

# What's in Store for the Next Generation: Freight Transportation Growth

*presented to*

**Third Annual Texas Transportation Forum  
Austin**

*presented by*

**Allan Rutter  
Cambridge Systematics, Inc.**

**April 22, 2008**

**Transportation leadership you can trust.**

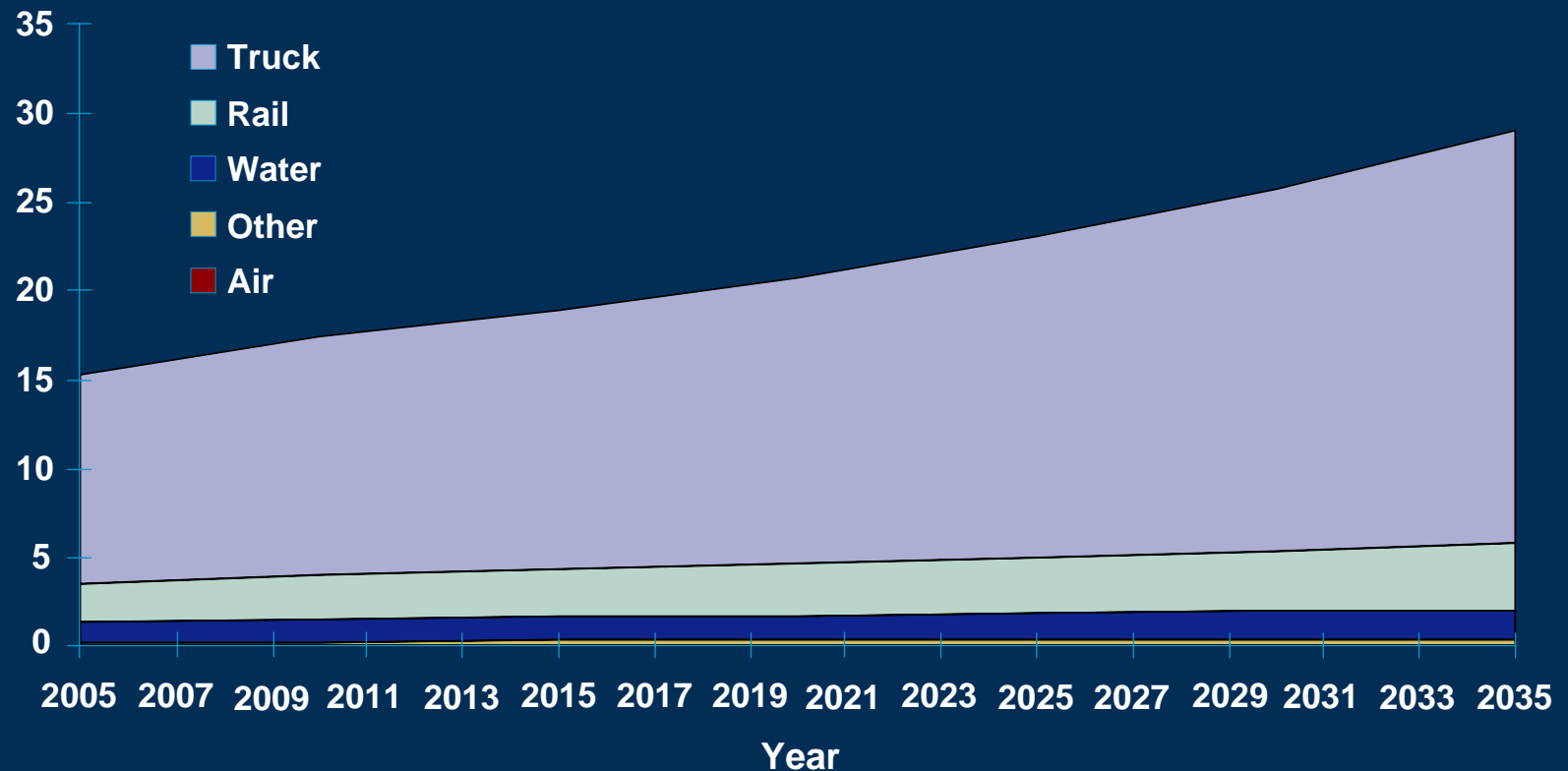
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# Growth in Freight Transportation: Topics to Be Discussed Today

- **Examine current and future trends in truck and rail freight transportation**
- **Identify other issues to be considered as freight volumes increase**
  - **How much will need to be invested?**
  - **What are the public policy implications?**

# Freight Tonnage Forecast By Mode 2005-2035

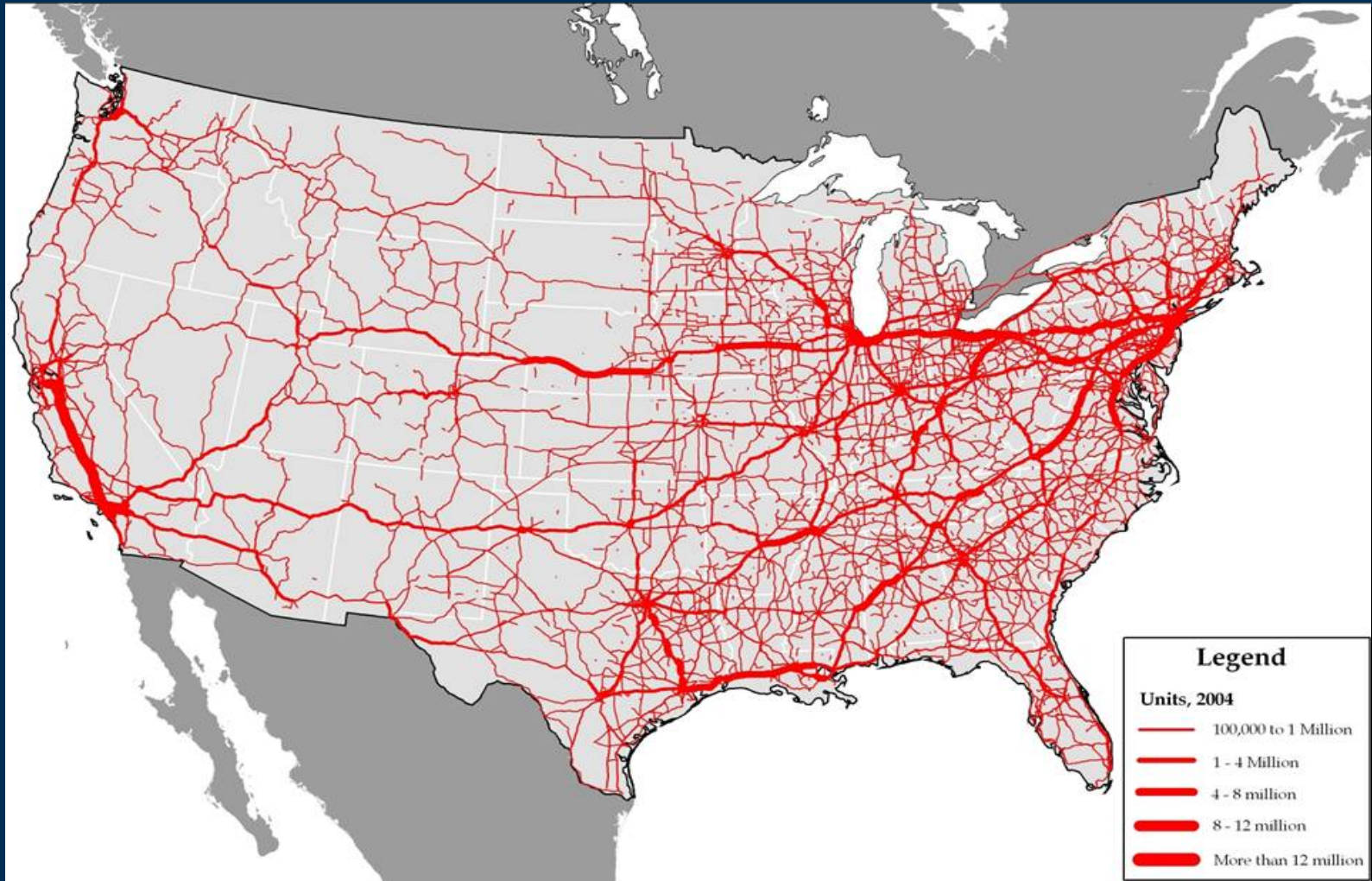
Net Tons (in Billions)



