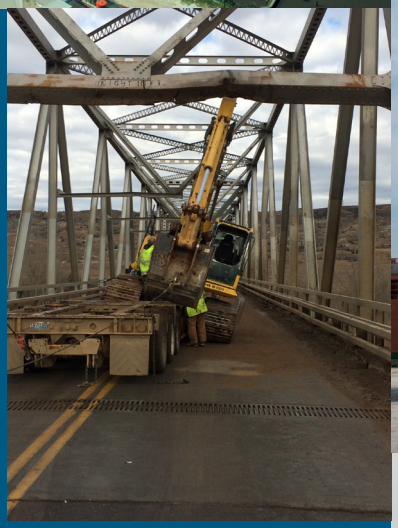
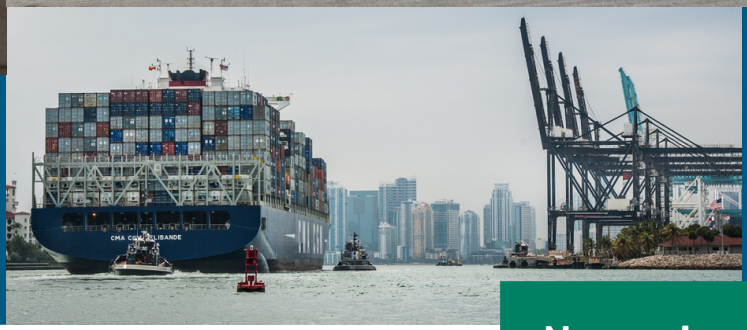
The State of Freight II—
Implementing the FAST Act and Beyond





November 2016

American Association of State Highway and Transportation Officials
AASHTO

AAPA American Association of Port Authorities
Alliance of the Ports of Canada, the Caribbean, Latin America and the United States

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Note to Reader

November 2016

Dear Reader,

On behalf of the American Association of Port Authorities (AAPA) and the American Association of State Highway and Transportation Officials (AASHTO), we are pleased to release this report, titled *The State of Freight II—Implementing the FAST Act and Beyond.*

The goal of this report is to help communicate the progress states and ports are making in implementing the freight provisions in the FAST Act. This report also develops a baseline of investment needs to build out a 21st century freight network.

This survey is the second step in identifying the United States' critical freight infrastructure needs. AAPA's 2015 *State of Freight* report identified baseline investment needs of $29 billion in seaport landside transportation infrastructure project investments over the next decade to keep pace with rising freight volumes and increasing population density in metropolitan areas.

AASHTO and AAPA released this survey because the navigable waterways in 38 of the 50 states provide substantial economic benefits to the entire United States. With the passing of the Fixing America's Surface Transportation (FAST) Act in December 2015, states are now required to have a state freight plan by December 2017. *The State of Freight II* report presents a comprehensive overview of where states are collectively in developing state freight plans, one year after the FAST Act was passed.

We would like to thank the AASHTO member departments for completing the survey.

We hope you find this report a useful reference as you continue to support freight investment in your state.

Sincerely,

Bud Wright
Executive Director
AASHTO

Kurt J. Nagle
President
AAPA

Executive Summary

In 2015, Congress finally responded to the persistent and growing voice of freight stakeholders and included dedicated freight funding in transportation reauthorization legislation. In the Fixing America's Surface Transportation (FAST) Act, Congress for the first time allocated funds directly for freight mobility, authorizing nearly $11 billion in dedicated freight funds. Under the FAST Act, states will be key to how our nation plans for the movement of freight and what projects will be completed.

The State of Freight II provides a snapshot of where states are collectively in developing state freight plans and a baseline on what future projected investments are needed to build out the nation's 21st century freight network. *The State of Freight II* reports on how states are already funding freight-specific investments through state dedicated or discretionary funding, and how these funding sources can potentially work with Federal freight investments.

The State of Freight II compiles and analyzes results from a joint American Association of Port Authorities (AAPA) and American Association of State Highway and Transportation Officials (AASHTO) survey to identify the United States' critical freight infrastructure needs. This report follows on the heels of AAPA's 2015 *State of Freight* report that identified baseline investment needs of $29 billion in seaport landside transportation infrastructure project investments over the next decade to keep pace with rising freight volumes and increasing population density in metropolitan areas.

The State of Freight II takes a broader look at the entire freight network, starting with the states and examining how the new provisions from the FAST Act will incorporate new planning provisions, funding, and financing tools. States, which are tasked with developing state freight plans, are going to be the key building blocks for the national freight network and defining the baseline investments that need to be made.

The State of Freight II reveals that six months after the FAST Act was passed, 71 percent of states already have state freight plans that they are actively working to make FAST Act compliant. Additionally, 57 percent of the states have already identified a total of 6,202 freight projects. Furthermore, $259 billion in project costs have already been identified by only 35 percent of the states.

