#### Overview

Pedestrian and bicycle fatalities and injuries are a serious problem in the Washington region. More than one quarter of all traffic fatalities in the region are pedestrian or cyclist. Every jurisdiction has a significant pedestrian safety problem. Pedestrian and bicyclist fatalities account for at least 7% of total traffic fatalities in every major jurisdiction.

While all areas and demographic groups are affected, some groups are more affected than others. Urban areas and inner suburban areas are more heavily affected than the outer suburbs, Hispanics and African-Americans more than Whites and Asians.

Adjusted for their high walk and bike mode shares, the urban core jurisdictions are the safest places to walk or bicycle.

This section will describe the scope of the pedestrian and bicycle safety problem, its distribution across the region by jurisdiction and ethnicity, and the legal rights and responsibilities of drivers, pedestrians, and bicyclists. It will also discuss the region's efforts to deal with the problem through the "Street Smart" pedestrian and bicycle safety campaign.

#### **Pedestrian Fatalities in the United States**

Pedestrian safety is a major problem nationally and in the metropolitan Washington region. Of the 33,561 traffic fatalities in the United States in 2012, 4,743, or 14%, were pedestrians.

Pedestrian Fatalities are Increasing

Pedestrian fatalities have been increasing nationally since 2010, while other traffic fatalities have been falling. More pedestrians died in 2012 than in 2008, causing the proportion of pedestrian fatalities to jump from 11% to 14% of the total.

Table 3-1:
Total Fatalities and Pedestrian Fatalities in US Traffic Crashes, 2003-2012

Year	<b>Total Fatalities</b>	Pedestrian	Percent	of
		<b>Fatalities</b>	<b>Fatalities</b>	
2003	42884	4774	11%	
2004	42836	4675	11%	
2005	43510	4892	11%	
2006	42708	4795	11%	
2007	41259	4699	11%	
2008	37423	4414	12%	
2009	33883	4109	12%	

2010	32999	4302	13%
2011	32749	4457	14%
2012	33561	4743	14%

### **Pedestrian Fatalities by Age and Ethnicity in the United States**

American Indians, Blacks, Hispanics, and people over the age of 65 are over-represented among pedestrian fatalities relative to their share of the population.

People over the age of 75 are at high risk; with six percent of the U.S. population, but more than 12 percent of pedestrian fatalities.

Pedestrians over age 75 are at high risk

Adjusted for exposure, pedestrians over the age of 65 have a very high risk of dying, over six times as high as children under age 16. For pedestrians over age 75 the risk is even higher, about eight times the risk for children.

The number of children killed as pedestrians has declined dramatically in recent decades, from more than 1,000 fatalities in 1984 to 319 in 2012. This decline is often attributed to a general drop in physical activity. However,

fatal pedestrian injury remains a leading cause of death for those 15 years and younger.<sup>2</sup>

Figure 3-1: Washington-Arlington-Alexandria Metropolitan Statistical Area

By ethnicity, American Indians have the highest exposure-adjusted risk, followed by African-Americans. Asians have few fatalities relative to their share of the population, and also lower than average exposure-adjusted risk. Ethnic risk varies significantly by State, so jurisdictions should not rely solely on national numbers when planning safety programs.

### **Pedestrian Fatalities in the Washington MSA**

Urban areas have higher pedestrian fatality rates than rural areas. The greater Washington region ranks 24th out of the 51 largest Metropolitan Statistical Areas in terms of pedestrian deaths per capita, with pedestrians accounting for 20% of all

West Virginia
Virginia
Viscyland
977
Columbia

<sup>2</sup> Ibid, p. 20.

3-2

<sup>&</sup>lt;sup>1</sup> Dangerous by Design 2014, Smart Growth America, p. 13.

traffic fatalties. i3

#### **Fatalities in the TPB Member Jurisdictions**

For the TPB member jurisdictions, pedestrians and bicyclists accounted for over a quarter of those killed on the roads in 2013. Over 2,600 pedestrians and bicyclists are injured every year, and 73 are killed. On average, there are 200 motorized fatalities, 68 bicyclist fatalities, and five bicyclist fatalities per year in the Washington region.<sup>4</sup>

Pedestrians and Bicyclists account for 27% of the region's Traffic Fatalities

Chart 3-1 shows the yearly variations in traffic fatalities from 1999-2013. Motorized traffic fatalities have declined sharply since 2006, while pedestrian and bicyclist fatalities have declined only slightly, from 87 to 73. The *proportion* of total fatalities that are pedestrian or bicyclist has risen from 21% to 27%. Chart 3-2 shows pedestrian fatalities only.

