

The Regional Transportation Safety Picture

Deaths, Injuries & Crashes

Briefing to the Transportation Safety Subcommittee
December 16, 2013
By Marco Trigueros, COG/TPB staff

Regional Transportation Safety Planning

- ▶ Transportation Safety Subcommittee
 - Information Exchange
 - Identify opportunities for coordination and collaborative planning for safety aspects of the region's transportation systems
 - Examples: Street Smart, Regional Safety Data Visualization Tool
- ▶ Safety data compilation and analysis
- ▶ Coordinate with other TPB committees on the integration of safety considerations
- ▶ Maintain Safety Element of region's long-range transportation plan
- ▶ Transportation Safety Planning is becoming a higher priority for the TPB
 - Safety data influenced the Regional Priorities Plan currently under development

Safety Element of the Long-Range Transportation Plan

- ▶ A Federal requirement
- ▶ A regional look at Transportation Safety
 - Transportation Planning Board Member Jurisdictions
 - Incorporates common Safety Emphasis areas in the DC, MD, and VA Strategic Highway Safety Plans (SHSPs)
- ▶ We will update the Safety Element this year

Emphasis Areas from Most Recent State Strategic Highway Safety Plans

| Emphasis Areas | DC | MD | VA |
|-------------------------------------|----|----|----|
| Aggressive Drivers (speed) | x | x | x |
| Occupant Protection (seat belts) | x | x | x |
| Impaired Drivers (alcohol or drugs) | x | x | x |
| Driver Competence | x | | |
| Young Drivers | x | | x |
| Senior Drivers | x | | |
| Trucks and Buses | x | | |
| Motorcycle Operators | x | | |
| Pedestrian and Bicyclist Safety | x | x | |
| Intersection Safety | x | x | x |
| Roadway Departures | x | x | x |
| Work Zone Safety | x | x | |
| Traffic Records | x | | x |
| Distracted Driving | x | x | |
| Emergency Response Systems | x | | |
| Hazardous Locations | x | x | |
| Head-On Collisions | x | | |

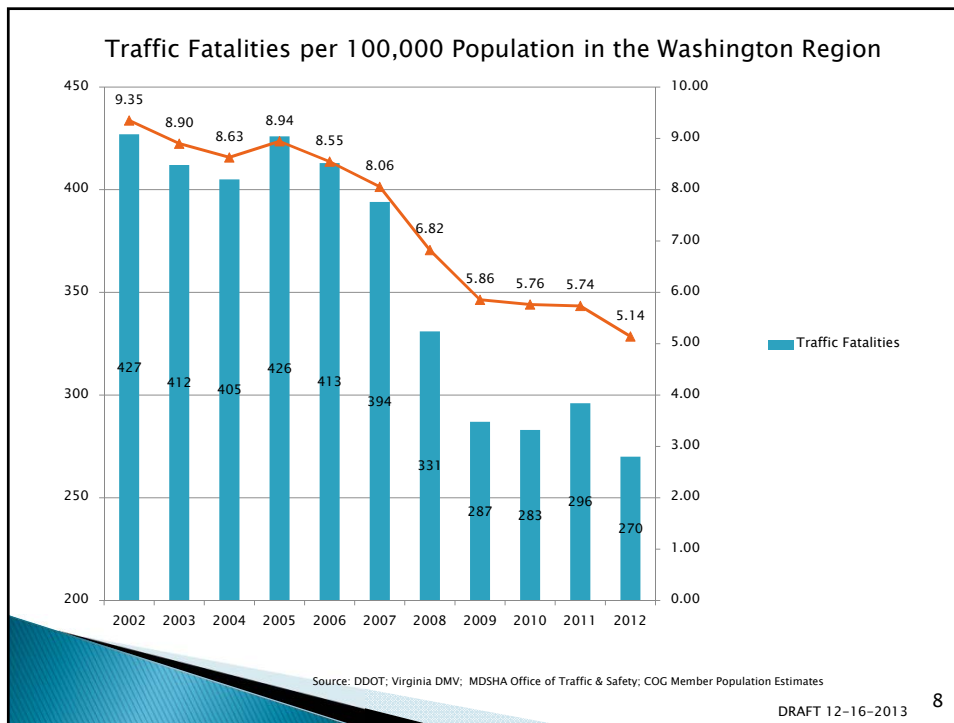
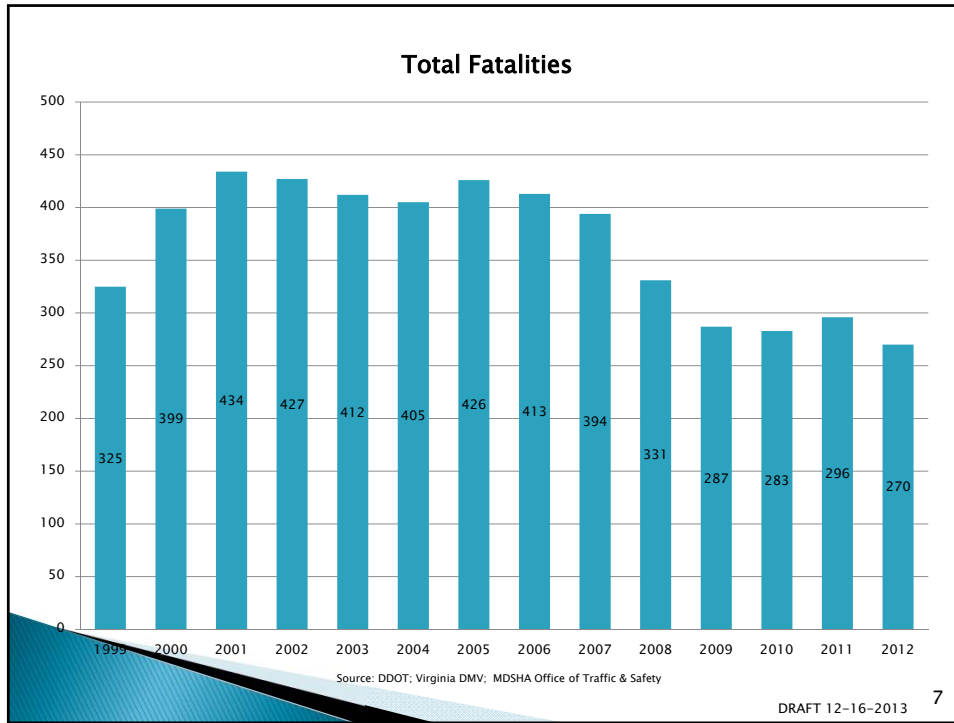
Emphasis Areas in Common

