



# 2013 MAFC/ITTS/KYTC JOINT ANNUAL FREIGHT MEETING



## BUILDING PATHS TO PROSPERITY: THE ROLE OF REGIONAL CORRIDORS

**LOUISVILLE, KENTUCKY ■ MARCH 12-14, 2013**

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The Institute for Trade and Transportation Studies (ITTS) provides research data and expert opinions to its members concerning the effects of commercial freight movements on domestic and international activities, regarding infrastructure and transportation needs, and safety implications.

The ITTS member states include:

Arkansas Department of Transportation

Florida Department of Transportation

Georgia Department of Transportation

Kentucky Transportation Cabinet

Louisiana Department of Transportation and Development

Mississippi Department of Transportation

Missouri Department of Transportation

Virginia Department of Transportation

West Virginia Department of Transportation

## Executive Summary

Almost 200 attendees from Kentucky participated in sessions ranging from the general economy to exporting from Kentucky. Kentucky, a member of both the Institute for Trade and Transportation Studies and the MidAmerica Freight Coalition (MAFC), hosted the meeting in conjunction with the Kentucky's biannual freight conference. The conference, held at the Brown Hotel, was a great success, and many enjoyed the MAFC and ITTS hosting their annual conferences together in one venue.

The conference started with a workshop on state freight plans by Jack Wells, chief economist with the U.S. DOT. Dr. Wells discussed freight planning and MAP-21 provisions, as well as thoughts on benefit/cost applications for TIGER Projects. That Monday night ended with a state peer dinner, giving a change for representatives from the various member states to meet before the conference started in earnest the next day.

The next morning, the tours included visiting Jef Boat to witness a barge launching! The conference "officially" started on Tuesday afternoon, with a welcome from Sec. Mike

Hancock of the Kentucky Transportation Cabinet. He outlined the importance of freight transportation to the Commonwealth as well as other issues, including the challenges associated with planning for future traffic and collaborating with neighboring states.

That afternoon, we discussed the importance of considering broad corridors, such as U.S.-Canadian trade and the Mississippi River. We also discussed how states should consider investments that support international trade traffic. The second afternoon session focused on logistics and understanding the importance of transportation development/employment, for they are clearly linked, especially in Kentucky.

The next day, two panels addressed MAP-21 and its implication for freight planning, followed by a session on freight planning. During lunch, Jim Bruce with UPS provided an overview of their sustainability efforts, which ranged from partnerships, new engines/ alternative fuels, and improved operations. The afternoon found most participants struggling to decide between sessions on such disparate topics as agriculture, warehousing, exporting, trucking issues, freight corridors for energy movement, and designing for freight movements. After a break, several brave souls stayed up late to tour the UPS facility in Louisville, providing a first-hand view of how UPS moves millions of packages every night.

On Thursday morning, there were two sessions: one on the automotive industry, which discussed how automotive sales and supply chains are changing the industry and the second on the future of freight corridors, both from research and planning perspective. After those panels, ITTS and MAFC separated into their respective breakout sessions to conclude the conference.

After lunch, MAFC began a second conference on the use of dredged materials, as both a dredging strategy and an opportunity to utilize readily available materials for state transportation projects and in other beneficial work. This included discussing how to apply beneficial use in practice, including finding available materials and the future of using dredge materials for highway projects.

In sum, the conference speakers verified the following:

- A need exists for states to continue to work together on freight planning;
- Corridors and networks are becoming more important, especially as related to international trade flows;
- Freight planning will become more modally comprehensive, while including more analytical support in justifying freight decisions; and
- Supply chains are changing, and this fact is altering not only warehousing decisions, but also how firms engage in planning operational activities.

For more information, including the PowerPoint presentations, please visit <http://midamericafreight.org/events/2013am/>.

Disclaimer: The contents of this report reflect the views of the participants and are included to provide broad information about the materials presented. These opinions do not necessarily reflect those of the various sponsors and groups affiliated with conference. The author remains responsible for the facts and accuracy of this report.

Presentation materials and additional photographs are available on the ITTS website. Also, not all sessions had summaries prepared.

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# Paths to Prosperity: Why Freight Corridors?

Moderator: Teresa Adams, University of Wisconsin-Madison

Ernie Perry, University of Wisconsin-Madison

“Paths to Prosperity: Why Freight Corridors?”

Roy Norton, Canadian Consulate

“Connecting the U.S. to the World: Seizing the Canadian Opportunity”

Brett Bourgeois, New Orleans Board of Trade

“The Importance of the Mississippi River”

Larry Karnes, Michigan Department of Transportation

“Paths to Prosperity: Michigan’s International Corridors”

## What are the Top 5 Takeaways?

1. Canada and the U.S. have one of the largest, in value, bilateral relationships.
2. Their economic interests and market performance are closely intertwined in order to keep the North American region competitively strong.
3. Gateways to major foreign markets in East Asia and Europe are significant to the trade activity.
4. Trade along the Mississippi River supports the U.S. global traffic, which requires a significant role in economic transportation planning.
5. Less barriers of trade between Canada and the U.S. have generated more intermodal traffic in the Ontario and Michigan region.

The bilateral relationship between the U.S. and Canada is one of the largest in value in the world. A considerable part of this relationship can be attributed to the trade corridors they share. For U.S. exports, the Ontario region handles international commerce to foreign markets in Russia, India and China. Canadian imports rely more heavily on rail particularly due to green initiatives. The framework, then, is not a single Canadian market, as geographical trade and economic opportunities vary by coasts in Canada. Transportation planning, infrastructure priorities, federal border considerations, and better coordination of tax issues, trade agreements and bureaucratic measures are all needed to align bilaterally. By applying this approach, the potential for North American trade increases significantly where global competitiveness is enhanced, and movement of goods and workers is facilitated.

A container terminal will be opening soon in Vancouver, Canada, that will sustain the economic growth of the region. However, as Vancouver continues to grow, further intermodal development is needed to carry out its operations and handle growing cargo volumes to/from the rest of North America. As the North American economy adjusts to global market demands, the need to better align

private and public sectors will increase. A stronger coalition is needed between the U.S. and Central Canada in the areas of cross-border alliance and inter-city governance. The shared vision to eliminate barriers of trade along national borders of both countries will reinforce and improve commercial flow and economic performance of the North American region.

In the U.S., the New Orleans region plays a significant role in the movement of goods. With the Mississippi River being so significant to shipping operations, the New Orleans and Baton Rouge corridor has evolved significantly over recent years. Since 2009, the corridor has increased in both deep sea and domestic vessels. Currently, the grain elevators are full.

# The Economic Outlook – Global Directions and Implications for Transportation

Moderator: Marsha Fiol, Virginia Department of Transportation

Janet M. Kelly, University of Louisville

“Transportation’s Role in Kentucky’s Economic Development”

Roz Wilson, Delcan

“Economic Outlook and Trends in Logistics”

Sunderesh Heragu, University of Louisville

“Logistics and Distribution Index”

## What are the Top 5 Takeaways?

- Trucking industry facing setbacks due to congestion and budgetary constraints.
- Great Lakes region, evidence that more infrastructure investment is needed.
- Distribution centers affecting the modes of transportations and decentralizing operations.
- Economic prosperity closely tied to our transportation system.
- By including the drivers of the transportation system, effective planning is possible.

While the U.S. economic recovery continues, the level of commerce and movement of goods has been sluggish. The trucking industry continues to face capacity setbacks on roads and interstates. Given the nonexistent budgets in the private sector, productivity has been negatively impacted. Intermodal rail system is down in volume, and a need for greater infrastructure investment is needed to handle larger containers.

Recently, more emphasis on long-term planning between the private sector and provisional carriers is being experienced. The effects of regulations are areas of concern for intermodal systems and new shippers, such as Walmart Corporation. A growth of distribution centers has increased the volume of overnight deliveries and the length of distances for trading routes. As a result, more parties are now involved in supporting intermodal trade, but considering the percentages, new trade patterns and interests are surfacing as national distribution centers become predominant. The nature of business has changed with new markets growing in China, Mexico, and Canada. The amount of international competition is affecting regional interstates such as those in Texas and Chicago. Transportation interests of air versus land are also arising for the shipments and carrier industries. Rail systems and ports are all causing new developments in infrastructure to be considered. In major hubs like Louisville, Kentucky, a need for efficient and effective systems of land transportation are needed to maintain economic development.

A large share of economic wealth depends on our transportation network linking our coastlines with ports and inland markets with rail. The lack of awareness among the public of how much our economic prosperity lies in this framework does not help resolve the situation. Inland movement continues to be a significant element of our transportation system and the national economy, as it is crucial to our commercial capabilities and lower costs of good movement significantly.

As investment on infrastructure could be considered related to the amount of economic dependency a region has on the movement of goods. Economic prosperity is directly linked to the transportation system. When evaluating their investment both domestic and foreign investors consider the drivers, the system, the level of capacity, and the regulations in place. Additional factors growing in importance and consideration are the physical infrastructure of a region and the level of cumulative transportation. Targeted investments entail a level of prioritized factors and analyze how to communicate and improve the shared benefits of a network. In order to improve infrastructure planning involving the drivers, forming a planning group or operating council has proven to be effective. Understanding the realities of the drivers' schedule, the system they use, their operations, the economic contributions involved, and the congestion issues are all important for successful infrastructure planning. Additionally, findings from studies performed can also offer some insight on the changes needed and help highlight areas of improvement.

