

TPEC Advisory Board Update: November 2018



Thank you for your continued support of the TPEC program. We have made important strides in all three research areas since our June Advisory Board meeting. We want to share the progress we have made and what we have in store for the coming months. We are also happy to introduce new TPEC staff members and two additions to our TPEC Advisory Board.

A Warm Welcome to our Newest Advisory Board Members

The TPEC program has been fortunate enough to add two new members to our Advisory Board.

- [Atif Saeed](#) is the Vice President of Finance and Revenue Development for the Metropolitan Airports Commission.
- [Carrissa Slotterback](#) is an Associate Dean and Associate Professor at the Humphrey School of Public Affairs

Thank you for your commitment to the TPEC program and we look forward to meeting with you and the rest of the Advisory Board at our next board meeting. **We hope to schedule our next Advisory Board meeting for February.** We will be sure to stay in touch in the coming months as we organize this event.

New Additions to the TPEC Team

Heidi Corcoran:

Heidi Corcoran recently joined the Humphrey School's State and Local Policy Program (SLPP) as its new research manager. In this role, she will support SLPP's research, outreach, and education efforts to improve transportation, workplace, and economic development policy. Heidi most recently worked as the transportation coordinator in Dakota County, and she has extensive experience working in the transportation industry.

Joanne Cho:

Joanne is a dual master student in Civil Engineering and Urban and Regional Planning with a focus on transportation. Joanne will carry on the work Travis Fried started on medical device supply chains in Minnesota. Joanne's background prior to graduate school has been in international development in developing countries and researching how development and planning impact urban and rural economic growth. She is very interested in learning how good planning can serve as a catalyst that creates a good and fit built-environment for new opportunities for economic growth.

Research Area Updates:

Finance



Minnesota Transportation Finance Database

The [Minnesota Transportation Finance Database](#) (MTFD) is updated with the most recent data available. We have extended some files with data for previous years that was only available in a PDF document. There is one file with data until 2015, and we are waiting for the source to make publicly available data for 2016 to include it in our database.

Minnesota Motorization Trends

Minnesota Motorization Trends: We have been working on a white paper that includes the trends on vehicle ownership, vehicle miles traveled (VMT), and fuel consumption in the state since 1980.

- Total VMT have increased. VMT per driver and per capita reached the maximum in 2005, and since then it has been declining. In 2015, we observe a small increase but it remains below the 2005 levels.
- Gallons of gasoline consumed in Minnesota reached the maximum in 2005. Since then, the number of gallons consumed has decreased. The gallons of gasoline consumed per driver reached the maximum in 2001-2002 (850 gallons per driver). Since then we see a decreasing trend and by 2014, the gallons of gasoline consumed per driver decreased to less than 700 gallons.
- We are working on the trends on transportation expenditures, and funding from the federal, state, and local governments.

Recent Presentations

- On August 23, Jerry Zhao presented our work on MTFD and transportation investment impacts to the CTS Executive Council.
- On Sept. 13, Jerry Zhao attended the Associate of Minnesota Counties and presented our research on the impact of long-term transportation investment.

TPEC in the News

We're also happy to [share a story from WCCO](#) featuring Lee Munnich and Jerry Zhao. The article discusses Gov. Elect Tim Walz's thoughts on Minnesota's Gas Tax and highlights information from the Minnesota Transportation Finance Database.

Upcoming from the Finance Research Area

Research on Taxes and Fees for Uber and Lyft:

We have identified several states and cities that have implemented this fee and we are looking at the rationale of the fee/tax, the revenue usage, the taxing scheme, and the changes that have occurred. In the current stage, we are analyzing the perceptions around the fee/tax. We found the government and the taxi industry among those stakeholders that support the fee; and transportation network companies among those stakeholders that are against the fee. However, once implemented, there is potential for TNC companies to change their perceptions. We presented findings related to this work at the Center for Transportation Studies (CTS) annual conference on November 1st.

Data Visualization for the MTFD:

We have been working on data visualization for the Minnesota Transportation Finance Database in Dashboards in Tableau. Currently, we have graphs and maps for several variables from the MTFD, and we have created some graphs using ratios created with variables from the database (per capita, per driver, etc.). We are finalizing the dashboards and planning to make them available to TPEC members to receive comments. Our goal is to make the dashboards available to the public in the near future.

