DRIVER EDUCATION: WHAT STATES TEACH ABOUT BIKING



WHAT ARE DRIVERS TAUGHT ABOUT BIKING?

Driver education is an important part of ensuring that people are able to use our roadways safely. Despite the importance of driver education and its inclusion in the traditional "3 Es" of traffic safety – Education, Enforcement, and Engineering – driver education is often difficult to understand, under-resourced, and lacking in basic information about interacting with people biking.

In 2019, the League of American Bicyclists reached out to national organizations involved in driver education and all 50 states to better understand what new drivers are taught about bicycling. Our research found that information related to bicycling varies wildly from state to state, with some states discussing bicycling 20 times more often than other states in their driver's manuals.

This report summarizes our research on driver education and points to some areas for potential improvement.

Overall, the League recommends that driver education should be expanded beyond the long-standing approach of limited education in preparation for a one-time driving test. A better approach would incorporate comprehensive transportation education in public education, providing multimodal skills that empower people to use multiple modes of transportation safely and have empathy and understanding for people, regardless of their travel mode.

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Research Methods

WHY THIS MATTERS

In 2018, the League of American Bicyclists began distributing the Bicycle Friendly Driver Curriculum to its over 6,000 League Cycling Instructors. The Bicycle Friendly Driver curriculum was developed by the City of Fort Collins, CO and League Cycling Instructor Jamie Gaskill. According to Ms. Gaskill, "Historically, bicycling safety education has been focused on teaching bicyclists how to navigate the roadways safely. The Bicycle Friendly Driver curriculum packages bicycling safety education from a different perspective, one to which more people can relate, from the motor vehicle driver perspective."

The growing support for educating drivers, from their perspective, about interacting with people biking can also be seen in recent legislation in several states. In 2018, Michigan, New Jersey, and Illinois all took action to update their driver education to include more information on bicycling.

- » In Michigan, a new law required drivers education curriculum to include no less than one hour of classroom time devoted to laws pertaining to bicyclists, motorcyclists, and other vulnerable roadway users, including pedestrians.
- » In New Jersey, the legislature required the state's driver education course, the driver's education manual, and the driver's license written exam to include bike rider and pedestrian safety information.
- » In <u>Illinois</u>, a bill added instruction on the "Dutch Reach" to Illinois' Rules of the Road manual and bike safety questions to the state driver's license exam.

The groundswell of interest in driver education made now an ideal time to dig into how states approach driver education about bicycling so that we can help more states take similar actions to improve their education requirements and spread Bicycle Friendly Driver Education to more places. These education improvements can save lives and improve empathy between road users. Together, people biking and driving can learn how to interact safely, responsibly, and courteously. With bicyclist fatalities reaching a 30-year high in 2018, it is more important than ever that people learn to drive safely and understand why people biking behave the way that they do.

OUR APPROACH

Taking direction from recent legislative efforts, our research focused on three parts of driver education:

- 1. State Driver Manuals,
- 2. State Driver Education Curriculums, and
- 3. State Driver Licensing Exams.

All three parts of Driver Education play a key role in ensuring that every driver is properly educated before they take to the roads. However, the topics addressed in each part can differ.

Many topics covered in State Driver Manuals are not actually covered in curriculum or testing, but manuals may be the <u>only thing publicly referenced</u> regarding the expected knowledge for drivers.

Each state has the choice to choose their state's curriculum or hand the decision down to individual school districts. States that allow school districts to choose their own curriculum are referred to as "local control states."

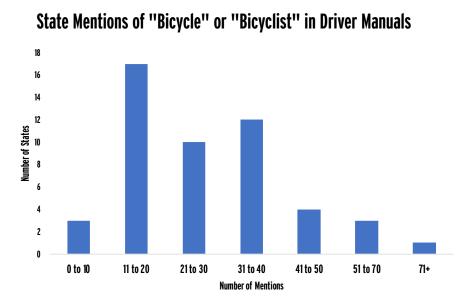
Many states do not build their own curriculum, but rather use the curriculum of national organizations such as the American Automobile Association (AAA) or the American Driver Traffic Safety Education Association (ADTSEA). The curriculum that each state uses sets the topics that will be covered in classrooms and education. The licensing exams are built from select topics within a state's chosen curriculum. Driver Manuals cover a broader range of topics, including many topics which are not actually included in testing.

