# Street Coaching for Pedestrian & Bicyclists

## Putting Laws into Practice on University Campuses

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**Street Coaching for Pedestrians and Cyclists: Traffic Education and Enforcement Mobilization Plan**

## Introduction

College campuses and the communities built around them present challenges for pedestrians and bicyclists. They are typically dynamic environments, highly multimodal, and experience elevated motor vehicle, pedestrian, and bicyclist traffic which may result in increased conflict or crashes among the diverse road users.[1] These unique factors and challenges provide context that prompted the commission of a Texas Department of Transportation (TxDOT) sponsored project entitled "Street Coaching for Pedestrians and Cyclists: Putting Laws into Practice on University Campuses". The purpose of the project is to promote awareness of pedestrian and bicycle state laws on and around a college campus, specifically the University of Texas at Austin (UT Austin).

As an initial deliverable for this project, researchers from the Texas A&M Transportation Institute (TTI) conducted and then reported the results of a pedestrian and bicycle crash analysis. The findings, uncovered through the analysis, were ultimately used to provide guidance in developing a mobilization plan and educational outreach materials that address areas of traffic safety concern for pedestrian and bicycle roadway users on or near the UT Austin campus. Ultimately, the resulting products can be used as aids to help inform and provide direction for users regarding reinforcement and compliance with pedestrian and bicycle state laws. This in due course, will advance awareness of state laws and improve overall safety for vulnerable roadway users in and around the UT Austin campus.

Bicycle safety planning typically involves the five E's including engineering, education, encouragement, enforcement, and evaluation and planning. Due to the uniqueness of college campuses, these principles also apply to pedestrian safety planning. The purpose of this technical memorandum is to promote a comprehensive bicycle and pedestrian safety mobilization plan that focuses on bicycle and pedestrian safety education, enforcement, evaluation and planning, encouragement, and engineering.

## Street Coaching Mobilization Plan Elements

There are many components to a comprehensive safety mobilization plan that formulate the basis for recommendations and priorities. Key elements are listed below and discussed in this section.

- Big Ideas
- Stakeholder engagement
- Bicycle and pedestrian laws and regulations
- Safety and trip data analysis
- Local bicycle and pedestrian safety needs
- Role of educational outreach and law enforcement
- Defining safety goals and performance measures
- Street Coaching Mobilization Plan

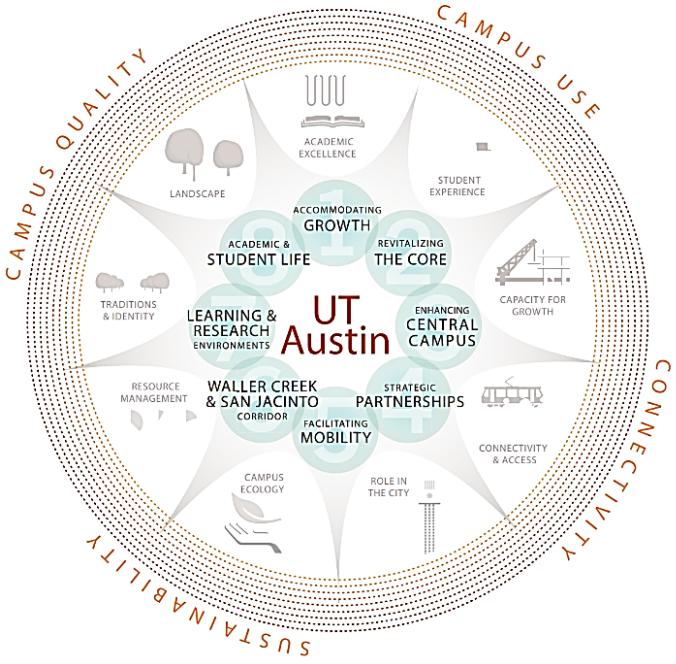
[1] Loukaitou-Sideris, A., Medury, A., Fink, C., Grembek, O., Shafizadeh, K., Wong, N., & Orrick, P. (2014). Crashes on and near college campuses: a comparative analysis of pedestrian and bicyclist safety. *Journal of the American Planning Association*, *80*(3), 198-217.

***Big Ideas***

## Campus Transportation Study

The Commission of 125 was a formed group of citizens convened to express a vision of how the University of Texas could best serve the state and society. The Commission's purpose was to reinvigorate UT's aspirations and determine what must occur to achieve a "university of the first class". Eight committees studied and debated a broad range of issues to build a unique campus master plan. For the purpose of this effort, the University of Texas embarked upon addressing two primary campus master plan recommendations from the Commission of 125. This includes: recommendation 5 and 6.

- Recommendation 5: Develop a University Master Plan to integrate academic planning and strategic goals with our facilities, infrastructure, and financial resources. The plan should be selective, and results should be measured systematically and objectively.
- Recommendation 6: The University must consistently make the best use of its facilities, especially its classroom and laboratory space and off-campus properties, while maintaining a superior campus environment. New facilities should be designed and built more efficiently, with better coordination among academic, facilities planning, operations, and fundraising divisions.[2]




Preserving and enhancing a safe, quality transportation system is threaded throughout the eight Big Ideas highlighted in the Campus Master Plan. Pedestrian and bicycle connectivity and reduction of conflicts are incorporated into Ideas 2, 3, 5, and 6 that help fulfill the campus design framework vision of cruciform malls and grid of pedestrian streets.

- Big Idea 2: Revitalize Core Campus
- Big Idea 3: Enhance the Central Campus
- Big Idea 5: Facilitate Safer and More Efficient Mobility
- Big Idea 6: Transform the Waller Creek/San Jacinto Boulevard Corridor[3]

[2] University of Texas. (2004). Report of the Commission of 125. Retrieved from: https://sites.utexas.edu/commission-of-125/recommendations/

[3] University of Texas at Austin. (2013). Campus Master Plan. Retrieved from: https://capitalplanning.utexas.edu/sites/cpc.utexas.edu/files/MasterPlan-20140523.pdf

Strategies for implementing safer and more efficient mobility stress walking as the preferred mode of transportation but also suggest the campus design framework (shown in Exhibit 1) should consider defining corridors and connectivity for each mode that function as an overall system. Further, consideration should be given to clearly state right-of-way and recognize potential for crossing travel paths.

**Exhibit 1: Campus Master Plan Design Framework**


***Stakeholder Engagement***

This project includes formal stakeholder engagement through a focus group, advisory committee, and a public survey. The output from these efforts is used in guiding the mobilization recommendations developed as part of this plan.

*Focus Group*

Participants of the focus group were required to be current students or employees of UT. The first focus group meeting was held on February 18, 2022, and included three university staff and two students. The second focus group meeting was held on March 3, 2022, and included four university staff and two

students. The goal of the focus group was to identify safety concerns involving bicycles and pedestrians on the UT campus[4].

Below is a summary of problem areas identified in focus group discussions:

- Campus is pedestrian friendly, but not necessarily pedestrian safe.
- Speedway was intended to be a safe pedestrian only area, but participants reported that it has become one of the most dangerous areas.
    - High volume of bicyclists and pedestrians and lack of designated areas for different modes of transportation. This causes many crashes and near misses between bicyclists and pedestrians.
    - Different modes of transportation are competing for use of the same pathway.
    - Bicyclists traveling at a high rate of speed creates an unsafe environment, which is particularly true on hills with blind spots and increased speed.
- West campus (Bounded by 29th Street, Guadalupe Street, North Lamar Boulevard, and Martin Luther King Boulevard) is particularly dangerous for pedestrians and bicyclists due to volumes of people using roads/sidewalks/bike lanes, as well as high speeds on Guadalupe, Rio Grande, and 22nd Street.
    - West campus and campus overall have an insufficient amount of designated bike lanes and sidewalks for the high volume of bike and pedestrian traffic.
    - Bike lanes and sidewalks are too narrow.
    - Pedestrians, bicyclists, and motorists end up sharing the roadway in these densely populated areas.
- Participants reported that there are not enough crosswalks for pedestrians navigating from West Campus to the central portion of campus.
- Other problem areas identified include the Inner Campus Loop, Turtle Pond, and Dean Keaton
    - Inner Campus Loop: No bike lanes in this area, bicyclists are often sharing the road with motorists or the sidewalks with pedestrians. High volume of vehicles, and pedestrians often cross the road outside of crosswalks and without yielding to vehicles.
    - Turtle Pond: This area has the potential to build a great deal of speed. Additionally, there are two crosswalks at awkward angles that are not utilized properly.
    - Dean Keaton: The main challenges are the volume of traffic and road hazards. There are four lanes of vehicle traffic and a great deal of congestion. Additionally, there are many bumps and potholes that cause a variety of circumstances such as bikes, pedestrians and scooters running into each other and end over end accidents with bikes and scooters sliding into cars.
- Construction zones and areas with uneven surfaces create challenges for road users, and should be targeted.

Large events such as football games with 100,000 attendees were discussed with the focus group. General feedback from the group was that traffic conditions for pedestrians was safer during these events because of the attention given to pedestrians through road closures, police officers, and other treatments.

