

RAIL RENAISSANCE

The Changing Dynamics of Freight Transportation

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Railroads are the Backbone of America's Freight Transportation

- Nearly **140,000 MILES**
- Over **180,000 EMPLOYEES**
- Aggregate freight **REVENUE** of over **\$70 billion**
- In the U.S., railroads account for approximately **40%*** of all **FREIGHT** (more than any other transportation mode)
- **60%** of all **AUTOS** produced in America move by rail
- **30%** of all **U.S. GRAIN** moves by rail
- **70%** of all **COAL** is moved by rail which in turn produces nearly 40% of American electricity
- U.S. railroads move **34 million tons of WHEAT**, enough to provide **82 billion loaves of BREAD**



Key Benefits of Rail Transportation

FUEL EFFICIENCY

4X

On average, trains are
more fuel efficient than trucks

ENVIRONMENTAL FRIENDLINESS

Freight railroads account for approximately
40% of the nation's intercity freight volume but
reduce greenhouse gas emissions

by **75%**

compared to trucks

HIGHWAY GRIDLOCK REDUCTION

A typical freight train takes the
equivalent of **SEVERAL
HUNDRED TRUCKS
OFF OUR HIGHWAYS**

COST EFFICIENCY

In general, shippers
**PAY LESS FOR
SHIPPING VIA RAIL**

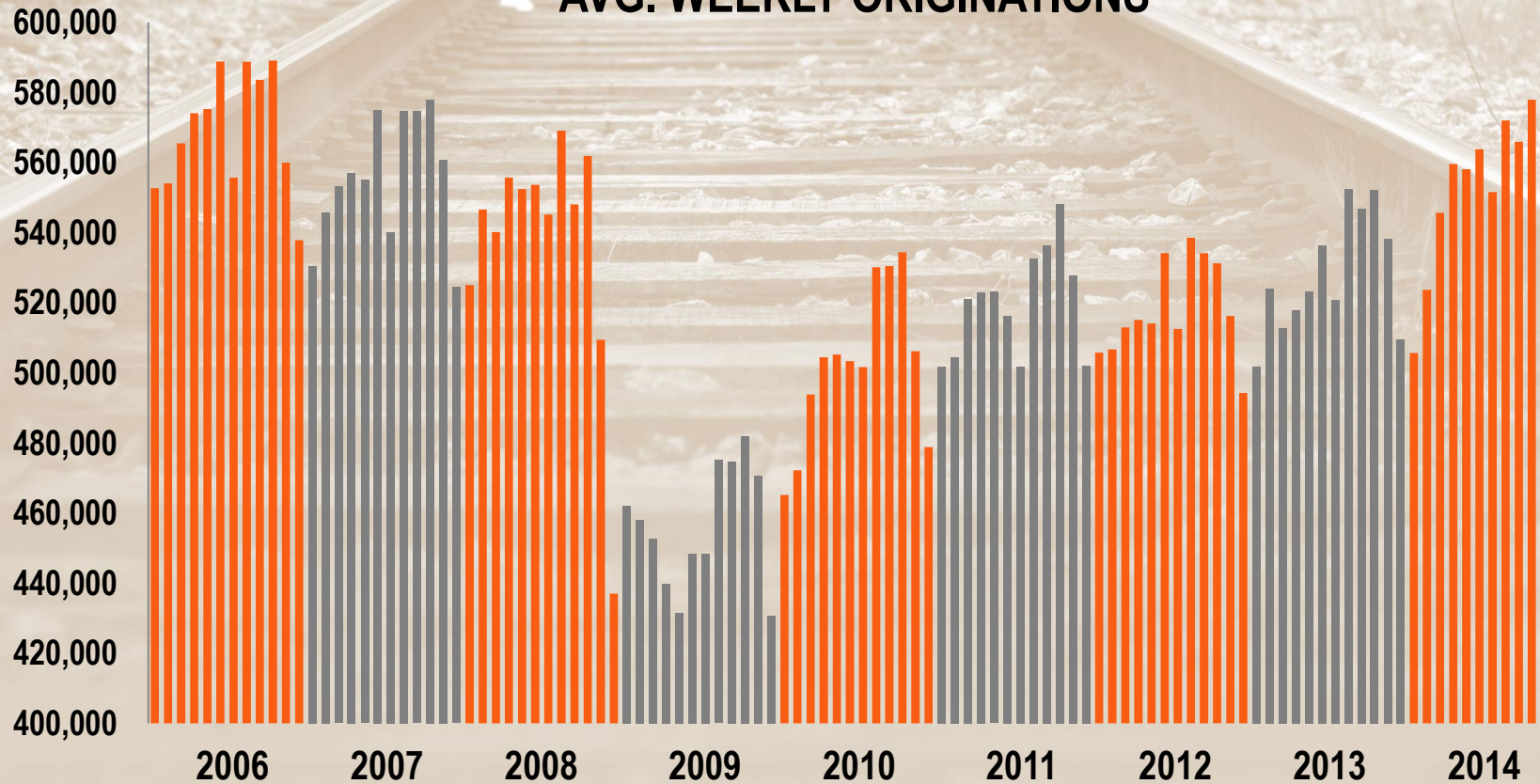
than for other forms of surface transportation



