DEAR FORUM ATTENDEES,

Welcome to the 58th Transportation Research Forum on behalf of the association’s Chicago Chapter. This year's Forum has a shortened and more intensive format, developed as part of the new TRF strategic plan. Each presentation is supported by a written paper that has been carefully read by several reviewers with extensive experience in the transportation field. We expect more than 160 people in attendance, demonstrating clearly the momentum behind the strategic plan.

Our Forum kicks off with a Graduate Student Session featuring 14 presenters from universities across the country and the world. Up-and-coming researchers are given a prominent venue to share results and receive expert feedback. Thursday's program also features a Poster Session held concurrently with our Welcome Reception. We hope you’ll join us for remarks at 6:30 p.m.

Friday’s full-day of sessions features a wide-ranging body of cutting-edge research on topics from shared mobility to air travel, rail freight, roadway congestion and rural transportation. Our Awards Luncheon offers an opportunity to highlight excellence in the field of transportation.

If you plan to stay in town through Saturday morning, you and a companion can attend a downtown tour free of charge! More information is included on page 12.

Of course, this conference would not be possible without the generous financial and in-kind support of our sponsors and partners. We also extend sincere thanks to the TRF Foundation for providing scholarships to students to take part in the conference.

Ian Savage, Northwestern University
Joe Schwieterman, DePaul University
Conference Co-Chairs, TRF Chicago Chapter

TRANSPORTATION RESEARCH FORUM

Founded in 1958, TRF is a forum for discussion and debate on transportation topics of current interest, and serves as a grassroots organization in which TRF local chapters play an important role. Our goal is to provide quality discussion and research in the field of transportation, with a strong focus on economics, business, and policy.

MISSION STATEMENT

The Transportation Research Forum (TRF) is an independent organization of transportation professionals. Its purpose is to provide an impartial meeting ground for carriers, shippers, government officials, consultants, university researchers, suppliers, and others seeking an exchange of information and ideas related to both passenger and freight transportation. The Forum provides pertinent and timely information to those who conduct research and those who use and benefit from research. This exchange of information and ideas is accomplished through international, national, and local TRF meetings and by publication of professional papers related to numerous transportation topics.

VIEW THE PROGRAM AND READ CONFERENCE PAPERS VIA THE ANNUAL FORUM WEBSITE:

SITES.NORTHWESTERN.EDU/TRF2017
UIC ROOM MAP

STUDENT CENTER EAST | Tower
3rd Floor

STUDENT CENTER EAST | Main Building
3rd Floor North
STUDENT CENTER EAST | Tower
6th Floor

Breakout Room (Meeting Room 613)
Mens Restroom
Elev.
Womens Restroom

Breakout Room (Meeting Room 611)

Breakout Room (Meeting Room 605)

Breakout Room (Meeting Room 603)
Articles include:

Help or hindrance? The travel, energy and carbon impacts of highly automated vehicles
Zia Wadud, Don MacKenzie, Paul Leiby
Transportation Research Part A: Policy and Practice

Estimating potential increases in travel with autonomous vehicles for the non-driving, elderly and people with travel-restrictive medical conditions
Corey D. Harper, Chris T. Hendrickson, Sonia Mangones, Constantine Samaras
Transportation Research Part C: Emerging Technologies

Public opinion on automated driving: Results of an international questionnaire among 5000 respondents
M. Kyriakidis, R. Happee, J.C.F. de Winter
Transportation Research Part F: Traffic Psychology and Behaviour

For real time updates, follow us on Twitter @Transport_Els

Elsevier Atlas Award Winning Article

Researching Automated Vehicles? Consider submitting to one of our journals. Visit Elsevier's Automated Vehicle Research Hub for more information, including the latest research, bit.ly/AVResHub
CONFERENCE AGENDA

THURSDAY, APRIL 20
1:00-4:45 PM • Graduate Student Presentations

UIC Student Center East | Tower, 6th Floor | Thursday’s program is sponsored by TRF Foundation

