

# FREIGHT NOTES

Summer 2011

# **Quarterly Newsletter**

Number 13



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# Regulatory Uniformity in the North/West Passage

Ernie Wittwer, MAFC Facilitator

Many things inhibit the free flow of freight. Some deal with the infrastructure of the transportation system, some deal with the management of that infrastructure, and some deal with the regulations that govern the use of the system. Regulation is critical to the safety of travellers and the communities through which people and loads travel. They are also critical for the protection of our investment in infrastructure. The challenge for public agencies is to impose needed regulations in a manner that meets these objectives

This effort began two years ago when the North/West Passage Coalition contracted with researchers at CFIRE to evaluate the potential for establishing a regional permitting system for the corridor states. After many conversations with truckers and the states, the researchers concluded that a bigger problem than the permit itself was the regulations that governed the permit. Requirements for signs, lighting, escorts, and hours of operation changed at state lines. The research team recommended that the states find a way to talk with each



North/West Passage Corridor

while minimizing the burden on the industries being regulated. The eight states of the North/West Passage Corridor Coalition, which is the I-90/94 corridor from Minnesota through Washington, are making progress in modifying the regulations that govern the movement of oversized or overweight loads through their states more uniform for truckers. More uniformity means less trouble for those truckers and less cost for the businesses that move large loads through the region.

other so that regulations could be harmonized.

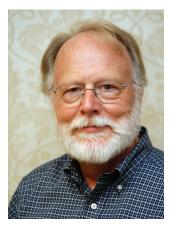
The NWP Corridor Coalition then asked CFIRE to spend some more time on the issue. Our charge for this second effort was largely to facilitate conversation among the states. Monthly teleconferences, reading assignments, and tight agendas, coupled with the ideas and open minds of the permit managers of the states allowed for progress. The state permit managers have agreed to standards for each of the items discussed. Their next

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**It's time...** *Ernie Wittwer, MAFC Facilitator* 



It's time. When you read this, I will be retired. I still have two projects to complete, so I will not be completely retired, but I'll be much closer. After 35 years of doing transportation-related things, I'm looking forward to spending some real time growing tomatoes, working down my dear wife's to-do list, and catching up on the many books I've been planning to read. I may even put some miles on the RV that's

been sitting in my driveway for most of the past three years.

Overall, my 35 years have been good years. I was fortunate to have had the opportunity while in my early fifties to move from the Wisconsin Department of Transportation (WisDOT) to the University of Wisconsin-Madison. That move allowed me to place my agency experiences into a broader context and to think about issues in a different way. It let me learn in a way that I would not have been able to learn had I stayed at WisDOT. It seems appropriate that I use this last column to share what I've learned over those many years of experience at WisDOT and of research, study, and teaching at the university.

The first thing I've learned is that transportation is incredibly important to the economic well-being of our country, and it is becoming more so every year. Historically, our waterways, railroads, highways, and air corridors have been unequalled in the world. This superb transportation system has been a major contributor to our productivity as a nation. Unfortunately, over most of my career, we have been complacent about our transportation system. This complacency allowed our waterways to become obsolete, our railways to specialize, our highways to crumble, and our highways and air corridors to become congested. To our shame, what was once the premier transportation system in the world is now only average for the developed world. As a result of this neglect—and a few other very dumb things we have done as a nation—the outlook for my children and grandchildren is much less bright than it was for me when I came of age.

The second thing that I've learned is that we in the transportation profession should accept a fair amount of the blame for the neglect of the national resource that is our transportation system. While we can all legitimately

complain about the lack of vision in our political leaders, we have to acknowledge that very few of those leaders have original ideas. President Eisenhower did not dream up the Interstate Highway System. It had been simmering in the Bureau of Public Roads and in some state DOTs for more than a decade before Eisenhower had the political wisdom and courage to give it life. He should be honored for that wisdom and courage. What great ideas have we given to the potential Eisenhowers of the past forty years?

We have become engrossed with finance. I fear we may be like the MBAs who nearly wrecked the world economy in 2008. If you go to any national or regional transportation conference, the major topic of conversation will be how much money is needed and how can it be raised or borrowed. We talk about innovative finance, publicprivate partnerships, tolling, and alternative contracting, as if they were the substance of transportation. In reality, they are the pachyderm's pimple. (I should point out that I am entitled to say these nasty things about finance, after having been a finance guy for nearly 25 years.) We need more plain, understandable conversation about the real issues that confront transportation in the United States. We need blunt conversations about the consequence of maintaining the current course. We need ideas about the substance of transportation and how we will make our national transportation system once again contribute to our productivity. We, as transportation professionals, should be generating the ideas and initiating the conversations.