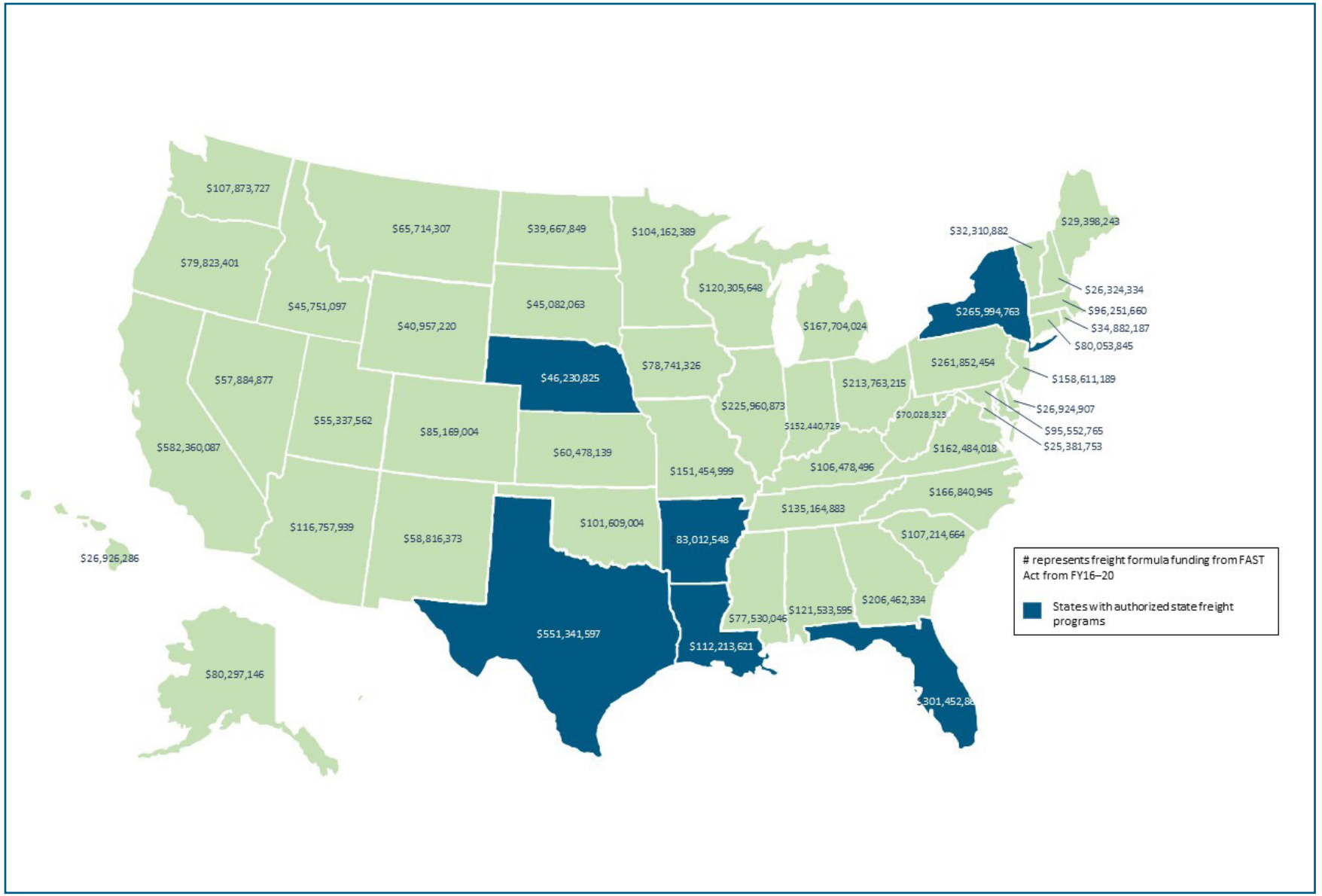
In a dynamic environment, states and ports will need the tools and flexibility to adapt to new trade patterns in order to accommodate anticipated freight volumes. To help plan sustainable investments in a national freight network, AAPA and AASHTO suggest several approaches:

1) Continue to provide HTF apportionments to states for highway freight projects through the National Highway Freight program, while encouraging coordination with U.S. DOT's Build America Bureau and Freight Advisory Committees to better leverage private sector investment.

2) Provide additional and ongoing funding resources outside of the HTF for the overall multimodal freight network that can supplement highway formula dollars and also fund discretionary grant programs.

3) Reestablish a properly funded and staffed Office of Multimodal Freight Transportation within the U.S. DOT Office of the Secretary to address the multimodal domestic and international freight planning needs across the various modal administrations at the Department.

4) Move the Harbor Maintenance Tax from discretionary to mandatory spending, enabling full tax revenues to be used for the intended purpose of navigation channel maintenance.



Dedicated Federal freight funding now flows to all states on an annual basis. Every state is expected to have a state freight plan completed by December 2017.

Federal Freight Program

For the first time, the United States now has a dedicated Federal freight program, authorized at more than $11 billion over five years. This new program takes two important funding approaches:

1) $4.5 billion for discretionary grants in the Projects of Highway and Freight Significance, of which only $500 million is eligible for multimodal projects; and

2) $6.3 billion formula program over five years called the National Highway Freight Program. After two years, states must have an approved U.S. Department of Transportation (U.S. DOT) state freight plan to continue to receive freight formula funding.

The freight program's implementation process is well underway. The first year of the National Highway Freight Program formula funding has already been allocated to states. U.S. DOT recently made public the first round of Projects of Highway and Freight Significance, which will provide $759 million for 18 projects, a third of which are port-sponsored and more than half of which are state DOT-sponsored.

In addition to freight funding programs, the FAST Act includes broad port eligibility in the new freight programs, planning programs, and financing programs, such as codifying the Administration's Build America Transportation Investment Center (BATIC) as the Build America Bureau, which streamlines the Federal government loan and regulatory programs into one office with the intent of making financing complex transportation projects while partnering with the Federal government more user friendly. Collectively, these funding and financing programs and tools will help play a role and inform how states and ports develop state freight plans and investment strategies. This report also seeks to determine how states are utilizing the Freight Advisory Committee as a planning or marketing tool and integrating maritime representatives into the process.

This report also illustrates the work states have done in maintaining and planning their intermodal connectors.

Key State Survey Findings

- 77 percent maintain and update a list of National Highway System (NHS) intermodal connectors.

- 49 percent monitor the performance and condition of NHS intermodal connectors.

- 53 percent include strategies in their planning process to include intermodal connectors.

Finally, *The State of Freight II* collects a baseline of investment needs available from states; a first step in assessing and looking ahead for future opportunities to build out the national freight network.

