

# National Transit Database (NTD)

## Collecting Asset Data and Forecasting SGR Needs

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4<sup>th</sup>

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U.S. Department of Transportation  
Federal Transit Administration

# NTD

National Transit Database  
Federal Transit Administration



Contact the NTD Help Desk

Internet Reporting Login  
Password and ID Required

[www.ntdprogram.gov](http://www.ntdprogram.gov)

## What is the NTD?

- FTA data on annual transit agency finances, costs, and operations

## Why the NTD?

- Gathers certified data for formulas that determine the annual apportionment of more than \$5 billion in FTA grant funds
- Is used to assess the future investment needs of the nation's transit operators for Congress
- Is available to researchers and transit operators across the nation

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Investment  
needs are reported to  
Congress in the transit  
sections of the biennial  
“Status of the Nation’s  
Highways, Bridges, and  
Transit: Conditions and  
Performance” report  
(aka the C&P)

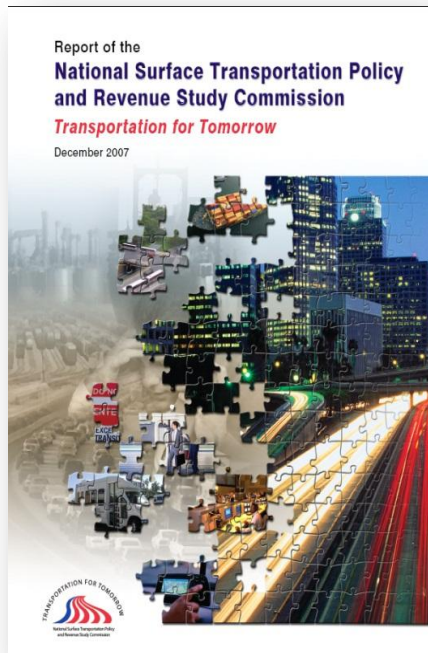


2010 C&P Released in March 2012: <http://www.fhwa.dot.gov/policy/2010cpr/>

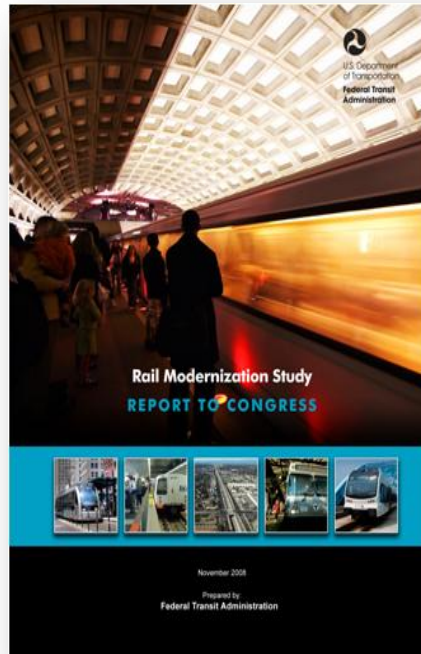


# NTD Data is also used to for Related Reports

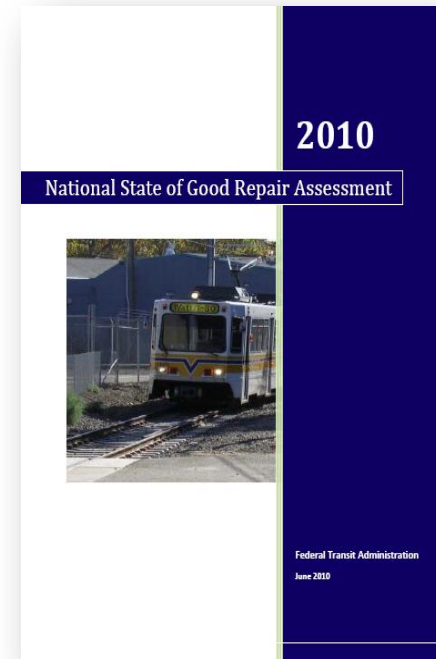
The **National Surface Transportation Commission** examined the condition and future needs of the nation's surface transportation system



