas when he was 5.

Stories to Be Told
Another Roadrunner provides a glimpse into the foster care experience

While many children don’t find permanence through adoption, UTSA sophomore Blue Hess did. Jens and Irma Hess entered Blue Hess’ life at a critical point in his tenure with the Texas foster care system. “I was well aware when I first went into foster care that, at 18, you’re kicked out of the system,” he says. “As I was in the system getting older, foster parents were telling me, ‘If you don’t get adopted over the next two years, you’re never going to get adopted’ because older kids are always the last to get adopted.”

Hess’ revolving door of foster homes during his six years in foster care hindered his ability to accept that the Hesses ultimately weren’t going anywhere once they’d come into his life. There were many ups and downs during those first few years as a family, he tells Sombrilla Magazine, including issues that, unlike Hess’ situation, could mean a not-quite-so-“forever home” for other adopted children.

“People say I’m a success story,” he says. “I’d say, for me, I feel like I’m not a success story; I’m a good story and I’m a positive story. There’s a lot of kids out there who get adopted and things aren’t so good.”

Learn more about Hess’ story in our video interview in Sombrilla Magazine online.
Then there are also challenges once caseworkers become trained in the field, Mikow explains. While the agency tries to be supportive of families, it can also be “very punitive” because they don’t want to get in trouble if a child dies or suffers abuse or neglect. “Social work is support- and strength-focused, working on solutions to the problem,” she continues, “and the solution is to not always blow up the family.”

Mikow says the DFPS is already trying to find a balance in its policies, and after going through two reviews of its processes, it has worked with academics and others to find a curriculum for mentors of child welfare caseworkers. The head of the agency has also put more focus and money into prevention. But there are some things that only the state legislature can fix, and funding remains an obstacle. “[State legislators] can say they are values-driven and family-focused,” Mikow explains, “but they usually don’t put their money where their mouth is. It’s not politically expedient to spend more money, but they have to.”

FINDING WHAT WORKS

Before he was set to graduate from high school, Thornton had no place to live. He had been adopted as a teen, along with two of his four siblings, but says the living situation with his adoptive parents was “just not viable.” His other two siblings were also adopted, but they rarely saw each other, which is a common problem among children in care who are separated from their brothers and sisters. Without those family connections, Thornton stayed on the couches of friends who had sympathetic parents, but he knew it wasn’t a long-term solution.

This situation isn’t atypical. Especially for youth who are transitioning out of the system, Romo says, finding stable housing can be a huge obstacle. Landing at friends’ homes is actually considered lucky by foster youth standards. In a study published in the Journal of Adolescence, Romo and Beatrix Pérez examined couch surfing among Latino young adults who had been in foster care and found that peer networks and informal systems were crucial for foster youth.

Romo continued studying housing issues for a federal Housing and Urban Development grant project. CAPRI examined housing stability as foster youth aged out of care. Most recently, along with local nonprofit Baptist Child and Family Services, CAPRI researchers helped create a model for early intervention to help foster youth transition to adulthood. Overall, Romo says, their research found that former and current foster youth need positive permanent connections, social and emotional support, education and career opportunities, and safe and secure housing.

Along with the research, CAPRI also hosts the ACCESS Center computer lab and resource room, which assists youth who are transitioning out of foster care to enroll in college. The facility provides a website for all foster youth to submit updated information on college applications, course registration, financial aid, and housing.

Since 2003, foster youth who meet certain requirements are eligible for tuition waivers at Texas public universities. About half of U.S. states provide some form of financial assistance to foster youth for higher education. A few years ago the Texas legislature increased the age of eligibility from 21 to 25. That change enabled Thornton, who had moved to Arizona, where he received his bachelor’s degree, to apply to UTSA’s social work program.

A HOPEFUL END

Alfred Pérez knows Thornton’s path. He too was raised in the foster care system and throughout his academic career has helped shape national foster care system policy. He’s now examining those same policies. Hired at UTSA in 2014, Pérez had several choices for professorships awaiting him but chose the university because it’s a Hispanic-serving institution and on track to become Tier One. “UTSA’s social work department is young and has a transcultural mission to train social workers, which aligns with my values. And just as important, the CAPRI center was doing some really groundbreaking research in the area of foster care, and I felt my own body of work had a home here.”

