

SAFETY ELEMENT OF VISUALIZE 2045

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Transportation Safety Subcommittee
April 17, 2018



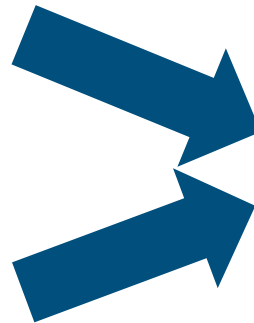
Presentation Items

- Review of Visualize 2045
- Safety Element within Visualize 2045
- Next Steps



Visualize 2045 is our Long-Range Transportation Plan

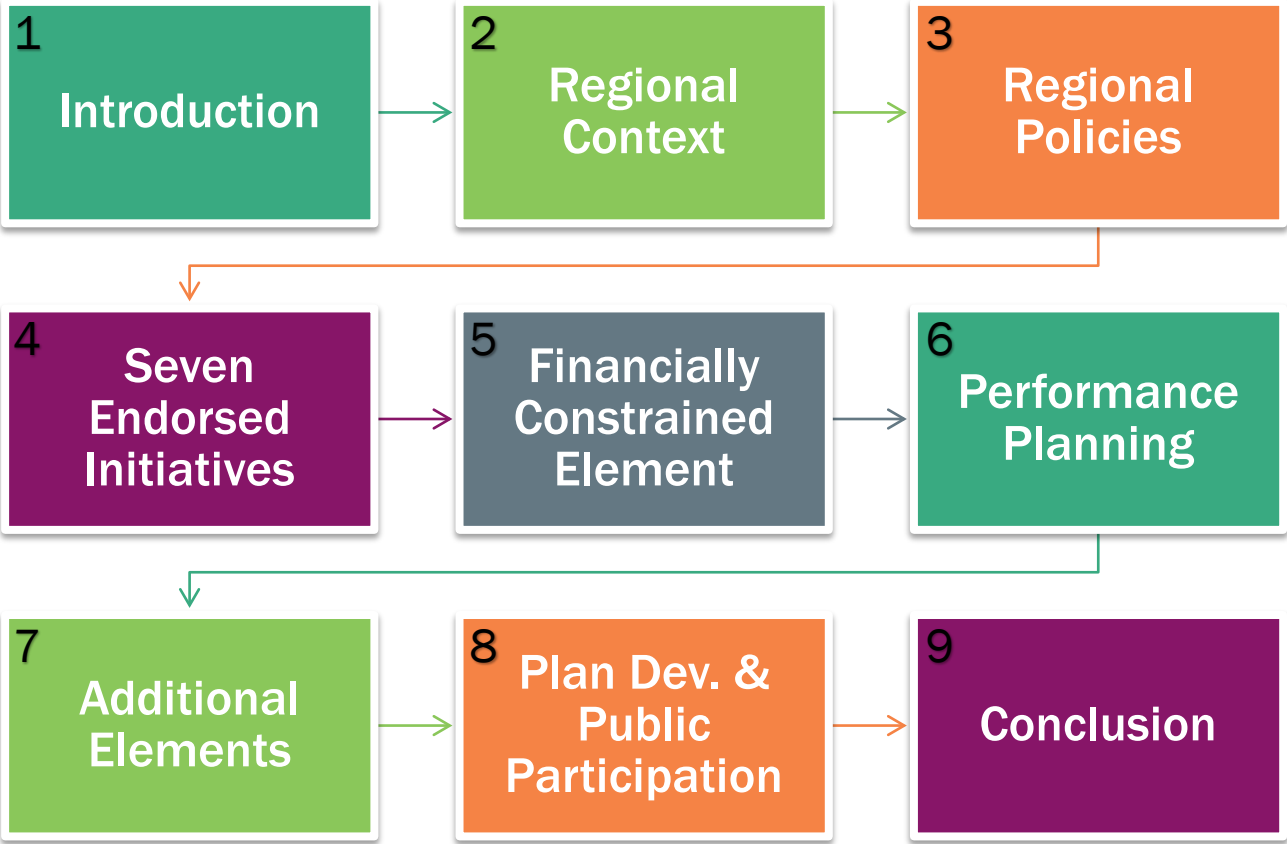
Financially Constrained Element
(formerly known as CLRP)



Seven Endorsed Initiatives
Unmet Needs (All-Build)



Visualize 2045 Plan Outline



Visualize 2045 Plan Outline



- Performance-Based Planning and Programming (PBPP)
- Congestion Management Process
- Other Safety Planning



Visualize 2045 Timeline

Winter/Spring 2018	Preparing Content for Visualize 2045 Plan Document
Spring 2018	Public Forums
Summer 2018	Technical Analysis
September 2018	Draft Plan Released for Public Comment and Public Open Houses
October 2018	Final TPB Approval



Safety in Visualize 2045

- Performance Based Planning & Programming (PBPP) regional safety targets
- Street Smart campaign
- Safety Element
 - Main document: one page – 800 words – 1 to 2 graphics
 - Appendix: no specific limits



Safety Element (Main Document)

Item	Content
Introduction	<ul style="list-style-type: none">• ~ 260 people die in crashes each year in metropolitan Washington. 3,000 are seriously injured• A safe transportation system is foundational to a livable region• Improving safety is critical to improving the quality of life for residents and visitors
TPB Context	<ul style="list-style-type: none">• Federal requirement to address safety in LRP• Transportation Safety Subcommittee• TPB staff participation in state-level safety activities
Ties to aspirational initiatives	<ul style="list-style-type: none">• Endorsed initiatives encourage mode shift to transit and reduce speed differentials• The non-motorized initiatives improve pedestrian access to transit stations and facilitate bicycle trips



Safety Element (Main Document)

Item	Content
Components of the TPB's safety element	<ul style="list-style-type: none">• <i>Transportation Safety Subcommittee</i>• <i>Safety data analysis</i>• <i>Coordination among member jurisdictions</i>• <i>Transportation Improvement Program (TIP)</i>• <i>Street Smart Campaign</i>• <i>Safety is an element in TPB program areas such as:</i><ul style="list-style-type: none">○ <i>Congestion management</i>○ <i>Systems Performance, Management & Operations</i>○ <i>Traffic signals</i>○ <i>Bicycle & pedestrian planning</i>○ <i>Regional transit planning</i>○ <i>Freight planning</i>○ <i>Transportation-Land Use Connections program</i>
Visualizing the impact of safety on the region	<ul style="list-style-type: none">• <i>Fatalities declined from 412 (in 2006) to 275 (in 2016), but the rate of fatality reduction has plateaued in recent years</i>• <i>Pedestrian fatalities declined from 84 (in 2006) to 67 (2016)</i>

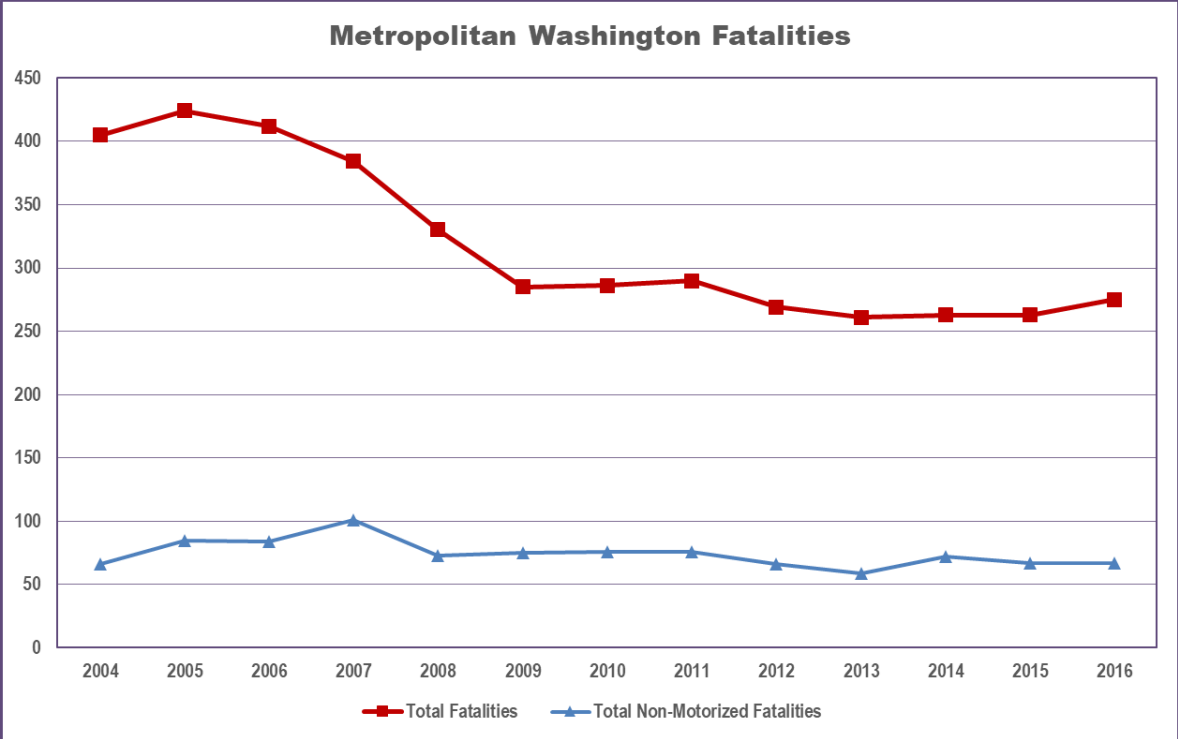


Safety Element (Main Document)

Item	Content
Challenges	<ul style="list-style-type: none">• <i>45 billion vehicle miles traveled annually</i>• <i>Driver behavior (distraction, impairment, speeding, seat belt use)</i>• <i>Resources and time required to implement safety improvements</i>• <i>Data – crash modification factors</i>• <i>Good news is that the TPB together with its member jurisdictions are striving to reduce fatalities and serious injuries</i><ul style="list-style-type: none">○ <i>MD and VA supporting Towards Zero Deaths</i>○ <i>DC, Alexandria, and Montgomery County have adopted Vision Zero</i>



Safety Element (Main Document)

