



Draft Stakeholder Interviews and Shipper Survey
Analysis

Ohio Statewide Freight Study



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OHIO DEPARTMENT OF
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List of Acronyms

3PL	Global Third Party Logistics Service Providers
AIP	Airport Improvement Program
EDC	Economic Development Corporation
FAA	Federal Aviation Administration
LTL	Less-Than-Truckload
MOU	Memorandum of Understanding
NPIAS	National Plan of Integrated Airport Systems
ODOT	Ohio Department of Transportation
TEU	Twenty Foot Equivalent
TL	Truckload
USACOE	US Army Corps of Engineers
USDOT	US Department of Transportation
VGP	Vessel General Permit

1. OVERVIEW

The Ohio Statewide Freight Study was sponsored by the Ohio Department of Transportation to identify critical trends and issues facing freight transportation in Ohio, especially in regard to those freight issues that impede or promote economic development. This report contains the summary findings of stakeholder interviews and data gleaned from the Supply Chain Consortium.

2. TRUCKING INDUSTRY STAKEHOLDER INTERVIEWS

A range of trucking industry stakeholders was interviewed as part of the outreach for this study, including:

- Nagle Companies;
- Jet Express;
- Schindewolf Express;
- Con-Way;
- Ohio Department of Transportation, Office of Special Hauling Permits;
- Swift;
- The Andersons.

This sample includes four carriers that range in size from a small operation with 20 tractors to a global less-than-truckload (LTL) carrier. Three of the companies deliver to markets outside the state of Ohio and their use of the Ohio road network focuses on the major routes, primarily the Ohio Turnpike and I-75 south through Cincinnati and across the Ohio River. One carrier, an LTL company, has extensive pickup and delivery operations within the state.

2.1 Key Issues Raised by Trucking Stakeholders

While the study team interviewed a diverse cross section of the trucking industry, stakeholders reiterated several common themes in the discussions.

2.1.1 Shortage of Truck Drivers

All stakeholders reported that finding the people to drive trucks, who also meet the high standards placed on the trucking companies either by the USDOT or internally, is a key issue in the industry and not unique to Ohio. The driver shortage and the aging driver population were important topics. There is strong interest in opening up the profession to younger drivers and working to improve the image of truck drivers to make the career more attractive. A mentoring program, perhaps publicly funded, is viewed as a way to accomplish this.

2.1.2 Funding/Fuel Tax Increase

An increase in the fuel tax was recommended by three stakeholders, who are also members of the Ohio Trucking Association. Further, that if the fuel tax is raised, it should go toward road/highway infrastructure repair and maintenance (not bike trails, etc.).

2.1.3 Overnight Parking

Overnight parking was a recurrent issue. Federal restrictions on hours of service are increasing the importance of having available truck parking. One stakeholder described how some drivers have not been able to find a parking space at a rest stop when getting close to their hours of service limits, and they must go to the next truck stop/rest stop to find a place to rest, and in so doing, face a penalty for exceeding their hours of service.

2.1.4 Infrastructure Recommendations

The general consensus is that the highway infrastructure in Ohio is in good condition and reasonably maintained. Congestion issues were of most concern in Cincinnati; and the Ohio River crossing (Brent Spence Bridge) is particularly problematic. The only mention of a new road was to improve conditions to a “commercial level” between Toledo/Findlay and Columbus. Northwest Ohio is largely captive to the Turnpike and I-75. State routes in northern Ohio are used by some companies to avoid the tolls on the turnpike.

2.1.5 Real-time Traffic Information

Every carrier indicated an interest in more congestion/traffic monitoring data, although they differed in how they would use the data. Larger companies said they would like data that they could feed into their dispatching systems, whereas the smaller companies, which do not have dispatchers staffed 24 hours a day, said that Intelligent Transportation Systems would help the driver after the dispatchers have left for the day.

2.1.6 Size/Weight

Truck size and weight limits held a prominent place in stakeholder discussions, and ODOT provided a balanced, public-sector perspective.

Two carriers we interviewed remarked about the pressure from shippers to maximize the loads they haul. ODOT confirmed that the drive to increase truck size and weight limits originates mainly from shippers (or cargo owners), and trucking firms themselves can be either negative or ambivalent about the issue. Ohio’s “three steel coil” policy (providing a permit that allows gross vehicle weight up to and including 120,000 pounds for a single trip) is an example of shippers—in this case the steel industry—driving the policy.

Still, there is little doubt that increasing vehicle size or weight limits helps to drive down the cost of shipping. Triple trailers—allowed on the Ohio Turnpike but nowhere else in Ohio—is an example. One carrier, who chose its location based on proximity to the Ohio Turnpike, said they would like to see triples allowed on roads other than the Turnpike and an increase in the length of doubles from 28 feet each to 32 feet.

