ITEM 10 - Information

December 15, 2021

PBPP: Draft 2018 – 2022 Highway Safety Targets

Background: The board will be briefed on the proposed

2018-2022 targets for highway safety performance measures as part of federal

Performance Based Planning and

Programming (PBPP) requirements. Board

action is anticipated in January.

NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD 777 North Capitol Street, N.E. Washington, D.C. 20002

DRAFT RESOLUTION TO ADOPT ANNUAL HIGHWAY SAFETY TARGETS FOR THE NATIONAL CAPITAL REGION

WHEREAS, the National Capital Region Transportation Planning Board (TPB) has been designated by the Governors of Maryland and Virginia and the Mayor of the District of Columbia as the Metropolitan Planning Organization (MPO) for the Washington Metropolitan Area; and

WHEREAS, safety of all modes of travel is an important element of TPB's Vision, and a regional priority, with many of its member jurisdictions having adopted aspirational safety goals associated with Vision Zero and Towards Zero Deaths; and

WHEREAS, the provisions of the FAST Act continued the implementation of performance-based planning and programming to achieve desired performance outcomes for the multimodal transportation system, including the setting of targets for future performance by States and metropolitan planning organizations (MPOs); and

WHEREAS, the Federal Highway Administration issued a rulemaking for state departments of transportation (DOTs) and MPOs to annually establish data-driven highway safety targets and report progress on achieving the targets for the following performance measures: number of fatalities, rate of fatalities per hundred million vehicle miles traveled (VMT), number of serious injuries, rate of serious injuries per VMT, and number of combined non-motorized fatalities and non-motorized serious injuries; and

WHEREAS, though the federal regulations that designate the safety performance measures refer to them as the *National Performance Management Measures for the Highway Safety Improvement Program*, the performance measures are applicable to <u>all</u> public roads in the region from community streets to Interstate highways, and can properly be referred to as <u>roadway</u> safety targets; and

WHEREAS, the TPB has reviewed the safety performance measures and established datadriven regional safety targets annually since January 2018 and acknowledges that the number of fatalities and serious injuries on the region's roadways are unacceptably high, which is contrary to its own vision and the region's aspirations; and

WHEREAS, the TPB remains focused on acting on its priorities and achieving the region's aspirational goals of zero fatalities and serious injuries on its roadways and is using the federally required annual regional highway safety targets and the process to evaluate the region's progress toward zero roadway deaths; and

WHEREAS, the TPB commissioned a regional roadway safety study to identify the factors contributing to and the predominant types of fatal and serious injury crashes in the region and recommend projects, programs and policies the region should prioritize to improve safety outcomes on the region's roadways; and

WHEREAS, The TPB has reviewed the findings of that study and adopted Resolution R3-2021 titled, "Resolution to Establish A Regional Roadway Safety Policy, and Associated Roadway Safety and Equity Policy Statements, to Reduce Fatalities and Serious Injuries on the National Capital Region's Roadways" based on those findings; and

WHEREAS, the TPB, as described in Resolution R3-2021, urges its members to reaffirm road user safety as a top priority and prioritize the implementation of projects, programs, and policies, in an equitable and non-racist manner, consistent with the TPB's Equity Policy statement, that strive to reduce the number of fatal and serious injury crashes on the Region's roadways; and

WHEREAS, The TPB has, as part of Resolution R3-2021, established and funded a Regional Safety Program to assist its members to develop and/or implement projects, programs, or policies to equitably improve safety outcomes for all roadway users; and

WHEREAS, the TPB continues to support local, regional, and state level efforts to reduce fatalities and serious injuries concurrent with the development of increasingly aggressive highway safety targets in the future; and

WHEREAS, the DOTs of the District of Columbia, Maryland, and Virginia set their respective highway safety targets for the five-year period 2018 through 2022 by August 31, 2021, and MPOs are required to set highway safety targets for their metropolitan planning areas for the same period by February 28, 2022; and

WHEREAS, TPB staff have coordinated with officials at the Maryland Department of Transportation (MDOT), the Virginia Department of Transportation (VDOT), and the District Department of Transportation (DDOT) to develop regional highway safety targets that are evidence based, consistent with the targets submitted by each member state DOT, and reflective of the outcomes expected through the implementation of funded safety projects and policies; and

WHEREAS, these highway safety targets have been reviewed and recommended for TPB approval by the Transportation Safety Subcommittee and the TPB Technical Committee; and

WHEREAS, the TPB requests that its members continue to coordinate and share information on projects, programs, policies, and initiatives to improve safety.