[4] Shields, E., Adams, C., & Walden, T.D. (2022). Street Coaching for Pedestrians and Cyclists: Putting Laws into Practice on University Campuses (University of Texas at Austin), Findings from Pedestrian and Bicycle Safety Focus Groups at The University of Texas at Austin Technical Memorandum. *Texas A&M Transportation Institute.*

The final area of discussion with the focus group was pedestrian and bicycle law compliance. A recurring theme among the participants was that crashes and near misses were often due to poor compliance with traffic laws. Below are common noncompliance issues shared by the group:

- Failure to yield right of way, especially at all-way stops.
- Pedestrians and bicyclists failing to comply with traffic signs and signals.
- Improper uses of facilities by non-motorists.
    - Pedestrians walking in roadway.
    - Bicyclists riding on sidewalks.
- Lack of awareness of laws.
    - Pedestrians and bicyclists assume that they have the right of way and there are no laws regularly enforced on campus.
- Additional education of laws is needed. Messaging should focus on traffic law compliance.
    - Key messaging needs are right of way rules, avoiding distractions, and speed control.
- Bicyclists that violate laws receive a small fine and required educational class.
- Other suggested messaging:
    - Creating empathy towards vulnerable road users.
    - Reminding motorists that they are entering high-density pedestrian and bicyclist zones.
    - Display messages on campus buses.
    - Repetitive messaging about speed control.
- Participants suggested targeting new students through orientation and required courses.
- Additional suggestion included requiring safety courses to be completed in Canvas in order to receive final grades.

*Advisory Committee*

The advisory committee is comprised of representatives from the following stakeholder groups:

- Law enforcement (University of Texas Police Department)
- Residence halls and dining
- Student government
- Parking and Transportation Services

An advisory committee meeting was held in March 2022 and included representation from the majority of stakeholder groups[5]. Advisory Board members stated that pedestrian and bicycle near misses were a major issue at UT Austin, especially when multiple modes of transportation intersect and compete for limited available space. Conflicts occur predominantly during the hours when class changes occur throughout the day and at high-volume, peak roadway use times. There were five main topics covered in the meeting. The following is a summary of the discussion points for each topic area.

- What are the biggest issues affecting pedestrian and bicycle safety on and around campus, and any specific locations that are concerning?

[5] Walden, T.D., & Shields, E. (2022). Street Coaching for Pedestrians and Cyclists: Putting Laws into Practice on University Campuses (University of Texas at Austin), Pedestrian & Bicycle Safety Advisory Board Meeting Technical Memorandum. *Texas A&M Transportation Institute.*

- Guadalupe Street at 22nd Street is a major commercial area and a main entry way onto the UT Austin campus. Guadalupe and 22nd Street are both highly trafficked by UT Austin students, employees, and visitors alike.
    - Southbound turning right onto 22nd Street from Guadalupe Street: sight distance issues due to planters and street parking which create a blind spot.
    - On Guadalupe Street from midnight to 7 AM: people are running the red lights, and students may not be paying attention.
- There are no sidewalks in front of Batts Hall on 22nd St.
- Pedestrians/e-scooters riders utilizing bike lanes.
- Long stretches of Dean Keeton Street do not have a crosswalk. Pedestrians are observed crossing all the time outside the crosswalks.
- A major safety issue at Dean Keeton at Speedway is that there are no sidewalks present along Dean Keeton. As such, pedestrians often jaywalk, and bicyclists walk/ride their bicycle very close to or in moving lanes of traffic.
- Scooters and some bicyclists are found traveling the wrong way. Scooters are more of a concern than bicyclists.
- Speedway was intended for pedestrian use only which would have allowed users safe passage through campus without having to interact with vehicular traffic. Bicyclists are allowed to use Speedway however there is a requirement for riders to dismount when traveling along the walkway corridor.
    - Students say there should be a bicycle lane on Speedway. Bikes should dismount – they were supposed to. Advisory Board members stated that much of the bicycle traffic using Speedway does not regularly comply with the dismount requirement.
- Boundary or demarcation between city and campus is not clear at some places, so the awareness about increased ped and bike activity is sometimes lacking.
    - All members agreed that drivers who are unfamiliar with university roadway system may not anticipate the large concentration of pedestrians and bicyclists on or near campus. Because of this, motorists must be made aware that they are entering a vulnerable road user area, especially in campus centered residential locations, classroom building zones, or the surrounding campus shopping districts.
    - Traffic countermeasure intents should warn drivers who are unfamiliar with the roadways near the UT Austin campus and inform them to watch for unpredictable walking and riding behavior.
- Exit from the Brazos Street Parking Garage at Martin Luther King Jr. Boulevard – Traffic backs up trying to make a left on Martin Luther King Jr. Blvd. particularly during peak periods, so they have asked people about bringing cars into the plaza in front of San Jacinto Hall. Need to evaluate impacts to area with high number of pedestrians. Most of the time it is closed to cars, and it has worked satisfactorily so far because of reduced demands due to COVID. Have used staffing to assist the traffic movements, but not sure if that approach is sustainable.
- Ped issues are generally because of lack of attention from both parties involved.
- Access to Speedway: there are hard barriers except from the north, where a vehicle drove down from Dean Keaton all the way to Martin Luther King Jr. Blvd. Parking and Transportation Services controls traffic on campus.

- How does the university environment contribute to the pedestrian and bike safety issues?

    - Student activity in the late-night hours between midnight and 7 AM creates challenges.
    - Hard to tell where the University starts and the City stops, as the boundary is somewhat of a blur. There is a larger percentage of bikes and pedestrians in the campus area and people may not be aware of where the concentration is.
    - Drivers are good at looking left when making a right turn, but not always good at looking right.
    - Compliance with no wheel zone is pretty good, and Speedway was a dismount zone during construction. The group believes that the signs were removed.
    - Sometimes cyclists will ride on the sidewalks in areas with bike racks. Enforcement agents are focused on parking enforcement rather than enforcing bikes on sidewalks.
    - Advisory Members also suggested that separate facilities for both pedestrians and bicyclists should be explored as a safety improvement. It is equally important that the university promote awareness and understanding of bicycle and pedestrian traffic laws.
- What are the unique characteristics of campus that affect pedestrian and/or bicycle safety?
    - No feedback offered
- Are there any specific times or activities that present bicycle and pedestrian concerns?
    - Class change times are challenging in terms of heightened pedestrian and bike activity and associated potential conflicts of movement.
    - Football game is a good time to be a pedestrian because the whole city is on foot during those times. It is different for baseball or volleyball games because there is increased pedestrian activity but not as much as during football games. Therefore, the awareness about pedestrians is also not as high as during football games.
    - Speedway gates are not supposed to open during class change times.
    - Drivers are more aware on event days such as football, basketball, volleyball. There are some smaller events where the awareness might not be as enhanced, and those events are more concerning.
    - Rush hour time (4-6 PM) traffic around the campus and city is higher due to congestion. Seems like a larger number of cars going up and down San Jacinto to cut through and avoid I-35.
    - Students know there is a higher proportion of pedestrians and bicycles, but others may not know, particularly during rush hour.
- What is your department specifically doing to address these issues?
    - COVID had a big impact. Before COVID, Parking and Transportation Services had events when they worked with the City of Austin to provide free lights and reflectors. Hosted "Bike to Earth Day" on April 23, 2022[6]. On campus events to encourage cycling and obey the rules are important. Sometimes cyclists don't stop at stop signs, so it is important to remind them that vehicles are not always looking out for them.
    - Bicycle laws and safety tips were posted in Jester Hall on the TV screens in the cafes.
- We have the safety data for bicycle and crashes around campus, but do you have any data/observations on bicycle or pedestrian travel patterns, locations of interest, or use of bike programs?
    - Jaywalking on Dean Keeton
    - Orange Bike Project – student groups on campus have rentals for the year.
    - B-Cycle/Metro Bike have a few stations on campus. Don't have their information, but may be able to get it from them.

