Research Convergence for a Multimodal Future

The many modes of transportation intersected with technology, public health, and systems resiliency at the 95th Transportation Research Board Annual Meeting, January 10–14, 2016, in Washington, D.C. Approximately 12,600 transportation research practitioners, academics, policy makers, and representatives from private industry gathered at the Walter E. Washington Convention Center and the Marriott Marquis hotel for more than 800 sessions and workshops and more than 200 exhibits, as well as award presentations, committee meetings, and networking events. Approximately 75 sessions focused on the timely, cross-cutting topics of transformational technology, health and transportation, and resilience; 37 sessions explored the meeting’s theme, “Research Convergence for a Multimodal Future.”

Hani Mahmassani, William A. Patterson Distinguished Chair in Transportation and professor, Northwestern University, and Director, Northwestern University Transportation Center, delivered the 2016 Thomas B. Deen Distinguished Lecture on “Micromodels and Megadata: Taming Complexity for Deep Insight and Robust Decisions” to a standing-room-only audience. Chris Urmson, Director of the Google Self-Driving Car Program and Adjunct Professor at Carnegie Mellon University, delivered the Chairman’s Luncheon address on the future of vehicle automation.

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Details and highlights appear on the following pages.

(Above:) At a live-streamed address on Wednesday, January 13, U.S. Secretary of Transportation Anthony R. Foxx examined how past infrastructure decisions fragmented communities and aggravated inequality—and the critical role of transportation in bringing communities together and advancing economic and social equity.

(Below:) A packed audience hears Chairman’s Luncheon speaker Chris Urmson describe Google’s self-driving car initiative and its challenges and opportunities.
INTERSECTIONS

1. Alison Conway, City University of New York and Young Members Council chair, meets with new and young professionals at the Welcome and Attendee Orientation Session.

2. Transportation System Policy, Planning, and Process Section Chair Libby Rushley outlines planning-related activities for new TRB Annual Meeting attendees.

3. The Technical Activities Council coordinates the activities of the more than 200 volunteer standing committees and oversees the Annual Meeting program.

4. Ann Henebery, Eno Center for Transportation; Mark Teschauer, American Public Transportation Association; Chris Plano, Spy Pond Partners; Emily Han, Eno Center for Transportation; and Moji Jimo, Washington Metropolitan Area Transit Authority, at a reception for young transportation professionals.

5. Moges Ayele, Federal Highway Administration (FHWA); Stephen Arhin, Howard University; and Maritime Administrator Paul (Chip) Jaenichen at an event for the TRB Minority Student Fellows Program.

6. Nearly 200 exhibits showcased a variety of transportation-related products and services and attracted active interest.

7. The Exhibit Hall featured several vehicle and equipment displays.
SESSIONS & WORKSHOPS

1. Benjamin Colucci, University of Puerto Rico, Mayaguez (right), introduces Alfonso Garcia, University of Texas at El Paso (left), presenting research on inelastic joint behavior modeling at a session on Innovative Doctoral Research from the Dwight David Eisenhower Transportation Fellowship Program.

2. (Left to right) Veronica O. Davis, nspiregreen; Mishal Aljanbou, UCR; and Johannes Schlaich, PTV Group, participate in a transportation planning workshop.

3. Pat Wu, Facebook, details progress on drone regulations at the UAS workshop.

4. Carol Luschen, Texas Department of Transportation (DOT), examines the use of the INVEST sustainability rating system on the Harbor Bridge project in Corpus Christi.

5. Ken Rose presents the Centers for Disease Control and Prevention perspective at a session on Institutionalizing Health in Transportation Agency Practice.

6. Federal Railroad Administrator Sarah Feinberg takes part in a panel discussion on building effective relationships between transportation leaders and the press.

7. Mark Bontrager, Space Florida, offers the perspective of a spaceport operator on Commercial Space: Exploring the Path Forward.

8. Martine Micozzi discusses international collaboration opportunities at a session reviewing the progress of the EU-U.S. transportation research partnership.


10. Federal Motor Carrier Safety Administrator T. F. Scott Darling delivers the keynote address at a session on the agency’s safety activities and priorities.

SESSIONS & WORKSHOPS (continued)

1. U.S. DOT Assistant Secretary for Transportation Policy Carlos Monje, Jr., moderates a panel discussion on the Beyond Traffic draft framework.

