



Understanding Pedestrian and Bicycle Safety Laws in Rural Communities

A presentation created by TTI for outreach and educational use in Texas communities.



Crash Data

What do we know
about pedestrian and
bicycle crashes in
rural areas?



Impact of Crashes: Pedestrians

- From 2015 to 2019:
 - **2,782** pedestrian crashes occurred in rural counties in Texas.
 - **451** pedestrian fatalities and **2,368** pedestrian injuries resulted from these crashes
- **34%** of rural pedestrian-involved crashes involved an intersection.



Impact of Crashes: Bicyclists

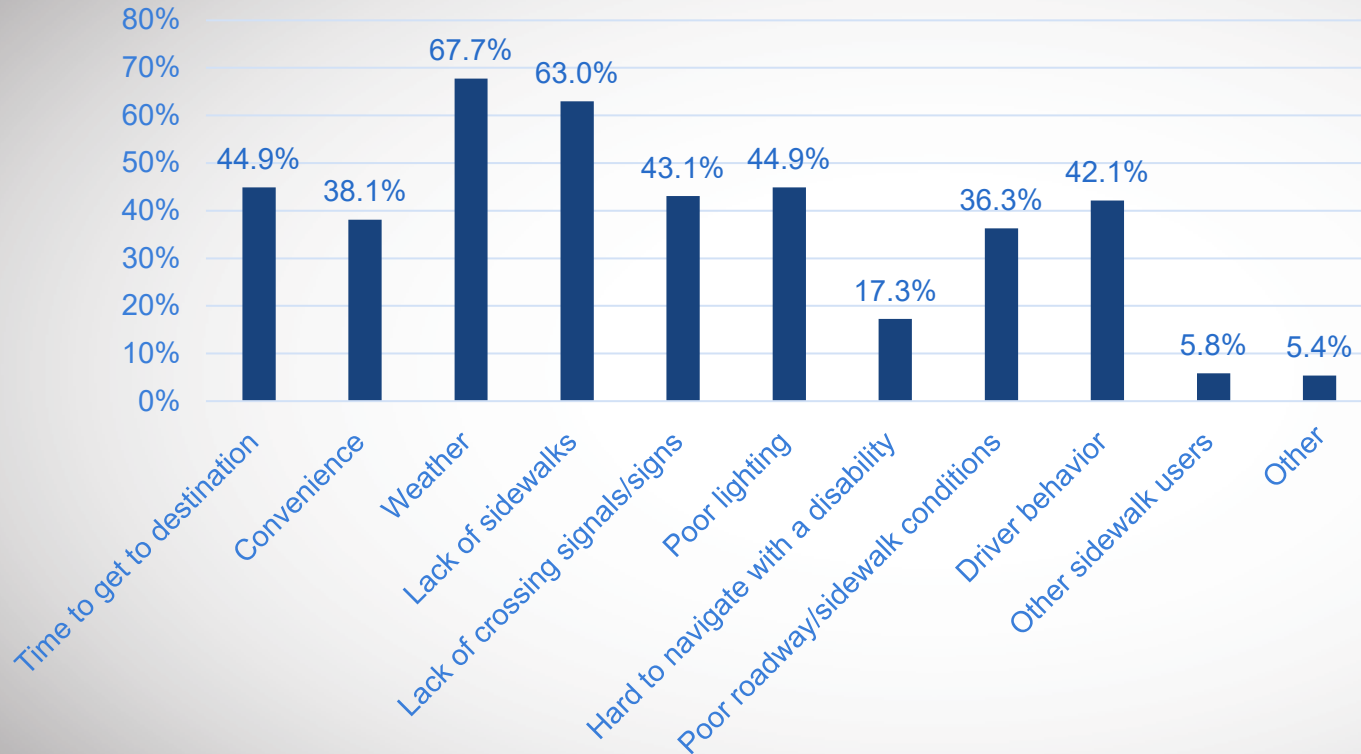
- From 2015 to 2019:
 - **843** bicyclist crashes occurred in rural counties in Texas.
 - **40** bicyclist fatalities and **726** bicyclist injuries resulted from these crashes
- **55%** of rural bicyclist-involved crashes involved an intersection.



