The National Academies of
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TRB
TRANSPORTATION RESEARCH BOARD

TRB Snap Search: Innovation

TRB's involvement in research on Innovation from 2018-2019

The Transportation Research Board (TRB) provides innovative, research-based solutions to improve how we move. TRB is part of the National Academies of Sciences, Engineering, and Medicine, an independent, non-profit institution that provides objective advice on scientific, engineering, and medical issues.

A resource to the nation and to the transportation community worldwide, TRB provides an extensive portfolio of services:
- Opportunities for information exchange on current transportation research and practice
- Management of cooperative research and other research programs
- Analyses of national transportation policy issues and guidance on federal and other research programs
- Publications and access to research information from around the world

TRB Research

TRID – The world's largest and most comprehensive bibliographic source on all modes and disciplines of transportation
- Click here to view search results on TRB published research on Innovation since 2017.

Specialty Websites
- Transformational Technologies

Specialty Report

- Critical Issues in Transportation 2018

Recent Reports & Publications

- Airport Cooperative Research Program (ACRP)
  - Report 191 - A Primer to Prepare for the Connected Airport and the Internet of Things
  - Synthesis 89 - Clean Vehicles, Fuels, and Practices for Airport Private Ground Transportation Providers

- IDEA Projects
  - Safety IDEA 32 - Railroad Bridge Inspections for Maintenance and Replacement Prioritization Using Unmanned Aerial Vehicles (UAVs) with Laser Scanning Capabilities

- Letter Reports
  - Transit Research Analysis Committee - Letter Report: February 27, 2018

- National Cooperative Highway Research Program (NCHRP)
  - IDEA Report 193 - DART Field Validation and Prototype Refinement
  - Report 885 - Guide to Creating and Sustaining a Culture of Innovation for Departments of Transportation
  - Report 865 - Guidance for Development and Management of Sustainable Enterprise Information Portals
  - Research Topic Highlights - Roadway Tunnels
  - Web-Only Document 253 - Implications of Connected and Automated Driving Systems, Vol. 3: Legal Modification Prioritization and Harmonization Analysis
  - Web-Only Document 251 - Spot Painting to Extend Highway Bridge Coating Life: Volume 1: Guidance
  - Web-Only Document 248 - Research on Creating and Sustaining a Culture of Innovation for Departments of Transportation

- Transit Cooperative Research Program (TCRP)
  - IDEA Report 83 - Track Circuit Monitoring Tool: Standardization and Deployment at Chicago Transit Authority
  - Legal Research Digest 53 - Legal Considerations in Relationships Between Transit Agencies and Ridesourcing Service Providers
  - Report 199 - Transit Technical Training, Volume 1: Guide to Applying Best Practices and Sharing Resources
  - Report 199 - Transit Technical Training, Volume 2: Guide to Overcoming Barriers to Implementing Best and Innovative Training
  - Report 197 - Tools for a Sustainable Transit Agency

- [Transportation Research Circulars](#)
  - [E-Circular 236](#) - National Academies–TRB Forum on Preparing for Automated Vehicles and Shared Mobility
  - [E-Circular 227](#) - Advancing Highway Traffic Monitoring Through Strategic Research