The **Rail Modernization Study** assessed the investment backlog and capital reinvestment needs of the nine largest rail operators



The **National State of Good Repair Assessment** of the investment backlog and capital reinvestment needs of the transit industry



# FTA Capital Investment Forecasts

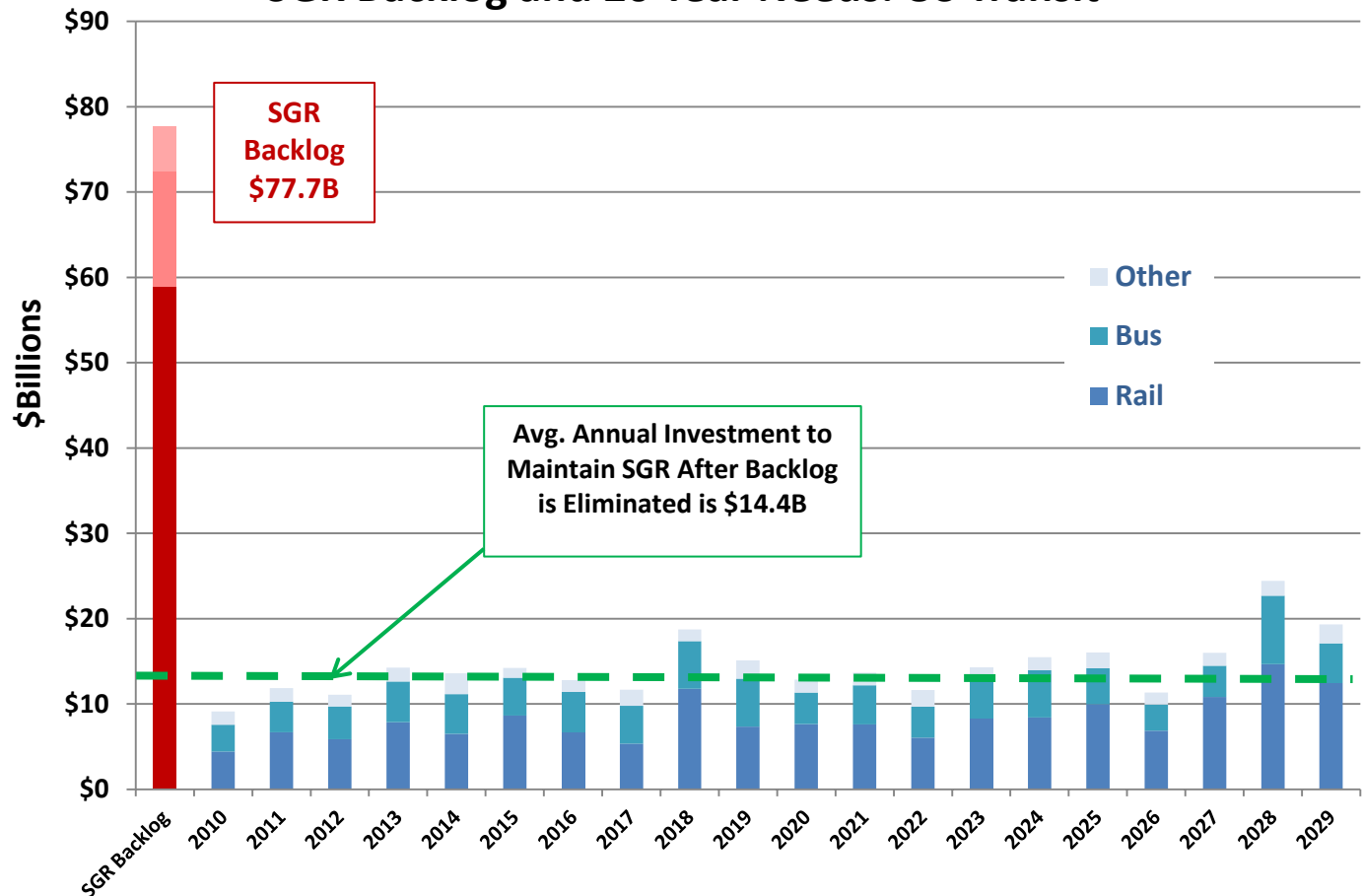
- Project needs out 20 years
- Cost to replace/rehab all assets past their average useful life (SGR backlog)
- Cost of adding new assets to support various levels of growth
- Impact of continuing current investment levels on long-term cost and performance
- FTA does not estimate future operating costs (just reports past expenditures)



