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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
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All available Snap Searches can be accessed online here: [http://www.trb.org/InformationServices/Snap.aspx](http://www.trb.org/InformationServices/Snap.aspx)

**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 Safety & Human Factors within the past year.

**Subject Webpages**

- Safety & Human Factors Research at TRB
- Behavioral Traffic Safety Cooperative Research Program (BTSCRP)

**Specialty Report**

- Critical Issues in Transportation 2019
- COVID-19 Addendum to Critical Issues in Transportation
- Racial Equity Addendum to Critical Issues in Transportation

**Recent Reports & Publications**

- **Airport Cooperative Research Program (ACRP)**
  - Report 233 - Airport Biometrics: A Primer
  - Report 229 - Airport Collaborative Decision Making (ACDM) to Manage Adverse Conditions
  - Synthesis 115 - Practices in Airport Emergency Plans

- **Behavioral Traffic Safety Cooperative Research Program (BTSCRP)**
  - Report 1 - Using Electronic Devices While Driving: Legislation and Enforcement Implications

- **IDEA Safety Program**
  - Report 38 - Minimization of Weld Failures by Means of Gas and Shrinkage Porosity Reduction
  - Report 37 - Measuring Behavior of Railroad Bridges under Revenue Traffic using Lasers and Unmanned Aerial Vehicles (UAVs) for Safer Operations: Implementation

- **National Cooperative Highway Research Program (NCHRP)**
  - NCHRP 20-113F - Topical White Papers for the TRB Forum on Automated Vehicles and Shared Mobility
  - NCHRP 20-44(13) - Implementation of NCHRP Research Report 893: The Oregon DOT Statewide Pedestrian and Bicycle Plan
  - NCHRP 20-07/Task 368 - Development of a Roadmap for Use of SHRP2 Safety Data to Enhance Existing Publications
  - IDEA Report 214 - An Enhanced Network-Level Curve Safety Assessment and Monitoring Using Mobile Devices
  - IDEA Report 212 - Non-Gating Guardrail Terminal
  - IDEA Report 203 – SaferCushion
  - Report 992 - Guide to Pedestrian Analysis
  - Report 991 - Guidelines for the Development and Application of Crash Modification Factors
  - Report 983 - Reliability of Crash Prediction Models: A Guide for Quantifying and Improving the Reliability of Model Results
- Guidelines for Quantifying Benefits of Traffic Incident Management Strategies
- Application of Crash Modification Factors for Access Management, Volume 2: Research Overview
- Posted Speed Limit Setting Procedure and Tool: User Guide
- LED Roadway Lighting: Impact on Driver Sleep Health and Alertness
- Guide for Pedestrian and Bicyclist Safety at Alternative and Other Intersections and Interchanges
- Guidelines for Integrating Safety and Cost-Effectiveness into Resurfacing, Restoration, and Rehabilitation (3R) Projects
- Lighting Practices for Isolated Rural Intersections
- Temporary Pavement Markings Placement and Removal Practices in Work Zones
- Load Rating of Bridges and Culverts with Missing or Incomplete As-Built Information
- Roadside Safety Analysis Program (RSAP) Update
- Safety Prediction Models for Six-Lane and One-Way Urban and Suburban Arterials
- Human Factors Guidelines for Road Systems 2021 Update, Volume 1: Updated and New Chapters
- Enhancing Pedestrian Volume Estimation and Developing HCM Pedestrian Methodologies for Safe and Sustainable Communities
- Safety Performance of Part-Time Shoulder Use on Freeways, Volume 2: Conduct of Research Report
- Safety Prediction Methodology and Analysis Tool for Freeways and Interchanges
- Criteria for Restoration of Longitudinal Barriers, Phase II
- Understanding and Communicating Reliability of Crash Prediction Models
- Development of a Comprehensive Approach for Serious Traffic Crash Injury Measurement and Reporting Systems
- Guidance to Predict and Mitigate Dynamic Hydroplaning on Roadways
- Guidelines for Cost-Effective Safety Treatments of Roadside Ditches
- Roadside Hardware Replacement Analysis: User Guide
- Development of a Posted Speed Limit Setting Procedure and Tool

