

PBPP: DRAFT 2018 NATIONAL CAPITAL REGION HIGHWAY SAFETY TARGETS

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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
- Draft 2018 National Capital Region Safety Targets
- Next Steps



PBPP Review

- **PBPP approach is Federally required** for MPOs and DOTs – MAP-21 and FAST Acts
- Improved Outcomes
 - Improved investment decision-making
 - Improved return on investments and resource allocation
 - Improved system performance
 - Increased accountability and transparency
- The Highway Safety Performance Measure Final Rule was published March 2016



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: Annual Target Setting

State DOTs

- Required to set statewide targets for each of the five performance measures
 - Each of these targets must be identical to those set by the State Highway Safety Office (SHSO)
 - Each target shall represent anticipated performance outcome for all public roadways in the State, regardless of ownership
 - Targets cannot be changed after they are reported
- Targets will be reported to FHWA in the State's HSIP annual report (due August 31 each year)
- Initial State targets for 2018 were reported in the 2017 HSIP annual report



Highway Safety Performance Measures: Annual Target Setting

MPOs

- For each performance measure (PM), the 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
 - MPOs shall coordinate with the state DOT(s) to ensure consistency
- MPOs report targets to respective state DOTs in a manner that is documented and mutually agreed upon
- MPOs also report on progress toward achieving their targets in their System Performance Report as part of their transportation plan
- Targets to be reported no more than 180 days after state DOTs have set their targets - or February of the following year



Highway Safety Performance Measures: MPO Coordination and Planning

- MPOs shall establish performance targets in coordination 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 a discussion of the anticipated effects of the TIP toward achieving the performance targets by linking investment priorities to those performance targets



