

# NATIONAL SCAN OF MPO PBPP TARGETS

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## Performance Based Planning and Programming

Matthew Gaskin, TPB Transportation Planner

Transportation Planning Board Technical Committee  
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# Presentation Outline

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- Overview
- PBPP Target-Setting Requirements
- PBPP Performance Areas
- MPOs used for comparison
- PBPP Area Performance Targets
- Summary of Findings



# PBPP – Target-Setting Requirements

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- Under MAP-21 and reinforced in the FAST Act, federal surface transportation regulations require the implementation of performance based planning and programming (PBPP) by state DOTs, metropolitan planning organizations (MPOs), and transit agencies

*“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.”*
- Federal PBPP process requires State DOTs and MPOs to set targets (annually or every two/four years) for 26 performance measures
  - During 2018 MPOs across the nation – including the TPB – set performance targets for the PBPP measures



# Federal PBPP Performance Areas

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- The federal PBPP rules have five main areas of performance planning for which the TPB must set targets and program projects accordingly:
  - Highway Safety
  - Highway Assets (Pavement and Bridge Condition)
  - Highway System Performance (Reliability, Freight, CMAQ Program)
  - Transit Assets
  - Transit Safety
- This national comparison focuses on the targets set for the three Highway performance areas
  - It is important to note that this is **not** a comparison of actual performance, only of adopted targets
  - Presumably MPOs set achievable targets close to actual performance, but may have incorporated buffers or margins



# MPO Comparison – Top 10

- Compared the top 10 MPOs based on population, as well as neighbors Baltimore Region Transportation Board (BRTB) and Richmond Regional Transportation Planning Organization (RRTPO)
- Caveats for comparability
  - Targets based on normalized data are reasonably comparable, absolute numbers are not
  - Not all MPOs set targets for all measures; some adopted statewide targets, limiting comparability

Ranking	Metropolitan Planning Organization	MPO Population 2010
1	Southern California Association of Governments (SCAG)	18,051,203
2	New York Metropolitan Transportation Council (NYMTC)	12,367,508
3	Chicago Metropolitan Agency for Planning (CMAP)	8,444,660
4	Metropolitan Transportation Commission (MTC)	7,150,828
5	North Jersey Transportation Planning Authority (NJTPA)	6,579,801
6	North Central Texas Council of Governments (NCTCOG)	6,417,630
7	Houston-Galveston Area Council (H-GAC)	5,892,002
8	Delaware Valley Regional Planning Commission (DVRPC)	5,626,318
9	National Capital Region Transportation Planning Board (NCRTPB)	5,068,540
10	Atlanta Regional Commission (ARC)	4,819,026
18	Baltimore Region Transportation Board (BRTB)	2,662,204
53	Richmond Regional Transportation Planning Organization (RRTPO)	934,060



# MPO Comparison Locations

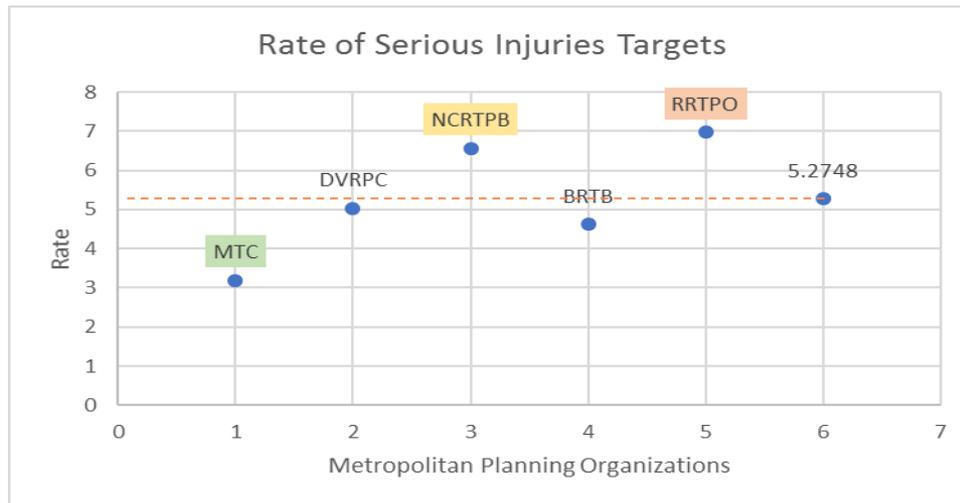
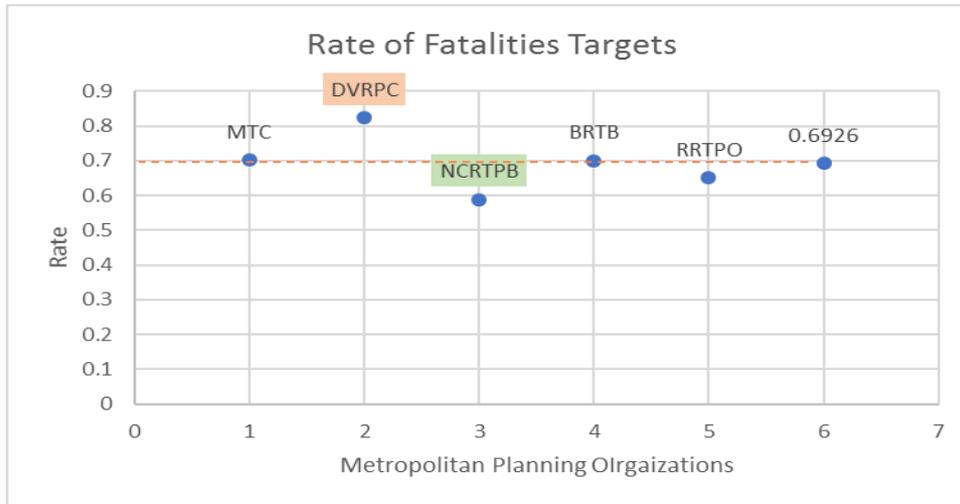