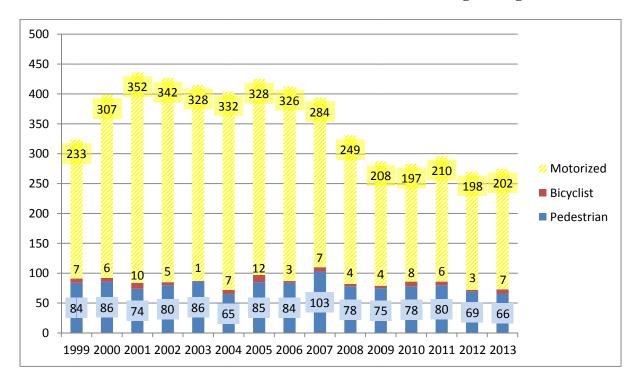


Chart 3-1: Traffic Fatalities in the Washington Region

<sup>3</sup> Dangerous by Design 2014, Smart Growth America, p. 17.

<sup>&</sup>lt;sup>4</sup> Regional totals compiled from data provided by the District Department of Transportation, the Maryland Office of Highway Safety, and the Virginia Department of Motor Vehicles.

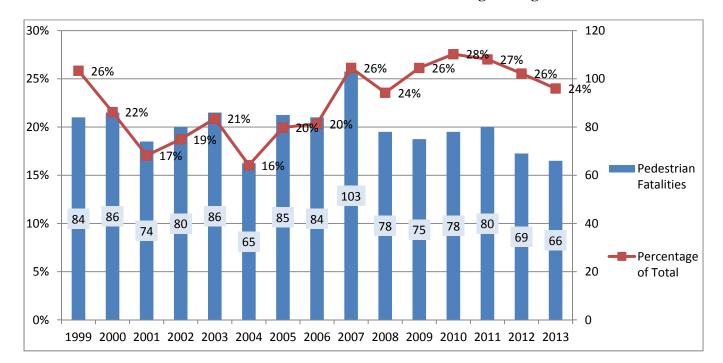


Chart 3-2: Pedestrian Fatalities in the Washington Region

#### Pedestrian and Bicyclist Fatalities by Jurisdiction

The region is often divided into an urban core, consisting of Arlington, Alexandria and the District of Columbia, the inner suburbs of Fairfax, Montgomery, and Prince George's Counties, and the outer suburbs, such as Frederick, Charles, Loudoun, and Prince William Counties. The small cities of Manassas, Manassas Park, the City of Falls Church, and the City of Fairfax are shown as "Other Northern Virginia". <sup>5</sup>

Most of the walking and bicycling occurs in the core, and most of the deaths and injuries occur there as well. Even calculated as a rate per 100,000 population as in Chart 3-3, most of the outer jurisdictions have below-average pedestrian and bicyclist fatality rates.

Charles County is the exception. It has the highest rate of pedestrian and bicyclist fatalities per 100,000 population in the region, and a combined walk and bike mode share that is one of the region's lowest, at 1.4%.

<sup>5</sup> Towns in Northern Virginia are not included in the surrounding Counties; their traffic fatalities are tallied separately.

3-4

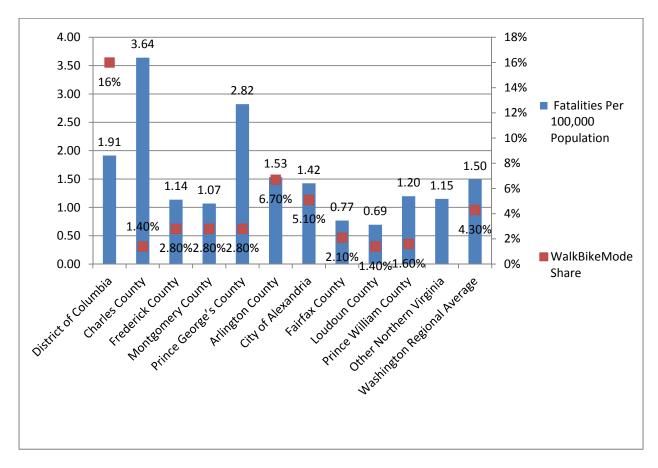


Chart 3-3: Average Annual Pedestrian and Bicyclist Fatalities, 2011-2013

Prince George's County has the second highest fatality rate, with a walk/bike mode share of 2.8%. The District of Columbia has the third-highest fatality rate per population, but also has by far the highest walk/bike mode share in the region, 16%, as well as a high daytime population.

The Virginia jurisdictions all have fatality rates below the regional average. Arlington and Alexandria have average fatality rates but above average walk and bike mode share.

Corrected for exposure, walking and bicycling appear to be safer in the urban core areas with numerous pedestrians than in the inner or outer suburbs. However, some suburban areas appear to be far safer for pedestrians than others.