Survey Purpose and Participation

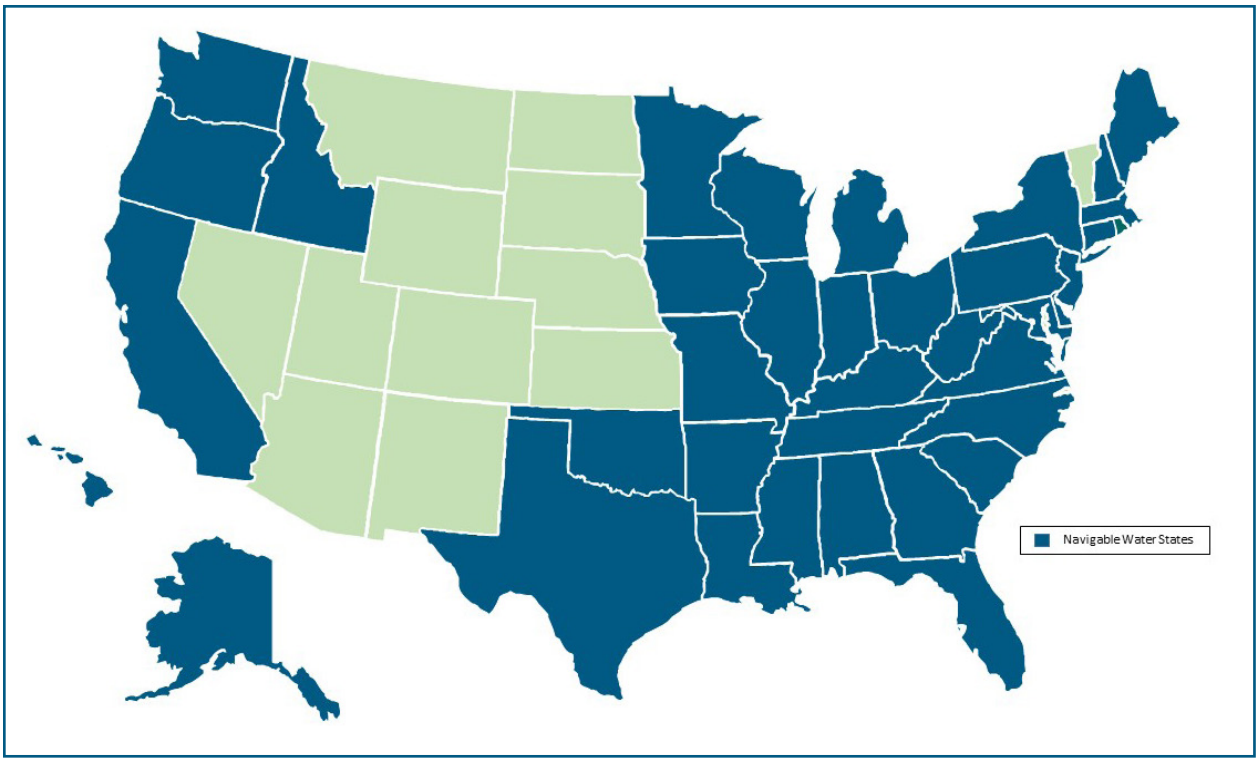
State DOTs are critical partners in freight movement, particularly with respect to intermodal connectors and corridors that facilitate the transfer of cargo between ports and inland points. Of the 50 state DOTs and the District of Columbia (DC), 12 have close and varying relationships with state port authorities. Even more revealing is that 38 of the 50 states and DC are connected by navigable waterways and marine highway routes.

Because of the important role played by state DOTs, AAPA has partnered with AASHTO to better define the needs, challenges, and costs of the freight network. This partnership will continue to create a clear baseline on how much a 21st century national freight network will cost, and how many freight projects are being developed through state freight plans.

As a center for economic and logistical activity, U.S. seaports constitute a vital economic engine of the national economy; responsible for over 23 million U.S. jobs and $321 billion in Federal, state, and local tax revenue. U.S. deepwater ports also generate $4.6 trillion in total economic activity, or 26 percent of the nation's economy, according to Martin Associates' *2014 National Economic Impact of the U.S. Coastal Port System* study, released in March 2015.

The State of Freight II survey answers several basic questions:

- Does your state have a freight plan?
- Does your state have a freight office or program?
- Does your state have dedicated funding for freight projects?
- How many freight projects does your state have and what are the costs of these projects?
- Does your state have a freight advisory committee?



Thirty-eight of the 50 states and DC are connected by navigable waterways and marine highway routes.

Ports and surface transportation infrastructure in states throughout the country must be able to accommodate the growing population and freight volumes. According to the U.S. DOT's *Beyond Traffic,* by 2045, freight volume will increase 45 percent and America's population will grow by 70 million people.

How much would a 21st century landside freight network cost? AAPA posed this question in The 2015 *State of Freight* survey. To begin to answer the question, AAPA identified a starting point for a national freight network. As gateways of international trade and connectors with inland states, the nation's seaports provide an excellent place to start identifying investment needs and supply chain enhancements for a national freight network.

The 2015 *State of Freight* report identified investment needs of $29 billion in landside transportation infrastructure project investments over the next decade to keep pace with rising freight volumes and increasing population density in metropolitan areas. The AAPA report was intended to provide guidance to Congress as it prepared to reauthorize the nation's transportation's programs in what would become the FAST Act.

The report also identified ports as a logical starting point for planning and investing in a national freight network. It speculated, as a second building block, a partnership with states to create a sustainable freight network using the tools made available in the FAST Act. States and ports are the building blocks of a freight network that will evolve into a system that will need to be maintained.

All 50 state DOTs and the District of Columbia responded to the survey and follow-up survey calls.

Alaskan Way Viaduct Replacement Program

The Port of Seattle depends on the Alaskan Way Viaduct for freight mobility, port facility access, and regional mobility. While port container trucks do not travel on the viaduct, it carries over 100,000 vehicles daily that otherwise would be using the streets in the harbor area and conflicting with container truck movements and rail lines. The Viaduct corridor is crucial to the region's freight mobility because it provides for 1.5 million freight trips annually by grade-separation of through-traffic, rail lines, and industrial corridors near the port's marine terminals, which support the movement of $30 billion in cargo value through the port each year.

Now under construction, the project illustrates the importance of integrating freight planning with traditional planning. The port's deep involvement in planning and funding the project enabled the port and Washington State DOT to elevate the priorities of freight stakeholders, including the construction of a grade separation over the new highway and railroad tracks that facilitates truck access to port terminals. Other design program elements will improve waterfront transportation access for users, including over eight million annual ferry riders; ensure connectivity, including an oversized-vehicle corridor, between the Ballard-Interbay and Duwamish industrial areas and Seattle–Tacoma International Airport; provide access to port cargo, fishing, and cruise facilities; minimize construction disruption; and increase opportunities for the public and freight to access the shoreline and waterfront.

Photo courtesy of Washington State DOT.

Freight Planning Matters for the 21st Century

It has been 60 years since President Eisenhower proposed and began building out the Interstate Highway System in 1956. Now, for the first time, the FAST Act has brought ports and freight fully into the surface transportation network. Ports are now in the surface transportation planning process, and ports are eligible for the new formula and discretionary funding programs, but ports and states have some catching up to do when it comes to planning and building 21st century multimodal landside connectors. In the 2015 *State of Freight* report, nearly 80 percent of AAPA U.S. port members reported a minimum $10 million investment being needed in their port's intermodal connectors through 2025, while 30 percent anticipated at least $100 million will be needed.

