



Narrative Report: Vulnerable Road User Laws, The State of Knowledge and Implications for Transportation Planning

**Prepared for the New Jersey Department of Transportation by
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& Safe Routes to School Resource Center**

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The New Jersey Safe Routes to School Program, supported by the NJDOT is a statewide initiative with a mission to partner with schools and communities to prioritize and implement opportunities for people to walk, bike, or travel by other wheeled devices. By focusing on improvements to support active travel by youth, we believe we can create conditions that are safe, healthy, equitable, and appealing for all. The New Jersey Safe Routes Resource Center assists public officials, transportation and health professionals, and the general public in creating safer and more accessible walking and bicycling environments for children in New Jersey through education, training, and research.

The New Jersey Bicycle and Pedestrian Resource Center (BPRC) assists public officials, transportation and health professionals, and the public in creating a safer and more accessible walking and bicycling environment through primary research, education, and dissemination of information about best practices in policy and design. The Center is supported by the New Jersey Department of Transportation through funds provided by the Federal Highway Administration.

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1 ABSTRACT

In August 2020, as part of its 2020 Strategic Highway Safety Plan, the State of New Jersey adopted its process of working with legislators, advocates, and other stakeholders on legislation, regulations, policy, and programs to improve safety for bicyclists and pedestrians. One strategy includes assessing current practices nationally and providing recommendations for vulnerable road user laws to eliminate vulnerable road user fatalities and serious injuries (New Jersey 2020 Strategic Highway Safety Plan, 2020). The Safe Routes Resource Center at Voorhees Transportation Center was tasked with conducting a review of best practices, existing research, existing legislation, and then conducting interviews with key stakeholders regarding vulnerable road user laws.

2 INTRODUCTION

The term Vulnerable Road User (VRU) is used to define roadway network users with the highest risk of sustaining more significant injuries than others in the event of a road traffic crash. VRUs stand out because of their greater likelihood to receive injury than to cause it. Numerous studies have been conducted to identify the safety issues that VRUs experience, particularly in terms of exposure, risk, and consequence (Čabarkapa, M, 2018). VRUs share a disproportionately greater probability of injury and death due to limitations of the human body, lack of physical protection from other road users, and a failure of developing vehicle technology to improve external safety, i.e., lack of consideration of the vulnerability of outside road users in vehicle design. One study noted that to improve the safety of VRUs, a more practical approach is to raise awareness of the importance of safe behavior in traffic and promote the safety of VRUs (Čabarkapa, M, 2018).

This paper explores the potential impact of vulnerable road user laws as a legal and policy strategy in improving the safety of VRUs. The paper seeks to synthesize the state of knowledge and implications for transportation planning by reviewing best practices, research, and existing legislation, and conducting interviews on the development and implementation of VRU laws.

There is a distinction between VRU laws and Safe Passing laws. Both laws can include increased penalties when road users other than motorists are severely injured or killed, and they may provide deterrence if motorists are aware of the laws and the possible penalties. VRU laws provide victims of traffic crashes the right to be involved in the legal process, i.e. to obtain right-to-know documentation of the legal proceedings and to testify in court. In addition, the VRU law allows discretion to a judge in aligning the cause of injury and the penalties, including driver license suspension, traffic safety education, monetary fine, incarceration, and/or community service (League of American Bicyclists, 2020-2021). Safe Passing laws mandate due care when a motorist passes or overtakes a bicyclist or other vulnerable road user by maintaining a safe distance from the VRU. In the case of New Jersey's Safe Passing law, this distance is four feet. These laws are generally applied through a traffic violation

with a monetary penalty. New Jersey’s law includes a separate “increased penalty” which would supersede the usual traffic violation in the event of serious injury to bicyclists, pedestrians, or expanded definition of a pedestrian, including scooters, a person in a wheelchair or motorized wheelchair, and highway road workers, or any other person legally permitted to be upon the roadway for work or recreation.

There is a growing interest in leveraging alternatives to improve safety among non-motorized road users due to a consistent national trend of increasing traffic crash occurrences. Between 2010 and 2019, 53,435 non-motorized road users were seriously injured by vehicular traffic (*Dangerous by Design*, 2021). In 2020, pedestrians and bicyclists accounted for 34 percent of fatal traffic injuries in New Jersey. The New Jersey State Police reports a 9 percent increase in serious injuries in 2020 compared to 2019 (New Jersey State Police, 2020). Traffic crashes are statistically one of the leading causes of preventable death in the United States (Goddard et al., 2019).

The annual report, *Dangerous by Design 2021*, produced by Smart Growth America, highlights the need to reconsider how traffic deaths are treated before, during, and after traffic crashes. The report stresses the need to shift away from a focus on enforcement, ineffectual educational campaigns, victim-blaming that influences legal processes, and a lack of consideration of the condition of infrastructure that contributes to crashes. The report highlights the problems inherent in referring to such traffic occurrences as ‘accidents,’ which has fostered a perception that serious traffic injuries are not preventable (Smart Growth America, 2021).

[FHWA’s Safe System Approach](#) addresses the issues raised here. Based on the ideas that humans make mistakes, that human bodies have limited ability to tolerate crash impacts, and that those mistakes should never lead to death, the approach promotes design and management of road infrastructure “to keep the risk of a mistake low; and when a mistake leads to a crash, the impact on the human body does not result in a fatality or serious injury” (Federal Highway Administration, 2022).

3 DEFINING THE VULNERABLE ROAD USER

The first legal barrier to consider with incorporating a VRU law is defining who specifically falls within the category of ‘vulnerable road user.’ To date, four definitions have taken precedence:

1. The **Organisation for Economic Co-operation and Development**, in its 1998 report titled *Scientific Expert Group on the Safety of Vulnerable Road Users*, is the earliest identified use of the term: “those unprotected by an outside shield, namely pedestrians and two-wheelers, as they sustain a greater risk of injury in any collision against a vehicle and are therefore highly in need of protection against such collisions” (Organisation for Economic Co-operation and Development, 1998).

2. The model law provided by the **League of American Bicyclists**, based on Oregon’s 2007 legislation, lists all possible users instead of using the OECD’S definition based on risk of harm. (See Text Box) The model law includes: “a pedestrian, including those persons engaged in work upon a highway, or in work upon utility facilities along a highway, or engaged in the provision of emergency services within the right-of-way; a bicycle, tricycle, or other pedal-powered vehicles; a farm tractor or similar vehicle designed primarily for farm use; a skateboard; roller skates; in-line skates; a scooter; a moped; a motorcycle; an animal-drawn wheeled vehicle, or farm equipment, or sled; an electric personal assistive mobility device; or a wheelchair, a person riding or leading an animal; or a person lawfully operating or riding any of the following on a public right-of-way, crosswalk, or shoulder of the highway.”

3. The **World Health Organization** (WHO) definition from 2013 includes only “pedestrians, bicyclists, and motorcyclists.”

4. The **National Safety Council**, in its 2018 position/ policy statement, expanded the OECD definition to include all users who interact within the roadway, namely: “a pedestrian; a roadway worker; a person operating a wheelchair or other personal mobility device, whether motorized or not; a person operating an electric scooter or similar; and a person operating a bicycle or other non-motorized means of transportation.” Motorcyclists would fall under this definition due to “their lack of vehicle enclosure and higher risk of injury in a collision” (National Safety Council, 2018).

4 A VULNERABLE ROAD USER LAW

The model vulnerable road user law constructed by the League of American Bicyclists comprises four elements. The first is a definition of a vulnerable road user as seen above. The second section codifies the specific behavior punishable by the law, which invokes “careless or distracted” driving behavior that results in “severe physical injury” or fatality to an identified vulnerable road user. The definition of such terms allows for a more efficient legal application by setting specific criteria to reduce the risk of being challenged based on broad language:

- 1) severe physical injury: involves substantial risk of death, unconsciousness, extreme physical pain, protracted and obvious disfigurement, or protracted loss or impairment of the function of a bodily member, organ, or mental faculty;
- 2) careless or distracted driving: is when a driver operates a vehicle without due caution in a manner that is likely to endanger.

The term “careless driving” has been challenged as being overly broad. More specifically, challenges have derived from “careless errors,” “unintended collisions,” and “legal distractions.” The challenges include limitations where the driver does not see the VRU before the crash, misjudgment of traffic conditions such as unanticipated movement speed, and familiar, but not necessarily illegal, distractions such as operating a radio, passenger distractions, and GPS monitoring (Weiss and Ward, 2013). Some states, including New Jersey under the “due care clause” (N.J.S.A 39:4-32), have codified what is known as “proximate cause” or “permissive inference.” Such clauses can prove useful in assigning accountability, notably when a “careless” driving act that does not amount to dangerous driving behavior resulted in severe or fatal injury.