Survey Findings

What did Texans tell us about pedestrian and bicycle safety in rural areas?

Survey Findings: Barriers to Walking



Top Barriers:

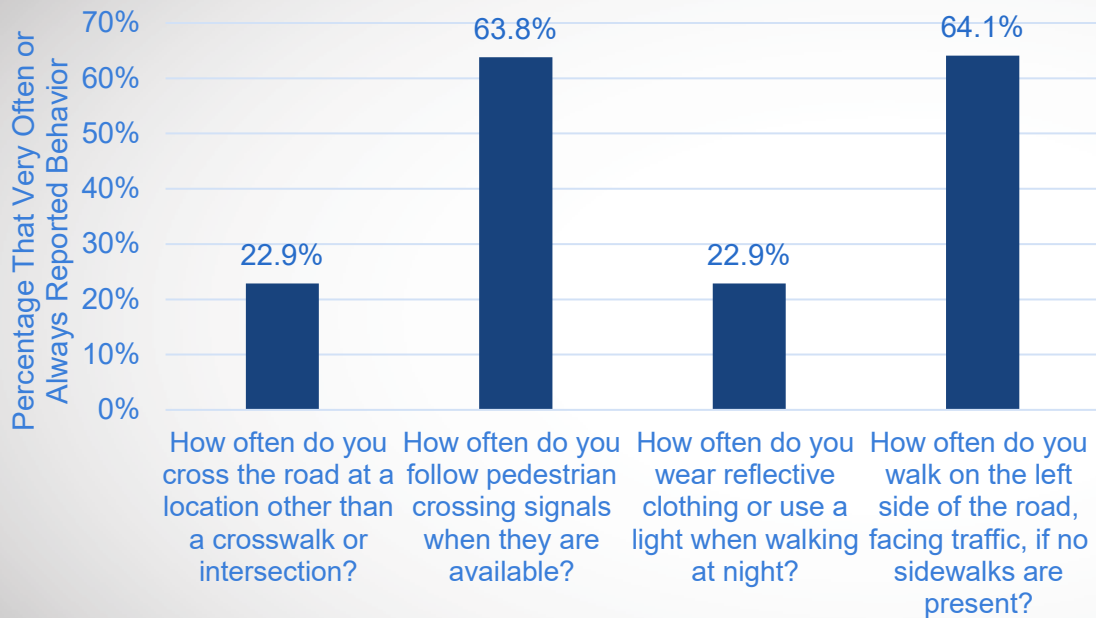
- Weather (67.7%)
- Lack of sidewalks (63.0%)
- Time to get to destination (44.9%)
- Poor lighting (44.9%)

Survey Findings: Barriers to Walking

- What can be done?
 - Engineering
 - Build more sidewalks!
 - Improve/increase number of pedestrian crossings to reduce time.
 - Improve signal timing to prioritize pedestrians.
 - Improve/increase amount of lighting.
 - Education
 - Education targeting drivers on laws regarding pedestrian and bicycle safety.
 - Education of pedestrians on where to walk if there are no sidewalks and being visible at night.
 - Enforcement
 - Enforcement targeting drivers on laws regarding pedestrian and bicycle safety.

