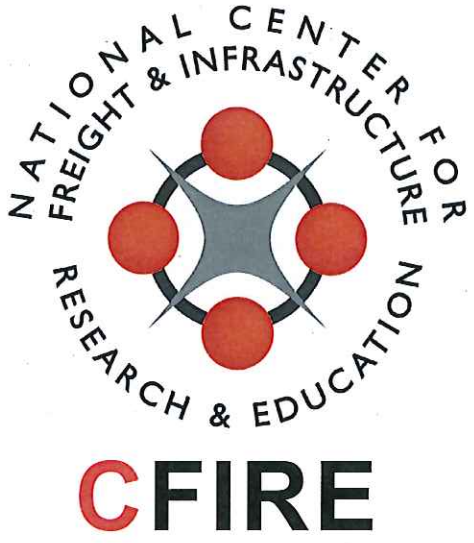

Program Progress Performance Report (PPPR): July 1, 2012 to December 31, 2012

February 2013

National Center for Freight & Infrastructure Research & Education
Department of Civil and Environmental Engineering
College of Engineering
University of Wisconsin–Madison

Principal Investigator:
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Federal agency submitting to:	RITA, USDOT
Federal grant number:	DTRT12-G-UTC19
Program Director:	Teresa M. Adams, Ph.D. Director, CFIRE Professor, CEE University of Wisconsin-Madison adams@engr.wisc.edu; 608-263-3175
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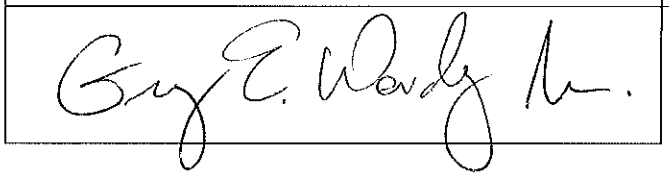
Submission date:	February 20, 2013
DUNS and EIN numbers:	DUNS: 161202122; EIN: 396006492
Recipient organization:	University of Wisconsin-Madison
Grant period:	January 1, 2012 to January 31, 2014
Reporting period end date:	December 31, 2012
Report term:	July 1, 2012 to December 31, 2012
Signature of submitting official:	
	

This report covers CFIRE's efforts to collaboratively address research, education, workforce development, and technology transfer under DTRT12- G-UTC19 during the reporting period of July 1, 2012 to December 31, 2012.

1. Accomplishments

A. CFIRE's Goals

I. Research: Through the strategic planning process, CFIRE is continuing its efforts with eight research initiatives that support the USDOT Strategic Goals and advance the state of practice in freight and freight infrastructure systems.

II. Education and Workforce Development: The partner institutions of CFIRE are actively engaged in education and workforce development at the local, state, and national levels. CFIRE has built upon established successful programs and continues support new collaborative initiatives. Our proposed education and workforce activities for university students and practicing professionals will develop skills and knowledge in multimodal freight transportation systems that reinforce our Center's theme.

III. Technology Transfer: Technology transfer is the process of transferring discoveries or innovations derived from university research into products and services that benefit the profession. CFIRE will engage the freight community in a cross-section of technology transfer initiatives. These will include both traditional and innovative approaches to disseminating information.

IV. Collaboration: The CFIRE team has taken advantage of regional expertise by establishing both northern and southern hubs to help coordinate proposed education, training, and technology transfer efforts. The CFIRE team brings a wealth of experience and a history of collaborative work. We will leverage these assets to further develop relationships across a spectrum of initiatives that include both state and national-level collaborations.