# Highway Safety Area

- Of the MPOs examined only five set Highway Safety Targets
  - MTC
  - DVRPC
  - NCRTPB
  - BRTB
  - RRTPO
- *Graph Notes*
  - *MPOs ordered by population: largest to smallest (i.e., RRTPO)*
  - *“Best” target is highlighted in Green*
  - *“Least” target is highlighted in Orange*
  - *NCRTPB is highlighted in Yellow (if not one of the above)*
  - *Average is shown as data line and as rightmost value*



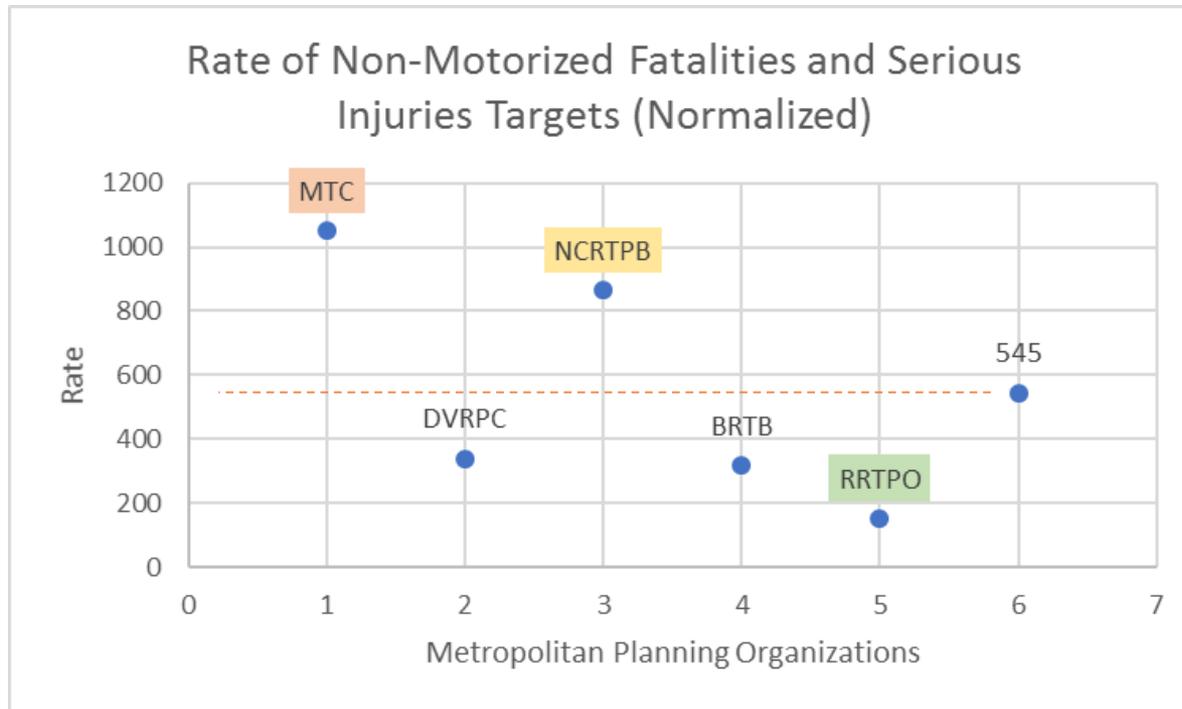
# Highway Safety Targets



- The Rate of Fatalities and Rate of Serious Injuries are normalized measures (number per 100 million vehicle miles traveled)
- TPB has the lowest Rate of Fatality target of the compared MPOs
- TPB's target is above the average for the Rate of Serious Injuries target