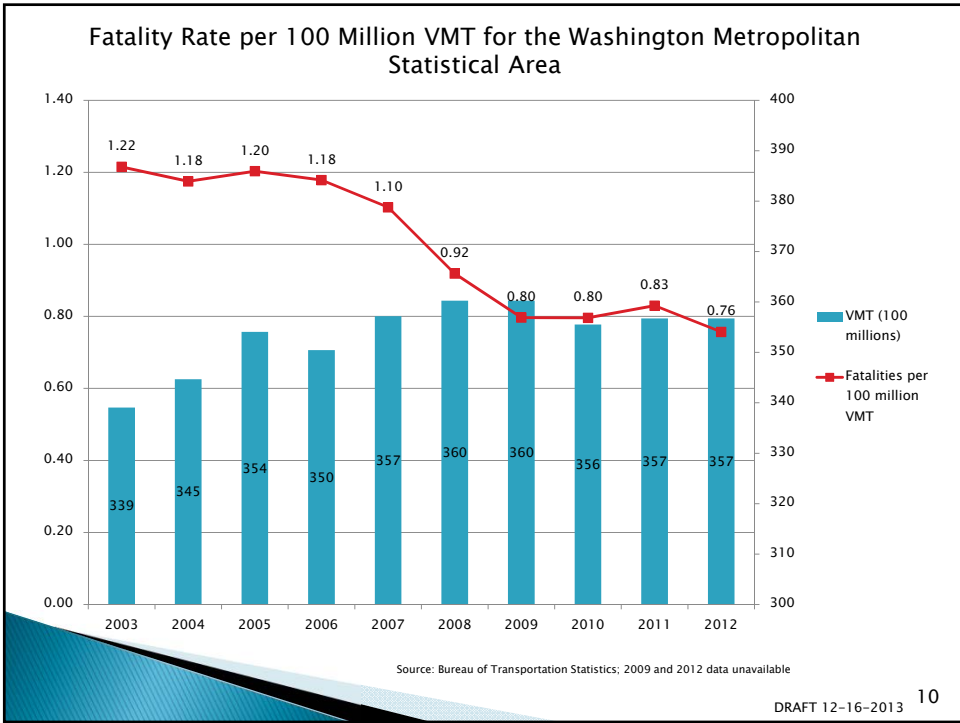
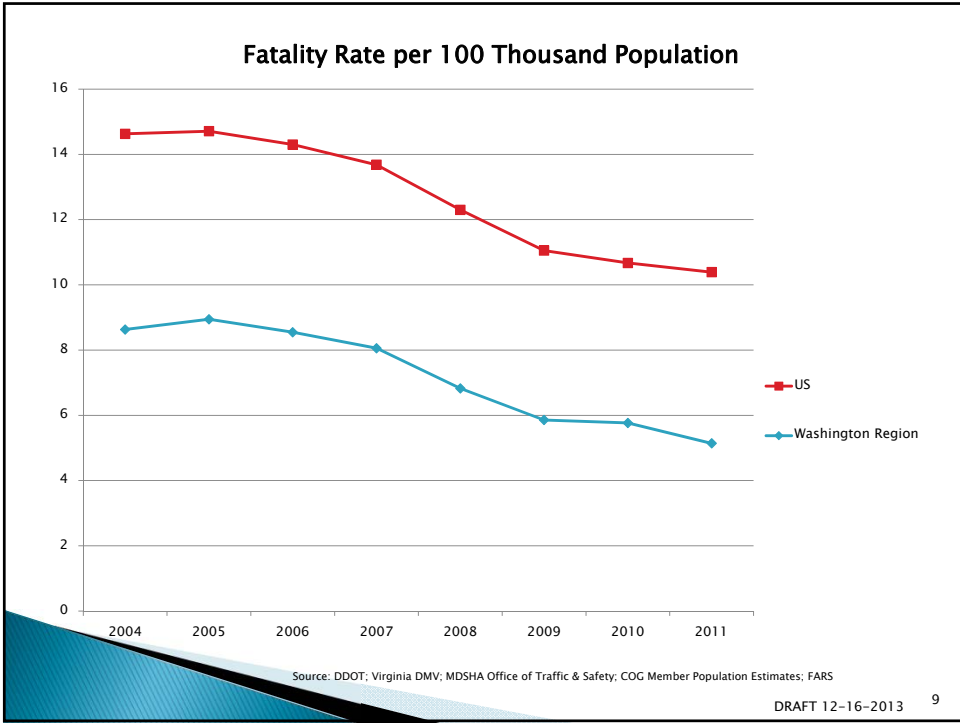
1. Impaired Driving
2. Speeding & Aggressive Driving
3. Occupant Protection (seatbelts)
4. Run off the Road
5. Intersections
6. Information and Decision Support Systems (Traffic Records)

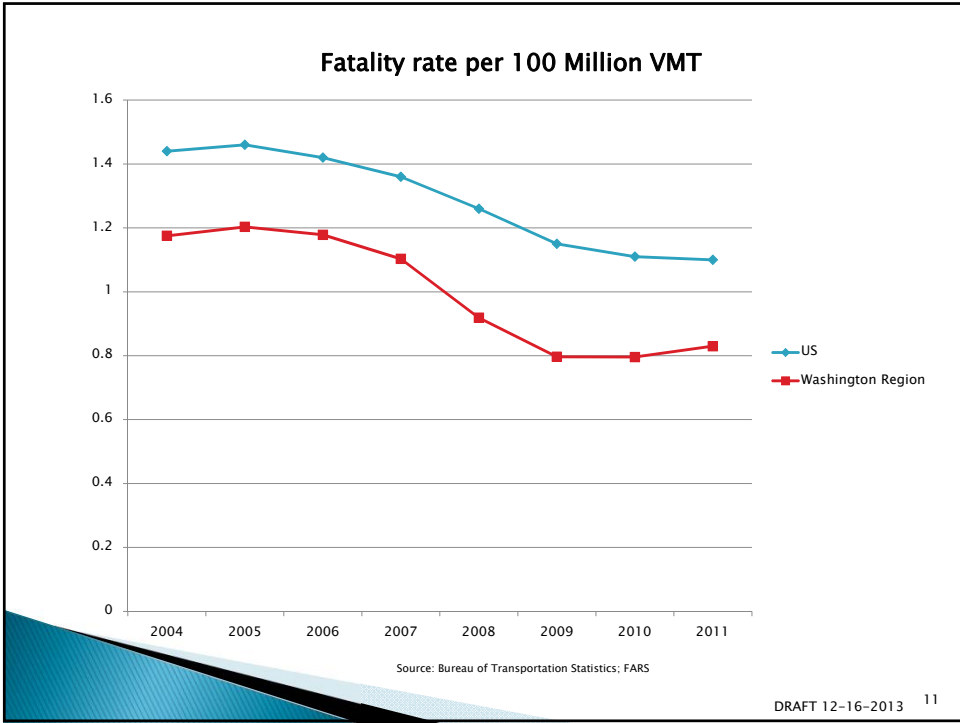
Traffic Fatalities in the Washington Region

| Jurisdiction | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | Total | Average |
|-------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|------------|
| District of Columbia | 41 | 52 | 71 | 50 | 68 | 45 | 49 | 41 | 54 | 39 | 33 | 25 | 32 | 19 | 619 | 44 |
| Charles County | 26 | 30 | 21 | 27 | 20 | 16 | 40 | 30 | 23 | 14 | 15 | 18 | 22 | 15 | 317 | 23 |
| Frederick County | 32 | 27 | 37 | 18 | 18 | 28 | 33 | 33 | 25 | 21 | 23 | 24 | 15 | 16 | 350 | 25 |
| Montgomery County | 49 | 60 | 60 | 67 | 52 | 79 | 44 | 58 | 49 | 52 | 40 | 48 | 40 | 37 | 735 | 53 |
| Prince George's County | 79 | 102 | 128 | 141 | 122 | 121 | 134 | 111 | 126 | 129 | 98 | 87 | 105 | 87 | 1570 | 112 |
| Arlington County | 8 | 14 | 9 | 12 | 9 | 6 | 9 | 3 | 6 | 8 | 5 | 5 | 6 | 4 | 104 | 7 |
| City of Alexandria | 4 | 5 | 5 | 6 | 3 | 3 | 2 | 1 | 5 | 3 | 1 | 3 | 3 | 4 | 48 | 3 |
| Fairfax County | 49 | 70 | 53 | 64 | 61 | 63 | 61 | 67 | 53 | 29 | 37 | 36 | 44 | 45 | 732 | 52 |
| City of Fairfax | 0 | 0 | 1 | 1 | 3 | 0 | 2 | 3 | 2 | 0 | 2 | 0 | 2 | 5 | 21 | 2 |
| City of Falls Church | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 7 | 1 |
| Loudoun County | 11 | 9 | 15 | 16 | 24 | 22 | 20 | 19 | 21 | 11 | 13 | 12 | 11 | 18 | 222 | 16 |
| City of Manassas | 1 | 2 | 2 | 1 | 1 | 0 | 3 | 1 | 3 | 1 | 3 | 0 | 0 | 1 | 19 | 1 |
| City of Manassas Park | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 |
| Prince William County | 24 | 27 | 31 | 23 | 30 | 22 | 29 | 46 | 27 | 24 | 16 | 23 | 15 | 19 | 356 | 25 |
| Total Washington | 325 | 399 | 434 | 427 | 412 | 405 | 426 | 413 | 394 | 331 | 287 | 283 | 296 | 270 | 5102 | 425 |

