

DRAFT ANNUAL REGIONAL TRANSIT AND HIGHWAY SAFETY TARGETS

Performance Based Planning and Programming (PBPP)

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National Capital Region
Transportation Planning Board

Presentation Items

- Part I: Transit Safety Process and Draft Targets
- Part II: Highway Safety Process and Draft Targets
- Part III: Next Steps

PBPP is a strategic data-driven approach that uses system information to make investment and policy decisions to achieve performance goals.

Two options for setting targets: adopting regional targets or supporting statewide targets

- *Due to the size and structure of the NCR, the TPB has consistently developed and adopted regional targets in coordination with DOTs and transit agencies*



Transit Safety Targets



Part I – Transit Safety Presentation Items

- Requirements
- Applicability
- Transit Safety Performance Measures
- Adopted 2023 Regional Targets
- Recorded 2023 Safety Performance
- Data Observations
- Draft 2024 Regional Targets



Federal Requirement – Transit Agency Safety Plans

- Federal Performance Based Planning and Programming (PBPP) regulations require applicable providers of public transportation to develop and certify an agency safety plan. See 49 CFR 673.11(a).
 - "The Public Transportation Agency Safety Plan must include annual safety performance targets..." 49 CFR 673.11(a)(3).
- MPOs are required to set regional safety targets for their metropolitan planning area in coordination with state/agency officials. 23 C.F.R. § 450.306d.
 - TPB sets annual targets following state/agency adoption of its Transit Safety targets.



Applicable Regional Agencies

- Transit safety target requirements apply to providers of public transportation that are recipients and sub-recipients of federal Chapter 53 funding, except 5310 and 5311 funding recipients
 - (has been interpreted as applying to 5307 funding recipients, including those listed below):
 - **WMATA:** Metrorail, Metrobus, MetroAccess
 - **DDOT:** DC Circulator, DC Streetcar
 - **MDOT-MTA:** MTA Commuter Bus
 - **PRTC:** Bus and paratransit
 - and local systems in Suburban Maryland:
 - VanGo** (Charles Co.)
 - Ride On** (Montgomery Co.)
 - Transit** (Frederick Co.)
 - The Bus** (Prince George's Co.)



Updated Transit Safety Performance Measures

- New FTA rulemaking this past April added 7 new performance measure for which targets must be set (new measures in **BOLD**)
- The new measures are meant to bring attention to transit worker safety and collision impacts

General Safety Performance Measures	
1a: Major Events	2.1: Transit Worker Fatality Rate (NEW)
1b: Major Event Rate	3a: Injuries
1.1: Collision Rate (NEW)	3b: Injury Rate
1.1.1: Pedestrian Collision Rate (NEW)	3.1: Transit Worker Injury Rate (NEW)
1.1.1: Vehicular Collision Rate (NEW)	4a: Assaults on Transit Workers (NEW)
2a: Fatalities	4b: Rate of Assaults on Transit Workers (NEW)
2b: Fatality Rate	5: System Reliability

Source: FTA PTASP National Safety Plan Webinar (August 2024)



2023 Regional Transit Safety Targets

- Final targets for the region adopted by the TPB on December 20, 2023

	Fatalities		Injuries		Safety Events		Reliability
	Number	Rate	Number	Rate	Number	Rate	MDBF
Heavy Rail (HR)	0	0	146	18.30	41	5.20	25,000
Streetcar Rail (SR)	0	0	0	0.00	4	0.27	1,000
Urban Bus (MB)	0	0	351	0.58	356	0.59	11,378
Commuter Bus (CB)	0	0	1	0.01	0	0.00	33,401
Demand Response (DR)	0	0	49	0.24	59	0.29	0
Vanpools (VP)	0	0	0	0.00	0	0.00	0

Rate - Per 100,000 Vehicle Revenue Miles (VRM), except HR which is per 10 million VRM; MDBF = Mean Distance Between Failures



2023 Regional Transit Safety Data

2023									
	Fatalities		Injuries		Safety Events		2023 vs. 2022		
	Number	Rate	Number	Rate	Number	Rate	F / I / E		
Heavy Rail (HR)	7	0.76	94	10.26	34	3.71	↑	↑	↑
Streetcar Rail (SR)	0	0	1	0.81	6	4.84	↔	↔	↓
Urban Bus (MB)	1	0.001	318	0.41	742	0.96	↓	↑	↑
Commuter Bus (CB)	0	0	0	0	4	0.05	↔	↔	↑
Demand Response (DR)	0	0	16	0.08	26	0.12	↓	↓	↓
Vanpools (VP)	0	0	0	0	0	0	↔	↔	↔

