

# A Century of Progress Foundation for the Future

The Centennial celebration kicked off at the Transportation Research Board (TRB) 99th Annual Meeting. More than 14,000 researchers, policy makers, administrators, students, and transportation professionals gathered January 12–16, 2020, at the Walter E. Washington Convention Center in Washington, D.C., for more than 5,000 presentations in nearly 800 sessions and workshops, committee meetings, networking events, award presentations, and exhibits.

Among the meeting highlights was the release of TRB's Centennial book, *The Transportation Research Board, 1920–2020: Everyone Interested Is Invited*, by Sarah Jo Peterson, and the Chair's Luncheon address from U.S. Transportation Secretary Elaine L. Chao. More than 25 sessions and workshops focused on the meeting's theme, "A Century of Progress: Foundation for the Future." Peterson delivered two special lectures: the 2020 Thomas B. Deen Distinguished Lecture, "TRB's Technical Activities Committees: The Significance of Their History," as well as a Chair's Luncheon talk on TRB's history and the role of its sponsors.

Details and highlights appear on the following pages.

Annual Meeting photographs by Risdon Photography.



**1** In honor of TRB's 100th anniversary, attendees gathered for a commemorative group photo on the first day of the 2020 Annual Meeting—and for some photos of their own.

**2** TRB history book author Sarah Jo Peterson delivered the Centennial address at the Chair's Luncheon, Wednesday, January 15.

**3** Chair's Luncheon keynote speaker U.S. Transportation Secretary Elaine L. Chao addressed transportation innovation.



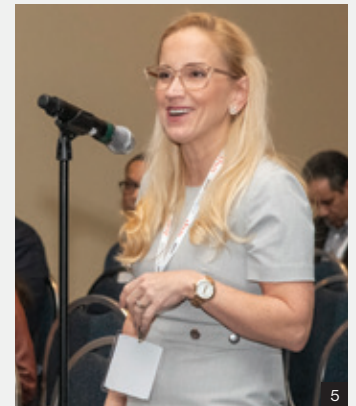


## Intersections

- 1 The Technical Activities Council oversees the organization and activities of TRB's standing committees.
- 2 Joshua Burroughs, University of Hawai'i, Manoa, shares research on transportation infrastructure resilience impacts in coastal areas caused by sea-level rise and climate change.
- 3 Rebekah Straub Anderson, Travel Survey Methods Committee chair, was one of the many TRB volunteer leaders assisting Annual Meeting newcomers at the New Attendee Orientation.
- 4 Colossal letters mark the entrance to TRB's 2020 Annual Meeting.
- 5 Candace Blair Cronin, ICF, asks a question of panelists at a session on FHWA Leadership in Innovation.
- 6 Thirty students from 16 schools participated in the TRB Minority Student Fellows Program, with research backgrounds ranging from aviation to planning to maritime transportation.



1 2020 TRB Technical Activities Council: (front row, left to right) C. James Kruse, Michael Griffith, Nikola Ivanov, TAC Chair Hyun-A Park, Richard Bornhorst, Pamela Keidel-Adams, Joe Schofer, (back row, left to right) Libby Rushley, Mark Reno, Fred Wagner, George Avery Grimes, William (Steve) Varnedoe, Brendon Hemily, Dave Ballard, Technical Activities Division Director Ann Brach, and Katie Zimmerman.







## Sessions & Workshops

**1** Lisa Kenney, Buffalo–Niagara Regional Transportation Council, leads a team imagining scenarios for regional transportation planning to accommodate demographic change at the Strategic War Games workshop.

**2** YuYu Zhang, University of South Florida, discusses planning and implementation issues at a two-part workshop on urban air mobility.

**3** Leslie Wright, FHWA, asks an audience question at a workshop on 2050 Transportation Workforce Transformation Challenges.

**4** Derrick Dasenbrock, Minnesota DOT, presides over a session on the Impact of the Mischaracterization of Rock on Construction Projects.

**5** Adam Cohen, University of California, Berkeley, moderates a panel discussion on urban air mobility at the two-part workshop.

**6** Diana Nomura, University of Hawai'i, Manoa, examines traffic problems at popular rural tourist attractions at a session on low-volume roads.

**7** Leila Hajibabai, North Carolina State University, leads the 3-Minute Thesis Competition workshop on effective research communication.

**8** Mark Reno (*left*) and Thomas Kazmierowski (*right*) recognize Colette Holt (*center*) as a featured speaker at the 16th Annual Dialogue with Leaders in the Design and Construction of Transportation Facilities.