1:00-2:00 PM

ENCOURAGING URBAN CYCLING
Room SCE 603 | Session Chair: David Ripplinger, North Dakota State University
A Hybrid Cluster-Regression Approach to Forecast Ridership at Bikeshare Stations: Case Study of Chicago’s Divvy System
Presented by: Michael Hyland, Northwestern University
Should Chicago Implement the Idaho Stop Law? A Study of Cyclist Stop Behavior and Policy
Presented by: Jenna Caldwell, DePaul University

IMPROVING THE FLOW OF TRANSPORT: TECHNICAL INNOVATIONS
Room SCE 613 | Session Chair: Samuel Labi, Purdue University
Implementation of Real-Time Data into a Transport Simulation
Presented by: Armin Krain, German Aerospace Center
Cycle Length Prediction in Actuated Traffic Signal Control Using Time Series Models
Presented by: Bahman Moghimi, City College of New York

2:00-2:30 PM

COFFEE BREAK
Room SCE 302 | Tower, 3rd Floor | Sponsored by the Reason Foundation

2:30-3:30 PM

RIDESOURCING AND CARSHARING: THE WAY OF THE FUTURE?
Room SCE 603 | Session Chair: C. Gregory Bereskin, St Ambrose University
On-Demand, App-Based Ride Services: An Emerging Ground Transportation Mode at Los Angeles International Airport (LAX)
Presented by: Karina Hermawan, University of California, Irvine
Does Free-floating Carsharing Ease Public Transit Disruptions?
Presented by: Justin Tyndall, University of British Columbia

TRAVEL AND BUSINESS LOCATION DECISIONS: A SPATIAL ANALYSIS
Room SCE 613 | Session Chair: Michael Babcock, Kansas State University
Exploring the Role of Accessibility on Employment Locations in Indiana: A Bottom-Up Approach
Presented by: Davis Chacon-Hurtado, Purdue University
Environmental Spatial Ability and the Transtheoretical Model of Behavior Change
Presented by: Alec Biehl, Northwestern University
THURSDAY, APRIL 20

3:45-4:45 PM  UNDERSTANDING THE ROLE AND DELIVERY OF “CROWDSHIPPING”
Room SCE 611  |  Session Chair: P.S. Sriraj, University of Illinois at Chicago
Modeling People’s Behavior and Acceptance of Crowdshipping
Presented by: Aymeric Punel, Northwestern University
Case Study of a Crowdsourced Package Delivery System
Presented by: Sudheer Ballare, University of Illinois at Chicago

EXPLORING AIRLINE COMPETITION...AND BANKRUPTCY!
Room SCE 603  |  Session Chair: James Nolan, University of Saskatchewan
Does Airline’s Chapter 11 Bankruptcy Filing have an Effect on Airfares?
Presented by: Narendra Malalgoda, North Dakota State University
New Methodology for Airline Competition Analysis and Air Travel Demand Estimate in Emerging but Regulated Airline Market: A Discrete Choice and Weighted Profit Estimation Approach Applied to China
Presented by: Kun Wang, University of British Columbia

USING SURVEYS TO UNDERSTAND TRANSPORTATION CHOICES
Room SCE 613  |  Session Chair: Patrick McCarthy, Georgia Institute of Technology
A Literature Review on Surveys for Autonomous Vehicles
Presented by: Christos Gkartzonikas, Purdue University
Challenges of Conducting Surveys for Activity-Based Travel Demand Models: EstablishmentSurvey of the New York Metropolitan Transportation Council
Presented by: Sabiheh Sadat Faghih, City College of New York

5:00-7:00 PM • Welcome Reception & Poster Session
UIC Student Center East  |  Tower Room SCE 302  |  Light hors d’oeuvres and hosted beverages
A full list of poster presenters and discussants can be found on page 15

7:15-8:30 PM • Graduate Student Outing
Jaks Tap, 901 W Jackson Blvd  |  Join a delegation of graduate students for a drink

VIEW THE PROGRAM ONLINE & READ CONFERENCE PAPERS VIA THE ANNUAL FORUM WEBSITE
SITES.NORTHWESTERN.EDU/TRF2017
FRIDAY, APRIL 21