B. Accomplishments under CFIRE's goals

I. Research Initiatives:

- **RI-1: A Multi-Modal Freight Safety, Security, and Environmental Routing Tool**
  USDOT Priorities: Safety/Sustainability
  Performing Institutions: Vanderbilt University, University of Wisconsin – Milwaukee and Superior, University of Memphis, University of Alabama in Huntsville, and University of Southern Mississippi.
  Start Date: July 1, 2012 End Date: September 30, 2013
  - Major activities:
    - Presentation and discussion of project objectives and work plan with CFIRE advisory committee
    - Project meeting involving all participating institutions to review work plan and assign responsibilities
    - Initiated data collection effort
  - Major Objectives
    - Literature Review
  - Significant results:
    - Refinement of work plan
    - Identification of outstanding issues to be resolved
  - Key outcomes or other achievements
    - Nothing to Report
- **RI-2: Making Freight-Centric Communities More Livable: Measuring the Impact of Advanced Technologies**
  USDOT Priorities: Livability/Economic Competitiveness

Performing Institutions: University of Memphis, University of Wisconsin-Madison, and University of Toledo.
Start Date: July 1, 2012 End Date: December 31, 2013

- Major activities:
  - Conducted the literature review
  - Met in Memphis to kick off the project
  - Organized into task responsibilities
- Major objectives:
  - Literature review
- Significant results:
  - Nothing to report.
- Key outcomes:
  - Nothing to report

- **RI-3: Non-Destructive Technologies for Monitoring and Condition Assessment to Support Safety**

  USDOT Priorities: State of Good Repair
  Performing Institutions: University of Wisconsin-Madison and Milwaukee
  Start Date: July 1, 2012 End Date: December 31, 2013
  - Major activities:
    - Literature review and collecting literature materials
    - Working on draft survey
  - Major objectives:
    - Literature review
  - Significant results:
    - Nothing to report.
  - Key outcomes:
    - Nothing to report.

- **RI-4: Mining Automatic Identification Systems (AIS) Data for Improved Vessel Trip Analysis Capabilities**

  USDOT Priorities: Economic Competitiveness
  Performing Institutions: Vanderbilt, University of Toledo, and University of Wisconsin-Superior.
  Start Date: July 1, 2012 End Date: December 31, 2013
  - Major activities:
    - Key personnel received Oracle PL/SQL training and brainstormed on database design and overall methodology to convert, store, display and manage data
    - Assembled Great Lakes dock and terminal locations, lock locations, and identified antenna locations on lakes. All data features were overlayed on USACE Great Lakes waterway network. Initial work undertaken to relate existing GIS data layers to AIS locations logged from antennas
  - Specific objectives:
    - Literature review on uses of AIS and associated techniques used along with AIS data collection
  - Significant results:
    - It was discovered that performing all of the conversion from binary to ASCII of the AIS messages will not be possible completely within the Oracle database so binary to ASCII conversion will not be performed within the Oracle database.
    - St. Lawrence Seaway Development Corporation is using AIS to improve lock navigation allowing deeper draft
    - Identification of vessels using inaccurately calibrated AIS units, Commodity information not to be included in the AIS message for security reason

        - One of the challenges of using AIS data is identification/elimination of human errors in setup. Existence of such errors was noted by a study published in 2008. Impact of these errors was confirmed during discussions with Dr. Peter S. Lindquist at the Great Lakes Affiliates Meeting 2012.
    - Key outcomes:
        - Nothing to Report

- **RI-5: Estimating the Effects of Climate Change on Transportation Infrastructure**
  USDOT Priorities: Sustainability
  Performing Institutions: Vanderbilt University and University of Wisconsin-Madison.
  Start Date: July 1, 2012 End Date: September 30, 2013
    - Major activities:
        - Exchange of preliminary transportation disruption and extreme weather data
        - Development of preliminary flood risk index
        - Literature review on precipitation-induced risks to transportation infrastructure
        - Development of comparisons of historic and simulated precipitation events
    - Specific objectives:
        - Coordinate project management and technical approach
        - Initiate performance of specific tasks
    - Significant Results:
        - Refinement of work plan
        - Identification of outstanding issues to be resolved
    - Key outcomes:
        - Validation of project importance and feasibility
- **RI-6: Realigning Multimodal Freight Networks in Response to International Capacity Expansion**
  USDOT Priorities: Economic Competitiveness
  Performing Institutions: University of Southern Mississippi, University of Alabama in Huntsville, University of Memphis, University of Illinois at Chicago, and University of Wisconsin-Superior.
  Start Date: July 1, 2012 End Date: December 31, 2013
    - Major activities:
        - Toured CN and BNSF intermodal facilities in Illinois and CN intermodal facilities in Memphis
    - Specific objectives:
        - To assess potential effects of Panama Canal's expansion on the freight networks in the United States' South and Midwest regions and identifying rational strategies for the nation's multimodal network in response to this international capacity expansion
        - Review literature on impact of Panama Canal Expansion and Prince Rupert Gateway and on critical issues such as customs clearance time, union disputes and labor costs need to be discussed in a manner that differentiates west coast and east coast routes
        - Create a map of Transportation Infrastructure within the CFIRE region
    - Significant results:
        - A detailed literature review has been conducted to understand port choice decision process of ocean liners and major shippers. It was concluded that there are many factors involved and the port selection process is complex. What makes the analysis difficult is lack of appropriate dataset that include all elements. It appears that data fusion approach should be adopted to combine various sources of data for international freight distribution model.