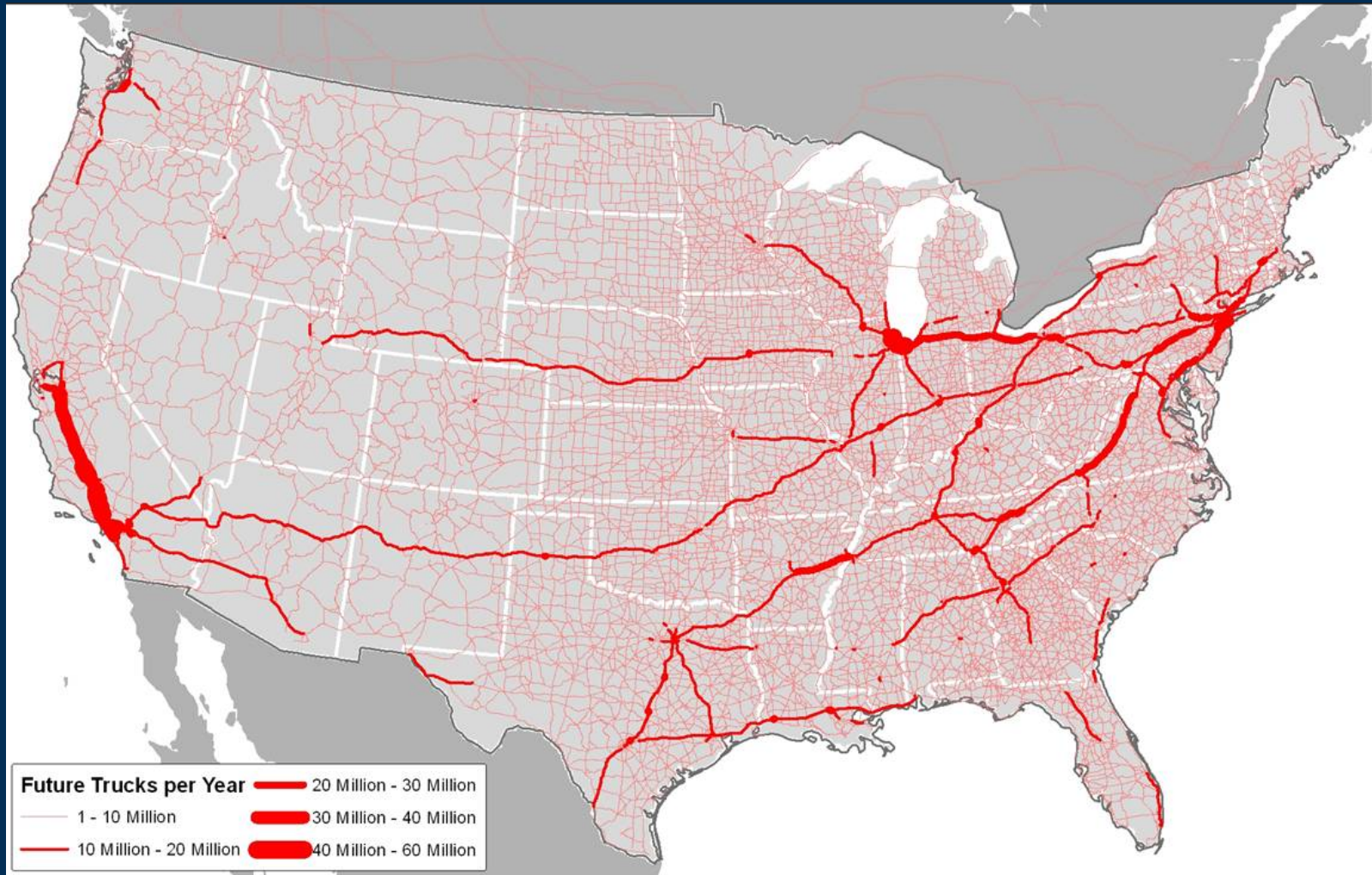
Source: Global Insight, Inc., 2004 TRANSEARCH data and economic forecasts.