[6] https://earthdayaustin.com/getting-to-the-festival/

    - Scooter companies may also have some information. They are limited in number on campus.
    - UT has specific rules for scooters. Bird and personal scooters are permitted on campus where bicycle traffic is allowed. Scooters must be parked in designated bike racks or scooter parking locations.
- Near misses and collisions: what is our experience of why these events occur?
    - Bike and pedestrian conflicts are commonplace when it gets busy on campus. Sidewalks are not wide enough. On 22nd Ave students step into the roadway without warning. There are challenges when pedestrians take over the road. There is no sidewalk along the front of Batts Hall on 22nd Avenue and the Inner Circle Loop.
    - Just outside the Police Department, there is a large driveway on Clyde Littlefield with a gate that opens and closes. The roadway is sloped downhill going towards the stadium and bikes go fast. It is hard for them to stop when someone pulls out of the driveway or for a pedestrian entering their travel path.
    - On 21st Street just past Speedway, near Perry Castaneda Library and University Teaching Center, there is drop-off and pick up activity with a lot of congestion during class changes.
    - On the west side of Guadalupe, between 21st Street and 24th Street, there is some dead space where there is bike parking or other parking. When waiting to cross, pedestrians spill over into that space and can cause conflicts with bicycles.
- What are the biggest knowledge gaps about bicycle and pedestrian safety laws?
    - Bicycle safety laws have not been pushed out since COVID, so refresher information is needed for those that have not been in this type of environment before or in a while.
    - Remind bicyclists that they need to follow the rules of the road.
- In your opinion, what are some ways to promote the bicycle and pedestrian laws across campus?
    - Post as flyers in dorms or on blocks around campus.
    - Need additional emphasis on double locking bikes as there is a theft issue around the campus. Have a few bike racks on campus that do have areas above them for posters, so marketing materials can be placed there. On the police webpage there is a video on how to double lock your bicycle.
    - Need signs around campus that say, “Obey Safety Laws” in the marketing areas.
    - Parking and Transportation Services has a Twitter and Facebook page, but the trick is to get people to follow them.
    - Social media is tricky on how to attract attention.
    - Mandatory bicycle registration is a good time to push out the information.
    - Everyone knows what is allowed and not allowed, but challenge is enforcement. Not as much as an education effort for bikes and peds. Focus is on vehicles.
    - There are major changes coming to Guadalupe to make it more pedestrian friendly, and the City of Austin is completing this project.
- Are there any campus or community groups we could leverage for outreach on bicycle and pedestrian laws? Are there other resources in your department we should be considering?
    - There are some cycling groups on campus that could be leveraged to help with outreach.
        - Texas 4000
        - Triathlon team
        - Cycling club

        - Project Orange
        - Metro Bike
        - Urban Studies Society – interested in general urbanism and city life.
        - University Democrats
        - Sustainability Department
- If you had one last thing to share that could make a difference, what would that be?
    - Comprehensive approach to education and enlist all interested parties.
    - Focus has to be on environmental design. Education is challenging because of so many new students and the campus is undergoing so many changes.
    - An educational push on awareness needs to be done with everyone coming back onto campus after being away during COVID.

The input received from this group gives great insight on some of the common issues and concerns related to bicycle and pedestrian travel on campus. This information along with safety data will help form the basis and priorities of the mobilization plan.

In addition, a survey was distributed with students and employees of UT Austin, which included questions about pedestrian and bicycle travel patterns as well as follow-up questions for individuals who had been involved or almost involved in motor vehicle crashes. The results of the survey are forthcoming and will be incorporated into the overall study. The following are some of the more important preliminary findings from the survey responses:

- On a daily basis, about 20% of respondents walk to the UT Austin campus and 60% of respondents walk within the campus. The overall movement routine around and within campus involves walking for about 99% of respondents. Therefore, walking is an essential part of the daily movement for practically everyone, particularly within the campus.
- About 50% of respondents bike to and within the campus daily.
- Walking and/or biking is primarily a means of transportation for about 85% of respondents.
- Some of the other issues accompanying pedestrian behavior include:
    - Crossing the road at a location other than a crosswalk or intersection.
    - Entering the crosswalk after the pedestrian countdown started.
    - Walking on the roadway when a sidewalk was available.
    - Less likelihood of motorists yielding to pedestrians at crosswalks not located at an intersection.
- Among the respondents, about 32% of pedestrians and about 34% of bicyclists were almost involved in a crash with a vehicle in the past 90 days. Majority of these incidents were either on or around the campus.

***Bicycle and Pedestrian Laws and Regulations***

This section provides a snapshot of relevant pedestrian and bicycle laws governing these modes. The Texas state laws are described first, followed by additional regulations governing bicycle use at Austin campus. Links to each of these are provided in footnotes for a more detailed understanding.

Texas State laws governing use of a public roadway by a pedestrian[7] are identified and summarized below. The full text for the chapters that include each law is included in Appendix A with applicable laws highlighted.

- Texas Transportation Code §552.001 (Traffic Control Signals) – A pedestrian facing a green signal may cross a roadway in a marked or unmarked crosswalk unless the sole green signal is a turn arrow. A pedestrian facing a red or yellow signal may not enter the roadway.
- Texas Transportation Code §552.002 (Pedestrian Right-of-way If Control Signal Present) – A pedestrian facing a "Walk" signal may proceed across the roadway, and the operator of a vehicle shall yield the right-of-way to the pedestrian. A pedestrian may not cross the roadway in the direction of a "Don't Walk" signal or a "Wait" signal. A pedestrian who has partially crossed while the "Walk" signal is displayed shall proceed to a sidewalk or safety island while the "Don't Walk" signal or "Wait" signal is displayed.
- Texas Transportation Code §552.003 (Pedestrian Right-of-way at Crosswalk) – This law pertains to when the operator of a vehicle shall yield right-of-way to a pedestrian crossing a roadway, and the pedestrian not being able to enter the roadway such that it is impossible for the vehicle operator to yield.
- Texas Transportation Code §552.004 (Pedestrian to Keep to Right at Crosswalk) – A pedestrian shall proceed on the right half of a crosswalk if possible.
- Texas Transportation Code §552.005 (Cross at Point Other Than Crosswalk) – This law pertains to when a pedestrian should yield right-of-way to a vehicle.
- Texas Transportation Code §552.006 (Use of Sidewalk) – This law pertains to the use of roadway by pedestrians depending on whether sidewalks are present or not, and also includes requirements of operators of vehicles when pedestrians are approaching on a sidewalk while crossing an alley, building entrance or exit, road, or driveway.
- Texas Transportation Code §552.007 (Solicitation by Pedestrians) – A pedestrian may not stand in a roadway to solicit anything from an occupant of a vehicle unless it is a charitable contribution that is authorized by the local authority having jurisdiction over the roadway.
- Texas Transportation Code §552.0071 (Local Authorization for Solicitation by Pedestrian) – This law pertains to requirements of local authorities granting authorization for a person to stand in a roadway to solicit a charitable contribution.
- Texas Transportation Code §552.008 (Drivers to Exercise Due Care) – The operator of a vehicle shall exercise due care to avoid colliding with a pedestrian in a roadway, give warning by sounding a horn when necessary, and exercise proper precaution when observing a child or an obviously confused or incapacitated person in the roadway.
- Texas Transportation Code §552.009 (Ordinances Relating to Pedestrians) – A local authority may require pedestrians to comply strictly with the directions of a traffic control signal, and/or prohibit pedestrians from crossing a roadway in a business district or designated highway except in a crosswalk.
- Texas Transportation Code §552.010 (Blind Pedestrians) – This law pertains to requirements related to blind pedestrians.

[7] State of Texas. (2021). Texas Constitution and Statutes. Retrieved from: https://statutes.capitol.texas.gov/?link=TN

- Texas Transportation Code §552.011 (Train Occupying Crossing) – A pedestrian may not move in front of, under, between, or through the cars of a moving or stationary train occupying any part of a railroad grade crossing.

Texas State laws governing use of a public roadway by a bicyclist[8] are described below. The full text for the chapters that include each law is included in Appendix B with applicable laws highlighted.

- Texas Transportation Code §551.101 (Rights and Duties) – A person operating a bicycle has rights and duties applicable to a driver operating a vehicle unless this chapter alters the right or duty, or a right or duty applicable to a driver operating a vehicle cannot by its nature apply to a person operating a bicycle.
- Texas Transportation Code §551.102 (General Operation) – This law pertains to bicycles only being operated with passengers that the bicycle was designed or equipped to carry, and also requires the vehicle operator not carrying objects so that they are not able to have one hand on the handlebars.
- Texas Transportation Code §551.103 (Operation on Roadway) – This law pertains to where an operator should ride a bicycle in a roadway (right curb or edge of roadway) and exceptions thereof.
- Texas Transportation Code §551.104 (Safety Equipment) – This law pertains to requirements related to bicycle brakes and lights.
- Texas Transportation Code §551.105 (Competitive Racing) – A sponsoring agency may hold a competitive bicycle race on a public road with approval of the appropriate law enforcement agencies, and the local law enforcement agencies may agree on safety regulations governing the movement of bicycles during the race or associated training.
- Texas Transportation Code §551.106 (Regulation of Bicycles by Department or Local Authority) – This law pertains to regulation of bicycles by local authorities, including electric bicycles. In addition, the law allows local authorities to prohibit bicycles on sidewalks, and establish speed limits for bicycles.
- Texas Transportation Code §551.107 (Operation of Electric Bicycle) – A person may not operate an electric bicycle unless the electric motor disengages or ceases to function either when the operator stops pedaling or when the brakes are applied.
- Texas Transportation Code §545.107 (Method of Giving Hand and Arm Signals) – An operator of a vehicle who is permitted to give hand and arm signals shall extend the left hand horizontally for a left turn, left hand and arm upward for a right turn (except a bicycle may use right hand), and hand and arm downward to stop or decrease speed.
- Texas Transportation Code §545.302 (Stopping, Standing, or Parking Prohibited in Certain Places) – This law pertains to standing, stopping, or parking vehicles, including bicycles.

