

ACEC Private Industry Brief

Intermodal & Logistics

Winter 2019-2020

Market Scope

The intermodal and logistics market is a dynamic and growing one, with various types of facilities, including marine terminals, rail terminals, depots and container yards, inland ports, freight airport terminals, and industrial real estate located adjacent to intermodal facilities. Many facilities are like mini-cities, and a wide range of engineering design services are required for their creation and expansion, including land development, transportation, mechanical/electrical/plumbing, structural, environmental, geotechnical, and water-related design. With more than 2,200 facilities, the North American intermodal market is the largest in the world.

Top Clients

Major clients in this market sector contract with engineering firms directly, often using master service agreement-type contracts. These clients include:

1. Ports: There are more than 300 ports in the United States (source: U.S. DOT, Maritime Administration). *Please note the 25 largest North American ports table on page 2.*

2. Railroads: Freight railroads in the United States are privately held, with close to 700 in operation. The seven U.S. Class 1 freight railroads are: BNSF Railway, CSX Transportation, Grand Trunk Corporation (Canadian National Railway), Kansas City Southern Railway, Norfolk Southern Combined Railroad Subsidiaries, Soo Line Corporation (Canadian Pacific Railway), and Union Pacific Railroad.

3. Logistics Companies: United Parcel Service (UPS), FedEx, DHL, XPO Logistics, J.B. Hunt Transport Services, C.H. Robinson Worldwide, and Amazon.

4. Industrial Real Estate Developers: Trammell Crow Co., Hines, Duke Realty, Lincoln Property Co., Majestic Realty Co., Liberty Property Trust, and BlackRock.

5 Current Market Trends

- **1. Market Faces Urban Challenges:** Largely due to the rise of e-commerce and next-day delivery, our freight infrastructure is under strain. Shipments in 2018 grew 5.6% from 2017, setting a fifth volume record in the last six years, according to the Intermodal Association of North America. Because many packages are now destined for individual residences, challenges extend to not only those of the "last mile" but also the "final fifty feet". As a result, smaller warehouses are being

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Top 10 Truck Bottlenecks in U.S.

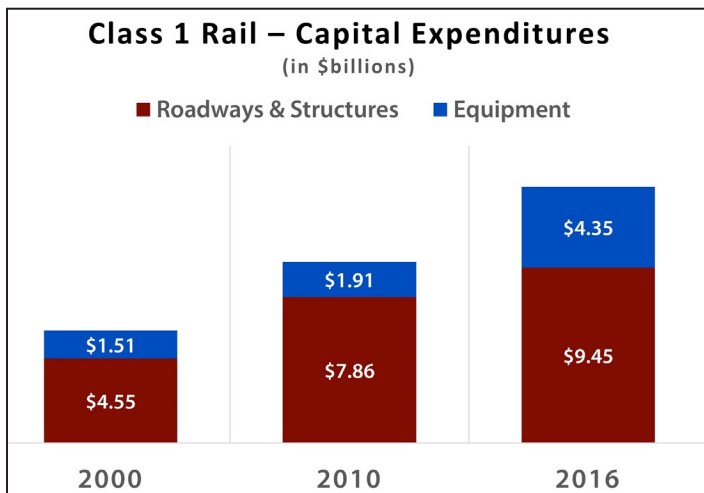
Rank	Location	Avg. Speed (mph)	Peak Avg. Speed (mph)	Peak Avg. Speed % Change 2018-2019
1	Fort Lee, NJ: I-95 at SR 4	31.7	23.0	-7.65%
2	Atlanta, GA: I-285 at I-85N	34.8	22.9	-7.35%
3	Atlanta, GA: I-75 at I-285N	37.9	27.4	-9.91%
4	Los Angeles, CA: SR 60 at SR 57	41.5	34.5	1.05%
5	Houston, TX: I-45 at I-69/US 59	33.8	24.2	-9.46%
6	Cincinnati, OH: I-71 at I-75	43.9	36.2	-7.42%
7	Chicago, IL: I-290 at I-90/I-94	24.4	17.6	-16.74%
8	Nashville, TN: I-24/I-40 at I-440E	41.4	28.1	-11.75%
9	Atlanta, GA: I-20 at I-285W	44.5	38.3	-5.06%
10	Los Angeles, CA: I-710 at I-105	37.7	26.8	-12.35%

