

Transportation Tidbits



Greetings!

Welcome to the February issue of the Transportation Tidbits Newsletter! This issue of the newsletter will provide you with updates on graduate school news, important NDSU dates, and recent/upcoming happenings in the transportation field. This issue also includes a variety of upcoming transportation conferences, workshops, and webinars. As always please feel free to [let us know](#) if you have any questions or comments. Enjoy!

Important Dates for NDSU Students

2/2: Last day to submit requests to Audit, Pass/Fail

2/6: Undergraduate / Professional Spring Degree Applications due

2/15: Late fee

UGPTI Recognizes Graduate Students and Faculty for Research Presentations

The Upper Great Plains Transportation Institute would like to recognize several individuals for their outstanding research on various transportation topics. The following NDSU Graduate students and faculty will be acknowledged for their research contributions by presenting at the 56th Annual Transportation Research Forum on March 12-14, 2015 in Atlanta, Georgia.



Yong Shin Park will be attending TRF with his poster "Assessing the Ecosystem Goods and Service of U.S Modal Freight: Supply Chain Linked Cradle-to-Gate Ecological Based Life Cycle Model". In this poster, they develop a model which assess ecosystem and service of U.S modal freight of industrial sector using Ecological based life cycle assessment. Authors: Yong Shin Park and Gokhan Egilmez

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unpaid
account
balances (11:59
p.m.)

2/16: HOLIDAY -
Presidents' Day
(no classes,
offices closed)

2/23: Last day
to Withdraw to
Zero Credits @
75% refund* (full
semester
classes only)

2/27: Graduate
student Spring
Intent to
Graduate forms
due

Recent News Updates

[Construction
underway on
America's first
high-speed rail](#)

[Making
Bicycling and
Pedestrian Data
Count](#)

[Administration
uses innovative
financing to
increase
infrastructure
investment](#)

[Our path to the
future requires
21st Century
transportation](#)

Jaesung Choi will present two posters and two papers at TRF. His first poster is "Effects of the rise in oil price on ethanol fuel consumption in the U.S. transportation sector" and focuses on ethanol fuel production and oil price elasticity of ethanol fuel consumption in 14 U.S. States. Authors: Jaesung Choi and David C. Roberts



The second poster Choi will present is titled "Effects of Air Pollution on the Productivity Growth in the Air and Truck Transportation Industries in the U.S.: An Application of the DEA Malmquist Environmental Productivity Index". The concentration of this poster is on the effects of air pollution on productivity growth in the air and truck transportation industries.

Authors: Jaesung Choi and David C. Roberts

Choi's first paper that he will present at TRF is called "Productivity growth in the transportation industries in the United States: An Application of the DEA Malmquist productivity index". The emphasis of this paper is on productivity growth in the five major transportation industries in the United States (airline, truck, rail, pipeline, and water) and the pooled transportation industry. Authors: Jaesung Choi, David C. Roberts, and EunSu Lee

Choi's second presentation "Forecast of CO2 Emissions from the U.S. Transportation Sector: Estimation from a Double Exponential Smoothing Model" will also be recognized at TRF. This presentation focuses on whether the decrease in U.S. CO2 emissions from the transportation sector since the end of the 2000s will be consistent across all states in the nation for 2012-2021. Authors: Jaesung Choi, David C. Roberts, and EunSu Lee



Nick Ghani (N. Muhammad Aslaam Mohamed Abdul Ghani) will be recognized for his paper titled "ECO-EFFICIENCY OF U.S. CONTAINER PORTS USING DATA ENVELOP ANALYSIS (DEA)". The paper's emphasis is on to present the analysis of the eco-efficiency of U.S. container ports and touch on the two stages involved in the methodology of this research. Authors: N. Muhammad Aslaam, EunSu Lee, and Yong Shin Park

Elvis Ndembe will attend the TRF and present two papers. His first paper is called "Marketing Hard Red Spring Wheat in Shuttle Trains: Railroad Pricing in a seemingly Captive Market". The main aim of this papers is to comparatively asses the benefits of using shuttle trains relative to other rail services in shipping hard red spring wheat from North Dakota.



Ndembe's second paper is titled "Estimating the Technical (TE) and Allocative Efficiency (AE) of the U.S. Class I Railroad: A Data Envelopment Analysis". The main focus of this paper is to decompose the efficiency of the industry into its two main component parts: TE and AE using Data Envelopment Analysis (DEA) with data for the period between 1997 and 2011.

[Data crunch shows automotive technology is saving lives](#)

UGPTI in the Spotlight

[Safety Talk - Get Your Workers Back in Control](#)

[ND Asphalt Conference Registration and Sponsorship Now Available](#)

[North Dakota Implementation of Mechanistic-Empirical Pavement Design Guide \(MEPDG\)](#)

[Selection of Interest and Inflation Rates for Infrastructure Investment Analyses](#)

[2015 North Dakota GIS Users Conference Monthly Grain Industry Reports Updated](#)



Fesseha Gebremikael will be recognized for his poster, "U.S Freight Transportation eco-efficiency Performance Measure and Benchmarking State by State". The focus of this poster will assess the direct and indirect environmental impact of 33 U.S. Food manufacturing sector's modal freight activity, employing the Economic Input-Output Life Cycle Assessment (EIO-LCA). It will also emphasize data envelopment analysis used to determine the eco efficiency score of modal freight of each food manufacturing sector. Authors: Fesseha Gebremikael and Yong Shin Park

