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Annual Report

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Notice

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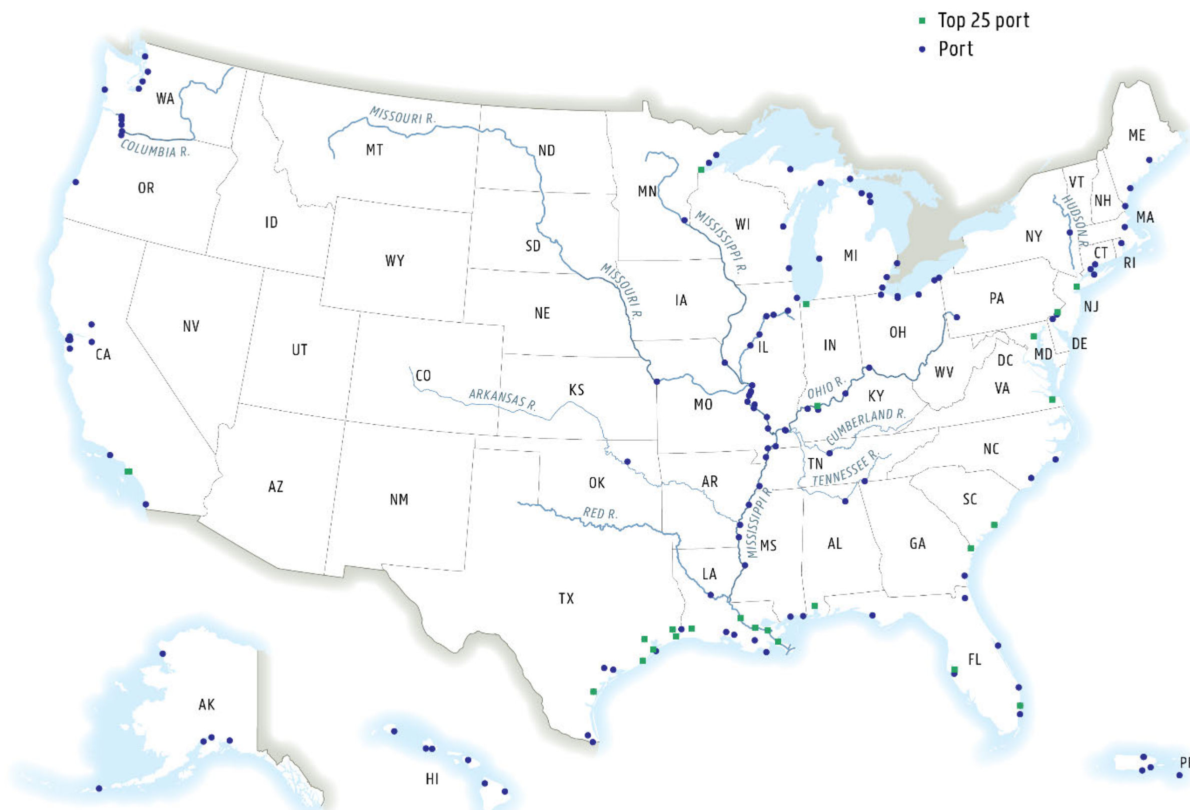
Chapter 1. Introduction

1.1. MEASURING PORT PERFORMANCE

There are 299 waterway ports throughout the United States and its territories (Figure 1). These ports are essential for transporting goods into, out of, and through the United States. For instance, in 2022, U.S. ports handled 1.1 billion short tons of domestic freight, 670.3 million short tons of imports, and 840.7 million short tons of exports [U.S. Army Corps of Engineers Institute for Water Resources 2024a].

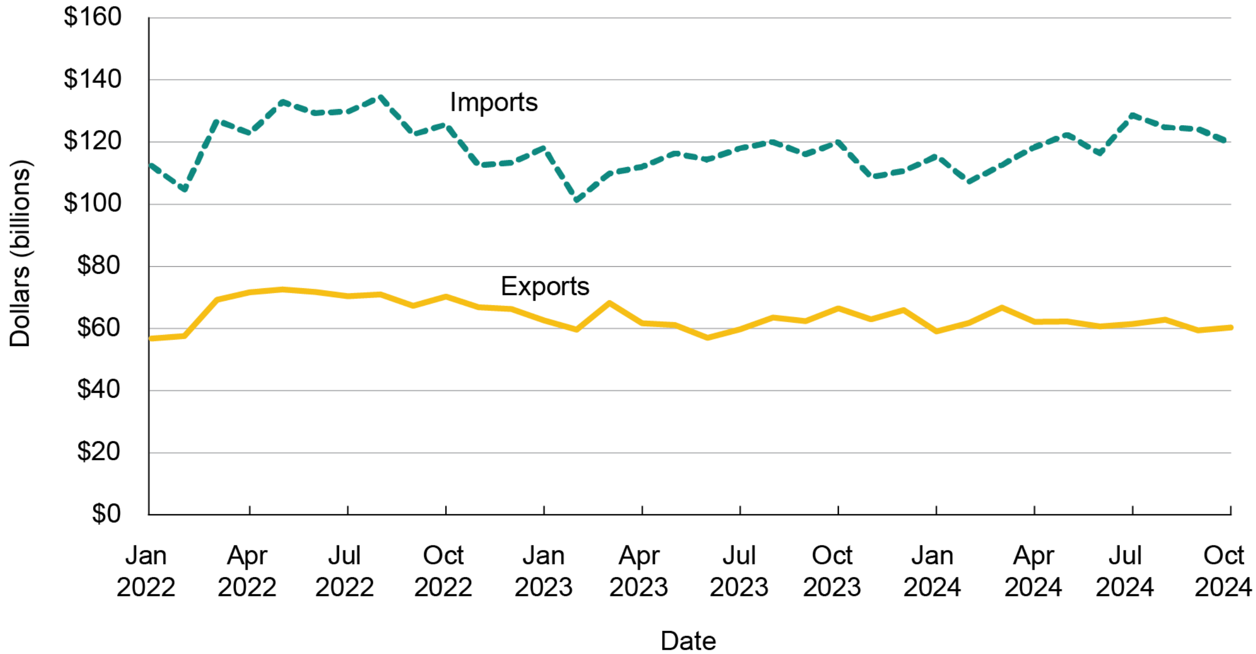
Figure 1. Location of the Top 150 Ports by Total Tonnage, 2022



Source: BTS.

Waterborne vessels were the leading transportation mode for U.S. international trade in goods, moving 41.5 percent of U.S. global trade's value, or $2.1 trillion, in 2023. Exports accounted for 35.5 percent, while imports accounted for 64.5 percent [U.S. Census Bureau 2024]. Figure 2 shows the monthly value of waterborne imports and exports from January 2022 through October 2024 in inflation-adjusted dollars. Import and export values were highest in spring and summer of 2022. While 2024 import values are higher than 2023, export values from 2023 to 2024 remained constant.

Figure 2. Value of Monthly Waterborne U.S. International Imports and Exports, January 2022–October 2024



Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon U.S. Department of Commerce, Census Bureau, *USA Trade Online*, available at USA Trade Online (census.gov) as of December 2024.

Waterborne transportation[1] and its support activities[2] employed 145,680 people in the United States, with a total annual payroll of $12.7 billion in 2023 [U.S. Department of Labor 2024].

1.2. OBJECTIVE

While port performance can be measured multiple ways, this ninth edition of the *Port Performance Freight Statistics Annual Report* uses the following two port performance categories:

1. **Throughput**—The amount of cargo or trade handled by a port
2. **Capacity**—A port's maximum annual throughput.

The Bureau of Transportation Statistics (BTS) uses throughput and capacity because they are quantifiable metrics that can be obtained with nationally consistent data [Wakeman 2012].

The statistics included in previous editions of this report have been updated with the most recently available annual data and, in many cases, supplemented with available monthly data. This edition provides additional descriptions of global and national maritime trends to provide a more robust context for understanding port performance and emerging issues and topics, including supply-chain challenges.

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[1] North American Industry Classification System (NAICS) code 483000 – Water Transportation.
[2] NAICS code 488300 – Support Activities for Water Transportation.

1.3. LEGISLATIVE MANDATE

Section 6018 of the Fixing America's Surface Transportation (FAST) Act mandates BTS, within the U.S. Department of Transportation (USDOT), establish a port performance statistics program. This program aims to provide nationally consistent performance measures for, at least, the nation's top 25 ports, ranked by tonnage, twenty-foot equivalent units (TEUs), and dry bulk cargo. Additionally, BTS is required to submit an annual report to Congress that includes statistics on the capacity and throughput of these ports [114th Congress 2015].

1.4. NOTE ON PORT DEFINITIONS

Ports are commonly recognized as places where cargo is transferred between ships and trucks, trains, pipelines, or dockside manufacturing and processing facilities, such as refineries. While ports are often associated with the port authorities that govern them, defining ports can be challenging for statistical purposes. This difficulty arises from closely related land uses (e.g., rail yards), differing terminal ownership and governance, and the proximity to other ports. Continuous waterfront may be divided into separate ports by administrative boundaries, such as the Mississippi River terminals in Louisiana between New Orleans and Baton Rouge ports. In contrast, ports may span multiple states, such as the Port of New York and New Jersey. Given the variety of port ownership arrangements, operating methods, and types of cargo handled, creating a consistent national framework for assessing port performance is a significant challenge.

Ports are generally located within natural or human-made harbors. For example, the Ports of Los Angeles and Long Beach are located in San Pedro Bay in California along with other public and private waterfront facilities. When cargo statistics are published at the harbor level, these data may include terminals that are not part of public port authorities and can result in higher cargo volumes than what port authority statistics report.

To consistently identify the nation's top 25 ports, the meaning of "port" must first be defined. "Port" can be defined in multiple ways, such as by legislative enactment of federal, state, or municipal governments. Among the possible definitions considered for use in these annual reports, federal definitions offer a nationally consistent approach to determining what a "port" is and, therefore, provide a starting place from which to measure ports' throughputs and capacities. The federal government also defines ports in several ways, including the following:

- **U.S. Army Corps of Engineers (USACE) Ports**—For statistical purposes, USACE uses a port's boundaries as defined in the legislation associated with the port [U.S. Army Corps of Engineers 1996].
- **U.S. Customs and Border Protection (CBP) Districts and Ports**—CBP defines some ports as a single port and others as units comprising multiple ports. The U.S. Census Bureau relies on CBP definitions for trade reporting.

This report follows the recommendation of the 2016 BTS Port Performance Working Group report to use the USACE statistical definitions of ports, which align with the federal, state, and municipal legislative definitions associated with a given port [Wakeman 2012]. These legislative port definitions are relatively stable over time, although some ports have successfully petitioned USACE to alter their boundaries. The major advantage of using USACE's port definitions is that USACE publishes nationally consistent cargo throughput data, including the data used to select the top 25 ports.

USACE has also pursued methods of standardizing port limits for geographic analysis. These limits are referred to as Port Statistical Areas (PSAs) [Navigation and Civil Works Decision Support Center 2021]. A PSA is defined as a region characterized by shared economic interests and a collective dependence on infrastructure related to waterborne movements of commodities that is formally recognized by legislative enactments of state, county, or city governments. PSAs are excluded from the rankings as USACE does not categorize them as ports.

Chapter 2. Port Performance Measures of Throughput and Contributing Factors

Port throughput metrics assess the work that terminals within a port do and the productivity of all port assets [Wakeman 2012]. Port throughput is measured, in this report, by the 12 elements described in Table 1. This table includes the year of the most recently available data for each metric. For example, the latest available data from the USACE Waterborne Commerce Statistics Center (WCSC) are from 2022, while the latest available data from port authorities are from 2024.

Table 1. Port Throughput Measures

Element/metric	Period	Most recent data	Unit	Description	Source
Total tonnage	Annual	2022	Short tons	Domestic, import, and exports tonnage	USACE WCSC
Dry bulk tonnage	Annual	2022	Short tons	Domestic, import, and export dry bulk tonnage	USACE WCSC
Container throughput	Annual	2022	TEUs	Domestic inbound empty and loaded and outbound empty and loaded, import loaded and export loaded	USACE WCSC
Container throughput	Monthly	2024	TEUs	For top 10 ports only: Import empty and loaded, export empty and loaded	Port authorities
Containership calls	Daily	2022	Vessels	Number of container vessel calls with cargo from foreign ports	USACE WCSC
Liquified gas carrier calls	Daily	2022	Vessels	Number of liquified gas carrier vessel calls with cargo from foreign ports	USACE WCSC
Tanker vessel calls	Daily	2022	Vessels	Number of tanker vessel calls with cargo from foreign ports	USACE WCSC
Ro-ro vessel calls	Daily	2022	Vessels	Number of ro-ro vessel calls with cargo from foreign ports	USACE WCSC
Commodity throughput	Annual	2022	Short tons	Commodity type and tonnage by movement including domestic, exports, and imports	USACE WCSC
Container vessel time at berth	Weekly	2023	Hours	Amount of time from when a container vessel arrives at a berth until it departs from the berth	USDOT BTS
Ro-ro vessel time at berth	Weekly	2023	Hours	Amount of time from when a ro-ro vessel arrives at a berth until it departs from the berth	USDOT BTS
Liquid bulk vessel (tanker) time at berth	Weekly	2023	Hours	Within port terminal boundaries, limited to terminals servicing liquid bulk vessels	USDOT BTS

Ro-ro = roll-on/roll-off.

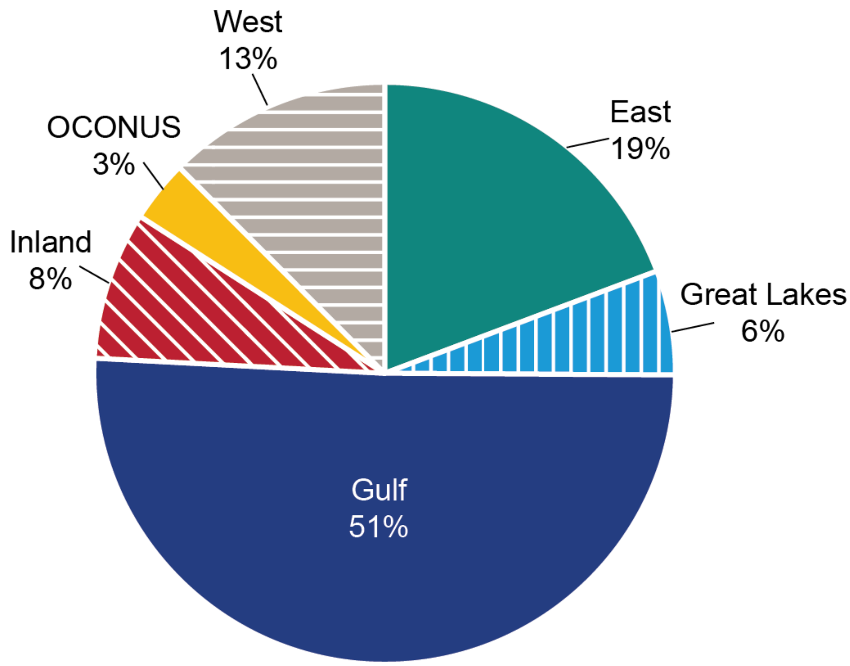
Technical documentation, published separately, details the process used to identify the top 25 ports and calculate their capacity and throughput [U.S. Department of Transportation, Bureau of Transportation Statistics 2024].

