

REGIONAL TRANSPORTATION SAFETY PICTURE

Jon Schermann
TPB Transportation Planner

Bicycle and Pedestrian Subcommittee
March 20, 2018

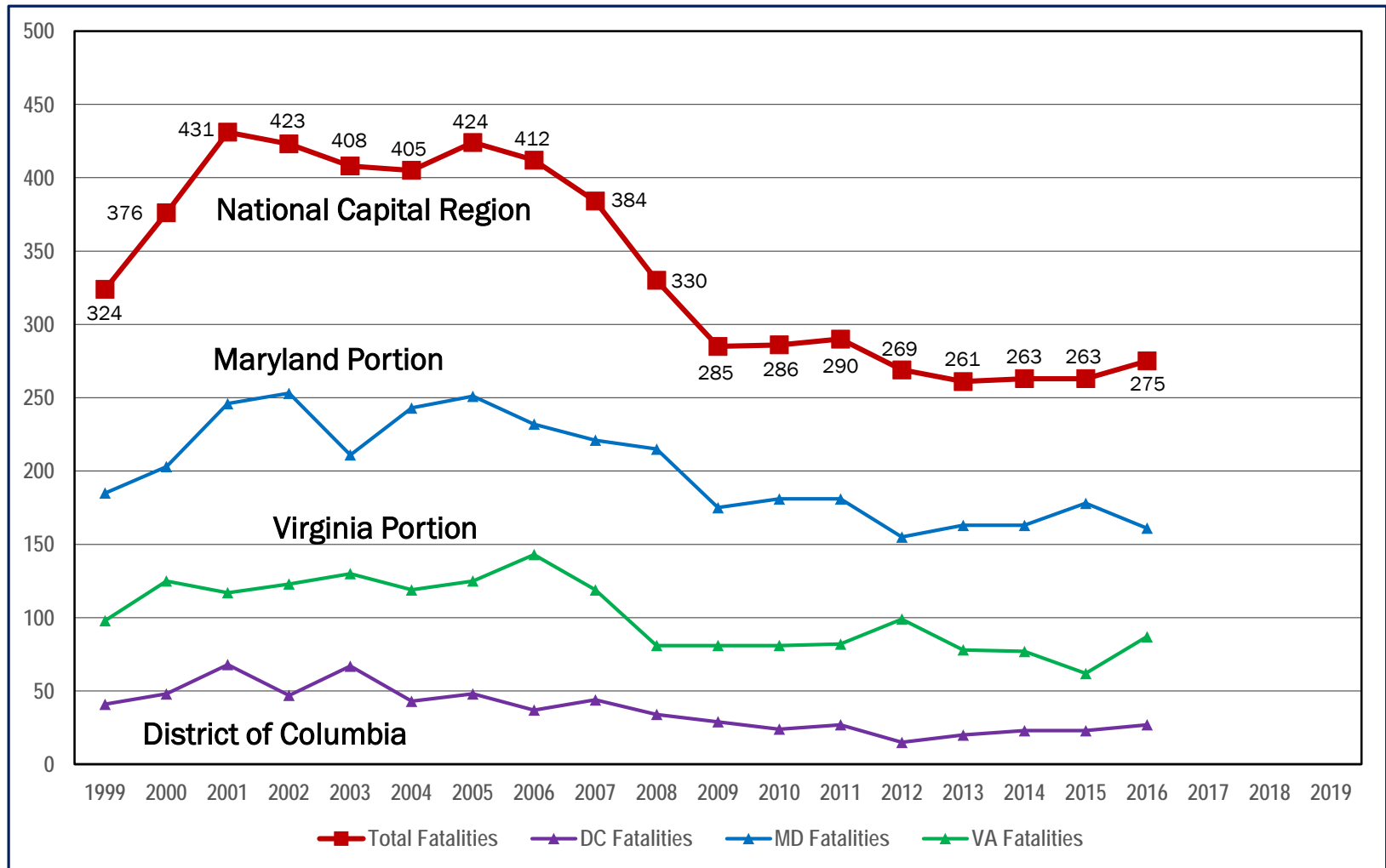


Presentation Items

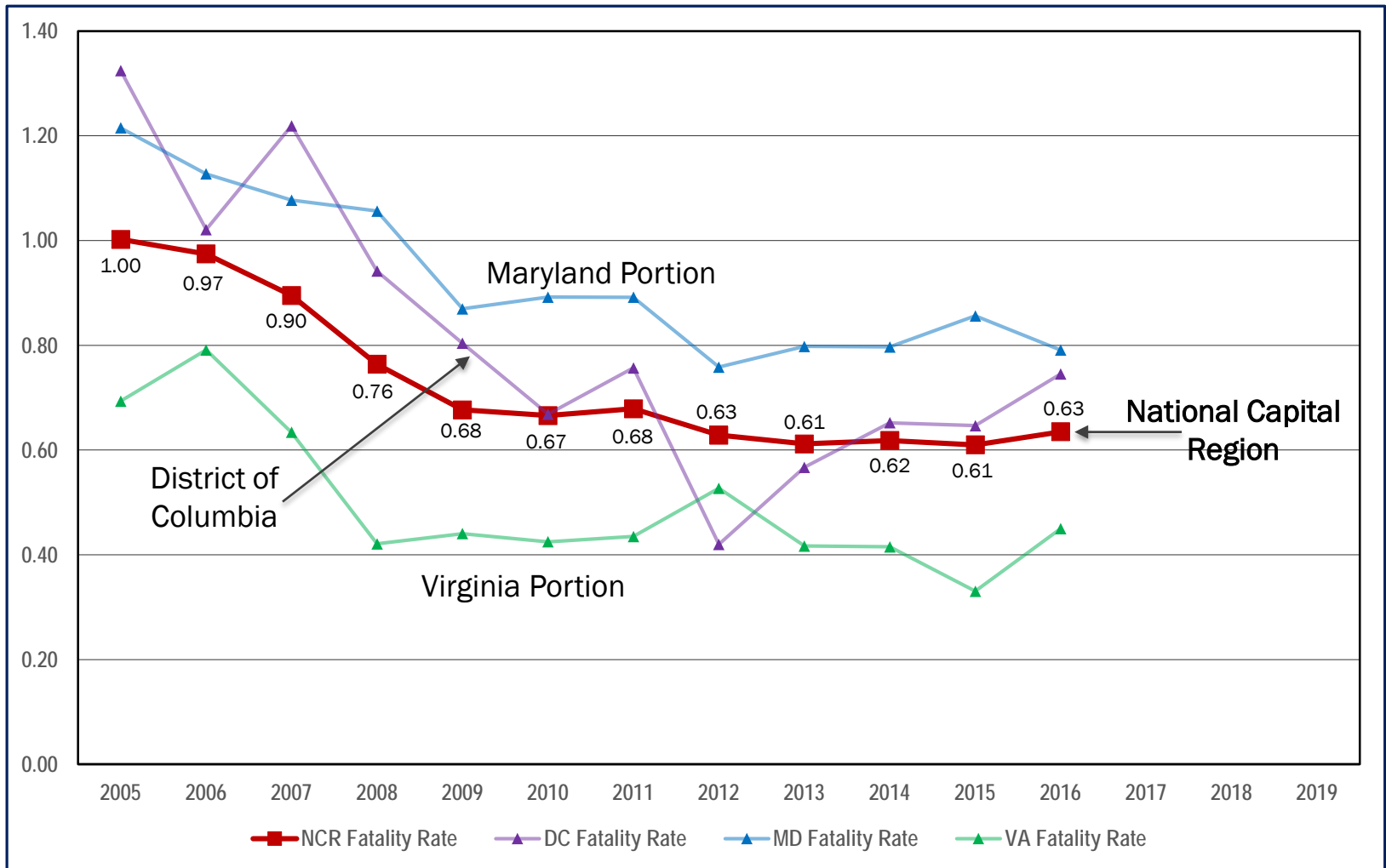
- Review of regional safety data
 - Fatalities and Serious Injuries
 - Focus on Bicyclists and Pedestrians
- Next Steps