**9** An all-female panel of state transportation agency leaders explores Equity's Role in Transportation Decision-Making: (*left to right*) Stephanie Pollack, Massachusetts DOT; Jennifer Cohan, Delaware DOT; Leslie Richards, Southeastern Pennsylvania Transportation Authority; Julie Lorenz, Kansas DOT; Diane Gutierrez-Scaccetti, New Jersey DOT; Victoria Sheehan, New Hampshire DOT; and Shoshana Lew, Colorado DOT.





## Sessions & Workshops

(continued)

**1** Omar Smadi, Iowa State University, presents lessons learned from the Roadway Information Database at a session on the implementation of the Second Strategic Highway Research Program databases.

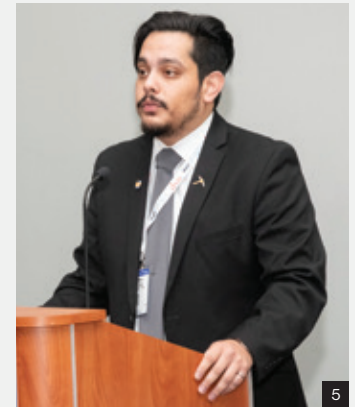


**2** KeAnna Dakwa, Tennessee State University, shares her analysis of traffic circles as they pertain to crash severity.

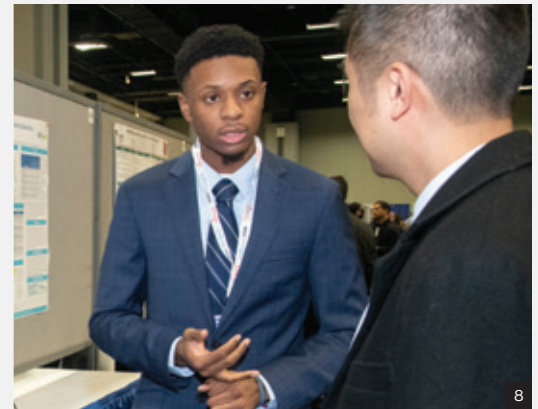


**3** Hilary Nixon, San Jose State University, discusses the research center perspective on Promoting Your Research: Success Stories from Academia, State DOTs, and Journals.

**4** (Left to right:) Kendis Paris, Truckers Against Trafficking; Keith Slotter, Jet Blue; and Kristen Joyner, Southwest Transit Association, speak on Combating Human Trafficking in the Transportation Sector.



**5** Benjamin Arras, University of Texas, El Paso, presents research on quantifying early-age concrete mechanical properties and curing conditions utilizing an automated system.



**6** Stacey Kulesza, Kansas State University, addresses the corrosion potential of aggregate backfill in retaining walls at a session on Young Geotechnical Professionals in Transportation.



**7** Brandon-Dean Morris, Transportation Technology Center, Inc., explores Current and Emerging Uses of Drones for Infrastructure Monitoring and Equipment Maintenance.



**8** Cam'Ron McKinney, Tennessee State University, offers an analysis and model of ramp-related crashes in Tennessee.

**9** Allison Irion, Argonne National Laboratory, shares research at a session on Strategic Challenges for Global Military Transportation and Supply Chains.

**10** Gabriela del Carmen Giron Valderrama, University of Washington, discusses freight systems and marine transportation research.





## Sessions & Workshops

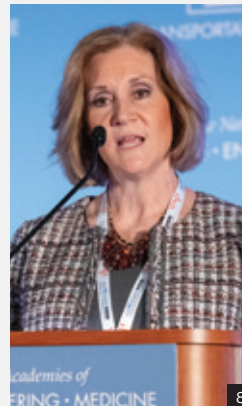
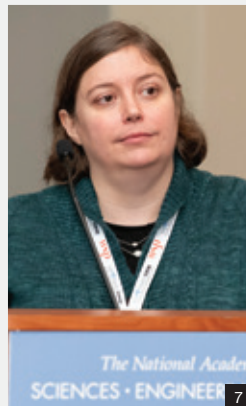
(continued)

**1** Michael Nesbitt (*left*), FHWA, participates in a panel discussion on New Skills Needed to Meet Changing Demands in Transportation.

**2** Denise Kearns, U.S. Environmental Protection Agency, presides over a Freight Day session on How E-Commerce Is Disrupting Supply Chains.

**3** Jagannath Mallela (*left*), WSP, and Debra Brisk, DRB Consulting, address Building a Foundation for the Future Through Innovative Construction Research.

**4** At the Six-Minute Pitch: A Transportation Startup Challenge, a panel of judges, including mobility strategist W. Celeste Davis (*center*), rated innovative transportation-related business ideas.



