

ACEC Private Industry Brief

Intermodal & Logistics

Winter 2023

Market Scope

The North American intermodal freight market is the largest in the world with more than 2,200 facilities and an estimated value of \$51 billion, according to the Intermodal Association of North America. The intermodal and logistics market encompasses various facility types, including marine terminals, rail terminals, depots and container yards, inland ports, freight airport terminals, and industrial real estate. Facilities can reflect mini-cities and require a wide range of engineering design services for their creation and expansion, such as land development, transportation, mechanical/electrical/plumbing, structural, environmental, water-related, and geotechnical services.

Top Clients

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

1. Ports: There are more than 300 ports in the United States. They can be operated by a state, county, municipality, or private corporation. Top 10 ports listed in the chart to the right. (Source: Cushman & Wakefield).

2. Railroads: Approximately 700 freight railroads are operated in the U.S. and are owned and operated by private organizations. The seven U.S. Class I freight railroads are: BNSF Railway Co., Canadian National Railway (Grand Trunk Corporation), Canadian Pacific (Soo Line Corporation), CSX Corporation, Kansas City Southern Railway Co., Norfolk Southern Combined Railroad Subsidiaries, and Union Pacific Railroad Co. (Source: U.S. DOT)

3. Industrial Real Estate Developers: Trammell Crow Co., Lincoln Property, Co., Tishman Speyer, Duke Realty, and Bridge Industrial. (Source: Commercial Property Executive)

5 Current Market Trends

- ▶ **1. Western Labor Disputes Divert Trade to East & Gulf Coasts:** Retailers have diverted trade away from West coast ports over fear of continued labor contract disagreements, including concerns about the International Longshore and Warehouse Union (ILWU). Asian imports declined at West Coast ports while East and Gulf Coast ports doubled in volume, according to S&P's JOC article, "Imports surge on East, Gulf Coasts as ILWU contract talks drag". The surge of East and Gulf coast trade has also provided benefits to warehouse

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Top 10 U.S. Ports

2022 Rank	Port	Q2 2022 TEU's	% Change 2021-2022
1	Los Angeles	5,413,899	-0.3%
2	Long Beach	5,007,780	5.3%
3	New Jersey \ New York	4,904,629	11.6%
4	Savannah	2,886,896	5.3%
5	Houston	1,897,065	18.0%
6	Virginia	1,826,525	8.6%
7	Northwest Seaport Alliance	1,806,731	-4.0%
8	Charleston	1,566,906	17.4%
9	Oakland	1,230,799	-5.5%
10	Jacksonville	645,020	-9.6%

TEU - Twenty-Foot Equivalent Unit, used to measure ship's cargo carrying capacity. Dimensions of one TEU are equivalent to a standard 20-foot by 8-foot shipping container.

Source: Cushman & Wakefield Q2 2022 Ports Update

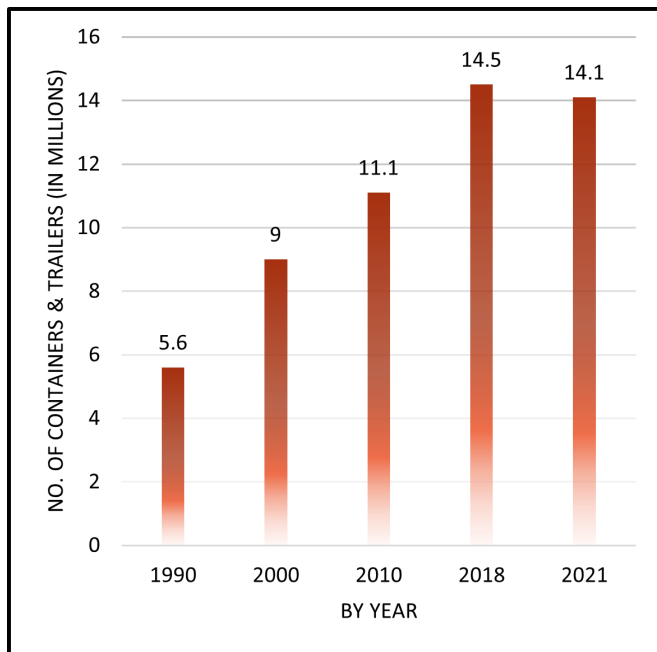
Current Market Trends, *continued*

demand and two railroads including CSX and Norfolk Southern.

In a recent CNBC survey, logistics managers do not expect the supply chain to normalize until 2024 or later. For the month of August 2022, the **Port of New York and New Jersey overtook the Port of Los Angeles for the number one spot in processing containers.** New Jersey processed 843,191 containers and Los Angeles 805,314, according to CNBC's State of Freight. Los Angeles still holds the number one spot in processing volume for the year.

- ▶ **2. U.S. Rail Intermodal Volume Surges:** For the last 25 years, intermodal has been the fastest-growing major rail traffic segment. In fact, 27% of major U.S. railroads revenue come from intermodal, as reported by the Association of American Railroads (AAR). Intermodal includes moving shipping containers and trailers by multiple modes of transportation including trucks, rail, and ships. Intermodal rail volume increased from 5.6 million containers and trailers in 1990 to 14.1 million in 2021 (see bar chart below). Volumes increased when goods transported by trucks switched to multi-intermodal. Using rail over trucks also removes challenges like driver labor shortages, an inability to stack containers, highway traffic and bottlenecks.

