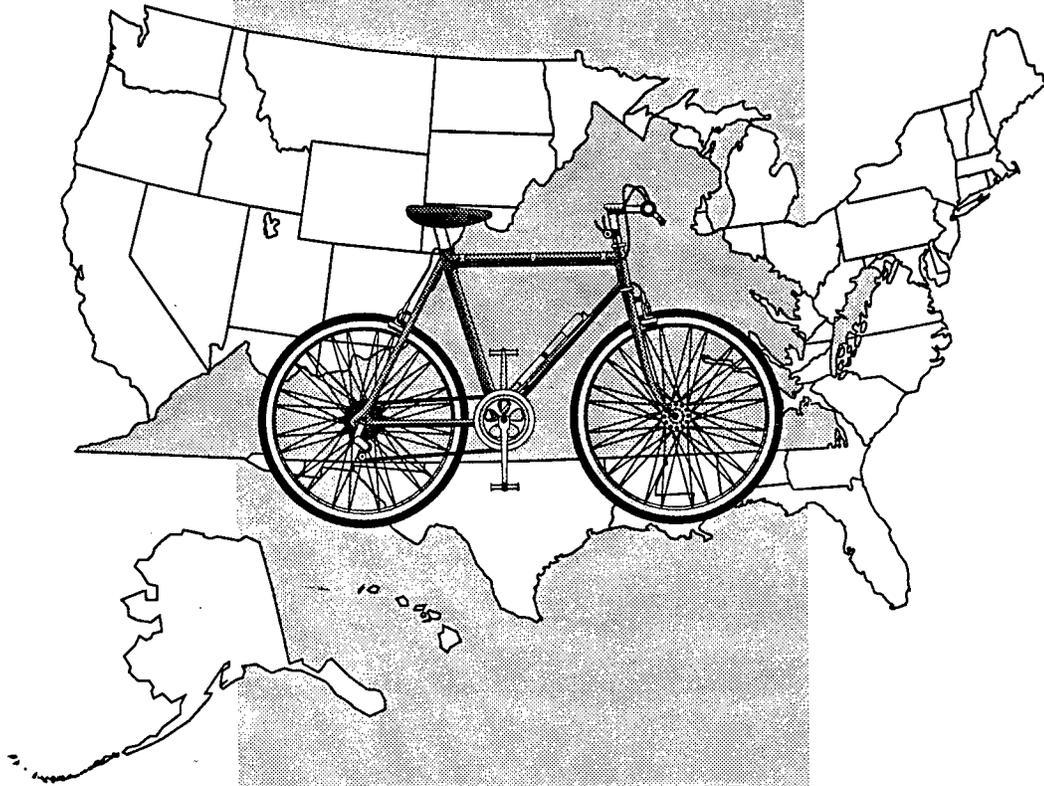


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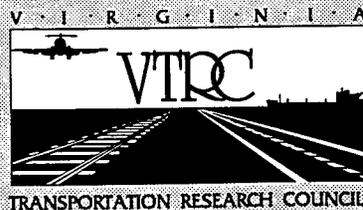


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BICYCLE LAWS: A SURVEY AND COMPARISON OF REGULATIONS IN VIRGINIA AND THE NATION



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<p>Abstract</p> <p>Legal rules are designed to influence behavior and balance competing needs. This report focuses on an area of state regulation that has received minimal recent attention: the laws that govern the operation of bicycles on public streets and their interaction with motor vehicles. The study provides a comparative analysis of the national model Uniform Vehicle Code and the 50 state codes, with special emphasis on the Code of Virginia.</p> <p>The researcher conducted a state-by-state comparison of ten specific legal issues: 1) carriage of passengers (particularly, of children by parents); 2) riding two abreast; 3) lane position; 4) method of giving turn signals; 5) use of bicycle sidepaths; 6) parental responsibility for children's violations; 7) application of traffic laws on paved shoulders; 8) mandatory safety helmet usage; 9) motor vehicle use of bicycle lanes; and 10) reflector requirements. The issues were chosen in part because they have generated significant variance in legal rules throughout the nation. Each state's rule is presented in tabular form in Appendix A of this report. Appendix B presents a sampling of state definitions of the term bicycle.</p>				

FINAL REPORT

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AND THE NATION

Barbara A. Scheib
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(The opinions, findings, and conclusions expressed in this report are those of the author and not necessarily those of the sponsoring agency.)

Virginia Transportation Research Council
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ABSTRACT

Legal rules are designed to influence behavior and balance competing needs. This report focuses on an area of state regulation that has received minimal recent attention: the laws that govern the operation of bicycles on public streets and their interaction with motor vehicles. The study provides a comparative analysis of the national model Uniform Vehicle Code and the 50 state codes, with special emphasis on the Code of Virginia.

The researcher conducted a state-by-state comparison of ten specific legal issues: 1) carriage of passengers (particularly, of children by parents); 2) riding two abreast; 3) lane position; 4) method of giving turn signals; 5) use of bicycle sidepaths; 6) parental responsibility for children's violations; 7) application of traffic laws on paved shoulders; 8) mandatory safety helmet usage; 9) motor vehicle use of bicycle lanes; and 10) reflector requirements. The issues were chosen in part because they have generated significant variance in legal rules throughout the nation. Each state's rule is presented in tabular form in Appendix A of this report. Appendix B presents a sampling of state definitions of the term bicycle.

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INTRODUCTION

In 1954, bicyclists in Virginia attained by statute the same responsibilities imposed on drivers of automobiles, a legal status that has been clarified and expanded in the ensuing years. More than four decades later, the relationship between drivers of cars and cyclists remains, at times, an uneasy one.

The Nationwide Personal Transportation Survey estimated that 1.7 billion bicycling trips were made in 1990.¹ Survey respondents said more than half of those trips were taken for “social or recreational purposes,” and 19.7 percent were made for personal and family business.² Figures for Virginia are not available. Other surveys indicate that people would use bicycles as a means of transportation more frequently if they were confident that they could ride safely in traffic.³ A September 10, 1996, press report blamed safety concerns (both from traffic hazards and kidnapping) for declines in sales of bicycles designed for small children.⁴

When Congress adopted the Intermodal Surface Transportation Efficiency Act in 1991, it directed states and localities to incorporate facilities for bicyclists and pedestrians into their transportation plans. Also in 1991, Congress directed the U.S. Department of Transportation to conduct a broad study of bicycling and pedestrian issues, an undertaking that focused on ways to promote increased reliance on non-motorized forms of transportation. In 1994, the Federal Highway Administration published the National Bicycling and Walking Study, a 24-volume compilation of the research mandated by the 1991 DOT appropriations act.⁵

¹ Federal Highway Administration. (1994). *The National Bicycling and Walking Study: Transportation Choices for a Changing America*. Washington, DC: U.S. Government Printing Office, 10.

² *Id.*

³ Zehnpfennig, G. (1993). *Measures to Overcome Impediments to Bicycling and Walking*. FHWA-PD-93-039. Washington, D.C.