Item	Content																																										
Graphic	<p data-bbox="973 401 1499 429">Metropolitan Washington Fatalities</p>  <table border="1" data-bbox="643 382 1827 1115"><thead><tr><th>Year</th><th>Total Fatalities</th><th>Total Non-Motorized Fatalities</th></tr></thead><tbody><tr><td>2004</td><td>405</td><td>65</td></tr><tr><td>2005</td><td>425</td><td>85</td></tr><tr><td>2006</td><td>410</td><td>85</td></tr><tr><td>2007</td><td>385</td><td>100</td></tr><tr><td>2008</td><td>330</td><td>75</td></tr><tr><td>2009</td><td>285</td><td>75</td></tr><tr><td>2010</td><td>285</td><td>75</td></tr><tr><td>2011</td><td>290</td><td>75</td></tr><tr><td>2012</td><td>270</td><td>65</td></tr><tr><td>2013</td><td>260</td><td>60</td></tr><tr><td>2014</td><td>260</td><td>75</td></tr><tr><td>2015</td><td>260</td><td>65</td></tr><tr><td>2016</td><td>275</td><td>65</td></tr></tbody></table>	Year	Total Fatalities	Total Non-Motorized Fatalities	2004	405	65	2005	425	85	2006	410	85	2007	385	100	2008	330	75	2009	285	75	2010	285	75	2011	290	75	2012	270	65	2013	260	60	2014	260	75	2015	260	65	2016	275	65
Year	Total Fatalities	Total Non-Motorized Fatalities																																									
2004	405	65																																									
2005	425	85																																									
2006	410	85																																									
2007	385	100																																									
2008	330	75																																									
2009	285	75																																									
2010	285	75																																									
2011	290	75																																									
2012	270	65																																									
2013	260	60																																									
2014	260	75																																									
2015	260	65																																									
2016	275	65																																									

Safety Element (Appendix)

- Will provide additional safety-related tables and graphics, including:
 - *Overall fatalities and serious injuries by jurisdiction*
 - *Non-motorized fatalities and serious injuries by jurisdiction*
 - *Fatality and serious injury rates by region and state portion*
 - *Crash factors analysis*



Next Steps

- Complete safety element page for the main document of Visualize 2045
- Complete draft safety element appendix
- Review and comment by transportation subcommittee



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Metropolitan Washington Council of Governments

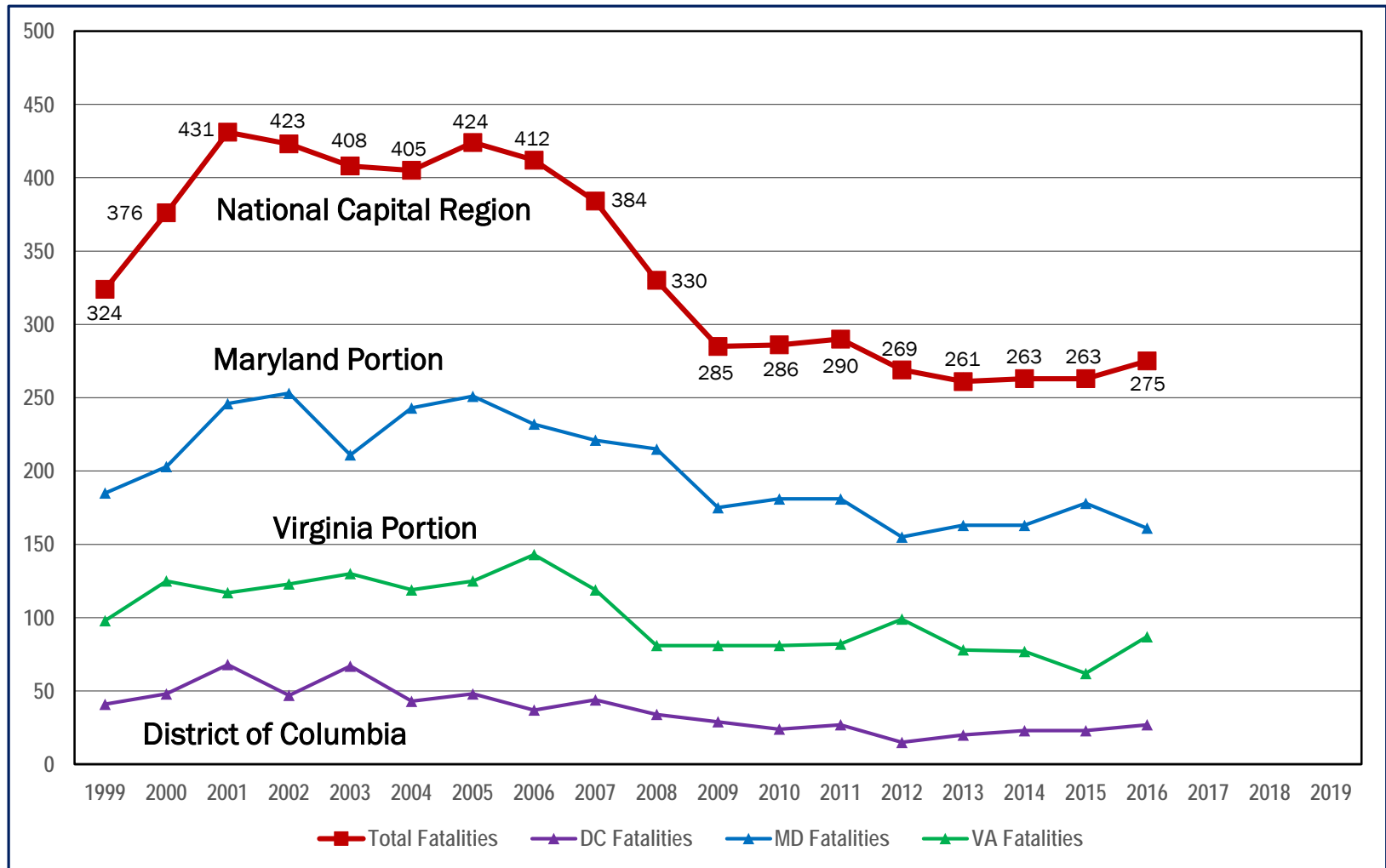
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Washington, DC 20002