The third thing I have learned is that we are lackadaisical about the management of our transportation agencies. This should come as no surprise. The typical tenure of an agency head has fallen to less than two years. In many cases, when the agency head changes, the top two or three management levels in the agency change. The result is little continuity, dwindling institutional knowledge, and little attention to the long term. This matters because our transportation agencies manage huge resources—both fiscal and human. How well those resources are managed has a profound effect on the quality of the services these agencies provide and on the respect that they receive from the taxpayers. It also matters because the professionals within the agencies are usually the people who generate ideas. Lackadaisical management makes such agencies much less attractive as a place to work for capable young people. Fewer capable people result in fewer and lesser ideas.

The fourth thing I have learned is very closely related to the third: we do a terrible job of helping people in the

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transportation profession grow. This is particularly true in public agencies. Training is often one of the first items cut when budgets are tight. Even when the budgets are not cut, training is often haphazard and dependent upon the initiative of the employee. Again, a look at history may help us understand this fact. Transportation agencies once had very robust middle management corps. Supervisors and first-line managers often had fairly narrow spans of control. They had the time to work with young people, to coach them and mentor them. On-the-job training had some reality. Over the past decades, agencies have shrunk and compressed management ranks, for many excellent reasons. But the result is the role of coach and mentor has been largely written out of the job descriptions of the remaining supervisors and lower-level managers. Systematic training programs could offset the loss, but we have failed in too many cases to put them in place. Cost is often cited as a reason, but we fail to comprehend the cost of a failure to develop our transportation workers.

The fifth thing I have learned is that the historic structure of transportation decision-making in the United States, dispersed as it is between fifty states, many MPOs and local governments, several federal agencies, and numerous private companies, is not adequate to the challenges of the twenty-first century. Like our economy, transportation should not see civic boundaries or lines of ownership. If it is to work effectively, it has to be seamless across boundaries and lines of ownership and between modes. Regional organizations, like the Mid-America Freight Coalition, are important efforts to bridge the borders between states, but they cannot fully fill the gap left by the lack of federal leadership and national transportation policy. We need a national policy and strong federal leadership.

The final bit of learning worth mentioning deals with the relationship between the university transportation professionals and the real-world practitioners. It is not very good. The practitioners often sniff at the "academic" nature of the work that universities do, and university folks sometimes sniff at the "applied" nature of what practitioners want. With the challenges we face, we need both the big-thinkers and the doers, but we need them to better understand each other. Somehow we must find a way to have them spend more time rubbing shoulders and chatting outside of conferences and classrooms, so that the value each brings can be better understood and brought together.

Fortunately for me, my employer for most of the past eleven years is a model for how this sharing of perspectives can be brought about. They hired me as a practitioner in part to build a better tie to the world of the practitioner. CFIRE and its predecessor, the MRUTC, has spent a lot of time and effort with advisory boards, pooled fund studies and, most recently, with the Mid-America Freight Coalition, to improve academic-practitioner communication and to deal with real issues. CFIRE Director Teresa Adams has dedicated two sabbaticals in the last decade to experiences in transportation agencies. The first was at WisDOT and the second at the USDOT. Finally, recent hires have brought more people from agencies to the research staff at CFIRE.

As I look back on what I've written here, it tends to be more negative that I had hoped. These comments do reflect the management and policy perspective that I have on transportation. We have made great strides in many areas of technology. We now have the ability to solve problems and build things faster and better than ever. What we are lacking is the leadership, policy and management frameworks, and institutions to bring those technical abilities to bear on the problems we're currently facing.

Solving these challenges will fall to younger and more energetic folks. One such person, Ernie Perry, will be replacing me at CFIRE. Check out his introduction in another section of this newsletter.

—Ernie

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challenge will be to revise administrative rules to place these agreements into effect. In some cases, this will be difficult, because in some states rules will become more restrictive.

The project could serve as a model for how to collaborate within a multi-state coalition. Discussions based on real data can lead to change, if the participants have an interest in making change. Participants along the North/West Passage Corridor have had that interest and have begun to make these changes.

For more information, consult the project pages for Phase 1 and Phase 2 of the North/West Passage Corridor-Wide Commercial Vehicle Permitting project.