⁴ Templin, N. (1996). The Bicycle Loses Ground as a Symbol of Childhood Liberty; Parents Fret Over Safety Issues, Putting Curbs on Where Their Children May Ride. *The Wall Street Journal*, Sept. 10, p. A1.

⁵ *Id.*

The FHWA study establishes specific goals against which the states are already being judged. Nationwide, the goal is to double the percentage of bicycling and walking trips (from 7.9 percent to 15.8 percent of all trips taken).⁶ No target date is set. Concurrently, the federal government is asking the states to reduce the number of bicyclists and pedestrians killed or injured in traffic accidents by 10 percent.⁷

This report examines only one factor in the safety equation: the laws that govern the operation of bicycles on public streets and their interaction with motor vehicles. The report follows up one section of a 1980 VTRC study that examined the Code of Virginia (COV) and evaluated crash statistics and other safety-related issues.⁸

PURPOSE AND SCOPE

This report was prepared for VDOT's Transportation Planning Division and the State Bicycle Advisory Committee, a panel made up of private citizens and transportation agency representatives. The project's goal was to conduct an in-depth assessment of the Virginia Code in an effort to identify ambiguities or other weaknesses.

Two research methods were employed: a literature search and a comparative analysis of the codes of Virginia and the other 49 states and the national model Uniform Vehicle Code (UVC). The literature review found little up-to-date material comparing laws across states. No comprehensive surveys of the laws of the 50 states appear to have been published for decades. Ten legal issues are compared state-by-state. The issues chosen are those that have generated significant variance in legal rules throughout the nation (including some in which Virginia's choice of rule is distinctly in the minority). This analysis does not attempt to explain the causes of variation—because legislative choices may involve objective factors such as traffic patterns, weather, demographics and geography as well as less easily observed differences in political philosophy.

RESEARCH METHODS

The researcher conducted the following tasks in the course of her research:

1. Literature review of materials relevant to bicycle law. This review, which found relatively little material on the subject, included reports produced by the VTRC, government agencies and legal publishers.
2. Review the bicycle-related statutes in the Code of Virginia (COV). Applicable provisions of the motor vehicle code were identified and additions and amendments since 1980 were noted.

⁶ *Id.* at 2.

⁷ *Id.*

⁸ Stoke, C. B, Shean, O. J. (1980). *Review and Analysis of Virginia Traffic Law Affecting Bicycle Safety* (VHTRC Report No. 81-R16). Charlottesville: Virginia Transportation Research Council.

3. Review of the UVC and codes of the other 49 states. Provisions governing bicycle operation were collected and studied. Significant provisions that do not appear in the COV were noted and set aside for further analysis.
4. State by state comparison of specific codes. The analysis focused on clarity of language, purpose and prevalence of the approach taken.

RESULTS AND DISCUSSION

Bicycle Law Literature Review

The VTRC published a comprehensive study of the state's bicycle crash rates, education efforts and "rules of the road" in 1980, a report that led to significant revisions to the COV the following year.⁹ Stoke and Shean found that numerous provisions of the COV relating to bicyclists were unclear and called for changes designed to make it easier for both motor vehicle operators and bicyclists to understand their rights and responsibilities.

The accepted revisions:

- redefined "bicycle" and "vehicle"¹⁰
- established explicit rules for bicyclists to follow when signaling¹¹ and making left turns¹²
- identified situations in which a bicyclist may leave the right edge of the roadway;¹³
- added a requirement that motorists passing a bicyclist do so "at a safe distance and at reasonable speed."¹⁴

Eighteen of the study's recommendations were adopted by the General Assembly in 1981. Additional revisions have been made to the COV since then. Most notably, these include the enactment of a provision that allows counties, cities and towns to adopt ordinances requiring bicyclists and bicycle passengers 14 years of age or younger to wear safety helmets.¹⁵

Two other primary sources contributed substantially to the analysis and findings in this report: a 1986 book on bicycle law and practice, and a recent federal study that included a

⁹ Stoke, C., Shean, O, *supra* note 4.

¹⁰ *See* Va. Code Ann. § 46.2-100 (Michie 1995)

¹¹ *See Id.* § 46.2-849(c)

¹² *See Id.* § 46.2-847

¹³ *See Id.* § 46.2-905

¹⁴ *See Id.* § 46.2-839

¹⁵ Va. Code Ann. § 46.2-906.1 (Michie 1996)

comparison of state pedestrian and bicycle laws.¹⁶ The latter source relied on a survey of state agencies.¹⁷ The author's literature review found that the last comprehensive analysis of state traffic law (both as it applies to bicycles and other vehicles) was published in 1979.¹⁸

Analysis of the Code of Virginia

The researcher began her analysis by comparing the Code of Virginia provisions governing the operation of bicycles on public streets and highways with relevant sections of the Uniform Vehicle Code and the codes of 49 other states. The state law survey is current as of November 1997. Appendix A provides a state-by-state comparison of ten specific legal rules: 1) carriage of passengers (particularly, of children by parents); 2) riding two abreast; 3) lane position; 4) method of giving turn signals; 5) use of bicycle sidepaths; 6) parental responsibility for children's violations; 7) application of traffic laws on paved shoulders; 8) mandatory safety helmet usage; 9) motor vehicle use of bicycle lanes; and 10) reflector requirements.

The following discussion looks more closely at areas of the Virginia code that differ from comparable provisions in other codes. This inquiry does not assume that different is necessarily better: what works in California, for example, may be unsuitable for Virginia.

Virginia Statutes That Are Unclear or that Differ From Other States

Virginia statutes that lack clarity or depart from the traffic rules adopted in other jurisdictions are analyzed below. Each is shown in its current form, followed by an analysis of its meaning and commentary on how it compares with other states.

§ 46.2-100. Definitions.

"Bicycle" means a device propelled solely by human power, having pedals, two or more wheels, and a seat height of more than twenty-five inches from the ground when adjusted to its maximum height. For purposes of Chapter 8 (§ 46.2-800 et seq.) of this title, a bicycle shall be a vehicle while operated on the highway.

The definition of this term is one of most widely varying features of the vehicle codes reviewed for this study. The differences apparently reflect conflicts in policy judgments concerning at what age children can and should be required to obey traffic laws. Some, like the Virginia definition, are designed to exempt children's bicycles from coverage. Others take the

¹⁶ PAUL F. HILL, BICYCLE LAW AND PRACTICE (1986).

¹⁷ Bowman, B.L., Vecellio, R.L. and Haynes, D. W. (1993). *A Synthesis of Existing Bicyclist and Pedestrian Related Laws and Enforcement Programs*, FHWSA-PD-93-018 Washington, D.C.: Federal Highway Administration.

¹⁸ TRAFFIC LAWS ANNOTATED (1979) (U.S. DOT and NCUTLO).

approach favored by the UVC, which sets no apparent size or age limits. Some states have chosen to regulate tricycles as well as two-wheeled human powered vehicles. A small number do not define bicycle at all. Appendix B contains a comparison of definitions found in 21 of the state codes reviewed for this study.

§ 46.2-839. *Passing bicycle or moped.*

In approaching or passing a person riding a bicycle or moped, the driver of a motor vehicle shall pass at a safe distance and at a reasonable speed.