NOW, THEREFORE, BE IT RESOLVED THAT the National Capital Region Transportation Planning Board adopts the following set of highway safety targets for the National Capital Region, as described below.

Table 1: Regional Highway Safety Targets – 2018-2022 Average

| Performance Measure | 2018-2022 Target |
|--|---------------------|
| Number of Fatalities (5 year rolling average) | 253.0 |
| Rate of Fatalities per 100 million VMT (5 year rolling average) | 0.588 |
| Number of Serious Injuries (5 year rolling average) | 1,889.7 |
| Rate of Serious Injuries per 100 million VMT (5 year rolling average) | 3.867 |
| Number of Non-Motorized Fatalities and Serious Injuries (5 year rolling average) | 508.6 |

DRAFT REGIONAL HIGHWAY SAFETY TARGETS

Performance-Based Planning and Programming



DRAFT 2018-2022 REGIONAL HIGHWAY SAFETY TARGETS, DECEMBER 2021

November 22, 2021

ABOUT THE TPB

The National Capital Region Transportation Planning Board (TPB) is the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 24 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

CREDITS

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Design: COG Communications Office

ACKNOWLEDGEMENTS (OPTIONAL)

Jurisdictional agency staff from across the region.

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REGIONAL HIGHWAY SAFETY TARGETS

This report proposes a set of draft regional highway safety performance targets for the 2018-2022 time period that meet the MAP-21/FAST performance-based planning and programming (PBPP) requirements and are consistent with the target setting approaches of Maryland, Virginia, and the District of Columbia.

Overview of Recent Transportation Planning Board Safety Activities

The Transportation Planning Board (TPB) adopted the first set of highway safety targets for the National Capital Region in January of 2018. Since then, the TPB has devoted considerable effort to; 1) better understand the factors driving the unacceptably high numbers of fatal and serious injury crashes in the region, 2) identify countermeasures and strategies that are proven to be effective in reducing fatal and serious injury crashes, and 3) encourage TPB member jurisdictions and agencies to implement countermeasures and strategies to significantly reduce fatalities and serious injuries on the region's roadways.

Progress was made in each of these areas over the past two years. In the spring of 2020, the TPB reviewed the findings of a regional crash data analysis and considered the recommendations resulting from a consultant-led regional safety study that began in 2019. This work led to the adoption of a major safety resolution during the TPB's July 2020 meeting. A key element of this resolution is the establishment of the Regional Roadway Safety Program (RRSP) to assist member jurisdictions and the region to develop and/or implement projects, programs, or policies to equitably improve safety outcomes for all roadway users. In June 2021 the TPB approved and funded the first five projects for the RRSP and will soon approve an additional set of RRSP projects.

The TPB anticipates that the RRSP, combined with the continued safety improvement efforts of member agencies and jurisdictions, will result in improved performance that will be reflected in the federally required regional safety performance measures in future years.

Overview of Performance-Based Planning and Programming Requirements

Under the Moving Ahead for Progress in the 21st Century Act (MAP-21) and reinforced in the Fixing America's Surface Transportation (FAST) Act, federal surface transportation regulations require the implementation of performance management requirements through which states and metropolitan planning organizations (MPOs) will "transition to a performance-driven, outcome-based program that provides for a greater level of transparency and accountability, improved project decision-making, and more efficient investment of federal transportation funds."

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have issued a set of rulemakings for the implementation of this performance-based planning and programming (PBPP) process. Each rulemaking lays out the goals of performance for a particular area of transportation, establishes the measures for evaluating performance, specifies the data to be used to calculate the measures, and sets requirements for the setting of targets.

Under the PBPP process, states, MPOs, and providers of public transportation must link investment priorities to the achievement of performance targets in the following areas:

- Highway Safety;
- Highway Assets: Pavement and Bridge Condition;
- System Performance (Interstate and National Highway System, Freight Movement on the Interstate System, and the Congestion Mitigation and Air Quality Improvement Program); and
- Transit Safety and Transit Asset Management.

Although the federal regulations that designate the safety performance measures refer to them as the *National Performance Management Measures for the Highway Safety Improvement Program*, the performance measures are applicable to <u>all</u> public roads in the region from community streets to Interstate highways and can properly be referred to as <u>roadway</u> safety targets.