While it may seem to be a simple matter to increase truck weight limits to reap policy benefits, the reality is more nuanced. One trucking firm noted that an increase in weight limits would cause them to reconfigure their tractors, reduce fuel efficiency and increase wear (and maintenance cost) on their equipment. ODOT confirmed this finding—ODOT has found that the rule change allowing sealed international containers up to 94,000 pounds on a standard rig configuration resulted in fewer-than-expected permits being issued. The reason is that “standard” tractors are designed for 80,000 pound loads, and regularly hauling 94,000 pound loads requires different tractor specifications.

2.1.7 Superloads

Ohio is noticing a trend toward more “super” load permits. Examples include components for the wind energy industry, large industrial presses, large turbines and generators (15’2” or higher and 134,000 pounds or more). The economics are straightforward: it is often most efficient to build and

assemble entire components—regardless of size—and ship these large components to their distant destinations, regardless of the difficulty in identifying and permitting sufficient routes and ports.

The trend in superloads is resulting in pressure on both Ohio’s infrastructure and economic development prospects. Ohio manufacturers face difficulty in arranging the shipments for some loads, as the process of identifying carriers, routes, and ports seems ad hoc and disintegrated. But if the state of Ohio cannot assist in identifying (and permitting) appropriate routes, manufacturers may have options to source production to other domestic cities or even offshore, which would be an economic loss to Ohio.

3. AIR FREIGHT STAKEHOLDER INTERVIEWS

The study team has conducted interviews with air cargo stakeholders at Toledo Express Airport, Wilmington Air Park, and Rickenbacker.

3.1 Toledo Express Airport

BAX Global was the cargo operator at Toledo Express Airport for more than 20 years, until they shut down their operations in September, 2011. A successor company, BX Solutions, is mainly a truck freight operation.

BAX's original facility was designed as a domestic cargo hub in which 800,000 packages, or 1.6 million pounds, could be sorted daily. The facility at one point brought in cargo from 8-10 different sites and distributed to approximately 30 direct facilities. Weekly international air cargo flights included:

- 747 Qantas flights with service to Sydney, Australia
- Service to Dubai 2-3 times a week
- Atlas Charters

The Toledo Express Airport still has good relations with some freight forwarders and Nippon Express Airways, and these are connections which still offer some charter freight flights to Toledo.

In light of BAX's closure, the airport would like to further define a target market for air cargo and develop cargo relationships. An example includes JB Hunt (trucking), which is a current intermodal partner with BX solutions. The current facility for BX Solutions could easily be transformed into an air cargo facility again.

3.2 Wilmington Air Park

The Wilmington Air Park has faced challenges since the closure of DHL at their facility. Clinton County officials have responded by developing strategies to attract air-based or other businesses to the facilities in the area:

- Secure federal funding to set stage for required development;
- Salvage equipment and clean out buildings to make them "development-ready."

A natural challenge is positioning the airport within the National Plan of Integrated Airport Systems (NPIAS), which is an inventory of U.S. aviation infrastructure assets, developed and maintained by the Federal Aviation Administration (FAA). The NPIAS identifies which US airports are "significant" within a national network, and therefore eligible for federal grants from the Airport Improvement Program (AIP). Without DHL, airport officials need to develop other justifications for inclusion on the NPIAS.

The advantages of the air park include access in the middle of the country, low fuel cost, and the "development ready" nature of the facilities, including the Wilmington road bypass built three years ago.

The Wilmington Air Park is still in a transition phase, striving to develop a long range, sustainable development plan while pursuing several near-term initiatives for the airport. These include something called the “Bread Basket” initiative, for the quarantine and transshipment of cattle. There are also various development leases, such as with Cargill, Air Force Research Lab co-op, and the Ames Co. partnership.

In summary, the Wilmington Air Park has great capacity for air cargo development, but there is a paucity of air cargo demand. Thus, the Air Park faces the dual challenge of securing federal funding for infrastructure retooling, while trying to attract the businesses that justify such designation.

3.3 Rickenbacker

Currently, there are no infrastructure-related problems in regards to cargo. Of the 40-million square feet currently under roof at Rickenbacker, 18 percent is vacant. This is down from just a couple years ago where vacancy was about 25 percent.

Rickenbacker is deeply invested in the region, though it should be noted that its focus is not limited to air cargo, as there are substantial rail-truck intermodal operations with the NS facilities. Rickenbacker, in other words, has diversified to be multimodal in its development focus.

Rickenbacker has CAT II instrument landing capabilities and is a “landing rights airport;” on-call after hours and there is no fee for this service. There are companies which are air cargo dependent, including AirNet Services, a Just-In-Time medical provider; Kalita Air which has 3 flights per week; FedEx; and UPS.

There is also a strong military presence, since Rickenbacker was a former Air Force base and the Air National Guard continues operations there. Military property consists of a total of 312 acres—there is some funding provided for operations costs, but no ground rents or money for airfield maintenance.

A large focus of Rickenbacker lies outside of air cargo operations. There is no Capital Fund, and the operation does not want to be subsidized by the Columbus Regional Airport Authority (it currently gets a \$4.3-million per year subsidy from the County--\$43 million over 10 years). Rickenbacker develops land “outside the fence” (the air cargo airport) for industrial development, in order to achieve financial self-sufficiency.

