THE FUTURE OF FREIGHT RAILROADING

Joseph Schwieterman Professor, DePaul University



WHO ARE THE RAILROADS?

Dramatically reduced public understanding in just one generation









GROWING EMPHASIS ON **AWARENESS**

Union Pacific Launches National Advertising Campaign Expertise

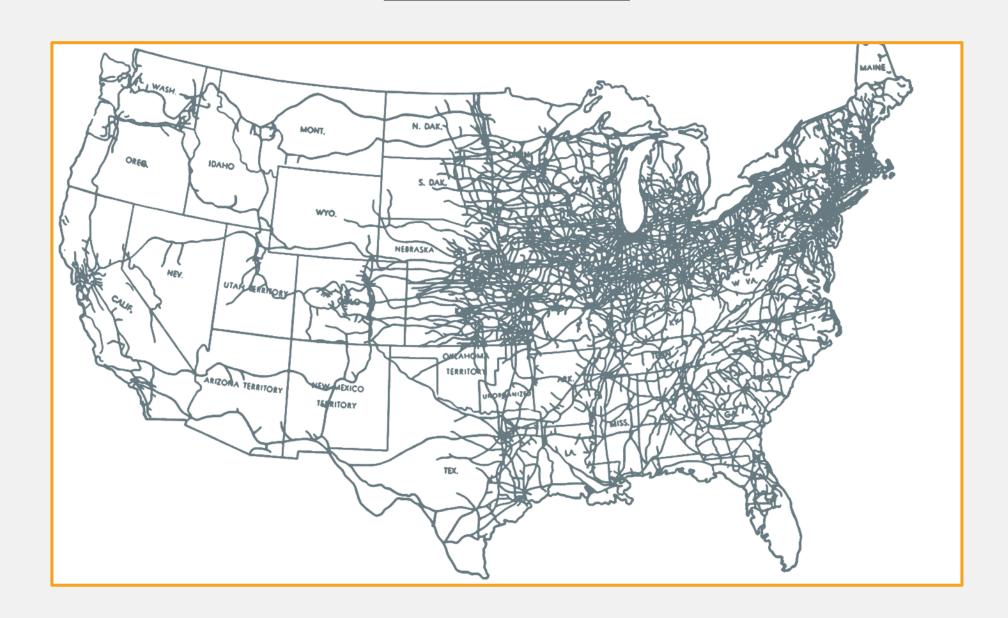
'Wherever you find business, you'll find us'

Omaha, Neb., October 12, 2010 - Union Pacific's first national advertising campaign in nearly a deci ad campaign in Union Pacific's 148-year history to specifically target new business growth. Television