The operation of global distributors contributes to our economic stability. Unfortunately, there is little public awareness and understanding of this relationship, even less on how economies of cities relate to the national economy. With shareholders setting their expectations and goals, more awareness and improved planning is needed on all fronts. The number of vehicles on the road is increasing daily and will continue to rise. Possible solutions exist in technological advancements and infrastructure developments, but no budget exists to address these issues. To tackle the mounting situation, it is important to communicate how everyone shares an interest in the future of our transportation system. This involves increasing the realization of how economies of cities and states all tie into the national economy. With this knowledge, the possibility for infrastructure investment and cooperation for better planning will become more achievable.

## Map-21 and the Washington Perspective

Moderator: Bernadette Dupont, Federal Highway Administration, Kentucky Division Office

Jack Wells, US Department of Transportation

“Implementing the Freight Provisions of MAP-21”

Leo Penne, American Association of State Highway and Transportation Officials

“MAP-21 Reauthorization”

Sheldon Johnson, Northwest Regional Planning Commission

“MAP-21: Policy into Practice”

### **What are the Top 5 Takeaways?**

- MAP-21 facilitates freight planning on a federal level and adds significant value to the transportation system of the U.S.
- MAP-21 offers funding for port projects on land or water.
- The involvement of Non-Governmental Organizations (“NGOs”) are significant to the future of freight transportation planning.
- It is important to obtain the participation of all parties who contribute and use a transportation system.
- Without a clear visual or understanding of the networks and its functionalities, effective funding planning will not be possible.

The New Federal Transportation Bill, MAP21 facilitates freight planning on a federal level and adds a significant value to the transportation system of the U.S. Though few expected Map 21 to provide an actual federal freight program the bill has established the necessary environment for formulating a program. By 2015, MAP21 expects to offer a more centralized approach to transportation and infrastructure planning. The bill requires an annual report which provides measurements of mutual interest to customers, planners, carriers and infrastructure owners. A multi-modal report will be produced, as a result. Additionally, MAP21 requires a model plan for each state even though some states already had a transportation plan in place. Also, the adoption of a state freight advisory committee is encouraged which includes the input of stakeholders for improved guidance. MAP21 in general has been effective in attracting attention to the transportation system which used to be conditional to a state. Though the new bill does not provide more funding to a state, it can influence how a state’s distributed funds are reallocated since it much of the allocation is based on prioritization. One development offered by MAP21 is funding for port projects. Any type of development that takes place on port property, whether on land or water, can now receive federal funding – something that was previously non-existent. The surface transportation program now allows corridors to be eligible to compete with highway projects. In other words, any type of land is now qualified to receive

transportation federal funding. Although MAP-21 received reauthorization at \$500 billion, it was not earmarked, therefore money has yet to be appropriated. As a result, it continues to be unclear on how the program will be initiated. TIGER grants on the other hand were able to receive funding as they made their way through Congress. Their considered priority facilitated their allocation of funds and in the future may be more ideal than MAP-21, as TIGER Grants are more flexible.

As MAP-21 program continues its efforts to lay out the activities of the Federal Highway Administration and the specific responsibilities that will be assigned to the program, much of the studies to define these roles will take place. First, the development of rural connectors designated by a state will be addressed this summer and fall. A survey to identify state projects will be analyzed this summer to form plans of the primary network frame. Much of the initial phases of the reorganization of freight transportation will consist of dialogue between actual users and political officials. Policy decisions will consider the implementation of freight and address issues as they arise. The forming of advisory committees from all degrees of the freight transportation system is being formalized. Currently, stakeholders, marine operators, the Department of Commerce, shippers, the Department of Energy, and Customs and Border Protection are being invited to join these committees in an effort to identify priorities. Many outreach activities such as roundtable discussions have taken place across the country to openly discuss MAP-21 plans. Comments are openly being considered and solicited by all units of the system as the mission is to identify mutual interests and needs to develop efficient performance measures.

The participation of non-government organizations (NGO) to the MAP-21 program was initially going to be eliminated. However, the significance of NGOs in freight transportation planning retained their involvement for future freight transportation planning. Recently, both federal and private contributors of the transportation system carry a level of importance as each element is needed when analyzing the current needs and demands of the network. Regional export developments entail the participation of departments of transportation within a state and at the federal level. All parts of the system whether they are public or private enhance the level of information shared and analyzed when the future of freight transportation is considered. Information on the functionalities across the country is of mutual importance since much of the corridors now flow across state lines. Instead of functions being limited to a state they are now considered bi-state therefore creating greater influence across an area. It is important to obtain the participation of all parties who contribute and use a transportation system whether they are government or non-government. The influence of NGOs in recent years has increased their involvement in our infrastructural network. A cooperative role of NGOs in MAP-21's national freight transportation planning will assist in formulating performance measures.

With the historical evolution of freight transportation, the MAP21 program has many facets to consider for future planning. Consensus from major terminals and corridors experiencing significant economic development growth is needed to incorporate the various elements of the existing network. A solid foundation of the plan needs to be determined as future freight functionalities are planned. The need to remain flexible towards the ongoing evolution of a system is significant as there is a great deal of integration from multiple areas and contributors. By the time MAP-21 funding is addressed, it is

important to have a clear and concise map of highest volume routes, most important connectors, and rural corridors included in the decision-making process. Without a clear visual or understanding of the networks and its functionalities, effective funding planning will not be possible. The current opportunity to be involved in the planning of our freight transportation system will hopefully allow for more collaboration of administering bodies to work together and share information. There is a need for every department to get involved as the transportation infrastructure affects so many different areas of concern for economic prosperity and our social development.

MAP-21 program provides an opportunity for major areas of concern to be centrally addressed and analyzed. The funding aspect of the program is significant, but the streamlined approach on the federal level is more valuable since much of the networks needs and demands have become fragmented. For the future of our freight transportation network to become effective as it continues to adapt to economic demands and the changing world, a unified approach and planning is needed so that efficient planning can be established. The participation of both government administrations on the city, state, and federal level are needed in addition to the involvement of non-government organizations. Stakeholders and different levels of users of the system are needed to understand the complexities and glitches currently existing within our framework. MAP-21 offers the platform to improve our freight transportation network but much of its efficiency lies in the participation of the multiple contributors who have a significant interest and role in the overall system.

# Integrating State, Regional, Local and Private Sector Freight Planning

Moderator: Keith Damron, Kentucky Transportation Cabinet

Tom McQueen, Georgia Department of Transportation

“Georgia’s Statewide Freight & Logistics Plan”

John Tompkins, Minnesota Department of Transportation

“Minnesota Statewide Freight Planning”

Robyn Bancroft, Ohio-Kentucky-Indiana Metropolitan Planning Organization

“Creating and Using Freight Plans”

Ed Riney, Owensboro Riverport Authority

“Public Ports and Multimodal Freight”

## What are the Top 5 Takeaways?

1. Freight Transportation Planning on a state level has the potential to create effective awareness of industry needs among the public, corporations, and local legislators.
2. Transportation needs on a state level compete for federal funding on a national level. Presentation of needs determines outcome.
3. Department of Transportation needs to continue identifying and formally recognizing the importance of waterways in our national transportation system.
4. Private financial institutions are increasing their involvement in port industry developments.
5. Major corporations rely heavily on intermodal efficiency therefore making them ideal partners for port industry.

In Georgia, state planning for freight transportation operations involves the participation of major corporations who are headquartered in the state. Corporations such as Coca-Cola, Delta, and Home Depot all play a significant role in Georgia’s infrastructure planning as their operations rely on the efficiency of the system. Georgia’s Department of Economic Development and the Survey Division Office are state offices who contribute valuable data and networks relating to logistic and economic activity within the state for effective economic analysis and freight planning. The port industry also plays a major role as it has a strong economic presence in the state’s commerce and transportation activities. Currently, the Port of Savannah ranks as the 4<sup>th</sup> busiest port around the nation and communicates its economic importance to its public, state officials and stakeholders to retain its position and gain support. The automobile industry is also a significant contributor to Georgia’s freight transportation planning as manufacturing plants for the industry continue to emerge around the state.

Georgia's freight transportation industry is regionally broken up around the state with the Southeast mostly consisting of the trucking industry and the rest of the freight movement being centered in Atlanta or Savannah. With existing gateways attracting much of the cargo in Georgia, the intermodal connections are becoming more congested. Much of the material being handled by intermodal freight transportation is bulk cargo mostly consisting of woodchip and logs, which are creating concerns in volume and weight. Because of the limited access to waterways in Georgia, the Port of Savannah handles high volumes while offering rail connectivity. There are three robust rail terminals in the state, but they are challenged by urban planning as it affects real estate sales and residential communities. Air cargo is the preferred source of transportation for rural areas of Georgia ranking the state in the top ten for air cargo transporters. A growing concern for air freight transportation is limited space as the length of runways and distribution centers need more land. Currently UPS has a packing facility in Georgia but more acreage will be needed to construct larger terminals and operating facilities for growing industry demands.