Table 3-2: Pedestrian and Bicyclist Fatalities by Jurisdiction

Jurisdiction	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Avg
District of Columbia	18	20	15	9	18	14	19	17	27	15	16	16	13	8	14	16
Charles County	6	3	2	5	3	1	6	2	6	1	3	3	9	4	3	4
Frederick County	6	4	0	2	4	2	2	4	1	0	1	3	0	4	4	2
Montgomery County	20	17	11	16	12	15	11	15	17	16	12	15	10	8	14	14
Prince George's County	19	16	30	28	30	19	35	19	29	39	23	23	32	24	18	26
Arlington County	2	5	4	2	3	2	3	1	1	1	4	1	5	4	1	3
City of Alexandria	3	2	2	3	2	1	2	1	2	0	0	2	2	2	2	2
Fairfax County	13	20	18	12	7	16	11	20	17	4	11	13	10	7	8	12
City of Fairfax	0	0	0	1	1	0	1	0	1	0	2	0	1	1	0	1
City of Falls Church	0	1	0	1	0	0	0	0	0	0	0	2	0	0	1	0
Loudoun County	1	1	1	3	3	2	3	1	3	0	1	2	3	3	1	2
City of Manassas	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
City of Manassas Park	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Prince William County	2	3	1	3	4	0	4	7	5	6	6	6	1	7	7	4
Total Washington	91	92	84	85	87	72	97	87	110	82	79	86	86	72	73	86

## **Injuries**

Pedestrian injuries exact a steep toll as well. Of the approximately 3000 persons hit by motor vehicles every year in the region, 90% suffer some sort of injury. Approximately 500 injured pedestrians every year require more than 24 hours of hospitalization, which at an average cost of about \$25,000 leads to more than \$12 million in hospitalization charges alone. This is probably only a fraction of the total financial costs, which would include costs for those hospitalized for less than 24 hours, further medical care, disability, and lost time at work. Many of the people being hit can ill afford such a setback.

Motorized injuries, shown in Chart 3-4, have decreased substantially in the last decade. Unfortunately, pedestrian injuries have declined far more slowly, only 10% from 2001 to 2012, while bicyclist injuries increased, from 695 to 902. The increase in bicycling injuries has been driven largely by the increase in bicycling, and bicycling injuries, in the District of Columbia. Pedestrian and bicyclist trend lines are broken out in Charts 3-5 and 3-7. Bike injuries have been rising sharply since 2010.

While the absolute numbers have remained relatively stable, the proportion of traffic injuries that are pedestrian or bicyclist rose between 2001 and 2012, from 5.5% to 7.6%.

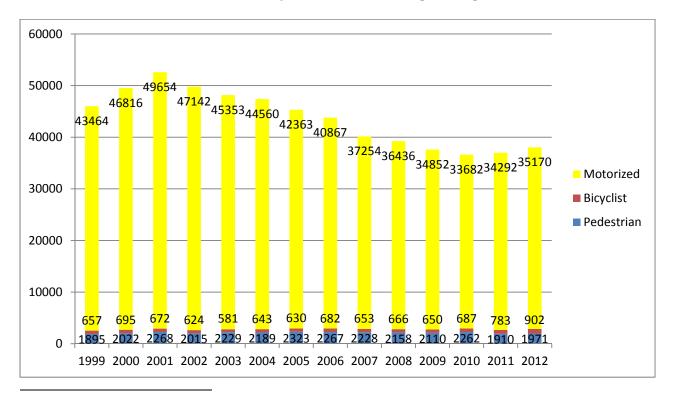


Chart 3-4: Traffic Injuries in the Washington Region, 1999-2012

<sup>&</sup>lt;sup>6</sup> Northern Virginia Injury Prevention Prevention Center, INOVA Regional Trauma Center (2005). *Pedestrian Injury in the Washington, D.C. Metropolitan Region.* Page 37.

Chart 3-5: Pedestrian Injuries in the Washington Region, 1999-2012 4000

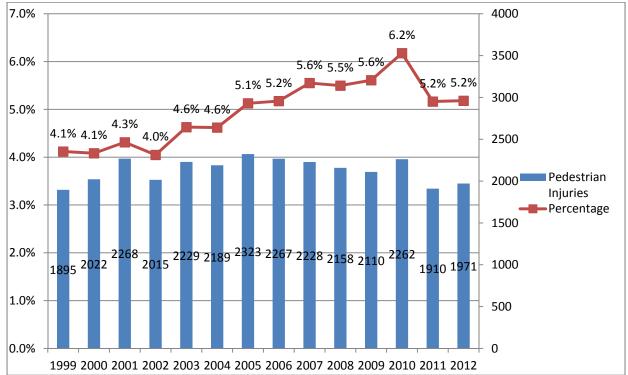
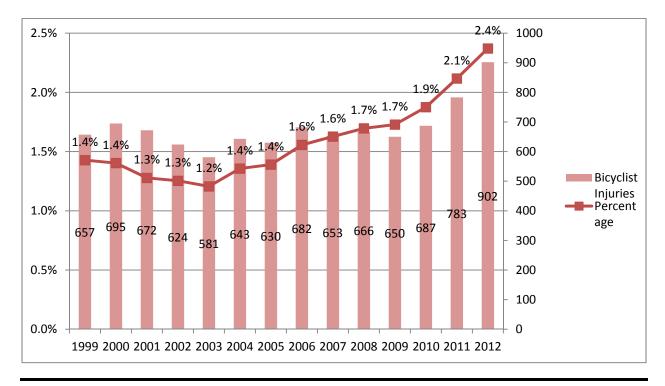