Due to statistical boundary changes implemented by USACE, some ports may not be comparable year over year. For example, in 2022, the boundary of the Port of Boston, MA, was changed. More information on USACE port boundaries and dates of any changes to them can be found on the USACE Geospatial website [U.S. Army Corps of Engineers 2024a].

2.1. TOTAL TONNAGE THROUGHPUT

In 2022, 299 U.S. ports handled 2.6 billion short tons of cargo. Domestic cargo accounted for 43 percent, imports accounted for 25 percent, and exports accounted for 32 percent. Half of all tonnage was concentrated within 11 ports, and 90 percent of all tonnage was concentrated within 66 ports. The top 150 ports accounted for 99 percent of all tonnage. For these top 150 ports, Gulf Coast ports moved half of all tonnage, while East Coast ports moved the second largest amount of tonnage, as shown in Figure 3. Appendix B has a list of the top 150 ports by total tonnage.

Figure 3. Percentage of Total Tonnage Handled by the Top 150 U.S. Ports by Coast, 2022



Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon 2022 data (latest available) provided by U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center. Special tabulation as of July 2024.

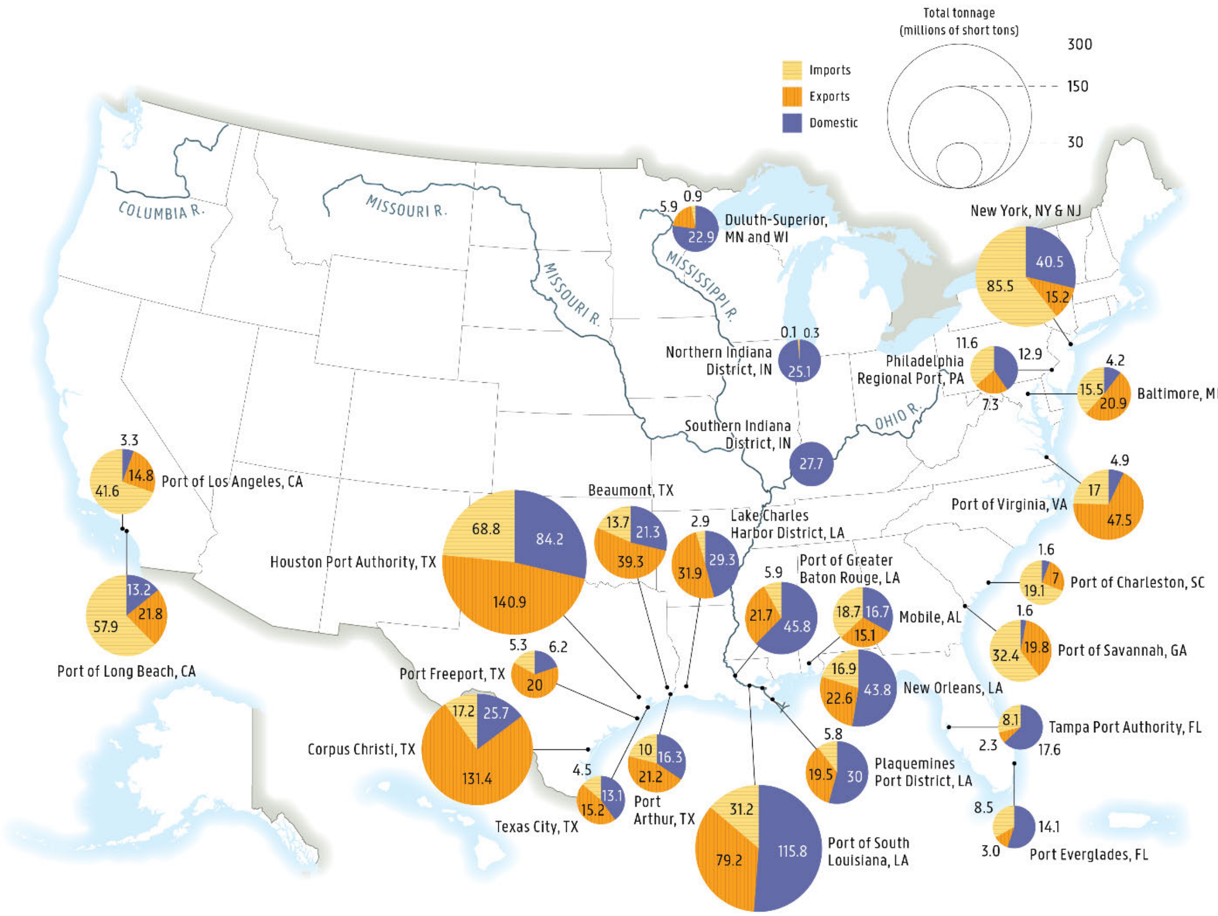
Compared to the top 150 ports, the top 25 tonnage ports (Table 2 and Figure 4) handled 71 percent of the total tonnage, or 1.86 billion short tons of cargo, in 2022—up from 1.8 billion short tons in 2021 but 0.02 billion short tons shy of the high of 1.88 billion in 2018. Texas City improved the most in ranking from 2021 to 2022, from 23 to 17 (from 27.95 million short tons in 2021 to 32.86 million short tons in 2022). Northern Indiana District dropped the most in ranking from 2021 to 2022, from 20 to 25 (from 30.26 million short tons in 2021 to 25.45 million short tons in 2022). Overall, Houston Port Authority had the greatest increase in tonnage, not considering rank, with 27.31 million more short tons in 2022 than in 2021.

Table 2. Top 25 U.S. Ports by Total Tonnage, 2022

Rank	Port	Total (millions of short tons)
1	Houston Port Authority, TX	293.8
2	South Louisiana, LA, Port of	226.2
3	Corpus Christi, TX	174.3
4	New York, NY & NJ	141.3
5	Port of Long Beach, CA	93.0
6	New Orleans, LA	83.3
7	Beaumont, TX	74.3
8	Port of Greater Baton Rouge, LA	73.4
9	Virginia, VA, Port of	69.4
10	Lake Charles Harbor District, LA	64.1
11	Port of Los Angeles, CA	59.8
12	Plaquemines Port District, LA	55.4
13	Port of Savannah, GA	53.7
14	Mobile, AL	50.5
15	Port Arthur, TX	47.5
16	Baltimore, MD	40.6
17	Texas City, TX	32.9
18	Philadelphia Regional Port, PA	31.8
19	Port Freeport, TX	31.6
20	Duluth-Superior, MN and WI	29.6
21	Tampa Port Authority, FL	28.0
22	Southern Indiana District, IN	27.7
23	Port of Charleston, SC	27.7
24	Port Everglades, FL	25.6
25	Northern Indiana District, IN	25.4

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon 2022 data (latest available) provided by U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center. Special tabulation as of July 2024.

Figure 4. Top 25 U.S. Ports by Total Tonnage, 2022



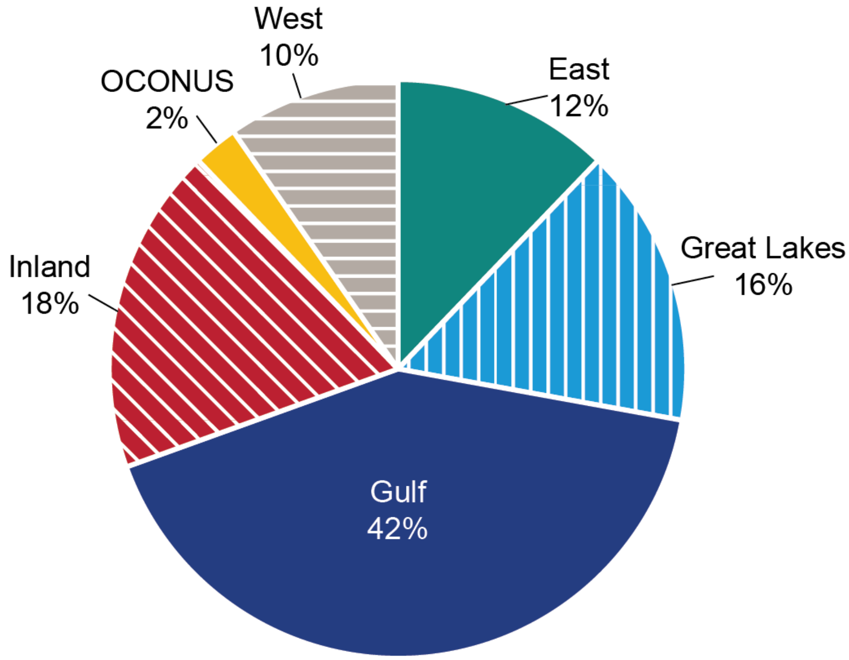
Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon 2022 data (latest available) provided by U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center. Special tabulation as of July 2024.

Regarding the regional spread of locations for the top 25 ports, 13 are on the Gulf Coast, 7 are on the East Coast, 2 are on the West Coast, 2 are on the Great Lakes, and 1 is on the Inland Waterways. The highest tonnages moved are associated with the Gulf ports, such as Houston, South Louisiana, and Corpus Christi, which handle large quantities of liquid bulk cargo (e.g., petroleum or chemicals) and dry bulk cargo (e.g., coal or grain).

2.2. DRY BULK THROUGHPUT

In 2022, 256 U.S. ports handled dry bulk cargo. These ports handled 965.9 million short tons. Domestic cargo accounted for 56 percent, imports 15 percent, and exports 29 percent. Half of all tonnage was concentrated within 12 ports, and 90 percent of all tonnage was concentrated within 83 ports. Considering all ports that handled more than 1 million dry bulk tons, which are the top 121 ports, Gulf Coast ports handled the largest portion (42 percent) of dry bulk tonnage, followed by Inland ports (18 percent) and Great Lakes ports (16 percent) as shown in Figure 5. Appendix B includes a list of ports that handled more than 1 million dry bulk tons.

Figure 5. Percentage of Dry Bulk Tonnage Handled by U.S. Ports by Coast, 2022



Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon 2022 data (latest available) provided by U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center. Special tabulation as of July 2024.

Dry bulk tonnage was down by 43.5 million tons compared to 2021. Corn alone accounted for 30 million tons of the decrease. The Port of South Louisiana handled the most dry bulk tonnage, at 153 million tons. It remained the highest from 2021 but decreased by 1.3 million tons.

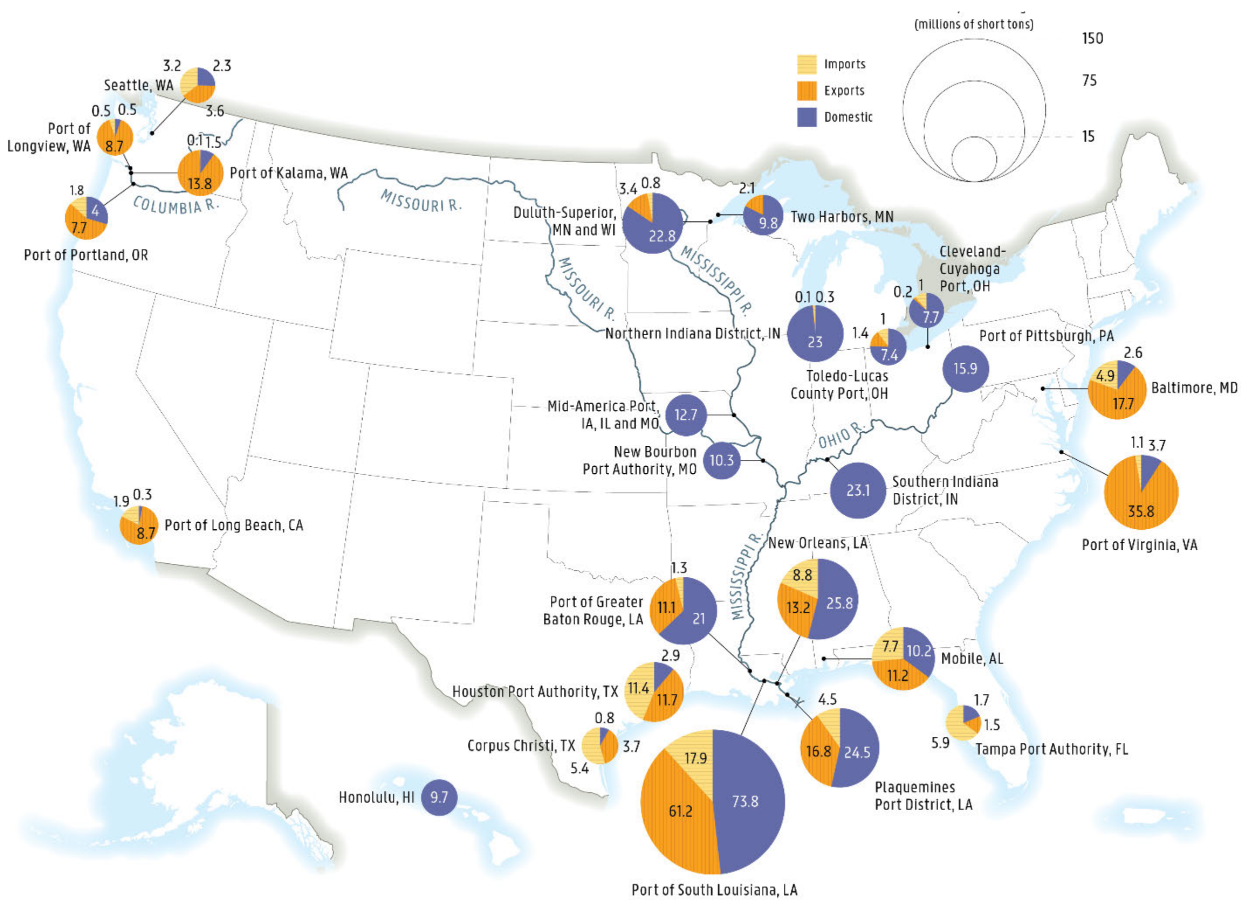
Table 3 lists the top 25 ports by dry bulk tonnage. Figure 6 shows a map of the top 25 ports by dry bulk tonnage and cargo direction.