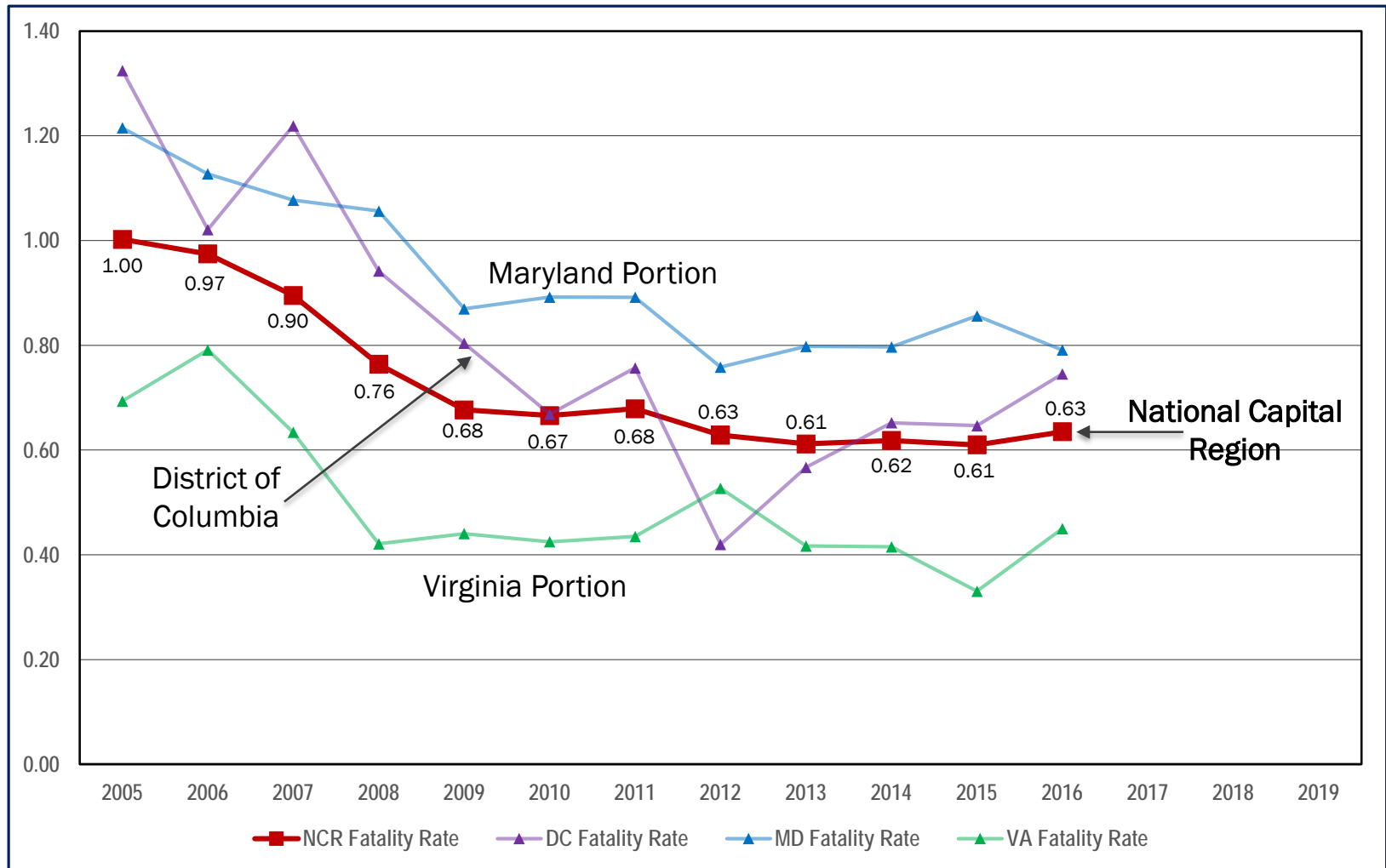


National Capital Region
Transportation Planning Board

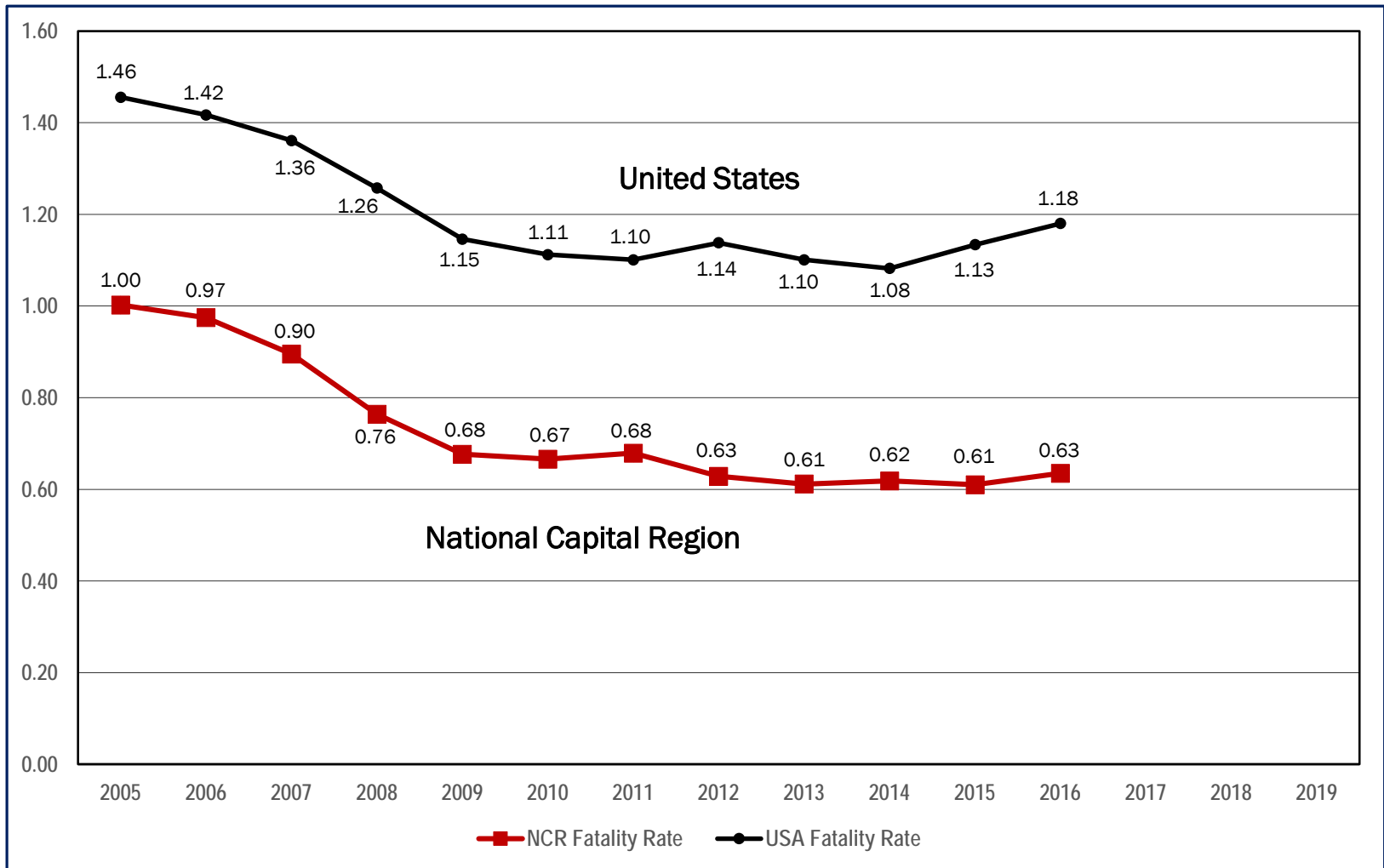
NCR Fatalities



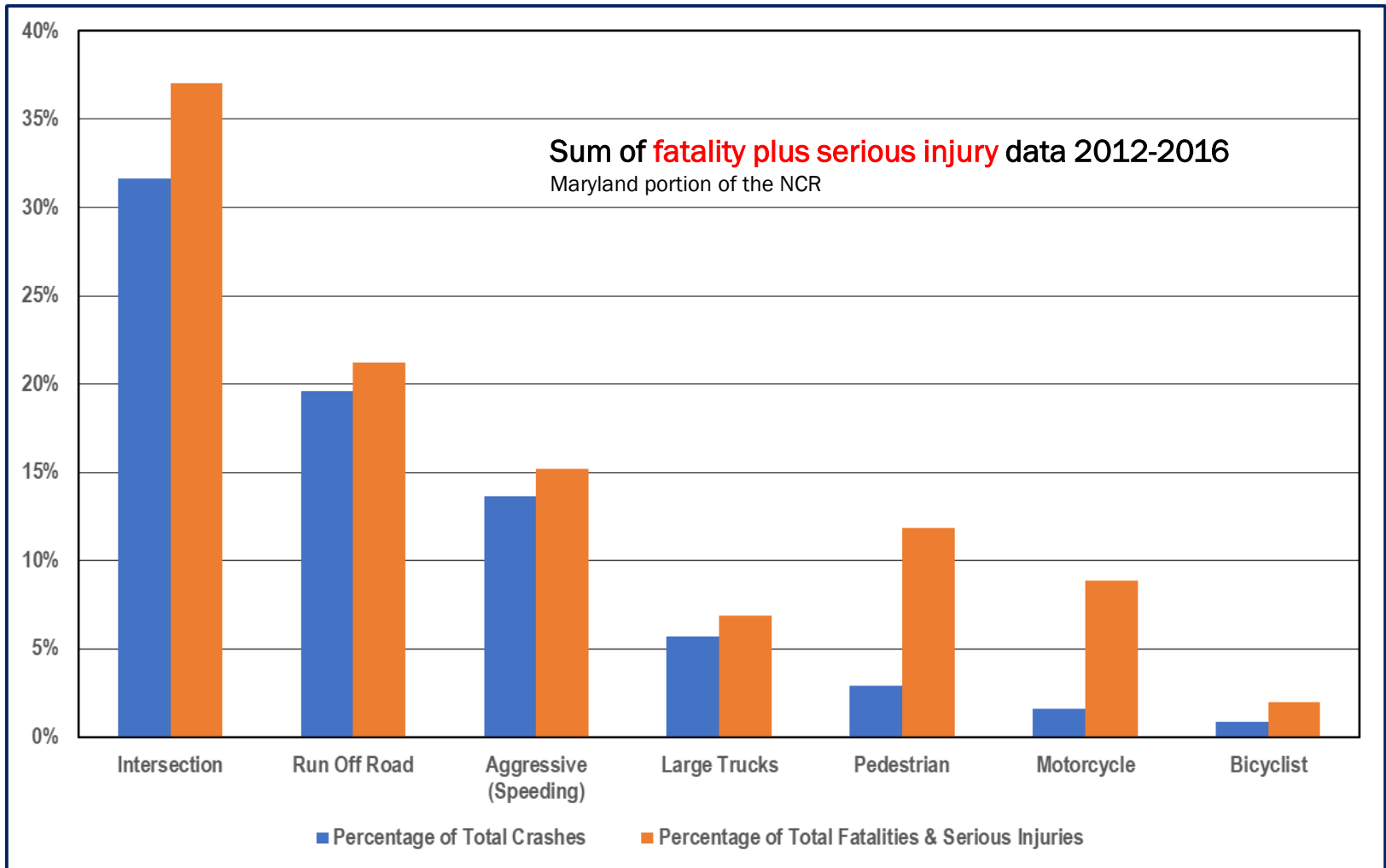
NCR Fatalities per 100 million VMT



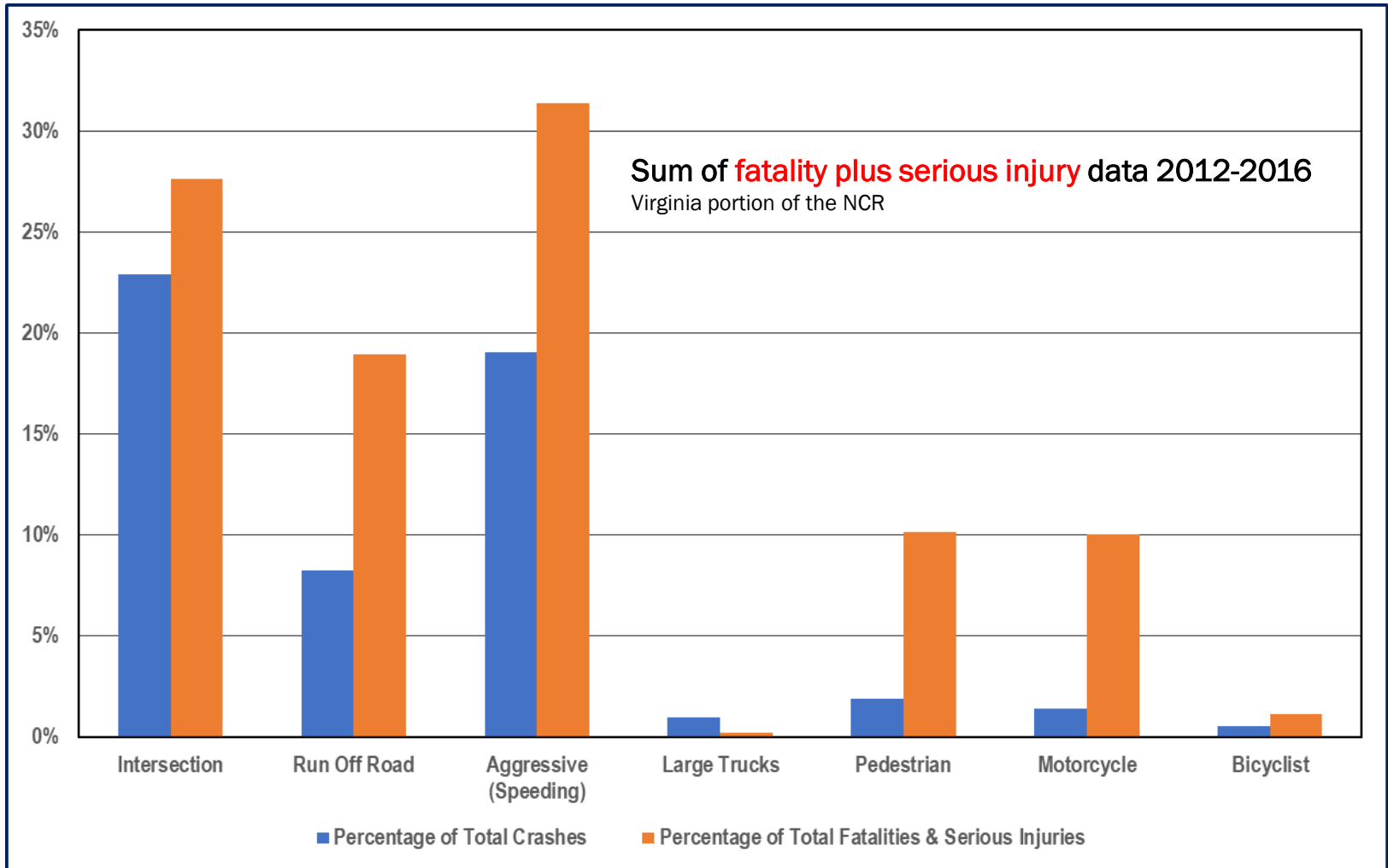
Fatality Rate (per 100 MVMT)- Comparison to US