# Trucks

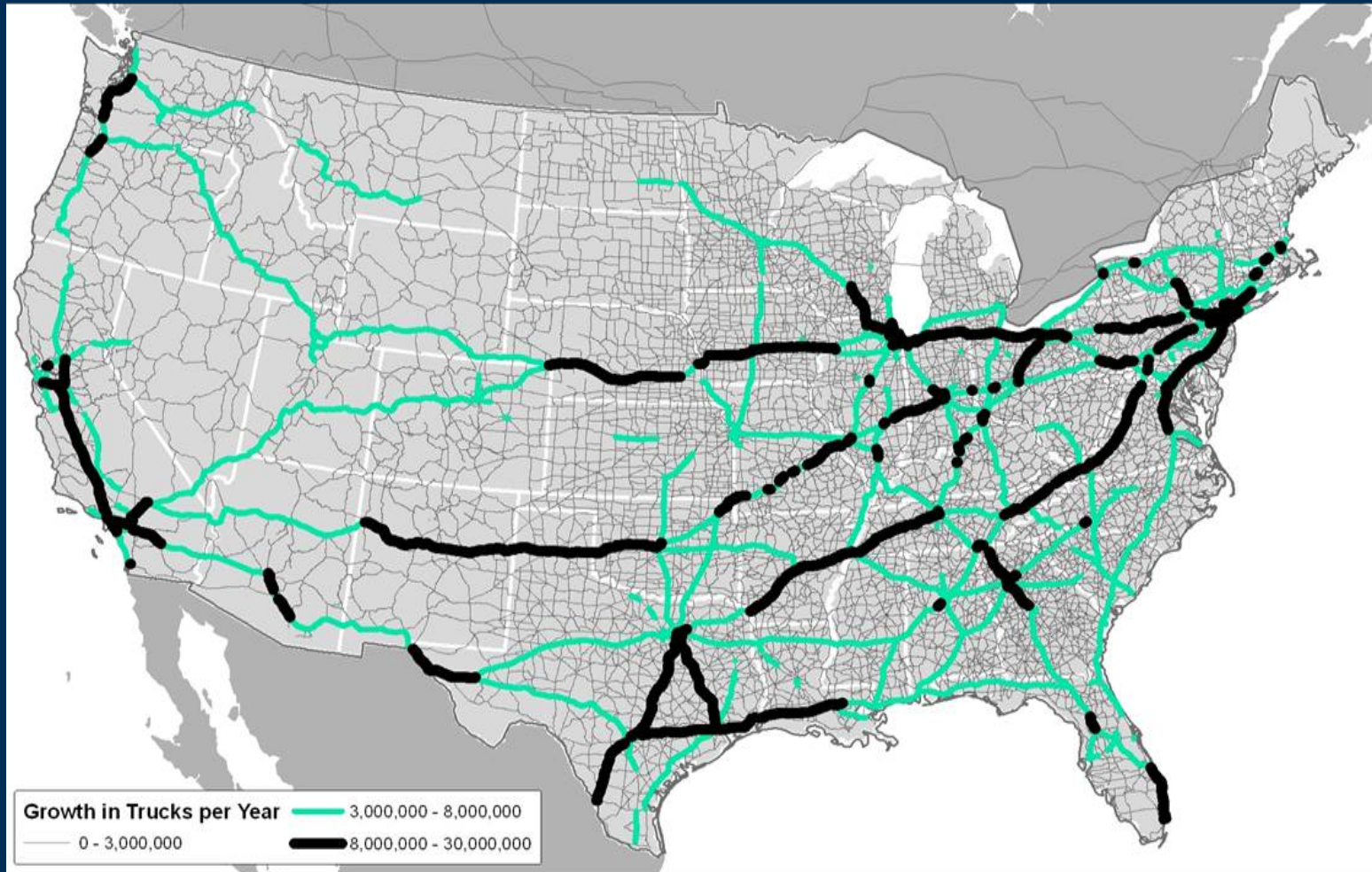
# Truck Traffic on U.S. Highways 2004



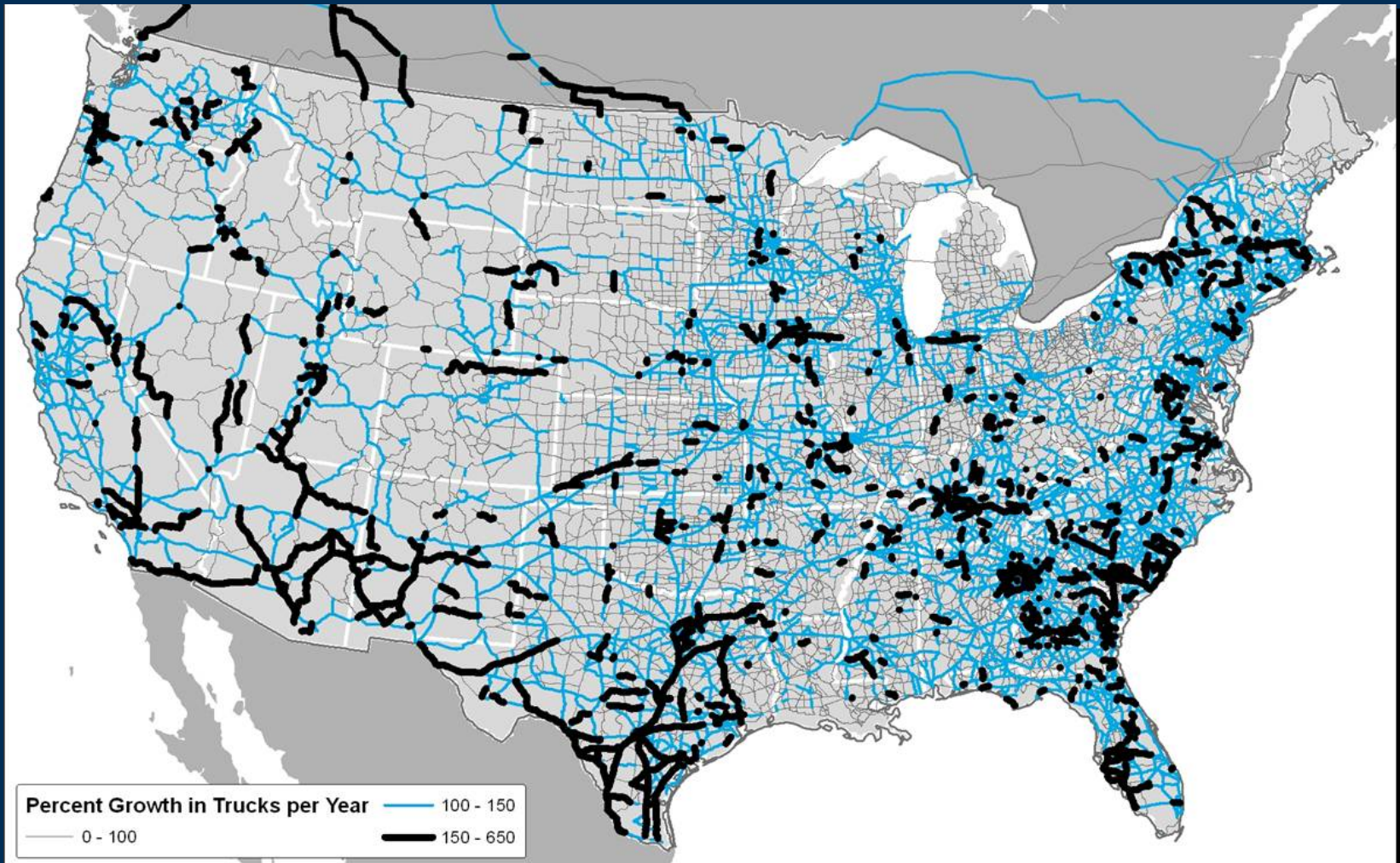
# Anticipated Truck Volumes 2035