# Highway Safety Targets (Non-motorized)



- The Number of Non-motorized Fatalities and Serious Injuries was normalized by MPO population to calculate a normalized Rate of Non-Motorized Fatalities and Serious Injuries per capita
- TPB has a rate higher than the average of comparative MPOs

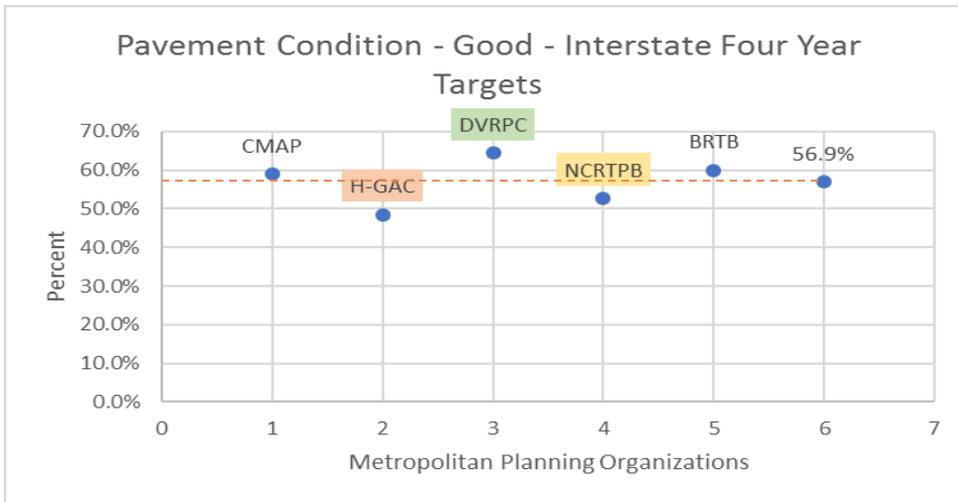


# Highway Assets (Pavement and Bridge Condition)

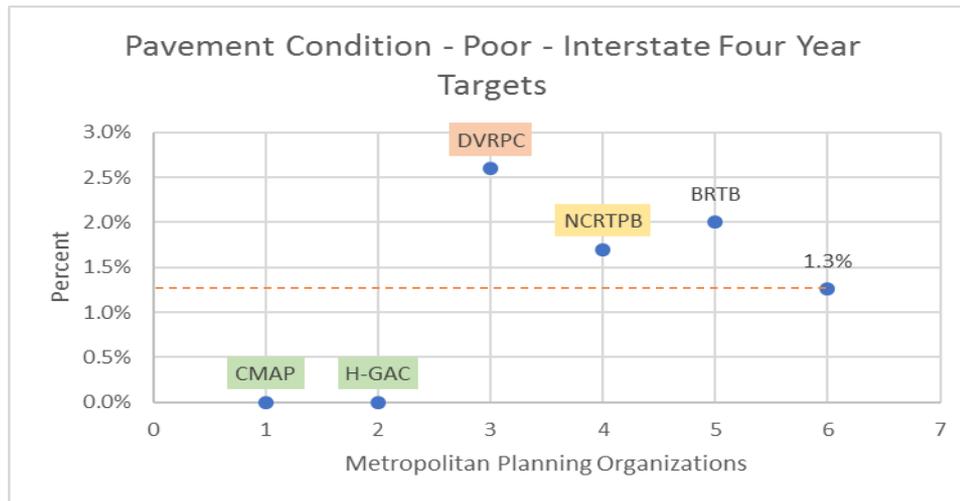
- Of the MPOs examined, six set Highway Asset targets
  - SCAG
  - CMAP
  - H-GAC
  - DVRPC
  - NC RTPB
  - BRTB
- SCAG did not set Interstate Pavement Condition targets (Good/Poor) and was omitted from that comparison
- H-GAC cited data inconsistencies from Texas Department of Transportation (TxDOT), and instead used the H-GAC 2016 Baseline data for their targets