Chart 3-6: Bicyclist Injuries in the Washington Region, 1999-2012



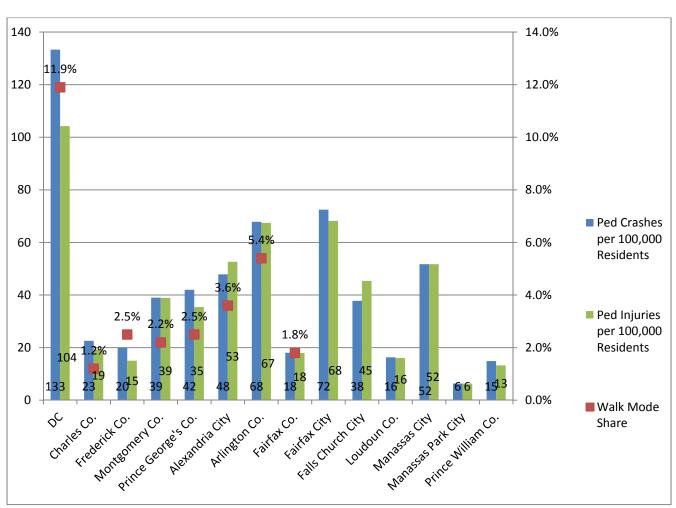
# Pedestrian and Bicycle Injuries by Jurisdiction

As seen in Charts 3-7 and 3-8, pedestrian and bicyclist crashes and injuries per 100,000 population generally track mode share as measured by the US census walk to work numbers. The City of Alexandria has few bicyclist injuries but a high bike mode share.

Bike Injuries are Rising Rapidly

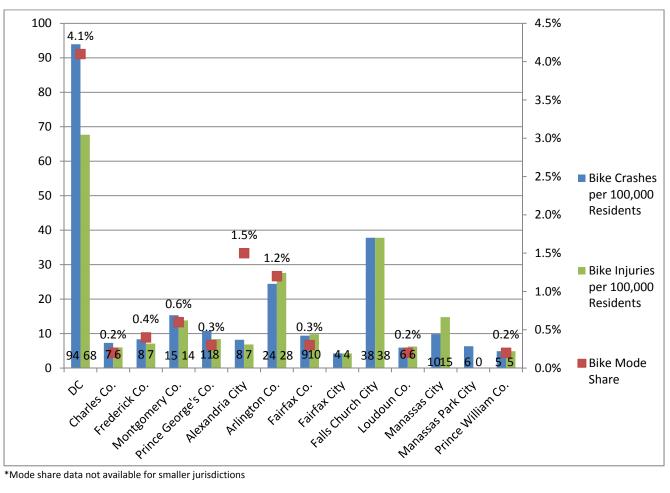
And the District of Columbia has a significant number of pedestrian and bicyclist crashes that do not result in injuries.

Chart 3-7: 2012 Pedestrian Crashes and Injuries per 100,000 Population in the Washington Region\*



<sup>\*</sup>Mode share data not available for smaller jurisdictions

Chart 3-8: 2012 Bicyclist Crashes and Injuries per 100,000 Population in the Washington Region\*



<sup>\*</sup>Mode share data not available for smaller jurisdictions

Table 3-3: Pedestrian and Bicyclist Injuries by Jurisdiction

Jurisdiction	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Avg
District of Columbia	718	851	935	779	844	962	998	953	850	776	833	1074	1122	1283	881
Charles County	31	34	60	35	44	53	57	34	50	43	40	49	37	38	44
Frederick County	61	71	62	72	71	55	55	52	59	67	83	68	40	53	65
Montgomery County	482	499	514	477	539	524	532	560	641	632	618	617	401	530	553
Prince George's County	444	469	517	486	505	456	510	479	540	558	493	457	375	386	493
Arlington County	170	185	180	160	154	167	140	178	151	145	137	151	184	210	160
City of Alexandria	107	78	105	90	81	67	104	81	87	75	47	85	68	87	84
Fairfax County	376	379	372	368	388	373	374	402	361	402	341	270	270	311	367
City of Fairfax	21	20	22	22	30	22	16	25	18	13	15	14	20	17	20
City of Falls Church	11	14	13	13	6	9	9	5	4	10	8	4	5	11	9
Loudoun County	42	36	52	47	52	48	49	52	45	48	40	71	93	75	49
City of Manassas	11	13	22	15	19	21	28	20	17	9	21	22	13	27	18
City of Manassas Park	2	7	8	6	2	3	2	5	3	0	2	0	0	1	3
Prince William County	76	61	78	69	75	72	79	103	55	46	82	67	65	78	72
Total	2552	2717	2940	2639	2810	2832	2953	2949	2881	2824	2760	2949	2693	3107	2817

#### **Conclusions**

- The decline in overall traffic deaths and injuries over the past ten years has slowed.
- Pedestrian fatalities have fallen slightly, but have increased as a percentage of the total.
- Bicyclist injuries have increased both in absolute numbers and as a percentage of total.
   This increase has been driven largely by an increase in bicyclist injuries in the District of Columbia
- Pedestrian and bicyclist death rates vary widely between jurisdictions, and differences which do not correlate well with differences in exposure, as measured by US census walk and bike to work rates.
- Pedestrian and bicyclist injury rates track exposure better than fatalities.