# Growth in Truck Volumes 2005 to 2035

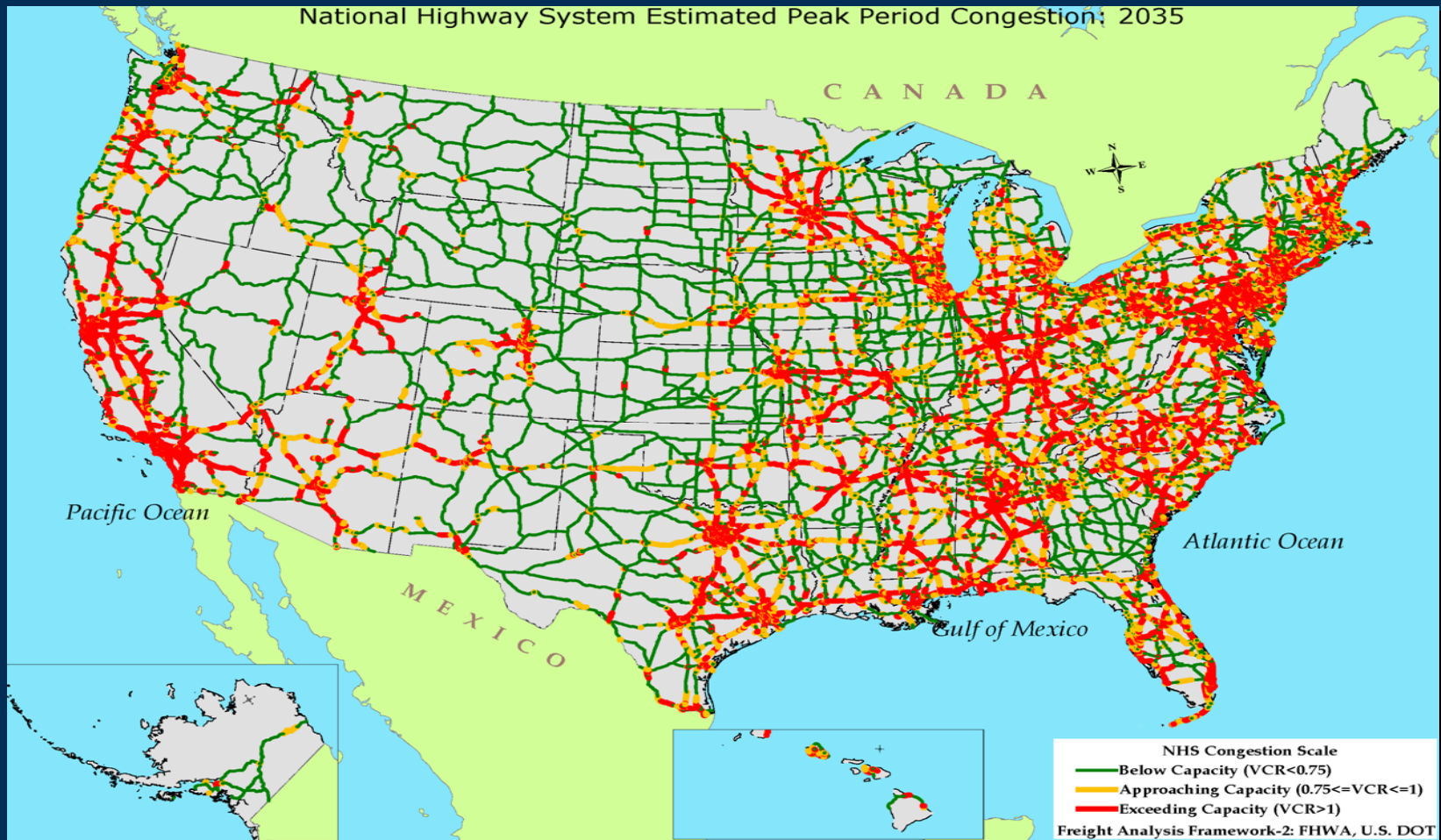


# Percent Growth in Truck Volumes 2005 to 2035



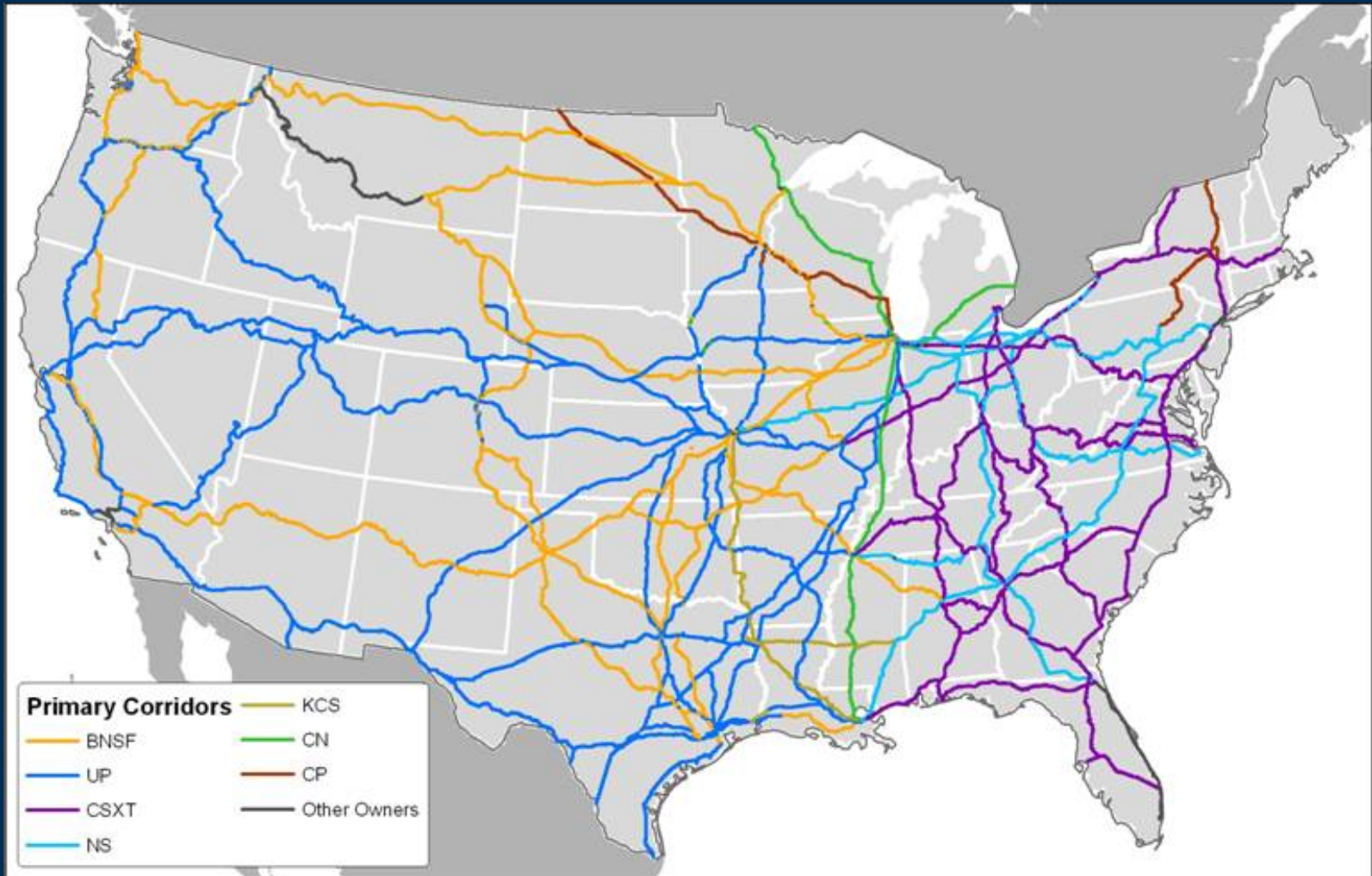


