

FINDINGS FROM PEDESTRIAN AND BICYCLE SAFETY FOCUS GROUPS AT THE UNIVERSITY OF TEXAS AT SAN ANTONIO

Street Coaching for Pedestrians & Cyclists: Putting Laws Into Practice on University Campuses (2023-TTI-G-1YG-0068)



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Table of Contents

Introduction	2
Methods.....	3
Recruitment.....	3
Participants	3
Limitations.....	3
Focus Group Findings	4
Campus Environment.....	4
Participants’ Primary Safety Concerns	5
Traffic Law Knowledge & Compliance	6
Conclusion	7
Infrastructure	7
Education & Messaging.....	9
References.....	11
Appendix A – Focus Group Protocol.....	13
Appendix B – Stakeholders Contacted and Invited to Participate	16

Introduction

In the United States, the number of pedestrian and bicyclist involved crashes and fatalities has been increasing since 2009.¹ Nationally, bicyclist and pedestrian fatalities showed relatively large increases in 2021, as compared to 2020. Bicyclist fatalities are up 5 percent and pedestrian fatalities are up 13 percent respectively.² Texas (2021) also experienced a rise in the number of pedestrian and bicyclist fatalities.³ Regrettably, pedestrian and bicyclist deaths accounted for one in five of all traffic fatalities in 2021.⁴ Additionally, 5,366 crashes involving pedestrians resulted in 1,381 suspected serious injuries and 824 deaths; a 15 percent increase in pedestrian fatalities over the previous year (2020).⁵ By comparison, there were 2,265 bicyclist crashes in 2021 resulting in 332 suspected serious injuries and 90 deaths. This represents an increase of nearly 14 percent from 2020.⁵ State safety officials attribute much of the upward trend to widespread failure to follow state pedestrian and bicycle laws, such as failing to yield right of way, crossing at locations not designated for transit, inattention, and speeding.^{1,3}

Unique factors experienced on university campuses bring with them an elevated risk for injury. University campuses are atypical communities set inside specific regional areas where multiple modes of transportation interact continuously.⁶ Consequently, university campuses and surrounding areas are inundated with motorists, pedestrians, and bicyclists. These interactions increase crash risk when vulnerable road users are placed in conflict with motorists.⁷ In fact, college age young adults between the ages of 18 to 24 incur pedestrian and bicycle crash injuries at a higher rate than any other age group.^{9,10} Historically, college aged young adults fail to observe traffic rules and frequently engage in high risk activities such as walking or biking at night, while intoxicated, and while using handheld technology that leads to distraction.⁹ Taken together, these factors contribute to particularly dangerous practices for pedestrians and bicyclists on college campuses.⁹

Many crashes or near miss crash events are the result of lack of knowledge and/or non-compliance with traffic laws by all road users.¹ Pedestrians and bicyclists are often unaware of or misunderstand pedestrian and bicycle laws that designate where and when they have right of way.¹ It is also likely that drivers are equally unaware of their driving rights/duties or that of pedestrians' and bicyclists'.¹ Common noncompliance includes failing to yield right of way; failing to follow posted traffic signs and signals; and walking or biking in improper locations such as roads when sidewalks are available.¹

Undoubtedly, pedestrian and bicycle safety is a shared responsibility requiring all road users to remain aware of traffic laws and ordinances. Furthermore, all roadway users must obey traffic laws in an effort to protect themselves and the public welfare. Unfortunately, common contributing factors to bicycle and pedestrian traffic crashes involve failure to comply with traffic laws, the improper use of facilities, and poorly designed infrastructure.¹

Recently, the Texas A&M Transportation Institute (TTI) conducted two focus group meetings with stakeholders from the University of Texas at San Antonio (UTSA). The meetings and resulting opinion inventories allowed the TTI team to identify primary safety concerns for pedestrians and bicyclists on the UTSA campus. This includes contributing factors that result in crash and near miss crash events. The findings from these two focus groups were also used to inform educational outreach materials and a pedestrian/bicycle safety plan for the UTSA campus.

Methods

The TTI project team developed a single protocol that helped to guide participant discussion and the chronicling of qualitative data across both focus group sessions. The protocol included eleven open ended questions that addressed safety concerns of pedestrians and bicyclists who study and work on the UTSA campus. Activities and stakeholder approaches that could improve pedestrian and bicycle safety on UTSA's campus were also addressed. The interview protocol is attached to the end of this document as [Appendix A – Focus Group Protocol](#).