Section 3 and 4 are both meant to fill legal gaps within the judicial process. Section 3 seeks to allow victims of traffic crashes some of the same rights that victims of other criminal offenses have by establishing a hearing process before a court of appropriate jurisdiction. This aspect allows the traffic crash victim to be involved in the legal process, i.e. to obtain right-to-know documentation of the legal proceedings and testify before a jury.

Section 4 recommends the application of mandatory driver’s license suspension, and one or more additional penalties, including traffic safety education, monetary fine, incarceration, and/or community service (League of American Bicyclists, 2020-2021). Some states, including Florida and Colorado, have codified an order for restitution. This section ensures flexibility during judicial proceedings to allow for an equitable alignment between the action and the penalty.

5 WHY ARE VRU LAWS NEEDED

In a 2010 global study, the World Health Organization (WHO) sought to identify preventive initiatives for VRUs and barriers to effective policies in developed and developing countries. The overview analysis included a representation of issues that arise as a result of varied data collection techniques. This analysis includes a heavy underestimation of pedestrian and cyclist nonfatal crashes, mainly because law enforcement officers seldom report crashes that do not involve other vehicles. These crash incidents are often classified as non-traffic crashes, particularly in states that identify cycling as an activity solely for “leisure or recreation” and do not consider bicyclists as having the same rights and responsibilities as drivers of motorized vehicles. These studies also emphasize the need for more significant educational awareness of VRUs (Constant, A., & Lagarde, E., 2010).

Educational awareness campaigns emphasize the proactive engagement of different attitudes toward road safety influenced by internalized cultural factors, social norms, and other habits. Campaigns can target road user beliefs that favor unsafe behaviors, such as the fatalistic theory of injury, which defines traffic crashes as non-preventable. Additionally, although motor vehicle drivers are the road users who

pose the most significant risk, it should be understood that VRUs are not exempt from having to obey road laws (Constant, A., & Lagarde, E. 2010). Educational awareness involves campaigning for increased awareness of road risks that motor vehicles impose and increased understanding of other road behaviors applied to both drivers and VRUs to ensure equal cooperation on roadways.

6 BLAMING ROAD TRAFFIC VICTIMS

Victims of road traffic crashes face three types of barriers to victims' testimony and compensation: legal, administrative, and social. Legal barriers have been identified as a lack of recourse during the judicial processes in a traffic crash, whereas administrative barriers included misreporting by law enforcement. However, administrative barriers also include a tendency to marginalize victims as mere evidence in a particular case. In 2002, to address this failure, the United Nations incorporated its declaration of basic principles of justice for victims of crime to ask that governments provide “material, psychological, social, and juridical assistance” to victims who have suffered a physical or mental injury (Haegi, 2002).

As previously noted, social barriers include a fatalistic theory of injury that considers traffic crashes as inevitable, and thereby perpetuates a culture of victim-blaming. Studies have identified contributing factors that led to such a correlation, including news media coverage. In 2019, one such study conducted an experiment in which 999 subjects read one of three versions of a news article describing a traffic crash involving a pedestrian. The study involved asking subjects to apportion blame, identify an appropriate penalty for the driver, and assess approaches for improving road safety. The study sought to provide empirical evidence of the impact of pedestrian-focused and driver-focused language in editorial patterns of news reports (Goddard et al., 2019). The study identified the use of terminology in catalyzing a degree of victim-blaming, including the following:

- 1) “accident” – Conveys a sense of faultlessness and inevitability and is inconsistent with such traffic crashes as being “predictable and preventable.”
- 2) “agentive and non-agentive language” - Obscures the perpetrator’s role in the action, thereby decreasing apparent blame, such as “The milk spilled” instead of “She dropped the milk.”
- 3) “focus” – Readers are more likely to place blame on the center of attention. Journalists tend to focus on the victim 73 percent of the time.
- 4) “object-based and person-based language” – The term articulated an ability to shift blame from a person (i.e. a driver) to an inanimate object (i.e. a car). For news articles where drivers are referenced solely through the car and the only referred person is the VRU, readers will associate greater responsibility to the VRU as the cause of the incident.

- 5) “counterfactual statements” – Refers to a tendency to explain the sequence of an event through perceived possible alternatives, i.e., “the pedestrian was struck because they were crossing outside of an unmarked crosswalk wearing dark clothing.”
- 6) “thematic vs. episodic framing” - News coverage tends to connect a particular story to another incident or episode, as opposed to relating the incident as an isolated event. Readers of thematically-framed articles tended to blame individuals instead of broader, systemic issues.

News coverage consistent with the agentive language, the appropriate focus, person-based language, and thematic framing provides a more holistic response to a traffic crash. The detailed news coverage further does not disproportionately blame any individual but instead focuses on contributing factors to more equitably apportion blame (Goddard et al., 2019).

7 EFFECTIVENESS OF VULNERABLE ROAD USER LAWS

States have enacted various road safety laws related to vulnerable road users. Some states have VRU laws, some states have legislation allowing increased penalties for pedestrian and bicyclist fatalities, and some states provide protection against thrown objects and/or harassment. One of the more common road safety laws that has recently become adopted by almost every state is a Safe Passing Law. Safe Passing laws mandate due care when a motorist passes or overtakes a bicyclist or other vulnerable road user by maintaining a safe distance from the VRU, most commonly three feet. Additionally, offenses of such laws are generally only applied through a general traffic violation which is usually just a monetary penalty. However, some states include a separate “increased penalty” which would supersede the usual traffic violation in the event of serious injury to a pedestrian or bicyclist. Although some states will include a definition of whom Safe Passing Laws apply to with an expanded definition of a pedestrian to include pedestrians and highway workers, most safe passing laws apply solely to bicyclists. New Jersey’s recent 4-foot Safe Passing Law includes an “increased penalty” clause that allows for the imposition of more significant penalties in the event of serious injury to bicyclists, pedestrians, or expanded definition of a pedestrian, including scooters, a person in a wheelchair or motorized wheelchair, and highway road workers, or any other person legally permitted to be upon the roadway for work or recreation (see Appendix A).

As previously mentioned, Oregon’s 2008 VRU law became the basis for the model law promoted by the League of American Bicyclists. States with VRU laws include Oregon (2007), Vermont (2009), Hawaii (2013), Wisconsin (2014), Connecticut and Maine (2015), Delaware (2018), Colorado (2019), as well as Florida, Utah, Washington, and Virginia (2020). The definition of a vulnerable road user and the degree of protection provided by the legislation varies by state (see Appendix B and C).

No published evaluations of the effectiveness of existing VRU laws in reducing injury risk were found in a literature scan. In addition, no studies showing the effect of VRU laws in providing victims, or their families, access to a judicial hearing process, or the effect of the application of increased penalties for motorists were found. Additionally, few states and countries have implemented similar types of legislation, and evaluation of such laws would prove to be difficult unless multiple jurisdictions pass similar legislation that would allow for practical comparative analysis. Despite the lack of evaluation, one study did recognize the importance of exploring the conceptual implementation of such laws (Weiss and Ward, 2013). This study included a few recommendations:

- 1) An appeal to a larger constituency is desirable in order for the law to be consistently and equitably enforceable.
- 2) Speeding and drunken driving are known to be penalized even if these behaviors do not result in the injury or death of a vulnerable road users. Drivers will consider these penalties when choosing to engage in these behaviors. With a VRU law, there is no clear relationship between a particular behavior and a penalty. The VRU law therefore does not have the same deterrent effect.
- 3) There is the potential for VRUs to begin to refrain from obeying road safety laws due to excessive perceived levels of protection. Additional consequences could be the alienation of drivers through inequitable enforcement that solely overburdens motorists.

In a comparison of state VRU legislation, several practical barriers were evident. These barriers include a limitation of the degree of protection, given that some VRU laws do not incorporate all VRU definitions included in the model law, such as Vermont's law which omits motorcycles, scooters, and mopeds. Arizona's Safe Passing Law enables victim-blaming, stating that "if a bicyclist was found to have been injured in a vehicular traffic lane when a designated bicycle lane or path is present or passable, then the legislation does not apply." Such legislation disproportionately impacts the VRU by placing a more significant burden on the least protected road user. A more equitable approach allows discretion during the judicial process to determine accountability. Virginia's legislation does not include every section advocated by the model law. The legislation does include the definition of the vulnerable road user as stated in the model law, the application of law to offenders of careless driving and serious physical injury, and the addition of a "proximate cause" clause. Vermont's law applies VRU laws solely to offenses of careless driving instead of both careless driving and serious injury. In the State of Washington, during implementation of its VRU law in 2012, there was a lack of outreach awareness campaigns before incorporation. As a result, even law enforcement remained unaware of the law until two years after it was enacted.

8 COMPREHENSIVE LAWS

VRU laws and other road safety legislation can be approached as comprehensive legislation packages, as is the case of the State of Maine. Elements of Maine’s VRU Law, known as “An Act to Improve the Safety of Vulnerable Users in Traffic and To Clarify the Responsibilities of Bicyclists and Pedestrians” can be found in Table 1.

