



# INSTITUTE FOR TRADE AND TRANSPORTATION STUDIES

PROMOTING REGIONAL AWARENESS FOR IMPROVING FREIGHT TRANSPORTATION

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## NEWS UPDATE

Since April, ITTS has participated in many different meetings for various member states. In April, I moderated a session on transportation at “The 4th Annual Manufacturing Summit” at Mississippi State.

In West Virginia, I met with WVDOT staff, while also doing a speech for the KYOVA Interstate Planning Commission on urban freight movements and a second speech for the WV Regional Planning and Development Councils Conference.

In Arkansas, I spoke on the importance of freight planning at the TRC & Engineering Conference and meet with the Arkansas Waterways Commission and Arkansas State Highway and Transportation staff. As in all cases, my speeches are posted on the ITTS website.

I traveled to Tallahassee to visit with Florida DOT staff to discuss freight data and traffic modelling. I also participated in a Louisiana Freight Advisory Council meeting.

*Continued on page 3*

## INSIDE THIS ISSUE

Lambert’s Lagniappe .....	2
What is... Cargo Dimensions .....	3
Regional Calendar .....	4
Trade Profile – International Shipper .....	4

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## The Importance of Maritime Transportation

Maritime navigation continues to play a vital role in moving freight through the ITTS member states. With strong bipartisan support, President Obama signed the Water Resources Reform and Development Act (WRRDA). Although some of the changes in WRRDA still need to be clarified and/or implemented (The Corps of Engineers will be holding listening sessions on WRRDA), the passage of WRRDA signifies the discussion concerning a modern, reliable system must improve inland, coastal and international maritime infrastructure. But how important are navigation investments to the ITTS states?

There are significant quantities of tonnage moved on the U.S. inland and foreign maritime systems. Every ITTS state handles domestic maritime shipments, which not only includes transfers within the state, but also shipments to/from overseas states and territories and coastal trade. States along the coast receive and ship international cargos. Tonnage reports for 2012 ranked Louisiana as the largest maritime state among the ITTS region for both domestic and foreign maritime tonnage. Notably, Kentucky was the second largest state for handling domestic waterway traffic, followed by West Virginia. For foreign trade, Virginia, Florida and Georgia ranked behind Louisiana.

According to the Bureau of Economic Analysis, each of the ITTS states has workers engaged in maritime transport. (These numbers only report people specifically working in a firm identified as having maritime transport as its main business, so there are many multipliers in transportation that are not addressed in these figures.) Clearly, the national economic benefits are there.

Finally, the need for improving waterways exists. For domestic trades, the lower water conditions of the Pinnacles a few years ago with significant modal diversion showed that the nation can not readily absorb a significant closure. Given the age of locks and dams, the risk of closures and outages increases annually. Coastal ports are competing to get the necessary dredging in place to handle ever larger ships. Many of these issues were captured in the AASHTO Water Bottom-line Report and the American Society of Civil Engineers “Infrastructure Report Cards”.

Clearly, the passage of WRRDA will be important to the future of water transportation in the United States, but most importantly, every state in the ITTS region will benefit. ■

### Employment and Wages Paid in the Water Transport Sector, 2012

	Full and Part time Employment	Compensation Paid to Employees, 2012 (Millions of Dollars)
Arkansas	83	\$2,538
Florida	14,670	\$927,934
Georgia	630	\$23,469
Kentucky	2,378	\$156,971
Louisiana	12,377	\$849,431
Mississippi	1,151	\$67,552
Missouri	579	\$33,183
Virginia	1,930	\$228,796
West Virginia	510	\$30,307
<b>Total ITTS</b>	<b>34,308</b>	<b>\$2,320,181</b>
<b>Total U.S.</b>	<b>79,600</b>	<b>\$5,162,000</b>
<b>ITTS Share of U.S.</b>	<b>43%</b>	<b>45%</b>



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

The ITTS members include the:

Arkansas State Highway and Transportation Department

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

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## ▶ LAMBERT'S LAGNIAPPE

*la-gniappe* |lan'yap|:  
something given as a bonus or extra gift.

When I first started working at Federal Highway Administration (FHWA), my father asked jokingly if I could get a pothole fixed on the road leading up to his farm. And recently, I saw a few signs in the New Orleans area demanding: "I pay taxes: Fix my roads." Everyone appears to be transportation specialists, although few understand the process of building and maintaining roads. (Maybe I should hand out copies of The Kentucky Transportation Cabinet's flyer "Road Work Ahead," which easily explains the road building process.)

Over the years I have often encountered the question "Why are the roads or projects I am interested in not fixed or built to satisfy my travel needs?" People see the need for transportation but may not understand the process that transforms their fuel taxes into the roads on which they drive.

Most people are aware of gas pump taxes (actually, that tax is collected elsewhere, but that's a different story), but taxes serve as the primary source of funding transportation. The question of securing funds for transportation represents an important issue, given the recent extension of the Highway Trust Fund, MAP-21's expiration in September, and questions on the long term financial viability of federal spending on highway transportation. But as we are struggling with the questions of funding, there may be a second obligation: telling a story of how fees and taxes support roadway maintenance while adding new capacity.

