



MEMORANDUM

To: Transportation Committee

From: CMAP Staff

Date: February 19, 2021

Re: 2022 Regional transit safety performance targets

MAP-21 and the FAST Act direct MPOs to develop long-range transportation plans (LRTPs) and transportation improvement programs (TIPs), “through a performance driven, outcome-based approach to planning.” States, MPOs, and operators of public transportation are required to establish targets for performance measures in key performance areas, and to coordinate with each other when setting these targets. Through the federal rulemaking process, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have required states, MPOs, and transit operators to monitor the transportation system using specific performance measures. Transit safety targets are required by the performance-based planning and programming (PBPP) rulemakings enacted in accordance with the Public Transportation Agency Safety Plan (PTASP) Final Rule¹.

This memorandum reviews the transit safety rule, summarizes transit agency targets, and provides justification for the CMAP staff recommendation that the CMAP Board and MPO Policy Committee adopt transit safety targets based on the targets set by the Chicago Transit Authority and Pace. (As discussed below, Metra sets its targets through a separate process.)

Background on Transit Safety Rule

The final rulemaking Public Transportation Agency Safety Plan (PTASP) was published by the FTA for consideration and public comment on July 19, 2018. The effective date of this rule was July 19, 2019, with one year for applicable providers of public transportation to implement the rulemaking, by July 19, 2020. In response to the COVID-19 pandemic, FTA postponed enforcement to December 31, 2020 for transit agencies to meet PTASP regulation. Both CTA and Pace’s boards have adopted PTASP plans and targets.

¹ Public Transportation Agency Safety Plan Final Rule <https://www.govinfo.gov/content/pkg/FR-2018-07-19/pdf/2018-15167.pdf>

Once applicable providers of public transportation have each set their transit safety targets, MPOs have 180 days to adopt transit safety targets for their metropolitan planning area to comply with requirements. As a result of this timeline, this is the first time CMAP is setting regional transit safety targets.

Metra's is exempt from PTASP requirements because it is regulated for safety by the Federal Railroad Administration (FRA) rather than the FTA. However, Metra has developed a System Safety Program Plan (SSPP) under the FRA². Under MAP-21, states have additional safety oversight responsibilities for heavy rail transit³. In Illinois, IDOT oversees two covered systems: CTA rail and Bi-State Development MetroLink light rail (St. Louis).

The National Public Transportation Safety Plan (NPTSP) guides the national effort in managing the safety risks and hazards within our nation's public transportation systems. The plan centers on the FTA's Safety Management System (SMS) approach to improving the industry's safety performance. It also established performance measures to improve the safety of public transportation systems that receive federal financial assistance. Transit agencies, MPOs, and states are required to set targets for these measures. The FTA has not established penalties for not meeting safety performance targets.

Table 1: Transit Safety 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 (Collisions, derailments, fires, or life safety evacuations)	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

Transit Agency Targets

Transit agencies will be responsible for developing PTASPs, in compliance with the Public Transportation Agency Safety Plan Rule. These agencies will be required to review and update these plans annually. These plans will include targets for the transit safety performance measures, which transit agencies may choose to amend when conducting annual reviews of their safety plans. Transit agencies must share these safety plans and targets with state DOTs and MPOs, which will set targets for their states and MPO regions.

The Chicago Transit Authority developed separate safety plans for bus and rail. CTA was part of a SMS pilot program with FTA and was one of the first agencies to complete its plans in 2020. The targets in the following table are the second round of targets set by the CTA and changed little from 2020 targets.

² For more information about FRA safety plans see 49 CFR Part 270

³ FTA State Safety Oversight Program <https://www.transit.dot.gov/state-safety-oversight>

Table 2: CTA 2021 Transit Safety Performance Targets

Mode	Fatalities		Serious Injuries		Safety Events		Reliability
	Number	Rate	Number	Rate	Number	Rate	MDBF
Heavy Rail	0	0.0	213	3.0	222	3.0	150,000
Bus	0	0.0	527	10.0	344	6.5	5,300

Rate - per million vehicle revenue miles

MDBF = Mean Distance Between Failures, in miles

Pace adopted its safety plan and targets for all required modes in November 2020 for the first time. Pace targets are based on five-year average performance for each measure. Note that Pace uses per 100,000 rather than per million for the rate. The FTA allows flexibility in the denominator.

Table 3: Pace 2021 Transit Safety Performance Targets

Mode	Fatalities		Serious Injuries		Safety Events		Reliability
	Number	Rate	Number	Rate	Number	Rate	MDBF
Fixed Route	1	0.00	98	0.42	78	0.33	13,134
Vanpool	0	0.00	2	0.02	1	0.01	170,031
ADA Para Transit	1	0.00	102	0.28	99	0.27	53,365

Rate – per 100,000 vehicle revenue miles

MDBF = Mean Distance Between Failures, in miles

In preparation for target setting, CMAP hosted a transit safety summit in January 2021 that included representatives from IDOT, CTA, Pace, Metra, RTA, FTA, and CMAP. Discussion included plan development, recent safety efforts by each agency, target setting, response to COVID-19, technology, and future activities. Agencies shared that recent plans largely formalizing existing safety practices in one place in a consistent manner. These plans have highlighted opportunities for potential adjustments and elevated the visibility of safety in organizations, at all levels.