- Key outcomes:
  - A survey questionnaire was designed to help collecting shippers' decision process data. Pilot survey will start later in January and other major achievements will be reported later in future reports.

- **RI-7: Enhancing Rail Connectivity to Underserved Rural Communities**
  USDOT Priorities: Livability/Economic Competitiveness
  Performing Institutions: University of Memphis, University of Wisconsin-Superior and Madison, University of Alabama in Huntsville, and University of Southern Mississippi.
  Start Date: July 1, 2012 End Date: October 31, 2013
  - Major activities:
    - Main literature review (Task 1) is completed although it will be updated throughout the course of the project as new information becomes available.
    - Interviews with short lines/customers/communities (Tasks 2) and case study development (task 3) are in progress.
  - Specific objectives:
    - Literature review
  - Significant results:
    - Nothing to report.
  - Key outcomes:
    - Nothing to report.

- **RI-8: Beneficial Reuse of Dredging Materials Summit**
  USDOT Priorities: State of Good Repair
  Performing Institutions: University of Wisconsin-Madison, Milwaukee, and Superior.
  Start Date: August 1, 2012 End Date: April 30, 2013
  - Major activities:
    - Began the Summit planning by setting up a project steering committee and holding bi-monthly conference calls to plan Summit details.
    - Hold weekly team meetings to discuss project progress with emphasis on Task 1 (review of case histories) and Task 2 (review of material characteristics).
  - Specific objectives:
    - Plan for Summit to be held in Louisville, KY in March 2013.
    - Review literature on permitting process for dredging
    - Draft summary report providing a matrix of potential use applications in transportation sector and appropriate material characterization properties needed for transportation-specific applications of dredged materials
  - Significant results:
    - To date, we have selected the Summit venue, the target audience and are very close to finalizing the Summit agenda and speakers
    - Able to recruit Lake Carriers Association to help in the Dredging Conference
  - Key outcomes:
    - Nothing to Report

II. Other Research

- Economic and Environmental Analyses of Urban Delivery Consolidation Strategies:
  Performing Institutions: University of Illinois – Chicago
  - Major activities:

        - We have attempted to quantify what and how operational factors may make delivery consolidation attractive both in terms of monetary value and environmental benefits.
    - Specific objectives:
        - Among new, innovative city logistics strategies, delivery cooperation has received increasing academic and practical attention mostly in Europe and Japan. It is believed to bring cost savings and environmental benefits with the right setting. The study aims to quantify economic and environmental benefits of delivery cooperation.
    - Significant results:
        - Nothing to report.
    - Key outcomes:
        - Nothing to report.
- Incorporating Environmental Measures 1 into a Reliable Freight Routing Model:
  Performing Institutions: University of Illinois – Chicago
    - Major activities:
        - The study team experimented with eight variants of the base model, each corresponding to a different trade-off strategy between the three objectives, namely, efficiency, reliability and sustainability.
    - Specific objectives:
        - To incorporate environmental measures, especially the cost of greenhouse gas (GHG) emissions, into a reliable freight routing model. GHG emission rates are generated from Motor Vehicle Emission Simulator (MOVES) model and approximated as a function of the average link travel speed.
    - Significant results:
        - Nothing to report.
    - Key outcomes:
        - Nothing to report.
- Ultraheavy Truck Study:
  Performing Institutions: University of Wisconsin – Milwaukee
    - Major activities:
        - Begun literature review on ultraheavy trucks; contacted state DOT's for overweight permit data; begun evaluations of effects on pavements, air quality, energy consumption, and performance.
    - Specific objectives:
        - To determine the benefits and cost of increasing truck weights well beyond current standards.
    - Significant results:
        - Nothing to report.
    - Key outcomes:
        - Nothing to report.

