

THE FUTURE OF FREIGHT RAILROADING

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**DEPAUL
UNIVERSITY**
CHADDICK INSTITUTE FOR
METROPOLITAN DEVELOPMENT



WHO ARE THE RAILROADS?

Dramatically reduced public understanding in just one generation





Urban/Industrial



Passengers



Nostalgia

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 decade ad campaign in Union Pacific's 148-year history to specifically target new business growth. Television campaign launches October 13.

s logistics expertise," said Ji

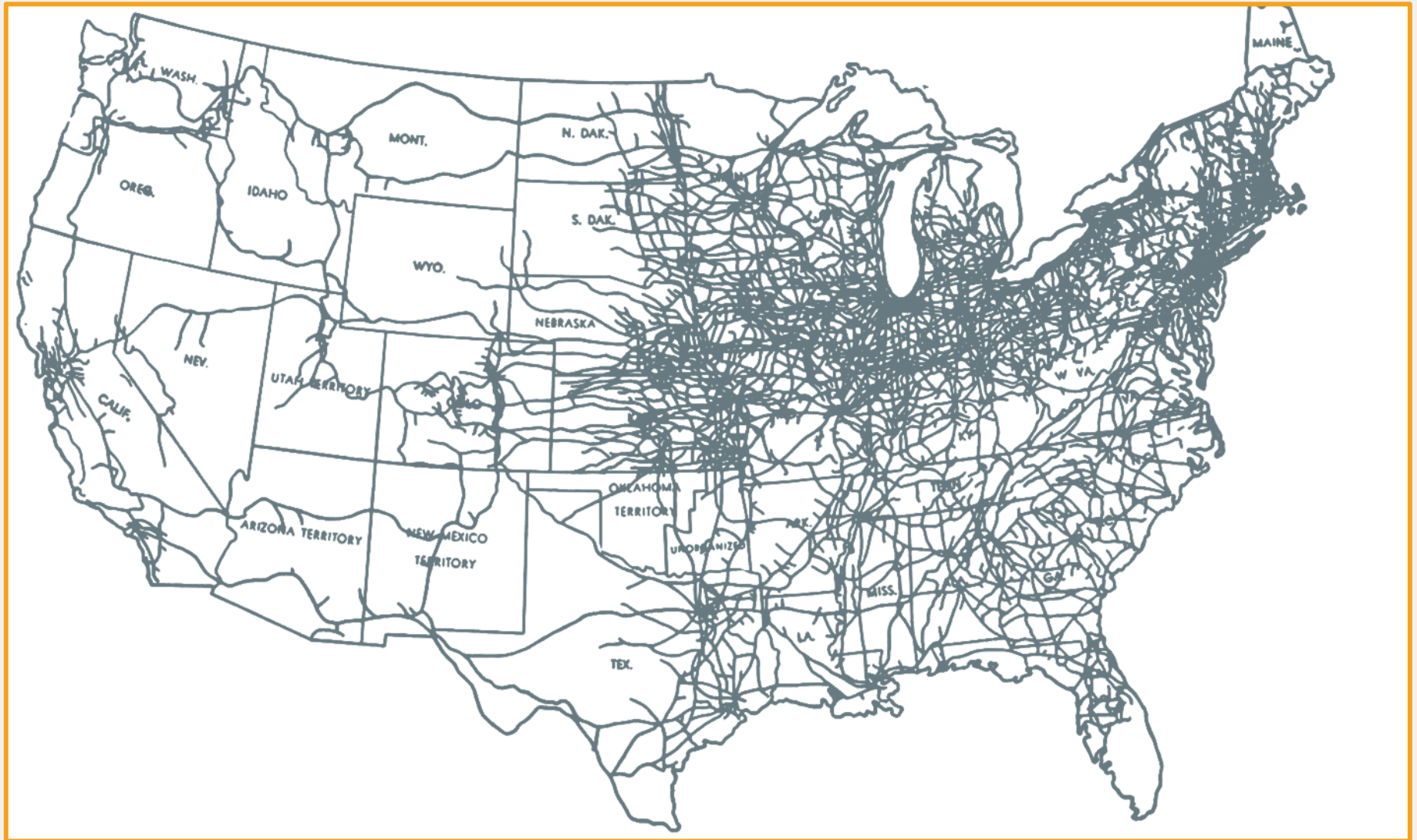


The screenshot shows the CSX website's navigation menu. At the top left is the CSX logo with the tagline "HOW TOMORROW MOVES". To the right are navigation links: ABOUT US, RESPONSIBILITY, CUSTOMERS, and SUPPLIERS. Below these is a breadcrumb trail: Responsibility / Environment & Efficiency. A dropdown menu is open under "Environment & Efficiency", listing: Environment & Efficiency (with a downward arrow), Sustainability Statement, Environmental Management System, Environmental Policy, and Climate Statement. To the right of the dropdown is a section titled "Environment & Efficiency" with a corresponding image of a CSX freight train in a field.