For more information about the North/West Passage Corridor Coalition, visit www.nwpassage.info.

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## Perry Joins CFIRE as MAFC Facilitator

We are pleased to announce that Ernest Perry will join CFIRE as the new facilitator of the Mid-America Freight Coalition, starting October 3.

As MAFC Facilitator, Perry will focus on creating and driving innovation and partnerships that enable transportation agencies to provide and manage the freight infrastructure and services that move us, keep us safe, and support our economic growth.

Perry comes to CFIRE from the Missouri Department of Transportation (MoDOT), where he's worked since 1994. Most recently, he served as the Administrator of Freight Development in MoDOT's Multimodal Operations Division. In this role, Perry led the creation of MoDOT's nationally recognized Freight Development program, developed a freight tonnage estimator tool, partnered with the Missouri River waterway industry to increase freight movements on the river, and led intermodal studies to increase modal share for rail and waterways. Previously in his tenure at MoDOT, he also served as Research

Director, Organizational Results Administrator, Senior Environmental Specialist, and Socioeconomic Specialist.

Perry has worked closely with freight leadership at AASHTO, FHWA, and MARAD, served on three NCFRP panels, participated in the Scan of European Union Freight Corridors, and hosted a number of regional and national freight conferences.

"The MAFC Program Director position is an incredible opportunity to support and lead freight development in the 10-state region," says Perry. "It is an opportunity to build relationships and make a difference through research and implementation approaches that create efficiencies and bring jobs and economic development to the states and the region."

Perry holds a BS in Animal Science, an MS in Rural Sociology, and a PhD in Rural Sociology from the University of Missouri–Columbia.

#### **MAFC Outreach Materials**

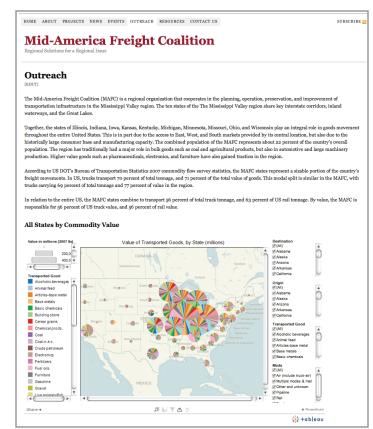
The general public and policy makers of across the MAFC region are often ill-informed on subjects related to freight, its importance to the US economy, and the fragility of the freight transportation system in the United States.

The Develop and Disseminate Outreach Materials to Enhance Freight Investments in the Mississippi Valley Region (MAFC 08) project aimed to develop stories and provide materials that help assist the general public and policy makers across the MAFC region to better understand freight and the importance of freight investments in the economic competitiveness of the MAFC states, the region as a whole, and the entire nation.

As part of this project, researchers collected and synthesized information about the movement of freight throughout the MAFC region and presented it in a flexible, graphical form. In addition, users can easily download the graphics and the data that they represent.

The materials generated by this process for the basis of a new *Outreach* section on the MAFC website.

For more information, visit midamericafreight.org/outreach. The final report for this project is available at cfire. wistrans.org/research/projects/mvfc-08/.



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# Regional Freight Study: An Update

Maria Hart, MAFC Researcher

About six months have passed since the 2011 MAFC Annual Meeting, and we've continued to move forward on the MAFC regional freight study. Here's an update on work currently underway, and next steps.

**Staff.** After the departure of researcher Bob Gollnik and the retirement of MAFC Facilitator Ernie Wittwer, we're pleased to say that we're now fully staffed at CFIRE for this project. In addition to new MAFC Facilitator Ernie Perry and researcher Maria Hart (see pages 3 and 4), we've also hired two graduate students, Whitney Schoep and Sunil Nandam. These new staff members join the existing CFIRE staff and will devote a large share of their efforts to this project.

**Funding.** We've now received funding for Year 1 of the freight study from all ten MAFC states. Thank you to those of you that helped make this happen.

**Data.** We are currently awaiting a large data set to arrive from the University of Toledo; it's due to arrive October 1. We'll begin analysis of these data as soon as it arrives.

**Outreach.** We are currently developing an outreach and communications strategy for the products of the regional freight study. This strategy will build on feedback gathered at the 2011 MAFC Annual Meeting. We will continue to solicit feedback to make sure that the products of the study meet your needs.