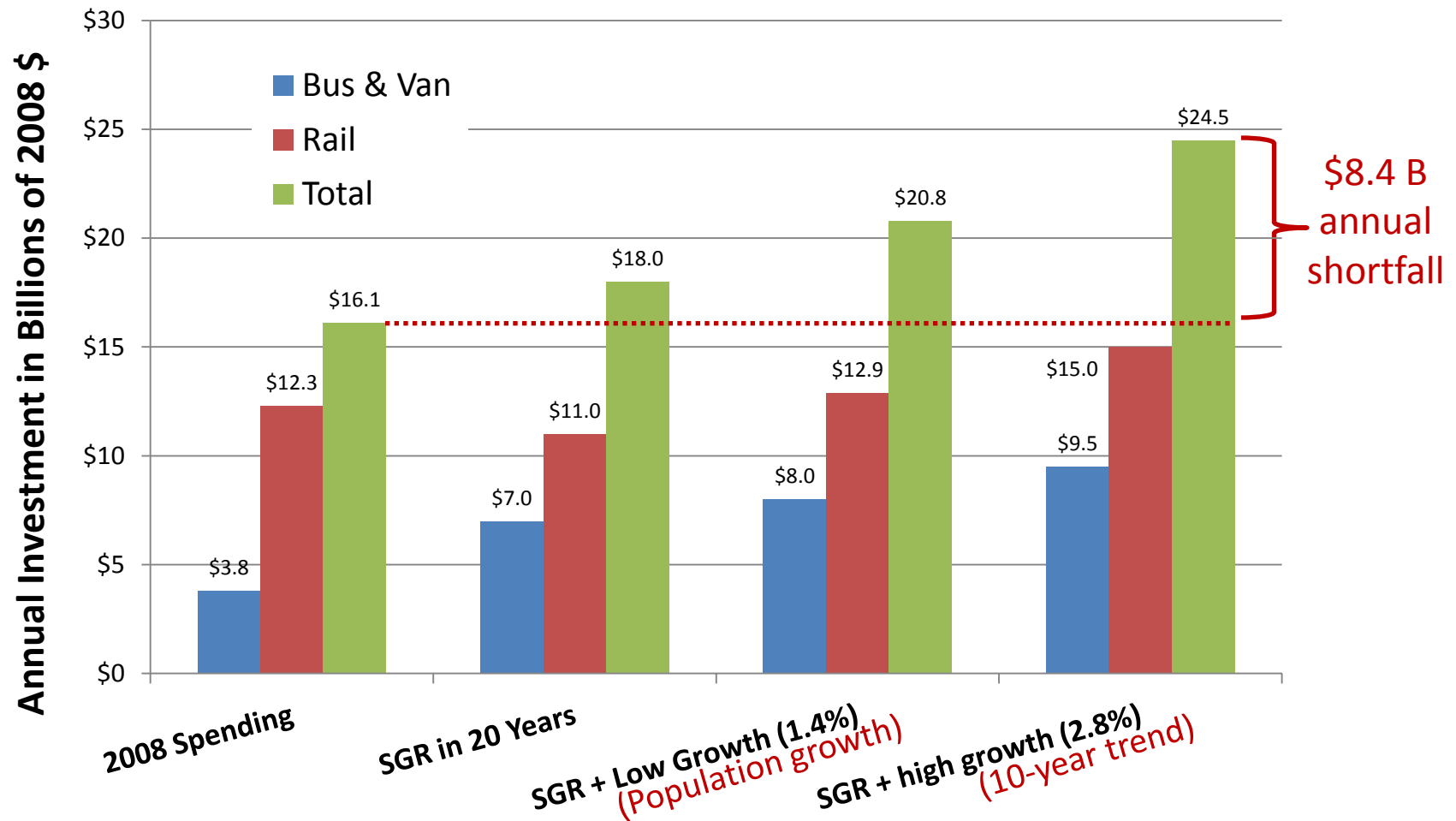
# 20-year Capital Reinvestment Needs Forecast (unconstrained) gives SGR Backlog