Each transit provider is required to review its Agency Safety Plan annually and update the plan, including the safety performance targets, as necessary. The MPO is not required to set new transit safety targets each year but can choose to revisit the MPO’s safety performance targets based on the schedule for preparation of its system performance report that is part of the Metropolitan Transportation Plan (MTP). The targets below therefore are two-year targets. In 2022, four-year targets will be set as part of the update to ON TO 2050.

Recommendation for 2022 safety performance targets

Staff recommends that the CMAP Board and MPO policy committee adopt targets based on CTA’s and Pace’s 2021 targets as shown in Table 4.

Table 4: Proposed 2022 Regional Transit Safety Performance Targets

Mode	Fatalities		Serious Injuries		Safety Events		Reliability
	Number	Rate	Number	Rate	Number	Rate	MDBF
Heavy Rail (CTA)	0	0.0	213	3.0	222	3.0	150,000
Bus (CTA & Pace)	1	0.0	625	8.2	422	5.5	7,775
Vanpool (Pace)	0	0.0	2	0.2	1	0.1	170,031
ADA (Pace)	1	0.0	102	2.8	99	2.7	53,365

Rate - per million vehicle revenue miles

MDBF = Mean Distance Between Failures in miles

Next steps

Following discussion and approval by the Transportation Committee, the recommended 2022 regional transit safety performance targets will be brought to the CMAP Board and MPO Policy Committee in March for approval. If the targets are approved, staff will prepare a memo informing IDOT of the CMAP MPO regional transit safety targets.

CMAP will continue to engage with service boards as they implement safety plans and monitor targets. State DOTs, MPOs, and providers of public transportation must link investment priorities to the achievement of performance targets and include them in the TIP and long-range plan. As part of this, CMAP will continue to coordinate with all transit partners in the region to better support their safety efforts. CMAP is initiating several traffic safety efforts as part of a Regional Safety Action Agenda. Transit, and modes used to access transit such as walking and bicycling, will be part of this conversation as the agency explores opportunities to improve safety for all modes of travel.

In the long-term, additional revenue sources will be necessary for the region to meet its transit safety and other targets. Without additional, sustainable revenues, the region will be unable to maintain the system in its current state of repair, let alone implement needed enhancements or expansions. CMAP will also continue work with stakeholders to secure adequate resources for the transit system that will improve both safety and reliability.

ACTION REQUESTED: Approval

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ATTACHMENT: Historic Transit Safety Data

Fatalities

	CTA Rail	CTA Bus	Pace Bus	Pace Vanpool	Pace ADA
2015	7	6	0	0	1
2016	17	0	0	0	0
2017	15	6	1	0	1
2018	16	4	2	0	0
2019	18	1	0	0	2

Fatality Rate*

	CTA Rail	CTA Bus	Pace Bus	Pace Vanpool	Pace ADA
2015	0.10	0.11	0.00	0.00	0.03
2016	0.24	0.00	0.00	0.00	0.00
2017	0.20	0.11	0.04	0.00	0.03
2018	0.22	0.08	0.08	0.00	0.00
2019	0.24	0.02	0.00	0.00	0.06

Serious Injuries

	CTA Rail	CTA Bus	Pace Bus	Pace Vanpool	Pace ADA
2015	70	624	99	0	93
2016	97	567	122	6	137
2017	105	527	105	0	92
2018	150	481	126	1	99
2019	239	568	71	2	102

Serious Injury Rate*

	CTA Rail	CTA Bus	Pace Bus	Pace Vanpool	Pace ADA
2015	0.98	11.94	4.57	0.00	2.38
2016	1.35	10.84	5.47	0.68	3.56
2017	1.43	10.08	4.34	0.00	2.50
2018	2.04	9.19	5.20	0.14	2.82
2019	3.25	10.75	2.91	0.31	3.16

Safety Events

	CTA Rail	CTA Bus	Pace Bus	Pace Vanpool	Pace ADA
2015	85	355	74	0	90
2016	115	351	96	1	95
2017	108	339	72	0	94
2018	155	298	89	1	113
2019	218	351	64	2	106

Safety Event Rate*

	CTA Rail	CTA Bus	Pace Bus	Pace Vanpool	Pace ADA
2015	1.19	6.79	3.42	0.00	2.30
2016	1.60	6.71	4.30	0.11	2.47
2017	1.47	6.48	2.98	0.00	2.56
2018	2.11	5.70	3.68	0.14	3.22
2019	2.96	6.65	2.62	0.31	3.29

Mean Distance Between Failures (miles)

	CTA Rail	CTA Bus	Pace Bus	Pace Vanpool	Pace ADA
2015	288,654	9,076	10,001	140,993	49,649
2016	319,162	6,120	10,183	138,656	64,440
2017	249,533	5,501	15,008	222,290	57,227
2018	160,747	5,245	18,072	226,765	48,738
2019	161,347	5,090	15,424	180,389	49,056

*Rate - per million vehicle revenue miles

Source: National Transit Database