Table 1. Maine’s “An Act to Improve the Safety of Vulnerable Users in Traffic and To Clarify the Responsibilities of Bicyclists and Pedestrians”

| Element of Law | Section | Description |
|---|------------------------------------|---|
| Definition of a VRU | Sec. 1. 29-A MRSA §101, sub-§91-A | Lists vulnerable road users |
| Driver’s Education Requirement | Sec. 2. 29-A MRSA §1351, sub-§4 | A driver’s education course must include what is required when sharing the roadway with a vulnerable user |
| Pedestrians in a marked crosswalk | Sec. 3. 29-A MRSA §2056, sub-§4 | Motorists yielding to pedestrians who enter a crosswalk intending to proceed |
| Duty to stop and remain stopped, and 4-B – Duty to yield | Sec. 4. 29-A MRSA §2056, sub-§§4-A | Yielding the right of way to avoid a potential collision with a pedestrian |
| Traffic Control Devices | Sec. 5. 29-A MRSA §2057, first | All bicyclists shall obey traffic control devices unless otherwise directed by law enforcement. |
| Stop Signs | Sec. 6. 29-A MRSA §2057, sub-§7 | All motorists and bicyclists shall yield to a stop sign unless otherwise directed to do so by law enforcement. |
| Failure to Yield; Criminal Offense | Sec. 7. 29-A MRSA §2057, sub-§10 | Failing to yield to a vehicle, pedestrian, or bicyclist at an intersection, and in so doing colliding with same |
| Failure to Yield; Traffic Infractions | Sec. 8. 29-A MRSA §2057, sub-§10-A | The codification for a traffic infraction penalty if a motor vehicle does not yield to other vehicles, pedestrians, or bicyclists at an intersection |
| One Way Road | Sec. 9. 29-A MRSA §2059 | The mandate for bicyclists and motorists to ride in the designated one-way road direction |
| Right and Duties | Sec. 10. 29-A MRSA §2063, sub-§5 | Applies the same penalties and regulations to follow as a motorist for bicyclists, scooters, and roller skis, except those that by nature have no application |
| Penalties | Sec. 11. 29-A MRSA §2063, sub-§7 | The codified penalty in the event of severe or fatal injury to a VRU to apply as a traffic violation with a monetary penalty of \$25 to \$250 |
| Safe passing for a bicycle or roller skier | Sec. 12. 29-A MRSA §2070, sub-§1-A | Moving to the left, maintaining three feet of passing distance, and only passing a bicyclist or roller skier when it is safe to do so |
| VRU Prohibitions | Sec. 13. 29-A MRSA §2120 | Protection for VRUs against dangerous behaviors such as assault, harassment, taunting, unsafe distance passing, severe or fatal injury, which is punishable through an enhanced penalty from a traffic violation, imprisonment, and increased penalty for re-offenders, and non-exclusivity to other remedies |

In an interview with a member of the research team, **Jim Tasse, Assistant Director, Bicycle Coalition of Maine** provided information on their work on establishing a VRU law for the state. In 2015, the Coalition wanted to enter the concept of VRU into chaptered law and to follow the example of northwest states that enacted laws with penalties (fine structure) for drivers if they strike a VRU. The penalties are a built-in incentive to use caution. However, he noted that people felt it was a violation of due process if it was assumed that the driver was at fault. In committee, all of the teeth were stripped out and what was left was a VRU definition and a driver education requirement that left time spent on the topic to the instructor's discretion. Motorcycles were not included as VRUs at the request of the motorcyclist lobby, perhaps because they thought it would lead to a mandatory helmet law.

- The 2015 version did change the law on pedestrian crossings. Drivers must yield to a pedestrian if a pedestrian “shows intent to cross” rather than needing to step into the street. The Coalition worked with the state police on this. If a driver fails to yield and collides with a pedestrian, it is a criminal offense or traffic violation.
- In 2017, the three-foot passing law was successfully changed to state that If a driver hits a cyclist, pedestrian, or roller skier while passing, it is prima facie evidence of a violation.
- In 2021, the law was amended so that if police have probable cause of a civil violation or criminal violation, they must contact the District Attorney. Investigations can take a long time. The law includes a 60-day window for a crash report to be filed. They can still submit new evidence after the 60 days. In some places law enforcement does not take these cases seriously, and so the window counters any delays. They worked with State Police to ensure that there was adequate police discretion in reporting these crashes.
- Mr. Tasse noted that he tries to change the approach on the part of officers by encouraging them to identify witnesses, and look at the black box from the vehicle, for example. Generally, the assumption is that the bicyclist or pedestrian did something wrong.
- There are no automatic penalties for severe or fatal injury; penalties are left to a judge's discretion.
- All traffic fines, at least for speeding, go to the state. The Coalition would like to restore some of the money to the communities that are doing the enforcement actions to pay for them.
- Mr. Tasse does not know if the VRU law has been enforced, noting that it is difficult to get information on what tickets are written. He made the general observation that every time you open up the law for change, you lose control over how much is changed. The law should be written simply and straightforwardly.
- To address bicycle and pedestrian safety, Bicycle Coalition of Maine is doing the most with tactical urbanism, and street calming with geometric design, creating gateways and using

friction to slow speeds. They work with the state DOT, and the agency gives the Coalition a lot of support for these efforts; they just have to get approval from regional engineers. They are involved in every meaningful conversation and are currently working with others to write the Active Transportation Plan for the state. They work with DOT on Complete Streets training and then take that to the communities. In their work on a pedestrian safety initiative, Mr. Tasse provides recommendations for what DOT should do in a community over time. Their best progress has been in changing road design. Everyone walks – everyone is on the street at some point so everyone can understand the need for safety improvements.

An effort in New York State is currently underway to pass a model comprehensive road safety legislation package. A coalition of organizations continues to advocate for the comprehensive legislation package, including Families for Safe Streets, Transportation Alternatives, and other advocacy groups. The package, “The Crash Victim Rights and Safety Act,” includes several safety proposals. See Table 2.

Table 2. New York State’s Crash Victim Rights and Safety Act

| Name of Law | Law | Description |
|---|----------------|---|
| Sammy’s Law | S524A / A4655A | To allow lower life-saving speed limits in NYC |
| Crash Victim Bill of Rights | | To provide victims of road traffic crashes the same rights as victims of other criminal offenses, including the ability to obtain right-to-know information on legal proceedings, ability to make victim’s testimony, and various other legal and administrative support services |
| Speed Cameras 24/7 | S5602 / A6681 | To allow the usage of automated speed enforcement in NYC to protect people at all times |
| Dangerous Driving Act | S6202 / A7032 | To hold the most reckless drivers accountable and prevent future crashes |
| Vehicle Safety Rating and Labeling | S4307 / A575 | To inform consumers throughout NYS of a vehicle’s danger level to pedestrians and cyclists |
| BAC .05 | S131 / A7197 | To lower the blood alcohol content limit for DWI from .08 to .05 |
| Right to Safe Passage | S4529 / A547 | Requires motorists to exercise due care when passing or overtake a bicyclist by maintaining a 3-feet of safe distance |
| DMV Pre-Licensing | S1078A / A5084 | To educate NY drivers about safely interacting with vulnerable road users |

9 CURRENT NEW JERSEY LAWS

New Jersey has no vulnerable road user law but has a number of laws related to bicycle and pedestrian safety (see Appendix D). In 2021, New Jersey adopted the 4-foot Safe Passing Law. The legislation includes an “enhanced penalty” clause in the event of serious injury to bicyclists, scooter riders,

pedestrians, and an expanded definition of a pedestrian, which includes persons in wheelchairs, maintenance workers, and public utility workers.

As mentioned above, New Jersey law includes a clause that states that, in the event of a collision between a pedestrian and a vehicle in a marked crosswalk or an unmarked crosswalk at an intersection, there shall be a permissive inference that the driver did not exercise due care for the pedestrian (N.J.S.A. 39:4-32). The state is also one of only 12 states with reckless, distracted/ careless, and aggressive driving laws. The state is also one of a few that does not consider bicyclists as drivers but maintains that bicyclists have the same rights and responsibilities as drivers.

Other road safety laws include mandatory helmet use for children under 17, determination of where bicyclists must ride on the roadway, and a move over law that requires drivers to slow down and move away from emergency or service vehicles stopped in the roadway. In 2018, legislation was enacted that requires the state's driver education course, the driver's education manual, and the driver's license written exam to include bicyclist and pedestrian safety information. Incorporating such a requirement raises awareness among new drivers, especially teen drivers, of their obligations to our most vulnerable road users. In doing so, the State of New Jersey joins many states in raising awareness among motorists on the dangers of motor vehicles and how to proceed with caution when interacting with pedestrians and bicyclists.