Table 3. Top 25 Ports by Dry Bulk Tonnage, 2022

Rank	Port	Total (millions of short tons)
1	South Louisiana, LA, Port of	153.0
2	New Orleans, LA	47.9
3	Plaquemines Port District, LA	45.8
4	Virginia, VA, Port of	40.6
5	Port of Greater Baton Rouge, LA	33.4
6	Mobile, AL	29.0
7	Duluth-Superior, MN and WI	27.0
8	Houston Port Authority, TX	26.0
9	Baltimore, MD	25.2
10	Northern Indiana District, IN	23.3
11	Southern Indiana District, IN	23.1
12	Pittsburgh, PA Port of	15.9
13	Port of Kalama, WA	15.5
14	Port of Portland, OR	13.5
15	Mid-America Port, IA, IL and MO	12.7
16	Two Harbors, MN	11.9
17	Port of Long Beach, CA	10.9
18	New Bourbon Port Authority, MO	10.3
19	Corpus Christi, TX	10.0
20	Toledo-Lucas County Port, OH	9.8
21	Honolulu, O'ahu, HI	9.7
22	Port of Longview, WA	9.7
23	Seattle, WA	9.1
24	Tampa Port Authority, FL	9.0
25	Cleveland-Cuyahoga Port, OH	8.9

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon 2022 data (latest available) provided by U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center. Special tabulation as of July 2024.

Figure 6. Location of Top 25 Ports by Dry Bulk Tonnage, 2022

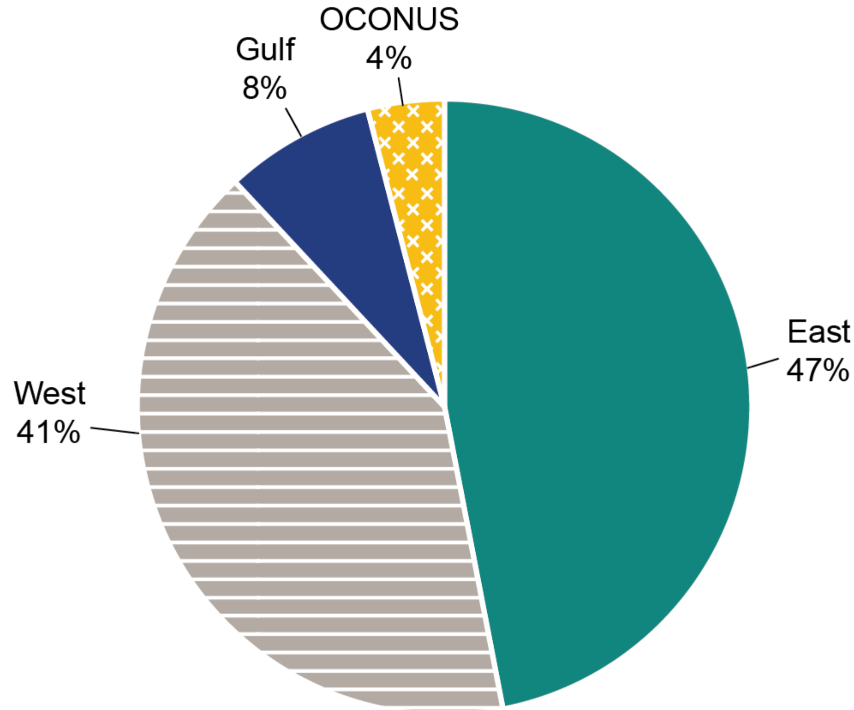


Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon 2022 data (latest available) provided by U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center. Special tabulation as of July 2024.

2.3. CONTAINERS THROUGHPUT

In 2022, 110 U.S. ports handled 45.7 million loaded TEUs in 2022, a 0.3 million decrease from 2021. Appendix B includes a list of these ports. Ten percent of the TEUs were domestic movements, 66 percent were imports, and 24 percent were exports. The top 16 ports handled 90 percent of all TEUs. The Port Authority of New York and New Jersey handled the most loaded imports and the most loaded exports. Honolulu handled the most domestic TEUs. East Coast ports handled the largest portion of TEUs (47 percent), followed by West Coast ports (41 percent), as shown in Figure 7.

Figure 7. Percentage of TEUs Handled by the Top 110 U.S. Ports by Coast, 2022



Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon 2022 data (latest available) provided by U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center. Special tabulation as of July 2024.

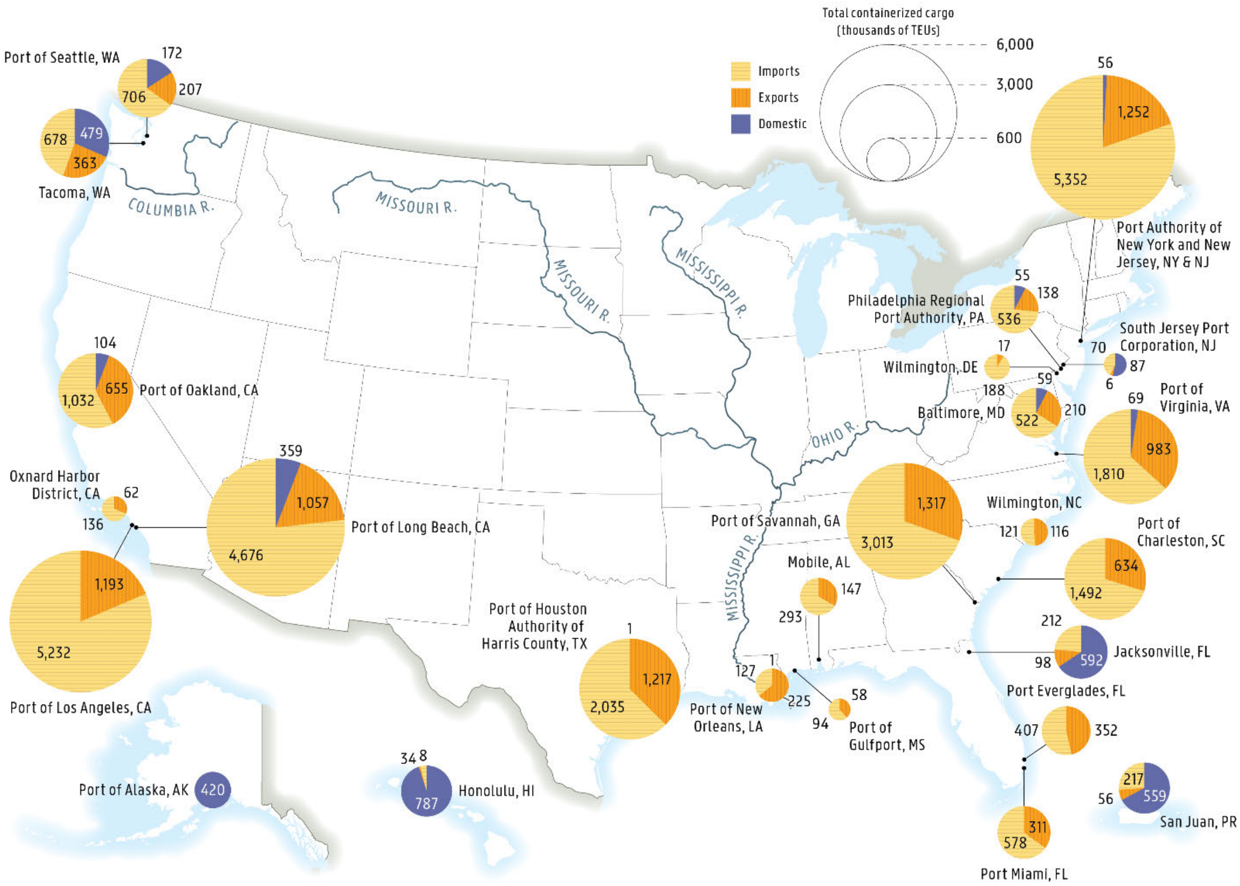
Table 4 lists the top 25 ports by loaded TEUs. These ports handled 96 percent of all TEUs. The Port Authority of New York and New Jersey ranked first, up from ranking third in 2021. It had a 5 percent increase in TEUs. The Port of Los Angeles went from ranking first in 2021 to ranking second in 2022 and had an 8.7 percent decrease in TEUs. Figure 8 shows the locations of the top 25 ports by TEUs and includes the cargo breakdown by traffic direction.

Table 4. Top 25 Ports by Loaded TEUs, 2022

Rank	Port	Total (thousands of TEUs)
1	New York, NY & NJ	6,660.3
2	Port of Los Angeles, CA	6,424.3
3	Port of Long Beach, CA	6,092.0
4	Port of Savannah, GA	4,329.9
5	Houston Port Authority, TX	3,252.6
6	Virginia, VA, Port of	2,861.9
7	Port of Charleston, SC	2,126.3
8	Port of Oakland, CA	1,791.2
9	Tacoma, WA	1,519.2
10	Seattle, WA	1,085.2
11	Jacksonville, FL	902.6
12	Port Miami, FL	889.0
13	San Juan, PR	832.0
14	Honolulu, O'ahu, HI	828.8
15	Baltimore, MD	790.9
16	Port Everglades, FL	758.5
17	Philadelphia Regional Port, PA	728.5
18	Mobile, AL	440.4
19	Port of Alaska, AK	419.8
20	New Orleans, LA	352.7
21	Wilmington, NC	237.2
22	Wilmington, DE	204.4
23	Oxnard Harbor District, CA	197.8
24	South Jersey Port Corp, NJ	163.1
25	Port of Gulfport, MS	152.0

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon 2022 data (latest available) provided by U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center. Special tabulation as of July 2024.

Figure 8. Location of the Top 25 Container Ports by TEUs, 2022



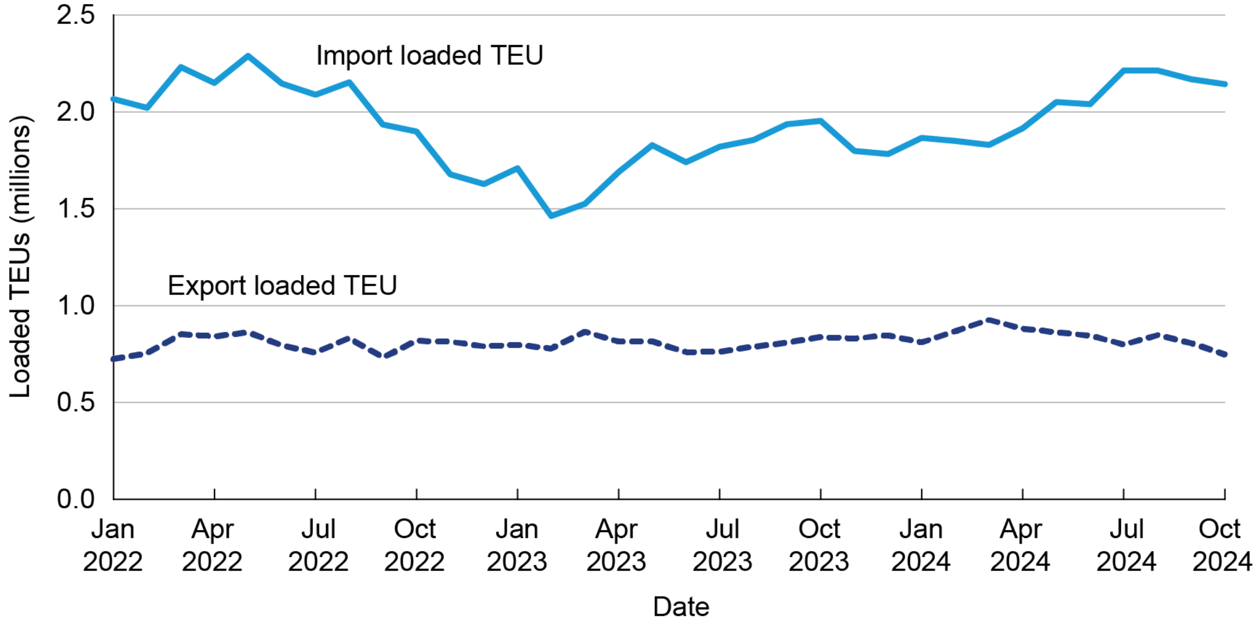
Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon 2022 data (latest available) provided by U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center. Special tabulation as of July 2024.

2.3.1. Total Container Throughput by Shipping Weight

The U.S. Census Bureau's USA Trade Online tool provides recent container throughput statistics. These statistics include monthly containerized vessel total export shipping weight (SWT) (in kilograms) and import SWT (in kilograms) with just a 1–2-mo lag. As of the writing of this report, data were available through October 2024. Note, data are not provided in TEUs.

Considering the period of January 2022 through October 2024 (Figure 9), there was a high in containerized imports in the Spring and Summer of 2022, reflecting consumer demand increases and retailers stocking up ahead of a West Coast labor contract expiration [Panzino, Hudgins 2022]. The low in February 2023 may be a result of February being the shortest month, compounded with the Chinese New Year occurring in January 2023 impacting volumes through March 2023 [Jones 2023]. Containerized export SWTs seem steadier with a high in March 2022.

Figure 9. Containerized Import and Export SWTs (in Kilograms) by Month, January 2022–October 2024



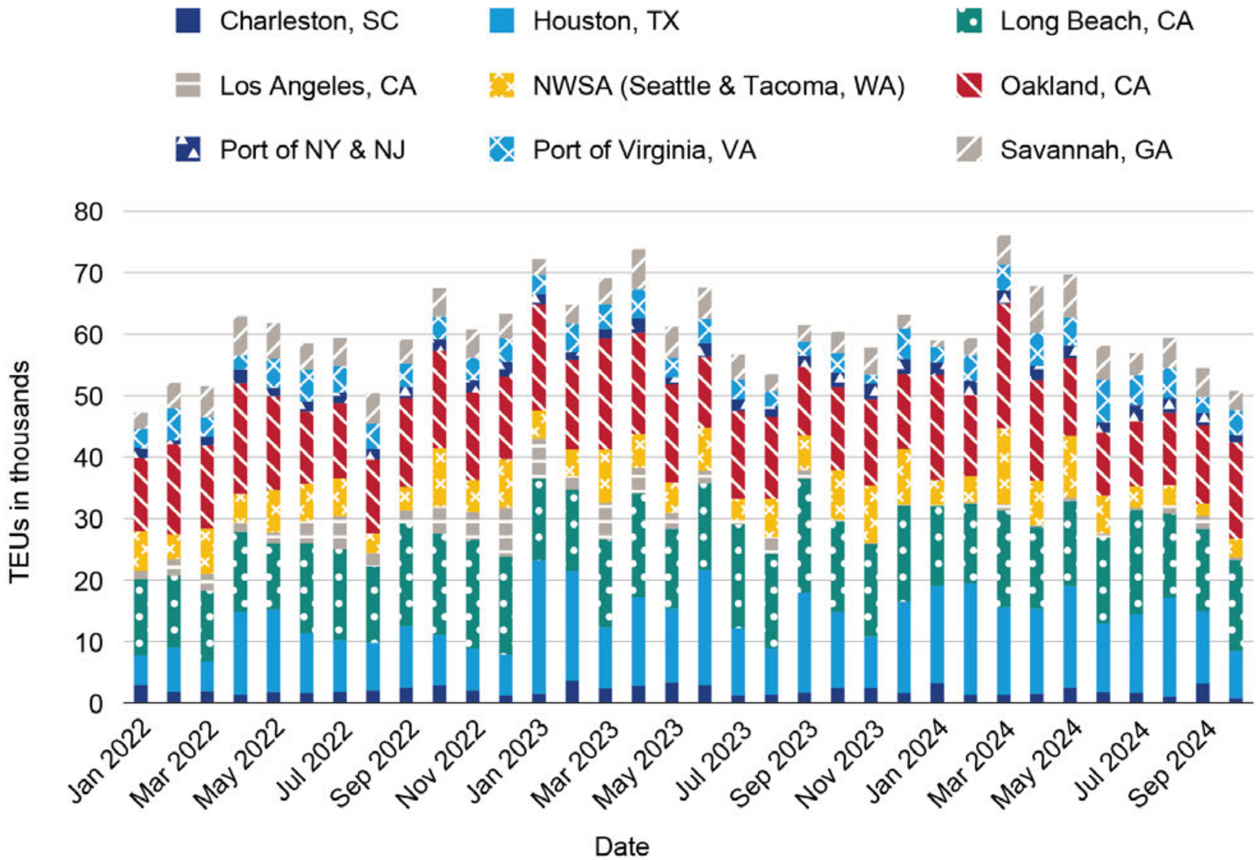
Source: U.S. Census Bureau. 2024. USA Trade Online. October. Accessed December 15, 2024. http://usatrade.census.gov/.

