Transportation Research Board Overview

2017 Mid-Continent Transportation Research Symposium

August 16, 2017
About TRB

• Part of the National Academies of Sciences, Engineering, and Medicine

• Private, non-profit institution

• Independent, non-partisan, objective

  Research – Convene – Advise
Transportation Research Board (TRB)

• Research
  – Highway, Transit, Airport Cooperative Research Programs
  – 900+ papers published in Transportation Research Record/yr.
  – TRID: 1.1 million records of transportation research citations
Transportation Research Board (TRB)

- Advise
  - Independent, objective, evidence-based, thorough, fair, non-partisan policy studies done in accordance with National Academies of Sciences, Engineering, and Medicine procedures
Transportation Research Board (TRB)

• Convene
  – 13,300 attendees at TRB annual meeting
  – 220 technical committees, 330 subcommittees, 18 task forces
  – 50-70 conferences & workshops; 100+ webinars per year
Connect with Us

• Join the 7,000+ engineers, scientists, and researchers TRB connects with each year.

• Become a friend or member of a TRB standing committees and/or request to be part of Cooperative Research Program panel.

• We encourage diversity of background, race, ethnicity, and gender in all of the work that we undertake.
Stay Informed

• Attend the TRB Annual Meeting or one of the 70+ conferences offered each year around the world

• Attend one or more of the 100+ TRB webinars each year

• Subscribe to the TRB weekly E-Newsletter, TRNews Magazine, and 200+ publications

• Follow TRB on Twitter, Facebook, LinkedIn, and Google+
Other TRB Resources

- TR News Research Pays Off Series
- Practice-Ready Papers Database
- TRB Annual Meeting Online
TR News Research Pays Off

Research Pays Off articles highlight research results that provide innovative, cost-effective solutions to important transportation-related problems.

- Implementing Sustainability Research Saves Illinois Tollway More Than $200 Million (June 2017)
- Stream Channel Maintenance at Bridge Crossings in Ohio: Collaborative Approach Leads to Innovation and Implementation (August 2017)
Practice-Ready Papers Database

• Each year standing committees in the Technical Activities Division identify peer-reviewed papers that could be of potential interest to practitioners as practice-ready. Practice-ready papers are defined as those in which the research results presented and discussed make a contribution to the solution of current or future problems or issues for practitioners.
Critical Transportation Issues in the United States and Worldwide

We Want Your Input!
“Critical Issues in Transportation”

- Last produced in 2013
- Identifies and discusses the most important issues in transportation
- TRB is beginning process to update
- Seeking global input
Historical Background

• “Critical Issues in Transportation” has been produced approximately every 2-5 years since 1976
• Used as input to updates of TRB strategic plan
• Produced by TRB Executive Committee’s Subcommittee on Policy & Planning Review
• Has been focused primarily on current issues addressed in TRB reports
• Limited external input
• Audience: primarily TRB stakeholders
Broader Societal Goals That Transportation Supports

- Safety and security
- Economic vitality/growth
- Quality of life
- Sustainability
- Equity in providing opportunity
- Public health
TRB Wants Your Input

- Are these the right topics?
- Are there any missing?
- Would you drop any?
- What specific issues under each topic need research?
- What insights would you like to offer on the topics proposed?
- How do we get policy makers to address future and emerging policy topics?
Making the System Safe and Secure

- Reversing increases in fatalities of 2015-2016
- Expectations of autonomous vehicles and other technology
- Acceptance of crashes and fatalities with autonomous vehicles. Liability issues?
- Preventing terrorist attacks
- Cybersecurity

Credit: Car-Accidents.com
Achieving a State of Good Repair

• Definition of “state of good repair”
• Magnitude of backlog
• Asset management versus “worst first”
• Generating policy and funding support
• Roles of different levels of government

Credit: eremedia.com
Automation/Technology/Innovation

- Promoting and incentivizing innovation while ensuring safety
- How to get policy to drive technology, instead of technology driving policy
- Role of shared mobility in transit
- Cybersecurity issues
- Roles of different levels of government

Credit: U.S. Dept. of Transportation
Efficient Freight/Goods Movement

• Role of autonomous vehicles in freight deliveries
• How to prioritize freight bottleneck projects
• Major changes in freight flows due to global changes
• Public-private partnerships
• Operator shortages

Credit: seanews.com.tr
Resilience/Climate Change/
Clean Energy

- Addressing increasing frequency of severe storms and sea level rise
- Protection of transportation from terrorist attacks
- Clean energy
- Reducing greenhouse gas emissions

Credit: housingworks.com
Economic Development/ Growth

- Ensuring investments support economic development and long term job creation
- Investments for growth in global marketplace
- Growth concentration in megaregions
- Rural access/interregional travel
- Priority of economic growth vs. safety and state of good repair
Reliability/Congestion Relief

- Increasing priority on reliability
- Role of automation and operational improvements in addressing congestion
- Role of pricing in congestion management
- Use of real time data for congestion and reliability management
Equity Issues

• Ensuring access and mobility for elderly, disabled, economically disadvantaged
• Rural vs. urban accessibility and investments
• Implications of private financing on equity
• Impacts of technology solutions on non-technologically savvy travelers

Credit: BBC News
Governance Issues

• Federal vs. state vs. local role
• Decision making for multi-jurisdictional megaregions and corridors
• Multi-modal decisions
• Aligning private sector investment decisions with the public good
• Generational equity in decision making
Financing/Revenues/Expenditures

- Future of user fee based financing
- How to build support for raising needed revenues
- Role for private financing for what has historically been publicly financed
- Funding for high cost projects that benefit many jurisdictions
- Multi-modal funding decisions
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Thank You

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