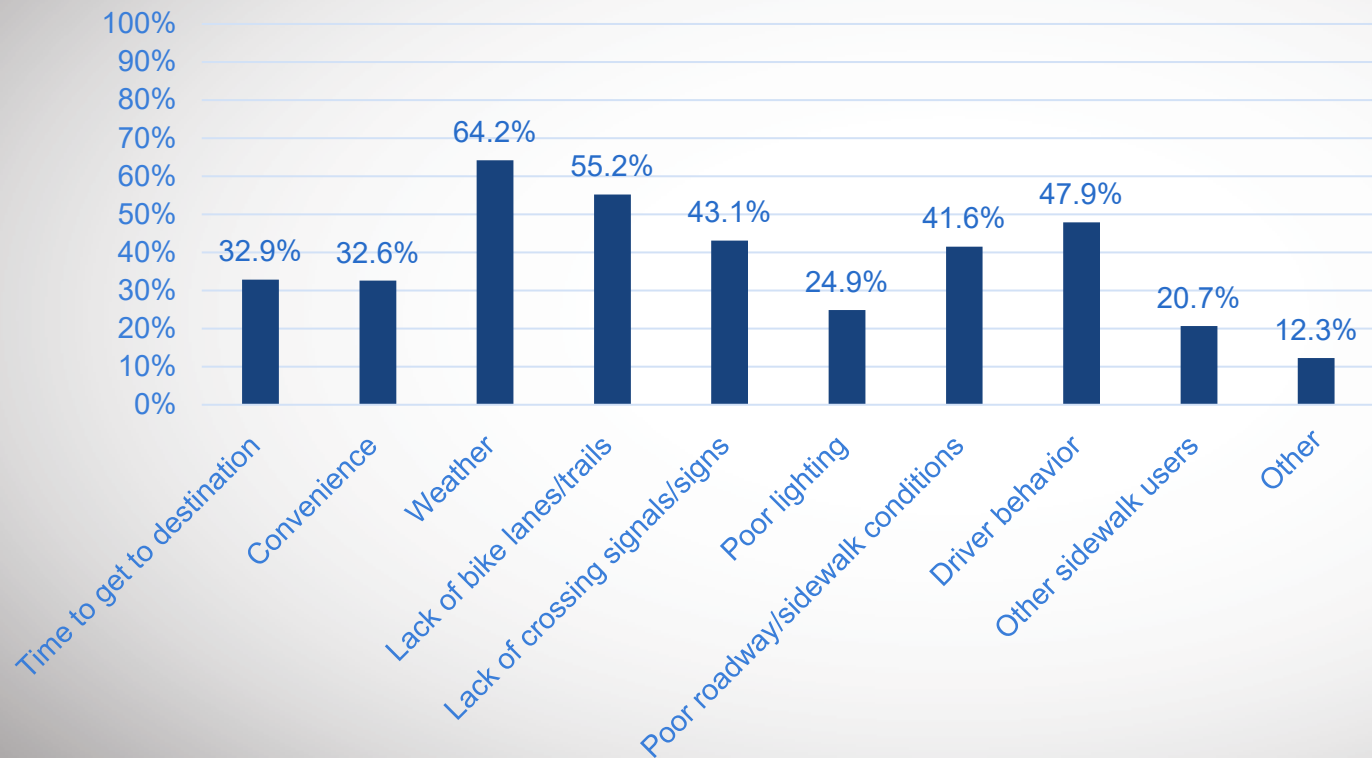


Survey Findings: Reported Pedestrian Behaviors



- Crossing the road at a crosswalk or intersection makes you more visible and predictable to motorists.
 - It is illegal to cross the road outside of a marked crosswalk between two adjacent intersections where there are traffic signals in use.
- Pedestrian signals indicate right-of-way, so only cross on a walk signal.
- Wearing something reflective or using a light at night makes you more visible.
- Walking facing traffic allows you to react to any vehicular movements that may put you in danger.

Survey Findings: Identified Barriers to Riding a Bicycle



Top Barriers:

- Weather (64.2%)
- Lack of bike lanes/trails (55.2%)
- Driver behavior (47.9%)

