

REGIONAL HIGHWAY SAFETY TARGETS

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Transportation Safety Subcommittee
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Presentation Items

- Review of Highway Safety Performance Measures and Target Setting Requirements for MPOs
- Review of Approach for Setting National Capital Region Safety Targets
- Adopted 2018 National Capital Region Safety Targets
- Discussion of process leading to TPB approval of regional targets
- Next steps

Highway Safety Performance Measures: Federal Requirements

- PBPP approach is federally required for MPOs, DOTs, and transit providers through MAP-21 and FAST Acts
- For each highway safety performance measure (PM), an MPO will either:
 - 1) Agree to plan and program projects so they contribute toward accomplishing the state DOT safety target for that PM, or
 - 2) Commit to a quantifiable target for that PM for the MPO planning area
 - Each target shall represent anticipated performance outcome for all public roadways in the MPO planning area, regardless of ownership
- MPO targets to be reported no more than 180 days after state DOTs have set their targets - or February 27, 2018



Highway Safety Performance Measures: Requirements for MPOs

- MPOs must coordinate with their State partners
- **Targets should be data-driven and realistic**
- Metropolitan Transportation Plan (Visualize 2045) shall include:
 - (1) a description of the performance measures and targets; and
 - (2) a report evaluating the condition of the system(s) with respect to the MPO performance measures and targets, including progress achieved
- Transportation improvement programs (TIPs) must include:
 - discussion of the anticipated effects of the TIP toward achieving the performance targets by linking them to investment priorities



Highway Safety Performance Measures

Performance Measure	Description	Data Source
Number of Fatalities (5 year rolling average)	Total number of fatalities during a calendar year	FARS ¹
Rate of Fatalities per 100 million VMT (5 year rolling average)	Ratio of total fatalities to VMT	FARS and HPMS ² (or MPO estimate)
Number of Serious Injuries (5 year rolling average)	Total number of serious injuries during a calendar year	State reported serious injury data ³
Rate of Serious Injuries per 100 million VMT (5 year rolling average)	Ratio of total serious injuries to VMT	State reported serious injury data ³ and HPMS
Number of Non-Motorized Fatalities and Serious Injuries (5 year rolling average)	Total number of fatalities and serious injuries during a calendar year	FARS and State serious injury data ³

¹ FARS: Fatality Analysis Reporting System

² HPMS: Highway Performance Monitoring System

³ for the first 36 months – after that States must adopt the Model Minimum Uniform Crash Criteria (MMUCC) definition of serious injury



Highway Safety Performance Measures: An Approach to Setting Regional Targets

- MD, VA, and DC have used different approaches in developing targets
- Staff is proposing a target setting methodology that accounts for / incorporates each State's approach:
 - Apply Maryland's approach to identify a sub-target for the Suburban Maryland portion of the NCR
 - Apply Virginia's approach to identify a sub-target for the Northern Virginia portion of the NCR
 - Incorporate the District of Columbia's target as a sub-target for the DC portion of the NCR
 - Mathematically combine the three sub-targets into an overall target for the NCR



Regional Target Setting Approach

- The following slides show the results obtained from applying the proposed target setting methodology that incorporates each State's approach
 - Maryland: fixed glide path (1/2 of 2008 levels by 2030)
 - Virginia: yearly percent reductions for each performance measure
 - District of Columbia: projections of recent trends



Recommended Highway Safety Targets

Performance Measure	2014-2018 Target
Number of fatalities	<u>253.0</u>
Rate of fatalities per 100 million vehicle miles of travel	<u>0.588</u>
Number of serious injuries	<u>3,007.3</u>
Rate of serious injuries per 100 million vehicle miles of travel	<u>6.768</u>
Number of nonmotorist fatalities and serious Injuries	<u>528.8</u>



Recommended Targets vs. Recent Conditions

	2012-2016 Recent	2014-2018 Target	Difference	Percent Difference
# of Fatalities	266.2	<u>253.0</u>	↓ 13.2	↓ 4.9%
Fatality Rate (per 100 MVMT)	0.621	<u>0.588</u>	↓ 0.033	↓ 5.3%
# of Serious Injuries	2,967.4	<u>3,007.3</u>	↑ 39.9	↑ 1.3%
Serious Injury Rate (per 100 MVMT)	6.879	<u>6.768</u>	↓ 0.111	↓ 1.6%
# Nonmotorist Fatalities & Serious Injuries	545.6	<u>528.8</u>	↓ 16.8	↓ 3.1%