Future improvement plans for Georgia's freight transportation system links to growing demands for poultry boilers. Currently, the boiler industry has a high volume of production in Georgia and it expects to continue being an economic strength. Freight transportation planning for the state can plan on aligning the boiler industry's needs accordingly. The connection between the Port of Savannah and the Port of Jacksonville has significantly increased the level of freight moving within the state of Georgia. As more manufacturing plants and warehouses continue being built in neighboring states, Georgia plans on sustaining its Savannah-Jacksonville trading route as it offers economic prosperity and investor appeal. Another major factor being considering in Georgia's freight transportation plans is Home Depot's needs and demands. With headquarters in Atlanta the corporation affects a great deal of the cargo and operations being handled at the Port of Savannah and other major intermodal connecting points within the state. Much of Georgia's freight transportation plans will also include rail enhancements as its commerce relies so heavily on this mode of transport.

Minnesota's approach to freight planning derives from its 2005 freight transportation plan which includes strategic economic planning for the entire state. Overall, the original design has served as a good policy as it covers all modes of transportation and takes into account factors and considerations related to the global market and economic competitiveness. The state of Minnesota, when analyzed, is broken up into three different regions with the north consisting of port activities in the Great Lakes, the urban sector in the east and rural populations in the west. The northern part of Minnesota is also greatly affected by its commercial connections to Wisconsin. Minnesota handled its freight planning state-wide by sharing its plan with large companies and major distributors. From there it enhanced its plans by handling each region's demands and operations uniquely. This approach included the use of regional forums to openly exchange ideas, data, and presentations for each region. As freight planning moves forward in Minnesota, a new vision will encompass a collaboration of plans and a new synergy developed. Currently, efforts have focused on the creation of guiding principles with broader leverage of public investment integration. As the state adapts to MAP-21 regulations, movement towards scenario-planning has formed. Internal and external resources are also being

considered in case studies and data analysis undertaken state representatives and institutions such as MIT. The need to exchange information about and fully understand regional demands will continue to influence Minnesota's approach to freight planning for its economic future. The state has a strong belief that by incorporating micro and macro freight needs, an effective freight plan, both beneficial to the state and the nation, can be achieved.

In Kentucky freight planning is approached by region and state-wide. Kentucky is a dry-state metro area consisting of three regions. The state's board consists of 118 members who jointly represent the freight industry and governing officials. Through its planning efforts the understanding of each region and the unique talents and assets they offer is important. Kentucky's freight planning vision is focused on improving the prosperity of its residents. For the state to effectively implement this vision, data analysis, industry forums, and consulting service from Global Insight have been utilized to shape Kentucky's freight transportation plans projected until 2040. Also, outreach efforts to neighboring organizations to develop partnerships and create Memorandums of Understanding have been completed. Through its planning efforts Kentucky found handling the future of their freight transportation in a collaborative manner was ideal as it considered the overall state's economic development. From this finding, Kentucky formed a healthier strategy to communicate the significance of freight transportation to its public, corporations, and governing officials so it can jointly plan and implement its strategies more effectively and efficiently. Kentucky placed a great deal of effort in gathering its information at a grassroots level to fully grasp the concerns and issues being faced by the system's users and operators. Studies which included the monitoring and tracking of traffic flow at major roadways or intersections, as well as community surveys and interviews were all used to collect raw data for clearer understanding. Existing and projected demands for the national and global supply chains were also incorporated in Kentucky's freight planning 2040 initiatives. Public and private economic opportunities for growth were also highlighted and integrated in the state's planning efforts and design.

Kentucky's freight transportation planning initiatives are regionally and private-public sector inclusive, as the state recognizes the need to approach its development collaboratively opposed to being centralized. Currently, about half of the state's freight plans were approved for initial stages of implementation. Targeting port authorities has been their number one priority and of the twelve development projects, seven have moved forward in port facility constructions. Lessons learned in their state planning experience stemmed from the use of outside consultants Kentucky found the investment useful for external market knowledge and redundant for internal-state market analysis. The use of partnership with non-government organizations was highlighted as an ideal resource and through its initial planning phase, Kentucky's freight planners were able to obtain a great deal of useful information and form business initiatives.

Kentucky's River Port Authority has a significant connection to world markets. Of its seven ports, one is public and the remaining private, which means the employees are performing the bulk of the actual labor (loading and unloading barges). Most of the cargo being handled is multi-modal with lots of dependency coming from private businesses. Many of the products being transported are of low-

time sensitivity and are large in weight and value. About one ton of cargo moved by barge saves a considerable amount in energy costs when compared to rail and truck transportation modes. The efficiency provided by Kentucky's river ports to its commerce is appealing as it lowers road congestion while offering low environmental impact. Water transportation also offers great economic incentives for businesses and as a result many prefer to locate their facilities near port terminals. Kentucky's river ports also offer great connections to both railroads and airports, enhancing regional commerce and creating employment opportunities. The state's geographic location is also economically appealing for businesses as it provides connection to major trading corridors. Currently, there are about 50,000 warehouses and distribution centers near loading docks and even more are expected to be constructed. With the river ports' ability to dually serve as ports of entry and exist, Kentucky also serves as a foreign trade zone, offering protection by the Department of Homeland Security – a common criteria from financial institutions.

Much of Kentucky's economy is made up of agriculture, warehousing, paper manufacturing, and metal production. Public-private partnerships have played a great role in leasing land, which creates a great source of private money for economic growth. About \$10 million bushels of grain are handled annually by local farmers making the overall agricultural industry a profitable one. The Port of New Orleans offers the gateway to foreign exchange for Kentucky, coming in by barge and out by truck. Much of the exports being handled consist of hazardous material, aluminum, London metal, and steel. Waterway cargo from barge is transferred to trucks and vice versa for intermodal transport.

Currently, the needs of the Kentucky port industry from both the state and non-government organizations range from decent dock rails to inclusion in the freight transportation planning process. Kentucky's port industry is presently challenged as it continues to fight for recognition by the Department of Transportation (DOT) in transportation issues. DOT fails to fully recognize the importance of waterway traffic in its transportation analysis and planning. The economic value Kentucky ports generate is not fully understood creating a need for more effective communication and awareness. The port industry in the state also needs more efficient and available resources, research, and intelligence about the Panama Canal, and financial investment so that infrastructure can complement market potential. Currently, port funding in Kentucky is primarily influenced by community needs and maintenance costs. Research performed by the U.S. Army Corps of Engineers and private consultants has supported some funding demands but port facilities in the state continue to receive limited grants. Private-public partnerships have served as ideal financial resources and the Kentucky port industry has recently placed a great deal of effort in obtaining support in this manner. With port executives running port facilities as profit generators, financing from commercial banks has served as an alternative for freight planning efforts. As Kentucky continues to plan the future of its freight transportation, much of its effort can expect to include investment from public-private partnerships, greater community awareness, political advocacy, and increased involvement from non-government organizations.

## Agricultural Trade: Biofuels and Exports

Moderator: Patrick Donovan, Rahall Appalachian Transportation Institute

Mark Berndt, Olsson Associates

“Bio-Fuels: Trends and Impacts on Agricultural Transportation”

Scott Sigman, Illinois Soybean Association

“Agricultural Trade: Export Markets and Biofuels”

Michael Reed, University of Kentucky

“Role of U.S. Agricultural Trade”

### What are the Top 5 Takeaways?

1. US agricultural trade remains a growth area, with considerations for increasing not only bulk exports but also more value-added agricultural products.
2. The relationship of agriculture and transportation is changing, due in part to increased demand for biofuels and changing rail operations.
3. Overseas markets for soybeans are extremely dependent upon the efficiency of the inland waterway system, which provides a competitive advantage for US farmers in global markets.
4. China remains the largest market for US agriculture, which has implications for bilateral trade discussions.
5. Changing world and population is altering US nutritional needs and diets, therefore affecting what is produced and exported in US agricultural industry.

The export market for the United States has greatly impacted the agricultural industry. As more exports are pushed out into the global supply chain, the more the traditional American farmer evolves. China, the number one market of the US, has greatly increased and altered soybean and corn industries. With the growing pressure to meet demand and compete in these industries, farmers have applied innovative technological solutions to their production, handling and movement. An unprecedented growth in agricultural foreign trade took place in 2007-2008 because of new technology advancing production and volume. Currently, corn production averages \$45-60 million annually, soybean is the leading agricultural product for the U.S., and livestock is forecasted to grow by 80% in coming years. Considering this growth, it can be expected that the U.S. agricultural industry will continue growing as exchange rates and trade agreements become more favorable. To sustain the foreseeable development, proper infrastructure and framework is needed to support economic growth and competitive position in the global supply chain.

