

BIKEWALK NC'S

FRIENDLY DRIVER PROGRAM



**How to Safely Co-Exist on the Road with People
on Bikes and other Active Transportation Users**

***inspired by Bike Fort Collins and League of
American Bicyclists' Bicycle Friendly Driver Program**

**This training is made possible through
funding provided by the
NC Governor's Highway Safety Program**



Today's Agenda



1. Introductions
2. About Our Program
3. Consequence of Error
4. Controlling the Lane - cyclist laws
5. Pedestrian Walkability - pedestrian laws
6. We Are All Traffic, Part I: "The Pro Moves"
7. We Are All Traffic, Part II: Common Crashes
8. Reducing Conflict Through Better Design
9. Closing



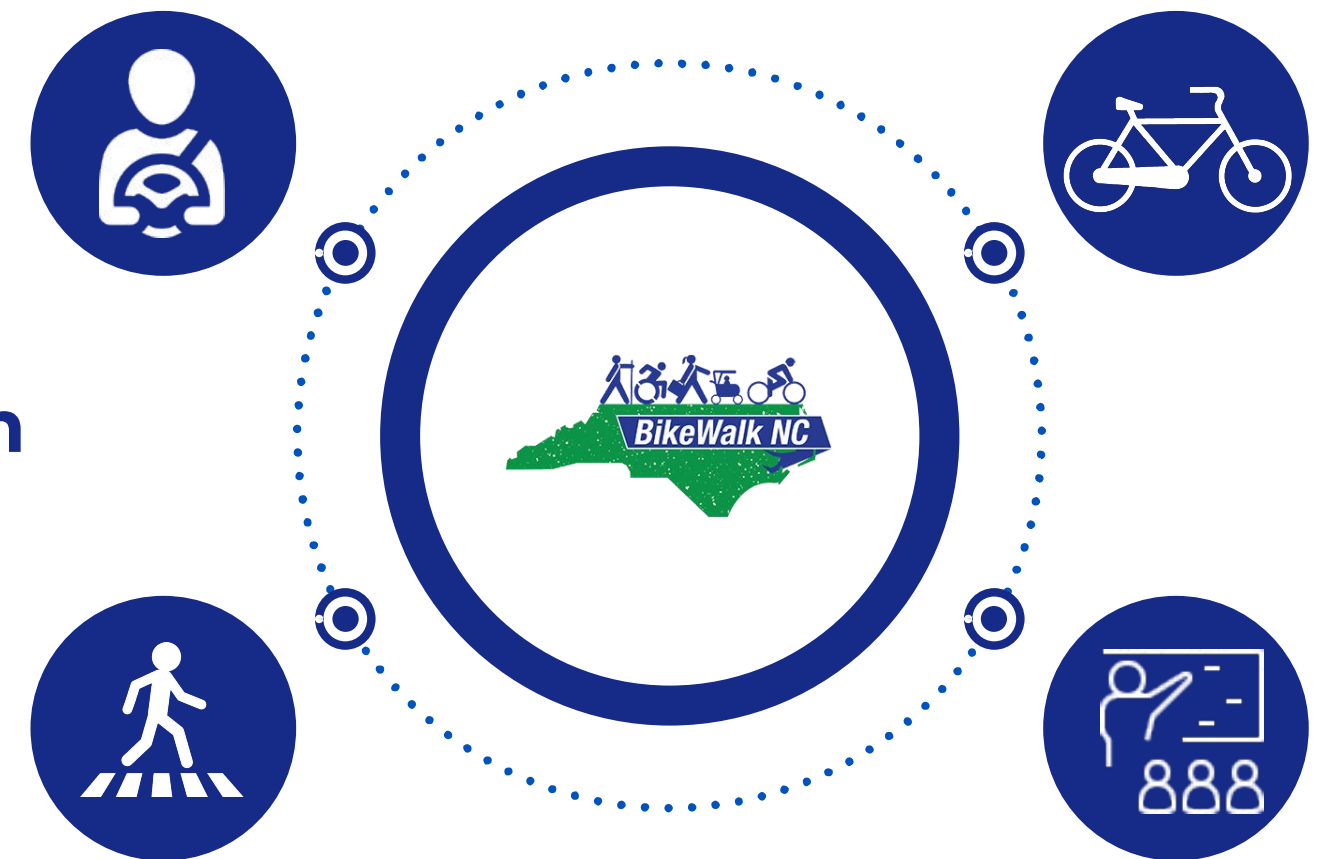
What the Program



Teaches

Each Friendly Driver Program session helps participants:

- Understand how road design and driver behavior affect the safety of vulnerable road users
- Recognize common crash types and how to prevent them
- Learn why people on bikes may take the full lane
- Respect the rights and safety needs of vulnerable road users

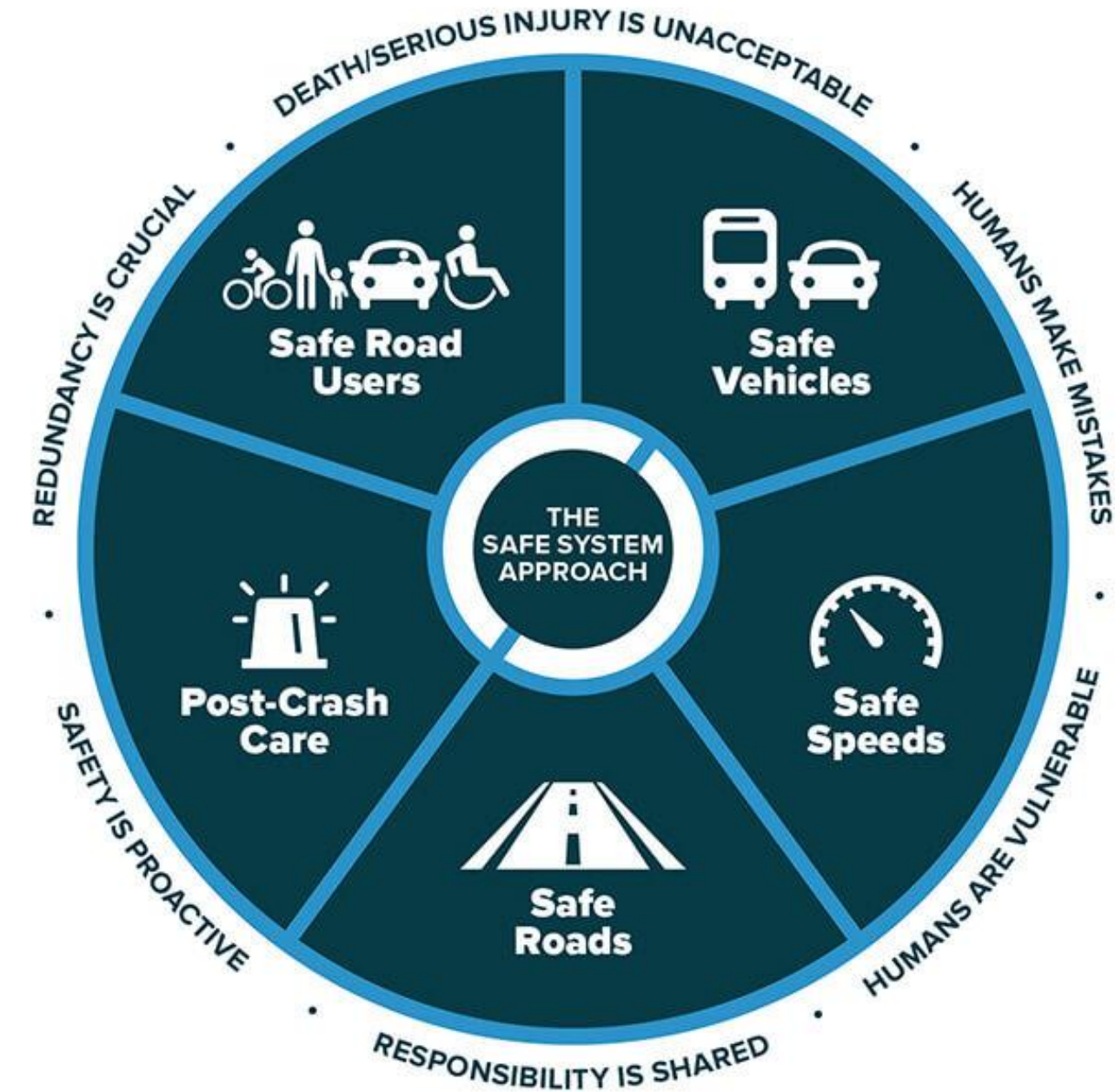


What the Program Teaches (cont.)



This does sound familiar!

