



Dr. C. Michael Walton, Ph.D., P.E. Ernest H Cockrell Centennial Chair in Engineering Center for Transportation Research 301 E. Dean Keeton Street, Stop C1761, Austin, TX 78712 Tel: 512-471-4141; cmwalton@mail.utexas.edu	
Education Ph.D. Civil Engineering (Transportation) North Carolina State University M.C.E. Civil Engineering (Transportation) North Carolina State University B.S. Civil Engineering Virginia Military Institute	Dr. C. Michael Walton is professor of Civil Engineering and holds the Ernest H. Cockrell Centennial Chair in Engineering at The University of Texas at Austin (UT). In addition, he holds a joint academic appointment in the Lyndon B. Johnson School of Public Affairs. For more than 40 years Dr. Walton has contributed to numerous publications in the areas of ITS, freight transport, and transportation engineering, planning, policy and economics, and he has delivered several hundred technical presentations
Professional Qualifications Professional Engineer Texas License PE# 46293	Dr. Walton is a member of the National Academy of Engineering. In other professional society affairs he is a past Chair of the Board of the American Road and Transportation Builders Association (ARTBA), past President of the Board of Governors of the Transportation and Development Institute of the American Society of Civil Engineers (ASCE), a founding member and past Chair of the Board of Directors of the Intelligent Transportation Society (ITS) of America, a past Chair of the Transportation Research Board (TRB) Executive Committee and a member of many other technical/professional organizations such as the Institute of Transportation Engineers. Dr. Walton was appointed by the U.S. Secretary of Transportation to serve on the National Freight Advisory Committee and to the Bureau of Transportation Statistics' Advisory Council on Transportation Statistics. He has served on or chaired a number of national study panels including those mandated by Congress and others of the National Research Council. He was elected chairman of TxDOT's "2030 Committee," a task force composed of experts in business and transportation charged with overseeing a comprehensive update of Texas transportation needs through the year 2030. Most recently Dr. Walton led an initiative for TxDOT to explore emerging transportation technologies. Texas' 83rd Legislature charged TxDOT with examining and evaluating innovative transportation technologies for purposes of cost savings, reducing traffic congestion, enhancing safety, and increasing economic productivity. As a result, the Texas Transportation Task Force was formed encompassing experts who discussed four groups of emerging transportation technologies: connected vehicles, autonomous vehicles, electric systems, and cloud computing/crowdsourcing technologies.
Professional Affiliations National Academy of Engineering American Society of Civil Engineers (Distinguished Member) American Road and Transportation Builders Association Transportation Research Board (Past Chair) Institute of Transportation Engineers (Fellow)	
Selected Panel Memberships Transportation Research Board, Congressionally Mandated Study of the Future Interstate Highway System Study Panel U.S. Department of Transportation, Federal Highway Administration, National Freight Advisory Committee	
	Dr. Walton has participated in numerous studies involving rail and truck use of highways in Texas, truck operating performance on highways, intercity truck routes, highway design policies and practices for a variety of truck configurations including longer combination trucks, highway cost responsibility for trucks, special permitting of trucks, enforcement and administration of trucks operating in Texas, truck size and weights, impact of trucks on highway pavement and bridges, commodity flow, and origin-destination studies. He was the principal investigator in a study to support the development of the Texas State Rail Plan which addresses future and existing passenger and freight rail service in Texas. Most recently Dr. Walton led an initiative for TxDOT to conduct a study on road damage caused by oversized and overweight (OS/OW) vehicles and to provide recommendations for permit fee and fee structure adjustments, which are to be submitted to the Legislative Budget Board and the Governor.

