



U.S. Department of Transportation
Federal Highway Administration

**Office of Freight Management
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Freight Performance Measures

Freight in the Southeast

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... The *surplus*, that which is produced in *one* place to be consumed in *another*; the capacity of each locality for producing a *greater* surplus; the natural means of transportation, and their susceptibility for improvement; the hindrances, delays, and losses of life and property during transportation, and the causes of each, would be among the most valuable statistics in this connection. From those it would readily appear where a given amount of expenditure would do the most good.

Speech of Mr. A. Lincoln of Illinois in the House of Representatives, June 28, 1848



Freight Transportation Landscape

- The increasing orientation toward a performance-based transportation system
- Government transparency and accountability
- The emergence of corridor level thinking
- Discretionary programs (e.g. TIGER)



Why We Use Performance Measures

- Decision Making
 - Guide resource allocation decisions
- Planning
 - Provide link between goals and specific actions
 - Mechanism for understanding system performance
- Forecasting and Modeling
 - Track system performance over time
- Performance Management
 - Improves the management and delivery of products and services
 - Evaluate impacts of policies, plans, programs, and projects
 - Performance measurement is mandated for federal agencies by the Government Performance and Results Act (GPRA) of 1993 and GPRA Modernization Act of 2010
- Communicate Results and Strengthen Accountability
 - Demonstrates the accountability of taxpayer resources
 - Helps justify programs and their costs --Given limited budgets, etc., another tool for informing investment decisions at a national, state or local level



Private Sector Experience

- Evolution of Measures
 - Basic financial
 - Productivity or internal performance
 - Competency or innovation
 - Resource allocation/tradeoff
 - Continuous Improvement (TQM, ISO, Balanced Scorecard)
- Qualitative and Quantitative
- General Categories
 - Customer satisfaction
 - Process measurement
- Freight Specific Categories
 - Productivity (labor/truck)
 - On-time/Reliability
 - Costs



Typical Categories of Freight Performance Measures

- Freight Demand
- System Efficiency
- System Condition
- Freight Safety
- Environmental Conditions
- System Investment



Terminology

- Goals
- Objectives
- Strategies
- Actions

- Performance Measures
 - Program
 - Project

- Input
- Output
- Outcome

- Targets

- Policy/Aspiration
- Trend/Modeled

- Benchmarks/Baseline



Data Considerations When Applying Freight Performance Measures

- Understanding your data source
- Several levels on which freight performance measures could be considered
 - state or system-wide
 - on individual corridors, or on individual routes
 - the correct level to use may depend on the purpose for which policymakers are considering the measure
- Current state of the practice in performance measurement - many measures currently being used and suggested are based primarily on the available data.



Data Types and Sources

- Types
 - Administrative Records
 - Survey/Probe
 - Modeled
- Sources
 - Federal Agencies
 - State Agencies
 - Private Sector

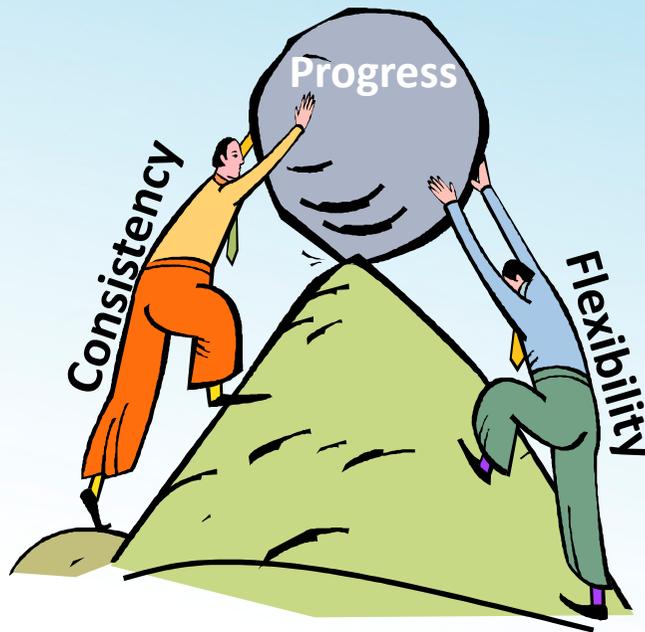


Freight Performance Measurement Data

- Information and data on freight movement often resides with the private sector
- Public-Private data sharing partnerships offer an opportunity to gain access to information that accurately reflects geographical freight flows, commodity flows, and freight system performance
- Benefits to the Private Sector:
 - Increase capacity
 - Improve Operations
 - Work Zones
 - Incidents
 - Bottlenecks
 - Trucking Parking
 - Garner support for freight programs and funding



Transportation Performance Management Implementation Principles



Provide for a national focus

Phase in requirements

Consider risk and constraints

Understand that priorities differ

Minimize the number of measures

Increase accountability/transparency



Performance Measure Analysis

Is it Appropriate?
Will the measure support national programs?

Are We Ready?
Can data be in place to support the desired measure?



6 Factors

6 Factors



MAP-21 and Freight Performance Management Implications

- National Freight Program
 - Freight Conditions and Performance Report
 - National Freight Strategic Plan
- State and MPO Freight Programs
 - Freight Performance Management
 - Enhanced Federal Share
 - State Freight Plans



Freight Transportation Conditions and Performance Report

- Section 1115 of MAP-21 required USDOT to prepare a report on the conditions and performance of the national freight network.
- This first report presents measures and data sources, where possible, and identifies data gaps that future reports will hope to address.
- A draft is in circulation in USDOT and USDOT plans to release the report in mid 2015.



National Freight Strategic Plan

- We expect to release the NFSP Framework – which will be a rough draft of the Plan – for public comment in mid 2015, in time to make the statutory deadline of a final plan by October 2015.
- It will address all of the requirements of MAP-21, including identification of bottlenecks, forecasts of freight activity, identification of barriers and solutions to improving the freight system, and best practices.
- It will be a multimodal plan, identifying not only highway infrastructure, but rail, waterway, port, pipeline, and air cargo infrastructure that is vital to the health of the national economy.



MAP-21 Freight Performance Measures – Rulemaking

- FHWA is developing the requirements for freight performance measures as specified in MAP-21 (Section 1203).
- These measures are required of States and MPOs for freight measures on Interstates only.
 - They are not currently multimodal.
 - USDOT is developing a Conditions and Performance report for freight that is multimodal in scope.
- States report on the ways in which the State is addressing congestion at freight bottlenecks, including those identified in the National Freight Strategic Plan, within the State.
- Proposed measures will be available for public comment in mid 2015.



Developing Approaches to FPM

- FHWA Freight Office is producing a primer of best practices for States and MPOs on numerous freight performance measures. This will be completed in 2016.
- Best practices will focus on approaches for measurement of bottlenecks, arterials, economics, fluidity and several other FPM areas.
- FHWA researching approaches to measurements for:
 - Bottlenecks
 - Arterials
 - Linking truck volumes to congestion
 - Multi-jurisdictional approaches
 - Accessibility
 - Truck probe data use for investment strategies
 - Economic Competitiveness and Cost
 - Fluidity Measures



Future Initiatives

- Expand and develop new data sources
- Pursue economic analysis and understanding of freight impacts.
- Combine probe data with other modal data for fluidity analysis
- Examine the use of “big data” or transactional data.
- Identifying and supporting research for new data options such as through RFID.
- Support National Performance Measurement requirements.



Thank You