A micro analysis of economic development in the U.S. agricultural industry is evident when considering the ethanol industry. Of the thirty-three states that contribute to the overall industry, only five account for 70% in overall production; Iowa, Nebraska, Indiana, Illinois and Minnesota. With much of the ethanol production concentrated in the Midwest region, it has become challenging to deliver ethanol goods to the leading destination markets in China, East Asia, Russia, and Eastern Europe. As a result, the typical farmer now drives more miles and larger trucks while increasing congestion on roads and interstates. This setback has found some resolution in the construction of innovative terminals such as Class I terminals, connectors of short-line to regional railroads, and coastal to central gateways, but more development will be needed to maintain our ethanol industry's competitiveness in the world market. Possible secondary challenges affecting the ethanol industry relate to the blending percentages by competing markets in South America. Currently, U.S. ethanol producers blend about 15% of their product while competing foreign markets have increased their blending percentages to 20%. While a consensus to keep the percentage at 15% may be reached, the U.S. ethanol industry continues to feel pressured to adjust their level. Conflicting bilateral trade relationship such as the case with Brazil importing ethanol from the U.S. and vice versa may relieve some of the competitive demands.

As more intermodal connectors and innovative gateways are constructed, partnerships between the public and private sectors will evolve. The need to nurture the network directly links economic development to the transportation framework and urban planning. For example, the need to have fewer, but larger railcars are why the state of Illinois now has more railroads than tracks. It has also affected Illinois' boat shipments by 15% with more containers being used in place of railcars. Emphasizing the correlation between an economy and transportation system is the Lower Mississippi River, which serves as a vital vein to foreign markets and domestic industries. As the river becomes more dependent for the economic success of major US industries, the more cooperation is built among state governments and private shareholders. Joint planning will be needed even further when considering future economic issues, such as the trade of energy and natural gas, and the effects of the Panama Canal expansion.

The US agricultural industry has evolved greatly due to the nature and volume of US exports in foreign markets. With the federal and state governments supporting an increase in global trade, better planning of economic incentives and infrastructure development is needed. The undeniable growth in the soybean and corn industries worldwide, exemplify how vulnerable our economy can be to global market changes and demands. The need to remain flexible and responsive to changing factors is essential to the future of our economy and is clearly proven when examining the historic pattern of the US agricultural industry. As the industry evolves even further, additional contributing factors such as the aging global population and the changing working class will become more significant and evident. In summary, the agricultural system exemplifies how social progression affects the technical framework needed to support economic prosperity for our nation.

# Freight Corridors: Collaboration, Development, and Impacts

Moderator: Ernie Perry, University of Wisconsin-Madison

Keith Bucklew, CDM Smith

“Multi-Jurisdictional Corridors: I-70 Dedicated Truck Lanes Case Study”

Lloyd MacAdam, Ohio Department of Transportation

“Working with Local Government: RUMA”

Paula Dowell, Cambridge Systematics

“FHWA Corridors and Gateway Concept”

## What are the Top 5 Takeaways?

1. Freight corridors represent a unique challenge for planners.
2. Corridors involve understanding both private sector needs and public sector response.
3. States should compare useful practices in addressing freight needs.
4. Coordination with the public sector is both statewide and local.
5. Europe has sought to adopt transnational corridors to promote economic integration.

Ohio recently underwent two major changes in its infrastructural framework to adapt to its changing demands and markets. Though the budget of \$4 billion was large, it was not the project's biggest setback. The number of states handling multiple demands was the project's biggest hurdle and perseverance to create a high level of cooperation and teamwork became key. First, the involvement of the private sector was essential for project's initial phases. Outreach efforts were done early and often to continue engaging the private sector. The participation of the four trucking associations and railroads added great value to the level of information and understanding shared. The involvement of non-profit organizations and economic development groups greatly enhanced the level of participation of the private sector. Effective communication and marketing contributed to a great level of public and private support for Ohio's development plans. Magazines, newspaper articles and radio interviews also significantly increased public awareness and enhanced appeal for potential investors. To sustain the level of interest generated, it was necessary to strategically present the development plans for Ohio in a cutting-edge and large-scale manner. By doing so, the concept became compelling and persuasive.

Ohio's development projects offer a great level of benefits that far exceed the costs. With rising demands, the infrastructure needs became pressing, but they were only feasible if all states involved collaborated. In total, the states affected included 14 Chief Executive Officers (CEOs) that needed to form a joint approach for the project's success. With advancements to the region's transportation system being bureaucratically complex, the risks and challenges involved affecting the areas of funding,

affiliate involvement, constituent relations, leadership consensus, and tax versus stakeholder interests all had to be discussed and carefully considered.

Ohio's current transportation system faces many challenges that need immediate attention to meet its market demands. There are a total of 26 rigs in the state undergoing drilling operations but more are needed. Many of the trucks serving Ohio fracking operations have about 75 loads coming to the site with super-loads increasing weight levels. As a result, new technological improvements on unloading operations are needed to improve efficiency. Setbacks in this delivery process can result in delays in unloading cargo/material creating truck pile-ups. The co-operation of oil and gas representatives to standardize an agreement was needed for Ohio to apply this technique.

The socioeconomic patterns evolving have a great impact on how transportation needs are being addressed, but it is important to define key considerations. First an action oriented plan is important to outline. As the climate of transportation discussions continues to evolve, the need for any approach to be nationally organized will increase. Communication of private interests and initiatives needs to continue being enhanced among the public to strengthen government and private cooperation. Most importantly the overall benefits of investing and improving our nation's transportation system needs to be emphasized so the support gained now can be sustainable for future needs.

By creating a partnership among cities and communities, transparency increases levels of trust and cooperation. As foreign markets continue to increase in demand for US exports, input from shippers, carriers and facility operators is needed in order to understand the demands of the global supply chain and the shifting trading routes. With their input, the exchange of information flows better and can handle a project's uniqueness. At each border crossing or gateway, the level of governance involved in infrastructure setbacks also needs to be considered.

As the ports on the East Coast grow in importance greater emphasis is placed on them for the future of our transportation system. As a result, there has been increased investment levels for the rail industry, and an open playing field for players regarding truck sizes and weights. In Trans-Europe, freight networks have strategically handled their export chains. They have added production elements, which has emphasized the importance of trade partners. It is important for future transportation plans to be flexible and have a rigid focus, as the future will always create new changes. It's important to prepare efficient adjustments to potential complexities, while considering stakeholders' interests in partnerships. Lessons learned now and in coming years need to be placed into practice and become part of the development plans. A great example of such efforts can be witnessed in the Southern Rail Project, where interests and market lie in China. Also, UPS has been able to apply creative problem-solving as they manage their cargo of 4000 units/tons. In each case, it was important to figure out a mutual interest plan needed for repositioning. The unique demands are important when building a system to correspond accordingly. Regional economic development parties are useful to analyzing and applying data obtained from case studies to build and expand our nation's infrastructure.

In summary, as our transportation system continues to evolve and align itself to the growing demands of our economy, it is important to remain flexible and have a fixed focus. The cooperation of both the private and public sectors are essential to the success and efficiency of future development initiatives. As the level of understanding of the concept and how the system is connected is increased, the more cooperation will be created among investors and municipalities. The need to form this partnership is important to push infrastructural development projects forward. Also, the natural inland waterways and how they connect and facilitate the movement of cargo needs to be highlighted. The case of the Mississippi exemplifies how lack of awareness of its economic contribution can hinder and create great fiscal losses for our national and regional economies. Perseverance has been highlighted as a key element to development projects of our transportation system, however formulating a calculated and strategic approach creates a lasting effect on obtaining support and desired results. As our world continues to change and shift trading routes, it's important to invest in our infrastructure, with a great deal of both innovation and creativity.

# Getting Local Goods to Global Markets and Creating Supply Chains that Work

Sherree Hockensmith, Brown-Forman Corporation

“Brown-Forman Corporation Global Logistics”

Norb Whitlock, Rivertrends, LLC

“Waterways: Working for America”

NO NOTES WERE RECORDED FOR THIS SESSION

# Trends in Warehousing and Site Development: Business Clusters and Industrial Co-location

Moderator: Dennis Decker, Louisiana Department of Transportation and Development

Libby Ogard, Prime Focus

“Location, Location, Logistics”

Jeff Zimmerman, Columbia Region Logistics Council

“Columbus Region Logistics Council: Enabling Visions, Collaboration & Execution”

Franc Pigna, Aegir Port Property Advisors

“Evolving Global, Port and Logistics Factors and Trends”

## What are the Top 5 Takeaways?

1. The nature of the warehousing industry is changing.
2. An increase in smaller distribution centers could result in better customer service.
3. Transportation costs and closeness to consumers counter balances rental and labor expenses.
4. When analyzing the correlation of logistics and warehousing overseas the level of growth in global trade is significant.
5. Land values are driving warehouse locations in industrial areas.

The nature of warehousing industry has gone from its real estate motto of “location, location, location” to “location, location, logistics.” In the U.S. a total of \$5 billion square feet of “under the roof” warehousing availability exists and even more when considering alternative warehousing means such as dock, shading area and high-rise space. There are four traditional forms of warehouses; traditional warehouses, which are used to store roll-paper and magazine stock, just-in-time distribution centers, which are largely used by the auto industry, regional distribution centers, which store international and domestic cargo distributed to stores, and consumer distribution centers, which are used to warehouse animal products. A warehouses main purpose is to provide a place to rest for freight that is not in motion. Its primary functions are focused on getting a company close to its customers.