Here We Grow Again

Freight Levels Today Highest Since Before Recession

U.S. CARLOAD + INTERMODAL UNITS AVG. WEEKLY ORIGINATIONS



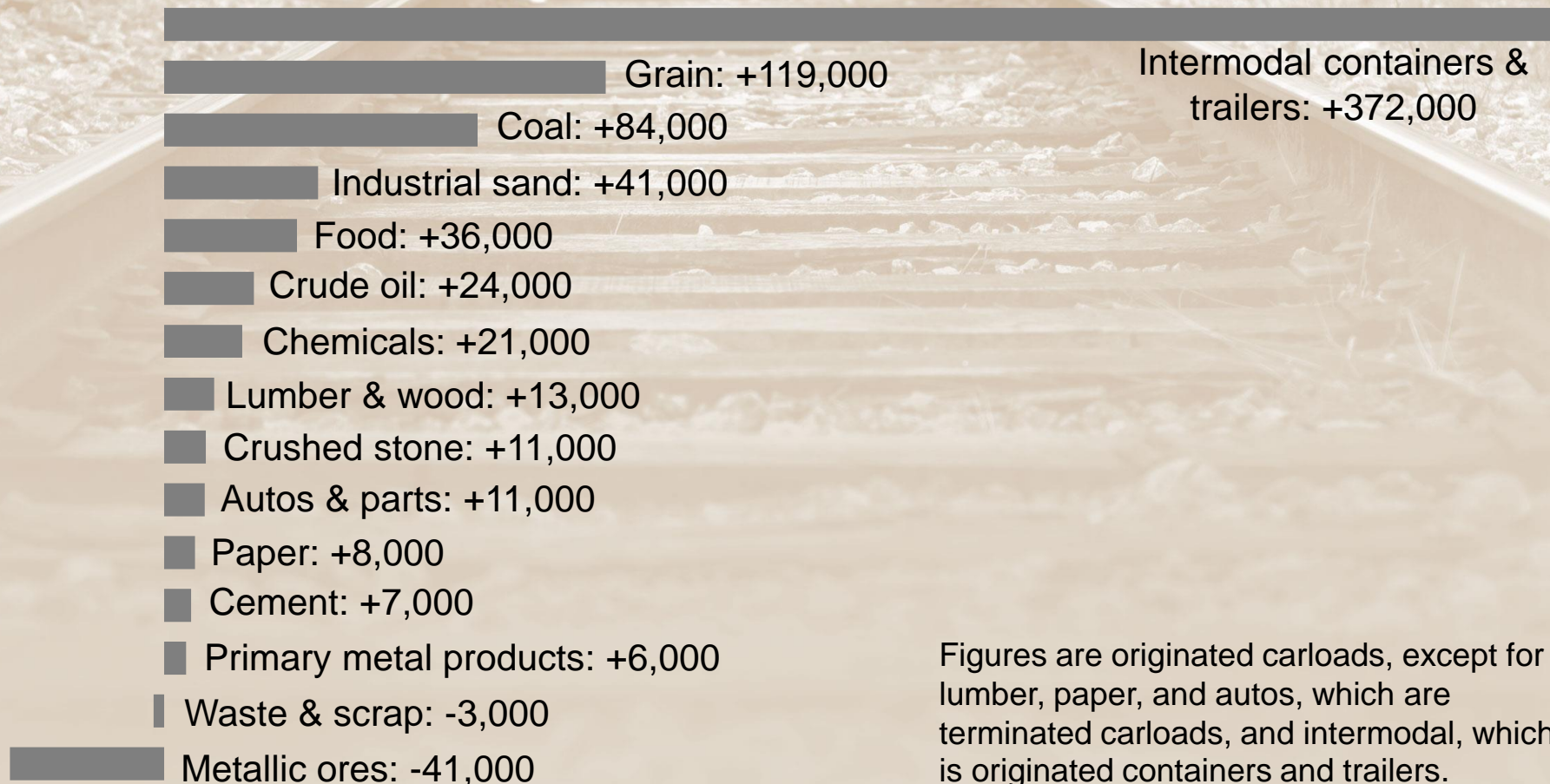
Data are average weekly originations for each month, not seasonally adjusted, do not include intermodal, and do not include the U.S. operations of CN and CP.