Recruitment

The TTI project team identified stakeholders who regularly use UTSA or nearby roadway systems. These persons included students, faculty, and staff employees. Potential participants were identified through their affiliations with university offices, schools of study, and student organizations. Contact was made with eighteen university offices and service departments, six colleges and schools of study, and seventy-one student groups and organizations. A total of 294 UTSA students, faculty, and staff employees were reached via email and asked to participate in the focus group sessions. [Appendix B](#) provides a list of the UTSA stakeholders that were contacted and invited to participate.

Participants

In order to participate in focus group activities, the candidate must have been a current student or employee at the UTSA Main Campus. Participants were also required to travel upon the university or nearby roadway system regularly and be at least 18 years of age.

The first focus group meeting was conducted on February 1, 2023, and included five participants: one university staff member and four students. The second focus group meeting was conducted on February 10, 2023, and included twelve participants: four university staff members and eight students.

In addition to the participants, three TTI project team members participated in the two focus group sessions. One TTI project team member led the discussion while others captured notes and provided technical support. The Texas Department of Transportation (TxDOT) Pedestrian and Bicycle Program Manager was also present for both focus group sessions.

Limitations

It should be acknowledged that there are limitations to our findings based upon the responses that were received from focus group participants. The findings should be considered and interpreted based upon the recruitment approach and limitations which include:

- Participant opinions and experiences may be different from those who elected to not participate.
- Participant opinions and experiences may not reflect or be generalizable to their overall profession.
- Participant opinions and perceived challenges may be unique to their county or region.
- Participants may not respond freely in group settings.

Focus Group Findings

To effectively address pedestrian and bicycle safety issues on the UTSA campus, it was important to understand the underlying causes of crashes and near misses. A thorough understanding of the factors that contribute to pedestrian and bicyclist crashes and injuries was necessary for developing and applying the most effective and appropriate combinations of countermeasures. The following sections support the identified trends and issues on the UTSA campus which contribute to pedestrian- and bicycle-involved crashes and near miss crashes.

Campus Environment

UTSA is located in San Antonio, Texas which is the seventh largest city in the country.¹¹ There are several UTSA campus locations, however, the Main Campus serves approximately 85 percent of the university's student population. As such, UTSA's Main Campus was the primary focus of this project.¹¹ The 600-plus acre campus is surrounded by a thriving Medical Center, the United Services Automobile Association (USAA), Valero, Fiesta Texas, and anchored by retail facilities such as The Shops at La Cantera and The Rim.¹¹

As an educational institution, UTSA was first established in 1969 with an inaugural graduating class of 82 students.¹¹ Today, there are approximately 35,000 students who attend UTSA making it one of the largest universities in Texas by student population.¹¹ In its short lifespan, UTSA has experienced rapid growth and expansion, which is predicted to continue in future years.

UTSA has been labeled as a "commuter" university due to the lack of students living on campus and the high number of students who transfer to other universities. However, the university has taken direct steps to improve student retention rates by implementing strategic advancements to enhance the campus environment.¹¹ Over the past decade, UTSA has nearly tripled the number of students who graduate within four years. The graduation rate has increased from just 6 percent in 2010 to 32 percent in 2022.¹²

With the rapid growth of the university, initiatives have been launched to meet the needs of a growing student population. Many of these enterprises call for and demand an enhanced campus experience for students, faculty, and visitors. The construction of "Roadrunner Village", which is a proposed mix-use space, is currently in progress.¹³ The development brings a sense of urban walkability to the edge of the Main Campus bringing with it housing options, retail venues, dining, and entertainment options.¹³

Additionally, a transportation and parking initiative was launched in 2018.¹⁴ This tactical parking and transportation initiative involved a university-wide approach to provide parking access and sustainable transportation options to all, ensuring that the transit infrastructure was aligned with UTSA's strategic growth priorities.¹⁴ Other capital project initiatives have included:

- Guadalupe Hall and Honors Residential College: This residence hall will house about 360 first-year student and will expand the residential experience for more students and drive student retention and success through educational programming.¹⁵
- Roadrunner Athletics Center of Excellence: A comprehensive multi-purpose sports center serving as a hub for student-athlete academic success, health, wellness, and performance.¹⁶
- Student Success Center: A building dedicated to academic support programs and campus services to support student success from start to finish.¹⁸