There is a perception that inadequate road infrastructure (Alum Creek Drive, connections to US 23) is a hindrance to economic development, and resolution of several choke points will improve development prospects.

4. OHIO RIVER PORT STAKEHOLDER INTERVIEWS

Four stakeholders located on the Ohio River were interviewed—two port authorities and two private businesses:

- Columbiana County Port Authority;
- McGinnis;
- Ingram Barge Company;
- Lawrence County Economic Development Corporation.

Findings from these interviews arrayed into the following themes:

4.1 Difficulty and Expense in complying with the Federal Permitting process

Two stakeholders said the United States Environmental Protection Agency Vessel General Permit (VGP), which regulates vessel discharge, is very expensive for them to comply with, and urged relief to this process. Stakeholders noted similar frustrations with 401 Water Quality Permits from Ohio, with a need to greatly accelerate the project permit processing speed.

4.2 Lock and Dam Maintenance

All stakeholders said the deterioration of the locks and dams on the Ohio River is a major impediment to business success. Conversely, they said better lock and dam maintenance would make Ohio more competitive. There are six locks and dams on the Ohio River, which provide navigable waters from the Point at Pittsburgh for 127.2 miles of the river downstream to New Martinsville, West Virginia. The US Army Corps of Engineers (USACOE) operates more than 600 hydraulic structures (lock chambers, flood control dams, power houses, etc.), many of which are nearing the end of their design life. The USACOE has scant funds to repair unexpected maintenance breakdowns at the aging, Depression-era Ohio River navigation facilities.

Three stakeholders said that improving Ohio River barge terminals for shipping to the Gulf Coast is a very important issue for Ohio economic development.

4.3 Government Transportation Funding

Stakeholders noted the critical issue in identifying a stable source of transportation funding. There are few government sources of funding for ports and this has caused each port to individually seek out funds from diverse sources, creating a patchwork of funding.

If the stakeholders were provided with funding right now, they would upgrade their facilities, increase connectivity to other modes, and create new capabilities to move freight on the Ohio River. One example is to restore the full financial stability of the US Inland Waterway Trust Fund and Ohio's ability to access the Trust Funds for Ohio River lock and dam capital needs.

4.4 Transportation Planning

One stakeholder reported that there needs to be better infrastructure planning coordination to assure smooth flows of freight to and from eastern states, where 60 percent of freight to the area comes from. In addition, every stakeholder said improving connectivity in all modes to the River is very important to them.

4.5 Business Tax

Ohio's tax structures as compared to other adjoining states greatly disadvantages Ohio transportation and particularly the river transportation mode.

4.6 Oversize/overweight truck permits

Truck size/weight restrictions are an example of inappropriate tax and policy that creates pricing pressures in the way that they are issued per truck/owner of truck and there is no company/group permit available. The lumber industry is an example of an industry suffering as a result of these restrictions.

4.7 Increase awareness of Foreign Trade Zone capabilities

Some stakeholders suggested that Ohio should increase awareness of the benefits of foreign trade zones so that businesses can take advantage of their unique benefit. This would also increase exports to reach the national export goals.

5. GREAT LAKES PORT STAKEHOLDER INTERVIEWS

Three ports on the Great Lakes were interviewed: the Port of Cleveland, Conneaut, and Toledo. Key issues raised in these interviews included:

5.1 Container Service

All three stakeholders commented about the lack of containers on the Great Lakes and identified challenges that may be impeding container service.

One port reported several shipping companies that are in the process of starting to offer container service, but noted that one has been looking over the past year to start a Montreal, Toledo, Cleveland rotation and is having a difficult time finding the necessary volumes.

Two of the ports identified the high labor cost for handling containers as a possible source of pricing pressure causing a container service to look relatively unattractive.

5.2 Infrastructure Recommendations

Improving access to the ports via highway or rail was a common theme in conversations with all three ports.

5.3 Dredging

Dredging is a huge issue for the Port of Toledo, as open-lake dumping of dredge material has been banned, and the Maumee River requires the disposal of approximately one million cubic feet of dredge material annually.

5.4 Port of Toledo

In addition to the general themes above, the Port of Toledo had specific observations and requests of the freight study itself:

- Unrealistic expectations should be identified and defined in the report: “Don’t chase rainbows;”
- Suggest that opportunities be graphed by measuring cumulative impacts against time;
- Suggest that the report have a section that explains how the supply chain works and identify who influences decision in each mode of transport (truck, rail, port, inland waterway and air);
- Identify the value to shippers for each recommendation that is made;
- Trade with Canada, specifically shale oil and gas opportunities and automotive (e.g., Jeep, Fiat) needs to be a focus in the study (how much and why);
- Can rail transport substitute for lack of pipelines? Oil fracking sand is handled by truck; can it be transported by rail?
- Address the last mile (terminal access) issues of port access in the state;
- Further thoughts on why marine services are not in operation on the Great Lakes and Seaway;
- Seasonality of the seaway;

- Labor rates in ports;
- Toledo has a \$75 royalty fee for unload containers;
- Harbor Maintenance Tax (HMT);
- Should consider toll discounts on the seaway;
- Vessel costs are not a huge concern to carriers (retrofit existing ships to carry containers).