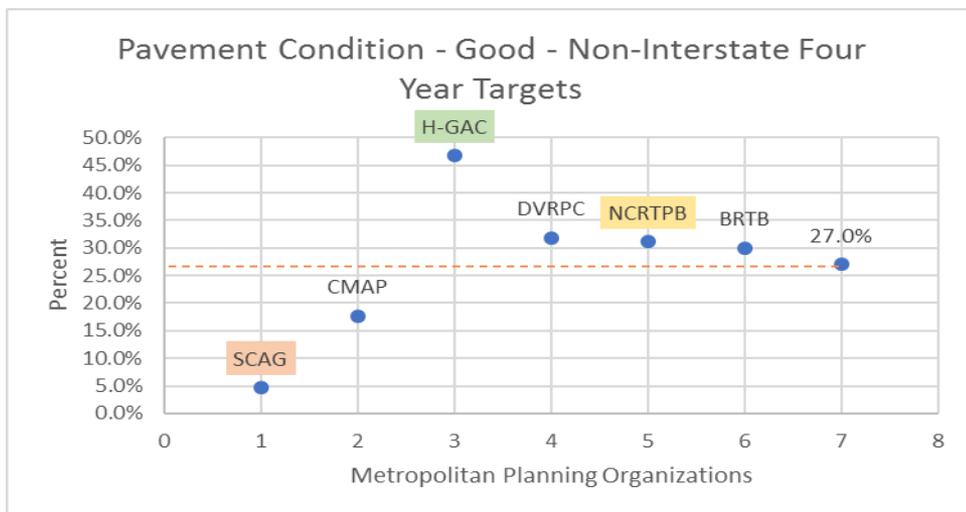
# Highway Assets (Interstate Pavement)



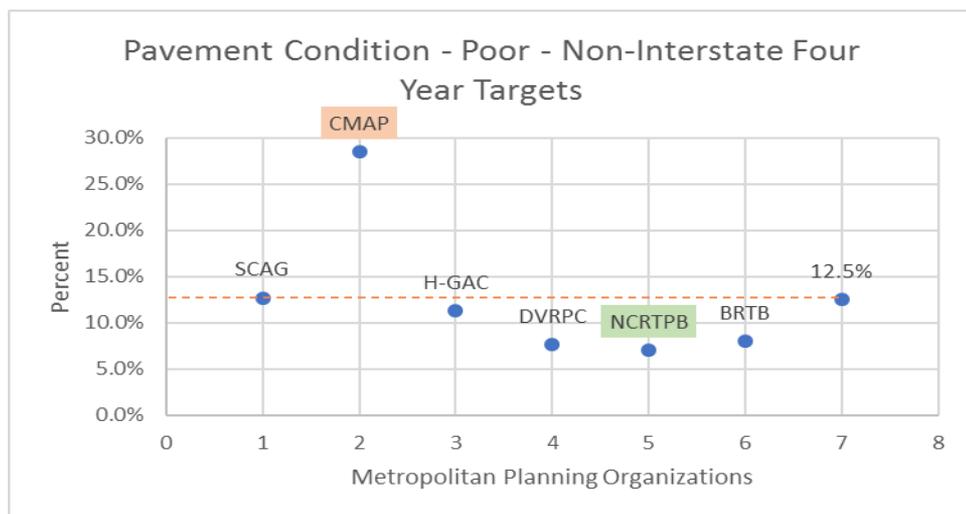
- The TPB’s target for conditions on Interstate Pavement (Good/Poor) is near the average
- Many factors contribute to the target – mainly fiscal constraints but also weather and traffic volumes.