Source: DDOT; Virginia DMV; MDSHA Office of Traffic & Safety





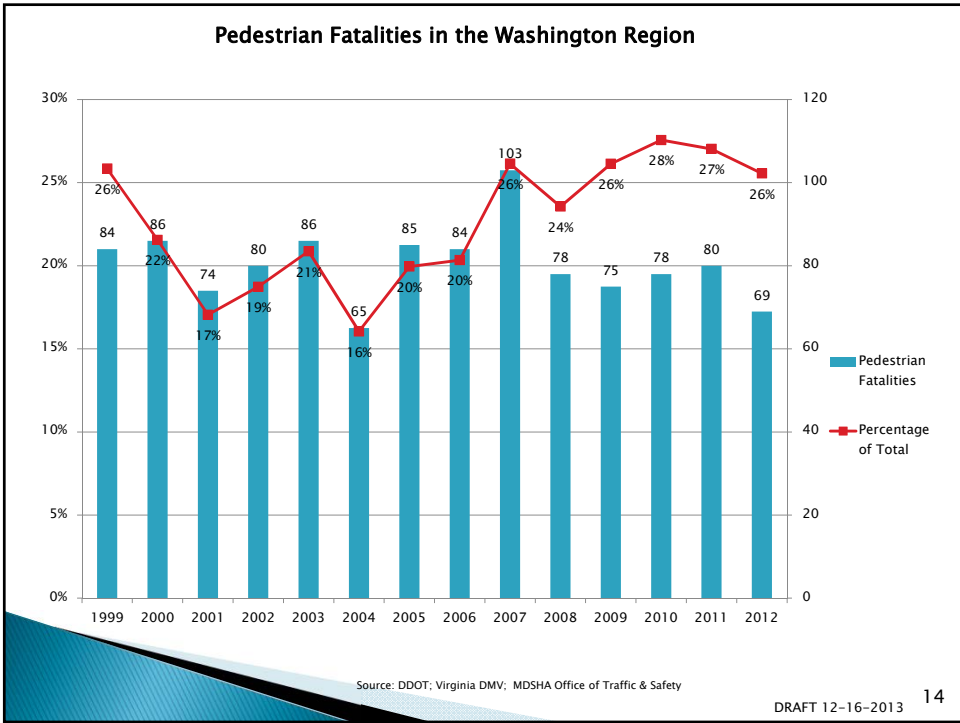
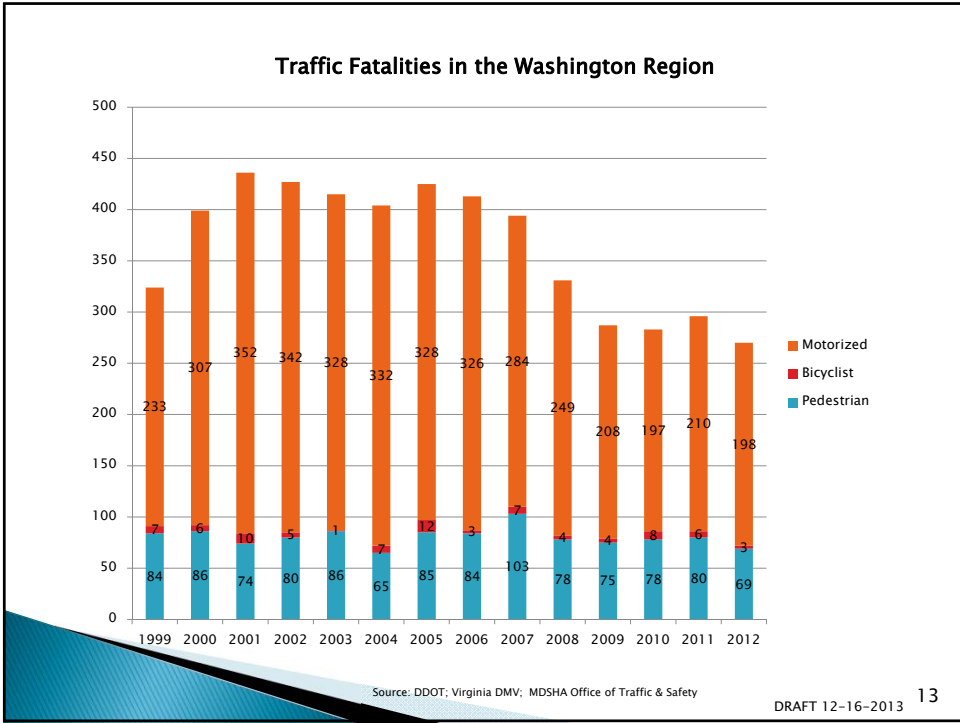


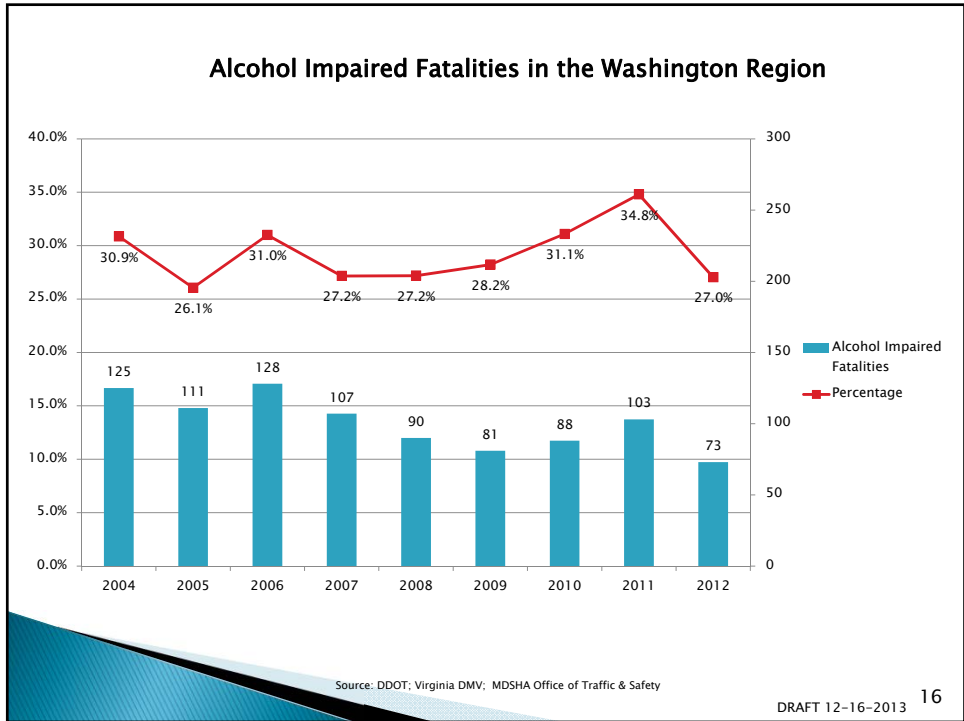
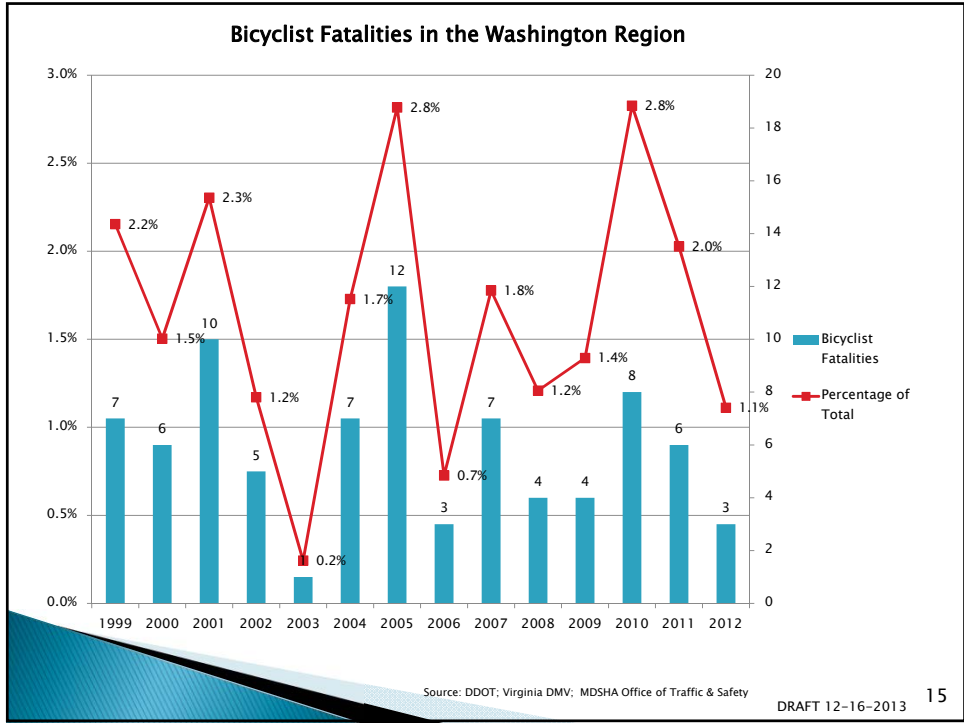
Pedestrian and Bicyclist Fatalities