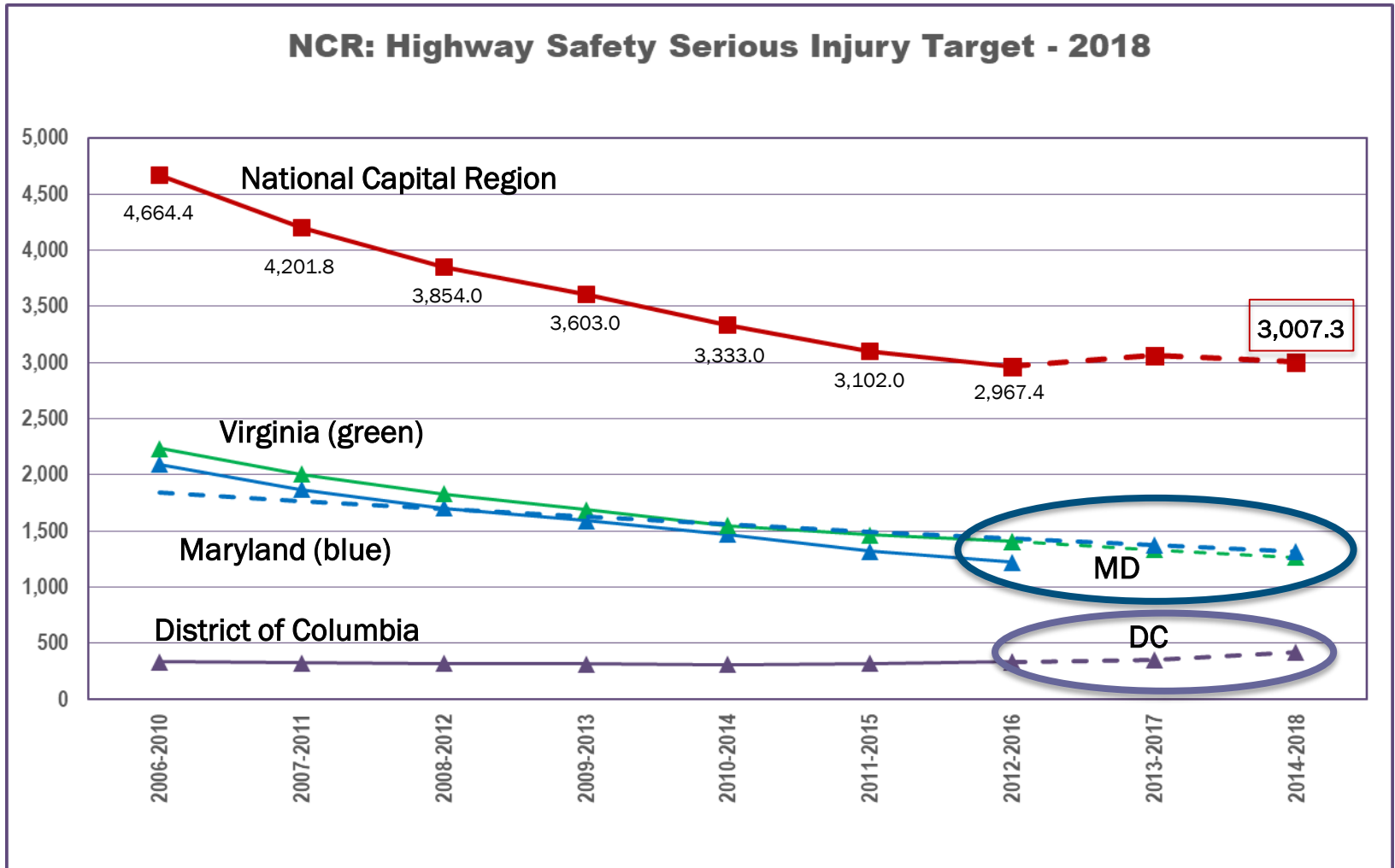


Serious Injuries Target: Examined

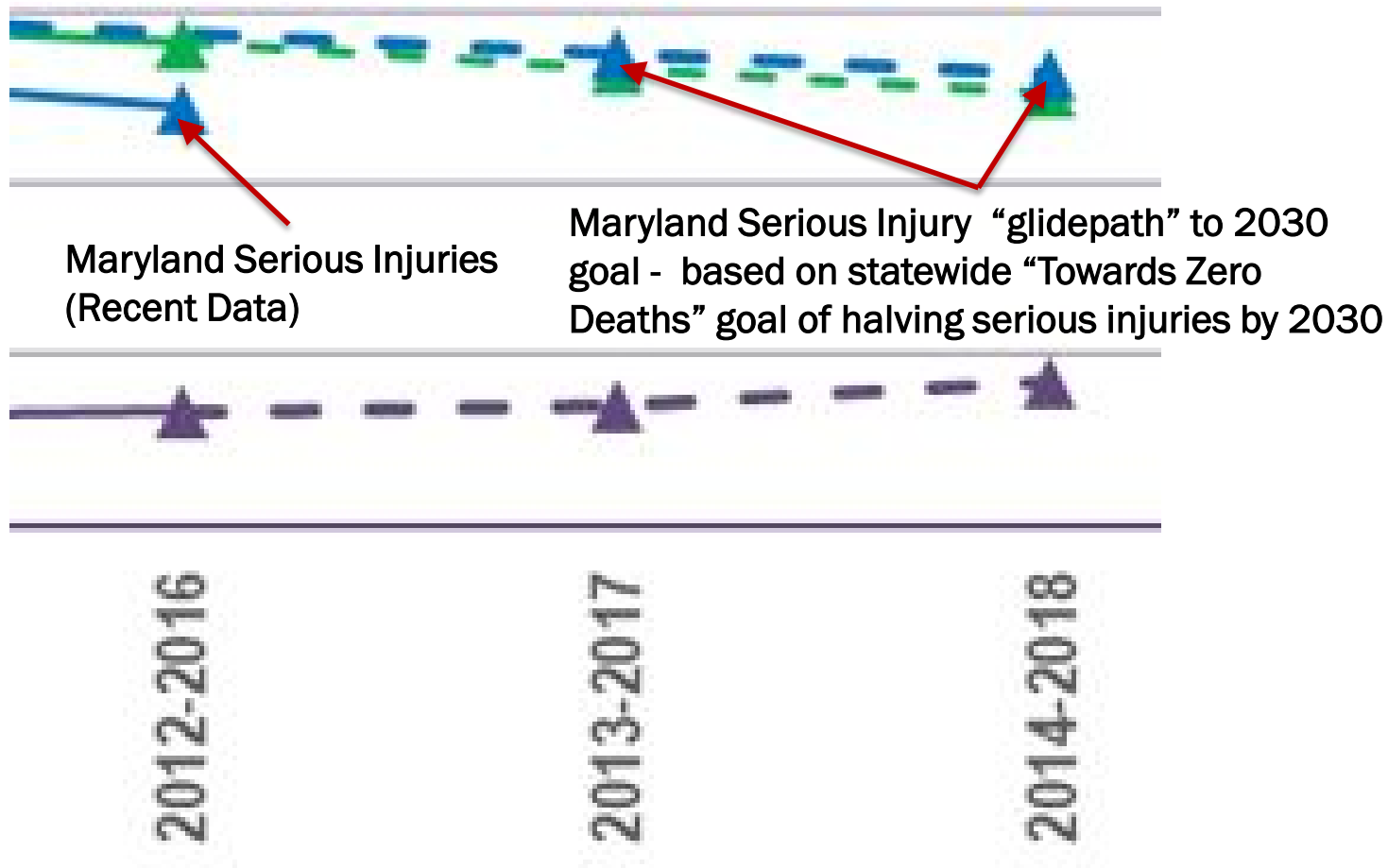
- Regional Target for Serious Injuries – Higher Than Recent Data
- Reasons:
 - Target setting methodology in Maryland different than VA & DC
 - Uptick in data and change in definition in DC