Few of the state codes reviewed have similar provisions. Exceptions include the states of Minnesota and Wisconsin, which not only require that a safe passing distance be maintained, but also define safe distance as being “in no case less than 3 feet clearance.”¹⁹ These relatively explicit provisions are apparently an attempt to discourage motorists from trying to “squeeze past” bicyclists without crossing the center line,²⁰ or from drawing so close to a bicyclist that it causes a dangerous situation.

§ 46.2-849. *How signals given.*

A. Signals required by § 46.2-848 shall be given by means of the hand and arm or by some mechanical or electrical device approved by the Superintendent, in the manner specified in this section. Whenever the signal is given by means of the hand and arm, the driver shall indicate his intention to start, stop, turn or partly turn by extending the hand and arm beyond the left side of the vehicle in the manner following:

- 1. For left turn or to pull to the left, the arm shall be extended in a horizontal position straight from and level with the shoulder;*
- 2. For right turn or to pull to the right, the arm shall be extended upward;*
- 3. For slowing down or stopping, the arm shall be extended downward.*

B. Wherever the lawful speed is more than 35 miles per hour, such signals shall be given continuously for a distance of at least 100 feet, and in all other cases at least fifty feet, before slowing down, stopping, turning, or partly turning.

C. A person riding a bicycle or moped shall signal his intention to stop, or turn. Such signals, however, need not be given continuously if both hands are needed in the control or operation of the bicycle or moped.

¹⁹ See, e.g., Minn. Stat. § 169.1(3) (1995)

²⁰ Bowman, et. al., *supra* note 17, at 27.

The UVC and 11 other states allow bicyclists to signal right turns by extending their right hands and arms horizontally and to the right side of the bicycle.²¹ No data could be found evaluating the impact of this rule on the safety of bicyclists. A Federal Highway Administration report that reviewed pedestrian and bicyclist traffic law options described rules allowing right-arm signaling of right turns as being “more appropriate and flexible,” however.²²

§ 46.2-905. *Riding bicycles and mopeds on roadways and bicycle paths.*

Any person operating a bicycle or moped on a roadway shall ride as close as practicable to the right curb or edge of the roadway, except under any of the following circumstances:

- 1. When overtaking and passing another vehicle proceeding in the same direction.*
- 2. When preparing for a left turn at an intersection or into a private road or driveway;
and*
- 3. When reasonably necessary to avoid conditions including, but not limited to, fixed or moving objects, parked or moving vehicles, pedestrians, animals, surface hazards, or substandard width lanes that make it unsafe to continue along the right curb or edge...*

Virginia law differs in two significant respects from that contained in the UVC and elsewhere. In the UVC version of this section, bicyclists are required to keep to the right edge of the roadway only when “operating ... at less than the normal speed of traffic.”²³

Thirty-one states either have bicycle position rules modeled after the UVC *or* have no rules. The effect of having no rule is to give bicyclists the same rights to occupy the lane that motor vehicles have. The remaining 18 states (Alabama, Arizona, Connecticut, Georgia, Illinois, Louisiana, Maine, Maryland, Michigan, New Mexico, New York, North Dakota, Ohio, Oklahoma, Rhode Island, South Carolina, Vermont and West Virginia) follow the Virginia rule.

Some commentators suggest that the UVC version is better because it comes closer to describing the way most bicyclists behave. That is, it allows bicyclists to “occupy the lane if the bicycle is maintaining the speed of prevailing traffic or if the lane is too narrow to permit a vehicle and a bicycle to safely occupy it side by side, or if roadside hazards require it; otherwise, [they] must yield to the right to facilitate overtaking.”²⁴

²¹ UVC § 11-606

²² Bowman et. al., *supra* note 17.

²³ UVC § 11-1205 (revised 1979)

²⁴ HILL, BICYCLE LAW AND PRACTICE, at 99.

Virginia's rule (requiring right-hand riding except when necessary to avoid an accident or hazard) has its advantages. Although less flexible than the UVC version, it leaves less room for guesswork or error by bicyclists, motorists and the police.

Finally, Virginia's code does not make it clear what exactly is meant by the phrase "as far to the right as practicable." Virginia courts have said that the rules of the road apply equally to bicyclists who ride on the shoulder as to those who ride on the right-hand edge of the roadway.²⁵ Some state codes expressly allow or encourage bicyclists to use the shoulder when safe and practicable; and two—Colorado and Maryland—require bicyclists to do so when it can be accomplished safely.

§ 46.2-905. *Riding bicycles and mopeds on roadways and bicycle paths. (continued)*

Persons riding bicycles on a highway shall not ride two or more abreast except on paths or parts of highways set aside for the exclusive use of bicycles.

The governing body of any locality may by ordinance provide that wherever a usable path for bicycles has been provided adjacent to a roadway, bicycle riders shall use such path and shall not use the roadway.

The UVC and 36 state codes require that bicyclists ride *no more* than two abreast. The UVC and some of the states that follow its basic rule place limits on the right to ride two abreast, requiring single-file travel, for example, when riding two abreast would impede the "normal and reasonable movement of traffic."²⁶

No research on the subject was identified in the course of preparing this report. In a report prepared for the Federal Highway Administration, however, researchers who examined state vehicle laws noted that concerns have been raised about the safety of riding two abreast.²⁷

The second issue addressed in this section—that of requiring bicyclists to use marked bicycle lanes or dedicated bicycle paths under certain conditions—is controversial. The UVC once contained a provision making use of such pathways mandatory "wherever a safe and easily accessed path...has been provided adjacent to a roadway." That section has been deleted from the model code, following sustained lobbying by bicycle advocacy groups.²⁸

Provisions requiring the use of bicycle lanes or paths are contained in nine of the state codes that were reviewed. In California, bicyclists are required to use adjacent paths only if they are traveling below the normal speed of traffic on the roadway in question.²⁹

²⁵ Laubach v. Howell, 194 Va. 670 (S. Ct. 1953).

²⁶ UVC § 11-1206 (revised, 1975).

²⁷ Bowman, et al., *supra* note 17.

²⁸ *See Id.* at 23.

²⁹ Cal. Veh. Code § 21208 (West 1995)

Virginia, Georgia and Michigan are the only states that give localities the option to require the use of lanes. Two of the state codes that were examined contain provisions requiring bicyclists to use paved shoulders when available in addition to or instead of requiring the use of bicycle paths or lanes.³⁰

Bicyclists who oppose such provisions contend that older bike lanes are too poorly designed and frequently too poorly maintained to allow safe usage.³¹ Under Virginia state law, counties, cities or towns in Virginia may require bicyclists to ride on adjacent paths only if they are “usable.” The code does not define usable, and no Virginia court decisions could be found that have interpreted the term. While conditions of bicycle paths, lanes and paved shoulders are indisputably variable, strong safety arguments exist for separating bicycle and motor vehicle traffic.³² The researcher received a small number of public comments in the course of her study. One suggested that Virginia’s law be broadened to allow all bicyclists to use the roadway only when safe alternatives (such as lanes or paved shoulders) are not available.³³ In contrast, the Virginia Bicycling Federation has indicated that it hopes to see Virginia’s law repealed.³⁴ A 1996 article in the advocacy group’s newsletter aired complaints that the localities that have adopted ordinances have failed to post signs warning bicyclists of the rule. The Federation also has complained about the vagueness of the “usable” standard.