Crash Contributing Factors: Maryland



Crash Contributing Factors: Virginia

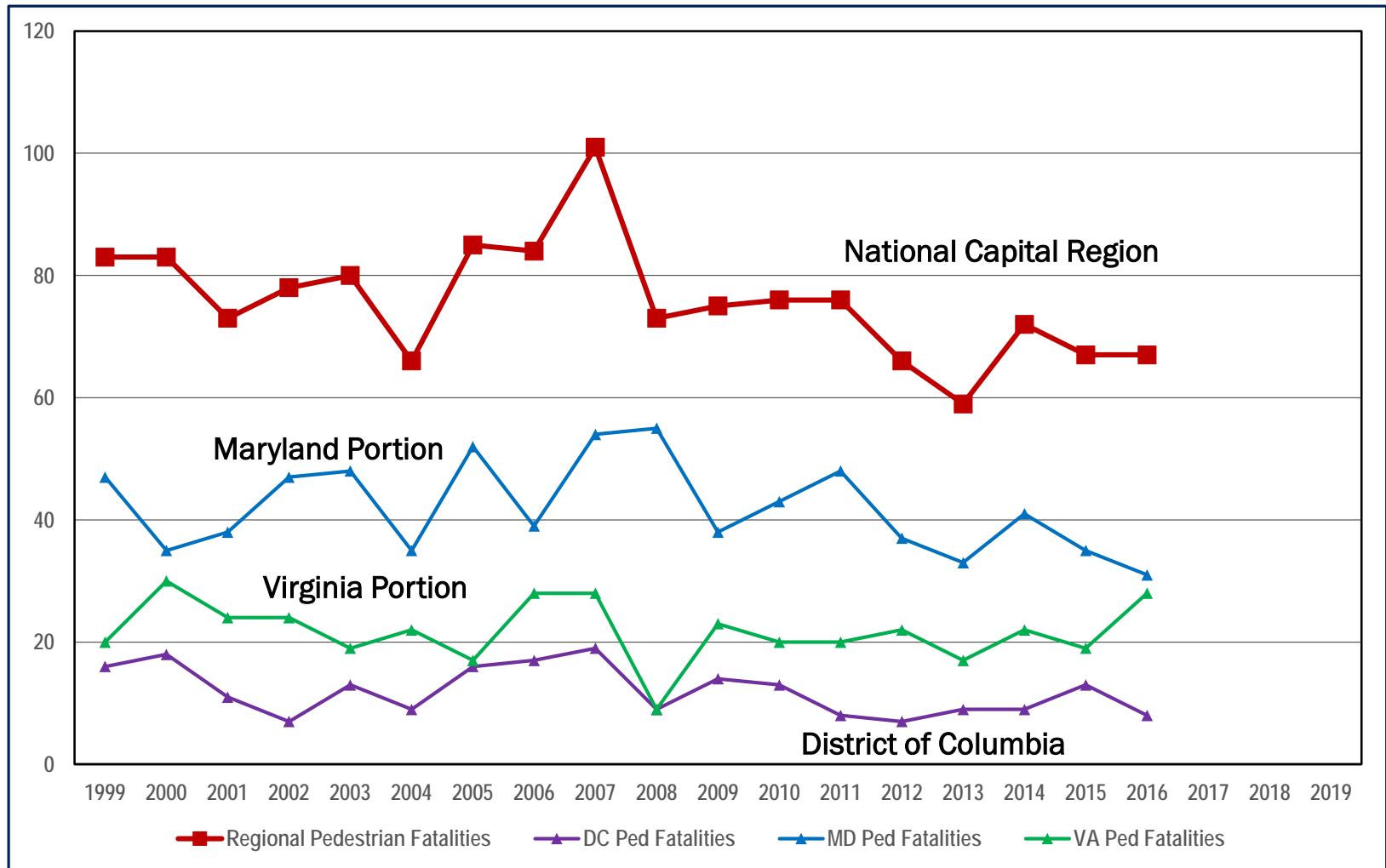


Pedestrian Fatalities

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

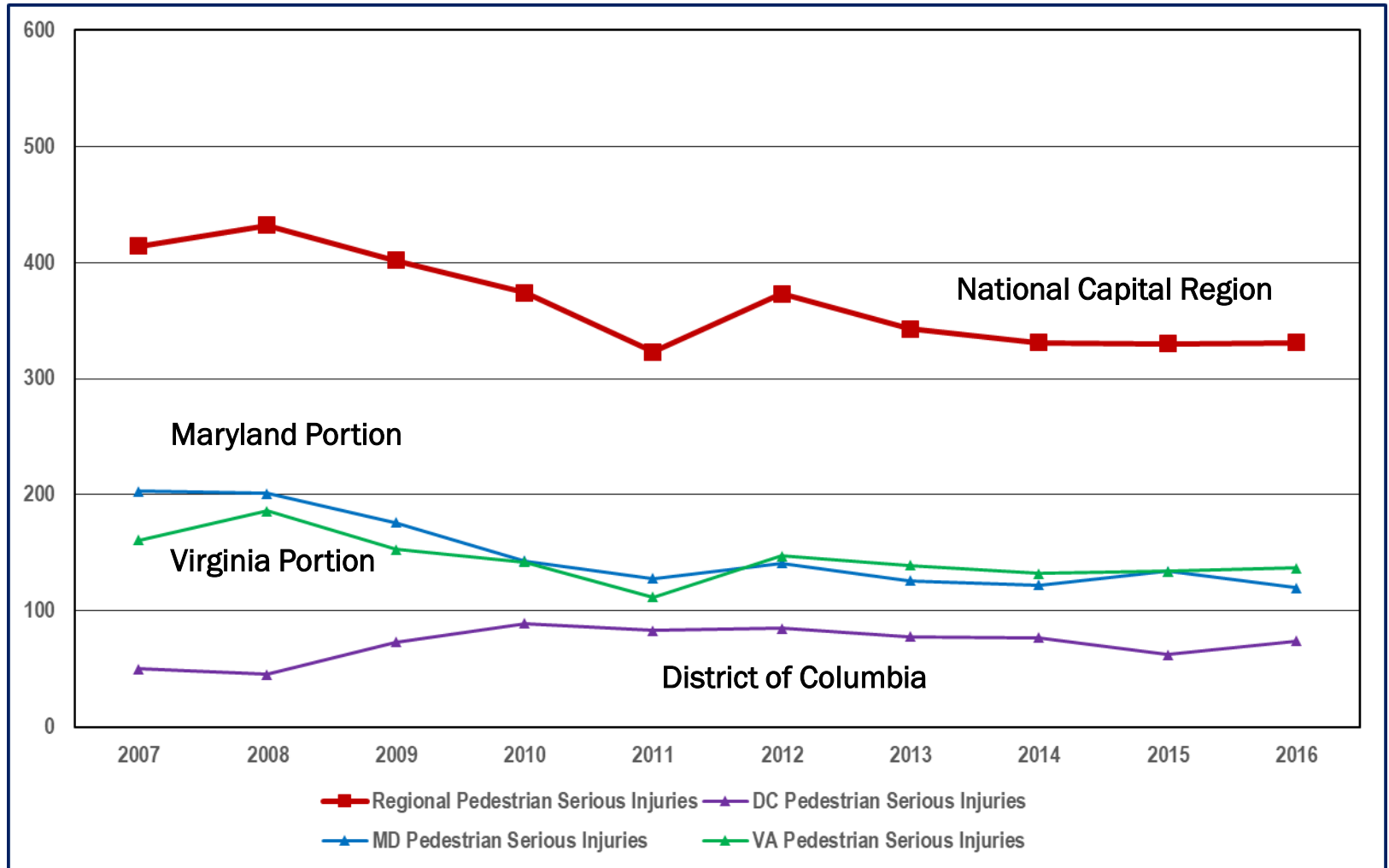


Pedestrian Serious Injuries

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

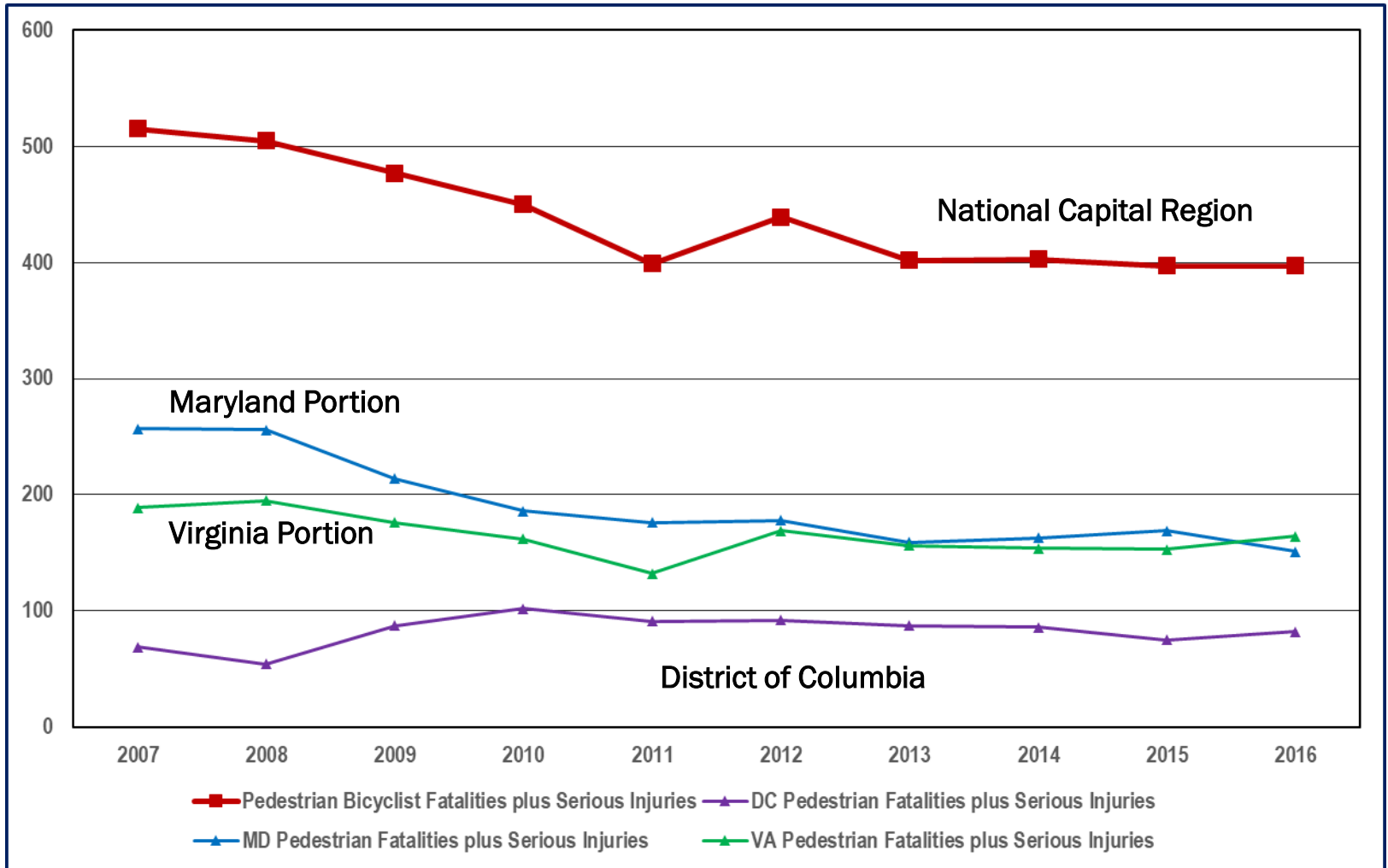


Pedestrian Fatalities + Serious Injuries

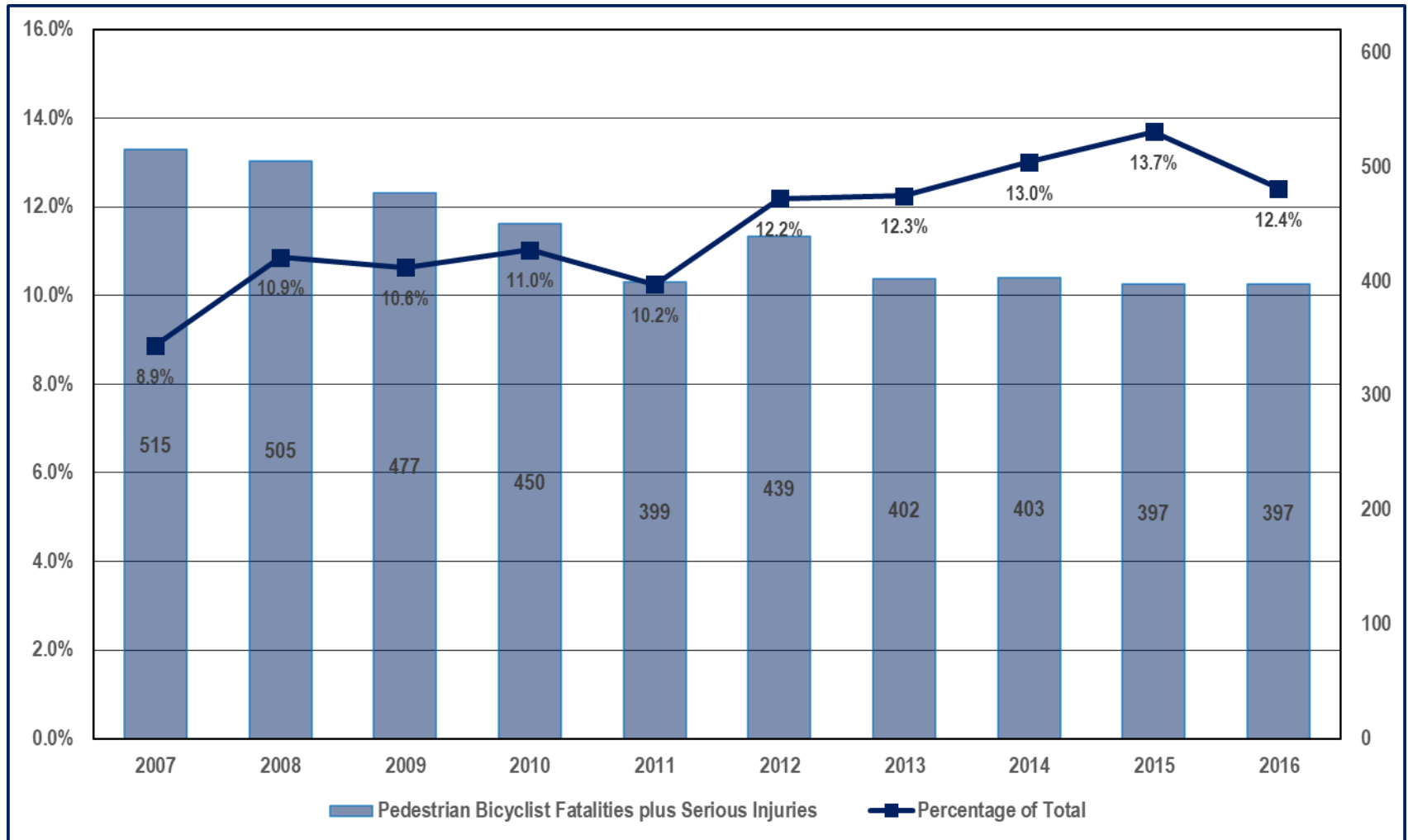
Jurisdiction	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
District of Columbia	n/a	n/a	n/a	83	n/a	86	n/a	70	69	54	87	102	91	92	87	86	75	82
Charles County, MD	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	21	12	8	11	19	14	4	7	14	18
Frederick County, MD	n/a	n/a	n/a	n/a	n/a	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