10 BENEFITS AND LIMITATIONS – EXPERT INTERVIEWS

As part of this research effort, interviews were held with Marco Conner who, at the time of the interview, was Deputy Director of Transportation Alternatives, and Ken McLeod, Policy Director for the League of American Bicyclists. Their thoughts related to vulnerable road user laws are summarized below:

Marco Conner noted that VRU laws have a place in deterring reckless driving but he raised several points that question whether VRU laws are effective:

- The goal of public policy is to deter as many people from harmful driving for as long as possible. Mr. Connor noted that he and Transportation Alternatives are committed to data-driven and evidence-based policies and he has not seen evidence that most VRU laws work.
- The downside of a VRU law is that it might be used instead of creating safer road and street conditions or addressing the design of vehicles, such as with the proliferation of SUVs (characterized by larger size, speed, and blind spots). The law becomes the focus at the expense of implementing policy changes and actually addressing the built environment.
- VRU laws focus on the culpability of the driver or victim and fail to take into account elements that create dangerous conditions or fail to mitigate reckless driving behaviors. The law makes it about an individual's responsibility, and enforcement, instead of about the systemic change

needed. The law is an easy way out for policy makers. It is hard to get political support to build streets and roads for safety, to build streets that force people to slow down. Federal and state money flows easily for enforcement which embraces individual culpability as the only way to address traffic safety.

- The effectiveness of VRU laws is dependent on enforcement. An example is New York's Right of Way Law. Families for Safe Streets pushed for the law that created an unclassified misdemeanor offense for drivers who failed to yield and injured or killed a vulnerable road user. The law has been passed and challenged and upheld in the courts, but has not been used in ways that advocates envisioned. It is typically a battle to get laws on the books and then a battle to have the laws used.
- There is the possible side effect of inequitable enforcement and we don't know if these laws have a deterring effect. The combination of enforcement with education can be effective. It is important to consider the public threat communication, or the effectiveness of enforcement to deter the public from dangerous driving. It has been shown that sobriety check points temporarily decrease drunk driving, in large part due to media coverage announcing the check point.
- What are the effects of post-crash penalties? Nothing shows that harsher penalties, e.g., criminal legal sanctions such as incarceration for 5 years vs. 2 years, have any real effect and may actually increase rates of recidivism. Transportation Alternatives is increasingly pushing toward fines and vehicle seizure and license revocation.
- Transportation Alternatives is also pursuing restorative justice. We have courts, judges, and juries to determine liability and mete out sanctions. Families for Safe Streets, the New York Police Department (NYPD), Transportation Alternatives (TA), and the Brooklyn District Attorney's Office have worked together to establish, in 2015, the Center for Court Innovation which runs through the Red Hook Community Justice Center. The Driver Accountability Program applies restorative justice principles to address vehicle driver accountability for lower-level offenses such as failure to yield, significant speeding, etc. Drivers participate in 90-minute group sessions in lieu of a fine. The sessions include facilitated discussion of driver behavior and self-assessment of one's own driving behavior and participants watch a video called "Drive Like Your Family Lives Here" produced by TA, New York City Department of Transportation, and NYPD. Families talk about the devastation resulting from traffic violence. Initial findings are that the program is effective in changing behavior.
- In cases where there is criminal liability due to severe injury or death of an individual, there is a program based on restorative justice and healing circles rooted in Native American justice practices. The goal is to repair, or get something positive out of, a situation and achieve a greater level of recognition. The current adversarial system causes the driver to deny guilt when often what the victim or victim's next of kin want is an acknowledgement of fault from the driver.
- Mr. Connor noted that New York's Crash Victims' Bill of Rights was introduced in the legislature in January 2022. The bill establishes that victims or next of kin have the right to submit impact statements at hearings. Currently, in general, driver license suspension or revocation is the only symbol of justice that victims have. With this Bill of Rights, they would be able to give impact

statements and have notification of upcoming hearings, and access to crash reports free of charge. There is a lot of support for the Bill of Rights.

Ken McLeod, Policy Director, The League of American Bicyclists, noted that the goal of a VRU law is deterrence. A driver violating the law is subject to increased penalties for aggressive driving, encouraging drivers to think about providing more space and being more attentive.

- The VRU law is not bicycle-specific, like the safe passing law, so it is relevant to emergency workers, law enforcement, and others. A broad constituency can come together on this issue. The law can potentially provide deterrence where there is no physical barrier.
- The law provides a charging option available to prosecutors. There can't be disparities about who it applies to. There is no on-the-ground use of the law in a disparate manner in terms of pulling people over.
- Development of a Victims Bill of Rights is motivated by the sense that the punishment available for traffic crimes does not fit the consequences of traffic crimes.
- In Maine, with a law passed in 2021, police are required to report crashes involving vulnerable road users to the District Attorney. With this more formal report required, there is a greater likelihood of action. Some advocates are working to have authorities look at each crash and its context to determine an appropriate response by all agencies involved. This may not result in direct redress to the victim, but justice would be served by making the roadway better for all road users.
- There is ongoing debate in policy circles over NHTSA's promotion of 94 percent of crashes being attributable to human error, and how much does that capture what needs to be done, and obscure the fact that roads are designed in unsafe ways. We want more focus on the roadways and how they influence behavior. We are working toward cohesive conversations about better roadways and better behavior. Mr. McLeod noted that he is talking about the "Safe System Approach" all the time and remarked on the [work out of Montana State University](#) promoting positive safety messaging, rather than focusing on punishment and taking a moralistic tone. The message is "I care about road safety because I care about my community." The Safe System Approach is part of that. There are efforts to coordinate goals through the HSIP program and NHTSA funding. Through the bipartisan infrastructure bill, NJ will have to spend at least 15 percent on pedestrian and bicycle improvements because the state has over 15 percent of crashes involving bicyclist/pedestrian fatalities.

11 DISCUSSION

Based on the literature review and the examination of existing legislation, the following elements should be considered in development of a vulnerable road user law.

- 1) The goal of VRU laws should be to 1) provide vulnerable users **greater recourse** in a court of law and 2) provide **greater public awareness** of the threat posed by motor vehicles and the vulnerability of other road users.

- 2) VRU laws should address more than just **careless driving**.
- 3) Enforcement should be **consistent and equitable**.
- 4) Language could include:
 - a. **Discretion to Vulnerable Users** – include language for actions such as “attempted physical assault or threat of same” or “likely to endanger any person or property”
 - b. **Proximity of Harm** – more significant focus on the degree of the action that resulted in serious injury
 - c. **Rebuttal Presumption** – assumption of direct causation from the driver's actions to the vulnerable user's physically severe injury
- 5) Elements that should be applied are:
 - a. **Support for victim's rights** through testimony, restitution, and right to know in legal processes
 - b. Judges' ability to **tailor the penalty** to the offense – including educational (driver's ed) requirement
 - c. **Mandatory education** minimum
 - d. **Extensive outreach** campaign

If a Vulnerable Road User law is considered, the League of American Bicyclists model law can be used as a starting point. The model law defines who is a vulnerable road user, and defines severe physical injury and careless and distracted driving. A law inclusive of these definitions may be less vulnerable to challenges. Although challenges can still arise from the correlation between the driver's behaviors and the victim's damages, some states have already begun to fill such gaps. Such modifications have mainly been accomplished by establishing “permissive inferences” and “proximate cause,” thereby providing discretion to the VRU when assessing the effects of harmful driver behavior.

The model law allows victims of traffic crashes the right to obtain right-to-know documentation of the legal proceedings and participate in a hearing process in court. And finally, the model law emphasizes the structuring of an enhanced penalty with discretion given to the judicial process including the application of mandatory driver's license suspension, and one or more additional penalties, including traffic safety education, monetary fine, incarceration, and/or community service (League of American Bicyclists, 2020-2021). Some states, including Florida and Colorado, have codified an order for restitution. This section ensures flexibility during judicial proceedings to allow for an equitable alignment between the action and the penalty. Judicial review with discretion allows for a more holistic examination on a case-by-case basis to more equitably distribute fault.

In summary, the effect of enactment of VRU laws on the victims of road traffic crashes would be twofold. The inclusion of judicial proceedings to allow for victim's testimony, or the testimony of surviving family members, and determine compensation and enhanced penalties would provide much-

needed administrative and legal support. Additionally, incorporating an inclusive vulnerable road user definition coupled with an extensive awareness campaign to reach VRUs, drivers, the media, and policymakers would support the safety of VRUs along roadways.

The lack of evidence for the effectiveness of vulnerable road user laws is a deterrent to adoption. Maine and New York's approach of assembling a comprehensive package of safety laws may be a more effective strategy than focusing on the passage of a vulnerable road user law alone.