While freight and shipping have always been a part of our national infrastructure, until now, it has not been fully considered or realized as a national policy priority. During the same 60-year time period, there have been eight generations of container ships starting with ships carrying 500 twenty-foot equivalent units (TEUs) in 1956 and evolving to the 18,000 TEU mega-ships of today, which are as long as a skyscraper is high and as wide as a 10-lane freeway.

In the past 60 years, the shipping industry has rebooted, recalculated, and continuously invested in its fleet which utilizes our nation's ports and connecting infrastructure. We are in our first year of a national freight program, and we are just at the beginning of putting together the first multimodal freight plan that will begin to accommodate the steadily increasing freight volumes for decades to come. Now ports and states must partner with the Federal government to make the multimodal investments to actually connect our port infrastructure to the surface transportation network.

The FAST Act made freight a national issue, but the argument can still be made that efficient

freight movement has already grown to a global issue and that the United States must have infrastructure in place to meet the demands and trends of a global economy. Whether the focus is on dredging and maintaining the waterways leading to ports, more efficient surface transportation connectors with ports, or greater capacity on our highways and rail lines to get goods to and from the nation's seaports, ensuring adequate freight mobility is the goal.

Numerous competing factors impact freight planning, both from a global and local perspective. For example, business decisions made by the global shipping industry directly affect how ports operate and impact how states manage the surface distribution of freight, creating a ripple effect across the freight network, including rail and highway corridors and inland waterways.

The immense amount of cargo that newer ships can carry has profound impacts on state DOTs and state and local metropolitan planning organizations. The question is: How are U.S. DOT, state DOTs, and state and local MPOs planning America's transportation infrastructure to meet the needs of the 21st century global economy?

States, along with port authorities, are absorbing much of the impact of these freight surges that can result from the use of larger vessels. States that coordinate closely with state port authorities, such as Virginia, North Carolina, Alabama, Mississippi, and Georgia have taken a system approach to moving freight; investing in multiple modes such as marine highways, rail, and highways to move cargo from populated areas around seaports to port-run distribution centers around their states. Independently, states are working directly with landlord ports on the west coast and gulf coasts to address connecting infrastructure needs and challenges. With the new requirements for state freight plans, and freight advisory committees, landlord ports and ports that are not a state authority are engaging in infrastructure planning and project development.

Further complicating the planning process is the growing population in the United States and the clustering of residents in metropolitan regions, where freight flows and population mobility needs meet. This often results in congestion and bottlenecks in and around the major container port complexes.

Last year, container traffic at U.S. ports hit a record high of nearly 47.7 million containers, a 14 percent increase over the past 10 years, according to AAPA.

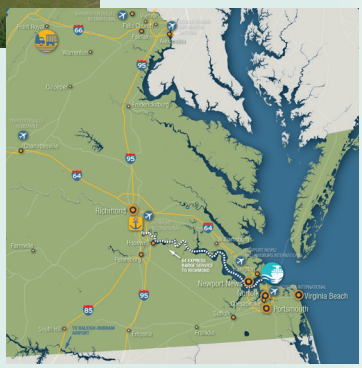
However, containers are only one important aspect of a much bigger picture impacting ports and coastal states. Our interior states and inland ports continue to transport and support tremendous freight

Did you plan for this? There have been eight generations of container ships starting with ships carrying 500 TEV in 1956 to 18,000 TEV mega-ships today.

Utilizing the Marine Highway and Inland Ports to Connect the Freight Network with Regional Markets

Connectivity is key as it relates to transporting goods to the consumer. Creating an inland network that is centered around the hub-and-spoke marine terminals creates an operation that fosters a diversified supply chain, captures market share, and reliably moves cargo to its consumer in a timely manner.

For example, the Port of Virginia is barging cargo to and from the Richmond Marine Terminal located on the James River and Interstate 95. This key location combined with on-dock rail allows the Port of Virginia to provide consistent cargo flow to shippers in Central Virginia and beyond, while taking trucks off the roadways. Further, the Port of Virginia is daily sending cargo by rail between the marine terminals in Hampton Roads and the Virginia Inland Port located in Front Royal, Virginia. This steady stream of cargo by rail creates a reliable transportation node that safely, swiftly, and sustainably serves as an economic engine for the communities in which these inland ports are located.



Photos courtesy of Port of Virginia.

movements. According to AAPA, bulk cargo accounts for about 60 to 70 percent of total tonnage that moves through our interior states by marine highways, rail, and truck. That is a lot of stress to place on the infrastructure. States are putting more and more funding into maintaining and repairing aging infrastructure.

Millions of tons of non-containerized cargo are shipped through inland states and U.S. ports. This cargo—such as steel, coal, iron ore, cement, grain, soybeans, fertilizers—comprises the raw and semi-processed input so vital to the functioning and health of the U.S. national economy.

Funding and Planning Opportunities

For the first time, the United States now has a dedicated Federal freight program, authorized at more than $11 billion over five years. This new program takes two important funding approaches:

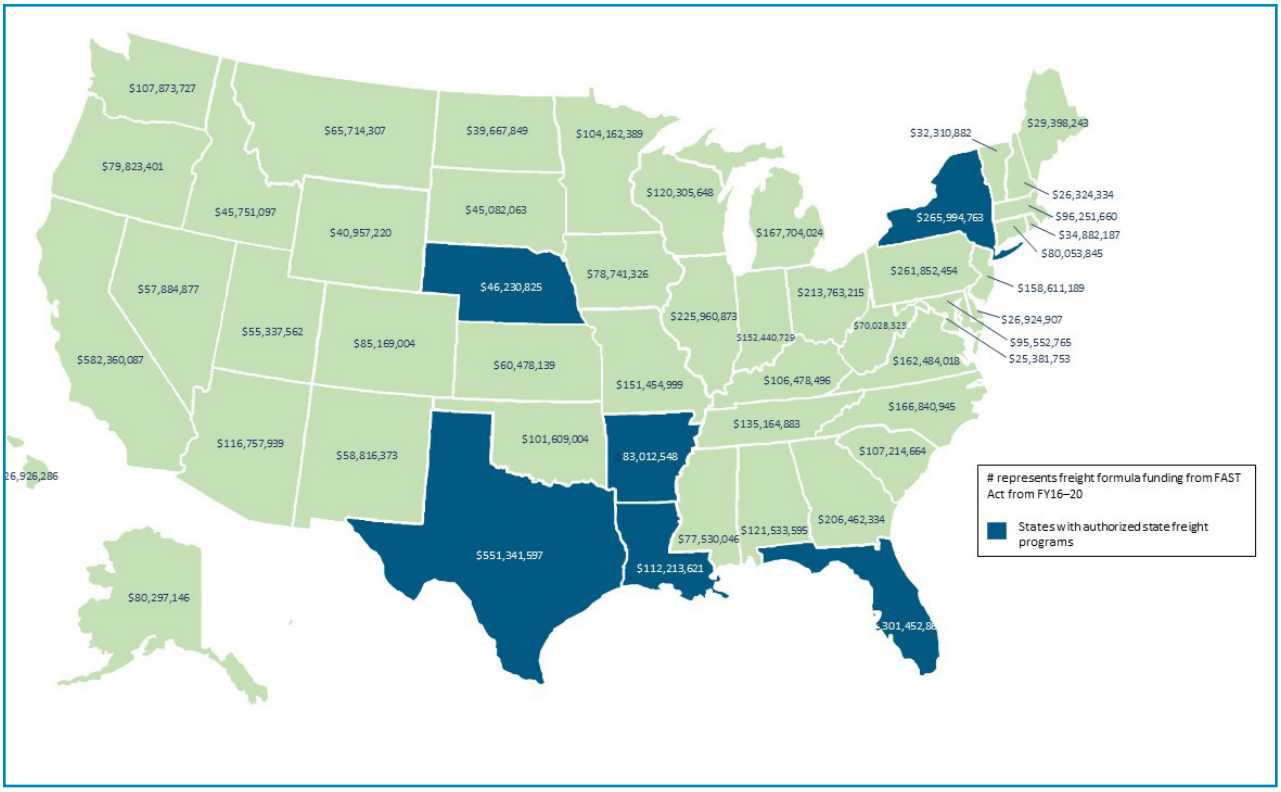
1) $4.5 billion for discretionary grants in the Projects of Highway and Freight Significance, of which only $500 million is eligible for multimodal projects;

2) $6.3 billion, over five years, formula program called the National Highway Freight Program. After two years, states must have an approved U.S. DOT state freight plan to continue to receive freight formula funding.

Marine Highways and Strong Ports Policy

While not authorized in the FAST Act, the U.S. DOT's Maritime Administration (MARAD) has two freight programs that can be used to augment and enhance freight planning work with state DOTs, ports, and Metropolitan Planning Organizations (MPOs).

President Obama's FY 2016 budget request included $3 million a year for planning grants through MARAD's Strong Ports program; however, those funds were not ultimately appropriated. Ports are currently one of the only modes lacking a planning grant program, and this proposed grant program would enable stakeholders to coordinate market development with infrastructure investment plans.



Increasingly state freight programs are begining to overlap and leverage with Federal funding.

The Marine Highway System is also administered out of MARAD and provides up to $5 million for authorized Marine Highway Projects. A Marine Highway Project can be rolled into a state's planning transportation portfolio and used as a tool to provide transportation alternatives alongside congested landside transportation corridors and create opportunities for additional freight markets.

How freight is transferred from waterborne to the surface transportation network, barge to road, or barge to rail is critical to an efficient system. Some tools and approaches have been available for states to enhance and maintain freight infrastructure.

Expanding Freight Services into the Great Lakes Region

The Port of Cleveland is leveraging its natural resources of Lake Erie and the St. Lawrence Seaway to expand its national multimodal freight network in the Great Lakes. In the past five years, the Port of Cleveland has embarked on efforts to expand freight service into the nation's heartland. One such effort is the Cleveland to Europe Express (CEE), which has brought containerized cargo vessel service back to the Great Lakes for the first time in decades. The unprecedented growth in the service, established in 2014, has necessitated the purchase of two new low-emissions harbor cranes through the Congestion Mitigation and Air Quality (CMAQ) program. The CEE has become a viable alternative for carriers and shippers who are looking to avoid the growing congestion in our nation's multimodal freight network.

Photo courtesy of Port of Cleveland.

Interior State Freight Connectivity: Connecting the Heartland with Our Ports and the World

The role and connectivity of interior states in the national rural freight network continues to grow, as Kyle Schneweis, Director, Nebraska Department of Roads, stated in a Senate Commerce Committee Field Hearing, *Keeping Goods Moving in America's Heartland.*

"The FAST Act is truly significant. For the first time, state DOTs will receive freight formula funding. As you know, Senator Fischer, everything is local in Nebraska and most local concerns are impacted by challenges in our rural communities. When it comes to freight challenges, we don't have the same challenges that our friends in more coastal and urban states face; we don't have congestion and bottleneck issues, what we have is access and connectivity issues."

—Kyle Schneweis, Director Nebraska Department of Roads

Along with providing freight connectivity for manufacturing and agriculture in rural regions of the country, the economy is experiencing growth in the domestic energy sector. In 2014, Energy commodities accounted for 54.2 percent in 2014 of the 1.4 billion short tons of foreign trade cargo handled at U.S. ports and which is moving through our interior states. These energy commodities move almost exclusively in chartered vessels and are unaffected by the international carrier alliances. Last year, Congress lifted a 40-year ban on exporting crude oil. While it is too early to forecast what the national impact will be on our economy, the increased energy production has already been felt on the freight network in states such as North Dakota.

Heartland Expressway Statement

In order to attain low costs, efficient transportation is required to move commodities to market, materials to industry, or products to consumers. To maximize this efficiency, the Nebraska Department of Roads (NDOR) has identified statewide expressway corridors that link the states larger communities together with other major transportation corridors. Every region faces transportation challenges. In western Nebraska, the largest challenge is connectivity. When complete, the "Heartland Expressway" corridor will link the largest state's cities together with Interstate 80, allowing an uninterrupted flow of commerce. The department's commitment to constructing this corridor began in the early 1990s with a systematic approach to design and construction that continues today.

Photo courtesy of Nebraska DOR.

