



8th University Transportation Center Spotlight Conference

## **The Role of Freight Transportation in Economic Competitiveness**

December 10–11, 2014

The Keck Center of the National Academies  
Washington, D.C.

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## WELCOME

The population of the United States may grow by 40 percent between now and the year 2050 and gross domestic product may increase by 150 percent in that time. Domestic production of crude oil, which has increased by 50 percent since 2008, is expected to grow—but not as rapidly as natural gas production, which is expected to increase by 50 percent between now and 2040. If these trends continue, the demand for freight transportation services will soar, affecting all modes of transportation and all regions of the country.

Historically, the highly developed transportation system in the United States has been a key factor in the nation's economic competitiveness, connecting population and economic centers and fueling supply-chain efficiency. Transportation will be even more important in the future as other nations invest heavily in transportation infrastructure and as world trade continues to grow.

Please join us for a dialogue on the role of freight transportation in economic competitiveness and help craft solutions to emerging issues and problems. At the Eighth University Transportation Center Spotlight Conference, we will concentrate on three key areas in which freight transportation can enhance economic competitiveness: (1) freight supply-chain operations, (2) transportation system resiliency, and (3) meeting the demands of changing energy markets. The questions we will explore include:

- How does transportation performance enable supply-chain efficiency?
- How do trends in supply-chain planning affect transportation policies and investments?
- How can the ability of a city, region, or nation to recover from severe weather events or security breaches affect its economic competitiveness?
- What can be done to improve the resilience of the freight transportation system?
- What role does the transportation system play in the shale energy revolution?
- How does the shale energy boom affect the need for transportation investments and economic competitiveness at the local, regional, and national levels?

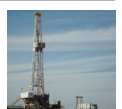
We invite you to participate in this important dialogue.

—Denver Tolliver  
Conference Planning Team Chair  
North Dakota State University



*Tolliver*

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## Wednesday, December 10

7:45 a.m.–8:30 a.m.

### Breakfast

8:30 a.m.–10:15 a.m.

### Welcoming Remarks

Denver Tolliver, Caroline Mays, Melissa Tooley, and Anne Strauss-Wieder

### Plenary Session: Overview

Mortimer Downey, Mort Downey Consulting, LLC (former Deputy Secretary of Transportation)

David Long, U.S. Department of Commerce

10:15 a.m.–10:45 a.m.

### Break

10:45 a.m.–Noon

### Plenary Session: Modal Perspectives on Freight Supply Chains and Economic Competitiveness

Melissa Tooley, Texas A&M Transportation Institute (TTI)

This session will provide a discussion of economic competitiveness from the perspectives of various modes: railroad, trucking, and maritime. Presenters will address the following questions:

- What challenges to each mode affect U.S. competitiveness in the global arena?
- What changes in policy, legislation, or systems would enhance economic competitiveness in each mode?
- What are the future challenges to each mode that would affect economic competitiveness?
- How can the research community help?

### Marine Perspectives

Heather Nachtmann, University of Arkansas

### Railroad Perspectives

John Gray, Association of American Railroads

### Trucking Perspectives

Bob Costello, American Trucking Associations

Noon–1:30 p.m.

### Lunch

1:30 p.m.–3:00 p.m.

### Plenary Session: Transportation System Resiliency

Anne Strauss-Wieder, A. Strauss-Wieder, Inc.

Disasters, both natural and manmade, can wreak havoc on local, regional, and national transportation systems. The ability of these systems to recover from disasters is crucial to their economic competitiveness and long-term viability. This session will explore the importance of resiliency in the context of maintaining and improving the economic competitive standing of these systems.

### Global Supply Chain Resilience

Janet Benini, U.S. DOT

### Private Industry Perspectives

Chris Luebbbers, Norfolk Southern

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3:00 p.m.–3:30 p.m.

**Break**

3:30 p.m.–5:00 p.m.

**Plenary Session: Energy Sector Development and Economic Competitiveness**

French Thompson III, BNSF Railroad

The energy boom has increased U.S. economic competitiveness and has established the link between an efficient, multimodal freight transportation system and economic prosperity. This session will offer discussion on the changing U.S. energy markets and on its effects on the freight transportation system and economic competitiveness. Speakers will address the following questions:

- What are the impacts of the shale energy development boom on transportation investments and economic competitiveness at the local, regional, and national levels?
- What transportation challenges, today and in the future, result from the booming energy development and how can these challenges be addressed?
- What are potential developments in local, regional, national, and international energy trade policy and what are their implications for the U.S freight transportation system and economic competitiveness?

**Energy Development in the 21st Century**

Helen Currie, ConocoPhillips

**The Effects of Energy Development on the American Consumer**

Michael Zehr, Consumer Energy Alliance

**Changes in Cargo Flows with U.S. Shale Oil Outbound and Impacts on Ports**

John LaRue, Port of Corpus Christi

5:00 p.m.–7:00 p.m.

**Reception and Poster Presentations**

Join us for the conference poster session and reception. Beverages and hors d'oeuvres will be served.

**Vulnerabilities to Texas Transportation due to the Mexican Energy Reform**

Alexander Bühler-Rose and Juan Carlos Villa, TTI

**Beyond Public vs. Private: Is There A Third Option to Improve the Economic Competitiveness of US Ports?**

Anthony M. Pagano and Bo Zou, University of Illinois at Chicago

**Using Information Technology to Improve the Competitiveness of Inland Waterways Freight Movement**

Alejandro Solis and Vijay Perincherry, HDR, Inc.