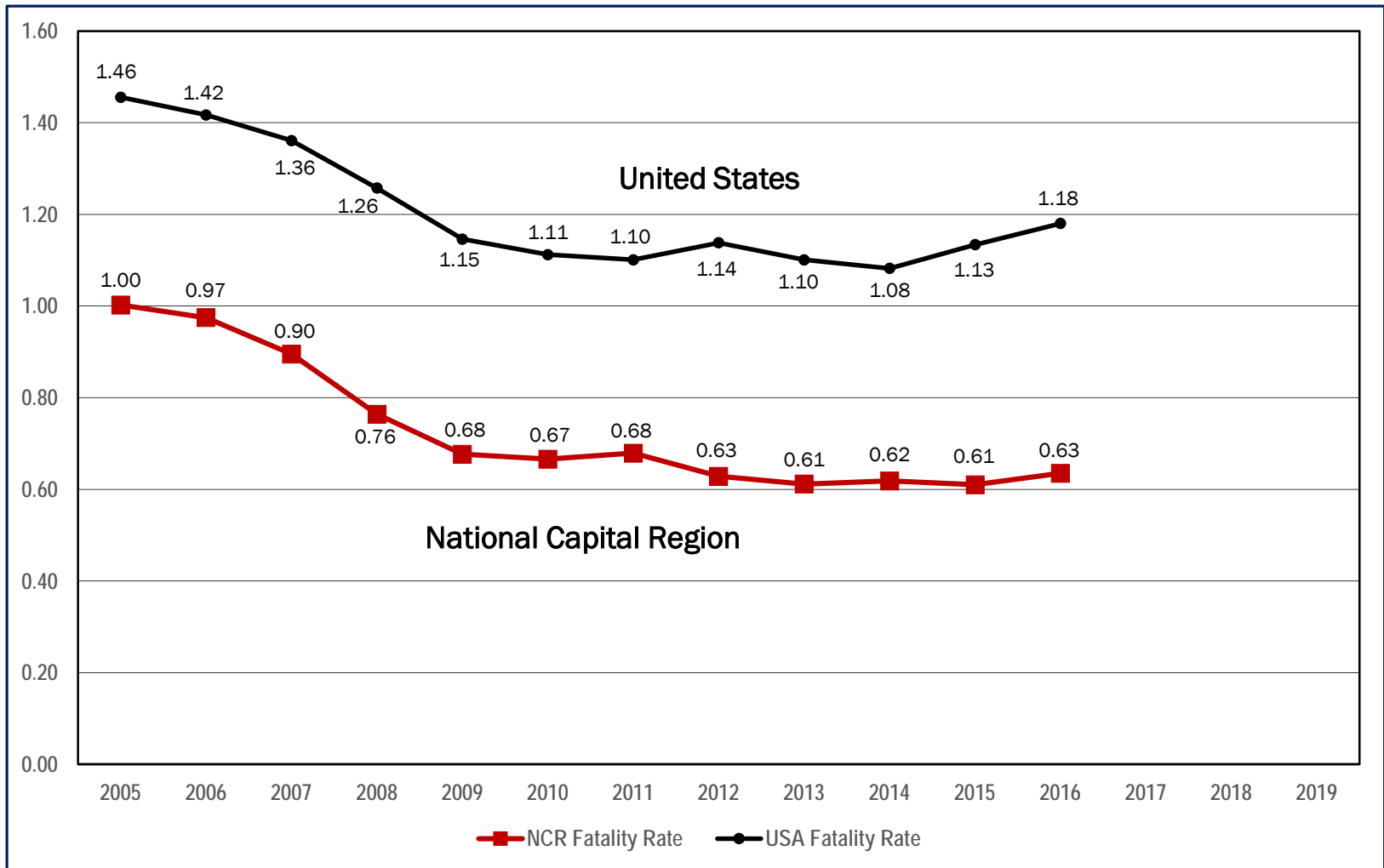
NCR Fatalities



NCR Fatalities per 100 million VMT



Fatality Rate (per 100 MVMT)- Comparison to US

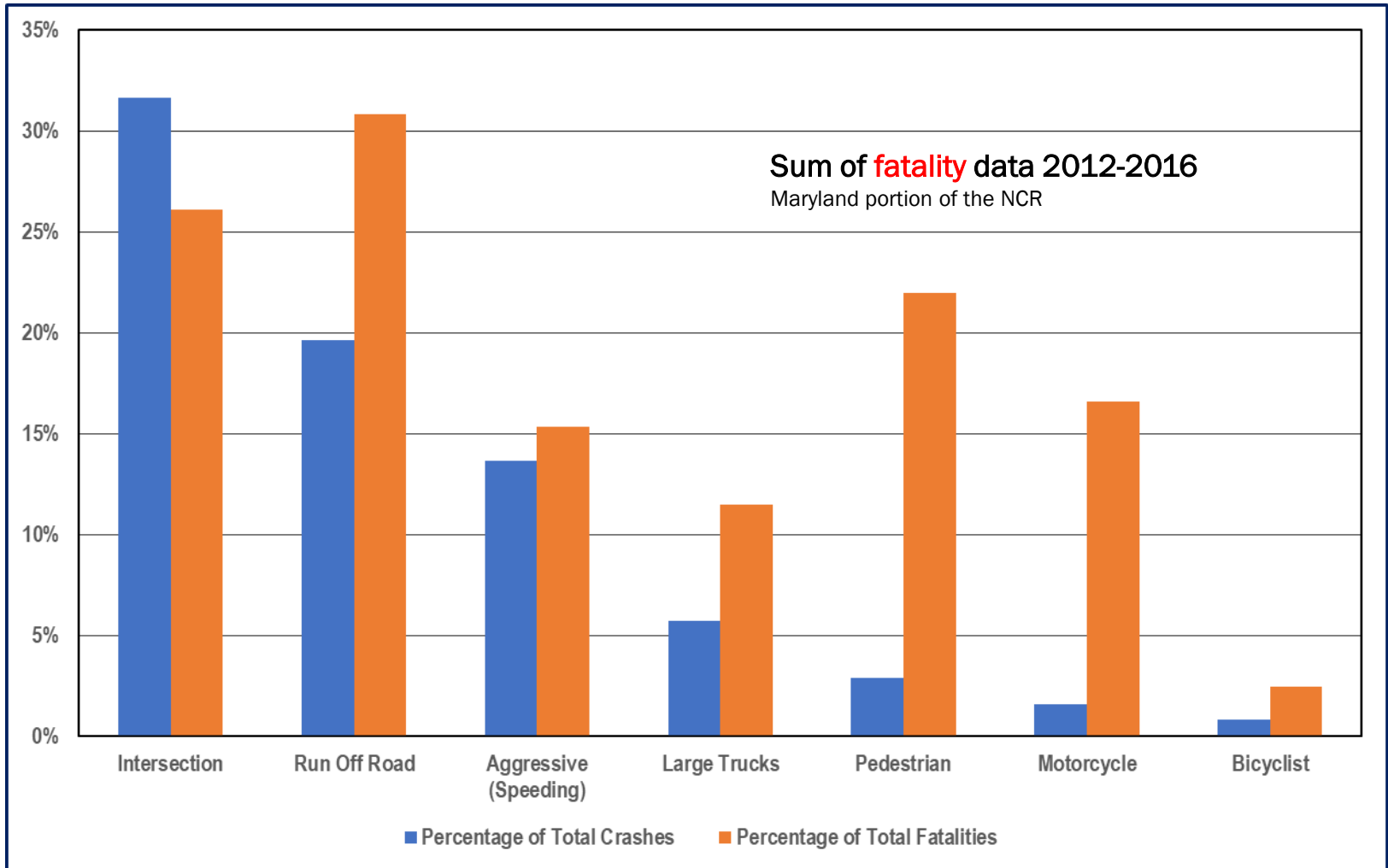


Review of Regional Safety Data (Part 1)