Many states address some topics in their driver manual or curriculum, however these aren't mandatory for new drivers to read and these states may not include those topics in tests. This means, unfortunately, that a new driver may get no education regarding bicycles or pedestrians on the roadways, even if these topics are included in curriculum guidelines and driver manuals. Further research is needed to address how states are addressing bicycles and pedestrians in their driver licensing tests.

Research Results

STATE DRIVER MANUALS

State Driver Manuals cover the widest range of topics, however not all of the topics are actually addressed in the state's exam. We began our driver manual research with a term search for "bicycle" or "bicyclist." We discovered that there is a large difference in the number of times bicycles are addressed by each state, ranging from 5 to 105 times. On average, state driver manuals mentioned a bicycle or bicyclist 28 times.

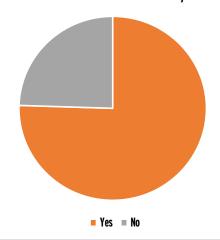


*bicycle mentions are based upon a search of each document for "bicycle" and "bicyclist"

We explored each state's driver manual to see how bicycles were addressed and what key safety topics were covered within the manual. Based on our Driver Manual research we were able to identify role model states who addressed all of the essential topics for bicycle safety. Illinois, Washington, and Massachusetts are notable role model states due to addressing every topic thoroughly as well as addressing bicycles as a whole much more than other states (Massachusetts- 105). These findings guided our search for examples from driver manuals featured in this report.

While there were exceptions, our research suggests that the number of times bicycles are addressed has a direct correlation to the number of key topics that are covered. The states such as Massachusetts that address bicycles a large number of times addressed a large number if not all of the key topics, while the states that had little mention of bicycles addressed very few or none of the topics.

Does a state's drivers manual address bicycle lanes?



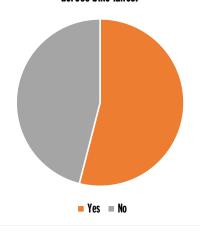
Bike Lanes

MENTIONED

24% of states had no mention of bicycle lanes or how drivers are to operate a vehicle near a bicycle lane.

Establishing clear guidelines related to bicycle lane use and operation of a vehicle near designated bicycle lanes is key to ensuring safety for all users on the roads. With bicycle lanes increasing in use and diversifying in design, it is incredibly important that they are addressed in driver education.

Does a state's drivers manual address how to safely turn across bike lanes?



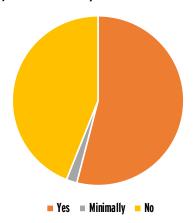
Turning

ACROSS BIKE LANES

46% of states did not address turning across bicycle lanes.

When drivers approach an intersection, move into a turning lane, or turn off a roadway, they are required to cross bicycle lanes. Turning across a bike lane is a basic skill that every driver should be educated on. Drivers must know to check their surroundings and be sure they are not crossing the path of a bicyclist approaching from behind before moving across the bicycle lane.

Does a state's drivers manual mention yielding to pedestrians and bicyclists in intersections?



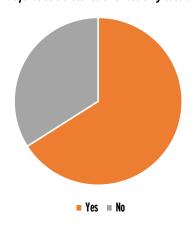
Yielding

AT INTERSECTIONS

46% of states did not address yielding to pedestrians and bicyclists in intersections.

Most crashes that injure people who bike and walk occur at intersections. Drivers should be educated to check their path and yield if a person is biking or walking across an intersection. Regardless of who has the right of way, "due care" laws in most states require drivers to exercise due care to avoid hitting a person, including a person biking or walking in an intersection.

Does a state's drivers manual address safe passing of a bicyclist at a distance of 3 feet or greater?



Safe Passing

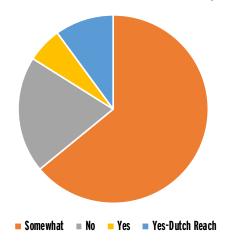
AT LEAST THREE FEET

34% of states do not address safe passing by giving at least three feet of space.