Source: American Transportation Research Institute

Current Market Trends, *continued*

built in urban locations, commercial vehicle zones are being rethought, and a larger network of electric vehicle charging stations is expected. The industrial real estate market continues to be the hottest by property sector, with smaller, more urban facilities in great demand. Rents for 70,000-120,000 square-foot warehouses grew 34% in the last five years, according to CBRE Group Inc. Smaller warehouses closer to population centers help shippers meet short delivery timelines on congested networks. According to the U.S. Department of Transportation (DOT) companies spend \$27 billion annually in extra freight transport expenses due to congestion.

- **2. Southeastern U.S. Ports Growing Fastest:** Due to the continued growth of the economy, U.S. migration to the Sun Belt, and the 2016 Panama Canal expansion, U.S. seaports on the Gulf and East Coasts are growing the fastest. These ports continue to invest billions in capital improvements with a ripple effect creating booming industrial real estate markets inland and expanded infrastructure connected to these coasts (*see tables on next page for fastest growing geographic markets*).
- **3. New Inland Ports Emerge:** As the seaports in the Southeastern U.S. expand, new inland ports have also emerged. As featured on the map on page 4, these include two in South Carolina (Greer and Dillon), the Appalachian Regional Port in Georgia, and the Virginia Inland Port. The intermodal market in Lehigh Valley, PA is expanding due to Port of New York/New Jersey growth.
- **4. Rail Investments Rise:** Class 1 rail investments continue to rise, as the industry modernizes and looks to grab market share from the driver-constrained trucking industry. From 1980 to 2019, America's freight railroads spent more than \$685 billion on capital expenditures and maintenance expenses. The chart below shows the growth between 2010 and 2016. Rail is increasingly seen as a more sustainable alternative over truck transport for corporations touting a carbon emissions consciousness.



Source: U.S. Department of Transportation, Bureau of Transportation Statistics
"2018 Transportation Statistics Annual Report"

- **5. Trade Outlook Tricky:** The intermodal and logistics industry is one of "derived demand"; the demand for its services is a function of the overall demand in the economy for goods. Because about 65-70% of intermodal activity is tied to import-export flows, the current trade and global economic uncertainty has translated into only cautious optimism for continued, strong growth in the intermodal and logistics market.

Largest 25 North American Ports

Rank	Port	Import & Export TEUs, 2018	Growth % 2017-2018
1	Los Angeles (CA)	6,414,597	2.6%
2	Long Beach (CA)	5,317,390	5.0%
3	New York/New Jersey	5,109,039	6.7%
4	Savannah (GA)	3,404,558	7.4%
5	Vancouver (CAN)	2,862,989	3.0%
6	Seattle & Tacoma (WA)	2,389,335	4.1%
7	Houston (TX)	2,230,348	10.3%
8	Manzanillo (MEX)	2,181,632	8.5%
9	Virginia Ports	2,167,396	-1.3%
10	Charleston (SC)	1,781,424	2.9%
11	Oakland (CA)	1,694,434	1.0%
12	Montreal (CAN)	1,679,351	9.2%
13	Veracruz (MEX)	902,520	5.3%
14	Jacksonville (FL)	880,220	6.8%
15	Lazaro Cardenas (MEX)	864,273	11.7%
16	Port Everglades (FL)	818,754	2.0%
17	Miami (FL)	801,808	4.2%
18	Prince Rupert (CAN)	776,105	12.5%
19	Baltimore (MD)	716,928	1.9%
20	Altamira (MEX)	667,230	2.8%
21	Halifax (CAN)	547,445	-2.1%
22	New Orleans (LA)	401,105	-1.7%
23	Philadelphia (PA)	376,997	3.9%
24	Mobile (AL)	269,312	7.2%
25	Wilmington (NC)	226,021	26.2%

TEU – Twenty-Foot Equivalent Unit, which is used to measure a ship's cargo carrying capacity. The dimensions of one TEU are equal to that of a standard 20-foot by 8-foot shipping container.