# Highway Assets (Non-Interstate NHS Pavement)

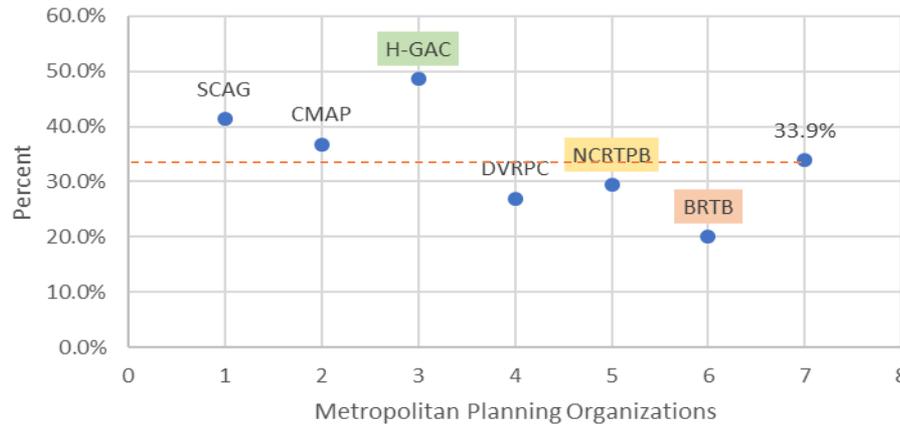


- Regional investment in maintaining and upgrading the highway infrastructure has likely contributed to the TPB's above average Non-Interstate NHS Pavement Condition targets



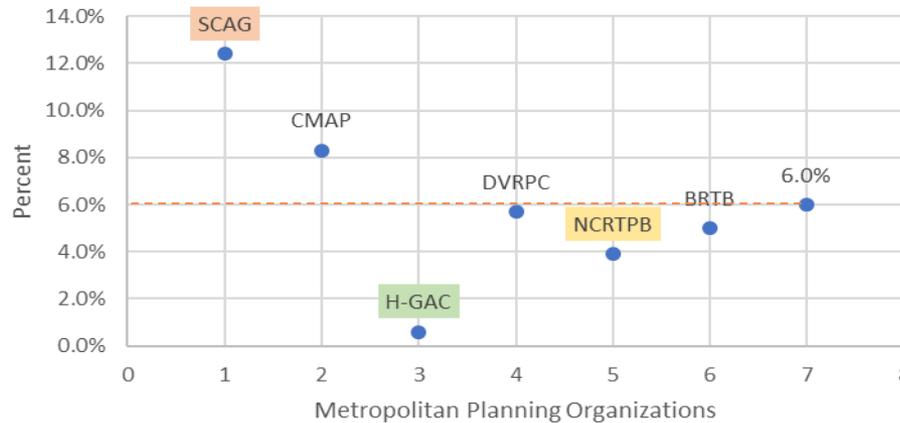
# Highway Assets (Bridges)

Bridge Condition - Good - Four Year Targets



- In terms of Bridge Condition (Good) the TPB's target is slightly below the average target of comparable MPOs
- For Bridge Condition (Poor), the TPB's regional target ranks better than average

Bridge Condition - Poor - Four Year Targets



# Highway System Performance Area

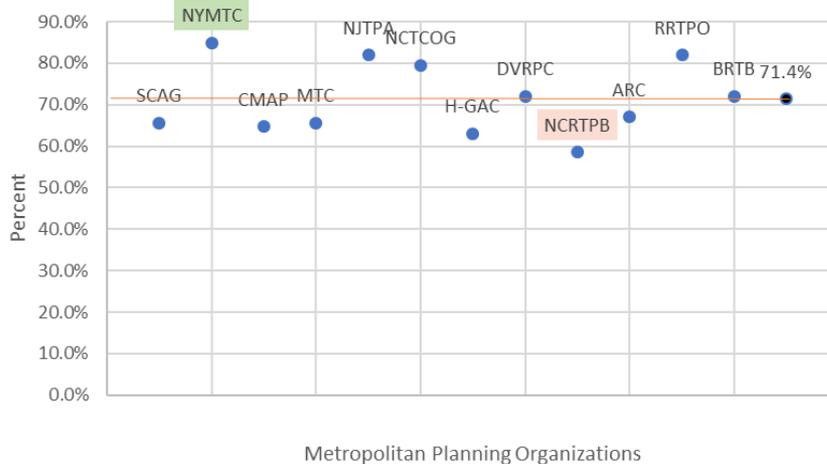
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- All MPOs set Highway System Performance targets
  - Some MPOs have two targets for PHED and Non-SOV Travel due to having two UZAs (NJTPA, MTC, SCAG, DVRPC)