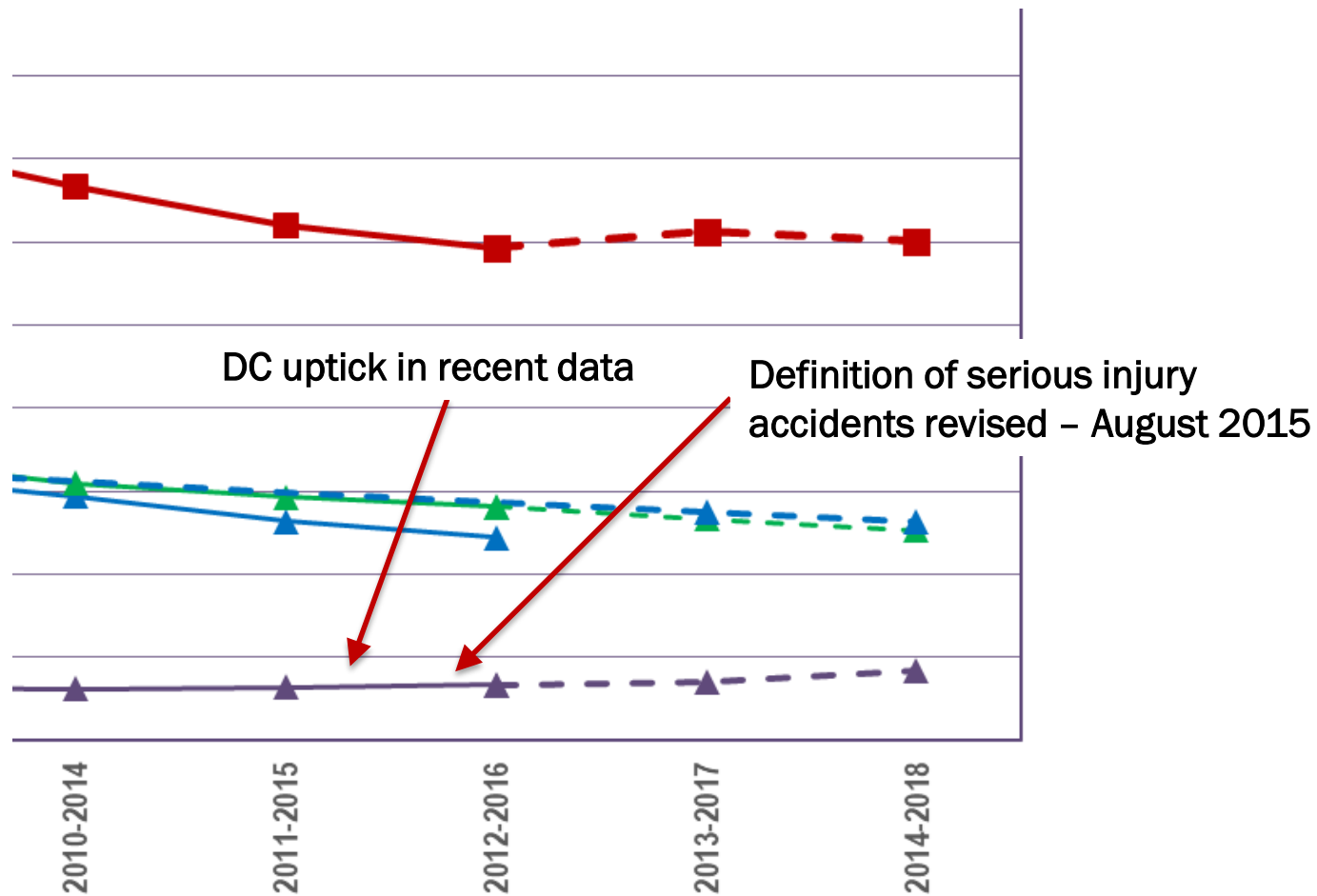
Regional Serious Injury Target: Sub-sets