U.S. Rail Intermodal Volume



Source: AAR

- ▶ **3. Industrial & Distribution Lead CRE:** These two commercial real estate sectors have ranked at the top of the ULI and PwC Emerging Trends in Real Estate Survey

for investment prospects since 2008. This sector also enjoys historically low vacancy rates, making it a worthwhile investment opportunity during an economic downturn. FMI also projects that construction spending in the commercial space will be primarily driven by warehouse and distribution centers which will account for more than 50% of annual spending in the market. Even though demand for logistics facilities have slowed from their record-breaking pandemic years, investments remain high. The CHIPS and Science Act recently signed into law is also increasing the demand for domestically manufactured goods which will improve the U.S. supply chain. (See GA section for more information.)

- ▶ **4. Inland Ports Become Popular Amid Economic Uncertainty:** During a recession inland ports are viewed as an economical and environmentally friendly alternative to standard modes of transportation. Inland terminals facilitate the interchange of trailers and containers between different modes of transportation. Intermodal locations will look to add track capacity to process the increased volume of consumer demand. JLL's Real Estate Outlook reports that the best positioned inland ports include those along the Dallas to Chicago Corridors.

Moving freight by rail versus truck also reduces greenhouse gas emissions by up to 75% on average. Alongside the construction of more rail projects will be a new locomotive fleet that will run on carbon neutral technologies using hydrogen as an alternative energy source. Associated infrastructure will be needed to store on-site hydrogen and new lift equipment can be purchased with grant funding in the IRA. (Source: AAR)

- ▶ **5. China Reopening Impacts Global Economy:** In December 2022 China removed their zero-COVID policy and officially reopened. Since they have the second largest economy in the world, the global economy anticipated extreme growth as a result. According to a 2023 Goldman Sachs report, China's initial reopening was hampered by waves of COVID variants that led to labor shortages and manufacturing order delays. China's GDP is forecasted to increase by 6.5% for the second half of 2023. This is good news for the U.S. whose imports from China totaled \$541.53 billion in 2021. (Source: UN COMTRADE). China's recovery from the pandemic is also projected to raise global GDP by 1% by the end of 2023. (Source: Goldman Sachs 2023 Report).

BIL Invests in Intermodal

The Bipartisan Infrastructure Law (BIL) includes \$17 billion dedicated to port infrastructure and waterways and \$25 billion for airports that will fund maintenance and improvement projects to address backlogs, reduce congestion, and lower emissions at and around ports. The following were spurred after the passage of the BIL:

- ▶ **Infrastructure for Rebuilding America (INFRA):** The Bipartisan Infrastructure Law provides a total of **\$8 billion** to the INFRA grant program. In September 2022, the Biden-Harris Administration awarded **\$1.5 billion** of that funding for multimodal freight, rail, and transportation projects with the intent to strengthen supply chains and remove bottlenecks. Grant recipients included truck parking facilities, freight rail rehabilitation projects, and port-associated highway infrastructure. The next round of grant applications is expected to open in Spring 2023.
- ▶ **National Infrastructure Project Assistance (MEGA) discretionary grant program:** On January 21, 2023, the administration announced the award of **\$1.2 billion** from the MEGA program for nine projects in the U.S. to strengthen supply chains, create jobs, and improve the safety of our transportation systems. Eligible projects include highway, bridge, freight, port, passenger rail, and public transportation. A full list of project awards can be found here: <https://www.transportation.gov/grants/mega-grant-program/FY22awards>
- ▶ **Inflation Reduction Act (IRA):** Under the IRA, **\$3 billion** will be awarded by the EPA to award rebates and grants to reduce air pollution at ports. Recipients include private entities, port authorities, state, regional, local, or Tribal agencies. The grants will cover zero-emission port equipment and the development of climate action plans. There will also be **\$750 million** for ports located in high air pollution areas. Zero emission equipment that requires permitting is also an allowable use of funding through 2027.
- ▶ **CHIPS and Science Act:** This piece of legislation was passed into law to increase local manufacturing activity, increase jobs, lower the costs of goods, and ease supply chain pressures. The passage of this act led to companies investing an additional \$50 billion into American semiconductor manufacturing with billions more expected from private sector semiconductor investments, according to the White House.

Business Development Insight

Manufacturing & Population Growth Spur Demand in Other Markets

Investments into the manufacturing sector continue. Design and construction spending for this market is forecasted to be up 25% year-over-year (y/y) from 2021 to 2022 totaling \$99 billion. (Source: FMI)

The "nonresidential building sector" (rail, ports, industrial, and warehouse) is forecasted to experience growth until 2025 in the five regions listed below. The increase in investment coupled with natural population growth is also forecasted to create demand in related sectors, including sewage and waste disposal and water supply. FMI also projects these trends:

- ▶ Sewage and waste disposal up 13% in Q1 2023 y/y, \$43 billion in design and construction spending by 2026 following four years of consistent growth.
- ▶ Water supply up 18% in Q1 2023 y/y, \$30 billion in design and construction spending after consistent growth to 2026.