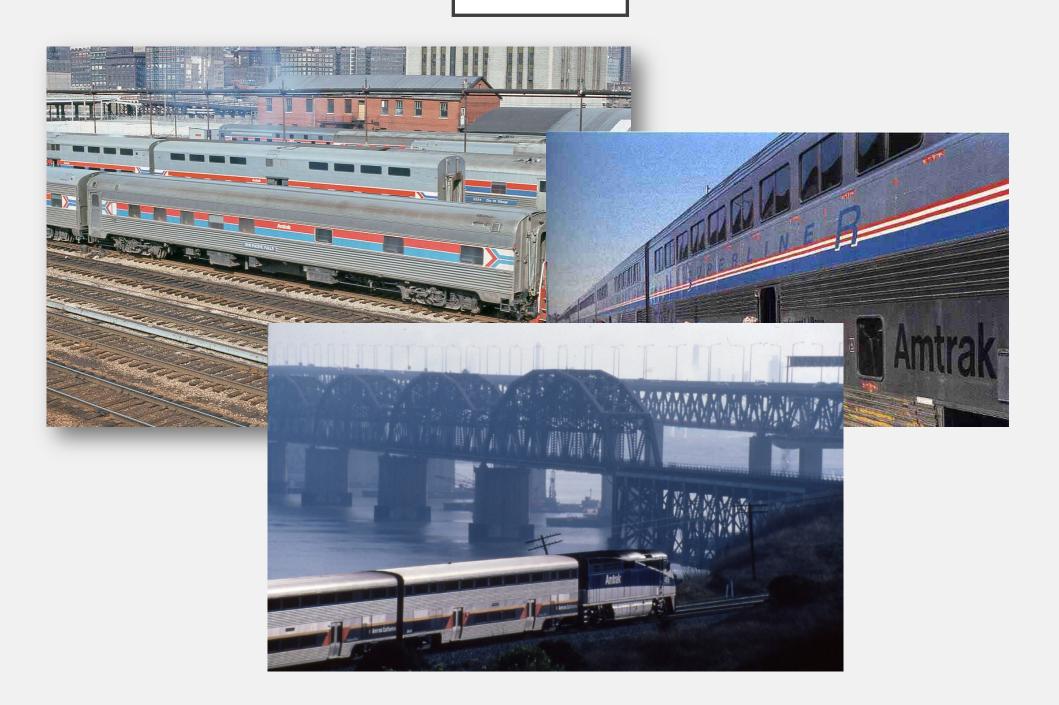
s logistics expertise," said Jii











OF PRICES AND SERVICE





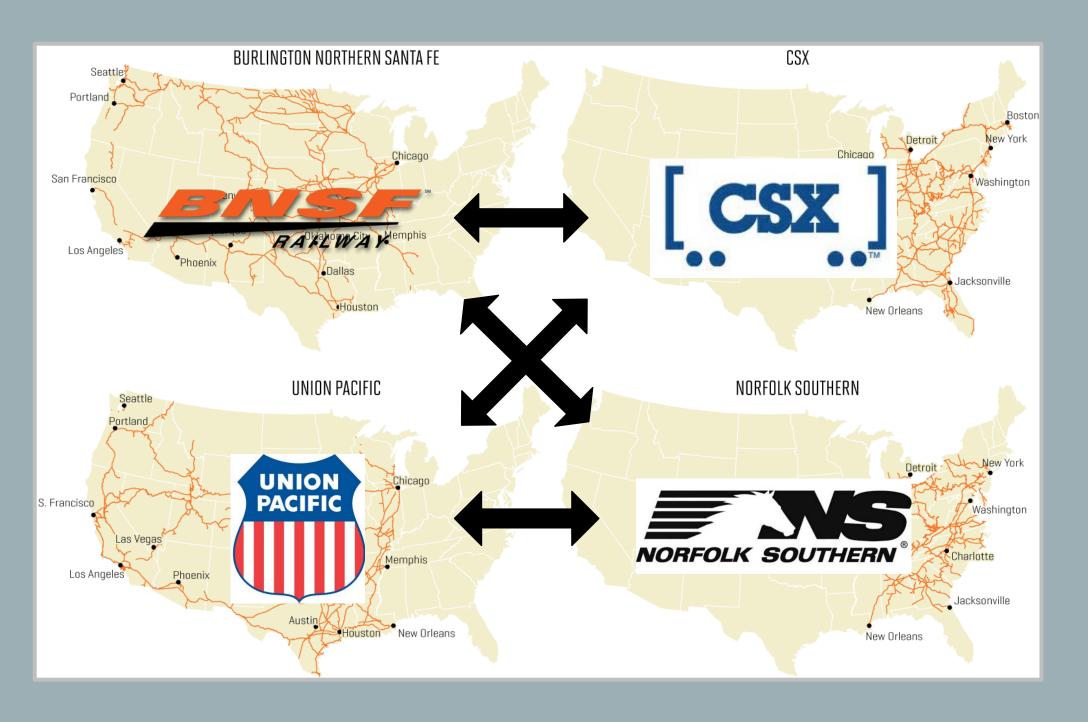
