

# SAFETY

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TPB Access For All Advisory Committee  
July 7, 2020



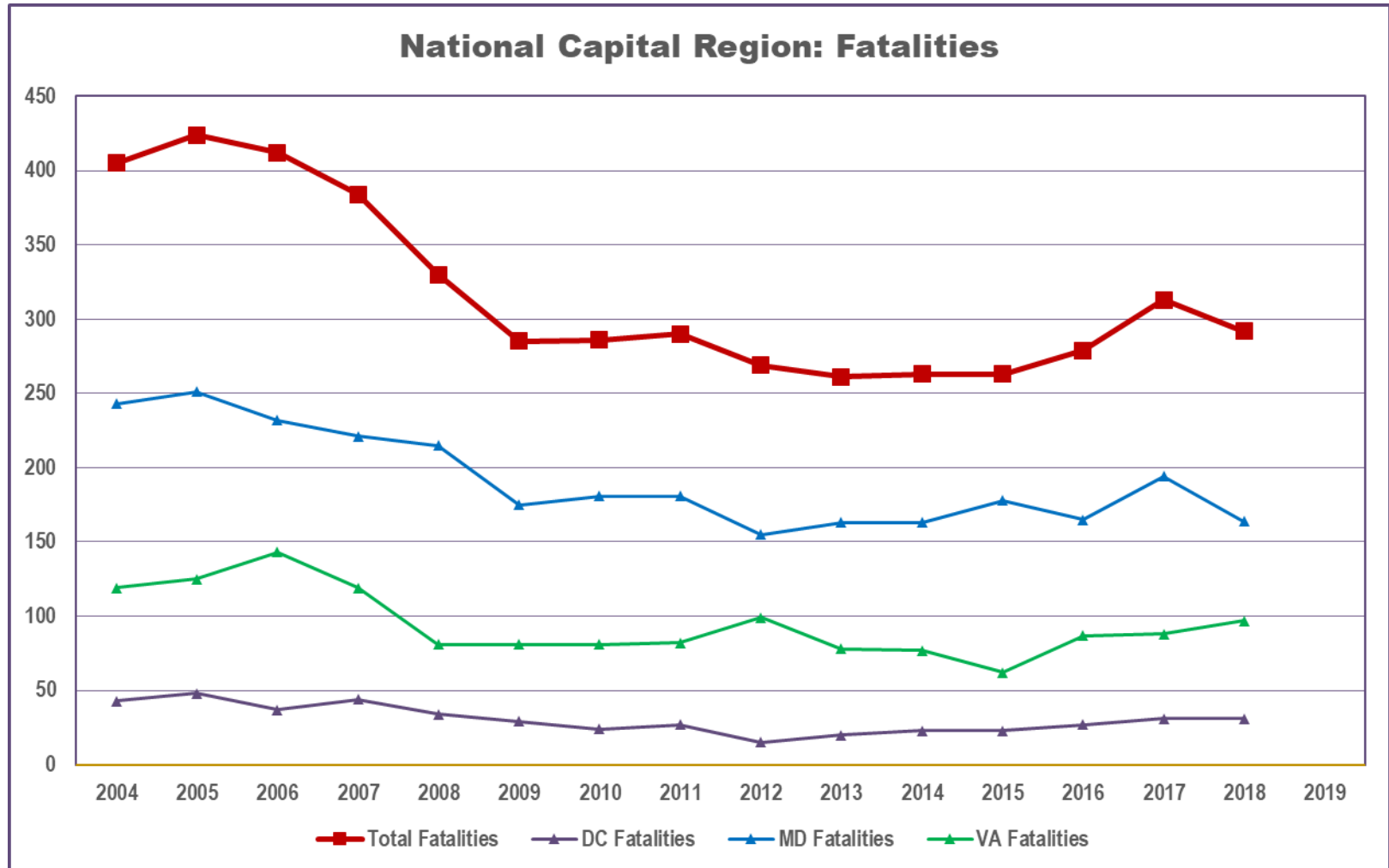
# Discussion Topics

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- Roadway Fatalities in the Region
- Review of Recent TPB Roadway Safety Actions
- Regional Safety Study Findings
- Proposed Recommendations
- Next Steps



# Regional Roadway Fatalities (2004-2018)



# Recent TPB Safety Actions (01/18 - 05/20)

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- TPB declares the current roadway safety outcomes in the region unacceptable
- TPB collaborates with state transportation agencies to understand what they are doing to address roadway safety in the region
- TPB conducts a high-level assessment of the region's safety data (regional safety study)
- Assessment reveals several underlying behavioral factors contributing to the unacceptable outcomes
- Assessment also reveals that three types of crashes account for a disproportionate share of fatalities and serious injuries
  - Pedestrians, intersections, major arterials
- TPB examines actions to take to significantly improve safety for the region's roadway users



# Study Overview

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- Objectives

- to understand the factors contributing to fatal and serious injury crashes in the National Capital Region (NCR);
- to determine where crashes on the roadway transportation network are over-represented;
- to identify and recommend proven effective solutions (policy, programmatic, project);
- to provide the TPB and member jurisdictions specific suggestions to improve safety; and
- to inform future Transportation Safety Subcommittee and Street Smart efforts.