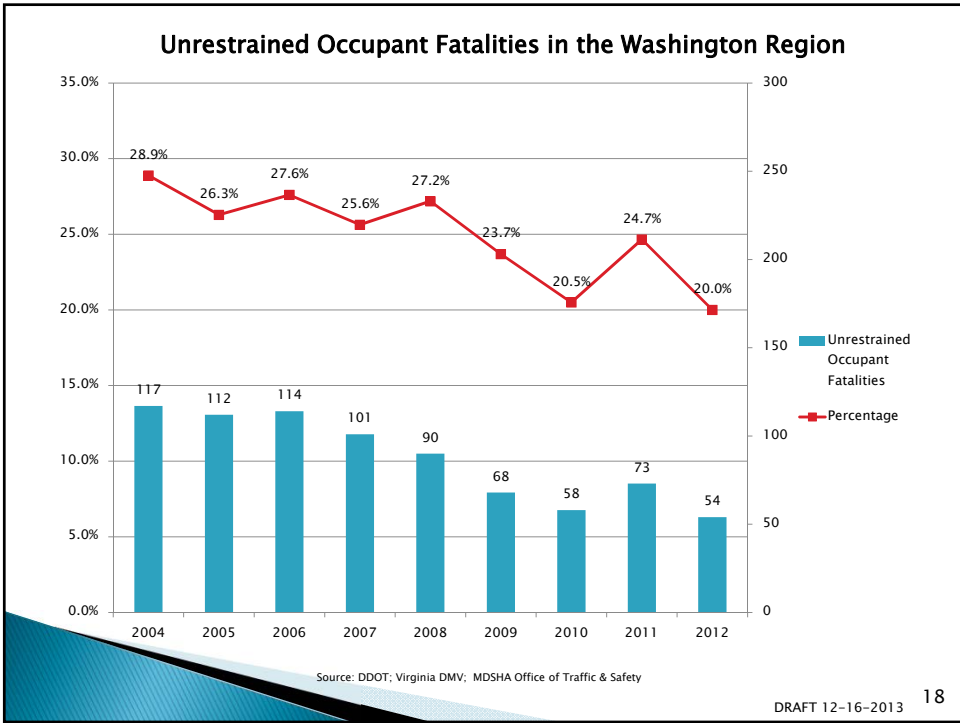
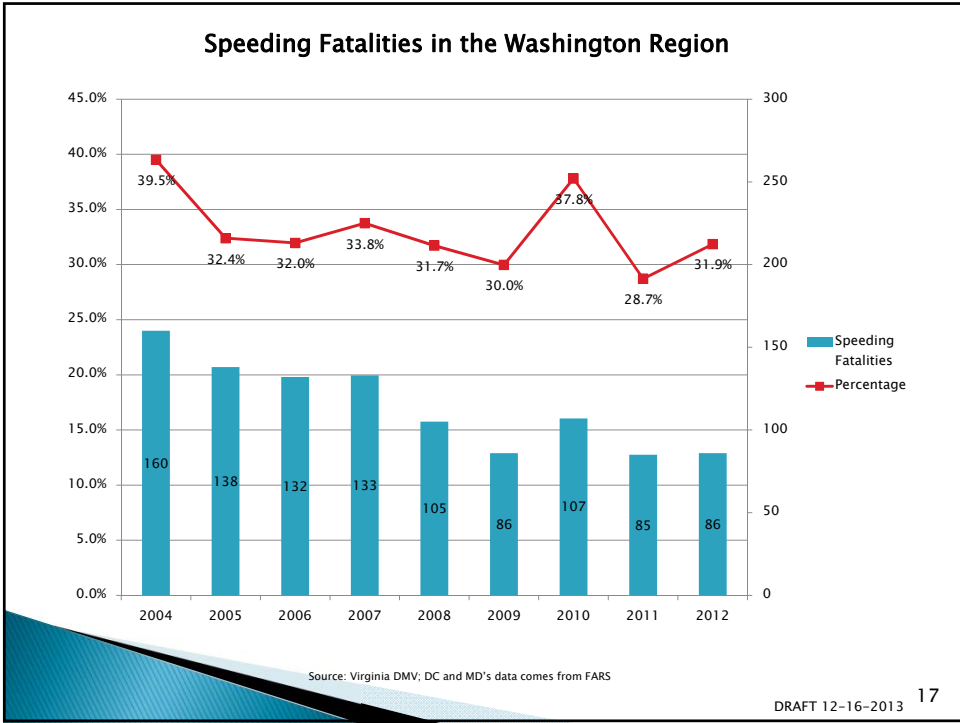
| Jurisdiction | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | Total | Average |
|-------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-------------|------------|
| District of Columbia | 18 | 20 | 15 | 9 | 18 | 14 | 19 | 17 | 27 | 15 | 16 | 16 | 13 | 8 | 225 | 16 |
| Charles County | 6 | 3 | 2 | 5 | 3 | 1 | 6 | 2 | 6 | 1 | 3 | 3 | 9 | 4 | 54 | 4 |
| Frederick County | 6 | 4 | 0 | 2 | 4 | 2 | 2 | 4 | 1 | 0 | 1 | 3 | 0 | 4 | 33 | 2 |
| Montgomery County | 20 | 17 | 11 | 16 | 12 | 15 | 11 | 15 | 17 | 16 | 12 | 15 | 10 | 8 | 195 | 14 |
| Prince George's County | 19 | 16 | 30 | 28 | 30 | 19 | 35 | 19 | 29 | 39 | 23 | 23 | 32 | 24 | 366 | 26 |
| Arlington County | 2 | 5 | 4 | 2 | 3 | 2 | 3 | 1 | 1 | 1 | 4 | 1 | 5 | 4 | 38 | 3 |
| City of Alexandria | 3 | 2 | 2 | 3 | 2 | 1 | 2 | 1 | 2 | 0 | 0 | 2 | 2 | 2 | 24 | 2 |
| Fairfax County | 13 | 20 | 18 | 12 | 7 | 16 | 11 | 20 | 17 | 4 | 11 | 13 | 10 | 7 | 179 | 13 |
| City of Fairfax | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 1 | 1 | 8 | 1 |
| City of Falls Church | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 4 | 0 |
| Loudoun County | 1 | 1 | 1 | 3 | 3 | 2 | 3 | 1 | 3 | 0 | 1 | 2 | 3 | 3 | 27 | 2 |
| City of Manassas | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 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 | 55 | 4 |
| Total Washington | 91 | 92 | 84 | 85 | 87 | 72 | 97 | 87 | 110 | 82 | 79 | 86 | 86 | 72 | 1210 | 101 |