5.5 Port of Conneaut

The Conneaut Port Authority currently administers a series of marina docks. Additionally, the City/Port leases adjacent property to CN which operates several large coal and ore export terminals. A portion of the property is about to revert back to the port when the lease expires.

CN currently exports approximately 8 million tons per year through its bulk terminals. Two of their existing docks are currently operational and two need an upgrade. The port is in the process of improving the road/highway access (Thompson Road Project) to the existing CN terminals.

The Conneaut Port Authority has joined with the Erie County (Pennsylvania) Economic Development Corporation (EDC) to pursue a future port strategy. Part of this strategy is to identify future opportunities:

- Biomass and wood products;
- Northern European all water trade;
- Signing a Memorandum of Understanding (MOU) to begin exporting 360 thousand tons/year of iron, sand and a pig iron processing center.

The Erie County EDC is developing an inland port (on 240 acres of available land) that will connect the Conneaut port authority and the Erie Port Authority. This is a bi-state regional initiative. A wide range of economic and strategic studies have been performed by Martin & Associates as well as by Vickerman and Associates.

The inland port will be located in Albion, PA. This inland port is focused on manufacturing, not distribution. EDC made a comment that for every one China import container that enters the region, three export containers leave for China. Some of the above mentioned studies identified that the majority of the export cargo from the region goes through the port of Baltimore.

A beltline railroad owned by CN currently connects the Conneaut Port authority to the inland port site in Albion and then to/from the Erie Port Authority.

The port is assisting the EDC with pursuing grant funding to improve rail access to the logistics park and road access.

5.6 Port of Cleveland

Port officials stated that Ohio handles the 5th highest waterborne tonnage of cargo of any US state and that ODOT generally does not view maritime freight as a priority because it does not fund many port initiatives. Thus they are pleased to see ODOT focus this study on freight.

The port has abandoned the previous port administration's approach to relocating the maritime activities. The current facilities are only 20 percent utilized (as stated by the port) and moving the port operations to an undeveloped site is cost prohibitive.

The Port is in the process of installing a new rail loop at the general cargo terminal pier and adding a 3rd party switching company (Cleveland Harbor RR) that will provide rail access to the port for both CSX and NS. NS will maintain switching/access to the dry bulk terminal.

A current focus is on soliciting freight forwarders and shippers to attract new business. They have some data which identifies non container cargo that does not currently go through the port. The port is currently focused on attracting new cargo business and the primary focus is containers and wind energy parts. Details are provided in the strategic plan ([http://www.portofcleveland.com/assets/attachments/file/Strategic%20Plan_Web\(2\).pdf](http://www.portofcleveland.com/assets/attachments/file/Strategic%20Plan_Web(2).pdf)).

The container market has been looked at quite a bit. A company named Great Lakes Feeder Lines has been in the process of purchasing vessels for this service and is looking for potential vessel operators. Maersk has been looking (for the past year) at trying to start a Montreal, Toledo, Cleveland rotation but is having trouble getting the required volumes.

Fednav recently stated they are building six new seaway vessels that will be able to carry bulk and container cargo. Port officials believe that carriers are about one year away from starting a container service.

A ferry service to London, Ontario has been delayed or stopped by local interest groups that do not want additional freight going through Port Stanley, Ontario. That port also has a shallow draft and is primarily a passenger port. The Port of Cleveland is now investigating the opportunity of developing a freight ferry service with Chatham-Kent County, Ontario.

The port has recently taken on a new stewardship role over most of the Cuyahoga River's navigable waterway. Using their maritime expertise, levy and asset management capabilities, the port is now leading the dredging and river bank maintenance activities. Their current primary focus is on:

- Installing new stabilizing bulkheads or repairing existing bulk heads;
- Stabilizing a river bank slope along Riverbed Road;
- Environmental restoration of the River's ship channel;
- Stabilize sediment management assets.

6. SUPPLY CHAIN CONSORTIUM DATA ANALYSIS

Tompkins Associates is a global supply chain consulting firm that manages, facilitates, and maintains the Benchmarking & Best Practices program for the Supply Chain Consortium. Tompkins has worked with the Consortium since 2004. The Consortium database consists of over 4,500 questions, yielding 12,000 data points in all elements of the international supply chain. The driving philosophy of Consortium members is to identify gaps in company performance and implement initiatives to improve supply chain practices and processes. There are currently 350 Consortium member companies from retail, manufacturing, distribution/wholesale operations and logistics service providers.

6.1 Supply Chain Consortium Companies in Ohio and the Region

To perform its analysis for Ohio, Tompkins Associates queried data for companies with headquarters and/or major facilities in the region:

- The J.M. Smucker Company;
- DHL Express;
- Ethicon – Johnson and Johnson;
- The Proctor and Gamble Company;
- Goodyear Tire and Rubber;
- Sherwin-Williams Company;
- Bob Evans Sausage.