Current & Upcoming Projects

- [Current Projects](#)
  - [ACRP 01-37](#) - Performance Measures for State Aviation Agencies
  - [ACRP 03-44](#) - Building and Maintaining Air Service Through Incentive Programs
  - [ACRP 09-17](#) - Collecting, Applying, and Maintaining Pavement Condition Data at Airports
  - [ACRP Synthesis 11-03/Topic S04-23](#) - Emergency Working Groups
  - [ACRP Synthesis 11-03/Topic S01-19](#) - Data Acquisition and Protocols for Risk Management
  - [NCHRP 03-128](#) - Business Intelligence Techniques for Transportation Agency Decision Making
  - [NCHRP 03-131](#) - Guidance for Planning and Implementing Multimodal, Integrated Corridor Management
  - [NCHRP 08-111](#) - Effective Decision-Making Methods for Freight-Efficient Land Use
  - [NCHRP 08-116](#) - Framework for Managing Data from Emerging Transportation Technologies to Support Decision-Making
  - [NCHRP 08-117](#) - Impact of Transformational Technologies on Land Use and Transportation
  - [NCHRP 15-67](#) - Wind Drag Coefficients for Highway Signs and Support Structures
  - [NCHRP 20-07/Task 408](#) - Transportation System Management and Operations (TSMO) Workforce: Skills, Positions, Recruitment, Retention, and Career Development
  - [NCHRP 20-24(121)](#) - Road Usage Charge: Applying Lessons Learned in New Zealand to the United States
  - [NCHRP 20-65/Task 73](#) - Best Practices and Marketing to Increase Rural Transit Ridership and Investment
  - [NCHRP 20-102(10)](#) - Cybersecurity Implications of CV/AV Technologies on State and Local Transportation Agencies
  - [NCHRP 20-102(12)](#) - Business Models to Facilitate Deployment of CV Infrastructure to Support AV Operations
  - [NCHRP 20-102(15)](#) - Impacts of Connected and Automated Vehicle Technologies on the Highway Infrastructure
  - [NCHRP 20-111J](#) - Successful Practices for State Transportation Research Office's Complying with 2 CFR 200
  - [NCHRP 20-112](#) - A Research Roadmap for Transportation and Public Health
  - [NCHRP 25-25/Task 102](#) - Artificial Bat Roost Mitigation Designs and Standardized Monitoring Criteria
  - [NCHRP 25-25/Task 105](#) - A Guidebook for Communications between Transportation and Public Health Communities
  - [NCHRP 25-25/Task 107](#) - Synthesis of Best Practices for the Development and Implementation of Section 106 Delegation Programmatic Agreements
  - [NCHRP 25-25/Task 109](#) - Successful Practices for Environmental Commitments in Public/Private Partnerships (P-3) and Design-Build (D-B) Contracts
  - [NCHRP 25-25/Task 115](#) - Estimates of Emissions Reductions from Future Fleet Changes for Use in Air Quality Models
  - [NCHRP Synthesis 20-05/Topic 49-02](#) - Emerging Technologies for Construction Delivery
  - [NCHRP Synthesis 20-05/Topic 49-03](#) - Bridge Demolition Practices
  - [NCHRP Synthesis 20-05/Topic 49-06](#) - Landscape Development and Management Practices for Urban Freeway Roadsides
  - [NCHRP Synthesis 20-05/Topic 49-14](#) - Methods to Acquire Proprietary Data for Transportation Applications
  - [NCHRP Synthesis 20-05/Topic 50-04](#) - Utility Pole Safety and Hazard Evaluation Approaches
  - [NCHRP Synthesis 20-05/Topic 50-07](#) - Electronic Ticketing, of Materials for Construction Management
  - [NCHRP Synthesis 20-05/Topic 50-10](#) - Availability of Pedestrian Infrastructure Data For Routing and Network Analysis
  - [NCHRP IDEA 20-30/IDEA 199](#) - Using Medical X-Ray Machines to Determine the Service Life of Concrete
  - [NCHRP IDEA 20-30/IDEA 203](#) - Safer Cushions
  - [NCHRP IDEA 20-30/IDEA 207](#) - MILDGLASS: GFRP Strand for Resilient Mild Pre-Stressed Concrete
  - [Safety IDEA Project 34](#) - Prototype System for Managing Enterprise Rail Transport Risk for Hazmat
  - [TCRP C-23](#) - Assessing and Mitigating Electrical Fires on Transit Vehicles
  - [TCRP J-11/Task 29](#) - Strategic Communications to Improve Support for Transit-Priority Projects
  - [TCRP Synthesis J-07/Topic SA-44](#) - Comprehensive Bus Network Redesign
  - [TCRP Synthesis J-07/Topic SF-20](#) - Managing the Transit Scheduling Workforce
  - [Transit IDEA J-04/IDEA 84](#) - Development of a Mass-Based Automated Passenger Counter
  - [Transit IDEA J-04/IDEA 85](#) - Location Aware Networks Optimizing Use of Transit
  - [Transit IDEA J-04/IDEA 86](#) - Advanced Neutral Temperature Estimation Using Solitary Waves (ANTEUSW)
  - [Transit IDEA J-04/IDEA 87](#) - Development of pathNav: A Pedestrian Navigation Tool that Utilizes Smart Data for Improved Accessibility and Walkability
  - [Transit IDEA J-04/IDEA 88](#) - Evaluation of an Automatic, Individual, Computer-Based Operator Education and Training Program

- o [Transit IDEA J-04/IDEA 89](#) - Dynamic Vehicle to Infrastructure TCIP Communications Laboratory Proof of Concept
- o [Transit IDEA J-04/IDEA 90](#) - sUAS-Based GeoINTEL for Commuter Rail Parking in Rural and Suburban Areas
- o [Transit IDEA J-04/IDEA 91](#) - Comprehensive Wayfinding for All (CWall)