III. Education and Workforce Development- The following progress has been made on CFIRE's commitments to education and workforce initiatives.

- University of Memphis:
    i. The University of Memphis conducted two summer programs during the month of June 2012. The Girls Experiencing Engineering and Transportation Engineering Careers

programs were a huge success. The two programs are separated based on gender. After years of running co-educational programs, it was determined single-gender programs are more effective. Each program focused on making middle and high school students aware of the opportunities available through a career in transportation engineering by engaging students in hands-on design challenges and introducing them to student and professional mentors. The programs attract the largest percentage of participants from inner city Memphis and under-represented demographics in the transportation industry. Approximately 85% of participants are African American. The programs continue to be extremely popular, with a waiting list developing in less than a week from registration opening. The programs in 2012 served a total of 155 students, 88 teachers, and 20 high school and college mentors.

- Michigan Technological University:
    i. Great Lakes Maritime Transportation Teacher Institute, July 16-20 – Conducted a 5-day institute in Michigan's Eastern Upper Peninsula in which 19 teachers attended to develop a total of 25 lessons for elementary, middle and high school classes.
    ii. K-12 Transportation Education lessons & activities – Assembled first draft to provide activities & lessons for K-12 teachers to teach about transportation topics in science and social studies classes.
    iii. Planned Family Transportation Event to take place 6:00-8:00 pm, Jan. 29, 2013 at Ontonagon Elementary School to increase awareness amongst elementary students and parents of Transportation Careers
- University of Southern Mississippi:
    i. Hosted a two-day workshop, Sept 27-28 – in part of a partnership among the Center for Logistics, Trade, and Transportation (CLTT) at the University of Southern Mississippi, the Research Curriculum Unit (RCU) at Mississippi State University and the Mississippi Department of Education's (MDE) to increase awareness of intermodal transportation education among K-12 stakeholders.
    ii. Hosted a workshop for K-12 Teachers Oct 22-23 in Hattiesburg, MS about 'Intermodal Transportation Curriculum Development
    iii. Developed the student competition for Freight Week 2013
- University of Toledo:
    i. The University of Toledo is assisting the students of The Maritime Academy of Toledo in getting real world experience by supporting field trips. The Maritime Academy of Toledo is a publicly funded, tuition-free charter school for grades 5 through 12 in Toledo, Ohio focusing on a maritime related education. They became the first State of Ohio approved Maritime Career Tech Education Program.
- University of Wisconsin – Madison:
    i. Provided CFIRE scholarships for Engineering Professional Development Rail Short Courses – Activities for university students and practicing professionals will develop skills and knowledge in multimodal freight transportation systems that reinforce our Center's theme.
    ii. CFIRE Benefit-Cost Analysis Guide - This guide applies a BCA framework to a TIGER grant application and uses it as the backbone for developing a compelling and competitive application.
    iii. Sponsored and participated in Camp Badger – STEM Education For K-12 students, activities aim to attract new entrants into transportation with emphasis on opportunities in freight and the importance of freight transportation to our nation's economy and quality of life
- University of Wisconsin – Superior:
    i. Rail and Intermodal Transportation Youth Summer Program Grades 9-11, July 8-14 – Third successful year operating the program

ii. Lake Superior chapter of the Institute of Supply Chain Management, Nov. 15 – Group seminar led by staff member
iii. Development and launch of "Certified in Transportation and Logistics Online Program" in collaboration with the American Society of Transportation and Logistics to encourage students to participate in activities to prepare them for professional and academic life beyond graduation