- Recognize human vulnerability
- Address driver behavior and roadway design
- Anticipate and prevent common crashes
- Protect people walking and biking
- Promote driver accountability



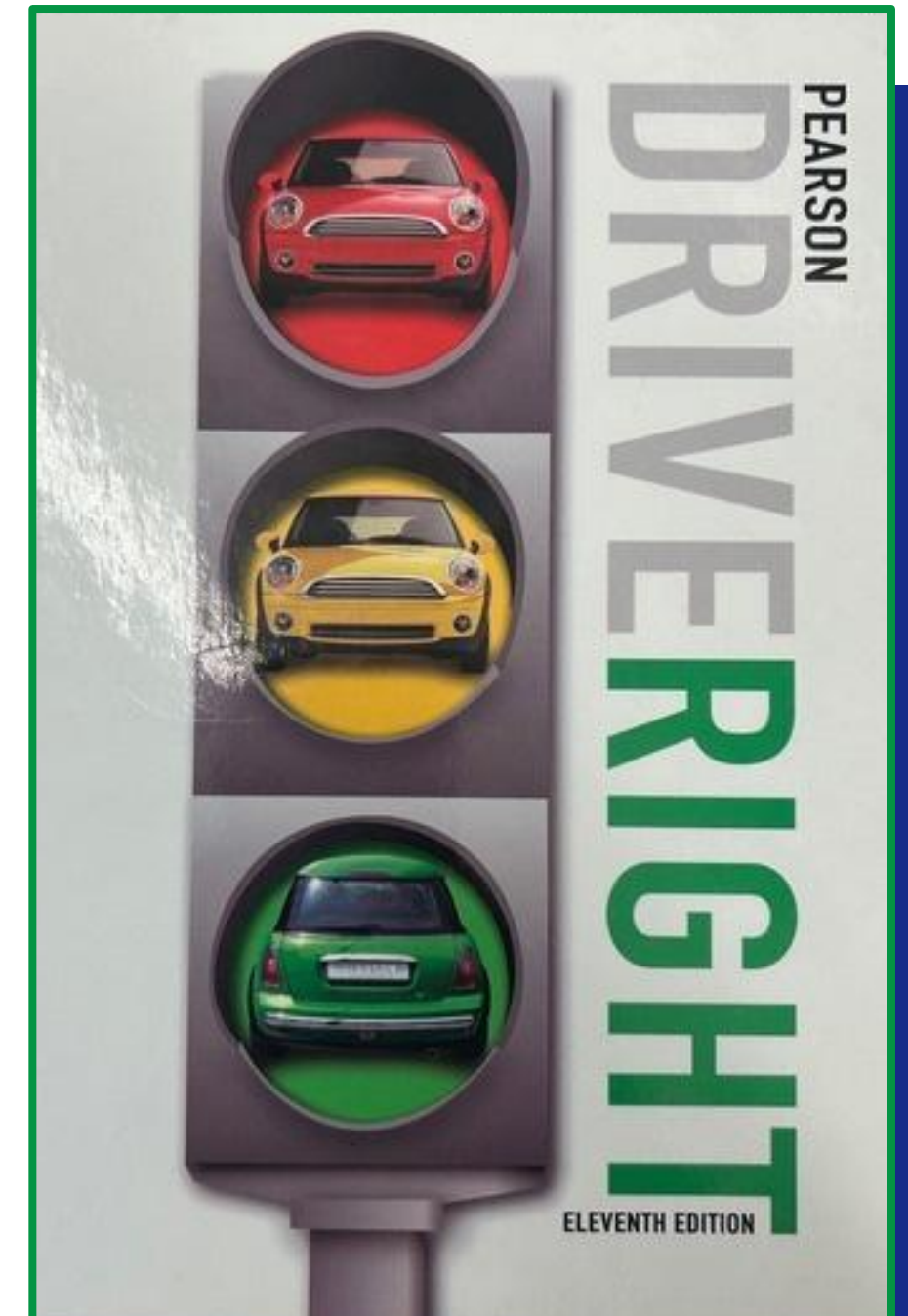
Source: FHWA.



We Identify and Bridge the Gaps in North Carolina Drivers Education

Our Program Adapts for:

- **High School Drivers Education**
- **Bus Operators**
- **Law Enforcement Agencies**
- **Engineering Firms**
- **General Public**



Identifying and Bridging the Gaps in North Carolina Drivers Education (cont.)



- The DMV Handbook tells drivers what's legal. However, it does little to explain why different road users behave the way they do.
- That's where the Friendly Driver Program comes in. The Friendly Driver Program teaches what's legal, safe, and respectful for all road users.
- By providing the perspective of vulnerable road users we can foster a sense of understanding, and prevent crashes before they happen.



History of the NC Friendly Driver Program



**NORTH CAROLINA
Friendly Driver Program**

This training is made possible through
funding provided by the
NC Governor's Highway Safety Program



Began in 2022

**Adapted from Fort Collins Bicycle Friendly Driver Program for NC
Specific Content**

Expanded with the Inclusion of Pedestrian Content





Our Shared Goal for this Effort

Focus Counties:

- Durham
- New Hanover
- Guilford
- Cumberland
- Wake
- Forsyth
- Mecklenburg

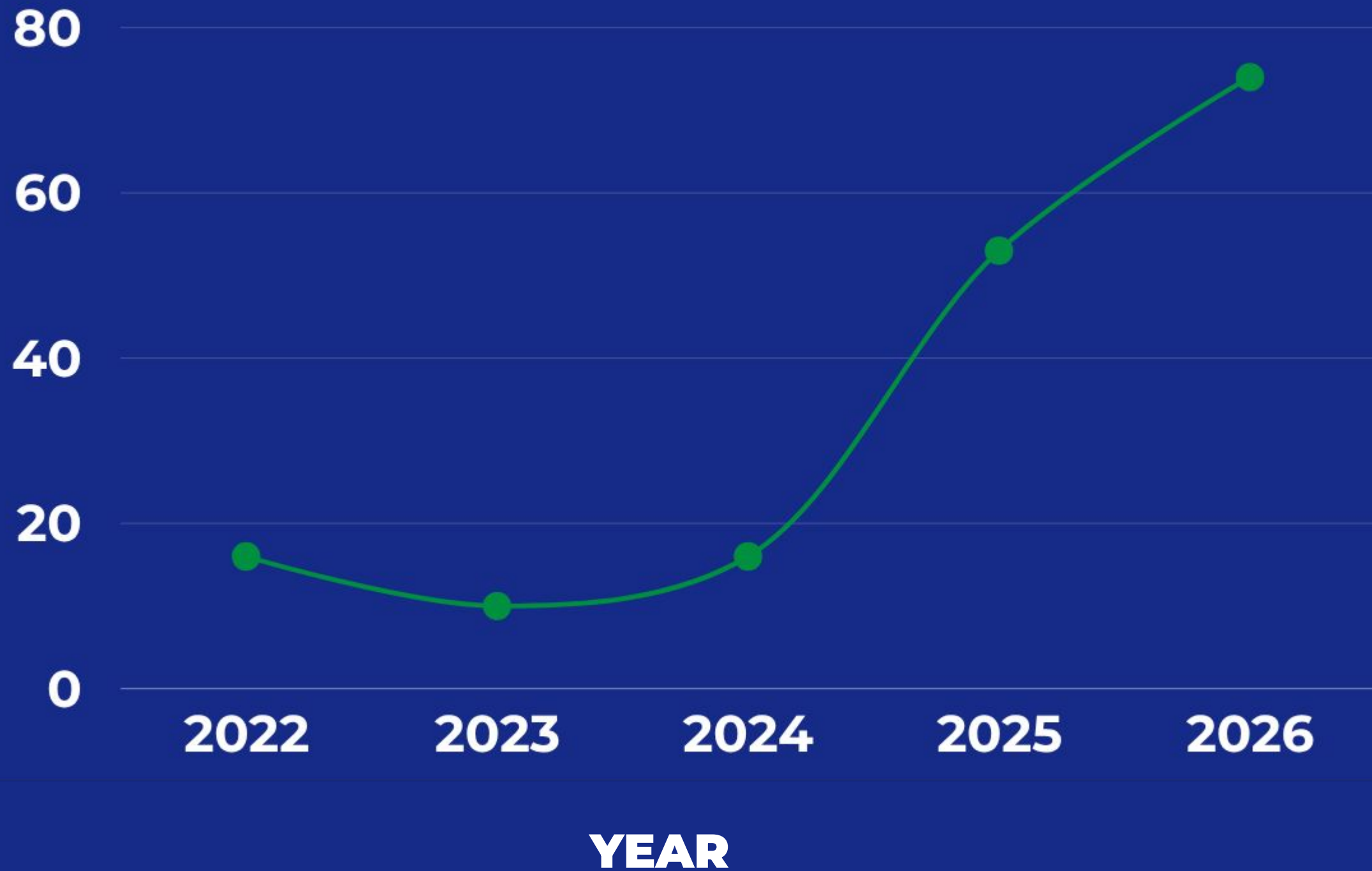
To help reduce serious bicycle and pedestrian injury crashes in North Carolina by providing this program to motorists across the state, with a focus on communities with the highest crash rates.

If we become better motorists for vulnerable road users, we become better motorists for everyone.