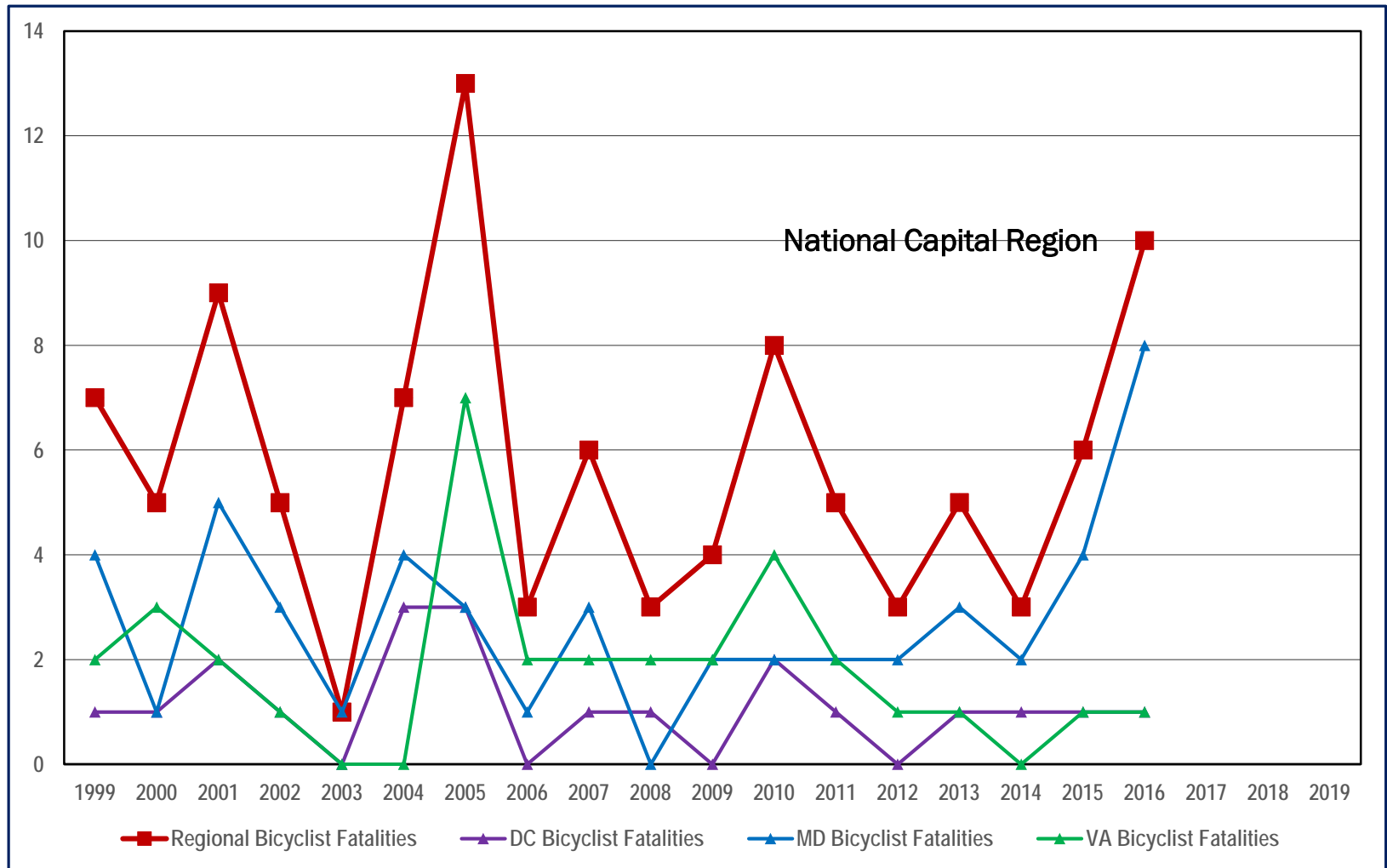


Bicyclist Fatalities

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

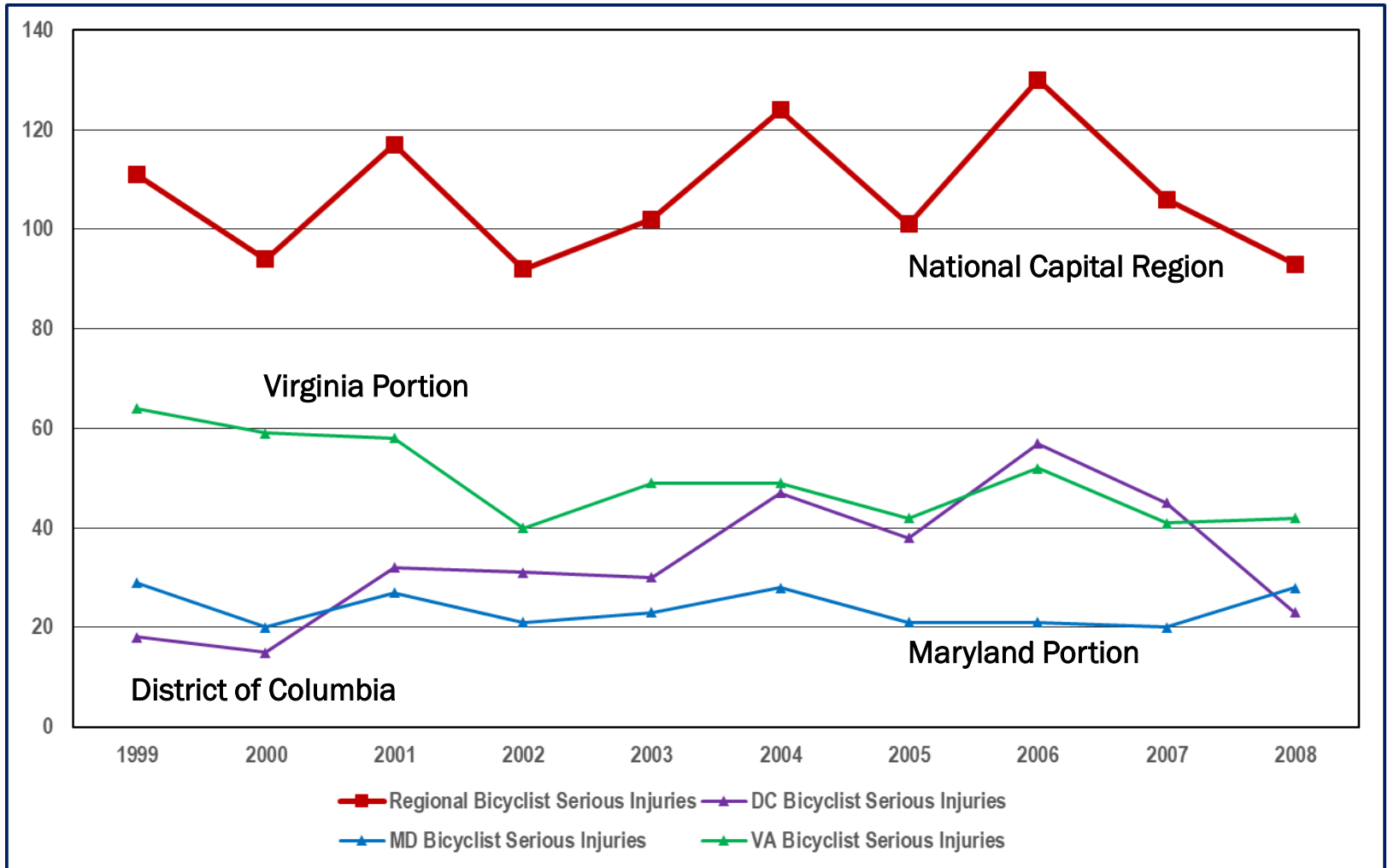


Bicyclist Serious Injuries

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

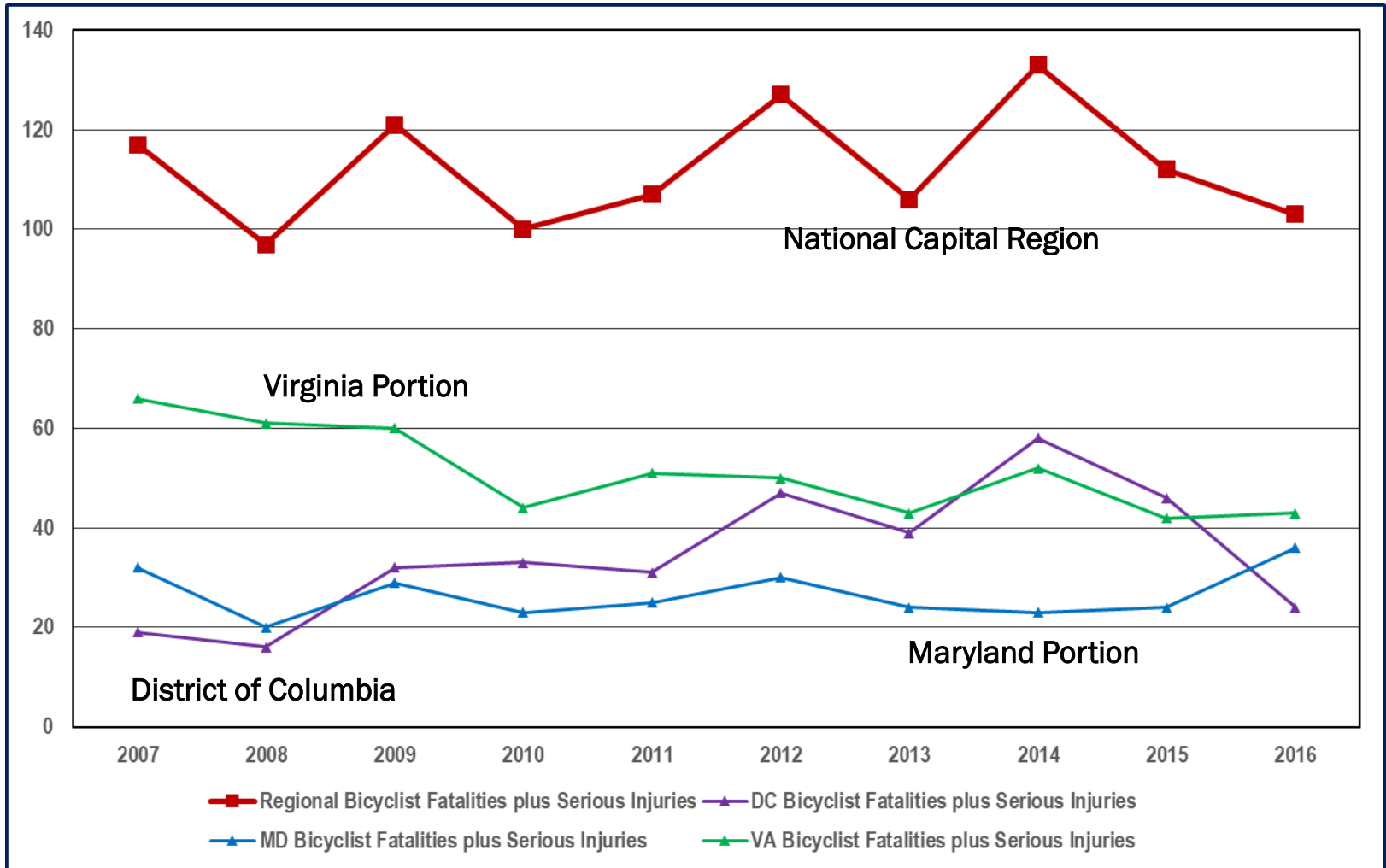


