



2021 TRANSIT AGENCY SAFETY TARGETS – DRAFT

Performance-Based Planning and Programming

Eric Randall
TPB Transportation Engineer

Transportation Planning Board
October 20, 2021



Presentation Items

- Transit Agency Safety Plans Rule
- Transit Safety Performance Measures
- Applicability
- Calculation of Regional Targets
- 2021 Regional Transit Safety Targets – **DRAFT**
- Adopted 2020 Regional Targets
- Next Steps



Federal Requirement – Transit Agency Safety Plans

- Federal Performance Based Planning and Programming (PBPP) regulations requires applicable providers of public transportation to develop and certify an agency safety plan
- Applicable transit providers are required to annually set targets for four (4) Transit Safety performance measures,
 - First annual targets adopted by transit providers in 2020, though could be waived due to pandemic
- MPOs have 180 days following to adopt Transit Safety targets for the metropolitan planning area (i.e., regional targets)



Transit Safety Performance Measures

	Performance Measures
Fatalities	Total number of reportable fatalities and the rate per total vehicle revenue miles by mode
Injuries	Total number of reportable injuries and the rate per total vehicle revenue miles by mode
Safety Events*	Total number of reportable events and the rate per total vehicle revenue miles by mode
System Reliability	Mean distance between major mechanical failures by mode

*Collisions, derailments, fires, or life safety evacuations



Applicable Regional Agencies

- Transit safety requirements apply to providers of public transportation that are recipients and sub-recipients of federal Section 5307 funding under FTA regulation
 - 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.)
 - TransIT (Frederick Co.)
 - Ride On (Montgomery Co.)
 - The Bus (Prince George's Co.)



Calculation of Regional Safety Targets

Targets for the region based on those adopted or identified by each provider of public transportation

Measures are calculated for each mode:

- Number of Fatalities/Serious Injuries/Incidents – total number for all providers of that mode
- Rate of Fatalities/Serious Injuries/Incidents – total number for all providers of the mode divided by the total number of Vehicle Revenue Miles (VRM) for that mode (reported in rate per 100,000 VRM)
- Mean Distance Between Failure (MDBF) – the total number of VRM for that mode divided by the total number of failures for all providers of the mode

2021 Regional Transit Safety Targets - **DRAFT**

Draft targets for the region based on the adopted or preliminary measures for each mode

	Fatalities		Serious Injuries		Safety Events		Reliability
	Number	Rate	Number	Rate	Number	Rate	MDBF
Heavy Rail (HR)*	0	0	244	0.31	84	0.11	254,000
Streetcar Rail (SR) *	0	0	0	0.00	4	0.27	672
Urban Bus (MB)*	0	0	411	0.69	463	0.78	13,654
Commuter Bus (CB)	0	0	6	0.07	20	0.23	13,265
Demand Response (DR)	0	0	40	0.19	18	0.08	0
Vanpools (VP)	0	0	6	0.05	118	1.05	9,500

Rate - Per 100,000 Vehicle Revenue Miles

MDBF = Mean Distance Between Failures

* Includes preliminary measures not yet finalized by a provider



Adopted 2020 Regional Transit Safety Targets

Adopted by the TPB on November 18, 2020

Mode	Fatalities		Serious Injuries		Safety Events		Reliability
	Number	Rate	Number	Rate	Number	Rate	MDBF
Heavy Rail (HR)	0	0	324	0.38	95	0.11	7,000
Streetcar Rail (SR)	0	0	3	2.28	2	3.80	10,000
Urban Bus (MB)	0	0	452	0.74	602	0.98	21,645
Commuter Bus (CB)	0	0	12	0.19	185	3.00	11,593
Demand Response (DR)	0	0	69	0.00	207	0.97	48,422

Rate - Per 100,000 Vehicle Revenue Miles

MDBF = Mean Distance Between Failures



Observations

- Actual safety data is submitted by all transit providers in the region to the FTA's National Transit Database. Outcomes in 2020 were affected by reduced operations during the pandemic
 - Fatalities: 3 on Heavy Rail; 2 on Urban Bus
 - Serious Injuries: 11 on Heavy Rail; none on Urban Bus
 - Safety Events: up on Heavy Rail; down on Urban Bus
- For the 2021 targets
 - Added new mode: Vanpools
 - Zero fatalities for all modes: no change
 - Setting improved (lower) targets for Serious Injuries, Safety Events, Reliability (MDBF) for most modes



Next Steps

- Take any comments on draft regional transit safety targets
- November 17 – TPB adopt final regional transit safety targets

Eric Randall

TPB Transportation Engineer

(202) 962-3254

erandall@mwkog.org

MWCOG.ORG/TPB

777 North Capitol Street NE, Suite 300

Washington, DC 20002



National Capital Region
Transportation Planning Board