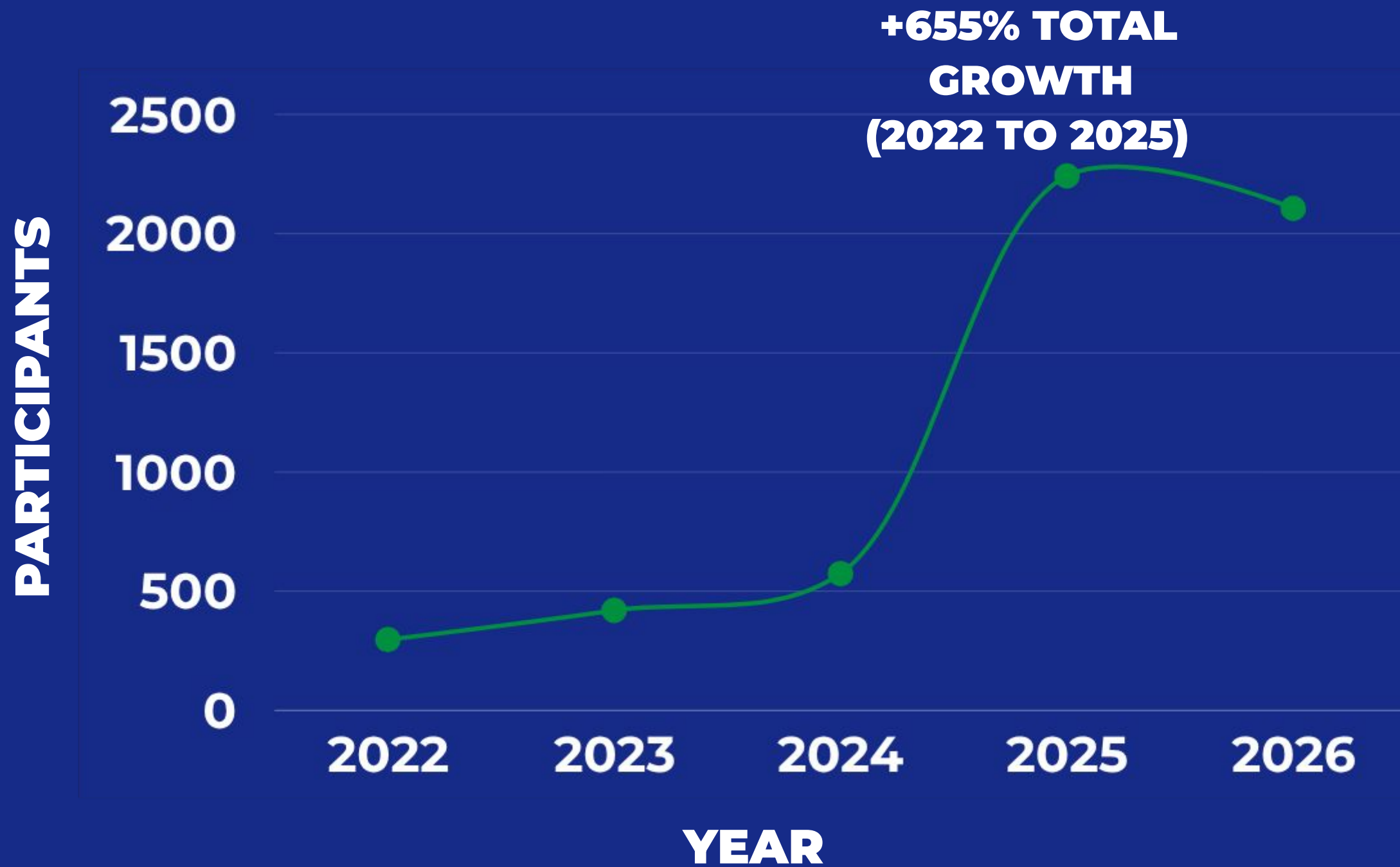
OUR PROGRAM'S GROWTH (2022-2026):



OF PRESENTATIONS

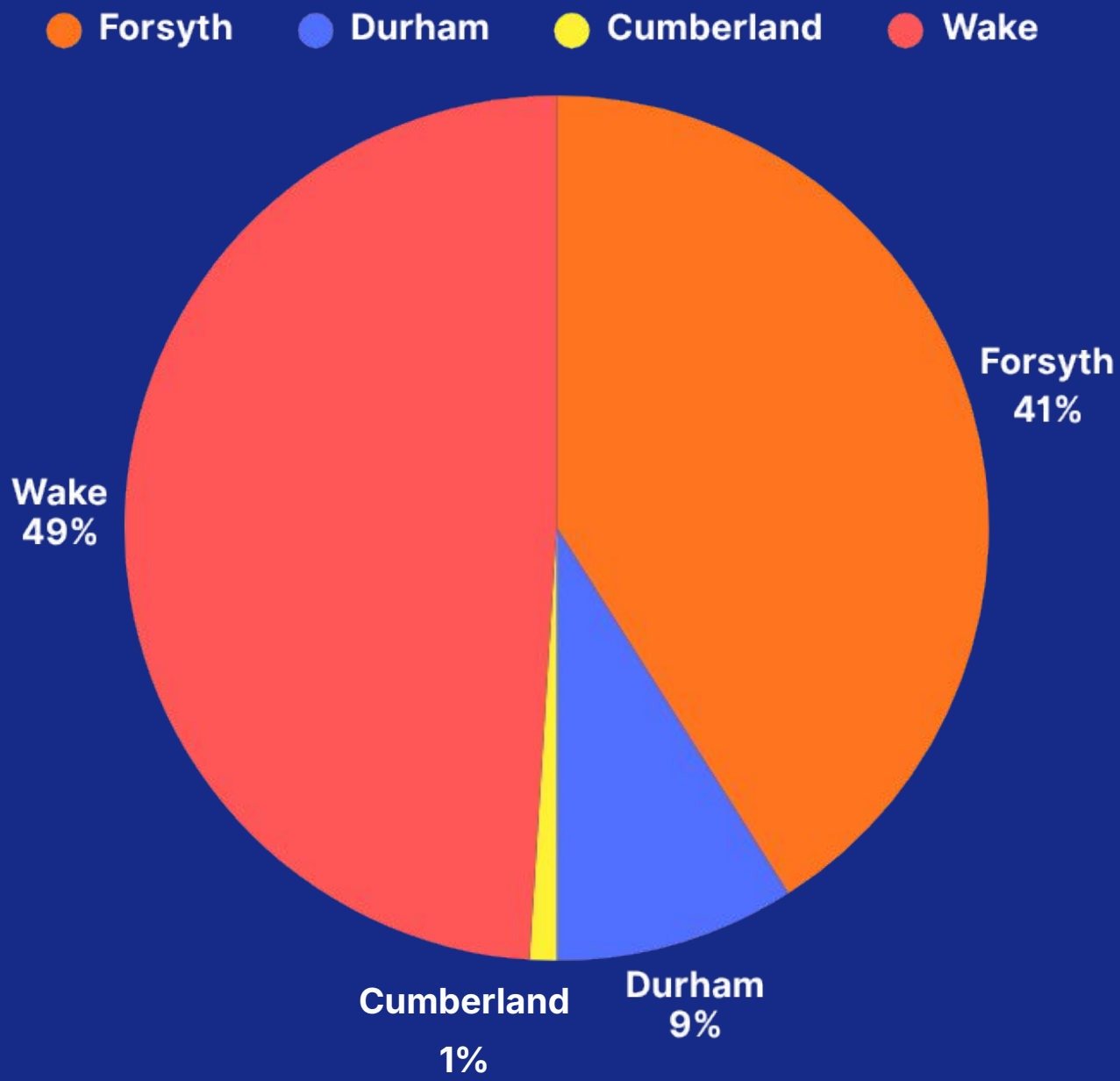


OUR PROGRAM'S GROWTH (2022-2026):