**The Economic Importance of Chickamauga Lock**

Larry Bray and Chrisman (Chris) Dager, University of Tennessee Center for Transportation Research

**Assessment of Border Wait Times Impact upon Manufacture's Just-in-Time Cargo Supply Chain While Crossing the El Paso–Juarez Border Corridor**

Bob Trotter, Brenda Manak, TTI

**The Cost of Railway Congestion and Delay**

Bo Zou and Tyler Dick, University of Illinois at Urbana–Champaign

**Transportation Engineering Education and Workforce Development Efforts in the Rio Grande Valley**

Carmen Pena and Angela Chapman, University Transportation Center for Railway Safety

**Bakken Shale Oil Development's Impact on Rural Roads**

Alan Dybing and Yasaman Kazemi, Upper Great Plains Transportation Institute

**Supply Chain Skills Shortage: A Threat to Economic Competitiveness?**

Evelyn Thomchick, Kusumal Ruamsook, Chris Craighead, and Martin Pietrucha, Pennsylvania State University

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**Which Is More Effective in Promoting the Economy? Economic Impact of Investment on Highway Construction and Highway Maintenance**

Lei Zhang and Eirini Kastrouni, University of Maryland, College Park

**Freight Management Tool for New Jersey DOT**

Pat Szary, Rutgers University, and Lazar Spasovic, New Jersey Institute of Technology

**Modeling Crude Oil by Rail Shipments and Potential Population at Risk Using Waybill Data and Geographic Information Systems**

Steven Peterson, Oak Ridge National Laboratory

**Economic and Operational Impacts of Commercial Trucks on Florida Freeways and Multilane Highways**

Seckin Ozkul, Center for Urban Transportation Research, and Scott Washburn, University of Florida

**Visualizing the Role of Intermodal Terminals on the Primary Freight Network: Uncovering Data Gaps for Systems Analysis**

Teresa Adams and Maria Hart, University of Wisconsin Madison Center for Freight and Infrastructure Research and Education

**Modeling Multimodal Freight Transportation Network Performance Under Disruptions**

Jing Dong and Micah Makaiwi, Iowa State University

**Understanding Government and Railroad Strategy for Crude Oil Transportation in North America**

Joel Carlson, CPCS Transcom Ltd., and Joseph Sussman, Massachusetts Institute of Technology

**Implementation of the Off-Hour Delivery Program in New York City**

Jeffrey Wojtowicz and Felipe Aros-Vera, Rensselaer Polytechnic Institute (RPI)

**Innovative Freight Data Collection Methods and Performance Measure at U.S.–Mexico Border**

Juan Carlos Villa, TTI

**Impact of Mexico's Northern Trade Corridor on Texas' Highway Infrastructure**

Megan Kenney and Jolanda Prozzi, TTI

**A Multifaceted Approach to Assessing Economic Productivity Impacts of Freight Transportation Investments**

Naomi Stein and Glen Weisbrod, Economic Development Research Group

**Potential Crude Petroleum National Transportation Network "Boom" Leading Indicator Methodology**

Ted Isbell and Konstadinos Goulias, University of California, Santa Barbara

**The Last 50 Miles: Making Place Matter in Evaluating Freight Systems Economic Performance**

Scott Bernstein and Sarah Campbell, Center for Neighborhood Technology

**Spatial Analysis of the Economic and Community Impacts of Freight Rail in Minnesota**

Thomas Horan, Claremont Graduate University, and Lee Munnich, University of Minnesota

**Multimodal Opportunities to Reduce the Effects of Changing Fuel Prices: Case Studies of Upper Midwest Forest Products Industry**

Pasi Lautala, Michigan Technological University

**Understanding the Role of Inland Navigation in Coal Movements**

Benjamin Blandford and Ted Grossardt, Kentucky Transportation Center

**Freight Generation, Freight Trip Generation and Land Use**

José Holguín-Veras and Miguel Jaller, RPI

**Impacts of Policy-Induced Freight Modal Shifts**

José Holguín-Veras and Miguel Jaller, RPI

**The Impact of Freight Transportation on the Competitiveness of Texas's Exports**

Jolanda Prozzi and Megan Kenney, TTI





**Thursday, December 11**

7:45 a.m.–8:30 a.m.

**Breakfast**

8:30 a.m.–10:00 a.m.

**Plenary Session: Global Freight Supply Chain Issues**

Reginald Souleyrette, University of Kentucky

This session will provide a discussion of the broader impacts of the supply chain. Presenters will address economic, international, and social issues. Multimodal topics include performance measures, reliability, and information systems.

**National Cooperative Highway Research Program Project 02-24: Assessing Productivity Impacts of Transportation Investments—A Multifaceted Approach to Assessing Economic Productivity Impacts of Freight Transportation Investments**

Naomi Stein, EDR Group

**Innovative Freight Data Collection Methods and Performance Measure at U.S.–Mexico Border**

Juan Carlos Villa, TTI

**Social Cost Pricing in Freight Transportation**

David Austin, U.S. Congressional Budget Office

10:00 a.m.–10:30 a.m.

**Break**

10:30 a.m.–Noon

**Parallel Breakout Discussion Groups**

Attendees will split into three breakout groups of approximately equal size, each moderated by a planning committee member, for deeper discussions of the topics listed below.

**Group 1**

**Freight Supply Chains**

Melissa Tooley, TTI

**Group 2**

**Transportation System Resiliency**

Anne Strauss-Wieder, A. Strauss-Wieder, Inc.

**Group 3**

**Energy Sector Developments**

Caroline Mays, Texas DOT

Noon–1:30 p.m.

**Lunch**

1:30 p.m.–3:00 p.m.

**Breakout Session Reports**

3:00 p.m.–4:00 p.m.

**Closing Session: Final Discussion and Adjournment**

December 10–11, 2014



## Save the Date

### Transportation Research Board 94th Annual Meeting

January 11–15, 2015  
Washington, D.C.

## Save the Date

### Transportation for Sustainability™

*An International Conference*

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