#### NATIONAL ACADEMIES Sciences Engineering Medicine

# TRANSPORTATION RESEARCH BOARD

### TRB Snap Search: Information and Knowledge Management

#### TRB's involvement in research on Information and Knowledge Management from 2020-2025

The <u>Transportation Research Board (TRB)</u> 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: <u>http://www.trb.org/InformationServices/Snap.aspx</u>

#### **TRB Research**

**TRID** – The world's largest and most comprehensive bibliographic source on all modes and disciplines of transportation

• Click here to view <u>search results</u> on TRB published research on Data/Information Management and Knowledge Management within the past year.

#### **Specialty Reports**

- o Critical Issues in Transportation for 2024 and Beyond
- o COVID-19 Addendum to Critical Issues in Transportation
- o Racial Equity Addendum to Critical Issues in Transportation

#### **Milestone Reports**

- o <u>Management and Use of Data for Transportation Performance Management: Guide for Practitioners (2019)</u>
- o The Transportation Research Thesaurus: Capabilities and Enhancements (2018)
- Data Management and Governance Practices (2017)
- Improving Findability and Relevance of Transportation Information: Volume I—A Guide for State Transportation Agencies, and Volume II—Background Research (2017)
- o <u>Data Visualization Methods for Transportation Agencies (2017)</u>
- o Keeping What You Paid For-Retaining Essential Consultant-Developed Knowledge Within DOTs (2017)
- <u>Developing the Guide to Retaining Essential Consultant-Developed Knowledge Within DOTs (2017)</u>
- o Leadership Guide for Strategic Information Management for State Departments of Transportation (2016)
- NCHRP Impacts on Practice: Knowledge and Information Critical DOT Assets (2016)
- <u>Literature Searches and Literature Reviews for Transportation Research Projects. How to Search, Where to</u> <u>Search, and How to Put It All Together: Current Practices (2015)</u>
- o <u>A Guide to Agency-Wide Knowledge Management for State Departments of Transportation (2015)</u>
- o Improving Management of Transportation Information (2015)
- Advances in Transportation Agency Knowledge Management (2014))

#### **Consensus Study Reports**

- <u>Toward a 21st Century National Data Infrastructure: Managing Privacy and Confidentiality Risks</u> <u>with Blended Data</u>
- o <u>Toward a 21st Century National Data Infrastructure: Mobilizing Information for the Common Good</u>
- <u>Toward a 21st Century National Data Infrastructure: Enhancing Survey Programs by Using Multiple</u> <u>Data Sources</u>

#### **Recent Reports & Publications**

Airport Cooperative Research Program (ACRP)

- <u>Report 264</u> Asset Information Handover Guidelines from Planning and Construction to Operations and Maintenance
- o <u>Report 258</u> The Evolution of Knowledge Management at Airports
- <u>Report 222-</u> Collecting and Sharing of Operations and Safety Data
- <u>Synthesis 132</u>: Airport Landside Data: Collection and Application
- o <u>WebResource 18</u> Implementing and Improving Data Analytic Capabilities in Airports
- o <u>Behavioral Traffic Safety Cooperative Research Program (BTSCRP)</u>
  - o <u>Research Report 5</u> Strategies to Improve State Traffic Citation and Adjudication Outcomes
- o National Cooperative Highway Research Program (NCHRP)
  - Report 1127 Data Fusion of Probe and Point Sensor Data: A Guide
  - Report 1080 Using Cooperative Automated Transportation Data for Freeway Operational Strategies
  - <u>Report 956</u> Guidebook for Data and Information Systems for Transportation Asset Management
  - <u>Report 952</u> Guidebook for Managing Data from Emerging Technologies for Transportation
  - <u>Report 947</u> Implementing Information Findability Improvements in State Transportation Agencies
  - <u>Report 936</u> Guide to Ensuring Access to the Publications and Data of Federally Funded Transportation Research
  - <u>Synthesis 628</u> Ancillary Asset Data Stewardship and Models
  - Synthesis 600 Practices for the Collection, Use, and Management of Utility As-Built Information
  - <u>Synthesis 588</u> Availability and Use of Pedestrian Infrastructure Data to Support Active Transportation Planning
  - <u>Web-Only Document 419</u> Implementing Data Governance at Transportation Agencies: Volume 1: Implementation Guide
  - <u>Web-Only Document 419</u> Implementing Data Governance at Transportation Agencies: Volume 2: Communications Guide
  - <u>Web-Only Document 407</u> Data Collection Practices for Use with In-Service Performance Evaluations
  - <u>Web-Only Document 282</u> Framework for Managing Data from Emerging Transportation Technologies to Support Decision-Making
  - <u>Web-Only Document 279</u> Information Findability Implementation Pilots at State Transportation Agencies
- o <u>Transit Cooperative Research Program (TCRP)</u>
  - Report 235 Improving Access and Management of Public Transit ITS Data
  - Report 213 Data Sharing Guidance for Public Transit Agencies Now and in the Future
  - <u>Report 210</u> Development of Transactional Data Specifications for Demand-Responsive Transportation
  - <u>Synthesis 153</u>- The Transit Analyst Toolbox: Analysis and Approaches for Reporting, Communicating, and Examining Transit Data
- o <u>Transportation Research Circulars</u>
  - o <u>Circular E-C288</u>- Innovations in Freight Data: 2023 Workshop