- Progress to Date

- Kickoff meeting – June 26, 2019
- Benchmark Peer Evaluation - complete
- Collection and Processing of Safety Data – complete
- Analysis of Safety Data – complete
- Recommendations – in process

- Project Timeline

- Original contract through February 2020 – extended through November 2020



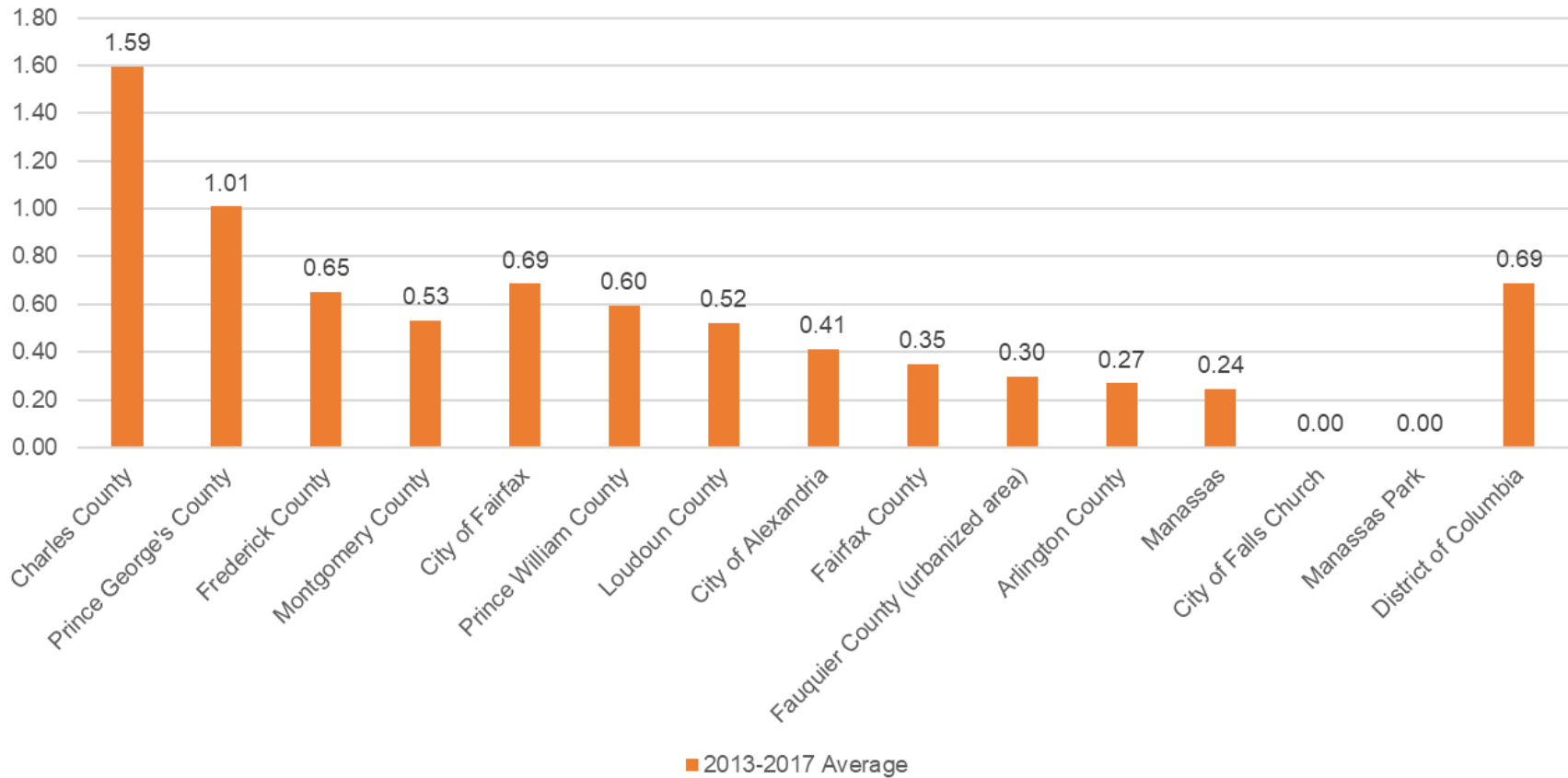
# Crashes by Jurisdiction (2013-2017)

Crash Severity by Jurisdiction			
Jurisdiction	Fatalities	Serious Injuries	Total Crashes
District of Columbia	124	1,765	118,166
Charles County, MD	103	955	13,391
Frederick County, MD	101	475	16,207
Montgomery County, MD	200	1,998	64,598
Prince George's County, MD	455	2,363	76,381
Arlington County, VA	21	303	12,592
Fairfax County, VA	172	3,423	68,645
Fauquier County, VA (urbanized area)	3	78	1,706
Loudoun County, VA	69	899	23,195
Prince William County, VA	104	1,117	28,306
Alexandria, VA	15	220	8,701
Fairfax City, VA	6	108	2,967
Falls Church, VA	0	79	681
Manassas, VA	2	324	2,933
Manassas Park, VA	0	7	382
<b>Urban Core</b>	160	2,288	139,459
<b>Inner Suburbs</b>	833	7,971	213,272
<b>Outer Suburbs</b>	382	3,855	86,120
<b>Total</b>	<b>1,375</b>	<b>14,114</b>	<b>438,851</b>