- From the FTA NTD Safety & Security time-series data – Not including MDBF measure and Data Comparison for Applicable Agencies Only
- Note: Fatality count does not include those occurring due to trespass or suicide



Transit Safety Performance – Staff Observations

- In 2023 actual performance generally met regional safety targets across transit modes. Exceptions included:
 - There were significantly more safety events on fixed-route buses than the target set (742 vs 356).
 - Fatalities are targeted at 0; however, there were 8 total fatalities involving transit vehicles or facilities.
 - Commuter bus and streetcar services also experienced higher than targeted injury and safety event incidents.
- Actual injuries and safety events on Demand Response services were significantly less than the set targets.



Draft 2024 NCR Transit Safety Targets – Original PMs

	Fatalities		Injuries		Safety Events		Reliability
	Number	Rate	Number	Rate	Number	Rate	MDBF
Heavy Rail (HR)	0	0	256	24.2	127	12.8	29,000
Streetcar Rail (SR)	0	0	6	6.69	6	6.69	1,000
Urban Bus (MB)	0	0	332	0.73	319	0.70	7,846
Commuter Bus (CB)	0	0	1	0.06	0	0.00	0
Demand Response (DR)	0	0	33	0.16	49	0.24	24,952
Vanpools (VP)	0	0	0	0.00	0	0.00	0

Rate - Per 100,000 Vehicle Revenue Miles (VRM), except HR which is per 10 million VRM; MDBF = Mean Distance Between Failures

- **DRAFT** regional targets for the original seven performance measures – missing two agencies’ data for these measures
- *Regional targets for the new seven performance measures are pending needed data from five agencies*



Highway Safety Targets



Part II – Highway Safety Presentation Items

- Highway Safety Requirements
- Highway Safety Measures
- Highway Safety Target-Setting Methodology
- Highway Safety Trends 2019 through 2023
- 2019-2023 Highway Safety Targets and Performance
- Draft 2021-2025 Regional Roadway Safety Targets



Federal Requirements – Highway Safety Plans

- Federal PBPP regulations require State DOTs and MPOs to:
 - Adopt annual safety performance targets for five (5) safety performance measures
 - Measure and report progress towards those targets each year
 - State DOTs are required to report their safety targets annually through their HSIP report by August 31, and MPOs are required to report their safety targets within 180 days thereafter
- Requirement supports implementation of the Highway Safety Improvement Program (HSIP), which requires States to improve highway safety on public roads using a data-drive, strategic approach



Highway Safety Performance Measures

Performance Measure	Description
Number of Fatalities <i>(5 year rolling average)</i>	Total number of fatalities during a calendar year
Rate of Fatalities per 100 million VMT <i>(5 year rolling average)</i>	Ratio of total fatalities to VMT
Number of Serious Injuries <i>(5 year rolling average)</i>	Total number of serious injuries during a calendar year
Rate of Serious Injuries per 100 million VMT <i>(5 year rolling average)</i>	Ratio of total serious injuries to VMT
Number of Non-Motorized Fatalities and Serious Injuries <i>(5 year rolling average)</i>	Total number of fatalities and serious injuries during a calendar year



Highway Safety – Target Setting Methodology

- TPB targets for each performance measure is a composite of sub-targets developed for each State
- 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, i.e., target is “capped”*



Highway Safety – Target Setting Methodology

- Adjustments to the methodology this year
 - Data for Maryland jurisdictions is sourced from Maryland Department of State Police (MDSP) instead of MDOT Highway Safety Office
 - MDSP includes “non-traffic” fatal crashes (i.e., fatal crash due to a medical event)
 - Data for urbanized area of Fauquier County is no longer included