During a business case study of Walmart suppliers and their warehousing systems, it was found that a glitch in a warehousing system could contribute up to 20% of total costs, and up to 80% if a strategic error were to occur. About 50% of the suppliers' warehousing system is made up of transportation and inventory costs. Labor makes up the third largest portion of total costs and only about 5% goes toward rent. The facilities inside a warehouse, such as the information system or conveyor system will cost as much as the building itself. Findings also indicated that where distribution

centers were displaced by more facilities, smaller on average and closer to population, the firm would benefit from better service to customers in general. As a result, the location of the warehouse should consider the amount of costs and the impact of customer service. Another thing to consider about the costs entailed in warehousing systems are the differences between inbound and outbound transportation expenses. Inbound transportation costs are always less than outbound since inbound cargo handles larger volumes of product being transported at once. Outbound transportation costs are more expensive since it takes inbound cargo volume and distributes some of that cargo and transports it to particular destinations. It is notable that many warehouses located close to each other do not compete for traffic or trucks. Much of this is due to the fact that warehouses want to optimize their network and consider their impact of product availability to their clients. As a result, service consideration to clients is a shared interest creating a non-competitive approach to warehouses located close to each other.

When considering costs of a warehouse many things are considered. In rental costs there is a variance between Class A buildings, which are typically 300,000 to 1,000,000 square feet and Class B buildings which are typically 200,000 to 350,000 square feet. Chicago, for example, has a higher asking rent as well as higher costs in labor. However, high asking rent locations such as Chicago are appealing due to the fact transportation costs and closeness to consumers counter balances rental and labor expenses. The degree of rental costs differs from city to city. In Chicago rent is \$29 per square footage, in Minneapolis it is \$23 while in Milwaukee it runs about \$27. Warehouses compete on costs of available space though the cost of labor also varies about 33% on location around the country. For example, there is a 20% variance in labor costs between Georgia and Illinois. A costs difference can also be a result of if the state is union or non-union. The operations that take place inside a warehouse are significant when calculating the costs as value-added services which all require labor. From traditional warehouses to regional distribution centers, labor costs all vary and even more in multi-functional warehouses. Factors pertaining to labor costs will continue to vary as warehouse functionalities have to remain flexible to their market demands.

Another significant consideration to warehouse planners relates to a warehouse's capacity in terms of cargo handling. On average one truck load takes up about 5,700 square feet. The radius of trucks from a warehouse's location determines the type of infrastructure needed. For example, does the warehouse have an outside employee break-room, overnight trailer parking, storage areas, and available space for drop-trailers? From a site collection factor many of the consultants deciding on warehouse location consider the physical infrastructure of a warehouse. From an operational standpoint, things that can cost time and money are related to air quality, access to inland waterways, endangered species, wetlands, brown water, rail access, truck parking, and interstate access. From a design perspective, things to consider are ocean carrier percentages, how quickly can the facility get trucks in and out, proximity to an airport, types of storage models, handling characteristics, freight modes, and type of freight.

A top trend currently taking place in the industry started because of the recession. Many warehouse owners could not afford to move their warehouses but could afford to renegotiate their

leases for more space. We now see larger warehouses and as a result costs of electricity and fuel has become an area of concern for the warehousing industry. Another trend is the significant growth in e-commerce. This movement has created a larger pool of educated people within the industry who have altered the playing field. The effectiveness of delivery is a huge factor as companies like Amazon gain growth in competitiveness with service time as a metric. Upcoming trends for the industry will surround the increase in cargo volumes as a result of the Panama Canal expansion. Cities such as Houston and Miami will be of large focus as their impact in trade will increase.

Amazon's effect on the warehousing industry is impressive, based on the rate of growth from 1999 to 2010. When comparing store sales, the increase in e-commerce is substantial as the nature of shopping has evolved. Costs in outbound freight, labor, and the speed of delivery are all considered for retailers. Energy costs can vary by 100% depending on the logistic location of a company and as a result we see emerging markets in North Carolina, Central Ohio, and smaller cities like Fayetteville, Arkansas. As logistics continue to become more influential in costs, the geographical map of the warehousing industry will continue to migrate towards areas close to rail centers and with close proximity to customers.

In terms of the logistics industry, we can look at central Ohio which has grown economically due to advocating its financial and geographical benefits. The Logistics Council of Central Ohio provided an in-depth look at how the region positioned itself logistically based on location. First, the council had to highlight why Columbus was ideal as a warehouse spot for companies as opposed to larger cities such as New York, Los Angeles, or Miami. Columbus' closeness to the Mississippi River offers inland waterway movement which lowers transportation costs. The city is also close to other dense locations, which benefits from already established infrastructure and customer population. The Economic Council of Central Ohio hopes to create 15,000 jobs by 2020, with \$8 billion in capital investments. Currently, it is the second fastest growing statistical area in the Midwest behind Indianapolis. The unemployment rate is at an impressive 5.65%, which in comparison to the nation's 7% places the region in a favorable position. The Central Ohio region also offers a diversity in its economic environment with many Fortune 500 companies present making it a great distribution area. With a healthy business environment, many key national and international companies have their logistical centers in the region. The infrastructure assets Central Ohio offers are low road congestion river access of an annual 8,000 lifts, air cargo centers, and distribution centers nearby rail facilities. In terms of labor competitive costs there is an effort to keep the labor in Ohio so about 40% of institutional studies contribute to the quality of life for residents. In other words, there is an academic demand to keep the state's economic growth in logistics sustainable, and as a result many academic institutions now offer studies in logistics. Institutional studies contribute to guiding resources for businesses. Even further the Council has placed a significant amount of effort in offering career fairs and employment opportunities relevant to logistic related topics. There are many more initiatives underway as the mission is to attract and retain talent is strengthened. More funding and curricular development can be expected in Central Ohio in relation to logistics. With the Council being a private-public entity more cooperation and better planning is also possible for the economic success of the region.

When analyzing the correlation of logistics and warehousing overseas the level of growth in global trade is significant. The size of ships, the type of infrastructure, and top markets for manufacturers are all of significant consideration. Recently, much of the manufacturing that takes place in Asia is moving away from China as the Suez Canal is becoming more viable. With the Suez and Panama Canals becoming more accessible, we can expect the shift away from China to become greater. In fact, this movement is evident in the Chinese government's decision to shift its iPhone manufacturing centers from China to Brazil in an effort to reduce transportation costs. The realization of manufacturing is also affecting how regional markets are forming. Now there is a definitive difference between the North American market and those of the Americas. Mexican and Central American markets have become decimated and the rationalization of assets is more clustered as is for U.S. and Canada.

A recent forecast predicted the Panama Canal expansion would shift a total of 25% of cargo from the west coast to the east coast in the U.S. over time. The rate of trade shifting was misinterpreted and immediate movement was perceived, therefore causing an expectation for a premature shift and decreasing cargo traffic on the west coast. The costs for the needed infrastructure developments to adjust to forecasted increase in cargo volumes will be expensive. Much of the time-sensitive goods are expected to go through the Panama Canal. On the east coast only two ports are equipped to handle the incoming volumes. There is access to rail and they are already handling large container ships. On a physical standpoint Georgia, Charleston and Seattle could serve as superior corridors. In Georgia there are 32 miles going up to the Savannah River but what would happen if this waterway were to vaporize, considering the environmental concerns relevant to existing algae circles. The overall impact of the Panama Canal is important to consider before the actual expansion as it will affect about 63% of the U.S. population. Fleets are expected to increase from TEUs in size and most of the cargo will be dependent on transshipment. It's important to expect competitive hurdles such as the favorable position of Cuba, which offers an ideal transshipment spot for the eastern coast of the Western Hemisphere and the U.S. Cuba is already attracting great interest from foreign investors.

Much of the obstacles the U.S. has in terms of adapting to the incoming influx in cargo is due to its lack of national transportation laws. The regulations are administered independently in each of the 50 states therefore affecting its ability to streamline its infrastructure needs and demands. Some of the major areas of concerns lie in how much to invest in the railroad system, the need for inter-modal fronts which are needed by ships, and an efficient connection to the Midwest. The infrastructure crisis is not only concentrated in the U.S. It is a global concern with about \$40,000 trillion dollars needed in the next 25 years to level off demands. Of this amount the U.S. needs an estimated \$1.6 trillion dollars in repairs by the U.S. Civil Engineers and \$49 billion in costs due to inefficiency. In the area of infrastructure, the U.S. ranks 22<sup>nd</sup> globally with Iceland and Estonia taking the lead. With so many costly needs, the future of the U.S.'s infrastructure depends on its ability to attract investment and more public-private sector cooperation. Ports can expect to continue playing a huge role in the future of U.S. infrastructure as they offer the cheapest mode of transportation when compared to the costs of land transportation. If more investments went towards port facilities both inland and coastal, our infrastructure would be better

equipped to handling the incoming demands of the Panama Canal's expansion. When the U.S. ports are compared to foreign markets, a competitive advantage is evident. Ports in Asia lack strength with a capability of only 10,000 TEUs. In Europe, the unions are prominent and ports have a 7,000 TEUs capacity. In the U.S., an average of about 45,000 TEUs offers great competitive advantage.