*Web site.* By the time that you read this, we'll have added new section to the MAFC website that's devoted to the ongoing work and products of the regional freight study. You can find it here: midamericafreight.org/projects/study/.

*Electronic community.* In order to facilitate discussion about the regional freight study, we will be creating an email listserv to act as an electronic community. To subscribe to this mailing list, send a blank email message to subscribemafc-study@lists.wisc.edu.

Economic development contacts. We recently sent out a survey to a list of economic development contacts from all ten MAFC states. To date, we've only received only a few responses. We'll be following up with the rest of the survey's target audience so that we can continue to expand our list of economic development contacts and our understanding of the key industries in the MAFC region.

Oversize/Overweight. We recently submitted a questionnaire about oversize/overweight permitting to all ten MAFC states. To date, only Missouri and Minnesota have responded with feedback. If your state has not yet responded, please get in touch with us. We'll also be following up so that we can develop a clear picture of OSOW permitting issues in the MAFC.

For more information about the MAFC regional freight study, visit midamericafreight.org/projects/study/ or send email to Maria Hart (mhart@engr.wisc.edu).

# Hart Joins CFIRE Staff



Maria Viteri Hart recently joined the CFIRE staff as an associate researcher. She is a professional planner with 18 years of experience in intercity planning at the state level. Before joining CFIRE, Hart worked for the Wisconsin Department of Transportation (WisDOT) where she specialized in rail planning, developed Wisconsin's

Rail Crossing Information System, produced the Wisconsin Railroads Map, and worked on numerous planning efforts including Translinks21, Connections 2030, the Wisconsin

Rail Issues and Opportunities Report, and the Wisconsin State Rail Plan 2030.

In addition, she has served as a DOT representative on the Mid-America Freight Coalition technical committee since 2006. Before working as a planner, Hart worked for the University of Wisconsin-Madison and Tulane University marketing their MBA programs throughout the United States.

Hart holds a BA in Geography and a Masters in Urban and Regional Planning from the University of New Orleans.

Maria can be reached at mhart@engr.wisc.edu.

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# **Transportation Profiles for MAFC Commodities**

Public sector freight planning is often hindered by the difficulty in obtaining reliable estimates of the commodities that flow between points in the planning area. This project, *Transportation Profiles for MAFC Commodities* (MAFC 10) aims to help inform planning efforts in the region.

In order to develop information on the commodity flows in the MAFC region, researchers conducted three interrelated projects. Part one (conducted by the University of Toledo) developed a supply chain case study to demonstrate the importance of efficient transportation to the industry along with some of the issues that influence the decisions made by shippers and carriers as they move products. Part two (conducted by the University of Illinois-Chicago with help from the University of Toledo) disaggregated Freight Analysis Framework information and assigned the commodities to routes. Part three (conducted by the University of Wisconsin-Milwaukee) developed microsimulations of commodities based on freight volume, economic activity, and probabilities. This combined effort yielded truck-based commodity flow information and route assignments at the county level for key commodities within the MAFC region.

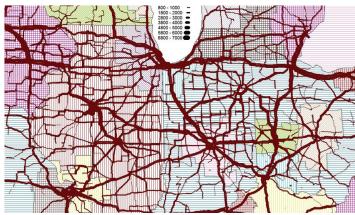
In the process of conducting this microsimulation, researchers learned a number of important lessons:

- Microsimulation is practical for a ten-state region. Except for increases in computation time, there are no apparent obstacles for expanding the microsimulation to the full set of contiguous 48 states.
- It is practical to work at the 3-digit SCTG level, given the ability to easily associate 6-digit NAICS codes with the 3-digit SCTG commodities and associated 5-digit SCTG commodities.

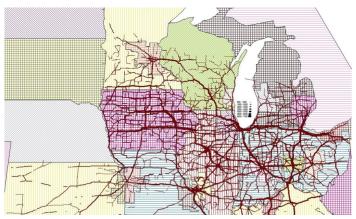
- The major advantage of microsimulation is the ability to integrate numerous databases with varying degrees of aggregation, while still maintaining excellent spatial detail at all steps. The microsimulation also enabled a better representation of the supply chain than found in traditional intercity freight models.
- There are few databases that contain data that can be used to directly calibrate behavioral freight choice models. Most probabilistic relationships within the microsimulation are built from historical percentages from such sources as the US Commodity Flow Survey or the Ontario Commercial Vehicle Survey.
- There is a need to be wary of missing establishments in the Dun & Bradstreet database and to take corrective actions, as necessary.
- Because the total tonnages of corn and soybeans on any given harvest day is so much greater than the tonnages from the three industrial products (plastics, dairy products, and motor vehicle parts), the band-width plots of link volumes looks distorted. This distortion could be eliminated by including more industrial commodities or by scaling the existing three commodities to match the universe of all manufactured products.

