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TRANSPORTATION RESEARCH BOARD

TRB Snap Search: Data/Information Management and Knowledge Management

TRB's involvement in research on Data/Information Management and Knowledge Management from 2019-2023

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

Milestone Reports

- Management and Use of Data for Transportation Performance Management: Guide for Practitioners (2019)
- The Transportation Research Thesaurus: Capabilities and Enhancements (2018)
- Knowledge Management Resource to Support Strategic Workforce Development for Transit Agencies (2017)
- <u>Data Management and Governance Practices</u> (2017)
- Improving Findability and Relevance of Transportation Information: Volume I—A Guide for State Transportation Agencies, and Volume II—Background Research (2017)
- <u>Data Visualization Methods for Transportation Agencies</u> (2017)
- Keeping What You Paid For—Retaining Essential Consultant-Developed Knowledge Within DOTs (2017)
- Developing the Guide to Retaining Essential Consultant-Developed Knowledge Within DOTs (2017)
- 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 Search, and How to Put It All Together: Current Practices</u> (2015)
- A Guide to Agency-Wide Knowledge Management for State Departments of Transportation (2015)
- Improving Management of Transportation Information (2015)
- Advances in Transportation Agency Knowledge Management (2014)
- Preserving and Using Institutional Memory Through Knowledge Management Practices (2007)

Recent Reports & Publications

- Airport Cooperative Research Program (ACRP)
 - o Report 203 Guidelines for Collecting, Applying, and Maintaining Pavement Condition Data at Airports
 - o WebResource 13 Airside Planning, Design, Construction, Operations, and Maintenance

- Behavioral Traffic Safety Cooperative Research Program (BTSCRP)
 - Research Report 5 Strategies to Improve State Traffic Citation and Adjudication Outcomes
- National Cooperative Highway Research Program (NCHRP)
 - o Report 1034 Guidelines on Collaboration and Information Security for State DOTs
 - o Report 956 Guidebook for Data and Information Systems for Transportation Asset Management
 - $\circ \quad \underline{\textbf{Report 952}} \text{ Guidebook for Managing Data from Emerging Technologies for Transportation}$
 - o Report 947 Implementing Information Findability Improvements in State Transportation Agencies
 - o Report 936 Guide to Ensuring Access to the Publications and Data of Federally Funded Transportation Research
 - o Report 920 Management and Use of Data for Transportation Performance Management: Guide for Practitioners
 - o Report 865 Guidance for Development and Management of Sustainable Enterprise Information Portals
 - o Synthesis 600 Practices for the Collection, Use, and Management of Utility As-Built Information
 - o Synthesis 588 Availability and Use of Pedestrian Infrastructure Data to Support Active Transportation Planning
 - Web-Only Document 282 Framework for Managing Data from Emerging Transportation Technologies to Support Decision-Making
 - Web-Only Document 279 Information Findability Implementation Pilots at State Transportation Agencies

• Transit Cooperative Research Program (TCRP)

- o Report 235 Improving Access and Management of Public Transit ITS Data
- o Report 213 Data Sharing Guidance for Public Transit Agencies Now and in the Future
- o Report 210 Development of Transactional Data Specifications for Demand-Responsive Transportation
- Synthesis 153- The Transit Analyst Toolbox: Analysis and Approaches for Reporting, Communicating, and Examining Transit Data

• Transportation Research Circulars

o <u>E-Circular 246</u> - Structural Monitoring

Current & Upcoming Projects

• <u>Completed Projects</u>

- o ACRP 01-49 The Evolution of Knowledge Management at Airports
- o NCHRP 20-44(11) Advancing Practices for Data Governance, Information Management, and Managing the Impact of Digitization on DOT Workforces

• Current Projects

- o ACRP 01-41 Airport Blockchain Implementation Guidebook
- ACRP 01-50 Data Protection and Privacy Management Guidelines for Airports
- ACRP 11-11/Task 01 Knowledge Transfer of Lessons Learned From ACRP Product Implementation
- o NCHRP Synthesis 20-05/Topic 54-06 Ancillary Asset Data Stewardship and Data Models
- o NCHRP 08-119 Data Integration, Sharing, and Management for Transportation Planning and Traffic Operations
- o NCHRP 08-123 Census Transportation Data Field Guide for Transportation Applications
- o NCHRP 08-140 Guidebook for Truck Parking Information Management Systems
- o NCHRP 15-81 Guideline for Depicting Existing and Proposed Utility Facilities in Design Plans
- o NCHRP 20-68D U.S. Domestic Scan Program (Phase 3)
- o NCHRP 23-14 Research Roadmap for Knowledge Management
- NCHRP 23-17 Assessing and Measuring the Business Value of Knowledge Management
- NCHRP 23-23 Data Governance Design and Implementation Links Between Governance Approaches and Performance Effects in DOTs
- TCRP J-05/Topic 19-03 Navigating the Complexities of Sensitive Security Information (SSI) and Protected Critical Infrastructure Information (PCII)
- TCRP Synthesis J-07/Topic SA-57 Statewide Approaches to the Development of Comprehensive Transit Information Systems

• <u>Upcoming Projects</u>

- o ACRP 09-23 Strategy for Spatial Data Maintenance at Airports
- o NCHRP 07-31 State DOT and Tribal Use of Active Transportation Data: Practices, Sources, Needs, and Gaps
- o NCHRP 20-30 Strategies to Improve Application of Research Results in the Research Life Cycle
- o NCHRP 20-44(45) Supporting State DOT Adoption of Knowledge Management Practices
- o NCHRP 20-44(48) Peer Exchanges on Data Management and Governance Practices
- NCHRP 23-25 Architecture for Information System for Reporting and Sharing Truck Regulatory Requirements
 Data
- o NCHRP 23-29 Transportation Enterprise Data Warehouse Implementation Guide

- NCHRP 23-31 Strategies to Foster the Implementation of Knowledge Management
- NCHRP Synthesis 20-05/Topic 55-02 Practices for Collecting, Managing, and Using Light Detection and Ranging (LiDAR) Data

Reports from the National Academies Press on Data/Information Management and Knowledge Management

- o Toward a 21st Century National Data Infrastructure: Mobilizing Information for the Common Good
- o <u>Data and Management Strategies for Recreational Fisheries with Annual Catch Limits</u>
- o <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

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

<u>Task Forces</u> - Search for *task force* under committee here

CRP Panels

- D03151 NCHRP Project Panel on Data Management Plans, Practices, and Data Subsystems for Traffic Management Systems
- D08116 Managing Data from Emerging Transportation Technologies to Support Decision-Making

Councils

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

Recent and Upcoming Events

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

Innovations in Freight Data Workshop*

September 19-21, 2023

Washington, D.C.

Webinars - View upcoming webinars, suggest a webinar or add registration information

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
- 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

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 (202) 334-2989