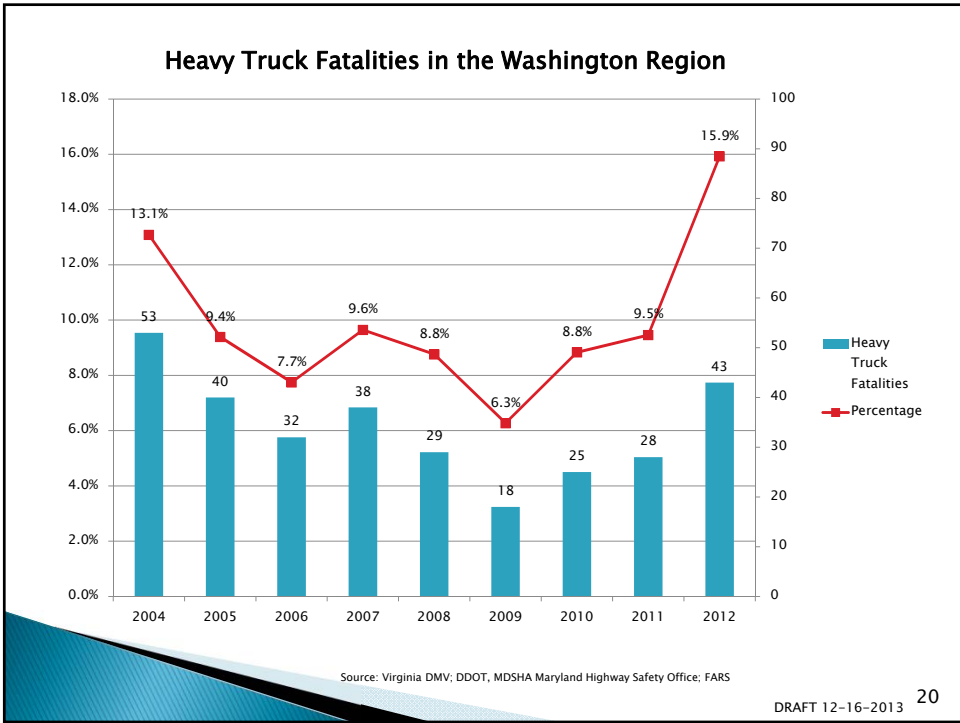
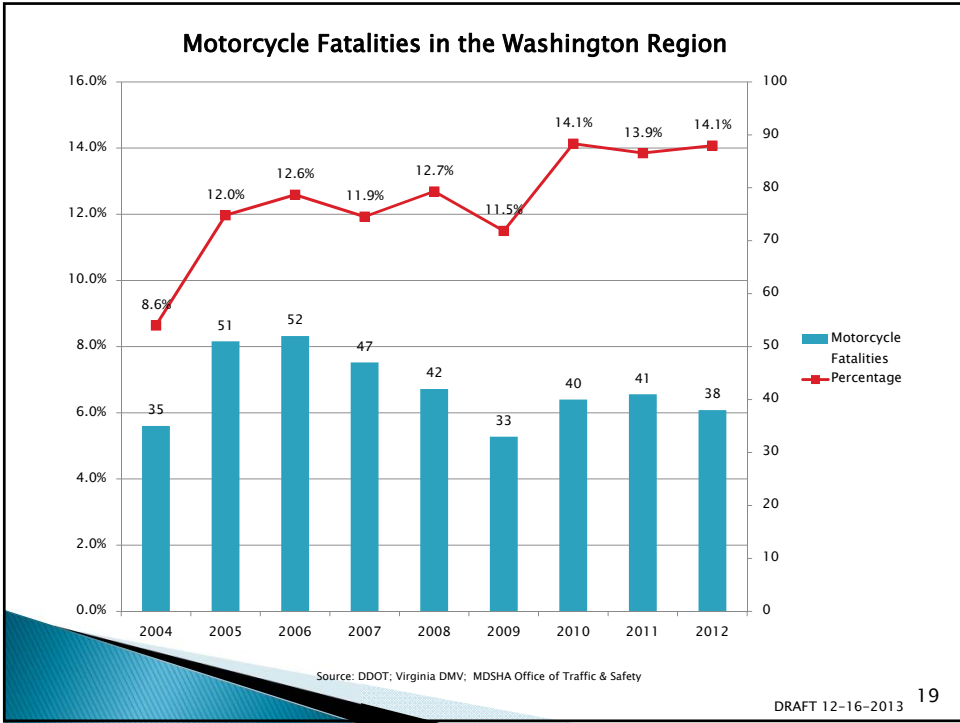
Source: DDOT; Virginia DMV; MSHA Office of Traffic & Safety

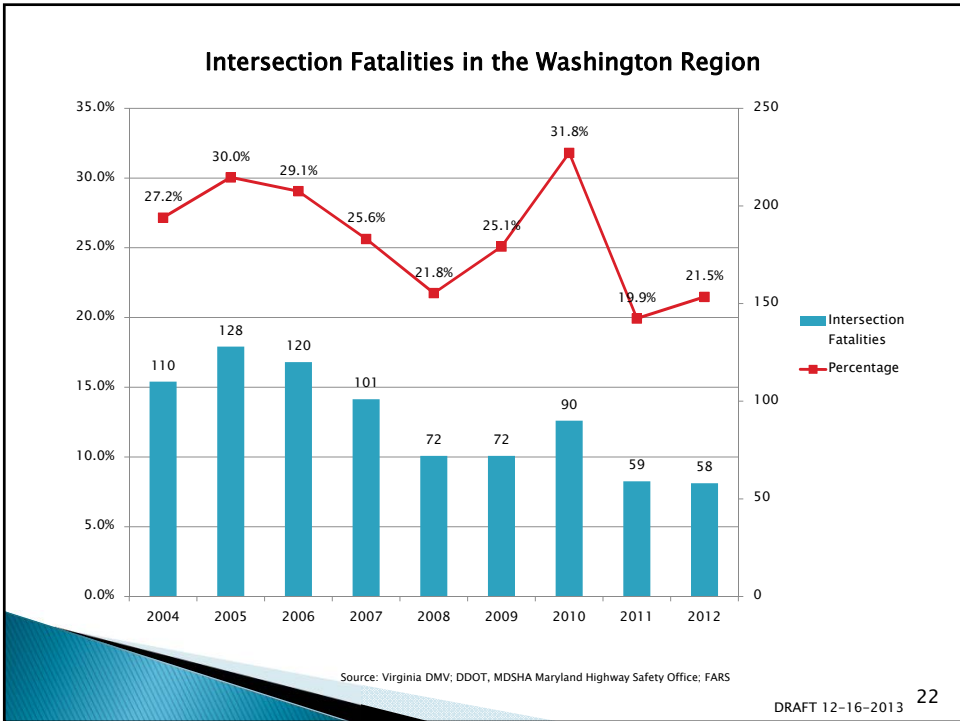
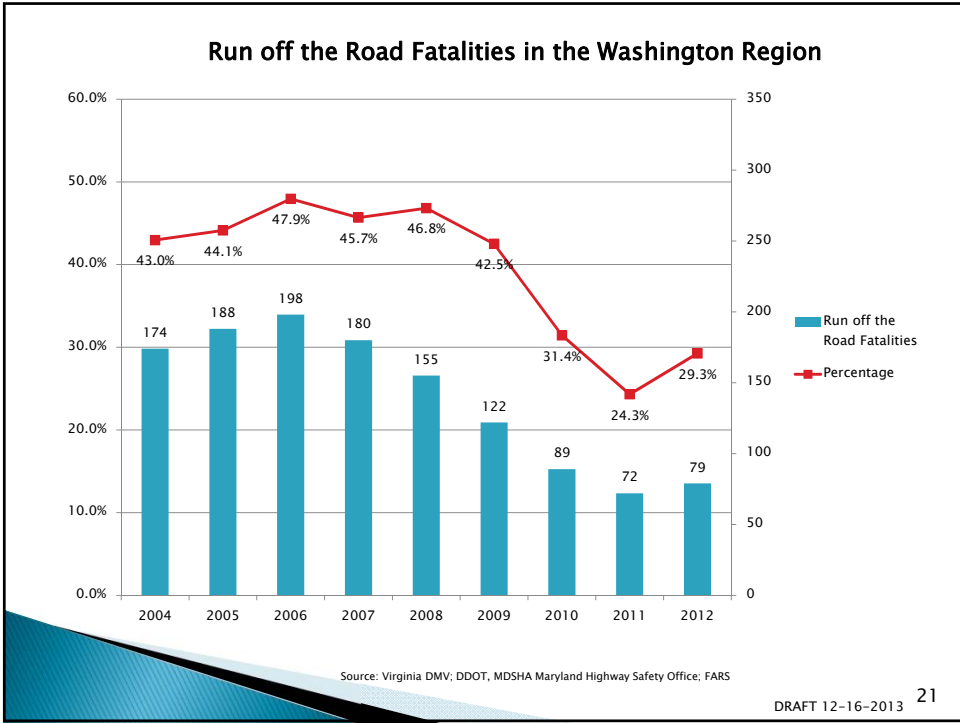
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Traffic Fatalities in the Washington Region by Emphasis Area*

| Emphasis Area | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | Total | Average |
|-------------------------------|------|------|------|------|------|------|------|------|------|-------|---------|
| 1. Pedestrians and Bicyclists | 72 | 97 | 87 | 110 | 82 | 79 | 86 | 86 | 72 | 613 | 88 |
| 2. Impaired Driving | 125 | 111 | 128 | 107 | 90 | 81 | 88 | 103 | 73 | 730 | 104 |
| 3. Speeding | 160 | 138 | 132 | 133 | 105 | 86 | 107 | 85 | 86 | 861 | 123 |
| 4. Motorcycles | 35 | 51 | 52 | 47 | 42 | 33 | 40 | 41 | 38 | 300 | 43 |
| 5. Large Trucks | 53 | 40 | 32 | 38 | 29 | 18 | 25 | 28 | 43 | 235 | 34 |
| 6. Run off the Road | 174 | 188 | 198 | 180 | 155 | 122 | 89 | 72 | 79 | 1106 | 158 |
| 7. Intersections | 110 | 128 | 120 | 101 | 72 | 72 | 90 | 59 | 58 | 693 | 99 |