Other session speakers included the following:

**5** Toks Omishakin, Caltrans, on State DOT CEO Roundtable: Toward Zero Deaths;

**6** Laetitia Dablang, Université Gustave Eiffel, on Sustainable and Efficient Solutions for Last-Mile Distribution;

**7** Stacey Diefenderfer, Virginia Transportation Research Council, on High Recycled Asphalt Pavement Contents in Asphalt Mixtures; and

**8** Julie Lorenz, Kansas DOT, on State DOT CEO Roundtable: Making the Right Investment.

**9** (*Left to right:*) Vincent Valdes, FTA; Federal Transit Administrator K. Jane Williams; Tina Quigley, Virgin Trains USA; and Gary Thomas, Dallas Area Rapid Transit, at a session on Public Transit Innovation.



**10** Luca Montanari, FHWA, shares research on Surface Resistivity and Other Factors Related to Performance-Engineered Concrete Mixtures.





## Sessions & Workshops

(continued)

**1** Mara Campbell delivers a presentation on performance measurement in decision-making at a session on Measuring Performance Across Transportation Modes.

**2** Avin Sharma, Port of Los Angeles, leads a panel discussion on Port Automation.

**3** Eric Chase, Pennsylvania State University, addresses Developments to Improve Unpaved Road Performance.

**4** Birat Pandey (left), FHWA, and Howard Slavin, Caliper Corporation, discuss National Freight Research, Methods, and Tools to Understand Freight Transportation.

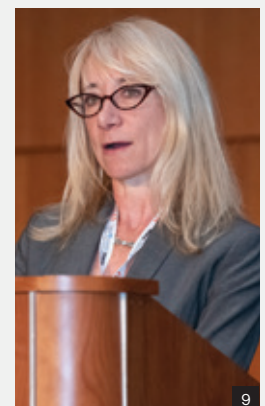
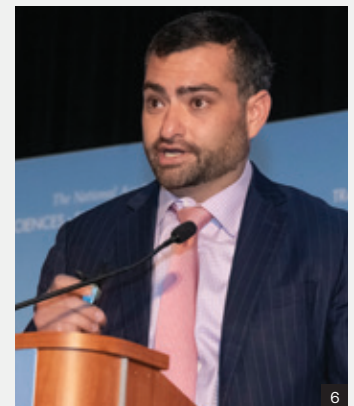
**5** Roksana Hossain, Louisiana Polytechnic University, shares research on Asphalt Binders: Rejuvenation, Nonspecification Testing, and Investigations.

**6** Alexander Herrgott, Federal Permitting Improvement Steering Council, delivers a presentation on Infrastructure Policy in 2020 and Beyond.

**7** Ambria Vasquez, California State University, Los Angeles, presents research on Design Considerations of Diverging Diamond Interchanges in an Urban Setting.

**8** Henry Chia, Jackson State University, conducted a failure analysis of an instrumented highway slope on Yazoo clay, a clay geologic formation in Alabama, Louisiana, and Mississippi.

**9** Elise Miller-Hooks, George Mason University, explores Building Resilient Ships and Seaports.







## Committees

**1** Libby Rushley, Planning and Environment Group Chair, meets with fellow Technical Activities Council members.

**2** Paul Leiby guides a meeting of the Transportation Energy Committee.

**3** Rebecca McDaniel chairs the Asphalt Materials Section.

**4** Julian Griffie delivers a presentation to the Emerging and Innovative Public Transport and Technologies Committee.

**5** Angelica Torres shares her research at a meeting of the Non-Binder Components of Asphalt Mixtures Committee.

**6** Alison Conway is a member of the Young Members Council, which focuses on activities to serve young members of TRB.

**7** Rosemarie Spano (*center*), Bureau of Land Management, participates in a meeting of the Transportation Needs of National Parks and Public Lands Committee.

**8** Julie Dunbar guides the Transportation Planning Applications Committee through its meeting agenda.

**9** Deb Mishra takes part in Aggregates Committee meeting deliberations.

**10** Emiliano Ruiz offers research findings at a meeting of the Aviation Security and Emergency Management Committee.



## Committees

(continued)

Among those who accepted Blue Ribbon Awards on behalf of TRB standing committees were:

- 1 William (Bill) Eisele,
- 2 Diana Long and Victoria Beale, and
- 3 Jeffrey Shaw and Hermanus Steyn.