On September 1, 2021, the Lisa Torry Smith Act went into effect across Texas. Also known as Senate Bill 1055, the law states that if a driver causes bodily harm to "a pedestrian, a cyclist or a person operating a motor-assisted scooter, at a crosswalk," they can be charged with a misdemeanor, and if the pedestrian is seriously injured, the charge could be a felony. Along with the criminal charges, the new law also requires drivers to not only yield to pedestrians, as it did in the past, but now drivers must come to a full

[8] State of Texas. (2021). Texas Transportation Code. Retrieved from: https://texas.public.law/statutes/tex._transp._code_section_551.001

stop for pedestrians or cyclists who are properly in an intersection. The law does not allow pedestrians to step from a curb and move into a crosswalk into the path of a vehicle that is "…so close that it is impossible for the vehicle operator to stop and yield."[9]

There is no Texas state law prohibiting riding a bicycle or an electric bicycle on sidewalks, however, local governments may have local ordinances prohibiting bicycles on sidewalks[10]. There are a few examples in the United States, such as New York City, San Francisco, Chicago, and Berkeley, where bicyclists older than a defined age limit (e.g., age 13 in San Francisco), are banned from riding on the sidewalk[11]. Similar laws exist in a few other cities and towns throughout the country, such as Columbus, Ohio, and Chapel Hill, NC. In Boston, MA, Washington, D.C., and Minnesota, sidewalk cycling is prohibited in the downtown areas and/or business districts.

The University of Texas Parking and Transportation Services provides expectations for walking and biking around campus and lists safety tips. All bicycles on campus must be registered to be registered and show proof of registration by displaying a permit to avoid enforcement action[12]. The University of Texas has additional instructions and regulations for operations and parking of bicycles on campus, as provided below[13].

- Campus speed limit is 15 mph.
- Bikes may not ride on sidewalks.
- Bikes must yield to pedestrians.
- All bicycles parking on campus must be registered with Parking and Transportation Services.
- Bicycles secured to anything other than a bicycle rack are considered improperly parked.
- Any bicycle considered abandoned, lost, stolen, or improperly parked or stored may be impounded at the owner's expense.
- The university is not responsible for any incidental damages that may occur to bicycles or locks during the impoundment process.
- If a registered bicycle is impounded, the owners will be notified and have 90 days from the date of impoundment to re-claim their property before it is deemed university property for disposal purposes.
- Bicycles are not allowed in any building unless stored in an area (office, storage room) approved by the appropriate department head such as a director or dean.

Safe Cycling and Walking

Safe cycling is a campaign on the UT Austin campus to promote bicycle safety. The campaign offers interactive courses from The Center for Cycling Education to increase the safety and comfort of bike

[9] How The New Texas Crosswalk Law Protects Pedestrians. Retrieved from https://dallas.legalexaminer.com/transportation/how-the-new-texas-crosswalk-law-protects-pedestrians/
[10] Texas Department of Transportation. (2021). Laws and Regulations FAQ. Retrieved from: https://www.txdot.gov/inside-txdot/modes-of-travel/bicycle/know/laws.html
[11] https://www.npr.org/2016/10/16/496865680/6-things-you-need-to-know-about-cycling-on-the-sidewalk
[12] The University of Texas Parking and Transportation Services. (2022). Bike Registration. Retrieved from: https://parking.utexas.edu/bike/registration
[13] The University of Texas at Austin Parking and Transportation Services. (2021). Bike Rules & Regulations. Retrieved from: https://parking.utexas.edu/bike

riders and other road users around them. These courses also help make bicyclists familiarize themselves with campus-specific regulations.[14] Other general safety tips for bicyclists include:

- Follow campus-wide speed limit of 15 mph;
- Use both hands while riding a bike;
- Wear a helmet when using a bicycle;
- Use lights at night;
- Follow bus etiquette like other vehicles using the road;
- Exercise same rights and responsibilities as other vehicles;
- Be aware of your surroundings and ride predictably;
- Don't dip between parked cars;
- Use turn signals and remain visible to traffic while making the signal; and
- Ride to the right side of the road space as far as practicable.

Walking around Campus, pedestrians, bicycles, and vehicles must obey all traffic control devices. Pedestrians have the right-of-way at marked crosswalks, in intersections, and on sidewalks extending across a service drive, building entrance, or driveway. Pedestrians should not leave the curb or their place of safety and walk or run into the path of a vehicle that is so close that it is impossible for the driver to yield. Pedestrians may cross an intersection diagonally where permitted by special pavement marking. Pedestrians crossing a street at any point other than within a marked crosswalk at an intersection should yield the right-of-way to all vehicles.

### *Safety and Trip Data Analysis*

To determine the locations and times to target safety education and enforcement efforts, readily available bicycle and pedestrian safety and bicycle trip data were analyzed. A detailed crash analysis was conducted and memorialized in TTI's recent Crash Analysis Technical Memorandum[15]. A summary of the results along with key takeaways are contained within this section. Also included is trip information related to the University's bike share program.

Bicycle and Pedestrian Crashes

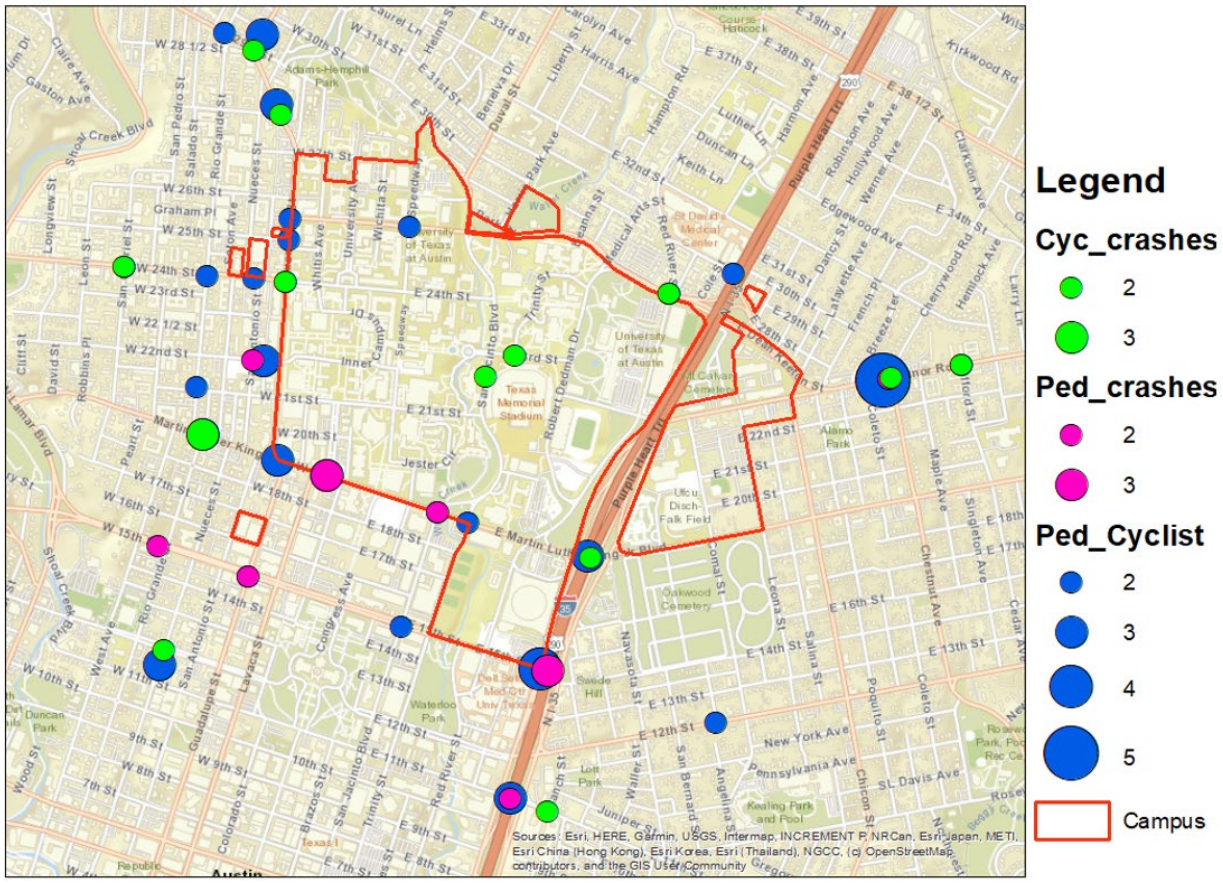
The crash analysis looked at pedestrian and bicycle crash data from the Texas Department of Transportation Crash Reporting Information System (TxDOT-CRIS). Both bicycle and pedestrian crashes were studied using descriptive statistics and geospatial (mapping) analyses to examine crash locations and assess crash factors. Exhibit 2 below identifies bicycle-involved and pedestrian-involved crash hot spots in the vicinity of the University of Texas Austin campus. Hot spots are shown with green circles (bicycle), pink circles (pedestrian), and blue circles (bicycle and pedestrian). Hot spots are defined as areas with at least two bicycle-involved or pedestrian-involved crashes within 250 feet. Most of the hot

[14] The University of Texas at Austin Parking and Transportation Services. (2021). Safe Cycling. Retrieved from: https://parking.utexas.edu/bike/safe-cycling

[15] Walden, T.D. (2022). Street Coaching for Pedestrians and Cyclists: Putting Laws into Practice on University Campuses (University of Texas at Austin), Crash Analysis Technical Memorandum. *Texas A&M Transportation Institute.*

spots on the map are along the south (Martin Luther King Jr. Blvd. and south) and west (Guadalupe St. and west) sides of campus.