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





Strategic Highway Safety Plan

Hypothetical Washington Region Targets

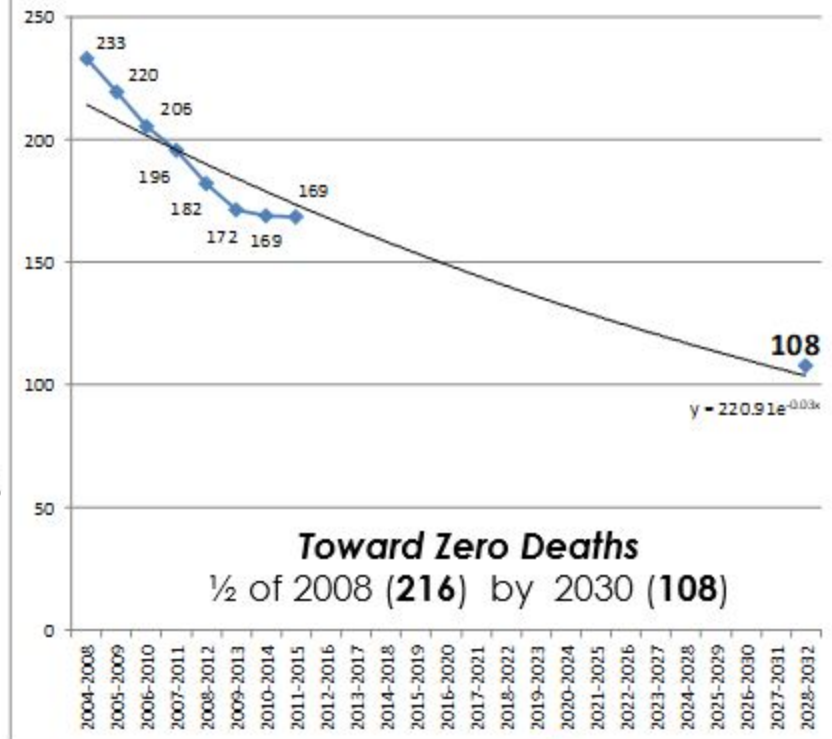
Overall Fatality Goals

Total of 4 Counties

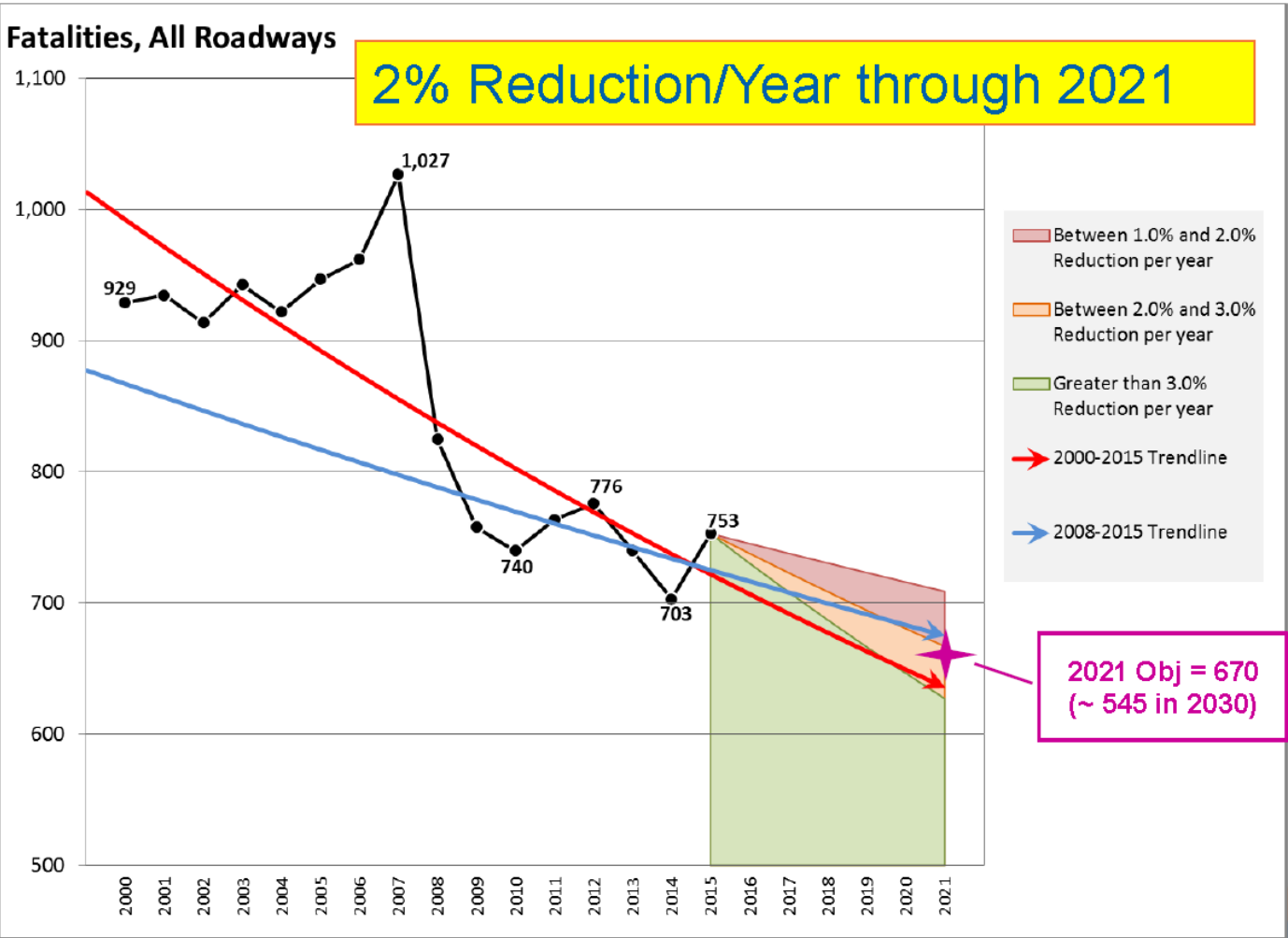
Montgomery
Prince George's
Frederick &
Charles

Interim yearly targets

- 2017 - 154
- 2018 - 150
- 2019 - 145
- 2020 - 141



SHSP 2021 Fatality Objective



Summary of Targets

- Number of fatalities - **26**
- Number of serious injuries - **384** *Note: "420" was reported in the HSIP Annual Report*
- Fatality rate per hundred million vehicle miles traveled (HVMVT) - **0.70**
- Serious injury rate per HVMVT - **10.24**
- Number of non-motorized fatalities and non-motorized serious injuries - **11 & 134**

