

5th ANNUAL STUDENT RESEARCH SYMPOSIUM APRIL 12, 2019



Graduate Studies and Office of Research
Arts & Sciences ● Business ● Education & Human Development
Texas A&M University-San Antonio

Welcome to the 5th Annual Student Research Symposium!



Mike O'Brien, Ph.D.
Provost & Vice President for Academic Affairs

Welcome to the Fifth Annual Student Research Symposium! As research continues to grow on our campus, it is with a sense of gratitude and appreciation that we acknowledge the many undergraduate and graduate students, faculty sponsors, university librarians, and staff who have helped to make this event possible. The 60 students showcasing their research engaged with faculty for the purpose of gaining new knowledge and to help them forge a path to the professions to which they aspire.

The Office of the Provost is pleased to offer this opportunity to celebrate student research and promote intellectual community across the university. Undergraduate and graduate students showcase their research in poster sessions, oral presentations, panels, and roundtable discussions. We applaud their accomplishments and are proud to share the Symposium experience with you.

Special thanks to the Student Research Symposium Committee members! Your hard work and dedication have truly made this a success!

Symposium Co-Chairs

Dr. Amy K. Bohmann – College of Arts and Sciences
Dr. Weixing M. Ford – College of Business
Dr. John Smith, College of Education and Human Development

Symposium Committee Members

Dr. Edwin Blanton
Dr. Mary Kay Cooper
Dr. Sandra DeGrassi
Dr. Sabina De Vries
Dr. Dennis Elam
Fernando Estrada
Johnny Guevara
Dr. Ho Hunyh
Kaesha Kidd
Dr. Wanda Leal
Dr. Sherita Love
Pamela A. Massey
Deirdre McDonald
Marina Narvaez
Juliana Velez
Patricia Zibluk



[instagram.com/tamusa_srs](https://www.instagram.com/tamusa_srs)



twitter.com/tamusasrs



[facebook.com/tamusasrs1](https://www.facebook.com/tamusasrs1)



Office: 210-784-2317

Email: srs@tamusa.edu

Web: www.tamusa.edu/srs

Table of Contents

Symposium Schedule – Friday, April 12, 2019	2
Student Research Symposium Abstracts	5
Oral Presentations	5
Poster Presentations	10

Symposium Schedule – Friday, April 12, 2019	
Registration & Coffee CAB 1 st Floor Lobby	
Morning Presentation Session 9:30 – 11:00 a.m.	
CAB 424	<p>Faculty Moderator: Dr. John Smith</p> <p>“Freshmen College Students’ Planned Strategies to Counter Anticipated Feedback/Failures” – Alicia Gamboa, Evelyn Escamilla, and Ryan Day <i>Faculty Sponsor: Dr. Ho Huynh</i></p> <p>“High-Impact Experience: Overcoming Challenges of Teaching Leadership Skills in Undergraduate and Graduate Leadership Courses” – Francis Andreu <i>Faculty Sponsor: Dr. Kenneth Sweet</i></p> <p>“Confessions: An Analysis of Torture Versus Empathy in Military Interrogation” – Nastasja Desch <i>Faculty Sponsor: Megan Pope</i></p> <p>“Relationship Between Eating Habits and Health Parameters” – Leah Daniels <i>Faculty Sponsor: Dr. John Smith</i></p>
CAB 219	<p>Faculty Moderator: Dr. Wanda Leal and Dr. Timothy Barnum</p> <p>“Roundtable Discussion: Criminological Theory in the Real World” – Jack Fulcher, Kevin Mendoza, Giovanni Suarez, and Naomi Mcfall <i>Faculty Sponsor: Dr. Wanda Leal and Dr. Timothy Barnum</i></p>
Morning Poster Session CAB 1 st floor Lobby 10:30 a.m. – 12:00 p.m.	
<p>Faculty Moderator: Dr. Amy Bohmann</p> <p>“Geriatric Marmoset Ambulatory Behavior” – Alyssa Lilly, Ariana Alvarez, and Danielle Holms <i>Faculty Sponsor: Dr. Corinna Ross</i></p> <p>“Attitudes and Personality Associated with Mosquitoes and Mosquito-Borne Diseases” – Amy Senger <i>Faculty Sponsor: Dr. Amy Bohmann</i></p> <p>“The Effect of Task Orientation Redirection on Unfamiliar Face Matching” – Devin Roberson and Ujjagar Sihan <i>Faculty Sponsor: Dr. Amy Bohmann</i></p> <p>“Reviewing and Revising YMCA's Assessment Surveys” – Angelica Torres <i>Faculty Sponsor: Dr. Ho Huynh</i></p> <p>“Determination of Signaling Pathways for Lipid Synthesis in <i>Caenorhabditis elegans</i>” – William Benedict and Michael Landez <i>Faculty Sponsor: Dr. Matthew Crook</i></p>	
Morning Special Workshop Session How to Apply for PhD Programs Faculty Presenters: Dr. Weixing Ford and Dr. Sabina de Vries CAB 219	