While all of these initiatives bring new facilities and transit infrastructure to support UTSA's growth, the rapid expansion of the university also invites unique safety challenges. As UTSA evolves into a "typical" college campus where students can thrive, more students, faculty, and staff employees will engage in road system use, walking, and biking on campus. As such, adequate transportation routing choices for pedestrian and bicyclists will need to be considered to improve safety for a diverse range of road system users. In addition to a travel centered infrastructure, improving safety culture through ongoing education and outreach must regularly be performed to encourage and ensure a safe campus mentality.

Participants' Primary Safety Concerns

Focus group participants described the UTSA campus transportation environment as one built and intended for motorists. Because of this, there is a desire to increase safety infrastructures for campus pedestrians and bicycle road system users. This includes safer pedestrian and bicyclist entry ways onto campus from off-campus housing as well as safe use pathways/corridors on campus to get students to new academic buildings, dining halls, entertainment, and recreation venues.

Entry points onto campus were described as particularly dangerous for pedestrians and cyclists. A busy interstate, Loop 1604, borders the northside of campus. To the south of Loop 1604 are off-campus housing options and The Shops at La Cantera which attracts students and visitors for dining and entertainment. Traversing the Loop 1604 underpass to get from mixed-use spaces back onto campus is hazardous especially without a pedestrian or bicycle safety corridor. Unfortunately, pedestrians and bicyclists must share the main roadway lanes with motorists and without protections such as sidewalks or separation bollards. Clearly, vulnerable road users are safer when they are separated or protected from motor vehicles.¹ When infrastructure is inadequate, pedestrians and bicyclists will adapt and some will make a poor choice to walk or bike on the roadway.¹⁸

Another stated concern was that there are no pedestrian crossing signals in place at the 1604 access road leading onto the UTSA campus. While there are crosswalks, motorists rarely stop to allow pedestrians to cross the open intersection. As such, pedestrians and cyclists have little to no time to traverse the roadway having to wait for breaks in traffic to cross. Similarly, the south entry points onto the UTSA campus involve crossing UTSA Boulevard. These entry and exit points also possess no roadway crossing signals at the intersection. This condition makes safe crossing from residential housing onto the UTSA campus unsafe. Unfortunately, when the design of an intersection or roadway crossing adversely puts vulnerable road users in conflict with motor vehicles, the risk of crashes, injuries and deaths increase.¹⁸

An additional concern included the usability of bike lanes along UTSA Boulevard. Focus group participants who are cyclists reported that bike lanes, although present, felt unsafe and unprotected. In fact, the bike lanes are described as "death traps" because they are very narrow and not separated from motorists by more than a few inches of paint. Furthermore, the bike lanes on campus were described as being designed in a manner that places cyclists in direct conflict with motorists. For example, the designated bike lanes lead cyclists directly through parking lots which creates unnecessary interactions between cyclists and motorists. Focus group participants reported feeling safer navigating their own pathway through campus instead of following the designated bike lanes.

Navigating the parking lot close to class buildings (Brackenridge Parking Lots 1 & 2) was another safety concern for campus road users. The Brackenridge parking lots are where the majority of students, faculty, and staff employees park on a daily basis. Campus sidewalks abruptly end at this parking lot, so

vulnerable road users are forced to cross this high-risk area in order to get to classroom buildings. Motorists are focused on finding available parking spots and not looking out for pedestrians and cyclists. Distraction in the UTSA Brackenridge parking lots (1 & 2) is a regular occurrence.

Focus group participants also voiced concerns about electric scooters (e-scooters) on the UTSA campus. Participants reported a number of near miss crashes with these unique transport modes. Inherent safety issues exist when e-scooters share the road (or sidewalks) with motor vehicles, bicycles and pedestrians. These shortcomings play a significant role in crashes and injuries. Principal hazards with e-scooter crashes include:

- High speeds.
- Impairment.
- User inexperience.¹⁹

Research findings also suggests that e-scooter riders are often unaware of traffic safety laws, including where they can operate the e-vehicle, underage riding, speed limits, helmet use, cellphone use, and other safety issues.¹⁹ As use of e-scooters continues to grow on college campuses, there will be a continual need to evaluate the safety impacts of these transportation modes and address the need to educate roadway users of micromobility specific laws.