Highway Safety Targets: Setting, Coordinating, and Reporting

The expectation of the implementation of the Safety Performance Measure rule is to improve both the quantity and quality of safety data, with respect to data pertaining to serious injuries and fatalities. This implementation will also allow greater transparency by disseminating the data publicly. In addition, aggregation of targets and progress at the national level will become possible through improved data consistency among the states and MPOs.

State DOTs and MPOs are expected to use the information generated by these regulations to make investment decisions that result in the greatest possible reductions in fatalities and serious injuries. The five required safety performance measures, along with proscribed data sources, are outlined in Table 1 on the next page.

Table 1: Highway Safety Performance Measures Summary

| 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 |
| Rate of Serious Injuries per 100 million VMT (5 year rolling average) | Ratio of total serious injuries to VMT | State reported serious injury data 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 |

¹ FARS: Fatality Analysis Reporting System

TARGET SETTING

States and MPOs must fulfill the target setting requirements of the final rule. State DOTs are required to set statewide numerical targets for each of the five performance measures. Targets for the first three performance measures (number of fatalities, rate of fatalities, and number of serious injuries) must be identical to the targets set by the State Highway Safety Office (SHSO). Each target must also represent the anticipated performance outcome for all public roadways in the state, regardless of ownership. A breakdown of responsibilities for target setting are listed below.

State DOTs:

- Required to set statewide numerical 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).
 - o Each target shall represent anticipated performance outcome for all public roadways in the State, regardless of ownership.
 - o Targets cannot be changed after they are reported.

² HPMS: Highway Performance Monitoring System

MPOs:

- For each performance measure, an MPO can either:
 - Agree to plan and program projects so they contribute toward accomplishing the state DOT safety target for that performance measure, or
 - o Set a quantifiable target for that performance measure for the MPO planning area:
 - Each target should represent anticipated performance outcome for all public roadways in the MPO planning area, regardless of ownership.
 - MPOs should coordinate with the state DOT(s) to ensure consistency.

MPO Coordination with State DOTs

MPOs are required to establish data-driven and realistic performance targets in coordination with their state partners. MPOs and their state partners should work together to share data, review strategies, and understand outcomes.

Target Reporting

State DOTs report their targets to the FHWA within the state's HSIP (Highway Safety Improvement Program) annual report due each year on August 31.

MPOs do not report their targets to the FHWA, but rather to their respective state DOTs in a manner that is documented and mutually agreed upon. MPOs also report progress toward achieving their targets within the "System Performance Report" portion of their long-range transportation plan (Visualize 2045). In addition, MPO TIPs must include a discussion of how the implementation of the TIP will further the achievement of the targets.

FHWA Determination of Significant Progress

States do not have to meet each of their safety targets to avoid the consequences outlined in the rule but must either meet the target or make significant progress toward meeting the target for four of the five performance measures. The FHWA determines that the significant progress threshold is met if the performance measure outcome is better than the "baseline" – which is defined as the 5-year rolling average for that performance measure for the year prior to the establishment of the target. MPO targets are not evaluated by the FHWA.

Consequences for Failing to Meet Targets of Making Significant Progress

State DOTs that have not met or made significant progress toward meeting their safety performance targets lose some flexibility in how they spend their HSIP funds and are required to submit an annual implementation plan that describes actions the DOT will take to meet their targets.

There are no consequences outlined in the rule for MPOs not meeting their targets. However, the FHWA will review how MPOs are incorporating and discussing safety performance measures and targets in their long-range transportation plans and TIPs during MPO certification reviews.

RECENT TRENDS IN SAFETY DATA

Last year's TPB-adopted targets for the 2017-2021 period were set before calendar year 2020 safety data were available. These data have now been released and are shown in Table 2 below.

