

Publications Catalog

Update

Contents

Research Reports by Subject Area	1
Transportation Planning and the Economy	1
Transportation Safety and Traffic Flow	1
Transportation Infrastructure	2
Environment and Energy in Transportation	2
Research Summaries	2
Annual Reports	2
Newsletters	2
Journals	2
Videos	2
Seminars	3



This 2017 update supplements the *CTS Publications Catalog* published in 2004 and subsequent annual updates. A listing of all publications available from CTS along with ordering information are online at www.cts.umn.edu.

Research Reports

Transportation-related research reports by University of Minnesota researchers, published by CTS, MnDOT, the Minnesota Local Road Research Board, and other sponsors in 2016. These reports are available at www.cts.umn.edu/Publications/ResearchReports/.

Transportation Planning and the Economy

Access Across America: Auto 2015

Andrew Owen, Brendan Murphy, David M Levinson
Report no. CTS 16-07

Access Across America: Transit 2015

Andrew Owen, Brendan Murphy, David M Levinson
Report no. CTS 16-09

Access Across America: Transit 2015 Methodology

Andrew Owen, Brendan Murphy, David M Levinson
Report no. CTS 16-10

Assessing the Economic Impact and Health Effects of Bicycling in Minnesota

Xinyi Qian, Neil Linscheid, Brigid Tuck, Greg Lindsey, Jessica Schoner, Mark Pereira, Aaron Berger
Report no. MnDOT 2016-36

Economic Development Impacts of Bus Rapid Transit

Andrew Guthrie, Yingling Fan
Report no. CTS 16-02

Perception of Waiting Time at Transit Stops and Stations

Yingling Fan, Andrew Guthrie, David M Levinson
Report no. CTS 16-01

Spatial and Skills Mismatch of Unemployment and Job Vacancies

Yingling Fan, Andrew Guthrie, Kirti V Das
Report no. CTS 16-05

The Transportation Futures Project: Planning for Technology Change

David M Levinson, Adam Boies, Jason Cao, Yingling Fan
Report no. MnDOT 2016-02

Transportation Safety and Traffic Flow

Computerized Crash Reports Usability and Design Investigation

Nichole Morris, Jacob Achtemeier, Alice Ton, John Paul Plummer, Jennifer Sykes
Report no. CTS 16-06

Development of a Guideline for Work Zone Diversion Rate and Capacity Reduction

Eil Kwon, Chongmyung Park
Report no. MnDOT 2016-12

Evaluation of the Effectiveness of ATM Messages Used During Incidents

Max Rindels, Stephen Zitzow, John Hourdos
Report no. MnDOT 2016-04

Examining the Impact of ASE (Automated Speed Enforcement) in Work Zones on Driver Attention

Nichole Morris, Jennifer Cooper, Alice Ton, John Paul Plummer, Peter Easterlund
Report no. MnDOT 2016-06

Implementation and Evaluation of a Low-Cost Weigh-In-Motion System

Taek Mu Kwon
Report no. MnDOT 2016-10

Innovative Technology Workshop on 3D LIDAR

Brian Davis
Report no. MnDOT 2016-19

Investigating the Effectiveness of Using Bluetooth Low-Energy Technology to Trigger In-Vehicle Messages in Work Zones

Chen-Fu Liao, Max Donath
Report no. MnDOT 2016-38

Optimizing Automatic Traffic Recorders Network in Minnesota

Diwakar Gupta, Xiaoxu Tang
Report no. MnDOT 2016-05

Risk Evaluation for In-vehicle Sign Information

Erik J Schlicht, Nichole Morris
Report no. MnDOT 2016-18

Robotic Roadway Message and Symbol Painter Implementation

Ryan G Rosandich
Report no. MnDOT 2016-31

Visual Warning System for Worker Safety on Roadside Workzones

Nazanin A Banaeiyan, Attiq uz Zaman, M. Imran Hayee
Report no. MnDOT 2016-27

Weigh-Pad-Based Portable Weigh-in-Motion System User Manual

Taek Mu Kwon
Report no. MnDOT 2016-07

Transportation Infrastructure

Evaluate and Develop Innovative Pavement Repair and Patching: Taconite-based Repair Options

Lawrence M Zanko, David M Hopstock, Will DeRocher
Report no. MnDOT 2016-03

Evaluation, Development, and Implementation of 3D GPR for Assessment of Minnesota Infrastructure

Kyle Hoegh, Derek Tompkins, Lev Khazanovich
Report no. CTS 16-08

Evaluation of Bio-Fog Sealants for Pavement Preservation

Debaroti Ghosh, Mugur Turos, Mihai O Marasteanu
Report no. MnDOT 2016-20

Full-Depth Reclamation (FDR) for Suburban/Urban and Local Roads Application

Marcella Hartman, Mugur Turos, Debaroti Ghosh, Mihai O Marasteanu
Report no. MnDOT 2016-37