**Exhibit 2: Crash Analysis Summary**




The following are the key takeaways from this analysis:

- There was a total of 179 pedestrian-involved and bicyclist-involved crashes between 2017 and 2020 within/around the vicinity of UT-Austin, of which 56% (100 crashes) were bicyclist-involved and 44% (79 crashes) were pedestrian-involved.
- 41% of bicyclist-involved crashes were at an intersection (within the stop bars), while 15% of pedestrian-involved crashes were at an intersection.
- 14% of bicyclist-involved crashes were intersection-related (vicinity of the intersection), and 49% of pedestrian-involved crashes were intersection-related.
- The majority of crashes (59%) resulted in non-incapacitating injuries, while 26% resulted in possible injuries, 11% resulted in suspected serious injuries, and 2% resulted in fatality. The remaining 2% did not result in injury.
- The percentage of crashes that involved fatal or suspected serious injury crashes was similar for bicyclists (12%) and pedestrians (14%).
- A much higher percentage of pedestrian crashes involving males (19%) resulted in fatal or serious injury compared to 7% of pedestrian crashes involving females.

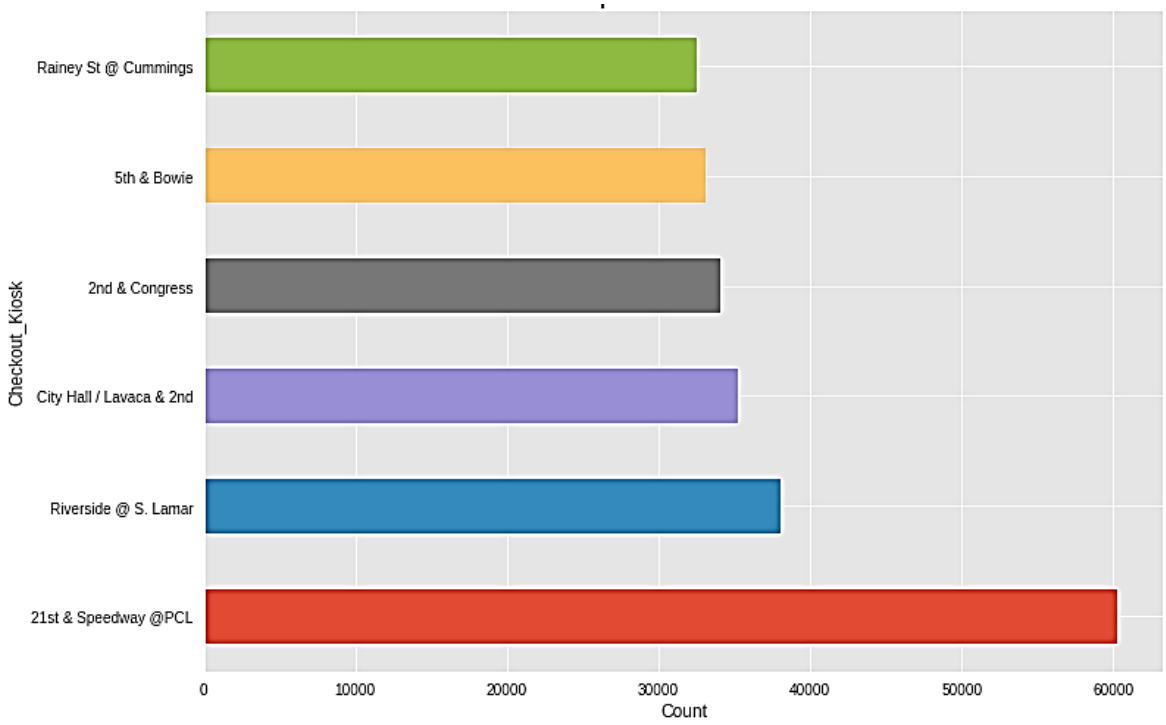
- 18% of all bicycle-involved crashes were at traffic signals compared to 30% of all pedestrian-involved crashes.
- A higher percentage of bicycle crashes (76%) occurred in daylight conditions, while 66% of pedestrian crashes occurred in daylight conditions.
- In crashes where bicyclists were injured and helmet use was known, a helmet was not worn in more crashes (48%) than a helmet was worn (39%). In 13% of crashes helmet use was unknown.
- Factors contributing to crashes involving motor vehicle drivers were mostly attributed to inattention, failure to yield right of way to pedestrians, or unsafe turning (left). Bicyclists were more prone to being inattentive and failing to yield right of way while turning left. Pedestrians were more likely to fail to yield right of way to motor vehicles.

Bicycle Trip Data

This section discusses some highlights from analysis done on data from Austin's B-cycle bike share program[16]. Austin B-cycle is a public bike sharing program that came to Austin in December 2013. The system is owned by the City of Austin and operated by the local non-profit Bike Share of Austin. This analysis is for bike share data from 2014 to 2019 and provides some interesting insights as follows:

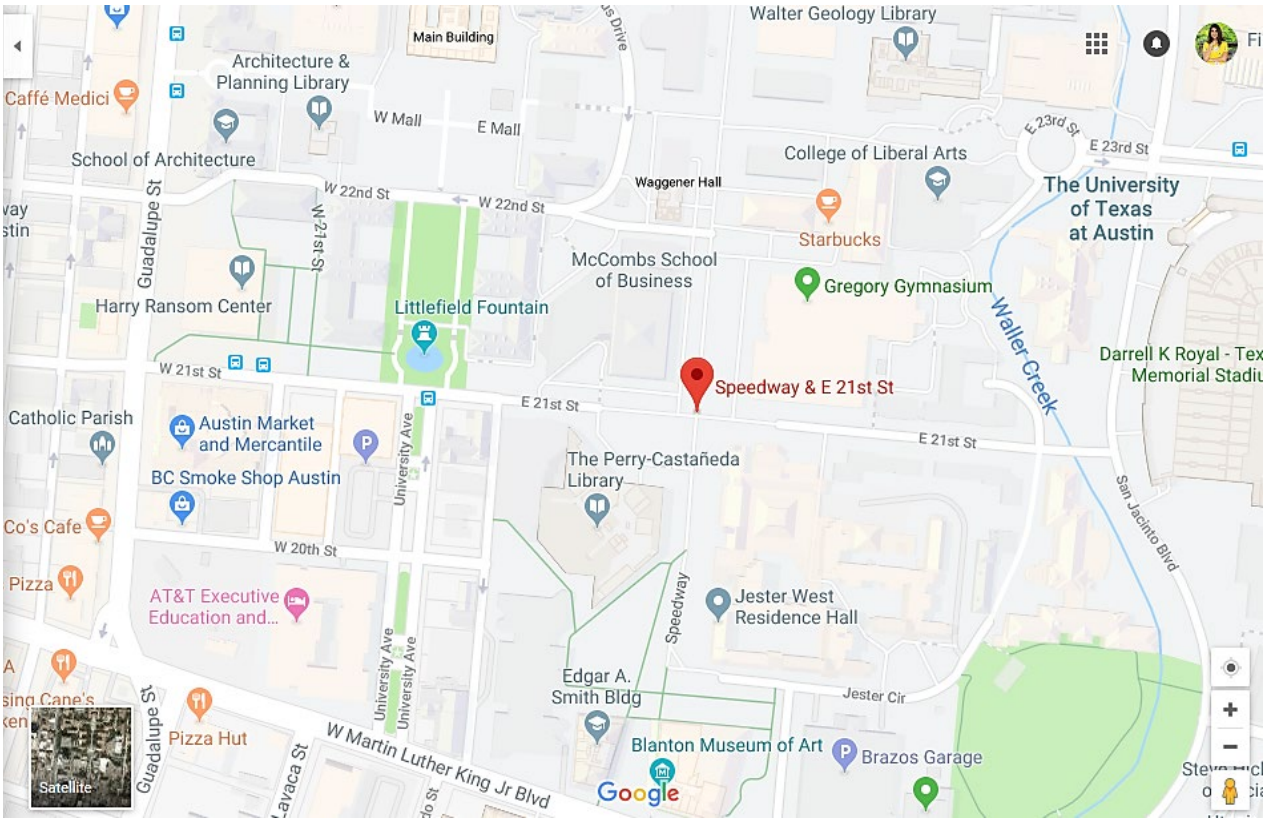
- The most popular checkout and return kiosk is located at 21st and Speedway, which is used by students to get to classes on the campus.