THE EMERGENCE OF FOUR DOMINANT U.S. RAILROADS

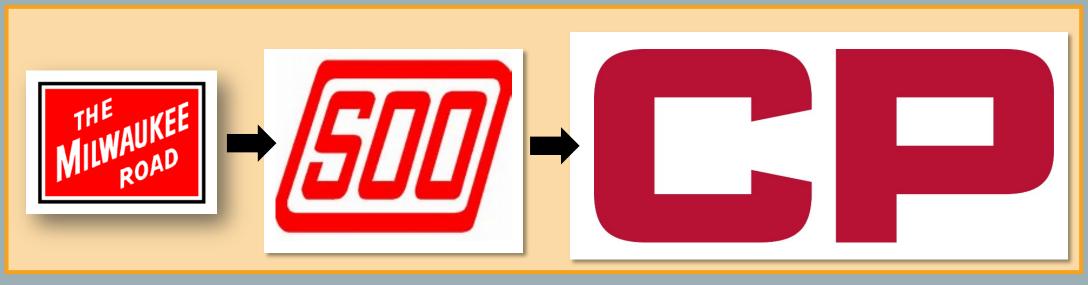


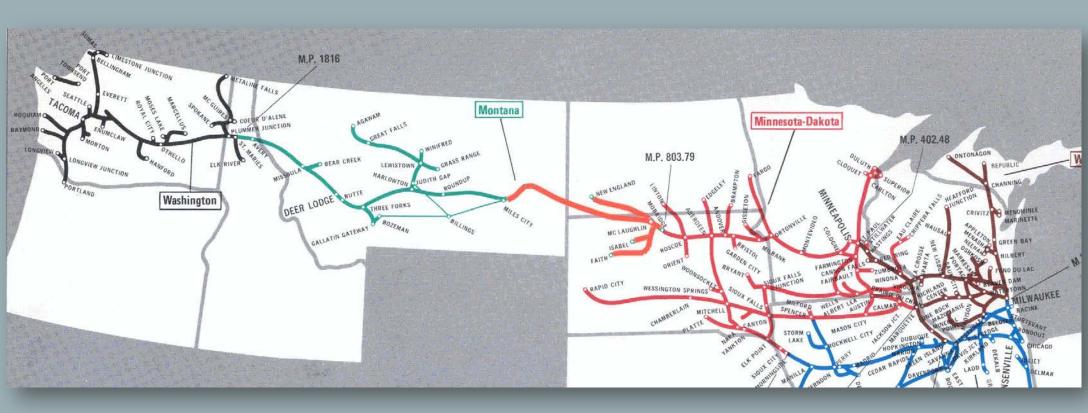














2ND CANADIAN CARRIER EMERGES



WHO MANAGES WHAT?

