

Draft Program at a Glance

Thursday, November 2, 2017

7:30 a.m.	Registration and Buffet Breakfast			
8:30–10:15 a.m.	<p>Welcome</p> <p><i>Laurie McGinnis</i>, Director, Center for Transportation Studies, University of Minnesota</p> <p>Keynote Presentation: How We Pay for Transportation Infrastructure—What’s the Value Proposition?</p> <p>Speaker <i>Joung Lee</i>, Policy Director, American Association of State Highway and Transportation Officials (AASHTO)</p> <p>Panelists <i>Tracy Hatch</i>, Deputy Commissioner, MnDOT <i>Jerry Zhao</i>, Associate Professor, Humphrey School of Public Affairs, University of Minnesota <i>Jim McDonough</i>, Commissioner, Ramsey County</p>			
10:15–10:30 a.m.	Break			
10:30–11:45 a.m.	Concurrent Sessions			
	1	2	3	4
	Issues in Multimodal Travel Behavior and Accessibility	Engaging the Public and Stakeholders on Transportation Issues	Maximizing the Efficiency of Minnesota’s Freight Network	Opportunities and Innovations from the Sharing Economy
11:45 a.m.–1:30 p.m.	<p>Luncheon and Presentation</p> <p>Moderator <i>Laurie McGinnis</i>, Director, Center for Transportation Studies, University of Minnesota</p> <p>Keynote Presentation: Transportation Policy Innovation—LA Metro’s Experience</p> <p>Speaker <i>Joshua Schank</i>, Chief Innovation Officer, Los Angeles County Metropolitan Transportation Authority</p>			
1:30–1:45 p.m.	Break			
1:45–3:00 p.m.	Concurrent Sessions			
	5	6	7	8
	Transportation Innovation in Minnesota: Panel Discussion	Roadsides and Pollinators	Technologies for Making Work Zones Safer	Bike Shares, Multimodal Parks, and Self-Driving Vehicles: Who Is Being Left Out?
3:00–3:15 p.m.	Break			
3:15–4:30 p.m.	Concurrent Sessions			
	9	10	11	12
	Transportation Funding: Planning, Distribution, and Value	Design and Maintenance of Transportation Infrastructure in Minnesota	Trends in Transit Ridership Behavior	Roadway Safety Now and Into the Future
4:30–5:30 p.m.	Reception with Hors d’Oeuvres and Cash Bar			

DRAFT PROGRAM SCHEDULE

Thursday, November 2, 2017

7:30 a.m. **Registration and Buffet Breakfast**

8:30–10:15 a.m. **Welcome**

Laurie McGinnis, Director, Center for Transportation Studies, University of Minnesota

Keynote Presentation: How We Pay for Transportation Infrastructure—What's the Value Proposition?

Speaker *Joung Lee*, Policy Director, American Association of State Highway and Transportation Officials (AASHTO)

The public generally supports investing in transportation infrastructure, yet it fiercely opposes increases in user fees or taxes to support this investment. The opaqueness of transportation revenue mechanisms like the gas tax makes it difficult for the traveling public to easily discern how much they pay for infrastructure and what value they derive from it.

Panelists *Tracy Hatch*, Deputy Commissioner, MnDOT
Jerry Zhao, Associate Professor, Humphrey School of Public Affairs, University of Minnesota
Jim McDonough, Commissioner, Ramsey County

In the conference opening session, Joung Lee, policy director at the American Association of State Highway and Transportation Officials, will examine the latest direction in infrastructure funding at the federal level. He will also offer examples of innovation happening in states all around the country and discuss policy and political considerations when it comes to transportation revenue and financing tools.

Following Lee's presentation, a panel of Minnesota leaders and experts will share their perspectives on transportation infrastructure funding.