<p>11:00 a.m. – 12:00 p.m.</p> <p>Lunch and Special Session CAB Vista Room, 4th Floor 12:15 – 1:30 p.m.</p> <p>Dr. Dennis Elam</p> <p>Speaker: Cody Porter New Technologies Enabling Advance Robotics Solutions for Industry Southwest Research Institute</p>	
<p>Afternoon Presentation Session 2:00 – 3:30 p.m.</p>	
<p>CAB 337</p>	<p>Faculty Moderator: Dr. Ho Huynh</p> <p>“Reclaiming Humility’s Definition: Can Providing a Clear Definition of Humility Improve its Value/Worth?” – Lisset Martinez-Berman, Ryan Day, and Alicia Gamboa <i>Faculty Sponsor: Dr. Ho Huynh</i></p> <p>“Are Current College Students as Vain as Society Proclaims?” – Evelyn Escamilla, Lisset Martinez-Berman, and Maija Arthur <i>Faculty Sponsor: Dr. Ho Huynh</i></p> <p>“Experienced Stress of College Freshmen” – Katherine Sifuentes, Maija Arthur, and Evelyn Escamilla <i>Faculty Sponsor: Dr. Ho Huynh</i></p> <p>“Anticipated Failures and Setbacks of College Freshmen as Reported by Students During Their First Semester” – Maija Arthur, Alicia Gamboa, and Katherine Sifuentes <i>Faculty Sponsor: Dr. Ho Huynh</i></p>
<p>CAB 424</p>	<p>Faculty Moderator: Dr. Brenda Rowe and Dr. Claire Nolasco</p> <p>“Roundtable Discussion: U.S. Supreme Court Update” – Anissa Crispin, Diana Miranda, Sarah Rhodes, Jessica Gonzalez, Russell Ryan Burns, Kimberly Valle, and Joseph Lara <i>Faculty Sponsor: Dr. Brenda Rowe and Dr. Claire Nolasco</i></p>
<p>Afternoon Poster Session CAB 1st floor Lobby 3:15 – 4:45 p.m.</p>	
<p>Faculty Moderator: Dr. Wanda Leal</p> <p>“Evaluating Identity-Verification Tasks Using Eye-Tracking Equipment” – Abroadger Lipardo, Malia Myers, Devin Roberson, Ujjaggar Sihan, and Nathan Wieters <i>Faculty Sponsor: Dr. Dawn Weatherford</i></p> <p>“Knowledge, Attitudes, and Practices Survey Associated with Mosquitoes, Mosquito-Borne Diseases and the Premise Condition Index” – Lisset Martinez-Berman <i>Faculty Sponsor: Dr. Megan Wise de Valdez</i></p>	
<p>Evening Presentation Session 5:00 – 6:30 p.m.</p>	
<p>CAB 337</p>	<p>Faculty Moderator: Dr. Dawn Weatherford</p> <p>“The Role of the Opioid System in Psychological Pain and Physical Pain in Humans” – Karla Tapia</p>

	<p><i>Faculty Sponsor: Dr. Alan Daniel</i></p> <p>“Working Memory and Executive Function in Aging Marmosets” – Devin Forey-Vargas, Khira Sue Warford, and William Michael Benedict <i>Faculty Sponsor: Dr. Corinna Ross and Dr. Dawn Weatherford</i></p> <p>“Measuring Face Value: A Diverse Image Database for Facial Research” – Asbel Ramos, Nathan Wieters, Meghan Quintanar Garcia, and Katie Erwin <i>Faculty Sponsor: Dr. Dawn Weatherford</i></p> <p>“America's Gangster Era” – Joseph Lara <i>Faculty Sponsor: Dr. Amy Porter</i></p> <p>“Is Humility Related to Resilience?” – Ryan Day, Katherine Sifuentes, and Lisset Martinez-Berman <i>Faculty Sponsor: Dr. Ho Huynh</i></p>
<p>Evening Poster Session CAB 1st floor Lobby 5:30 – 6:45 p.m.</p>	
<p>Moderator: Dr. Wanda Leal</p> <p>“Microbial Analysis in Plant-Soil Interaction Between Sideoats grama and Bermuda grass” – Marissa Narvaez <i>Faculty Sponsor: Dr. Jose Rodolfo Valdez Barillas</i></p>	