Speed Limits

Federal government

Highway Crossing Safety

Federal government

State funding & private railroads

Property Tax

State government

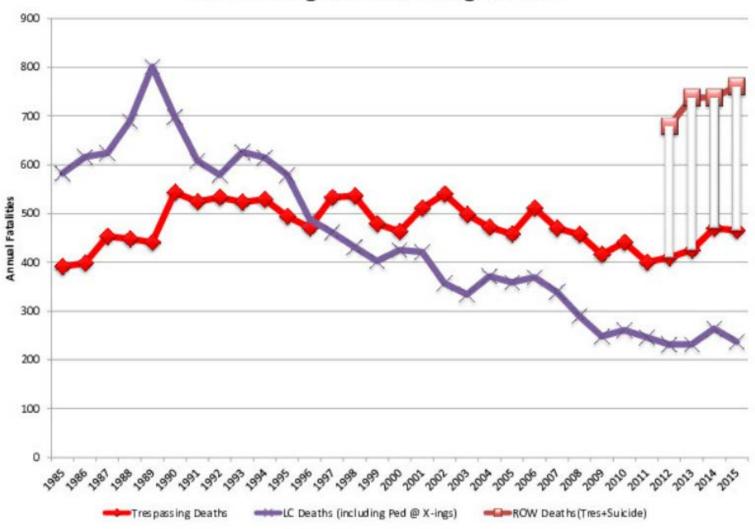
Commuter Rail

Regional entities

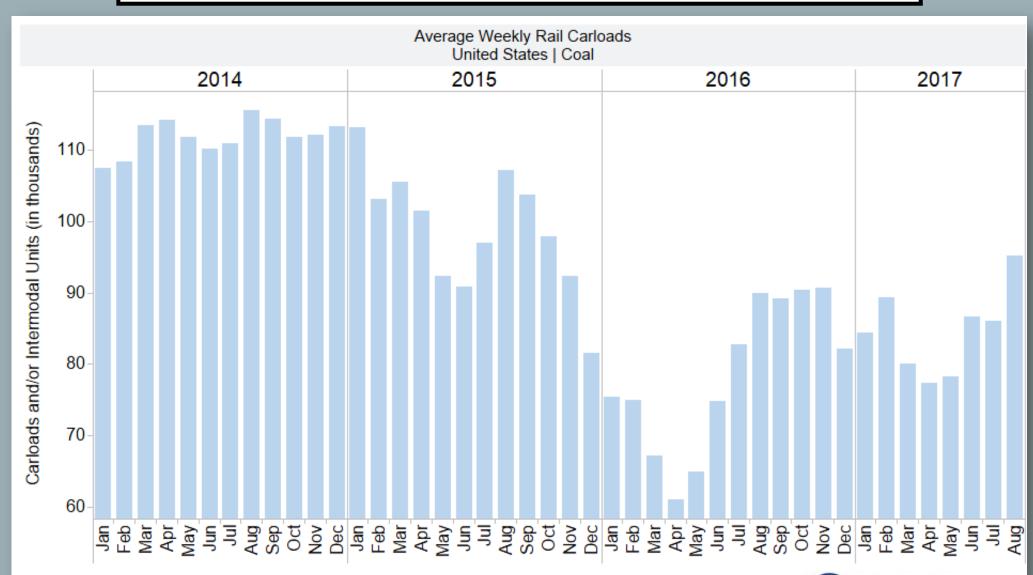
Noise Abatement & Blocked Crossings

More local orientation

<u>U.S.</u> Railroad Fatality Trend Level Crossings vs Deaths along the Rails



COAL

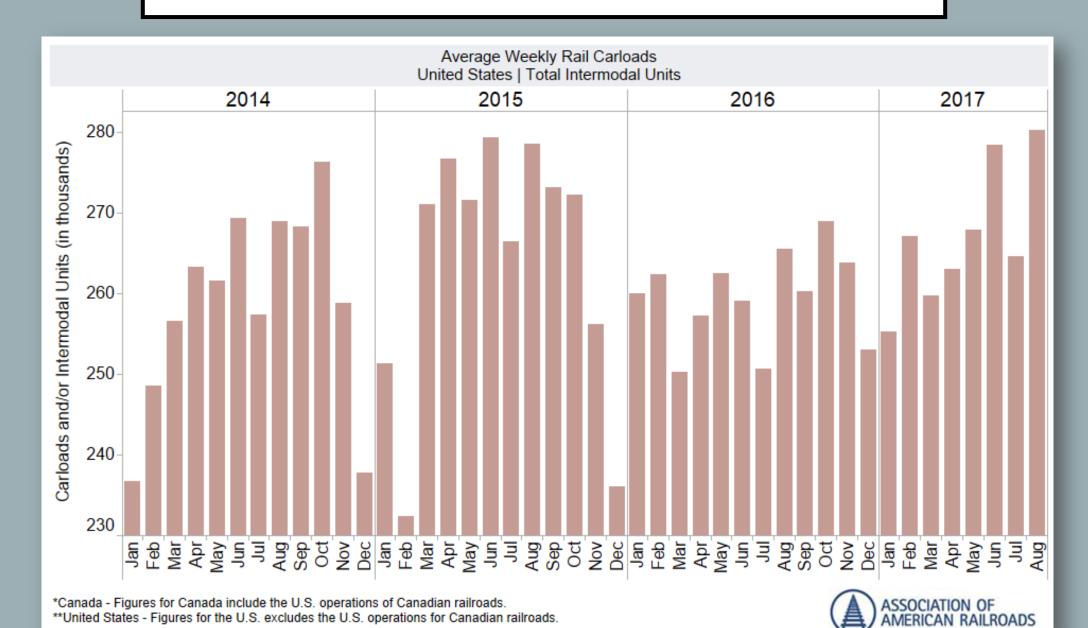


^{*}Canada - Figures for Canada include the U.S. operations of Canadian railroads.