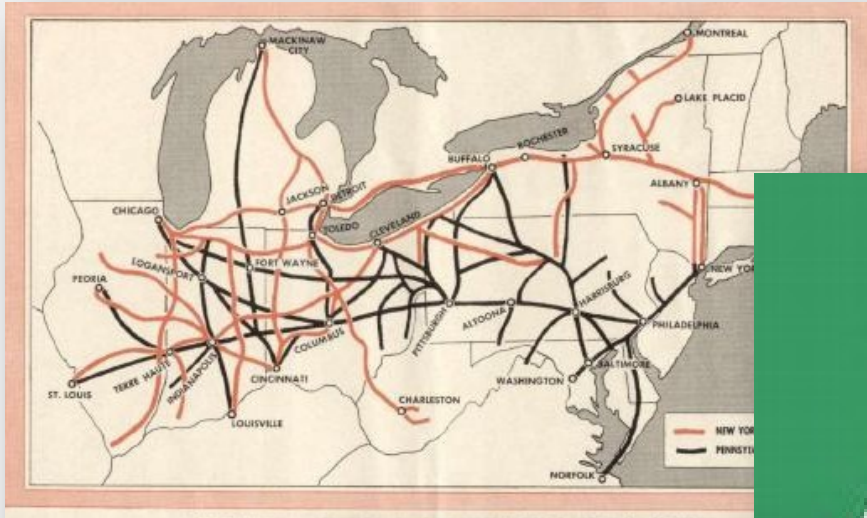
1860



1915



1968



MERGED SYSTEM
Full Commission's Approval
ICC AIDES B



1971



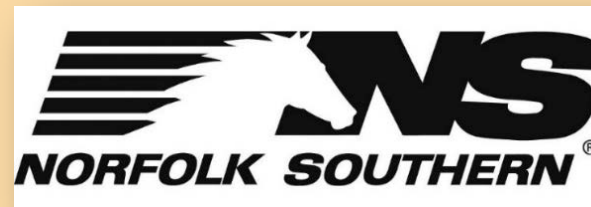
1980

EXTENSIVE DEREGULATION
OF PRICES AND SERVICE



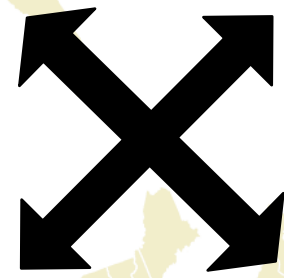
2004

THE EMERGENCE OF FOUR DOMINANT U.S. RAILROADS



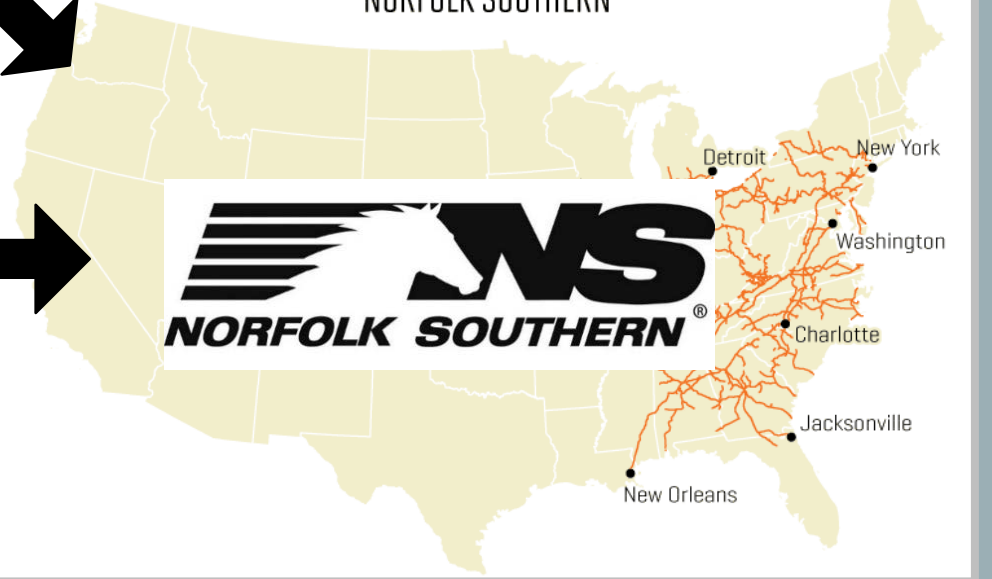
BURLINGTON NORTHERN SANTA FE

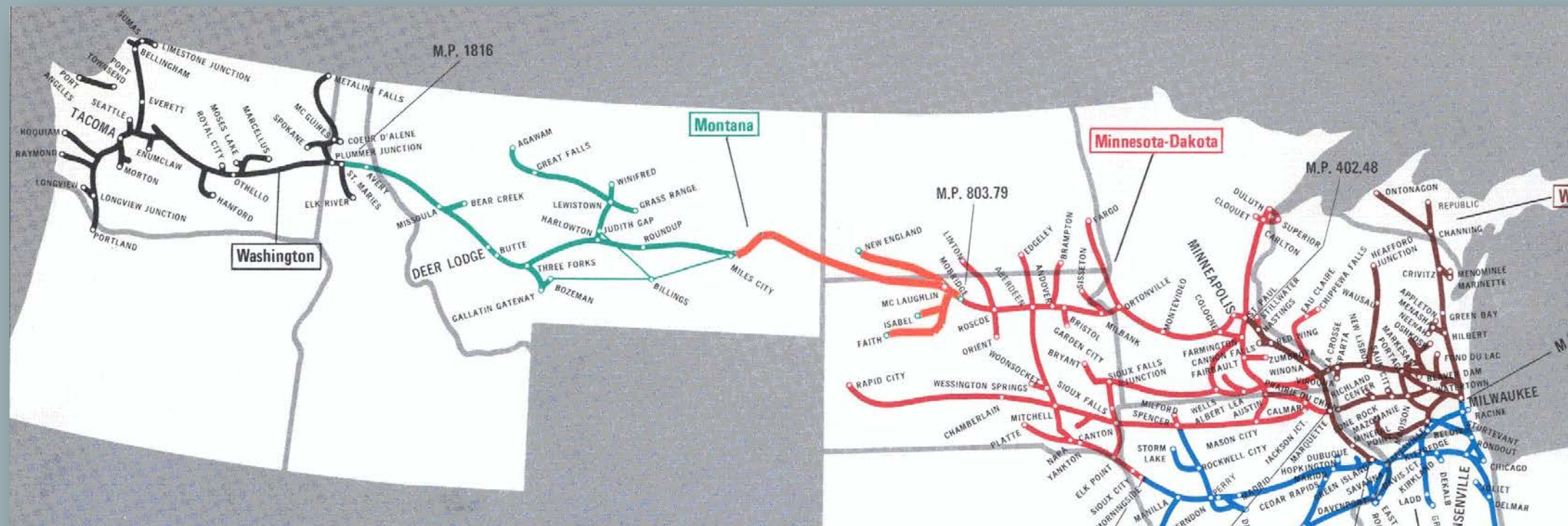
CSX



UNION PACIFIC

NORFOLK SOUTHERN







2ND CANADIAN
CARRIER EMERGES





NS NORFOLK
SOUTHERN
One line. Infinite possibilities.

WHO MANAGES
WHAT?