Table 2: National Capital Region Safety Trends - with Final 2020 Annual Data

| | 2016 | 2017 | 2018 | 2019 | 2020 | Change from 2019 to 2020 |
|---|-------|-------|-------|-------|--------------------|--------------------------------|
| # of Fatalities | 279 | 313 | 303 | 306 | 321 ¹ | † 4.9 % |
| Fatality Rate (per 100 MVMT) | 0.633 | 0.695 | 0.673 | 0.673 | 0.876 ¹ | † 30.2 % |
| # of Serious Injuries | 2,916 | 2,592 | 2,464 | 2,371 | 1,842 | ↓ 22.3 % |
| Serious Injury Rate (per 100 MVMT) | 6.614 | 5.755 | 5.473 | 5.211 | 5.026 | ↓ 3.6 % |
| # Nonmotorist Fatalities & Serious Injuries | 553 | 580 | 551 | 595 | 440 | ↓ 26.1% |

Fatalities increased nearly 5 percent between 2019 and 2020 which, combined with the dramatic reduction in VMT associated with the COVID pandemic, drove the fatality rate (per VMT) higher by 30.2 percent over the same period. The number of serious injuries fell over 22 percent while the rate of serious injuries declined by a more modest 3.6 percent. The number of nonmotorist fatalities plus serious injuries, driven by the dramatic reduction in overall serious injuries, decreased by 26.1 percent between 2019 and 2020.

PROGRESS TOWARDS THE 2016-2020 SAFETY TARGETS

Table 3 (next page) shows the region's performance on the five safety performance measures with respect to the 2016-2020 targets set in January of 2019.

Table 3:2016-2020 Actuals vs. Targets

| Performance Measure (5-year rolling average) | 2016-2020 Actual | 2016-2020 Target | Status |
|---|---------------------|---------------------|---------|
| # of Fatalities | 304.4 ¹ | 253.0 | Not met |
| Fatality Rate (per 100 MVMT) | 0.7041 | 0.588 | Not met |
| # of Serious Injuries | 2,437.0 | 2,692.1 | Met |
| Serious Injury Rate (per 100 MVMT) | 5.616 | 6.157 | Met |
| # Nonmotorist Fatalities & Serious Injuries | 555.5 | 508.6 | Not met |

Note 1: Figures listed are from state fatality data; official 2019 Fatality Analysis Reporting System data are not yet published

As shown above, the region has met the 2016-2020 targets for the number of serious injuries and the serious injury rate performance measures. However, the region did not meet the targets set for the number of fatalities, the number of nonmotorist fatalities and serious injuries, and the fatality rate targets.

NCR REGIONAL SAFETY TARGET SETTING APPROACH

This year, a new set of targets for the five safety performance measures will be adopted. These targets will be for the 2018-2022 period. The methodology used to develop these targets is the same as the process used last year and leverages the approaches used by our state DOT partners. To account for and incorporate the different target setting approaches used by Maryland, Virginia, and the District of Columbia to develop targets for the entire National Capital Region (NCR), staff applied the following methodology to develop the proposed draft targets:

- identify a "sub-target" for the Maryland portion of the NCR by applying MDOT's target setting approach to the safety data for the Maryland portion of the NCR;
- identify a "sub-target" for the Virginia portion of the NCR by applying VDOT's suggested MPO target setting methodology to the safety data for the Virginia portion of the NCR;
- identify a "sub-target" for the District of Columbia portion of the NCR by directly incorporating DDOT's targets;
- combine the three sub-targets mathematically into a set of initial regional targets;
- compare each performance measure's sub target with the corresponding target set last year: and
- select the lower (more aggressive) of the two targets as this year's target. 1

¹ This ensures that none of this year's safety targets will be higher than the targets that were adopted by the TPB last year.

Overview of Member States' Target Setting Methodologies

Maryland: In previous years Maryland set quantifiable and data driven highway safety targets that supported their Toward Zero Deaths (TZD) approach by developing interim targets to reduce overall fatalities and serious injuries by at least 50 percent by 2030.

This year Maryland has adopted a new methodology to set highway safety targets. Unlike the TZD approach, annual targets this year were set using a two-pronged approach. Targets that are experiencing a decreasing trend over time are set using five-year rolling averages and an exponential trend line without a fixed endpoint to calculate future targets. For those targets experiencing increasing trends, however, projections are based on a 2% decrease from the 2016-2020 five-year average, continuing with a 2% decrease for each successive five-year average.

Maryland officials provided TPB staff with trend lines and interim targets for each of the five performance measures based on the safety data for the Suburban Maryland portion of the NCR.

