THE ROLE OF MAP-21 IN MPO PERFORMANCE METRIC DEVELOPMENT

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Overview

- Performance Based Planning Study Overview
- Policy Background
- MPO Survey
- Case Studies
- Conclusions

Study Overview

This study examines the role of Federal legislation in transportation project planning and implementation by looking at how MPOs across the country:

- Use and develop standard and unique performance measures
- Prioritize and evaluate projects
- Act on influence from local, versus state, versus federal goals, regulations, and legislation

Goals

This research provides an analysis of Metropolitan Planning Organization (MPO) performance based planning over time for a better understanding of how Federal requirements affect urban transportation plans and projects. The research will also help to develop best practices for MPOS as they continue to adapt to current legislation.

Study Methodology

MPOs in the US

- 914 Regional Commissions
- 486 Urbanized Areas (in 2010)
- 436 MPOs (in 2015)
- 71.2% of the US population lives in an urbanized area

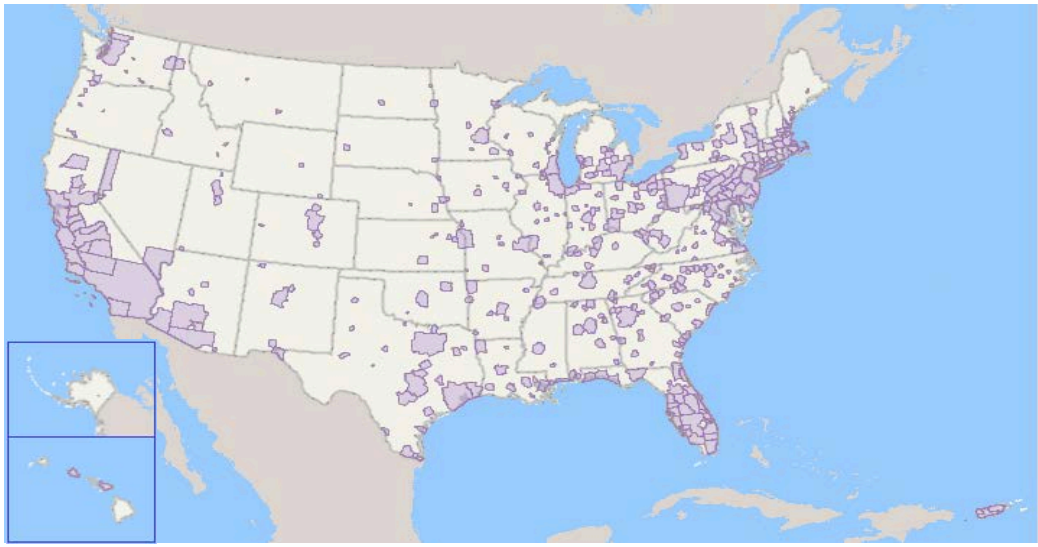
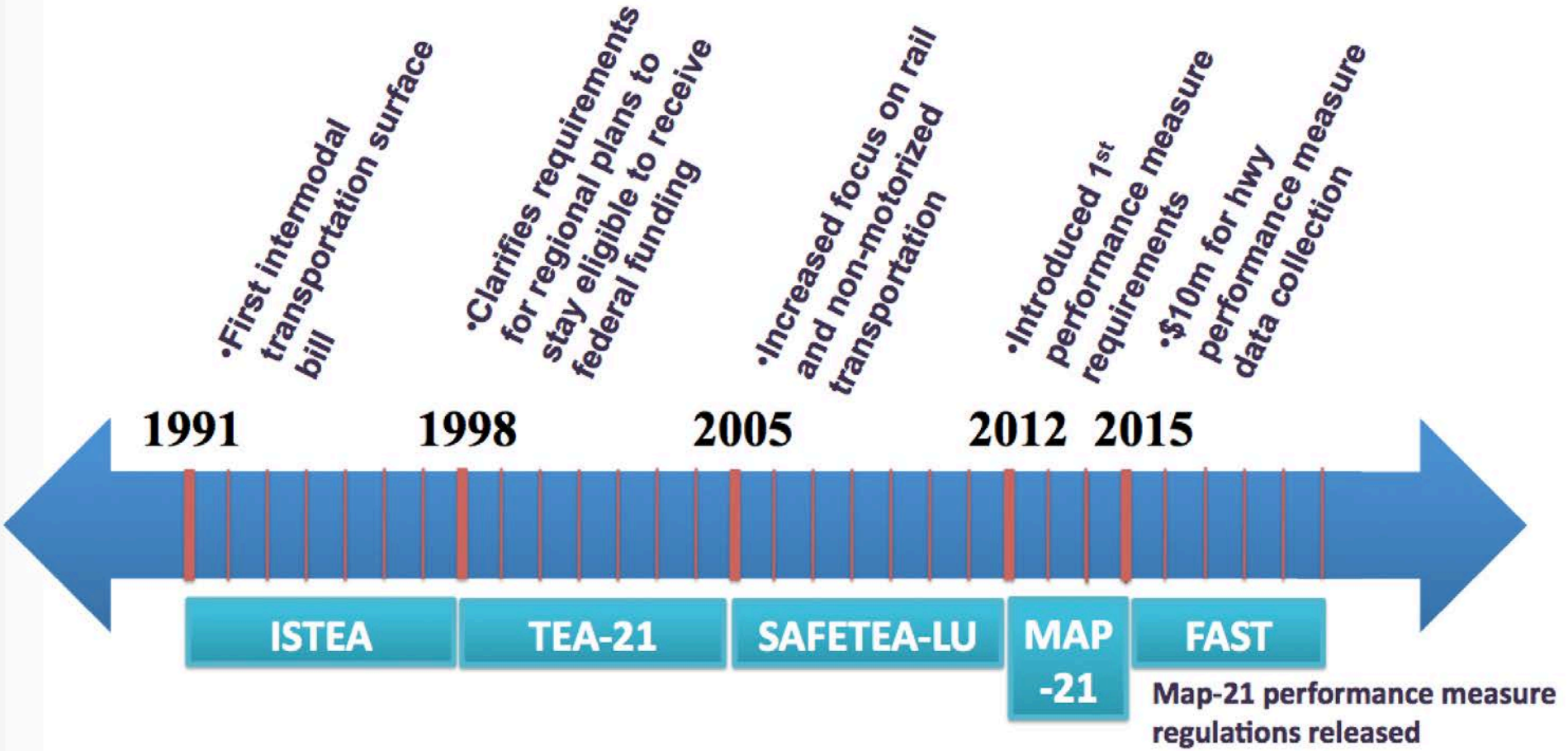