With Growth Comes Challenges

Significant Growth Over Multiple Businesses

U.S. RAIL TRAFFIC: FIRST HALF 2014 VS. FIRST HALF 2013



Figures are originated carloads, except for lumber, paper, and autos, which are terminated carloads, and intermodal, which is originated containers and trailers.

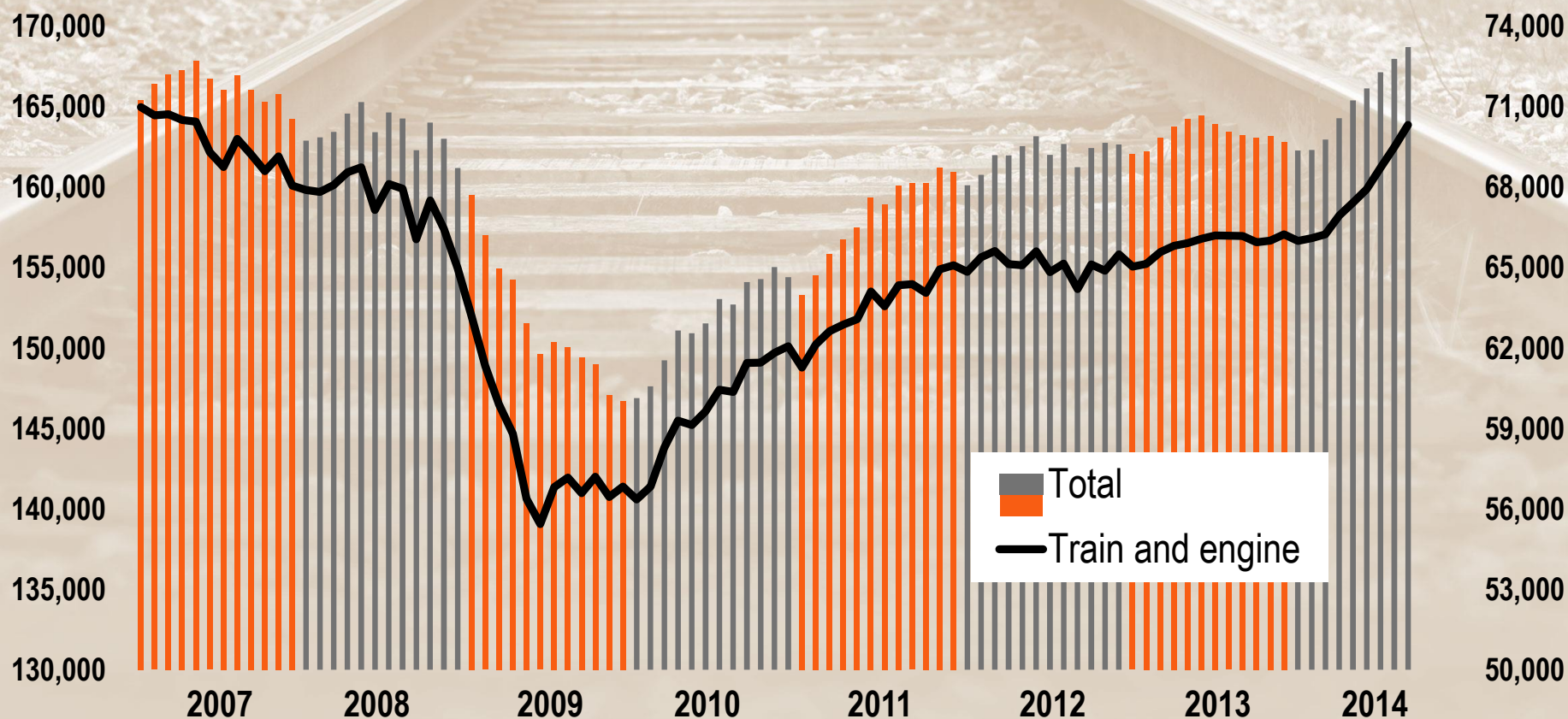
What Are Railroads Doing to Solve the Problems?