Virginia: The method used by Virginia to set this year's targets is based on a model that forecasts future fatalities and serious injuries based on a broad range of factors. VDOT then estimates the collective impact of their planned and programmed countermeasures and reduces the model forecast by the projected impacts of their engineering and behavioral efforts. This process is only viable at a statewide level and cannot be used effectively to determine targets for smaller regions within the state. To assist their MPOs, VDOT advises MPOs to apply linear regression techniques to make projections for each of the numeric performance measures² to calculate the 2018-2022 regional targets. For the rate performance measures³, VDOT advises MPOs to divide the annual forecasts for fatalities and serious injuries by projected VMT (vehicle miles traveled) to make 2021 and 2022 projections which were then used to calculate the 2018-2022 regional targets.

District of Columbia: The District of Columbia analyzed their safety data using a combination of annual and 5-year average data and polynomial trend lines to determine their targets. TPB staff directly incorporated the District of Columbia targets, as published in their HSIP Annual Report, into the NCR target setting methodology.

Calculation of the National Capital Region Highway Safety Targets

Numerical Targets

The NCR targets for the number of fatalities, number of serious injuries, and number of nonmotorist fatalities and serious injuries were calculated by summing the sub-targets for the Suburban Maryland, Northern Virginia, and District of Columbia portions of the region. This is straightforward mathematical addition.

As a final step, the calculated numerical targets were compared to the corresponding targets adopted by the TPB last year and the lower (more aggressive) target for each performance measure was selected.

² Number of fatalities, number of serious injuries, and number of nonmotorist fatalities plus serious injuries

 $^{^{\}rm 3}$ Fatality rate per 100 million VMT and serious injury rate per 100 million VMT

Rate Targets

Determination of rate targets (fatality rate and serious injury rate) are somewhat more complicated and involve mathematically combining the effects of the Suburban Maryland, Northern Virginia, and District of Columbia targets according to their respective proportions of total regional VMT. The following steps illustrate the process for the fatality rate (a similar process was used for the serious injury rate):

1) Determine the percent fatality rate reduction represented by each sub target.

| Fatalities per | | 2018-2022 Average | |
|----------------|-------------------|-------------------|----------------|
| 100 MVMT | 2016-2020 Average | (sub target) | Percent change |
| Suburban MD | 0.884 | 0.735 | -16.84% |
| NOVA | 0.475 | 0.430 | -9.34% |
| DC | 0.839 | 1.070 | 27.52% |

2) Determine the proportion of total regional VMT attributable to Suburban Maryland, Northern Virginia, and DC.

| Sub region | 100 MVMT (2020) | Proportion |
|-------------|-----------------|------------|
| Suburban MD | 183.79 | 50.14% |
| NOVA | 152.45 | 41.59% |
| DC | 30.28 | 8.26% |
| Sum | 366.51 | 100.00% |

3) Determine the percent change for the regional rate by multiplying the percent change (from step 1) by the VMT proportion (from step 2).

| | A: Percent change in fatality | B: Proportion | |
|-------------|-------------------------------|---------------|----------|
| Sub region | rate (from step 1) | (from step 2) | AxB |
| Suburban MD | -16.84% | 50.14% | -8.444% |
| NOVA | -9.34% | 41.59% | -3.885% |
| DC | 27.52% | 8.26% | 2.273% |
| Sum | | | -10.056% |

4) Apply the percent change for the regional rate calculate in step 3 to the 2015-2019 average fatality rate. This is the regional fatality rate target for 2017-2021.

| Fatalities per | | Regional percent change | 2018-2022 Average |
|----------------|-------------------|-------------------------|-------------------|
| 100 MVMT | 2016-2020 Average | (from step 3) | (regional target) |
| NCR | 0.704 | -10.056% | 0.633 |

As a final step, the calculated rate targets were compared to the corresponding targets adopted by the TPB last year and the lower (more aggressive) target for each performance measure was selected. Since the fatality rate target of 0.588 set last year is lower than the 0.633 figure calculated by mathematically combining the three sub-regional targets, the staff-recommended target is 0.588 (and not 0.633).

REGIONAL SAFETY TARGETS

Table 4 displays the proposed 2018-2022 National Capital Region Highway Safety Targets.