Source: The Journal of Commerce

Government Affairs Action

- **Harbor Maintenance Trust Fund:** ACEC supports legislation to fully utilize user fees paid into the federal Harbor Maintenance Trust Fund (HMTF). Importers and domestic shippers using coastal or inland ports currently pay a 0.125% ad valorem tax levied on the value of imported cargo. The funds are intended to recover the costs of harbor operations and maintenance dredging, but Congress does not fully allocate the collected fees, which has resulted in a \$9.5 billion accumulated balance in the HMTF. Legislation approved by the House of Representatives and awaiting Senate action (H.R. 2440) would make it easier for Congress to appropriate any funds collected in the HMTF for authorized harbor maintenance needs. The bill would enable the expenditure of approximately \$34 billion over the next decade, allowing the U.S. Army Corps of Engineers to dredge all federal harbors to their constructed widths and depths.
- **Fuel Taxes & Freight Fees:** ACEC advocates for sustainable and growing transportation revenues to restore long-term solvency to the Highway Trust Fund (HTF) and increase federal investment in surface transportation programs. ACEC strongly supports an increase in the federal gas and diesel fuel taxes as the simplest, easiest, and most effective way to provide for long-term solvency and growth of the HTF. ACEC is also open to supporting other user fee options, which may include a freight fee collected from commercial motor carriers. The Congressional Budget Office recently released a report on the feasibility of a vehicle-miles traveled fee for commercial trucks, including variables for vehicle size and weight, the potential rate structure, and implementation options such as self-reporting, RFID readers, and on-board electronic monitoring devices.
- **Multi-Modal Grants:** ACEC continues to advocate for robust annual funding for multi-modal transportation grants, including the U.S. DOT's BUILD (Better Utilizing Investments to Leverage Development) and INFRA programs. BUILD provides competitive grants to state and local governments, metropolitan planning organizations, and port authorities for road, rail, transit, and port capital expansion and improvement projects with regional or national significance. Authorized under the FAST Act, INFRA provides more than \$850 million annually for highway and bridge projects to improve the national freight network and leverage additional state, local, and private investment.

Business Development Insight

Growing Seaports Result in Growing Infrastructure Opportunities Inland

When analyzing what geographic areas present the best opportunities for capturing work from intermodal and logistics clients, it is clear that 'following the freight' from sea to land is a good strategy. With the most growth happening in seaports in the Southeast and Texas, it is no surprise that the nearby industrial real estate markets are also seeing some of the most significant expansions (*see tables below*).

The story of Wilmington, NC's port growth is particularly interesting; the small port grew by more than 26% in one year. Analysts credit this in large part to the availability of cold storage warehousing on dock and in the nearby industrial real estate market. Wilmington's port is becoming a player in the growing cold supply chain, which is experiencing an uptick in demand due to changing consumer preferences and the widespread adoption of online grocery purchasing.

Top 5 Fastest Growing U.S. Ports

Rank	Port	Import & Export TEUs, 2018	Growth % 2017-2018
1	Wilmington (NC)	226,021	26.2%
2	Houston (TX)	2,230,348	10.3%
3	Savannah (GA)	3,404,558	7.4%
4	Mobile (AL)	269,312	7.2%
5	Jacksonville (FL)	880,220	6.8%