Evaluate  
reinvestment  
backlog and  
out-year  
replacement  
needs

SGR Backlog and 20 Year Needs: US Transit

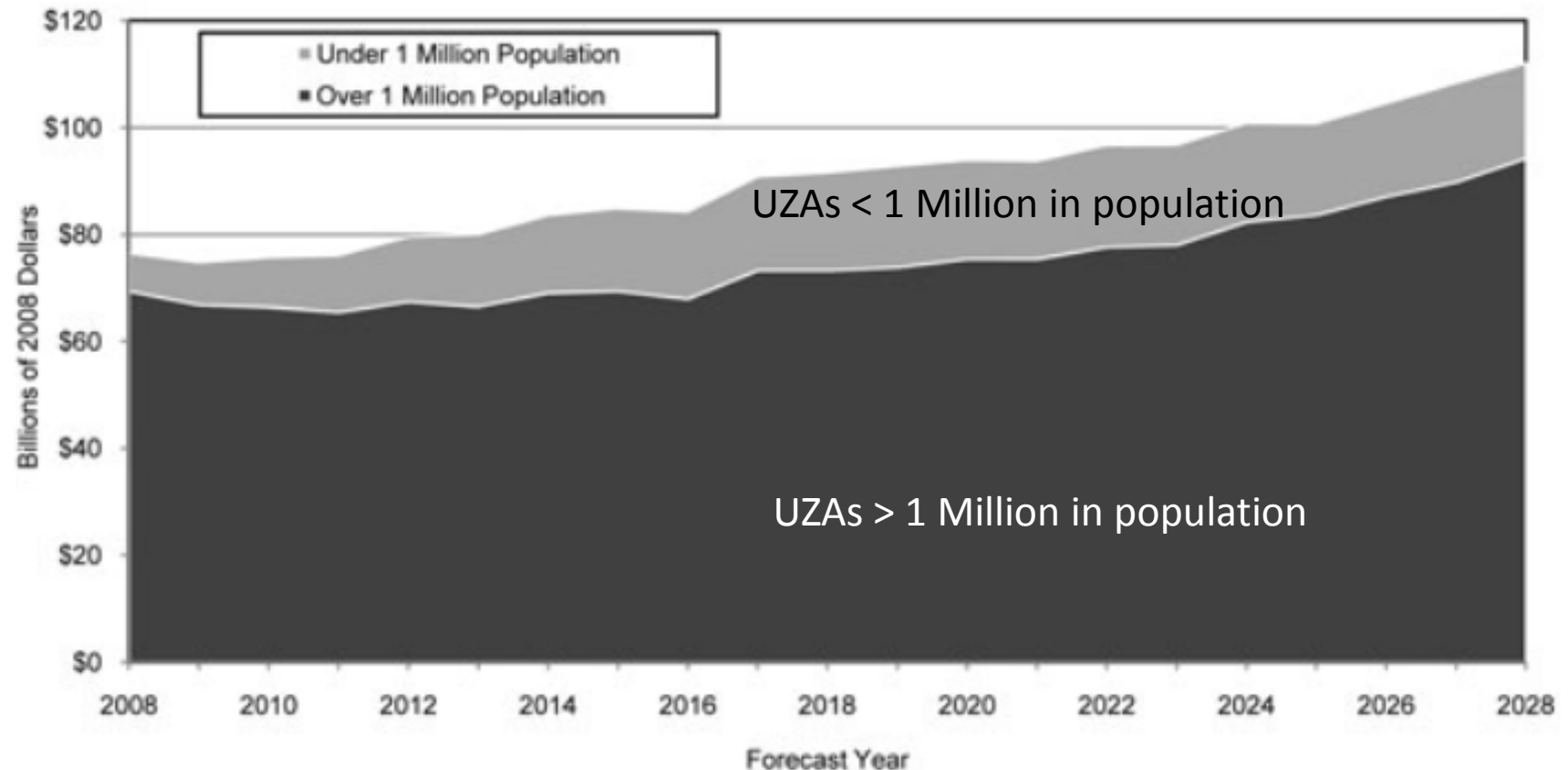


# Annualized Asset Investment Needs Scenarios, 2010 C&P Report



# Consequences of Underinvestment

Investment Backlog: Sustain Current Spending (\$11.9 Billion Annually)  
SGR backlog growth over 20 years at current spending levels





# MAP-21 Title 3(B) section 20026

- Section 5335 of title 49, United States Code, is amended by adding at the end the following:
- ‘(c) **Data Required To Be Reported**- The recipient of a grant under this chapter shall report to the Secretary, for inclusion in the National Transit Database, any information relating to--
- ‘(1) the causes of a reportable incident, as defined by the Secretary; and
- ‘(2) a transit asset inventory or condition assessment conducted by the recipient.’