All states have some version of a safe passing law. In 43 states, and the District of Columbia, the safe passing law explicitly mentions bicyclists. In the other 7 states, bicyclists are usually protected by safe passing laws written with no distinction between bicyclists and other road users.

In 35 states, and the District of Columbia, there is a defined distance standard — typically three feet — which sets the minimum distance required for safe passing. Unsafe passing that results in a bicyclist hit from behind is the most common cause of death for a person biking.

Does a state's drivers manual mention dooring?



Dooring

DO THE DUTCH REACH

84% of states had little to no mention of dooring and the danger it imposes on cyclists as well as passengers exiting vehicles.

41 states have a dooring law, meaning a law that requires a person opening a car door to ensure that their surroundings are clear and there is no oncoming traffic, like a person bicycling.

The nine states without a dooring law are: Connecticut, Indiana, Iowa, Kentucky, Michigan, New Jersey, North Carolina, Tennessee, and West Virginia.

In 38 states the dooring law applies to people leaving their door open longer than necessary to load or unload a passenger or cargo, as well as when a door is opened without caution.

Want to learn more about bike laws?

The League's Bike Law University resources provide data on bike laws in all 50 states, including charts comparing relevant features of each state's law. Learn more at www.bikeleague.org/bike-law-university

» ROLE MODEL STATES EXAMPLES FROM STATE DRIVER MANUALS

WASHINGTON

WHAT IS A BICYCLE LANE AND HOW SHOULD YOU TURN ACROSS IT?

Washington's definition of a bicycle lane clearly states what a bicycle lane is and includes discussion of several different types of bicycle lanes. This not only ensures that drivers will understand a bicyclist's rights within a bicycle lane, but also helps identify the different types of bicycle lanes for students including Bicycle Boxes.

About half of all states addressed turning across bicycle lanes. This is an important topic as cars turning right across bicycle lanes is one of the number one causes of accidents between bicycles and automobiles.

Washington's definition of bicycle lane says:

"Bicycle lanes – Bicycle lanes are marked with solid white lines and bike symbols. Some bike lanes are further separated from the adjacent motor vehicle travel lane and/ or parking lane with a buffer consisting of two solid white lines with diagonal cross-hatching or chevron markings. This buffer is considered part of the bike lane width and should not be encroached on by motorists unless executing a legal turning maneuver after checking that it is safe to do so. Protected bike lanes are further separated from passing traffic by some method of physical protection such as bollards, posts, or planters. Bicycle lanes may be filled with green paint." (Pg. 3-II)

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- Bicycle boxes Bicycle boxes are pavement markings that are installed at intersections to allow bicyclists a safe way to turn when approaching a red light. Bicycle boxes are green and light. Bicycle boxes are green and intersections, they are painted on the pavement before the crosswalk and they cover the entire travel lane. Drivers must stop behind the bicycle box (even when it's empty) and wait for a green light. Bicyclists who are turning left should stop in the bicycle box, move to the left side of the box, signal the turn, and wait for the green light.



Bicyclists traveling straight or turning right should stay to the right in the bicycle box, in a staggered formation, and wait for the green light. Bicycle boxes can also be used by bicyclists to make a two-stage left turn. A two-stage left turn

PENNSYLVANIA

SAFE PASSING

Pennsylvania's definition of safe passing states that a driver must give at least four (4) feet of space when passing a person biking. In most states, drivers must give at least three (3) feet. While not required across the nation, having a safe passing law of three feet or greater will greatly reduce the risk to cars and bicyclists during passes on the roadways.

Approximately 2/3 of states address safe passing of a cyclist at a distance of 3 feet or greater. Requiring drivers to leave a designated amount of space between cyclists and passing vehicles will help reduce the number of accidents related to unsafe passing.

Pennsylvania's description of safe passing says:

"Before passing, you must first decide whether you can maneuver around the bicyclist. Be sure to check for oncoming traffic. When passing, you must allow at least four (4) feet between your vehicle and a bicycle in order to pass safely. If necessary and if you can do it safely, you are permitted to cross the center double yellow line so you can maintain the four (4) feet of clearance between your vehicle and the bicycle." (Pg. 92)

SAFE PASSING IS THE LAW 1. Before passing, you must first decide whether you can maneuver around the bicyclist. Before see to check for oncoming traffic. When passing, you must allow at least four (4) feet between your vehicle and a bicycle in order to pass safely. If necessary and if you can do it safely, you are permitted to cross the center oducile yellow line so you can maintain the four (4) feet of clearance between your vehicle and the bicycle.