Distraction and inattention was another crash factor reported by focus group participants. Participants reported that visitors and new students are more prone to inattention and distraction. Visitors and new students are more inclined to be looking for directional signs to navigate an unfamiliar campus. Drivers may also be distracted by their cellular phones, whether using it for directions, texting/talking, or listening to music. In addition, focus group participants also recognized that walking pedestrians are equally as distracted by their cellular phones as drivers. Distracted drivers and inattentive pedestrians/bicyclists increase the likelihood for crashes to occur.¹

Finally, focus group participants reported that motorists and cyclists often speed through campus and through crosswalks at open intersections. If pedestrians or cyclists are unaware of their surroundings, they can easily step out in front of a speeding vehicle. Speeding drivers or those who operate bicycles, e-scooters, or skateboards too fast for conditions increase their risk of a collision with vulnerable road users.¹⁸

Traffic Law Knowledge & Compliance

When asked about contributing factors to crashes and near misses involving pedestrians and cyclists, participants reported failing to yield right of way as the most common cause. Motorists do not always yield to pedestrians and cyclists at crosswalks or when turning right at a red light. Conversely, pedestrians and cyclists often disregard stop signs and/or signal lights and do not always yield right of way to motorists.

Focus group participants also believe that students do not have a good understanding of pedestrian and bicycle traffic laws and that most are not accustomed to complex multi-modal environments like those found on university campuses. Particularly for bicyclists, many students begin cycling once they arrive on campus. These novice cyclists possess no formal rider training nor do they understand safe rider practices. Many never receive safety education on bicycle and pedestrian laws prior to attending university or after they arrive on campus.

Conclusion

UTSA is a rapidly growing institution, both in population size and infrastructure. While the university is working to create a social environment that encourages walking and bicycling, there are still a large number of students who commute to campus via motor vehicle. Additionally, the main campus is surrounded and intersected by major roads with high volumes of traffic (i.e., Loop 1604, UTSA Blvd). As a result, this complex environment poses safety risks to all road users, and to pedestrians and bicyclists in particular.

Due to the injury risk imposed on pedestrians and cyclists, it is especially important to design roadways with safety features and encourage enforcement programs geared towards protecting vulnerable road users. A recent crash analysis (2023) was conducted that focused on pedestrian and bicyclist involved crashes within/around the vicinity of UTSA's Main Campus. The crash analysis results suggested that the most frequently reported contributing factors for pedestrian and bicyclist involved crashes were:

- Inattention by motorists, pedestrians, and bicyclists.
- Motorist failed to yield right of way to pedestrians and bicyclists.
- Motorist failed to yield right of way when turning at a red light.
- Pedestrian failed to yield right of way to vehicle.
- Pedestrian disregarded stop sign or light.
- Bicyclist failed to drive in single lane.
- Bicyclist failed to yield right of way at an open intersection.

Other reported factors involved in pedestrian and bicycle crashes and near misses included:

- Conflicts at crossing locations.
- Inadequate separation from motor vehicles.
- Inadequate roadway signage.
- Poorly designed or inadequate pedestrian and bicycle infrastructure.
- Excessive motor vehicle speed.

Multiple opportunities exist to improve safety for pedestrians and bicyclists on the UTSA campus by proactively addressing these listed underlying factors. Best practice approaches to improving pedestrian and bicycle safety on campus include:

- Improving infrastructure to better protect vulnerable road users.
- Aggressive traffic safety messaging.
- Education opportunities to improve pedestrian and bicycle knowledge gaps.
- Enforcement and encouragement for stakeholder to comply with traffic safety laws.

Infrastructure

Changes to the roadway infrastructure or operations (e.g., provision of sidewalks, bike facilities, traffic signals) that affect the movement of pedestrians, bicyclists, and other road users is one of, if not the most, effective way to address pedestrian and bicycle safety concerns.¹⁸ Key areas regarding safety improvements include infrastructure renewal that involves installation and maintenance of pedestrian crossing beacons and signs, pedestrian and bicycle use corridors/underpasses, improved bike lanes, and traffic buffers/separations.