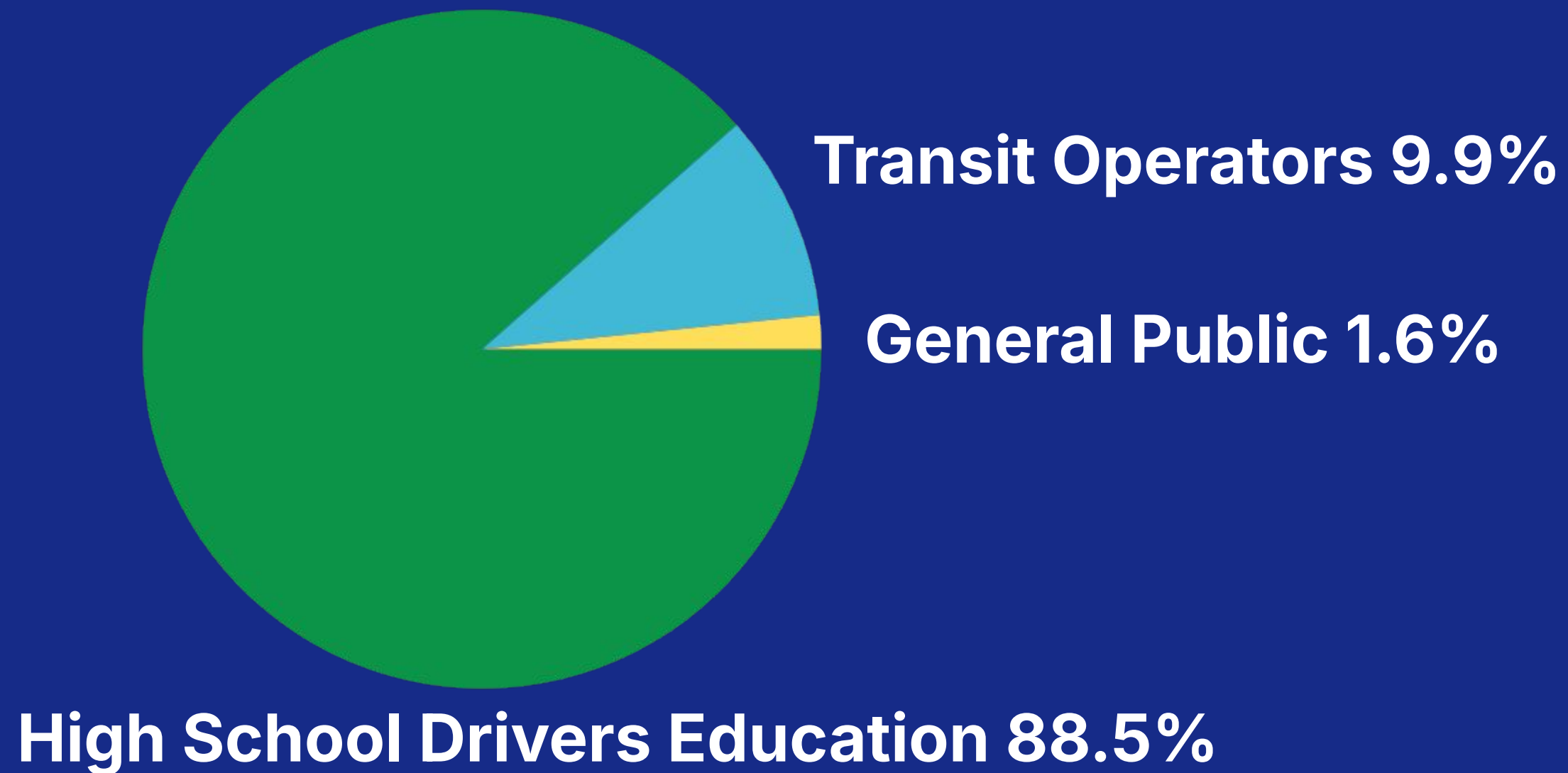
FRIENDLY DRIVER PROGRAM ATTENDANCE BY COUNTY

(2026):
Total Participants: 2106



FRIENDLY DRIVER PROGRAM COMPLETION BREAKDOWN

(2026)
Total Participants: 2106



Why This Course?

01

Everyone is entitled to the same roads

02

Sharing the road is essential

03

To learn best practices for driving, especially in areas where bicyclists, pedestrians, and other road users are sharing the road.



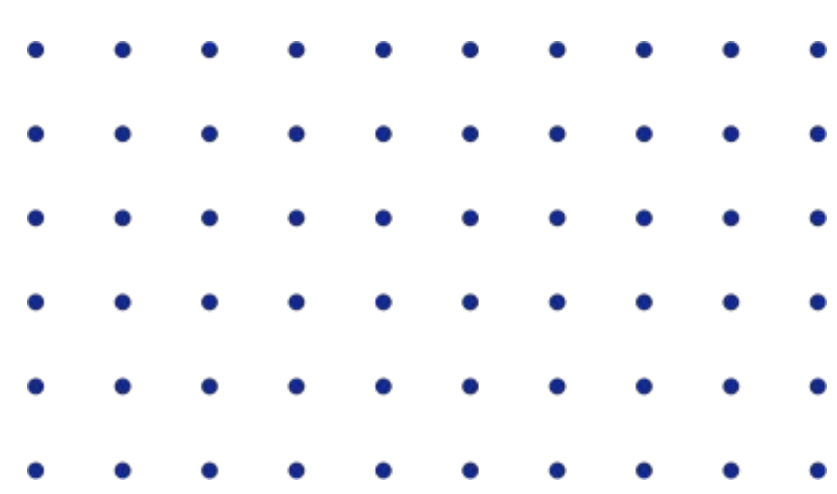
Why this course?



***We need more
buses and bikes
on the road!***

CPF
cycling promotion fund





One Transit Operator Who Attended the Training Shared:

“Now after that meeting I’m looking out for cyclists even more. Bikes and buses make an excellent combination to get around and should be working together to get us around safer. My patience and awareness for cyclists has improved thanks to the information that was shared.”

This is our why...



***Our Board Member,
Debra Franklin!***



CONSEQUENCES OF ERROR



As drivers when we engage in risky or dangerous driving behaviors, not only do the chances of a crash increase, but the consequences of the crash increase as well.

If we hit a person on a bike, a pedestrian, or any other vulnerable road user, *the consequence of error is significant.*



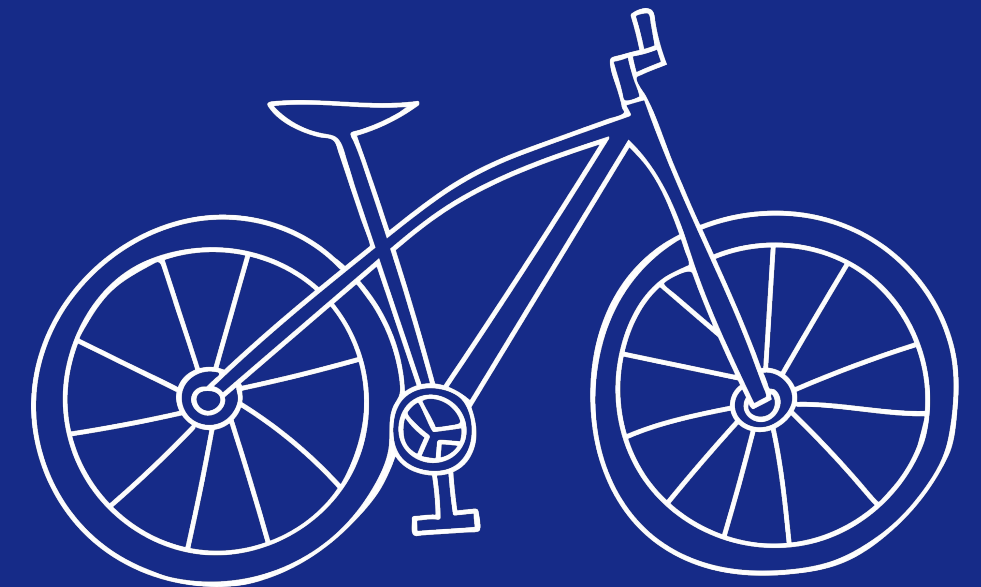
On the Road with Vulnerable Road Users



A Bicycle is a Vehicle

A bicycle is a vehicle by law in NC and has the same rights to be on roads as other vehicles, except for controlled access highways. A person on a bike is required by law to follow ALL rules of the road except those that by their nature have no application.

NC 20-171.1; NC 20-4.01(49)



***As the NC Driver Handbook
notes,
when a person on a bike is on
the road***



North Carolina Division of Motor Vehicles

***“Bicyclists, like any other vehicle,
are entitled to use the full lane.”***

NC Driver Handbook, pg. 85 (pg. 87 pdf pagination), NC DMV. Available at:

<https://www.ncdot.gov/dmv/license-id/driver-licenses/new-drivers/Documents/driver-handbook.pdf>



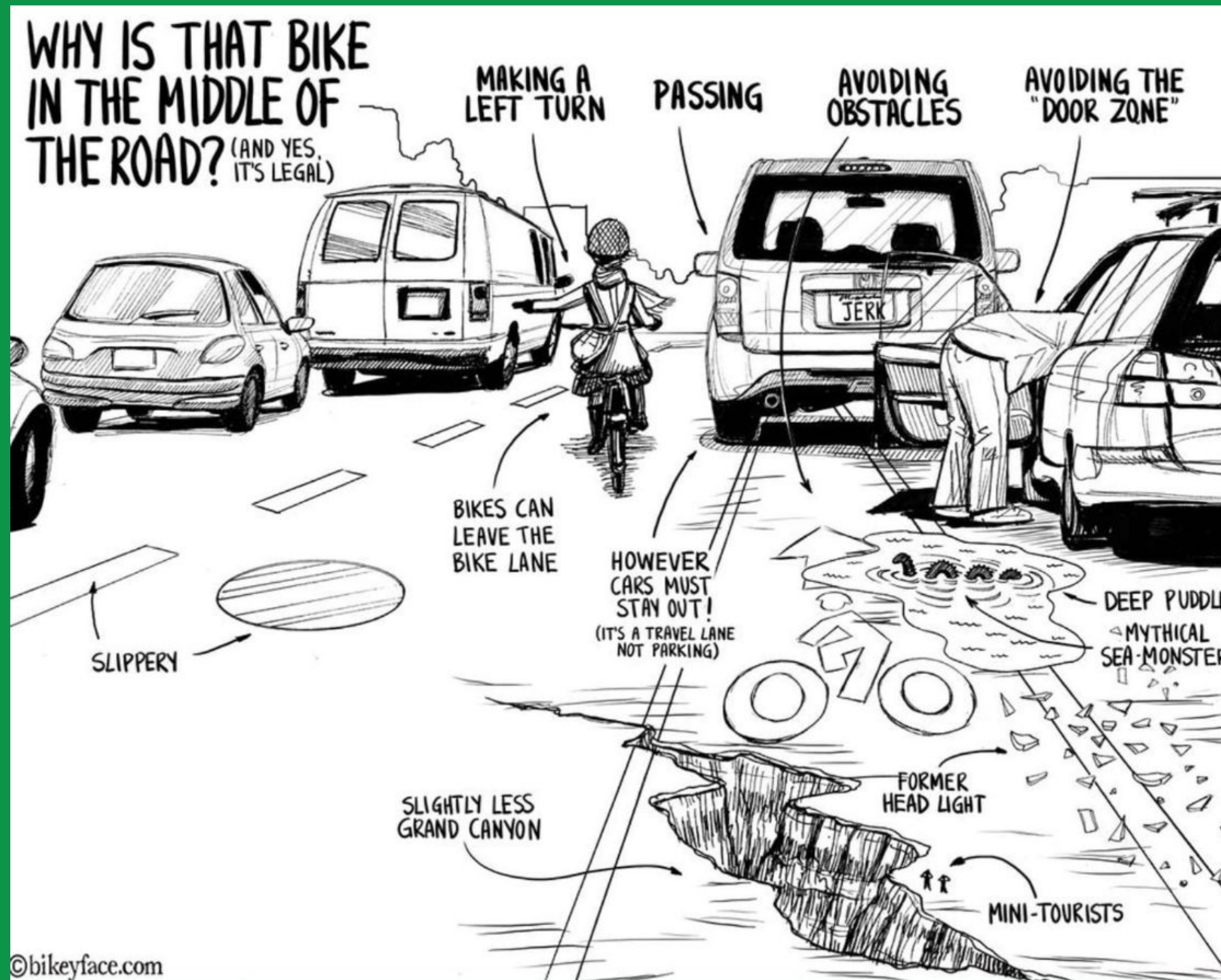
CONTROLLING THE LANE

*People on Bikes Keeping Themselves Safe...
and Exercising their Rights as Vehicle Users*



A Tale of Two Signs





Why People on Bikes Will Take the Lane



Bike Lane Sweepers!