Speed Limits

Federal government

**Highway Crossing
Safety**

Federal government

State funding &
private railroads

Property Tax

State government

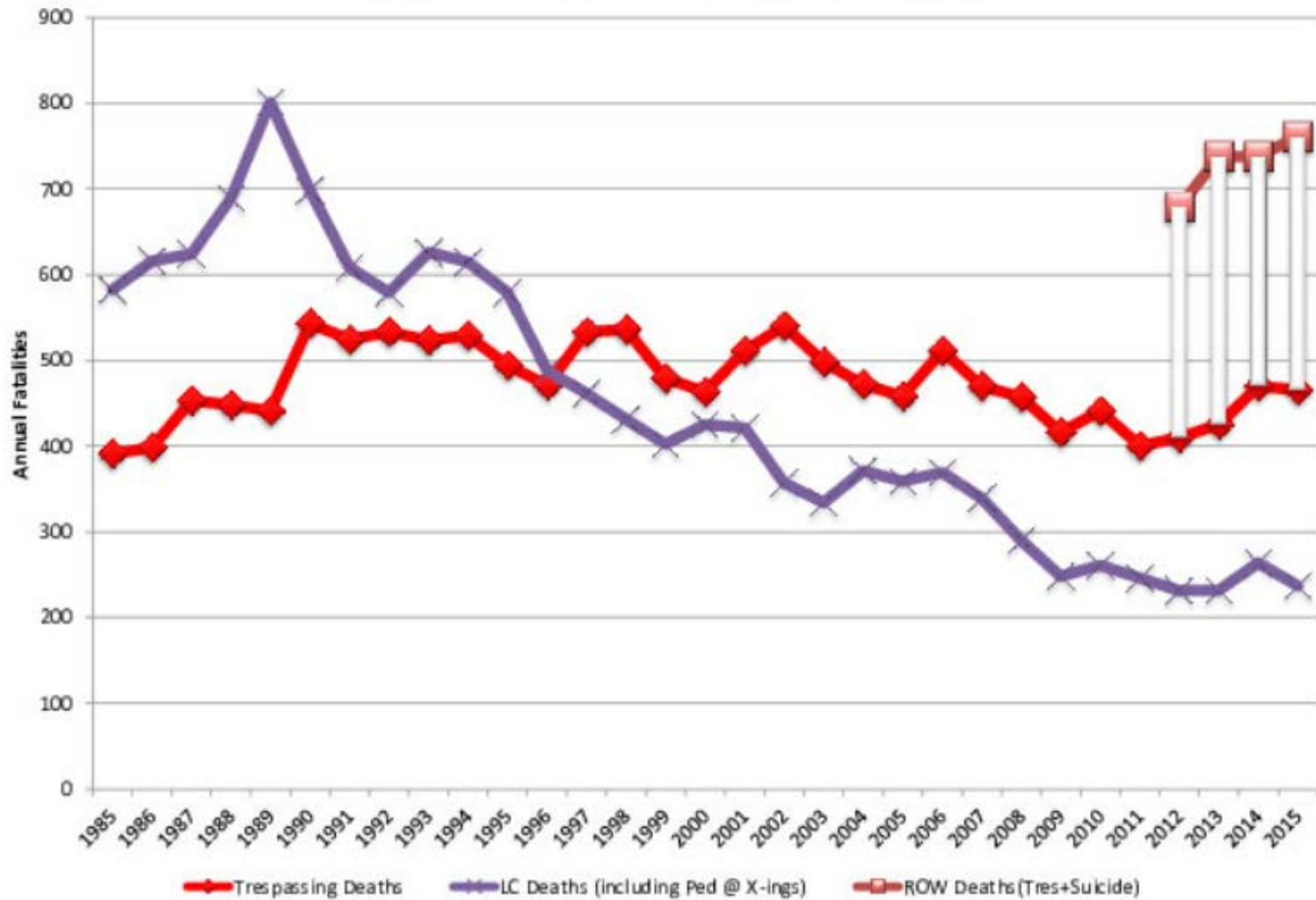
Commuter Rail

Regional entities

**Noise Abatement &
Blocked Crossings**

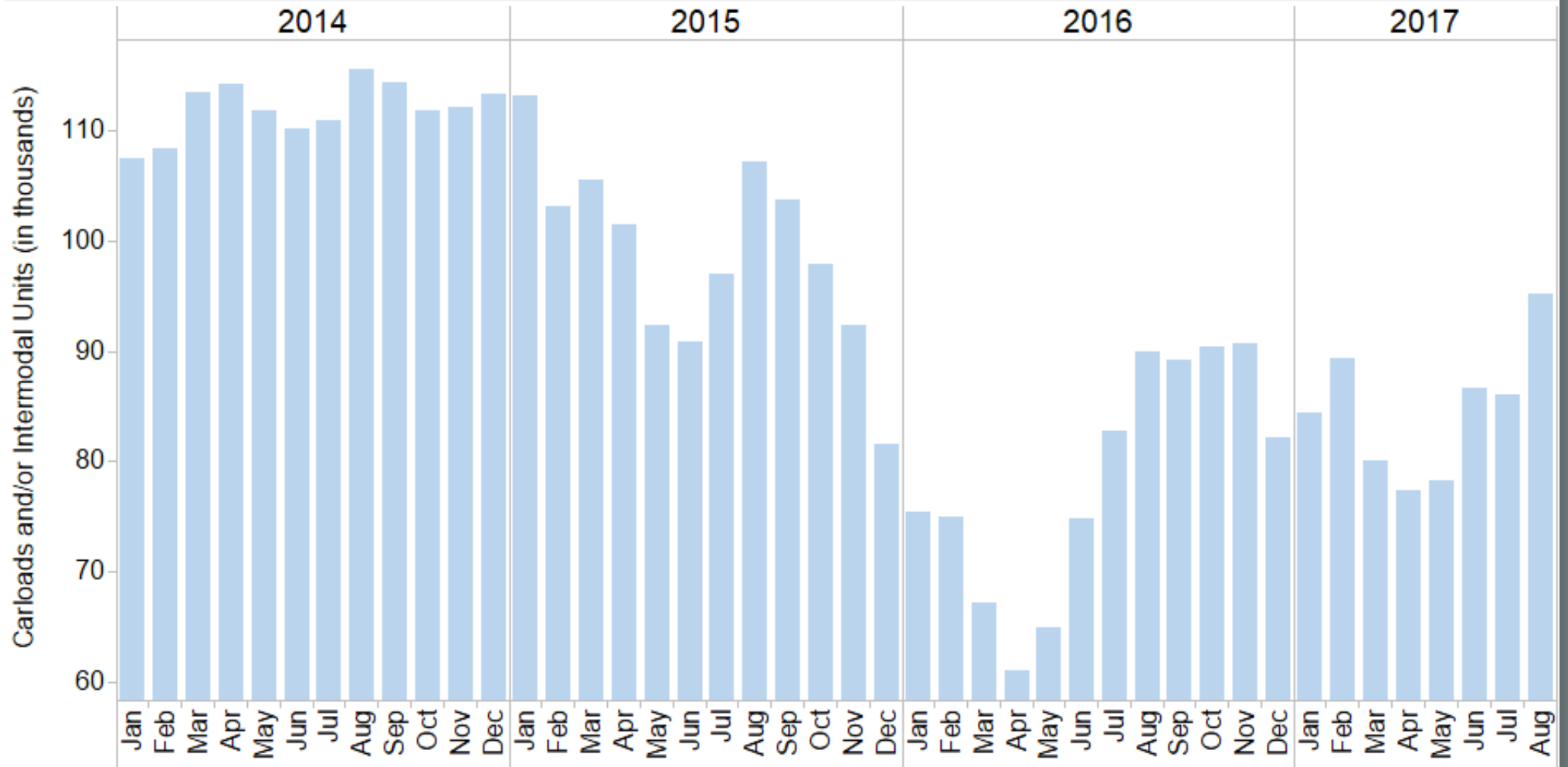
More local
orientation

U.S. Railroad Fatality Trend Level Crossings vs Deaths along the Rails



COAL

Average Weekly Rail Carloads
United States | Coal