Image Source: FHWA HEPGIS

(Brief) Federal Legislation History



Performance Measures in Regional Planning

- 2012 legislation MAP-21was first time requirements were set for MPOs to use quantitative metrics in transportation planning
- MAP-21 requires specific "standard, uniform indicators for projects and metropolitan regions"
- Official rulemaking related to MAP-21 requirements is still in progress in 2016

USDOT Performance Measure Areas

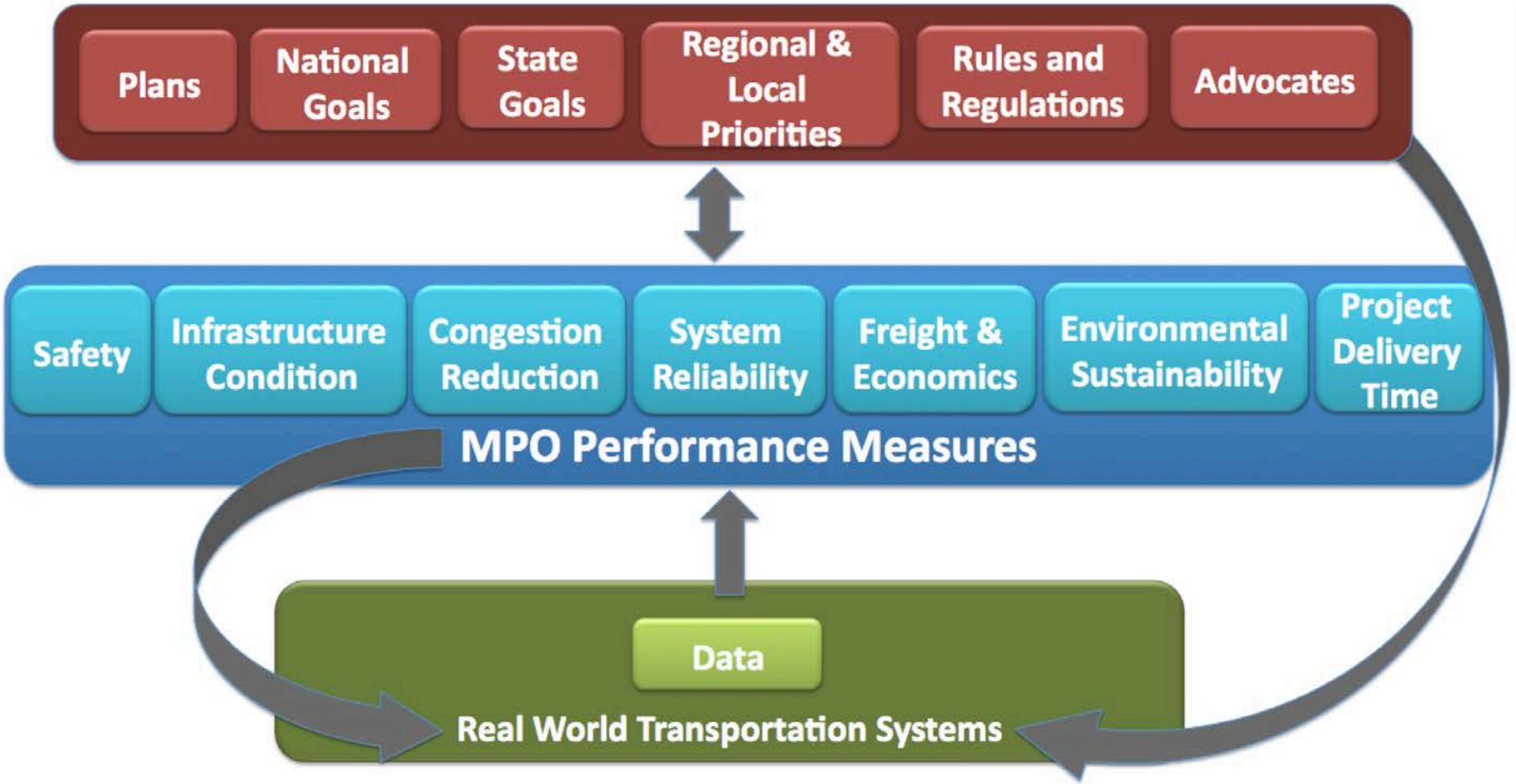
- NHTSA – Highway Safety
- FHWA – Federal Aid Highway Programs
  - Fatalities
  - Serious Injuries
  - Infrastructure Condition
  - System Performance
  - Congestion
  - Emissions
- FTA – Public Transportation Programs
  - Safety
  - State of Good repair