In the absence of consensus about the relative safety tradeoffs that flow from encouraging or forbidding use of the roadway, Virginia’s local option law is arguably an attractive compromise, despite the lack of uniformity in traffic regulation it engenders. Localities that adopt sidepath ordinances should probably be encouraged, or perhaps required, to post signs notifying bicyclists that sidepath rules are in effect.

§ 46.2-906.1. Local ordinances may require bicyclists to wear helmets.

The governing body of any county, city or town may, by ordinance, provide that every person fourteen years of age or younger shall wear a protective helmet that meets the standards promulgated by the American National Standards Institute or the Snell Memorial Foundation whenever riding or being carried on a bicycle on any highway as defined in § 46.2-100, sidewalk, or public bicycle path.

Violation of any such ordinance shall be punishable by a fine of twenty-five dollars. However, such fine shall be suspended (i) for first-time violators and (ii) violators who,

³⁰ See, e.g., Md. Code Ann. Transp. § 21-1205.1(b) (Michie 1992 & Supp. 1995) (requiring that, where there is a “bike lane paved to a smooth surface or a shoulder paved to a smooth surface,” bicyclists use it unless conditions make it unsafe to do so).

³¹ See Bowman et. al., *supra* note 17, at 23.

³² *Id.* at 24.

³³ Letter from Walter S. Ramsden of Virginia Beach, responding to a notice in the Virginia Bicycling Federation newsletter that the VTRC was studying bicycle safety and applicable legal issues (August 1996).

³⁴ Staff (September-October 1996). Virginia’s Sidepath Law. *Virginia Cyclist*, p. 3.

subsequent to the violation but prior to imposition of the fine, purchase helmets of the type required by the ordinance.

Violation of any such ordinance shall not constitute negligence, assumption of risk, be considered in mitigation of damages of whatever nature, be admissible in evidence, or be the subject of comment by counsel in any action for the recovery of damages arising out of the operation of any bicycle, nor shall anything in this section change any existing law, rule, or procedure pertaining to any civil action.

The UVC does not include a helmet law, although the popularity of helmet requirements, particularly for children, is growing. Virginia's law allows localities to decide whether or not to require young riders to wear helmets. Since § 46.2-906.1 was added to the Virginia Code, ten Virginia counties and cities have adopted ordinances requiring them.³⁵

Fourteen states have adopted laws requiring that some bicycle riders wear helmets. Most state codes limit the mandate to riders under the ages of 12 or 14. None require adult bicyclists to wear protective helmets. Virginia is the only state that has adopted a local-option helmet law. The language of Virginia's statute is clear, but the extent of its coverage is not. In jurisdictions that adopt helmet ordinances, the law would apply only to children riding bicycles that meet the statutory definition of that term. For purposes of the vehicle code, a bicycle, as explained above, is a two or more wheeled human-powered vehicle with a maximum seat height of 25 in (63.5 cm) or more. Thus, it appears that children riding bicycles whose seat height is lower would not be required to wear helmets, whether they ride on highways, sidewalks or public bicycle paths. If the Generally Assembly did not intend this result, it should consider either: (1) changing the definition of "bicycle" or (2) adopting clarifying language that would make the local helmet laws applicable to children on smaller bicycles in towns, cities and counties that choose to require them.

§ 46.2-1015. Lights on bicycles and mopeds.

Every bicycle and moped when in use between sunset and sunrise shall be equipped with a white light on the front which shall be visible in clear weather from a distance of at least 500 feet to the front and with a red reflector on the rear. Such reflector shall be of a type approved by the Superintendent and shall be visible in clear weather from fifty feet to 300 feet to the rear when directly in front of lawful high beams of headlights on a motor vehicle. A red light visible in clear weather for 500 feet to the rear may be used in lieu of or in addition to the red reflector. Such lights and reflector shall be of types approved by the Superintendent.

³⁵ According to a survey conducted by VDOT's bicycle and pedestrian program, the town of Blacksburg, the counties of Arlington, Fairfax, Prince William and York, and the cities of Alexandria, Falls Church, Manassas and Virginia Beach have adopted local ordinances requiring helmet use. Recent press reports indicate that Newport News has joined the list. See Associated Press. "Bicycle Helmet Idea Had Merit; New Law Tells Riders to Wear It," *The Virginian-Pilot*, at B5, Sept. 12, 1996.

This provision is similar to two contained in the UVC, but contains a lower visibility standard for rear reflectors than the model law.³⁶ Under the UVC, rear reflectors must be visible “for 600 feet to the rear when directly in front of lawful lower beams of head lamps on a motor vehicle.”³⁷ Seventeen states require side or pedal reflectors as well.

Other States’ Statutes Not in the Code of Virginia

Although there is striking variety among state approaches to bicycle regulation, many of the differences in language and substance do not reflect substantial disagreement over what the rules of the road should be. Some states have adopted much more detailed descriptions of the rules of the road than have others. Some have merely adopted provisions saying bicyclists are subject to motor vehicle laws and left the details to riders, the police and the courts to figure out.³⁸

Virginia’s approach lies somewhere in the middle, as do the majority of state codes. Rather than describe all of the variances between the COV and other state codes, three provisions judged to be significant—that are absent from Virginia law but used elsewhere—are analyzed below. For a more comprehensive state-by-state comparison of seven additional code provisions, see Appendix A.

Passengers

Section 11-1203 of the UVC and 31 state codes contain provisions related to the carriage of passengers on bicyclists. The UVC version forbids the use of a bicycle to “carry more persons at one time than the number for which it is designed,” with the exception that an adult may carry a child if the child passenger is “securely attached ... in a back pack or sling.”³⁹

Some state codes contain more explicit rules. In California, for example, children four years old or younger, or weighing 40 lb. (18.1 kg) or less, may be carried only in a seat that restrains and protects the passenger from the bicycle’s moving parts.⁴⁰ Massachusetts and Maryland have adopted a similar rules barring the practice of carrying children in backpacks but allowing them to ride with adults in bicycle “baby seats.”

Virginia is among the minority of states whose codes say *nothing* about bicycle passengers.⁴¹ Even without an explicit code provision, riding double on a bicycle not designed to

³⁶ UVC §12-703. *See also* § 12-702.

³⁷ § 12-703. *See also, e.g.,* Del. Code Ann. § 4198F; Mass. Gen. L. ch. 85 § 11B(9) (West 1995)

³⁸ *See, e.g.,* the codes of Alaska and Arkansas. For an example of a more detailed state law approach, *see* the California Vehicle Code.

