TRB Snap Search: Data

TRB’s involvement in research on Data from 2021-2022

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

All available Snap Searches can be accessed online here: 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 Data within the past year.

Subject Webpage

- Data Research at TRB

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)
  - Legal Research Digest 42 - Legal Implications of Data Collection at Airports
  - Report 235 - Guidebook on Conducting Airport User Surveys and Other Customer Research
  - Report 229 - Airport Collaborative Decision Making (ACDM) to Manage Adverse Conditions

- National Cooperative Highway Research Program (NCHRP)
  - IDEA Report 209 - An Automated System for Pedestrian Facility Data Collection from Aerial Images
  - NCHRP 20-07/Task 368 - Development of a Roadmap for Use of SHRP2 Safety Data to Enhance Existing Publications
  - NCHRP 20-50(22) - LTPP Data Analysis: Feasibility of Using LTPP Data to Improve Use of FWD and Longitudinal Profile Measurements
  - NCHRP 20-113F - Topical White Papers for the TRB Forum on Automated Vehicles and Shared Mobility
  - Report 977 - Access Management in the Vicinity of Interchanges, Volume 2: Research Overview
  - Report 975 - Transportation System Resilience: Research Roadmap and White Papers
  - Report 974 - Application of Crash Modification Factors for Access Management, Volume 2: Research Overview
  - Report 964 - Protocols for Network-Level Macrotexture Measurement
  - Report 956 - Guidebook for Data and Information Systems for Transportation Asset Management
  - Synthesis 561 - Use of Vehicle Probe and Cellular GPS Data by State Departments of Transportation
  - Synthesis 560 - Practices for Construction-Ready Digital Terrain Models
  - Web-Only Document 319 - Roadside Safety Analysis Program (RSAP) Update
Current & Upcoming Projects

- **Transit Cooperative Research Program (TCRP)**
  - IDEA Report 98 - Safety Assessment of the Interaction Between the Autonomous Shuttle Bus and Vulnerable Road Users
  - IDEA Report 93 - An Open Platform for Transit Agencies to Improve the Quality of Their Real-Time Data
  - Report 235 - Improving Access and Management of Public Transit ITS Data
  - Report 229 - Assessing and Mitigating Electrical Fires on Transit Vehicles
  - Synthesis 153 - The Transit Analyst Toolbox: Analysis and Approaches for Reporting, Communicating, and Examining Transit Data

- **Transportation Research Circulars**
  - E-Circular 278 - Innovations in Freight Data Workshop
  - E-Circular 269 - 2020 Commodity Flow Survey Workshop