8:00-8:45 AM
REGISTRATION AND CONTINENTAL BREAKFAST
Room SCE 302 | Tower, 3rd Floor

8:45-9:45 AM
AUTOMOBILES AND THE FUTURE OF TRAVEL IN CHINA
Room SCE 603 | Session Chair: Wayne Talley, Old Dominion University
Modeling Supply and Demand in the Chinese Automobile Industry
Presented by: Yuan Chen, University of California, Davis
Discussant: Ashish Sen, University of Illinois at Chicago
Private Vehicle Ownership in Provincial China
Presented by: Patrick McCarthy, Georgia Institute of Technology
Discussant: Wayne Talley, Old Dominion University

ENHANCING TRAFFIC SAFETY FROM THE DAKOTAS TO DENMARK
Room SCE 613 | Session Chair: Ian Savage, Northwestern University
The Impact of the Graduated Driver Licensing Program in Preventing Motor Vehicle Crashes in North Dakota
Presented by: Poyraz Kayabas, North Dakota State University
Discussant: Ann Warner, Ann Warner LLC
Long-term Effects of Alternative Deterrence Policies: Panel Data Evidence from Traffic Punishments in Denmark
Presented by: Kibrom Abay, University of Copenhagen
Discussant: Ian Savage, Northwestern University

URBAN MODE CHOICE IN THE SHARING ECONOMY
Room 605 | Session Chair: Camille Kamga, City College of New York
Understanding Travel Behavior and Mode Choice of Urban University Campus Employees
Presented by: Virginia Sisiopiku, University of Alabama at Birmingham
Discussant: Camille Kamga, City College of New York
Shared-Use Mobility Center Presentation
Presented by: Colin Murphy, Shared Use Mobility Center

9:45-10:10 AM
COFFEE BREAK
Room SCE 302 | Tower, 3rd Floor | Sponsored by the Reason Foundation

10:15-11:15 AM
BEATING THE BACKUP: WAYS TO LESSEN ROADWAY CONGESTION
Room SCE 603 | Session Chair: Kenneth Small, University of California - Irvine
The Income and Spatial Distributional Effects of a Congestion Tax
Presented by: Yue Ke, Purdue University
Discussant: Baruch Feigenbaum, Reason Foundation
 Tradable Permit Schemes for Controlling Traffic Congestion with Variable Capacity and Demand
Presented by: Robin Lindsey, University of British Columbia
Discussant: Kenneth Small, University of California-Irvine
CAN WE SHARE? MIXED USE OF URBAN STREETS AND URBAN RAIL
Room SCE 613 | Session Chair: Danny Block, Chicago State University
Passenger Rail and Freight Rail Partnerships in Shared Use Corridors:
Case Studies in Boston, Chicago and Denver
Presented by: Andrew Goetz, University of Denver
Discussant: Andrew Jennings, Transportation Consultant
From Meatpackers to Megabytes
Presented by: Mark Rinnan, Jacobs
Discussant: Danny Block, Chicago State University

THE MOBILITY-AS-A-SERVICE EFFECT ON THE BUSINESS OF TRANSPORT
Room SCE 605 | Session Chair: Adriana Hemzacek, Cubic Transportation Systems, Inc.
You've heard the term "MaaS", but do you really know what it means in the transportation industry? Go ahead, admit it, mobility is on your mind. The excitement in Mobility-as-a-Service (MaaS) is beyond the norm. MaaS isn't just a nice concept anymore – it's an international reality that changes the way people think about mobility within the urban environment. It is not about how we transfer people from their cars to public transport, but instead provides a user-centric view that allows better planning and management of all modes of transport. In this session, we'll define the sharing economy, access economy, and on-demand economy – terms used interchangeably, though not always fully understood. We'll dive into the recent socio-economic shifts that reinvented how and what we consume. And if that doesn't hook you, let's face reality and hone in on the elephant in the room – we live in a world where usage trumps possession. Access, rather than ownership, is king and consumers' immediate needs can be satisfied with the tap of an app. You in? Good. See you there.
Panelists:
Steve Fifita, City Labs - UI Labs | David Katcher, Lyft, Inc. | Andy Taylor, Cubic Transportation Systems, Inc. | Adam Hecktman, Microsoft, Inc.