### **Safety in Numbers**

In the Washington region the jurisdictions with the most pedestrians are the safest places to walk. The urban core has good pedestrian facilities and low traffic speeds, and drivers expect to see pedestrians and bicyclists. The pedestrian crash rate tends to fall as the number of pedestrians at a location increases. Doubling the number of pedestrians at an intersection already crowded with pedestrians will usually result in little, if any, increase in pedestrian

Pedestrians find some Safety in Numbers

crashes.<sup>7</sup> Similar effects have been noted for cyclists, with cities having the highest rates of bicycling also having the lowest crash rate per bicycle trip.<sup>8</sup> High levels of walking and bicycling are associated, in advanced industrialized nations, with very low autoinvolved crash rates.<sup>9</sup> The Netherlands has half the overall traffic fatality rate of the United States, despite a very high walk and bike mode share.

Experience of other nations shows that it is possible to reduce pedestrian and bicycle fatalities while increasing walking and bicycling. On the other hand, it is not possible to eliminate pedestrian fatalities by eliminating pedestrian facilities and discouraging walking; even in our least pedestrian-oriented jurisdictions, pedestrian fatalities account for at least 7% of total traffic fatalities. For the foreseeable future there will be people without cars, and there will always be some trips that will be made on foot.

Numbers alone don't guarantee safety, however. The region's most dangerous areas for walking have high-speed roads and poor pedestrian facilities, together with people who

<sup>7</sup> Raford, Noah. *Space Syntax: An Innovative Pedestrian Volume Modeling Tool for Pedestrian Safety*. Presented at the 2004 TRB Conference, January, 2004. (TRB2004-000977) p. 8.

<sup>&</sup>lt;sup>8</sup> Denmark Ministry of Transport (1994) Safety of Cyclists in Urban Areas: Danish Experiences.

<sup>&</sup>lt;sup>9</sup> Pucher, John. "Making Walking and Bicycling Safer: Lessons from Europe," *Transportation Quarterly*, Summer 2000.

lack automobiles. Lower vehicle speeds in the urban core are a likely cause of the lower fatality rates there.

Differences in the pedestrian injury rates between the suburban jurisdictions are much smaller than differences in fatality rates.

The District of Columbia has seen rising bicycle crash rates as its rate of bicycling has increased, though the crash rate has risen more slowly than bicycling, indicating that riding is getting safer.

## **Ethnicity and Hospitalization Rates in the Washington Region**

There are large differences in the rates of hospitalization for pedestrian injury by ethnicity. The rate of hospitalization per 100,000 population for pedestrian injuries for Hispanics is nearly three times as high as that for Whites, and twice that for African-Americans. <sup>10</sup>

Geographically, the highest rates of hospitalization are found in the area east of the Anacostia river in the District of Columbia, most of Prince George's County inside the beltway, the Columbia Pike corridor in Arlington, the area between Fairfax City and Falls Church in Fairfax County, and Dumfries in Prince William County. 11

Hispanics are three times as likely as Whites to be hospitalized for a Pedestrian Injury

#### **Factors contributing to Pedestrian and Bicycle Crashes**

Data from the Washington region indicate that drivers are about as likely as pedestrians to be at fault in a crash. Drivers were cited for a violation in about half the crashes. <sup>12</sup> Males aged 25 to 34 are most likely to hit pedestrians, while pedestrians who are hit are most likely to be males aged 25 to 44. Pedestrian crashes are most likely to occur at the evening rush hour, 5-7 p.m., with 6-9 a.m. the second most likely. <sup>13</sup> Alcohol is a serious problem for both pedestrians and motorists, affecting approximately one third of crashes.

<sup>&</sup>lt;sup>10</sup> Northern Virginia Injury Prevention Prevention Center, INOVA Regional Trauma Center (2005). *Pedestrian Injury in the Washington, D.C. Metropolitan Region.* Page 35.

<sup>&</sup>lt;sup>11</sup> Ibid, pp. 40-42.

<sup>&</sup>lt;sup>12</sup> INOVA study, page 23.

<sup>&</sup>lt;sup>13</sup> Ibid, page 12.