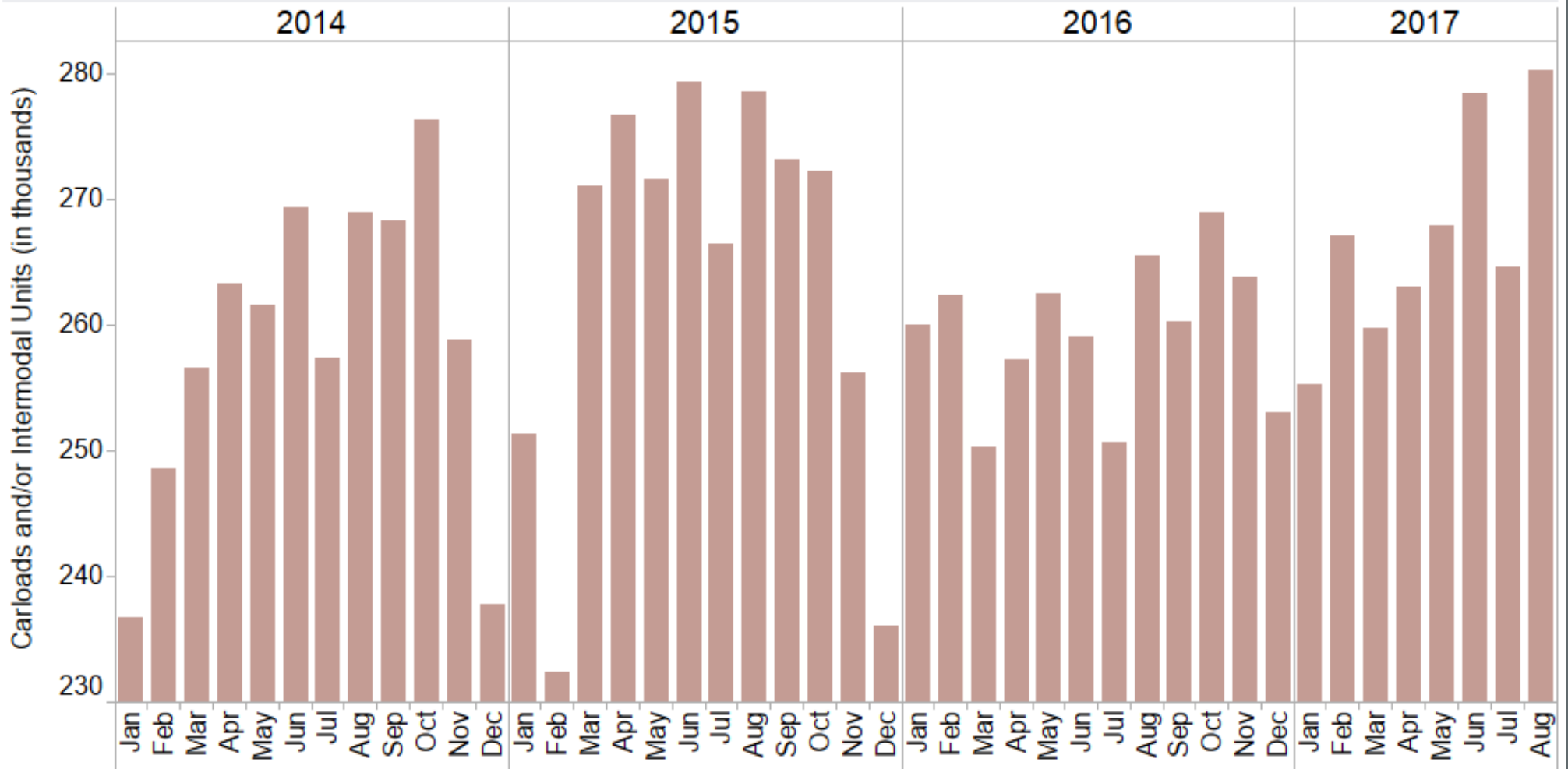


*Canada - Figures for Canada include the U.S. operations of Canadian railroads.

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

INTERMODAL

Average Weekly Rail Carloads
United States | Total Intermodal Units



*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.

PETROLEUM

Average Weekly Rail Carloads
United States | Petroleum and Petroleum Products



*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.