# Fatality Rate by Jurisdiction

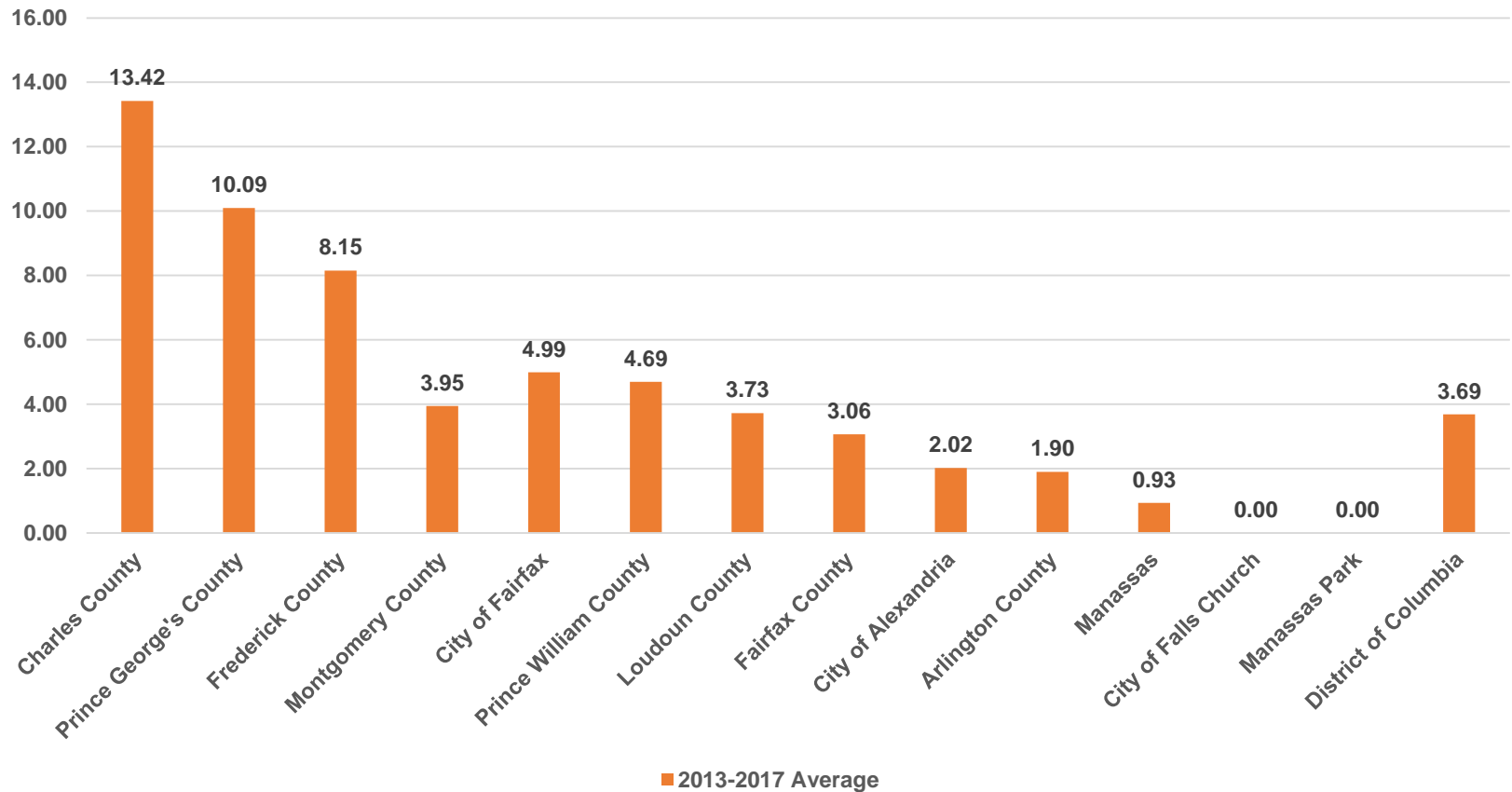
(per 100 million vehicle miles traveled)



# Fatality Rate by Jurisdiction

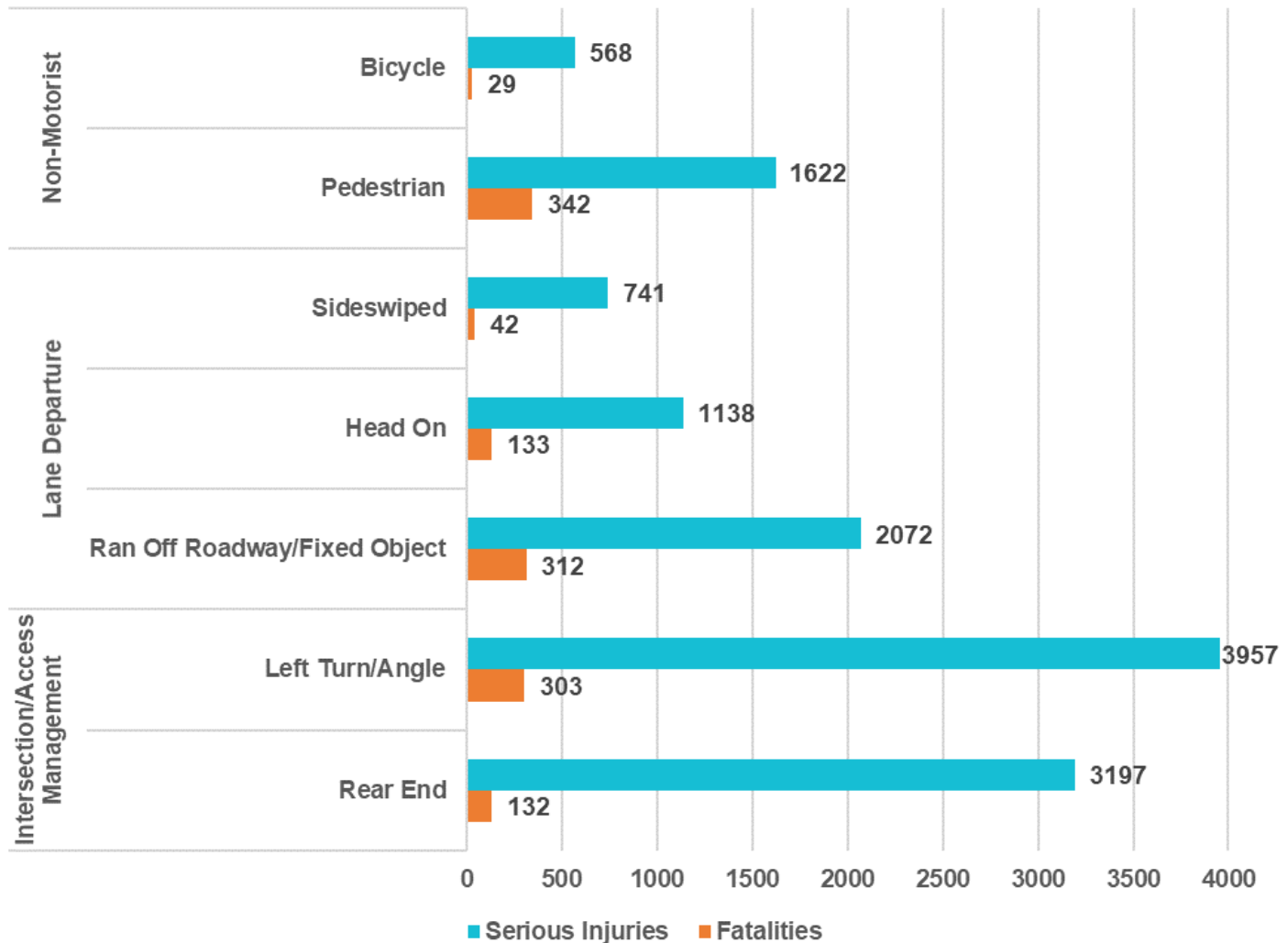
(per 100,000 people)