As previously described, crossing Loop 1604 was a primary safety concern for vulnerable road users. Pedestrians and cyclists share the underpass with motorists and have no access to sidewalks, bike lanes or buffers/separations. A proposed solution was to create a pedestrian and bicycle only underpass located at Chase Hill and Walter Brennan Avenue. The construction could provide conflict free travel across Loop 1604 onto the UTSA campus.¹⁸ Focus group participants suggested that an underpass below Loop 1604 would be the solution to completely separating pedestrians and bicyclists from other motor vehicle traffic.

Inadequate sidewalks and bike lanes on and near campus was also identified as a primary safety concern. While bike lanes and sidewalks exist, they are unprotected meaning there are no barriers that separate motor vehicles and vulnerable road users. Landscaping could be used to provide an effective separation buffer zone between traffic lanes and sidewalks.¹⁸ Typically four to six feet wide, buffers zones create a place for landscaping to be used to provide a strategic traffic calming benefit.¹⁸

Focus group participants also suggested separating bike lanes from moving traffic lanes. Separating bicycle lanes through the use of bollards, concrete barriers, landscaped buffers, or a raised curbs creates an attractive and protected bicycle riding area.¹⁸ Bicyclists and pedestrians are safer when they are separated from motor vehicles.¹

The addition of crosswalks on campus was another listed safety need identified for pedestrians and bicyclists. Crash analysis findings suggests that motorists' failing to yield right of way to pedestrians and bicyclists as a top contributing factor for collisions. While crashes may be attributed to lack of knowledge about right of way rules, the findings of the crash analysis also suggests that when drivers cannot see vulnerable road users, whether in light or dark conditions, a crash is more likely to occur.¹ Several identified treatments to improve visibility of pedestrians and cyclists at roadway crossings include:

- **Advance Yield/Stop Lines.** Advance stop/yield lines placed prior to the intersection helps improve driver awareness of pedestrians in the crosswalks and the pedestrians' ability to detect drivers. Placement of advance yield/stop lines 20 to 50 feet in advance of a crosswalk encourages drivers to stop far enough back to allow for better visibility while giving drivers in adjacent lanes time to recognize risk conditions before reaching the crosswalk. This line should be supplemented with a "Stop (or Yield) Here For Pedestrians" sign to alert drivers of the crossing.¹⁸
- **Pedestrian Hybrid Beacons.** Pedestrian Hybrid Beacons are designed to help pedestrians safely cross higher-speed roadways at midblock crossings and uncontrolled intersections. When the activation button is pressed, the device will blink yellow to alert vehicles to prepare to stop and then red to allow for pedestrians to have right of way.¹⁸
- **Rectangular Rapid Flashing Beacons.** A Rectangular Rapid Flashing Beacon is a sign with brightly lit strobe lights that flash irregularly when activated by a pedestrian or bicyclist. These signs are typically used at locations where additional assistance is needed to cross a street and bring attention to the crosswalk.¹⁸

Other considerations include:

- Visible and clear safety signage on campus, particularly within the parking lots.
- Dynamic and unobstructed stop signs at crosswalks.

- Traffic calming countermeasures such as speed bumps, buffer zones, and roundabouts, especially on UTSA Boulevard.

Expanding and improving bicycle and pedestrian infrastructure would also create a more walkable and bikeable campus, which in turn will increase pedestrian and bicycle traffic on the UTSA campus and surrounding roadway systems. As numbers of pedestrians and bicyclists increase, drivers should expect to see more vulnerable user groups and thus become more attentive to them.²⁰ Empirical evidence supports the premise that road user safety will improve with increased numbers of vulnerable user groups using the roadway system: a theory known as “safety by numbers”.²⁰

Education & Messaging

University campuses are excellent locations to implement safety education programs. This can include distributing brochures, offering classroom lessons, implementing campus-wide marketing campaigns, and conducting individualized trainings.²¹ The education of pedestrians, bicyclists, and drivers in order to raise awareness of traffic laws and behaviors motivates changes in attitude/behavior which results in a positive effect on roadway safety.¹⁸

The National Highway Traffic Safety Administration (NHTSA) recommends several countermeasures involving educational campaigns and training to pedestrians, bicyclists, and drivers, including specific training for university students and staff.²¹ Targeting new students and staff that may be unfamiliar with walking, cycling, and driving on campus is an optimal treatment option to improve safety.²¹ Potential educational messages include:

- Right of way rules and the importance of yielding right of way.
- Remaining visible and conspicuous during day and night times and during inclement weather.
- Making eye contact with roadway users at conflict points.
- Avoiding distractions.
- Speed control.²¹

Education and training in these areas was an expressed need voiced by focus group participants. Discussion centered upon how best to disseminate educational information to students, faculty, and staff employees. Suggestions included:

- Training videos at new student and new employee orientations.
- Traffic safety modules integrated into annual mandatory compliance training.
- Information tabling at “Roadrunner Days” and other university events.
- Educational events hosted by student organizations or athletic groups with “swag” (e.g., Running Club, Student Government Association).
- Informational brochures at campus tours.
- Traffic safety messaging at bulletin board maps on campus
- “Rules of the road” digital materials displayed upon tv screens at the student union.

One identified challenge associated with traffic safety messaging is that students are regularly inundated with different messages and announcements. As such, it is difficult to compete for students’ attention. To contend, focus group participants recommended that traffic safety messaging be positive and promote a university connection. Additionally, messaging and/or signage entering the campus should utilize a “beautiful approach” to alert road users of UTSA multimodal environment and to be mindful of

vulnerable road users. One example would be to commission the painting of institutional murals on campus and at the Loop 1604 underpass. These murals should depict the university mascot with cars, bikes, and pedestrians and emphasize a strong safety message that also embraces the university's cultural heritage.

The overall purpose of pedestrian and bicycle safety engineering treatments, traffic safety messaging, and educational approaches is to increase a shared responsibility for preventing crashes and enhancing transportation safety for all road users on UTSA's campus. All road users can take steps to help proactively improve traffic safety on campus. Drivers, bicyclists, and pedestrians should avoid distracting activities, signal intent to turn, reduce speeds, and yield right of way to pedestrians and bicyclists in crosswalks. Every road user must be encouraged to observe traffic-control signals/signs and pay particular attention to vulnerable populations. Finally, keeping students, faculty, staff employees, and visitors safe on the UTSA campus is imperative. Require all roadway users to become knowledgeable of traffic laws and remain vigilant in obeying the rules of the road.

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Appendix A – Focus Group Protocol

Good morning, my name is Christine Adams and we also have Emmy Shields and Troy Walden here from the Texas A&M Transportation Institute (TTI). We also have a guest, Elizabeth Jones, from the Texas Department of Transportation, here with us today. If you have been invited as a participant, it would be helpful if you would keep your cameras on. If you are a guest, please keep your cameras and microphones off.

I would like to thank everyone for being here today. We wish we could be with you in person, but since this is a virtual format, we are going to attempt to have this conversation in the same way we would if we were sitting at the same table. So, feel free to speak up if you have a comment or question! In the event that becomes challenging, we will pivot to using the raise your hand feature and call on you. But I do not think it will come to that since this is a smaller group.

We are working on a project funded by the Texas Department of Transportation focused on changing the perceptions of pedestrian and bicycle safety on university campuses through a multi-faceted approach of education, raising awareness and engaging law enforcement.

As part of this project, we are talking with UTSA employees and students to discuss traffic law violation trends associated with pedestrian/ bicyclist crashes and near misses on or near the University of Texas at San Antonio. The information obtained will guide the development of educational materials to address this traffic safety concern.

Today's discussion will last about 60 minutes. You are not required to participate in the focus group. You can leave the focus group at any time if you do not wish to continue. Your participation is voluntary. *[I]* will lead the discussion today, while *[Emmy]* will assist with the discussion and take anonymous notes. In addition, the discussion will be recorded in order to produce complete notes. The recording will be deleted as soon as our written anonymous notes are completed. If identifiable information is mentioned during the focus group, we will not include it in our notes or report.

For our conversation today, please keep in mind:

- There are no right or wrong answers. We are here to listen to your thoughts and experiences related to pedestrian and bicycle safety.
- Everyone's input is valuable. We hope everyone is able to participate throughout our discussion.

Are there any questions before we get started today?

Great, let us find out a little more about who is here today by going around and introducing ourselves, including your name and role at UTSA.

We will start with the questions.