Rulemaking Timeline

Performance Areas	NPRM	Comments Due	Anticipated Final Rule
Safety Performance Measures	March 11, 2014	Closed June 30, 2014	November 2015
Highway Safety Improvement Program	March 28, 2014	Closed June 30, 2014	November 2015
Statewide and Metro Planning; Non-Metro Planning	June 2, 2014	Closed October 2, 2014	January 2015
Pavement and Bridge Performance Measures	January 5, 2015	Closed May 8, 2015	Early 2016
Highway Asset Management Plan	February 20, 2015	Closed May 29 2015	Early 2016
System Performance Measures	***Projected*** November 2015	120 days	n/a

Timeline from USDOT

Performance Based Planning Framework



Project Survey Overview

- Goal: Collect significant data on how MPOs collect and use(d) quantitative data in transportation planning before and after MAP-21
- Data collected:
  - MPO and State Characteristics
  - Before & After MAP-21:
    - performance metrics collected
    - Performance Targets

Survey Distribution

- Online Survey Instrument
- Distribution through e-mail
- Target all MPOs in country
  - Goal of 30% response rate with stratified goals within demographic distributions

Survey Structure

Page 1: Introduction and Consent

- Introduction
- Purpose
- Contact information
- Consent

Page 2: Region and Agency Information

- Size
- Location

Page 3: Changes in Data Collection and Use

- Pre- Map-21
- Post- Map-21 but pre- rulemaking
- Post- rulemaking

Page 4: Changes in Funding

- Data Collection
  - Federal
  - State
  - Local
- Data Analysis