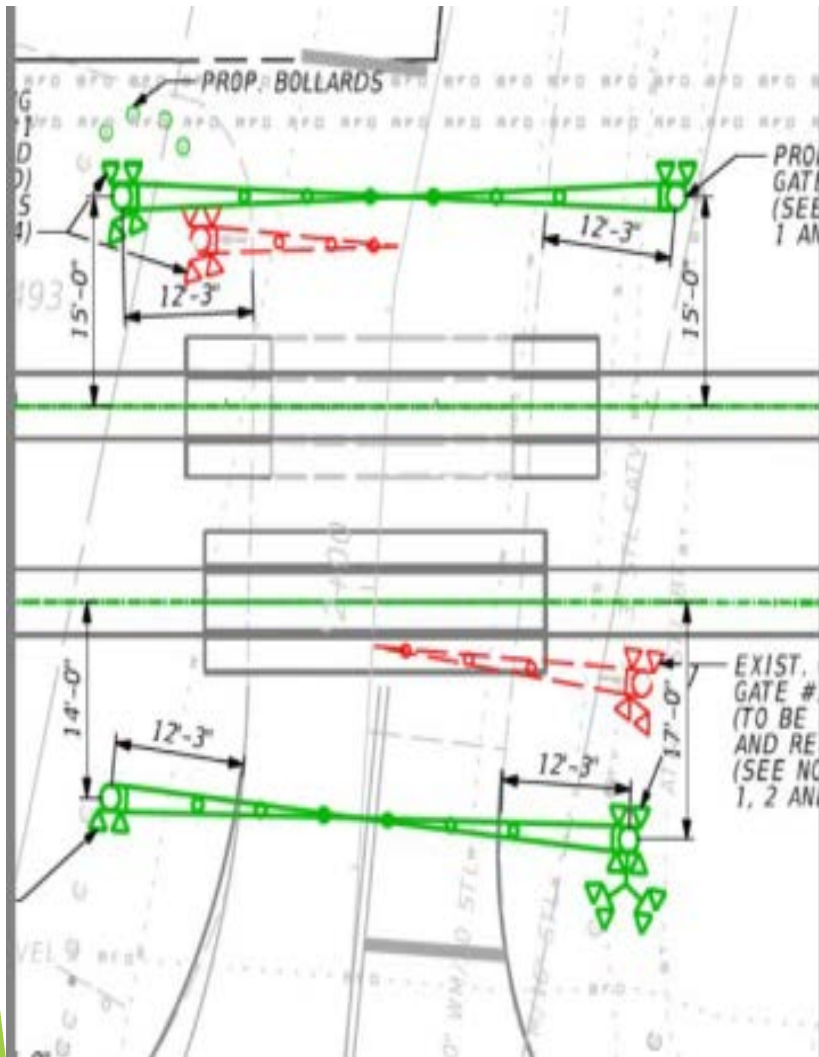
THANK YOU!



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

METRO
strategies



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.