References

- 1) Čabarkapa, M. (2018). A problem of the safety of vulnerable road users in Montenegro. *International journal of injury control and safety promotion*, 25(4), 352-364.
- 2) Constant, A., & Lagarde, E. (2010). Protecting vulnerable road users from injury. *PLoS medicine*, 7(3), e1000228.
- 3) Transportation Alternatives. (2021) About the Crash Victim Rights & Safety Act. Transportation Alternatives. <https://www.transalt.org/cvrsa>
- 4) Federal Highway Administration. (2022). Zero Deaths – Saving Lives through a Safety Culture and a Safe System. https://safety.fhwa.dot.gov/zerodeaths/zero_deaths_vision.cfm
- 5) Goddard, T., Ralph, K., Thigpen, C. G., & Iacobucci, E. (2019). Does news coverage of traffic crashes affect perceived blame and preferred solutions? Evidence from an experiment. *Transportation research interdisciplinary perspectives*, 3, 100073.
- 6) Haegi, M. (2002). A new deal for road crash victims: Victims' organisations are having to fill the hole left by government failures.
- 7) National Safety Council. (2018) Position/ Policy Statement. National Safety Council. <https://www.nsc.org/policy-statements/listing#:~:text=NSC%20is%20compelled%20to%20address,within%20its%20own%20organizational%20culture.>
- 8) New Jersey Department of Transportation (2020) Strategic Highway Safety Plan. Copyrighted 2020. *New Jersey Department of Transportation*. <https://www.saferoadsforallnj.com/s/NJ-2020-SHSP-Final-Report-09-08-2020-wny2.pdf>
- 9) Organisation for Economic Co-operation and Development (1998) Safety of Vulnerable Road Users. OECD. [https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/DOT/RTR/RS7\(98\)1/FINAL&docLanguage=En](https://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/DOT/RTR/RS7(98)1/FINAL&docLanguage=En)
- 10) Smart Growth America and National Complete Streets Coalition. (2021) Dangerous By Design. *Smart Growth America*. <https://smartgrowthamerica.org/dangerous-by-design/>
- 11) Weiss, H., & Ward, A. (2013). Is it time to advocate for a vulnerable road user protection law in New Zealand. *The New Zealand Medical Journal*, 126(1374), 67-77.

Definitions

Vulnerable Road User (Bike League; Model VRU Law) - "(a) a pedestrian, including those persons engaged in work upon a highway, or in work upon utility facilities along a highway, or engaged in the provision of emergency services within the right-of-way; or (b) a person riding or leading an animal; or (c) a person lawfully operating or riding any of the following on a public right-of-way, crosswalk, or shoulder of the highway: A bicycle, tricycle, or other pedal-powered vehicles; A farm tractor or similar vehicle designed primarily for farm use; A skateboard; Roller skates; In-line skates; A scooter; A moped; A motorcycle; An animal-drawn wheeled vehicle, or farm equipment, or sled; An electric personal assistive mobility device; or A wheelchair." (ec.europa.eu; Mobility and Transport) - "defined in the ITS Directive as "non-motorized road users, such as pedestrians and cyclists as well as motorcyclists and persons with disabilities or reduced mobility and orientation."

Willful Misconduct - means a knowing violation of a reasonable and uniformly enforced rule or policy. It means intentionally doing or failing to do an action, knowing that injury to a person will probably result, or recklessly disregarding the possibility that injury to a person may result.

Reasonable threat - or actual threat, is a threat that a reasonable person would interpret as a severe communication of an intent to inflict harm. Note: True threats are not protected as free speech by the First Amendment to the U.S. Constitution and render the person making the threat liable to criminal prosecution.

Comparative negligence - is the tort (act or omission that gives rise to injury or harm to another and amounts to a civil wrong for which courts impose liability) act of allocating damages when both parties are at least somewhat at fault.

Conscientious Driver - A person who usually keeps their car well maintained and usually drives carefully, is of sound mind, is in control of what they are doing, and the resulting outcome from their actions is foreseeable to them.

Culpable action - generally implies that an act performed is wrong but does not involve any evil intent by the wrongdoer. Note: A culpable action is an act or omission that comprises the physical elements required by statute but does not explicitly refer to intent. The term is synonymous with *actus reus* (guilty action).

Culpable mental state - refers to the state of mind of an individual while committing a crime. Generally, a crime requires evidence of a guilty act or omission (the *actus reus*) with the required degree of a guilty mind. Generally, certain acts are crimes only if done with a particular state of mind. A specific sort of criminal activity is more or less severe depending on the perpetrator's state of mind at the time. It would be a culpable (blameworthy) mental state if done with negligence, recklessness, knowledge, and purpose. The term, Culpable Mental State is synonymous with *mens rea* (guilty mind).

Serious Physical Injury - means impairment of a person's physical condition which creates a substantial risk of death or causes death or severe and protracted disfigurement, protracted impairment of health, or protracted loss. Further defined under 42 USCS § 247d-6d (10) as an injury that: (A) is life-threatening; (B) results in permanent impairment of a body function or permanent damage to a body structure; or (C) necessitates medical or surgical intervention to preclude permanent impairment of a body function or permanent damage to a body structure.

Great Bodily Harm - physical injury suffered by the victim of a violent crime that causes a substantial risk of death, extended loss or impairment of a body part or function, or permanent disfigurement: a physical injury that is more serious than that ordinarily suffered in a battery.

Reckless - having or showing gross negligence or conduct without any thought as to the consequences. In civil cases, negligence itself is usually actionable; reckless conduct is difficult to show in criminal matters.

Remedies - is a form of court enforcement of a legal right resulting from a successful civil lawsuit. Remedies fall into three general categories: 1) Damages - monetary compensation for the plaintiff's losses or restitution measures designed to restore the plaintiff's status to what it was before the violation of his or her rights. 2) Coercive remedies - requiring a party to do or omit to do a specific act through injunctive relief or a court order mandating that a party fulfill contractual obligations. 3) Declaratory judgment - the court determines individual rights in a specific situation without awarding damages or ordering particular action. Because of their historical origins, monetary damages are often referred to as a legal remedy, while coercive and declaratory remedies are consistent with the definition of equitable remedies. Plaintiffs can also receive provisional remedies when a court uses its discretionary power to prevent harm while the plaintiff's rights are still being determined, such as temporary injunctions.

Restitution - 1) returning to the proper owner property or the monetary value of a loss. Sometimes restitution is made part of a judgment in negligence or contracts cases. 2) in criminal cases, one of the penalties imposed requires returning stolen goods to the victim or paying the victim for harm caused. Restitution may be a condition of granting a defendant probation or giving him/her a shorter sentence than expected.

Victim Blaming - the tendency to hold people responsible for their plight and underestimate the social and contextual forces contributing to their adverse outcomes.