Fatalities per 100,000 Population

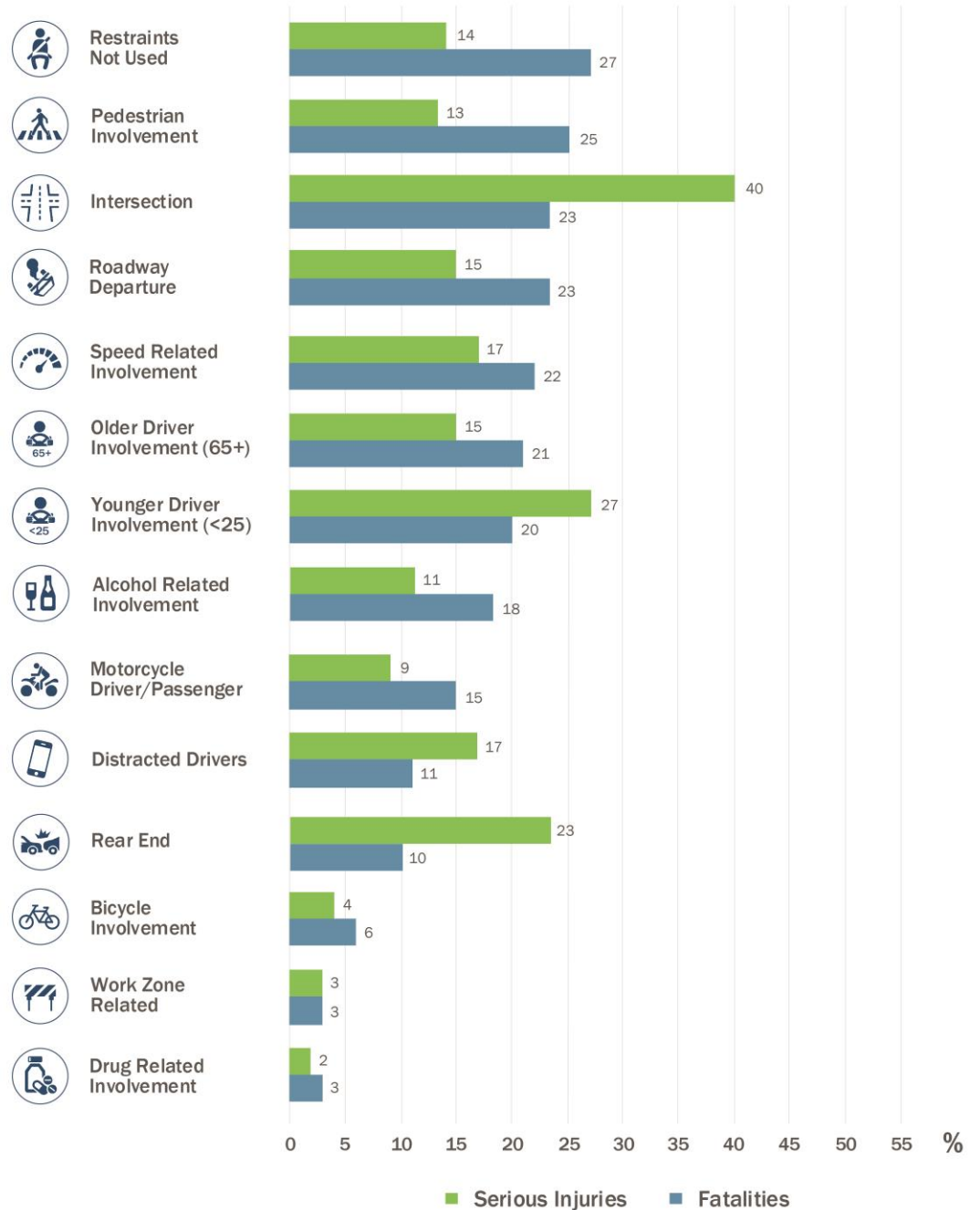




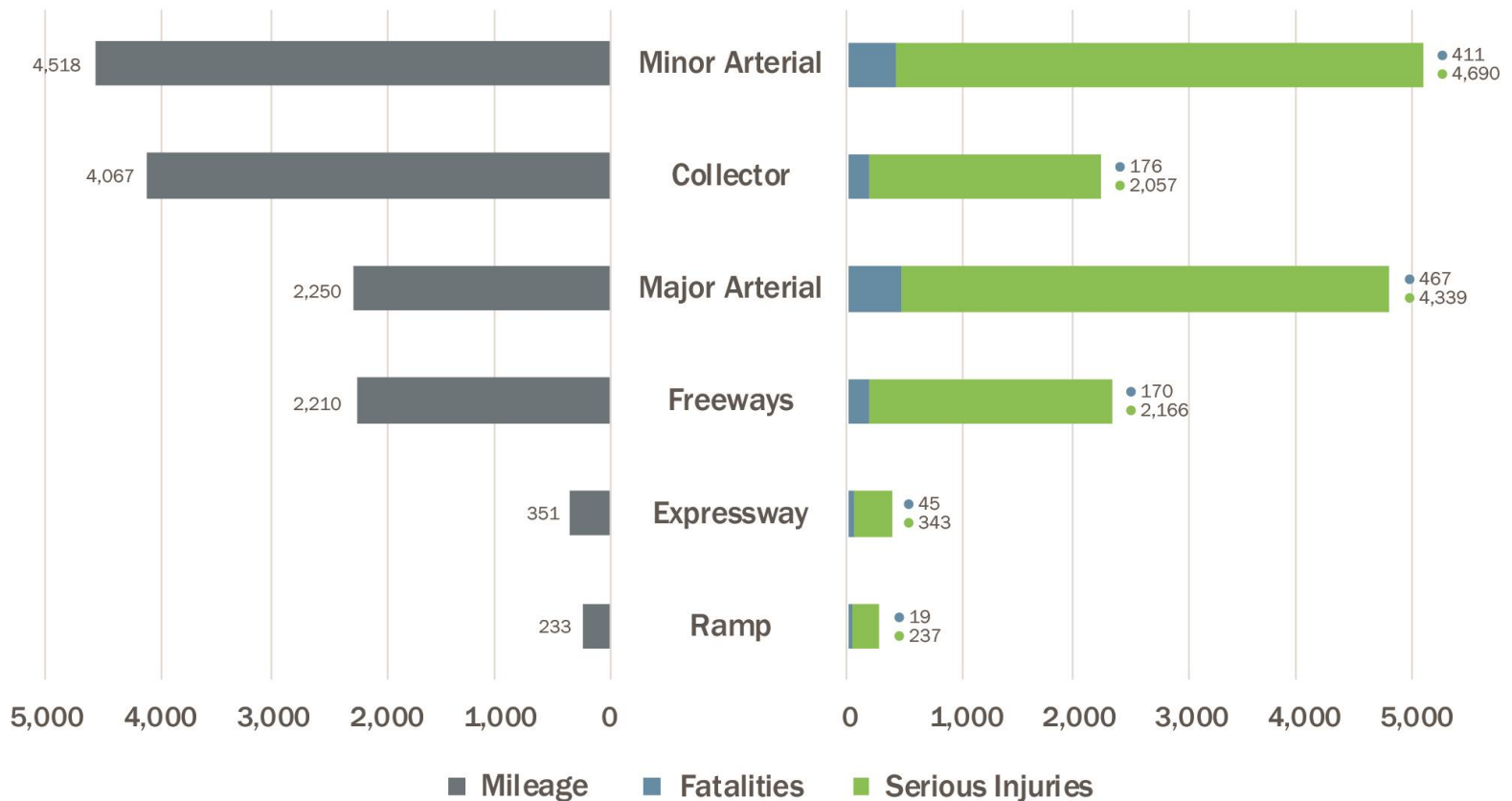
# Crash Types (2013-2017)



# Crash Contributing Factors (2013-2017)



# Functional Class (2013-2017)