1. What do you believe are the primary safety concerns for pedestrians and bicyclists on the University of Texas San Antonio campus? (If feasible, split by ped and bike in notes). How do think the campus environment impacts these safety concerns? *[location of campus (is it by busy*

streets, downtown, construction), physical layout (condensed or spread-out campus, hills, or blind spots), infrastructure issues (sidewalks and bike lanes, road conditions), specific problem areas on campus]

2. Based on your experiences, what do you think are the leading causes of crashes on the University of Texas San Antonio campus?
 - a. Have you experienced a crash or almost crashed with a pedestrian or bicyclist on or near the University of Texas San Antonio? If so, please describe.
3. How important do you think knowledge on state-level pedestrian and bicycle laws are in preventing crashes or near-misses?
4. Based on your experiences, how do large university events impact pedestrian and bicycle safety?
 - a. What approaches would you recommend for improving pedestrian and bicycle safety during these events?
5. A recent crash analysis found that most bicyclist and pedestrian crashes occur on local roads or streets and on roadways with speed limits between 25 to 44 mph. What suggestions do you have for reaching road users that travel on these roads with traffic safety messaging?
 - a. What type of messaging (e.g., gory, funny)?
 - b. What type of dissemination (e.g., social media, campus signs/outreach)?
6. The crash analysis also suggests that most bicyclist and pedestrian crashes involve males and individuals between the age of 18 to 24 years old. What suggestions do you have for reaching road users that fall into these demographics with traffic safety messaging?
 - a. What type of messaging (e.g., gory, funny)?
 - b. What type of dissemination (e.g., social media, campus signs/outreach)?
7. What challenges do you think there are in regard to reaching students and members of the university campus with traffic safety messaging on pedestrian and bicycle safety laws?
8. How important do you think it is to make traffic safety messaging regarding pedestrian and bicycle safety laws specific to the University of Texas San Antonio? How do you suggest we make messaging specific to the University of Texas San Antonio?
 - a. What are your thoughts on using a campus wide communication network?
 - b. What are your thoughts on using “Birds Up” or other unique University of Texas San Antonio traditions in the messaging?
 - c. Are there other methods to target members of the University of Texas San Antonio campus?
9. What methods would you recommend for educating University of Texas San Antonio campus visitors?

10. What types of educational approaches would you recommend for promoting information on pedestrian and bicycle safety laws?

That concludes the focus group. I would like to thank you all for being here and volunteering your time. It was a great discussion.

Troy Walden and Emmy Shields are the PIs on the project and is here to give an overview of the project and answer any questions you may have. If you need to leave feel free to do so! Again, thank you all! Troy the floor is yours.

Appendix B – Stakeholders Contacted and Invited to Participate

University Departments/Offices – 107

- UTSA Police Department (2)
- Housing and Residence Life
- Office of Sustainability
- Student Affairs (10)
- Student Disability Services
- Multicultural Student Center for Equity and Justice
- Health Services
- Risk and Emergency Management (9)
- Parking and Transportation (6)
- Student Activities (7)
- Wellbeing Services (9)
- Events
- Campus Recreation (13)
- Welcome Center
- Student Success (20)
- Leadership and Volunteer Services (4)
- Student Conduct and Community Standards (5)
- Student Union (15)

Student Organizations – 71

- Council of Student Organizations
- Student Government Association (9)
- Fraternity and Sorority Life (30)
 - Panhellenic Council
 - Interfraternity Council
 - Multicultural Greek Council
 - National Pan-Hellenic Council
- Roadrunners Cycling
- Roadrunners Triathlon
- Running Club
- Public Health Society
- American Medical Student Association
- Catholic Student Association
- Club Tennis
- Dean's Student Board
- Global Brigades
- The Green Society
- Hispanic Student Association

- HOSA – Future Health Professionals
- International Student Association
- Interprofessional Health Society at UTSA
- Involvement Ambassadors
- iSTEAM LIFE
- Medical Humanities Club
- Roadrunner Student Alumni Association
- ROSIES
- Spirit of San Antonio Student Association
- Terry Scholars Student Organization
- The National Society of Collegiate Scholars
- Top Scholars Student Organization
- UTSA Ambassadors
- VOICES: Volunteer Organization Involving Community Education & Service
- Women in Leadership at UTSA
- Graduate Student Association

Colleges/Schools of Study – 116

- College of Health, Community, and Policy (58)
- Carlos Alvarez College of Business (22)
- Liberal and Fine Arts (15)
- Education and Human Development (12)
- Sciences (6)
- School of Data Science (3)