Dr. C Michael Walton Selected Publications and Conference Presentations

- Walton, C.M., “Facilitating the Increasing Demand for Use of International Containers while Preserving the Highway Infrastructure,” presented at the Workshop on International Freight sponsored by the Transportation Research Board, 2017 World Transport Convention, Beijing, China, June 6, 2017.
- Walton, C.M., “The Impact of Weight and Dimension of Large Commercial Vehicles on Safety,” presented at the Tongji University Advisory Board Meeting of the Joint International Research Laboratory of Transportation Safety, Washington, DC, January 8, 2017.
- Walton, C.M., “Emerging Innovation Frontiers: Autonomy and Transportation,” panelist at the Exploring Innovation Frontiers Initiative sponsored by the US Council on Competitiveness, Houston, Texas, November 15, 2016.
- Walton, C.M., “New Technologies and New Frontiers for Surface Transportation,” presented at the Zhejiang University workshop, Hangzhou, China, July 10, 2016.
- Walton, C.M., “Importance of Connectivity in the Future of International Freight Flows,” presented at the 7th China Transport Forum sponsored by the Chinese Overseas Transportation Organization, World Bank and the Ministry of Transport, Shanghai, China, July 9, 2016.
- Walton, C.M., “Sustaining the Integrity of the Highway Infrastructure under a Demanding Freight Future,” presented at the 16th International Conference of Transportation Professionals sponsored by the Chinese Overseas Transportation Organization, Shanghai, China, July 8, 2016.
- Walton, C.M., “Big Data in Safety and Resilience of Transportation Systems,” presented at the 2nd International Symposium on Disaster Prevention and Mitigation of Infrastructure, Xi’an, China, June 12, 2016.
- Walton, C.M., “Sustaining the Integrity of the Highway Infrastructure under a Demanding Freight Future,” keynote presentation at the Transportation Research Congress Inaugural Conference, Beijing, China, June 6, 2016.
- Walton, C.M., “Traffic Safety in the Age of Big Data: Online Data and Connected Vehicle Perspectives,” presented at the Beijing University Symposium, sponsored by the Chinese Overseas Transportation Organization, Beijing, China, July 3, 2014.
- Walton, C.M., “A Vision of Tomorrow’s Transportation System,” presented at the 81st Annual Meeting of the Indiana Motor Truck Association, Austin, Texas, September 28, 2012.
- Walton, C.M., “Linking the Connected World to the Transportation Enterprise,” presented at the University of Maryland Distinguished KIRLIN Lecture Series, College Park, Maryland, April 11, 2012.
- Walton, C.M., “The Connected World and Transportation: Predicting the Future,” presented at the opening session of the 61st Annual Roads and Streets Conference, Tucson, Arizona, April 5, 2012.
- Walton, C.M., “A Vision for Tomorrow’s Transportation System,” presented at the Annual Meeting of the Institute of Transportation Engineers, Atlanta, Georgia, August 15, 2012.
- Walton, C.M., “Linking the Connected World to the Transportation Enterprise,” presented at the University of Maryland Distinguished KIRLIN Lecture Series, College Park, Maryland, April 11, 2012.
- Walton, C.M., “The Connected World and Transportation: Predicting the Future,” presented at the opening session of the 61st Annual Roads and Streets Conference, Tucson, Arizona, April 5, 2012.
- Walton, C.M., “It’s About Time: Investing in Transportation to Keep Texas Economically Competitive,” presented at the Texas Transportation Commission meeting, Austin, Texas, March 31, 2011.
- Walton, C.M., “Future Directions for ITS and Freight,” presented at the HELP, Inc. Board of Directors meeting, Litchfield Park, Arizona, March 10, 2011.
- Walton, C.M., “It’s About Time: Investing in Transportation to Keep Texas Economically Competitive,” presented at the joint meeting of the Associated General Contractors and Texas Department of Transportation, Austin, Texas, February 16, 2011.