DEALING WITH DELAYS: USING PRICING AND INFORMATION TO IMPROVE FLOW
Room SCE 603 | Session Chair: Robin Lindsey, University of British Columbia
Anticipatory Pricing to Manage “Flow Breakdown”
Presented by: Ian Savage, Northwestern University
Discussant: Alejandro Molnar, Vanderbilt University
Estimating Subjective Beliefs in Naturalistic Tasks with Limited Information Under Variable Delay Penalty
Presented by: Ming Tsang, Hamilton College
Discussant: Robin Lindsey, University of British Columbia

EXPLORING HIGHWAY FREIGHT
Room SCE 613 | Session Chair: Michael Babcock, Kansas State University
Uncovering Confounding Factors of Large Trucks Crashes and Safety Critical Events:
An Exploratory Analysis of a Northwest Truck Driver Survey
Presented by: Salvador Hernandez, Oregon State University
Discussant: Laurence Audenaerd, Transportation Consultant
The Impact of Recent Federal Regulations on Motor Carrier Profitability
Presented by: Ahren Johnston, North Carolina A & T State University
Discussant: Michael Babcock, Kansas State University
CURRENT TRENDS IN GLOBAL TRANSPORTATION
Room SCE 605 | Session Chair: Anthony Pagano, University of Illinois at Chicago
Sponsored by the Center for Supply Chain Management and Logistics at the University of Illinois at Chicago
Panelists:
Jeanne Heilman, Port of Virginia | Vandana Bahl, Supply Chain Solutions, Inc.

AWARDS LUNCHEON & KEYNOTE ADDRESS
Student Center East Main Building, 3rd Floor North, Illinois Room | Luncheon sponsored by CN Railway
TRF President’s Award: Winner and Keynote Speaker Samuel K. Skinner
Distinguished Transportation Researcher: Kenneth D. Boyer
Awarding of: Herbert O. Whitten TRF Service Award, Best Student Paper, and Best Paper

REGULATORY & POLICY APPROACHES TO RAIL TRANSPORT
Room SCE 605 | Session Chair: Frank Mulvey, ITER Associates
What’s Driving the Trains:
Examining Temporal Changes in Rail Transport Rate Supply-side Determinants Across Commodities
Presented by: Lama Bou Mjahad, Northwestern University
Discussant: Kenneth Boyer, Michigan State University
Future Merger Policy in Rail: Learning from the Past
Presented by: James Nolan, University of Saskatchewan
Discussant: Frank Mulvey, ITER Associates

STUDYING TRANSPORTATION ISSUES USING ECONOMICS
Room SCE 613 | Session Chair: Jack Wells, US Dept. of Transportation (ret.)
The Marginal Congestion of a Taxi in New York City
Presented by: Alejandro Molnar, Vanderbilt University
Discussant: Alan Bender, Embry Riddle Aeronautical University
The Value and Challenges of Using Meta-Analysis
Presented by: Kenneth Button, George Mason University
Discussant: Jack Wells, US Dept. of Transportation (ret.)

LOOKING TO THE LONG TERM: EFFECTIVE TRANSPORTATION PLANNING TECHNIQUES
Room SCE 603 | Session Chair: Pablo Durango-Cohen, Northwestern University
Phased Third-Party Plan Review and Inspection Processes to Expedite Permitting of Major Commercial Design-Build Projects
Presented by: Daniel Dornan, Prince George’s County, MD
Discussant: Chris Kopp, HNTB Corporation
A GIS-based Tool for Forecasting Unusually Heavy Truck Loadings Resulting from Rapid Land Use Changes
Presented by: Ahmad Alrashid, University of Texas at Austin
Discussant: Pablo Durango-Cohen, Northwestern University
CONFERENCE AGENDA