Table 4: Summary of Highway Safety Targets

| Performance Measure (5-year rolling average) | 2016- 2020 Target | 2017- 2021 Target | 2018- 2022 Target | Difference | Percent Difference |
|---|-------------------------|-------------------------|-------------------------|------------|-----------------------|
| # of Fatalities | 253.0 | 253.0 | <u>253.0</u> | 0.0 | 0.0% |
| Fatality Rate (per 100 MVMT) | 0.588 | 0.588 | 0.588 | 0.0 | 0.0% |
| # of Serious Injuries | 2,692.1 | 2,435.8 | <u>1,889.7</u> | -546.1 | -22.4% |
| Serious Injury Rate (per 100 MVMT) | 6.110 | 5.539 | <u>3.867</u> | -1.672 | -30.2% |
| # Nonmotorist Fatalities & Serious Injuries | 508.6 | 508.6 | <u>508.6</u> | 0.0 | 0.0% |

DURATION

Upon adoption by the Transportation Planning Board, the targets described in this report become the official National Capital Region highway safety targets for calendar year 2022.

As per federal regulations, the National Capital Region highway safety targets will be updated on an annual basis by no later than February 28 of each calendar year.

PBPP: DRAFT 2018-2022 ROADWAY SAFETY TARGETS

Jon Schermann
TPB Transportation Planner

Transportation Planning Board December 15, 2021



Presentation Items

- Part I: Review of Safety Trends
- Part II: Progress Towards the 2016-2020 Safety Targets
- Part III: Staff Recommended 2018-2022 Regional Safety Targets
- Part IV: Next Steps



Part I

Review of Safety Trends



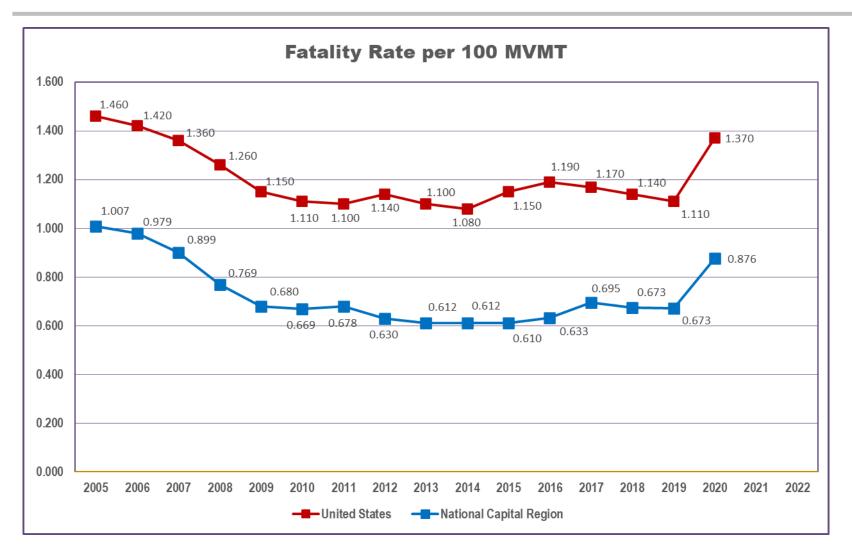
NCR Safety - With Draft 2020 Annual Data

| | 2016 | 2017 | 2018 | 2019 | 2020 | Change from 2019 to 2020 |
|---|-------|-------|-------|-------|--------------------|--------------------------------|
| # of Fatalities | 279 | 313 | 303 | 306 | 321 ¹ | † 4.9 % |
| Fatality Rate (per 100 MVMT) | 0.633 | 0.695 | 0.673 | 0.673 | 0.876 ¹ | †30.2 % |
| # of Serious Injuries | 2,916 | 2,592 | 2,464 | 2,371 | 1,842 | ↓ 22.3% |
| Serious Injury Rate (per 100 MVMT) | 6.614 | 5.755 | 5.473 | 5.211 | 5.026 | ↓ 3.6 % |
| # Nonmotorist Fatalities & Serious Injuries | 553 | 580 | 551 | 595 | 440 | ↓ 26.1% |

Note 1: Figures listed are from state fatality data; official 2020 federal data not yet published



Fatality Rates: USA and National Capital Region





Part II

Progress Towards the 2016-2020 Roadway Safety Targets



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 |
| Rate of Serious Injuries per 100 million VMT (5 year rolling average) | Ratio of total serious injuries to VMT | State reported serious injury data 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 |