Texas A&M University San Antonio
2019 Student Research Symposium Abstracts

Oral Presentations			
Student Names	Title	Faculty Sponsor	College
Francis Andreu	High-Impact Experience: Overcoming Challenges of Teaching Leadership Skills in Undergraduate and Graduate Leadership Courses	Dr. Kenneth Sweet	College of Business
<p>This paper presents instructors of leadership courses with four high-impact experience assignments designed to enable experiential learning of critical leadership skills including empathy, professional networking, continuous learning, and critical thinking/problem solving. These experiences, coupled with self-reflection, enable students to grow their leadership capability while building demonstrable professional skills that can be added to their resume. We begin by discussing the benefits and challenges of teaching leadership in a classroom setting, then demonstrate how high-impact experiences can be coupled with classroom learning to overcome these challenges and maximize student development. We conclude by introducing four experiential learning assignments that have been successfully implemented in undergraduate and graduate leadership education.</p>			
Maija Arthur, Alicia Gamboa, Katherine Sifuentes	Anticipated Failures and Setbacks of College Freshmen as Reported by Students During Their First Semester	Dr. Ho Huynh	College of Arts and Sciences
<p>Past research highlights a relationship between perceived academic failure and stress in college students (Lee, 2017). The current research attempts to identify the specific themes of failures or setbacks that college students experience in their first semester. Specifically, we examine sources of anticipated failures among first-generation college students (FGCS). The data from our study will add to the current literature about FGCS, as they are at a high risk of failing in higher education (Mehta, Newbold & O'Rourke, 2011).</p> <p>To fully address the study's questions, we plan to conduct a thematic analysis on the open-ended responses. Finally, we will compare the frequency of themes between FGCS status and other demographic factors. We anticipate discovering that students have a variety of identifiable concerns and personal dilemmas that will influence their perceived failures/setbacks. Moreover, we anticipate that FGCS may anticipate different sources of failures/setbacks compared to non-FGCS.</p>			
Anissa Crispin, Diana Miranda, Sarah Rhodes, Jessica Gonzalez, Russell Ryan Burns, Kimberly Valle, Joseph Lara	Roundtable Discussion: U.S. Supreme Court Update	Dr. Brenda Rowe and Dr. Claire Nolasco	College of Arts and Sciences
<p>This U.S. Supreme Court update roundtable will inform the audience about important U.S. Supreme Court decisions from the October 2017 term which have a critical impact on criminal justice and relate to several overarching themes. Discussants will provide an analysis of key cases, including insights into the significance of these cases for the administration of criminal justice. Cases presented concern Fourth Amendment search and seizure issues, Sixth Amendment right to assistance of counsel, double jeopardy, guilty pleas and waiver of right to appeal, and police</p>			