FRIDAY, APRIL 21

3:00-3:25 PM  
COFFEE BREAK  
Room SCE 302 | Tower, 3rd Floor | Sponsored by the Reason Foundation

3:30-4:30 PM  
RAILROADS IN THE GLOBAL SUPPLY CHAIN  
Room SCE 605 | Session Chair: C. Gregory Bereskin, St. Ambrose University  
Analytical Models of the Grain Supply Chain: Quantifying the Advantages of Shuttle Rail Service  
Presented by: Michael Hyland, Northwestern University  
Discussant: James Nolan, University of Saskatchewan  
Corn, Crude, and Cold: US Railroad Performance in 2014  
Presented by: David Ripplinger, North Dakota State University  
Discussant: C. Gregory Bereskin, St Ambrose University

URBAN TRANSIT RIDERSHIP & SERVICE ANALYSES  
Room SCE 613 | Session Chair: Kenneth Dallmeyer, Transportation Consultant  
Attitudinal Market Segmentation Applied to Transit Service Area: An Updated Approach  
Presented by: Kordel Braley, RSG & Christopher Chesnut, Utah Transit Authority  
Discussant: David Boate, Gannett Fleming  
Presented by: Marcelo Lascano-Kezič, Universidad de San Martin  
Discussant: Kenneth Dallmeyer, Transportation Consultant

JOINT SESSION WITH NeLT, KOREA - FORUM FOR NEXT LOGISTICS TECHNOLOGY  
Room SCE 603 | Session Chair: Sangyoung Moon, Hankyong National University  
Discussant: Anthony Pagano, University of Illinois at Chicago  
Future of the Port Logistics Technology in Korea  
Presented by: Ju Dong Park, Korea Maritime Institute  
New Opportunity for Urban Freight System Based on Subway Infrastructure  
Presented by: Hag-Seoung Kim, Korea Railroad Research Institute  
Measuring Distribution Environment for Transport Packaging Development and Standardization  
Presented by: Jongkyong Kim, Korea Conformity Laboratories

5:00-6:15 PM • TRF Council Meeting  
UIC Student Center East | Tower Room SCE 603 | By invitation only

7:05-8:30 PM • Conference Dinner  
Cliff Dwellers Club | 200 S. Michigan Avenue, 22nd floor | RSVP and prepaid ticket required  
Sponsored by the TRF Foundation and Gannett Flemming
We are pleased to offer three optional tours to view transportation highlights in downtown Chicago. If you're interested in joining a tour and haven't yet registered, please visit the Registration Desk for details on tour availability. All tours are included in the price of conference registration. If you are joining a tour and cannot find the group or are running late, please call or text (312) 869-0131.

**HUBS OF MID AMERICA: CHICAGO UNION STATION & OGILVIE TRANSPORTATION CENTER**
This walking tour, led by Joe Schwieterman of DePaul University, will visit both of Chicago's renowned rail transportation hubs.

**MEET-UP POINT:** 225 S Canal St., Union Station (meet inside entrance)

**IN THE LOOP:** HIGHLIGHTS OF THE CHICAGO TRANSIT AUTHORITY RAPID TRANSIT SYSTEM
Led by transit author and expert, Graham Garfield, this tour will include riding on the CTA "L", which provides a unique look at design, function, and mobility in the city.

**MEET-UP POINT:** 225 S Canal St., Union Station (meet inside entrance)

**CYCLING CHICAGO:** A DIVVY RIDE TO CITY LANDMARKS
This cycling tour, which utilizes Chicago's successful Divvy bikeshare, will highlight different types of cycling infrastructure as well as downtown sights. The tour will be led by Riley O'Neil, DePaul graduate student and Chicago bike expert.

**MEET-UP POINT:** 805 W Madison St., Divvy Station at Green St & Madison St.
AWARD RECIPIENTS

SAMUEL K. SKINNER
TRF President’s Award

Mr. Skinner is the retired Chairman, President and Chief Executive Officer of USF Corporation, one of the nation’s leading transportation and logistics companies. During each year that he served as CEO, the company was recognized by Fortune magazine as one of America’s most admired companies. From 1993-1998 he served as President of Commonwealth Edison Company, one of the country’s largest utilities.