¹ FARS: Fatality Analysis Reporting System



² HPMS: Highway Performance Monitoring System

2015-2019 Actual vs. Targets - NCR

| Performance Measure (5-year rolling average) | 2016-2020 Actual | 2016-2020 Target | Status |
|--|---------------------|---------------------|---------|
| # of Fatalities | 304.4 ¹ | 253.0 | Not met |
| Fatality Rate (per 100 MVMT) | 0.704^{1} | 0.588 | Not met |
| # of Serious Injuries | 2,437.0 | 2,692.1 | Met |
| Serious Injury Rate (per 100 MVMT) | 5.616 | 6.157 | Met |
| # Nonmotorist Fatalities & Serious Injuries | 555.5 | 508.6 | Not met |

Note ¹: Figures listed are a combination of FARS and state fatality data; 2020 FARS data not yet published



Part III

Staff Recommended 2018-2022 Roadway Safety Targets



Background (or Why, What, and How)

- The TPB has also set regional targets in January 2018, January 2019, December 2019, and December 2020 – and are scheduled to set their next round of targets in January 2022
 - Federal requirement for State DOTs and MPOs to develop roadway safety targets on an annual basis
 - State DOTs approved their most recent set of targets in August 2021
- Data-driven and realistic highway safety targets are to be set for 5 performance measures
- These data-driven performance measures enable us to consistently track regional safety results
- Targets are averages for a given 5-year period (ex., 2017-2021, 2018-2022 etc.)



2018-2022 Target Setting Methodology

- Apply Maryland's approach to identify a "sub-target" for the Maryland portion of the NCR
- Apply Virginia's suggested approach for its MPOs to identify a subtarget for the Virginia portion of the NCR
- Incorporate the District of Columbia's target as a sub-target for the DC portion of the NCR
- Combine the three sub-targets into a regional target for the NCR
- If a calculated target is higher than the previous target, set the target equal to the previous target
- Note that this is the same methodology as was used for last year's (2017-2021) targets



Summary: NCR Highway Safety Targets: pre-cap

| | 2017-2021 Target | 2018-2022 Target | Difference | Percent Difference |
|--|---------------------|---------------------|------------|-----------------------|
| # of Fatalities | 269.5 | 271.0 | 1.5 | 0.6% |
| Fatality Rate (per 100 MVMT) | 0.628 | 0.633 | 0.005 | 0.8% |
| # of Serious Injuries | 2,435.8 | <u>1,889.7</u> | -546.1 | -22.4% |
| Serious Injury Rate (per 100 MVMT) | 5.539 | <u>3.867</u> | -1.672 | -30.2% |
| # Nonmotorist Fatalities & Serious Injuries | 529.9 | 492.4 | -37.5 | -7.1% |



Summary: NCR Highway Safety Targets: with cap

| | 2017-2021 Target | 2018-2022 Target | Difference | Percent Difference |
|--|---------------------|---------------------|------------|-----------------------|
| # of Fatalities | 253.0 | <u>253.0</u> 1 | 0.0 | 0.0% |
| Fatality Rate (per 100 MVMT) | 0.588 | 0.588 | 0.000 | 0.0% |
| # of Serious Injuries | 2,435.8 | 1,889.7 | -546.1 | -22.4% |
| Serious Injury Rate (per 100 MVMT) | 5.539 | 3.867 | -1.672 | -30.2% |
| # Nonmotorist Fatalities & Serious Injuries | 508.6 | <u>508.6</u> 1 | 0.000 | 0.0% |



Summary: NCR Highway Safety Targets

| Performance Measure (5-year rolling average) | 2016- 2020 Target | 2017- 2021 Target | 2018- 2022 Target | Difference | Percent Difference |
|---|-------------------------|-------------------------|-------------------------|------------|-----------------------|
| # of Fatalities | 253.0 | 253.0 | 253.0 | 0.0 | 0.0% |
| Fatality Rate (per 100 MVMT) | 0.588 | 0.588 | 0.588 | 0.0 | 0.0% |
| # of Serious Injuries | 2,692.1 | 2,435.8 | <u>1,889.7</u> | -546.1 | -22.4% |
| Serious Injury Rate (per 100 MVMT) | 6.110 | 5.539 | 3.867 | -1.672 | -30.2% |
| # Nonmotorist Fatalities & Serious Injuries | 508.6 | 508.6 | <u>508.6</u> | 0.0 | 0.0% |



Part IV

Next Steps



Next Steps

- Finalize roadway safety targets based on board feedback
- Request board approval of targets at the January TPB meeting



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