## **Legal Status of Bicyclists**

State traffic codes allow bicyclists to travel on most roadways with the general rights and responsibilities of drivers of vehicles. Bicyclists must ride in the same direction as traffic, use lights after dark, and yield to pedestrians. Like operators of other slow-moving vehicles, cyclists--when traveling at less than the normal speed of other traffic--should generally ride as far to the right as safely practicable, except when preparing to turn left, passing, avoiding obstructions, mandatory turn lanes or unsafe pavement conditions, or when the travel lane is not wide enough to safely split with a motor vehicle. Cyclists may use the full travel lane if the lane is too narrow to allow them to ride to the right of motor vehicles safely. Cyclists may usually ride on roadway shoulders, paths and sidewalks, except where prohibited. Cyclists have the rights and duties of pedestrians when traveling on paths, sidewalks, and crosswalks, however, they must yield to pedestrians in those locations. Rules relating to bicycles are summarized on page E-4 of the Metropolitan Washington Council of Governments' *Bike to Work Guide*, on the Washington Area Bicyclist Association web site, and in Table 3-1 below. Laws for motorist, pedestrians and bicyclists are also listed on http://bestreetsmart.net.

Table 3-4: Selected Bicycle Rules in the Washington Area<sup>15</sup>

	District of Columbia	Maryland	Virginia
General	Bicyclists traveling on roadway	ys have all the general rights and	duties of drivers of vehicles.
	Ride with the flow of traffic on the right half of the roadway.	Ride with the flow of traffic as far right as practicable and safe.	Ride as close as safely practicable to the right curb or edge of the roadway.
Where to Ride & Lane Use	Operate a bicycle in a safe and non-hazardous manner so as not to endanger himself or herself or any other person.	Riding to the right not required when traveling at the speed of traffic, operating on a one-way street, passing, preparing for a left turn, avoiding hazards, avoiding a mandatory turn lane or traveling in a lane too narrow to share.	Full lane use allowed when traveling at the normal speed of traffic, passing, preparing for a turn, avoiding hazards, traveling in a lane too narrow to share and avoiding a mandatory turn lane.
Passing Cars	Allowed to pass on left or	Exercise due care when	Same as DC.

<sup>&</sup>lt;sup>14</sup> See www.commuterconnections.org

<sup>&</sup>lt;sup>15</sup> See <a href="http://www.waba.org/resources/laws.php">http://www.waba.org/resources/laws.php</a>

	right, in the same lane or changing lanes, or pass off road.	passing.					
Cars passing bikes	A person driving a motor vehicle shall exercise due care by leaving a safe distance, but in no case less than 3 feet, when overtaking and passing a bicycle.	The driver of a vehicle overtaking another vehicle, including a bicycle, which is going in the same direction, shall pass to the left of the overtaken vehicle at a safe distanceDrive must not pass any closer than three feet from the bicycle.	Motorists must "pass at a reasonable speed at least two feet to the left of the overtaken bicycle".				
Dooring	No person shall open any door of a vehicle unless it is safe to do so and can be done without interfering with moving traffic.	Same as DC.	Not mentioned.				
Bicycling Two Abreast	Allowed when it does	Allowed when it does not impede traffic. May not ride more than two abreast.					
Mandatory Use of Bike Lanes	Not required.	Use of bike lanes required where available except when passing, preparing for a turn or avoiding hazards.	Not required.				
		Yield right of way to pedestrians.					
Cycling on Sidewalks	Prohibited in the central business district (bounded by Massachusetts Ave. NW, 2nd St NE-SE, D St SE/SW, 14th St NW, Constitution Ave and 23rd St NW). Allowed where posted in this area, and prohibited where posted outside this area.  View Map>>	Allowed by local ordinance in unincorporated MoCo, Rockville, Takoma Park, designated sections in PG Co, other towns; prohibited in Gaithersburg, Kensington, Poolesville, Laytonsville, Washington Grove, most of PG Co. When riding on a sidewalk, where such riding is permitted, or a bike path, a bicyclist may ride in a	Allowed except where prohibited by local ordinance, such as Alexandria.  Must give audible signal before passing pedestrian.				

		crosswalk to continue on their route. Motorists are required to yield right of way to a bicyclist operating lawfully in a crosswalk at a signalized intersection.	
Audible Warning Devices	Bell or other device required, sirens prohibited.	Bells allowed, sirens and whistles prohibited.	Must give audible signal before passing pedestrians.
Helmets	Required for any operator or passenger under 16 years of age.	Same as DC.	Required by local ordinance for any operator or passenger 14 years of age or younger inAlexandria, Arlington Co., Fairfax Co. Falls Church, Vienna and other jurisdictions.
Lights at Night	Front white light and rear red reflector (or rear red light) required when dark, may be attached to operator.	Front white light and rear red reflector (or rear red light) required when dark.	Front white light and rear red reflector required when dark; extra rear red light allowed-required on roads 35 mph and up, may be attached to operator
Motorist - Dooring	No person shall open a door of a vehicle on the side where traffic is approaching unless it can be done without interfering with moving traffic or pedestrians and with safety to himself or herself and passengers.	A person may not open the door of any motor vehicle with intent to strike, injure, or interfere with any person riding a bicycle, an EPAMD, or a motor scooter. Don't open door into traffic.	