Federal Transit Administration

# TERM

TRANSIT ECONOMIC  
REQUIREMENTS MODEL

Version 2011.1

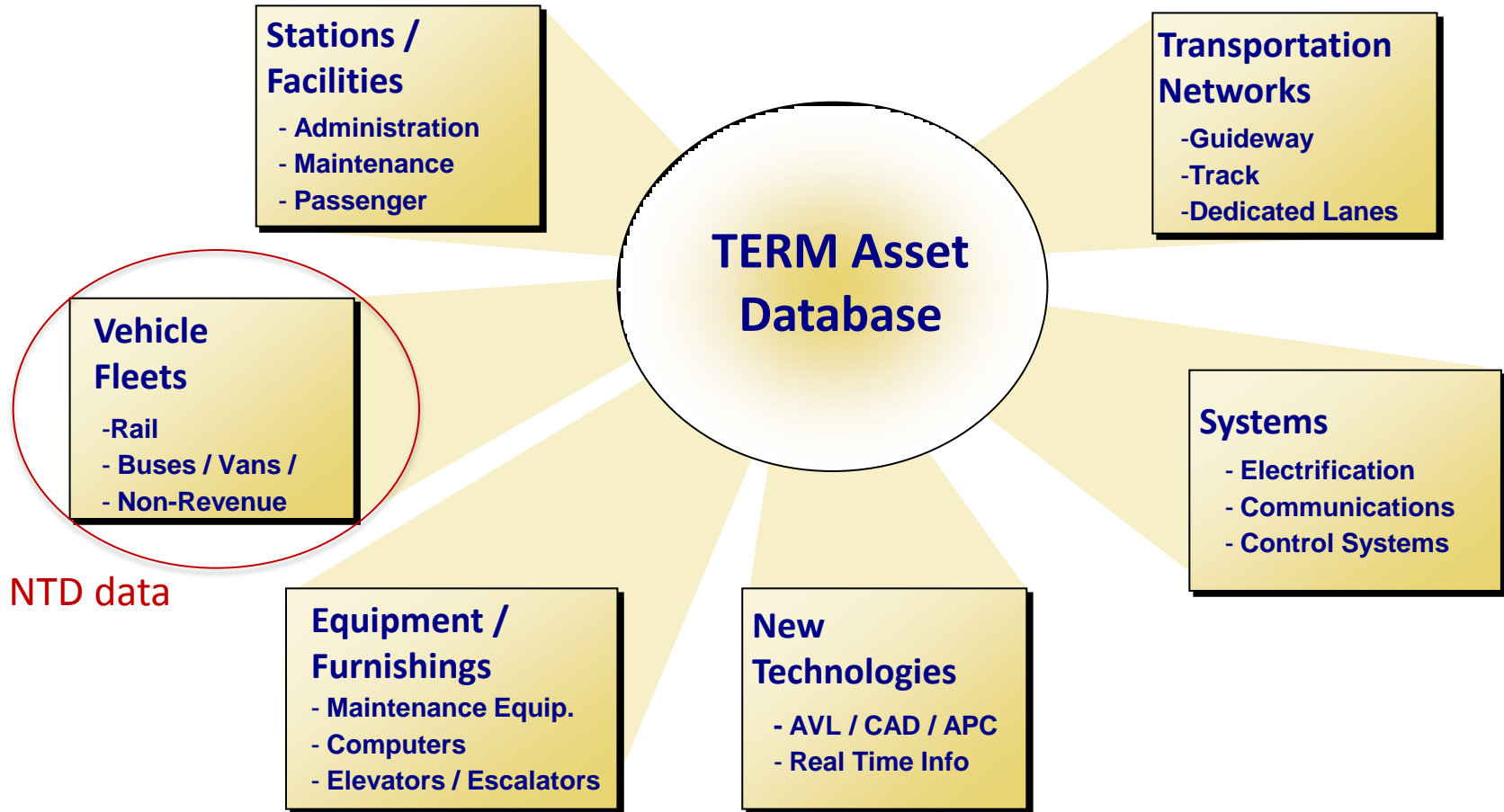
## FTA's Capital Needs Analysis Tool

- Uses a database that represents *all* US transit assets
- Vehicles from NTD (25% of total US Transit investment)
- Asset inventories requested from 7 large agencies each year
- Estimates of assets at smaller agencies (25% of total)

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# TERM Asset Database Includes All Asset Types



# FTA Project to Develop an NTD Asset Inventory Module (AIM)

## Project Objectives

Address  
Congressional  
directives

Enhance FTA's ability  
to estimate and  
update national  
transit capital needs

Encourage transit  
agencies to develop  
an asset inventory  
and use it for capital  
planning



# Data Problems – NTD Solutions

- Need annual update of all assets to track progress toward SGR
- Few agencies have asset inventories for capital planning
- Need to do more with less
- NTD collects accurate data annually
- Develop tool to collect high-level asset inventory
- Work with agencies to minimize reporting burden



# Guiding Principles

- Integrate new data into NTD
  - Consistent with “look and feel” of NTD
  - Simplify overall data collection and eliminate redundancy
- Accommodate agency self-reporting
  - Excel-based reporting for upload and download
  - built-in validation to reduce analyst workload
- Minimize transit agency reporting burden
  - Focus on high-level assets (limited granularity)
  - Focus on objective rather than subjective data points