# Estimated Peak Congestion on National Highway System 2035



# Freight Rail

# Primary Rail Freight Corridors

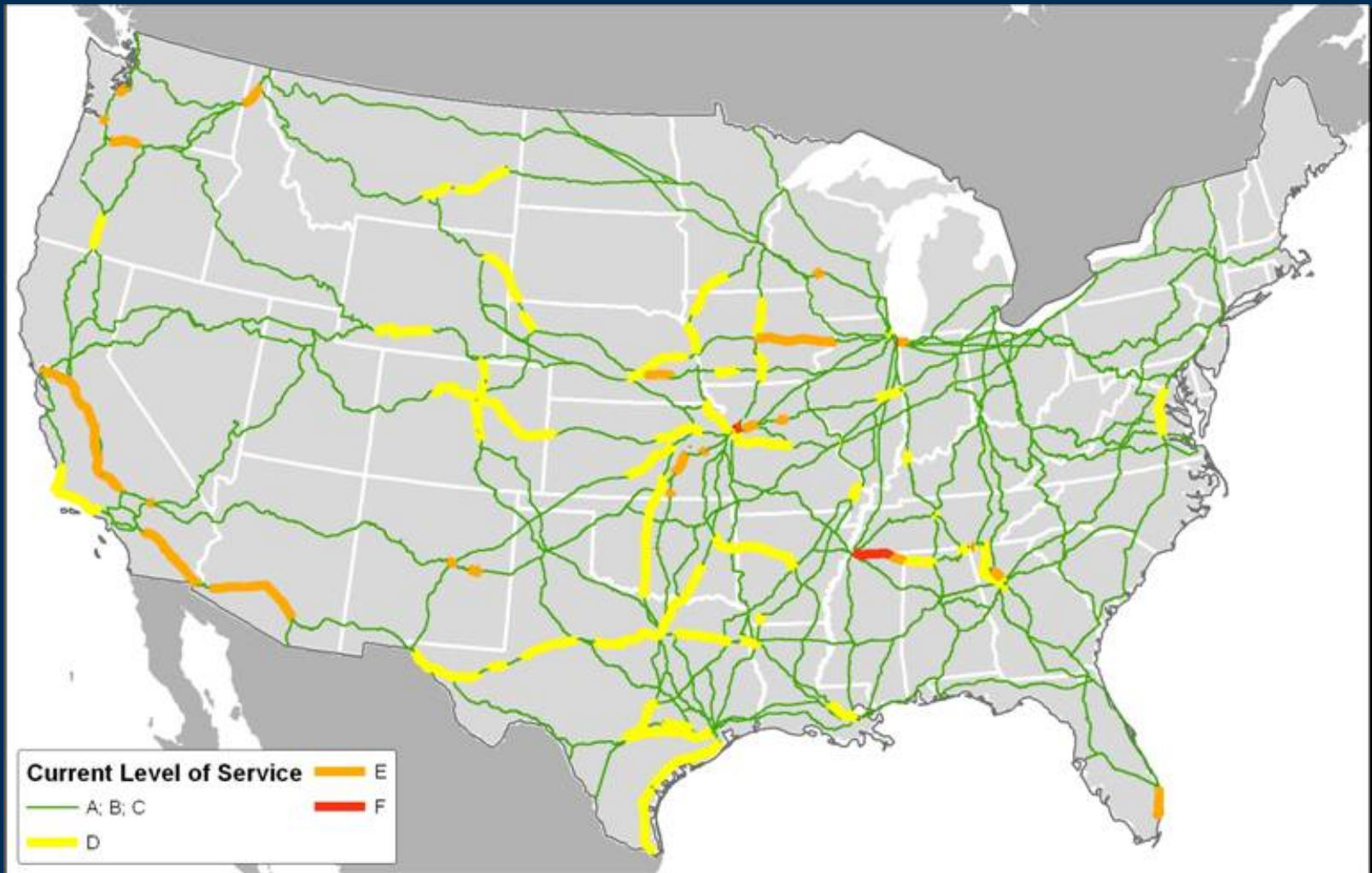