Blockchain Research:

Bitcoin and other Cryptocurrency have been grabbing headlines for several years but there is less awareness about the underlying technology that supports this application called Blockchain. Blockchain technology has the potential to disrupt many industries including transportation and the ways in which governments conduct business.

We at SLPP believe that it is important to understand how this technology may impact the ways we conduct business and how Blockchain technology can be used and implemented. We are starting an effort to study Blockchain and we want to hear your thoughts about this research. We would appreciate your input regarding the direction of this important endeavor.

Technology



Autonomous Vehicles in Greater Minnesota

TPEC and the Region Nine Development Commission are partnering to host a half-day workshop designed to share findings and engage with local officials regarding CAV technology. This event is scheduled for Wednesday, November 28th in Mankato Minnesota. It will be a chance to tell our story about the opportunities and obstacles for AV implementation we have heard in Greater Minnesota. We hope the workshop provides an opportunity to engage with decision makers about ways our research can be applied to current and future policy decisions. The findings from our community discussions can offer input, context and depth to the conversations about AV technology that government agencies, foundations and organizations are already having.

Recent Presentations

- In September, Adeel Lari traveled to Copenhagen to present at the ITS World Conference. Adeel noted that conference attendees were particularly interested in TPECs research related to equity and AV implementation in rural areas.
- In September, Frank Douma presented to the MN Transportation Alliance, discussing the current picture of MN transportation finance and the implications of an AV future.
- In October, Adeel Lari and Daniel McNiell presented findings from our community discussions in Greater Minnesota at the ITS MN Fall Conference.
- November 1st, Daniel McNiell presented at the CTS annual conference.
- In December, Frank Douma joined [RuralMN Radio to discuss CAV implementation](#) and his work related to CAV demonstrations in Greater Minnesota

Upcoming Work

TPEC will be hosting the **Greater Minnesota CAV Workshop** in Mankato Minnesota on **Wednesday November 28th**.

As we wrap up our community discussions on CAV technology in Greater Minnesota we will transition our focus to the Metropolitan area. We hope to work with Rep. Betty McCollum's office to facilitate conversations about CAV technology in underserved communities in the East metro. This work will be carried in conjunction with University of Minnesota professors Fernando Burga and Tom Fisher and their research on CAV implications in Minneapolis' North Loop.

Frank Douma has been working with the Land Use and Planning subcommittee on the [Governor's Council on Connected and Automated](#). The Governor's council will be finishing their work and publishing their findings in December.

Industry Clusters and Freight



Partnering with Medical Alley

A partnership between the TPEC program and Medical Alley arose while researching a paper on medical supply chains here in Minnesota. Medical Alley can provide valuable insight about the medical device industry in Minnesota and hopes to better understanding links to Greater Minnesota. TPEC hopes to gain guidance and support in obtaining the data required to analyze the impacts of the medical device industry on businesses and industries across Minnesota. In addition to partnering with Medical Alley, we are working on creating a story map to highlight our upcoming paper on Medical Supply Chains in Minnesota.

Recent Presentations

In July, Tom Horan presented at the ESRI Business Summit in San Diego. The summit emphasized the importance of utilizing ESRI to understand what location means for businesses as each industry is dependent on other industries. Spatial analysis and observing the relationship between businesses and location can provide crucial information to help create transportation policies that can better promote growth and benefits for businesses and industries.

Upcoming Work

Lee Munnich and Tom Horan will be presenting at the Harvard Business School for the Microeconomics of Competitiveness (MOC) Faculty Workshop on December 10th. This workshop is an opportunity to present their research modeling value in Minnesota's evolving medical supply chain.

In January, Travis Fried is participating in a poster session at the 98th Annual TRB Meeting in Washington, D.C. Presentation Title: Global Airfreight Networks and Regional Competitiveness: Modeling Value in Minnesota's Evolving Medical Supply Chain

Travis Fried has finished his time with the TPEC program and is now working at the World Research Institute as a research analyst for the WRI Ross Center for Sustainable Cities. We are grateful for Travis' excellent work and dedication to the TPEC program.

Thank You and Stay in Touch!



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