³⁹ UVC § 11-1203. *See also, e.g.,* W.Va. Code § 17C-11-3. (Michie 1991)

⁴⁰ Cal. Veh. Code § 21203(b) (West 1995)

⁴¹ HILL, *supra* note 16, at 104.

accommodate more than one passenger can be used as evidence of imputed negligence in tort suits. But one Virginia court refused to hold a minor plaintiff contributorily negligent for riding as a passenger, rejecting an argument that a code provision prohibiting more riders on a motorcycle than the number for which it is equipped should be applied to bicycles. The court reasoned that the legislature would have mentioned bicyclists in the code if that had been its intent.⁴²

There is no doubt is that the practice of “riding double” can be dangerous. Among the 16 bicyclists killed in crashes in 1995 was an 8-year-old boy who died when the bicycle on whose handlebars he was riding collided with a vehicle in Suffolk.⁴³

Parental Responsibility

UVC § 11-1201(b), added to the model code in 1992, provides that the parent of any child or the guardian of any ward “shall not authorize or knowingly permit any such child or ward to violate any of the provisions of this article.” Thirty-four states have adopted similar provisions, although all of these are not as broad as the UVC version. Oregon’s parental responsibility section, for example, applies only to bicycle safety equipment requirements.⁴⁴ Virginia’s code contains no analogous provision.

Some controversy exists regarding the legal and practical effect of such laws, and it is possible that they play a bigger role in the area of tort liability than they do in traffic law enforcement.

There are reported cases from other states in which parents were held responsible for the actions of their children concerning bicycles.⁴⁵ In jurisdictions that adopt mandatory helmet laws for minors and choose to promote usage by issuing warnings or citations, a parental responsibility provision might be useful. It should be noted that issuing citations to children is thought to be unpopular with both the public and the police.⁴⁶

Use of Bicycle Lanes by Motorists

Seven states have adopted rules expressly governing motor vehicle use of bicycle lanes. Arizona’s law, for example, reserves designated bicycle paths and lanes for the exclusive use of bicycles.⁴⁷ Oregon’s code requires motorist to yield to riders in bicycle lanes, but does not

⁴² Id. See also, *Phillips v. Schools*, 175 S.E.2d 279, 211 (1970).

⁴³ Williams, T. 1995. Fatality Spurs a Call for Change; Suffolk Petition Seeks Added Bike Safety and Tougher Street Restrictions. *The Virginia-Pilot*, September 26, p. B1.

⁴⁴ See Or. Rev. Stat. § 815.280(1)(b) (1990)

⁴⁵ See, e.g., *Moon v. Thompson*, 469 N.E.2d 365 (Ill. App. 1984)

⁴⁶ See Bowman et. al., *supra* note 17, at 18.

⁴⁷ Ariz. Rev. Stat. Ann. § 28-815 (D) (West 1989)

expressly bar motor vehicle use of bicycle lanes.⁴⁸ California has adopted a rule similar to Arizona's.

Virginia's code does not address the subject, but the issue, at least arguably, may be one of lesser concern in the Commonwealth. In Oregon and Arizona, bicyclists are required to use bicycle paths when provided under most conditions. Barring motor vehicles from sharing those lanes seems fair under those circumstances. In Virginia, local jurisdictions have the option under state law of adopting ordinances requiring bicyclists to ride within "usable" paths or lanes where provided.⁴⁹ Although Virginia's Code does not provide a definition of the terms "bicycle path" or "bicycle lane" (as some state codes do), the language of the code section allowing counties and cities to mandate lane usage suggests that bicycle facilities are not considered to be part of the roadway under state law. As such, motor vehicles can probably be cited for driving within a bicycle lane without changing state law.

FINDINGS

Clarity and consistency, both within individual state codes and among state codes, are legitimate and important goals. Uniformity in traffic laws promotes safety by making the law more predictable. Making laws as they relate to bicycles easy to understand and consistent, where appropriate, with national standards is particularly important in Virginia, which promotes itself to tourists as "A Great Place to Bike." For these reasons, this report gives particular emphasis to the model traffic rules contained in the Uniform Vehicle Code, developed and published by the National Committee on Uniform Traffic Laws and Ordinances.

Virginia law is at significant variance with the model code in at least six areas.

1. *Bicycle definition.* Virginia's definition of bicycle excludes two-wheeled vehicles with maximum seat heights of less than 25 in (63.5 cm). The researcher estimates that this definition excludes bicycles typically operated by children under the age of ten. This conclusion was reached after a variety of children's bicycles were measured and bicycle shop personnel were consulted about consumer buying patterns.⁵⁰ Bicycles with wheels that are at least 20 in (50.8 cm) in diameter appear to be covered by the Virginia definition. The UVC, by contrast, defines the term bicycle in such a way as to bring younger riders within the reach of the law's safety equipment requirements and rules of the road. Virginia's definition could have a serious impact on the enforceability of the state's safety helmet law, which allows localities to adopt ordinances requiring bicyclists under the age of 14 to wear helmets meeting state standards. Because of the way the helmet law and bicycle definition sections are written, the ordinances adopted in

⁴⁸ Or. Rev. Stat. § 811.055(1) (1995)

⁴⁹ Va. Code Ann. § 46.2-905

⁵⁰ Charles B. Stoke, who oversaw this effort, visited several bicycle shops, took wheel measurements, and talked with bicycle shop staff.

accordance with the law are not applicable to children riding vehicles that do not meet the Virginia statutory definition of bicycle.

2. *Signaling.* Unlike the UVC and 11 other states, Virginia does not allow bicyclists to signal right turns with their right hand and arm.
3. *Road position.* Unlike the UVC and 30 states, Virginia requires bicyclists to ride near the right edge of the roadway unless they are in the process of overtaking another vehicle, preparing for a left turn or avoiding obstacles. The UVC and the majority of state codes give bicyclists more flexibility, allowing them to occupy the roadway lane as a motor vehicle would unless operating at a speed that is slower than the traffic flow.
4. *Riding two abreast.* Virginia law differs from the UVC and 36 states by requiring bicyclists to ride single file at all times. Although its version differs from the UVC formulation, Virginia's law promotes greater safety.
5. *Use of bicycle paths and lanes.* Virginia law gives localities the right to require bicyclists to occupy "usable" adjacent bicycle paths rather than the roadway. Only two other states take this approach. The UVC and 29 states contain no requirement that bicycle lanes or paths be used under any circumstances.
6. *Passengers.* Virginia law, unlike the UVC and 39 state codes, contains no rules dealing with the carriage of passengers on bicycles. Safety programs stress that riding on handlebars is dangerous. That it is legal despite the danger sends a mixed message, especially in light of the fact that similarly dangerous practices are expressly prohibited by state law (for example, carrying large packages while riding a bicycle or grabbing hold of a motor vehicle to "hitch a ride").

Additional findings include:

- Unlike the UVC and 34 other state codes, the Virginia Code does not include a provision imposing responsibility on parents and/or guardians for the infractions of minor bicyclists.
- In contrast to seven states, the Virginia Code does not clearly bar motor vehicles from traveling in bicycle lanes. Virginia law, like the codes of most states, is silent on the issue, creating legal uncertainty.