Investigation of Shear Distribution Factors in Pre-stressed Concrete Girder Bridges

Benjamin Z Dymond, Catherine E French, Carol K Shield
Report no. MnDOT 2016-32

Investigation of Performance Requirements of Full-Depth Reclamation Stabilization

Jia-Liang Le, Mihai O Marasteanu, Rose Milavitz
Report no. MnDOT 2016-09

Portland Cement Concrete Pavement Thickness Variation Versus Observed Pavement Distress

Lev Khazanovich, Kyle Hoegh, Randal J Barnes, Ryan Conway, Lucio Salles
Report no. MnDOT 2016-30

Three-Dimensional Simulation of Bridge Foundation Scour on Mississippi River Bridges 9321 & 27801

Fotis Sotiropoulos, Ali Khosronejad
Report no. CTS 16-03

Environment and Energy in Transportation

Enhancement and Application of the Minnesota Dry Swale Calculator

Maria Garcia-Serrana, John S Gulliver, John L Nieber
Report no. MnDOT 2016-15

Validation of Wetland Mitigation in Abandoned Borrow Areas: Phase II

Kurt W Johnson
Report no. MnDOT 2016-11

Research Summaries

Job Growth Impacts of Bus Rapid Transit

Andrew Guthrie
Report no. CTS Research Brief 2016-02

Linking the Unemployed to Jobs: Integrated Transit Planning and Workforce Development

Yingling Fan
Report no. CTS Research Brief 2016-04

Strategies for Encouraging Travelers to Choose Transit

Jason Cao
Report no. CTS Research Brief 2016-03

Student Pass Program Provides Educational, Economic, and Societal Benefits

Yingling Fan, Kirti V Das
Report no. CTS Research Brief 2016-01

Annual Reports

2016 CTS Annual Report

<http://www.cts.umn.edu/about/annual>

Newsletters

CTS publishes print and electronic newsletters covering many facets of transportation, including research, public policy, and engineering. Subscribe online at:
<http://www.cts.umn.edu/Publications/subscribe/>

CTS Catalyst

A publication on the latest transportation innovations at the University of Minnesota (monthly). Available in both print and e-mail.

Minnesota LTAP Exchange

A newsletter of the Minnesota Local Technical Assistance Program (LTAP) (print newsletter; quarterly).

Minnesota LTAP Exchange Express

E-mail newsletter with new publications and resources from various sources, plus other items of interest to local agencies (periodic).

Roadway Safety Institute News

E-mail news update about research and educational activities at the Roadway Safety Institute.

AirTAP Briefings

News and how-to information for personnel operating, maintaining, and administering Minnesota's public-use airports (periodic) Available in both print and electronic formats.

CTS Freight & Logistics E-News

News and events from the community of freight and logistics professionals (periodic).

Journals

Journal of Transport and Land Use

An open-access, peer-reviewed online journal publishing original inter-disciplinary papers on the interaction of transport and land use.
<http://www.jtlu.org>

Videos

These and other videos are available at <http://www.cts.umn.edu/Publications/videos/> and on the CTS YouTube channel: <http://www.youtube.com/ctsumn>.

CTS Highlights: Accessibility, Jobs and Transit, Bridge Monitoring, and Transportation Camp (2016)

Highlights at CTS for 2015-2016 include several research projects and our 2015 summer camp for K-12 students.
<https://youtu.be/LGMk5BxGoZY>

Daynamica: A Smartphone Solution for Collecting and Processing Travel Behavior Data

Daynamica is an innovative smartphone application that collects and processes highly detailed activity and travel behavior data with minimal user burden. The open-source app is a compelling alternative to the traditional diary-based method typically used to collect individual travel and activity information. It delivers richer, more accurate data—more efficiently, and at lower cost.
https://youtu.be/6H_6l1ptNDc

Job Vacancies & the Unemployed: Fixing the Mismatch

Unemployed, transit-dependent workers are often caught between a rock and a hard place: they may be qualified for suburban jobs they have no way to get to, but unqualified for downtown jobs they could easily reach by transit. These two statements describe the interconnected problems of spatial mismatch and skills mismatch. This video recaps a study that analyzed conditions in the Twin Cities metropolitan area and laid out an approach for reconciling those mismatches by coordinating transit planning, job training, and job placement services.
<https://youtu.be/RLA9ndtz07s>

Minnesota Truck-Weight Education Program: What Does Your Load Weigh?