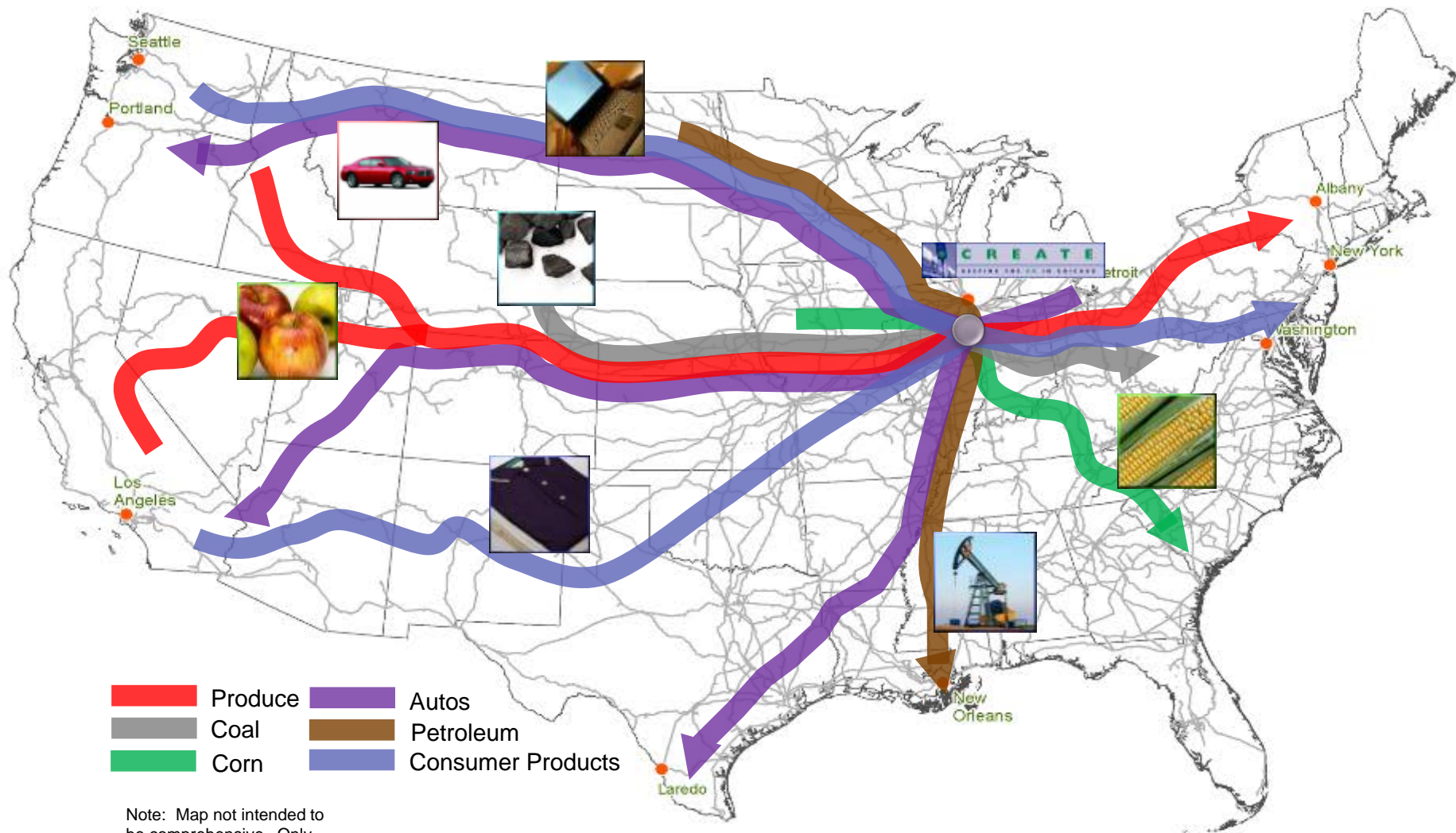


PUBLIC AND STAKEHOLDER INVOLVEMENT





CREATE: Keeping the Nation's Economy Moving



- | | | | |
|-------------------------------------------------------------------------------------|---------|-------------------------------------------------------------------------------------|-------------------|
|  | Produce |  | Autos |
|  | Coal |  | Petroleum |
|  | Corn |  | Consumer Products |

Note: Map not intended to be comprehensive. Only select flows displayed.



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)



Illinois Department of Transportation



ASSOCIATION OF
AMERICAN RAILROADS



CDOT
CHICAGO DEPARTMENT
OF TRANSPORTATION

Responsibilities

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

METRO
strategies



Grade Separations

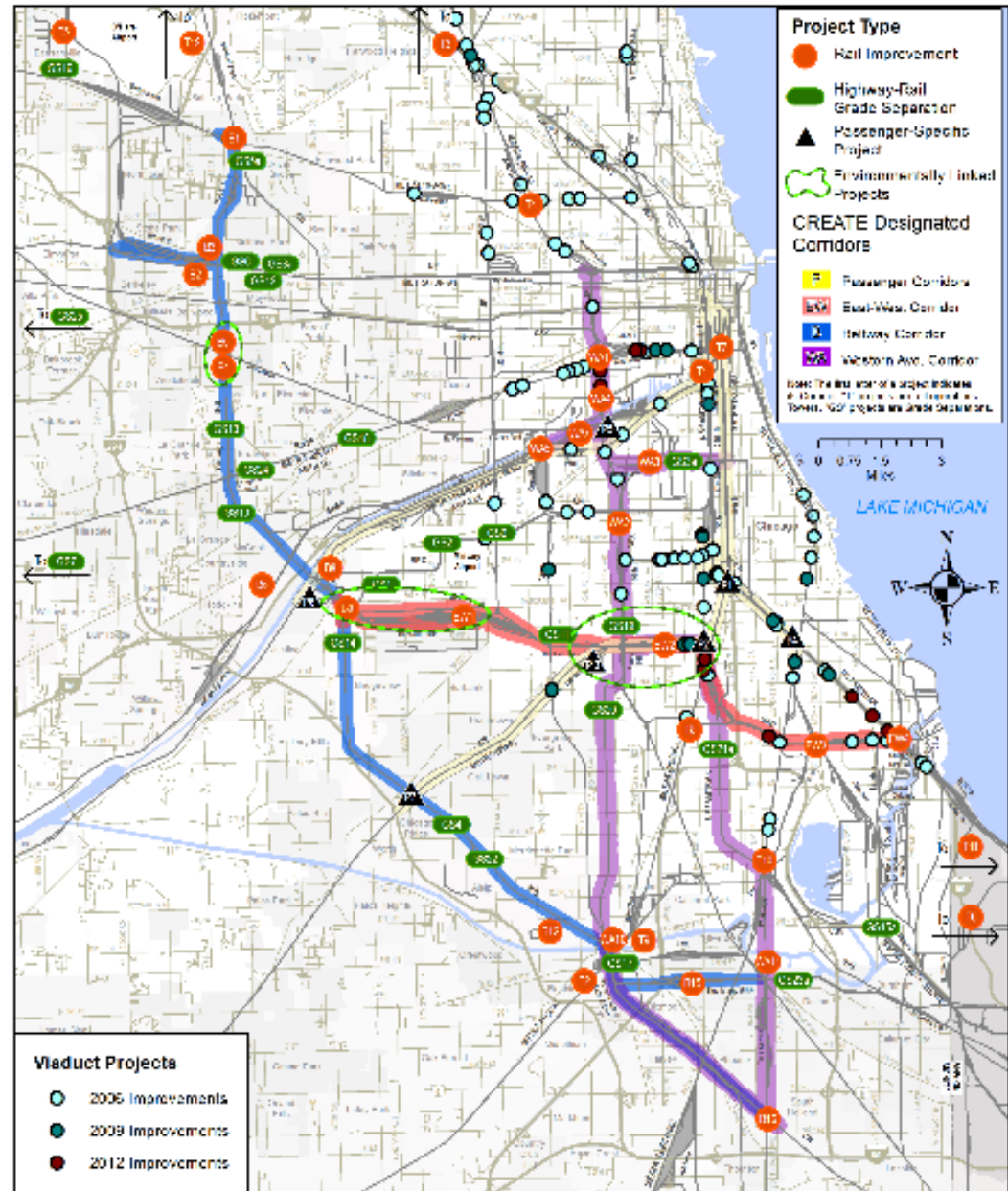
- Safety
- Quality of Life
- Air Quality



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



CONNECTING
COOK COUNTY
FREIGHT PLAN

Will County Community-Friendly Freight Plan

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



Will County Community Friendly Freight Mobility Plan

INDUSTRY OUTREACH SUMMARY

Freight Advisory Council



7 MEETINGS
60 PUBLIC & PRIVATE REPRESENTATIVES
2 WILL COUNTY BOARD EXECUTIVE COMMITTEE PRESENTATIONS



Truck Driver Outreach



Maps at 14 freight operator locations
100 UNIQUE PIECES OF INPUT



TRUCK DRIVERS – TELL US WHAT YOU THINK!

FREIGHT INDUSTRY	WORKFORCE
• 2 Forums - 55+ Attendees	• 2 Forums - 30+ Attendees
• 55 Freight Surveys completed	• 23 Workforce Surveys completed

FREIGHT AND WORKFORCE INTERVIEWS
29 Interviews with Freight Operators and Workforce/Human Resources Leaders



GLOBAL LOGISTICS SUMMIT 2017
Building the Future
Investing in Infrastructure and Talent

Presentation and information table
250+ ATTENDEES





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

The logo for the Metropolitan Planning Council, featuring two orange curved lines above the text.