IV. Technology Transfer - The following progress has been made on CFIRE's commitments to T2:
- 2012 MidContinent Transportation Research Forum in Madison, WI. This research forum brings together research centers at UW-Madison with focuses in freight, traffic and operations, recycled materials, construction of pavements and structures, and transportation policy. The focus of the forum is to bring all of UW's research to the DOTs of the upper Midwest, primarily Wisconsin and Iowa DOTs. All CFIRE partners attended and most presented at this forum.
- Ohio Conference on Freight: Over 220 professionals from the private and public sectors and from fourteen states and provinces in Canada attended the September 13-14 conference in Sandusky, OH. The attendees produce and/or move freight, plan infrastructure, invest in training, enforce regulations, and build local economies. Supply chain executives, Planners, engineers, Economic Developers, university faculty, lawyers, and consultants coalesce around issues of freight mobility.
- Intermodal Freight Conference: IFTI hosted the 6th Annual Intermodal Conference on October 30, 2012 at the FedEx Institute of Technology on the University of Memphis campus. The conference featured world-class presentations by industry experts, government officials, and transportation professors.

V. Collaboration - The following progress has been made on CFIRE's commitments to collaboration.
- University of Wisconsin
    i. Madison: While planning for/conducting the National Workforce Summit, UW-Madison collaborated with FHWA, FTA, RITA, and OST of the USDOT; AASHTO, TRB, ARTBA, ENO Foundation, US Dept. of Education, APTA, NSF, and numerous UTCs.
- UW-Madison Course IES 970/ CEE 970: Colloquium on Transportation Management and Policy (a speaker series that is run out of the CFIRE offices in Madison): Fall topic was Freight Transportation Along the Mississippi River Corridor: Speakers were hosted from the following organizations (outside of the CFIRE consortium): Port of Milwaukee, Wisconsin Energy Institute, Chicago Metropolitan Agency for Planning, and the Institute for Trade and Transportation Studies.

C. Dissemination of Results
- Hosted the 2012 Mid-Continent Transportation Research Forum in Madison, WI. See write up under Technology Transfer.
- Results of CFIRE activities are disseminated via the CFIRE website, its blog, the CFIRE newsletter, and multiple social media channels (mass email, Twitter, Facebook, etc.)

D. Next Reporting Period
- Annual Inter-University Student Symposium on Freight, Workforce Summit, Freight Transportation Session at Camp Badger, Wisconsin Regional Future City Competition, Family Transportation Event for K-6 Students, Railroad Engineering Courses, Mid-America Freight Coalition Annual Meeting.

2. Products
- Publications and conference papers:
    i. See list at the end of the document.
- Presentations – research was presented by CFIRE partners at the following conferences:

i. Sixth Annual Intermodal Freight Conference – Memphis, TN, Oct. 30, held and co-sponsored by the University of Memphis
ii. 2012 Ohio Conference on Freight – Sandusky, OH, Sep. 12-13, sponsored and partnered by the University of Toledo in which over 220 professionals from the private and public sectors and from numerous states and provinces in the U.S. and Canada attended
iii. CLTT Industry Advisory Council (IAC) Roundtable –Hattiesburg, MS, Aug. 17, organized by staff at the University of Southern Mississippi
iv. USW Southeastern Conference on Public Administration (SECoPA) – Coral Springs, FL, Oct. 3-6
v. P&OM World Conference – Amsterdam, July 1-5. No federal funds used.
vi. 43rd Annual Meeting of the Decision Sciences Institute – San Francisco, CA , Nov. 17-20
vii. National Conference on Intermodal Transportation –Hampton, VA, Oct. 11 – 12
viii. Engineering Lean Six Sigma Conference – Louisville, KY, Oct. 2-3
ix. Mississippi State Port Public meeting – Biloxi, MS
x. Exhibition at the Coastal Development Strategies Conference – Biloxi, MS, Nov. 7-8

- Websites (does not include the academic partner institution websites reported in the last PPPR):
  i. Beneficial Use Summit (RI-8): Includes a project summary, list of the steering committee members, draft Summit details and the current draft version of the Summit agenda http://www.wistrans.org/cfire/events/dredging/
  ii. This CLTT "Special Studies and Applied Research" webpage is a repository for freight transportation research. http://www.usm.edu/logistics-trade-transportation/special-studies-applied-research
  iii. UWS- A web based model was designed using Comparion© & ExpertChoice© for calculating stakeholder influences in a transportation network. This model is elaborated in the paper described above.