Zijian Zheng is presenting his paper "HEAVY VEHICLE IMPACT ON RURAL TWO LANE HIGHWAY SEGEMENTS OPERATING UNDER VARIOUS LEVELS OF SERVICE CONDITIONS" at the TRF. In this research, to calculate passenger car equivalent (PCE) factor of heavy vehicles, such as oil trucks, on two-lane rural highway, an improved analytical method based on headway and delay is introduced. Authors: Zijian Sheng and Pan Lu



EunSu Lee will be recognized for his TRF paper titled "Feedstock Import Options Regarding Transportation Systems for Asphalt Production". This paper examines the logistics and distribution channels for importing heavy crude oil, which is a source of bitumen. Authors: EunSu Lee and Raj Bridgelall

Eileen (Anne) Campbell is presenting her TRF paper "Capital Investment Needs of the Small Railroads". This paper examines the capital investment needs of the Class II and Class III railroads in the United States. Authors: Anne Campbell and Rodney Traub Ph.D.



Group Picture



Back row: Fesseha Gebremikael, Elvis Ndembe, and Nick Ghani
Front row: EunSu Lee, Yong Shin Park, Anne Campbell, and Jaesung Choi
Not pictured: Zijian Zheng

The UGPTI would also like to recognize Jaesung Choi and EunSu Lee for their contributions to the Transportation Research Board (TRB) 94th Annual Meeting. The TRB meeting was held January 11-15th, 2015 in Washington, D.C..

Jaesung Choi and EunSu Lee were recognized for their paper "Reshaping Tribal Road Network Using Public Information" and gave an oral presentation at the meeting. This paper studied the development of: 1) a navigable road network achieved by improving connectivity between road segments, updating road information, and making a comprehensive network; and 2) a standard process for integrating the state and federal local road information. Authors: Jaesung Choi, EunSu Lee, and David C. Roberts

For more information regarding student and faculty presentations or abstracts please contact our Administrative Assistant Jody Wendt at jody.wendt@ndsu.edu.

Webinars

There are many upcoming [webinars](#) available on the TRB website including:

- **February 9, 2015-** [Maintenance Training and Certification Programs](#)

- **February 11, 2015-** [Planning for Safety Considerations on Airfields](#)
- **February 17, 2015-** [Decisions are Made on Tuesday Mornings - The Role and Requirements for Data in the Decision-Making Process](#)
- **February 24, 2015-** [Factors that Influence Air Service Development](#)
- **February 26, 2015-** [Performance of WMA Technologies: Stage I - Moisture Susceptibility](#)

Upcoming Conferences

- **2015 Joint Rail Conference**
 - [March 23-26, 2015](#)
 - [San Jose, California](#)
- **Moving Active Transportation to Higher Ground: Opportunities for Accelerating the Assessment of Health Impacts**
 - [April 14-15, 2015](#)
 - [Washington, D.C.](#)
- **Ferry Safety and Technology: Design and Operations Conference**
 - [April 16-17, 2015](#)
 - [New York City](#)
- **AASHTO GIS for Transportation Symposium**
 - [April 19-22, 2015](#)
 - [Des Moines, Iowa](#)
- **2015 International Highway Technology Summit (IHTS)**
 - [April 21-23, 2015](#)
 - [Shanghai, China](#)
- **IBTTA Transportation Finance & Road Usage Charging Conference**
 - [April 26-28, 2015](#)
 - [Portland, Oregon](#)
- **Transportation for Sustainability- An International Conference**

- May 7-8, 2015
- Washington, D.C.

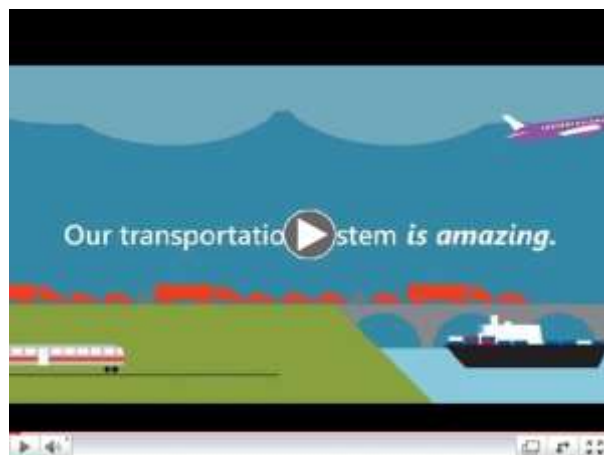
- **2015 International Choice Modelling Conference (ICMC)**
 - May 10-15, 2015
 - Austin, Texas
- **15th TRB National Transportation Planning Applications Conference**
 - May 17-21, 2015
 - Atlantic City, New Jersey

Workshops/ Meetings

- **Data Analysis Working Group Forum on Pavement Performance Data Analysis**
 - January 10, 2015
 - Washington, D.C.

- **2015 TRB 94th Annual Meeting**
 - January 11-15, 2015
 - Washington, D.C.

- **2015 Shifting International Trade Routes Workshop**
 - January 29-30, 2015
 - Tampa, Florida



Beyond Traffic

Beyond Traffic is an invitation to the American public—including the users, developers, owners, and operators of the transportation network and the policy officials who shape it—to have a frank conversation about the shape

size, and condition of that system and how it will meet the needs and goals of our nation for decades to come.

NDSU UPPER GREAT PLAINS TRANSPORTATION INSTITUTE

If you have items you would like to submit for our next monthly tidbits newsletter, please email Jody Wendt at jody.wendt@ndsu.edu by the 15th of the month.