- Process changes
- Improved information technology
- More people
- More locomotives and freight cars
- More physical plant



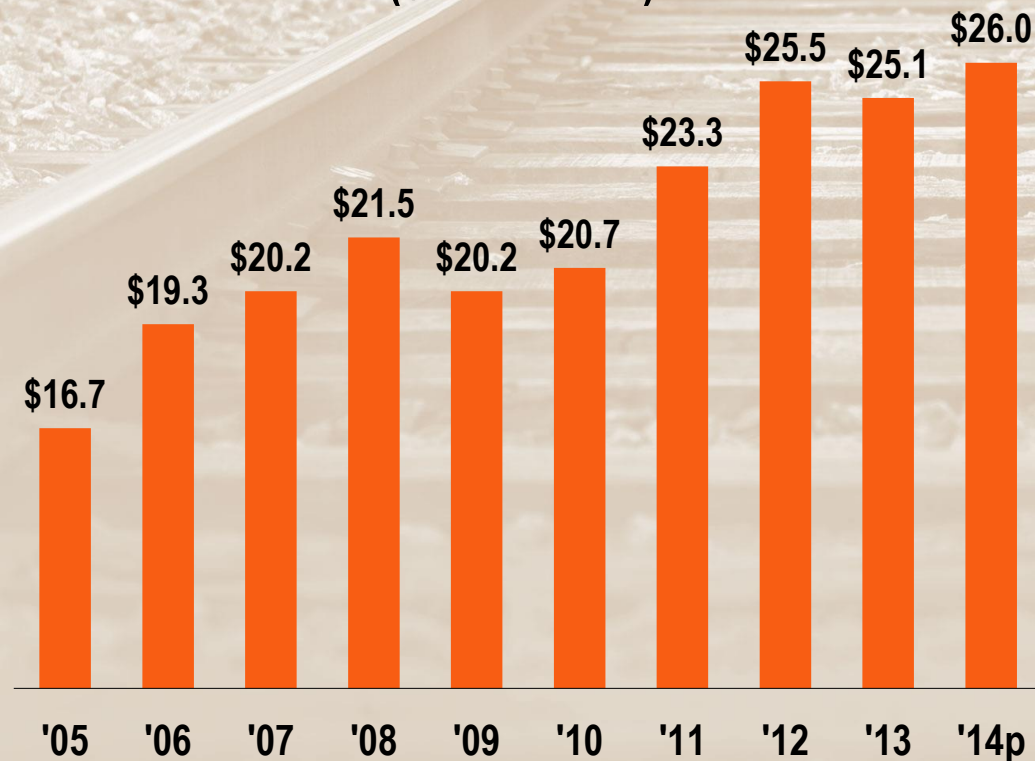
More People

TOTAL CLASS I RAILROAD EMPLOYMENT



Higher Spending in Recent Years than Ever Before

RAILROAD SPENDING ON INFRASTRUCTURE AND EQUIPMENT* (\$ BILLIONS)



p – AAR projection *Capital spending + maintenance expenses.
Data are for Class I RRs.