# Reporting Burden

2002 asset inventory module pilot required 2-4 person-weeks to assemble and report data

Range of burden depends upon existing transit agency data

Less burden expected for annual updates

Burden estimates will be refined through the pre-pilots

# Overview of Asset Inventory Module

- Major fixed assets (Maintenance, Administrative and Passenger Facilities)
- Linear assets (Power, Signal, Communications, Rail, Track and Bus Fixed Guideway)
- Other fixed assets (Equipment and Revenue Vehicles)



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# Asset Information TERM Needs to Know

What kind of asset

Year built

Useful life

Replacement cost

Condition

# Expected Data Challenges

- Data availability
- Time required for data reporting
- Absence of standards in asset definitions
  - What is a structure?
  - Shared facilities
- Complexity of linear assets
- Defining replacement cost and useful life



# Pre-pilot Transit Agencies

- Heavy Rail: MARTA, WMATA, LA Metro
- “New” new light rail: UTA
- “Old” new light rail: St. Louis Metrolink
- Old light rail: Port Authority of Allegheny County
- New commuter rail: Tri-Rail (South Florida RTA)



# AIM Pre-Pilot Findings

- Guideway data approach needs to be revised
  - Questions about age/condition relationship
- Some agencies can not assemble the data
  - Data does not exist in a single office
- Issues with defining replacement cost and when assets were placed in service
- Concerns over availability of sensitive data
- Staff time to complete reporting

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# Questions?

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