**Meet PBLs
(People-Powered Bike Lane Sweeper)
& Wheelie Clean.**



Image Credit: Oaks & Spokes, Sustain Charlotte

Why People on Bikes

Ride 2 Abreast



Photo Credit: Mike Dayton

- Riding double file deters unsafe same-lane passing in narrow lanes.
- It makes the group as visible as a car from the front and behind.
- It can also facilitate passing for cars by shortening the distance needed.



PEDESTRIAN WALKABILITY



WE ARE ALL PEDESTRIANS



Midblock Crossing vs. “Jay-Walking”



- There is no “Jaywalking law” in NC. It is not illegal to cross the street midblock without a crosswalk IF the road is clear.
- Drivers are required to stop for pedestrians at marked Midblock crossings the same as at any other marked crosswalk.

[§20-155(c) and §20-173(a)]



Image Source: NCDOT

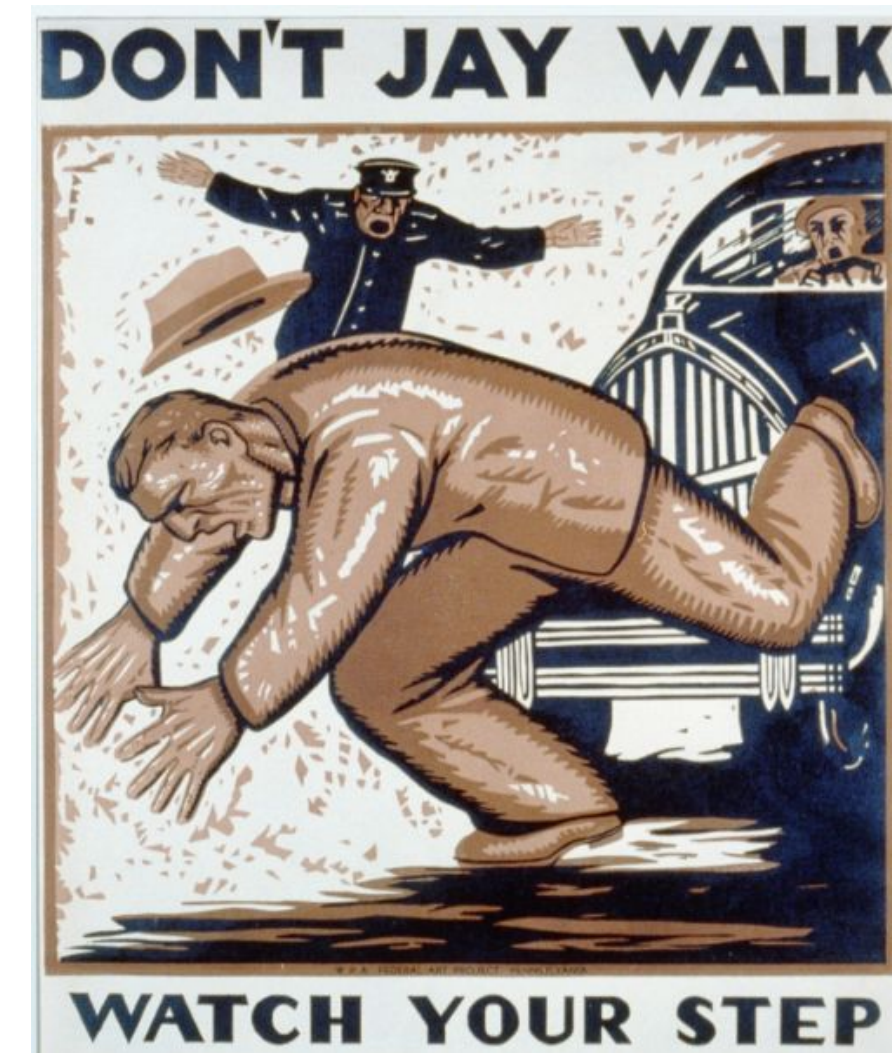


Image Source: Library of Congress



Driver's Responsibilities and Pedestrians' Rights



§ 20-174. Crossing at other than crosswalks; walking along highway.

(a) Pedestrians crossing a road at any point OTHER THAN within a marked crosswalk OR an unmarked crosswalk at an intersection should yield to the right-of-way of all vehicles on the roadway.

(b) Pedestrians crossing a roadway at a point where a pedestrian tunnel or overhead pedestrian crossing has been provided shall yield the right-of-way to all vehicles upon the roadway.

(c) Between adjacent intersections that are traffic controlled, pedestrians should only cross where there is a marked sidewalk.

(d) Where sidewalks are provided, it shall be unlawful for any pedestrian to walk along and upon an adjacent roadway. Where sidewalks are not provided, any pedestrian walking along a highway shall, when practicable, walk only on the extreme left of the roadway or its shoulder facing traffic which may approach from the opposite direction, and shall yield the right-of-way to approaching traffic.

(e) Every driver of a vehicle shall exercise due care to avoid colliding with any pedestrian upon any roadway.



Driver's Responsibilities and Pedestrians' Rights (continued)



§ 20-173. Pedestrians' right-of-way at crosswalks.

(a) Where traffic-control signals are not in place, the driver of a vehicle shall yield the right-of-way to a pedestrian crossing the roadway within any marked crosswalk or within any unmarked crosswalk at or near an intersection.

(b) Whenever a vehicle is stopped for a pedestrian at a marked crosswalk, or any unmarked crosswalk at an intersection, the driver of the vehicle behind stopped vehicle cannot overtake and pass the stopped vehicle

(c) The driver of a vehicle emerging from or entering a building entrance, parking lot, or driveway shall yield the right-of-way to any pedestrian approaching on the sidewalk it crosses.





Photo Credit: PBIC

**Crossing at an
Intersection without
a Marked Crosswalk:
Does Pedestrian
have the Right of
Way?**

YES OR NO?



Photo Credit: PBIC

**Crossing at an
Intersection without
a Marked Crosswalk:
Does Pedestrian
have the Right of
Way?
YES**

FOR BUS OPERATORS & TRANSPORTATION



***Safely Co-Existing on the Road with People on
Bikes and other Active Transportation Users***

DMV Rules and



Regulations

Commercial Driver License (CDL) :

- A commercial driver licensed in North Carolina must notify their employer and the N.C. Division of Motor Vehicles within 30 days of being convicted of any moving traffic violations.
- There is a minimum fine of \$250 for speeding in highway work zones, in addition to any fines or penalties that may be imposed for speeding violations.
- The court system can double any fine for operators of commercial motor vehicles that violate motor vehicle laws in which points are assessed.
- There will be an increase in the number of points assessed to an individual's driving record for motor vehicle law violations, including railroad crossing violations and possession of an alcoholic beverage, while operating a commercial motor vehicle.

§ 20-37.13. Commercial drivers license qualification standards

All information from NCDOT



- ***Bus Operators***
- ***Regular Motorists***
- ***Bike users***
- ***Pedestrians***



SCAN **YIELD** **SIGNAL** **SLOW
DOWN!**



A Way of Driving You all Know Well



- **Aim High in Steering:** Steer and focus attention on the road as a whole.
- **The Big Picture:** Be aware of your surroundings at all times.
- **Keep Your Eyes Moving:** Minimizing the risk of a trance and helping you stay alert.
- **Leave Yourself an Out:** Anticipating others moves.
- **Make sure they See You:** don't assume that other motorists know you're there.