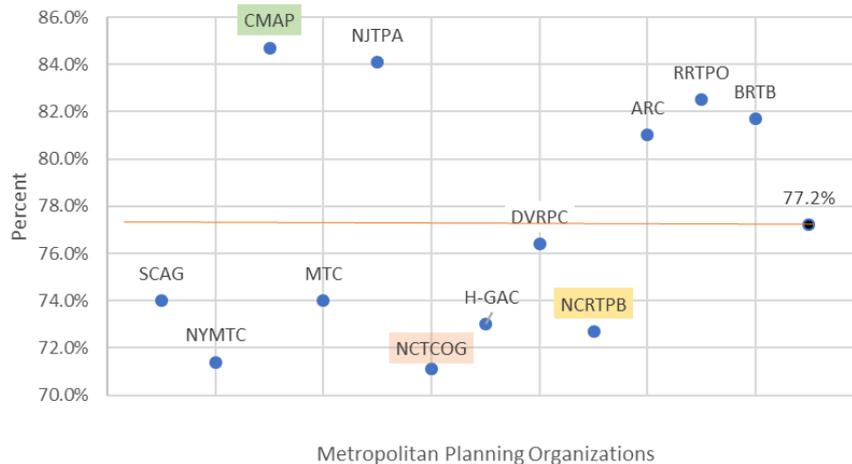
# System Performance (Travel Time Reliability)

Travel Time Reliability Interstate (Four Year Targets)

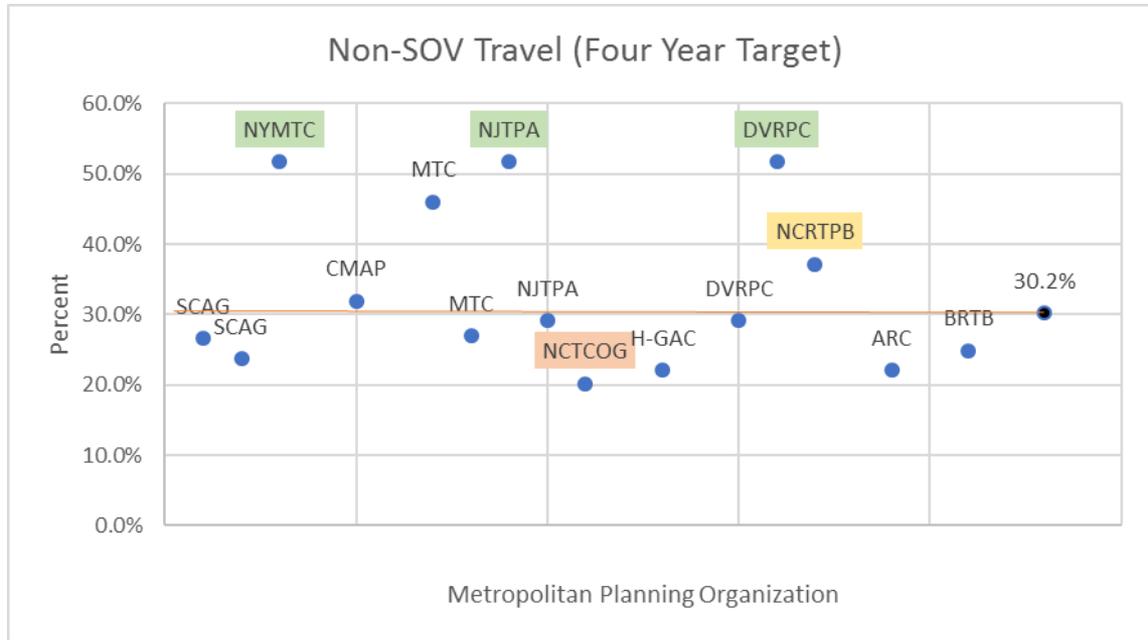


- For Travel Time Reliability, TPB's target is below average, meaning the reliability of travel times is lower than most of the comparable MPOs

Travel Time Reliability Non-Interstate (Four Year Targets)