# Deeper Dives

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- Pedestrians
- Intersections
- Arterials



# PEDESTRIANS



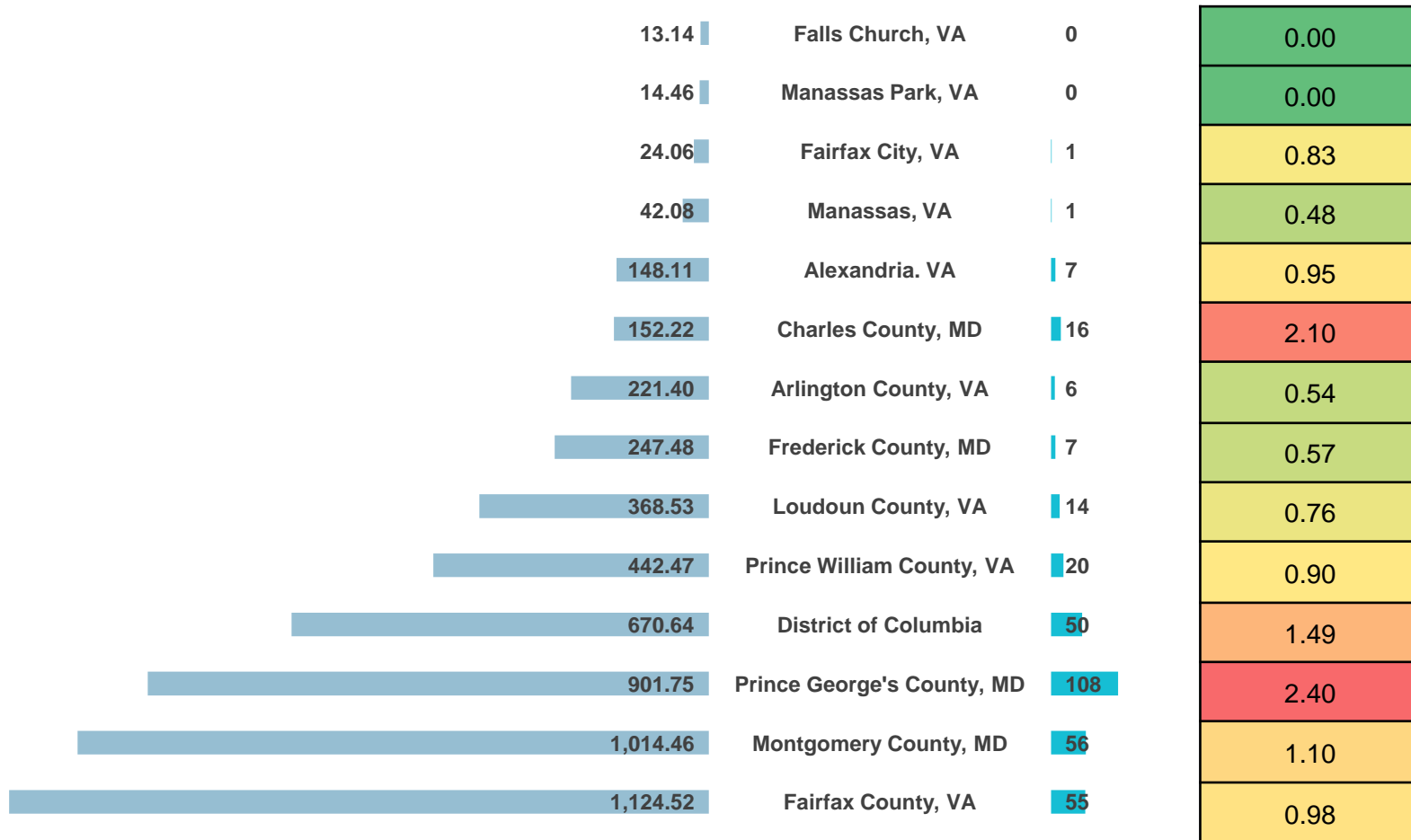
# Pedestrian Crash Severity By Jurisdiction