- Unless making a left turn, bicyclists traveling more slowly than passing vehicles must keep to the right side of the roadway and must travel in the same direction as the rest dreaffic. However, this requirement is waved on roads with a single lane in each direction.
- 3. When there is only one travel lane, bicyclists may use any portion of the lane to avoid hazards on the roadway including keeping a safe distance from stopped and parked cars.
- 4. Drivers cannot turn into the path of a bicyclist who is riding straight ahead on a roadway or shoulder.
- 5. You cannot force a bicyclist off the road. If you do this, you may face criminal charges.
- 6. Bicyclists are considered to be vehicle operators and are expected to obey all traffic laws; however, they may travel at less than the posted minimum speed and may not be cited for impeding traffic. Bicyclists may operate on a shoulder or berm, but are not required to do so.

For more information, the Pennsylvania Bicycle Driver's Manual (PUB 380) can be found at

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CONNECTICUT

NAVIGATING INTERSECTIONS

Connecticut specifically addresses the fact that oncoming bicyclists have the right-of-way and that drivers should be aware of bicyclists on the street they are turning onto. Making it clear to new drivers that bicyclists have the right-of-way is important to preventing left turn crashes involving cyclists and vehicles as well as vehicle-on-vehicle crashes. It is important that vehicles turning right across bicycle lanes are aware of cyclists riding straight through an intersection.

Connecticut's advice for navigating intersections says:

"Intersections are any place where traffic merges or crosses. These include cross streets, side streets, driveways, and shopping centers or parking lot entrances. Before you enter an intersection, look both left and right for approaching vehicles, bicycles, and/or crossing pedestrians. When stopped, look both left and right just before you start moving. Look across the intersection before you start to move to make sure that the path is clear all the way through the intersection and that you will not block it if you have to stop.

Before you turn left across traffic, look for a safe opening in the traffic. Remember, oncoming traffic, including bicycles, always has the right-of-way. Look to the street onto which you are turning to make sure that no vehicles, bicycles or pedestrians are in your path – this would leave you stuck in the path of oncoming traffic. Look one more time in the direction of oncoming traffic before you turn" (Pg. 15)

MASSACHUSETTS

DOORING & THE "DUTCH REACH"

One reason for a renewed interest in driver education is the "Dutch Reach." Thanks to the work done by Michael Charney at <u>DutchReach.org</u>, the "Dutch Reach" is currently addressed in 5 states across the nation. The "Dutch Reach" is a safety measure being introduced in state manuals and driver education that helps prevent dooring on the roadways.

The "Dutch Reach" requires drivers and passengers exiting a vehicle parked on an active roadway to reach across their body with their inside hand to open the vehicle door. This prompts the person exiting a vehicle to look over their shoulder and helps them open the door without obstructing the path of other road users. For a driver, this means using the right hand to open the door.

Dooring is addressed minimally in about 2/3 of state driver manuals, however many of these states could use clarification as to what dooring is and how to properly prevent dooring. The "Dutch Reach" will be a great method to introduce in order to prevent dooring.

Massachusetts' description of dooring and the Dutch Reach says:

"Open vehicle doors pose a very serious threat to bicyclists. When opening a vehicle door, drivers and passengers are suggested to do the following:

- 1. Check your rear-view mirror.
- 2. Check your side-view mirror.
- 3. Open the door with your far hand (the hand farther from the door).

This is called the 'Dutch Reach' method because it originated in the Netherlands. It forces your body to turn, which will better allow you to see approaching bicyclists. It also prevents the vehicle door from being opened too fast. This not only protects bicyclists, but can also prevent your door from being damaged or torn off by an approaching motor vehicle." (Pg. III)

The Danger of Open Doors to Bicyclists

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The "Dutch Reach" method for opening vehicle doors.

Bicyclists should ride at least three feet from parked cars to avoid doors, both on streets with and without bike lanes. This will keep bicyclists outside of the "door zone" and protect them from getting hit by opening vehicle doors.