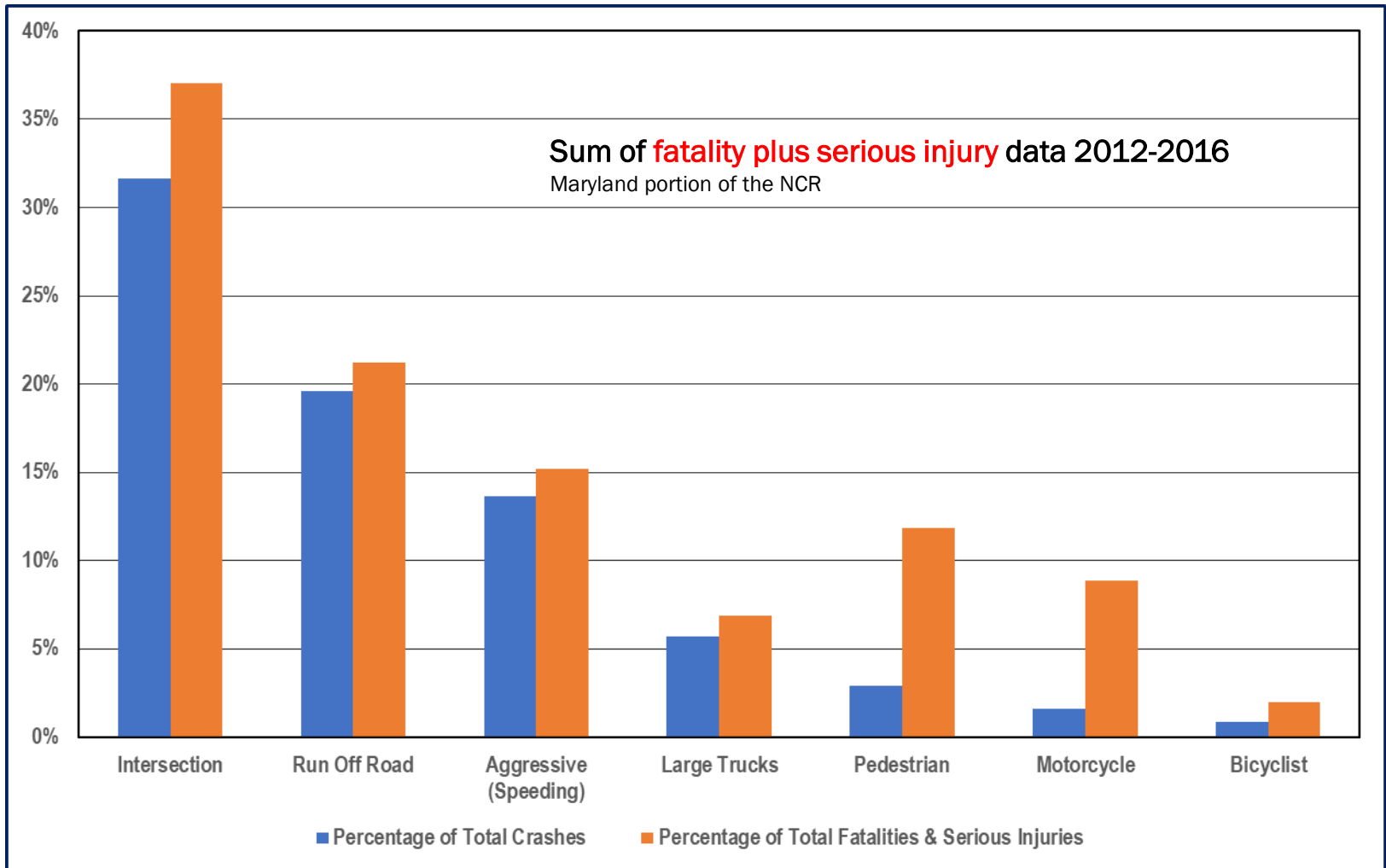
- Deeper look – beyond top line numbers
- Contributing factors
 - ✓ Intersections
 - Roadway departures
 - Young drivers
 - Older drivers
 - ✓ Speeding
 - Impaired
 - ✓ Large trucks
 - Unrestrained
 - ✓ Motorcyclists
 - ✓ Pedestrians
 - ✓ Bicyclists