Types of key projects:

- Main line, terminal and terminal through route upgrades
- Signal and control infrastructure
- Locomotive/freight car maintenance/servicing facilities
- Terminals and sidings
- Unit train servicing capabilities

Big Effort to Improve Chicago for Upcoming Winter

- Develop and test winter response plans earlier
- Trigger Chicago alerts automatically
- Improve routing protocols to use alternative gateways
- Deploy more weather resistant technology
- Investment in physical plant both through CREATE and individually
- More people



Adding More Trains Not Always the Best Thing to Do

Adding more cars to this highway won't help existing cars move faster. Same with railroads.

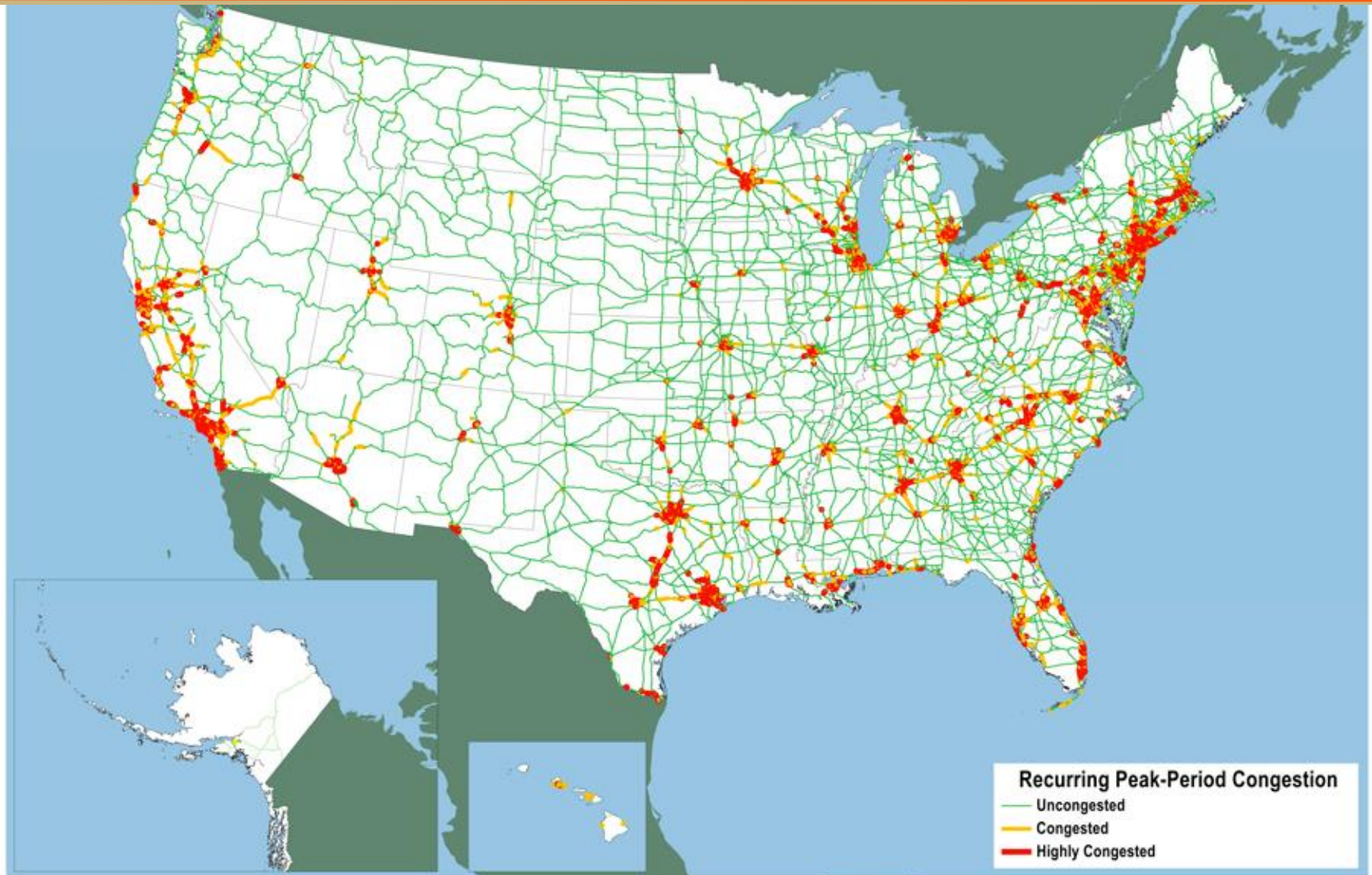
KEY GOAL:
**RESTORE
VELOCITY**





Changing Dynamics of Our Supply Chain

Peak-Period Congestion on the National Highway System: 2007



Notes: Highly congested segments are stop-and-go conditions with volume/service flow ratios greater than 0.95. Congested segments have reduced traffic speeds with volume/service flow ratios between 0.75 and 0.95. The volume/service flow ratio is estimated using the procedures outlined in the HPMS Field Manual, Appendix N.
Source: U. S. Department of Transportation, Federal Highway Administration, Office of Highway Policy Information, Highway Performance Monitoring System, and Office of Freight Management and Operations, Freight Analysis Framework, version 3.4, 2012

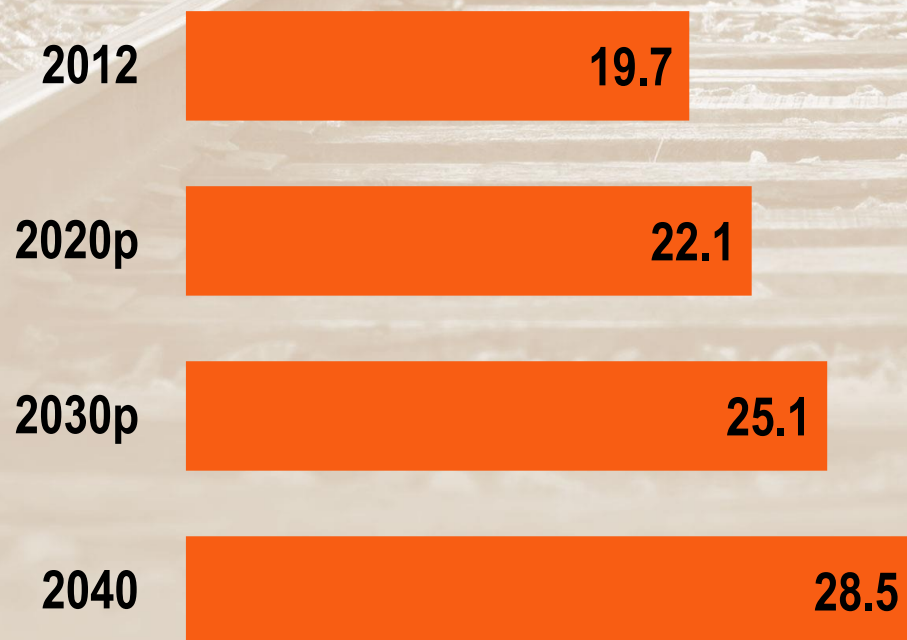