We all spend money on transportation. Access influences our decisions concerning where we will work, live and play. According to the Bureau of Labor Statistics' "Consumer Expenditures in 2012," the average American spent \$8,998 on transportation that year. This broke down as \$3,210 on vehicles, \$2,756 on gas and motor oil, \$2,490 on other vehicle expenses and \$542 on public and other transportation.

The tax burden for roads may be considered fairly light in comparison to the above costs. For 2010, FHWA estimated that the average American paid \$143 in federal taxes per licensed driver. For 2011, the

American Road and Transportation Builders Association Transportation FAQ estimated federal gas tax to be \$170 annually for the average household. ARTBA also estimated that in 2012, the average household spent \$200 in state gas taxes. For an estimated \$370 in taxes the average American will drive over 11,000 miles in a single year.

Spending \$2,490 on other vehicle expenses may include expenses related to the damage caused by a pothole or other poor conditions, excluding ongoing congestion and delays. AAA estimates that poor roads cost the average driver \$324 dollars

annually. A recent Transport Topic article highlighted how "bad highways" were causing trucking companies to invest more in maintenance issues caused by poor roadway conditions, adding to the costs directed to drivers and consumers. These "hidden" costs are separate from

lost productivity and congestion. One could argue "underfunded" roads cost more than we spend on the taxes to maintain and improve these same roads.

There are other reasons why transportation infrastructure is important. I benefit from other users who need good roads, such as freight deliveries to local stores, public services (school buses or regional transit services), and a host of other activities. According to the Council of Supply Chain Management Professions, roughly 9% of the U.S. economy is tied to logistics costs, so any delays may ultimately influence my pocketbook. On a personal level, my friends can drive to my house on roads paid for by the community of drivers.

In a way, transportation tax dollars represent a positive return on your investment: namely, I can drive anywhere I want while goods and services move to satisfy the demands of a modern society. Spending thirty dollars a month on another activity may not influence the quality of my life at the same degree. Throughout the current funding discussions, there exists a need to explain how fuel taxes invested in transportation benefits all users, including fixing pot holes in Louisiana. ■



## What is ... Cargo Dimensions

Anyone who has packed a car or helped someone move knows that “stuff” possesses physical dimensions, which must be addressed to ensure a product arrives in good condition. Both FedEx and UPS recently announced plans to establish dimensional pricing for package shipments. Both firms are eliminating the three cubic foot exception, which provided for any product less than three cubic feet to be shipped at a standard rate. Shipments will be based against the weight of the cargo or the cargo’s size, based on length, width and height, divided by weight and a volumetric conversion ratio. The carrier will charge the larger of the figures to determine the freight rate. While flat rates are fairly good for shippers (flat rates allow for better estimating of shipping costs, etc.), the carriers consider both the space within the box and the cargo weight when handling freight.

Generally, a product will tend to be heavier (a weight cargo) or fairly large (a cube cargo). For example, steel would be considered to a weight based cargo while feathers (or electronics or clothing) will tend to be relatively lighter, but require more space. This important distinction can influence loading decisions, as any transportation provider must know both the weight and size of a cargo to safely plan how to load and ship the cargo. For example, a truck can only weight 80,000 pounds on the interstate system. Its payload is not only influenced by the tare weight of the truck, but also the physical dimension of the trailer. Large loads maximize the weight of the truck (technically called “weighing out”) while lighter cargos take up all the space but are below the weight limit (called “cubing out”). Carriers are more likely to charge higher rates for “cube” cargo versus “weight” cargo, as these cargos tend to have higher per unit costs.

In practice, weight and size based rates could be offset by operational considerations, such as the existence of backhauls, so that the equipment is not moving empty (depending upon the mode and equipment type, empty or repositioning moves account for a third to a half of all transportation movements), hazardous cargo or some other special characteristic (such as shipping bees- a fascinating process in and off itself!). So when asked the old logic question, “What weighs more, a ton of feathers or a ton of iron?” The answer is “the same, but they should be billed at different rates.”

Moving away from flat pricing seems a good thing for the carriers, especially considering the growing volume of ecommerce traffic that tends to move in smaller package sizes. This will allow carriers to better align revenue based on product characteristics and its influence on the available space. If rates are too much, you can always hire a few friends to help you move your stuff, although there are no guarantees concerning its condition at its final destination! ■

## Trade Profile ...

### What is an International Shipper

*continued from page 4*

In 2013, 41.6 percent of the total trade in goods was between related parties. When broken out by direction and process type, share of related firm by importers amounted to 50%. For exporters, related trade as a share of total exports is much lower, as only 29% of U.S. exports were between related firms.

On a country basis, Canada and Mexico ranked as having the largest number of firms with related trade. However, it is interesting to note the higher relative share of Japanese and German trade for imports, driven in part by the integration of global auto production.