**Current Projects**

- ACRP 01-39 - Creative Marketing Techniques to Improve Revenue Generation Partnerships
- ACRP 01-41 - Airport Blockchain Implementation Guidebook
- ACRP 01-43 - Conducting Consumer Research of Air Passengers
- ACRP 01-50 - Data Protection and Privacy Management Guidelines for Airports
- ACRP 02-89 - Industry Survey—Benefits and Costs for Airport Noise And Operations Monitoring Systems
- ACRP 02-99 - Incorporating Environmental Justice and Equity Principles and Data into Airport Decision-Making
- ACRP 03-57 - A Guidebook to Prepare Airports for Transformations in Wireless Connectivity
- ACRP 03-61 - Implementing and Improving Data Analytics Capabilities at Airports
- ACRP 03-62 - A Toolkit for Establishing Airport Catchment Areas
- ACRP 04-27 - Alternative Methods to Manage Tree Growth Near Airports
- ACRP 09-21 - Asset Information Handover Guidelines: From Planning and Construction to O&M
- ACRP 10-32 - U.S. Airport Industry Adoption of Automated Ground Vehicle Systems
- ACRP Synthesis 11-03/Topic S09-09 - Automated Pavement Condition Survey Practices at Airports
- BTSCRPT BTS-04 - Tracking State Traffic Citation and Adjudication Outcomes
- BTSCRPT BTS-08 - Use of SHRP2 Naturalistic Driving Study Database to Improve Teen Driving Safety: Phase 1 Proof of Concept
- NCHRP 01-60 - Measuring the Characteristics of Pavement Surface Images and Developing Standard Practices for Calibration, Certification, and Verification of Imaging Systems
- NCHRP 03-129 - Essential Communications: A Guide to Land Mobile Radio
- NCHRP 03-134 - Determination of Encroachment Conditions in Work Zones
- NCHRP 03-138 - Application of Big Data Approaches for Traffic Incident Management (TIM)
- NCHRP 08-119 - Developing Data Standards and Guidance for Transportation Planning and Traffic Operations - Phase 1
- NCHRP 08-123 - Census Transportation Data Field Guide for Transportation Applications
- NCHRP 08-124 - Quantifying the Impacts of Corridor Management
- NCHRP 08-145 - Utilizing Cooperative Automated Transportation (CAT) Data to Enhance the Use of Freeway Operational Strategies
- NCHRP 10-106 - Update of AASHTO Standard Practice for Certification of Inertial Profiling Systems (R 56)
- NCHRP 10-110 - 3D Modeling Guide for Construction Inspection
- NCHRP 12-122 - Proposed AASHTO Guidelines for Applications of Unmanned Aerial Systems Technologies for Element-Level Bridge Inspection
- NCHRP 17-43 - Long-Term Roadside Crash Data Collection Program
- NCHRP 17-86 - Estimating Effectiveness of Safety Treatments in the Absence of Crash Data
- NCHRP 17-87 - Enhancing Pedestrian Volume Estimation and Developing HCM Pedestrian Methodologies for Safe and Sustainable Communities
- NCHRP 17-88 - Roadside Encroachment Data for All Vehicle Types Across a Range of Traffic Volumes
- NCHRP 17-93 - Updating Safety Performance Functions for Data-Driven Safety Analysis
- Leveraging Artificial Intelligence and Big Data to Enhance Safety Analysis
- Transitioning Fuel Tax Assessments to a Road Usage Charge
- Building Capacity for Self-Assessment of Data Effectiveness for Agency Business Needs
- Consultant Support for Implementation of Guidebook for Managing Data from Emerging Technologies
- LTPP Data Analysis: Develop Tools to Improve Accuracy of Traffic Loading Data Collection
- Advancing Practices of In Situ Nondestructive Evaluation of Highway System Asset Foundational Condition and Capability
- State DOT Contributions to the Study, Investigation, and Interdiction of Human Trafficking
- Multi-State In-Service Performance Evaluations of Roadside Safety Hardware
- Impact Performance Assessment of Barrier Performance at High Speeds
- A Transportation Agency Data Collection Practice for Use with In-Service Performance Evaluations (ISP Es)
- Incorporating Driver Behavior and Characteristics into Safety Prediction Methods
- Guidelines on Collaboration and Information Security for State DOTs
- Implementing and Leveraging Machine Learning at State Departments of Transportation
- An Enhanced Network-Level Curve Safety Assessment and Monitoring Using Mobile Devices
- The Portable Single Lane Traffic Counting Device
- A Real-Time Proactive Intersection Safety Monitoring and Visualization System Based on Radar Sensor Data
- Mixed Reality Assisted Infrastructure Inspections
- An Automated System for Large-Scale Intersection Marking Data Collection and Condition Assessment
- Automated Data and Feature Extraction from Bridge Plan
- Low-Cost Sensing System for the Detection and Classification of Super Single Wheel Types and Distribution at the Network Level
- Implementation of Subsurface Utility Engineering for Highway Design and Construction
- Use of Pavement Data Collection Technology for Pavement Data Quality Management and MAP-21 Reporting
- Models as Construction Contract Documents
- Technological Capabilities of DOTs for Digital Project Management and Delivery
- Use of Unmanned Aerial Systems for Inspection of Stormwater Best Management Practices
- Use of Probe Data for Freight Planning and Operations
- Navigating the Complexities of Sensitive Security Information (SSI) and Protected Critical Infrastructure Information (PCI)
- Partnerships for Equitable Pandemic Response and Recovery
- Multimodal Transit with Citopia