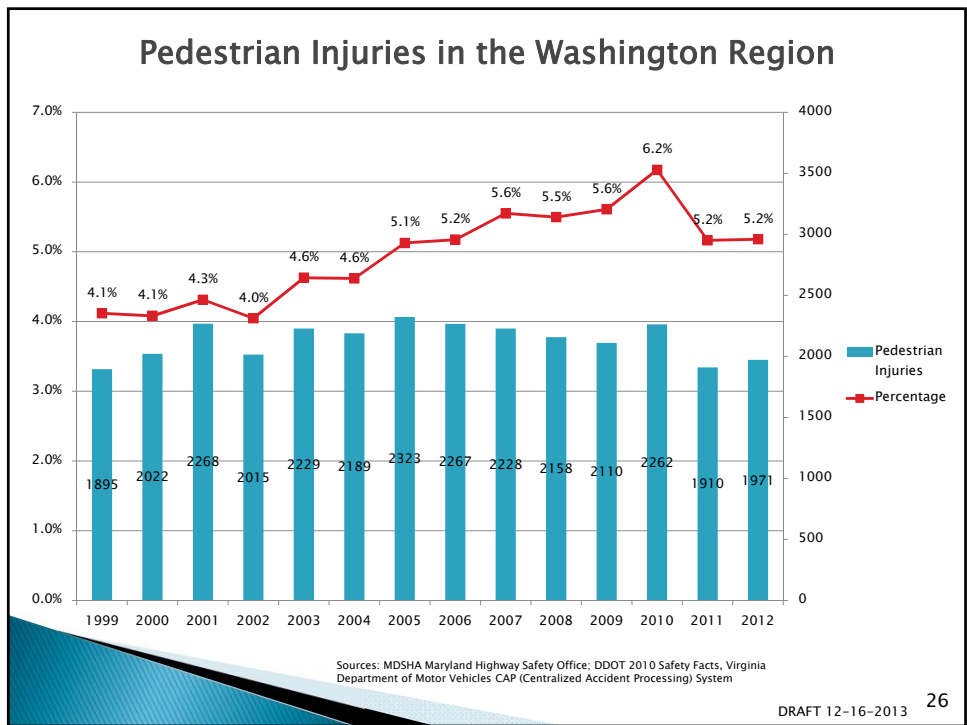
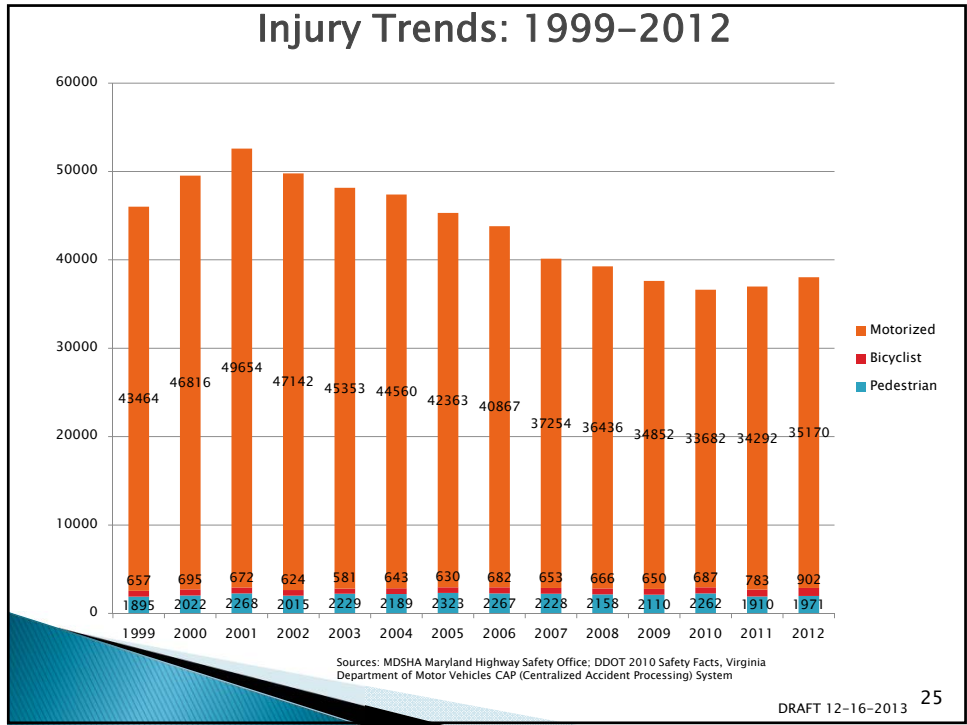
*Source: DDOT; Virginia DMV; MDSHA Office of Traffic & Safety and FARS
 **A Fatality Can Be in More Than One Category. Therefore Sum of the Individual Cells Will Not Equal the Total Due to Double Counting

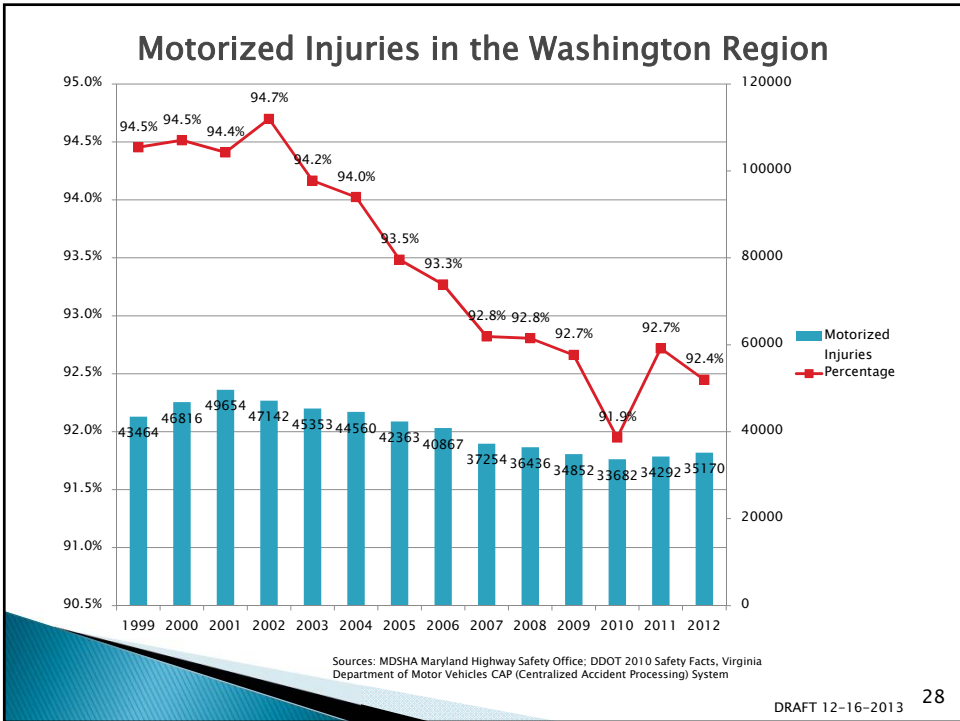
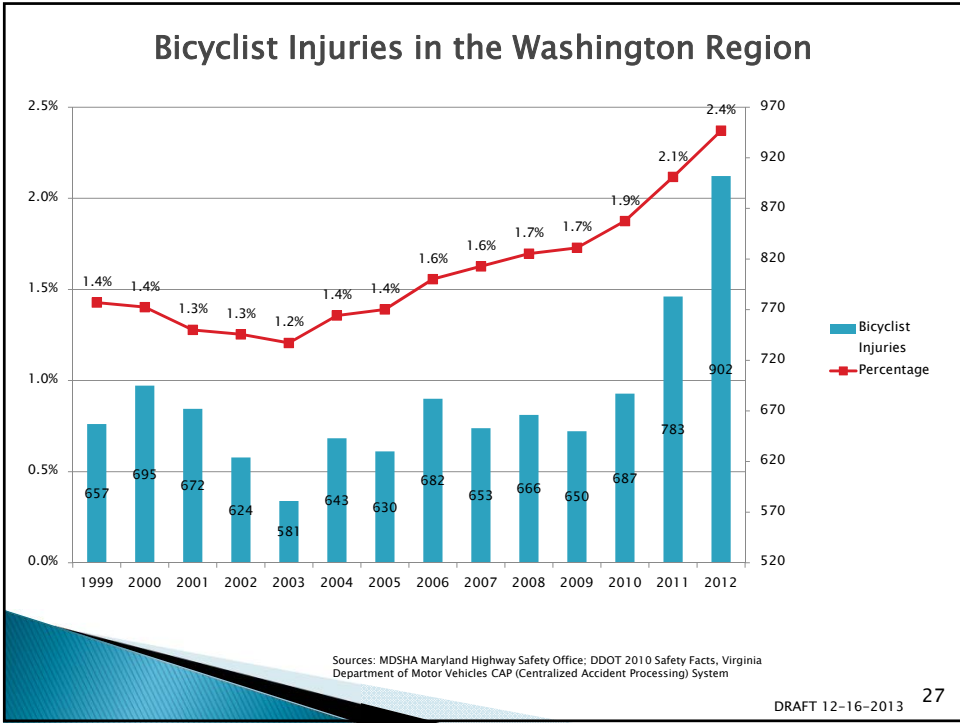
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Conclusions from Fatality Data