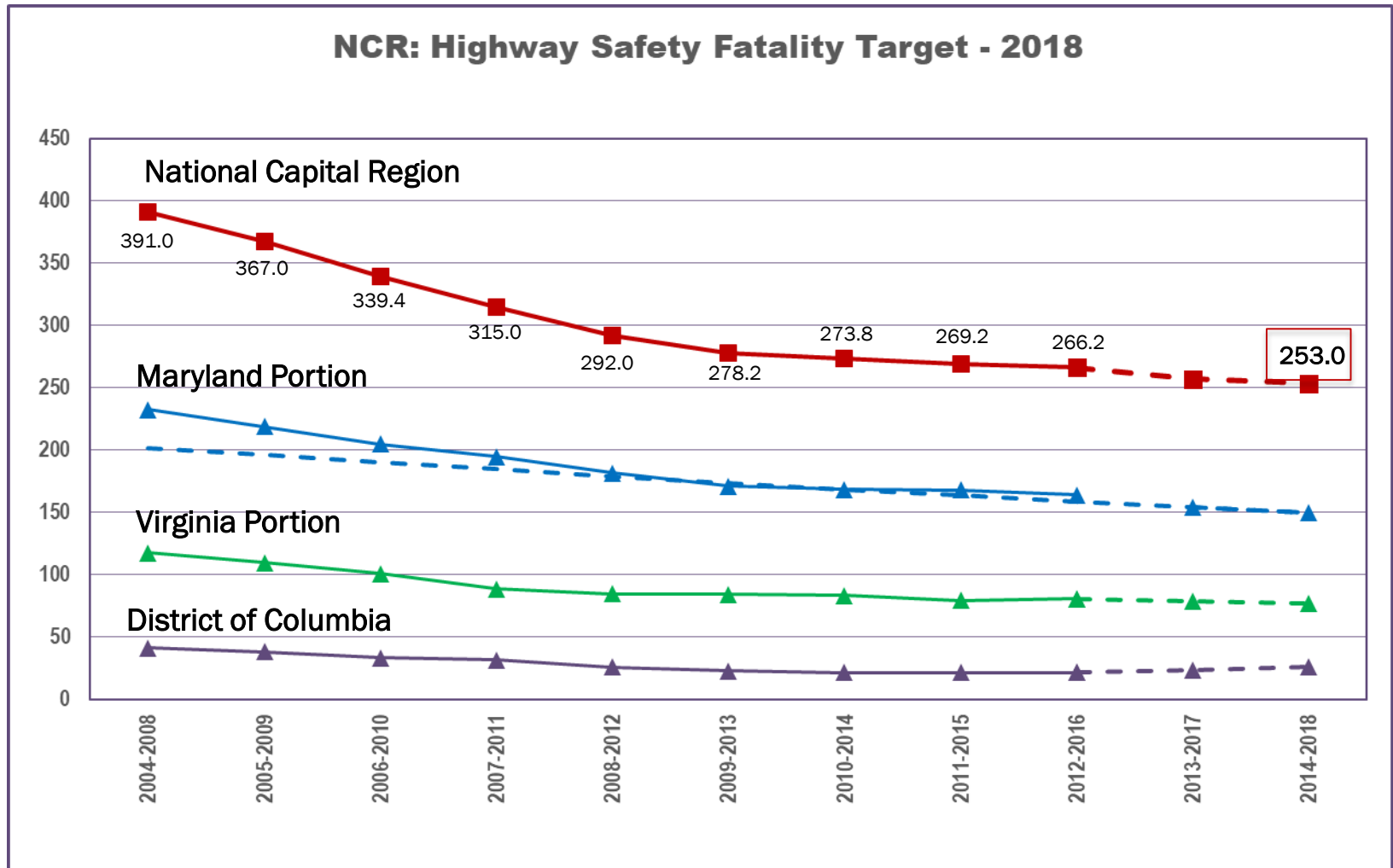


Regional Target Setting Approach

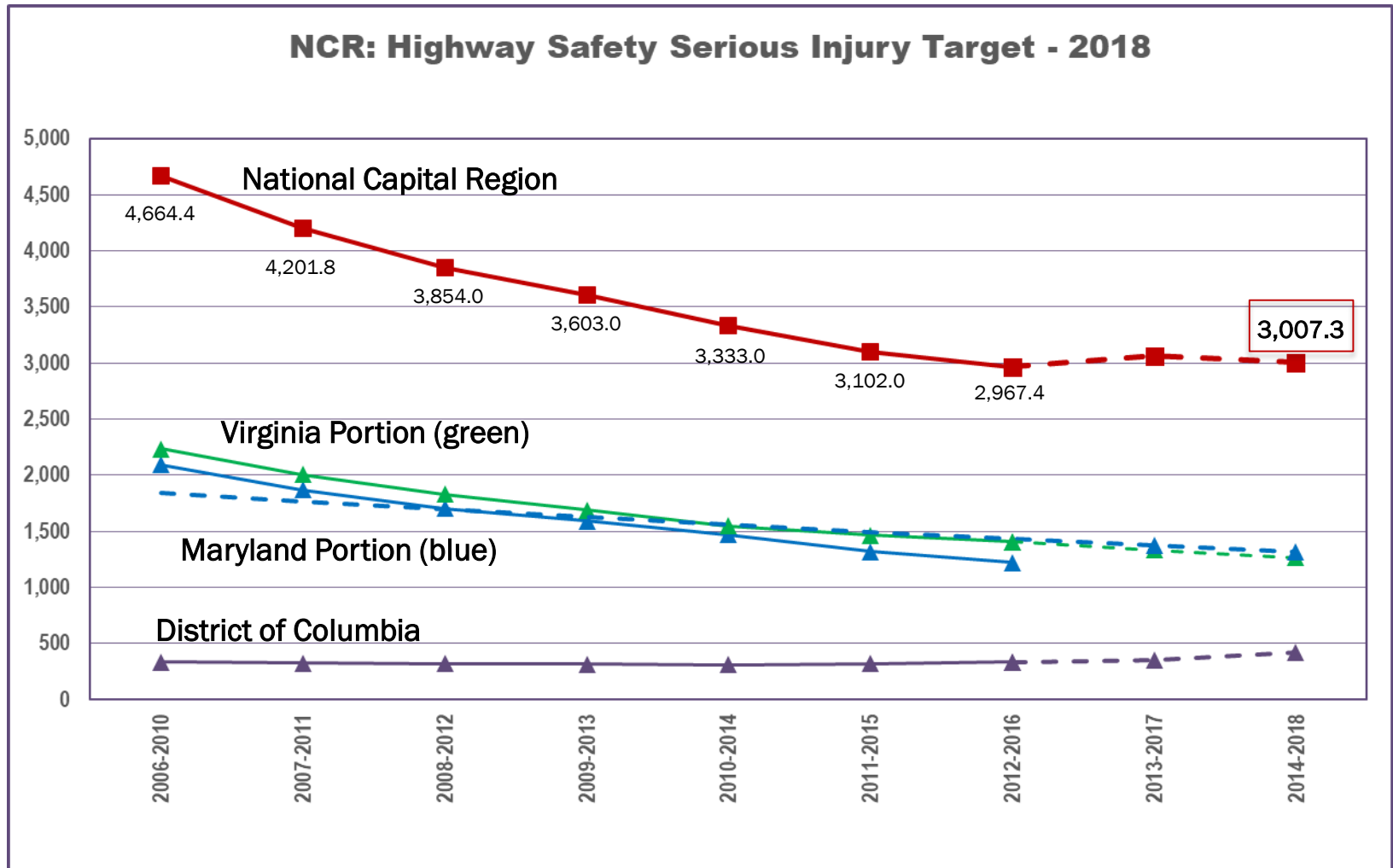
- The following slides show the results obtained from applying the proposed target setting methodology that incorporates each State's approach
 - Maryland: fixed glide path (1/2 of 2008 levels by 2030)
 - Virginia: yearly percent reductions for each performance measure
 - District of Columbia: projections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