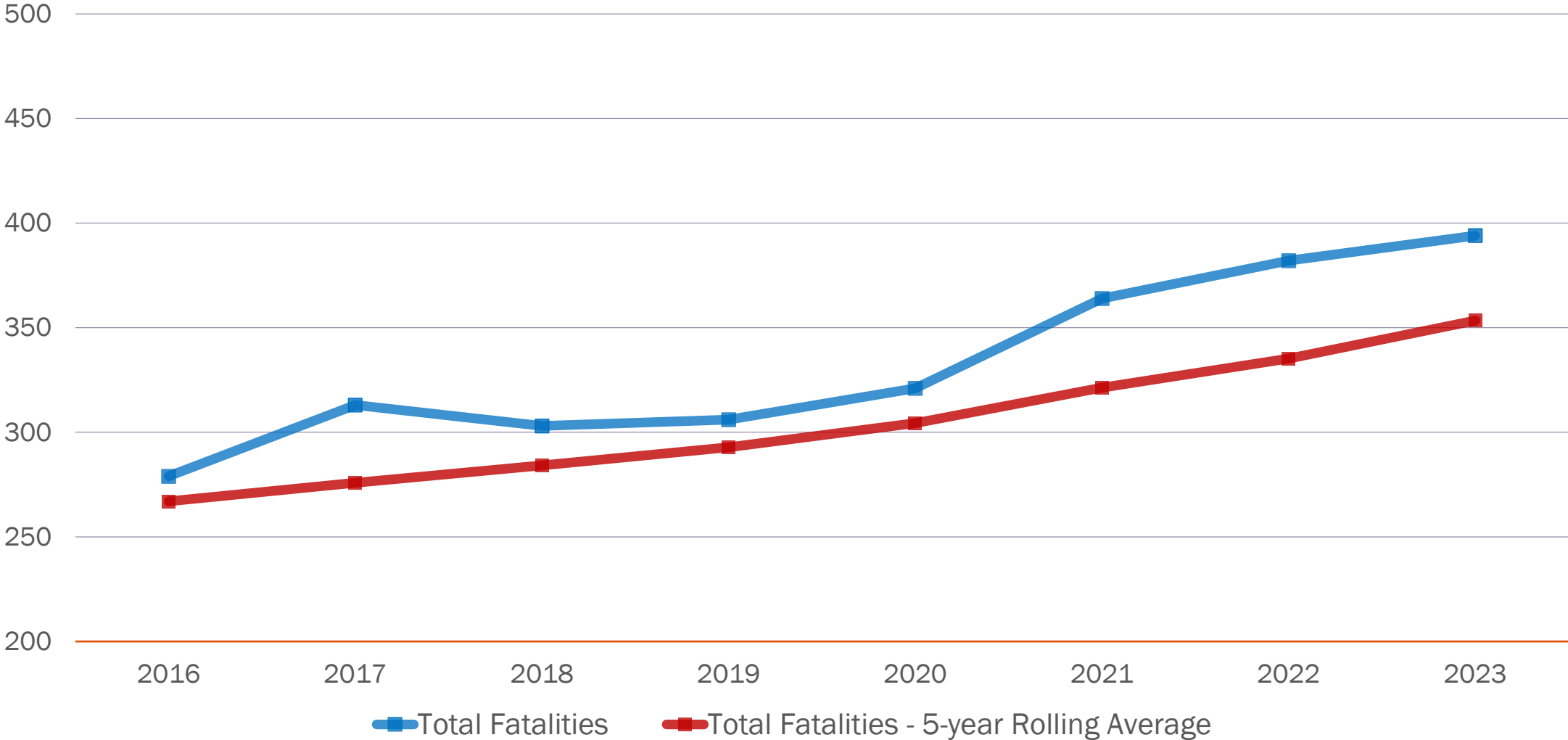
NCR Annual Highway Safety Data: 2019 through 2023

	2019	2020	2021	2022	2023	Change from 2022-2023
# of Fatalities	306	321	364	382	392 ¹	↑ 2.62%
Fatality Rate (per 100 MVMT)	0.673	0.876	0.896	0.884	0.900 ¹	↑ 1.77%
# of Serious Injuries	2,371	1,839	2,221	2,178	2,284	↑ 4.87 %
Serious Injury Rate (per 100 MVMT)	5.211	5.016	5.464	5.043	5.244	↑ 4.00%
# Nonmotorist Fatalities & Serious Injuries	593	443	520	637	581	↓ 8.79 %
Annual Vehicle Miles Traveled (100 M)	454.97	366.60	406.47	431.91	435.51	↑ 0.8 %