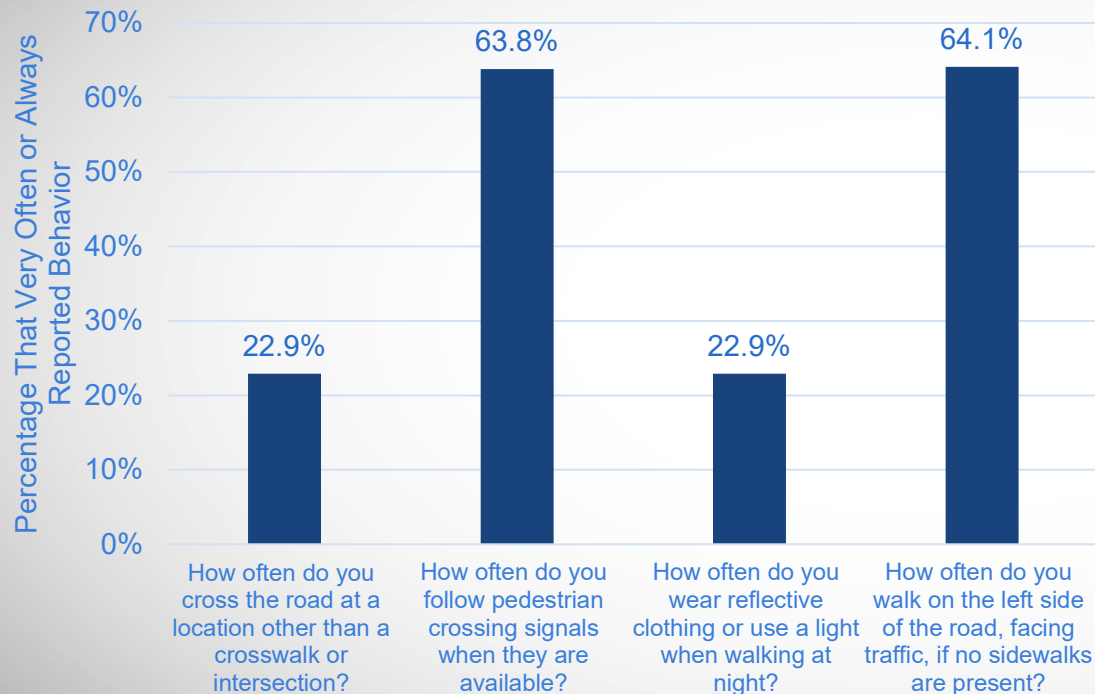
Survey Findings: Identified Barriers to Riding a Bike



What can be done:

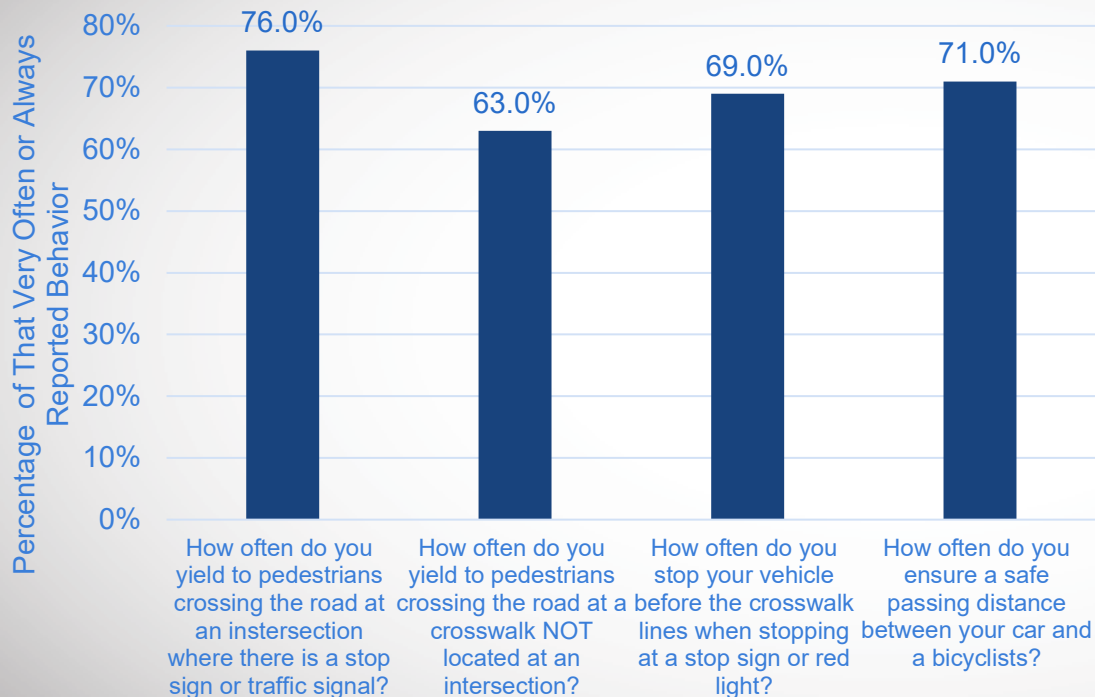
- Engineering
 - Build more bike lanes/trails
- Education
 - Education targeting drivers on pedestrian and bicycle safety laws
 - Education of bicyclists on how to share the road with motorists as well as on bicycle safety laws
- Enforcement
 - Enforcement targeting drivers

Survey Findings: Reported Bicyclist Behaviors



- As a bicyclist you should ride in the same direction as motor vehicle traffic.
- Using a white light on the front of your bicycle and a red light or reflector in the rear makes you more visible; and it's the law.
- Reflective clothing can increase your visibility at night.
- Wearing a helmet decreases your chance of a brain injury in a crash.

