

Creating FTA Required Targets



Introduction

- Section 20019 of MAP-21 amended Federal transit law by adding a new section 5326 to Chapter 53 of title 49 of the United States Code. The provisions of 49 U.S.C. § 5326 require the Secretary of Transportation to establish and implement a National TAM System which establishes annual reporting requirements.
- The Secretary also must establish SGR performance measures, and recipients must set performance targets based on the measures. 49 U.S.C. § 5326(c)(1) and (2). Each designated recipient must submit two annual reports to the Secretary—one report on the condition of their recipients' public transportation systems, including a description of any change in condition since the last report, and another describing its recipients' progress towards **meeting performance targets established during that fiscal year and a description of the recipients' performance targets for the subsequent fiscal year.**
- The Accountable Executive for a transit provider that develops an individual TAM plan must approve the provider's performance targets. (Federal Transit Administration, 2016)

What are the categories we have to report?

- Rolling Stock
- Equipment
- Fixed Guideway
- Facilities

What do you need to set a Target

- Must be data driven
- Must be repeatable
- To set one you must know your agencies benchmarks
 - Current state
- Must estimate the scheduled work and replacements for next reporting year
- Asset inventory
- Data
 - ULB – rolling stock and equipment - see FTA cheat sheet
 - Condition – facilities
 - Guideway restrictions

2017 Performance Targets for Rolling Stock

- **Requirement**

- Subsection 625.43(b) requires a measure for rolling stock that is based on the percentage of rolling stock that have met or exceeded their ULB. This performance measure is applicable to all asset classes of revenue vehicles. For example, a transit provider operating buses, replica trolleys, paratransit vans, and light rail vehicles would establish a performance target for each asset class. Each performance target would quantify the percentage of rolling stock in each class that is over the transit provider's ULB for that asset class. (Federal Transit Administration, 2016)
- Rolling stock - % that have exceeded ULB;
 - $\# \text{ of vehicles over ULB} / \# \text{ vehicles} = \text{current bench mark}$
 - Bus – ULB = 14
 - Light rail – ULB = 31
 - Commuter rail – ULB = 31

Exercise

category	type	make/model	number operated	age	ULB	% over ULB	Target /estimate average % over ULB next year				
	formula - number of vehicles over ULB/total number of vehicles										
rolling stock	bus	articulated	45	2	14	8%	38%	replacing 50 of the 40 foot and all the 30 foot			
rolling stock	bus	40 foot transit	125	13	14						
rolling stock	bus	30 foot transit	30	15	14						
rolling stock	bus	cut-a-way	60	6	8	0%	0%				
rolling stock	light rail		20	22	31	0%	0%				
rolling stock	commuter rail		40	15	31	0%	0%				

2017 Performance Targets for Equipment

- **Requirement**

- Subsection 625.43(a) requires a measure for equipment, which is limited to non-revenue service vehicles. The performance measure for nonrevenue, support-service and maintenance vehicles equipment is the percentage of those vehicles that have either met or exceeded their Useful Life Benchmark (ULB). (Federal Transit Administration, 2016)
- Equipment - % that have exceeded ULB; # of vehicles over ULB /# vehicles
- Nonrevenue vehicles – truck – ULB = 14
- Nonrevenue vehicles – sedan – ULB = 8

Exercise

category	type	make/model	number operated	in service date	age	ULB	% over ULB	Target /estimate % over ULB next year
formula - number of pieces of equipment over ULB/total number of pieces of equipment								
equipment	nonrevenue vehicle	truck	30		10	14	33%	11%replacing 10
equipment	nonrevenue vehicle	truck	15		15	14		
equipment	nonrevenue vehicle	sedan	25		9	8	55%	22%replacing 15
equipment	nonrevenue vehicle	sedan	20		4	8		