Page 5: Optional Follow-up

- Contact info

Survey Performance Measure Questions

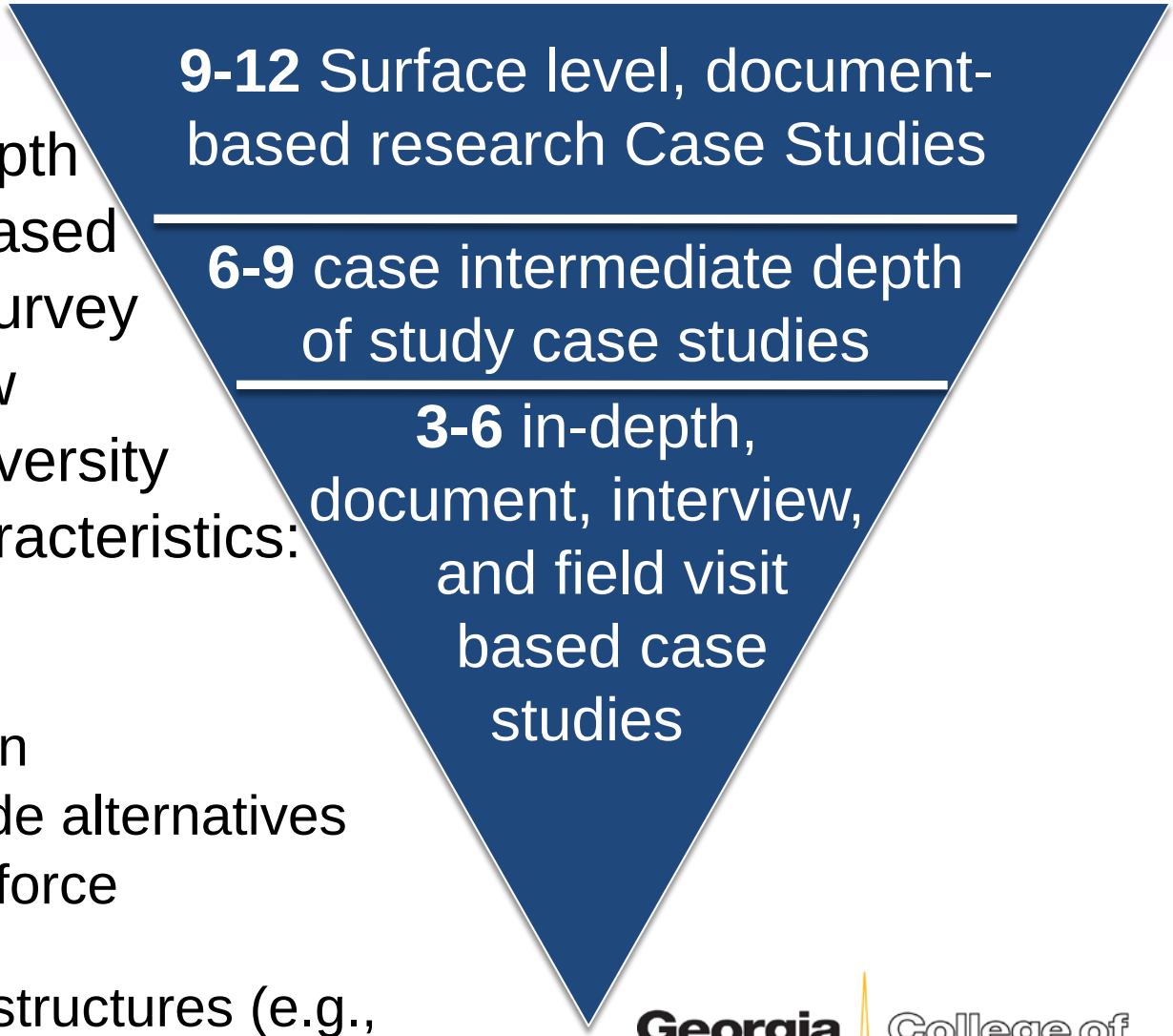
- Serious Injuries
- Fatalities
- Non-motorized Serious Injuries
- Non-motorized Fatalities
- VMT
- Bicycle Counts
- Pedestrian Counts
- % interstate in "good" & "poor" condition
- % non-interstate NHS in "good" & "poor" condition
- % NHS bridges in "good" & "poor" condition
- % system with reliable TT
- % system where peak hour TT meet expectations
- Annual excessive delay per capita
- % Interstate System with Reliable Truck TT
- Travel Times (TT)
- % Interstate System Uncongested
- Annual Excessive Delay
- Miles heavy rail track
- Miles light rail track
- Miles of dedicated bus infrastructure
- Crashes involving transit vehicles
- Transit vehicle fleet average age
- Emissions Reduced from CMAQ Projects
- GHG Emissions
- % On-time Project Delivery

Expected Analysis

- Crosstab and factor analysis to explore typologies and commonalities of MPOs in how they develop and use performance measures
- Identify diverse mix of types of regions and planning approaches for each level of case study

Case Study Overview

- Various levels of depth
- Regions selected based on response from survey and literature review
- Chosen to obtain diversity within following characteristics:
  - Size
  - Political climate
  - Geographic location
  - Transportation mode alternatives
  - Resident and workforce demographics
  - Local governance structures (e.g., number of cities and counties)

