Data – the Enabler for the Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance Report to Congress

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Report Background

Biennial report series dates back to 1968

- 11 Highway-only Reports (1968 1991)
- 4 Transit-only Reports (1984 1990)
- 10 Combined Reports (1993 2013)

Report Purpose

To provide Congress and other decision makers with an objective appraisal of highway, bridge and transit physical conditions, operational performance, and financing mechanisms

- Retrospective: current state of the system
- Prospective: projected state of the system under alternative 20-year future capital investment scenarios
- Does not say how big the Federal program should be!

Meets Requirements of

- 23 USC 23 U.S.C. 503(b)(8); 49 U.S.C. 308(e)

Report Users (Besides Congress)

Federal Government

Research Agencies/Universities

Transportation Agencies

Transportation Groups/Associations

Public Policy Groups/Associations

Special Interest Groups/Associations

Media

Criticality of Timely, Quality Data

If data are stale, they lose a lot of their impact

- Delays in obtaining and cleaning up data pose a challenge
- If data are inaccurate, audience may lose faith in analyses
 - Credibility earned slowly over time, but can be lost very quickly.

You can have the best models in the world, but if you feed them bad data, what good are they to anyone?

Report Structure

Introduction, Executive Summary, Chapter Overviews

Part I: Description of Current System

Part II: Investment/Performance Analysis

Part III: Special Topics

 (11-Transportation Serving Federal and Tribal Lands, 12-Center for Accelerating Innovation, 13-National Fuel Cell Bus Program)

Part IV: Recommendations for the HPMS

(HPMS = Highway Performance Monitoring System)

Part V: Appendices (Analysis Methodology)3

Part I Description of Current System

1-Household Travel and Freight Movement

- National Household Travel Survey (NHTS)
- Freight Analysis Framework (FAF)
- **2-System Characteristics** Describes the highway, bridge, and transit systems, presenting the extent and types of infrastructure in the United States, as well as ownership and geography.
 - Highway Performance Monitoring System (HPMS)
 - –National Bridge Inventory (NBI)
 - –National Transit Database (NTD)

Part I Description of Current System (Cont.)

3-System Conditions – Presents data on the condition of highways, bridges, transit infrastructure, and replacement value of transit assets

- HPMS
- NBI
- NTD
- Transit Economic Requirements Model (TERM)

Part I Description of Current System (Cont.)

4-Safety – Presents data on fatalities and injuries for highways and transit for different modes of travel.

- Fatality Analysis Reporting System (FARS)
- NTD

Part I Description of Current System (Cont.)

5-System Performance – Defined broadly to include the implication of transportation usage and construction on the environment, land use, and economic competitiveness. For transit, includes performance metrics such as average speed, vehicle utilization, and seat occupancy among others.

- Freight Analysis Framework (FAF)
- National Performance Management Research Data Set (NPMRDS)
- NTD
- NHTS
- American Community Survey (ACS)

Part I Description of Current System (Cont.)

6-Finance – Presents data on revenue collected and expended by different levels of government to fund transportation construction and operations throughout the United states. For transit, presents sources of capital and operating funds, capital expenditures by asset category, operating expenses by functional class, and cost efficiency and effectiveness such as operating cost per mile and passenger miles..

- FHWA 500-Series Forms
- NTD

Conditions & Performance Report to Congress Part II- Investment/Performance Analysis

Includes the core prospective analyses of the report, including 20-year future capital investment scenarios.

- National Bridge Investment Analysis System (NBIAS)
- Highway Economic Requirements System (HERS)
- Transit Economic Requirements Model (TERM).

• The HERS, NBIAS, and TERM models have not yet evolved to the point where direct multimodal analysis is possible.