Research by Pérez and social work colleague Richard Harris has examined the effects of the national services provided under the Chafee Foster Care Independence Program, which offers assistance to help foster youth transition out of the system and into adulthood. According to Pérez, only a third of all foster care youth received the services promised, despite an investment of $140 million per year since 1999.

Thornton studied under Pérez and worked on a variety of research topics, including permanence, a word used to describe successfully leaving the foster care system. Traditionally, that has been defined...
as adoption, a definition Pérez now believes is too narrow. “In the child welfare system we use language like ‘forever homes’ and believe once these kids are placed in homes or guardianships they live ‘happily ever after,’” Pérez says. “But my research supports previous research showing adopted youth from foster care may fare worse than youth who remain in foster care. This raises questions about the well-being of youth who’ve exited foster care through permanence, given the federal and state policy priorities to move children into permanence.”

Pérez will be delving into the topic even more as co–principal investigator in a groundbreaking, longitudinal, five-year study called the Texas Youth Permanency Study. The research is sponsored by Upbring, Pérez says, and he’ll be working with colleagues Monica Faulkner and Tina Atkins from The University of Texas at Austin’s Child and Family Research Institute. The study examines the postpermanency experiences and long-term developmental outcomes of older youth in Texas’ foster care system.

He has also been appointed to the Texas Supreme Court Children’s Commission, where he serves on the Higher Education Implementation Committee, which is working to transform educational outcomes for children and youth in foster care.

To Thornton, who didn’t find his own permanent family after being adopted, family isn’t about bloodlines or legal guardianship. He says it’s those people who have supported him and stood by him when family could not or would not—like his lifelong friend who would become his fiancée. He says, they are people like Pérez, who was not only his professor but also a role model and mentor.

The day after commencement ceremonies in December, Thornton and his fiancée packed up the last of their things...ready to start the next chapter.

“I was determined not to let my past narrative shape my future,” Thornton says. “My time and experience at UTSA has brought much success beyond academic achievement. I was able to reconnect with supportive members of my birth family, forge lifelong connections with classmates at UTSA, and connect with an inspirational UTSA faculty mentor. Graduating was an especially joyous milestone. My degree and time at UTSA represents a positive future for my family.”
CLAYTON SPONHALTZ ‘08 learned firsthand that addiction can turn a life upside down. Now, he’s helping students find their own road to recovery

BY MICHELLE MONDO

The warning signs had been there but he didn’t pay attention. Missing a class, then two, until he missed more than he attended. Then it all culminated when Clayton Sponhaltz woke up one early morning somewhere in Corpus Christi. Not only was he lost and unsure of where his car was, but he also had no idea what happened the night before. ¶ “I was out of my mind for about a week on drugs and alcohol. My parents intervened and took me to a hospital,” Sponhaltz recalls about the course of events that changed his life when he was 20. He entered rehab, and that is where he truly understood the choices he’d made. “I realized that I didn’t know how to live effectively without a substance in my body,” he says. “I knew that life had to look better than what I was doing.”

Now sober for more than 12 years, Sponhaltz is bringing his life lessons to his alma mater, not only as a licensed chemical dependency counselor but also as assistant director of UTSA’s Center for Collegiate Recovery. The center offers a place for students who are in recovery, looking for support, or just want the college experience minus the drugs or alcohol. Because a support network is often key to success for anyone embracing sobriety, starting with the fall 2016 semester, UTSA’s Alva- rez Hall will have up to 30 beds dedicated to students in recovery or wanting to pursue a sober lifestyle. “It’s been said that college campuses are abstinence-hostile environ-
“The students want what any other college student wants: a community,” he says. They want to hang out with like-minded people and without the stress of worrying about what temptation might crop up. The most popular event so far has been the sober spring break retreat, which will now be annual, and plans are being made for this semester as well. Tailgating at home football games is also a hit.