Mr. Robert Harrison. Senior Research Scientist Center for Transportation Research 3925 Braker Lane, Austin, Texas, 78759 Tel: 512.232 3114, harrison@mail.utexas.edu	
Education University of Durham, England B.A Politics and Economics, 1965 Professional Affiliations & Panel Memberships Transportation Research Forum: Past President, Current Associate Editor of TRF Quarterly Publications Transportation Research Board: Past Chair of Intermodal Freight Terminal Design and Operations Committee (AT050) Transportation Research Board Committee Member: Motor Vehicle Size and Weight, and, International Trade and Transportation. NCFRP-34 Panel Member: Alternative Technologies for Container Freight Movements Professional Honors/Awards TXDOT Top Research and Innovation Findings Award for project 0-4083, Impacts of Inland Ports on Trade Flows and Transportation in Texas (2002)	Mr. Robert Harrison is a Senior Research Scientist at CTR and has participated in over 200 approved TxDOT research publications. In the past eight years he has provided members of the Executive team at TxDOT on highway strategies. His prior experience included working on large projects as a transportation economist, first with the United Nations Development Program in Brazil and then with the World Bank before joining CTR. Between 1976 and 1982, he was the economist that developed the World Bank Highway Design and Maintenance Model (HDM), now used throughout the world. He was the Chair of the TRB Freight Intermodal Terminal Design and Operations committee (AT050) from 2002 to 2008 and is a past President of the Transportation Research Forum. He has published widely in the areas of economic and cost-benefit analyses and transport sector planning and budgeting, transportation finance and P3 analysis. He has served on the State Border Trade Advisory Committee for over 20 years based on a 30 year period of border transportation research. He is a past president of the Transportation Research Forum, chair of the TRB Intermodal Freight design and Operations Committee (AT 050) from 2002 to 2008, a period when interest in distribution centers, terminals and inland ports grew strongly. Relevance to this project includes: <u>National expert on U.S modal costs:</u> He has studied operating costs of trucking and rail for over 50 years and is currently analyzing the impacts of alternative fuels and new diesel technologies on trucks, railroad locomotives and deep sea ocean ships. These have profound impacts on air quality and the financing of U.S highways through fuel taxes. <u>Inland Ports and Distribution Centers:</u> This topic includes the identification and classification of inland ports, incorporating inland port strategies into TxDOT planning guide – a central objective in the NCFRP 23 study. He also worked on a recent METRANS study integrating goods movement at the Ports of Los Angeles and Long Beach. <u>International Trade and Corridors:</u> This includes studies on NAFTA trade and the Texas-US transportation system, maritime shipping routes with Asia, export-import supply chains, trade and transportation corridors and planning for freight distribution in Megaregions. He completed several studies on the new Panama Canal locks, containership economics and the growth of plastic resins exports derived from Texas natural gas. <u>Transportation Modes and Systems:</u> Reports include the impact of changes to the operating characteristics of various modes – vessel, rail, truck and air - over the past 20 years, the impact on logistics planners and providers and the effect of international and domestic containerized trade on supply chains, modes and transportation corridors.



Robert Harrison Selected Publications and Conference Presentations

- NCHRP 20-102-07 *Implications of Automation for Motor Vehicle Codes*. Expected summer 2018.
- Walton, C.M., Murphy, M.R. Hui, W., Jiang, N., Hasan, M., Zu, H., Agarwal, S, Harrison, R., Loftus-Otway, L., Prozzi, J., Porras-Alvarado, J., Weismann, J., and Weismann A. *The Impact of Specialized Hauling Vehicles on Pavement and Bridge Deterioration*. Research Report 0-6897-2. Center for Transportation Research (CTR), TX, December 2017
- Walton, C.M., Seedah, D., Choubasi, C., Wu, H., Ehlert, A., Harrison, R., Loftus-Otway, L., Harvey, J., Meyer, J., Calhoun, J., Maloney, L., Cropley, S.F., Ford, A. *Implementing the Freight Transportation Data Architecture: Data Element Dictionary*. NCFRP Report 35: September 2015. Prepared for the National Cooperative Freight Research Program. TB: Washington: DC.
- R. Harrison, *Impact of the Gulf Intracoastal Waterway (GIWW) on Freight Flows in the Texas-Louisiana Megaregion*, SWUTC/15600451-00080-1 July 2015
- TxDOT Policy Research Project, LBJ School of Public Affairs 2015: *Five policy briefs developed for the TxDOT Administration which included: Reshoring in Texas: Understanding the Phenomenon; Nearshoring in Mexico: Recent Trends and Relevance for Texas; Rail and Logistics Hubs: Opportunities for Improvement; Intra-Industry Trade; Transportation Needs of Texas Industries*.
- Harrison R., and Boske L. *Summary of Texas Highway Funding Options and Alternatives*. Report 0-6802 2014 commissioned by the TxDOT Executive Director to identify a menu of feasible, practical funding options to support state highway infrastructure investments in the movement of people and freight.
- Prozzi, J., Murphy, M., Loftus-Otway, L., Bannerjee, A., Kim, M., Wu, H., Prozzi, J.P., Hutchinson, R., Harrison, R., Walton, C.M., Weismann, J., and Weismann, A. *Oversize/Overweight Vehicle Permit Fee Study*. Research Report 0-6736-1. CTR, TX, December 2012.
- Mingo, R., Loftus-Otway, L., Hutson, N., Moore, T., and Ritchie, B. *Potential Future Uses of Highway Rights of Way: Summary Report*. Prepared for FHWA: Office of Policy Analysis. Washington: DC, February 2012.
- Harrison, R., Johnson, D., Loftus-Otway, L., Hutson, N., Seedah, D., Zhang, M., and Lewis, C. *Megaregion Freight Planning a Synopsis*. Research Report 0-6627-1, Center for Transportation Research, TX, March 2012.
- Harrison, R., Schofield M., Loftus-Otway, L., Middleton, D., and West, J. *Developing Freight Highway Corridor Performance Measure Strategies in Texas*. Research Report 0-5410-1 Center for Transportation Research. TX, 2007.
- Harrison, R., Loftus-Otway, L., and Shakyaver, A. *Incorporating Inland Port Strategies into TxDOT Planning: An Implementation Manual*, Research Report 5-4083-1, Center for Transportation Research. TX, 2006.
- Welter, D., Ates, M., Loftus-Otway, L, Matthews, R., and Harrison, R. *Estimating Texas Motor Vehicle Operating Costs*. Research Report 0-5974-1. Center for Transportation Research: TX, 2009.
- “Vehicle Operating Costs: Evidence from Developing Countries”, The Johns Hopkins University Press, (ISBN 0-8018-3588-7), Baltimore and London, 1987.