Performance Targets for Facilities

- **Requirement**

- Subsection 625.43(d) requires a condition-based performance measure for facilities based on the percentage of facilities with a condition rating of less than 3.0 on the TERM Scale. The TERM Scale rates asset condition on a 1 (poor) to 5 (excellent) scale. This condition-based approach would require a transit provider to conduct periodic condition assessments of its assets using a set of standardized procedures and criteria. This approach directly identifies the condition of each asset based upon its actual usage and maintenance history. (Federal Transit Administration, 2016)
- To clarify, FTA proposed a broad definition of facility that encompassed any buildings or structures used in providing public transportation, including passenger stations, operations, maintenance, and administrative facilities.
- Number of facilities - % with condition rating below 3.0
 - Passenger/Parking facilities below 3.0/total Passenger/Parking facilities
 - Administrative/Maintenance facilities below 3.0/total Administrative / Maintenance facilities

Exercise

	total #	# with condition over 3.0	# with condition 2.9 and under	average condition	% backlog	target % backlog	
facilities	110	102	8	3.5	7%	5%	major rehab projects to 2 facilities

Performance Targets for Fixed Guideway

- Requirement

- Subsection 625.43(c) requires a measure for infrastructure based on the **percentage of guideway directional route miles with performance restrictions**. This performance measure would be applicable to all rail fixed guideway infrastructure. Most transit providers already collect data on slow zones—this performance measure would standardize their reporting. (Federal Transit Administration, 2016)

- Rail –

- Miles of restrictions / miles
 - Total DRM [A,B&G Lines] = 71.92 Miles
 - 2016 current - for each Wednesday 9am, there can be slow zone of $13.03/365 = .0356\text{DRM}$ (total miles of restriction/days of the year)
 - 2017 Target - %DRM under performance Restriction will be = $(0.0356/71.92) * 100 = 0.049\%$

How to determine Performance Restrictions

FTA Guideway Performance Restriction Calculation Guidebook

Table 5 - Example Breakdown and Calculation of Yearly Average of Guideway Under Performance Restriction, Tabulated By Cause.

		Month												YTD AVG
		1	2	3	4	5	6	7	8	9	10	11	12	
Restriction Causes (Examples)	Maintenance	0.15	2.05	2.45	1.78	1.50	0.57	1.50	1.05	1.25	0.40	0.15	0.15	1.08
	Rail Defect	0.50	0.15	0.91	0.91	0.91	0.25	0.44	0.25	0.44	0.15	0.50	0.50	0.49
	Signal, Controls Issue	0.00	0.50	0.53	0.53	0.53	0.11	0.11	0.00	0.20	0.20	0.00	0.00	0.23
	Bridge Conditions	0.00	0.00	0.00	0.00	0.00	0.50	0.50	0.50	0.02	0.10	0.10	0.00	0.14
	Track Geometry	1.08	0.25	0.00	0.00	0.00	0.75	0.70	0.75	0.75	0.25	0.08	0.08	0.39
	Construction	0.46	0.00	0.00	0.00	0.00	1.20	1.20	3.00	2.00	0.00	0.00	0.46	0.69
	Other	0.00	0.31	0.31	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
	TOTAL Under Performance Restriction (miles)	2.19	3.26	4.20	3.53	2.94	3.38	4.45	5.55	4.66	1.10	0.83	1.19	3.11

Exercise

# performance restrictions								
fixed guideway			directional route miles	# miles performance restrictions	next years scheduled work	# miles estimated next year performance restrictions	# miles est on 1st Wed	target
	light rail		95.86	32.7	12.63	45.53	1.45	0.13%
	Commuter Rail		71.91	n/a	n/a	13.03	0.0356	0.05%

Certification

- Must be signed and attested to by the agencies Accountable Executive which the final rule defines as the General Manager or CEO

Questions?

- For more information from FTA
 - Calculating Performance Measures and Setting Targets is available at <https://tsi-dot.csod.com/client/tsi-dot/default.aspx>
- Guideway Performance Restriction Calculation
<https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Guideway%20Performance%20Assessment%20Guidebook.pdf>
- Default Useful Life Benchmark (ULB) Cheat Sheet
<https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA%20TAM%20ULB%20Cheat%20Sheet%202016-10-26.pdf>