

# **Future of the United States Transportation System**

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# Overview

- **The United States Transportation System**
- **Challenges**
- **Meeting the Challenges**

## United States Transportation Network Today

<b>US Transportation System</b>	<b>Miles</b>
<b>Highway</b>	4,067,077
<b>Freight Rail</b>	95,700
<b>Passenger Rail</b>	21,178
<b>Transit</b>	9,578
<b>Navigable Channels</b>	25,320
<b>Oil Pipeline</b>	176,271
<b>Gas Pipeline</b>	1,545,983

# Transportation Statistics

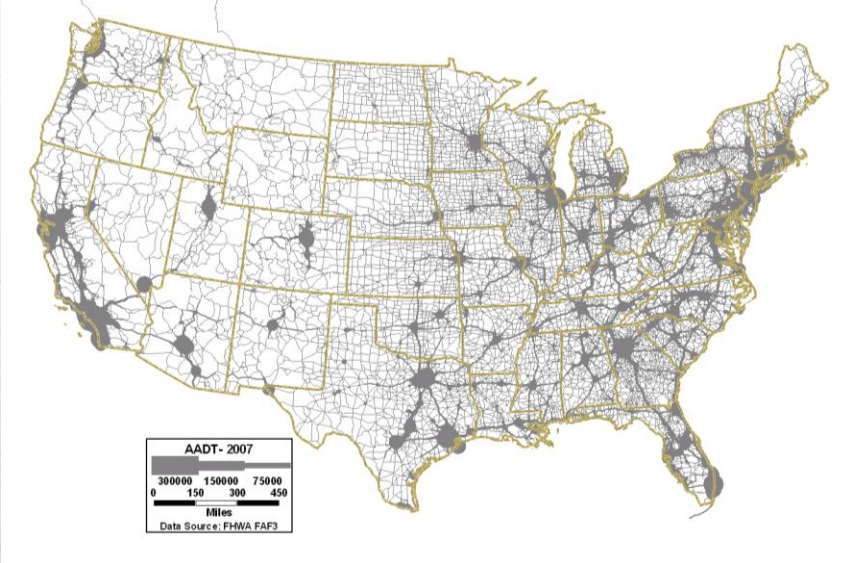
- As of 2010, 242.1 million vehicles were registered in the United States – nearly four times the 65.1 million registered in 1956, the first year of the Eisenhower Interstate Highway System.
- There are 210 million licensed drivers or 681 drivers for every 1,000 residents in the United States.
- In the United States there are over 600,000 bridges.
- Although the Interstate System accounts for about 1.2 percent of the Nation's total public road mileage, it carries 24 percent of all highway travel.

## Challenges

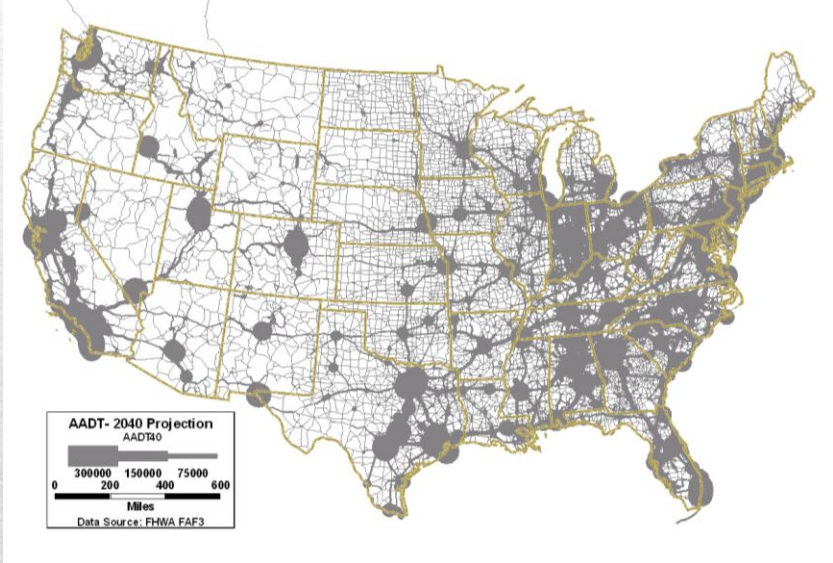
- US Population -projected to grow nearly 1% per year
- US Freight - tonnage transported projected to grow 1.6% per year.
- Crashes - killed 32,885 people in 2010, a rate of 1.09 per 100 million miles traveled.
- Congestion – Route miles of highways increased 5.4% while vehicle miles of travel increased 96% from 1980 to 2009.

# Number of Vehicles Operating on Our Highways

## Annual Average Daily Traffic (AADT)



2007



2040

# Meeting the Challenges

- Strengthening Infrastructure Investment
  - American Jobs Act of 2011
  - Moving Ahead for Progress in the 21st Century (MAP-21)
- Working Smarter - Every Day Counts Initiative
  - Shortening Project Delivery
  - Accelerating Innovation

## Future of the United States Transportation System

President Obama speaking on the United States infrastructure:

*“We’re not going to reduce the deficit by sacrificing investments in our infrastructure.”*

*“Ask yourselves -- where would we be right now if the people who sat here before us decided not to build our highways, not to build our bridges, our dams, our airports? ”*