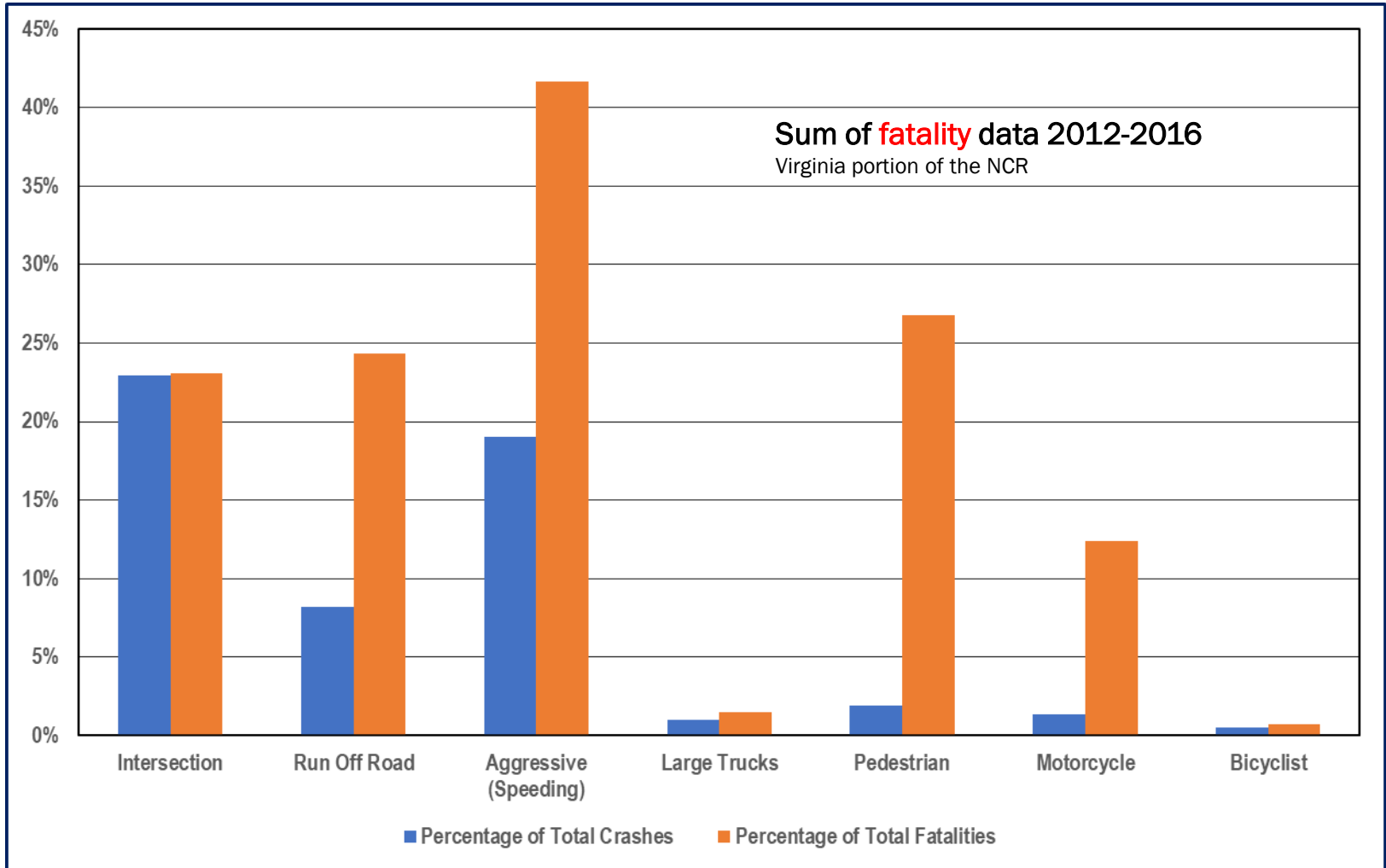
Crash Contributing Factors: Maryland



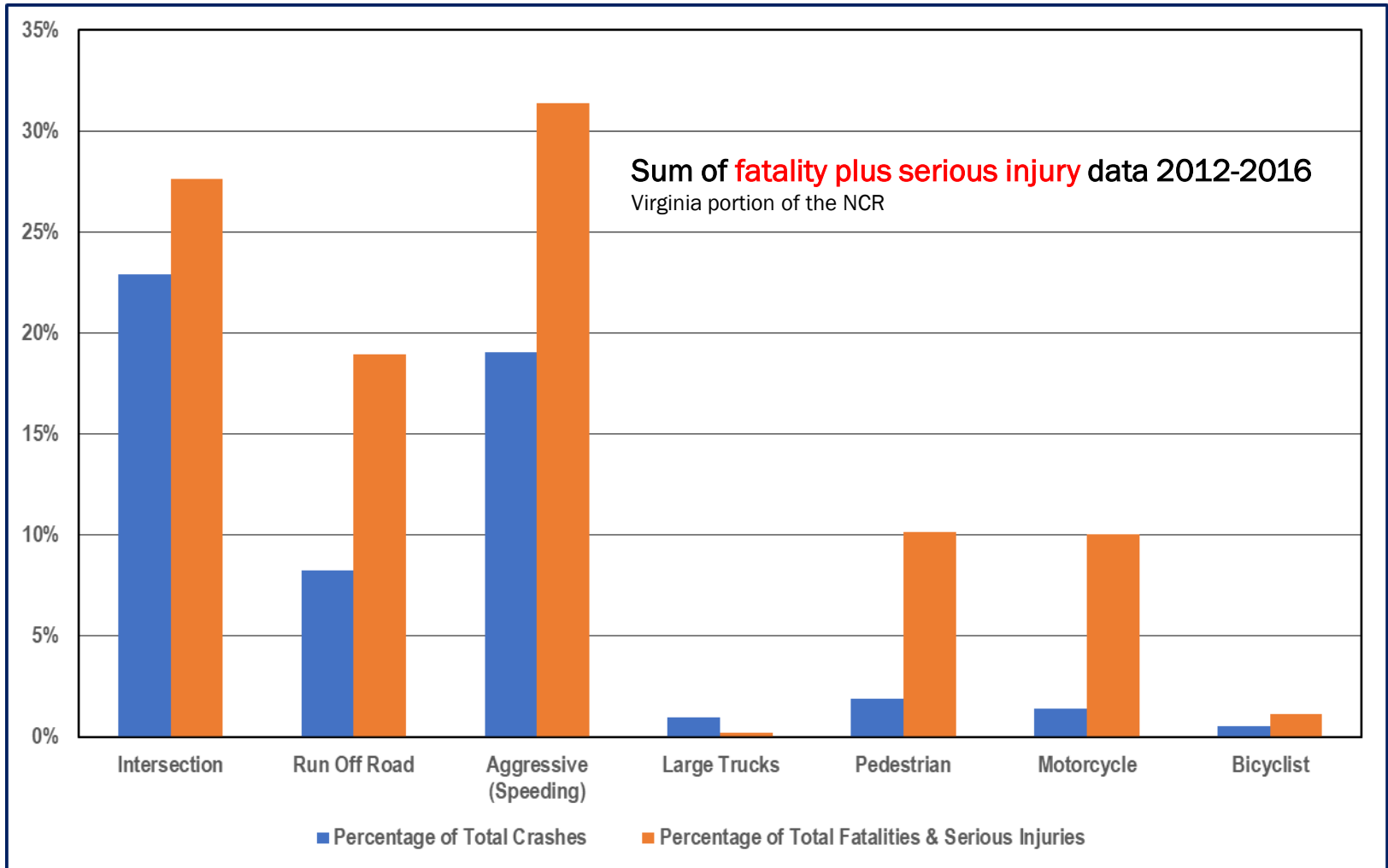
Crash Contributing Factors: Maryland



Crash Contributing Factors: Virginia



Crash Contributing Factors: Virginia

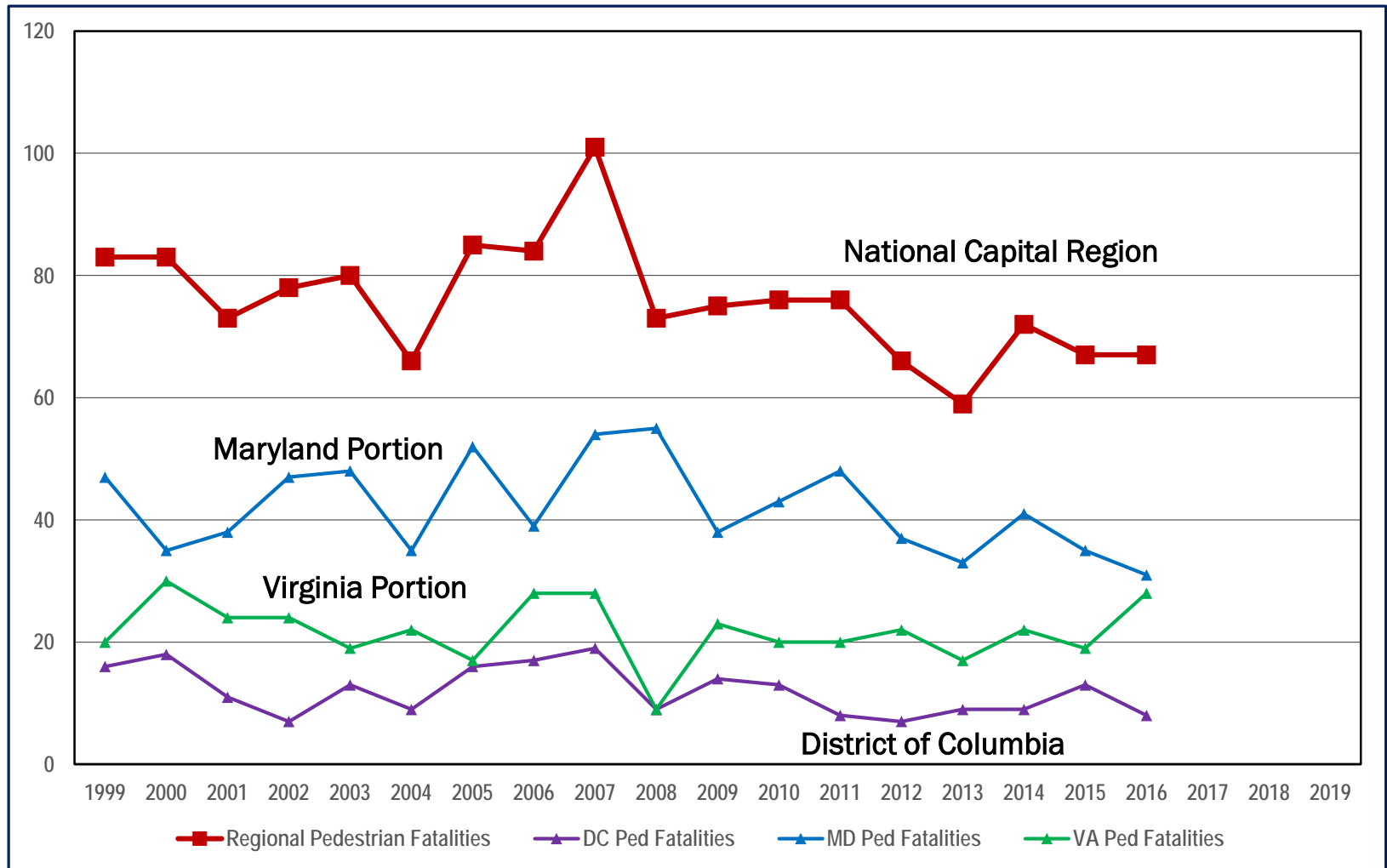


Pedestrian Fatalities

Jurisdiction	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
District of Columbia	16	18	11	7	13	9	16	17	19	9	14	13	8	7	9	9	13	8
Charles County, MD	6	3	2	4	2	1	5	1	6	1	3	3	8	4	3	2	1	4
Frederick County, MD	6	4	0	2	4	2	2	3	2	0	2	3	0	4	3	1	1	0
Montgomery County, MD	19	16	11	14	12	14	10	16	16	15	10	14	10	6	12	9	13	8
Prince George's County, MD	16	12	25	27	30	18	35	19	30	39	23	23	30	23	15	29	20	19
Arlington County, VA	2	5	4	2	3	2	3	1	1	1	4	1	4	4	0	3	1	0
Fairfax County, VA	13	20	17	12	7	16	10	18	16	3	11	8	11	6	8	9	13	16
Fauquier County, VA (urbanized area)	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	1
Loudoun County, VA	1	1	0	3	3	2	0	1	3	0	1	2	2	2	1	5	2	4
Prince William County, VA	0	2	1	3	4	1	2	7	6	5	5	6	1	7	6	5	2	4
Alexandria, VA	3	2	2	2	1	1	2	1	2	0	0	1	2	2	2	0	1	2
Fairfax City, VA	0	0	0	1	1	0	0	0	0	0	2	0	0	1	0	0	0	1
Falls Church, VA	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0
Manassas, VA	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manassas Park, VA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Pedestrian Fatalities	83	83	73	78	80	66	85	84	101	73	75	76	76	66	59	72	67	67
DC Ped Fatalities	16	18	11	7	13	9	16	17	19	9	14	13	8	7	9	9	13	8
MD Ped Fatalities	47	35	38	47	48	35	52	39	54	55	38	43	48	37	33	41	35	31
VA Ped Fatalities	20	30	24	24	19	22	17	28	28	9	23	20	20	22	17	22	19	28