2.3.2. Empty Containers Throughput

Many port authorities publish monthly TEU statistics. Although not considered a nationally consistent data source, the statistics include the number of empty imports and exports TEUs. The ports featured in this analysis were selected because they routinely and consistently provide TEU statistics monthly, with just a 1- or 2-mo delay. In addition, they represent the top 10 ports (as Seattle and Tacoma are considered two separate ports in the rankings), in terms of loaded TEUs, and handle 79 percent of total TEU throughput at U.S. ports.

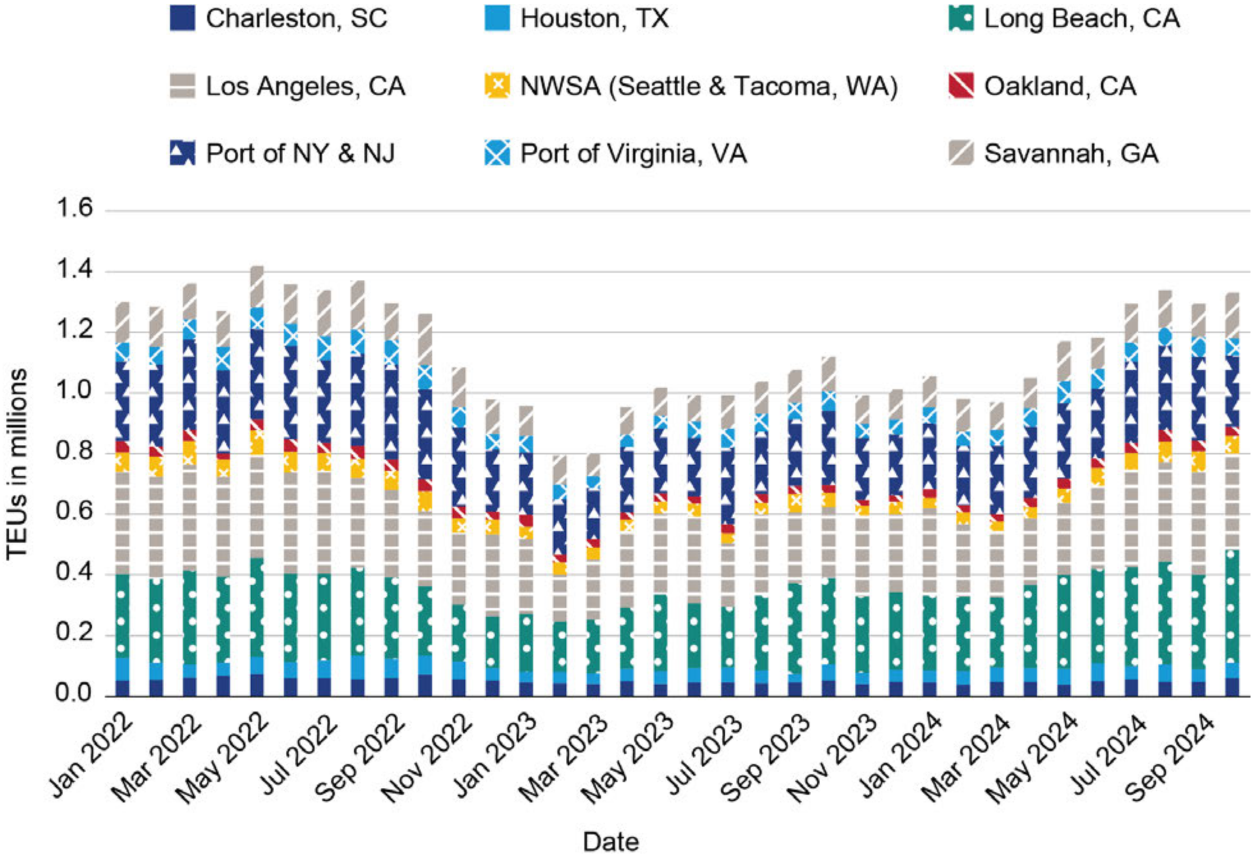
Empty TEUs are transported for repositioning. Empty imports number in the thousands, as shown in Figure 10, while empty exports number in the millions, as shown in Figure 11, which may reflect a trade imbalance at U.S. ports. The Ports of Oakland, Houston, and Long Beach import the most empties, while Los Angeles, New York and New Jersey, and Charleston import the fewest empties. In contrast, the Ports of Long Beach, Los Angeles, and New York and New Jersey export the most empties.

Figure 10. TEU Empty Imports by Select Ports, January 2022–October 2024



Source: U.S. Department of Transportation, Bureau of Transportation Statistics analysis; based upon TEU volumes at the ports of Charleston, SC, http://scspa.com/; Houston, https://porthouston.com/; Long Beach, https://www.polb.com/; Los Angeles, https://www.portoflosangeles.org/; Northwest Seaport Alliance (Seattle / Tacoma), https://www.nwseaportalliance.com/; Oakland, https://www.oaklandseaport.com/; New York/New Jersey, https://www.panynj.gov/; Port of Virginia, http://www.portofvirginia.com/; and Savannah, https://gaports.com/; as of December 2024.

Figure 11. TEU Empty Exports by Select Ports, January 2022–October 2024



Source: U.S. Department of Transportation, Bureau of Transportation Statistics analysis; based upon TEU volumes at the ports of Charleston, SC, http://scspa.com/; Houston, https://porthouston.com/; Long Beach, https://www.polb.com/; Los Angeles, https://www.portoflosangeles.org/; Northwest Seaport Alliance (Seattle / Tacoma), https://www.nwseaportalliance.com/; Oakland, https://www.oaklandseaport.com/; New York/New Jersey, https://www.panynj.gov/; Port of Virginia, http://www.portofvirginia.com/; and Savannah, https://gaports.com/; as of December 2024.

2.4. SUMMARY OF THE TOP 25 PORTS

Table 5 combines the top 25 ports for each category (total tonnage, dry bulk tonnage, and TEUs) into a single list. Many ports rank in the top 25 in more than one category. A total of 39 ports were identified within the 3 lists. Six ports (Baltimore, Houston, Mobile, New Orleans, Long Beach, and Virginia) are in the top 25 for all 3 cargo categories.

Table 5. Major Ports That Comprise the Top 25 Ports by Tonnage, Dry Bulk, or TEU, 2022

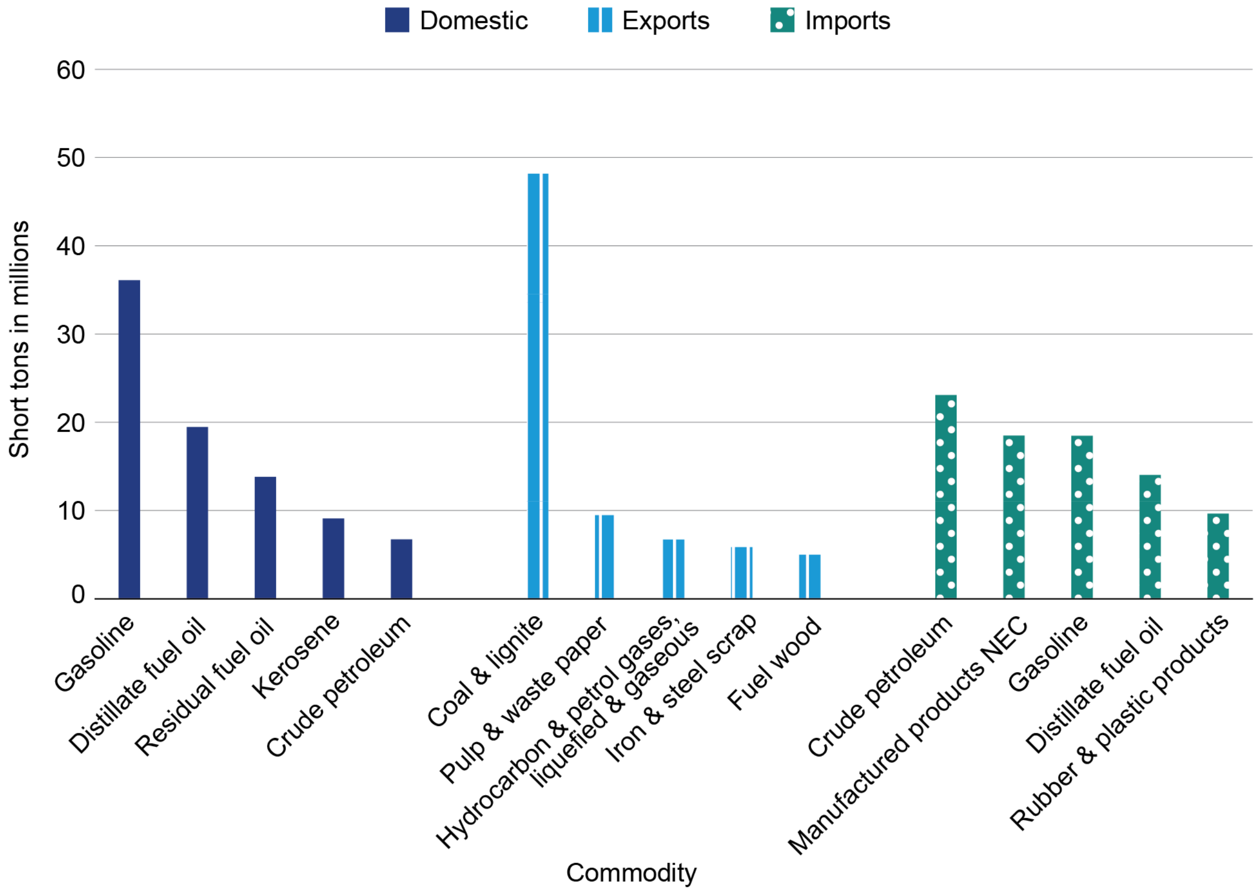
Port	Total tonnage rank	Dry bulk rank	TEU rank
Baltimore, MD	**16**	**9**	**15**
Beaumont, TX	**7**	74	100
Cleveland-Cuyahoga Port, OH	49	**25**	51
Corpus Christi, TX	**3**	**19**	81
Duluth-Superior, MN and WI	**20**	**7**	73
Honolulu, O'ahu, HI	37	**21**	**14**
Houston Port Authority, TX	**1**	**8**	**5**
Jacksonville, FL	34	50	**11**
Lake Charles Harbor District, LA	**10**	48	102
Mobile, AL	**14**	**6**	**18**
New Orleans, LA	**6**	**2**	**20**
New York, NY & NJ	**4**	26	**1**
Northern Indiana District, IN	**25**	**10**	n/a
Oxnard Harbor District, CA	91	234	**23**
Philadelphia Regional Port, PA	**18**	44	**17**
Plaquemines Port District, LA	**12**	**3**	95
Port Arthur, TX	**15**	32	92
Port Everglades, FL	**24**	90	**16**
Port Freeport, TX	**19**	129	39
Port of Alaska, AK	93	191	**19**
Port of Charleston, SC	**23**	59	**7**
Port of Greater Baton Rouge, LA	**8**	**5**	78
Port of Gulfport, MS	118	145	**25**
Port of Long Beach, CA	**5**	**17**	**3**
Port of Los Angeles, CA	**11**	72	**2**
Port of Oakland, CA	33	124	**8**
Port of Savannah, GA	**13**	35	**4**
Port Miami, FL	52	240	**12**
San Juan, PR	42	107	**13**
Seattle, WA	32	**23**	**10**
South Jersey Port Corp, NJ	30	54	**24**
South Louisiana, LA, Port of	**2**	**1**	69
Southern Indiana District, IN	**22**	**11**	n/a
Tacoma, WA	31	34	**9**
Tampa Port Authority, FL	**21**	**24**	31
Texas City, TX	**17**	78	70
Virginia, VA, Port of	**9**	**4**	**6**
Wilmington, DE	54	98	**22**
Wilmington, NC	62	65	**21**

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon 2022 data (latest available) provided by U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center. Special tabulation as of July 2024.
Note: The top 25 rankings for each category are bold.
n/a = not applicable.

2.5. TOP COMMODITIES BY WEIGHT THROUGHPUT

Top commodities differ by coast and traffic direction. For East Coast ports (Figure 12), the top domestic commodity is gasoline, while the top export is coal and lignite, and the top import is crude petroleum (which is used to make gasoline).