Improvement Through Partnering in North Dakota

In 2014, the North Dakota Highway Patrol reported oversized truck permits issued for U.S. Highway 85 averaged 200 a day exceeding more than 72,000 overwidth, overheight, and/or overweight vehicles on the road. Non-truck traffic averaged 20,900 per day north and south of the Long X Bridge. Traffic increased due to oil and gas development and agriculture production. From 2006–2012, vehicle traffic jumped 454 percent and truck traffic increased 565 percent. All of the growth has been accommodated on a rural, two-lane highway. The photo below right shows Labor Day 2016 traffic backed up in both lanes near the bridge.

Photos courtesy of: North Dakota DOT (left); Cal Klewin, Executive Director of the Theodore Roosevelt Expressway Association (right); North Dakota DOT (bottom).

Planning a National Multimodal Freight Network State by State—State Freight Plans

The FAST Act has spurred freight into a national perspective through: 1) The establishment of the National Highway Freight Program, a formula program that sends freight funding to every state; 2) The requirement that, for states to continue to receive their freight formula funding, state freight plans must be created and must be approved by December 4, 2017. State freight plans must include a fiscally constrained spending plan. Fiscally constrained spending plans require states to list their freight projects in the state freight plans with the anticipated state and local match for each project. Guidance for state freight plans is still pending by U.S. DOT. Ideally, the state freight plans collectively will provide a roadmap for the national network and lay the foundation for future investment opportunities.

Six months into the FAST Act, all 50 states and DC are working on their state freight plans. However, states are in different stages of implementation.

Key State Survey Findings

- 71 percent currently have freight plans and are working to make them FAST Act compliant
- 55 percent have a specific state freight office or program in place
- Of the 71 percent that are developing freight plans, 63 percent are developing standalone freight plans and 6 percent are in the process of developing a freight element in their strategic long-range plans
- None have a fiscally constrained plan

Larger Investments, Broader Partnerships

The National Highway Freight Program is a formula program that serves as the glue that will hold the freight plans together for the December 2017 deadline, while the Projects of Highway and Freight Significance also provides the impetus for larger-scale, targeted investment.

Authorized at $4.5 billion over five years, the projects of Highway and Freight Significance discretionary grants were repackaged by the U.S. DOT as Fostering Advancements in Shipping and Transportation for the Long-term Achievement of National Efficiencies (FASTLANE) grants. Within the first four months of funding, $800 million was released. U.S. DOT received 212 applications totaling $9.8 billion in project requests.

Key State Survey Findings

- 86 percent of the states applied for FASTLANE grants
- States submitted a total of 89 projects

Gerald Desmond Bridge Replacement Project: A Bridge to Everywhere

The Gerald Desmond Bridge in Long Beach, California, is a vital part of the nation's freight infrastructure. Nearly 15 percent of the nation's waterborne cargo is moved across this bridge to destinations across the continental United States. The Port of Long Beach is currently replacing the bridge with a taller and wider facility and upon completion will convey the new bridge to California state ownership. The Gerald Desmond Bridge Replacement Project will provide regional, state, and national benefits, with funding contributions from the Los Angeles County Metropolitan Transportation Authority (Metro), California Department of Transportation (Caltrans), and the U.S. Department of Transportation. As the first cable-stayed vehicular bridge in California, the wider bridge will more safely and efficiently carry existing and future traffic volumes; it also will be high enough to accommodate the newest generation of the most efficient cargo ships.

Photo courtesy of Port of Long Beach.

Georgia's Multi-Channel Outreach Strategy

During development of the State Freight & Logistics Plan (www.dot.ga.gov/freight), the Georgia Department of Transportation (DOT) inaugurated its Private-Sector Advisory Committee. Consisting of executives with significant freight operations in the state, this freight advisory committee was one of several channels used to solicit strategic input. Committee members include Coca-Cola Supply, CSX and Norfolk Southern railroads, Delta Airlines, Georgia Motor Trucking Association, Georgia Pacific Corporation, Georgia Ports Authority, Hartsfield Jackson Airport, The Home Depot, Southern Freight trucking, and United Parcel Service.

Georgia DOT is also a featured presenter at the Georgia Logistics Summit (www.georgialogistics.com) which in recent years hosted over 2,200 registrants—85 percent of whom work in the private sector/logistics industry. At this annual event, Georgia DOT uses this channel to share the status of its freight-focused initiatives. For example, at the 2016 Summit, Georgia DOT shared its plan to aggressively develop and deliver a comprehensive program of freight-beneficial projects using the new Georgia Transportation Funding Act funds (www.garoads.org).

Photo courtesy of Georgia Department of Economic Development.

Freight Advisory Committees (FACs)—Leveraging State Freight Planning and Funding

Key State Survey Findings

- 65 percent have FACs
- 49 percent have a maritime representative on the FACs

While FACs are not required by the FAST Act, they are strongly encouraged and many states are utilizing FACs as an opportunity to market state resources as well as attract private sector investment and provide planning input into a state or region's supply chain. "It's another tool in the tool box," said one survey respondent. "It affords us an opportunity to look clearly at the needs of the supply chain while bringing different partners to the table that would not normally participate in the MPO process."

Freight Investment Examples from States

The 2015 *State of Freight* report illustrated the critical nature of connection points between seaports and the national surface transportation system, including highway connectors and on-dock rail. It's at these critical connections and transfer points that the efficiency of moving freight through seaports and to and from the interior of the country can be maximized. These connections and transfer points for goods are the foundation of America's freight network. Nearly 80 percent of AAPA U.S. port members reported a minimum $10 million investment being needed in their port's intermodal connectors through 2025, while 30 percent anticipate at least $100 million will be needed.

How are states investing in freight? The answer is complex. While the inclusion of a freight formula program will likely drive future freight investment, many states are just beginning to place resources into a state freight funding program. Having formula funding designated for freight projects will clearly spur states and the private sector into greater engagement and investment.

Dedicated State Freight Funding and State Authorized Freight Programs

States are often the laboratory of innovation, and funding freight has proven to be no exception; necessity is typically the driving force for innovation. Six states already have some form of an authorized freight program and 16 states, or 31 percent, report that they dedicate funding to freight projects annually. The survey identifies that states collectively dedicate $1.2 billion of funding to freight projects and supply chain investments.

A majority of the state-dedicated freight funding comes from general funds, while others have identified funding sources through a state lottery fund, an ad valorem tax, and a state gas tax. Some states have taken freight to the voters as part of larger bond and economic development initiatives. For example, California made investments in 2006 by passing the Prop 1B Bond Act of 2006 which approved nearly $20 billion in bonds for specified purposes, including $3.1 billion for goods movement.