Pedestrian Fatalities

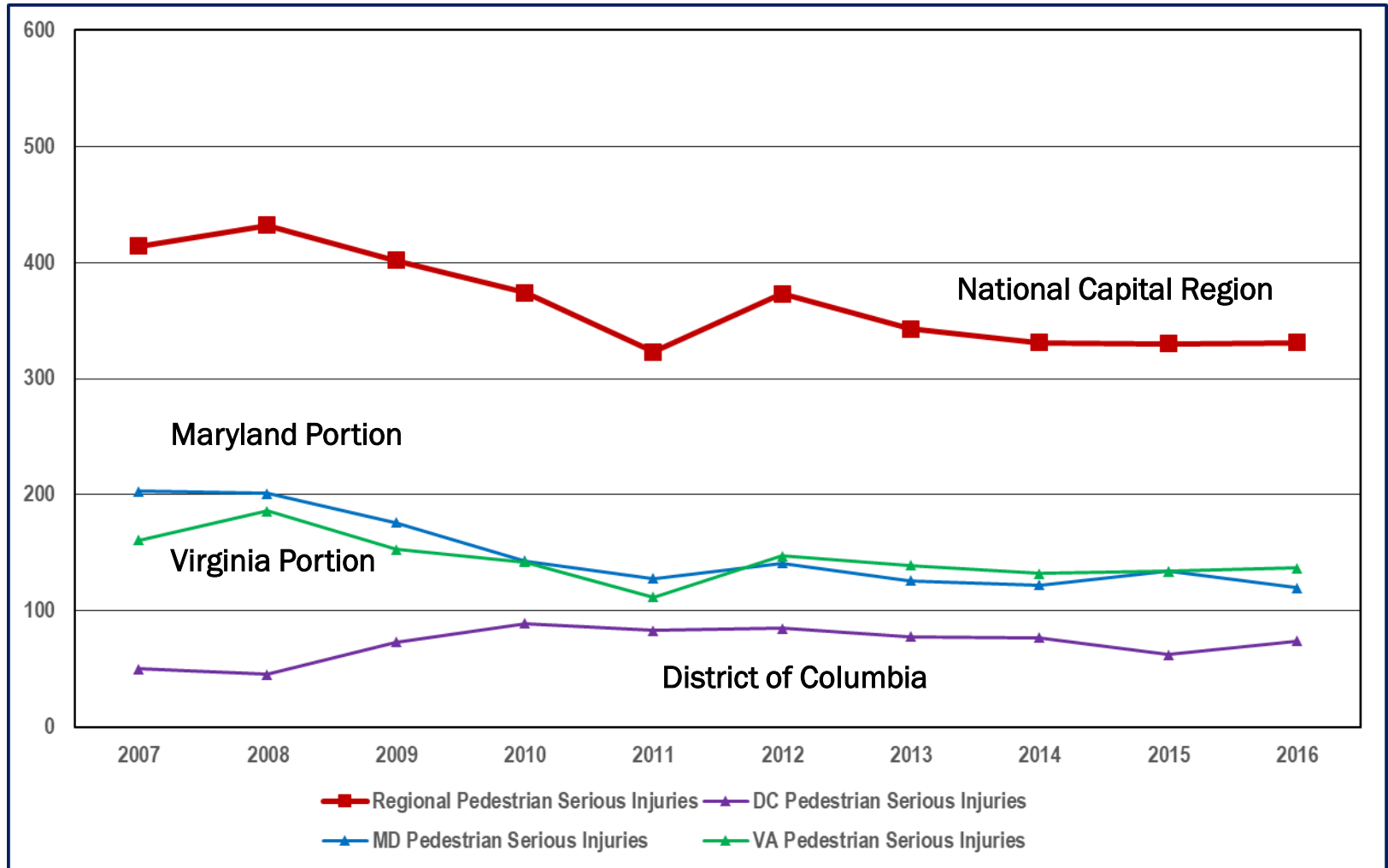


Pedestrian Serious Injuries

Jurisdiction	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
District of Columbia	n/a	n/a	n/a	76	n/a	77	n/a	53	50	45	73	89	83	85	78	77	62	74
Charles County, MD	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	15	11	5	8	11	10	1	5	13	14
Frederick County, MD	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6	5	9	11	9	4	12	3	7	6
Montgomery County, MD	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	109	99	113	89	75	84	71	73	60	48
Prince George's County, MD	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	73	86	49	35	33	43	42	41	54	52
Arlington County, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	30	38	23	23	15	23	12	17	13	19
Fairfax County, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	83	101	81	64	52	64	61	63	61	72
Fauquier County, VA (urbanized area)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loudoun County, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	9	16	10	11	15	12	10	12	12	11
Prince William County, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	17	13	23	24	11	18	23	16	14	21
Alexandria, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	11	7	10	14	13	12	14	13	10	9
Fairfax City, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	9	4	3	2	3	5	7	4	5	1
Falls Church, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1	3	2	1	0	3	2	2	6	1
Manassas, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1	4	0	3	3	10	10	5	13	3
Manassas Park, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	0	1	0	0	0	0	0	0	0
Regional Pedestrian Serious Injuries	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	414	432	402	374	323	373	343	331	330	331
DC Pedestrian Serious Injuries	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	50	45	73	89	83	85	78	77	62	74
MD Pedestrian Serious Injuries	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	203	201	176	143	128	141	126	122	134	120
VA Pedestrian Serious Injuries	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	161	186	153	142	112	147	139	132	134	137