Consortium companies with significant retail presence in the region include:

- JC Penney Company;
- Hallmark Cards;
- Ace Hardware;
- Target Corporation;
- Wal-Mart Stores.

6.2 Transportation Spending Mix

For the above companies analyzed in the Ohio region, Tompkins Associates analyzed the percent of their spending by transportation mode, as shown in the graph below. The Truckload (TL) transportation is the most popular mode for Consortium members followed by ocean and Less-Than-Truckload (LTL). Over-the-road traffic makes up 54% of total transportation spending.

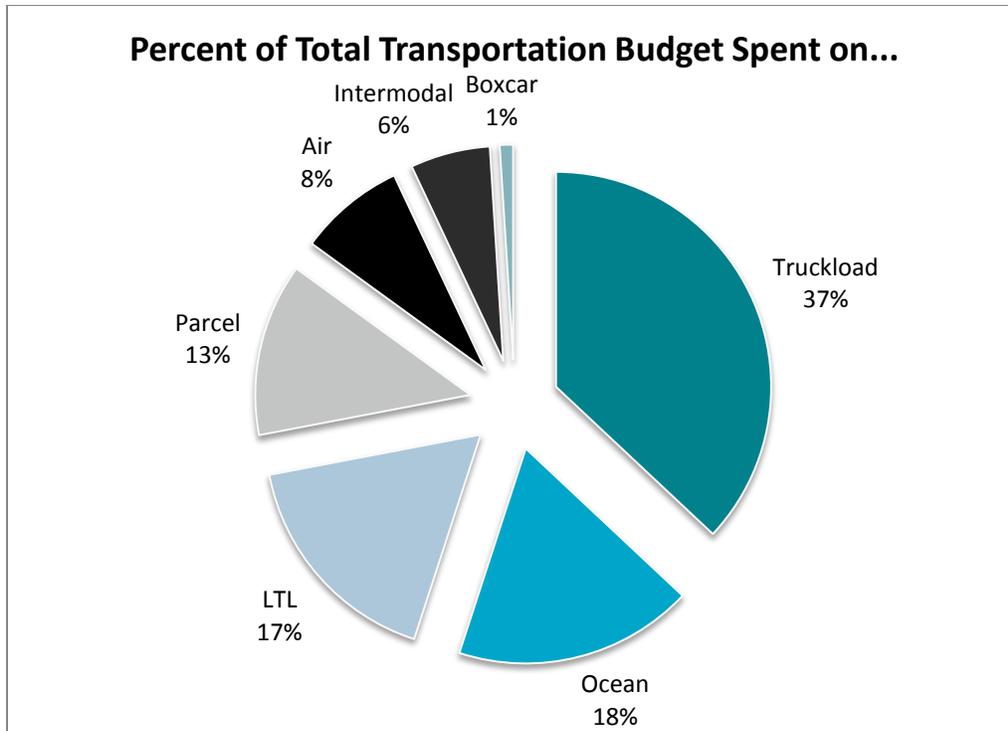


Figure 1: Total Transportation Spending

6.3 How Do Shippers Select TL and LTL Carriers?

There are many factors that companies use to select Truckload (TL) and less-than-truckload (LTL) carriers but the top reasons ranked by Consortium members for Ohio were:

- Availability and capacity;
- Breadth of lanes offered;
- Whether or not the service is offered by their current carriers;
- Breadth of services offered.

It is also very important to minimize disruptions caused by carriers and there are a growing number of companies who develop detailed contingency plans which include regions with a risk of disruption.

6.4 Why Do Companies Use Parcel Carriers?

Parcel carriers transport smaller packages, typically under 75 pounds. UPS and FedEx are the dominate parcel carriers in the U.S. Companies see increasing parcel order fulfillment to keep pace with the growing customer demand for overnight or next day delivery spurred by internet purchasing. This growing trend has increased consumer deliveries, reduced the size of store deliveries, and overall grown the number of vehicles on the roadways. Parcel deliveries are primarily displacing LTL freight. The most important reasons for using parcel carriers are:

- Shipment size;

- Need to ship directly to customer;
- Transit speed;
- Expediting late shipments;
- Returns;
- Product promotions;
- High value of shipments.

6.5 Ocean Carrier Selection Criteria

Import and export transportation is of particular interest to Ohio policymakers and transportation interests. Ocean carrier selection greatly determines what ports Ohio companies will use, and accordingly, how shipments will be routed overland. The top criteria for selecting ocean carriers is:

- Available capacity and transit times (tied for first);
- Rates;
- On time performance.

Importantly, ocean carriers often arrange the inland transportation to/from Ohio shippers. Consortium members were asked the importance of ocean carriers' ability to manage their shipments, door-to-door. Only three percent said this capability was not important; 54 percent called it a minor factor in ocean carrier selection; and 43 percent thought it was a major factor in their selection of an ocean carrier.

6.6 Forecasted Mode Changes

Consortium members predict major changes to the transportation modes they plan to use in three years. Also more companies are predicting larger increasing shifts in inbound consolidation and intermodal than other any other modes. As a percent of shipments, companies are seeing an average of a 14 percent increase in inbound consolidation. The table below shows Consortium member views on mode shifts in the next three years.