#### **Current & Upcoming Projects**

- o <u>Current Projects</u>
- o ACRP 11-11/Task 01 Knowledge Transfer of Lessons Learned From ACRP Product Implementation
- NCHRP 08-119 Data Integration, Sharing, and Management for Transportation Planning and Traffic Operations
- <u>NCHRP 08-123</u> Census Transportation Data Field Guide for Transportation Applications
- o <u>NCHRP 15-81 -</u> Guideline for Depicting Existing and Proposed Utility Facilities in Design Plans
- <u>NCHRP 23-14 Research Roadmap for Knowledge Management</u>
- o <u>NCHRP 23-17 Assessing and Measuring the Business Value of Knowledge Management</u>
- o NCHRP 20-24(132)- Understanding Knowledge Management in Context with Other Organizational Practices
- <u>NCHRP 23-23 -</u> Data Governance Design and Implementation Links Between Governance Approaches and Performance Effects in DOTs
- <u>TCRP J-05/Topic 19-03</u> Navigating the Complexities of Sensitive Security Information (SSI) and Protected Critical Infrastructure Information (PCII)
- <u>TCRP Synthesis J-07/Topic SA-57</u> Statewide Approaches to the Development of Comprehensive Transit Information Systems
- <u>NCHRP 07-31 State DOT and Tribal Use of Active Transportation Data: Practices, Sources, Needs, and Gaps</u>
- <u>NCHRP 20-30 Strategies to Improve Application of Research Results in the Research Life Cycle</u>
- NCHRP 20-44(45) Supporting State DOT Adoption of Knowledge Management Practices
- <u>NCHRP 20-44(48)</u> Peer Exchanges on Data Management and Governance Practices

- <u>NCHRP 23-25</u> Architecture for Information System for Reporting and Sharing Truck Regulatory Requirements Data
- <u>NCHRP 23-29</u> Transportation Enterprise Data Warehouse Implementation Guide
- <u>Upcoming Projects</u>
- <u>NCHRP Synthesis 20-05/Topic 55-02</u> Practices for Collecting, Managing, and Using Light Detection and Ranging (LiDAR) Data
- <u>NCHRP 20-24</u> A Framework for Data Exchanges Between Transportation Agencies and Third-Party Mapping Organizations
- <u>TEPE 09 -</u> TRB/FHWA Performance Evaluations: Evaluation of FHWA Highway Safety Information Systems (HSIS)
- <u>NCHRP23-45-</u> A Knowledge Management Manual for Transportation Agencies
- NCHRP 23-49 Anticipatory Knowledge Delivery for State DOTs
- <u>TFPE 08-</u> TRB/FHWA Performance Evaluations: Evaluation of FHWA Highway Safety Information Systems (HSIS)
- <u>NCHRP 03-151</u> Data Subsystems and Data Management Plans for Traffic Management Systems
- <u>NCHRP 08-188</u> Third Party Origin-Destination Data Validation for Travel Demand Models

# Reports from the <u>National Academies Press on</u> Data/Information Management and Knowledge

#### Management

- o <u>Toward a New Era of Data Sharing: Summary of the US-UK Scientific Forum on Researcher Access to Data</u>
- o <u>Toward a 21st National Century Data Infrastructure: Mobilizing Information for the Common Good</u>
- o Data and Management Strategies for Recreational Fisheries with Annual Catch Limits
- <u>Life-Cycle Decisions for Biomedical Data: The Challenge of Forecasting Costs</u>

## **Committees & Panels**

#### Sign-up to be a committee "Friend"

TRB Standing Committees – Search by transportation mode and committee topic

- <u>AED10</u> Standing Committee on Statewide/National Transportation Data and Information Management
- o <u>AE000</u> Data, Planning, and Analysis Group
- <u>AJE45</u> Standing Committee on Information and Knowledge Management

#### Task Forces - Search for *task force* under committee here

#### **CRP** Panels

- <u>DO3151</u> NCHRP Project Panel on Data Management Plans, Practices, and Data Subsystems for Traffic Management Systems
- o <u>DO8116 Managing Data from Emerging Transportation Technologies to Support Decision-Making</u>

#### Councils

• <u>A0040T</u> – Young Member Council

# **Recent and Upcoming Events**

Upcoming Conferences-

<u>Conference on Data and AI for Transportation Advancement</u> May 28-29, 2025 **Seattle, VA** 

<u>Webinars</u> – View upcoming webinars, suggest a webinar or add registration information.

Recently held webinars available for recording:

TRB Webinar: The Evolution of Knowledge Management at Airports

TRB Webinar: Using the Research in Progress Database

TRB Webinar: Improving Data Sharing in Disaster Response with Geospatial Data and AI

#### **TRB's Transportation Research Information Services (TRIS)**

TRIS includes the <u>TRB Library</u> and the <u>TRIS Databases</u> (listed below) which are available for 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:

- o Reference and research assistance
- Literature searches
- o 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 - <u>trid.trb.org</u>

**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 -<u>pubsindex.trb.org</u>

**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 - <u>rns.trb.org</u>

**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 - <a href="http://www.trb.org/InformationServices/Snap.aspx">www.trb.org/InformationServices/Snap.aspx</a>

Contact the Library at TRBLibrary@nas.edu\_or (202) 334-2989