- Strengthening U.S. Coast Guard Oversight and Support of Recognized Organizations: The Case of the Alternative Compliance Program
- Options for Improving the Safety of DUKW Type Amphibious Vessels
- Technical Feasibility of a Wheelchair Securement Concept for Airline Travel: A Preliminary Assessment
- Preparing for LNG by Rail Tank Car: A Review of a U.S. DOT Safety Research, Testing, and Analysis Initiative
- Modernizing the U.S. Offshore Oil and Gas Inspection Program for Increased Agility and Safety Vigilance

- Evaluation of an Automatic, Individual Computer-Based Driver Education and Training Program
- Measuring and Managing Fare Evasion
- Strategies for Deterring Trespassing on Rail Transit and Commuter Rail Rights-of-Way, Volume 1: Guidebook
- Strategies for Deterring Trespassing on Rail Transit and Commuter Rail Rights-of-Way, Volume 2: Research Overview
- Assessing and Mitigating Electrical Fires on Transit Vehicles
- Transit Safety Risk Assessment Methodologies

- Insights, Inclusion, and Impact: Framing the Future for Women in Transportation

Current & Upcoming Projects
Current Projects

- ACRP 01-41 - Airport Blockchain Implementation Guidebook
- ACRP 01-44 - Airport Insurance Requirements
- ACRP 02-94 - Update ACRP WebResource 4: Airport Air Quality Resource Library
- ACRP 02-95 - Understanding Airport Air Quality and Public Health Studies Related to Airports: An Update to ACRP Report 135
- ACRP 03-49 - Effective Collaboration to Plan and Respond to Communicable Disease Threats
- ACRP 03-57 - A Guidebook to Prepare Airports for Transformations in Wireless Connectivity
- ACRP 04-24 - Guidelines to Develop an Anti-Human Trafficking Action Plan for Airports
- ACRP 04-25 - Airports and Communicable Diseases—Preparedness and Response
- ACRP 04-27 - Alternative Methods to Manage Tree Growth Near Airports
- ACRP 04-28 - Developing Alternative Aircraft Arresting Systems
- ACRP 08-03 - Construction Safety and Phasing Plans
- ACRP 10-29 - Aircraft Jet Blast Estimation Tool
- ACRP 10-30 - Evaluating the Effectiveness of an Airport's Wildlife Hazard Management Program
- ACRP 11-01/Topic 14-01 - Legal Considerations for Airports Responding to pandemics
- ACRP 11-02/Task 41 - Toward a Touchless Airport Journey
- ACRP Synthesis 11-03/Topic S06-07 - Evolution of Airport Work Models and Strategies
- ACRP Synthesis 11-03/Topic S10-17 - Agricultural Operations on Airport Grounds
- BTSCRPTTS01 - Guidance for Employer-Based Behavioral Traffic Safety Programs for Drivers in the Workplace
- BTSCRPTTS04 - Tracking State Traffic Citation and Adjudication Outcomes
- BTSCRPTTS06 - MPO and SHSO Coordination on Behavioral Traffic Safety
- BTSCRPTTS08 - Use of SHRP2 Naturalistic Driving Study Database to Improve Teen Driving Safety: Phase 1 Proof of Concept
- BTSCRPTTS09 - The Influence of Infrastructure Design on Distracted Driving
- BTSCRPTTS10 - E-Scooter Safety: Issues and Solutions
- BTSCRPTTS11 - Ensuring Child Safety in New Travel Modes
- BTSCRPTTS12 - State Practices Promoting Older Driver Safety
- BTSCRPTTS13 - Communicating Safe Behavior Practices to Vulnerable Road Users
- BTSCRPTTS15 - Highway Safety Strategies for Rural Communities
- BTSCRPTTS16 - Developing On-road Driver Skills Test and Scoring Guidance for Measuring and Predicting High Safety Risk Drivers