Figure 2: Consortium Perception of Mode ShiftsMode	Perception of Mode Shifts			Weighted Average % Change
	Decreasing	Increasing	No Change	
Truckload	28.6%	39.3%	32.1%	0.2%
LTL	31.0%	37.9%	31.0%	0.0%
Inbound Consolidation	7.2%	59.4%	33.4%	14.1%
Rail-Intermodal	7.4%	59.1%	33.3%	6.1%
Rail-Carload	7.7%	26.9%	65.4%	2.6%

6.7 Reasons for Changing Transportation Modes

Consortium members were asked their primary motivations for changing transportation modes; and costs were the number one reason, followed by customer service. The percentage of respondents ranking the issues is shown below:

- Reduced total supply chain cost: 86%
- Reduced transportation cost: 83%
- Improved on-time performance: 65%
- More predictable transit times: 62%
- Global sourcing: 55%
- Just in time delivery: 45%
- Smaller, more frequent shipments: 40%

6.8 Changes in Ports

Consortium members are polled to determine their current port usage based on container volume (twenty foot equivalent units, or TEU's), and their forecasted usage in three years. The results vary, but the trend is clearly toward increased east coast volume in the future. For Ohio, note how the Port of Norfolk, Virginia moves up the Consortium ranking from fourth to second in two years—no doubt a reflection of Norfolk's expansion and rail connections via the Norfolk Southern Heartland Corridor.

Figure 3: Consortium Port Ranking Based on TEU Volume

Consortium Port Ranking Based on TEU Volume		
Rank	Current	Three Year Forecast
1	Long Beach, CA	Long Beach, CA
2	Los Angeles, CA	Norfolk, VA
3	Seattle, WA	Los Angeles, CA
4	Norfolk, VA	Seattle, WA
5	Tacoma, WA	Tacoma, WA
6	New York, NY	New York, NY
7	Houston, TX	Wilmington, NC
8	Wilmington, NC	Vancouver, BC, Canada
9	Vancouver, BC, Canada	Houston, TX
10	Miami, FL	Baltimore, MD
11	Baltimore, MD	Oakland, CA
12	Charleston, SC	Savannah, GA
13	Oakland, CA	Halifax, NS, Canada

14	Savannah, GA	Miami, FL
15	Halifax, NS, Canada	Charleston, SC
16	Canaveral, FL	Canaveral, FL
17	Newark, NJ	Newark, NJ
18	San Pedro, CA	San Pedro, CA
19	Portland, OR	Portland, OR

Focusing on East Coast ports, 59 percent of Consortium members are predicting a major shift in port usage over the next three to five years. Consortium members' predictions for the five major East Coast ports are shown below. It should be noted that these figures are unscientific, but indicative of industry sentiment about changing supply chain patterns.

Figure 4: Consortium 3 Year Projected Volume Increase	Port	Consortium 3 Year Projected Volume Increase
	Norfolk, VA	> 200%
	Baltimore, MD	> 40%
	Savannah, GA	> 100%
	New York, NY	>50%
	New Jersey, NJ	> 40%

6.9 Company Views on Port Congestion

Port congestion is a chronic issue at North America's largest ports. Consortium members were asked to rank the importance of various causes of port congestion on a scale of one to five, with five being the most important. The findings provide insight to strategies that Ohio ports might employ or avoid to attract more cargo. Interestingly, road congestion was not cited as the most important contributor to port congestion.

Figure 5: Consortium Ranking of Primary Causes of North American Port Congestion

Primary Causes of North American Port Congestion	Average Importance (Scale 1 – 5)
Lack of rail equipment and capacity serving ports	3.8
Vessel arrivals concentrated on certain days of the week	3.7
Inefficient port operating practices that limit truck productivity	3.6
Limited hours of operation for gates, terminals and local trucking operations	3.4
Lack of adequate port and terminal operations metrics to address problems and improve capacity	3.3
Road congestion entering and exiting ports	3.2

In order for Port operations to be viewed positively and influence companies' selection decisions, improvements to reduce congestion are needed. Companies are actively avoiding congestion resulting from both a lack of transportation infrastructure (rail and road) and port operation inefficiencies and practices that create bottlenecks.

Consortium members were also asked to rate the importance of various strategies to address congestion in North American ports (ranking the strategies on a scale of 1 – 5, with 5 being most important). The most significant company strategies impacting the Ohio region are shifting volumes to east coast ports and working with port operators and transportation providers to improve the efficiency of the ports.