In addition to these lessons, the micro-simulation was also able to identify critical corridors for commodities and groups of commodities, including: motor vehicle parts, plastics, dairy products, and agricultural commodities.

For more information and to download the final report, visit cfire.wistrans.org/research/projects/mvfc-10/.



Daily Truck Volumes, All Commodities, Central MAFC Region, Only Links with 200 or More Trucks



Daily Truck Volumes, All Commodities, Majority of MAFC Region, Only Links with 200 or More Trucks

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# Performance Measures for Evaluating Multi-State Projects

Benefit-cost analysis is typically the method used to differentiate between different projects competing for a finite funding stream. For freight transportation projects, this benefit-cost analysis usually focuses on three major benefits:

- Safety
- Reduced travel time
- Environmental improvements

However, these traditional measures fail to capture the broader economic impacts of freight-related projects of regional or national significance.

This project, Performance Measures for Evaluating Multi-State Projects (MAFC 11), outlines a method using the Chicago CREATE project as a case study that considers the impacts of geographic and industry distribution of project benefits, intermodal impacts, and reliability, as well as the traditional benefits of time savings, safety enhancements, and environmental benefit of freight investments.

Based on a review of relevant literature and an analysis of the Chicago CREATE project, researchers were able to suggest the elements and capabilities required for a performance measurement tool for evaluating multi-state projects.

In order to be effective, this method of performance measurement would have to include several elements:

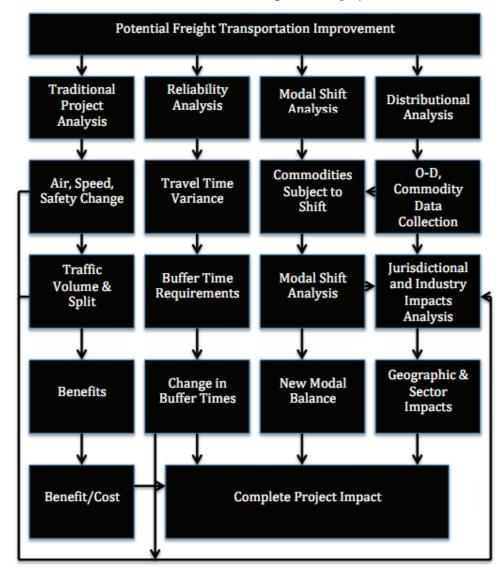
- Economic impacts by industry
- Impact on modal patterns
- Geographical distribution of benefits
- A broader definition of economic and environmental impacts
- A multi-state and systems level perspective

Properly designed, such a performance measurement method would include several capabilities:

- A method of dealing with time, safety, and environmental benefits
- A method of dealing with reliability
- A method of allocating defined benefits to those from jurisdictions beyond the sponsoring jurisdiction
- A method of assigning benefits to broad industry groups
- A method of analyzing intermodal impacts

These five elements are necessary if the tool(s) are to provide the information and incentive for others to become advocates for projects from which they will benefit.

For more information and to download the final report, visit cfire.wistrans.org/research/projects/mvfc-11/.



A more complete view of freight projects

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Visit indianalogistics.com to register for the 2011 Indiana Logistics Summit, to be held October 12-13, 2011 at the Indianapolis Motor Speedway.

# 2011 MAASTO SCOHT Conference

October 17-19, 2011 Madison, Wisconsin

Visit www.mississippivalleycommittee.com/Conference.htm

for information about registration and accommodations.

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#### Contributors

Content for this edition of the MAFC *Freight Notes* was contributed by Maria Hart, Ernie Perry, Steve Wagner, and Ernie Wittwer.



The Mid-America Freight Coalition (MAFC) is a regional organization that cooperates in the planning, operation, preservation, and improvement of transportation infrastructure in the Midwest. The ten states of the AASHTO Mid-America Association of State Transportation Officials (MAASTO) share key interstate corridors, inland waterways, and the Great Lakes. The MAFC is funded by the National Center for Freight & Infrastructure Research & Education and the DOTs of the ten member states.