Peak-Period Congestion on the National Highway System: 2040



Notes: AADTT is average annual daily truck traffic and includes all freight-hauling and other trucks with six or more tires. AADT is average annual daily traffic and includes all motor vehicles. NHS mileage as of 2011, prior to MAP-21 system expansion.
Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, *Freight Analysis Framework*, version 3.4, 2013.

Long-Term Demand for Freight Transportation Will Surge

BILLIONS OF TONS OF FREIGHT TRANSPORTED IN THE U.S.



The U.S. DOT expects total U.S. freight movements to rise from around 19.7 billion tons in 2012 to 28.5 billion tons in 2040 .

+45%

P – projected Source: FHWA - *Freight Analysis Framework*, version 3.4



An Investment in Our Future

Industrywide Investment

Since **1980**, railroads have invested more than

\$575
BILLION

that's more than ...



out of every **REVENUE**



Infrastructure Investment

What we need:

- Freight mobility planning
- User-pays policy
- More private investment



National Freight Mobility Strategy



Regulatory reform is a competitiveness issue

What we need:

- Regulatory innovation
- Improved rulemaking
- Project permitting reform

In Summary ...



We are in the midst of a **RAIL RENAISSANCE**

- The U.S. supply chain needs an efficient freight rail system
- Growth is putting a strain on the U.S. highway system
- Rail is preparing to accommodate that growth through continued investment

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