As the need for further infrastructure development becomes more pressing on our economic sustainability, more ports are now enhancing their facilities and operations. In the Port of Charleston, there is construction of a new container port though the port itself is not global. The intermodal facilities are all owned by rail or corridor operators, so the interest to build a port within a port is apparent. Charleston's location near a harbor creates an economic incentive for investors. Another interesting appeal to Charleston is its geographic location as it is north of Cuba and has 200 meters of natural depth. Though Charleston offers great potential for the future, the strength of the U.S. port system lies in the Gulf. Ports in the Gulf region have proven to be more realistic in demands and projections in relation to Panama Canal's expansion, and more efficient adaption from them is expected once the Panamanian development is finalized.

The warehousing industry is extremely complex as it considers many areas of concern in the areas of logistics, infrastructure, and the changing world of demand/supply patterns. As commerce continues to change and companies become more globalized, the warehousing industry can expect to become more fragmented. Location continues to be a significant factor for warehouse planners but as costs continue to grow and evolve logistical factors have also become important. The desire for less transportation costs in relation to fuel and energy has created emerging markets domestically and globally. The desire of distributors to be closer to consumers has changed the nature of the warehouse industry and made it more complex in the various forms of warehousing now available. As the industry become more fragmented, the need for regions to seek and compete for private investments has increased. Additionally, as these centers widen domestically, their appeal globally is also increased. With so much trade already increasing, the future volumes of cargo expected from the Panama Canal can be frightening to consider as the infrastructure needs to meet the demands will be overwhelming. On some level we can expect to continue seeing more private-public cooperative roles but the volatility of regional markets and geographic preferences can be expected to create significant shifts worldwide.

# Designing for Freight: Corridor Development

Moderator: Ernie Perry, University of Wisconsin-Madison

Darrell Wilson, Norfolk Southern

“Norfolk Southern Governmental Relations: Public Private Partnerships”

David Franklin, Federal Highway Administration

“FHWA’s Border and Interstate Team”

Charlie Smith, Hanson Professional Services

“Experiences, Perspectives, and Issues of the Freight Corridor and Gateway Development Process”

NO NOTES WERE RECORDED FOR THIS SESSION

# From the Trucking Industry: What Agencies Should Know About Policy, Operations and the Future

Moderator: Jamie Fiepke, Kentucky Motor Transport Association

Jamie Fiepke, Kentucky Motor Transport Association  
“Transportation Trends”

NO NOTES WERE RECORDED FOR THIS SESSION

# Understanding the Automotive Industry and the Role of Transportation

Moderator: Bruce Lambert, Institute for Trade and Transportation Studies

Bruce Lambert, Institute for Trade and Transportation Studies

“The Auto Industry in the Southeast”

Brandon Mason, PricewaterhouseCoopers

“Autofacts Industry Update”

Tom McQueen, Georgia Department of Transportation

“Automotive Industry Distribution”

The automotive industry has experienced tremendous changes and shifts in recent years. With manufacturing and assembly plants becoming more globalized, markets are now emerging worldwide. In foreign markets like India, China, Brazil and Russia the automotive industry continues to expand. Between 2012 and 2013, \$79 million worth of units were assembled globally and an estimated 88% growth has been projected until 2019. Challenges for the industry are mostly concentrated in Europe where most of the regional economies are facing levels of bankruptcies. In Japan, the yen is comparatively higher than the U.S. dollar and assembly has been tagged for exports. The North American market is mature and fairly saturated, consisting of 63% of the automotive industry.

As the automotive industry's role in the global supply chain becomes more predominant, it has had to adapt to the changing world. Consumers worldwide are becoming more environmentally conscious and as a result automotive manufacturers have had to resolve to use alternative fuels. With the introduction of hybrid models, the automotive industry has been able to meet consumer demands however challenges arose when considering affordability. Currently, demand for hybrid models is expected to grow sustainably until 2019 but a significant increase isn't projected until future years. In North America mega trends have kept automotive sales strong in the U.S. and have exceeded expectations. Sales in North America have greatly benefitted and the industry is in full compliance mode from assembly plants becoming more localized. Development of new technologies such as direct fuel injection and down-sized engines continue evolving in the region. Low interest rates have helped the North American markets of the automotive industry though gas prices continue to be high. As the region's markets become less vulnerable, North American consumer spending will continue to favor the automotive industry. In the U.S. current GDP is at 1.1% and unemployment has gone down with overall consumer spending at 70%. Though unemployment rate is still high and 3% GDP is needed, the automotive industry has experienced a slight economic recovery in the U.S.

Kentucky is a traditional powerhouse for the automotive industry dating back nearly a century. Considering production has declined since the beginning of the economic recession, in 2012 more than one million vehicles were produced in the state. Currently, Kentucky ranks fourth in the automotive production. In 2010, new job opportunities were created with \$2.8 billion in economic investments. More than two-thirds of total investments were invested in Kentucky. A total of 450 automotive suppliers employed 80,000 people, ranking third highest in automotive employment in the United States. Kentucky is home to major automotive manufacturers including Ford, General Motors, and Toyota, which has its largest production plant in Kentucky aside from the one in Japan. What makes this state so appealing to automotive manufacturers? Aside from the U.S. being a mass market for the automotive industry, 60% of the national population is within 500 miles of Kentucky. Additionally, Kentucky has economic incentives for automotive manufacturers, with the lowest level of business clauses in the country therefore creating a business-friendly environment for new firms. Also, Kentucky has low cost in electric power and benefits from a diverse economy. In fact, only two percent (\$8 million) of the total \$400 million invested in the state of Kentucky came from the automotive industry.

The automotive industry continues to expand its presence in North America with more plants moving towards the South, along I-65 and I-75. Issues relating to domestic production versus foreign production have raised concerns in the industry because of this movement. In 2012, Nissan in Canton, Ohio had the largest U.S. produced percentage, but is not a domestic company. As the Southeastern states like Kentucky, Alabama, and Tennessee continue to offer lower business and transportation costs, more automotive manufacturers have set up their plants along major interstate corridors. Consequently, the region has also attracted more businesses and increased competition among large and small businesses. With Tier I suppliers and large ports of entry located in Florida, Georgia and Alabama, more congestion on land will continue to become an influential factor when deciding on plant location. While highway infrastructure and road congestion are heavily considered when determining plant location, the view of foreign plants by automotive manufacturers is also significant. For example, BMW treats their foreign plants as global production platforms in comparison to Toyota which treats a single regional facility.

As modal usage becomes more significant, ports are heavily considered when determining the location and operations of automotive plants. The southern automotive industry in the U.S. relies heavily on South Atlantic ports creating a trade pattern for regional businesses. Currently, 40% of national trade is made up of companies selling to themselves. With the rapid change occurring in the auto-parts industry, a change in the type of pieces and material being moved affects trade patterns, creating more dependency on truck transportation. As the industry continues to use the transportation system as a conveyor belt, its economic impact will continue to be influential. In Brazil, the automotive industry has increased their production. In Europe and Southeast Asia, more automotive plants are growing and increasing cluster. Geographical regions of the European Union and southern U.S. are expected to grow reaching all the way from Kentucky to Japan. It is apparent logistics has become the glue that holds everything together. As logistics become more significant, we can expect our transportation system to evolve as rising demands affect the automotive industry.

M&M Cartage is an example of a micro unit of the evolving logistics system influenced by the automotive industry. Providing third-party logistical service for 41 years in Indiana, Tennessee, and Ohio, its most notable success has been serving its prime customer, automotive manufacturer Ford. Having built its operational infrastructure and design exclusively for Ford, M&M Cartage has twice received the Ford World Excellence Award out of the manufacturer's pool of global suppliers. To retain its favorable position and remain competitive, pressure to perform at a high rate is continuously considered. The company's truck fleet of 170 vehicles relies heavily on the U.S. transportation system and design. However, liability of the transportation system is not all M&M Cartage has to project; having clean and economic vehicles is also of considerable value to its future. To sustain its client demands and continue providing a high level of service, M&M will have to invest in maintaining a competitive edge in the industry. As a result, by 2018, the company plans to have 140 of its 170 vehicles running on natural gas.

The globalization of the automotive industry has allowed the manufacturer to closely align with its consumer's needs and location. With less barriers of trade, automotive manufacturers now have production plants closer to their consumer markets therefore lowering their transportation costs. The U.S. automotive industry has benefited from this movement, with most automotive manufacturing plants located in the Midwest and South Atlantic regions. As the demands of the automotive industry continue to grow and evolve to the changing world, the pressure on our national transportation system will increase. While our current infrastructure remains competitive in the global supply chain, the growing rate of congestion on our roads and interstates will affect our ability to service the demands of the automotive industry. The need to improve the rate of movement and level of connectivity continues to strain our transportation system and it can be expected increase in coming years. Also, environmental movements and consumer tendencies affecting the automotive industry are adding to the growing demand to further develop our transportation system. To retain our nation's competitive position in the automotive industry, an increase in infrastructure investment and technological environment advancement will be needed so we can continue offering economic incentives to automotive manufacturers.