2. Raha Hamzeie presents her research utilizing safety data from the second Strategic Highway Research Program (SHRP 2).


4. Mario Cordero, Federal Maritime Commission, leads a panel discussion on supply chain optimization efforts as part of a series of freight-related sessions.


6. Victor Knox, U.S. National Park Service (NPS), reflects on multimodal innovation and vision for public lands transportation at a session commemorating the centennials of the NPS and U.S. Forest Service.

7. Marwa Hassan, Louisiana State University, shares research on Rejuvenators for Asphalt Mixtures.

8. Ruben Brage-Ardao, Imperial College London, examines Determinants of Station Service Cost in Metros.

9. Jenise Young, Texas Southern University, presents the paper “Exclusivity and Shared Use: Examining the State of the Practice in U.S. High-Intensity Bus Service.”


11. Winners and sponsors of the 2015 Communicating with John and Jane Q. Public competition: (front, left to right) Stefanie Kiedrowski, Gail Holley, Russell Henk, Leslie Lara, Rita Moroçoima-Black, Claudia Bilotto, (back, left to right) Ram Pendyala, Stacey Tisdale, Mike Mason, Ashlee McLaughlin, and Terri Parker.
SESSIONS & WORKSHOPS (continued)

1. Perry Chavez, California State Polytechnic University, Pomona, reviews research on Equity Implications of Different Transportation Impact Threshold Systems in Los Angeles County.

2. Lynn Peterson (right) shares experiences as past Washington State Transportation Director at a roundtable with David Bernhardt (left) of Maine DOT and other state transportation secretaries.


4. Laura Schewel, Streetlight Data, explores Big Data and Freight Transportation: Private-Sector Applications and Agency Implications.

5. Maria Lindholm, Chalmers University of Technology, discusses the urban redevelopment of Gothenburg, Sweden, at Accommodating Freight Early and Often in the Planning Phases of City Redevelopment.

6. Matt Miyasato (far left) moderates a panel session on zero-emissions freight with (left to right) Michael Simon, Felix Oduyemi, Jolene Hayes, and Thomas Jelenic.

7. Shailen Bhatt, Colorado DOT, addresses transportation system resilience at the State DOT CEO Roundtable 3.

8. Susan Martinovich, CH2M, presents the winners of a competition for best practices in communicating data to support decisions.


10. Thomas Bennert, Rutgers University, shares research on Long-Term Binder Aging and Recycled Engine Oil Bottoms.
SESSIONS & WORKSHOPS
(continued)

1. Omar Smadi presents an evaluation of work zone safety using SHRP 2 Naturalistic Driving Study data.

2. Weina Meng, Missouri University of Science and Technology, shares insights on Innovations in Concrete Properties Technology.

3. Georgia Aifadopoulou, Hellenic Institute of Transport, participates in a question and answer segment of Accommodating Freight Early and Often in the Planning Phases of City Redevelopment.


7. A researcher discusses Using Mobile Phone Data in Travel Surveys.

8. Consultants Mortimer Downey (left) and Alan Pisarski present lessons learned from 50 years of the National U.S. Department of Transportation Act.


10. Irina Finkelstein, WSP–Parsons Brinckerhoff, welcomes participants to a workshop on the National Environmental Policy Act and Climate Change.

11. Devan Morris, San Francisco Department of Public Health, shares research on Advances in Geospatial Technology Applications in Transportation.
COMMITTEES

1. The Transportation in the Developing Countries Committee proceeds through its meeting agenda.

2. C. Douglass Couto (left) and past chair Frances Harrison, Spy Pond Partners, at a meeting of the Information Systems and Technology Committee.

3. Planning and Environment Group chair Ram Pendyala shares upcoming events with the Transportation System Policy, Planning, and Process Section.

4. Sherif Ishak, Louisiana State University, leads a meeting of the Artificial Intelligence and Advanced Computing Applications Committee.

5. Reyhaneh Rahbar Rastegar, University of New Hampshire, addresses the Nonbinder Components of Asphalt Mixtures Committee.

6. Chair Ted Dahlburg (right) presents Akiko Yamagami with a commendation for her service as Urban Freight Transportation Committee communications coordinator.