Florida is the only state with a dedicated stream of funding from Dock Stamps, or real estate fees, that raise approximately $55 million annually and are used to fund the state's Strategic Intermodal System Plan.

Photo courtesy of AAPA.

State Freight Authorization and Funding Programs That Leverage Federal Investments

Louisiana Port Construction and Development Priority Program

In 1989, the Louisiana Legislature recognized the importance of the state's ports and created the Louisiana Port Construction and Development Priority Program (PCDPP) with the primary goal of improving the infrastructure of ports and harbors in Louisiana. Proposed projects are evaluated by PCDPP staff and economic consultants, then prioritized based on a scoring system which takes into account project feasibility, return on the state's investment, and jobs created. These projects are presented to the Legislature for approval. The PCDPP participates in a wide range of port improvement projects including intermodal facilities, docks, transit sheds, cargo handling equipment, rail spurs, and intermodal connectors. Over the past 27 years, the PCDPP has received approximately $20 million per year in state funding and expended over $532 million, completing 353 construction contracts and creating over 13,000 jobs. In FY 2016–2017, Louisiana's newly elected Governor John Bel Edwards increased the PCDPP funding to $39.4 million. Dr. Shawn Wilson, Secretary for the Louisiana Department of Transportation Development, applauded Governor Edward's increase in PCDPP funding stating, "Having strong, resilient multimodal infrastructure is critical to our country's economic growth and vitality."

Photo courtesy of AAPA.

2015 Florida (FDOT) Seaport System Plan (July 2016)

Florida's seaports have a portfolio of available infrastructure funding resources. In addition to their own cash reserves, they have a variety of loan, bond, grant, or contribution options. At the state level, FDOT currently has a statutory minimum of $100 million annually that must be allocated from the State Transportation Trust Fund (STTF) to the seaport program. This includes $25 million for the Florida Seaport Transportation and Economic Development (FSTED) Program; $35 million for the Strategic Port Investment Initiative (SPII) Grant Program; $25 million for debt service for the 1996 and 1999 bond programs; $10 million to support the 2013/2014 bond program; and $5 million for the Intermodal Logistics Center (ILC) Support Grant Program. In addition to statutory minimums, additional funds can be provided through discretionary programs such as the Strategic Intermodal System (SIS) for eligible ports and/or projects. Generally, FDOT seaport grant funding requires that the receiving seaport provide local matching funds. Minimum local matching requirements are 50 or 25 percent depending on the project, type of funds, and other eligibility requirements. Ports also can apply for debt funding through the State Infrastructure Bank (SIB) loan program administered by FDOT.

Photo courtesy of Port of Miami.

Connectivity in Texas

The Houston Ship Channel is a critical gateway for international trade in Texas. This photograph highlights the robust petrochemical industry and the wide variety of cargo not only handled along this waterway but representative of maritime activity across Texas ports. Connectivity to other modes in the transportation system is vital to efficient port operations. The Texas Department of Transportation (TxDOT) Maritime Division works to incorporate port and waterway initiatives, including connectivity, into TxDOT's overall transportation system planning.

Photo courtesy of Port of Houston.

The Texas Department of Transportation has committed state resources in an effort to focus on increasing trade volumes by creating a Maritime Division, which could ultimately plan and fund the Governor's "Texas Global Gateway."

However, the bigger question to ask is, what are the needs?

Key State Survey Findings

- 29 states provided projects lists or estimates totaling 6,202 projects from working freight plans in development.
- 18 states provided cost estimates totaling $258 billion over five years.

States responded to the survey by providing freight projects identified either in current State Freight Plans or projects expected to be included in developing State Freight Plans. These projects are divided by projects for highway, rail, distribution, and inland surface waterway, representing in most cases the multimodal freight needs of states, and are a combination of new investments and maintenance of a state's freight network.

How the Freight Project Numbers Stack Up

The key theme of The 2015 *State of Freight* report illustrated the critical nature of connection points between seaports and the national surface transportation system, including highway connectors and on-dock rail. It is at these critical connections and transfer points that the efficiency of moving freight through seaports to and from the interior of the country can be maximized. These connections and transfer points for goods are the foundation of America's freight network.

The State of Freight II focuses on the partnerships between ports and states and their respective role in planning and building out a national multimodal freight network. In some cases, the projects identified in state freight plans will directly fund maritime projects, but in many instances the projects in state freight plans will identify the supply chain network and its bottlenecks and encourage the investment that indirectly enhances the efficiency of our nation's ports.

The State of Freight II survey results provide a summary of the investment needs for the national multimodal network.

Photo courtesy of Jacksonville Port.

29 States + 6,202 Projects = $258,698,283,920

***Rail*—**Broken out even further, 10 states provided freight rail needs at $5.9 billion for 270 projects.

***Distribution*—**4 states provided distribution project needs at $581,620,200 for 25 projects. An additional 6 states provided 27 projects with no cost estimates, bringing the total project number up to 57 for 10 states.

Inland Waterway—13 states submitted a total of 365 inland waterway surface transportation projects. Seven states submitted 298 projects with projected costs totaling $13 billion.

***Highway*—**3,152 projects totaling $96 billion from 12 states. 39 states submitted projects with no cost estimates attached to them.

***Undefined*—**3 states submitted projects without breaking projects out into modes and costs. The totals are 747 projects, totaling $143.7 billion.

***Multimodal*—**A growing demand.

The absolute minimum for multimodal projects covered in this report is approximately $20 billion. However, some states did not break projects out by mode, so the $20 billion does not take into account the $147 billion or 747 freight projects. Additionally, 33 states have yet to report their multimodal and funding estimates needs.

The 2015 *State of Freight* report identified $29 billion for 125 projects; 46 intermodal projects total $7.5 billion, alone, but many more of the projects identified by ports had a multimodal component to them.

Integrating and Planning Waterside Navigation with Our Surface Transportation Freight Network

Seaports hold a unique position within the freight network. Ports are the only mode that must look to both the United States Army Corps of Engineers (USACE) with the Water Resources and Development Act (WRDA) and U.S. DOT with the FAST Act and TIGER for supporting programs. Therefore, coordination and planning between U.S. DOT and USACE should be and needs to be improved. USACE needs to be included in freight planning that maximizes water and surface transportation investments.