Prior to joining Commonwealth Edison, Mr. Skinner served as Chief of Staff to President George H. W. Bush. As Chief of Staff, he coordinated the activities of numerous cabinet departments and administrative agencies reporting to the President. Prior to his White House Service, he served in the President’s Cabinet for nearly three years as Secretary of Transportation. In that capacity, he served as Chief Executive Officer of a Department with a budget of more than $30 billion and a workforce of 105,000 people. As Secretary, Mr. Skinner was credited with numerous successes, including the development of the President’s National Transportation Policy and the development and passage of landmark aviation and surface transportation legislation. He also developed our country’s “Open Skies” policy which liberalized U.S. international aviation policy.

While practicing law, Mr. Skinner also served as Chairman of the Regional Transportation Authority of northeastern Illinois, the nation’s second largest mass transportation district. In this capacity, he developed the RTA’s first strategic plan that was used as a blueprint for service expansion.

KENNETH D. BOYER
Distinguished Transportation Researcher Award

Dr. Boyer is Professor of Economics at Michigan State University. His primary research interests are in the economics of transportation and the economics of regulation. He is a winner of the Michigan State University teacher-scholar award and has taught at the Sino-American Training Center in Shanghai, China and the University of Michigan. He has been a member of many committees of the National Academy of Sciences’ Transportation Research Board, including those on truck sizes and weights, calculating the external costs of transportation, navigation on the Upper Mississippi River, the collection of freight statistics, and most recently on the modernization of railroad regulation. He is the author of Principles of Transportation Economics and has published scholarly papers in some of the most important journals in the field, including The American Economic Review, The Journal of Political Economy, and The Rand Journal. Dr. Boyer is past Chair of the Transportation and Public Utilities Group of the American Economic Association and served for many years as the Secretary/Treasurer of the Industrial Organization Society, the trade group of researchers in the economics of antitrust and regulation; he also served as the program chair of the annual meeting for nine years. He is on the editorial boards of the Journal of Regulatory Economics and Transportation Research E: Logistics and Transportation Review. His most recent work has been on the determinants of investment in facilities that use rail based logistics and the effects of world oil prices on the rates charged for shipping crude oil by rail.
Researching Automated Vehicles?

Consider submitting to one of our journals.


Articles include:

**Help or hindrance? The travel, energy and carbon impacts of highly automated vehicles**
Zia Wadud, Don MacKenzie, Paul Leiby
*Transportation Research Part A: Policy and Practice*

**Estimating potential increases in travel with autonomous vehicles for the non-driving, elderly and people with travel-restrictive medical conditions**
Corey D. Harper, Chris T. Hendrickson, Sonia Mangones, Constantine Samaras
*Transportation Research Part C: Emerging Technologies*

**Public opinion on automated driving: Results of an international questionnaire among 5000 respondents**
M. Kyriakidis, R. Happee, J.C.F. de Winter
*Transportation Research Part F: Traffic Psychology and Behaviour*

For real time updates, follow us on Twitter [@Transport_Els](https://twitter.com/Transport_Els)
1. **Regional Food Freight Innovations for the Chicago City-Region**  
   Michelle Miller, University of Wisconsin, Madison

2. **Contributions and Crossroads: Our National Road System's Impact on the US Economy and Way of Life**  
   Erica Interrante, U.S. Department of Transportation

3. **A Comparison of Methodological Techniques used in Motor Vehicle Crash Severity Research**  
   Jill Bernard, Fontbonne University

4. **Effect of Pedestrian Movement on the Spread of Infectious Diseases During Air Travel: A Modeling Study**  
   Sirish Namilae, Embry Riddle Aeronautical University

5. **Examining Model Accuracy: How Well Did We Do in the 1990’s Predicting 2015**  
   Mehrnaz Doustmohammadi & Michael Anderson, University of Alabama in Huntsville

6. **Examining Crashes for Out-of-State and Out-of-Town Drivers: A Study of Two Locations in Alabama**  
   Mehrnaz Doustmohammadi & Michael Anderson, University of Alabama in Huntsville