7. The Disadvantaged Business Enterprises (DBEs) Committee focuses on DBEs in transportation.

8. Marlys Osterhues, FHWA, participates in a meeting of the Ecology and Transportation Committee.

9. Keith Killough, Arizona DOT (left), and Montie Wade, Texas A&M Transportation Institute, weigh discussion at a meeting of the Transportation Planning Applications Committee.
COMMITTEES
(continued)

1. G. P. Jayaprakash reports on TRB news and updates at a meeting of the Transportation Earthworks Committee.

2. Shundrekia Stewart, BNSF Railway Company, participates in a meeting of the Freight Rail Transportation Committee.

COMMITTEE LEADERSHIP AWARDS

2. Marsha Anderson Bomar, Stantec Consulting (left), and 2015 Young Members Council chair Alison Conway (right) present the Outstanding Young Member Award to Frank Gross, VHB (center).

4. (Left to right) Transportation in the Developing Countries Committee Chair Om Agarwal, emeritus member Ralph Gakenheimer, TRB representative Bernardo Kleiner, and communications coordinator Setty Pendakur.

5. Kathryn Zimmerman became an emeritus member of the Pavement Management Systems Committee.

Committees Leading by Example

The Technical Activities Council presented Blue Ribbon Awards recognizing committees for exemplary best practices:

- Community Building and Mentoring: Rail Freight Transportation Committee, chaired by George Avery Grimes;
- Advancing Research: Regional Transportation Systems Management and Operations Committee, chaired by Les Jacobson;
- Contributing to TRB and the Transportation Community: Transportation Planning Applications Committee, chaired by Julie Dunbar; and
- Communications: Transportation History Committee, chaired by Asha Weinstein Agrawal, with an Honorable Mention to the Ecology and Transportation Committee, chaired by Alexander F. Levy.

TRB Honors Longtime Volunteers

In recognition of their long-term contributions and exceptional service to TRB’s standing committees, the following individuals received emeritus membership at the 2016 Annual Meeting:

- Gary Duncan, Traffic Signal Systems Committee;
- Walter M. Dunn, Jr., Freeway Operations Committee;
- David W. Fowler, Polymer Concretes, Adhesives, and Sealers Committee;
- Ralph Gakenheimer, Transportation in the Developing Countries Committee;
- Barbara T. Harder, Conduct of Research Committee;
- Alan E. Pisarski, Transportation History Committee;
- Sandra L. Tucker, Library and Information Science for Transportation Committee;
- Carol A. Zimmerman, Transportation Needs of National Parks and Public Lands Committee; and
- Kathryn A. Zimmerman, Pavement Management Systems Committee.
PAPER AWARDS

1. The D. Grant Mickle Award recognizes an outstanding paper in operations and maintenance. (Left to right) Mark Hickman, Felipe Ladrón de Guevara, and Larry Head.

2. (Left to right) Karen Dixon, Raul Avelar, and Patricia Escobar received the Patricia F. Waller Award for their paper on crash screening methods.

3. The K. B. Woods award for outstanding paper in design and construction was presented to (left to right) William Likos, Dan Ding, and J. Erik Loehr.


5. The Pyke Johnson Award for best paper in the field of planning and the environment was awarded to (left to right) Francisco Câmara Pereira, Fang Zhao, Moshe Ben-Akiva, Yafei Han, and Rudi Ball. Not pictured: Youngsung Kim and Christopher Zegras.

6. The Fred Burggraf Award is given to researchers age 35 or younger.

7. Veronique Van Acker was recognized for her research on lifestyle and modal choices.

8. (Left to right) Michael Paul Pratt, Srinivas Reddy Geedipally, and Adam Pike were honored for outstanding paper in the field of operations and maintenance.
MAJOR AWARDS

1. Hani Mahmassani, Northwestern University, delivered the 2016 Thomas B. Deen Distinguished Lecture.

2. 2016 Executive Committee Chair Jim Crites (left) presented the W. N. Carey Jr., Distinguished Service Award to Kirk T. Steudle, Michigan DOT. Steudle was honored for his leadership of the TRB Executive Committee and many other TRB committees, panels, and task forces.