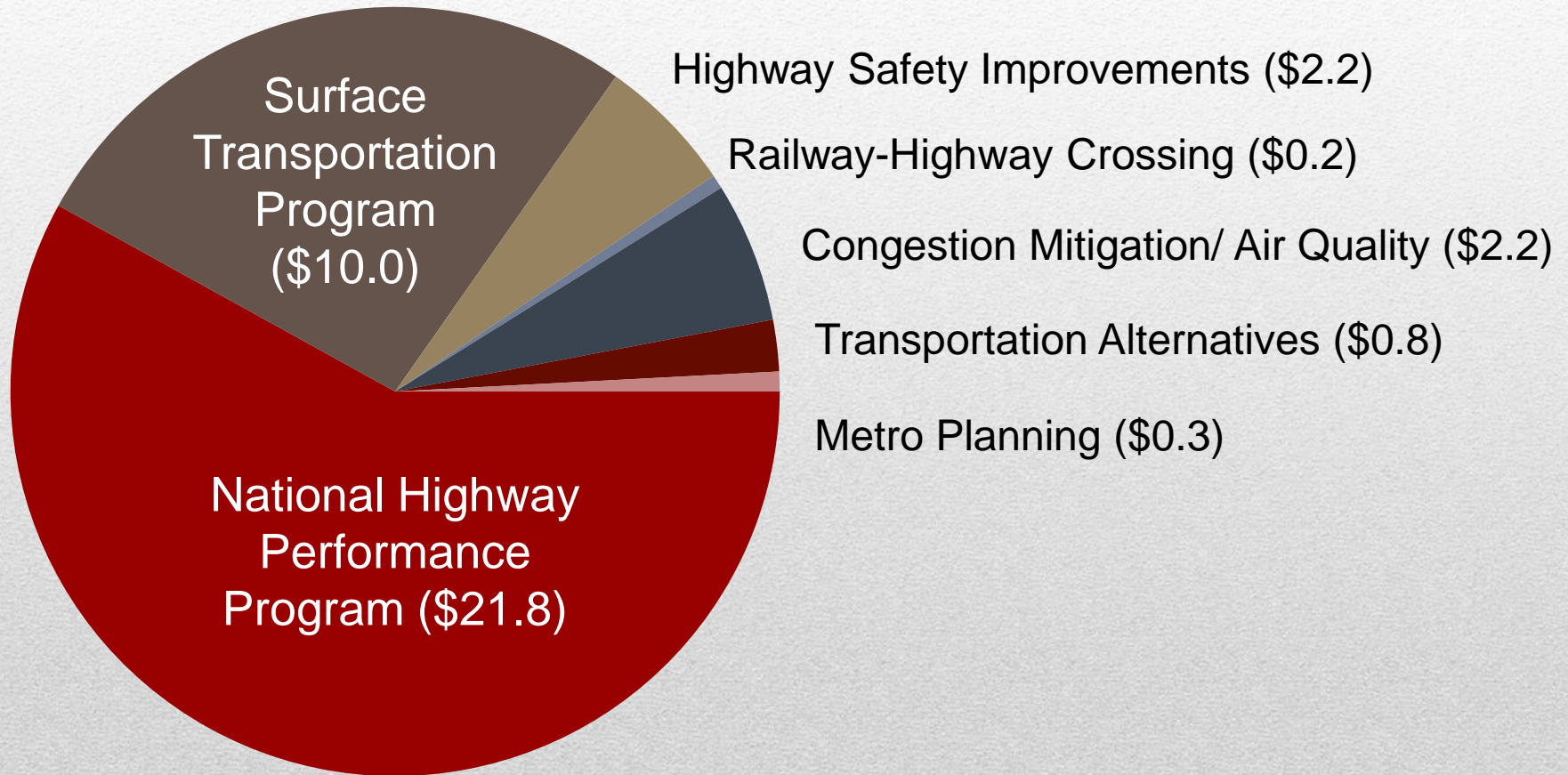


# Strengthening Infrastructure Investment

## Moving Ahead for Progress in the 21st Century (MAP-21)

- Strengthens America's highway and public transportation systems
- Creates jobs and supports economic growth
- Supports the Department's aggressive safety agenda
- Simplifies and focuses the Federal program
- Accelerates project delivery and promotes innovation
- Establishes a performance-based Federal program

# \$37.7 billion/year in formula funding



# Stable funding

- Program authorized through FY14
  - Current law through end of FY12
  - Most new provisions go into effect on October 1<sup>st</sup>
- Avg. annual funding at FY12 levels (plus minor inflation)
- Extends Highway Trust Fund taxes and ensures 2 years of solvency for Highway Trust Fund (HTF)
- Substantial programmatic consolidation
  - No earmarks
  - Most discretionary programs eliminated

# Working Smarter - Every Day Counts Initiative

- Launched in November 2009
- Driven by state, local, and industry partners' need to work more efficiently and be more accountable to the public.
- Identifies & deploys innovation to shorten project delivery, enhance safety and protects the environment.
- Better, faster, smarter approach

# Shortening Project Delivery

- Average of 13 years to deliver a major highway project
- Frequently cited problem areas identified
- FHWA Leadership role helping States, Metropolitan Planning Organizations, contractors
- Toolkit of approaches to reduce delivery times
  - Planning and Environmental Linkages
  - Use of Existing Regulatory Flexibilities
  - **Contracting Innovations**

# Contracting Innovations

## State of Utah

- Employed 2 accelerated project delivery methods
  - Construction Manager/General Contractor (CM/GC)
  - Design –Build
- Contractor and designer worked together during design to identify and minimize future construction risks.
- The design and construction phases often overlap, leading to faster project completion.
- Resulted in savings of \$25 million on a \$140 million project with 14 bridges

# Accelerating Technology Innovation

- Use National Leadership to leverage 21<sup>st</sup> century proven, market-ready technologies
- Work with the transportation community to achieve widespread use of technologies, such as
  - Warm mix asphalt
  - Adaptive Signal Control
  - **Pre-fabricated Bridge Elements**

# Pre-fabricated Bridge Elements

- Major Time Savings
- Cost Savings
- Safety Advantages
- Convenience for Travelers
- Solving Constructability Challenges
- Revolutionizing Bridge Construction in U.S.



# Graves Bridge in Florida



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