Bicyclist Fatalities + Serious Injuries

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



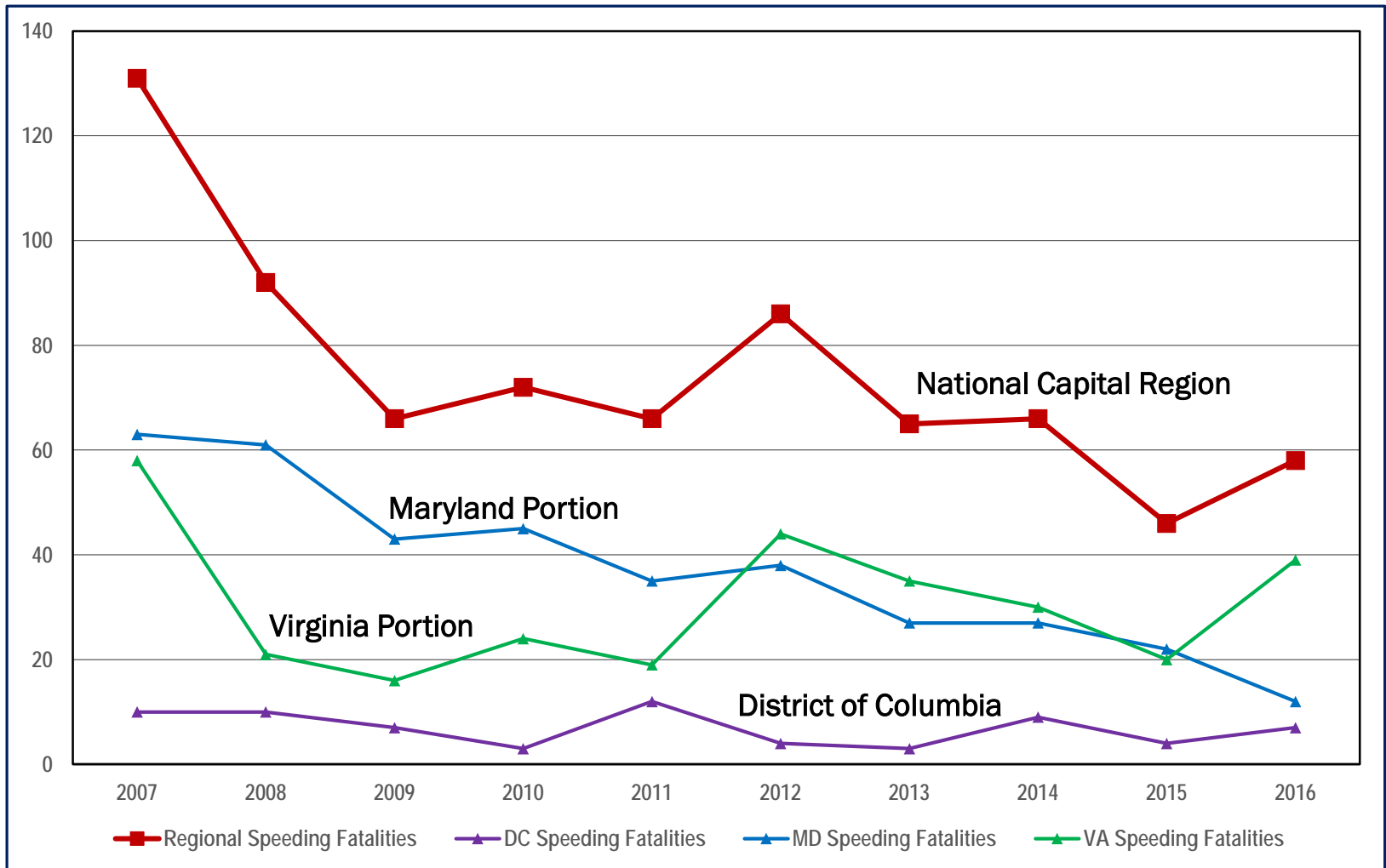
Bicyclist Fatalities + Serious Injuries



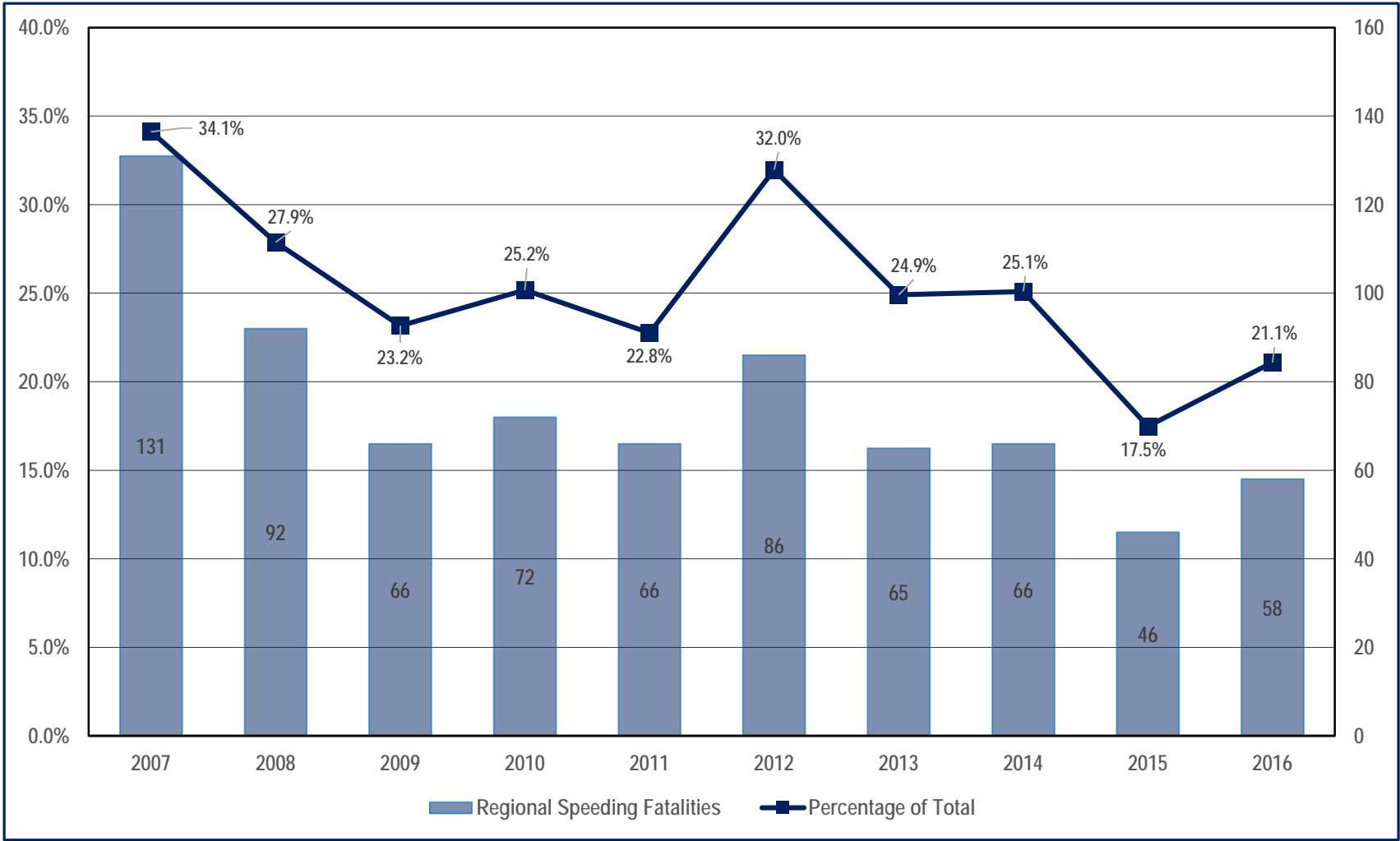
Bicyclist Fatalities + Ser Inj: % of Total