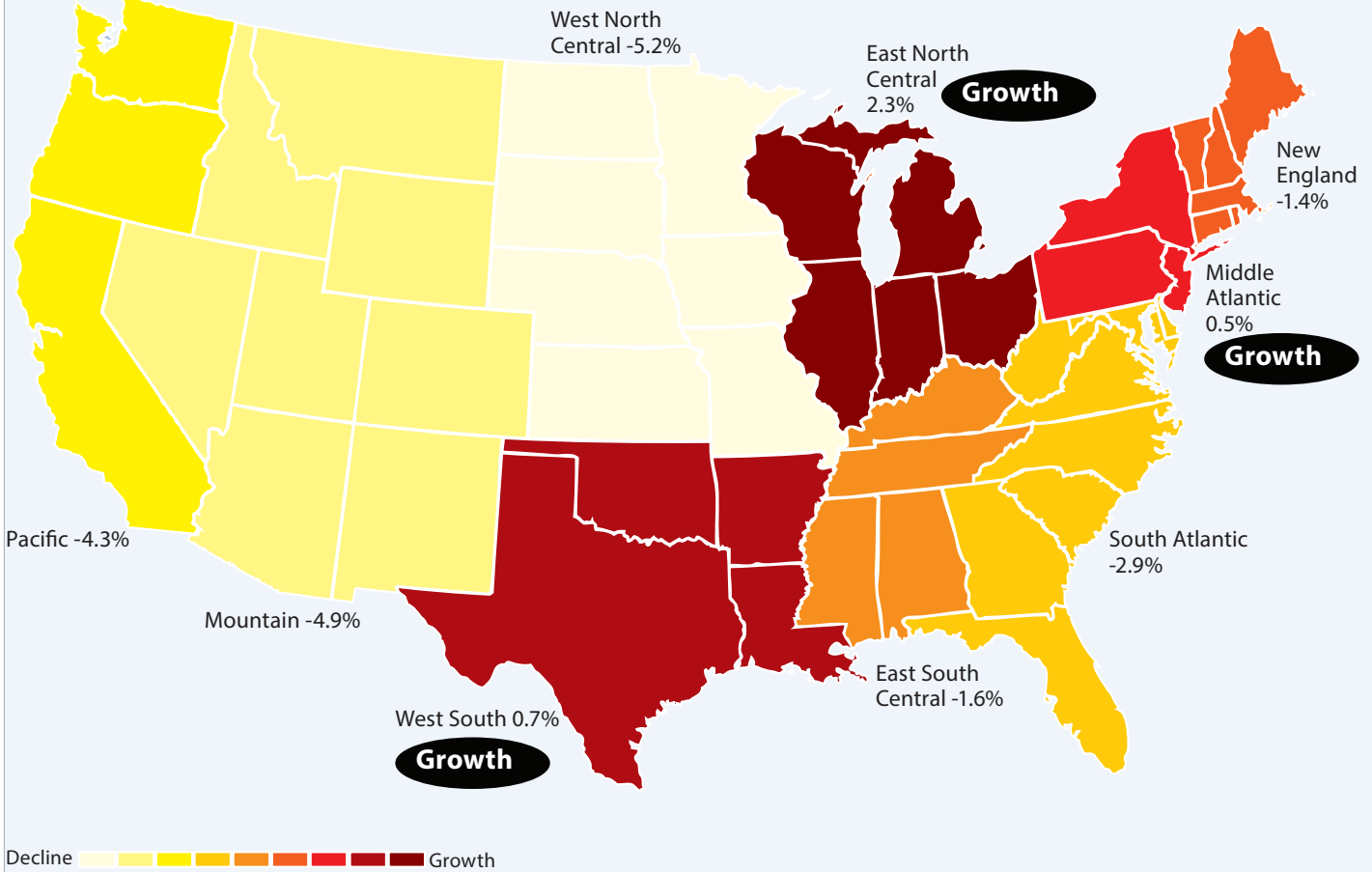
Increased water infrastructure spending from the BIL and IRA will also support funding in these sectors. During economic downturns it would be a good time for firms to diversify their service offerings by adding these markets forecasted for sustained growth.

Top 5 Regions Poised for Nonresidential Building Growth

Rank	Region	2023 CPiP in millions	Growth % 2022-2023
1	Mid-Atlantic (Northeast)	30,225	10.7%
2	East North Central (Midwest)	82,844	8.9%
3	West South Central (South)	121,061	8.7%
4	Mountain (West)	39,508	8.47%
5	South Atlantic (South)	102,899	8.46%

Source: FMI

2023 Design & Construction Spending Growth Projections



Sources: FMI

ACEC's Private Market Resources

Podcasts

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[Life Sciences Market - National Director of Capital Markets Research with Colliers](#)

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