- [Upcoming Projects](#)
  - o [ACRP 01-41](#) - Blockchain Technology and Airports - A Primer
  - o [ACRP 01-43](#) - Conducting Consumer Research of Air Passengers
  - o [ACRP 03-49](#) - Effective Collaboration to Plan and Respond to Communicable Disease Threats
  - o [ACRP 03-51](#) - Electric Aircraft of the Horizon -- An Airport Planning Perspective
  - o [ACRP 06-05](#) - Guidance for Diversity in Airport Businesses Contracting and Workforce Programs
  - o [ACRP 06-08](#) - Human Factors in Airport Operations
  - o [ACRP 08-03](#) - Construction Safety and Phasing Plans
  - o [ACRP 09-18](#) - Rapid Airfield Concrete Pavement Slab Replacement and Patching
  - o [ACRP 09-19](#) - Airfield Pavement Markings - Effective Techniques for Removal and Temporary Applications
  - o [ACRP 11-02/Task 37](#) - Periodic Report on Transformative Technology at Airports
  - o [BTSCRP BTS-01](#) - Guidance for Employer-Based Behavioral Traffic Safety Programs for Drivers in the Workplace
  - o [BTSCRP BTS-02](#) - Guide for Behavioral Traffic Safety Messaging on Variable Message Signs
  - o [BTSCRP BTS-06](#) - MPO and SHSO Coordination on Behavioral Traffic Safety
  - o [BTSCRP BTS-09](#) - The Influence of Infrastructure Design on Distracted Driving
  - o [NCHRP 03-135](#) - Wrong-Way Driving Solutions, Policy, and Guidance
  - o [NCHRP 06-18](#) - Guide for Snow and Ice Control Operations
  - o [NCHRP 08-118](#) - Risk Assessment Techniques for Transportation Asset Management
  - o [NCHRP 08-121](#) - Accessibility Measures in Practice: Guidance for Transportation Agencies
  - o [NCHRP 12-117](#) - Guidelines for Corrosion Protection of Steel Bridges Using Duplex Coating Systems
  - o [NCHRP 17-83](#) - Briefings and Training Materials for Implementation of the Highway Safety Manual, Second Edition
  - o [NCHRP 17-91](#) - Assessing the Impacts of Automated Driving Systems (ADS) on the Future of Transportation Safety
  - o [NCHRP 20-44(05)](#) - Dissemination of "NCHRP Domestic Scan 14-01: Leading Management Practices in Determining Funding Levels for Maintenance and Preservation"
  - o [NCHRP 20-50(17)](#) - LTPP Data Analysis: Consequences of Deferred Treatment of Pavement Preservation Treatment Placement on Asphalt Concrete, Portland Cement Concrete and Composite Pavement Structures
  - o [NCHRP 20-65/Task 81](#) - Best Practices in Rural Service Assessment
  - o [NCHRP 25-57](#) - Innovative Mitigation Strategies for Highway Noise
  - o [NCHRP 25-59](#) - Pollinator Habitat Conservation Along Roadways
  - o [TCRP F-27](#) - Characteristics and Elements of Non-Punitive Employee Safety Reporting Systems for Public Transportation

Reports from the [National Academies Press](#) on Innovation

- o [Discovering the Deep Blue Sea - Research, Innovation, Social Engagement](#)
- o [The Role of State Governments in Economic Development and R&D Competitiveness](#)
- o [Frontiers of Engineering - Reports on Leading-Edge Engineering from the 2017 Symposium](#)
- o [The Frontiers of Machine Learning](#)
- o [Open Science by Design - Realizing a Vision for 21st Century Research](#)

Committees & Panels

[Sign-up to be a committee "Friend"](#)

[**TRB Standing Committees**](#) – Search by transportation mode and committee topic
- o [ABE25](#) - Congestion Pricing
- o [ABG20](#) - Transportation Education and Training
- o [ABJ30](#) - Urban Transportation Data and Information Systems
- o [ABJ65T](#) - Freight Data Workshop
- o [ABJ95](#) - Visualization in Transportation
- o [ABR35T](#) - 11th University Transportation Center Spotlight Conference: Rebuilding and Retrofitting the Transportation Infrastructure
- o [ADB45](#) - Travel Forecasting Resources
- o [ADC10](#) - Environmental Analysis in Transportation
- o [AFF30](#) - Concrete Bridges
- o [AFS60](#) - Subsurface Drainage
- o [AFS70](#) – Geosynthetics
- o [AHD60](#) - Maintenance Equipment
- o [AL040](#) - Emerging Technology Law