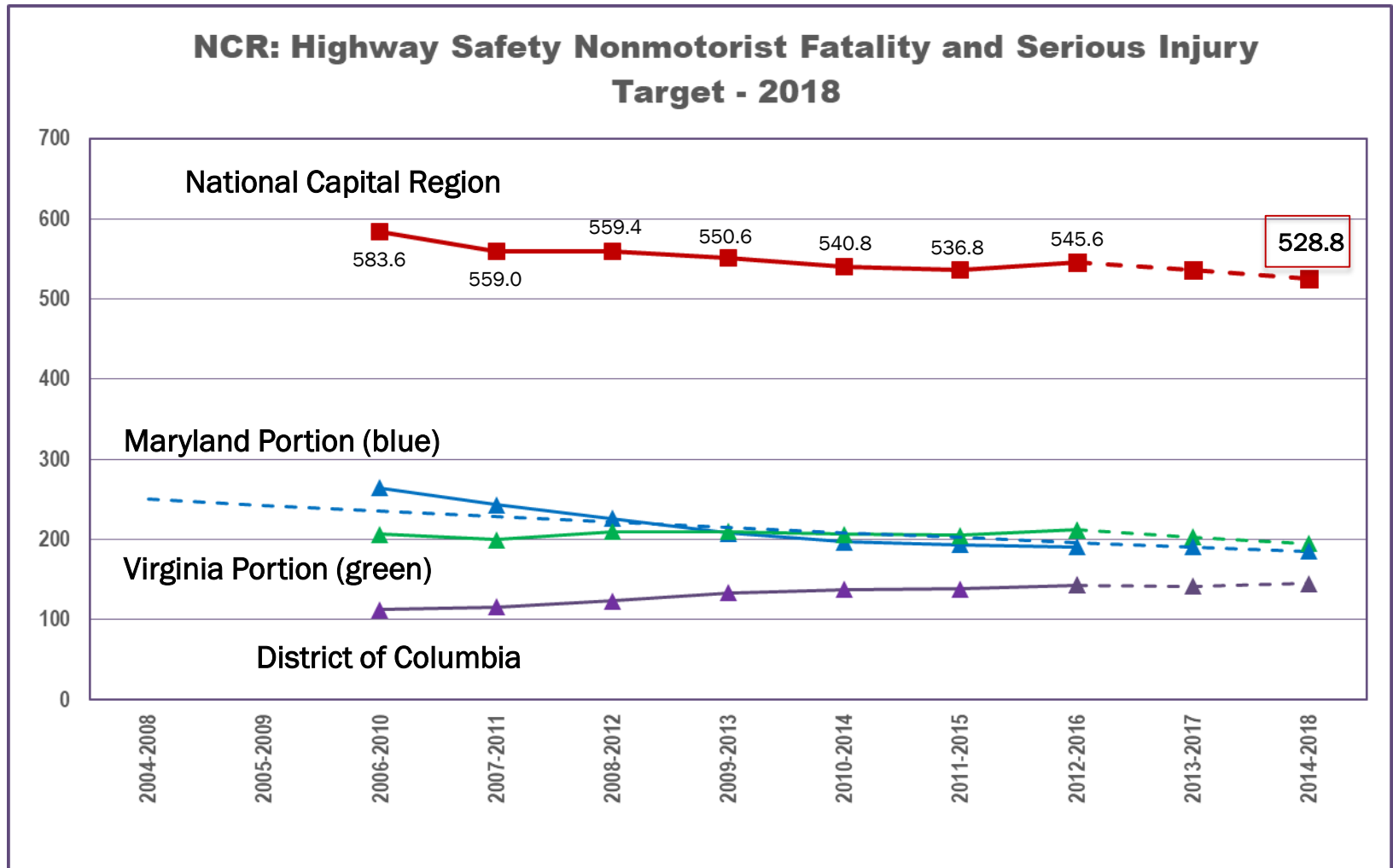
Fatality Target: 253.0



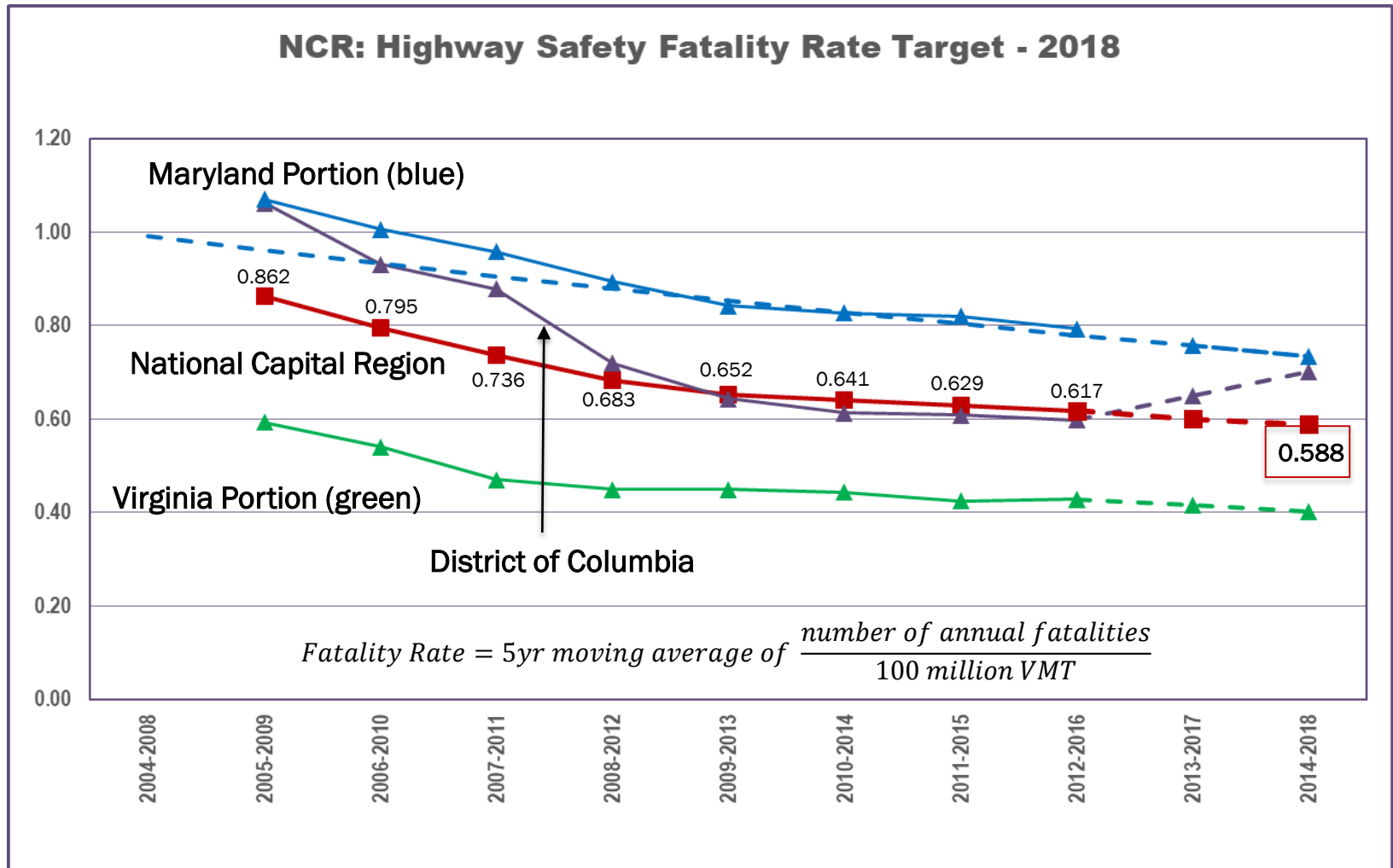
Serious Injury Target: 3,007.3



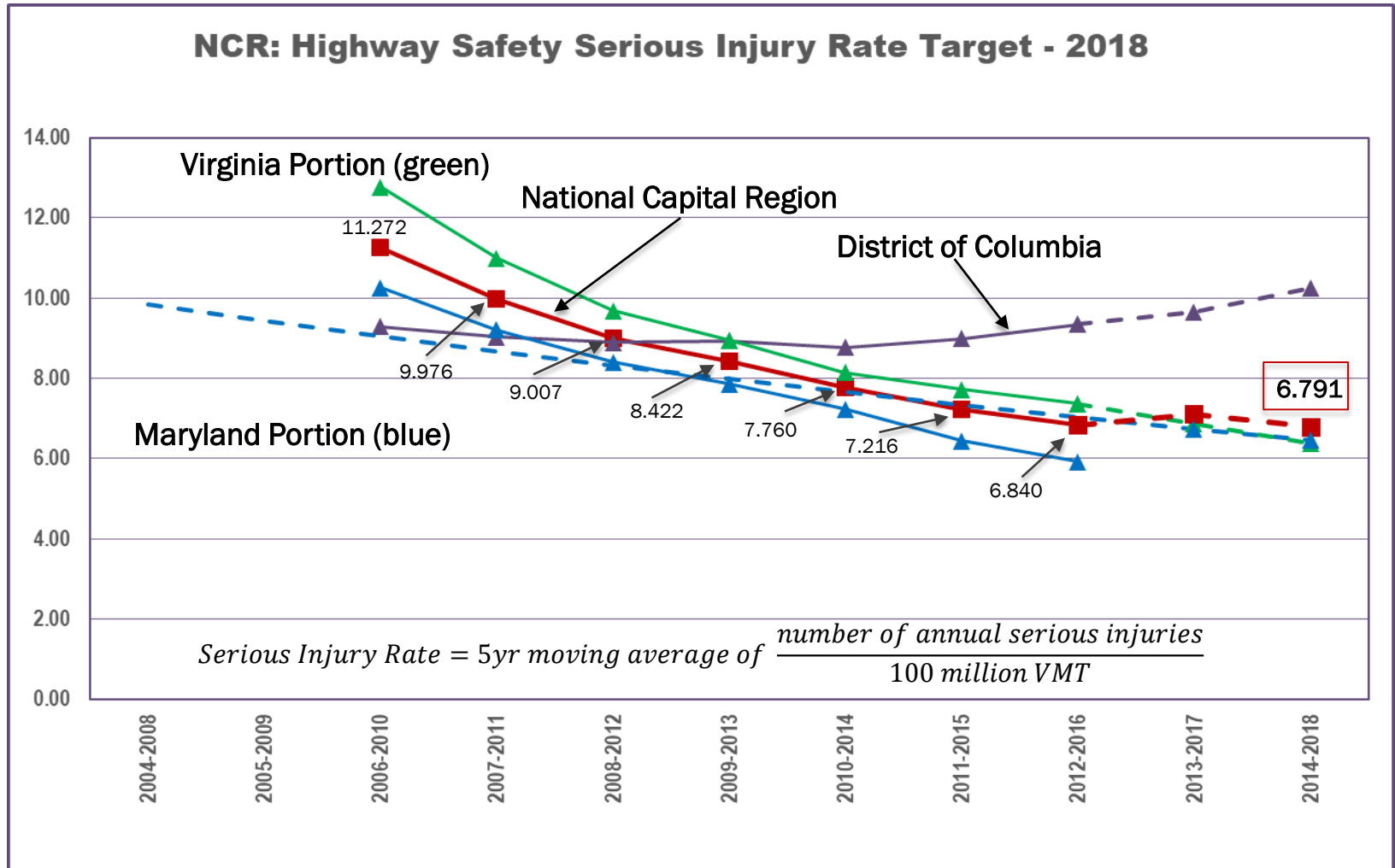
Nonmotorist Target: 528.8



Fatality Rate Target: 0.588



Serious Injury Rate Target: 6.791



NCR Highway Safety Targets: Summary

	2012-2016 Actual	2014-2018 Target	Difference	Percent Difference
# of Fatalities	266.2	<u>253.0</u>	↓ 13.2	↓ 4.9%
Fatality Rate (per 100 MVMT)	0.617	<u>0.588</u>	↓ 0.029	↓ 4.7%
# of Serious Injuries	2,967.4	<u>3,007.3</u>	↑ 39.9	↑ 1.3%
Serious Injury Rate (per 100 MVMT)	6.840	<u>6.791</u>	↓ 0.049	↓ 0.7%
# Nonmotorist Fatalities & Serious Injuries	545.6	<u>528.8</u>	↓ 16.8	↓ 3.1%



Highway Safety Performance Measures: FHWA Determination of Significant Progress

State DOTs

- A state is determined to have met or made significant progress toward meeting its targets when for at least 4 measures either:
 - 5-year performance is better than the target; or
 - 5-year performance is better than it was for the base year

MPOs – not applicable



Highway Safety Performance Measures: Consequences for Failing to Meet Targets or Making Significant Progress

