

FREIGHT
POLICY
TRANSPORTATION
INSTITUTE

Newsletter



FROM THE DIRECTOR

It's a pleasure to welcome the reader to this Spring 2017 edition of the Freight Policy Transportation Institute (FPTI) Newsletter. Much has changed over the past two years in terms of freight movements (volumes), freight research funding (FAST Act) and presidential leadership. The Freight Policy Transportation Institute has also experienced some major changes including both staff and leadership. Associate Professor Jeremy Sage accepted a new position at the University of Montana and Associate Professor and Co-Director Eric Jessup returned to the School of Economic Sciences at WSU and the FPTI after spending 4 years at the University of Freiburg, Germany and two years at Informa Economics. The composition of the Technical Advisory Committee has also changed, with some new additions noted in this issue below.

The overall mission and goal of the FPTI hasn't changed as we continue to undertake research on a variety of topics and issues that will improve our understanding of the importance of efficient and effective freight transportation to both the national economy as well as to regions, states and international trade. We continue to focus on freight research topics and advancing those policies and actions that can be implemented to lower operating costs, increase safety, and lower environmental impacts of freight transportation nationwide. The benefits of improved freight transportation performance to specific industries and sectors of the economy are also important objectives of this Institute and its projects.

This Institute is currently funded for another two-year period, with further funding under negotiation. With the support of Senator Patty Murray, the USDOT has become the main contact for financial support and guidance for the research projects within the overall plan. The continuing approach of the FPTI will be to partner these resources with other entities in joint projects with attendant funding.

As we begin 2017, we welcome your input on emerging freight issues and also as a partner on future research projects.

Background/History

The Freight Policy Transportation Institute follows a long and rich history in transportation economic policy and research at Washington State University, beginning with James C. Nelson (1947-1975). Professor Nelson was an early advocate for deregulation of truck and rail systems in the U.S. and his policy research helped define and shape the subsequent deregulation of these industries. In addition, many of his students in transportation research became very prominent leaders in both the private and public transportation sectors, continuing his legacy through their work. One of these students, Ken L. Casavant joined the faculty at Washington State University in 1972 and has developed a national reputation in freight transportation research and policy during his distinguished tenure and career and currently serves as the Director of the FPTI. One of Casavant's students, Eric Jessup completed his PhD in 1998 and joined the faculty in 2003 and has recently returned to the School of Economic Sciences and currently serves as the Co-Director.

The two well-known, earlier national freight research and implementation studies that have contributed significantly to national freight data and transportation policy research include:

- ✓ Eastern Washington Intermodal Transportation Study (EWITS) 1993-1998
www.ewits.wsu.edu
 - Funding: \$1.25 million over six years
 - Mission: Forecast transportation needs, identify gaps and present policy options that provide solutions
 - Impact: Publications: 49 reports, journal articles and working papers
 Presentations: 35
 Student Training: 11 masters and PhDs
 Data Requests: >115

- ✓ Strategic Freight Transportation Analysis (SFTA) 2003-2009
www.sfta.wsu.edu
 - Funding: \$2.43 million over six years
 - Mission: Improved freight mobility and economic vitality
 - Impact: Publications: 27 reports, journal articles and working papers
 Presentations: 48
 Student Training: 16 masters and PhDs
 Data Requests: >100

- ✓ Freight Policy Transportation Institute (FPTI) 2009-Present
www.fpti.wsu.edu
 - Funding: \$1.67 million over 8 years
 - Mission: Conduct research and analysis to help guide policymakers and regional transportation planners in the improvement of transportation, distribution, logistic and economic efficiencies



James C. Nelson
(1947-1975)



Ken L. Casavant
Director
(1972-2017)



Eric L. Jessup
Co-Director
(2003-2017)

Freight Policy Transportation Institute Faculty



Ken Casavant
Director

Ken is a Professor in the School of Economic Sciences and a nationally renowned transportation economist. His research focuses on transportation policy and agricultural and rural transportation.



Eric Jessup
Co-Director

Eric is an Associate Professor in the School of Economic Sciences. His current research foci includes freight network modeling, logistics/GIS, and transportation economics.