ACKNOWLEDGMENT

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APPENDIX A

Statutory Comparison of Selected Legal Issues

Suggested Language in the Uniform Vehicle Code

	Passengers/ May parents carry children?	Is riding two abreast allowed?	Must bicyclists ride to far right of roadway?	May bicyclists signal right turn with right arm?	Is use of bike lanes and paths by cyclists mandatory?	Are parents responsible for knowingly permitting minor's violation?
Uniform Vehicle Code	No bicycle shall be used to carry more persons at one time than the number for which it is designed, except that an adult rider may carry a child securely attached to the adult rider in a back pack or sling.	Persons riding bicycles upon a roadway shall not ride more than two abreast except on paths or parts of the roadway set aside for the exclusive use of bicycles. Persons riding two abreast shall not impede the normal and reasonable movement of traffic and, on a laned roadway, shall ride within a single lane.	Any person operating a bicycle or a moped upon a roadway at less than the normal speed of traffic ... shall ride as close as practicable to the right-hand curb or edge of the roadway with exceptions for passing, making left turns and avoiding hazards. On a one-way highway with two or more marked traffic lanes, bicyclists may ride as near to the left-hand curb as practicable.	Bicyclists may give right turn signals by extending the right hand and arm horizontally and to the right side of the bicycle.	No rule (repealed).	The parent of any child and the guardian of any ward shall not authorize or knowingly permit any such child or ward to violate any of the provisions of this article.

Statutory Provisions of Survey States: Summarized

State	Passengers/ May parents carry children?	Is riding two abreast allowed?	Must bicyclists ride to far right of roadway?	May bicyclists signal right turn with right arm?	Is use of bike lanes and paths by cyclists mandatory?	Are parents responsible for knowingly permitting minor's violations?
Virginia	No rule	Persons riding bicycles on a highway shall not ride two or more abreast except on paths or parts of highways set aside for the exclusive use of bicycles.	Bicycles operating on a roadway shall ride as close as practicable to the right curb or edge of the roadway, unless overtaking and passing, preparing for a left-hand turn or when necessary to avoid a hazard.	All signals must be give with left arm and hand.	Local governments may adopt ordinances requiring that wherever a usable path for bicycles has been provided adjacent to a roadway, bicycle riders shall use such path and shall not use the roadway.	No state law.
Alabama	Yes, if the child weighs less than 40 pounds or is less than 40 inches in height and is seated and bicycle passengers 14 years	age or	er	o	ear safety helmets. Two other primary sources contributed substantially	o the analysis and findings in this report: a 1986 book on bhelmet
Alaska	Yes	No	No	No	No	No
Arizona	No	Yes	Yes	Yes	Yes, where a usable adjacent path is provided	Yes
Arkansas	Yes	No	No	No	No	No

State	Passengers/ May parents carry children?	Is riding two abreast allowed?	Must bicyclists ride to far right of roadway?	May bicyclists signal right turn with right arm?	Is use of bike lanes and paths by cyclists mandatory?	Are parents responsible for knowingly permitting minor's violations?
California	Yes, but children four and younger, or weighing 40 pounds or less, may be carried only in a seat that restrains passenger and protects the passenger from the moving parts of the bicycle.	No	No, unless the bicycle is moving at less than the normal speed of traffic	Yes	Yes, if bicyclist is traveling below normal speed of traffic	No
Colorado	No	Yes, if there is no motor vehicle traffic within a distance of three hundred feet	No, except when being overtaken by another vehicle	No	Use of the shoulder is mandatory if suitable for riding.	No
Connecticut	Yes, if the child is secured in a backpack	Yes	Yes	No	No	Yes
Delaware	Yes, if the child is securely attached to the adult rider in a backpack or sling	Yes, so long as they do not impede the normal and reasonable movement of traffic	No, unless bicyclist is moving at less than the normal speed of traffic. On one-way highways with two or more lanes of traffic, bicyclist may ride to the far left.	Yes	No	Yes

State	Passengers/ May parents carry children?	Is riding two abreast allowed?	Must bicyclists ride to far right of roadway?	May bicyclists signal right turn with right arm?	Is use of bike lanes and paths by cyclists mandatory?	Are parents responsible for knowingly permitting minor's violations?
Florida	Yes, if the child either is securely attached to an adult rider in a backpack or sling or, if the child passenger is less than 4 years of age or weighs less than 40 pounds, and is seated in a child seat secured to the bicycle	Yes, so long as they do not impede traffic when traveling at less than the normal speed under prevailing conditions	No, unless traveling at less than the normal speed of traffic	No	No	Yes
Georgia	Yes, if child is less than one year in age and is properly secured to adult rider	Yes	Yes	No	Generally no, unless a locality adopts an ordinance requiring use of lanes	No
Hawaii	No	No	No, unless traveling at less than the normal speed of traffic	No	Yes	No
Idaho	Yes, if child is securely attached to adult rider in a backpack or sling or in a child carrier attached to the bicycle	No	No, unless traveling at less than the normal speed of traffic	Yes	No	Yes
Illinois	Yes, if child is attached to adult rider in a backpack or sling	Yes	Yes	No	No	Yes

State	Passengers/ May parents carry children?	Is riding two abreast allowed?	Must bicyclists ride to far right of roadway?	May bicyclists signal right turn with right arm?	Is use of bike lanes and paths by cyclists mandatory?	Are parents responsible for knowingly permitting minor's violations?
Indiana	Yes, if riding in a firmly attached and regular seat on the bicycle	Yes	No	No	No	Yes
Iowa	No	Yes	No	No	No	No
Kansas	No	Yes	No, unless traveling below the normal speed of traffic	No	Yes	Yes
Kentucky	Yes	No	No, unless traveling below the normal speed of traffic	Yes	No	No
Louisiana	No	Yes	Yes	No	Yes	No
Maine	No	Yes	Yes	Yes	No	No
Maryland	Yes, if the child is in a separate seat secured to the bicycle	Yes, unless it impedes the flow of traffic	Yes, unless passing, turning left or operating on a one-way street	Yes	Yes, bicyclists must use the paved shoulder or bike lane unless passing, turning left or to avoid hazards	Yes
Massachusetts	Yes, if the child is at least one year old and wears a helmet and is secured in a "baby seat" attached to the bicycle	No, unless passing other vehicles	No	Yes	No	Yes

State	Passengers/ May parents carry children?	Is riding two abreast allowed?	Must bicyclists ride to far right of roadway?	May bicyclists signal right turn with right arm?	Is use of bike lanes and paths by cyclists mandatory?	Are parents responsible for knowingly permitting minor's violations?
Michigan	No	Yes	Yes	Yes	Generally no, unless the rider is less than 16 years of age. Localities may also adopt ordinances requiring riders of all ages to use designated paths	Yes
Minnesota	Yes	No	No	Yes	No	No
Mississippi	Yes	Yes	No, unless traveling below normal traffic speed	No	No	No
Missouri	Yes	Yes	No, unless traveling below the normal speed of traffic	No	No	No
Montana	Yes	No, unless passing, riding on the shoulder, or traveling on a one-way roadway with two or more lanes of traffic in each direction	No, unless riding at less than the normal speed of traffic	Yes	No	No
Nebraska	No	No, unless traveling in a bicycle lane or path	No, unless moving at less than the normal speed of traffic	No	Mandatory when path is adjacent to highway and in usable condition	No