Mr. Darren Hazlett, P.E. Research Fellow Center for Transportation Research 3925 Braker Lane, Austin, Texas, 78759 Tel: 512.576 1534, Darren.Hazlett@austin.utexas.edu	
Education MS Transportation Engineering The University of Texas at Austin BS Chemical Engineering The University of Texas at Austin Professional Qualifications Professional Engineer Texas License PE# 56837 Professional Affiliations & Panel Memberships TRB: AFK20, Characteristics of Asphalt Binders – Chair; AFK10, Critical Issues and Emerging Technologies in Asphalt – Member; Chair – NCHRP 09-61 Panel on Short- and Long-Term Binder Aging Methods to Accurately Reflect Aging in Asphalt Mixtures. Served on NCHRP panels for Superpave binders, quality assurance programs, asphalt binder chemistry AASHTO Subcommittee on Materials ASTM Committee D.04 Road and Paving Materials. FHWA Binder Expert Task Group & FHWA Emulsion Task Force – Friend	Mr. Darren Hazlett P.E. Is a Research Fellow at the Center for Transportation Research at the University of Texas at Austin. His research focus in the areas of materials and pavement technologies, data analysis, and transportation policy. Prior to joining CTR Mr. Hazlett worked for the Texas Department of Transportation for 38 years. From April 2005 to February 2012, he was the Assistant Director for the Materials and Pavements Section of the Construction Division, and responsible for all laboratory operations at TxDOT’s central laboratory. From February 2012 to August 2017, he served as the Deputy Director of the Construction Division supervising 178 FTEs. Mr. Hazlett also provided consultant services on various transportation-related projects including: satellite measurement of infrastructure, asset management, public infrastructure development and financing, traffic marking materials, project delivery methods, roadway condition data collection, and maintenance contracting mechanisms. Mr. Hazlett is the current chair of TRB AFK20 Committee and is the Chair of the NCHRP 09-61 Panel. Mr. Hazlett has served on numerous other committees for national transportation groups including the ASTM D.04 committee and the ASHTO subcommittee on Materials. Transportation Policy Analysis Mr. Hazlett was the Construction Division’s contact for 2015 legislative session and reviewed legislation for effects on Division activities. He also reviewed, recommend policy, and made decisions based on Texas Administrative Code in areas of letting, prequalification, bid errors, and award of contracts, including signing of construction contracts. He regularly made presentations at industry meetings – Texas Asphalt Pavement Association and Cement Council – Concrete Pavement Association. Materials and Pavement Technologies Mr. Hazlett reviewed test procedures and specifications generated by the Materials and Pavements Section at TxDOT. He was a member of specification committee and rewrite of standard specifications that became the 2014 Standard Specifications for the Construction and Maintenance of Roads, Streets, and Bridges. He developed and began implementing performance-based chip seal binder specifications based upon sponsored research including planning phased implementation; secure volunteers for field trials; presentations to industry and TxDOT; leading to full implementation. He developed magazine articles, talking points, speeches, and presentations for the division and TxDOT Administration, and met with industry groups. He developed contractor-option project materials testing contracts and operating procedures for their use