<p>officers' civil liability and qualified immunity. Faculty co-moderators are Dr. Brenda Rowe, who will present an overview of the U.S. Supreme Court's October 2017 term, and Dr. Claire Nolasco, who will recap the cases presented before opening the floor to questions.</p>			
Leah Daniels	Relationship Between Eating Habits and Health Parameters	Dr. John Smith	College of Education and Human Development
<p>This project is being conducted to determine the extent eating habits have on the health profile. Participants were asked to log their diet for 2 weeks through MyFitnessPal. Following the first week, they were assessed for blood glucose, BMI, blood pressure, body composition, and VO2max. SPSS v25 was used to assess the relationship between eating habits and health parameters. A Spearman's rho was used to correlate the categorical scores of eating habits and the z-scores of health parameters with alpha set at .05. A weak and non-significant relationship between eating habits and health parameters existed, $\rho(7) = .187, p = 0.63$, the same for health parameters and average caloric intake, $\rho(7) = -.433, p = 0.22$. Eating habits and health parameters or average caloric intake and health parameters are not correlated. Future studies should focus on expanding sample size and controlling the diet of the participants.</p>			
Ryan Day, Katherine Sifuentes, Lisset Martinez-Berman	Is Humility Related to Resilience?	Dr. Ho Huynh	College of Arts and Sciences
<p>Challenges require multiple attempts to gain success, however, some students demonstrate greater capability for sticking with a problem through numerous failures than others. Little exploration has been done to the link humility, the ability for one to hold a modest view of their own importance, or the ability to demonstrate resilience. It may be important to explore the possible link between those who persevere under challenging circumstances, their self-value and self-importance. Our study fills this gap in the literature by examining the relationship between humility and resilience in college students. We anticipate finding a positive correlation between humility and resilience, even when controlling for personality and demographic factors. The knowledge of a relationship between humility and resilience may ultimately improve student success. For example, students may engage in humility boosting interventions to boost resilience. Furthermore, these findings may extend to other contexts, such as healthcare and business.</p>			
Nastasja Desch	Confessions: An Analysis of Torture Versus Empathy in Military Interrogation	Megan Pope	College of Arts and Sciences
<p>The use of enhanced interrogation techniques (EITs), or torture, by American agencies are controversial. Polls show almost 50% of Americans view torture as acceptable. President Obama's 2009 Executive Order 13491 prohibited the use of many inhumane EITs, such as waterboarding. In 2016, President Trump claimed that he would reinstate these information-gathering techniques. The Washington Post published a leaked Executive Order draft in 2017, which would have legalized the reauthorization of black sites and torture. Due to the policy inconsistencies of current and previous presidential administrations, EITs are highly relevant. Current policy allows for American agencies to use EITs, as detailed in the U.S. Army Field Manual on Intelligence Interrogation. EITs such as extreme social isolation and sleep deprivation may be utilized in detainee interviews. This oral presentation will overview the body of literature surrounding EITs. Alternative information-gathering and rapport-based techniques are potentially more effective than stress-inducing situations.</p>			
Evelyn Escamilla, Lisset Martinez-Berman, Maija Arthur	Are Current College Students as Vain as Society Proclaims?	Dr. Ho Huynh	College of Arts and Sciences

<p>Although writers have proclaimed that the current generation is more confident, entitled, and narcissistic than previous generations, other researchers have noted that these generalizations are inaccurate and misleading. The current study reexamines this broad perspective on a group of underrepresented college students at a Hispanic serving institution. We test this hypothesis by simply asking current college students to list their strengths and weaknesses, and time how long they took to complete each section. We hypothesize that, opposite of what has been said about this generation, college students are more occupied with their weaknesses than their strengths. Findings from this study will add to our understanding of this generation and may contribute to teaching and supporting these college students.</p>			
<p>Devin Forey-Vargas, Khira Sue Warford, William Michael Benedict</p>	<p>Working Memory and Executive Function in Aging Marmosets</p>	<p>Dr. Corinna Ross and Dr. Dawn Weatherford</p>	<p>College of Arts and Sciences</p>
<p>Cognitive decline impairs working memory and executive function in aging humans. Changes in working memory and executive function are associated with dementia, age-related cognitive decline, and impaired independence. In order to increase health in the aging population rapamycin is being investigated as a pharmaceutical intervention. Rapamycin has been found to improve symptoms associated with age related decline including Alzheimer's symptoms, cancer, and cardiovascular disease in mice. Before beginning this type of intervention in aging humans it is necessary to examine the impact of rapamycin on cognitive function in an aging primate model. The CANTAB (Cambridge Neuropsychological Test Automated Battery) is an automated touchscreen unit that has been used to evaluate cognition in primates. This scientific study comparatively examines the effects of rapamycin on cognitive function in aging marmosets by first determining a healthy baseline of young adult marmosets using the CANTAB.</p>			
<p>Jack Fulcher, Kevin Mendoza, Giovanni Suarez, Naomi Mcfall</p>	<p>Roundtable Discussion: Criminological Theory in the Real World</p>	<p>Dr. Wanda Leal and Dr. Timothy Barnum</p>	<p>College of Arts and Sciences</p>
<p>This 'Criminological Theory in the Real World' Roundtable will demonstrate to the audience how criminological theories can inform real world phenomena. Student discussants will provide an analysis of particular world events and how they relate to and can be explained by crime theories. Specifically, students will discuss the events, review the criminological theory, and then explain how the event is an example of the theory. Applying criminological theories to real world events helps students understand theories more deeply and allows them to understand how classroom learning can be applied broadly to real life. Faculty co-moderators are Dr. Wanda Leal and Dr. Timothy Barnum.</p>			
<p>Alicia Gamboa, Evelyn Escamilla, Ryan Day</p>	<p>Freshmen College Students' Planned Strategies to Counter Anticipated Feedback/Failures</p>	<p>Dr. Ho Huynh</p>	<p>College of Arts and Sciences</p>
<p>Students often question what it takes to be successful in college, and whether they have the resources available to them. Research suggests a closer examination of coping strategies to reduce academic stress because coping strategies employed by students may actually help contribute to their everyday academic lives. For first-generation college students (FGCS), it may especially be difficult due to parents lacking experience in that area. In the present study, we examine students' coping strategies to academic stress, and compare FGCS' strategies to those of non-FGCS. In an online survey, undergraduate students wrote about future problems relating to their academic career and how they might address those challenges. We will conduct thematic analysis and categorize responses based on known coping strategies such as emotion, problem, and appraisal-focused strategies. We hypothesized that FGCS will report fewer effective strategies and more ineffective strategies than non-FGCS.</p>			