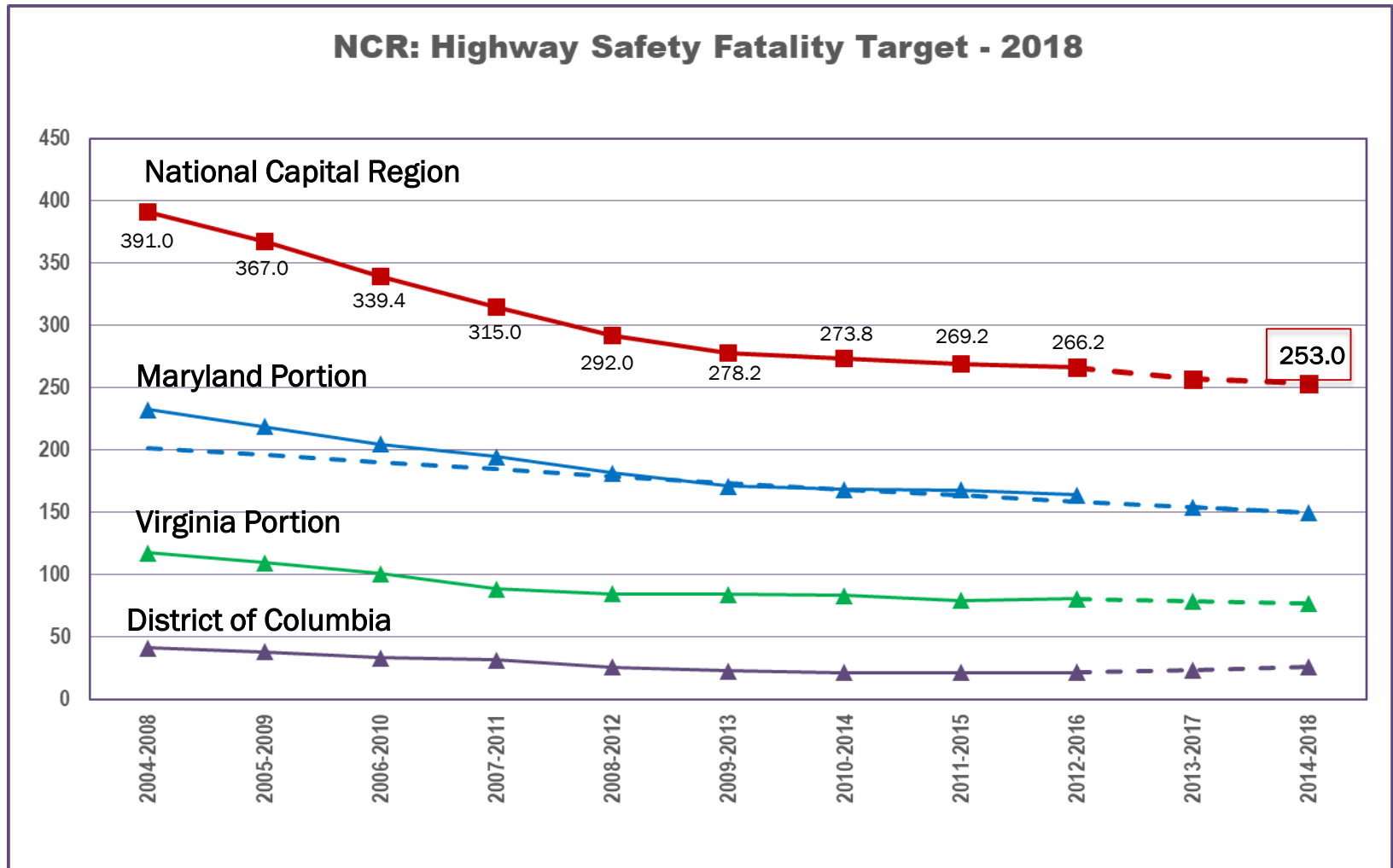
Serious Injury Target: Maryland Inset



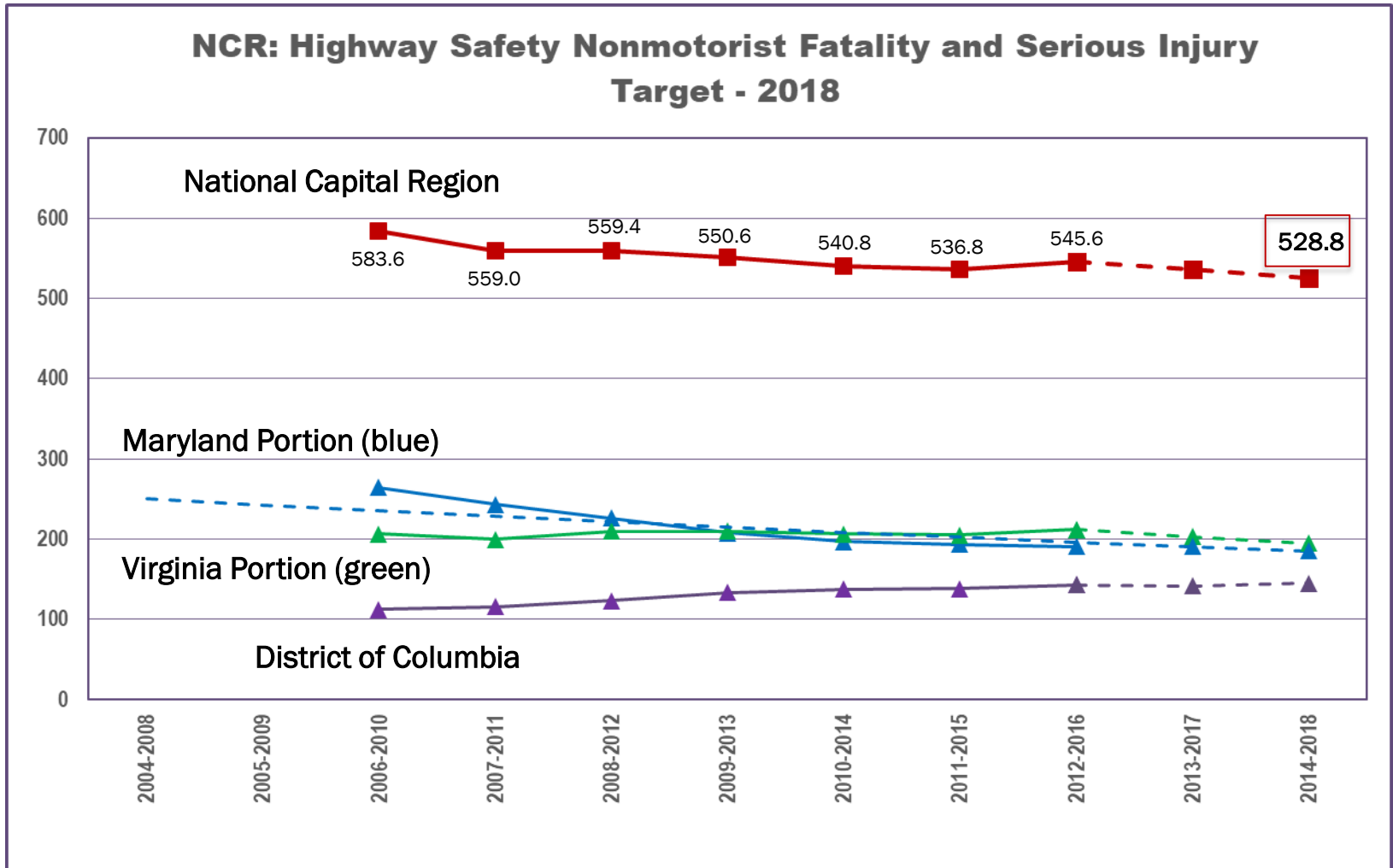
Serious Injury Target: DC Inset



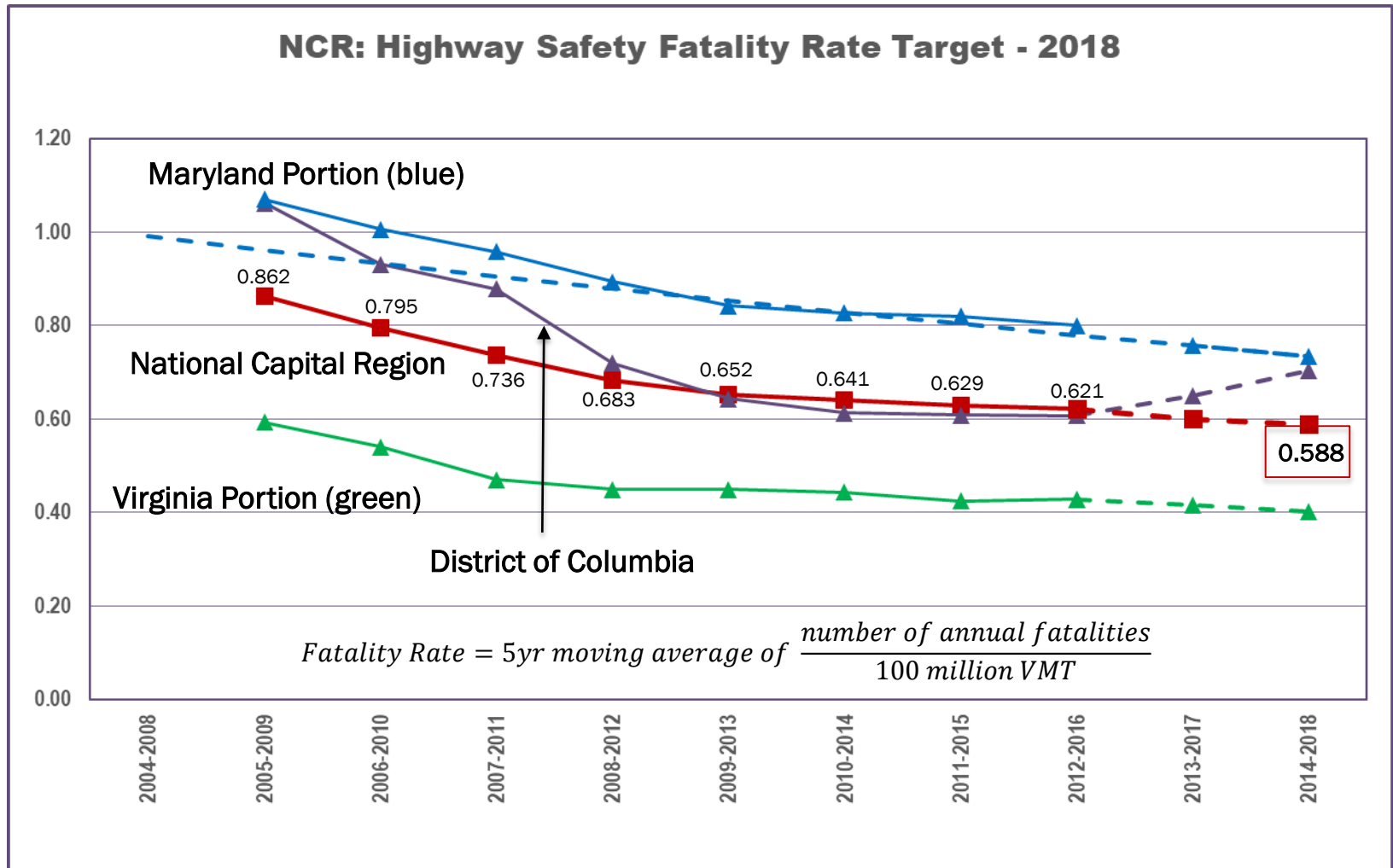
Fatality Target: 253.0



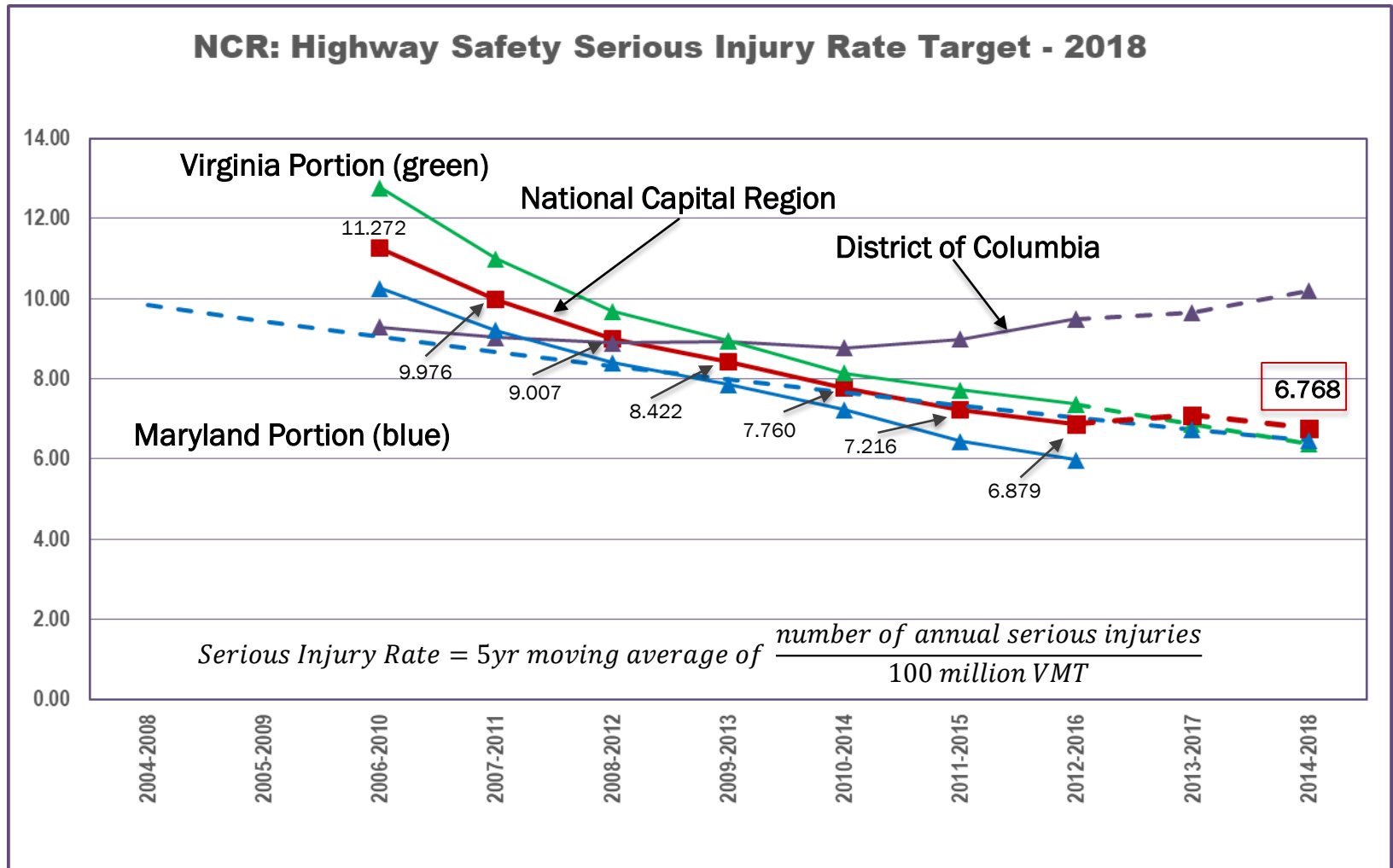
Nonmotorist Target: 528.8



Fatality Rate Target: 0.588



Serious Injury Rate Target: 6.768



Target Setting Dilemma

- “State DOTs and MPOs will be expected to use the information and data generated as a result of the new regulations to inform their transportation planning and programming decisionmaking ...”
 - *Safety Performance Measures final rule*
- “...performance targets shall represent the *anticipated* performance outcome for all public roadways ... regardless of ownership or functional class.”
 - *Safety Performance Measures final rule*
- **Tension**: “data-driven” targets based on projections vs. societal aspirations for dramatic reductions in fatalities and serious injuries



Next Steps

- Update the resolution adopting the NCR safety targets based on Transportation Planning Board feedback
- Communicate the issues raised by the TPB to our state partners
- Begin preparations for determining staff-proposed highway safety targets for next year
- Update the regional safety picture



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