The center’s staff also wants to increase the conversations on campus about alcohol and substance abuse and to include educational experiences for the community. They held their first educational class already, focusing on the myths and facts surrounding marijuana use.

Inclusion of anyone seeking an alternative, Sponhaltz says, is of the utmost importance. The open Alcoholics Anonymous meetings hosted at the center are an example of just that. Initiated by a current student who got sober through the center, the meetings are available to anyone who may be seeking help, whether from alcohol, drugs, or even eating disorders. The center includes support for students across a spectrum, Sponhaltz adds.

Given his history, Sponhaltz understands how hard it can be for students who want to connect and have fun at college but don’t want to drink or do drugs. He experienced it himself before leaving college the first time at 19 when he attended Texas Tech University. When he decided to get back to his education, he opted for UTSA. But finding his place was not easy, and he spent most of his time off campus. “I tried to connect with other college students and stay sober,” he says, “but it was hard.”

After earning his degree in psychology, he took a job as a counselor at the same center in the Hill Country where he found treatment. When Sponhaltz saw that UTSA was hiring for someone to get the center up and running, he knew it would be a perfect fit. “It’s really freaking hard to stay sober, in general, and then to be in college too? As an alum, I felt that UTSA has to have that support available. Because of my history, I can really understand their story.”

Class Notes

1983 Texas Lawyer magazine has named Edward F. Valderspino, B.B.A. in finance, one of 20 “Extraordinary Texas Minority Lawyers” for his noteworthy impact and significant contributions to the law and his profession in Texas over the past five years. The commercial litigator is partner in charge of the San Antonio office of Strasburger & Price and has played a key role in litigation involving the R. Allen Stanford Ponzi scheme.

1986 Ricardo ‘Rick’ Ramirez, B.B.A. in finance and B.B.A. in accounting ’86, has been named vice president for operational accounting at the Security Service Federal Credit Union.

1988 The National Association of Health Underwriters has named Russell “Rusty” Rice, B.S. in physical education/kinesiology, secretary of the San Antonio Association of Health Underwriters.

1994 Susan Bineham, B.A. in psychology, has assumed duties as head of school for the Academy at Morgan’s Wonderland, a learning environment for special-needs students. Bineham’s career includes work in youth ministry at a local church, at the Bexar County Juvenile Justice Academy, and a combined 16 years in the Northside Independent School District.

Jeffrey Bryson, B.B.A. in accounting, has joined the law office of Schoenbaum, Curphy & Scanlan. Bryson has practiced law in Washington, D.C., since 2003.

1996 Maria Villagomez, B.B.A. in accounting, has been appointed City of San Antonio assistant city manager to oversee the Office of Management and Budget, Office of Innovation, Parks and Recreation Department, Animal Care Services, and the Department of Human Services.

1997 Marc Sewell, B.B.A. in accounting, has been named partner at Padgett, Stratemann & Co., one of Texas’ largest, locally-owned CPA and business advisory firms.

1998 Gilberto Paiz, B.B.A. in general business, and a financial adviser at Wells Fargo, has joined the board of directors of Doyle School Community Center. The center’s mission is to provide opportunities for growth, personal improvement, community development, and education for all of Kerrville, while focusing in particular on the low-income neighborhood around the center.

2000 Rick Reed, B.B.A. in finance, has been named vice president of sales for Informa Exhibitions, leading its media and events sales in North America. Reed also sits on the board of directors at UTSA Canoe and Kayak. The former UTSA basketball player now lives in Dallas with his wife and two children.

2003 Lori Houston, M.P.A., has been appointed as City of San Antonio assistant city manager overseeing the Convention and Visitors Bureau, the Culture and Creative Department, the Center City Development Department, and the Office of Historic Preservation.