Survey Findings: Reported Motorist Behaviors



- Drivers must yield to pedestrians in the following situations:
 - At both marked and unmarked crosswalks
 - When pedestrians are in a crosswalk if there is no traffic control signal
 - When making turns – even if the light is green – unless you have a green turn arrow
- Stopping before the crosswalk lines provides a safe space for pedestrians to cross the road.
- Passing bicyclists at a safe distance is the law and provides them with comfort while riding.



Focus Groups

- Laws are confusing and difficult to understand.
- Higher speed limits outside of urban areas pose risk to pedestrians and bicyclists.
- Less interaction between drivers and people walking and biking in rural areas.

—“—

“Of course, we
are all
pedestrians at
one point, but we
may not walk
daily.”



Knowledge Assessment

What do you know
about pedestrian
and bicycle safety
in Texas?



Let's Test Our Knowledge #1

- True/False. Bicyclists do not have the same rights and responsibilities as a motor vehicle on Texas roadways.
 - Answer: False

Bicyclists have the same rights, to:

- Ride in the road (unless a sign indicates they are prohibited)

This also means drivers need to Share the Road with bicyclists as if they were any other vehicle.

Bicyclists also have the same responsibilities, to:

- Follow traffic laws
- Follow traffic signals/signs (such as stopping at red lights/stop signs)



Let's Test Our Knowledge #2

- True/False. As a pedestrian if a sidewalk is available and accessible they must use it.
 - Answer: True

Pedestrians must use a sidewalk if one is present they can use.

- Key terms are “available” and “accessible.”
- For example:
 - If you are in a wheelchair and there are no ramps to get to it
 - If there is something blocking it such as a vehicle or other object



Let's Test Our Knowledge #3

- True/False. As a pedestrian, if a sidewalk is NOT available and accessible, you should walk on the left-hand side of the street-facing traffic.
 - Answer: True

Pedestrians should, if possible, walk against the traffic flow so they can see and react to vehicle movements.

- It's also the law.
- The law does say "if possible," realizing it's not feasible or even safe in all circumstances, but it is generally the safest option.

Let's Test Our Knowledge #4

- Which of the pictures contains a crosswalk?

- Image 1
- Image 2
- Image 3
- Image 4

Hint: There is more than one

- Answer: All of them

Most likely it was image 3 that threw you off. Let's explore that in detail...

Which of these pictures contains a crosswalk? Select all that apply

1

☐

2

☐

3

☐

4

☐

Unmarked Crosswalks

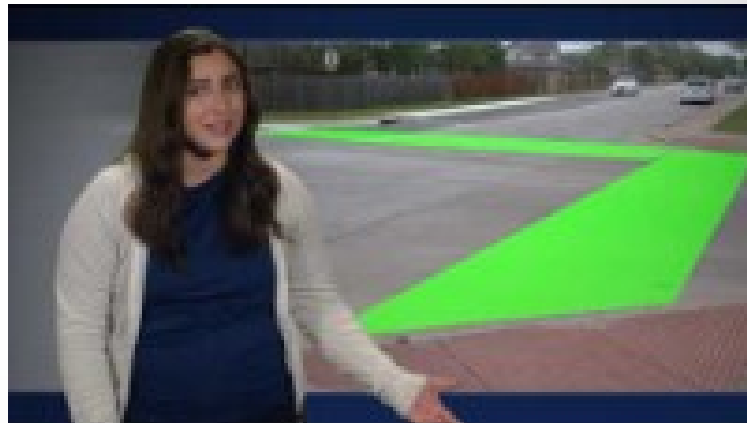
- Image 3 is an “unmarked” crosswalk at an intersection.