- BTSCRPTTS19 - Improving Moped and Seated Motor Scooter (50 cc or less) Rider Safety
- NCHRP 03-119 - Application of MASH Test Criteria to Breakaway Sign and Luminaire Supports and Crashworthy Work-Zone Traffic Control Devices
- NCHRP 03-130 - Guide for Roundabouts
- NCHRP 03-132 - Guidance for Safe and Effective Temporary Traffic Control for Mobile Operations on Two-Lane Two-Way Roadways
- NCHRP 03-133 - Traffic Signal Design and Operations Strategies for Non-Motorized Users
- NCHRP 03-134 - Determination of Encroachment Conditions in Work Zones
- NCHRP 03-135 - Wrong-Way Driving Solutions, Policy, and Guidance
- NCHRP 03-139 - Next Generation of the USLIMITS2 Speed Limit Setting Expert System
- NCHRP 03-141 - Guidance on Midblock Pedestrian Signals (MPS)
- NCHRP 05-24 - Guidelines for Vehicle and Equipment Color, Marking, and Lighting
- NCHRP 10-109 - Modern Solutions to Safe and Efficient Work Zone Travel
- NCHRP 08-139 - Guide for Preventing and Mitigating the Risk of Bridge and Tunnel Strikes by Motor Vehicles
- NCHRP 15-66 - Operational Performance and Safety Effects of Arterial Weaving Sections
- NCHRP 15-68 - Effective Low-Noise Rumble Strips
- NCHRP 15-73 - Design Options to Reduce Turning Motor Vehicle–Bicycle Conflicts at Intersections
- NCHRP 15-74 - Safety Evaluation of On-Street Bicycle Facility Design Features
- NCHRP 15-78 - Guidebook for Urban and Suburban Roadway Cross-Sectional Reallocation
- NCHRP 17-11(02) - Development of Clear Recovery Area Guidelines
- NCHRP 17-43 - Long-Term Roadside Crash Data Collection Program
- NCHRP 17-46 - Comprehensive Analysis Framework for Safety Investment Decisions
- NCHRP 17-60 - Benefit-Cost Methodology for Behavioral Highway Safety Countermeasures
- NCHRP 17-66 - Guidance for Selection of Appropriate Countermeasures for Opposite Direction Crashes
- NCHRP 17-67 - Identification of Factors Contributing to the Decline of Traffic Fatalities in the United States
- NCHRP 17-72 - Update of Crash Modification Factors for the Highway Safety Manual
- NCHRP 17-79 - Safety Effects of Raising Speed Limits to 75 mph and Higher
- Proposed Macro-Level Safety Planning Analysis Chapter for the Highway Safety Manual
- Proposed Guidance for Fixed Objects in the Roadside Design Guide
- Pedestrian and Bicycle Safety Performance Functions for the Highway Safety Manual
- Estimating Effectiveness of Safety Treatments in the Absence of Crash Data
- Roadside Encroachment Database Development and Analysis
- Evaluation of Roadside Crash Injury Metrics in MASH
- Assessing the Impacts of Connected, Automated and Autonomous Vehicles on the Future of Transportation Safety
- Developing Safety Performance Functions for Rural Two-Lane Highways that Incorporate Speed Measures
- Updating Safety Performance Functions for Data-Driven Safety Analysis
- Crash Modification Factors for Intelligent Transportation Systems (ITS) Applications
- Traffic Safety Culture Research Roadmap
- Reducing Risks to Worker Safety in Work Zones Due to Distracted Drivers
- Impacts of Connected, Automated Vehicle Technologies on Traffic Incident Management Response
- State DOT Contributions to the Study, Investigation, and Interdiction of Human Trafficking
- Deploying Transportation Security Practices in State DOTs
- Evaluating the Performance of Longitudinal Barriers on Curved, Superelevated Off-Ramps