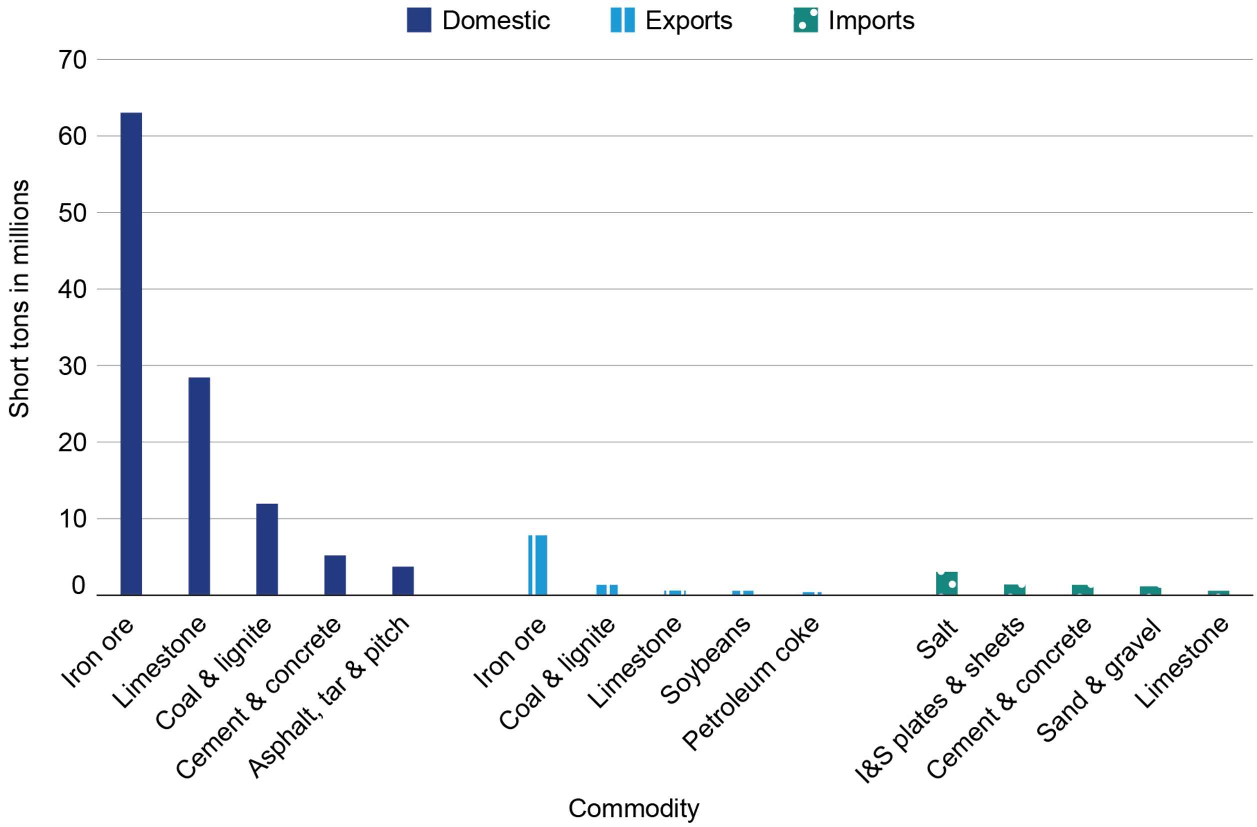
Figure 12. Top Five Commodities for East Coast Ports by Traffic Direction, 2022



Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center data as of September 2024.

The Great Lakes ports mainly have domestic movements; the top is iron ore and the second is limestone (Figure 13).

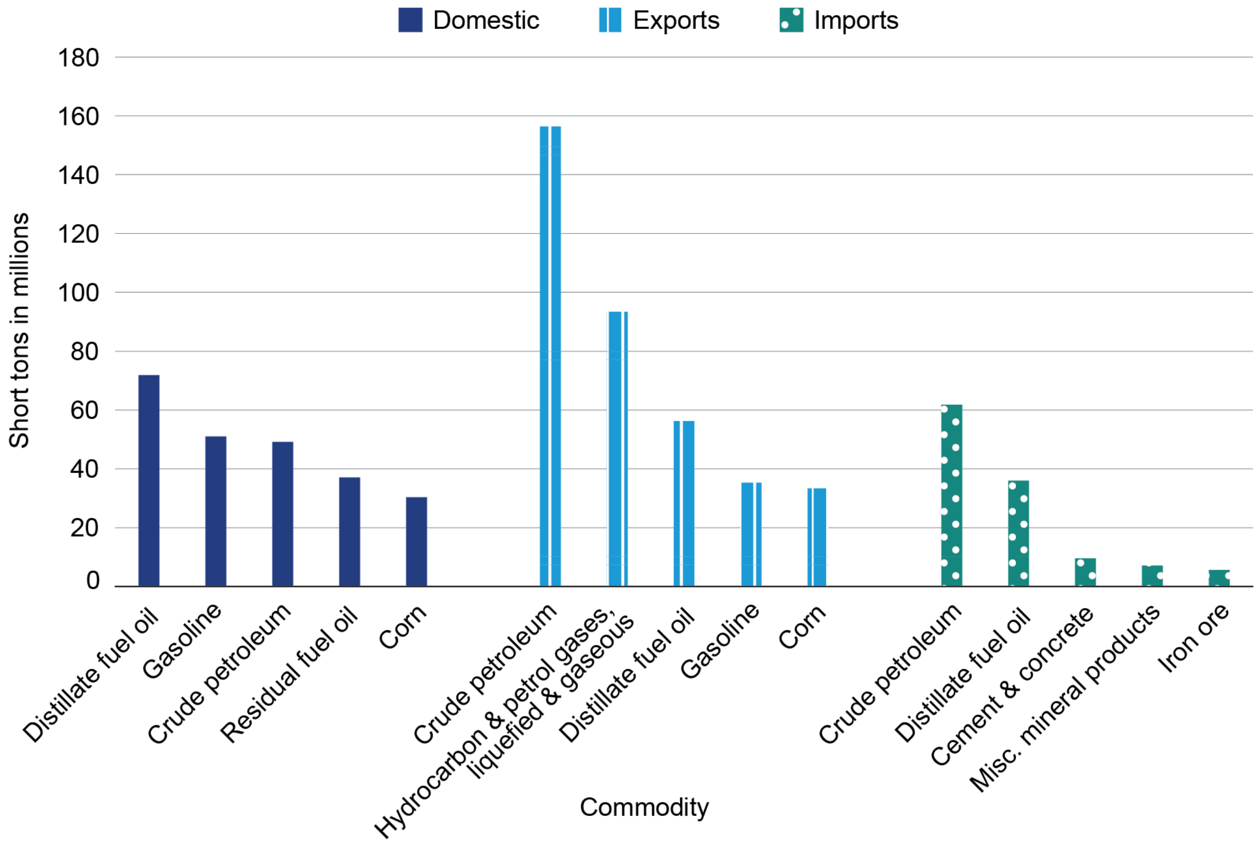
Figure 13. Top Five Commodities for Great Lakes Ports by Traffic Direction, 2022



Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center data as of September 2024.

For the Gulf Coast ports, crude petroleum is the top import and export (Figure 14). These ports also move a lot of distillate oil, which is the top domestic commodity, third highest export, and second highest import.

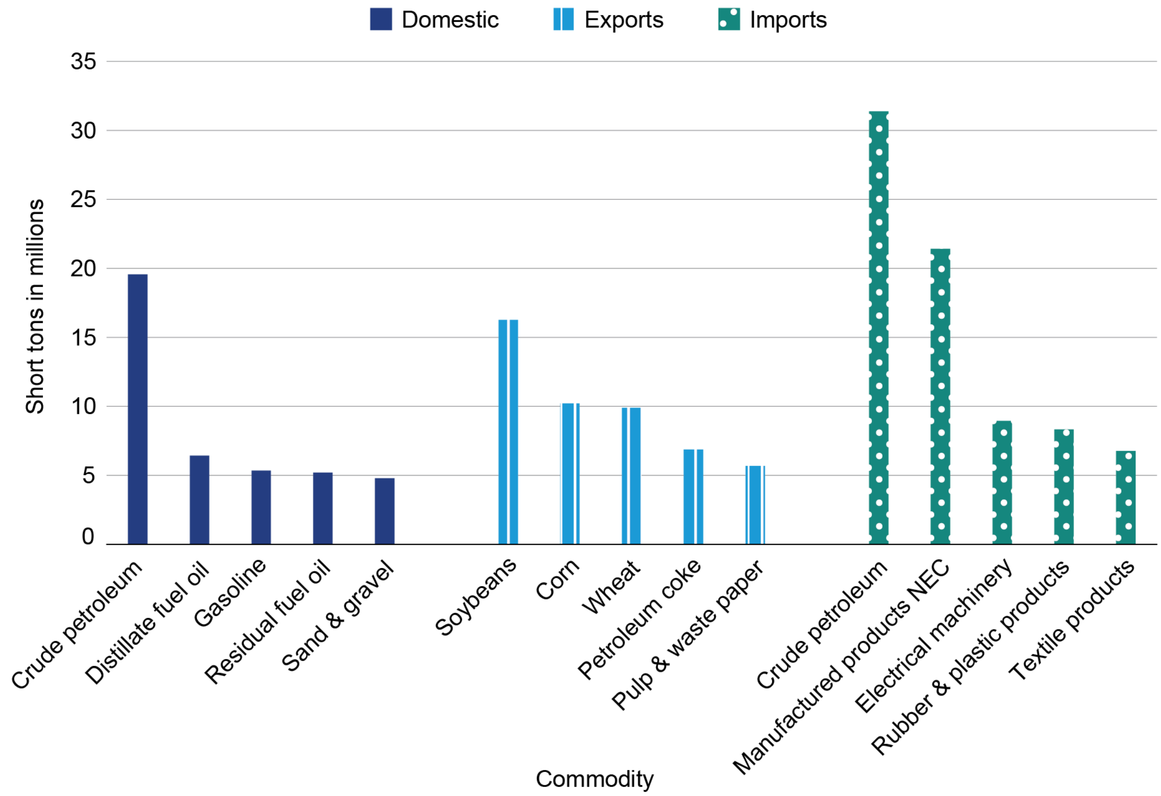
Figure 14. Top Five Commodities for Gulf Coast Ports by Traffic Direction, 2022



Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center data as of September 2024.

While crude petroleum is the largest domestic and import commodity for the West Coast ports, soybeans, corn, and wheat are the top three exports (Figure 15). However, the Gulf Coast ports are the largest exporters of these three agricultural products.

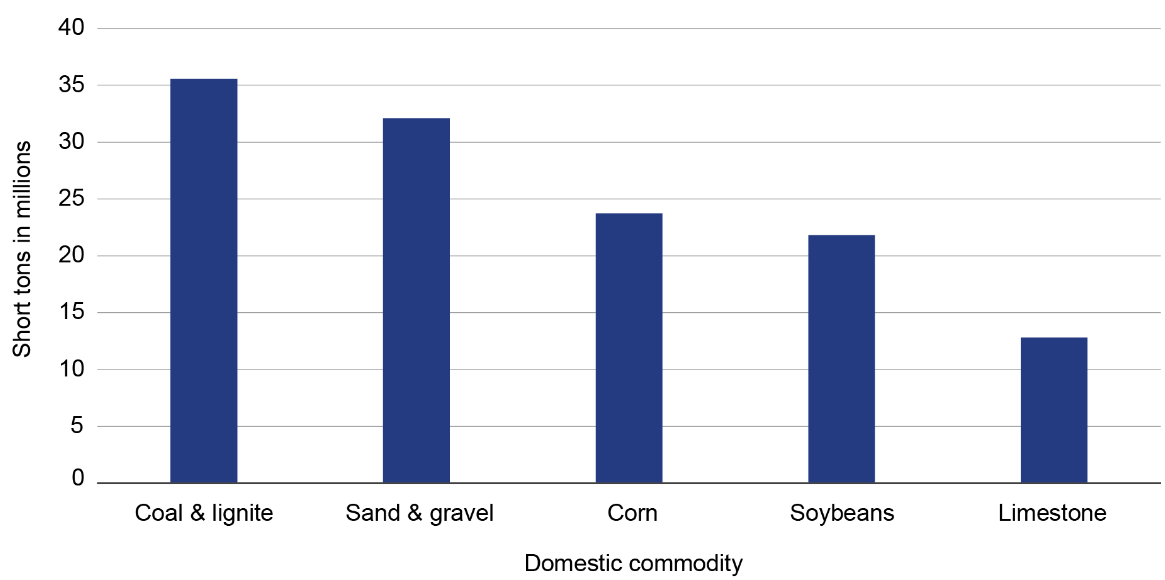
Figure 15. Top Five Commodities for West Coast Ports by Traffic Direction, 2022



Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center data as of September 2024.

The Inland ports primarily move domestic goods, with the top being coal and lignite and the second being sand and gravel (Figure 16).

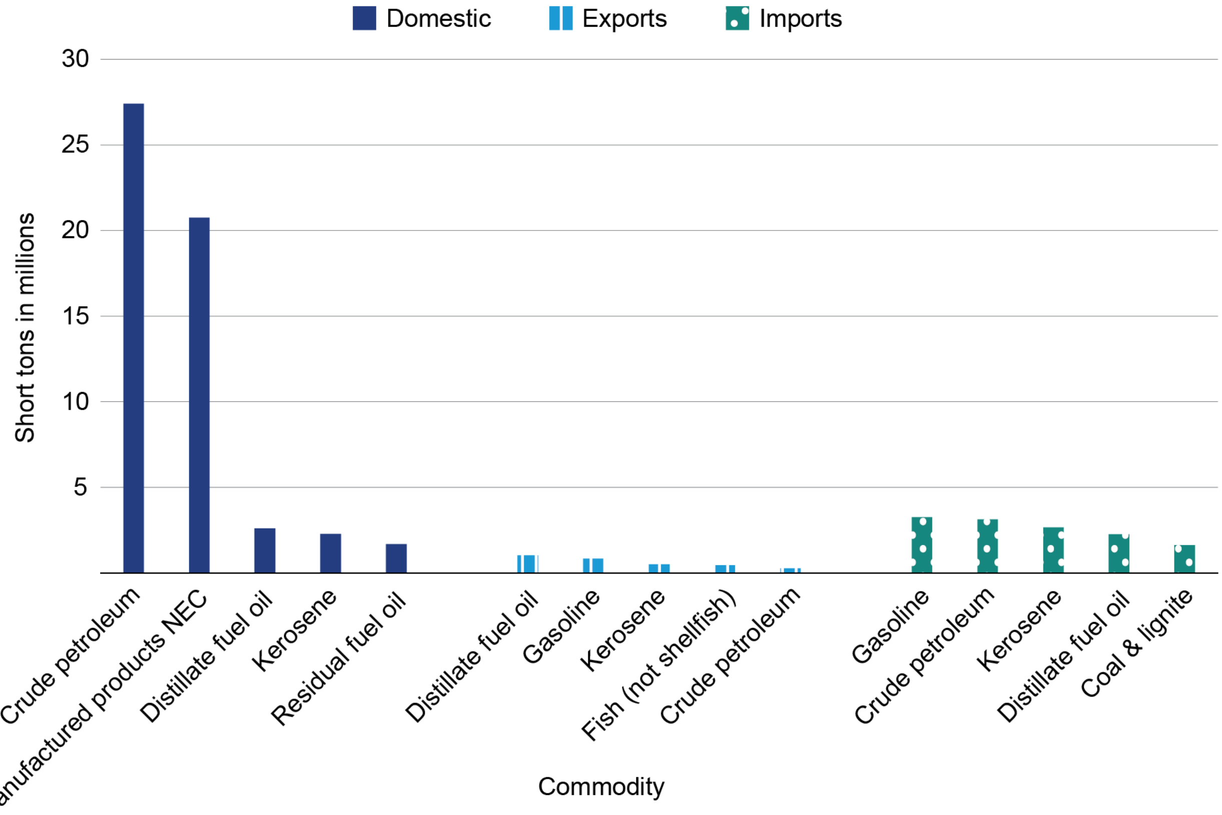
Figure 16. Top Five Commodities for Inland Ports by Traffic Direction, 2022



Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center data as of September 2024.