Watch this video for more information:



Unmarked Crosswalk

Unmarked crosswalks exist on all legs of a four-way intersection even if there is no traffic control in your direction of travel. Before crossing any street, look for an acceptable gap in traffic.



Infographic

Pedestrian and Bicycle Safety Laws in RURAL COMMUNITIES



Pedestrian Survey Findings and The Law

70% of rural respondents reported walking at least a few times a month.

Of those who reported **WALKING**,

approximately **61%** reported doing so for **exercise or other health benefits**

and about **33%** reported **walking for transportation**.



Obstacles to Walking and the Texas Transportation Code (TTC)

63% of rural respondents reported **lack of sidewalks as an obstacle to walking more**.

Did you know?

If no sidewalk is available, a pedestrian should walk on the left side of the roadway or shoulder facing oncoming traffic (TTC §552.006).

43% of rural respondents reported **lack of crossing signals/signs as an obstacle to walking more**.

Did you know?

Pedestrians crossing a road must yield right-of-way to a vehicle on the highway if at a place other than a crosswalk or intersection (TTC §552.005).

Find more information about **existing pedestrian and bicycle laws** here: tinyurl.com/xhanbyaw.

You can find **existing pedestrian and bicycle laws published by TxDOT** here: <https://statutes.capitol.texas.gov/>.

Additional information and resources can be found at: <https://www.walkbikesafetexas.org/>.

Bicyclist Survey Findings and The Law

21% of rural respondents reported bicycling at least a few times a month.

Of those who reported **RIDING A BIKE**,

about **50%** reported doing so for **exercise or other health benefits**

and about **25%** reported **riding for transportation**.

Obstacles to Bicycling and the TTC

55% of rural respondents reported **lack of bike lanes/trails as an obstacle to riding more**.

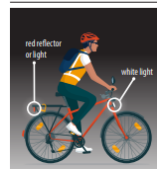
Did you know?

Motorists must pass a bicyclist at a safe distance (TTC §551.101).

Almost a quarter of rural respondents reported **poor lighting as an obstacle to riding more**.

Did you know?

When riding at night a bicycle must be equipped with a white light on the front and a red reflector or light on the back (TTC §551.104).



Improving Familiarity with Pedestrian and Bicycle Safety Laws

Motorists should yield right-of-way:

- At both marked and unmarked crosswalks (TTC §552.003).
- When pedestrians are in a crosswalk if there is no traffic-control signal (TTC §552.003).
- If a pedestrian is crossing on the same half of the roadway as the vehicle (TTC §552.003).
- When emerging from an alley, driveway, or building (TTC §545.250), and
- When making turns — even if the light is green — unless you have a green turn arrow (TTC §552.001).

A pedestrian has the right-of-way when:

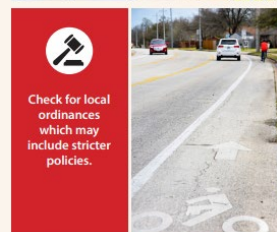
- Facing a "walk" signal (TTC §552.002).
- The signal light is green in their direction of travel, if there are no pedestrian signals (TTC §552.001), and
- Crossing in a crosswalk without a traffic signal (TTC §552.003).

When crossing at a point other than an intersection or crosswalk the pedestrian should yield the right-of-way to vehicles. (TTC §552.005)

A bicyclist should yield right-of-way:

- As if they are driving a vehicle since they have the same rights and responsibilities on Texas roadways (TTC §551.101).

Ride as far to the right-hand side of the street as possible, unless: preparing to make a left turn, avoiding obstructions, or if the lane is too narrow for a bicycle and motor vehicle to travel side-by-side. (TTC §551.103)



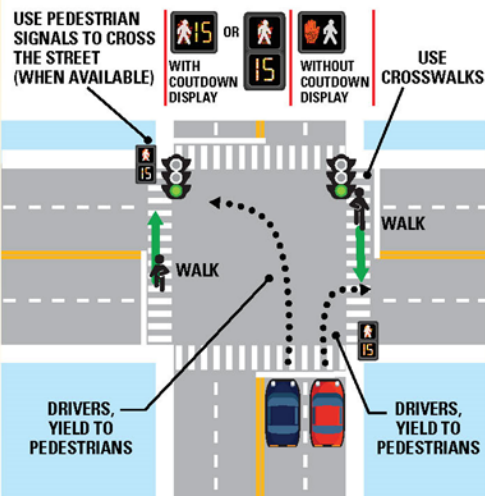
Infographic

DRIVERS AND PEDESTRIANS

INTERSECTION SAFETY TIPS



**36% of pedestrian
injuries and fatalities
WERE INTERSECTION-RELATED**



Note: Crash data from January 1, 2010 to December 31, 2019 were extracted on May 12, 2020 from the Texas Crash Records Information System. Additional information on laws can be found in the Texas Transportation Code.