Figure 6: Consortium Ranking of Company Strategies to Address Port Issues

Company Strategies to Address North American Port Issues	Average Importance Ranking on a Scale of 1 - 5
Moving imports on trans-Pacific lanes away from Los Angeles/Long Beach to other West Coast ports	3.5
Moving imports from India and Southeast Asia, to East Coast and Gulf ports via the Suez Canal	3.0
Applying pressure to carriers, terminal operators and cartage agents to implement more efficient port operating practices	2.9
Moving imports on trans-Pacific lanes to East Coast and Gulf ports via the Panama Canal	2.8
Working with vendors, carriers, consolidators and ports in export countries to schedule shipments to arrive in North America on non-peak days	2.3

6.10 Who Makes Port Selection Decision?

Ohio policymakers have an interest in the greater use of Lake Erie ports as a strategy to reduce highway congestion. While there are many factors which drive the use of Ohio ports, it is important to understand the perspective of shippers in port selection decisions. The Consortium analysis found that decisions regarding port selection are often driven by shippers' corporate headquarters, but with some shippers it can also be left up to the discretion of ocean carriers, vendors and Global Third Party Logistics Service Providers (3PL's). All of these groups play a role in port selection decisions.

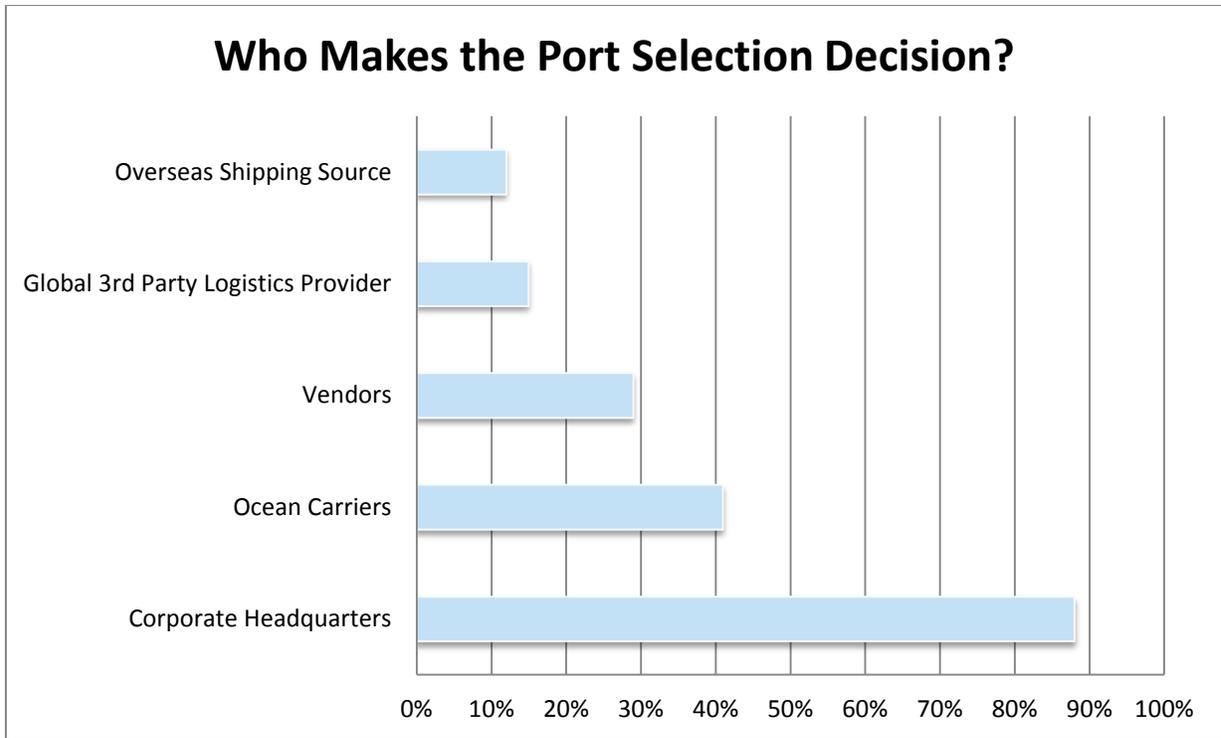


Figure 7: Port Decisionmakers

Investigations into which ports to use don't always entail a site visit and discussions with port authorities and terminal operators. Surprisingly, many shippers make these important decisions without first-hand knowledge of port facilities. This is a clear indicator of the need to make services and capabilities known through websites, publications and other means.

Figure 8: Port Evaluation Process

Port Evaluation Process	Always	Usually	Some	Rarely
Visit port and terminal when evaluating new ports	0%	33%	8%	58%
Visit port and terminal at the startup of operations	0%	33%	8%	58%
Visit port and terminal annually	0%	50%	8%	42%
Visit port and terminal when there are issues	0%	58%	17%	25%
Talk with port authorities	8%	33%	33%	25%
Talk with terminal operators	8%	17%	8%	67%
Talk to local cartage agents	8%	0%	8%	83%

6.11 Distribution Center Strategies

Distribution centers are the hubs in supply chain networks, and there has been a move away from large, “master” distribution centers, to more numerous regional distribution centers. This builds redundancy into the supply chain and allows shipments to stores and manufacturers from multiple locations. Consortium member strategies to improve distribution center performance were rated on a scale of 1 – 5, with 5 being the most significant:

- Stock high and medium “velocity” products at multiple locations: 3.5
- Use less than 100 percent of facility maximum capacity in supply chain modeling: 3.5
- Build in flexible capacity through overflow facilities: 3.4
- Geographically disperse facilities: 3.2
- Model and plan for a wide range of demand forecasts: 3.2
- Ensure that multiple plants are capable of producing key products: 2.6

Fifty-nine percent of Consortium shippers reported the use of consolidation and pooling operations for inbound shipments. Only 40 percent of such operations are carried out in facilities owned or leased by the shippers; few companies are interested in owning this operation, as 60 percent of the activity is outsourced to third party consolidators.