# Current Corridor Volumes

## 2005 Freight Trains and 2007 Passenger Trains Per Day

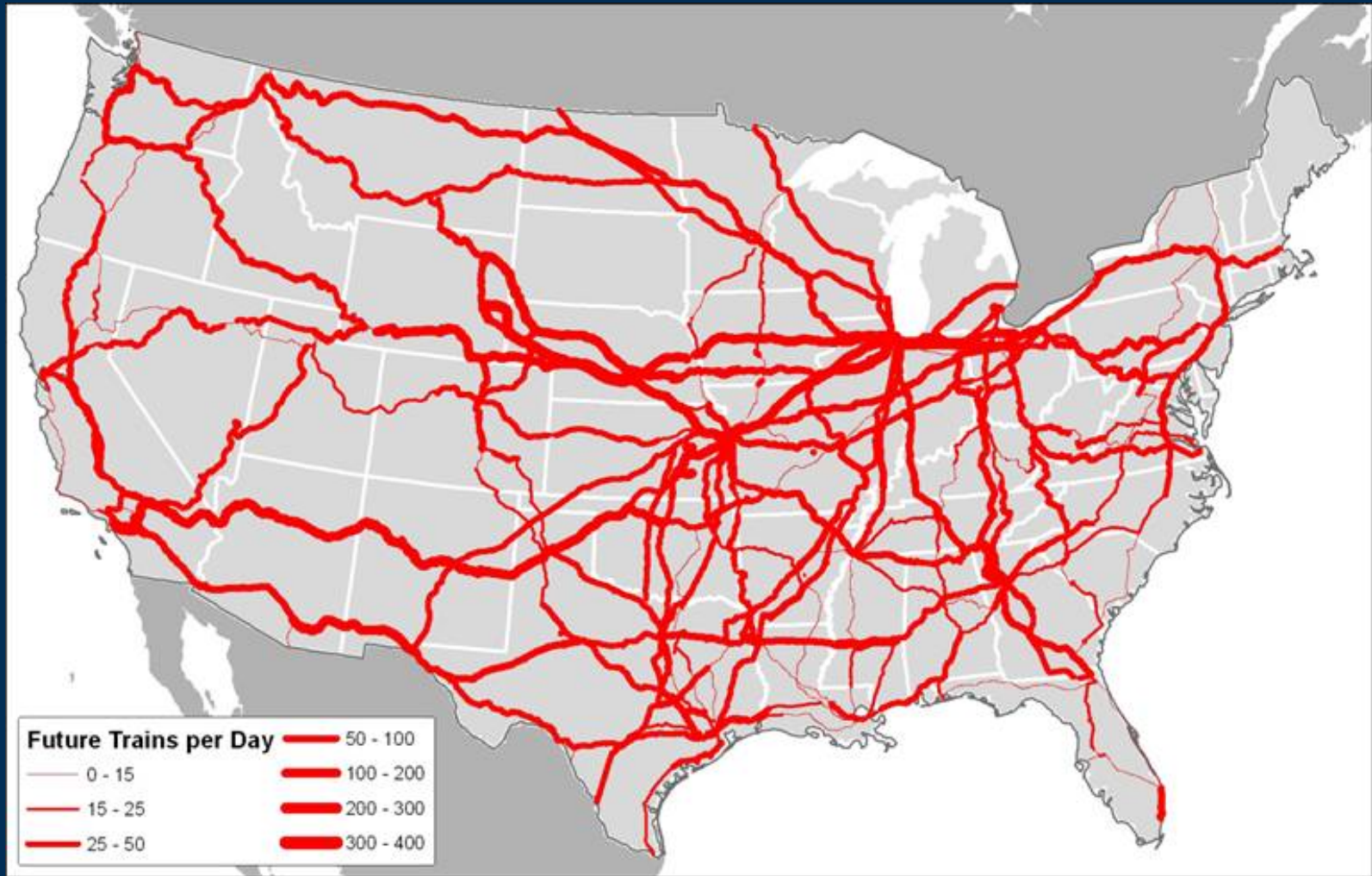


# Current Train Volumes Compared to Current Train Capacity