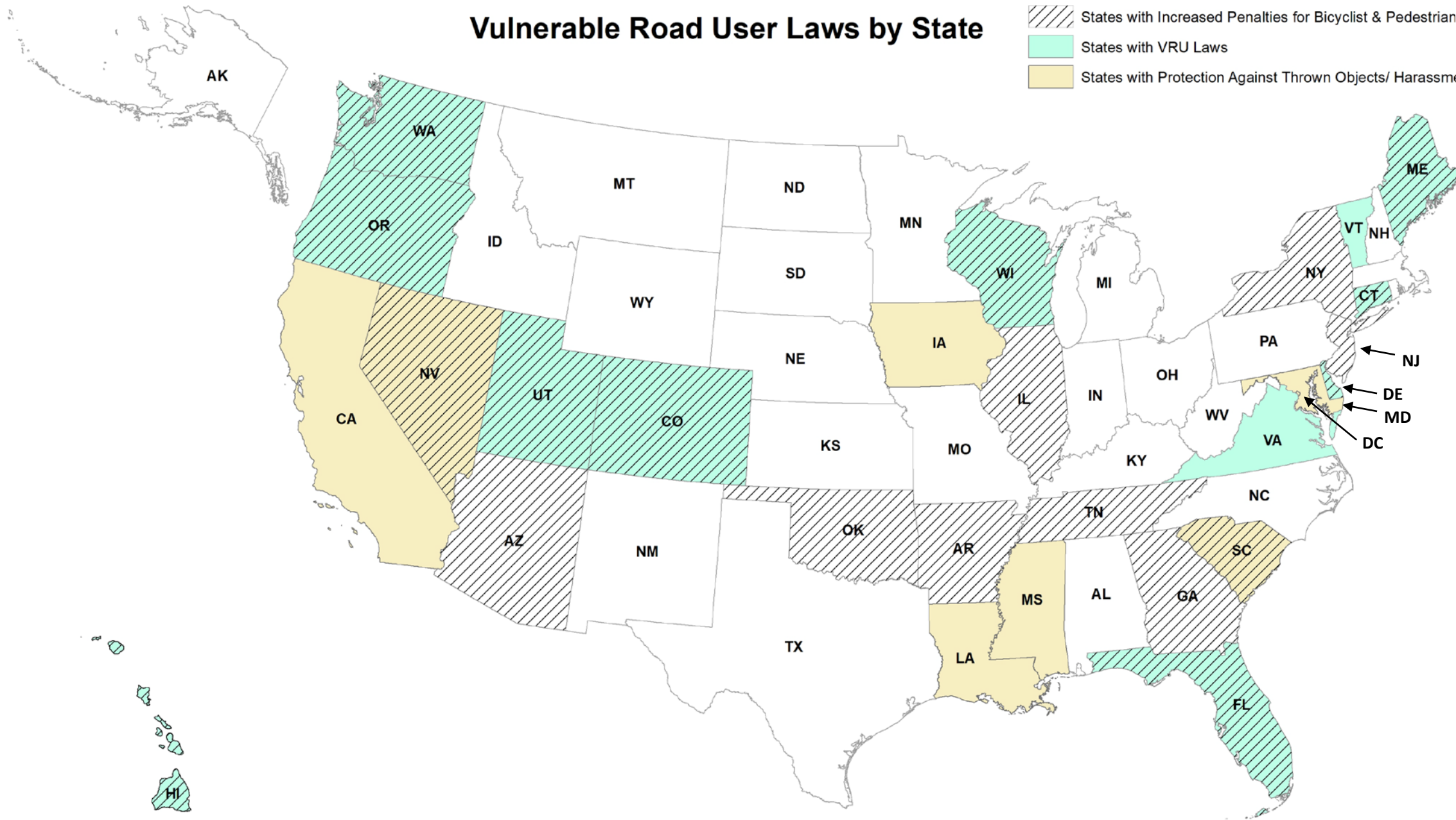
Appendix A

Vulnerable Road User Laws Map
Safe Passing Laws Map

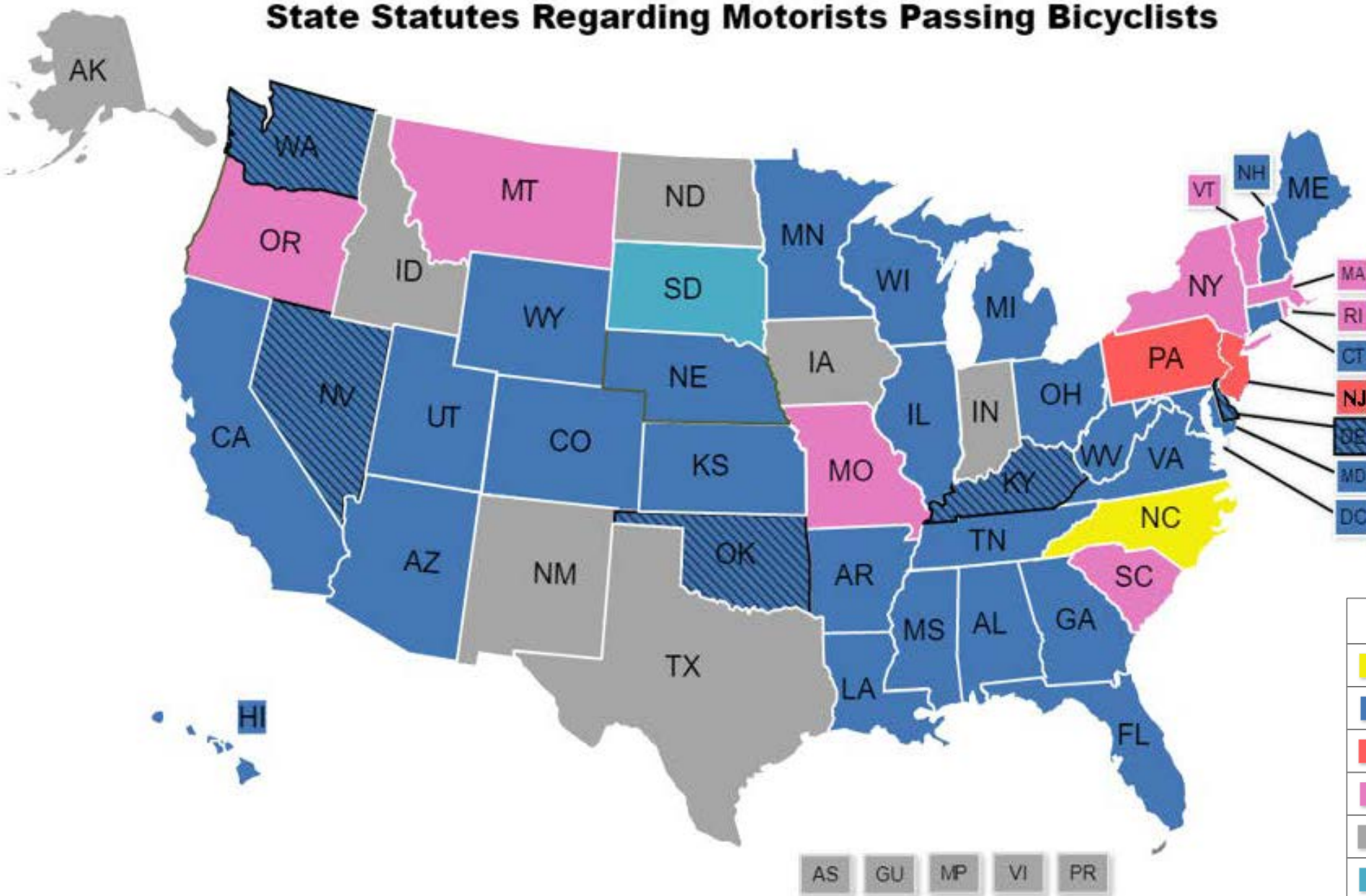
Vulnerable Road User Laws by State

Legend

- States with Increased Penalties for Bicyclist & Pedestrian Fatalities
- States with VRU Laws
- States with Protection Against Thrown Objects/ Harassment



State Statutes Regarding Motorists Passing Bicyclists



| LEGEND | |
|--------|---|
| | States with 2-feet passing law/4 feet in a no-pass zone |
| | States with 3-feet minimum passing distance |
| | States with 4-feet minimum passing distance |
| | States with general "safe distance" passing requirements |
| | States with no specific law for passing a bicyclist |
| | States with 3-feet when below 35 PH/6-feet for above 35 MPH |
| | States that require a motorist to completely change lanes when passing a bicyclist if there is more than one lane proceeding in the same direction. |

Source: National Conference of State Legislatures, 2/19/2021; revised 8/9/2021

Appendix B

Vulnerable Road User Definition

| VRU Law (Definition) | Oregon | Vermont | Hawaii | Wisconsin | Connecticut | Maine | Delaware | Colorado | Florida | Utah | Washington | Virginia |
|---|--------|---------|--------|-----------|-------------|-------|----------|----------|---------|------|------------|----------|
| Year | 2008 | 2009 | 2013 | 2014 | 2015 | 2015 | 2018 | 2019 | 2020 | 2020 | 2020 | 2020 |
| A pedestrian | x | x | x | x | x | x | x | x | x | x | x | x |
| A pedestrian, including those persons actually, engaged in work upon a highway, or in work upon utility facilities along a highway, or engaged in the provision of emergency services within the right-of-way | x | x | x | x | | x | x | x | x | x | | |
| A person riding or leading an animal | x | x | | x | x | x | x | x | x | x | x | x |
| A person lawfully operating or riding any of the following on a public right-of-way, crosswalk, or shoulder of the highway: | x | | x | | | x | x | x | x | x | x | |
| A bicycle, tricycle, or other pedal-powered vehicles | x | x | x | x | x | x | x | x | x | x | x | x |
| A farm tractor or similar vehicle designed primarily for farm use | x | x | | x | x | x | x | x | x | x | x | |
| Skateboard | x | | | | x | x | x | x | x | x | | x |
| Roller skates | x | x | | | x | x | x | x | x | x | | x |
| In-line skates | x | x | | x | x | x | x | x | x | x | | |
| Scooter | x | | | x | x | x | x | x | x | x | x | x |
| Moped | x | | x | x | | x | x | x | x | x | x | |
| Motorcycle | x | | | | | x | x | x | x | x | x | |
| An animal-drawn wheeled vehicle, or farm equipment, or sled | | x | | x | | x | x | x | x | | | x |
| An electric personal assistive mobility device | | x | x | | x | x | x | x | x | x | x | x |