Joseph Lara	America's Gangster Era	Dr. Amy Porter	College of Arts and Sciences
<p>This presentation will discuss America's gangster era of the 1920s to the 1940s and show how the FBI was the solution to this era of rampant crime throughout the nation. The presentation will discuss different factors that contributed to the era of crime and will examine the FBI before, during, and after the era. In addition, the presentation will offer the reasons why this era is referred to as the gangster era. This presentation will also contain some key first-person accounts in order to show the different perspectives of this era. These perspectives include the law enforcement perspective, civilian outlook, and the view of the FBI.</p>			
Lisset Martinez-Berman, Ryan Day, Alicia Gamboa	Reclaiming Humility's Definition: Can Providing a Clear Definition of Humility Improve its Value/Worth?	Dr. Ho Huynh	College of Arts and Sciences
<p>The current study explores whether a clear definition of humility may improve its impact as a virtue. We were interested in seeing whether clearly defining humility would change participants' view of positive and negative terms associated with humility, how participants view their strengths and weaknesses, and perceptions of how effective humility is as a strategy for countering future setbacks. Undergraduate students completed an online study during a section of their university success course that included writing exercises on anticipated setbacks and a host of survey questions. We expect that when humility is clearly defined, participants will form higher positive associations with humility, form lower negative associations with humility, increase participants' reflection on their weaknesses compared to their strengths, and perceive humility as an effective strategy for countering setbacks. This study may support the need for future studies to clearly operationalize humility.</p>			
Asbel Ramos, Nathan Wieters, Meghan Quintanar Garcia, Katie Erwin	Measuring Face Value: A Diverse Image Database for Facial Research	Dr. Dawn Weatherford	College of Arts and Sciences
<p>Multiple facial databases do not portray naturalistic expression and lack the elements necessary to mimic real-world diversity. This lack of diversity has created problems for facial recognition research. Therefore, we are creating a facial database with images of approximately 300 participants. Each participant identity set includes selfies (i.e., ambient images), ID photos, and high-quality images and videos taken by a researcher. This ecologically-valid database will represent strong between-person variability (i.e., differences between people) and within-person variability (i.e., differences between images of the same person). After collecting all of the necessary images, we will quantify visual similarities using multidimensional scaling by comparing each image with every other image in the database. This technique measures variability on the basis of dimensions such as gender, skin tone, and other facial characteristics. Researchers and identification professionals can use our database to ensure both internal and external validity of their outcomes.</p>			
Katherine Sifuentes, Maija Arthur, Evelyn Escamilla	Experienced Stress of College Freshmen	Dr. Ho Huynh	College of Arts and Sciences
<p>Researchers frequently examine stress levels in college students, since stress is a common issue in the student population, especially for first year students (Ross, Neibling, & Heckert, 1999). The current study examines sources of stress among first year college students with an emphasis on first-generation college students (FGCS). Participants answered questions from the experienced stressors scale which has four categories of stress: environmental, academic, interpersonal, and intrapersonal. We expect to find a higher level of stress in FGCS than non-FGCS. These findings</p>			