You should also check local ordinances to be aware of additional pedestrian laws.

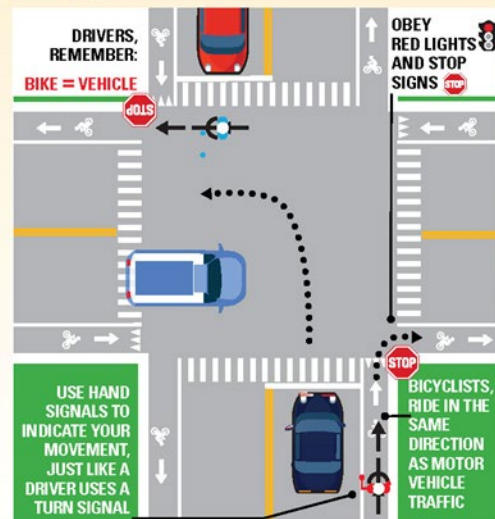


DRIVERS AND BICYCLISTS

INTERSECTION SAFETY TIPS



**58% of bicyclist injuries
and fatalities WERE
INTERSECTION-RELATED**



Note: Crash data from January 1, 2010 to December 31, 2019 were extracted on May 12, 2020 from the Texas Crash Records Information System. Additional information on laws can be found in the Texas Transportation Code.





You should also check local ordinances to be aware of additional bicycle laws.




Factsheets

- Bicyclists
- Pedestrians
- Motorists

Rights and Duties of BICYCLISTS (It's the Law)







A bicycle is a device that is ridden and propelled by human power with two tandem wheels with at least one wheel being greater than 14 inches in diameter.




BICYCLISTS SHOULD USE ARM SIGNALS TO SIGNAL INTENT

Use Arm Signals from the left side.

Left-turn signal: Extend the left hand and arm horizontally	Right-turn signal: Extend the left hand and arm upward OR extend the right hand and arm horizontally	Decrease speed: Extend the left hand and arm downward
		


PASSING


- When being passed, move or remain to the right
- Do not accelerate (e.g., ride faster) until you have been passed
- Pass other vehicles on the left at a safe distance



SAFETY EQUIPMENT

- To operate on the roadway at night, your bicycle needs specific equipment including brakes, front white lamp, and approved rear reflector or rear red lamp





Bicyclists have the same rights and duties as a vehicle driver unless otherwise stated.

Where to Ride Your Bike





When moving slower than traffic, you should ride as close as possible to the right curb or edge of the roadway.



You may not stop, stand, or park on the roadway side of a vehicle that is stopped or parked.



You can stop, stand, or park a bicycle on a sidewalk if it does not impede other traffic.





When on a one-way roadway with two or more lanes, you may ride as near as possible to the left curb or edge of roadway.





Note: All the information on this factsheet is from the Texas Transportation Code: §§42.201, §543.053, §545.065, §545.302, §551.101, §551.103, and §551.104.



Educational Resources

- Project webpage: <https://www.walkbikesafetexas.org/identifying-barriers-to-understanding-pedestrian-and-bicycle-safety-laws/>
 - Content includes:
 - Factsheets (available in Spanish)
 - Infographics (available in Spanish)
 - Best Practices Report
 - Survey Results Report
- YouTube Videos
 - https://www.youtube.com/channel/UCKlnhKhe7oJcjAF85rp_OYA/videos
- Other Educational Materials:
 - <https://www.walkbikesafetexas.org/campaign-materials/>



Presenter Name

Presenter Email

Presenter Phone

Neal Johnson

neal-johnson@tti.tamu.edu

(512) 407-1126 Office