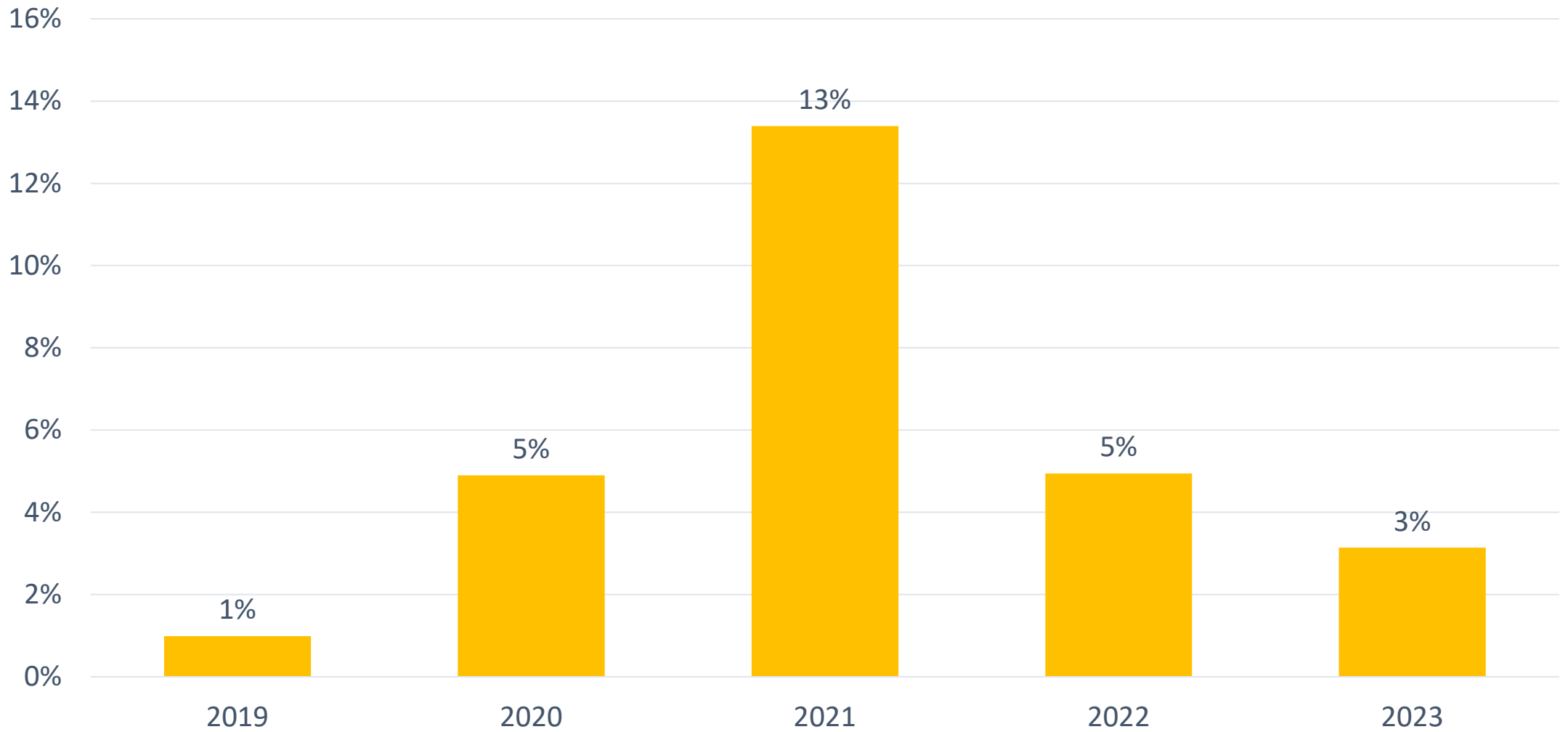
1 - Figures listed are from preliminary state fatality data; 2023 FARS data not yet published.