^{**}United States - Figures for the U.S. excludes the U.S. operations for Canadian railroads.

INTERMODAL



PETROLEUM



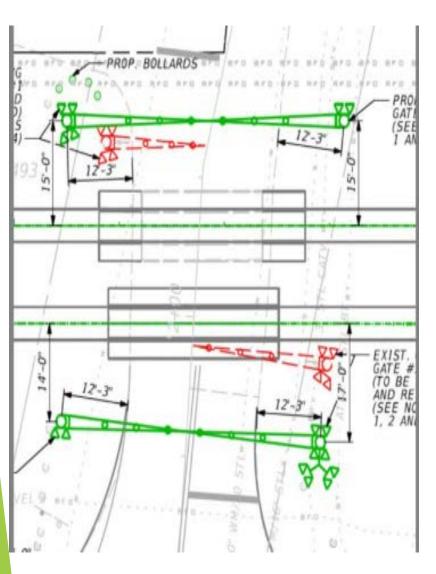
THANK YOU!



Railroads and communities

Mark Walbrun, PE

Technical Innovations in Railroad Operations and Safety



- Positive Train Control
- Four Quadrant Gates
- Operation Lifesaver
- Locomotive Cameras
- ► Train/Signal Event Recorders

Passenger and Freight Trains Sharing Railroad Corridors

- All carriers meet FRA safety requirements
- Better use of limited infrastructure
- Opportunities to share former freight-only lines to meet new passenger traffic demands
- PTC upgrades for passenger service enhances freight railroad service



Community Concerns



- Locomotive exhaust Tier III and Tier IV requirements
- Noise 70 Ldn threshold established by the STB for merger changes and other mitigation
- Safety anti-trespassing measures, grade crossing safety, and positive train control
- Traffic grade crossing 20 seconds activation time, traffic signal coordination, typical passenger train gate down time less than a typical 120 second traffic signal cycle





Railroads & Our Communities



About Metro Strategies

- Services
 - Policy & Issue Advocacy
 - Public Engagement
 - Planning & Project Implementation
- Freight & Rail Projects
 - CREATE Program
 - Cook County Freight Plan
 - Will County Freight Plan





City of Chicago - 2000

- Blizzard of 1999
- Mayor Daley letter to Surface Transportation Board (STB)
- STB facilitated meetings
- Chicago Planning Group/Chicago Transportation Coordination Office
- CREATE Program
- Blizzard of 2014



Chicago Region Environmental and Transportation Efficiency (CREATE) Program

Public outreach and coalition building on this \$4.4B infrastructure program includes engaging elected officials and civic, business and community organizations to secure ongoing regional support.