State DOTs

- State DOTs that have not or made significant progress toward meeting safety performance targets must:
 - 1) Use a portion of their obligation only for HSIP projects, and;
 - 2) Submit an annual implementation plan that describes actions the DOT will take to meet their targets

MPOs – Not applicable. However, FHWA will review how MPOs are incorporating and discussing safety performance measures and targets in their long-range plans and TIPs during MPO certification reviews



Next Steps

- Finalize NCR target setting approach based on Technical Committee feedback
- Present draft to the Board at the December 2017 TPB meeting
- Request Board approval of targets at the January 2018 TPB meeting

Questions / Discussion



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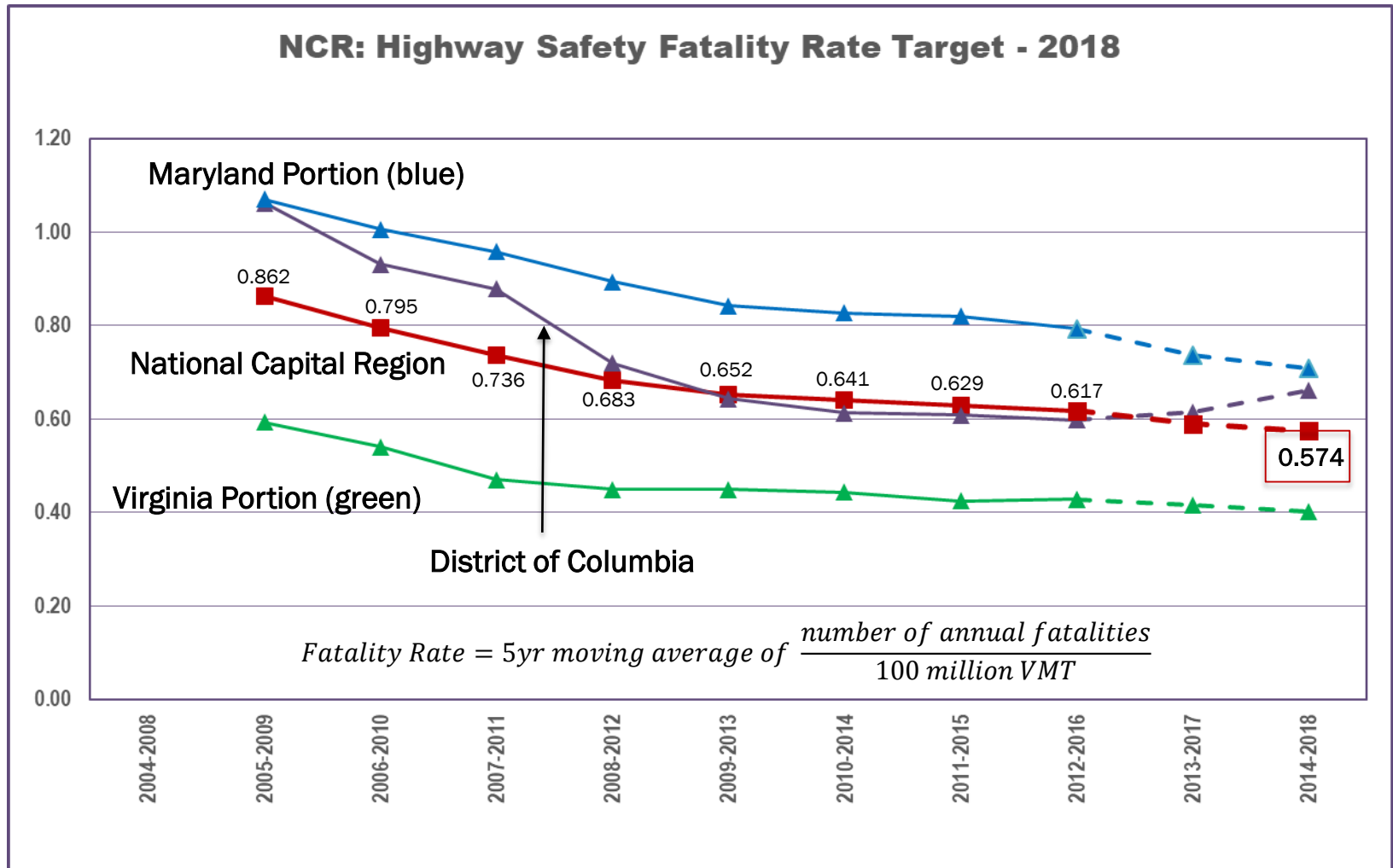
National Capital Region
Transportation Planning Board