- Informing the Selection of Countermeasures by Evaluating, Analyzing, and Diagnosing Contributing Factors that Lead to Crashes
- Strategies to Address Misreporting of Impaired and Distracted Driving in Motor Vehicle Crashes
- Outcomes of Variability in Teen Driving Experience and Exposure: Evidence from the Naturalistic Driving Study
- Leveraging Existing Traffic Signal Assets to Obtain Quality Traffic Counts
- State DOT Usage of Bicycle and Pedestrian Data: Practices, Sources, Needs, and Gaps
- Best Practices for Data Fusion of Probe and Point Detector Data
- Integrating Active Transportation Data into Transportation Decision-Making
- Racial and Economic Disparities in Pedestrian and Bicyclist Safety
- Guideline for Depicting Existing and Proposed Utility Facilities in Design Plans
- Work Zone Intrusion Frequency and Characteristics
- Template for gathering and disseminating telemetric data for safety and operational uses by state DOTs (Phase 1: state of the practice survey and synthesis)
- Improved Method to Link Crash, Emergency Medical Service, and Trauma Registry Data to Expand Safety Data Analyses and Safety Program Development
- NCHRP 20-07/Task 354 - Work Zone Speed Limits and Crash Data Practices
- NCHRP 20-24(119) - Strategic Research in Support of the Connected and Automated Vehicle Executive Leadership Team
- NCHRP 20-24(132) - Understanding Knowledge Management in Context with Other Organizational Practices
- NCHRP 20-50(221A) - LTPP Data Analysis: Guidelines to Improve Use of FWD and Longitudinal Profile Measurements
- NCHRP 20-102(17) - Readiness Assessment of Operational Data Environment Software in the ITS CodeHub
- NCHRP 22-42 - Impact Performance Assessment of Barrier Performance at High Speeds
- NCHRP 23-16 - Implementing and Leveraging Machine Learning at State Departments of Transportation
- NCHRP 23-23 - Data Governance Design and Implementation - Links Between Governance Approaches and Performance Effects in DOTs
- NCHRP 23-25 - Architecture for an Information System for Reporting and Sharing Truck Regulatory Requirements Data
- NCHRP 23-27 - Strategies to Strengthen Data-Driven Decision Making
- NCHRP 23-29 - Enterprise Data Warehouse Implementation Guide
- NCHRP 25-66 - Update the National REMEL Database Used in FHWA Traffic Noise Model
- NCHRP Synthesis 20-05/Topic 54-04 - Mobile Devices as a Tool for Digitalized Project Documentation and Inspection
- NCHRP Synthesis 20-05/Topic 54-06 - Ancillary Asset Data Stewardship and Data Models

Reports from the National Academies Press on Data
- Evaluation of Compensation Data Collected Through the EEO-1 Form
- Artificial Intelligence Tools and Open Data Practices for EPA Chemical Hazard Assessments
- Modernizing the Consumer Price Index for the 21st Century
- Data Analytics and What It Means to the Materials Community
- Building Data Capacity for Patient-Centered Outcomes Research: Priorities for the Next Decade
- Building Data Capacity for Patient-Centered Outcomes Research: Interim Report 3 - A Comprehensive Ecosystem for PCO
- Building Data Capacity for Patient-Centered Outcomes Research - Interim Report Two - Data Standards, Methods, and Policy
- Building Data Capacity for Patient-Centered Outcomes Research - Interim Report One - Looking Ahead at Data Needs
- Energizing Data-Driven Operations at the Tactical Edge
- Motivating Local Climate Adaptation and Strengthening Resilience-Making Local Data Trusted, Useful, and Used
- Empowering the Defense Acquisition Workforce to Improve Mission Outcomes Using Data Science
- Data in Motion: New Approaches to Advancing Scientific, Engineering and Medical Progress
- A Satellite Account to Measure the Retail Transformation - Organizational, Conceptual, and Data Foundations

Committees & Panels

Sign-up to be a committee "Friend"

TRB Standing Committees – Search by transportation mode and committee topic
- ACH40 - Human Factors of Infrastructure Design and Operations
- ACP70 - Highway Traffic Monitoring
- ACP80 - Traffic Simulation
- ACS20 - Safety Performance Analysis
- AED10 - Statewide/National Transportation Data and Information Systems
- AED20 - Urban Transportation Data and Information Systems
- AED30 - Information Systems and Technology
- AED40 - Geographic Information Science
- AED50 - Artificial Intelligence and Advanced Computing Applications
- AED60 - Statistical Methods
- AED70 - Freight Transportation Data
- AED80 - Visualization in Transportation
- AEP50 - Transportation Demand Forecasting
- AKD70 - Geospatial Data Acquisition Technologies
- AME80 - Community Resources and Impacts
- AP090 - Transit Data
Task Forces - Search for task force under committee here

CRP Panels

- Project Panels Related to Data

Councils

- A001C – Young Members Coordinating Council

Recent and Upcoming Events

Upcoming TRB Conferences – Use left hand menu to filter events

TRB's Symposium on Visualization in Transportation
November 3-4, 2022
Washington, D.C.

National Conference on Transportation Asset Management
July 8-11, 2023
Boston, MA

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

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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:

- Transportation Research International Documentation (TRID) – 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 - A tool to improve the indexing and retrieval of transportation information.
- Research in Progress (RiP) Database – rip.trb.org - Current or recently completed transportation research projects
- Research Needs Statements (RNS) – rns.trb.org - Research needs as identified by TRB Technical Activities standing committees
- Publications Index (PubsIndex) Database – pubsindex.trb.org - The papers, articles and reports published by the Transportation Research Board, Strategic Highway Research Programs or the Marine Board

Contact or Questions: TRBLibrary@nas.edu