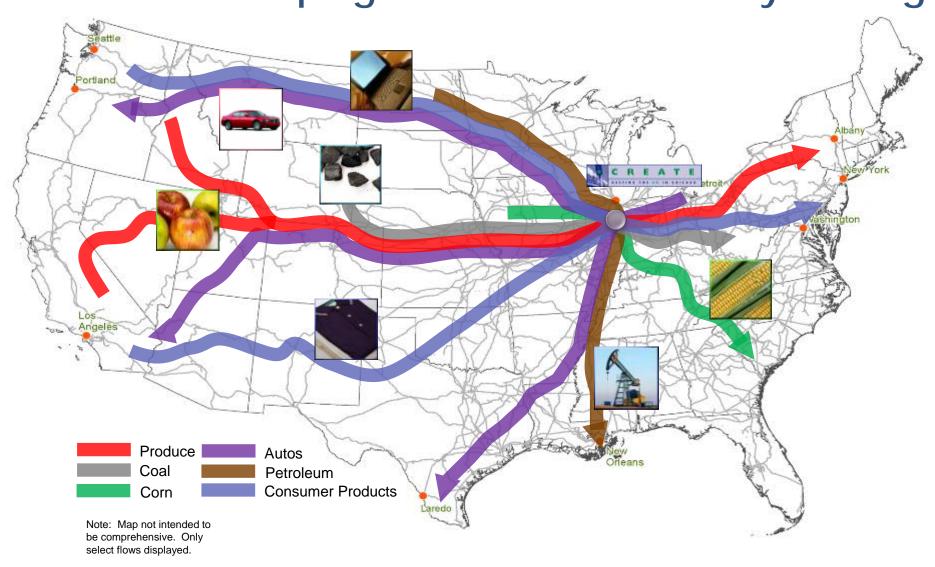








CREATE: Keeping the Nation's Economy Moving





CREATE Program Stakeholders

Composition

- Railroad AAR represents all Class I railroads, Metra, Amtrak
- Illinois DOT Secretary of Transportation
- Chicago DOT Commissioner of Transportation
- Cook County Superintendent
- USDOT (non-voting)









Responsibilities

- Set policy for CREATE Program
- Resolve all Program issues
- Represent the CREATE partnership
- Seek resources to build the CREATE Program





Grade Separations

- Safety
- Quality of Life
- Air Quality

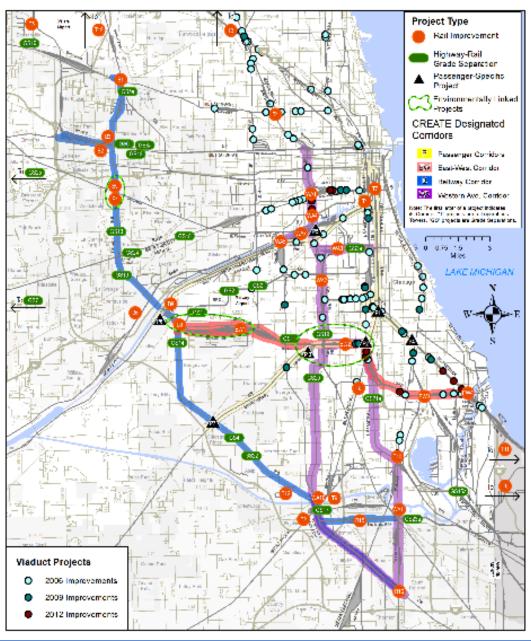






Viaduct Program

- Locations in the City of Chicago
- Improved roadways, sidewalks and drainage under railroad viaducts
- Enhanced safety and security for motorists, pedestrians and bicyclists
- 37 locations completed in 2006
- 14 locations completed in 2012 (USDOT TIGER funding, \$5 million)
- 11 completed in 2015/2016 (State of Illinois funding)



Viaduct Improvement Program

Example: 1530 S Racine Avenue





Example: 1530 S Loomis Street







Quality of Life Issues

- 911 Critical Crossing
- Right of Way Maintenance
- Viaduct Prioritization
- Street Closures



Cook County Freight Plan

- Prioritize Transit and Other Transportation Alternatives
- Support the Region's Role as North America's Freight Capitol
- Promote Equal Access to Opportunities
- Maintain and Modernize
 What Already Exists
- Increase Investments in Transportation





Will County CommunityFriendly Freight Plan

- Freight Mobility Needs
- Workforce Development
- Workforce Mobility
- Livable Communities
- Engaged Public
- Educational Outreach
- Land-Use Planning
- Funding Opportunities





Why is Coordination Important?

- Identifies all perspectives & unknown issues
- Leads to potential collaboration opportunities
- Builds community support
- Can reduce delays and costs
- Creates ownership of issues and solutions





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THANK YOU



National and Regional View of Rail

Audrey Wennink October 11, 2017

Freight Flows by Highway, Railroad and Waterway, 2011



Source: Highways: U.S. Department of Transportation, Federal Highway Administration, Freight Analysis Framework, Version 3.5, 2015; Rail: Based on **Surface Transportation** Board, Annual Carload Waybill Sample and rail freight flow assignments done by Oak Ridge National Laboratory; Inland Waterways: U.S. Army Corps of Engineers, Institute or Water Resources, Annual **Vessel Operating Activity** and Lock Performance Monitoring System data, September 2015.