Darren Hazlett Selected Publications and Conference Presentations

- Hazlett, Darren G, *Emulsion Residue Recovery Techniques: How Do We Get Emulsion Residue Representative of In-Service Binder?* Transportation Research Circular E-C122, October 2007
- Yildirim, Yetkin, Ideker, Jason, and Hazlett, Darren, *Evaluation of Viscosity Values for Mixing and Compaction Temperatures*. Journal of Materials in Civil Engineering, Volume 18, Issue Number 4, July 2006, pp 545-553
- Walubita, Lubinda , Martin, Amy, Hazlett Darren , and Barcena Roberto, *Initial Validation of a New Surface Performance-Graded Binder Specification*. Transportation Research Record Journal of the Transportation Research Board, Bituminous Binders Volume 1875, 2004
- Barcena, Roberto , Epps, Amy, and Hazlett, Darren, *Performance-Graded Binder Specification for Surface Treatments*. Transportation Research Record: Journal of the Transportation Research Board, Bituminous Binders Volume 1810, 2002
- Kota, Prakash, Hazlett, Darren, and Perrin, Les, *Sulfate-Bearing Soils: Problems with Calcium-Based Stabilizers*. Transportation Research Record: Journal of the Transportation Research Board, Issues in Geotechnical Engineering Research, Volume 1546, 1996
- Hazlett, Darren G.; Kennedy, Thomas William, *Impact of Aggregate Gradation and Type on Asphalt Mixture Characteristics*. (FHWA/TX-91+1158-1F; CTR 3-9-88-1158-1F; Report 0-1158-1F), 1990
- Romine, Robert; Hazlett, Darren G. *The Correlation of Field Initial Aggregate Retention and Laboratory Cure Rate Evaluations for High Float Rapid Set Polymer Modified Emulsions*. (Report 3-C-8-144), 1989
- Hazlett, Darren G., *Evaluation of Moisture Susceptibility Tests for Asphaltic Concrete*. (3-C-2-102; 3C2102), 1985
- Hazlett, Darren G., *Evaluation of Asphalt Latex Rubber Blends*. Departmental Information Exchange. Experimental projects reports, 1983
- Hazlett, Darren G., *Development of a Specification for a Rapid-Curing Asphaltic Patching Mix.*, (5C1547), 1983.

Presentations at industry meetings:

- Lime in Hot Mix Asphalt – The Texas Experience; British Lime Association – Annual Meeting; November 15, 2017
- Historical Perspectives of TxDOT Material; Transportation Short Course; October 2016
- TxDOT's Programmatic Quality Assurance Program for Design-Build Projects and Implementation Guide; 2015 Design-Build In Transportation - Design-Build Institute Of America (DBIA); March 9, 2015 – March 11, 2015 • San Antonio, TX
- Statewide Implementation of the SPG Specification for Chip Seal Binders in Service; Texas Asphalt Pavement Association Annual Meeting; September 2014