# **Legal Status of Pedestrians**

Pedestrians are not vehicle operators and are not subject to the same rules. Persons on rollerblades, skateboards, etc. operating on the street are considered pedestrians, but bicyclists are not. Motorists must yield to pedestrians when making turns across adjacent crosswalks. "Jaywalking" is legal in most locations, but pedestrians must yield to motorists if they are crossing at a location other than a crosswalk. Pedestrians may not cross at mid-block if they are between two signal-controlled intersections; they must use the crosswalk. The rules in each state regarding pedestrians are summarized below.

Table 3-2: Pedestrian Traffic Law—Motor Vehicles Drivers

	DISTRICT OF COLUMBIA	MARYLAND	VIRGINIA <sup>16</sup>
Crosswalk Definition	Same as Maryland	Any intersection of two roadways is a legal crosswalk, whether marked or not. Pedestrians have the same rights in marked crosswalks as in unmarked crosswalks	Same as Maryland
Blocking a Crosswalk	Pedestrians have the right of way in the sidewalk. Parking on the sidewalk prohibited.	A motorist may not park or stop in a crosswalk	Same as Maryland
Sidewalk	Pedestrians have the right of way in the sidewalk	Pedestrians have the right of way in the sidewalk	Pedestrians have the right of way in the sidewalk.
Right Turn on Red	Allowed, after coming to a complete stop and yielding right-of-way to pedestrians and other vehicles	When turning right on red after stopping, drivers shall yield the right of way to pedestrians lawfully within the crosswalk	Same as Maryland
Turn on Green	A pedestrian who has begun crossing on the walk signal shall be given the right-of-way by the driver of any vehicle to continue to the opposite sidewalk or safety island, whichever is nearest.	Vehicles turning either right or left on a green light must yield to pedestrians in the adjacent crosswalk	Same as Maryland

 $<sup>\</sup>underline{\text{http://www.virginiadot.org/programs/bk-default.asp}}$ 

1,

<sup>,</sup> www.bikewalkvirginia.org

Red Light	A driver of any vehicle shall STOP and give right-of-way to a pedestrian who has begun crossing on the "Walk" signal to continue to the opposite sidewalk or safety island, whichever is nearest.	Motorist should stop before the crosswalk, or if no crosswalk is striped, before the intersection	Same as Maryland
Stop-Controlled or Uncontrolled Intersection	The driver of a vehicle shall STOP and give right-of-way to a pedestrian crossing the roadway within any marked crosswalk or unmarked crosswalk at an intersection.	Motorist must stop for any pedestrian in the same half of the roadway as the motorist, or who is approaching from the adjacent lane in the other half of the roadway. No motorist may pass another vehicle which has stopped for a pedestrian	The drivers of vehicles entering, crossing, or turning at intersections shall change their course, slow down, or <i>stop if necessary</i> to permit pedestrians to cross such intersections safely. Pedestrians have the right of way unless the speed limit is more than 35 mph, in which case the motorist has the right of way.
Overtaking at a crosswalk	Whenever any vehicle is stopped at a marked crosswalk or at an unmarked crosswalk at any intersection to permit a pedestrian to cross the roadway, the driver of any vehicle approaching from the rear shall not overtake and pass the stopped vehicle.		

Table 3-3: Pedestrian Traffic Law—Pedestrians

	DISTRICT OF COLUMBIA	MARYLAND	VIRGINIA
Green light	A pedestrian facing a green light (other than a turn arrow) may cross the roadway, within a marked or an unmarked crosswalk	A pedestrian facing a green light (other than a turn arrow) may cross the roadway, within a marked or an unmarked crosswalk	Same as Maryland
Red light	Pedestrians shall not enter the roadway on a steady red light.	Pedestrians shall not enter the roadway on a steady red light	Same as Maryland
Pedestrian Control Signal	Pedestrians shall not enter the roadway when there is a flashing "Don't Walk" or "Wait" indicator	Pedestrians shall not enter the roadway when there is a flashing "Don't Walk" or "Wait" indicator	Same as Maryland
Stop-controlled or uncontrolled	Essentially the same as Maryland, but with a specific	Pedestrians may cross the roadway within a marked or	Same as Maryland, except the pedestrian must yield to motor