Pedestrian Serious Injuries

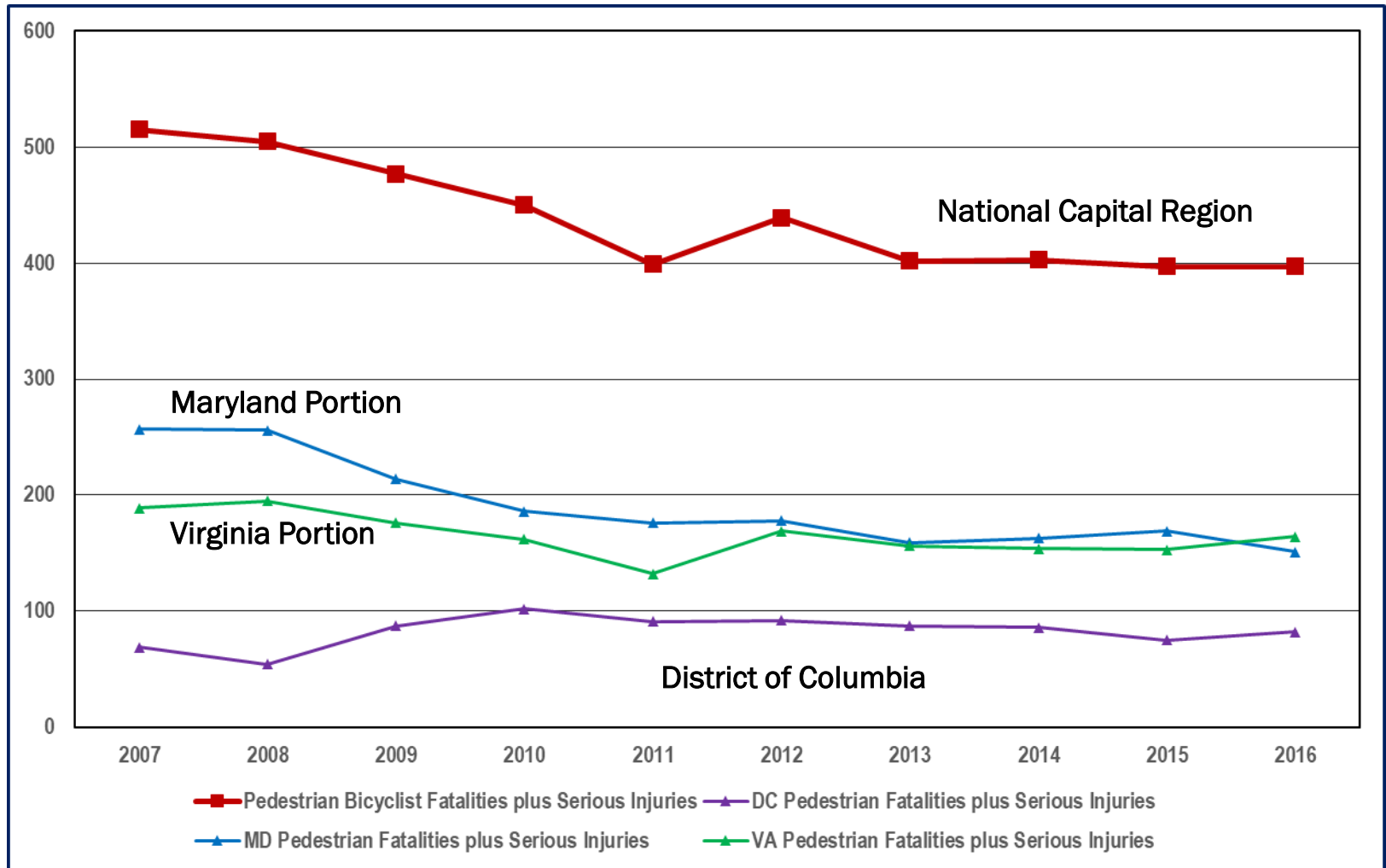


Pedestrian Fatalities + Serious Injuries

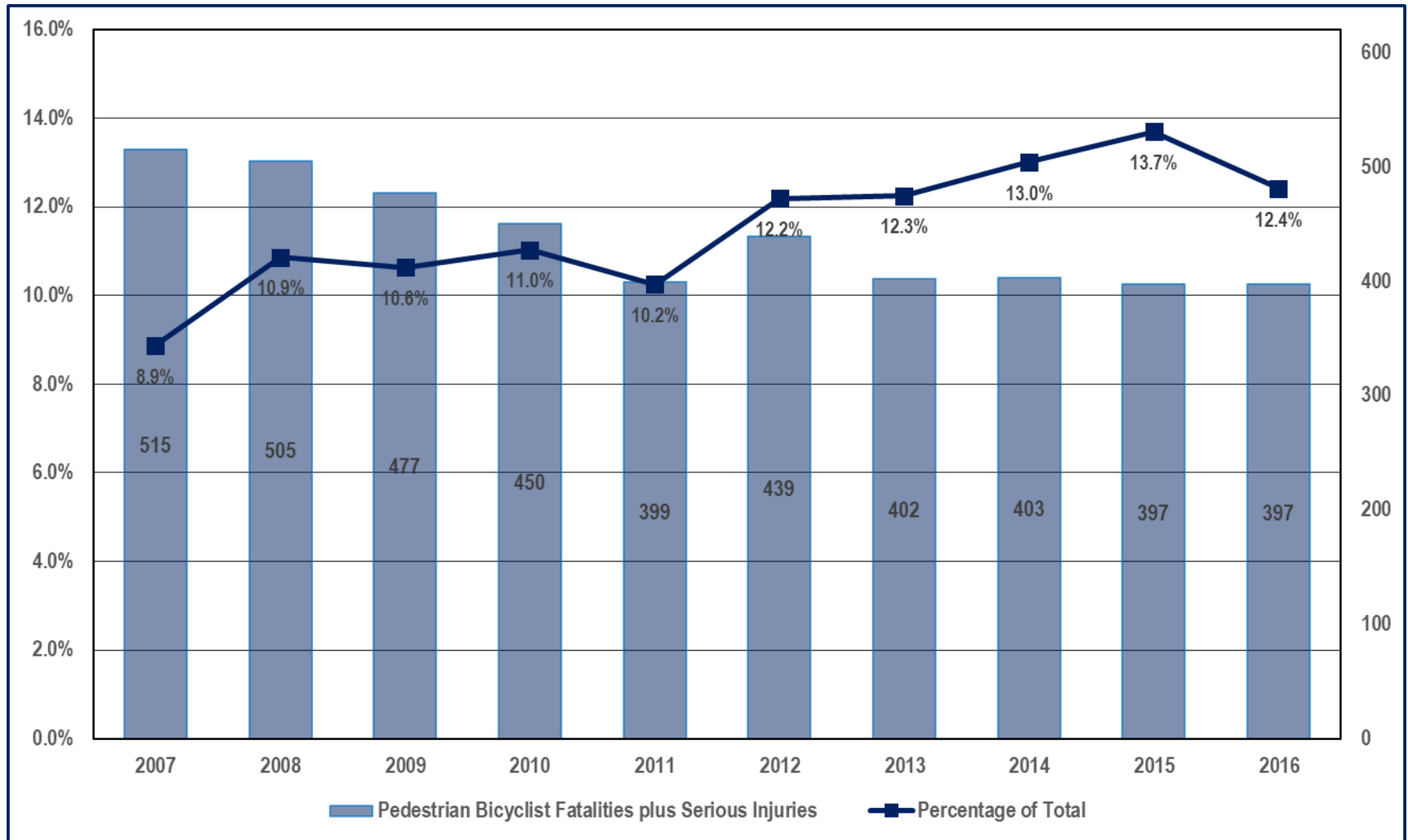
Jurisdiction	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
District of Columbia	n/a	n/a	n/a	83	n/a	86	n/a	70	69	54	87	102	91	92	87	86	75	82
Charles County, MD	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	21	12	8	11	19	14	4	7	14	18
Frederick County, MD	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	8	5	11	14	9	8	15	4	8	6
Montgomery County, MD	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	125	114	123	103	85	90	83	82	73	56
Prince George's County, MD	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	103	125	72	58	63	66	57	70	74	71
Arlington County, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	31	39	27	24	19	27	12	20	14	19
Fairfax County, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	99	104	92	72	63	70	69	72	74	88
Fauquier County, VA (urbanized area)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loudoun County, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	12	16	11	13	17	14	11	17	14	15
Prince William County, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	23	18	28	30	12	25	29	21	16	25
Alexandria, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	13	7	10	15	15	14	16	13	11	11
Fairfax City, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	9	4	5	2	3	6	7	4	5	2
Falls Church, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1	3	2	3	0	3	2	2	6	1
Manassas, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1	4	0	3	3	10	10	5	13	3
Manassas Park, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	0	1	0	0	0	0	0	0	0
Pedestrian Bicyclist Fatalities plus Serious Injuries	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	515	505	477	450	399	439	402	403	397	397
DC Pedestrian Fatalities plus Serious Injuries	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	69	54	87	102	91	92	87	86	75	82
MD Pedestrian Fatalities plus Serious Injuries	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	257	256	214	186	176	178	159	163	169	151
VA Pedestrian Fatalities plus Serious Injuries	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	189	195	176	162	132	169	156	154	153	164