Lisa Dawn Loftus-Otway, Research Scientist Attorney-at-Law (Licensed in New York) Center for Transportation Research 3925 Braker Lane, Austin, Texas, 78759 Tel: 512.232 3072, loftusotway@mail.utexas.edu	
Education MPAff University of Texas at Austin LLM Environmental Law University of Nottingham LLB Law London Guildhall University	Lisa Loftus-Otway has been in the transportation law, policy and planning realm for sixteen years. Her research specializes in transportation law, policy and planning, megaregional law and policy, surface freight analysis, environmental justice and, land use and corridor planning. Lisa regularly presents her research at conferences. During 2017 she was a speaker at SXSU, and the Association of Transportation Lawyers Annual Meetings discussing disruptive technologies and the law. In 2010, she was invited to sit on a FRA Advisory Panel for development of the National Rail Plan, and provided advice based on her research on corridor preservation law, policy and contracts. She is the Associate Director for Research for the USDOT Tier 1 Center on Cooperative Mobility for Competitive Megaregions CM ² . Lisa is actively involved in the WTS and was voted into the international board in May 2018.
Professional Qualifications Registered Attorney and Counselor at Law (Licensed in New York)	Legal Analysis: Lisa has conducted over 25 legal analyses on research projects. Lisa is currently a Co-Principal Investigator for TCRP Synthesis J-05/Topic 18-01 Tax Increment Financing for Transit Projects. Other TRB projects that Lisa has been a team member or leader include NCHRP 20-102-07 Implications of Automation for Motor Vehicle Codes where she conducted the legal analysis of US and international law and undertook an in-depth analysis of 15 states statutes, codes and relevant case law, to identify obsolete and obsolescent laws for project recommendations. Within NCHRP Project 19-12 Guide for Financial Planning and Management in Support of Transportation Asset Management she reviewed financial plans and legislation for successful asset management structures. In NCFRP Report 35 Implementing the Freight Transportation Data Architecture: Data Element Dictionary she was a team member who reviewed multiple freight databases. In NCFRP 16 Preserving and Protecting Freight Infrastructure and Routes, Lisa was the major architect of the projects website www.envisionfreight.com and reviewed and conducted analysis on issues arising from urban freight movement from environmental justice to interstate commerce, and to costs and benefits of freight movement and the preservation of corridors and facilities.
Professional Affiliations New York State Bar Association American Bar Association Association of Transportation Law Professionals Women's Transportation Seminar: Board Member	
Selected Panel Memberships FRA: National Rail Plan Focus Group on Land Use, 2010 TRB- ACRP 02-18 Guidelines for Integrating Alternative Jet Fuel into the Airport Setting	Freight Analysis: Freight Transportation Planning: Lisa has managed and led multiple projects on transportation planning, including freight planning. Lisa managed CTR's Team on TRB Project NCFRP16 that produced the www.envisionfreight.com website and research report on protecting and preserving freight corridors and facilities. Lisa has also managed recent research projects regarding rail corridor encroachment, use and development of abandoned rail corridors, freight performance measure metrics, and megaregions and freight. She worked as an analyst on two projects regarding inland port development and freight facility siting, and another research project that looked at freight data metrics. Specific topics she has completed analysis for have included ROW characteristics and freight site selection decision-making. Two of these projects culminated in the development of guidebooks for stakeholders.
Awards: WTS HOT Woman of the Year 2016, Member of the Year 2011	