<p>will provide a better understanding of the various sources of stress among FGCS to form new strategies on decreasing experienced stress in these students.</p>			
<p>Karla Tapia</p>	<p>The Role of the Opioid System in Psychological Pain and Physical Pain in Humans</p>	<p>Dr. Alan Daniel</p>	<p>College of Arts and Sciences</p>
<p>Understanding the emotional reaction to loss, or psychological pain, is a critical problem for the field of mental health. Animal models of loss have pointed to the opioid system as a nexus of psychological pain, physical pain, and substance abuse. The present study adapted procedures typically used in the rodent model to human participants. To assess psychological pain, human participants were trained to touch a target on a touchscreen for points for 10 trials, and subsequently received 10 trials with an 8:1 reduction in points rewarded. Then, participants were tested in the cold pressor test of pain tolerance. Finally, participants provided a sample of DNA which was screened for the A118G mutation in the mu opioid receptor, which has been linked to substance abuse risk and pain tolerance. This investigation is the first study to connect psychological pain, physical pain, and opioid system function in humans.</p>			

Poster Presentations			
Student Names	Title	Faculty Sponsor	College
William Benedict and Michael Landez	Determination of Signaling Pathways for Lipid Synthesis in <i>Caenorhabditis elegans</i>	Dr. Matthew Crook	College of Arts and Sciences
<p>Our research focuses on the role of Epidermal Growth Factor (EGF) signaling in the control of lipid synthesis in <i>Caenorhabditis elegans</i>. Overactive EGF signaling results in lower lipid levels in <i>C. elegans</i>. One key candidate is SBP-1, a transcription factor that controls lipid synthesis and a homologue of SREBP-1 in humans. Our aim is to determine if EGF signaling controls the activity of SBP-1, and therefore lipid synthesis. We used a fluorescent protein fused to SBP-1 protein, which allowed us to visualize where in the cell SBP-1 was localized and use it as a read out under different EGF signaling conditions. We then manipulated EGF signaling levels using gain of function mutations in different members of the EGF pathway to determine their role in controlling SBP-1 activity. Our work is part of a larger project using reverse genetics, transcriptomics and metabolomics to understand how lipid synthesis in animals is controlled.</p>			
Alyssa Lilly, Ariana Alvarez, Danielle Holms	Geriatric Marmoset Ambulatory Behavior	Dr. Corinna Ross	College of Arts and Sciences
<p>Frailty and sarcopenia are associated with functional decline due to aging, decreased independence, and increased risk of mortality. Longevity research has shifted focus to expanding our knowledge on the extension of health span for individuals. Common marmosets (<i>Callithrix jacchus</i>) are a good model for aging studies due to their short average lifespan. To determine whether we can detect risk of frailty and decreased health span, we evaluated daily behavioral activity. Geriatric marmosets were video recorded in 20-minute sessions. The ten central minutes of the videos were scored using instantaneous sampling on twenty second intervals to assess individuals' locomotive activities, spatial use, and sociality. All-occurrence-sampling was used to record the number of times the subject leapt, marked scent, stretched, or performed genital displays. For all observations, the percentage of time each instantaneous-sampled behavior was performed, in addition to the frequency of the all occurrence behaviors, was averaged for all ages.</p>			
Abroadger Lipardo, Malia Myers, Devin Roberson, Ujjagar Sihan, Nathan Wieters	Evaluating Identity-Verification Tasks Using Eye-Tracking Equipment	Dr. Dawn Weatherford	College of Arts and Sciences
<p>Professional screeners verify identification cards (IDs) across several security settings. However, previous research has shown that identity-verification tasks can be error-prone, especially when fake IDs are rare. If screeners fail to detect fake IDs, then security is ultimately compromised. We investigated the sources of these errors using behavioral, survey, and physiological indices. Across 48 trials, professional screeners verified whether an ID matched a person in a video using responses ranging from definitely no to definitely yes. Information regarding previous professional identity verification experiences was collected using the Professional Identification Training Questionnaire. Additionally, we measured fixations and gaze durations using eye-tracking equipment. While data analysis is still ongoing, our results will increase knowledge about identification card screening errors to inform everyday security measures.</p>			
Lisset Martinez-Berman	Knowledge, Attitudes, and Practices Survey Associated with Mosquitoes, Mosquito-Borne Diseases and the Premise Condition Index	Dr. Megan Wise de Valdez	College of Arts and Sciences