Ports outside the continental United States (OCONUS), such as those in Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands, have mostly domestic movement of crude petroleum and manufactured products (Figure 17).

Figure 17. Top Five Commodities for Ports OCONUS by Traffic Direction, 2022



Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center data as of September 2024.

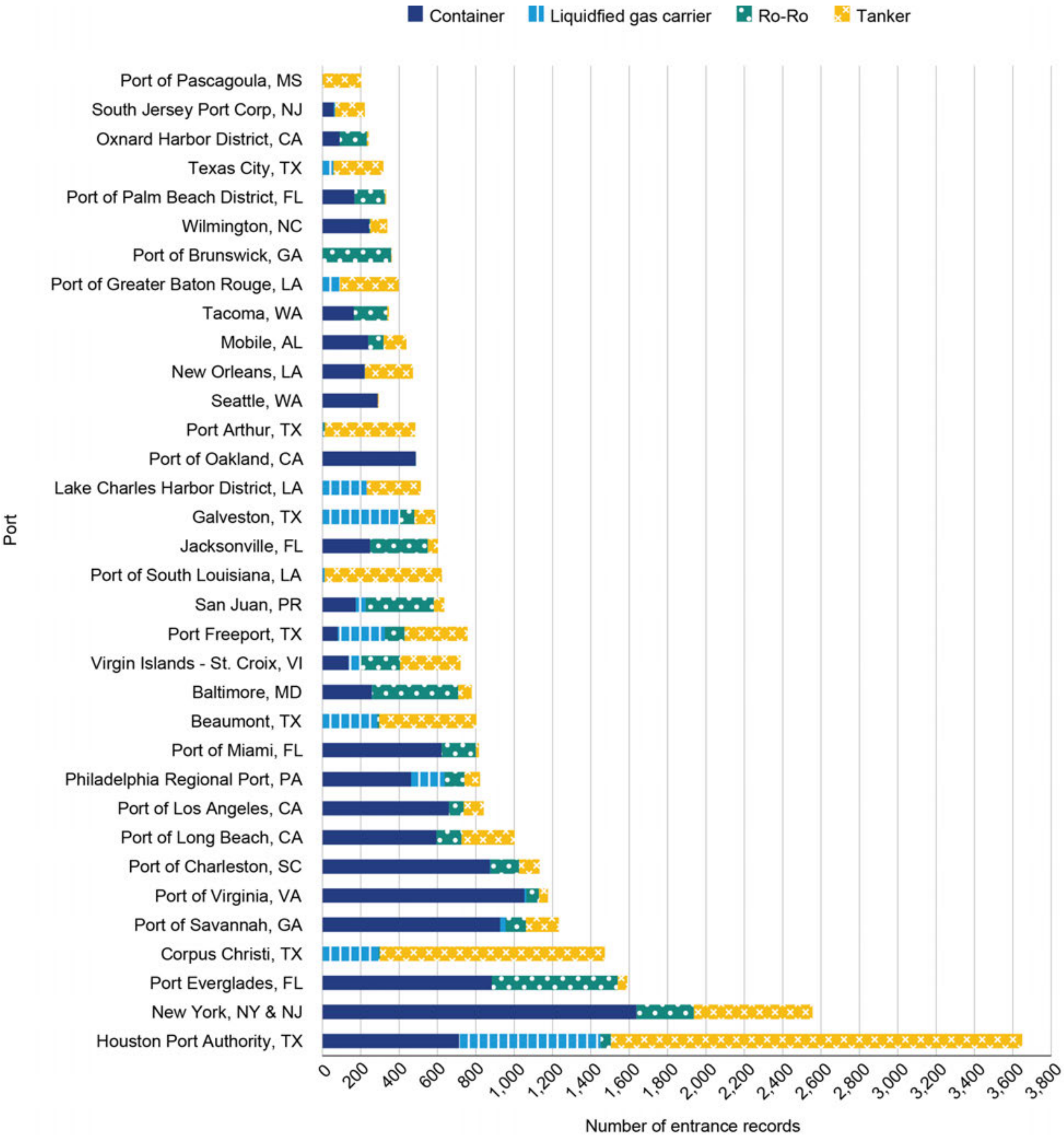
2.6. NUMBER OF VESSEL CALLS

Another throughput measure is the number of vessel calls for a port. The number of vessel calls reflects the usage of the port and, thus, its throughput. U.S. Customs collects detailed data on vessel calls including, but not limited to, the date a vessel called or cleared a port, vessel name, vessel type by International Classification of Ships by Type (ICST), vessel's last or next port of call, vessel's net and gross registered tonnage, and draft [U.S. Army Corps of Engineers Institute for Water Resources 2024b]. Domestic calls are excluded from Customs records. The analysis presented in this report aggregated the vessel types into the following categories:

1. Liquefied gas carrier includes liquefied natural gas, liquefied petroleum gas, and other liquefied gas carriers.
2. Roll-on/roll-off (ro-ro) includes other ro-ro cargo and ro-ro containers.
3. Tankers include chemicals, crude oil, oil products, and other tanker nei.
4. Container includes container only.

In 2022, Houston Port Authority had the greatest number of vessel calls, with over 2,100 tankers and 738 liquefied gas carriers, the most for each category. It also had container and ro-ro vessel calls. New York had the highest number of containership calls. Of note, New York has 2.5 times the number of containership calls than the Port of Long Beach, but it only has 2 percent more import TEUs. The port with the greatest number of ro-ro calls is Port Everglades. Its biggest import commodity, by short tons, is cement and concrete. Figure 18 visualizes vessel calls by type and port in 2022.

Figure 18. Vessel Calls by Vessel Type and Port, 2022 (Excludes Domestic)



Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center data as of September 2024.

2.7. VESSEL TIME AT BERTH

The time vessels spend in port is a major factor contributing to port performance. Vessel time at berth is the time between arrival at and departure from a berthing area. Ocean carriers and terminal operators focus on minimizing berth times due to the associated costs while in port. Longer berthing times lengthen schedules and increase costs, which are ultimately reflected in shipping rates.

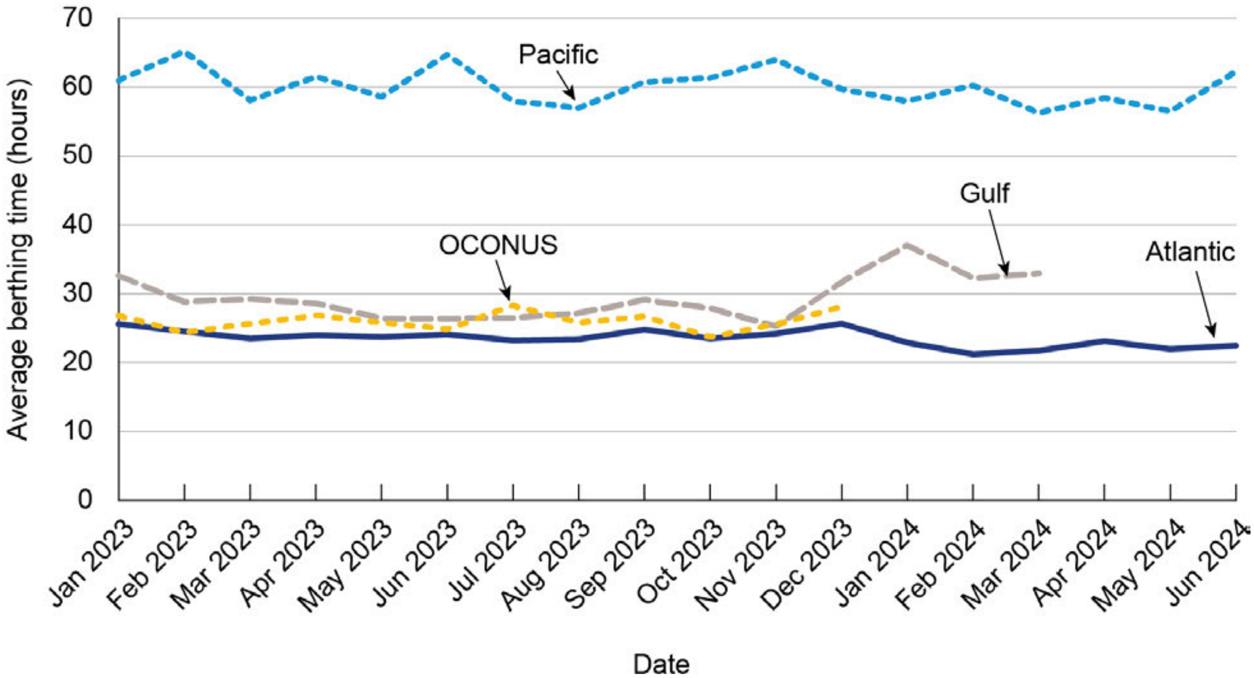
Time spent at birth is calculated from Automatic Identification System (AIS) data for ship types including container, ro-ro, and liquid bulk (tanker) vessels. Additional information on the methodology can be found at https://www.bts.gov/PPFS-Tech-Docs. AIS data do not provide information on the amount of cargo unloaded or loaded.

AIS signals are susceptible to interference and can result in missing or incomplete dwell time records. This issue may impact the reliability of estimated dwell times. However, in collaboration with USACE, BTS takes numerous data quality steps each year, including verifying port terminal boundaries, to account for expansion or reconfiguration and changes in vessel activity, such as bunkering, at each port terminal. Vessel time at berth records that were less than 4 hr or more than 168 hr were excluded as they were deemed by port consultants to be too short and too long, respectively, to represent an event that included loading and/or unloading cargo.

2.7.1. Containership Time at Berth

Containership time at berth was calculated, by coast, considering the top 25 ports in 2022 by TEUs. As shown in Figure 19, the average monthly time at berth was highest at West Coast ports and lowest at East Coast ports. In June 2024, the month with the latest available data, the West Coast ports' average berthing time was almost triple that of the East Coast ports.

Figure 19. Average Containership Time at Berth by Coast and Month, January 2023–June 2024, Considering the Top 25 Containership Ports

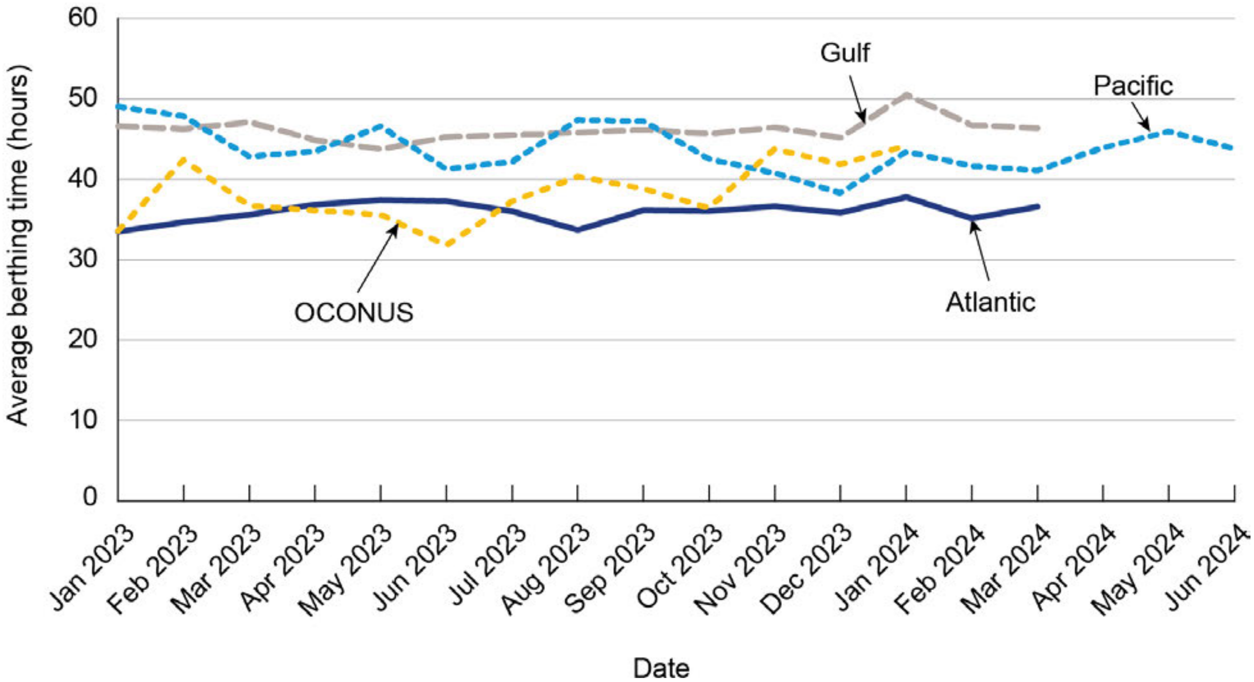


Source: U.S. Department of Transportation, Bureau of Transportation Statistics, calculated using AIS data from the U.S. Coast Guard's Nationwide Automatic Identification System (NAIS) archive and the National Oceanic and Atmospheric Administration's Marine Cadastre website. All data processed and analyzed by U.S. Army Engineer Research and Development Center, Coastal and Hydraulics Laboratory, through the NavPortal software package, as of December 2024.

2.7.2. Tanker Time at Berth

Tanker time at berth was calculated, by coast, considering the top 25 ports in 2022 by total tonnage (Figure 20). Gulf and West Coast ports had the highest average berthing times through September 2023. West Coast port average dwell time then decreased starting in October 2023.