Lisa Loftus-Otway Selected Publications and Conference Presentations

- NCHRP 20-102-07 *Implications of Automation for Motor Vehicle Codes*. Expected summer 2018.
- NCHRP 19-12. *Guide for Financial Planning and Management in Support of Transportation Asset Management*. Expected summer 2018.
- Walton, C.M., Murphy, M.R. Hui, W., Jiang, N., Hasan, M., Zu, H., Agarwal, S, Harrison, R., Loftus-Otway, L., Prozzi, J., Porras-Alvarado, J., Weissmann, J., and Weissmann A. *The Impact of Specialized Hauling Vehicles on Pavement and Bridge Deterioration*. Research Report 0-6897-2. Center for Transportation Research (CTR), TX, December 2017
- Walton, M., Zhang, Z., Murphy, M., Wu, H., Loftus-Otway, L., Jiang, L., Sun, J., and Galvis, O. *Pavement, Bridge and Safety Cost Evaluation Tool for Overweight Truck Corridors Serving Coastal Port Regions and Border Ports of Entry*. CTR, August 2017. URL: <https://library.ctr.utexas.edu/ctr-publications/0-6820-2.pdf>
- *Assimilating Self-Driving Cars into Society: Technology and the Law*. Presentation to South by Southwest Conference. Austin Texas, March 2017.
- *Disruptive Technologies: A Peek Inside Self-Driving Vehicle Laws*. Presentation to Association of Transportation Law Professionals Meeting. Austin, Texas, June 2017.
- Walton, C.M., Seedah, D., Choubasi, C., Wu, H., Ehlert, A., Harrison, R., Loftus-Otway, L., Harvey, J., Meyer, J., Calhoun, J., Maloney, L., Cropley, S.F., Ford, A. *Implementing the Freight Transportation Data Architecture: Data Element Dictionary*. NCFRP Report 35: September 2015. Prepared for the National Cooperative Freight Research Program. TB: Washington: DC.
- Meitzen, M., Loftus-Otway, L., Hutson, N., Grow, R., Bruening, A.D., and Pett, K.P. *Preserving and Protecting Freight Infrastructure and Routes*. NCFRP Report 16. Prepared for TRB National Cooperative Freight Research Program. March 2012. TRB: Washington: DC.
- Loftus-Otway, L., Kearns, D., Daboin, S., and Vest, G. *Protecting and Preserving Rail Corridors and Facilities*. Presentation to National Association of Counties Annual Meeting, Pittsburg PA, July 16, 2012.
- Seneschal, J., Loftus-Otway, L., Daboin, S., and LaCour, V. *Planning for Freight Movement: Getting the Beer to the Bar*. Presentation to American Planning Association Annual Meeting. Chicago, IL, April 13, 2013 (this presentation was repeated at APA's request for a webinar in November 2013 that was attended by 750 participants).
- Prozzi, J., Murphy, M., Loftus-Otway, L., Bannerjee, A., Kim, M., Wu, H., Prozzi, J.P., Hutchinson, R., Harrison, R., Walton, C.M., Weismann, J., and Weismann, A. *Oversize/Overweight Vehicle Permit Fee Study*. Research Report 0-6736-1. CTR, TX, December 2012.
- Mingo, R., Loftus-Otway, L., Hutson, N., Moore, T., and Ritchie, B. *Potential Future Uses of Highway Rights of Way: Summary Report*. Prepared for FHWA: Office of Policy Analysis. Washington: DC, February 2012.
- Harrison, R., Johnson, D., Loftus-Otway, L., Hutson, N., Seedah, D., Zhang, M., and Lewis, C. *Megaregion Freight Planning a Synopsis*. Research Report 0-6627-1, Center for Transportation Research, TX, March 2012.
- Harrison, R., Schofield M., Loftus-Otway, L., Middleton, D., and West, J. *Developing Freight Highway Corridor Performance Measure Strategies in Texas*. Research Report 0-5410-1 Center for Transportation Research. TX, 2007.
- Harrison, R., Loftus-Otway, L., and Shakyaver, A. *Incorporating Inland Port Strategies into TxDOT Planning: An Implementation Manual*, Research Report 5-4083-1, Center for Transportation Research. TX, 2006.