#### Share of Trade Between Related Firms, Ranked by Top Related Party Trade, 2013.

Imports from	Share of Total Country Trade	Exports to	Share of Total Country Trade
Mexico	65	Canada	41
Canada	52	Mexico	40
China	28	China	17
Japan	78	Japan	30
Germany	69	Netherlands	46

So, taking the role of trade and its relationship to the U.S. economy, related trade by imports and exports are a substantial part of the U.S. economy. With the U.S. Gross Domestic Product equal to \$16.7 trillion in 2013, trade between related firms, as a share of GDP, amounted to 9% of the U.S. economy.

Both reports highlight the basic interdependence of international trade in the U.S. But such integration can only work when global supply chains operate relatively freely. In some cases, domestic production has been offset by events in other places, such as the Japanese Tsunami in 2011, or U.S. exports could be hampered by events here. But trade ultimately reflects how firms choose to source and sell their products. As such, limiting trade discussions to broad categories may tend to ignore the needs of the shippers themselves. ■

## News Update

*Continued from page 1*

🌐 The Port of Bienville graciously arranged a tour of their facilities for Louisiana and Mississippi DOT staff. It was a great visit. We had a positive discussion regarding the integration of rail and barge services into an industrial site.

🌐 Last week, Georgia DOT hosted the

annual ITTS working summer meeting. The meeting discussed the ITTS work plan and research plans for the upcoming year.

🌐 In Virginia I met with VDOT staff and attended the International Association of Maritime Economists Annual meeting

in Norfolk.

🌐 Finally, Mississippi agreed to be the host state for the 2015 “Freight in the Southeast Conference” next spring. More details will be available as dates and locations are confirmed.

## ▶ ITTS CALENDAR

This list highlights upcoming conferences related to transportation that may be of interest to the ITTS member region. For any corrections or suggestions, please contact Bruce Lambert at [bruce@ittsresearch.org](mailto:bruce@ittsresearch.org).

🌐 ITTS participation or speaking engagements

📅 August 23-27, 2014

**Southern Association of State Highway Transportation Official Annual Meeting**  
New Orleans, LA

📅 Oct. 14-17, 2014

**Propeller Club, 88th Annual Convention**  
Louisville, KY



Make plans now to attend the annual SASHTO Conference!

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Louisiana  
August 23-27, 2014**

[www.ltrc.lsu.edu/sashto2014](http://www.ltrc.lsu.edu/sashto2014)

## ▶ TRADE PROFILE – WHAT IS AN INTERNATIONAL SHIPPER?

When researching international trade, the discussion normally centers on a few topics: directional trade (imports or exports), geography (countries or regions, or at a specific point, such as a port or city), commodities, or economic activity (I reported the share of GDP tied to trade for each state in “International Maritime Trade Benefits the Nation’s Economy”). While such discussions are important, the real question is how many firms are actively engaged in international trade, and their relationship to other firms.

Recently, the U.S. Department of Commerce released “Profile of U.S. Importing and Exporting Companies, 2011-2012.” In 2012, there were 304,867 known exporters from the U.S., broken out as wholesalers (34% of the total), manufactures (24%), and other businesses (42%). The report also identified 185,729 known importers. As with exports, most of the importers were classified as wholesalers (45%), manufactures (20%), and other (36%). There were 83,800 firms that were identified as both an importer and an exporter in 2012. (For roughly 11% of all trade, a specific firm cannot be identified, such as exports from individuals, low-value estimates, and incomplete company identifiers.) In sum, there are more companies that only export than are either a joint importer/exporter or only receive imports.

In both cases, the majority of traders tended to trade with only one country. For exporters, 59% of all exporters only traded with country, while the figure was 60% for importers. As such, their choice of gateway and service may be fairly fixed, although the report does not elaborate on this transportation element.

When considering the location of these traders, one may assume that the larger the trading activity, the more likely the firm will be shipping product to/from multiple locations. For example, exporters from multiple locations accounted for 9.4% of the identified exporters, but accounted for 76% of

known export shipments. For importers, 11% of the identified importers used multiple locations, which equaled 78% of all identified imports.

So, for each state in the Southeast, there are actually more firms engaged in exporting than importing. For most states, the bulk of the firms involved in exporting, based on share of firms, and not tonnage, are classified as Small to Medium Sized Companies, having less than 500 employees. While Florida has the largest number of companies engaged in international trade all states, including those located in the U.S. hinterland, have firms that depend on global access.

**Number of Firms Engaged in International Trade in the ITTS Region, 2012**

	No. of Importing Firms	No. of Exporting Firms	No. of Small and Medium Sized Exporters
Arkansas	1,681	2,242	1,758
Florida	21,703	61,848	58,976
Georgia	10,070	14,869	13,203
Kentucky	3,350	4,569	3,634
Louisiana	3,121	4,000	3,378
Mississippi	1,658	2,031	1,535
Missouri	4,530	5,999	5,100
Virginia	5,792	7,626	6,542
West Virginia	863	1,119	861
<b>ITTS</b>	<b>52,768</b>	<b>104,303</b>	<b>94,987</b>

In comparison, the U.S. Department of Commerce released, “Goods Trade: Imports & Exports by Related-Parties, 2013” in May. (Related firms consist of U.S. firms and their foreign subsidiaries, or domestic subsidiaries of foreign firms.)

*Continued on page 3*