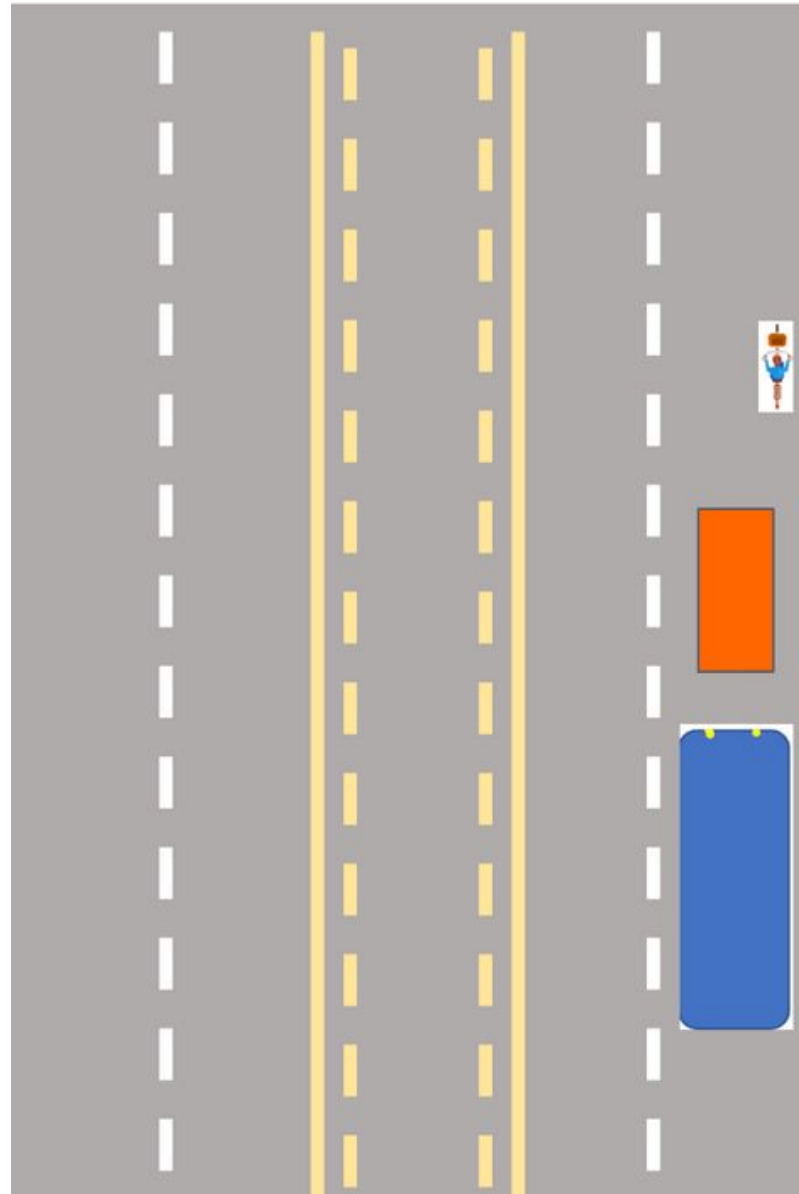


The Four Driving Principles of Safety

- 1. Look Ahead:** Look far ahead so you can see and react to future problems as they become unavoidable hazards
- 2. Look Around:** Pedestrians that are not in or near zone of safety
- 3. Leave Room:** Maintain at least a 4-second following distance at speeds of 40 MPH or higher.
- 4. Communicate:** Tap your horn to alert pedestrians you are near



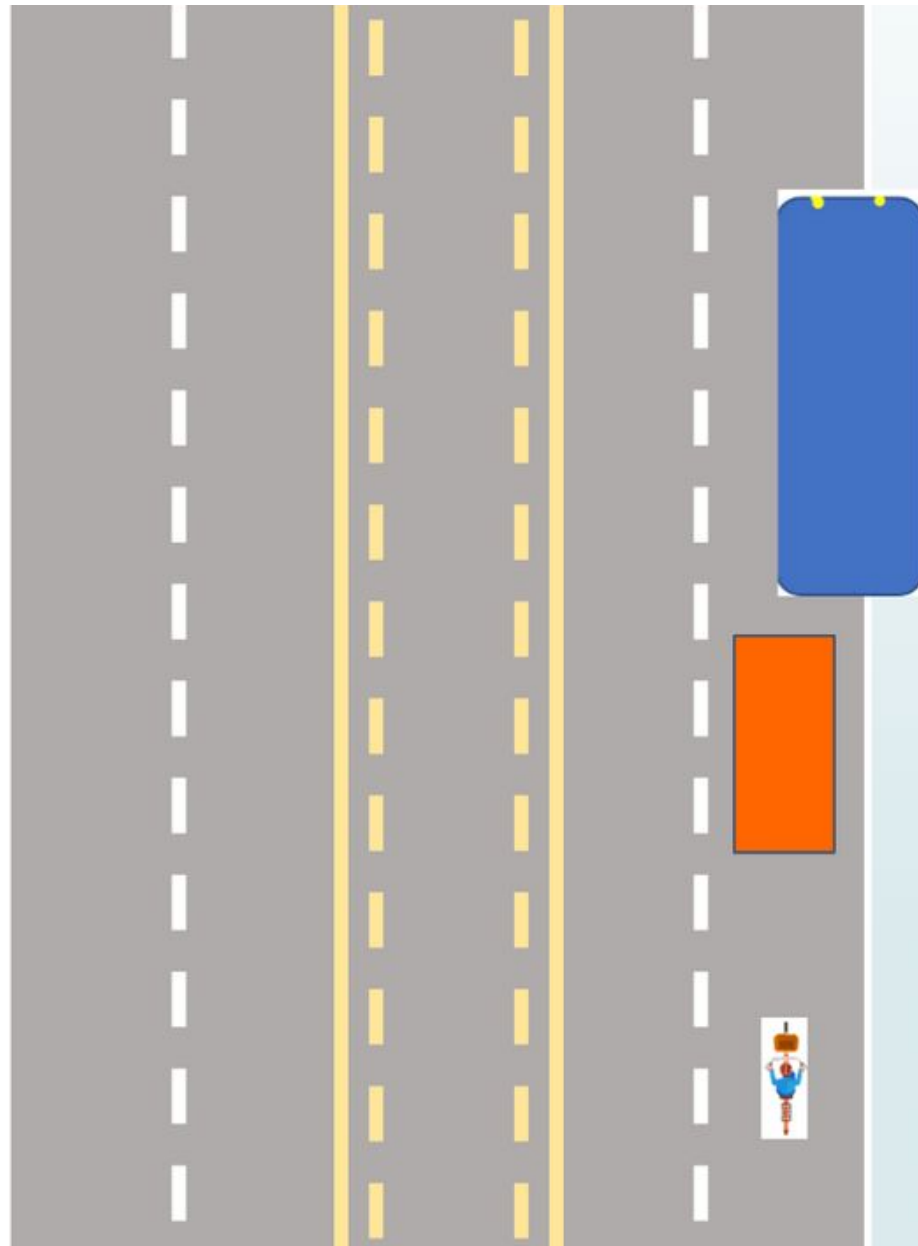
Implementing the LLC System to Keep Cyclists Safe: Scenario #1



- A bus is behind a car and in front of the car is a person on bike.
- What happens if car moves and bus hasn't allowed enough room?

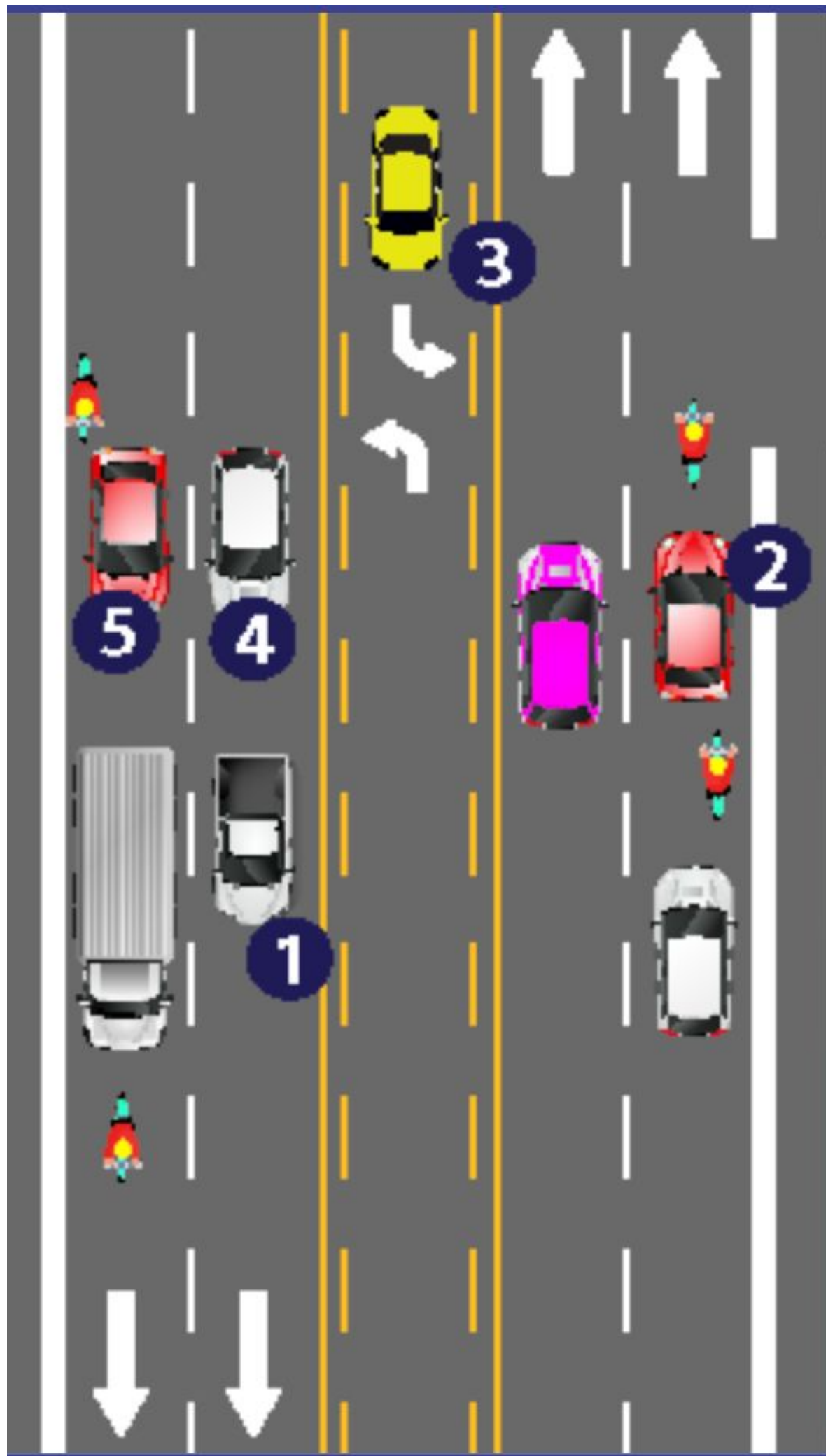


Implementing the LLC System to Keep Cyclists Safe: Scenario #2



- You are trying to merge back into traffic after servicing a stop.
- You see the orange car approaching from behind.
- What happens if you don't see the bicyclist behind the car?