7. **Passenger Mortality and Fatal Accidents Risks: Measuring Recent Air Travel Safety Across Countries**  
   Karina Hermawan, University of California, Irvine

8. **Investigating Nighttime Crash Contributing Factors to Driver Injury Levels at Freeways**  
   Hongyun Chen, Embry-Riddle Aeronautical University

9. **Are our Cities Making our Roads Unsafe? The Impact of Land Use Configurations on Child Pedestrian Crashes**  
   Nick Ferenchak, University of Colorado Denver

10. **Multiple-Time Period Model for Hydrogen Refueling Station Locations Considering Budget Constraints**  
    Seyedali Ghahari, Purdue University

11. **Factor Analysis of Seaborne Trade Volume Affecting on the World Economy**  
    Ju Dong Park, Korea Maritime Institute

12. **An Improved Methodology to Evaluate the Benefits of Highway Preservation**  
    You Zhou, Washington State University

13. **Carbon Sensitive Optimization of Biogas Supply Chains Produced from Animal Waste**  
    Yong Shin Park, North Dakota State University

14. **Economic, Social, and Environmental Cost Optimization of Biomass Transportation: A Regional Model for Transportation Analysis in Plant Location Process**  
    Sangpil Ko, Michigan Technological University

15. **Managing Parking on a Medical Campus**  
    Jane Wilberding, Sam Schwartz Transportation Consultants

16. **Age-Based Policy for Blood Transshipment in a Two-Echelon Inventory System**  
    Yuan Xu, North Dakota State University

17. **Bus Route Design for Homeless Shelters in Fargo-Moorhead Metropolitan Area**  
    Fangzheng Yuan, North Dakota State University

18. **A Review of Recent Technologies for Applications of Connected and Autonomous Vehicles**  
    Bahman Moghimi, City College of New York

19. **Potential Biogas Production from Animal Manure: A Supply Chain Perspective**  
    N. Muhammad Aslaam, North Dakota State University

---

**DISCUSSANTS**

- Erik Cempel, Cambridge Systematics
- Kenneth Dollmeyer, Transit Consultant
- Baruch Feigenbaum, Reason Foundation
- Seyedali Ghahari, Purdue University
- Andy Goetz, University of Denver
- Arnold Kasemsarn, Urban Planner
- Chris Kopp, HNTB
- Samuel Labi, Purdue University
- Ian Savage, Northwestern University
- Joe Schwieterman, DePaul University
- C. Scott Smith, DePaul University
CONTACT TRF

NATIONAL TRF

TRF National
info@trforum.org | www.trforum.org

Annual Membership (by calendar year):
$50 Regular, $20 Students

LOCAL CHAPTERS

TRF New York Chapter
Paul Gessner - pkgessner3@verizon.net

TRF Chicago Chapter
trf-chicago@depaul.edu

TRF Washington, DC Chapter
Jack Ventura - jack.ventura@verizon.net

Local chapters hold regular luncheon meetings throughout the year. TRF wishes to expand to additional metropolitan areas.

ATTEND UPCOMING ANNUAL FORUMS

Spring 2018, 59th Annual Forum: Minneapolis, MN
Spring 2019, 60th Annual Forum: Washington, DC

TRF SCHOLARSHIPS

Several graduate students were provided the opportunity to attend this year’s conference thanks to generous scholarships offered by the TRF Foundation. These students participated as informal discussants during the Thursday evening Poster Session.

SUBMIT YOUR WORK TO OUR JOURNAL

The Journal of the Transportation Research Forum seeks original manuscripts that are timely and relevant to transportation. Three issues of the journal are published each year. Papers may be (a) empirical or theoretical analytical research papers, (b) industry issue papers describing current business or public policy debates, or (c) book reviews. Contact co-editors Michael W. Babcock (mwb@ksu.edu) or James Nolan (james.nolan@usask.ca) for more information. Learn from leaders and your colleagues in transportation by reading the journal, which is published and archived online at www.trforum.org/journal-of-the-trf.