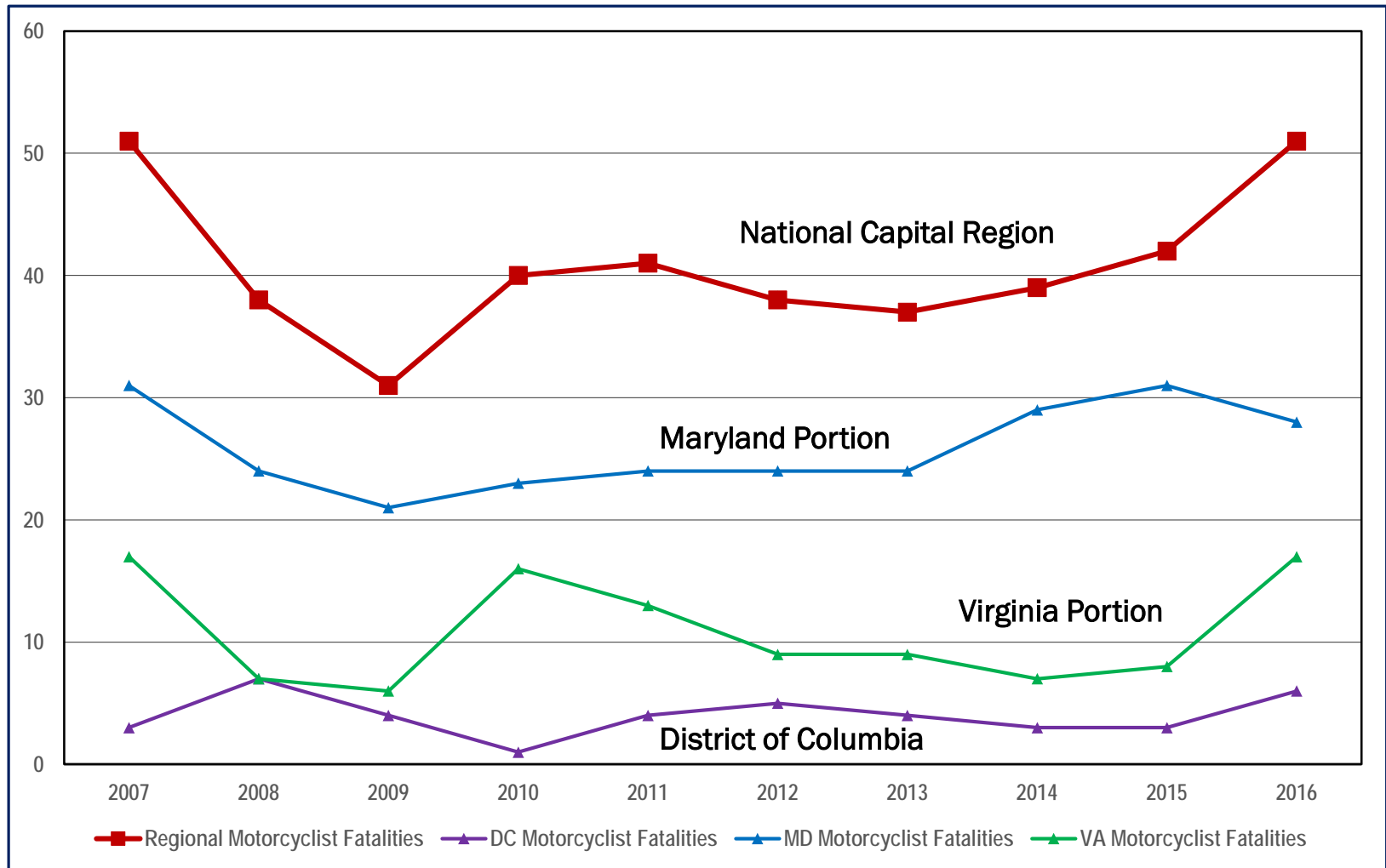
Speeding-Related Fatalities



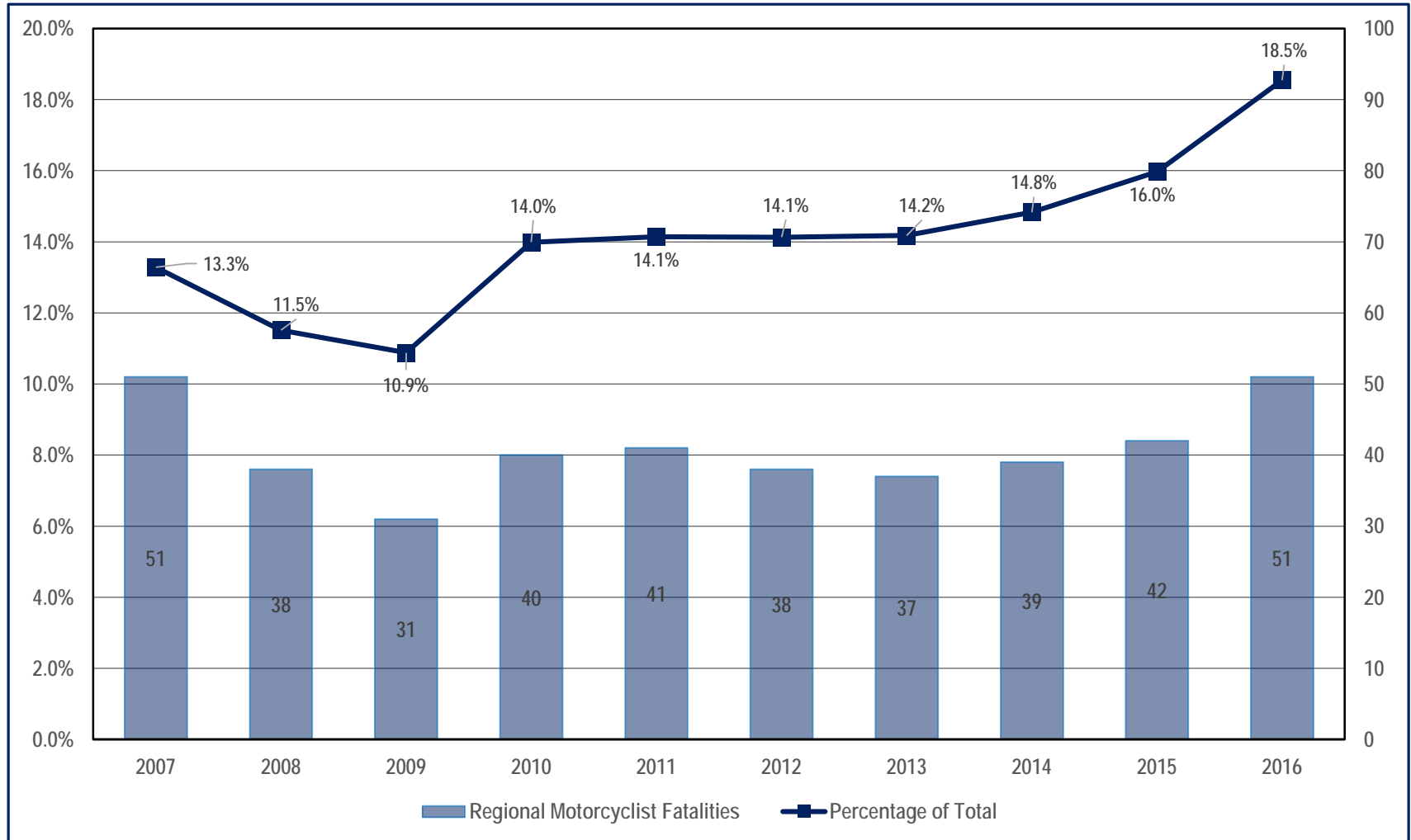
Speeding-Related Fatalities: % of Total



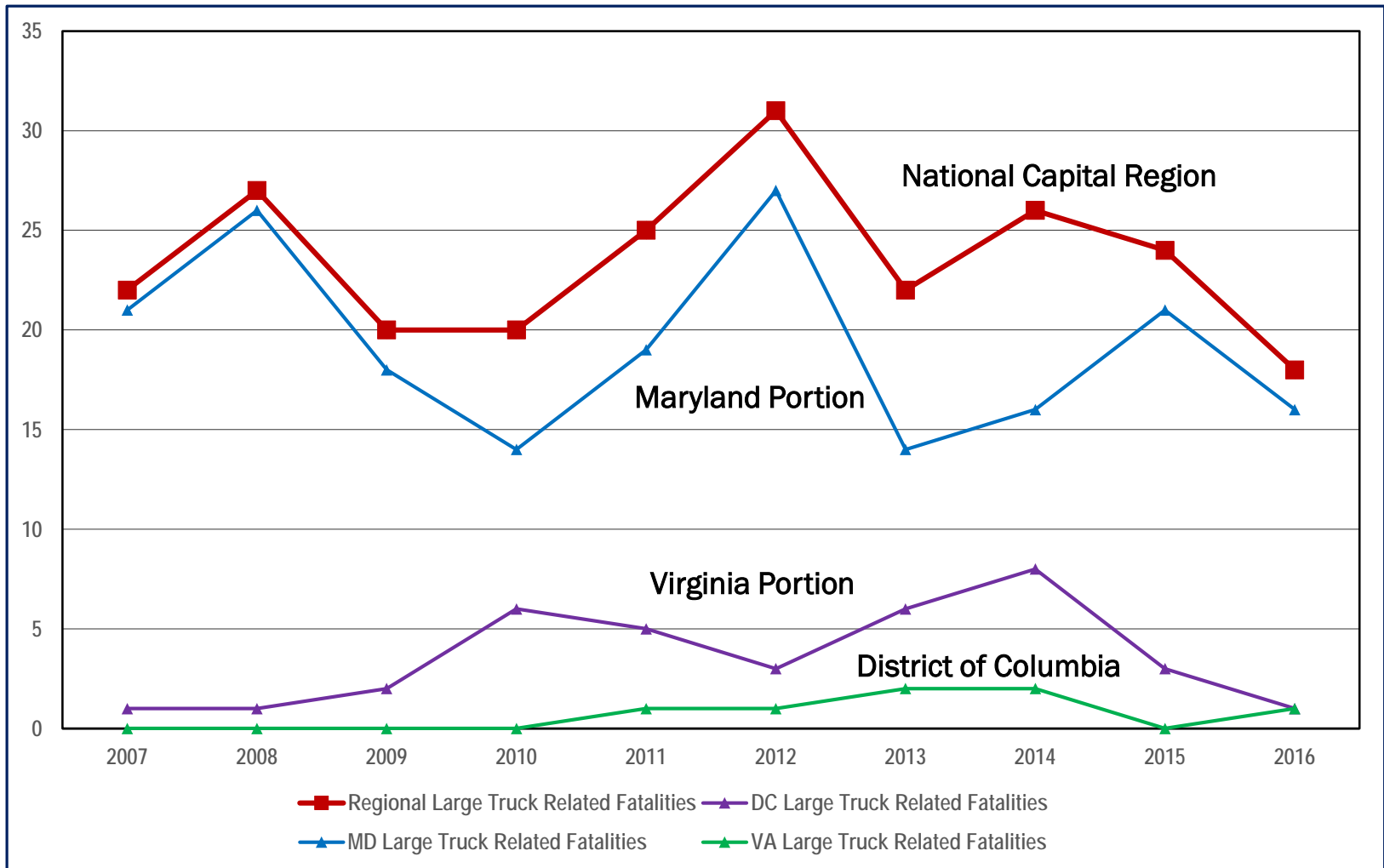
Motorcyclist Fatalities



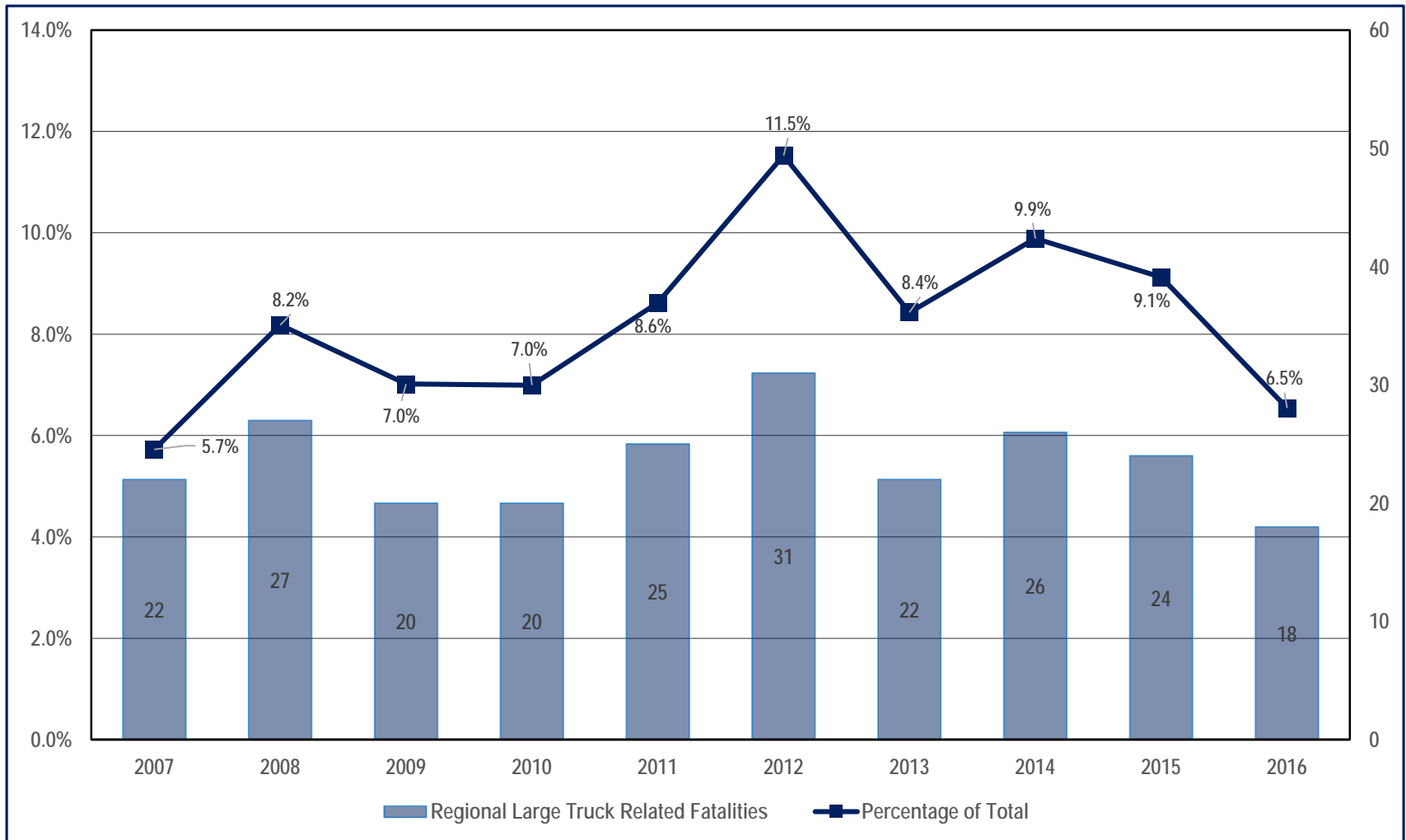