Scanning:

Seeing the Others on the Road



Image Credit: Heidi Perov

The Pro Moves: Yielding



What it Means: to slow down (or stop), giving the right of way where legally required or otherwise required to keep road users safe.

As motorists, we owe a duty to . . .

- Yield to slower moving traffic ahead of us.
- Yield to oncoming traffic when turning left.
- Yield to other traffic when changing lanes.
- Yield to people in crosswalks.

A vehicle driver has an obligation to follow the law and take whatever action possible to prevent a crash, even if “the other guy” is in the wrong.



Yielding Basics



Photo Credit: The City of Raleigh

As a driver, slow down for the yellow “roundabout ahead” sign. Yield to vehicles already in the roundabout before entering. Signal when exiting and always yield to pedestrians using crosswalks.

Always yield to traffic already in the roundabout. This includes people on bikes.



Bikes Take the Lane



Photo Credit: NCDOT

As a driver, if you see a person on a bike taking the lane in a roundabout, slow down and yield to them. Never try to pass them in a roundabout. People on bikes are entitled to use the full lane, so give them space to safely navigate the roundabout.



The Pro Moves: Signaling



What Signals Do: Help communicate what is happening.



North Carolina Division of Motor Vehicles

Communicating means letting others know what you plan to do early enough to avoid a crash. Anytime you plan to slow down, stop, turn, change lanes, or pull away from the curb, you should signal your intention.

NC Driver Handbook pg. 66 (pg. 68, pdf pagination)



How do people on bikes communicate their intentions?



Left

Right

**Stopping
/Slowing**

Right

**Through their
actions!**

Slowing down

Looking over shoulder

Bicycling signals



The Pro Moves: Slowing Down



Why it Matters: Slower speed gives everyone on the road more time to see, think and respond to one another.

SPEED KILLS

**Pedestrian Risk of Death by Impact
Speed**



Image Credit: Traffic Logix



The Pros Know: Slower Speeds Saves Lives



Worth Noting:

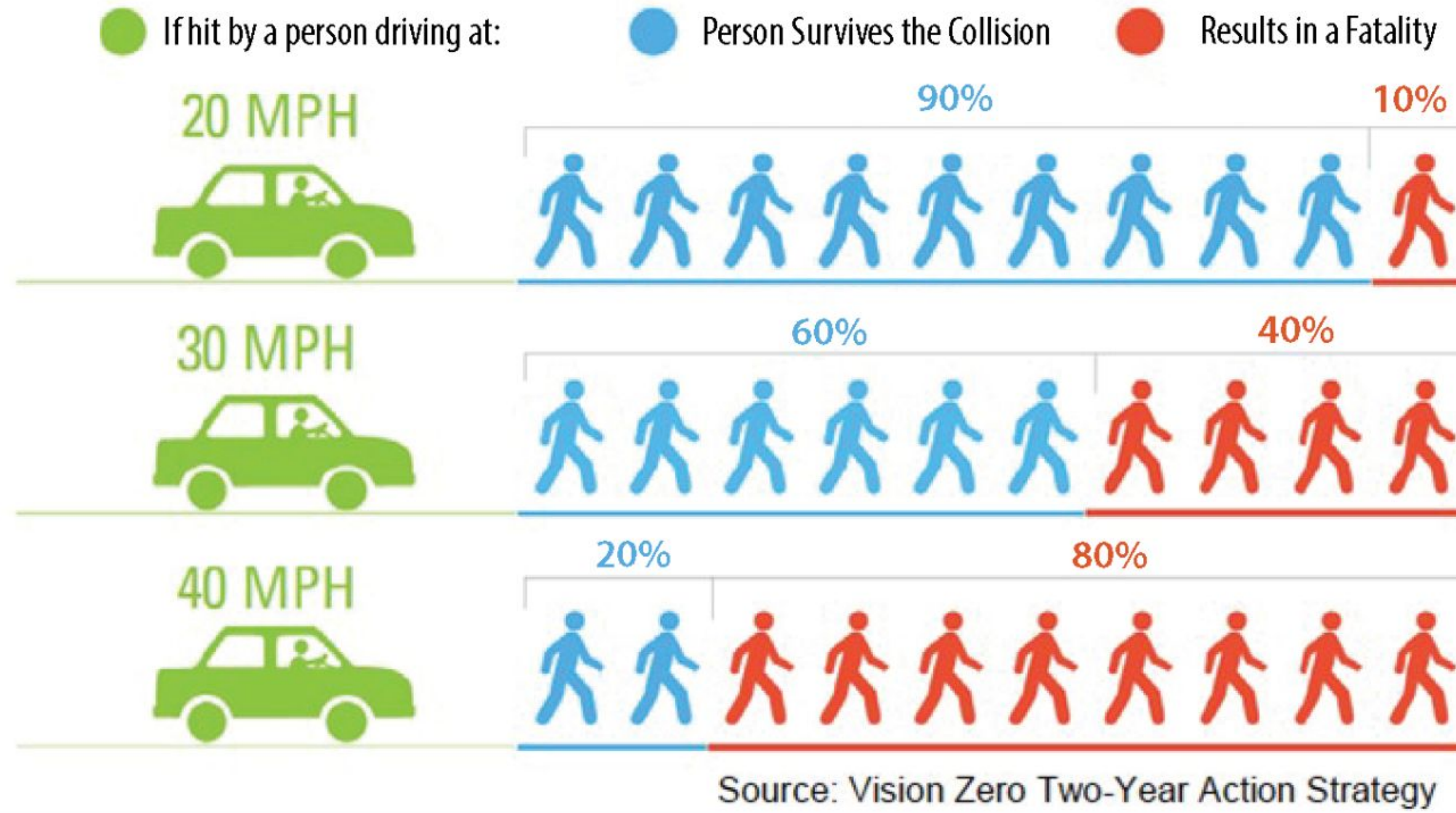
Most bicycle/motorist crashes (67%) happen in speed zones of 35 mph or lower. If we as motorists speed in a 35mph zone, we're speeding in the most dangerous place possible.

Source: NC Bicycle Crash Facts, 2015-2019 NC DOT, pg 22 and Figure 9 on pg 23—pdf pagination]

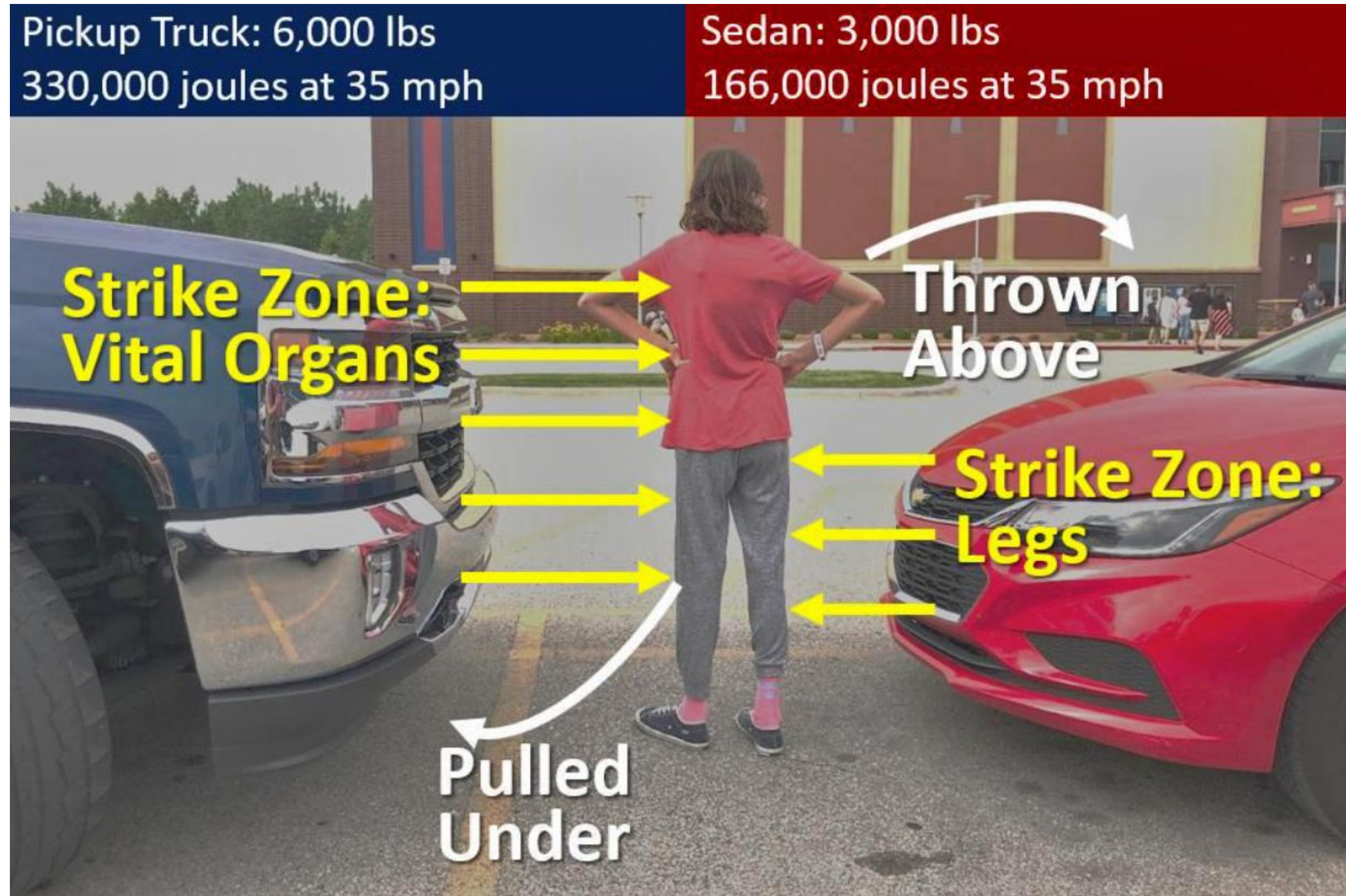
https://www.pedbikeinfo.org/pbcat_nc/pdf/summary_bike_facts15-19.pdf