SURVEYS ON CURRICULUMS & TESTING

We distributed a general survey to state Departments of Transportation and Driver Education Agencies relating to states' driver education processes and what their requirements are regarding bicycles and pedestrians. We chose to survey states on these key topics rather than address their state curriculum and testing standards as the availability and accessibility varies from state to state.

24 states responded to the survey with the results listed below.

Based on our research we saw that our driver manual data closely mirrors the data we received from the survey, suggesting that driver manuals are a reliable source of data on driver education. What is covered in the state driver manual is typically similar to the state's curriculum and testing standards.

For future research regarding a state's driver education topics the state driver manual would be a reliable source of information as it is typically the easiest document to access, while many states curriculum and testing is much harder to find or isn't made public at all.

State Survey results on Bicycling-related Education

QUESTION	YES	NO	SKIPPED
Is your state's curriculum standard available to the public?	62.5%	37.5%	0
Does your state's curriculum standard address safe passing of a bicyclists at a distance of 3 feet or greater?	56.5%	43.5%	1
Does your state's curriculum standard address the use of the "Dutch Reach" in order to prevent dooring?	21.7%	78.3%	1
Does your state's curriculum standard address circumstances where a person riding a bicycle may use the full lane?	60.9%	39.1%	1
Does your state's curriculum standard address how to safely turn across bike lanes?	47.8%	52.2%	1
Do your state's curriculum standard address parking in a bike lane?	52.2%	47.8%	1
Do your state's curriculum standard address yielding to pedestrians and bicyclists in intersections?	65.2%	34.8%	1
Does your state's curriculum standard address vehicle warning systems that detect bicycles?	8.7%	91.3%	1
Are drivers required to answer at least one test question on their responsibilities to pedestrians as part of the driver licensing exam?	76.2%	23.8%	3
Are drivers required to answer at least one test question on their responsibilities to bicyclists as part of the driver licensing exam?	76.2%	23.8%	3
Results	are from 2	4 states tha	t responded
Results	are nom 2	Totales tha	r responde

Our survey came back with three questions in which less that 50% of states actually address the topic in their driver education program. These three topics include:

- 1. Dutch Reach/Dooring,
- 2. Turning across bicycle lanes, and
- 3. Warning systems that address bicycles.

Dooring is one of the most common causes of wrecks between automobiles and bicyclists, therefore it is important to address that drivers must be aware when opening a door while parked along a roadway. Drivers

should check their surroundings to be sure they aren't obstructing the path of another road user when opening their door. The use of the "Dutch Reach" will force drivers to check over their shoulder prior to opening a door and ensure it is safe to do so.

Turning across bicycle lanes in either direction is another common cause for crashes between bicyclists and vehicles, therefore it is important to address the fact that oncoming bicyclists do have the right-of-way when

approaching an intersection. It is also important for drivers to be aware of bicyclists approaching from behind when moving into a right turn lane that crosses a bicycle lane or bicyclists path.

Crash warning systems are becoming more common in modern cars, and it is important that states address the proper use of these systems as drivers should still be aware of their surroundings without relying solely on their warning systems. Some vehicles have systems that are designed to detect bicyclists as well as other roadway users while some only identify other automobiles. Driver education should address these systems and their proper

use, as well as remaining aware of surroundings as these systems are not always 100% reliable.

Our survey focused on the curriculum and standards that states set for their driver education and how they address bicycles within these standards. However, testing could use further research. Based on our survey data and the data recovered from state driver manuals, there is a good chance that 20-25% of states do not teach anything about bicyclist or pedestrian safety within their driver education program.

OUR SURVEY CAME BACK WITH THREE

QUESTIONS IN WHICH LESS THAT 50% OF

STATES REPORTED ADDRESSING THE TOPIC IN

THEIR DRIVER EDUCATION PROGRAM.

- 1. DUTCH REACH/DOORING,
- 2. TURNING ACROSS BICYCLE LANES, AND
- 3. IN-VEHICLE CRASH WARNING SYSTEMS THAT ADDRESS BICYCLES.