3. Lance A. Neumann, Cambridge Systematics (left), received the Roy W. Crum Distinguished Service Award from 2015 Executive Committee Chair Dan Sperling.

4. For long-term, innovative leadership in people-oriented transportation initiatives, Carol Abel Lewis, Texas Southern University (right), received the Sharon D. Banks Award from TRB Executive Director Neil Pedersen.

EXECUTIVE COMMITTEE

Policy session speakers included (left to right):

1. Leslie Meehan, Tennessee Department of Health;
2. Victor Dzau, National Academy of Medicine; and

After speaker presentations, Executive Committee meeting participants gathered in breakout discussions on the topic of advancing public health through transportation.

10. Marine Board Chair James Card delivers a report on the work of the TRB Executive Committee Resilience Task Force.

Chris Urmson outlined Google’s pioneering self-driving car program to a capacity crowd, showing visualizations of the Google car as it used sensors and software to navigate complex traffic situations.
New Executive Committee Leaders Step Up

James Crites, Executive Vice President, Operations Division, Dallas–Fort Worth International Airport (DFW), is 2016 Chair of the TRB Executive Committee. He succeeds Daniel Sperling, Professor of Civil Engineering and Environmental Science and Policy, University of California, Davis. Paul Trombino III, Director, Iowa Department of Transportation, is the 2016 Vice Chair.

At DFW, Crites administers the airport’s public safety, operations, and environmental affairs departments. He joined DFW in 1995 from American Airlines, where he served as director of planning and marketing research. His leadership in facilities development planning and business opportunities assessment was integral to DFW’s Airport Development Plan, a 20-year master roadmap for infrastructure renewal and modernization, preparing the airport for future challenges. Crites received a bachelor’s degree in business administration from the University of Illinois and a Master’s degree in operations research from the Naval Postgraduate School in Monterey, California.

Trombino was appointed director of Iowa DOT in 2011. He came to the agency after 17 years at Wisconsin DOT, where he served as director of the bureau of transit, local roads, rails and harbors; regional operations director of the highway division; director of statewide structures; and manager of highway bid lettings. Trombino received bachelor’s degrees in civil engineering from the University of Wisconsin, Milwaukee, and in economics from the University of Wisconsin–Madison. He is a licensed professional engineer in the states of Iowa and Wisconsin.

Pat Thomas, United Parcel Service, Inc.; Katherine Turnbull, Texas A&M Transportation Institute; and Dean Wise, BNSF Railway Company, are new members of the Executive Committee. Reappointed members include Scott Bennett, Arkansas State Highway and Transportation Department; Malcolm Dougherty, California Department of Transportation; John Halikowski, Arizona DOT; Susan Hanson, Clark University (retired); Steve Heminger, Metropolitan Transportation Commission; Jeffrey Holt, Bank of Montreal; and Gary Thomas, Dallas Area Rapid Transit.

EXECUTIVE COMMITTEE (continued)

New and reappointed Executive Committee members included (left to right):
1. Jeffrey Holt, Bank of Montreal;
2. Katherine Turnbull, Texas A&M Transportation Institute;
3. Malcolm Dougherty, California Department of Transportation; and
4. Dean Wise, BNSF Railway Company.
EXECUTIVE COMMITTEE (continued)

1. 2015 Chair Dan Sperling guides the Executive Committee through its meeting agenda.
2. TRB Executive Director presents updates on TRB’s strategic initiatives.
3. Paul Trombino, 2016 Executive Committee Vice Chair, offers insights on research focus areas for TRB.
4. As chair of the Subcommittee for NRC Oversight, Susan Hanson guides TRB’s committee and panel appointments and report review.
5. Reuben Sarkar represents the U.S. Department of Energy, a new TRB sponsor.
7. Guest Ed Christopher shares background on TRB’s public health and transportation initiatives.

Also participating in Executive Committee deliberations were
8. Roger Huff, HGLC;
9. Nan Shellabarger, Federal Aviation Administration;
10. Gary Thomas, Dallas Area Rapid Transit;
11. Ysela Llort, consultant;
12. Michael Trentacoste, FHWA; and
13. Geraldine Knatz, University of Southern California.
14. U.S. National Transportation Safety Board chair Christopher A. Hart outlines the board’s “Most Wanted List” of advocacy priorities.