As a Motorist's Speed Increases, the Probability of Vulnerable User Survival Goes Down



We as motorists can mitigate consequence of error before we leave the dealership.



Part II: Reducing the Risk



Common scenarios where motorist behavior can put people on bikes (and pedestrians!) at higher risk.

Image Credit: ITRE and NC Vision Zero



NC's Top Crash Types Between Bicyclists and Motorists

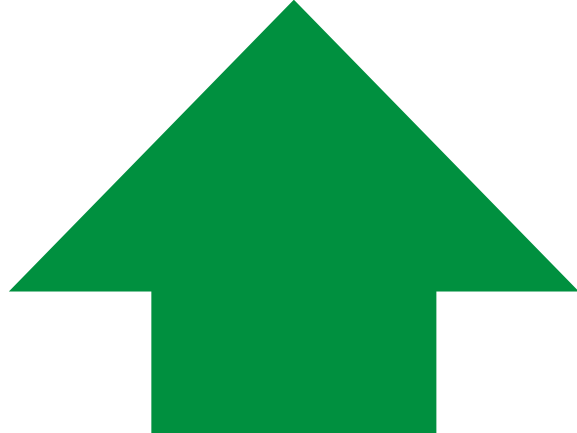


Crash Type Group	2019	2020	2021	2022	2023	Grand Total	% of Total Crashes
Motorist Overtaking Bicyclist	189	134	156	165	215	859	30%
Motorist Failed to Yield - Sign-Controlled Intersection	98	52	63	63	99	375	13%
Motorist Left Turn / Merge	75	74	79	66	70	364	13%
Motorist Right Turn / Merge	56	68	52	67	73	316	11%
Bicyclist Failed to Yield - Sign-Controlled Intersection	51	50	59	50	60	270	9%
Bicyclist Failed to Yield - Signalized Intersection	58	44	59	43	65	269	9%
Bicyclist Failed to Yield - Midblock	64	46	38	40	60	248	9%
Motorist Failed to Yield - Signalized Intersection	29	29	38	47	55	198	7%

The scenarios covered in this upcoming section work to address many of these top crash types.

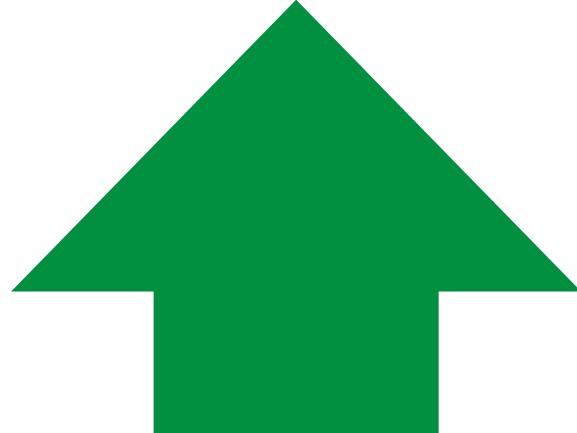
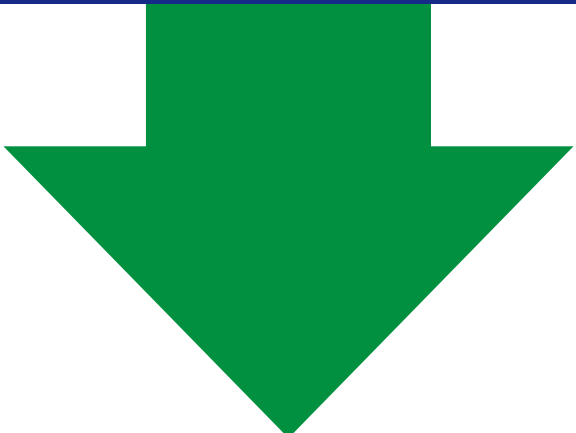
Source: Crash data for 2019–2023 provided by Daniel Carter via email communication

How do you pros move?



**Entering
the Road**

**Engaging
Others at
Intersections**



**Avoiding the
“Left Cross”**



The logo for BikeWalk NC features a green silhouette of the state of North Carolina. Above the map, there are five blue icons representing different modes of transportation: a person walking with a cane, a person in a wheelchair, a person pushing a stroller, and a person riding a bicycle. A blue banner with the text "BikeWalk NC" in white is positioned across the middle of the map.

-
- A diagram of a T-junction. A red car is stopped at a red octagonal stop sign on the right side of the road. The road has a grey surface with white dashed lines. A blue car is approaching from the bottom, and a red car is approaching from the top. A black arrow points right from the red car's position, indicating the direction of travel. The background is green with stylized trees.



-



Passing a Person on a Bike: Legal vs. Safe



**2 feet: the legal minimum.
Anything less is illegal.**



**4 feet: the preferred minimum and
legally required when safely passing a
person on a bike on a double line.**

[§20-150(a)]- (e)

Image credit: Heidi Perov



“Ok, but why is changing lanes the best option when passing?”



- It's an easier, safer general rule than getting out the tape measurer.
- Most lanes are not wide enough for the person on a bike and the motorist to safely share the lane side-by-side.
- Motor vehicles may have extended mirrors, wheels, trailers that further extend width.
- Large vehicles can create dangerous wind blasts when passing too closely.



Image Credit: i am traffic



Reducing Conflict with Better



Bicycle and Pedestrian Structure and

The Vision of Complete Streets



What is a “Complete Street?”



“Complete Streets are streets designed and operated to enable safe use and support mobility for all users. Those include people of all ages and abilities, regardless of whether they are travelling as drivers, pedestrians, bicyclists, or public transportation riders.”

—US Department of Transportation



Common and Emerging Bicycle Traffic Infrastructure in NC



Infrastructure dedicated to bicycle traffic helps reduce conflict by communicating:

- Direction of Traffic
- Intersection Positioning
- Where to Expect People on Bikes
- **See green?** People on bikes are likely using the road.
- **No green?** People on bikes are still likely using the road!



Photo Credit: City of Greensboro



The Humble Sharrow



What it is:

A visual reminder that motorists and people on bikes are both on the road. Provides expected direction of traffic.

Notes for Motorists:

- Bicycles are allowed on all roads whether you see a sharrow or not.
- Sharrows may indicate recommended road positioning for person on bike, but most appropriate road position is determined by person herself.



Photo Credit: City of Raleigh



The “Facility” (Infrastructure)

Staple: The Bike Lane



Photo Credit: Complete Streets NC, Patrick Riddle



Photo Credit: Sustain Charlotte, Grant Baldwin



AS A DRIVER:

When you approach a red light and see a bike box, stop behind it. Do not enter the green space.

This area is designated for cyclists to wait safely at intersections.

When the light turns green, yield to cyclists who are moving forward, and always check for them before making a turn.

Keeping bike boxes clear helps prevent collisions and makes intersections safer for everyone.



Photo Credit: Town of Cary

AS A CYCLIST:

As you approach a red light, move into the bike box, positioning yourself in front of waiting cars.

This space is designed to make you more visible to drivers and give you a safe place to start when the light turns green.

When the light changes, proceed through the intersection with caution, making sure to watch for any turning vehicles. If you are turning, signal your intentions clearly and check for oncoming traffic.



Photo Credit: Town of Cary

For More Information...



For more information on how to bring the Friendly Driver

Program to a group near you, please visit

<https://www.bikewalknc.org/> or email

programs@bikewalknc.org

For more information on how to partner, please visit

<https://www.bikewalknc.org/> or email outreach@bikewalknc.org