| | | | | | | | | | | | | |
|--|---------------|----------------|---------------|------------------|--------------------|--------------|-----------------|-----------------|----------------|-------------|-------------------|-----------------|
| Wheelchair | | x | x | | x | x | x | x | x | x | | x |
| VRU Law (Application) | Oregon | Vermont | Hawaii | Wisconsin | Connecticut | Maine | Delaware | Colorado | Florida | Utah | Washington | Virginia |
| Harassment/ Thrown Objects | | | | | | x | | | | | | |
| Assault | x | | | | | x | | | | | | |
| Distract | | | | | | x | | | | x | | |
| Force | | | | | | x | | | | x | | |
| Safe Passing | | x | | | | x | | | | x | | |
| Dooring Law | | | | | | x | | | | | | |
| Fail to Stop | | | | | x | x | | | | | | |
| Place Dangerous Material | | | | | | x | | | | | | |
| Remain at the Scene | | | | | | | | | x | | | |
| Due Care | | x | | | x | | | | | | | |
| Intentionally | | | | | | | | | | x | | |
| Not Knowingly | | | | | | | | | | x | | |
| Negligent/ Reckless Driving | x | | x | | | | | | | x | x | |
| Serious Physical Injury/ Great Bodily Harm | x | | x | x | x | x | x | x | x | x | | x |
| Careless/ Distracted Driving | x | x | | | | x | | | | | | x |
| Where to Ride | | x | | | | | | | | | | |
| Proximate Cause/ Likely to Endanger | x | | | | | x | | | | | | x |
| VRU Law (Penalty) | Oregon | Vermont | Hawaii | Wisconsin | Connecticut | Maine | Delaware | Colorado | Florida | Utah | Washington | Virginia |
| Traffic Violation/ Infraction | x | | | | | x | x | | x | x | x | |
| Felony for willful conduct | | | | | | | | | x | | | |
| Mandatory Minimum Sentence | | | | | | | | | x | | | |
| Misdemeanor | x | | | | | | | x | | x | | x |
| Educational Penalty | x | | | x | | | x | x | | | x | |
| Monetary Penalty | x | | | | x | x | x | x | | | x | |
| License Suspension | x | | | x | | x | x | x | | | x | |
| Community Service | x | | | | | | x | x | | | x | |
| Restitution | | | | | | | | x | x | | | |
| Non exclusivity to Other Remedies | | | | | | x | | | | | | |

Appendix C

Vulnerable Road User State Comparison

| | Safe Passing Law | Helmet Law | Share the Road License Plates | Vulnerable Road User Law | Thrown Object/ Harassment | Move Over Law | Aggressive Driving Law | Reckless Driving Law | Distracted Driving | Where to Ride | Sidewalk Riding | Mandatory Use of Separated Facilities | Bicycling Under the Influence | "Idaho Stop" and Vehicle Detection Errors | Authorization for Local Regulation of bicycles | Dooring Laws | Treatment as a Vehicle |
|----------|---|---|--|--|---|--|--|--|---|--|--|---|--|--|---|---|---|
| Who? | bicyclists | young bicyclists | bicyclists | Includes all outside of motor vehicles | pedestrians, bicyclists | EMS, tow trucks, traffic control | motor vehicles | motor vehicles | motor vehicles | bicyclists | motor vehicles, bicyclists | bicyclists | bicyclists | bicyclists, motor vehicles | bicyclists | pedestrians, bicyclists, | bicyclists |
| What? | 3 or 4 feet of safe distance must be maintained when a motorist overtakes a bicyclists. some states have only a general safe distance standard. | requires that children under the age of 15 – 16 years old wear a protective, fastened helmet | usually in conjunction with transit agency or non-profit to promote, educate, communities on bike safety | Increased penalties for road behaviors n that lead to serious injury or death; provides victim’s rights, raises awareness when sharing the road with non-drivers | prohibits objects throw and/or other harassment b ehavior from moving vehicles | slow down or vacate lane for EMS, tow trucks with flashing lights, traffic control | range of unsafe driving behavior. Speeding, tailgating, weaving in and out of traffic, running red lights, or any combination | a person driving a motor vehicle that creates a substantial and unjustifiable risk of injury | usually prohibiting use of electronic/ cellular devices while driving | usually requiring bicyclists ride as close to the right as practicable when traveling less than speed of traffic | usually allowing bicycles to ride or pass on sidewalks under certain conditions and with due care of pedestrians | mandating that bicyclists use bike lanes or paths when available, with usual exception when overtaking, passing, turning, avoiding hazardous condition. | most states that define bikes as vehicles have the law written so that it applies to bicyclists as well. | allowing vehicles to yield instead of stop at red traffic light in the event of malfunction, while exercising due care when proceeding | allowing local authorities to regulate operation, inspection, or registration of bicycles | requires no person to open a vehicle door unless it is safe to do so without interfering in movement of traffic | whether bicycles are considered vehicles by state statute; whether bicycles have the same rights and responsibilities as motorists. |
| Penalty? | monetary fines, (Model Law does not have penalty) | N/A; However Oregon’s law explicitly states that a lack of protective headgear is not a defense to an action for damages in the event of injury | N/A | mandatory minimum (driver’s license suspension) with enhanced penalties (community service, incarceration, education) | monetary fines, incarceration, misdemeanor, enhanced penalties (vary across states) | model law says license suspension for at least a year and not more than 5 years and the violator may be sentenced to one year in jail in the event of serious injury. (USDOT) actual penalties also include license suspension and monetary fees | a few months in jail. some states have increased penalty if aggressive driving was a result of road rage. In NJ, penalty increases to \$10,000 and up to 18 months in prison | license suspension, monetary fee, few days in jail | monetary fee, traffic violation | traffic violation | traffic violation | traffic violation | class a misdemeanor, class c felony, monetary fine | traffic violation | N/A | traffic violation | N/A |
| Where? | 45 states (8 states have only a general safe passing law) | 23 States | 27 States | 12 States | 12 States | 50 States | 16 States | 50 States | 45 States | 48 States | 31 States | 9 states | 25 States | 17 States | 33 States | 41 states | 30 States; 49 States (YES) |

| | Safe Passing | Helmet Law | Bike license plates | Vulnerable Road User | Thrown Objects | Move Over Law | Aggressive Driving | Reckless Driving | Distracted Driving Law | Where to Ride Law | Sidewalk Riding | Mandatory Sep. Use | Under the Influence | "Idaho Stop" | Authorizatio n Local Reg. | Dooring laws | Bikes = Cars ; Same R&R |
|----------------|-----------------|---------------|------------------------|-------------------------|-------------------|------------------|-----------------------|---------------------|---------------------------|----------------------|--------------------|-----------------------|------------------------|-----------------|------------------------------|-----------------|----------------------------|
| Alabama | ✓ | ✓ | ✓ | | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | YES; YES |
| Alaska | | | | | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ | YES; YES |
| Arizona | ✓ | | | | | ✓ | ✓ | ✓ | | ✓ | | | | ✓ | ✓ | ✓ | NO; YES |
| Arkansas | ✓ | | | | | ✓ | | ✓ | ✓ | | | | | ✓ | | ✓ | NO; YES |
| California | ✓ | ✓ | | | ✓ | ✓ | | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ | NO; YES |
| Colorado | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ | YES; YES |
| Connecticut | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | | YES; YES |
| Delaware | ✓ | ✓ | | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | | | ✓ | NO; YES |
| D.C. | ✓ | ✓ | | | ✓ | ✓ | | ✓ | ✓ | | ✓ | | ✓ | | | ✓ | YES; YES |
| Florida | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | YES; YES |
| Georgia | ✓ | ✓ | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | YES; YES |
| Hawaii | ✓ | ✓ | | ✓ | | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | YES; YES |
| Idaho | | | | | | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ | YES; YES |
| Illinois | ✓ | | ✓ | | | ✓ | | ✓ | ✓ | ✓ | ✓ | | | | ✓ | ✓ | NO; YES |
| Indiana | | | | | | ✓ | | ✓ | ✓ | ✓ | | | ✓ | ✓ | ✓ | | NO; YES |
| Iowa | | | | | ✓ | ✓ | | ✓ | ✓ | ✓ | | | | | ✓ | | NO; YES |
| Kansas | ✓ | | | | | ✓ | | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ | ✓ | NO; YES |
| Kentucky | ✓ | | ✓ | | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | YES; YES |
| Louisiana | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ | ✓ | ✓ | | | | | ✓ | ✓ | YES; YES |
| Maine | ✓ | ✓ | | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | | | | | ✓ | ✓ | NO; YES |
| Maryland | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | YES; YES |
| Massachusetts | ✓ | ✓ | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ | ✓ | NO; YES |
| Michigan | ✓ | | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ | | NO; YES |
| Minnesota | ✓ | | | | | ✓ | | ✓ | ✓ | ✓ | ✓ | | | ✓ | ✓ | ✓ | YES; YES |
| Mississippi | ✓ | | ✓ | | ✓ | ✓ | | ✓ | ✓ | ✓ | | | ✓ | | | ✓ | YES; YES |
| Missouri | ✓ | | ✓ | | | ✓ | | ✓ | ✓ | ✓ | ✓ | | | ✓ | | ✓ | NO; YES |
| Montana | ✓ | | ✓ | | | ✓ | ✓ | ✓ | | ✓ | ✓ | | | | ✓ | ✓ | YES; YES |
| Nebraska | ✓ | | | | | ✓ | | ✓ | ✓ | ✓ | ✓ | | | | ✓ | ✓ | NO; YES |
| Nevada | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ | ✓ | ✓ | NO; YES |
| New Hampshire | ✓ | ✓ | | | | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ | YES; YES |
| New Jersey | ✓ | ✓ | | | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | | NO; YES |
| New Mexico | | ✓ | | | | ✓ | | ✓ | ✓ | ✓ | | | | | ✓ | ✓ | NO; YES |
| New York | ✓ | ✓ | | | | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | | | ✓ | NO; YES |
| North Carolina | ✓ | ✓ | ✓ | | | ✓ | | ✓ | ✓ | ✓ | | | ✓ | | | | YES; YES |
| North Dakota | | | | | | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | | | ✓ | YES; YES |
| Ohio | ✓ | | ✓ | | | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ | YES; YES |
| Oklahoma | ✓ | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ | ✓ | ✓ | YES; YES |
| Oregon | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | YES; YES |
| Pennsylvania | ✓ | ✓ | ✓ | | | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | YES; YES |
| Rhode Island | ✓ | ✓ | | | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ | YES; YES |
| South Carolina | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | | ✓ | ✓ | ✓ | NO; YES |
| South Dakota | ✓ | | | | | ✓ | | ✓ | | ✓ | ✓ | | | | | ✓ | YES; NO |
| Tennessee | ✓ | ✓ | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | ✓ | | | YES; YES |
| Texas | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | | ✓ | ✓ | YES; YES |
| Utah | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ | ✓ | YES; YES |
| Vermont | ✓ | | | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | | | ✓ | | | ✓ | NO; YES |
| Virginia | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | | | ✓ | ✓ | ✓ | YES; YES |
| Washington | ✓ | | ✓ | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | ✓ | ✓ | YES; YES |
| West Virginia | ✓ | ✓ | ✓ | | | ✓ | | ✓ | ✓ | ✓ | | | | | | | NO; YES |
| Wisconsin | ✓ | | ✓ | ✓ | | ✓ | | ✓ | ✓ | ✓ | ✓ | | | ✓ | | ✓ | YES; YES |
| Wyoming | ✓ | | | | | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ | ✓ | YES; YES |