Figure 20. Average Tanker Time at Berth by Coast and by Month, January 2023–June 2024, Considering the Top 25 Tanker Ports

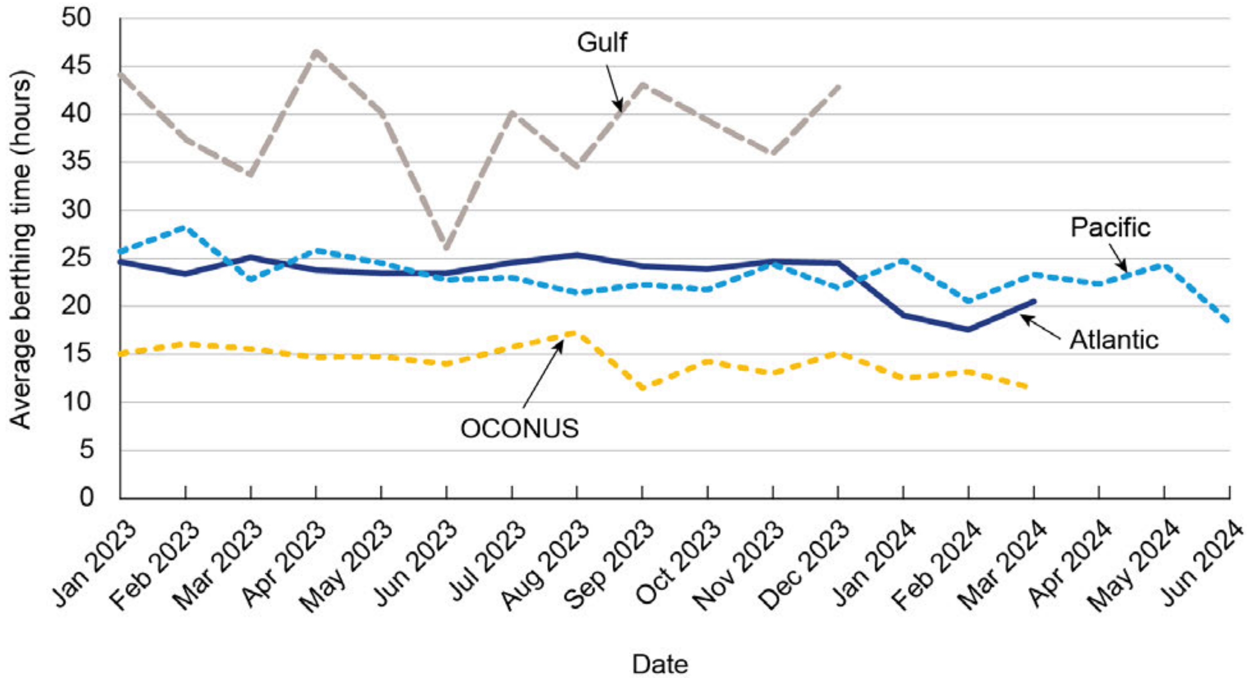


Source: U.S. Department of Transportation, Bureau of Transportation Statistics, calculated using AIS data from the U.S. Coast Guard's Nationwide Automatic Identification System (NAIS) archive and the National Oceanic and Atmospheric Administration's Marine Cadastre website. All data processed and analyzed by the U.S. Army Engineer Research and Development Center, Coastal and Hydraulics Laboratory, through the NavPortal software package, as of December 2024.

2.7.3. Average Roll-on/Roll-off Time at Berth

Ro-ro times at berth were calculated, by coast, considering the top 25 ports in 2022 by TEUs (Figure 21). The average monthly time at berth was highest at the Gulf Coast ports and varied from a low of 26 hr in June 2023 to a high of 47 hr in April 2023. Monthly average ro-ro times at Atlantic and Pacific Coast ports were similar.

Figure 21. Ro-Ro Time at Berth by Coast and by Month, January 2023–June 2024, Considering the Top 25 Tanker Ports



Source: U.S. Department of Transportation, Bureau of Transportation Statistics, calculated using AIS data from the U.S. Coast Guard's Nationwide Automatic Identification System (NAIS) archive and the National Oceanic and Atmospheric Administration's Marine Cadastre website. All data processed and analyzed by U.S. Army Engineer Research and Development Center, Coastal and Hydraulics Laboratory, through the NavPortal software package, as of December 2024.

Chapter 3. Port Performance Measures of Capacity and Contributing Factors

Measuring port capacity is complex. In principle, each terminal in a port has a physical limit to the throughput that can be either landside, waterside, or both. Instead of quantifying each port's capacity, this report uses factors that limit port capacity [Wakeman 2012]. Six such elements are used in this report, as described in Table 6.

Table 6. Port Capacity Measures

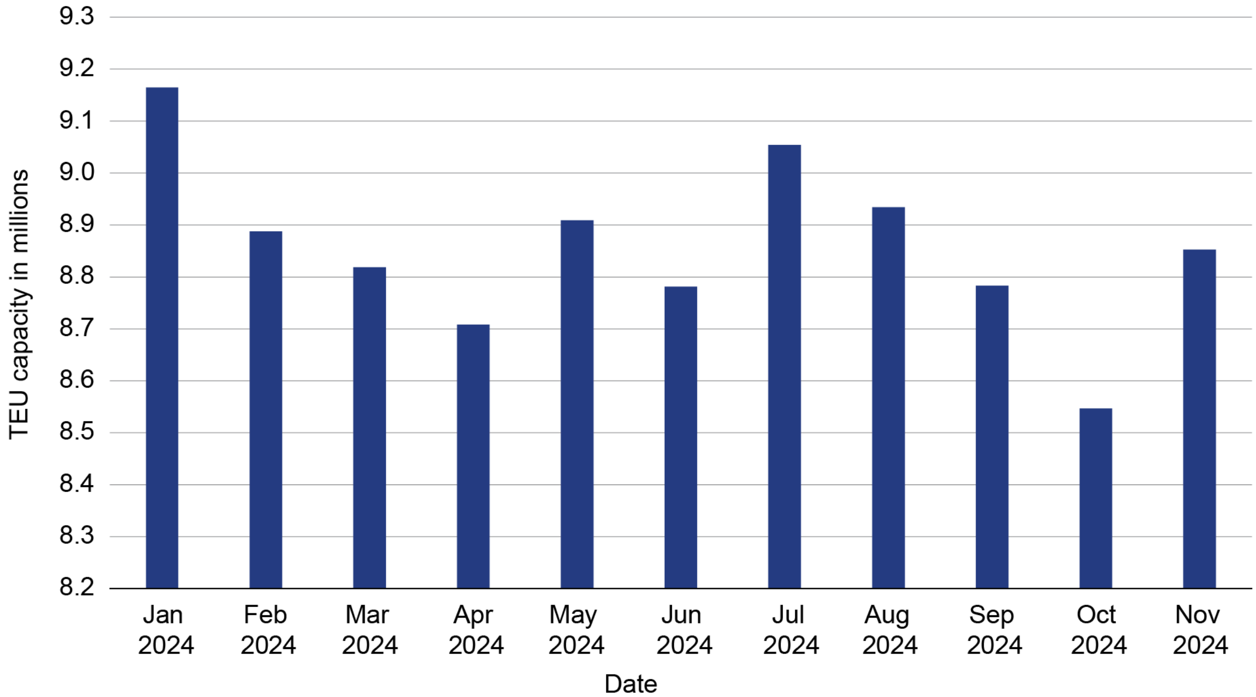
Element/metric	Period	Most recent data	Unit	Description	Source
Containership capacity	Monthly	2024	TEUs	Capacity of containerships calling at U.S. ports	USDOT MARAD
Containerships at anchorage	Weekly	2024	Vessels	Number of containerships waiting at anchorage to call at ports	USDOT MARAD
Bridge air draft restrictions	n/a	2024	Feet	Distance between the mean low-level water line and the lowest point of a bridge or other structure over a shipping channel	USACE WCSC
Main shipping channel depth	n/a	2024	Feet	Vertical distance from the water surface to the bottom of a channel (channel depths may constrain port capacity, especially at coastal ports that serve the largest vessels)	Port Authority public websites
Number and type of container cranes	n/a	2024	Number of container cranes	Number of dedicated container cranes capable of serving Panamax, Post-Panamax, and SPP vessels	Port Authority public websites
Number of terminals with rail transfer facilities	n/a	2024	Number of terminals	Number of terminals at a port with on-dock rail transfer facilities	Port Authority public websites

MARAD = Maritime Administration; n/a = not applicable; SPP = Super Post-Panamax.

3.1. CONTAINERSHIP CAPACITY

Containership capacity is measured in TEUs. Containership capacity does not include storage space, chassis availability, or other landside limitations on the maximum TEUs that a port can handle. It does not necessarily equal the TEUs being unloaded or loaded at that port. Containership capacity can represent a supply chain challenge as it is a limiting factor for the number of TEUs a port can import or export via containerships. Figure 22 shows the monthly containership capacity for all U.S. ports. October had the lowest containership capacity of 2024; during that month, there was a labor stoppage at East and Gulf Coast container terminals [International Longshoremen's Association, CLC 2024].

Figure 22. Total Monthly Containership Capacity Serving U.S. Ports, January 2024–November 2024

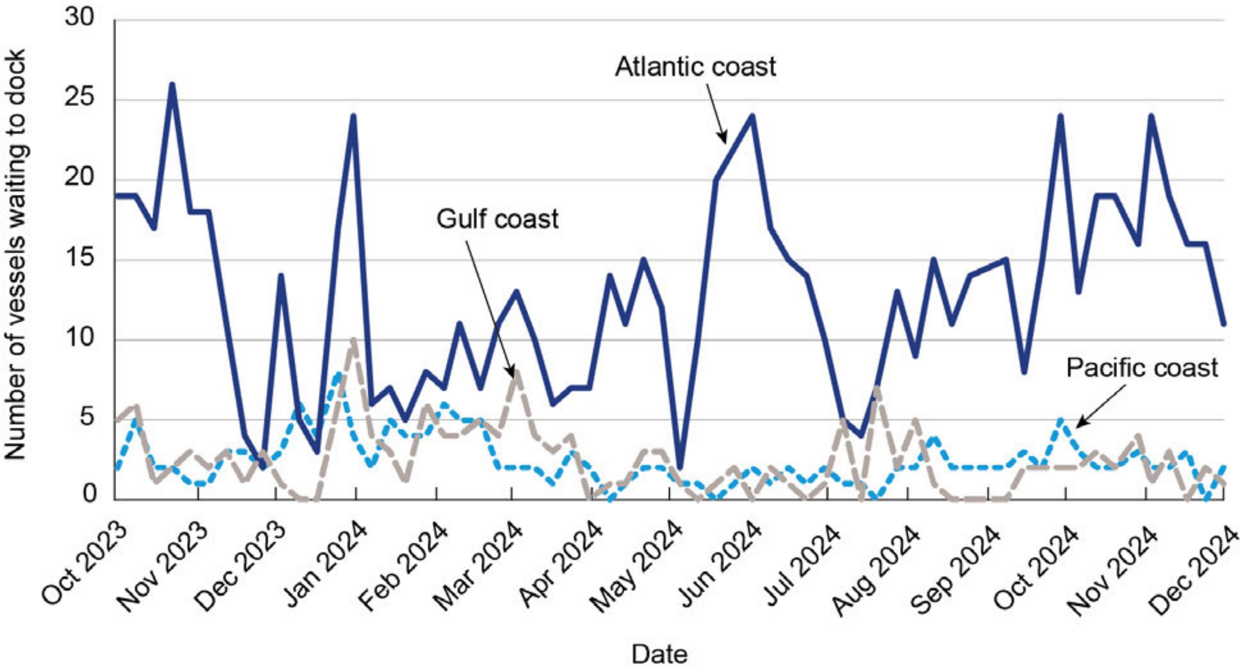


Source: U.S. Department of Transportation, Maritime Administration, Office of Policy & Plans analysis of data from U.S. Customs & Border Protection, Vessel Entrance and Clearance System, and Lloyd's Register of Ships (S&P Global), available at Latest Supply Chain Indicators (bts.gov) as of December 2024.

3.2. CONTAINERSHIPS AT ANCHORAGE

Containerships wait at anchorage for a berth to become available. In 2024, East Coast ports had the greatest number of containerships waiting to enter (Figure 23). A peak was reached on January 2, 2024, driven by the Port of Savannah with 10 ships waiting. The port had a scheduled closure the previous day to celebrate New Year's Day. The number of vessels waiting was also high through May 2024, and the Port of Charleston was driving this circumstance. The port had an unscheduled closure on May 20–21, 2024, due to a software malfunction. In addition, it had an ongoing project that closed a large-capacity vessel berth and a hazardous material spill that closed a larger vessel berth for 3 days [Ocean Network Express 2024].

Figure 23. Weekly Number of Containerships Awaiting to Dock at All U.S. Ports by Coast, October 3, 2023–December 3, 2024



Source: U.S. Department of Transportation, Maritime Administration, Office of Policy & Plans analysis of AIS data from S&P Global as of December 2024.

The impact of the International Longshoremen's Association strike at East and Gulf Coast ports on October 1–3, 2024, can be seen at both the East and West Coast ports.

3.3. BRIDGE AIR DRAFT RESTRICTIONS

Vessels may need to transit under bridges to reach terminals at a port. The air draft restrictions for the bridges can limit vessel size and, thus, affect port capacity. To accommodate larger vessels, ports may raise or eliminate bridges. Most recently, the Eugene Talmadge Memorial Bridge, which ships must transit under to access the Port of Savannah, will be raised to 205 ft of clearance, from its current 185 ft, to accommodate growing classes of cargo ships. Maintenance and construction will begin in the first quarter of 2025 [Associated Press 2024]. In Baltimore, the Francis Scott Key Bridge is being rebuilt with an opening date targeted for Fall 2028 [Maryland Transportation Authority 2024a]. The Maryland Transportation Authority is working with the U.S. Coast Guard to determine the minimum height for the new bridge [Maryland Transportation Authority 2024b]. Its previous vertical clearance was 205 ft.

3.4. CHANNEL DEPTHS

Channel depths can limit the size of vessels able to call at a port and, thus, limit port capacity. Coastal ports have deeper channels (42-ft average) than ports along the Great Lakes (28-ft average) or the inland waterway system (9-ft average). West Coast ports with natural harbors, such as the Ports of Long Beach and Los Angeles, have the deepest channels. The Mississippi River Ports of Cincinnati-Northern Kentucky, Huntington, Pittsburgh, and St. Louis have the shallowest channels. Even if a port's minimum channel depth allows for mega-ships, individual marine terminals within the port vicinity may not have the required depth to handle them [U.S. Department of Transportation, Bureau of Transportation Statistics 2022].

Additional information on the air draft and channel depths for individual ports and marine terminals can be found at https://www.bts.gov/ports.

3.5. CONTAINER CRANES

Container cranes are a critical link between the waterside and landside, including truck and rail connections and container yards used for short-term storage. Cranes move containers to and from the ship and shore. The number and size of cranes affect the number and size of container vessels a terminal can service simultaneously and, thus, is a proxy for port capacity. The top 25 container ports operated 570 ship-to-shore gantry cranes in 2024. As shown in Table 7, the number of cranes by port varies widely.

Of ship-to-shore gantry cranes, 248 are classified as super post-Panamax (SPP), which are the most capable. Other marine terminals at ports may use mobile harbor cranes, or container vessels may be equipped with ship gear to unload or load cargo or transport containers onto trailers.[3]

[3] U.S. Department of Transportation, Bureau of Transportation Statistics and Maritime Administration analysis, based upon individual port authority and marine terminal operator websites, including links to terminal-specific websites as of July 2022.