## Committees Awarded for Best Practices

The best practices of outstanding Technical Activities committees were honored with Blue Ribbon Awards at the Annual Meeting:

- *Identifying and Advancing Ideas for Research: Urban Freight Transportation Committee*, chaired by Bill Eisele;
- *Attracting and Preparing the Next Generation of Professionals and Scholars in TRB: Operations and Preservation Young Members Subcommittee*, cochaired by Leila Hajibabai and Chieh (Ross) Wang;
- *Moving Research Ideas into Transportation Practice: Geometric Design Committee*, chaired by Hermanus Steyn, and *Operational Effects of Geometrics Committee*, chaired by Jeffrey Shaw; and
- *Contributing to Improving the Management and Operation of TRB Committees: Transportation Education and Training Committee*, cochaired by Victoria Beale and Diana Long.



1 Jamille Robbins engages in a group discussion with the Public Involvement in Transportation Committee.

2 Chunfu Xin shares research announcements with the Asphalt Binders Committee.

## TRB Selects Emeritus Members

In recognition of their long-term contributions and exceptional service to TRB's standing committees, the following individuals received emeritus membership at the 2020 Annual Meeting:

- Haitham Al-Deek, Freeway Operations Committee;
- Paul J. Carlson, Signing and Marking Materials Committee;
- Wiley D. Cunagin, Highway Traffic Monitoring Committee;
- Jerome F. Daleiden, Pavement Condition Evaluation Committee;
- Steven DeWitt, Project Delivery Committee;
- Rick Donnelly, Travel Forecasting Resources Committee;
- Dennis Hinebaugh, Bus Transit Systems Committee;
- Eric Kerness, Contract Law Committee;
- Robert McGennis, Asphalt Materials Section;
- Ronald D. Medlock, Fabrication and Inspection of Metal Structures Committee;
- Louay Mohammad, Surface Requirements of Asphalt Mixtures Committee; and
- Steven E. Shladover, Vehicle-Highway Automation Committee.





**7** Cecilia Feeley (*right*), Rutgers University, received the William W. Millar Award for best paper in the field of public transportation. She is joined by Millar, past president of the American Public Transportation Association and namesake of the award.



**8** Glenn Havinoviski, Iteris; Tammy E. Trimble, Virginia Tech Transportation Institute; and Richard Bishop, Bishop Consulting, were among the recipients of the John C. Vance Award.

**9** The K. B. Woods Award was presented to Hubo Cai and Mark D. Bowman, Purdue University, for their paper on an ontology-based knowledge management system for digital highway construction inspection. Not pictured: Xin Xu, Chenxi Yuan, Yuxi Zhang, and Dulcy M. Abraham.

**10** The Charley V. Wootan Award honoring the best paper in policy and organization went to Marianne J. W. A. Vanderschuren, Sekadi R. Phayane, and Alison Gwynne-Evans, University of Cape Town, South Africa.

## Paper Awards

The Fred Burggraf Award is presented to researchers under age 35. The following recipients are shown left to right.

**1** Keren Xu, Karthik Chowdary Pakalapati, and Jorge Rueda-Benavides, Auburn University, received the Burggraf Award for best design and construction paper.

**2** Mohammadreza Khajeh Hosseini, Yalda Rahmati, and Alireza Talebpour, Texas A&M University, received the Burggraf Award for best operations and preservation paper. Not pictured: Benjamin Swain and Christopher Nelson.

**3** Carole Turley Voulgaris, California Polytechnic State University, and Jill Elizabeth Shinn, KPFF Consulting Engineers, received the Burggraf Award for best public transportation paper.

**4** Angshuman Guin, Georgia Institute of Technology; Sung Jun Park, Jacobs Engineering; James Anderson, AECOM; and Michael Hunter, Georgia Tech, received the D. Grant Mickle Award for their paper on operating performance of diverging diamond interchanges.

**5** The Patricia F. Waller Award honors an outstanding paper in the field of safety and systems users. Recipients are Bo Lan, Libby Thomas, Wesley J. Kumfer, and Laura S. Sandt, Highway Safety Research Center, University of North Carolina.

**6** The Pyke Johnson Award for best paper in planning and the environment was awarded to Miriam Pinski, Martin Wachs, Evelyn Blumenberg, and Andrew Schouten, University of California, Los Angeles.



## Major Awards

**1** Sarah Jo Peterson, Centennial speaker, engaged the audience in a participation activity.

**2** U.S. Transportation Secretary Elaine L. Chao delivered the Chair's Luncheon address.

**3** Emily Moylan (*third from left*) accepted the Roy W. Crum Award on behalf of Sue McNeil, Professor of Civil and Environmental Engineering and Public Policy and Administration, University of Delaware. The award recognizes outstanding leadership in transportation research or research administration. Presenting the award were (*left to right*) Carlos M. Braceras, 2019 TRB Executive Committee Vice Chair; Victoria A. Arroyo, 2019 Executive Committee Chair; and Neil Pedersen, TRB Executive Director.