Pedestrian Crash Severity by Jurisdiction			
Jurisdiction	Fatalities	Serious Injuries	Total Crashes
District of Columbia	50	399	5,431
Charles County, MD	16	49	208
Frederick County, MD	7	36	284
Montgomery County, MD	56	318	2,297
Prince George's County, MD	108	269	2,156
Arlington County, VA	6	74	693
Fairfax County, VA	55	331	1,024
Fauquier County, VA (urbanized area)	1	7	24
Loudoun County, VA	14	57	235
Prince William County, VA	20	96	299
Alexandria, VA	7	58	338
Fairfax City, VA	1	21	54
Falls Church, VA	0	13	30
Manassas, VA	1	39	74
Manassas Park, VA	0	0	7
<b>Urban Core</b>	<b>63</b>	<b>531</b>	<b>6,462</b>
<b>Inner Suburbs</b>	<b>220</b>	<b>952</b>	<b>5,561</b>
<b>Outer Suburbs</b>	<b>59</b>	<b>284</b>	<b>1,131</b>
<b>National Capital Region Total</b>	<b>342</b>	<b>1,767</b>	<b>13,154</b>



# Pedestrian Fatality Rate by Population

Fatalities per 100,000 people



■ Average Population 2013-2017 (1,000's) ■ Pedestrian Fatalities



# Pedestrian Crash Severity by Time of Day

Pedestrian Injury Severity by Time of Day			
Time of Day	Fatalities	Serious Injuries	Total Crashes
Midnight - 0:59 a.m.	11	37	206
1:00 a.m. - 1:59 a.m.	13	35	161
2:00 a.m. - 2:59 a.m.	13	35	163
3:00 a.m. - 3:59 a.m.	7	31	131
4:00 a.m. - 4:59 a.m.	10	4	67
5:00 a.m. - 5:59 a.m.	15	29	187
6:00 a.m. - 6:59 a.m.	24	65	390
7:00 a.m. - 7:59 a.m.	12	85	623
8:00 a.m. - 8:59 a.m.	3	88	673
9:00 a.m. - 9:59 a.m.	7	57	543
10:00 a.m. - 10:59 a.m.	11	59	498
11:00 a.m. - 11:59 a.m.	8	64	547
12:00 p.m. - 12:59 p.m.	6	64	531
1:00 p.m. - 1:59 p.m.	5	68	588
2:00 p.m. - 2:59 p.m.	9	84	726
3:00 p.m. - 3:59 p.m.	11	107	872
4:00 p.m. - 4:59 p.m.	12	104	862
5:00 p.m. - 5:59 p.m.	12	151	1,103
6:00 p.m. - 6:59 p.m.	25	166	1,151
7:00 p.m. - 7:59 p.m.	26	137	911
8:00 p.m. - 8:59 p.m.	34	103	757
9:00 p.m. - 9:59 p.m.	33	99	632
10:00 p.m. - 10:59 p.m.	28	92	518
11:00 p.m. - 11:59 p.m.	18	65	311





# Pedestrian Crash Severity by Month

Pedestrian Injury Severity by Month			
Month	Fatalities	Serious Injuries	Total Crashes
January	28	151	1,162
February	28	136	929
March	27	145	984
April	23	149	1,027
May	31	155	1,101
June	23	150	1,087
July	22	109	892
August	29	160	967
September	24	156	1,117
October	40	180	1,389
November	38	163	1,242
December	40	176	1,257



# Pedestrian Crash Severity by Location

Injury Severity by Pedestrian Location			
Pedestrian Location	Fatalities	Serious Injuries	Total Crashes
Unknown	65	414	4,270
Unmarked Crosswalk	6	54	386
Marked Crosswalk	61	536	3,927
Sidewalk	7	33	252
In Roadway/Unmarked Midblock/Not at Intersection	197	675	3,770
Median/Island	2	4	28
Outside Roadway	15	114	521