**Exhibit 3: Most Popular Checkout Kiosks**



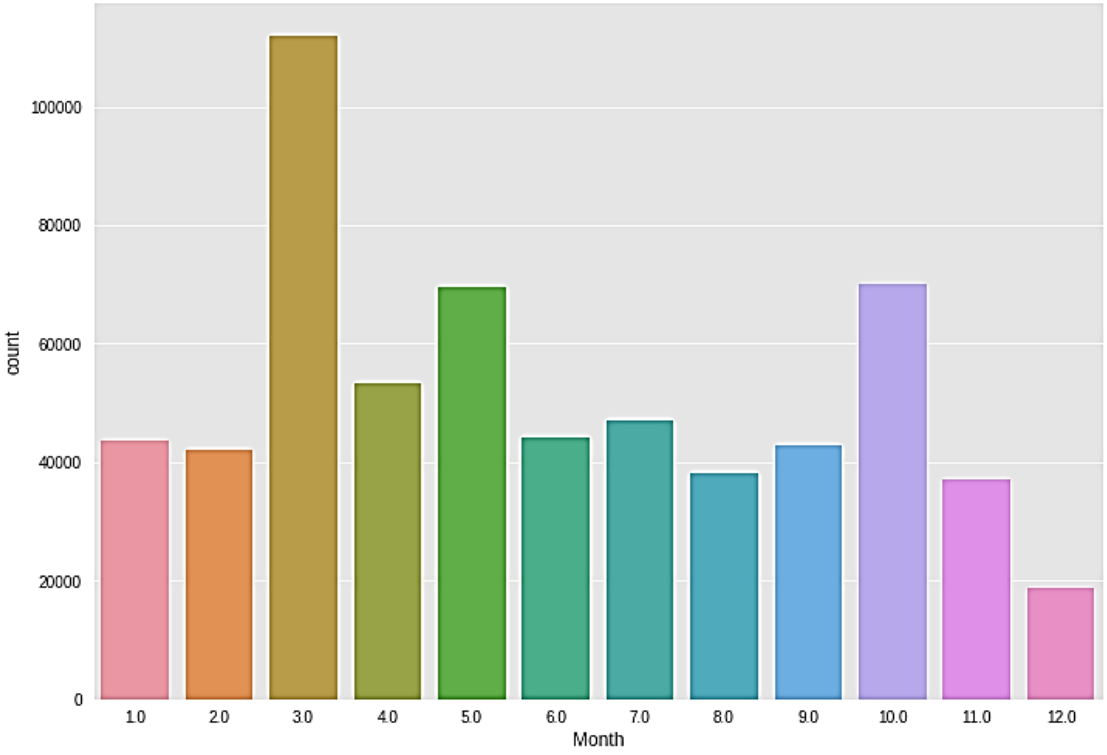

[16] Martinez, V.R. (2019). Innovation in Urban Mobility: Analyzing Austin B-Cycle Sharing Program Data. Retrieved from: https://medium.datadriveninvestor.com/innovation-in-urban-mobility-analyzing-austin-b-cycle-sharing-program-data-56ce0cd92131

**Exhibit 4: Location of the Most Popular Checkout and Return Kiosk**




- The most active dates every year occur during the South by Southwest (SXSW) Conference, which is one of the most popular events in Austin.
- March, October and May happen to be the months with the highest demand in that order. SXSW is in March, while the Pachanga Latino Music Festival and the spring Pecan Street Festival happen in May, and the Austin City Limits Festival takes place in October.

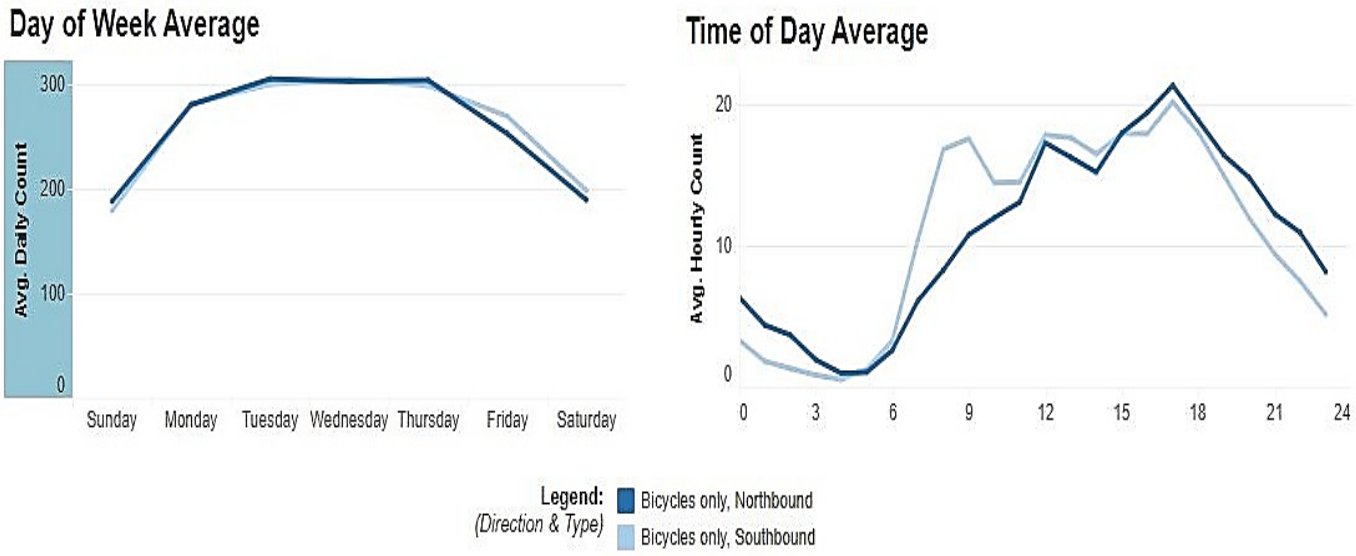
**Exhibit 5: Bike Share Demand by Month**




- The following exhibit shows bicycle movement pattern on Guadalupe St. north of W 21st St., recorded by a permanent count station owned by the City of Austin[17]. This location is close to the campus. The median daily bike count at this location is 240. The day of week and time of day bike usage is shown in Exhibit 6. It is easy to see the student-driven use of bikes – more stable, higher demand on weekdays compared to weekends, and much higher demand during mid-day and afternoon periods compared to mornings and evenings.

[17] Texas Bicycle and Pedestrian Count Exchange (BP|CX) (2022). Travis County Bicycle and Pedestrian Count Locations. Retrieved from: https://mobility.tamu.edu/bikepeddata/

**Exhibit 6: Bike Count at a Permanent Station Location on Guadalupe St.**




***Local Bicycle and Pedestrian Safety Needs***

The campus master plan included recommendations for improvements along corridors to improve bicycle and pedestrian mobility and safety. Improvements to Robert Dedman Drive are an example of a project recommended in the plan and recently completed. These improvements included the removal of parking on one side of the street, narrowing of travel lanes, and the addition of protected bike lanes. Exhibit 7 shows Robert Dedman Drive before improvements and Exhibit 8 shows the corridor after improvements were completed.

**Exhibit 7: Robert Dedman Drive Before Improvements**


**Exhibit 8: Robert Dedman Drive After Improvements**


Exhibit 9 identifies key issues and concerns that were identified through outreach efforts and analysis of crash and operations data along with state laws that could be enforced to address these items.

Additionally, respective UT Austin bicycle and non-motorized operating regulations should be included in educational opportunities.

**Exhibit 9. Key Issues and Concerns and Applicable State Law**

| Issue/Concern | Applicable State Law |
|---|---|
| Need to increase compliance of bicyclists stopping at STOP signs | • §551.101 (Rights and Duties) |
| Lack of No Wheels Zone Compliance; Need for strict enforcement of ped-bike disengagement in respective designated areas during class change times, high traffic periods like special events, game-days, etc. | • §551.106 (Regulation of Bicycles by Department or Local Authority) |
| Bicycle helmet usage needs to be increased (see note below). | • N/A |
| Need to increase visibility of bicyclists and pedestrians during nighttime | • §551.103 (Operation on Roadway)<br>• §551.104 (Safety Equipment)<br>• §552.006 (Use of Sidewalk)<br>• Code §552.008 (Drivers to Exercise Due Care) |
| Conflicts between bicycles and pedestrians need to be reduced at busy intersections and shared paths (e.g., Guadalupe Street, East Martin Luther King Blvd., Speedway and East Dean Keeton St.) | • §545.107 (Method of Giving Hand and Arm Signals)<br>• §551.103 (Operation on Roadway)<br>• §552.001 (Traffic Control Signals)<br>• §552.002 (Pedestrian Right-of-way If Control Signal Present)<br>• §552.003 (Pedestrian Right-of-way at Crosswalk)<br>• Senate Bill 1055 |
| Bicyclists can be both vehicles and pedestrians, which leads to confusion on how they operate. There needs to be education and enforcement on the laws, particularly at critical, high shared traffic locations like Speedway. | • §551.101 (Rights and Duties)<br>• §551.103 (Operation on Roadway)<br>• §552.001 (Traffic Control Signals)<br>• §552.002 (Pedestrian Right-of-way If Control Signal Present)<br>• §552.003 (Pedestrian Right-of-way at Crosswalk)<br>• §552.005 (Cross at Point Other Than Crosswalk) |
| Pedestrians are distracted by mobile devices. | • §552.003 (Pedestrian Right-of-way at Crosswalk)<br>• §552.005 (Cross at Point Other Than Crosswalk)<br>• §552.008 (Drivers to Exercise Due Care) |
| Pedestrians were more likely to fail to yield right of way to motor vehicles. | • §552.005 (Cross at Point Other Than Crosswalk)<br>• §552.006 (Use of Sidewalk)<br>• §552.008 (Drivers to Exercise Due Care) |
| Most pedestrian crashes happen outside of intersections. There are issues with mid-block crossing or other risky crossing behaviors. | • §552.003 (Pedestrian Right-of-way at Crosswalk)<br>• §552.005 (Cross at Point Other Than Crosswalk)<br>• §552.006 (Use of Sidewalk)<br>• Code §552.008 (Drivers to Exercise Due Care) |
| Bicyclists were more prone to being inattentive and failing to yield right of way while turning left. | • §545.107 (Method of Giving Hand and Arm Signals)<br>• §551.103 (Operation on Roadway)<br>• §552.003 (Pedestrian Right-of-way at Crosswalk)<br>• §552.005 (Cross at Point Other Than Crosswalk) |