Many states responding to *The State of Freight II* survey expressed the strong belief that an effective national multimodal freight network should consider waterside deepening and harbor maintenance needs. While deepening is important, the bulk of Federal dredging dollars are spent on maintaining our Federal navigation channels into seaports at their authorized depths and widths. The Harbor Maintenance Tax (HMT) was established in 1986 to fund 100 percent of the Federal navigation channel maintenance. Unfortunately, HMT revenues are subject to annual appropriation and the Federal government has appropriated only 60 percent of revenues over the past decade, resulting in depth and width restrictions that impact safe and efficient freight movement. HMT revenues are seen as adequate to fully maintain the nation's navigation channels is fully appropriated.

The Highway Trust Fund revenues are directly distributed to the states. It would be extremely beneficial to switch HMT from discretionary to mandatory spending to properly maintain channels to align with landside investments for efficient landside freight movement.

Photo courtesy of the Port of Boston.

Photo courtesy of Brian Lee (brl@harooki.com)

It would be extremely beneficial to take HMT off-budget so that the receipts collected could be used for their intended purposes. This would allow for better landside and waterside collaboration on regional and local projects. The predictable funding of taking the HMT off-budget would assist in leveraging landside investments. The HMT and Highway Trust Fund (HTF) should be able to work together for better project coordination.

Modernization funds for deepening and widening are also sorely lacking. For example, the eight projects authorized in 2014 would take nearly 20 years to construct at the FY 2017 funding request level. Many states are stepping up to fund the Federal responsibility for congressionally authorized navigation channel improvements,in order to expedite completion and realize the return on investments being made to landside infrastructure.

Congress and a new Administration must now fund a National Multimodal Freight Network that needs to provide for both a robust channel improvement (depth and width) and a maintenance program. The global shipping fleet continues its trend of deeper and wider ships. Smaller ships are being replaced by ships with drafts of up to 53 feet. The Panama Canal has opened new larger locks, and the Suez Canal has completed an expansion, which leaves U.S. navigation channels leading to ports as the controlling link in the global supply chain. Congress has responded by modernizing cost-share depths for maintenance dredging in WRRDA 2014, for the first time in almost 30 years. Pending 2016 WRDA legislation would make new construction cost-share depths consistent with the modernized maintenance depths.

Conclusion

This survey is the second step in identifying the critical freight infrastructure needs. With the $258 billion identified in this report added to last year's $29 billion for port surface transportation investment needs, the base line for our freight network is $287 billion.

While freight took a major step forward in the FAST Act, the promise of a 21st century freight network has yet to be fulfilled. As states continue to put in place state freight plans and consider investment needs, it is clear that the freight and multimodal funding in the FAST Act and the programmatic enhancements have been long overdue.

Just six months after passage of the FAST Act, with over $258 billion in identified freight projects from just 18 states, 36 percent of the country reported seeing vast investment needs. Similarly, with 29 states, representing 56 percent of the country, reporting 6,202 projects, there is a significant potential backlog in investment.

Over the coming year, these numbers will surely fluctuate as more states complete their state freight plans and finalize the fiscally constrained components of their plans. However, as we look at the multimodal demands of an evolving freight network, the funding level and project eligibility for an interconnected freight network take on importance.

A majority of projects reported by states were highway projects. However, given the high volume of projects and cost, it is unlikely that they can meet this demand.

In addition, a growing number of freight projects are multimodal, rail, and truck-dominated distribution transfer centers. Under the current funding criteria, it is extremely difficult for multimodal projects to receive sustainable funding from the HTF. Congress, through the FAST Act, made a great effort in providing multimodal eligibility from the HTF by making multimodal projects eligible for up to 10 percent

Photo courtesy of AAPA.

Photo courtesy of Port of Corpus Christi, Texas.

of the $6.3 billion from the National Highway Freight Program. This translates to $630 million for the entire country over the five-year span of the FAST Act. Couple that with the $500 million in multimodal funding from the Projects of Highway and Freight Significance, and there is a total of only $1.13 billion available over five years.

The absolute minimum for multimodal projects covered in this report is approximately $20 billion, not counting the 747 freight projects, valued at $147 billion, that were not spelled out for highway and multimodal projects, and the other 33 states that have yet to report their multimodal and funding needs.

Additionally, The 2015 *State of Freight* report identified $29 billion for 125 projects. That includes 46 intermodal projects totaling $7.5 billion, but many more of the projects identified by ports have a multimodal component to them.

This report shows the extent of investment demands and the eligibility constraints for multimodal projects. A sustainable freight funding source is needed to not only meet the build-out demands of a multimodal freight network, but to maintain it as well.

Reaching a state of good repair will be a key factor for future freight network investments. As we embark on building out a freight network, resources must be allocated for its maintenance.

We need an investment and maintenance strategy between the public sector and private sector users of the freight network.

Getting ahead of change, rather than playing catch-up, is always the smart move. AAPA envisions great value in an enhanced and ongoing dialogue with industry, to share information and global trends. This improved collaboration can help lead to more informed Federal investment strategies and enhanced collaboration with the freight advisory committees, now and in the future.

In a dynamic environment, states and ports will need the tools and flexibility to adapt to new trade patterns in order to accommodate anticipated freight volumes. To help plan sustainable investments in a national freight network, AAPA and AASHTO suggest several approaches:

1) Continue to provide HTF apportionments to states for highway freight projects through the National Highway Freight program, while encouraging coordination with U.S. DOT's Build America Bureau and Freight Advisory Committees to better leverage private sector investment.

2) Provide additional and ongoing funding resources outside of the HTF for the overall multimodal freight network that can supplement highway formula dollars and also fund discretionary grant programs.

3) Reestablish a properly funded and staffed Office of Multimodal Freight Transportation within the U.S. DOT Office of the Secretary to address the multimodal domestic and international freight planning needs across the various modal administrations at the Department.

4) Move the Harbor Maintenance Tax from discretionary to mandatory spending, enabling full tax revenues to be used for the intended purpose of navigation channel maintenance.

AAPA and AASHTO will continue to gather input from the transportation industry and its partners in identifying infrastructure needs and advocating for solutions in building a 21st century freight network. We welcome your participation and input.

Photo courtesy of Port of Portland.

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AASHTO

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