- o [AP020](#) - Emerging and Innovative Public Transport and Technologies
- o [AP025](#) - Public Transportation Planning and Development
- o [AP045](#) - Passenger Intermodal Facilities
- o [AP065](#) - Rail Transit Systems
- o [AR030](#) - Railroad Operating Technologies
- o [AT020](#) - International Trade and Transportation
- o [B0024](#) - Research and Technology Coordinating Committee (FHWA)
- o [B0156](#) - Review of Federal Highway Administration Infrastructure R&D
- o [B0160](#) - Study on Performance of Bridges
- o [B0162](#) - Review of Federal Highway Administration Infrastructure R&D – Expert Task Group on Pavement
- o [B0164](#) - Update of National Naval Responsibility for Naval Engineering
- o [DA11081602](#) - Critical Issues in the Airport Industry: Workshop #2--Economic and Social Sustainability
- o [E1008](#) - Rail Safety IDEA Program
- o [X0014](#) - AASHTO Special Committee on Research & Innovation

Panels
- o [D08106](#) - Getting Innovations in Metropolitan Freight Implemented
- o [D20108](#) - Effective Practices for Creating and Maintaining an Innovation-Delivery Culture
- o [D2030](#) - IDEA (Innovations Deserving Exploratory Analysis)
- o [D2557](#) - Innovative Mitigation Strategies for Highway Noise
- o [TJ04](#) - Transit-innovations Deserving Exploratory Analysis (IDEA)

Councils
- o [A0040T](#) – Young Member Council

Recent and Upcoming Events

[Upcoming Conferences](#)- Left hand menu "upcoming conferences by topic"
(Conferences cosponsored by TRB are denoted with an asterisk.)

[Innovations in Freight Data Workshop](#)
April 9-10, 2019
Irvine, California

[International Conference on Demand Responsive and Innovative Transportation Services](#)
April 15-17, 2019
Baltimore, Maryland

[2nd International Intelligent Construction Technologies Group Conference (IICTG 2019)](#)
April 23-25, 2019
Beijing, China

[17th National Transportation Planning Applications Conference](#)
June 2-5, 2019
Portland, Oregon

[Ninth International Conference on Structural Health Monitoring of Intelligent Infrastructure (SHMII-9)](#)
August 4-7, 2019
St. Louis, Missouri

[3rd International Conference on Information Technology in Geo-Engineering (3rd ICITG 2019)](#)
September 29-October 2, 2019
Guimaraes, Portugal

[9th International Visualization in Transportation Symposium: Visualization in Action](#)
November, 5-6, 2019
Washington, DC

[First International Conference on 3D Printing and Transportation](#)
November 20-21, 2019
Washington, DC

[Webinars](#) – View upcoming webinars, suggest a webinar or add registration information

- o [Highway Maintenance Goes to College](#) – November 7, 2018
- o [Practices in Rural Regional Mobility: Case Studies and Lessons Learned](#) - September 27, 2018
- o [Nail it or Fail it: How to Build a Successful Mobility as a Service Story](#) - June 18, 2018
- o [Internal Curing of Concrete Pavements: State-of-the-Practice](#) – May 24, 2018
- o [Development and Management of Sustainable Information Portals](#) – May 2, 2018
- o [Permeable Concrete Pavements: State-of-the-Practice](#) – March 15, 2018
- o [Leveraging Transportation Mode Expertise for Community Resiliency](#) – February 15, 2018
- o [Roller-Compacted Concrete Pavements State-of-the-Practice](#) – February 14, 2018

TRB's Transportation Research Information Services (TRIS)

TRIS includes the [TRB Library](#) and the [TRIS Databases](#) (listed below) which are available free on TRB's website.

The TRB Library provides information services to TRB staff, sponsors, TRB Committee members and panels and researchers. Access to the TRB Library is a benefit to TRB sponsors and TRB committee members.
In cooperation with your State DOT Library or Information Service, the TRB Library provides:

- Reference and research assistance
- Literature searches
- Articles for TRB Committee work

The TRB Library provides training on effective and efficient use of the following TRIS resources:

TRID – The world's largest and most comprehensive bibliographic source on all modes and disciplines of transportation - [trid.trb.org](#)

Practice Ready Papers (PRP) Database - Papers with information that is ready for immediate implementation or requires minimal additional research or implementation effort - [prp.trb.org](#)

Publications Index (PubsIndex) Database – The papers, articles and reports published by the Transportation Research Board, Highway Research Board, Strategic Highway Research Programs or the Marine Board - [pubsindex.trb.org](#)

Research in Progress (RiP) Database – Current or recently completed transportation research projects - [rip.trb.org](#)

Research Needs Statements (RNS) – Research needs as identified by TRB Technical Activities standing committees - [rns.trb.org](#)

Snap Searches - Formerly called 'Overview Guides,' Snap Searches provide a succinct summary of activities in TRB on a given topic including: upcoming events such as conferences and webinars; names of Committees working on relevant issues; and a list of recent reports from TRB and The National Academies - [www.trb.org/InformationServices/Snap.aspx](#)

Contact the Library at [TRBLibrary@nas.edu](#) or l (202) 334-2989