6.12 How Much Time Does It Take to Add a New Distribution Center?

Shippers strive for flexibility in making major changes to their supply chain facilities. The table below shows Consortium member’s average estimates of the time it takes to bring new facilities into their supply chains.

Figure 9: Average Time to Start a New Operation

Average Time in Months to Start a New Operation, Using the Company’s Own Facilities and Staff:		
Facility Type	Existing Facility	New Facility
Master Distribution Center	10	22
Regional Distribution Center	7	17
Product Manufacturing Plant	20	33
Component Manufacturing Plant	24	31
Inbound Consolidation Operation	7	13
Transload Operation	5	9
Average Time in Months Using a Third Party:		
Master Distribution Center	8	17
Regional Distribution Center	5	14

Product Manufacturing Plant	16	28
Component Manufacturing Plant	28	36
Inbound Consolidation Operation	5	9
Transload Operation	4	8

The time to start up a new operation utilizing an existing building and a third party is considerably less than building a new facility with a company's resources. The time differential, capital investment required, and flexibility for change is clearly impacting decision makers plans.

6.13 Supply Change Disruption Considerations

Supply chain disruptions from labor issues, natural disasters and systems failures are a major concern of Consortium companies. The locations that companies will gravitate to in the future will be where the risks of these disruptions are fewer. Ohio has competitive advantages from this standpoint, as weather extremes are rare, the labor climate is generally strong, and there are multiple options in the transportation network.

Figure 10: Considerations Regarding Supply Chain Network Disruptions

Considerations Regarding Supply Chain Network Disruptions		
Disruptions	Not Considered	Considered Subjectively
Labor disruptions at plants or DC's	44%	56%
Natural disasters at plants or DC's	53%	47%
Mechanical or systems breakdowns	59%	41%
Labor disruptions at ports or carriers	59%	41%
Capacity shortages at carriers or ports	61%	39%
Natural disasters impacting ports or carriers	79%	21%
Political unrest or conflict in sourcing country	86%	14%
Political unrest or conflict in destination market	93%	7%

6.14 Is Your Distribution Network Optimized?

Even with all the attention paid to supply chain efficiencies, Consortium data shows that very few companies believe their supply chain networks are optimal in an operating area. They feel that their distribution centers are closest to being optimized and that their manufacturing operations are the least optimized.

Figure 11: Manufacturing Operations' Optimization

Operation	Optimized	Close to Optimum	Not Optimized
Master Distribution Centers	7%	52%	40%
Regional Distribution Centers	3%	40%	57%
Inbound Consolidation Operations	4%	29%	67%

Inland Ports	4%	25%	71%
Outbound Pool Distribution Operations	3%	21%	76%
Ocean Ports	0%	23%	77%
Transload Operations	3%	17%	80%
Product Manufacturing Operations	0%	17%	83%
Component Manufacturing Operations	0%	7%	93%

6.15 Summary of Supply Chain Consortium Findings for Ohio

The Supply Chain Consortium findings have intriguing implications for Ohio. Shippers are key decision makers with respect to ports, transportation, and distribution centers, but policy makers should also understand the impact that carriers, vendors and third-party logistics operations have on those decisions. The trend is toward companies managing fewer supply chain functions than in the past.

There are strong shifts predicted in East Coast port volumes over the next three to five years, due to the Panama Canal and routing Southwest Asia/India freight through the Suez Canal. The ports which will benefit from this growth depend on a number of criteria, including:

- Port efficiency;
- Carrier effectiveness;
- Infrastructure improvements;
- Removal of capacity and congestion as constraints;
- Risk reduction for major disruptions in service and solid contingency planning;
- Access to markets;
- Connectivity to roads and rail service;
- Distribution center space availability.

The other major takeaways from Supply Chain Consortium data include:

- Shippers do not always do as thorough a job with their port selection due diligence as we might believe. Active marketing is necessary to make shippers aware of port capabilities, but that marketing must extend to carriers, vendors, and third-party logistics companies, which play such an active role in port selection;
- More shippers are relying on smaller, faster regional distribution centers which cross-dock freight, as opposed to large master distribution centers which stock all products;
- There is a trend for shippers to outsource distribution and/or lease facilities to improve flexibility and reduce their asset base. This trend is also a strategy employed to keep the overall supply chain network in balance with changing customer needs;
- Freight safety and security (theft loss) are major factors in decisions to locate supply chain operations. Ohio is viewed as a stable area from this standpoint, both in terms of low theft loss and low risk from natural disasters;

- Most shippers do not feel that their logistics networks are optimized, which indicates major opportunities for improvement if a well thought out strategy is employed.