Pedestrian Fatalities + Serious Injuries



Pedestrian Fatalities + Ser Inj: % of Total

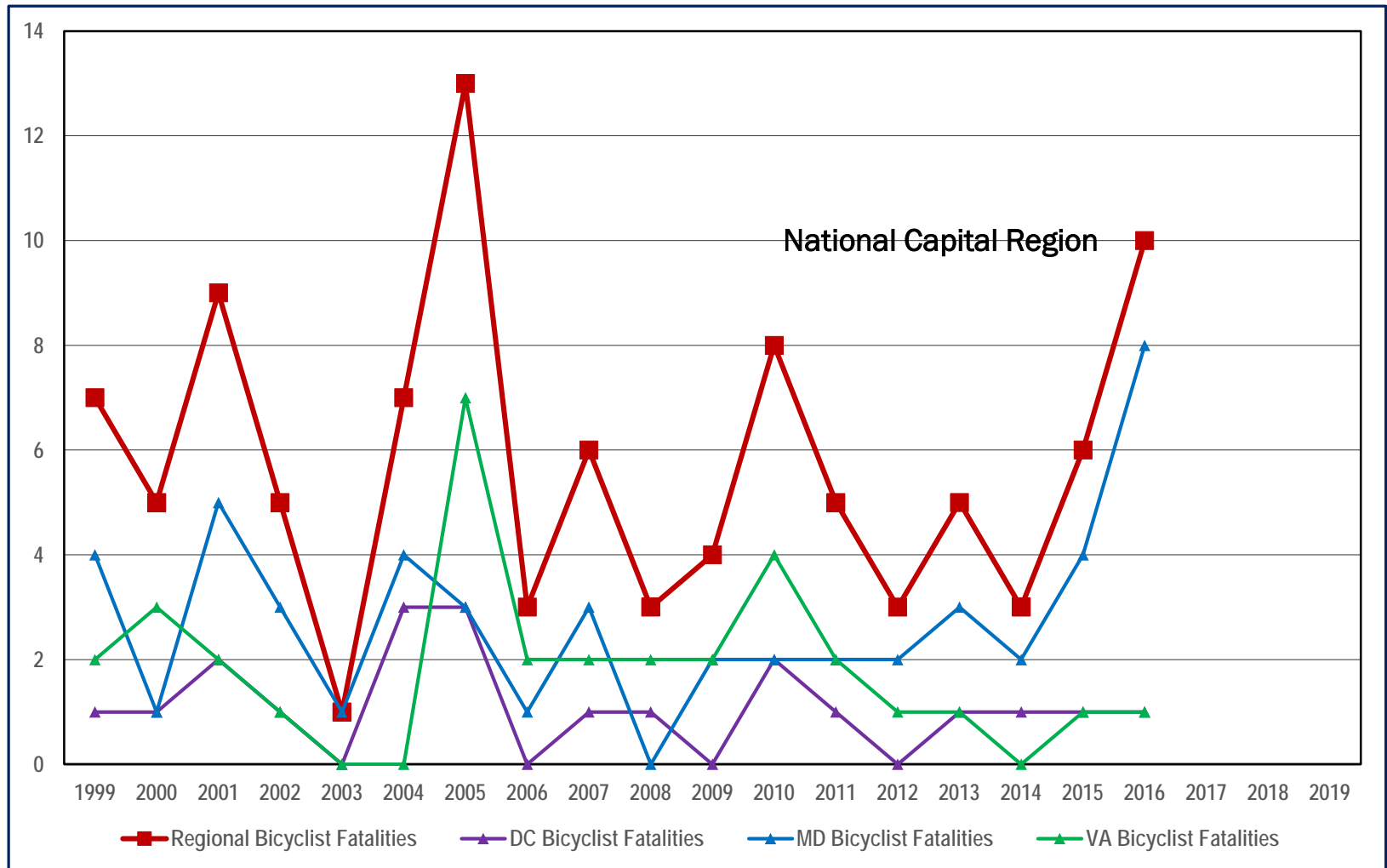


Bicyclist Fatalities

Jurisdiction	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
District of Columbia	1	1	2	1	0	3	3	0	1	1	0	2	1	0	1	1	1	1
Charles County, MD	0	0	0	1	1	0	1	0	1	0	0	0	1	0	0	0	0	3
Frederick County, MD	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
Montgomery County, MD	1	0	0	1	0	1	2	0	1	0	1	1	0	1	1	1	3	3
Prince George's County, MD	3	1	5	1	0	3	0	0	1	0	1	1	1	1	1	1	1	2
Arlington County, VA	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
Fairfax County, VA	0	0	1	0	0	0	2	2	2	1	0	4	0	1	0	0	1	0
Fauquier County, VA (urbanized area)	0	0	0	n/a	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Loudoun County, VA	0	0	1	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0
Prince William County, VA	2	1	0	0	0	0	2	0	0	1	1	0	0	0	1	0	0	1
Alexandria, VA	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fairfax City, VA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Falls Church, VA	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manassas, VA	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manassas Park, VA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Regional Bicyclist Fatalities	7	5	9	5	1	7	13	3	6	3	4	8	5	3	5	3	6	10
DC Bicyclist Fatalities	1	1	2	1	0	3	3	0	1	1	0	2	1	0	1	1	1	1
MD Bicyclist Fatalities	4	1	5	3	1	4	3	1	3	0	2	2	2	2	3	2	4	8
VA Bicyclist Fatalities	2	3	2	1	0	0	7	2	2	2	2	4	2	1	1	0	1	1



Bicyclist Fatalities

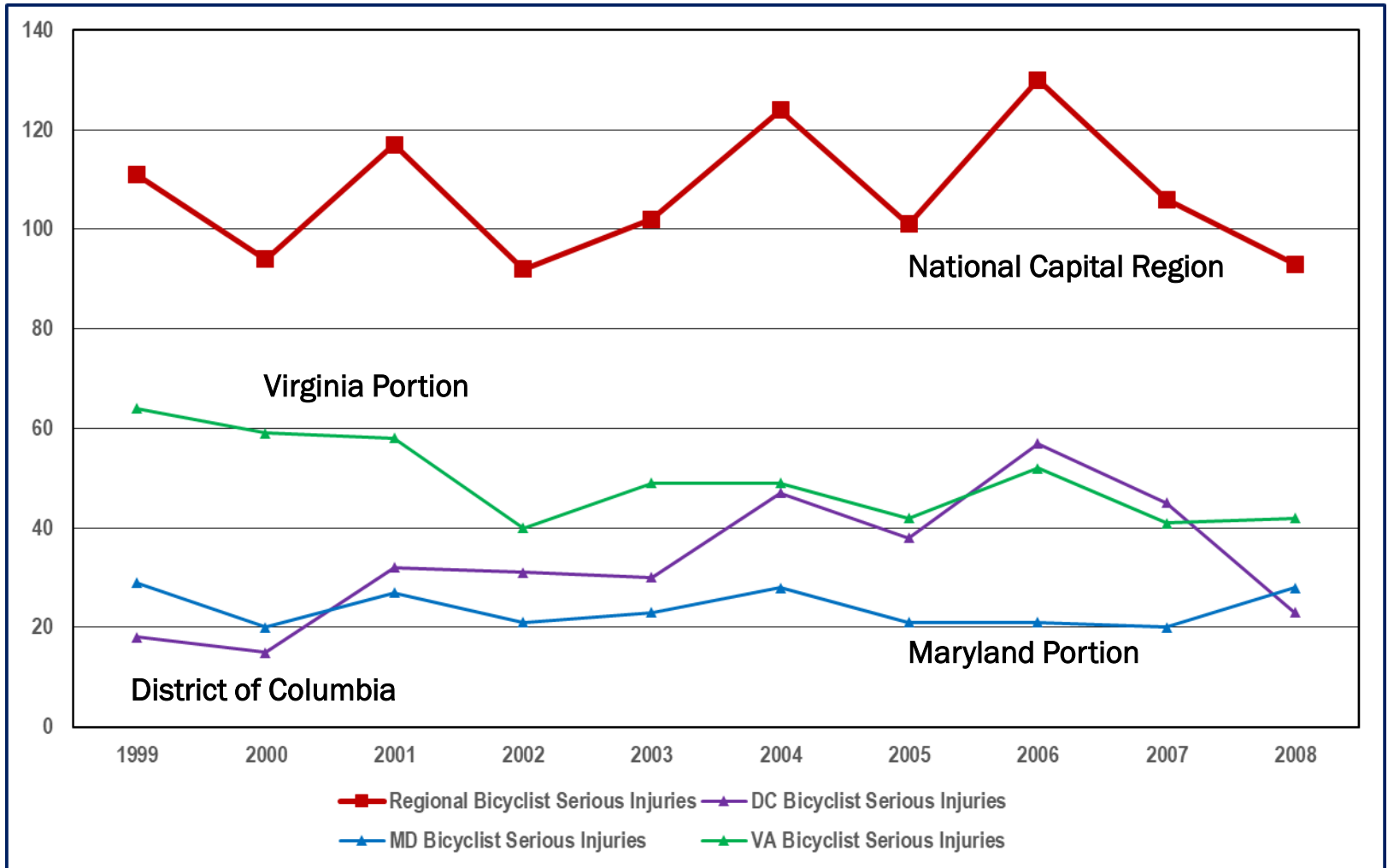


Bicyclist Serious Injuries

Jurisdiction	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
District of Columbia	n/a	n/a	n/a	13	n/a	17	n/a	20	18	15	32	31	30	47	38	57	45	23
Charles County, MD	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	2	2	3	1	0	3	2	1	0
Frederick County, MD	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1	0	3	1	2	0	1	0	0	1
Montgomery County, MD	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	20	15	17	14	11	21	13	15	10	17
Prince George's County, MD	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	8	3	5	3	9	7	4	4	9	10
Arlington County, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	11	13	17	8	6	10	3	1	4	2
Fairfax County, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	29	35	28	18	23	24	28	36	27	26
Fauquier County, VA (urbanized area)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loudoun County, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5	4	2	9	8	3	3	5	4	6
Prince William County, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6	4	6	2	9	6	6	3	2	4
Alexandria, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4	2	1	1	2	2	2	2	2	1
Fairfax City, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2	0	1	1	0	0	0	0	0	1
Falls Church, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	1	1	0	0	3	0	2	2	0
Manassas, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5	0	2	1	1	1	0	3	0	2
Manassas Park, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2	0	0	0	0	0	0	0	0	0
Regional Bicyclist Serious Injuries	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	111	94	117	92	102	124	101	130	106	93
DC Bicyclist Serious Injuries	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	18	15	32	31	30	47	38	57	45	23
MD Bicyclist Serious Injuries	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	29	20	27	21	23	28	21	21	20	28
VA Bicyclist Serious Injuries	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	64	59	58	40	49	49	42	52	41	42