- Technologies/Inventions/Other Products
  i. University of Illinois at Chicago – a comprehensive framework for economic and environmental impacts of city logistics. The core of the framework consists of two models: 1) a distribution network model by using the Continuum Approximation (CA) method to find the optimal vehicle dispatching and routing (in terms of number of stops) plan and the optimal logistics cost, and 2) an environmental impact model to evaluate the vehicle energy consumption and emissions. This framework can be adopted and applied to any urban areas.
- Newsletters
  i. Center for Freight and Infrastructure Research and Education has released the Summer/Fall 2012 issue:
    - http://www.wistrans.org/cfire/documents/CFIRE_Newsletter_2012-2.pdf
  ii. Mid-America Freight Coalition has released the Fall 2012 issue:
    - http://midamericafreight.org/wp-content/uploads/MAFC_FreightNotes_2012-3.pdf

3. Participants and Other Collaborating Organizations

A. Collaborating Organizations

I. Wisconsin Department of Transportation; Madison, WI; financial support, in-kind
II. Tennessee Department of Transportation; Nashville, TN; financial support
III. Mississippi Department of Transportation; Jackson, MS; in-kind support
IV. Wisconsin Department of National Resources; in-kind support
V. Canadian National Railway; Memphis, TN; financial, in-kind support, facilities
VI. Burlington Northern Santa Fe; Fort Worth, TX; in-kind, facilities
VII. Halvor Trucking; Superior, WI; in-kind, facilities
VIII. North Shore Scenic Railway; Duluth, MN; in-kind, facilities

IX. Duluth Superior Transportation Association; Duluth, MN: in-kind
X. Ingram Barge Company; Nashville, TN; financial, in-kind
XI. Wuzi University Beijing China - in kind, facilities
XII. International Maritime University of Panama; Panama City, Panama; collaborative research
XIII. Center for Transportation Studies – University of Minnesota - personnel exchanges
XIV. Institute for Transportation, Iowa State University; Ames, IA; Donation
XV. Intermodal Association of North America (IANA) – financial, in kind
XVI. Great Lakes Maritime Research Institute; Superior, WI; collaborative research,
XVII. Institute for Trade and Transportation Studies; New Orleans, LA; in-kind support
XVIII. UW Sea Grant Institute; Superior, WI; in-kind support
XIX. American Transportation Research Institute; Atlanta, GA; in-kind support
XX. Great Lakes Commission, Ann Arbor, MI; in-kind support
XXI. US Army Corps of Engineers; St. Paul, MN; in-kind support
XXII. US Maritime Administration; Chicago, IL; in-kind support
XXIII. US Environmental Protection Agency; Chicago, IL; in-kind support
XXIV. American Association of State Highway and Transportation Officials; DC; in-kind support
XXV. Port of Toledo; Toledo, OH; in-kind support
XXVI. Lake Carriers Association, Rocky River, OH; in-kind support, collaborative research
XXVII. Lake Superior Railroad Museum, Superior, WI; in-kind support, facilities

4. Impact
    - Nothing to Report

5. Changes/Problems
    - The UW-Superior Research Center offices in Erlanson 5 were flooded. Transportation and Logistics Research Center offices were moved to Old Main 135 and 129. No CFIRE funds were used to fund relocation or pay for damages