10:15–10:30 a.m. **Break**

10:30–11:45 a.m. **Concurrent Sessions**

1

Issues in Multimodal Travel Behavior and Accessibility

Moderator *Jim Henricksen*, MnDOT

Time Series Data Clustering of Minnesota Bike Sharing System and Operation Strategy

Yufeng Zhang, Department of Civil, Environmental, and Geo- Engineering, University of Minnesota

Intraurban Accessibility and Employment Density: Evidence from the Twin Cities

Michael Iacono, MnDOT

Evaluating Transit Route Choice in the Twin Cities

Jacqueline Nowak, Department of Civil, Environmental, and Geo- Engineering, University of Minnesota

Full-Day Accessibility Evaluation of Transit Systems Using GPS-Based Location Data

Ying Song, Department of Geography, Environment, and Society, University of Minnesota

2

Engaging the Public and Stakeholders on Transportation Issues

Moderator *Steve Gentry*, Metropolitan Airports Commission

Status of and Strategies for Social Media Use in Minnesota's Transportation Planning and Policy

Ingrid Schneider and Melissa Peck, College of Food, Agricultural and Natural Resource Sciences, University of Minnesota

Addressing Citizens' Requests for Traffic Safety Solutions

Rena Kuehl, SRF Consulting Group

More Than a Bridge: The Challenges in Developing an International Border Crossing Project

Dale Grove, Stantec



3

Maximizing the Efficiency of Minnesota’s Freight Network

Moderator *Lee Munnich*,
Humphrey School of Public
Affairs, University of Minnesota

Connecting Small and Medium-Sized Farms to Wholesale Markets Through Backhauling from Rural Grocery Stores

Kathryn Draeger and Naomi Olive, Regional Sustainable Development Partnerships, University of Minnesota

Evolving Supply Chains and Local Commodity Flows: A GIS Road Network Analysis of Minnesota Cereal Grain Movement

Travis Fried, Humphrey School of Public Affairs, University of Minnesota

Components of an Attractive Minnesota Freight Market

Matt Schmit, Humphrey School of Public Affairs, University of Minnesota

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Opportunities and Innovations from the Sharing Economy

Moderator *Saif Benjaafar*,
Department of Industrial
and Systems Engineering,
University of Minnesota

Do New Bike Share Stations Increase Member Use: A Quasi-Experimental Study and Spatial-Temporal Models of Bike Share Trips in the Twin Cities

Jueyu Wang, Humphrey School of Public Affairs, University of Minnesota

Shared Rides for Everyone: Transportation Network Companies (TNCs) at MSP Airport

Atif Saeed, Metropolitan Airports Commission

Considering a User-Based Fee that Funds Infrastructure in the Sharing Economy

Ken Buckeye and Chris Berrens, MnDOT

Keynote Presentation: Transportation Policy Innovation— LA Metro’s Experience

Moderator *Laurie McGinnis*,
Director, Center for
Transportation Studies,
University of Minnesota;

Speaker *Joshua Schank*,
Chief Innovation Officer,
Los Angeles County
Metropolitan Transportation
Authority

In August 2015, the Los Angeles County Metropolitan Transportation Authority (LA Metro) embarked on an ambitious experiment. Could a new department with an extraordinary name bring about dramatic changes in transportation policy and innovation to a large government agency in a short period of time?

LA Metro’s chief innovation officer Joshua Schank will describe the creation of the Office of Extraordinary Innovation (OEI), designed to manage public-private partnerships (P3) and strategic planning for the agency. For P3s, this included overseeing a new unsolicited proposal process designed to encourage private-sector ideas for delivering Metro projects and services. OEI was also charged with developing the Metro Strategic Plan, which would clearly define the mission, vision, and goals for the agency and create a culture of innovation.

Schank’s presentation will look back on the successes and failures of the first two years of this experiment in transportation policy innovation at LA Metro and explore the path forward. This will include a discussion of the challenges faced—including fierce resistance to innovative approaches and intense demands on OEI to deliver quickly—as well as the new ideas brought to the agency.



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Transportation Innovation in Minnesota: Panel Discussion

Moderator *Gina Baas*, Center for Transportation Studies, University of Minnesota

Panelists *Frank Douma*, Humphrey School of Public Affairs, University of Minnesota
Jenifer Hager, City of Minneapolis; *John Levin*, Metro Transit; *Brendan Murphy*, Accessibility Observatory, Center for Transportation Studies, University of Minnesota

This session will build on the theme of innovation presented during the luncheon keynote. Panelists will offer their insights on how innovative technologies and policy approaches may impact the transportation network, now and in the future. Audience members will be encouraged to ask questions and offer their own ideas as well.