2006 The Hispanic Association on Corporate Responsibility has named Marco Villarreal Jr., B.B.A. in management, a Young Hispanic Corporate Achiever. Villarreal works for Union Pacific as manager of intermodal equipment maintenance, covering New Mexico, San Antonio, Eagle Pass, Laredo, and Northern Mexico. The annual award recognizes young corporate professionals for their leadership qualities, employee achievements, and commitment to the Hispanic community.

2007 Jeff Coyle, M.P.A., now heads City of San Antonio’s new Government and Public Affairs Department, which combined the offices of intergovernmental relations, communications and public relations, military affairs, and open records requests. Coyle will also direct strategic communications for the city.

2008 Julie Persellin, Ph.D. in accounting, has been promoted to associate professor and awarded tenure at Trinity University. She teaches both undergraduate and graduate accounting classes.

2014 Jose Vega, Ph.D. in accounting, has joined the faculty at Clarkson University. Vega was a participant in the Ph.D. Project, an award-winning program that aims to diversify corporate America by increasing the number of minority business professors to attract more minority students to study business in college.

Alumni Awards

The Alumni Association honored three Roadrunners at its 2015 UTSA Alumni Gala. Pat Clynes ’85 has received the Alumni Lifetime Achievement Award, which is presented to an alumnus who has realized extraordinary accomplishments throughout his or her professional career. An accounting major in his time at the university, Clynes retired from BP Energy in Houston, where he served as a top-level executive since 2003.

Clynes’ long-standing volunteer leadership at UTSA includes serving on the Development Board, the Athletics Executive Advisory Council, and past roles on the College of Business Advisory Council and the Alumni Association Board of Directors.

Giving back to his alma mater, he has established and endowed the Patrick J. Clynes Endowed College of Business Excellence in Service faculty award and two student scholarships. He previously received the UTSA Alumni of the Year Award in 2000.

Yvonne Fernandez ’85 and Scott Metzger M.A. ’05 are recipients of the Alumni and Alumnus of the Year Award. Fernandez, a finance major, is vice president of commercial operations at Security Service Federal Credit Union and a member of UTSA’s Real Estate Finance and Development Founders Council. She is a past president and current board member of the Alumni Association and a former member of the UTSA Development Board. Founder and CEO of Freebird Brewing Co., Metzger began his professional career in the banking and oil industries before discovering his true passion—craft brewing. An economics major, Metzger was instrumental in a statewide effort to change distribution laws to allow brewpubs to distribute their beers throughout Texas. The Alumna and Alumnus of the Year Award honors UTSA alumni who have distinguished themselves through their accomplishments and good deeds.
When LaTanya Ward-Showers created her newest children's book character, Layla, she says she pulled inspiration from the likes of Oprah Winfrey, Maya Angelou, and Chaka Khan: powerful, goal-oriented, and the essence of cool and adventurous.

Wait, this is a children's book, right?

“This isn’t a book with a relatable image just for young black girls but for all children, with a main character who is a larger-than-life girl,” Ward-Showers says. “Kids don’t look at Dora the Explorer as only Hispanic. She’s fun and adventurous, and I want to see that in more minority book characters.”

Ward-Showers is doing what she can to make that happen. She’s already written and published two children’s books. Isaiah, the main character in her first book, Could It Be a Monster in the Attic? happens to be based on her son, who at 5 years old is a bit younger than the boy he inspired. “He’ll take it off the shelf,” Ward-Showers says of her son, “and point and say, ‘That’s me. That’s mommy. That’s daddy.’”

A human resources employee who graduated with a degree in psychology, Ward-Showers became an author after a push from her own mother after bemoaning the lack of minority characters in children’s books: “My mom said, ‘You’re a writer. Why don’t you just do it?’ So I did.” A noise that she and her then-toddler son heard in the attic became the subject.

The experience has become somewhat cathartic. Growing up in Carrizo Springs, she began writing in third grade and received support from her teachers and family. Still, as the only black student at times, she knew she was different. Ward-Showers recalls one story that was submitted for a contest. It was about a beautiful princess. “She was blond and had blue eyes and was skinny,” she says. “That was my idea of beauty even in the third grade. I didn’t even think of someone who looked like me.”