- ▶ Traffic deaths have been declining in the Washington region, as they are nationally
- ▶ Speeding and alcohol impaired driving continue to factor into a high percentage of fatalities
- ▶ Motorcycle crashes have decreased in absolute numbers but represent a high percentage of total crashes
- ▶ Run off the Road and Occupant protection show strong, consistent improvement
- ▶ 2012 had the second lowest number of fatalities for both pedestrians and cyclists in recent history

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All Traffic Injuries in the Washington Region

| Jurisdiction | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | Total | Average |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---------|
| District of Columbia | 7228 | 10107 | 10758 | 8775 | 8233 | 8054 | 7555 | 7061 | 6571 | 6792 | 6529 | 7068 | 7045 | 7268 | 109044 | 7789 |
| Charles County | 1647 | 1558 | 1694 | 1679 | 1570 | 1582 | 1483 | 1375 | 1449 | 1287 | 1249 | 1233 | 1214 | 1217 | 20237 | 1446 |
| Frederick County | 2016 | 2051 | 1967 | 1950 | 1944 | 1707 | 1938 | 1732 | 1835 | 1655 | 1577 | 1338 | 1246 | 1342 | 24298 | 1736 |
| Montgomery County | 8182 | 8205 | 8958 | 8787 | 8753 | 8348 | 7619 | 7695 | 6905 | 6598 | 6758 | 6510 | 6114 | 6048 | 105480 | 7534 |
| Prince George's County | 9261 | 9620 | 10038 | 10044 | 9414 | 9162 | 8807 | 8636 | 7771 | 7118 | 6796 | 6084 | 6439 | 6411 | 115601 | 8257 |
| Arlington County | 1946 | 1894 | 1966 | 1658 | 1484 | 1612 | 1438 | 1358 | 1195 | 1288 | 1227 | 1007 | 1005 | 1252 | 20330 | 1452 |
| City of Alexandria | 1407 | 1309 | 1382 | 1395 | 1343 | 1419 | 1513 | 1372 | 1467 | 1492 | 816 | 615 | 601 | 609 | 16740 | 1196 |
| Fairfax County | 9117 | 9405 | 9865 | 9657 | 9188 | 9186 | 8741 | 8519 | 7971 | 7964 | 7588 | 7566 | 7767 | 8185 | 120719 | 8623 |
| City of Fairfax | 332 | 366 | 415 | 383 | 377 | 298 | 317 | 305 | 238 | 201 | 169 | 175 | 205 | 243 | 4024 | 287 |
| City of Falls Church | 146 | 152 | 97 | 118 | 247 | 253 | 244 | 240 | 131 | 141 | 264 | 193 | 183 | 232 | 2641 | 189 |
| Loudoun County | 1347 | 1419 | 1643 | 1654 | 1740 | 1921 | 1954 | 1704 | 1678 | 1717 | 1681 | 1756 | 1869 | 1837 | 23920 | 1709 |
| City of Manassas | 323 | 345 | 439 | 390 | 398 | 414 | 400 | 446 | 291 | 270 | 327 | 327 | 447 | 612 | 5429 | 388 |
| City of Manassas Park | 80 | 52 | 56 | 45 | 59 | 41 | 35 | 45 | 18 | 20 | 17 | 26 | 24 | 24 | 542 | 39 |
| Prince William County | 2984 | 3050 | 3316 | 3246 | 3413 | 3395 | 3272 | 3328 | 2615 | 2717 | 2614 | 2733 | 2826 | 2763 | 42272 | 3019 |
| Washington Total | 46016 | 49533 | 52594 | 49781 | 48163 | 47392 | 45316 | 43816 | 40135 | 39260 | 37612 | 36631 | 36985 | 38043 | 611277 | 43663 |

Sources: 2008 NHTSA State Traffic Safety Information; MDSHA Maryland Highway Safety Office; DDOT 2010 Safety Facts; Virginia Department of Motor Vehicles CAP (Centralized Accident Processing) System

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Pedestrian & Bicyclist Injuries

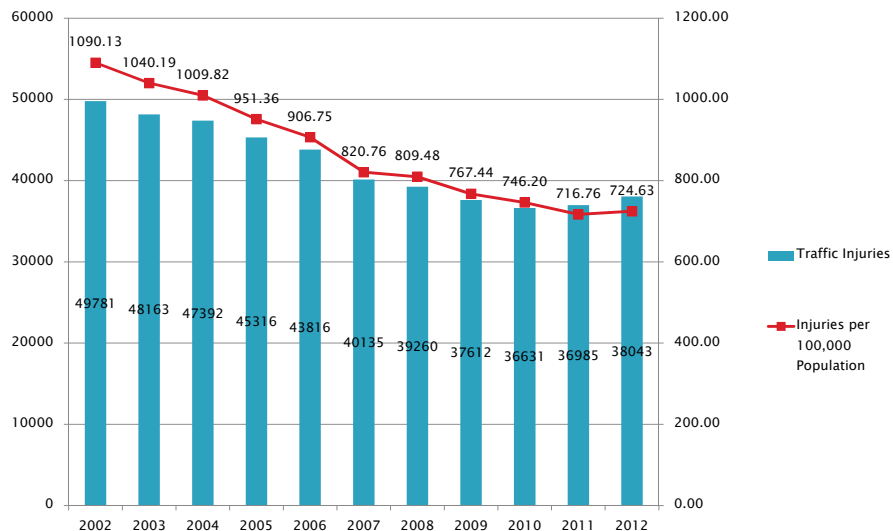
| Jurisdiction | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | Total | Average |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|---------|
| District of Columbia | 718 | 851 | 935 | 779 | 844 | 962 | 998 | 953 | 850 | 776 | 833 | 1074 | 1122 | 1283 | 10573 | 881 |
| Charles County | 31 | 34 | 60 | 35 | 44 | 53 | 57 | 34 | 50 | 43 | 40 | 49 | 37 | 38 | 530 | 44 |
| Frederick County | 61 | 71 | 62 | 72 | 71 | 55 | 55 | 52 | 59 | 67 | 83 | 68 | 40 | 53 | 776 | 65 |
| Montgomery County | 482 | 499 | 514 | 477 | 539 | 524 | 532 | 560 | 641 | 632 | 618 | 617 | 401 | 530 | 6635 | 553 |
| Prince George's County | 444 | 469 | 517 | 486 | 505 | 456 | 510 | 479 | 540 | 558 | 493 | 457 | 375 | 386 | 5914 | 493 |
| Arlington County | 170 | 185 | 180 | 160 | 154 | 167 | 140 | 178 | 151 | 145 | 137 | 151 | 184 | 210 | 1918 | 160 |
| City of Alexandria | 107 | 78 | 105 | 90 | 81 | 67 | 104 | 81 | 87 | 75 | 47 | 85 | 68 | 87 | 1007 | 84 |
| Fairfax County | 376 | 379 | 372 | 368 | 388 | 373 | 374 | 402 | 361 | 402 | 341 | 270 | 270 | 311 | 4406 | 367 |
| City of Fairfax | 21 | 20 | 22 | 22 | 30 | 22 | 16 | 25 | 18 | 13 | 15 | 14 | 20 | 17 | 238 | 20 |
| City of Falls Church | 11 | 14 | 13 | 13 | 6 | 9 | 9 | 5 | 4 | 10 | 8 | 4 | 5 | 11 | 106 | 9 |
| Loudoun County | 42 | 36 | 52 | 47 | 52 | 48 | 49 | 52 | 45 | 48 | 40 | 71 | 93 | 75 | 582 | 49 |
| City of Manassas | 11 | 13 | 22 | 15 | 19 | 21 | 28 | 20 | 17 | 9 | 21 | 22 | 13 | 27 | 218 | 18 |
| City of Manassas Park | 2 | 7 | 8 | 6 | 2 | 3 | 2 | 5 | 3 | 0 | 2 | 0 | 0 | 1 | 40 | 3 |
| Prince William County | 76 | 61 | 78 | 69 | 75 | 72 | 79 | 103 | 55 | 46 | 82 | 67 | 65 | 78 | 863 | 72 |
| Total | 2552 | 2717 | 2940 | 2639 | 2810 | 2832 | 2953 | 2949 | 2881 | 2824 | 2760 | 2949 | 2693 | 3107 | 33806 | 2817 |