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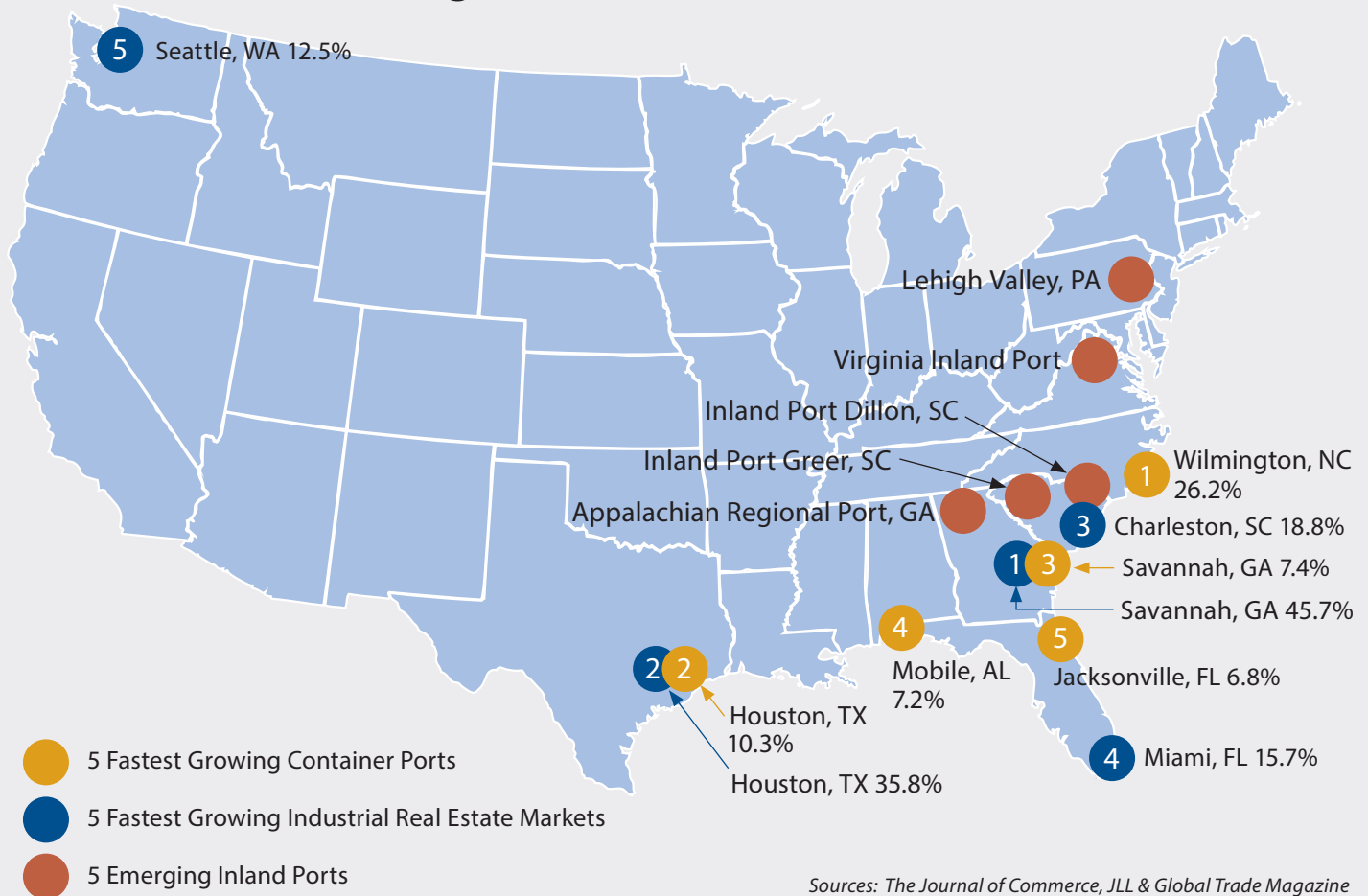
Source: The Journal of Commerce

Top 5 Fastest Growing Industrial Real Estate Markets

Rank	Real Estate Market	Market Size (Square Feet)	Growth % 2010-2018
1	Savannah (GA)	45.7 million	45.7%
2	Houston (TX)	63.1 million	35.8%
3	Charleston (SC)	23.8 million	18.8%
4	Miami (FL)	115.5 million	15.7%
5	Seattle (WA)	175.8 million	12.5%

Source: JLL

Fastest Growing Port & Industrial Real Estate Markets



Multi-Story Warehouses Make U.S. Debut in Seattle

Driven by the need to deliver e-commerce goods to urban locations within tight time frames, developers are looking towards multi-story warehouses in urban locations as a solution. The first U.S. property of this kind is the Prologis Georgetown Crossroads facility in Seattle, which recently announced its two key tenants.

Developed as a speculative project by Prologis, the nearly 600,000 square-foot, three-story facility was completed in 2018. *The Wall Street Journal* reported in September 2019 that Amazon will be taking 500,000 square feet, with Home Depot Inc. leasing the remainder.

Although common in Asia and in other densely populated areas of the world, multi-story warehouses are just now being planned and built in the U.S. Demand for efficient, last-mile distribution in congested and dense cities makes this project type attractive, even considering the high land costs of urban sites.

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Further coverage can be found in *Engineering Inc.*'s regular column "The Private Side" as well as ACEC's quarterly economic reviews.