Ward-Showers learned to embrace what she so rarely saw in mainstream media and, along with her full-time job, is an agency-represented plus-size model. She also has her own segment on Style Lush TV, an online network dedicated to San Antonio fashion. “Hello, Curvy Lushes!” she says to her audience at the start of her show.

Her focus, however, is still on being an author. And she has big plans for Isaiah to one day meet Layla and her older sister, who is also a character in Ward-Showers’ second book, Layla Loves Cookies. She even hopes to expand the characters into toys, clothing, and other products.

But for now, the goal is a lot simpler. “Kids naturally are prejudice-free,” Ward-Showers explains, “but they are bombarded by images every day from the media. And what is the message if those kids aren’t represented in books? Why not just celebrate diversity and expose them to variety?”

LaTANYA WARD-SHOWERS ’03 pens books to help bring cultural diversity to every child’s life
Building Cyber Business

WILL GARRETT M.B.A. ’12 helps explain why cybersecurity is so important for the city of San Antonio

BY MICHELLE MONDO

When Will Garrett started working at the San Antonio Chamber of Commerce in 2007, he got some advice from then-boss Joe Krier. Now a city councilman, Krier told Garrett to go back to school for an M.B.A. Garrett chose UTSA because of the business program’s reputation, he says, and he found that going to school while working meant he could apply what he learned in real time. Recently chosen to head the chamber’s new cybersecurity business development program, Garrett spoke with Sombrilla Magazine about why cybersecurity is such an important market for the city, how San Antonio plans to cultivate that market, and where UTSA fits into the scheme.

Why is cybersecurity so important to San Antonio? What we see is a very strong baseline competitively in cybersecurity, and shame on us if we don’t double down on this and create an ecosystem that accelerates an industry. From a community standpoint, it’s about having higher paying jobs, bringing in a talented workforce. It’s only a growth industry. In the recession San Antonio fared well because we had a diverse industry base, but it can be hard in marketing to define who we are as a city. This is one sector where we have a legitimate play to be made. We have the second biggest cluster of cybersecurity assets in the nation outside of Washington, D.C.

What will a bigger cyber market mean for San Antonio? We can break it down into a few parts. One part would be bringing new businesses to San Antonio. There’s the classic economic-development strategy of bringing larger businesses to San Antonio—a business that would make headlines in the paper—to make an investment, for example. Businesses like Symantec, McAfee—those big firewall firms all have service centers employing about 100 to 200 people in each center. Other examples are services, or dealing with problems as they happen. Some have offices here; some are just headquartered.

The second part is organic growth here. That comes from support for cybersecurity companies that are already in San Antonio. We need to support all of those. So we have to create an environment for that.

Why is San Antonio better positioned than other cities for that business? It’s a good location to have a service center. We have low real estate costs, the space, and affordable energy; we have our own power grid. There are a lot of positives. So there’s a play to be made in close coordination with city council and economic development relocation to San Antonio.

Where does UTSA fit in? Across the nation—from an IT, tech, and cybersecurity standpoint—there are very few places with excess talent, whether programmers, network administrators, or security professionals. That is something where UTSA is a leader, training and educating our future workforce. We’re working closely with UTSA to look at how we accelerate everything the university is doing and to closely connect the business community with the university. From my program’s standpoint, it’s making sure business helps with curriculum alignment and degree-program creation. We need graduates to go out and work in the industry here in San Antonio.
Having grown up about 10 minutes from UTSA’s Main Campus, Ramiro Garcia remembers when Loop 1604 was just a narrow two-lane circle cutting a swath through the rural outskirts of San Antonio. In those early days of the highway, a lack of lighting and drivers’ penchant for speeding down the long straightaways earned 1604 the nickname of the Death Loop.

But, as any motorist who’s driven along Loop 1604 lately knows, what was once a country road where a driver could go miles without seeing another motorist has, in some parts, become one of the biggest traffic headaches in the city.