Jia Yan

Jia is an Associate Professor in the School of Economic Sciences. His research focuses on infrastructure pricing/tolls, motorists travel preferences, and assessing water port and airport efficiency.



Vicki McCracken

Vicki is a Professor in the School of Economic Sciences. Her research focuses on consumer demand, econometrics/statistics, and transportation demand analysis.

New FPTI Technical Advisory Committee (TAC)

Glen Squires, Chair, Executive Director, Washington Grains Commission, Spokane, WA

Charlie Howard, Director of Planning, Puget Sound Regional Council, Seattle, WA

Ashley Probart, Executive Director, Freight Mobility Strategic Investment Board, Olympia, WA

Bruce Blanton, Director, Transportation Services Division, Agricultural Marketing Service, USDA

Scott Drum, Director, Research & Strategic Analysis, Port of Portland, Portland, OR

Kristin Meira, Executive Director, Pacific Northwest Waterway Association, Portland, OR

Greg Guthrie, Director of Agricultural Products, Burlington Northern Sante Fe Railroad, Portland, OR

Doug Brodin, Freight Research Manager, Washington State DOT, Olympia, WA

(invitation **USDOT, Darren Timothy, Ryan Endorf**)

Recent Research Projects & Studies

The Freight Policy Transportation Institute (FPTI) has been focused on several different freight transportation issues. Below is a list of the more recent research efforts and the partnered agencies. The FPTI is designed to offer detailed freight policy analysis to aid federal and state policymakers, state/local policy planners and the regional freight community on relevant policy issues.

- ✓ **USDA National Agricultural Transportation Study, USDA**
This study updates the earlier (2013) effort conducted by the FPTI and the USDA evaluating national rural and agricultural transportation needs. This was just completed in the fall of 2016, to be published in early 2017.
- ✓ **Benefits of Transportation Investments: How You Measure Matters, WSDOT**
Published in the magazine Choices, this study looks at different types of transportation investments and the different types of measuring economic impacts resulting from those investments.
- ✓ **Palouse Regional Freight Study, Palouse, WA Regional Transportation Planning Organization**
Developed the freight plan for Palouse RTPO, to prepare for future freight investment possibilities.
- ✓ **U.S. 95 Freight Multi-Modal Corridor Supply Chain Analysis, Idaho Department of Transportation**
Evaluated the U.S. 95 corridor between Lewiston and Boise, ID and the supply-chains supported by this multi-modal corridor.
- ✓ **Evaluation of Social Costs of Modal Diversions: A Multi-Modal Safety Analysis, Pac-Trans Region 10 University Transportation Center**
Estimated the societal cost and impacts from diverting rail and barge freight onto roads and highways.
- ✓ **Shortline Rail Inventory & Needs Assessment, Washington State Department of Transportation**
Evaluated the shortline railroad infrastructure in Washington State and developed an inventory and investment needs prioritization.
- ✓ **Performance-Measured Based Asset Management Tool for Rural Freight Mobility, Idaho Department of Transportation**
Developed an asset management approach to transportation infrastructure that is rooted in freight system performance enhancements.
- ✓ **Pacific Northwest Wheat Supply Chain Study, Washington State Department of Transportation**
Determined issues and efficiencies of the wheat supply chain under various policies.



Current Projects & Studies

The Freight Policy Transportation Institute (FPTI) is also currently engaged in several important research efforts, including these listed below.