Dr. Nan Jiang, Ph.D., P.E. Research Associate Center for Transportation Research 3925 Braker Lane, Austin, Texas, 78759 Tel: 512.232 3143, Email: Jiang@utexas.edu	
Education Ph.D, Civil Engineering University of Texas at Austin MS Transportation Engineering Tongji University BA Transportation Engineering Huazhong University of Science and Technology Professional Qualifications Professional Engineer Texas License PE# 123320 Professional Affiliations Affiliate Member WTS: HOT TRB Paper Reviewer for Transportation Research Part B; Transportation Research Part C; Transportation Research Record; International Journal of Sustainable Transportation; International Journal of Transportation Science and Technology; Journal of Advanced Transportation Session Chair 2010 INFORMS annual meeting (Nov., 2010)	Nan Jiang's has been in the transportation field for over ten years. Ms Jiang's research focusses on the freight modeling and planning, data analysis, truck size and weight analysis, network modeling and transportation environmental impact studies. She is a licensed engineer. She has served as a reviewer for the Transportation Research Part B and C, Transportation Research Record and many other Transportation journals. Freight Planning & Policy Dr Jiang is currently working on three projects supporting freight planning at TxDOT where she is the principal investigator. In Estimating Freight Value Moved on TxDOT-Maintained Roadways for Investment Decision-Making, she led a research team to apply commodity flow estimation methods and techniques using various data sources to provide an assessment of the value of freight moved along Texas corridors. In Economic Analysis of Freight Corridors and Projects (an Inter-Agency Contract (IAC) with TxDOT Freight and International Trade Section), her team is modeling the impact of various freight corridor projects on passenger and freight movement using statewide analysis model, evaluating the economic impact and economic value of those projects and helping TxDOT establish a streamlined and consistent economic analysis framework. In another IAC Freight Impact on Austin's Roadway System with TxDOTs Austin District she is conducting freight flow modeling and data analysis to estimate the freight flow on Austin district's roadway network and evaluate their impacts on the infrastructure. Freight Data Analysis Dr. Jiang has served on three projects in the past four years that has conducted multiple analysis on truck size and weight implications for infrastructure.. These projects have included conducting analysis of data used to determine corridor utilization, pavement and bridge consumption rates, and developing recommendations for permit fee structures and consumption rate calculations. She was part of a team that estimated the number and operational characteristics of special hauling vehicles in Texas to evaluate their impact on infrastructure and provide guidance on reducing their negative impacts. In project 0-6817 Evaluation of Current Gross Vehicle Weights and Axle Load Limits, she was part of the team that explored cost recovery structures to fund pavement repairs due to accelerated consumption by overweight vehicles and providing case study guidelines for implementing a recommended recovery structure. In project 0-6820, A Process for Designing and Managing Overweight Truck Routes in Coastal Port Regions the team built a truck configuration library and developing a tool to support TxDOT analyze pavement and bridge consumption caused by overweight vehicles at ports. In all of these studies, Dr .Jiang has been the lead team member analyzing WIM data, which has provided data on the types and configurations of trucks on the on and off system network. Dr. Jiang was part of a team that developed for TXDOT's Legislative Affairs Section a Truck Configuration Library. The truck configuration library provided pavement and bridge consumption rates to those truck configurations and weight limits that are of interest to trucking industry and state agencies.



Nan Jiang Selected Publications and conference Presentations

- Walton, C.M., Murphy, M.R. Hui, W., Jiang, N., Hasan, M., Zu, H., Agarwal, S, Harrison, R., Loftus-Otway, L., Prozzi, J., Porras-Alvarado, J., Weissmann, J., and Weissmann A. *The Impact of Specialized Hauling Vehicles on Pavement and Bridge Deterioration*. Research Report 0-6897-2. Center for Transportation Research (CTR), TX, December 2017
- Walton, M., Zhang, Z., Murphy, M., Wu, H., Loftus-Otway, L., Jiang, L., Sun, J., and Galvis, O. *Pavement, Bridge and Safety Cost Evaluation Tool for Overweight Truck Corridors Serving Coastal Port Regions and Border Ports of Entry*. CTR, August 2017. URL: <https://library.ctr.utexas.edu/ctr-publications/0-6820-2.pdf>
- Kam, K., Jiang, N., Bujanovic, P., Savage, K, Walthall, R., Seedah, D., and Walton, C.M. *Finding and Exploring Use of Commodity-Specific Data Sources for Commodity Flow Modeling*. Transportation Research Record: Journal of the Transportation Research Board, No. 2646, 2017, pp. 77–83.
- Ruiz-Juri, N., James, R., Jiang, N., Duthie, J., Pinjari, A., Bhat, C. On the Computation of Skims for *Large-Scale Implementations of Integrated Activity-Based and Dynamic Traffic Assignment Models*. Transportation Research Record, No. 2563.
- Jiang, N., Dubey, S., Ruiz, N., Bhat, C.R., Duthie, J. *On the Impacts of Time Resolution in the Integration of Activity-Based and Assignment Models*. The 5th Transportation Research Board Conference on Innovations in Travel Modeling (ITM), April 27-30, 2014, Baltimore, MD
- Jiang, N., Xie, C. Duthie, J. and Waller, S.T. A network Equilibrium Analysis of Destination, Parking, and Route Choices of Mixed Gasoline and Electric Vehicular Flows. Euro Journal on Transportation and Logistics, Vol. 3(1), pp. 55-92, 2013
- Jiang, N. and Xie, C. *Optimally Locating Charging Stations for Serving Plug-in Electric Vehicular Flows*. INFORMS 2013, October 2013, Minneapolis, MN.
- Jiang, N. and Xie, C. *Traffic Network Equilibrium with Relays*. TRISTAN VIII, June 2013, San Pedro de Atacama, Chile.