# Driver Age in Pedestrian Crashes

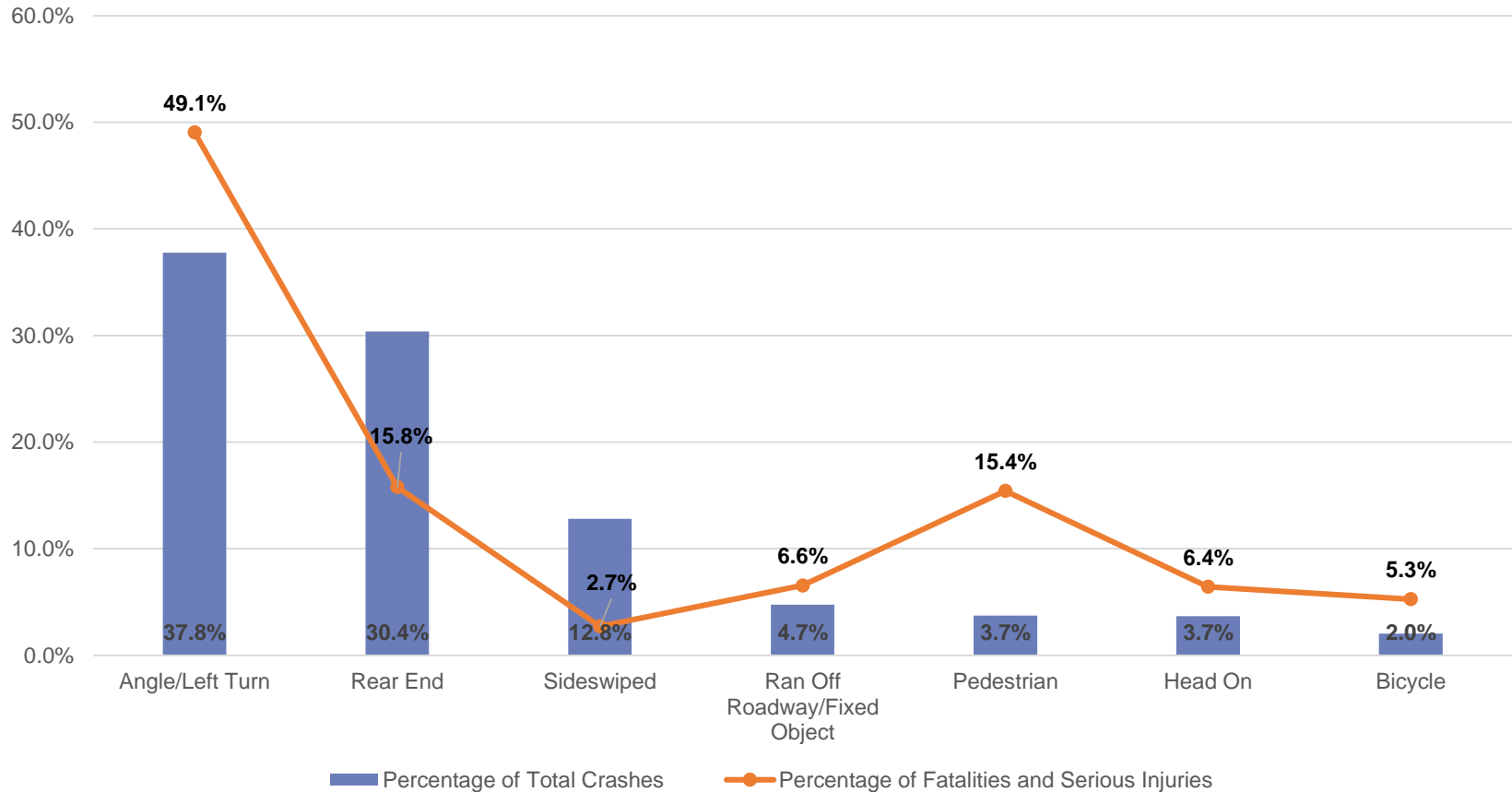
Driver Age in Pedestrian Crashes			
Driver Age	Fatal Pedestrian Crashes	Serious Injury Pedestrian Crashes	Total Drivers in Pedestrian Crashes
Younger than 5	0	0	0
5-9	0	0	0
10-14	0	0	0
15-19	12	52	280
20-24	32	159	960
25-29	34	174	1,213
30-34	37	180	1,190
35-39	32	164	1,012
40-44	36	144	947
45-49	30	173	998
50-54	36	142	1,033
55-59	34	133	952
60-64	20	101	759
65-69	16	97	588
70-74	5	49	395
75-79	8	44	259
80-84	6	20	165
Older than 84	42	158	1,079