Alternate Method – Fatality & Serious Injury Rate Targets

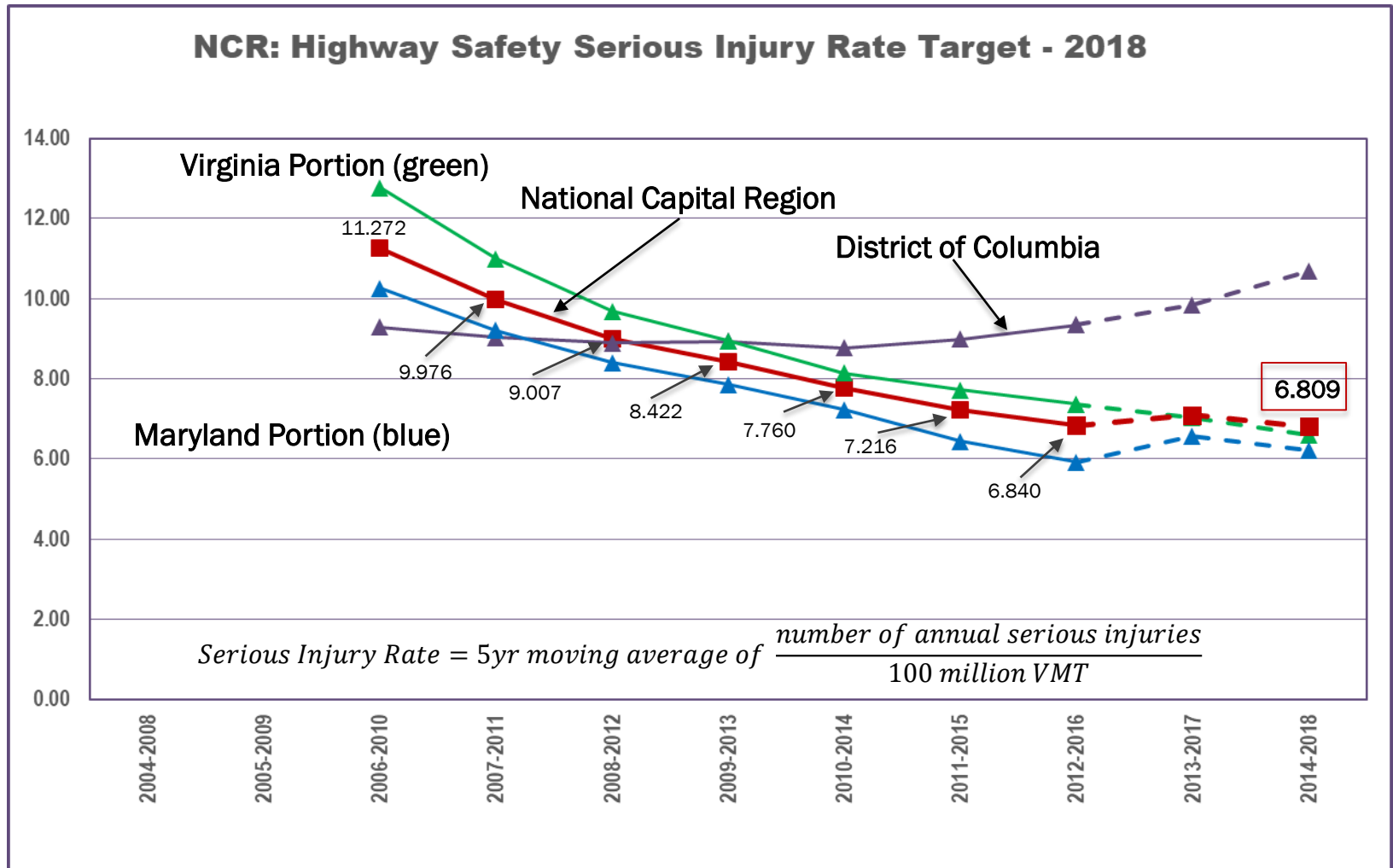
- An alternate method for setting the two rate targets is:
 - $Target(fatality\ rate) = \frac{2014-2018\ fatality\ target}{VMT\ forecast}$
 - $Target(serious\ injury\ rate) = \frac{2014-2018\ serious\ injury\ target}{VMT\ forecast}$
 - Use VMT forecasts from the travel demand model runs for the conformity analysis of the 2016 CLRP Amendment and FY2017-2022 TIP to calculate the denominator



Fatality Rate Target (alternate): 0.574



Serious Injury Rate Target (alt.): 6.809



NCR Highway Safety Targets: Comparison with Alternate Method

	2012-2016 Actual	2014-2018 Target	Difference	Percent Difference
Fatality Rate (per 100 MVMT)	0.617	<u>0.574</u>	↓ 0.043	↓ 7.0%
Fatality Rate (per 100 MVMT) alternate method	0.617	<u>0.588</u>	↓ 0.029	↓ 4.7%
Serious Injury Rate (per 100 MVMT)	6.840	<u>6.791</u>	↓ 0.049	↓ 0.7%
Serious Injury Rate (per 100 MVMT) alternate method	6.840	<u>6.809</u>	↓ 0.031	↓ 0.5%