State	Passengers/ May parents carry children?	Is riding two abreast allowed?	Must bicyclists ride to far right of roadway?	May bicyclists signal right turn with right arm?	Is use of bike lanes and paths by cyclists mandatory?	Are parents responsible for knowingly permitting minor's violations?
Nevada	No	Yes	No, unless traveling below the normal speed of traffic	No	No	Yes
New Hampshire	No	Yes	No	No	No	No
New Jersey	No	Yes	No, unless impeding motor vehicle traffic	No	No	No
New Mexico	No	Yes	Yes	No	No	No
New York	No children under age one may be carried as passengers; older children must wear a helmet and be carried in a separate seat attached to the bicycle.	Yes, except when being overtaken by another vehicle	Yes	No	Mandatory under most conditions	Yes
North Carolina	Yes	No	No	No	No	No
North Dakota	No	Yes	Yes	No	Yes	No
Ohio	No	Yes	Yes	No	No	No
Oklahoma	No	Yes	Yes	No	Yes	No

State	Passengers/ May parents carry children?	Is riding two abreast allowed?	Must bicyclists ride to far right of roadway?	May bicyclists signal right turn with right arm?	Is use of bike lanes and paths by cyclists mandatory?	Are parents responsible for knowingly permitting minor's violations?
Oregon	No	No	No, unless operating at less than the normal speed of traffic using the roadway at that time and place	No	Mandatory where adjacent paths are available, provided the state or local authority with jurisdiction over the roadway finds, after a public hearing, that the bicycle lane or bicycle path is suitable for safe bicycle use at reasonable rates of speed.	Yes, if the violation involves safety equipment.
Pennsylvania	Yes, if the child is in a pedalcycle child carrier securely attached to an adult rider	Yes	No, unless operating at slower than prevailing speed	No	Mandatory, unless use of the lane or path is not possible, safe or reasonable	Yes
Rhode Island	Yes	Yes	Yes	No	No	Yes
South Carolina	No	Yes	Yes	No	Yes	No
South Dakota	Yes	Yes	No, unless traveling below the normal speed of traffic	No	No	No
Tennessee	No	Yes, unless they impede the normal and reasonable movement of traffic	No, unless operating at less than the normal speed of traffic	No	No	Yes

State	Passengers/ May parents carry children?	Is riding two abreast allowed?	Must bicyclists ride to far right of roadway?	May bicyclists signal right turn with right arm?	Is use of bike lanes and paths by cyclists mandatory?	Are parents responsible for knowingly permitting minor's violations?
Texas	No	Yes, unless they impede the normal and reasonable flow of traffic	No, unless moving at a slower speed than the other traffic on the roadway; on a one-way roadway with two or more lanes, may ride as near to left as practicable	No	No	Yes
Utah	Yes, if the child is secured in a backpack or sling to an adult rider	Yes	No, unless traveling below the normal speed of traffic	No	Yes	Yes
Vermont	No	Yes	Yes	No	Mandatory, unless municipal officials authorize use of roadway	Yes
Washington	No	Yes	No, unless traveling below the normal speed of traffic	Yes, right signal may be given with either arm	No	Yes
West Virginia	No	Yes	Yes	No	Mandatory	Yes
Wisconsin	No	Yes	No, unless traveling below the normal speed of traffic	No	No	No
Wyoming	Yes, if the child is secured to an adult rider in a backpack or sling	Yes	Yes	No	Yes	No

Suggested Language in the Uniform Vehicle Code

	Do rules of the road apply on shoulders?	Are helmets required?	May motor vehicles use bicycle lanes?	Are side or spoke reflectors required?
Uniform Vehicle Code	Unclear	No	Not addressed.	Every bicycle when in use at night shall be equipped with reflective material of sufficient size and reflectivity to be visible from both sides for 600 feet when directly in front of lawful lower beams of head lamps on a motor vehicle, or, in lieu of such reflective material, with a lighted lamp visible from both sides from a distance of at least 500 feet.

Statutory Provisions of Survey States: Summarized

State	Do rules of the road apply on shoulders?	Are helmets required?	May motor vehicles use bicycle lanes?	Are side or spoke reflectors required?
Virginia	Yes, but other code provisions suggest bicyclists are not allowed to ride on the shoulder.	The governing body of any county, city or town may, by ordinance, provide that every person fourteen years of age or younger shall wear a protective helmet that meets the standards promulgated by the American National Standards Institute or the Snell Memorial Foundation whenever riding or being carried on a bicycle on any highway ... sidewalk or public bicycle path.	Unclear	No
Alabama	Unclear	For all cyclists under 16 years of age	Not addressed	No
Alaska	Yes	No	Not addressed	No
Arizona	Yes (recently clarified, effective Jan. 1, 1997)	No	Barred, except for in emergencies, or to cross the lane to gain access to a road or driveway	No
Arkansas	Yes	No	Not addressed	No
California	Yes	For all cyclists under 18 years of age	Barred, except when needed to enter or leave the roadway, to prepare for a turn, or, where expressly authorized to park.	Yes. Reflectors are also required on pedals.
Colorado	Yes	No	Not addressed	Yes
Connecticut	Unclear	For all cyclists under the age of 12	Not addressed	Yes
Delaware	Yes	For all cyclists under the age of 16	Unclear	No
Florida	Yes	For all cyclists and passengers under the age of 16	Not addressed	Yes
Georgia	Yes	For all cyclists under the age of 16	Not addressed	No

State	Do rules of the road apply on shoulders?	Are helmets required?	May motor vehicles use bicycle lanes?	Are side or spoke reflectors required?
Hawaii	No	No	Barred	Yes
Idaho	Unclear	No	Not addressed	No
Illinois	Yes	No	Not addressed	No
Indiana	Yes	No	Not addressed	No
Iowa	Yes	No	Not addressed	No
Kansas	Yes	No	Not addressed	Yes
Kentucky	Unclear	No	Not addressed	Subject to administrative regulation
Louisiana	Yes	No	Not addressed	No
Maine	Yes	No	Not addressed	Yes
Maryland	Yes	For all bicyclists and passengers under the age of 16	Not addressed	No
Massachusetts	Unclear	For all bicyclists and passengers 12 years of age and under	Not addressed	Yes. Reflectors are also required on pedals or ankles of operator.
Michigan	Unclear	No	Not addressed	Yes. Reflectors are also required on pedals.
Minnesota	Unclear	No	Localities may restrict use by ordinance.	Subject to administrative regulation.
Mississippi	Yes	No	Not addressed	No
Missouri	Yes	No	Not addressed	No
Montana	Yes	No	Not addressed	Yes
Nebraska	Yes	No	Not addressed	Yes
Nevada	Yes	No	Barred	Yes
New Hampshire	Yes	No	Sometimes barred	Yes
New Jersey	Yes	For all cyclists under the age of 14	Not addressed	No
New Mexico	Yes	No	Not addressed	No
New York	Yes	For all cyclists and passengers under the age of 14	Not addressed	Yes
North Carolina	Yes	No	Not addressed	No