- Publications, conference papers, and presentation:
    i. Great Lakes: Paper presentation at the 2012 Mid-Continent Transportation Research Forum, “Data Enhancement Using AIS & GIS” Samir Dhar & Dr. Peter Lindquist.
    ii. *A Multi-Modal Freight Safety, Security and Environmental Routing Tool*, Mid-Continent Transportation Research Forum, Madison, WI
    iii. *Estimating the Effects of Extreme Weather on Transportation Infrastructure*, Mid-Continent Transportation Research Forum, Madison, WI
    iv. Srivastava, P., B.X. Wang and TM. Adams. (2012). “Geo-spatial analysis of truck parking needs.” Journal of Transportation Systems Engineering and Information Technology (TSEIT), 12(4):11-21.
    v. Adams, T.M., K. Bekkem and E.J. Toledo-Duran. (2012). “Freight Resilience Measures” ASCE Journal of Transportation Engineering. 138(11):1403-1409. Nov.
    vi. Bittner, J., T. Baird, and T.M. Adams. (2012). “Impact of the Panama Canal Expansion on U.S. Greenhouse Gas Emissions.” TRR: Journal of the Transportation Research Board. 2273:38-44.
    vii. Johnston, M., E. Bickford, T. Holloway, C. Dresser, and TM Adams. (2012). “Impacts of Biodiesel Blending on Freight Emissions in the Midwestern United States.” Transportation Research Part D. 17:457-465.
    viii. Juni, Emil. Application of Data Envelopment Analysis Methods to Analyze and Improve Efficiency of Infrastructure Maintenance Strategies. 2012 Mid-Continent Transportation Research Forum September 6-7, 2012.
    ix. Hart, Maria. New National Energy Economy, New Local Impacts: Transportation Impacts of Hydraulic Fracturing and Sand Mining in the MAFC Region. 2012 Mid-Continent Transportation Research Form, September 6-7, 2012.
    x. Hart, Maria. Shifting Sands: Emerging Transportation Impacts of Frac Sand Mining. 16th Annual Freight & Logistics Symposium The New American Energy Revolution, Friday, December 7, 2012. Minneapolis, Minnesota.
    xi. Perry, Ernest. July 12 – Freight Corridors in the MAFC Region. AASHTO SCOHT Annual Meeting. July 12, 2012.
    xii. Perry, Ernest. MAP-21 and the MAFC Region. MAASTO Annual Meeting. July 18, 2012.
    xiii. Perry, Ernest. Freight Corridors in the MAFC Region. MAASTO Meeting. July 19, 2012.
    xiv. Perry, Ernest. Economic importance of freight corridors. St Louis port working group (webinar). August 2, 2012.
    xv. Perry, Ernest. Marine Highways in MAFC. 2012 Mid-Continent Transportation Research Forum September 6-7, 2012.
    xvi. Perry, Ernest. The Importance of MAFC Regional Freight Corridors to your State. Ohio Conference on Freight. September 14, 2012.
    xvii. Perry, Ernest. MAP-21 Freight Provisions, National Association of Regional Councils. September 17, 2012.
    xviii. Perry, Ernest. MAFC Marine Highways – Rusty Tows or the New Economy”? UW TMP class Lecture. October 12, 2012.
    xix. Perry, Ernest. States response to MAP-21 on planning and Freight Advisory Committees. AASHTO Annual Conference. November 17, 2012.
    xx. Kang, Myungook. Cost-Effective Means of Managing Pavement in Poor Condition. 2012 Mid-Continent Transportation Research Forum. September 6-7, 2012.
    xxi. Zietlow, Ben. Freight Corridor Analysis and an Economic Perspective. 2012 Mid-Continent Transportation Research Forum. September 6-7, 2012.
    xxii. Chen, Q., J. Lin, K. Kawamura (2012) A Comparison between Urban Cooperative Delivery and Direct Delivery Strategies, Journal of Transportation Research Board, No. 2288: 28-39

xxiii. Li, Q., Y. Nie, S. Vallamsundar, J. Lin, and T. Homem-de-Mello (under review) Incorporating Environmental Measures into a Reliable Freight Routing Model, submitted to Networks and Spatial Economics