Also, many states may address some topics in their driver manual or curriculum, however these aren't mandatory for new drivers to read and these states may not test on bicycles meaning the new driver may get no education regarding bicycles or pedestrians on the roadways. Further research is needed to fully understand how states are addressing bicycles and pedestrians in their driver licensing tests.

NEXT STEPS FOR ADVOCACY & RESEARCH

STATE EFFORTS

BICYCLE FRIENDLY STATE PROGRAM

In 2017 and in prior years of the <u>Bicycle Friendly State</u> program, the League of American Bicyclists asked the following two questions as part of its ranking process:

- 1. Does your state driver's license test require that a test taker answer at least one question about a motorist 's responsibilities towards a bicyclist?
- 2. Does your state driver's license test require that a test taker answer at least one question about a motorist 's responsibilities towards a pedestrian?

Those questions were removed from the Bicycle Friendly State ranking for 2019. This research was in part a way to dig in deeper on the issue and approach the topic in a new way.

Our research into driver education shows that states that perform well in the Bicycle Friendly State ranking also have more indicators of good driver education. Three states (Illinois, Massachusetts, and Washington) addressed all of the key topics included in our research, including the Dutch Reach. All three of these states have historically ranked in the top 10 to top 20 states over the course of the League's Bicycle Friendly State rankings. On the other hand, many of the states that ranked lower in the Bicycle Friendly State rankings addressed fewer key topics realted to bicycling in their Driver Manuals.

The strong correlation between driver education that includes content on bicycling safety and good Bicycle Friendly State rankings suggests that leadership for better bicycling from Governors, legislators, citizen groups, and others affects all state agencies. The Bicycle Friendly State ranking is primarily based upon actions by state Departments of Transportation. According to ADTSEA data, only 10 states have a role for their Department of Transportation in driver education and licensing. The evidence of a correlation despite this difference in agencies suggests that states may be consistent in their approach to traffic safety – using the "3 Es" of Education, Enforcement, and Engineering – to either address or ignore issues related to the safety of bicycling

3

THINGS STATES SHOULD DO FOR DRIVER EDUCATION

1

UPDATE THE STATE DRIVER MANUAL

Many states can substantially improve the information offered about bicycling in their Driver Manuals. If a state has a regular update cycle for its Driver Manual then this report can provide guidance on needed updates and advocates in the state should lobby for more information on bicycling in the next update cycle for most states.

- » At least 20% of states lacked information about bicycling for one or more of the topics we reviewed.
 - » As an example, 24% of states do not address Bicycle Lanes in their Driver Manual.
- » One of the leading causes of bicycle crashes is drivers turning at intersections or turning across bicycle lanes. However, 46% of states did not address turning across bicycle lanes. States should clearly address how to properly and safely turn across a bicycle lane.

2

WORK WITH LEGISLATORS & GOVERNOR ON EDUCATION CHANGES

State legislatures and Governors can provide leadership on driver education. If necessary, a state legislature or Governor can advocate for and adopt laws that force changes to education and make education on bicycle and pedestrian safety mandatory rather than optional. Some topics, like safe passing, were also likely only included in education due to the adoption of a law on the issue, so legislative or executive leadership may be necessary to adopt a law before education will occur.

As an example, Illinois adopted the following law to require the "Dutch Reach" be included in driver education:

"The Secretary of State shall include, in the question pool used for the written portion of the driver's license examination, test questions concerning safe driving in the presence of bicycles, of which one may be concerning the Dutch Reach method as described in Section 2-112."

3

FOCUS ON PROVIDING TRANSPORTATION EDUCATION, NOT JUST DRIVER EDUCATION

States should support efforts to incorporate comprehensive transportation education into public education, including how to ride a bicycle. In a basic implementation this may include bicycle safety presentations that address the growing number of bicyclists on the roadways and how to properly operate an automobile around bicyclists, including major topics like:

- » Safe passing,
- » Checking surroundings before turning across bicycle lane, and
- » The rights to the road given to bicyclists.

A more advanced effort might focus on teaching bicycle skills. As an example, starting in 2015, Washington DC (a city with more people than Vermont or Wyoming) implemented a program to teach all second graders to ride a bike.

NATIONAL EFFORTS

National curriculum standards appear to be limited and have little information about the content that should appear in state or private curriculums related to bicycling.