6

Roadsides and Pollinators

Moderator *Doug Snyder*, Mississippi Watershed Management Organization

Importance and Concerns of Roadsides for Pollinators

Daniel Cariveau, Department of Entomology, University of Minnesota

MnDOT's Roadside Management Practices

Tina Markeson, MnDOT

7

Technologies for Making Work Zones Safer

Moderator *Nichole Morris*, HumanFIRST Laboratory, University of Minnesota

Development of a Work Zone Intrusion Reporting System

Curtis Craig, HumanFIRST Laboratory, University of Minnesota

Mitigating Risk in Work Zones: Informing Drivers Using In-Vehicle Technology

Jacob Achtemeier, HumanFIRST Laboratory, University of Minnesota

Using Bluetooth Low-Energy Technology to Trigger In-Vehicle Messages at Work Zones

Chen-Fu Liao, Department of Civil, Environmental, and Geo-Engineering, University of Minnesota

8

Bike Shares, Multimodal Parks, and Self-Driving Vehicles: Who is Being Left Out?

Moderator *Virajita Singh*, Equity and Diversity/College of Design, University of Minnesota

Equity Analysis of Access to Bike Share: A Case Study in the Twin Cities, MN

Jueyu Wang and Greg Lindsey, Humphrey School of Public Affairs, University of Minnesota

Equity Implications of Multimodal Park Access in the Twin Cities

Jacqueline Nowak and Kristin Carlson, Department of Civil, Environmental, and Geo-Engineering, University of Minnesota

Equity Considerations in the Deployment and Design of Self-Driving Vehicles

Adeel Lari, Humphrey School of Public Affairs, University of Minnesota

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Transportation Funding: Planning, Distribution, and Value

Moderator *Mark Nelson*, MnDOT

ABC Ramps Transportation Operations Study

Lisa Austin, MnDOT; *Kevin Karner*, Humphrey School of Public Affairs, University of Minnesota

Minnesota Transportation Funding Redistribution

Jerry Zhao, Humphrey School of Public Affairs, University of Minnesota

Estimating the Economic Value of Bicycling in Minnesota

Xinyi Qian, Tourism Center, University of Minnesota



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Design and Maintenance of Transportation Infrastructure in Minnesota

Moderator *Al Forsberg*,
Blue Earth County (retired)

Design of Structure Service Life

Kevin MacDonald, Beton Consulting Engineers

Base Stabilization Additives for Pavement Design

Renae Kuehl, SRF Consulting Group

Planning for Better Bikeway Maintenance

Jordan Kocak, Hennepin County

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Trends in Transit Ridership Behavior

Moderator *Jonathan Ehrlich*,
Metropolitan Council

Findings from the 2016 Transit Onboard Survey

Jonathan Ehrlich, Metropolitan Council

Analyzing U-Pass Ridership Trends

Pramesh Kumar, Department of Civil, Environmental, and
Geo- Engineering, University of Minnesota

**The Impact of Weather and Socioeconomic Factors on
Transit Ridership**

Alireza Khani, Department of Civil, Environmental, and
Geo- Engineering, University of Minnesota

**Using the Three-Factor Theory to Examine the Transit
Preferences of Riders from Different Income Levels**

Xinyi Wu, Humphrey School of Public Affairs,
University of Minnesota

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Roadway Safety Now and Into the Future

Moderator *Tom Sohrweide*,
SEH Inc.

**Examining the Relationship Between Speed Enforcement
Laws and Traffic Safety**

Frank Alarcon, Humphrey School of Public Affairs,
University of Minnesota

**The Effectiveness of an Intelligent Rural Intersection
Conflict Warning System in Promoting Drivers' Gap
Acceptance and Safety at Rural Thru-stop Controlled
Intersections**

Disi Tian, HumanFIRST Laboratory, University of Minnesota

**Safety Study of the I-35W Improvements Done Under
Minnesota's Urban Partnership Agreement (UPA) Project**

Gary Davis, Department of Civil, Environmental, and
Geo- Engineering, University of Minnesota

**What Makes Autonomous Vehicles Testable? Unified
Framework for Non-Physical Safety Testing**

Edward Shwalb, MSC Software

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