**4** For his consistent support for TRB and research and innovation during his career at both FHWA and the American Association of State Highway and Transportation Officials, Frederick G. (Bud) Wright (*second from right*) was the 2019 recipient of the W.N. Carey, Jr., Distinguished Service Award.

**5** Robert H. Prince, HNTB Corporation, received the Sharon D. Banks Award for innovative and successful leadership in people-oriented initiatives in transportation.

**6** Peterson (*center*) delivered the 2020 Thomas B. Deen Distinguished Lecture, named after the former TRB Executive Director (*right*).

**7** Carlos Braceras announces awardees at the Chair's Luncheon.



**5** Prince was recognized for his impact on the people he has served and for his dedication in supporting and mentoring the next generation of transit leaders. The biennial award was established in the memory of Sharon D. Banks, former General Manager of AC Transit in Oakland, California, and past TRB Executive Committee Chair.





# New Leaders Guide Executive Committee

**C**arlos M. Braceras, Executive Director of the Utah Department of Transportation (DOT), is 2020 Chair of the TRB Executive Committee. In 2013, he was appointed to lead Utah DOT's more than 1,600 employees and the design, construction, and maintenance of the state's 6,000-mile system of roads and highways. He had served as deputy director of the agency since 2001. Braceras recently guided the completion of two of the largest highway projects in Utah history: the Utah County I-15 Corridor Expansion and the first phase of the Mountain View Corridor in west Salt Lake County.

Braceras is chair of the American Association of State Highway and Transportation Officials (AASHTO) Design Subcommittee and AASHTO past president, chair of the Center for Environmental Excellence Advisory Board, and past president of the Western Association of State Highway and Transportation Officials. He received bachelor's degrees in geology from the University of Vermont and in civil engineering from the University of Utah.



The 2020 TRB Executive Committee Vice Chair is Susan Shaheen, Civil and Environmental Engineering Professor at the University of California (UC), Berkeley, and codirector of the Transportation Sustainability Research Center, Institute of Transportation Studies, Berkeley. An expert and pioneer in future mobility strategies, Shaheen was among the first to observe, research, and write about changing dynamics in shared mobility and the rise of automated vehicles.

The first Honda Distinguished Scholar in Transportation at the Institute of Transportation Studies at UC Davis, Shaheen also served as the Policy and Behavioral Research Program Leader at California Partners for Advanced Transit and Highways and as a special assistant to the Director's Office of the California Department of Transportation from 2001 to 2004. She has a Ph.D. in ecology from UC Davis and a master's degree in public policy analysis from the University of Rochester, New York.

Marie Therese Dominguez and Mike Goodchild are new members of the Executive Committee. Reappointed members include Nathaniel Ford, Patrick McKenna, and James Tien.

## Executive Committee

Each year the TRB Executive Committee chooses a topic for deeper investigation to address in a policy session. The 2020 policy session topic was artificial intelligence in transportation, with a panel of experts that included (left to right):

- 1 Prasanna Balaprakash, Argonne National Laboratory;
- 2 Richard Davies, Oak Ridge National Laboratories; and
- 3 Cathy Wu, Massachusetts Institute of Technology.



## Executive Committee

(continued)

**1** Carlos M. Bracer is the 2019 Executive Committee Vice Chair.

**2** 2019 Chair Victoria A. Arroyo guides the Executive Committee through its meeting agenda.

**3** Executive Director Neil Pedersen presents a progress report on TRB's strategic initiatives.

Also participating in Executive Committee deliberations were

**4** Diane Gutierrez-Scaccetti, New Jersey DOT Commissioner;

**5** FHWA Administrator Nicole R. Nason;

**6** Nathaniel P. Ford, Sr., Jacksonville Transportation Authority CEO;

**7** Ashby Johnson, Executive Director, Capital Area Metropolitan Planning Organization;

**8** Shana V. Baker, FHWA;

**9** Michael Berube, U.S. Department of Energy;

**10** Quintin Kendall, FRA;

**11** Maryam Allahyar, U.S. DOT Office of Research, Development, and Technology;

**12** Marie Therese Dominguez, New York State DOT Commissioner;

**13** Rebecca Cointin, FAA; and

**14** Todd Ripley, U.S. Maritime Administration.