Appendix D

New Jersey Legislation

| New Jersey Legislation | | |
|---|---|---|
| Helmet Law | N.J.S.A. 39:4-10.1; 39:4-10.7 | Any person under the age of 17 riding a bicycle, as an operator or passenger, must wear a protective bicycle helmet. However, the failure of any person to wear a required helmet shall not constitute negligence per se, contributory negligence or assumption of risk, and shall not in any way bar, preclude or foreclose an action for personal injury or wrongful death by or on behalf of such person. |
| Distracted Driving Law | N.J.S.A. 39:4-97.3; 39:3B-25; 39:3-13.2a; 39:3-13.4; 27:25-5.18 | restricted use of wireless telephones and electronic communication devices while driving. |
| Reckless Driving | N.J.S.A 39:4 - 96 | A person who drives a vehicle heedlessly, in willful or wanton disregard of the rights or safety of others, in a manner so as to endanger, or be likely to endanger, a person or property. |
| Where to Ride | N.J.S.A. 39:4-14.2 | Every bicyclist must ride as near to the right side of the roadway as practicable, exercising due care when passing a standing vehicle or one proceeding in the same direction. A bicyclist may move left under any of the following conditions: To make a left turn from a left-turn lane or pocket; To avoid debris, drains or other hazardous conditions that make it impracticable to ride at the right side of the roadway; To pass a slower moving vehicle; To occupy any available lane when traveling at the same speed as other traffic; or To travel no more than two abreast when traffic is not impeded. |
| Treatment as a Vehicle | N.J.S.A. 39:1-1; 39:4-14.1 | In New Jersey bicycles are not vehicles according to the statute that defines vehicles, but a person riding a bicycle has all of the rights and duties of a driver of a vehicle in Chapter 4 of Title 39 of the New Jersey Statutes, except for provisions which by their nature can have no application. |
| Riding at Night | N.J.S.A. 39:4-10 | When in use at nighttime every bicycle shall be equipped with: 1) A front headlamp emitting a white light visible from a distance of at least 500 feet to the front; 2) A rear lamp emitting a red light visible from a distance of at least 500 feet to the rear; 3) In addition to the red lamp a red reflector may be mounted on the rear. |
| Operating Requirements | N.J.S.A. 39:4-12, 39:4-10.11 | Every person riding a bicycle should ride in the same direction as vehicular traffic. A parent may be held responsible for the child's violation of any traffic law. |
| Audible Signal | N.J.S.A. 39:4-11 | A bicycle must be equipped with a bell or other audible device that can be heard at least 100 feet away, but not a siren or whistle. |
| Brakes | N.J.S.A. 39:4-11.1 | A bicycle must be equipped with a brake that can make wheels skid while stopping on dry, level, clean pavement. |
| Feet and Hands on Petals and Handlebars; Carrying Another Person | N.J.S.A. 39:4-12 | Bicyclists should not drive the bicycle with feet removed from the pedals, or with both hands removed from the handlebars, nor practice any trick or fancy driving in a street. Limit passengers to only the number the bicycle is designed and equipped to carry (the number of seats it has). |
| Hitching on Vehicle | N.J.S.A. 39:4-14 | No person riding a bicycle shall attach themselves to any streetcar or vehicle. |
| Blocking the Crosswalk | N.J.S.A. 39:4-36 | Drivers are prohibited from blocking the crosswalk when stopped at a red light or stop sign. A driver must not stop with a portion of his/her bicycle or motor vehicle in the crosswalk area. When the crosswalk is blocked, it forces pedestrians to go around, outside the crosswalk, putting them in danger. Never pass a vehicle stopped at a crosswalk Yield to pedestrians in crosswalks, both marked and unmarked. failure to yield carries a \$100 fine, up to 15 days in jail and a 2-point license penalty.) |
| Driving on Private Property | N.J.S.A.39:4-66.2 | Driving on private property to avoid a traffic signal or sign is a motor vehicle violation. |

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| Bike/ Ped in Driver's Manual Test | A4165/S2894 | Requires 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 order to raise awareness among new drivers, especially teen drivers, on their obligations towards our most vulnerable road users. |
| Jessica's Law | N.J.S.A 2C:12-1 | Imposes penalty for aggressive drivers that cause serious or minor injury. Penalty: 5 years to 18 months. |
| Move Over Law | N.J.S.A. 39:4-92.2 | Assesses drivers two motor vehicle points for a third violation, in addition to fines for failing to move over one lane or slow down when approaching police, fire, emergency medical service, road crews, or tow trucks displaying flashing lights. The law now ranges between \$100 and \$500. Originally adopted in 2009 and penalty increased in 2019. |
| Pedestrians and Vehicles | N.J.S.A 39:4-32 | <p>On highways where traffic is controlled by a traffic control signal or by traffic or police officers:</p> <ul style="list-style-type: none"> a. Pedestrians shall not cross a roadway against the "stop" or red signal at a crosswalk, whether marked or unmarked, unless otherwise specifically directed to go by a traffic or police officer, or official traffic control device. b. No driver of a vehicle shall fail to stop and remain stopped for a pedestrian crossing a roadway at a crosswalk when the pedestrian is upon, or within one lane of, the half of the roadway upon which the vehicle is traveling or onto which it is turning during the "go" or green signal. As used in this subsection, "half of the roadway" means all traffic lanes conveying traffic in one direction of travel, and includes the entire width of a one-way roadway. c. A pedestrian crossing or starting across the intersection on a "go" or green signal, but who is still within the crosswalk when the signal changes, shall have the right of way until the pedestrian has reached the opposite curb or place of safety. d. No pedestrian shall leave a curb or other place of safety and walk or run into the path of a vehicle which is so close that it is impossible for the driver to yield or stop. e. Whenever any vehicle is stopped to permit a pedestrian to cross the roadway, the driver of any other vehicle approaching from the rear shall not overtake and pass such stopped vehicle. f. Every pedestrian upon a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the right-of-way to all vehicles upon the roadway. g. Nothing contained herein shall relieve a driver from the duty to exercise due care for the safety of any pedestrian upon a roadway. Nothing herein shall relieve a pedestrian from using due care for his safety. h. In the event of a collision between a vehicle and a pedestrian within a marked crosswalk, or at an unmarked crosswalk at an intersection, there shall be a permissive inference that the driver did not exercise due care for the safety of the pedestrian. |
| Safe Passing Law | Recently Passed | Provides due caution in the form of reducing speeds and safe distance when overtaking a bicyclists, and applies a \$100 fine and no motor vehicle points for violating the law and a \$500 fine and two motor vehicle points for causing serious bodily injury. (5570, 5571, 5656) Expanded to include bicyclists, pedestrians, and scooters with an expanded definition of a pedestrian to include maintenance and utility workers, wheelchairs, and any person permitted by law to be upon the roadway for work or recreation. |