# From Understanding to Action – Making Freight Corridors Work for Our Economy

Moderator: Lynn Soporowski, Kentucky Transportation Cabinet

Greg Higdon, Kentucky Association of Manufacturers

“The Impact and Value of Manufacturing in Kentucky”

Mark Burton, University of Tennessee

“Freight Corridors and Gateways: Some Very Random Thoughts”

Steve Fitzroy, Economic Development Research Group, Inc.

“Making Freight Corridors Work: The Economics of Freight Corridors”

## What are the Top 5 Takeaways?

1. Partnerships are critical to meeting customer demands, must be willing to talk about needs to ensure equipment and routing choices are clearly identified.
2. Locomotive short-lines or feeder lines are important to the economic growth of a nation. These connectors are important as they support and reinforce the capabilities of the overall network in the face of growing market demands.
3. Inland watery transportation offers environmental and economic incentives when compared to all other modes of transport, but it may not be competition for all cargos.
4. Manufacturing depends upon reliable, consistent transportation to be competitive.
5. Transportation costs can be managed, but not avoided, as there exists a continual need to reinvest in transportation infrastructure.

As the future of the U.S. transportation system continues to be analyzed and discussed, it is important to remain flexible when planning for the future of our infrastructure. Given the variety of factors involved in freight transportation, future patterns and tendencies are difficult to predict as they fluctuate according to market demands. The ability for a system to remain elastic assures sustainability and efficiency in the changing world. Jack Daniels has secured its market share both domestically and internationally by remaining flexible and progressive. For example, by applying innovative solutions to managing domestic and ocean containers loading to their operations, Jack Daniels has improved their cargo movement while also improving their level of customer service. With electronic enhancements to their operations, Jack Daniels has heightened their risk management program, which now equips them with the necessary data need to improve communication between their clients and carriers. As a result, the company has lowered their insurance costs, sustained their competitive edge in the market, and

increased their demands both in the U.S. and abroad. Jack Daniels expects to continue sustaining their annual growth of 10% in coming years. The company highlights the importance of partner companies and how exchanging information provides insightful knowledge for effective planning. Thus, Jack Daniels has enhanced their ability to handle unforeseen delays in their system and effectively plan their freight operations around unexpected obstacles.

Examining the various sectors within the freight transportation industry provides an in-depth understanding of how the network is intertwined with multiple variables. P & O provides short-line and regional-line railroad service, which handles the movement of product in small and rural areas. Much of the cargo P&O transports from big businesses is destined for global markets, such as the plastic pellets that China uses to manufacture the back-casings of iPhones. P&O, like many other railroad providers, has experienced great hurdles to retain their demands and competitive position in the freight transportation industry. To better understand their challenge, it is important to understand the industry's history as the present system is closely linked. In the 1950s the railroad industry struggled with various economic and social factors as highways were constructed, unions were formed, and the truck industry evolved. In the 1960-70s the railroad industry went bankrupt and as a result the entire system was deregulated. Small lines were sold to entrepreneurs and private holders to retain the profitability and use of railroad lines. By 1980 a total of 50,000 miles consisted of short-line railroads and played a significant role in our nation's economic growth. Currently, there are more than 500 regional short lines in the country that serve as vital connectors to the infrastructure of our nation. A competitive advantage of short-lines is their ability to access rural communities at lower costs in comparison to larger railroad providers that do not invest in rural access and offer high costs of service. As a result, short-lines are expected to have a continuous role in the freight industry, as they offer great economic incentives and can adhere to client interests.

The railroad infrastructure is hindered by financial setbacks much like the other modes of transportation in the freight transportation industry. About 30% of revenue gained goes back to infrastructure investments and receives less in federal funding than the highway and waterway industries. About 70% of our traffic is interchanged with railroads and how much investment has gone into its infrastructure goes unrealized. Adjustments in engine size and cargo weight created expensive adjustments for the rail industry and will continue rising as safety grows in concern. Currently, a typical locomotive fleet consists of 80 rail cars with each car costing up to \$1 million.

Inland waterways serve as another mode of freight transportation with significant economic contribution to our nation. Waterway transportation has risen in demand as the quality of air becomes more of a concern among communities. Aside from oil spill incidents waterway transportation offers safer and cheaper movement of goods when compared to all other modes of transport. A recent study that measured the fatality rate among various modes found barge transportation had the least degree of casualties. Inland waterway transportation has a great deal of capacity and can adjust to increasing cargo volumes. Though rail and truck modes will always be needed, it is important to note the flexible capability inland waterway transportation offers, as it easily adapts to growing market demands. However, like many other modes of transportation, inland waterways struggle with congestion and

infrastructure financing. It is important to keep inland waterways reliable as most of our interstate system runs parallel to our inland waterways. Existing levels of federal funding are insufficient to keep pace with rising needs. In fact, a large portion of the funds allocated to inland waterways is spent as infrastructure development projects are prolonged therefore accruing in costs. More efficient federal funding and private investment is needed to sustain the future of inland waterway transportation. The need for investments may become more pressing as the Panama Canal's expansion will increase market demands and volume of cargo in our waterway system.

# Final Session: From Understanding to Action: Making Freight Corridors Work for Our Economy

**Moderator:** Lynn Soporowski, Kentucky Transportation Cabinet

**Speakers:** Rich Biter, Florida Department of Transportation  
Greg Higdon, Kentucky Association of Manufacturers  
Mark Burton, University of Tennessee  
Steve Fitzroy, Economic Development Research Group Inc.

## What are the Top 5 Takeaways?

1. Partnerships facilitate cooperation for efficient freight corridors.
2. More information on freight issues needs to be decentralized and shared on a broader spectrum.
3. As more states become aware of their economic opportunities, the effort to better align infrastructure will be necessary.
4. The continuous development of corridors adds on the need for complete understanding of their system. To create effective solutions for the current delays of our transportation system an in-depth analysis of all contributors to the network is needed.
5. Limited information on the costs incurred by delays in our transportation system continues to be an issue. Cost data would greatly help to understand how much of our economy is hurting from logistical setbacks.

## Florida Transportation

The concept of freight goods movement is a difficult to understand and visualize. The state of Florida in 2010 created a partnership between the state's Chamber of Commerce and the Department of Transportation to examine the trade flow coming in from South America, which constituted 60% of the volume. Dredging was highlighted as a main area of concern and identified as a priority. The regional diversity of the state comes into account when planning freight activities. Much of the state is largely influenced by Latin American culture, however, the state can be broken down into three different zones. Main industries for the state are agriculture, manufacturing, and retail. To influence greater cooperation among its private sector and the public, the Florida government placed a great deal of effort in communicating how the transportation system directly links to the state's economy. The ports in Florida contributed to this effort by communicating and marketing the importance of their operations and trade relationships.

Continuing areas of concern lie in the effects of the Panama Canal on the Western Hemisphere and being able to clearly identify who is doing the freight planning and movement of goods. Coordination of regional offices to align the initiatives of the Departments of Transportation and

business strategies would make planning easier. In fact, much of the data obtained from studies clearly justify the needs being advocated but it's the lack of effective communication of these findings that is delaying action towards a solution. If less information was centralized and instead shared with the actual experts involved in the transportation network, developments could be pushed forward. For example, in the facilities of rail, public transit, airports and seaports, communication with the actual coordinators in each region would create better cooperation of freight planning. In the trucking industry more direct communication with the drivers to discuss concerns such as truck sizes and road congestion would help pinpoint solutions to existing setbacks. More engineers and freight coordinators in each state are needed. The state of Florida has placed a large effort to push forward its plans on creating larger rail carriers and more diversification. However, to push these plans forward, the state has created a partnership among its CEOs and Chamber of Commerce to align its business opportunities and economic incentives.

Freight planning varies from state to state, but in some departments of transportation, plans have been designed. It would help those states who lack such models to have a template provided by the federal government for preliminary measures. Corridors are connectors for the country just as they are for the state, an example being the Southeast corridor which connects the region. Florida has recognized this need and compiled material, including maps and graphs, which highlight the importance of each of its 67 counties and how they tie into the state's economy. The creation of partnerships among its private and public sector serves as a driving economic force to make the state an economic enterprise. Outreach initiatives and trade missions to Colombia and Spain supports Florida in an active role in foreign markets. The state's initiative to create a one-stop shop for logistical operations will further their competitive performance and create stronger partnership among its freight coordinators.

In the state of Kentucky, manufacturing leads the state's GDP, which is now up \$27 billion since the recession. About 17% of overall GDP is attributed to the manufacturing industry in Kentucky, creating about 22,000 jobs for its population. The state's economy is strongly diverse making the cooperation of logistical activities, transportation networks, and warehousing economically important. Exports for Kentucky are critical as well as logistical operations, which are growing on a national level. Currently, Kentucky exports rank 20<sup>th</sup> in the nation with much its exports destined to foreign markets in Canada, United Kingdom, Mexico, Brazil and Japan. About 48,700 jobs are attributed to Kentucky's exports and in coming years their volume of exports is expected to grow even further. In 2012, Kentucky exported \$7.3 billion to Canada alone. It now participates in a trade program which offers grants and trips to Canada for its clients and businesses. A large reason why Kentucky is so attractive for the manufacturing industry is due to its geographical location, which sits in the middle of a freight corridor. Its central location makes Kentucky the third largest producer of small passenger and SUV vehicles in the nation. It also attracts significant interest from national and international investors. Kentucky is expected to be the next superstar for the automobile industry with four major assembly plants already in the state. To sustain its economic success and investor attraction, the logistical triangular framework of the state must pull in cooperatively. Careers in manufacturing and logistics are evolving with support from the state's governor. A culture of education is building and becoming more

aligned with this movement to support domestic and international economic initiatives of the state. This progress not only benefits Kentucky but also helps the U.S. be more competitive and increase its ability to succeed.