State	Do rules of the road apply on shoulders?	Are helmets required?	May motor vehicles use bicycle lanes?	Are side or spoke reflectors required?
North Dakota	Unclear	No	Not addressed	No
Ohio	Yes	No	Barred	Yes
Oklahoma	Yes	No	Not addressed	No
Oregon	Yes	For all cyclists and passengers under the age of 16, unless wearing a helmet conflicts with religious belief or practice	Motor vehicle operator must yield to a bicycle or moped rider on a bicycle lane.	No
Pennsylvania	Yes	For all operators and bicycle passengers under the age of 12	Not addressed	No
Rhode Island	Yes	For all cyclists under the age of 8	Not addressed	Yes
South Carolina	Yes	No	Not addressed	No
South Dakota	Yes	No	Not addressed	No
Tennessee	Yes	For all cyclists and passengers under the age of 12	Not addressed	No
Texas	Unclear	No	Not addressed	No
Utah	Yes	No	Not addressed	Yes
Vermont	Yes, on partially controlled access highways. "It is the policy of the state to provide paved shoulders on major state highways with the intent to develop an integrated bicycle route system."	No	Not addressed	No
Washington	Yes	No	Not addressed	No
West Virginia	No	No	Not addressed	No
Wisconsin	Yes	No	Not addressed	No
Wyoming	Yes	No	Not addressed	No

APPENDIX B

Definitions of the Term “Bicycle” in Selected State Codes

Va. Code Ann. § 46.2-100 (Michie 1996)

“Bicycle” means a device propelled solely by human power, having pedals, two or more wheels, and a seat height of more than twenty-five inches from the ground when adjusted to its maximum height. For purposes of Chapter 8 ... of this title, a bicycle shall be a vehicle while operated on the highway.

Uniform Vehicle Code § 1-105

Bicycle. Every vehicle propelled solely by human power upon which any person may ride, having two tandem wheels and except scooters and similar devices.

Idaho and **Texas** use the same definition as the UVC.

Ala. Code § 32-5A-281 (Michie 1989 & Supp. 1995)

(1) BICYCLE. A human-powered vehicle with two wheels in tandem design to transport by the act of pedaling one or more persons seated on one or more saddle seats on its frame. “Bicycle” includes, but is not limited to, a human powered vehicle designed to transport by the act of pedaling which has more than two wheels when the vehicle is used on a public roadway, public bicycle path, or other public road or right-of-way, but does not include a tricycle.

On Sept. 15, 1995, this wording replaced a definition that was similar to the one used by the Uniform Vehicle Code, but which used wheel diameter to exclude some children’s bicycles.

Ariz. Rev. Stat. Ann. § 28101(3) (West 1989)

“Bicycle” means every device propelled by human power upon which any person may ride, having two tandem wheels either of which is more than sixteen inches in diameter or having three wheels in contact with the ground, any of which is more than sixteen inches in diameter.

Cal. Veh. Code § 39000 (1995)

“Bicycle,” for the purposes of this division, means any device upon which a person may ride, which is propelled by human power through a system of belts, chains or gears having either two or three wheels (one of which is at least 20 inches in diameter) or having a frame size of at least 14 inches, or having four or more wheels.

Colo. Rev. Stat. § 422-1-103(6) (Bradford 1993)

“Bicycle” means every vehicle propelled solely by human power applied to pedals upon which any person may ride having two tandem wheels or two parallel wheels and one forward wheel, all of which are more than 14 inches in diameter.

Del. Code Ann. Tit. 21 § 101 (52) (1995)

“Bicycle” shall mean that certain class of vehicles which are exclusively human-powered by means of foot pedals, which the driver normally rides astride, which have not in excess of three wheels and which may be commonly known as unicycles, bicycles and tricycles.

Fla. Stat. ch. 316.003(20) (1995)

Bicycle. Every vehicle propelled solely by human power and every motorized bicycle propelled by a combination of human power and an electric helper motor rated at not more than 200 watts and capable of propelling the vehicle at a speed of not more than 10 miles per hour on level ground upon which any person may ride, having two tandem wheels, and including any device generally recognized as a bicycle, though equipped with two front or two rear wheels. The term does not include such vehicles with a seat height of not more than 25 inches from the ground, when the seat is adjusted to its highest position or a scooter or similar device.

Montana uses a similar definition.

Ind. Code § 9-13-2-14 Sec. 14 (1995)

“Bicycle” means any foot-propelled vehicle, irrespective of the number of wheels in contact with the ground.

Md. Code Ann., Transp. § 11-104 (1992)

“Bicycle means a vehicle that:

- (1) Is designed to be operated by human power;
- (2) Has two or three wheels, of which one is more than 14 inches in diameter;
- (3) Has a rear drive; and
- (4) Has a wheel configuration as follows:
 - (i) If the vehicle has two wheels, with both wheels in tandem; or
 - (ii) If the vehicle has three wheels, with one front wheel and with two rear wheels that are spaced equidistant from the center of the vehicle.

Minn. Stat. § 168C.01. Subd. 2.

“Bicycle” means every device propelled by human power upon which a person may ride, having two tandem wheels either of which is over 14 inches in diameter, or any device generally recognized as a bicycle though equipped with two front or rear wheels, or a unicycle.

Michigan uses slightly different wording to achieve the same result.

Neb. Rev. Stat. § 60-611 (Michie 1995)

Bicycle shall mean every device propelled solely by human power, upon which any person may ride, and having two tandem wheels either of which is more than 14 inches in diameter.

N.Y. Veh. & Traf. Law § 102 (McKinney 1986)

Bicycle. Every two or three wheeled device upon which a person or persons may ride, propelled by human power through a belt, a chain or gears, with such wheels in tandem or tricycle, except that it shall not include such a device having solid tires and intended for use only on a sidewalk by pre-teenage children.

N.C. Gen. Stat. § 20-171.1 (1993)

Bicycle. — A nonmotorized vehicle with two or three wheels in tandem, a steering handle, one or two saddle seats, and pedals by which the vehicle is propelled.

Or. Rev. Stat. § 801.150 (1995)

“Bicycle” means a vehicle that:

- (1) Is designed to be operated on the ground on wheels;
- (2) Has a seat or saddle for use of the rider;
- (3) Is designed to travel with not more than three wheels in contact with the ground;
- (4) Is propelled exclusively by human power; and
- (5) Has every wheel more than 14 inches in diameter or two tandem wheels either of which is more than 14 inches in diameter.

75 Pa. Cons. Stat. Ann. § 102 (1977 & Supp. 1996)

“Pedalcycle.” A vehicle propelled solely by human-powered pedals. The term does not mean a three-wheeled human-powered pedal-driven vehicle with a main driving wheel 20 inches in diameter or under and primarily designed for children six years of age and younger.
(Amended 1995)

West Virginia and Tennessee use similar definitions, but do not mention age.