Our review of the Novice Teen Driver

<u>Education and Training Administrative</u>

<u>Standards</u> found three classroom standards relevant to bicycling:

- » C 1.2 Student will recognize and comply with the rules of the road based on state and local requirements. ...1.2.3 Pedestrian and bicyclists rights and duties
- » C 10.2 Student will recognize the characteristics and limitations of nonmotorized vehicles and pedestrians that may have different speed, and visibility problems and respond with appropriate space management principles. ...10.2.1 Pedal cycles and bicycles
- » C 11.2 Student will recognize and understand the operation of current and emerging vehicle warning, assistance and convenience system technologies and address new automated vehicle safety technologies as they become available in the future. 11.2.2 Identify and understand the operation and purpose of vehicle warning system technologies, such as: ... c. Bicycle detection ... l. Pedestrian detection

National Organizations with significant driver education efforts

AAA – The American Automobile Association offers an approved Driving School Network that allows the general public and driving school owners/educators to choose the best training resources for their community. AAA offers many different programs specific to certain states or regions to address their specific Driver Education needs.

ADTSEA – The American Driver Traffic Safety Education Association is a professional association of traffic safety educators. They provide curriculum standards and an overview of each state's driver education structure can be found on their website.

DSAA – The **Driving School Association of the Americas** is a trade association for driving school owners. DSAA is an international association that brings together driving school owners, educators, and transportation safety experts with the common mission to reduce injuries and death on the roadways across the globe.

AAMVA – The American Association of Motor Vehicle Administrators is an association of state agencies responsible for motor vehicle administration. They have a policy position on driver education stating that "Safe driving courses should be included in all junior and senior high schools — both public and private and should adhere to the national standards in the development of curriculum."

The National Standards provided are vague as to what is required from drivers when interacting with vulnerable road users such as bicyclists and pedestrians. This leads to a wide range of approaches to driver education from each state, some more thorough on the topic than others.

Our research was aimed at basic topics such as crossing bicycle lanes, yielding to pedestrians and bicyclists, and giving a safe distance when passing a vulnerable road user. Each state takes a different approach to these topics, some states cover all of them while many states only address a small number of the topics we surveyed on. Our research suggests that many states do not thoroughly cover bicycle and pedestrian safety in their driver education curriculum.

Improving national standards to be more explicit about topics to be address may be worthwhile, but our research indicates that changes to national standards will not immediately impact driver education. More than 90% of states responded that their curriculum standard did not reflect the national standard that deals with bicycle detection by vehicle warning systems. Without a more transparent system of curriculum standards and test questions, it seems very difficult to understand state progress towards complying with national curriculum and testing standards. This inability to track compliance makes national-level advocacy on driver education difficult.

The League hopes that this research project brings attention to the lack of bicycle-related driver education in many states. While outcomes of national-level advocacy may be difficult to monitor for this topic, we look forward to working with national-level stakeholders and organizations identified through this research to continue to advance our understanding and state efforts to improve the safety of people biking.

FUTURE RESEARCH

While this research provides valuable insight into driver training on issues related to bicycle safety there are several opportunities for continued research. These opportunities can be pursued by state and local organizations, or may be suitable for a similar national research project.

The research opportunities we identified are:

- » Accessing and assessing questions from state driver licensing tests.
 - » Based on our research these do not appear to be readily accessible by the public and may require the cooperation of a state testing authority or an information request to access.
- » Researching the prevalence and features of "Local Control" states.
 - » Several states discussed the concept of "local control" with us where the state had a smaller role in driver education and localities had more control. Further research could look at the statutory basis for that "local control" and methods for improving driver education where local authorities have broad authority.
- » Research on pre-driver licensing education, with a particular focus on early childhood education about transportation modes.
 - While there is some national data on driver education requirements and expanded education opportunities, we believe that there should be continued efforts to understand how youth are introduced to traffic safety concepts and transportation modes. Through program like Safe Routes to School, we believe all children should receive education on how to ride a bicycle safely ideally by riding a bike as part of the school curriculum. An inclusive approach that teaches all transportation modes, may have better outcomes than our current driver education approach.

Report Credits

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