Metropolitan **Planning** Council

National and Regional View of Rail

Audrey Wennink

October 11, 2017

Freight Flows by Highway, Railroad and Waterway, 2011



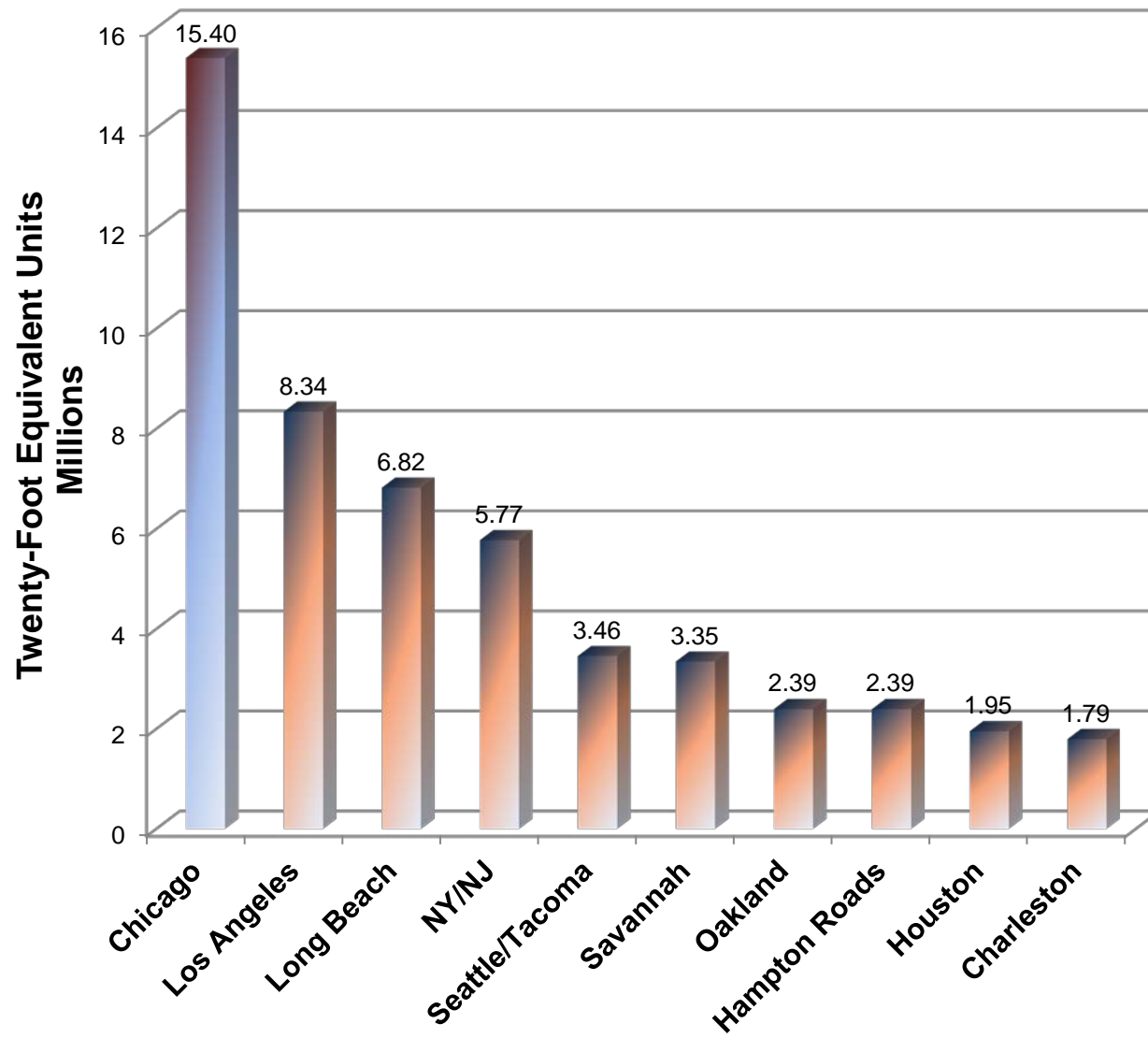
Source: Highways: U.S. Department of Transportation, Federal Highway Administration, Freight Analysis Framework, Version 3.5, 2015; Rail: Based on Surface Transportation Board, Annual Carload Waybill Sample and rail freight flow assignments done by Oak Ridge National Laboratory; Inland Waterways: U.S. Army Corps of Engineers, Institute of 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