Motorcyclist Fatalities: % of Total



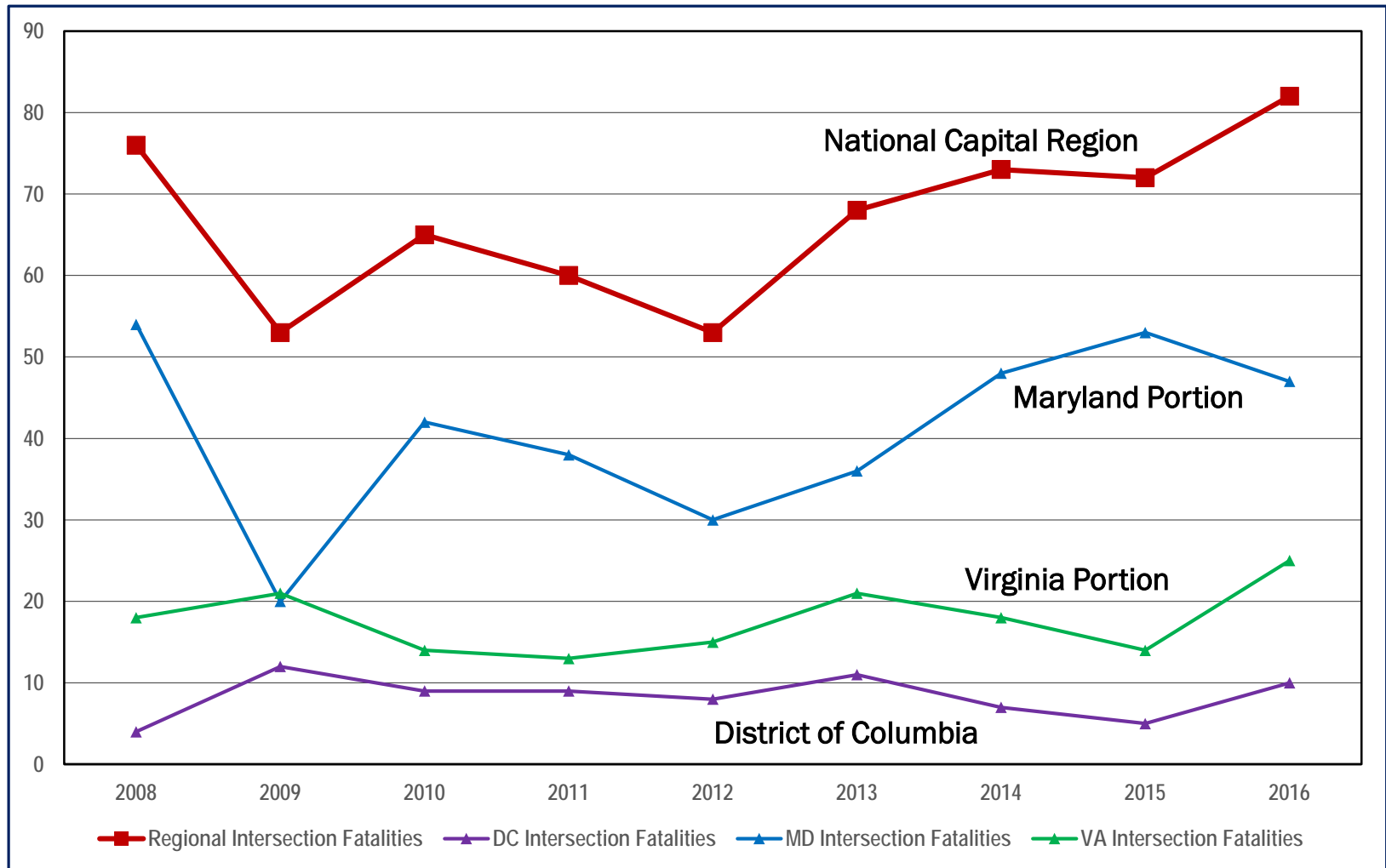
Large Truck-Related Fatalities



Large Truck-Related Fatalities:% of Total



Intersection-Related Fatalities



Intersection-Related Fatalities:% of Total