- Multi-State In-Service Performance Evaluations of Roadside Safety Hardware
- Determination of Zone of Intrusion Envelopes under MASH Impact Conditions for Barrier Attachments
- Evaluation of Bridge Rail Systems to Confirm AASHTO MASH Compliance
- Development of a Barrier Design to Accommodate Vehicles, Pedestrians, and Cyclists
- Development of MASH TL-3 Deflection Reduction Guidance for 31-inch Guardrail
- Guardrail Performance at Various Offsets from Curb MASH TL-3 Applications
- Update to AASHTO M 180-18 and Associated Highway Guardrail Specifications
- Proposed AASHTO Guidelines for Implementation of MASH for Sign Supports, Breakaway Poles, and Work Zone Traffic Control Devices
- A Transportation Agency Data Collection Practice for Use with In-Service Performance Evaluations (ISPEs)
- Understanding and Analyzing Crash Contributing Factors
- Incorporating Driver Behavior and Characteristics into Safety Prediction Methods
- Development of Crash Prediction Models for Short-Term Durations
- The Effect of Vehicle Mix on Crash Frequency and Crash Severity
- Guidance for Training and Certification of Construction Inspectors for Transportation Infrastructure
- Scoping Study to Develop the Basis for a Highway Standard to Conduct an All-Hazards Risk and Resilience Analysis
- From Location Tracking to Continuous Interpretation: Rule-Based Automated Safety Work Zone Safety
- A Real-Time Proactive Intersection Safety Monitoring and Visualization System Based on Radar Sensor Data
- Fatigue Crack Inspection Using Computer Vision and Augmented Reality
- A Smart IoT Proximity Alert System for Highway Work Zone Safety
- A Retroreflective Road Lane Marking Tape 1,000X Brighter Than Existing Technology
- Highway Infrastructure Inspection Practices for the Digital Age
- Practices for Balancing Safety Investments in a Comprehensive Safety Program
- Use of Safety Management Systems in Managing Highway Maintenance Worker Safety
- Use of Smart Work Zone Technologies for Improving Work Zone Safety
- Design Practices for Rock Slopes and Rockfall Management
- Practices to Motivate Safe Behaviors with Highway Construction and Maintenance Crews
- NCHRP Synthesis 20-05/Topic 53-10 - Identifying the Current Practice of Contrast Pavement Markings by Departments of Transportation
- NCHRP Synthesis 20-05/Topic 53-16 - Critical Findings for Tunnel Functional Systems
- Safety IDEA Project 36 - Onboard High-Bandwidth Fiber Optic Sensing System for Broken Rail Detection
- Safety IDEA Project 43 - Augmenting Reality for Safer Inspections of Railroad Infrastructure and Operations
- Safety IDEA Project 44 - Laser-based Non-destructive Spike Defect Inspection System
- Safety IDEA Project 45 - Development of a Fatigue Load for Railway Bridges
- TCRP B-46 - Tactile Wayfinding in Transportation Settings for Travelers Who Are Blind or Visually Impaired
- TCRP G-17 - Assessing Lifecycle and Human Costs of Bus Operator Workstation Design and Components
- TCRP J-05/Topic 18-02 - Codes of Conduct on Transit Vehicles and Property: Legal Issues
- TCRP Synthesis J-07/Topic SA-52 - Assessing Equity and Identifying Impacts Associated with Bus Network Redesigns
- TCRP Synthesis J-07/Topic SA-54 - Pedestrian and Bicycle Safety in Bus/BRT Corridors
- Transit IDEA J-04/IDEA 98 - Safety Assessment of the Interaction Between the Autonomous Shuttle Bus and Vulnerable Road Users