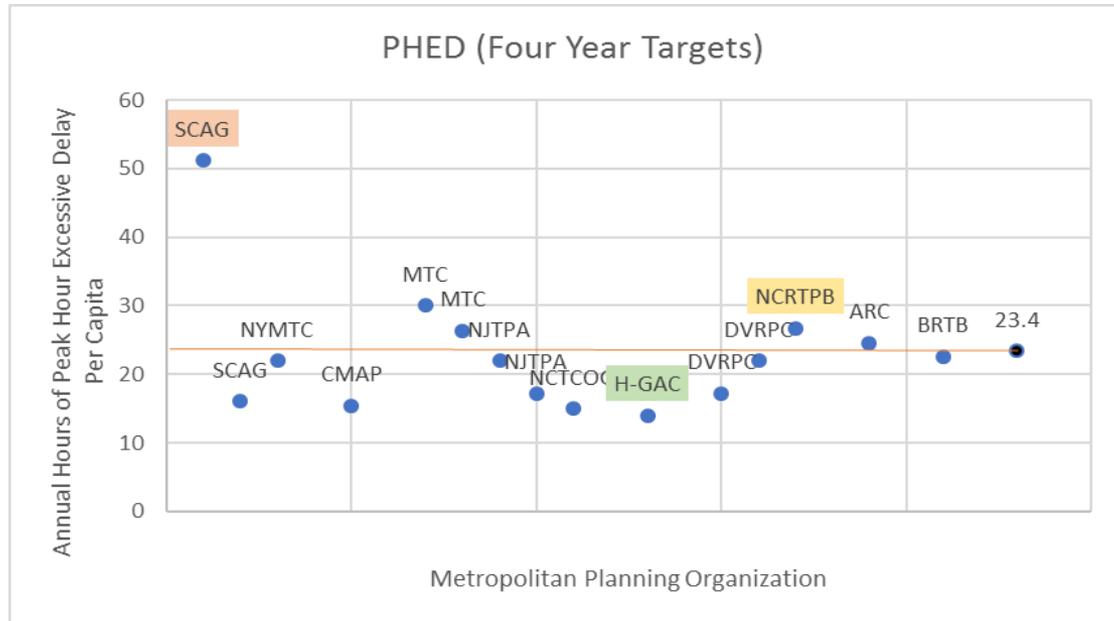
# System Performance (Non-SOV)



- When comparing the Non-SOV Travel (Mode Share) targets the results were not surprising based on public transportation and bicycle/pedestrian networks



# System Performance (Hours Delay)



- Roadway congestion is a contributing factor to both the Peak Hours of Excessive Delay (PHED) measure and the Travel Time Reliability measure
- For PHED, TPB's target is above average, meaning on average the region has more hours of excessive delay during the peak than most of the MPOs



# Summary of Findings

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- When compared to the other MPOs, TPB is an exception, having set our own performance measure targets for all areas
  - The TPB targets are average or above average in performance measures concerning Highway Safety and Highway Assets
  - The TPB targets for Highway System Performance are below average, especially for the travel time reliability measure
- Future analysis could include:
  - Assess influencing factors for those MPOs with tougher targets
  - Compare actual performance as data becomes available, including trends
    - *Why do other MPOs have better targets (performance)?*
    - *What can we learn from them?*



## Matthew Gaskin

TPB Transportation Planner

(202) 962-3761

[mgaskin@mwkog.org](mailto:mgaskin@mwkog.org)

[mwkog.org/tpb](http://mwkog.org/tpb)

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Metropolitan Washington Council of Governments

777 North Capitol Street NE, Suite 300

Washington, DC 20002



National Capital Region  
Transportation Planning Board

# TPB Measures and Targets

Performance Area	Measure	Metric	Adopted Targets as of February 22, 2019
Highway Safety	Five-Year Rolling Average	# of Fatalities	253.0
	Five-Year Rolling Average	Rate of Fatalities	0.588
	Five-Year Rolling Average	# of Serious Injuries	2919.6
	Five-Year Rolling Average	Rate of Serious Injuries	6.564
	Five-Year Rolling Average	# of Non-Motorized Fatalities and Serious Injuries	508.6
Highway Asset Condition	Percent Pavement Lane Miles Interstate / NHS (excl. Interstate)	In Good Condition	52.7% / 31.1%
	Percent Pavement Lane Miles Interstate / NHS (excl. Interstate)	In Poor Condition	1.7% / 7.0%
	Percent Bridge Deck Area	In Good Condition	29.4%
	Percent Bridge Deck Area	In Poor Condition	3.9%
Highway Reliability	Percent Person Miles Traveled Interstate / NHS (excl. Interstate)	Level of Travel Time Reliability	58.5% / 72.7%
Freight	Index	Truck Travel Time Reliability	2.12
Congestion	Annual Hours per Capita	Peak Hour Excessive Delay	26.7
	Percentage	Non-SOV Travel	37.2%
Vehicular Emissions	Total Emissions Reduction (kg/day)	VOCs / NOx	2.195 / 4.703