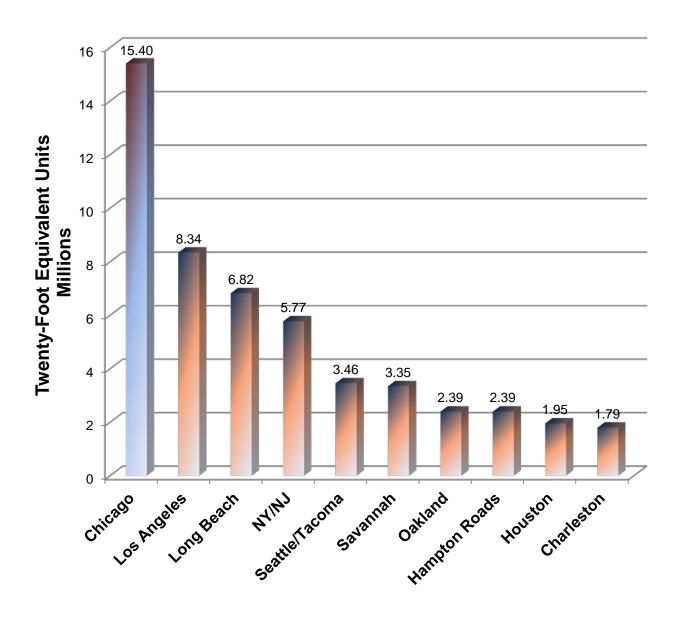
Chicago: The Nation's Freight Rail Hub

- 25 percent of all U.S. freight rail traffic touches Chicago
- 44 percent of all **intermodal** units in the U.S. touch Chicago
- 68 percent of intermodal units to/from the ports of Seattle/Tacoma touch Chicago
- 45 percent of intermodal units to/from Los Angeles/Long Beach touch Chicago





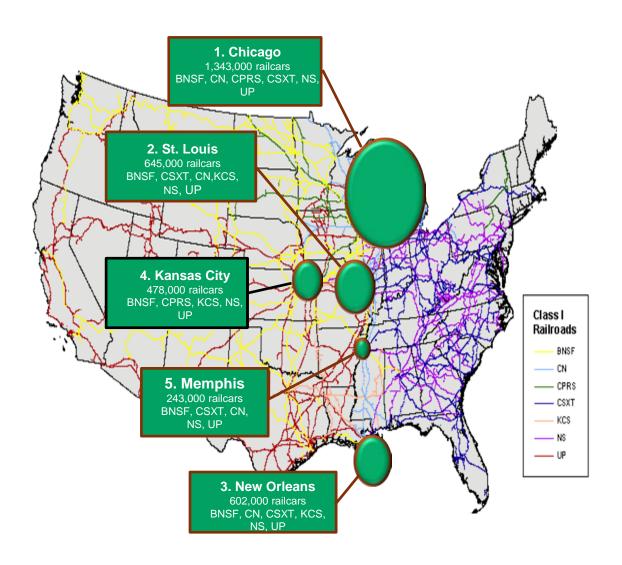
Intermodal Traffic





East-West Freight Rail Gateways

Ranked by Loaded Railcars per year



Source – U.S. DOT Freight Analysis Framework 3, 2010; includes freight originating and terminating at gateways – does not include throughfreight