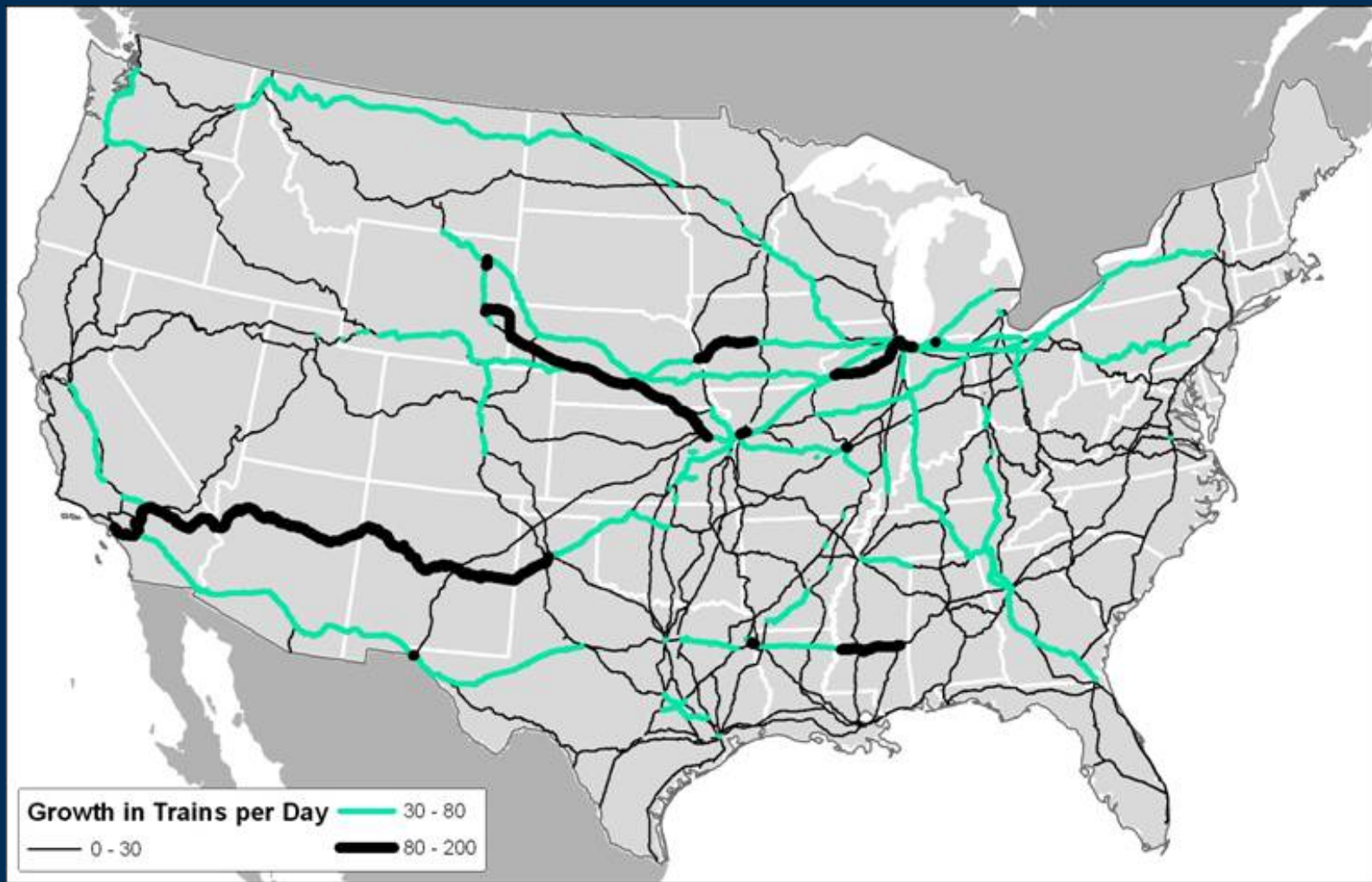


# Future Corridor Volumes

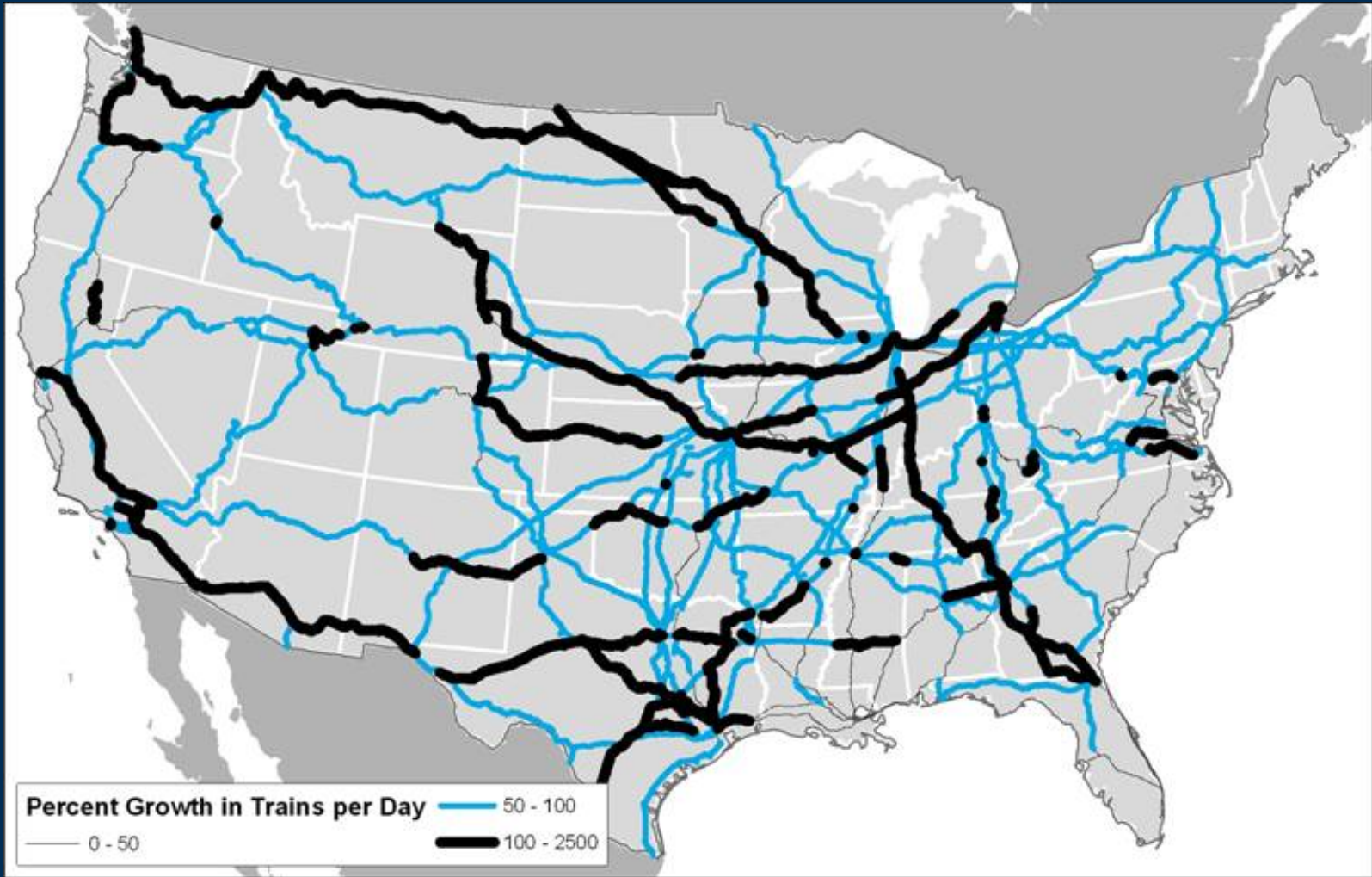
## 2035 Freight Trains and 2007 Passenger Trains Per Day