Transportation networks are evolving worldwide and as a result corridors are becoming a huge factor in freight planning. Analytical studies by the U.S. Department of Transportation have helped understand the dynamic of gateways and helped identify and define the meaning of corridors. Terms such as intermodal and multimodal facilities help classify and determine the operations and complexities of our transportation system but the perspective of the actual users is still needed. For example, in the perspective of freight corridors, the costs incurred and the volume of freight moving in and out of a corridor is considered. For the academic perspective, the economic advantages and defining the technicalities is important. But for the freight user, finding alternative solutions to improve transit time, lower costs and increase their efficiency is a priority. Most understand how the transportation system moves and how bottle necks are inefficient. From the passengers' perspective, high-speed trains or buses are preferred, however passengers do not understand what causes delays in the system such as an aircraft or train slowing down near its terminal. They do not understand that their passenger safety changes the flow of traffic at terminals, and how much of this issue determines how transportation matters are handled on a broader scale. In fact, two-thirds of the transportation costs of an intermodal facility are a result of freight traffic moving around the terminals. In metropolitan communities there is an effort to keep freight out of the way as a solution. However, this is not the ultimate answer as the related arithmetic of the matter is not yet well understood. There is still much to be learned on the setbacks faced by corridors and each can differ from one corridor to another. Learning the intricacies of each corridor will help develop efficient solutions for future operations and performance.

UPS has placed a great effort in calculating and projecting their costs by tracking every vehicle and route down to the minute. Unfortunately, these calculations are not publicly available as it conflicts with intellectual property rights of the private corporation. With the cost-side analysis being limited, further analysis of the network and supply chain is needed. The industrial sectors of the economy provide information on what goes into a state and related costs. The auto industry wants to remain competitive so measuring the costs of competitiveness is required.

As corridors continue to evolve throughout the world and become more regionally specific, identifying solutions to logistical setbacks has become more focused. What can work in one state or region may not be effective in another as the dynamics of a corridor dictate the nature of its performance. Being able to understand and effectively communicate how a corridor functions offers the opportunity for support among the public and government officials. Academically, the U.S. Department of Transportation has been able to define the general system of a corridor and their level of technical operations. However more input from the actual users of the facilities, systems and passengers is needed to cooperatively form a solution to existing setbacks. As more recognition on how the economic opportunities and business incentives are all tied to our transportation system, the more possible it will be to improve the flow and operations affecting our infrastructure.

# Conference Agenda

Monday, March 11th

2:00pm-6:00pm      **State and MPO Workshop Session**

- [Freight Planning, Performance, and Analysis](#)  
Jack Wells, US Department of Transportation

Tuesday, March 12th

2:00pm-3:30pm      **Paths to Prosperity: Why Freight Corridors?**  
Moderated by Teresa Adams, University of Wisconsin-Madison

- [Paths to Prosperity: Why Freight Corridors](#)  
Ernie Perry, University of Wisconsin-Madison
- [Connecting the U.S. to the World: Seizing the Canadian Opportunity](#)  
Roy Norton, Canadian Consulate
- [The Importance of the Mississippi River](#)  
Brett Bourgeois, New Orleans Board of Trade
- [Paths to Prosperity: Michigan's International Corridors](#)  
Larry Karnes, Michigan Department of Transportation

4:00pm-5:30pm      **The Economic Outlook—Global Directions and Implications for Transportation**  
Moderated by Marsha Fiol, Virginia Department of Transportation

- [Transportation's Role in Kentucky's Economic Development](#)  
Janet M. Kelly, University of Louisville
- [Economic Outlook and Trends in Logistics](#)  
Roz Wilson, Delcan
- [Logistics and Distribution Index](#)  
Sunderesh Heragu, University of Louisville

Wednesday, March 13th

- 8:00am-9:30am      **MAP-21 and the Washington Perspective**  
Moderated by Bernadette Dupont, Federal Highway Administration, Kentucky  
Division Office
- [Implementing the Freight Provisions of MAP-21](#)  
Jack Wells, US Department of Transportation
  - [MAP-21 Reauthorization](#)  
Leo Penne, American Association of State Highway and Transportation  
Officials
  - [MAP-21: Policy into Practice](#)  
Sheldon Johnson, Northwest Regional Planning Commission
- 10:00am-11:30am      **Integrating State, Regional, Local, and Private Sector Freight Planning**  
Moderated by Keith Damron, Kentucky Transportation Cabinet
- [Georgia's Statewide Freight & Logistics Plan](#)  
Tom McQueen, Georgia Department of Transportation
  - [Minnesota Statewide Freight Planning](#)  
John Tompkins, Minnesota Department of Transportation
  - [Creating and Using Freight Plans](#)  
Robyn Bancroft, Ohio-Kentucky-Indiana Metropolitan Planning Organization
  - [Public Ports and Multimodal Freight](#)  
Ed Riney, Owensboro Riverport Authority
- 12:00pm-1:00pm      [Luncheon Keynote](#)  
Jim Bruce, UPS Corporate Public Affairs
- 1:00pm-2:30pm      **Agricultural Trade: Biofuels and Exports**  
Moderated by Patrick Donovan, Rahall Appalachian Transportation Institute
- [Bio-Fuels: Trends and Impacts on Agricultural Transportation](#)  
Mark Berndt, Olsson Associates
  - [Agricultural Trade: Export Markets and Biofuels](#)  
Scott Sigman, Illinois Soybean Association
  - [Role of U.S. Agricultural Trade](#)  
Michael Reed, University of Kentucky

**Freight Corridors: Collaboration, Development, and Impacts**

Moderated by Ernie Perry, University of Wisconsin-Madison

- [Multi-Jurisdictional Corridors: I-70 Dedicated Truck Lanes Case Study](#)  
Keith Bucklew, CDM Smith
- [Working with Local Government: RUMA](#)  
Lloyd MacAdam, Ohio Department of Transportation
- [FHWA Corridors and Gateway Concept](#)  
Paula Dowell, Cambridge Systematics

**Getting Local Goods to Global Markets and Creating Supply Chains that Work**

- [Brown-Forman Corporation Global Logistics](#)  
Sherree Hockensmith, Brown-Forman Corporation
- [Waterways: Working for America](#)  
Norb Whitlock, Rivertrends, LLC

3:00pm-4:30pm

**Trends in Warehousing and Site Development: Business Clusters and Industrial Co-location**

Moderated by Dennis Decker, Louisiana Department of Transportation and Development

- [Location, Location, Logistics](#)  
Libby Ogard, Prime Focus
- [Columbus Region Logistics Council: Enabling Vision, Collaboration & Execution](#)  
Jeff Zimmerman, Columbia Region Logistics Council
- [Evolving Global, Port and Logistics Factors and Trends](#)  
Franc Pigna, Aegir Port Property Advisors

**Designing for Freight: Corridor Development**

Moderated by Ernie Perry, University of Wisconsin-Madison

- [Norfolk Southern Governmental Relations: Public Private Partnerships](#)  
Darrell Wilson, Norfolk Southern
- [FHWA's Border and Interstate Team](#)  
David Franklin, Federal Highway Administration
- [Experiences, Perspectives, and Issues of the Freight Corridor and Gateway Development Process](#)  
Charlie Smith, Hanson Professional Services

**From the Trucking Industry: What Agencies Should Know About Policy, Operations and the Future**

Moderated by Jamie Fiepke, Kentucky Motor Transport Association

- [Transportation Trends](#)  
Jamie Fiepke, Kentucky Motor Transport Association

Thursday, March 14th

8:00am-9:30am

**Understanding the Automotive Industry and the Role of Transportation**

Moderated by Bruce Lambert, Institute for Trade and Transportation Studies

- [The Auto Industry in the Southeast](#)  
Bruce Lambert, Institute for Trade and Transportation Studies
- [Autofacts Industry Update](#)  
Brandon Mason, PwC
- [Automotive Industry Distribution](#)  
Tom McQueen, Georgia Department of Transportation

**From Understanding to Action—Making Freight Corridors Work for Our Economy**

Moderated by Lynn Soporowski, Kentucky Transportation Cabinet

- [The Impact and Value of Manufacturing in Kentucky](#)  
Greg Higdon, Kentucky Association of Manufacturers
- [Freight Corridors and Gateways: Some Very Random Thoughts](#)  
Mark Burton, University of Tennessee
- [Making Freight Corridors Work: The Economics of Freight Corridors](#)  
Steve Fitzroy, Economic Development Research Group, Inc.