And it is now part of Garcia’s job as an engineer to provide relief. He currently is the director of operations in the Dallas office of consulting firm HNTB Corp. “My best day at work is being able to design the projects,” Garcia says, “and then to drive on that highway or roadway and say this is good for improving people’s quality of life.”

Garcia started his career at the Texas Department of Transportation after graduating with both a bachelor’s and master’s degree in civil engineering. He’s working with TxDOT again but this time as the program manager for HTNB’s Central/South Texas General Engineering Consultant contract with the state agency. Along with overseeing the new $800 million Harbor Bridge in Corpus Christi, as well as the $82 million restoration of U.S. Route 77, he’s also monitoring jobs throughout the Eagle Ford Shale area, where there are 31 projects to resurface roadways.

But the one project that hits home is in his old backyard—adding four main lanes and frontage roads to Loop 1604 from Bandera Road to Culebra Road. The project is the first phase in an expansion plan expected to bring relief to one of the city’s most congested roadways and a constant source of consternation for commuters.

The high volume of vehicles is the biggest complexity to work around, he says. “I was just out there a couple weeks ago,” Garcia says. “It was midmorning—not known as a peak time—and traffic was still backed up. It’s a constant gridlock that contractors have to work around and maintain the safety of travelers and workers.” But once it’s completed, he adds, the work should meet demand for the next 20 years.

Building for future generations is one reason he loves being an engineer. Garcia says it was his father who helped him decide to pursue that career path. “My parents joked with me that I liked to build things and then destroy them, and one night my dad threw out that idea. I was a freshman in high school. My brother is an electrical engineer and had already graduated from UTSA when I enrolled. We are the first generation to have college degrees, and education was very important to my parents. I like to say that UTSA succeeded with our family.”

Road Warrior

RAMIRO GARCIA ’91, M.S. ’97 has the job of fixing some of the worst highway problems in Texas.
The Burp
Heard Round the World

UTSA astrophysicist Eric Schlegel has been talking a lot about black holes lately, but we still have questions about the facts versus the fiction.

From their belching discovered 26 million light-years away across the universe to Stephen Hawking’s declarations that humans should harness their energy to power the Earth, black holes are having a moment. But they’re nothing new for UTSA astrophysicist Eric Schlegel. He’s the guy who made international headlines this year after documenting what his team coined a “burping black hole.”

Want to be part of the conversation but think the concept sounds a bit strange? No worries. Schlegel is here to help. The Vaughan Family Professor in UTSA’s physics and astronomy department sat down with Sombrilla Magazine to bring everyone up to warp speed on this space phenom.

OK, exactly what is a black hole? It is a mass that has shrunk sufficiently in size so that its gravitational pull is so strong that no amount of energy expended by you—or anything else, not even light—will escape. They come in two size ranges: stellar (with typical masses of a few times that of our sun) and galactic (with typical masses of a million to a hundred million times that of our sun).

What does this burp thing actually mean? For an analogy, astronomers often refer to black holes as “eating” stars and gas. This black hole is blasting hot gas and particles back into its surroundings.... So, apparently, black holes can burp after their meal.

Finally, is it true that you and Neil deGrasse Tyson go to the movies together and ruin them for everyone else by saying things like “That couldn’t happen!” throughout the entire film? [Laughs] I can’t speak for Neil, but I suspect everyone with a science background groans when each sees something that conflicts with the real universe. I try to keep my groans to myself to avoid having my wife, Lisa, use a sharp elbow on me. But occasionally, it’s just too difficult. If I think the movie will be racking up lots of groans, I just wait for it on Netflix or DVD so that I disturb only our pets.

I generally am willing to suspend some judgment unless the plot hinges on the science. For example, I came very close to ruining Interstellar for everyone when the astronauts visit that first planet—Uh, on second thought—you know, for your wife’s sake—let’s not get you started. Excellent idea.
The UTSA Galaxies?

This composite of optical and X-ray images shows the smaller NGC 5195 galaxy (where Schlegel’s team detected the black hole’s burps) merging with NGC 5194. Their interaction could be what enabled the discovery.