			1.1.00
intersection	prohibition on walking suddenly into the path of a vehicle:  (a) No pedestrian shall suddenly leave a curb, safety platform, safety zone, loading platform or other designated place of safety and walk or turn into the path of a vehicle which is so close that it is impossible for the driver to yield.	unmarked crosswalk	vehicle traffic if the speed limit is 35 mph or more. Pedestrians may not disregard approaching traffic when entering or crossing an intersection.
Crossing at Other Than Crosswalks	Between adjacent intersections controlled by traffic control signal devices or by police officers, pedestrians shall not cross the roadway at any place except in a crosswalk.  Each person crossing the 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.	(a) If a pedestrian crosses a roadway at any point other than in a marked crosswalk or in an unmarked crosswalk at an inter section, the pedestrian shall yield the right-of-way to any vehicle. (b) If a pedestrian crosses a roadway at a point where a pedestrian tunnel or overhead pedestrian crossing is provided, the pedestrian shall yield right of way to any vehicle. (c) Between adjacent intersections at which a traffic control signal is in operation, a pedestrian may cross a roadway only in a marked crosswalk. (d) A pedestrian may not cross a roadway intersection diagonally.	"Where intersections contain no marked crosswalks, pedestrians shall not be guilty of negligence as a matter of law for crossing at any such intersection or between intersections when crossing by the most direct route."  Pedestrians may not enter the roadway at any point where drivers view of them is blocked by a parked vehicle or other obstruction.
Pedestrians on Roadways	Where sidewalks are provided, it shall be unlawful for any pedestrian to walk along and upon an adjacent roadway.	<ul> <li>(a) A pedestrian may not walk on a roadway where sidewalks are provided.</li> <li>(b) Where no sidewalk is provided, a pedestrian may walk only on the left side of the roadway, facing traffic.</li> </ul>	Same as Maryland.

### Pedestrian and Bicyclist Education and Enforcement: The "Street Smart" Campaign

Pedestrian and bicycle safety efforts generally fall into three broad categories of actions,

Figure 3-2: Street Smart Annual

Report

the three E's: Engineering, Education, and Enforcement.

Engineering deals with the design of safer roads, streets, and



pedestrian and bicycle facilities. Education includes both classroombased training and behavioral modification campaigns. Enforcement consists enforcement of the traffic laws with pedestrians respect bicyclists. The regional pedestrian and bicycle safety campaign, Street Smart, deals primarily with education through mass media.

Street Smart was created in 2002 by the region's governments response to an ongoing regional pedestrian and bicycle problem. Since the region is a single media market, a unified regional campaign is the most costeffective approach. The program is supported by federal funds made available through state governments, from WMATA, and is administered by the National Transportation Capital Region Planning Board.

The Street Smart campaign is a twice-yearly, month-long blitz of radio, transit, gas station, and internet advertising, supported by public relations activities and by concurrent law enforcement. The goal of the campaign is to change driver and pedestrian behavior in order to reduce deaths and injuries. Motorists are urged to "Slow Down and Watch for Pedestrian", bicyclists to "Obey Signs and Signals", pedestrians to "Use Crosswalks. Wait for the Walk Signal" and transit riders to "Don't Run for the Bus". All materials, including radio spots, are translated into Spanish. Since 2007 campaigns have been held twice per year, in the fall and in the spring. Campaign materials can be found on the web site, <a href="http://bestreetsmart.net">http://bestreetsmart.net</a>.

Figure 13-3: Fall 2013 Press Event



Efforts to enforce pedestrian laws are also stepped up in conjunction with the "Street Smart" pedestrian and bicycle safety campaign. Law enforcement has helped reinforce the campaign message, just as it has been used effectively as part of anti-drunk driving and seatbelt advertising campaigns. Public awareness of these heightened enforcement activities has been a key aspect of this campaign. Research shows that fear of fines and legal consequences is more effective at changing behavior than fear of death or injury. Also the TV and press media often covers enforcement stings, increasing the public's perception that they are likely to be ticketed for breaking the law.

The Street Smart campaign sponsors annual seminars on best practices in pedestrian enforcement for law enforcement officers. Participating agencies report the number of warnings and citations issued.

#### **Evaluation**

Pre and post-campaign surveys show that the public is hearing and remembering the Street Smart messages. 50% of pedestrians and 27% of

drivers were aware of at least once of the campaign messages. High pedestrian awareness is likely due to the large amount of free PSA placement on transit properties which the campaign received. Overall PSA value was nearly twice the paid media budget.

#### Outlook

Pedestrian and bicycle safety has drawn increasing attention in the Washington region and at all levels of government. To build walkable communities, walking and bicycling need to be made safer. Improved occupant protection and vehicle design have saved the lives of many motorists, but we have not made comparable progress for people outside motor vehicles. As the population of car-less immigrants and poor people grows in suburban areas that were designed for driving, pedestrian and bicyclist safety will remain a challenge.

Bicycling mode share has increased sharply in the last four years, most notably in the District of Columbia, and that increase has been associated with increased numbers of injuries.

The Street Smart campaign is yielding positive results, but it is meant to complement, not replace, local three "E" safety efforts. States, cities, and counties need to continue engineering and building safer streets, enforcing the pedestrian safety laws, and educating motorists and pedestrians. We know that the streets can be made safe for pedestrians and bicyclists, because some of our jurisdictions have already done it. Agencies that make pedestrian safety a priority are getting results, while those that do not, are not.

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