| Issue/Concern | Applicable State Law |
|---|---|
| | • §552.006 (Use of Sidewalk)<br>• Code §552.008 (Drivers to Exercise Due Care) |
| Nearly half of all bicycle crashes happen at stop signs and traffic signals. | • §545.107 (Method of Giving Hand and Arm Signals)<br>• §551.101 (Rights and Duties)<br>• §551.103 (Operation on Roadway)<br>• §552.001 (Traffic Control Signals)<br>• §552.002 (Pedestrian Right-of-way If Control Signal Present)<br>• Code §552.008 (Drivers to Exercise Due Care)<br>• Senate Bill 1055 |
| Bring awareness to increased bicycle and pedestrian activity areas. | • §551.101 (Rights and Duties)<br>• §551.103 (Operation on Roadway)<br>• §552.001 (Traffic Control Signals)<br>• §552.002 (Pedestrian Right-of-way If Control Signal Present)<br>• §552.003 (Pedestrian Right-of-way at Crosswalk)<br>• §552.005 (Cross at Point Other Than Crosswalk)<br>• Senate Bill 1055 |
| Bicycles are going too fast for conditions. | • §551.101 (Rights and Duties)<br>• §551.103 (Operation on Roadway)<br>• §551.106 (Regulation of Bicycles by Department or Local Authority) |
| Guadalupe St., East MLK Blvd. and Speedway are the top three corridor locations for bicycle and pedestrian crashes on campus. | • N/A |

Note: Studies have shown that wearing helmets significantly reduces the risk of head injuries from bicycle crashes.

***Role of Educational Outreach and Law Enforcement***

College students are often returning to bicycling and walking as modes of transportation after a long break in their high school years. As children, they may not have received instruction on bicycle and pedestrian safety and never learned what laws govern biking and walking. An important component of pedestrian and bicycle safety is educating users on applicable bicycle and pedestrian right-of-way laws and behaviors that contribute to crashes. There are many types of educational materials and avenues through which these can be disseminated. Potential ideas include:

- Radio,
- Television,
- Print (fliers; safety tips and laws being posted at cafeterias, residential housing, and on bulletin boards, etc.),
- Social media,
- Public service announcements at sporting events,
- Promoting safety information at university safety events throughout the year and during orientation periods,
- Free giveaways such as bicycle lights and reflectors; and,

- Static and dynamic message signs.

In addition, there are partnership opportunities to help share this message, such as community groups (e.g., Texas Triathlon Club, Texas 400, B-cycle, Metro-bike, Orange bike, and UT Cycling Club), UT Austin stakeholder departments (e.g., UT Austin Urban Studies Society, and UT Austin Sustainability Department), and local law enforcement. Focused outreach can be performed on site at key areas of concern to deliver the message directly to users. An aggressive educational campaign is important to help change behaviors that negatively impact bicycle and pedestrian safety. It remains imperative that the university continue to prioritize pedestrian and bicycle safety on campus through effective messaging, enforcement, and improved environmental design. Only a consolidated effort between multiple safety partners will produce significant pedestrian and bicycle safety results. Stakeholders (academic departments, administrative divisions, student bodies, etc.) can be engaged to make bike and pedestrian education a part of the student registration process to encourage a wider and more effective reach on this focus area.

Local law enforcement has a special opportunity to leverage their expertise in leading and supporting pedestrian and bicycle safety education. They are the first responders to the results of many of these conflicts and have a unique perspective on the issues which is valuable when reaching out to and gaining support from the community. Several ideas that officers can implement to improve pedestrian and bicycle safety outlined by national research include:

- Attend pedestrian and bicycle specific training,
- Examine and report crash data and share information,
- Identify partner opportunities and shared goals,
- Engage the community; and,
- Measure results and update policies and plans[18].

This specific mobilization plan expands on the community engagement section and provides contextually relevant community education opportunities for law enforcement. Equally important is the feedback loop between these frontline workers and engineers and planners looking to make infrastructure improvements that support safe pedestrian and bicycle behaviors.

### *Define Safety Goals and Performance Measures*

The goal of the bicycle and pedestrian safety mobilizations is to reduce the frequency of bicycle and pedestrian crashes through increased awareness and observation of traffic laws which are in place to protect the safety and mobility of walkers and bikers. The success of any program can only be determined if it is measured. Safety program performance measures include:

- Document the number of bicycle and pedestrian safety mobilizations per year,
- Document number of participants in mobilizations,
- Record before and after traffic law observations,
- Track annual crash frequency and costs; and,

[18] Blank, K., L. Sandt, and S. O'Brien. (2020). The Role of Law Enforcement in Supporting Pedestrian and Bicyclist Safety: An Idea Book. *University of North Carolina Highway Safety Research Center.*

- Conduct before and after survey on bicycle and pedestrian traffic law understanding.

While the overall goal is to reduce the number of crashes, performance measures like before and after surveys of user understanding of bicycle and pedestrian laws are important tools to assess the effects of the street coaching mobilizations. Surveys can be designed to assess specific student groups or populations, specific aspects of understanding of the governing laws, and performed at targeted locations and intervals, as appropriate.

***Street Coaching Mobilization Plan***

The last step in the bicycle and pedestrian safety mobilization plan is to identify mobilizations that would provide the greatest influence on pedestrian and bicyclists safety. These mobilizations will require a dedicated and coordinated effort between the education team and law enforcement to increase awareness and compliance with bicycle and pedestrian safety laws by all transportation users. Action items need to provide a data-driven path towards reducing and eliminating bicycle and pedestrian serious injury and fatal crashes. In addition, they must be aligned with local plans for City of Austin and University of Texas at Austin as well as be supported by the advisory committee and other key stakeholders. This will help ensure that there is community buy-in to implement the mobilizations.

There are numerous national and state initiatives aimed at increasing knowledge and awareness of bicycle and pedestrian laws. These programs can be leveraged along with new mobilizations that are geared towards specific needs and uniqueness of college campuses. Regardless, the mobilizations should be structured to build on traditions and messages that speak to the campus population. Based on the analysis of bicycle and pedestrian safety, and trip pattern data as well as information obtained from stakeholders and campus planning documents, the following list of mobilizations is recommended. The top four are priority initiatives and the next two are second tier priorities.

1. **STOP means Stop**
   This initiative focuses educational and enforcement efforts on getting bicyclists to stop at STOP signs and traffic signals. Key intersections could be targeted for on-site enforcement and engagement on a rotating cycle to increase the influence area. Initial target areas should include Guadalupe St., East MLK Blvd., Speedway and East Dean Keeton St. on campus.

2. **Who's Right? - Shared Space and Crosswalk/Intersection Right of Way**
   **2.1 Who's Right? - Shared Space/Sidewalk**
   Class change is an extremely busy time with a large number of people trying to get around campus quickly. This leads to interaction between bicycles and pedestrians in small spaces. Concentrated education and focused enforcement of laws and regulations for shared roadways, pathways and sidewalks is included in this mobilization.

   **2.2 Who's Right? - Crosswalk/Intersection Right of Way**
   Crosswalks and intersections are high conflict locations for bicyclists, pedestrians, and vehicles. This initiative focuses on laws and how to safely navigate an intersection from a bicycle and pedestrian perspective as well as what drivers should be looking for so Longhorns can do the right thing and keep everyone safe.

3. **No Wheels Zone**
   The No Wheels Zone is an area of campus where bicyclists must dismount to reduce the potential for bicyclist and pedestrian conflicts. This should also be expanded to educate bicyclists that bikes are not allowed on sidewalk. Initial target area should be Inner Campus Loop, which is a busy area for vehicles, bicycles, and pedestrians with limited space.

   While this restriction is always in effect, the area increases for large special events including football games. Educational efforts should leverage football activities and outreach opportunities to expand the mobilization reach.

4. **The Eyes of Texas are Upon You - Be Safe Be Seen**
   Laws pertaining to bicycle light/reflector requirements and the safe practice of wearing light colored or reflective clothing when walking or riding at night are highlighted during this mobilization. Initial target areas should be along Guadalupe Street where there a significant number of bicycle and pedestrian collisions in the interaction area between main campus and west campus.