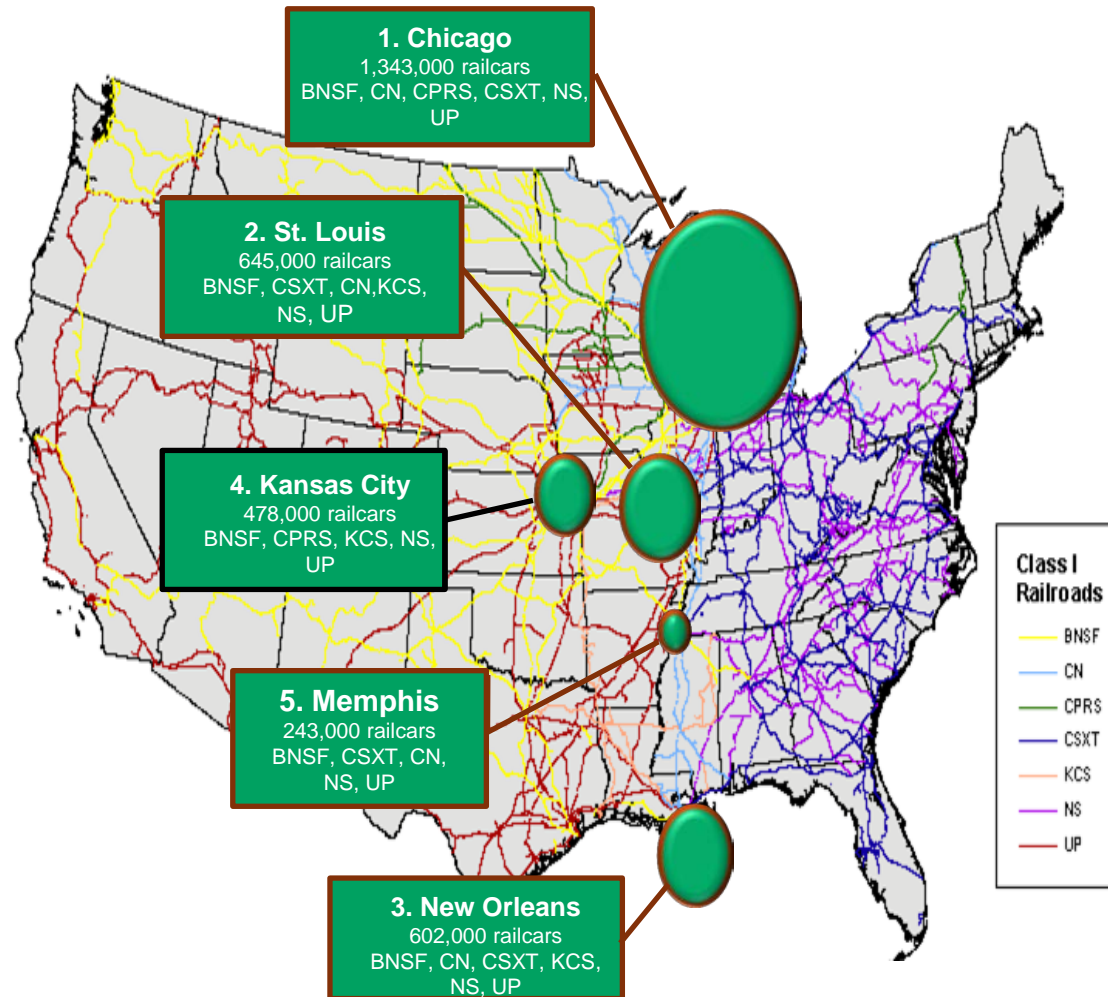


Intermodal Traffic



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 through-freight

Metra Commuter Rail

- 11 rail lines
- 241 stations
- 691 weekday trains



Amtrak

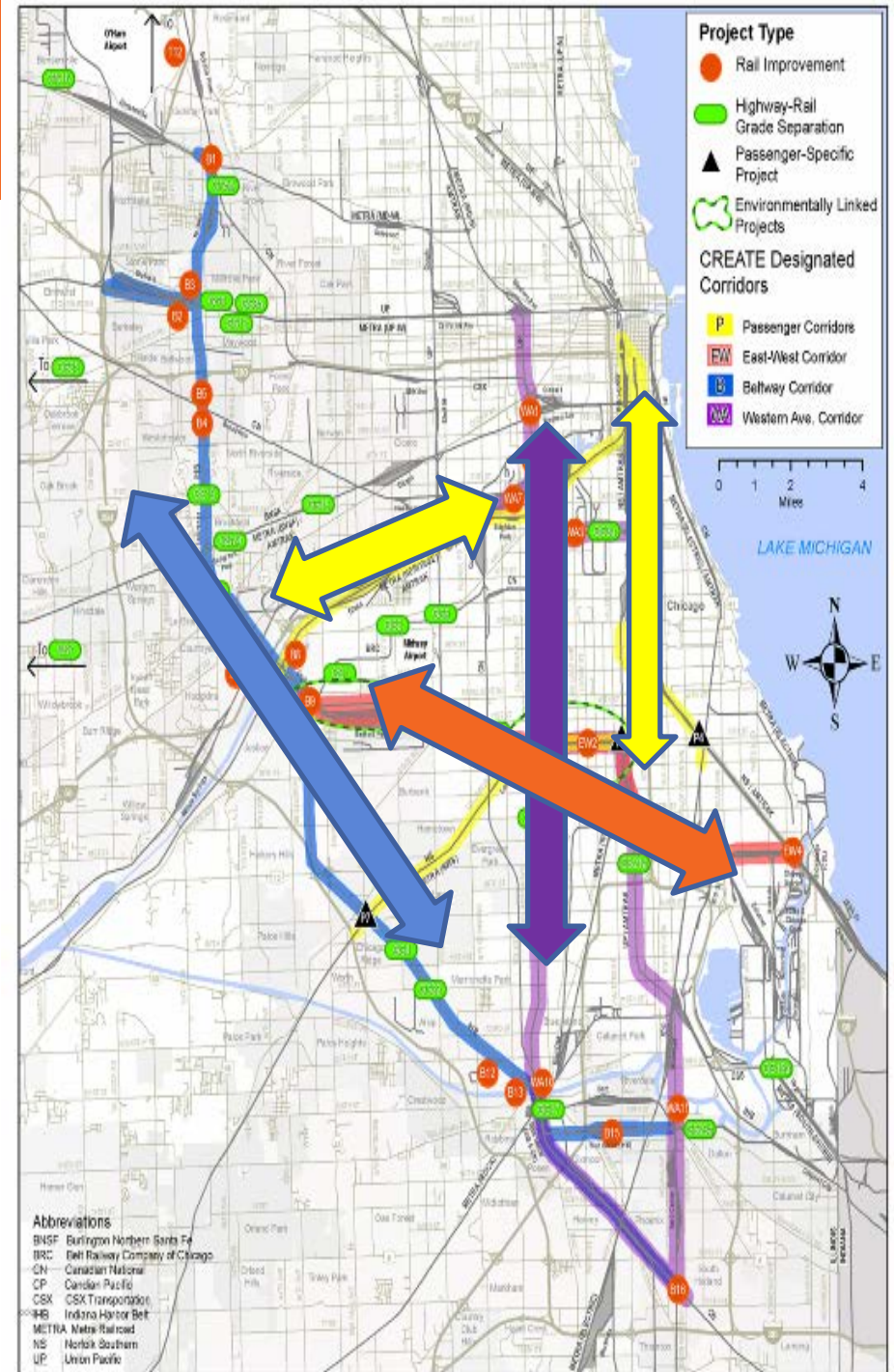


Freight Rail Benefits

- **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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