# Growth in Trains Per Day 2005 to 2035

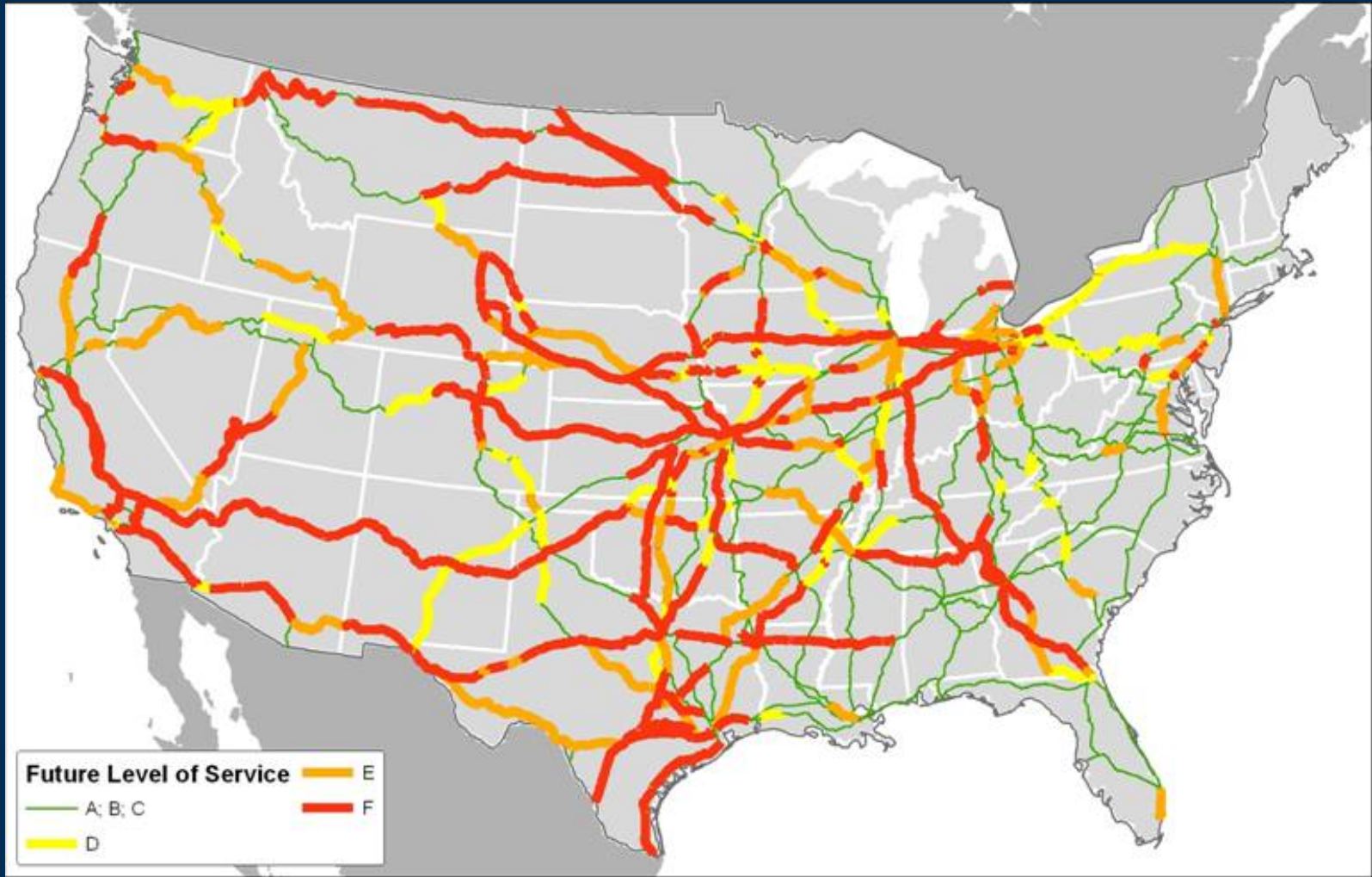


# Percentage Growth in Trains Per Day 2005 to 2035





# Future Corridor Volumes Compared to Current Corridor Capacity 2035 Without Improvements

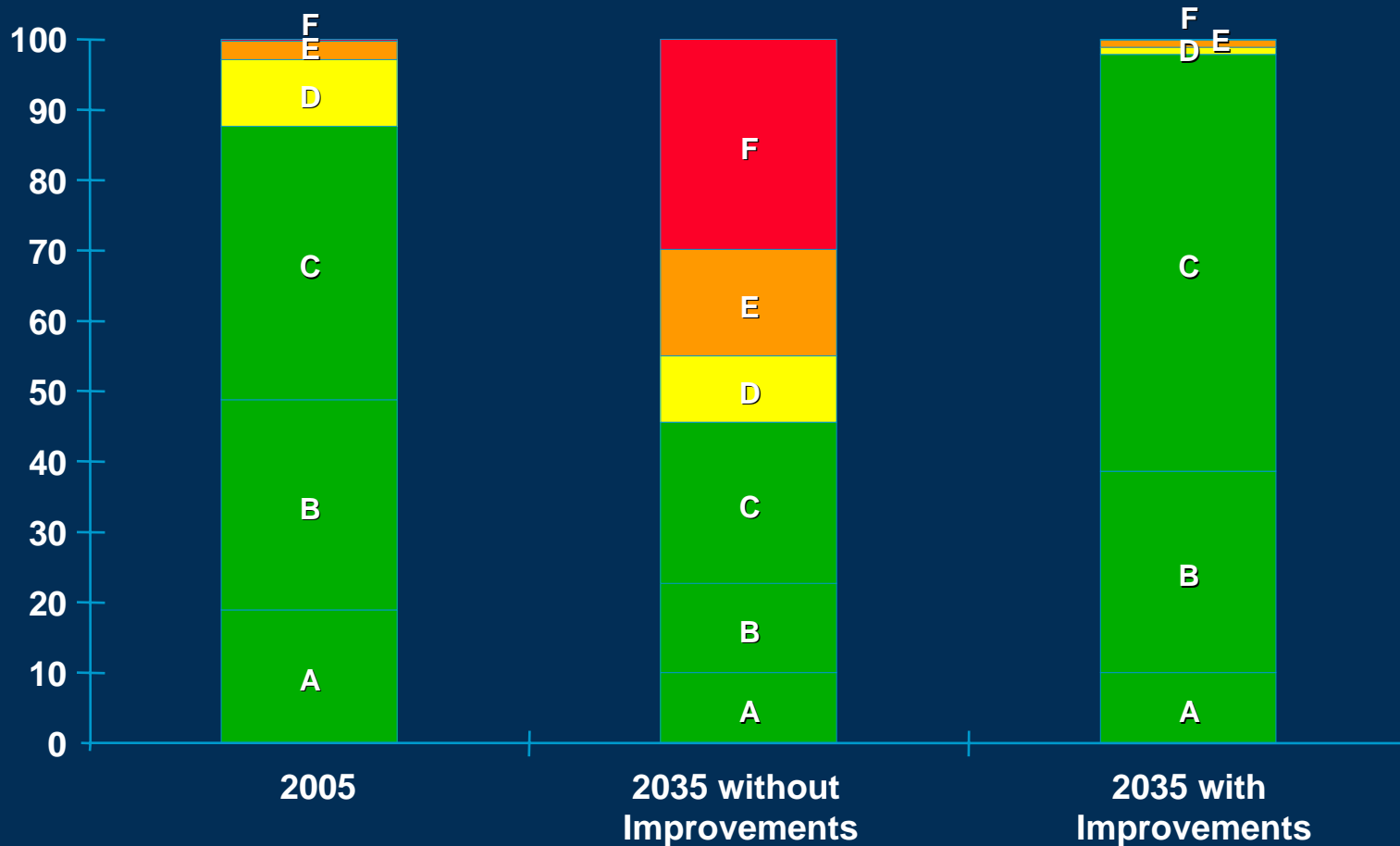


# Rail System Investment Needed (\$000s)

Infrastructure Improvement	Class I Freight Railroads	Short Line and Regional Freight Railroads	Totals
Line Haul Expansion	\$94,750	\$320	\$95,070
Major Bridges, Tunnels, and Clearance	\$19,400	\$5,000	\$24,400
Branch Line Upgrades	\$2,390	\$7,230	\$9,620
Intermodal Terminal Expansion	\$9,320		\$9,320
Carload Terminal Expansion	\$6,620		\$6,620
Service Facilities	\$2,550		\$2,550
<b>Totals</b>	<b>\$135,030</b>	<b>\$12,550</b>	<b>\$147,580</b>

# Percentage of Rail-Freight Primary Corridor Route-Miles by Level of Service Grade

Percentage of Primary Corridor Route-Miles



# Railroad Investment Capacity

- **Total Investment Needed**
  - \$148 billion
- **Class I Investment Capacity**
  - \$96 billion
- **Balance**
  - \$39 billion or ~\$1.4 billion per year

# Highway and Transit Investment Needs

- NCHRP 20-24(49) *Future Financing Options* report combined capital investment requirements from 2004 U.S. DOT Conditions and Performance Report to Congress with estimates of noncapital operations, maintenance, and administrative costs
- Average **annual** gap between available revenues and need to maintain the current highway and transit systems:  
**\$58 billion**
- Average **annual** gap between available revenues and need to improve the nation's highway and transit systems:  
**\$119 billion**

# What Are Other Countries Doing?

- **Longer, heavier trucks**
  - Australian road trains
  - Canadian doubles, triples
  
- **Truck toll collection systems**
  - Satellite-based truck tolling in Germany



# Public Policy Issues Linked to Rising Freight Volumes

- **Mitigating community impacts from increased truck and rail freight**
  - Air quality, noise implications
  - Traffic congestion complications
- **Building institutions across states and regions to fund and deliver projects to expand highway and rail infrastructure capacity**
- **Creating revenue streams that capture economic gains from freight mobility and grow as freight volumes increase**

# Economic Implications of Rising Freight Volumes

- **Goods movement mobility is crucial for economic growth:**
  - For the national economy even though congestion is regional
  - For multistate/megaregional economies even though chokepoints are local
- **Unresolved freight congestion could increase costs and prices:**
  - Leading to domestic inflation
  - Reducing global competitiveness



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