5. **Gone to Texas – Now Slow Down**
   The hills on campus provide an opportunity for bicyclists to travel at high speeds. This initiative focuses on controlling speed and staying below campus bicycle speed limit of 15 MPH. Initial target areas should be on steep hills, such as Clyde Littlefield Drive.

6. **Texas Fight Distractions - Phones Down, Eyes Up… and Ears Open – Distracted Pedestrians**
   Distracted pedestrians are increasingly becoming a safety issue in both mixed traffic as well as with fixed objects along pathways. This mobilization emphasizes the importance of paying attention, both visually and audibly, in traffic and while in motion.

Like other successful public safety mobilizations (e.g., car seat safety awareness, impaired driving, seat belt compliance, distracted driving, etc.), it is proposed that there be a targeted, all-hands-on-deck approach to education and enforcement efforts. A four-year rotational schedule is recommended to cover Mobilizations 1-4 every two years and Mobilizations 5-6 every four years, resulting in three mobilizations annually. Exhibit 10 identifies an initiative mobilization schedule that provides outreach to address issues and concerns identified in Exhibit 9. Although a lead party is identified, it is anticipated that the mobilization will be carried out by a larger stakeholder group including but not limited to University Police, Transportation Services, Student Affairs, Student Housing, Athletics, etc.)

**Exhibit 10. Mobilization Plan Schedule and Key Issues and State Laws**

| Initiative/Mobilization (Lead Party) | Issue/Concern | Applicable State Laws | Mobilization Year |
|---|---|---|---|
| 1. STOP means Stop (University Police) | • Need to increase compliance of bicyclists stopping at STOP signs<br>• Conflicts between bicycles and pedestrians need to be reduced at busy intersections | §545.107<br>§551.101<br>§551.103<br>§552.001 | 1 and 3 |

| Initiative/Mobilization (Lead Party) | Issue/Concern | Applicable State Laws | Mobilization Year |
|---|---|---|---|
| | and shared paths (e.g., Guadalupe Street, East Martin Luther King Blvd., Speedway and East Dean Keeton St.).<br>• Bicyclists can be both vehicles and pedestrians, which leads to confusion on how they operate. There needs to be education and enforcement on the laws, particularly at critical, high shared traffic locations like Speedway.<br>• Nearly half of all bicycle crashes happen at stop signs and traffic signals.<br>• Guadalupe St., East MLK Blvd. and Speedway are the top three corridor locations for bicycle and pedestrian crashes on campus. | §552.002<br>§552.003<br>§552.005 | |
| 2.1 Who's right? - Shared Space/Sidewalk (University Police) | • Lack of No Wheels Zone Compliance<br>• Conflicts between bicycles and pedestrians need to be reduced on busy shared paths (e.g., Speedway)<br>• Bicyclists can be both vehicles and pedestrians, which leads to confusion on how they operate. There needs to be education and enforcement on the laws, particularly at critical, high shared traffic locations like Speedway.<br>• Pedestrians are distracted by mobile devices.<br>• Most pedestrian crashes happen outside of intersections. There are issues with mid-block crossing or other risky crossing behaviors. | §545.107<br>§551.101<br>§551.103<br>§551.106<br>§552.001<br>§552.002<br>§552.003<br>§552.005<br>§552.008 | 1 and 3 |
| 2.2 Who's right? - Crosswalk/Intersection Right-of-Way (University Police) | • Conflicts between bicycles and pedestrians need to be reduced at busy intersections (e.g., Guadalupe Street at East Martin Luther King Blvd. and at East Dean Keeton St., Speedway at East Dean Keeton St. and at 21st St.)<br>• Bicyclists can be both vehicles and pedestrians, which leads to confusion on how they operate. There needs to be education and enforcement on the laws, particularly at critical, high shared traffic locations like Speedway.<br>• Pedestrians are distracted by mobile devices. | §545.107<br>§551.101<br>§551.103<br>§552.001<br>§552.002<br>§552.003<br>§552.005<br>§552.008<br>Senate Bill 1055 | 2 and 4 |

| Initiative/Mobilization (Lead Party) | Issue/Concern | Applicable State Laws | Mobilization Year |
|---|---|---|---|
| | • Pedestrians were more likely to fail to yield right of way to motor vehicles.<br>• Nearly half of all bicycle crashes happen at stop signs and traffic signals.<br>• Bicyclists were more prone to being inattentive and failing to yield right of way while turning left. Reinforced warning and guidance signage for right-of-way guidance and traffic safety laws are needed.<br>• Bring awareness to increased bicycle and pedestrian activity areas. | | |
| 3. No Wheels Zone (Transportation Services) | • Lack of No Wheels Zone Compliance<br>• Need for strict enforcement of ped-bike disengagement in respective designated areas during class change times, high traffic periods like special events, game-days, etc.<br>• Conflicts between bicycles and pedestrians need to be reduced on busy shared paths (e.g., Speedway) and intersections<br>• Bicyclists can be both vehicles and pedestrians, which leads to confusion on how they operate. There needs to be education and enforcement on the laws, particularly at critical, high shared traffic locations like Speedway.<br>• Bring awareness to increased bicycle and pedestrian activity areas. | §545.107<br>§551.101<br>§551.103<br>§551.106<br>§552.001<br>§552.002<br>§552.003<br>§552.005 | 1 and 4 |
| 4. The Eyes of Texas are Upon You - Be Safe Be Seen (Transportation Services) | • Need to increase visibility of bicyclists and pedestrians during nighttime.<br>• A higher percentage of pedestrian crashes happen at night than bicycle crashes.<br>• Most pedestrian crashes happen outside of intersections.<br>• Bicyclists were more prone to being inattentive and failing to yield right of way while turning left. | §545.107<br>§551.103<br>§551.104<br>§552.003<br>§552.005<br>§552.006<br>§552.008 | 2 and 4 |
| 5. Gone to Texas – Now Slow Down (Transportation Services) | • Bicycle speeds are too fast for conditions.<br>• Bicycle helmet usage needs to be increased. | N/A (Although campus regulations apply to speed limits) | 2 |

| Initiative/Mobilization (Lead Party) | Issue/Concern | Applicable State Laws | Mobilization Year |
|---|---|---|---|
| 6. Texas Fight Distractions - Phones Down, Eyes Up… and Ears Open – Distracted Pedestrians (University Police) | • Pedestrians are distracted by mobile devices.<br>• Conflicts between bicycles and pedestrians need to be reduced at busy intersections and shared paths (e.g., Guadalupe Street, East Martin Luther King Blvd., Speedway and East Dean Keeton St.)<br>• Most pedestrian crashes happen outside of intersections. There are issues with mid-block crossing or other risky crossing behaviors.<br>• Bring awareness to increased bicycle and pedestrian activity areas. | §545.107<br>§551.103<br>§552.001<br>§552.002<br>§552.003<br>§552.005<br>§552.006<br>§552.008 | 3 |

The highest priority locations for conducting these safety mobilizations should include high crash and/or concerned corridors and intersections identified in the safety analysis and stakeholder input. These locations include:

- Corridors:
  - Speedway – bicycles and pedestrians
  - Guadalupe Street – bicycles and pedestrians
  - East Martin Luther King Blvd. – bicycles and pedestrians
  - East Dean Keeton St. – bicycles and pedestrians
- Intersections:
  - Guadalupe St. and East Martin Luther King Blvd. – bicycles and pedestrians
  - Guadalupe St. and East Dean Keeton St. – bicycles and pedestrians
  - Speedway and East Dean Keeton St. – bicycles and pedestrians
  - Speedway and 21st St. – bicycles
  - University Ave. and West Martin Luther King Blvd. – pedestrians
  - Manor Rd. and Cherrywood Rd. – bicycles and pedestrians
  - East Dean Keeton St. and Red River St. – bicycles

Each mobilization should have a comprehensive education and enforcement component to it as well as materials and subject matter on responsibilities or best behaviors for bicyclists, pedestrians, and motorists in order to affect the most change. The mobilization should involve both on site engagement and enforcement events as well as promotional materials with focused messages delivered via social media, transitional media, posters, banners, message boards that are used for special events, enhanced traffic signing, and printed materials lasting throughout the month. The messaging is best delivered from peers rather than "safety experts." To that end, incorporating various university colleges such as Engineering (Civil, Architectural and Environmental Engineering), School of Architecture, and McCombs School of Business (Business & Marketing) students through classroom projects in addition to local and campus bicycling organizations and interest groups in developing the specifics of the program is key to ensuring the program success. Finally, these same groups of students and organizations can be

leveraged to conduct before and after behavior observations and surveys. This information is vital to assess the effectiveness of the mobilizations and determine what modifications should be incorporated to keep them dynamic and connect to the trends being experienced by road user groups in and around UT Austin campus.

*Conclusion*

The University of Texas at Austin has put a major focus on pedestrian and bicycle safety through the campus planning efforts. The Texas Spirit, embodied by the Longhorns in a warm and welcoming environment, can be capitalized on to share that same sentiment when traveling around campus. The UT Tower has long acted as a symbol of the UT community's mood and spirits. Through street coaching mobilizations, the campus community can be educated on the ways for bicycles, pedestrians, and vehicles to interact to ensure everyone's safety and keep the Longhorn traditions and spirits high.