Bicyclist Serious Injuries

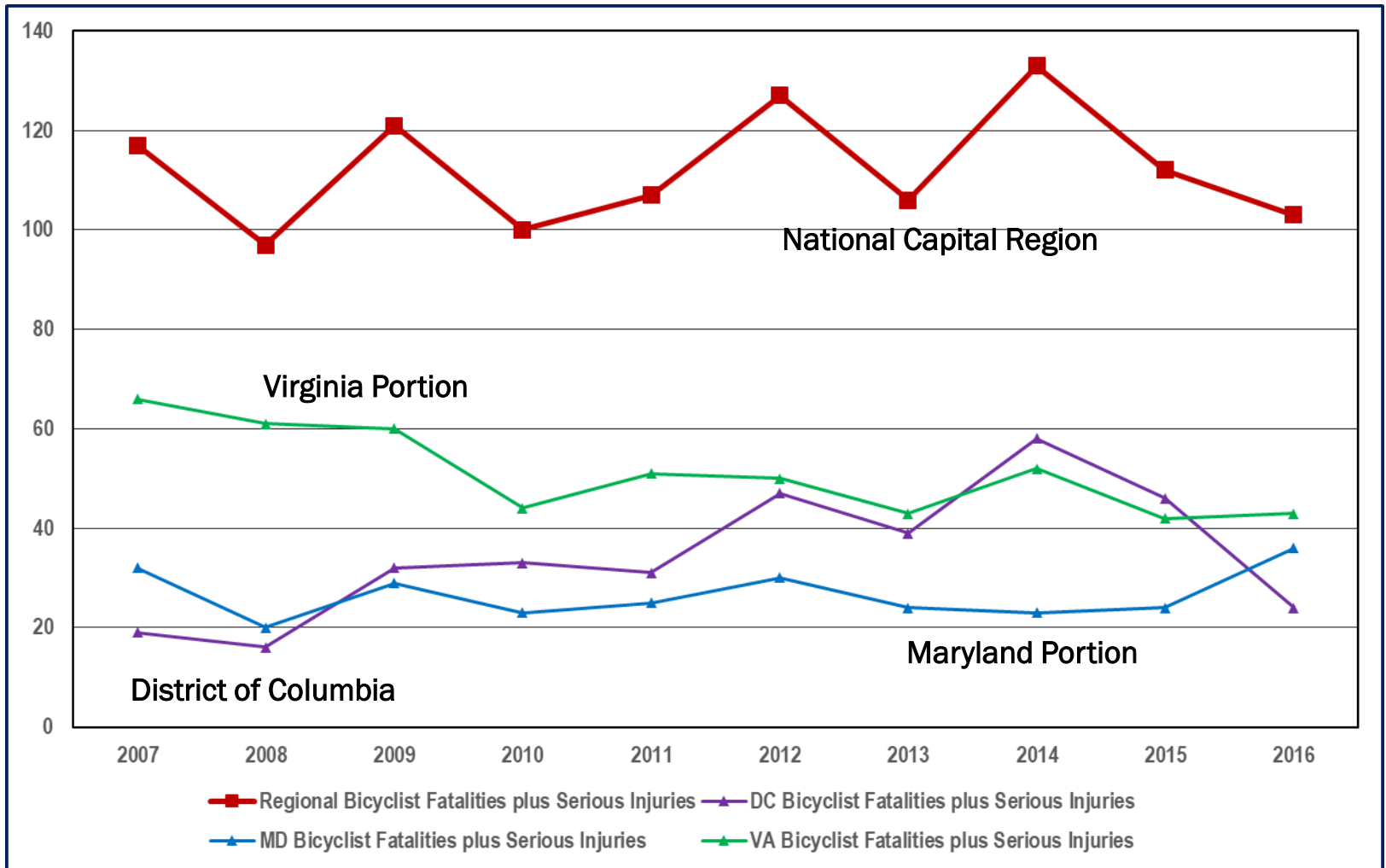


Bicyclist Fatalities + Serious Injuries

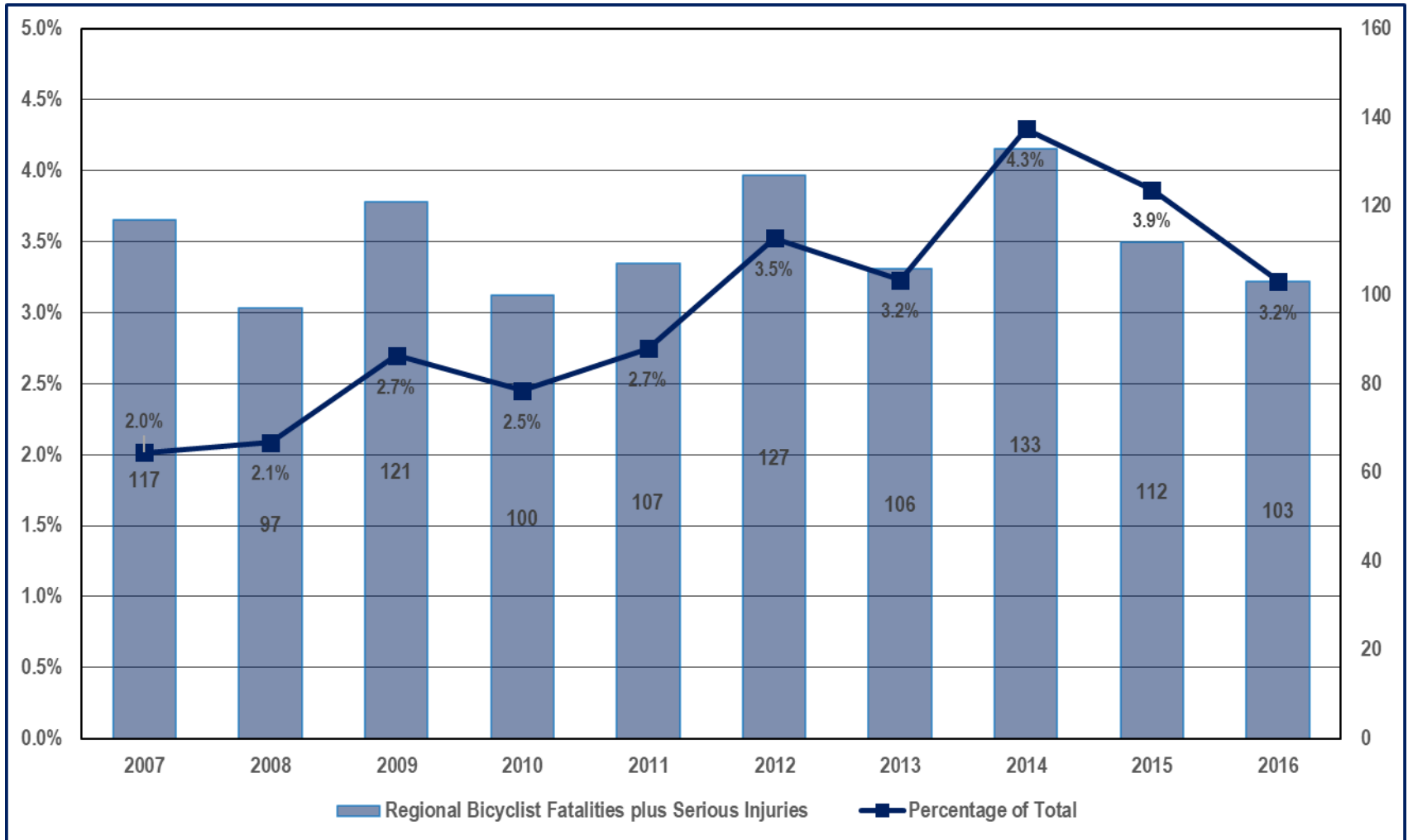
Jurisdiction	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
District of Columbia	n/a	n/a	n/a	14	n/a	20	n/a	20	19	16	32	33	31	47	39	58	46	24
Charles County, MD	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1	2	2	3	2	0	3	2	1	3
Frederick County, MD	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1	0	3	1	2	0	2	0	0	1
Montgomery County, MD	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	21	15	18	15	11	22	14	16	13	20
Prince George's County, MD	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	9	3	6	4	10	8	5	5	10	12
Arlington County, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	11	13	18	8	7	10	3	1	4	2
Fairfax County, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	31	36	28	22	23	25	28	36	28	26
Fauquier County, VA (urbanized area)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Loudoun County, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5	4	2	9	9	3	3	5	4	6
Prince William County, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6	5	7	2	9	6	7	3	2	5
Alexandria, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4	2	1	1	2	2	2	2	2	1
Fairfax City, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2	0	1	1	0	0	0	0	0	1
Falls Church, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	1	1	0	0	3	0	2	2	0
Manassas, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5	0	2	1	1	1	0	3	0	2
Manassas Park, VA	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2	0	0	0	0	0	0	0	0	0
Regional Bicyclist Fatalities plus Serious Injuries	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	117	97	121	100	107	127	106	133	112	103
DC Bicyclist Fatalities plus Serious Injuries	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	19	16	32	33	31	47	39	58	46	24
MD Bicyclist Fatalities plus Serious Injuries	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	32	20	29	23	25	30	24	23	24	36
VA Bicyclist Fatalities plus Serious Injuries	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	66	61	60	44	51	50	43	52	42	43



Bicyclist Fatalities + Serious Injuries



Bicyclist Fatalities + Ser Inj: % of Total



Next Steps

- Complete regional safety data “contributing factor” analysis
- Consider additional analysis of regional safety data
 - Crash location-based analysis?
 - Crash type analysis?
 - Systemic analysis of risk factors?
- Future presentations to the Bicycle and Pedestrian Subcommittee...



Jon Schermann

TPB Transportation Planner

(202) 962-3317

jschermann@mwkog.org

mwkog.org/tpb

Metropolitan Washington Council of Governments

777 North Capitol Street NE, Suite 300

Washington, DC 20002



National Capital Region
Transportation Planning Board