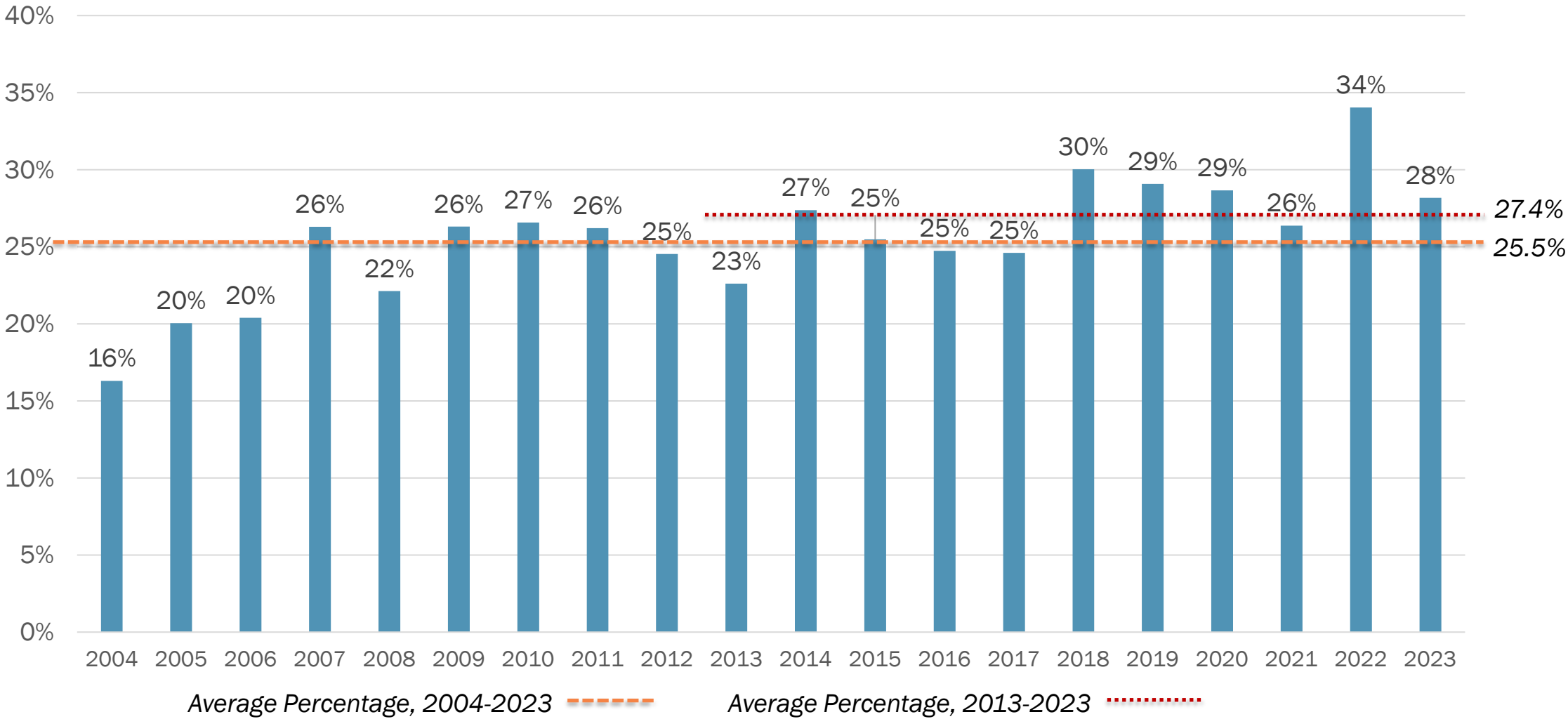
National Capital Region Roadway Fatalities



National Capital Region Fatalities: Annual Percent Change



Pedestrian Fatalities as a Proportion of Total Roadway Fatalities



Highway Safety Performance – Staff Observations

- Roadway fatalities continue to increase but at a slower rate compared to 2020-2022
 - Suggests that traffic fatalities may be starting to level-off
- Non-motorist fatalities and serious injuries declined compared to 2022
 - Driven by decreases in among pedestrians and bicyclists
 - Pedestrian fatalities remain proportionately high



2019-2023 NCR Actual Performance vs. Targets

Performance Measure (5-year rolling average)	Adopted 2019- 2023 Targets (Dec 2022)	Actual 2019-2023 Performance	Status
# of Fatalities	253.0	353.0 ¹	Not met
Fatality Rate (per 100 MVMT)	0.588	0.842 ¹	Not met
# of Serious Injuries	1,757.4	2,150.8	Not met
Serious Injury Rate (per 100 MVMT)	3.733	5.196	Not met
# Nonmotorist Fatalities & Serious Injuries	486.9	563.2	Not met

1 - Figures listed are from preliminary state fatality data; 2023 FARS data not yet published.



Draft 2021-2025 NCR Highway Safety Targets

Performance Measure (5-year rolling average)	Adopted 2020-2024 Targets	DRAFT 2021-2025 Targets	Difference	Percent Difference
# of Fatalities	253.0	<u>253.0*</u>	0.0	0.0%
Fatality Rate (per 100 MVMT)	0.588	<u>0.588*</u>	0.0	0.0%
# of Serious Injuries	1,675.7	<u>1,591.3</u>	-84.4	-5.0%
Serious Injury Rate (per 100 MVMT)	3.222	<u>3.222*</u>	0.0	0.0%
# Nonmotorist Fatalities & Serious Injuries	473.5	<u>464.7</u>	-8.8	-1.9%

*Cap applied



Part III – Next Steps

- Finalize regional transit and highway safety targets based on any final information and board feedback
- December 18: Request board approval of final regional targets
- TPB staff will subsequently transmit the adopted targets to the State DOTs in accordance with established written agreements for performance planning reporting



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