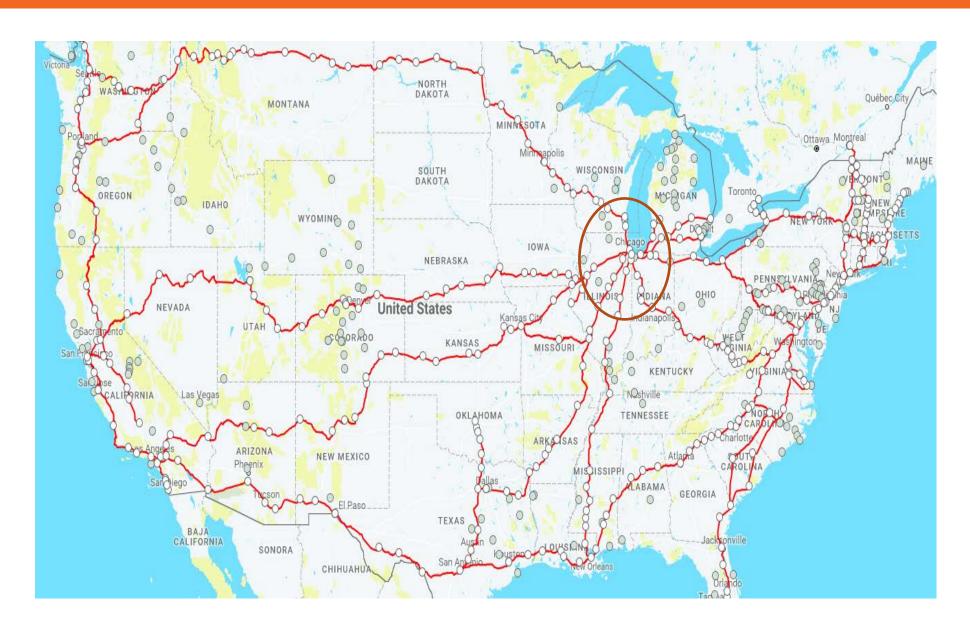
Metra Commuter Rail

- •11 rail lines
- 241 stations
- 691 weekday trains





Amtrak





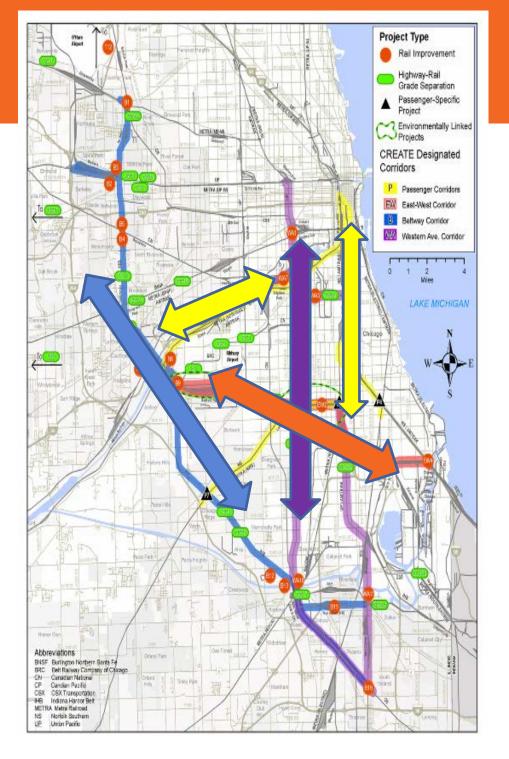
Freight Rail Benefits

- Increasing Fuel Efficiency: On average, railroads are four times more fuel-efficient than trucks.
- Reducing Pollution: Moving freight by rail instead of trucks reduces greenhouse gas emissions an average of 75%.
- Lessening Highway Congestion: A train can carry the freight of several hundred trucks — reducing highway gridlock, the cost of maintaining existing highways and the pressure to build expensive new highways
- **Delivering Global Competitiveness**: Railroads haul approximately one-third of all U.S. exports, allowing American industry to be more competitive in the worldwide economy.



CREATE Program

Economic Benefits
 of \$31.5 Billion will
 be achieved if
 Program is fully built





Sector Impact on Regional Employment

- Transportation and Logistics is one of the key economic strengths of the Chicago region
 - Includes freight and limited interurban passenger transportation, and services that support these operations
- Fourth largest business cluster in the region

Source: Chicago Metropolitan Agency for Planning



Contact

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