<p>Knowledge, attitudes, and practices (KAP) surveys regarding mosquitoes are important in assessing the potential role of citizens in the control and prevention of mosquito-borne diseases. The aim of our study was to develop a KAP survey for San Antonio, TX that included Zika and Dengue viruses as well as incorporated a personality assessment of participants. We correlated specific components of the KAP with mosquito surveillance data from 2017. We visited 263 residences from zones surveilled in 2017. We found that knowledge of West Nile virus correlated with the attitude of fear of disease. Zika knowledge correlated with practices. We also found that two similar attitudes such as fear and perceived risk of being bitten by mosquitoes prompted people to employ appropriate practices in controlling and preventing mosquitoes. The correlations of knowledge and practices indicates that city-based educational programs will likely work in creating a citizen-based mosquito prevention program.</p>			
Marissa Narvaez	Microbial Analysis in Plant-Soil Interaction Between Sideoats grama and Bermuda grass	Dr. Jose Rodolfo Valdez Barillas	College of Arts and Sciences
<p>Native plants are plants that have populated a region over time. However, native plants have been decreasing in habitat establishment due to invasive plants. The goal is to understand how microbial populations can affect native plant soils where invasive plant soils occur. First prediction: Native plant soils have more diversity compared to invasive plant soils. Second prediction: plant microbes from natural soils increase in biomass production compared to plants exposed to unnatural soil microbes. The results show that Sideoats has a diverse microbial population. Collected plant data shows Sideoats and Bermuda increased in biomass under their soils. Bermuda showed poor growth under Sideoats soil. Sideoats grew better under Bermuda soil compared to under its own soil. Sideoats native habitat is widely distributed in various regions and is suggested that they are compatible with diverse microbes. This experiment suggests that Sideoats is an excellent candidate for reestablishing native grassland populations.</p>			
Devin Roberson and Ujjagar Sihan	The Effect of Task Orientation Redirection on Unfamiliar Face Matching	Dr. Amy Bohmann	College of Arts and Sciences
<p>Although identification cards (ID cards) are used to verify identities in various settings, unfamiliar face matching remains a difficult task. Variability seen in two images of the same or different people can cause issues with determining whether the presenter matches their ID. The infrequent use of fake IDs adds to the challenge as identification of these cards is not well practiced. Previously, researchers have tried improving performance on unfamiliar face matching tasks with feedback or visual bursts of mismatch identities; however, corrections such as these would be hard to implement in the real world. In this experiment, a task orientation burst was used. Participants saw five 20-block trials of a video identity and a passport ID and were asked to make an identity decision. Block 3 contained a change in the question aimed to redirect participants' attention. The results indicated that the orientation burst was unsuccessful at improving performance.</p>			
Amy Senger	Attitudes and Personality Associated with Mosquitoes and Mosquito-Borne Diseases	Dr. Amy Bohmann	College of Arts and Sciences
<p>It is well established that personality and attitude shape one's behavior, especially those related to health. We developed a survey to assess attitudes and personality associated with mosquitoes and mosquito-borne disease. We surveyed 185 people to generate a reliable attitude scale which factored into six attitudes: importance of yard, perceived risk of mosquito contact, fear of mosquitoes, understanding of mosquito disease, role of city, and fear of mosquito disease. We implemented the scale and received 50 completed surveys of the 263 homes visited in San Antonio. We also assessed personality using the NEO-IPIP as well as knowledge and practices pertaining to mosquitoes. We found that Conscientiousness and Extraversion positively correlated with yard attitudes. Conscientiousness and Openness correlated with disease-specific knowledge.</p>			

<p>We found that people who are social, have a need for structure, and are open to new ideas liked having cleaner yards and had varying knowledge about mosquito-borne diseases.</p>			
<p>Angelica Torres</p>	<p>Reviewing and Revising YMCA's Assessment Surveys</p>	<p>Dr. Ho Huynh</p>	<p>College of Arts and Sciences</p>
<p>In San Antonio, nearly 500 youth ages 11-17 engage in YMCA Teen Programing every year. A majority of the programs ran through the YMCA of Greater San Antonio are grant funded programs. Per donor requirement and as an effort to assess the quality of programs and participant experience, participant surveys are given to all youth. Participants are expected to complete a number of surveys throughout the year. These surveys include both a pre assessment at the start of a program and a post assessment at the completion of a program and also monthly event surveys. Although the current survey has been used for several years, there has been no formal assessment of its psychometric properties. The current project seeks to examine issues with the current surveys and reassess these surveys. The goal is to produce an improved survey that is both psychometrically appropriate and easy to implement.</p>			



Graduate Studies & Office of Research
One University Way
San Antonio, Texas 78224
www.tamusa.edu/srs