xxiv. Lin, J. Q. Chen (under review) Economic and Environmental Analyses of Urban Delivery Consolidation Strategies, submitted to Networks and Spatial Economics

xxv. Li, Q., Y. Nie, S. Vallamsundar*, J. Lin, and T. Homem-de-Mello (2013) Incorporating Environmental Measures into a Reliable Freight Routing Model, the 2013 Transportation Research Board Annual Meeting, Washington D.C., January 13-17, 2013

xxvi. Li, Q., Y. Nie, J. Lin, and T. Homem-de-Mello (2013) Finding reliable and sustainable routes: an approach using risk constraints, submitted to TRISTAN 8 – Eighth Triennial Symposium on Transportation Analysis, San Pedro de Atacama, Chile, June 9 – 14, 2013

xxvii. Lin, J. "Economic and Environmental Analyses of Urban Delivery Consolidation Strategies", invited talk at the Hong Kong Society for Transportation Studies jointly organized with Department of Civil and Environmental Engineering, The Hong Kong Polytechnic University, October 20, 2012

xxviii. Lin, J. "Economic and Environmental Analyses of Urban Delivery Consolidation Strategies", invited talk at Dalian University of Science and Technology, Dalian, China November 22, 2012

xxix. Lin, J. "Economic and Environmental Analyses of Urban Delivery Consolidation Strategies", invited talk at Department of Civil Engineering, Harbin Institute of Technology, Harbin, China, December 9, 2012

xxx. Ziaul Adnan and MD Sarder, "Weighting assignment of analytical hierarchy process by suggestion matrix and likert scale", SYNERGY: A Journal for Graduate Student Research, Vol. 3, Issue 2, Summer 2012.

xxxi. Gazi Iqbal and MD Sarder, "Distribution network optimization by using genetic algorithm", SYNERGY: A Journal for Graduate Student Research, Vol. 3, Issue 2, Summer 2012.

xxxii. "The Non-Freight Economic Engines of River Transportation" Presentation by Richard Stewart at the 3rd Annual Yangtze-Mississippi Rivers Forum in Wuhan, China, October 11-12. No federal funding used for travel. Support from UW-Superior and the American Society of transportation and Logistics. Student research match funding by CFIRE.

xxxiii. "Measuring a Port's Performance Using the Real Economic Value of Commodities", peer reviewed paper submitted to and accepted for TRB annual meeting, Zamira Simkins and R. Stewart, Funded by UW-Superior, GLMRI and CFIRE.
"Natural Gas: A Transportation Fuel for the Future?" Presented at Wisconsin Freight Rail Days, October 26, 2012, Richard D. Stewart, Funded by UW-Superior, GLMRI and CFIRE

xxxiv. "Natural Gas: An Intermodal Fuel", Richard D. Stewart, Center for Transportation Studies, December 07, 2012, 16th Annual Freight and Logistics Symposium, Funded by UW-Superior, GLMRI and CFIRE

xxxv. Paper on Marine Highway Stakeholder relations has been accepted for poster presentation at the TRB 2013 annual meeting. 13-2273: "Marine Highway Stakeholders and Their Relations", coauthored by Dr. Amit Mokashi with Dr. James J. Corbett of the University of Delaware, Funding from the Maritime Administration.

xxxvi. Supply Chain Collaboration: Roles of Interorganizational Systems, Trust, and Collaborative Culture by Mei Cao and Qingyu Zhang, October 2012, Springer publishing. Research support from UW-Superior

xxxvii. Cao, M. and Zhang, Q. (2012). "Impacts of IT Capability and Trust on Supply Chain Collaboration", Proceedings of the 43nd Annual Meeting of the Decision Sciences Institute, San Francisco, CA, November 17-20.

xxxviii. Cao, M. and Zhang, Q. (2012). "Trust-Based Supply Chain Collaboration: An Empirical Examination", Proceedings of the 4th P&OM World Conference, Amsterdam, Netherland, July 1-5.

- Books
    i. Published a book titled “Supply Chain Collaboration: Roles of Interorganizational Systems, Trust, and Collaborative Culture”, Publisher: Springer-Verlag