Sources: 2008 NHTSA State Traffic Safety Information; MDSHA Maryland Highway Safety Office; DDOT 2010 Safety Facts; Virginia Department of Motor Vehicles CAP (Centralized Accident Processing) System

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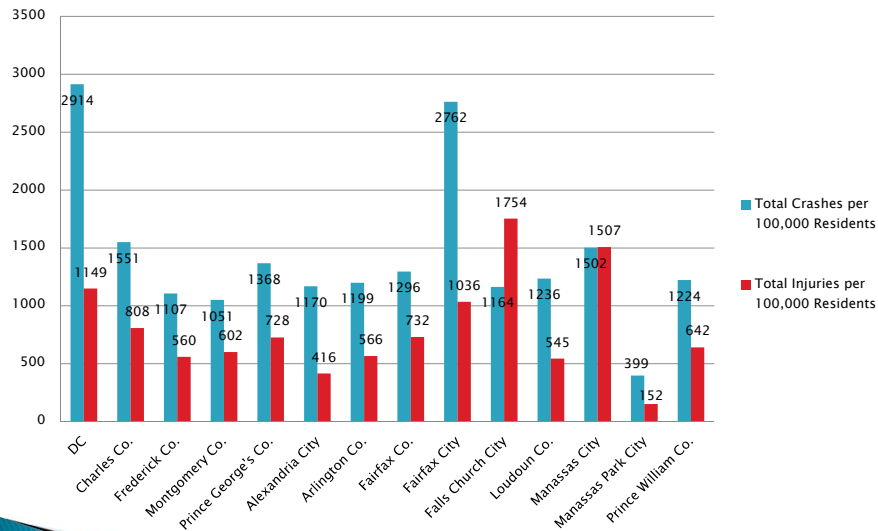
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Traffic Injuries per 100,000 Population in the Washington Region



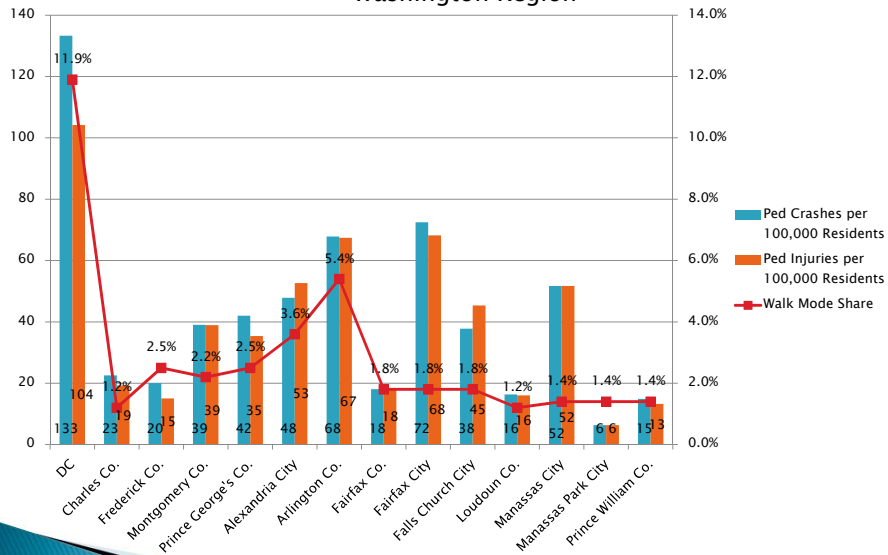
Sources: NHTSA State Traffic Safety Information; MDSHA Maryland Highway Safety Office; DDOT, Virginia Department of Motor Vehicles CAP (Centralized Accident Processing) System; COG Member Population Estimates; American Community Survey

2012 Traffic Crashes and Injuries per 100,000 Population in the Washington Region



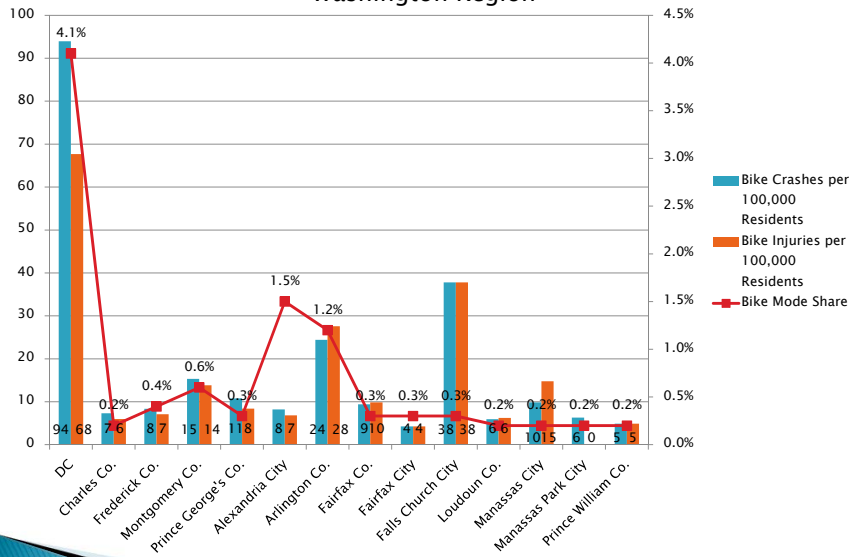
Sources: MDSHA Maryland Highway Safety Office; DDOT, Virginia Treds; American Community Survey

2012 Pedestrian Crashes and Injuries per 100,000 Population in the Washington Region



Sources: MDSHA Maryland Highway Safety Office; DDOT, Virginia Treds; American Community Survey

2012 Bicycle Crashes and Injuries per 100,000 Population in the Washington Region



Sources: MDSHA Maryland Highway Safety Office; DDOT, Virginia Treds; American Community Survey

Conclusions from Injury & Crash Data

- ▶ Decline in overall injuries over the past ten years has slowed
- ▶ Rise in pedestrian and cyclist injuries – both in absolute numbers and as a percentage of total

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Sources

- ▶ DDOT – Traffic Safety Report Statistics SHSPs, Highway Safety Performance Plans
- ▶ MDSHA Office of Traffic & Safety – County Spreadsheets, Issue Area Spreadsheets
- ▶ Virginia DMV, Treds
- ▶ NHTSA – Traffic Fatalities
- ▶ US Census Bureau– American Community Survey
- ▶ Bureau of Transportation Statistics

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Caveat Emptor

- ▶ Missing data, discrepancies
 - NHTSA data vs. State data

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Next Steps

- ▶ Safety Element of the CLRP
 - Short, consistent with rest of CLRP
- ▶ Regional Priorities Plan
 - Safety data to inform selection of regional priority projects

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