The Minnesota Truck-Weight Education Program deciphers relevant laws and explains the trucking configurations in easy-to-understand language. Free classes statewide teach attendees how to haul legal—and in some cases, larger—weights. The program is funded by the Minnesota Department of Transportation in cooperation with Alexandria Technical and Community College and the Minnesota Local Technical Assistance Program (LTAP). Greg Hayes, the developer and coordinator of the training, discusses recent legal changes and shares some program highlights along with workshop instructors and participants.
<https://youtu.be/K5KdnAgbc3w>

Monitoring Truck Parking Availability

An overview of the 2016 CTS Research Partnership Award winning project, A Comprehensive System for Assessing Truck Parking Availability.
<https://youtu.be/1Fdm91JKW-M>

CTS Fall 2016 Seminar Series

Available for viewing online at www.cts.umn.edu/events/seminars/

September 8, 2016

“Systemic Approaches to Rural Highway Safety”

Roadway Safety Institute Seminar
Vic Lund is the traffic engineer for St. Louis County, Minnesota, where he leads the Traffic Division.

September 15, 2016

“Perceptions and Impacts of Speeding Laws and Policies in Minnesota”

Roadway Safety Institute Seminar
Frank Douma is the director of the State and Local Policy Program at the Humphrey School of Public Affairs and a research scholar at the Center for Transportation Studies, both located at the University of Minnesota.

September 22, 2016

“Predictive Modeling of Rail Track Geometry Defects Toward Improved Safety and Maintenance”

Roadway Safety Institute Seminar
Hadi Meidani is an assistant professor in the Department of Civil and Environmental Engineering at the University of Illinois at Urbana-Champaign.

September 28, 2016

“Transit Station and Stop Design and Travel Time Perceptions”

CTS Seminar
Yingling Fan is an Associate Professor at the University of Minnesota's Humphrey School of Public Affairs. Andrew Guthrie is a Research Fellow at the University of Minnesota's Humphrey School of Public Affairs. Carol Hejl is a Landscape Architect in the Planning and Urban Design Department at Metro Transit. Charles Carlson is a Senior Manager of BRT/Small Starts Projects at Metro Transit.

September 29, 2016

“Analyzing Indiana Crash Data to Inform Traffic Safety Policy and Program Development”

Roadway Safety Institute Seminar
Dona Rae Sapp is a senior policy analyst at the IU Public Policy Institute at Indiana University-Purdue University Indianapolis.

October 6, 2016

“Wearable Technologies and Smart Materials: Applications for Transportation and Safety”

Roadway Safety Institute Seminar
Julianna Abel is a Benjamin Mayhugh Assistant Professor in the Department of Mechanical Engineering at the University of Minnesota.

October 13, 2016

“Safety in Numbers: Estimating Bicyclist Activity and Safety in Minneapolis”

Roadway Safety Institute Seminar
Brendan Murphy is the lead data scientist in the Accessibility Observatory at the University of Minnesota.

October 20, 2016

“Current and Future GNSS Applications for Vehicle Navigation & Guidance”

Roadway Safety Institute Seminar
Demoz Gebre-Egziabher is an associate professor and director of graduate studies in the Department of Aerospace Engineering and Mechanics at the University of Minnesota.

October 27, 2016

“Dedicated Short Range Communications (DSRC): What, Why, and How?”

Roadway Safety Institute Seminar
M. Imran Hayee is a professor of electrical engineering at the University of Minnesota Duluth.

November 10, 2016

“California Tribal Road Safety Data Project: Methods, Challenges, and Preliminary Results”

Roadway Safety Institute Seminar
David Ragland is the director of the Safe Transportation Research and Education Center (SafeTREC) and an adjunct professor emeritus of epidemiology at the University of California, Berkeley.

December 1, 2016

“Complete Streets and Bike/Ped Safety”

Roadway Safety Institute Seminar
Jason Cao is an associate professor of regional policy and planning at the University of Minnesota's Humphrey School of Public Affairs. Allen Young is pursuing a master's degree in Urban and Regional Planning at the University of Minnesota's Humphrey School of Public Affairs.

December 8, 2016

“Factors that Influence Collision Perception and Implications for Transportation Safety”

Roadway Safety Institute Seminar
Patricia DeLucia is a professor of psychological sciences, coordinator of the Human Factors Psychology Program, and associate vice president for research at Texas Tech University.

How to Obtain These Publications

Titles of publications are listed in alphabetical order under subject area. Most publications, where noted, are available in electronic format online at no charge. Publications also may be requested from CTS. A complete listing of all publications available from CTS and ordering information may be found online at:

www.cts.umn.edu/publications

Center for Transportation Studies

200 Transportation and Safety Building
511 Washington Avenue S.E.
Minneapolis, MN 55455-0375

Phone: 612-626-1077
Fax: 612-625-6381
E-mail: cts@umn.edu
Web: www.cts.umn.edu

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

C Printed on recycled paper with 30% postconsumer waste.