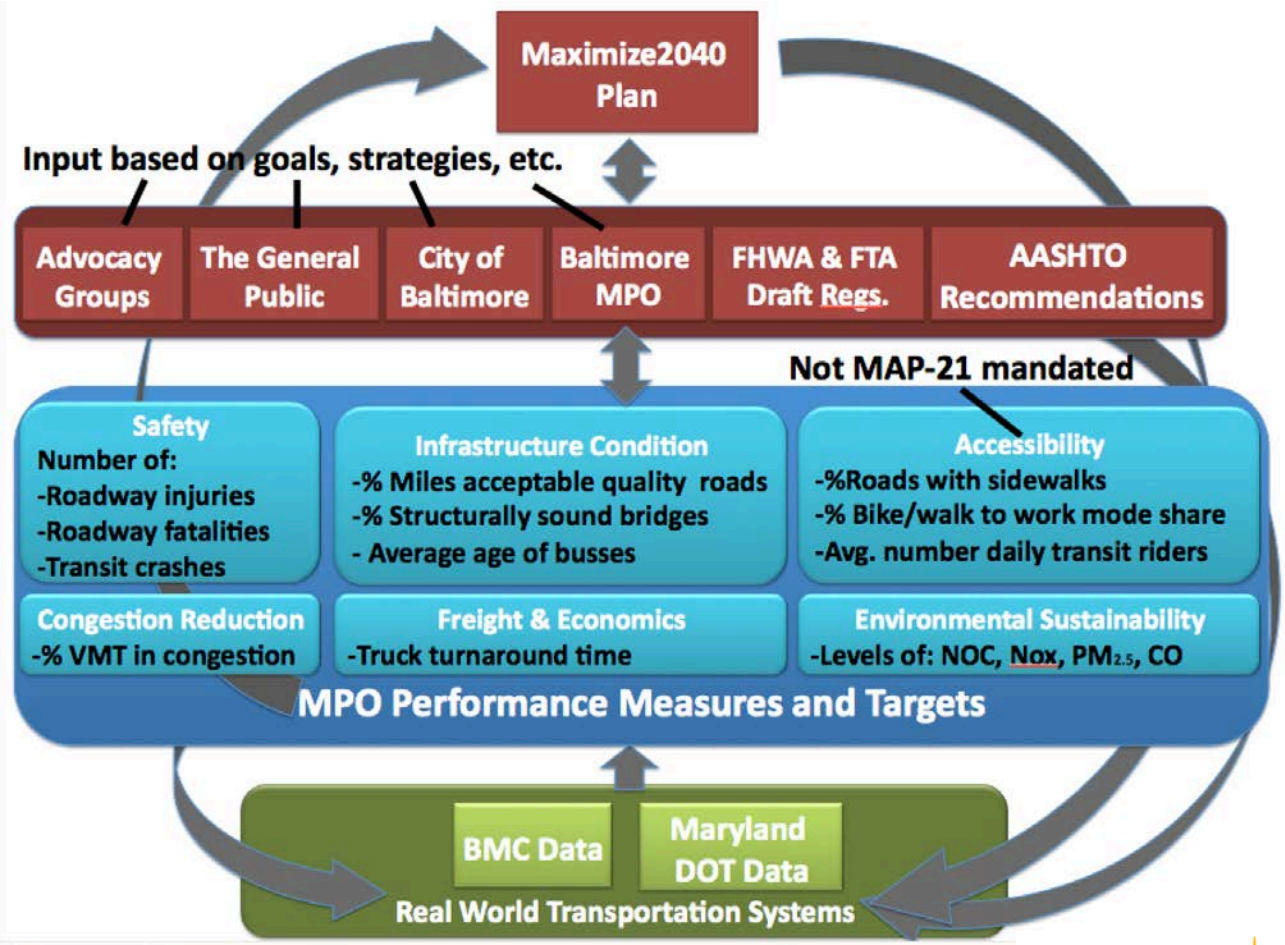


Baltimore Case Study

- Baltimore Metropolitan Council (BMC) transformed their performance based planning when in 2035 long range transportation plan in 2011 in anticipation for MAP-21
- This prior work helped inform the 2015 plan, Maximize2040

Plan It 2035	Maximize 2040
Released 2011	Released 2015
Included Performance Measures (no targets)	Includes Performance Measures and Targets
	Feedback From Target Reaching to Planning Process

Baltimore Performance Based Planning Framework Post-MAP-21



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Summary

- Research examines the development and use of performance metrics in urban regional transportation planning
- Findings will be applicable towards the emerging need and desire for DOTs to find the right metrics to measure performance and set project priorities
- MPOs will be able to use this research to see what other regions with similarities and differences are and have been doing in regards to performance-based planning
- State DOTs can use this research to help guide MPOs in their states and to collect and analyze performance data for long and short term transportation planning
- This research will continue with further development and deployment of the survey to all MPOs in the country, and with more in-depth cases studies to inform the research

Questions?

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