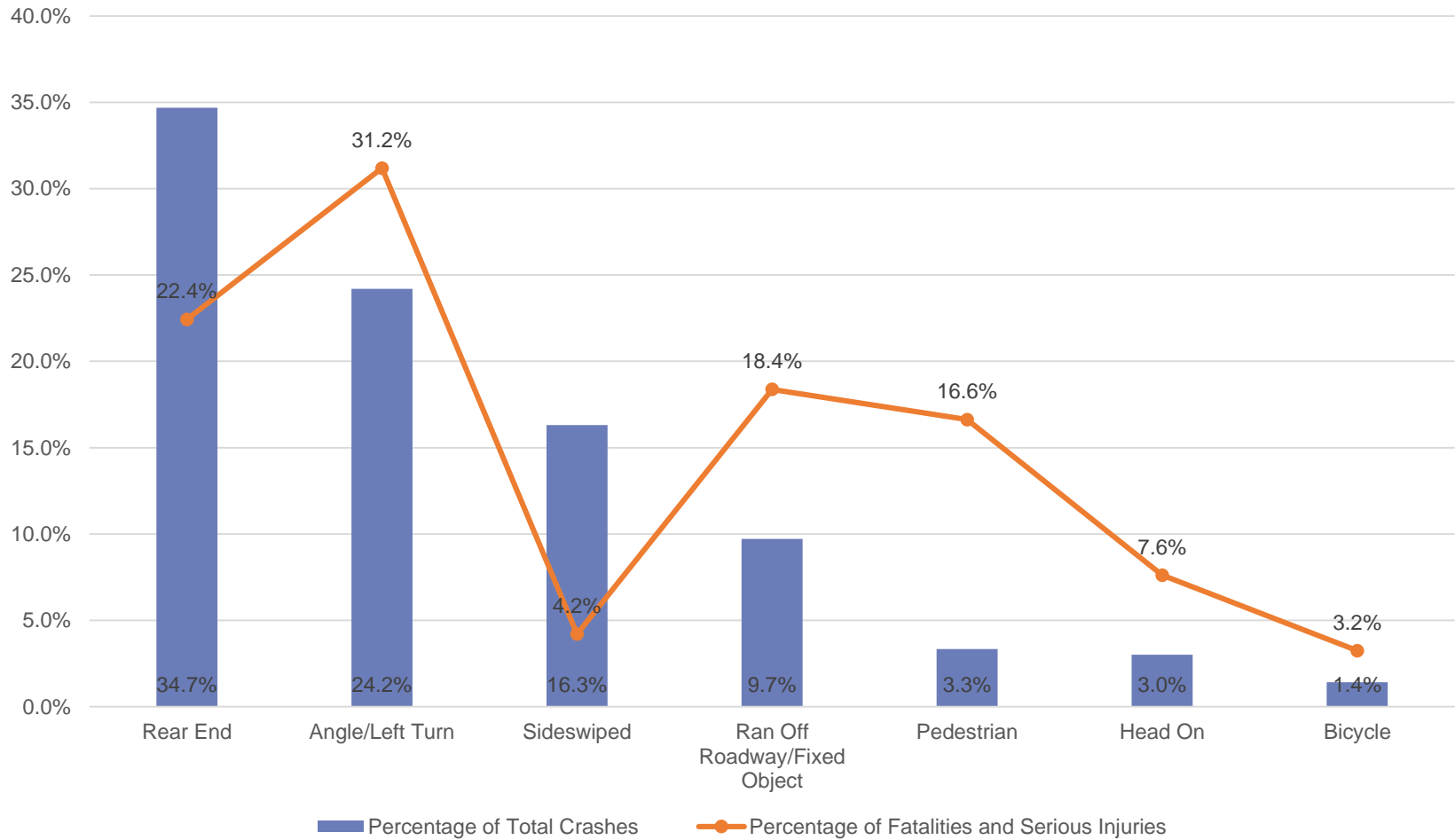
# INTERSECTIONS & MAJOR ARTERIALS



# Intersection Collision Types by Contribution



# Major Arterial Collision Types by Contribution



# Proposed Recommendations



# Proposed TPB Resolution – Part 1

Action	Description
Urges its members to:	<p>Reaffirm road user safety as a top priority and prioritize the implementation of projects, programs, and policies, that strive to ensure equitable impacts and will:</p> <ul style="list-style-type: none"><li>• Increase Seat Belt Use</li><li>• Reduce Speeding</li><li>• Reduce Impaired Driving</li><li>• Reduce Distracted Driving</li></ul>
<i>General (systemic) recommendations that address behavior and affect all types of crashes</i>	





# Proposed TPB Resolution – Part 2

Action	Description
Urges its members to:	Commit to working individually and/or collectively to implement all of the applicable safety measures (attached) to address the types of fatal and serious injury crashes disproportionately observed in this region and strive to ensure their equitable impacts
<i>Specific set of recommendations that address the region's predominant types of fatal and serious injury crashes</i>	



# Proposed TPB Resolution – Part 3

Action	Description
Establish a Regional Roadway Safety Program	<ul style="list-style-type: none"><li>• Which, through enhanced safety planning capabilities, can assist its member jurisdictions and the region implement projects, programs or policies to equitably improve safety outcomes for all roadway users.</li><li>• Modeled loosely on its Transportation Land-use Connection program with assistance from the three DOTs</li><li>• ~\$250k annual budget</li></ul>

*Recommendation to establish a regional safety program to help improve road user safety*



# Proposed TPB Resolution – Part 4

## Action

Calls upon its member jurisdictions and agencies to:

- adopt equitable Vision Zero policies, and
- develop local roadway safety plans and ensure their equitable impacts on all roadway users

Calls upon its member states\* to:

- adopt primary seat belt legislation, and
- increase the use of ignition interlock devices for impaired driving offenders

\* Note: Currently several jurisdictions have Vision Zero policies and/or roadway safety plans; DC and MD have primary seat belt laws; all member states have ignition interlock device requirements but apply them to varying degrees



# Illustrative Projects – TPB Regional Safety Program

## TPB Regional Safety Program – Types of Projects

- Assist jurisdictions with crash data analysis
- Provide consultant services to facilitate local road safety audits
- Support additional “Street Smart-like” activities with street teams and Virtual Reality car for member jurisdictions
- Conduct analyses of equity impacts of roadway safety measures
- Support or sponsor a regional “safest driver” contest (along the lines of what San Antonio did in 2018)
- Support jurisdictional level roadway safety plans
- Facilitate/conduct regional safety peer exchanges and/or training programs
- Facilitate educational outreach on safety



# Next Steps

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- Finalize proposed resolution based on Transportation Planning Board feedback
- Request adoption of resolution at the July TPB meeting
- Continue the work...

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National Capital Region  
**Transportation Planning Board**