**Upcoming Projects**
- ACRP 06-08 - Human Factors in Airport Operations
- ACRP 09-22 - Guidance for Small Airports on Safe Maintenance of Airfield Electrical Systems
- BTRSCRP BTS-14 - Understanding and Analyzing Crash Contributing Factors (Joint project with NCHRP 22-45)
- BTRSCRP BTS-17 - Determining the Effectiveness of Combined High Visibility Enforcement (HVE)
- BTRSCRP BTS-20 - Strategies to Address Misreporting of Impaired and Distracted Driving in Motor Vehicle Crashes
- BTRSCRP BTS-22 - Guidelines for Selecting Communication Channels to Deliver Traffic Safety Messaging
- BTRSCRP BTS-23 - Outcomes of Variability in Teen Driving Experience and Exposure: Evidence from the Naturalistic Driving Study
- NCHRP 03-142 - Evaluating the Impacts of Real-Time Warnings and Variable Speed Limits on Safety and Travel Reliability during Weather Events
- NCHRP 05-25 - Guide to the Contextual Application of Overhead Lighting on Highways
- NCHRP 07-31 - State DOT Usage of Bicycle and Pedestrian Data: Practices, Sources, Needs, and Gaps
- NCHRP 15-79 - Development of Guidance for Non-Standard Roadside Hardware Installations
- NCHRP 17-97 - Strategies to Improve Pedestrian Safety at Night
- NCHRP 17-99 - Safety Effectiveness Assessment of Advanced Highway-Rail Grade Crossing Improvements
- NCHRP 17-100 - Leveraging Artificial Intelligence and Big Data to Enhance Safety Analysis
- NCHRP 17-101 - Applying the Safe System Approach to Transportation Planning, Design, and Operations in the United States
- NCHRP 17-102 - Safety Performance for Active Transportation Modes Using Exposure Models
- NCHRP 17-106 - Motorist Behavior and Safety Impacts on Bicyclists from Centerline and Shoulder Rumble Strips on High-Speed Two-Lane Highways
- NCHRP 17-108 - Developing Crash Modification Factors for Alternative Intersections
- NCHRP 20-102(33) - Safety of Vulnerable Road Users in a C/AV Future
- NCHRP 20-121A - Countering Human Trafficking: A Toolkit for State DOTs
- NCHRP 20-129 - Guidebook for Addressing Encampments on State Transportation Rights-of-Way
- NCHRP 22-32A - Development of Methods to Evaluate Side Impacts for Next Edition MASH
- NCHRP 22-42 - Impact Performance Assessment of Barrier Performance at High Speeds
- NCHRP 22-50 - Crashworthiness of Roadside Hardware on Curbed Roadways
- NCHRP 22-51 - Evaluation of MASH 2016 Soil Specifications and Procedures
- NCHRP 22-53 - Delineation of Linear Roadside Hardware Systems and Roadside Obstacles
- NCHRP 22-55 - Implementation of MASH Surrogate Test Vehicles for Sign Supports, Breakaway Poles, and Work Zone Traffic Control Devices
- NCHRP 22-56 - Development of Non-proprietary Prefabricated Solutions for Concrete Barrier Systems for Accelerated Bridge Construction
- NCHRP 23-13 - Transportation Research Related to COVID-19
NCHRP 23-13(01) - Telecommuting, Remote Work, and Hybrid Schedules: Managing the Shift to a Flexible Work Future
NCHRP 23-13(02) - Employee Safety during COVID-19
NCHRP 23-13(03) - Guide on Truck Rest and Service Areas for Critical Supply Chain Delivery
NCHRP 23-28 - Changes to 4.9 Ghz Spectrum Access and Authorization – What You Need to Know
NCHRP 20-123(16) - Support for AASHTO Committees and Councils
NCHRP 20-123(17) - Highway Safety Manual Development and Research Roadmap
TCRP A-48 - Mitigation Strategies for Deterring Transit Assaults
TCRP C-25 - Bus Operator Barrier Design
TCRP D-19 - Detecting and mitigating low level DC fault currents in transit systems thus eliminating electrical fires in tunnels and rights-of-way
TCRP E-13 - COVID-19 and Transit Air Quality Protections (Insight Event)
TCRP E-14 - Electric Bus Fire Prevention and Risk Management
TCRP F-30 - Guide for Protecting Transportation Employees and the Traveling Public from Airborne Diseases
TCRP I-11/Task 43 - Analysis of Public Transportation Health Impacts and Benefits