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✓ **Spatial and Economic Analysis of Electronic Log Device (ELD) Requirement on the Transportation of Live Cattle**
Electronic Logging Devices (ELDs) on all commercial vehicle operations will be required as of December 18, 2017 with the exception of drive-away towing operators, commercial vehicles older than model year 2000 and any drivers who utilize paper record of duty status (RODS) less than 8 days during any 30-day period. The ELD requirement by the Federal Motor Carrier is intended to improve commercial vehicle safety and also to better track and manage hours of service performance for commercial truck drivers. This study investigates the likely impact to shippers of live cattle by developing two truck transportation cost functions, one each for prior and after implementation of the ELDs requirement. The data to develop these cost functions originates from a survey of live cattle shippers and industry operators throughout the Pacific Northwest and Upper Midwest United States.
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✓ **Confounding Factor Analysis of Commercial Motor Vehicles in Safety Critical Events, Pac-Trans Region 10 University Transportation Center**
This study seeks to uncover existing relationships between motor carrier hours of service (HOS) observations and a set of potential confounding safety factors related to time of day, circadian status, total awake time, roadway type and driving conditions among others. These relationships are addressed by seeking to control for confounds.
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✓ **Improved Methodology to Evaluate the Benefits of Highway Preservation, Washington State Department of Transportation**
Several state DOTs utilize the FHWA developed Highway Economic Requirements System, State Version (HERS-ST) model to quantify the benefits associated with new project construction and also existing road preservation and maintenance projects. The existing research on estimating the economic benefits of highway projects is not explicitly focused on estimating the benefits of preservation and maintenance type projects. Since many preservation type projects fail to yield measurable reductions in travel time or other benefit categories, highway and bridge preservation projects are often prioritized below new infrastructure construction, thus placing preservation related improvements at a disadvantage. This study is focused on improving this estimation process.
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✓ **Impact of Columbia/Snake River Extended Lock Outage Study**
The Columbia Snake River System in the Pacific Northwest will undergo a sustained lock outage, eliminating barge transportation on much of the upper Columbia and all of the Snake Rivers beginning December 2016 and continuing 14-16 weeks. The impact of this loss of a major mode of transportation may be substantial and the impact on demand for other transportation modes will be significant. This study surveys shippers utilizing this transportation system and the likely impacts from diverted traffic.

Future Focus / Priorities

Below are the tentative priorities and focal areas for the FPTI over the next two years.

✓ Freight Data Repository

The foundation of supporting scientific research, educational outreach and technology transfer activities begins with improved access and availability to freight data. This research theme aims to make freight data and information available to a broader audience of impacted constituents, researchers, policy analyst and industry participants through the development of a freight data repository and warehouse that coalesces freight specific data from a variety of sources. The need for improved freight data has been highlighted in several national research efforts, including the Strategic Highway Research Program (SHRP2 Report S2-C20-RW-2, Freight Demand Modeling and Data Improvement Strategic Plan) and the National Cooperative Freight Research Program (NCHRP Report 26, Guidebook for Developing Subnational Commodity Flow Data).

✓ Freight System and Supply Chain Modeling

This research theme builds from the first, once access to freight data and information is more readily accessible, the ability to model different aspects of the freight system more accurately and robustly likewise increases. This research focus will primarily concentrate on those supply chains representing significant economic activities throughout the Pacific Northwest, including agricultural and food systems, energy and manufacturing/warehousing. These freight system models will bridge multiple modes.

✓ Freight Transportation Infrastructure Funding

The need for improved investments in transportation infrastructure is well understood. Yet the avenue and financial mechanism for achieving those investments and where they should be made is not clear, particularly given the new political reality associated with incoming conservative administration and congress calling for reduced taxation and smaller government budgets. The research faculty within the School of Economics at Washington State University has investigated infrastructure financing issues in the past, particularly those associated with shortline rail investments, port and facility expansion and development and highway cost allocation studies. This research theme will continue to become more relevant into the future.

✓ Policy Analysis and Economic Impact Assessment

The Freight Policy Transportation Institute will continue to provide public policy analysis and economic impact assessment to local, regional and national policy makers considering a plethora of transportation policy choices. This follows a long history from the School of Economic Sciences at Washington State University.



FPTI



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FPTI Welcomes Your Input

The Freight Policy Transportation Institute welcomes your input and ideas regarding issues that may be considered for future research. One important aspect of the FPTI's mission is to respond to emerging freight transportation issues as they arise, an adaptive research management style that allows resources and expertise to respond to critical issues as they occur. If you would like to submit an idea or issue, please complete the form on our website at:

www.fpti.wsu.edu