Reports from the National Academies Press on Safety & Human Factors
Flying in the COVID-19 Era: Science-based Risk Assessments and Mitigation Strategies on the Ground and in the Air
Community Safety and Policing
Offshore Situation Room - Enhancing Resilience to Offshore Oil Disasters in the Gulf of Mexico
Emergency Evacuation and Sheltering During the COVID-19 Pandemic
Looking Ahead at the Cybersecurity Workforce at the Federal Aviation Administration
Current Issues in the Assessment of Respiratory Protective Devices for Occupational and Non-Occupational Uses

Committees & Panels
Sign-up to be a committee "Friend"

TRB Standing Committees – Search by transportation mode and committee topic
ACH00 – Section - Pedestrians, Bicycles, Human Factors
ACH10 – Pedestrians
ACH20 – Bicycle Transportation
ACH30 – Human Factors of Vehicles
ACH40 – Human Factors of Infrastructure Design and Operations
ACH50 – Road User Measurement and Evaluation
ACH60 – Vehicle User Education, Training, and Licensing
ACS10 – Transportation Safety Management
ACS20 – Safety Performance Analysis
ACS30 – Traffic Law Enforcement
ACS40 – Occupant Protection
ACS50 – Impaired in Transportation
ACS60 – Truck and Bus Safety
AIL70 – Tort Liability and Risk Management
AKD20 – Roadside Safety Design
AKD80 – Roundabouts and other Intersection Design and Control Strategies
AME50 – Accessible Transportation and Mobility
AP050 – Bus Transit Systems
AR070 – Rail Safety
AR080 – Highway/Rail Grade Crossings
AT040 – Transportation of Hazardous Materials
AV090 – Aviation Security and Emergency Management
AV095 – New Users of Shared Airspace
AW040 – Marine Safety and Human Factors

Task Forces - Search for task force under committee here

Policy Study
B0158 - Truck Size and Weight Limits Research Plan Committee
B0163 - Revise and Update the U.S. Coast Guard Vessel Stability Regulations
B0173 - U.S. Coast Guard Oversight of Recognized Organizations
B0174 - Options for Improving the Safety of Amphibious Vessels (DUKW boats) When Used in Passenger Service
CRP Panels
  - Project Panels Related to Safety & Human Factors
Counsels
  - A001C – Young Members Coordinating Council

Recent and Upcoming Events

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

- **International Conference on Roundabouts**
  - May 15, 2022
  - Monterey, CA

- **Research Day at ITF Annual Summit***
  - May 17, 2022
  - Leipzig, Germany

- **18th Biennial National Harbor Safety Committee Conference**
  - June 13, 2022
  - Boston, MA

- **13th Access Management Conference**
  - July 1, 2022
  - Online

- **International Conference on Bridge Maintenance, Safety, and Management (IABMAS2022)**
  - July 11, 2022
  - Barcelona, Spain

- **Automated Road Transportation Symposium**
  - July 18, 2022
  - Garden Grove, CA

- **Tools of the Trade Conference**
  - August 29, 2022
  - Boise, ID

- **International Conference of International Society for Intelligent Construction***
  - September 6, 2022
  - Guimaraes, Portugal

- **TRANSED: Mobility, Accessibility, and Demand Response Transportation Conference**
  - September 12-16, 2022
  - Online

- **TRB Scenario Planning Conference**
  - September 19, 2022
  - Washington, DC

**Upcoming Events** - In the Upcoming Events tab under Types, choose what event you are interested in, search titles by keyword

**Past Events** - In the Past Events tab under Types, choose what event you are interested in, search titles by keyword

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In cooperation with your State DOT Library or Information Service, the TRB Library provides:

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

- **Transportation Research International Documentation (TRID)** – [trid.trb.org](http://trid.trb.org) - The world's largest and most comprehensive bibliographic source on all modes and disciplines of transportation
- **Transportation Research Thesaurus (TRT)** – [trt.trb.org](http://trt.trb.org) - A tool to improve the indexing and retrieval of transportation information.
- **Research in Progress (RiP) Database** – [rip.trb.org](http://rip.trb.org) - Current or recently completed transportation research projects
- **Research Needs Statements (RNS)** – [rns.trb.org](http://rns.trb.org) - Research needs as identified by TRB Technical Activities standing committees
- **Publications Index (PubsIndex) Database** – [pubsindex.trb.org](http://pubsindex.trb.org) - The papers, articles and reports published by the Transportation Research Board, Strategic Highway Research Programs or the Marine Board

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