Table 7. Number of Container Cranes by Top 25 Container Ports, as of December 2024

Port	Number of SPP ship-to-shore cranes	Number of other ship-to-shore cranes	Total
Baltimore, MD	8	8	16
Honolulu, O'ahu, HI	0	3	3
Jacksonville, FL	6	16	22
Mobile, AL	6	0	6
Oxnard Harbor District, CA	0	5	5
Philadelphia Regional Port Authority, PA	5	2	7
Port Authority of New York and New Jersey, NY & NJ	25	48	73
Port Everglades, FL	6	9	15
Port of Alaska, AK	0	3	3
Port of Charleston, SC	22	3	25
Port of Gulfport, MS	0	3	3
Port of Houston Authority of Harris County, TX	25	10	35
Port of Long Beach, CA	0	76	76
Port of Los Angeles, CA	16	63	79
Port of New Orleans, LA	4	5	9
Port of Oakland, CA	16	17	33
Port of Savannah, GA	34	0	34
Port of Seattle, WA	19	3	22
Port of Virginia, VA	31	0	31
Port Miami, FL	6	7	13
San Juan, PR	0	11	11
South Jersey Port Corporation, NJ	0	2	2
Tacoma, WA	19	16	35
Wilmington, DE	0	5	5
Wilmington, NC	0	7	7

Source: U.S. Department of Transportation, Bureau of Transportation Statistics and Maritime Administration analysis, based upon individual port authority and marine terminal operator websites, including links to terminal-specific websites as of November 2023. Additionally, data were verified via interviews and correspondence with key port staff in November 2023.
Note: Based upon active marine terminals handling containerships at each container port. A container crane is defined as a ship-to-shore crane mounted on a gantry (a frame or structure spanning an intervening space, most often a workspace used to stack intermodal shipping containers on truck chassis and mounted on road or rail wheels). SPP is a class of cranes that can fully unload intermodal shipping containers from the largest containerships, approximately 16 containers or greater in width. Other cranes include lesser cranes.

3.6. RAIL TRANSFER FACILITIES

Nearly all major U.S. ports have National Highway System (NHS) connectors,[4] the public roads that lead to major marine terminals, as well as on-dock or nearby intermodal container transfer facility (ICTF) rail connections. Both these road connecters and rail connections affect capacity as they enable cargo to be moved to and away from the port. Ports are served by 322 NHS connectors that range in length from a few hundred yards to 27 mi in the case of Port Mikiski—Kenai in Alaska [U.S. Department of Transportation, Federal Highway Administration 2022]. Of the top 25 container ports, 17 percent have on-dock rail. On-dock rail eliminates the need for drayage trucks to ferry shipping containers to and from the marine terminal and ICTFs, which in

[4] Highway intermodal connectors are roads that provide the last-mile connection between major rail, port, airport, and intermodal freight facilities on the National Highway System (NHS). For additional information, please visit Freight Intermodal Connectors Study (dot.gov).

turn, reduces port congestion and improves efficiency. Other container terminals are located near off-dock facilities. As shown in Table 8, the number of marine terminals handling containerships with on-dock rail by port varies widely.

Table 8. Number of Terminals With On-dock Rail Access by Top 25 Container Port, December 2024

Port	Container terminals	Container terminals with on-dock rail facilities
Baltimore, MD	2	1
Honolulu, O'ahu, HI	1	0
Jacksonville, FL	3	2
Mobile, AL	1	1
Oxnard Harbor District, CA	1	0
Philadelphia Regional Port Authority, PA	2	1
Port Authority of New York and New Jersey, NY & NJ	6	4
Port Everglades, FL	2	0
Port of Alaska, AK	1	0
Port of Charleston, SC	3	0
Port of Gulfport, MS	1	1
Port of Houston Authority of Harris County, TX	2	1
Port of Long Beach, CA	6	5
Port of Los Angeles, CA	7	5
Port of New Orleans, LA	1	1
Port of Oakland, CA	6	0
Port of Savannah, GA	2	2
Port of Seattle, WA	3	2
Port of Virginia, VA	2	2
Port Miami, FL	3	1
San Juan, PR	2	0
South Jersey Port Corporation, NJ	1	1
Tacoma, WA	6	4
Wilmington, DE	1	0
Wilmington, NC	1	1

Source: U.S. Department of Transportation, Bureau of Transportation Statistics and Maritime Administration analysis, based upon individual port authority and marine terminal operator websites, including links to terminal-specific websites as of November 2023.
Note: Based upon active marine terminals handling containerships at each port. A rail ICTF within marine terminal boundaries, or accessible without movement over public roads. The presence of an on-dock rail transfer facility allows terminal workers to load containers onto rail cars within the terminal, thereby avoiding the need to transport containers through the terminal gates on the chassis.

Chapter 4. Emerging Topics in Waterborne Transportation

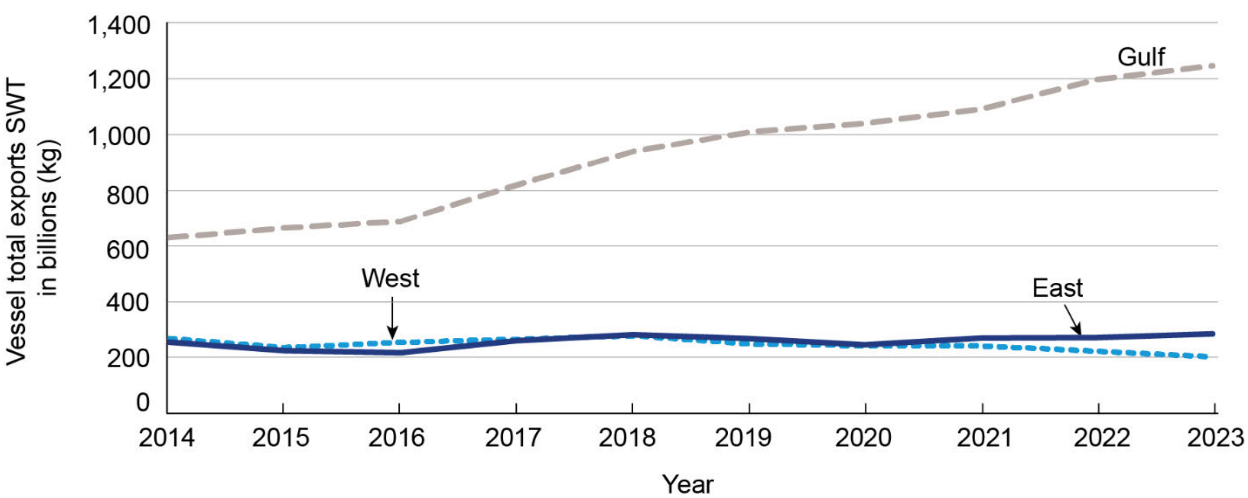
4.1. THROUGHPUT SHIFTS BETWEEN EAST, GULF, AND WEST COAST PORTS FROM 2019 TO 2023

Throughput at ports, a measure of port performance, has changed over the years. Shifts between the coasts are important to understand as they affect the performance.

Total exports from U.S. ports have grown steadily since 2014, from 1.160 to 1.741 billion tons in 2023, a 50.1 percent increase. However, the growth in exports is mainly from Gulf Coast ports, with a 97.5 percent increase from 2014 to 2023 compared to only an 11.6 percent increase from East Coast ports and a decrease of 24.3 percent from West Coast ports. The massive export growth from the Gulf Coast ports is mainly driven by crude oil and petroleum gases. On the other hand, containerized exports from U.S. ports have only modestly increased from 203.4 million tons in 2014 to 212.4 million tons in 2023, a 4.4 percent increase. Containerized exports grew 20.3 percent from East Coast ports, 21.9 percent from Gulf Coast ports, and decreased 18.6 percent from West Coast ports. The total and containerized export changes are from long-term trends preceding the pandemic, as shown in Figure 24.

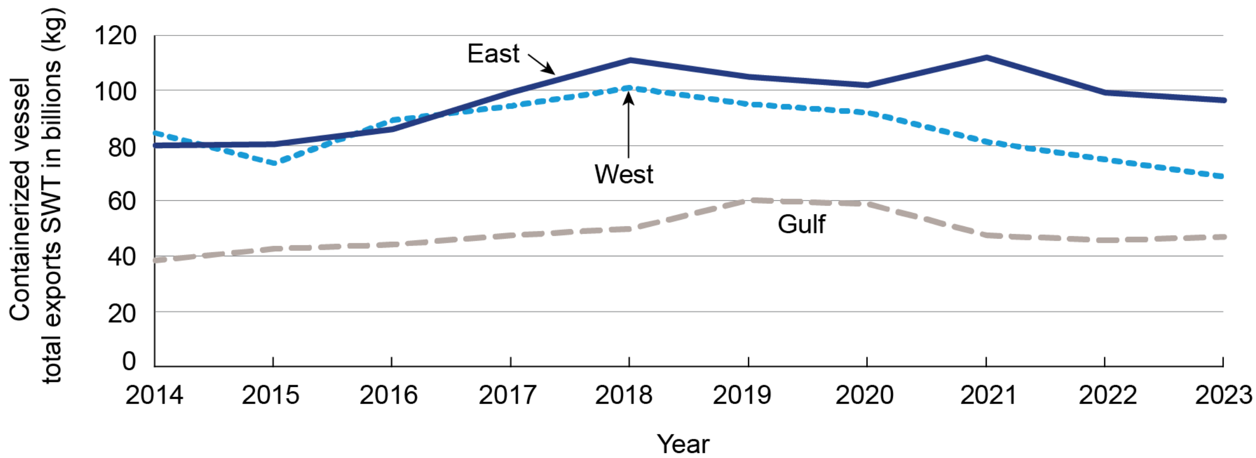
Figure 24. Total and Containerized Export SWTs for East, Gulf, and West Coast Ports, 2014–2023

A. Vessel Total Exports by Year



Source: U.S. Census Bureau. 2024. USA Trade Online. Accessed November 1, 2024. https://usatrade.census.gov/.

B. Containerized Vessel Total Exports by Year

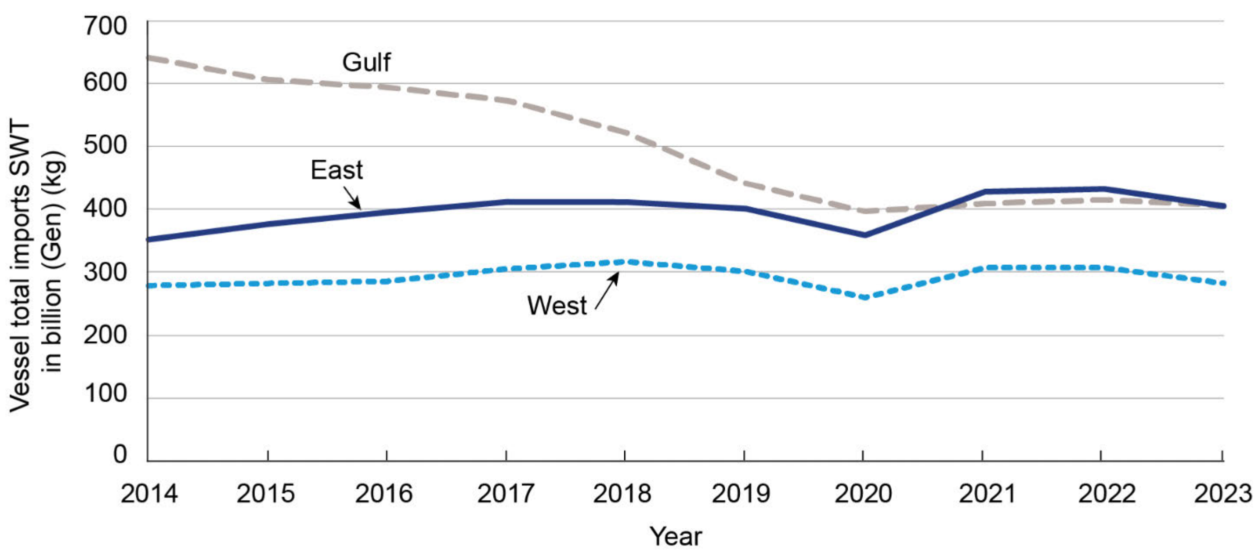


Source: U.S. Census Bureau. 2024. USA Trade Online. Accessed November 1, 2024. https://usatrade.census.gov/.

Total imports to U.S. ports decreased by 13.9 percent, from 1.27 billion tons in 2014 to 1.10 billion tons in 2023. This decrease is driven by a 63.4 percent reduction in crude oil imports to Gulf Coast ports. Total imports to U.S. ports experienced a low of 1.02 billion tons in 2020 due to the COVID-19 pandemic. On the other hand, total containerized imports to U.S. ports grew 24.3 percent from 2014 to 2023, from 298.7 million tons to 371.2 million tons. The East Coast and Gulf Coast ports increased containerized imports by 41.8 percent and 43.8 percent respectively. West Coast ports' containerized imports remained flat at 127.5 million long tons. Total containerized imports increased significantly after 2020 and peaked at 426.2 million tons in 2022. East Coast ports had the largest increase in containerized imports with a rise of 28 percent from 2020 to 2022 as containerized imports grew significantly during and after the COVID-19 pandemic. Figure 25 displays the import trends by coast before and after the COVID-19 pandemic.

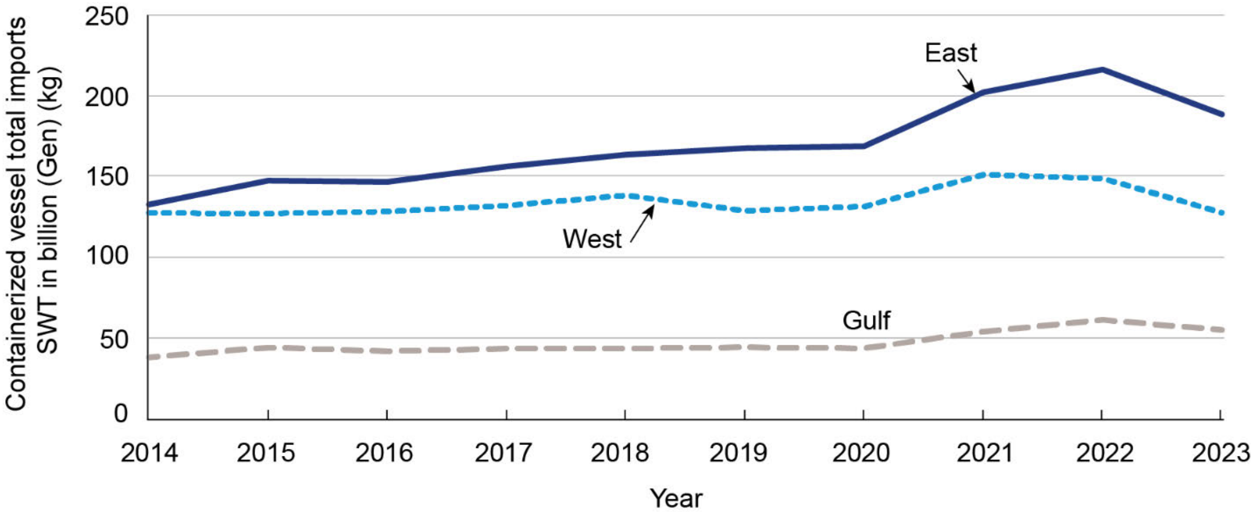
Figure 25. Total and Containerized Import SWTs for East, Gulf, and West Coast Ports, 2014–2023

A. Vessel SWT by Year



Source: U.S. Census Bureau. 2024. USA Trade Online. Accessed November 1, 2024. https://usatrade.census.gov/.

B. Containerized Vessel SWT by Year

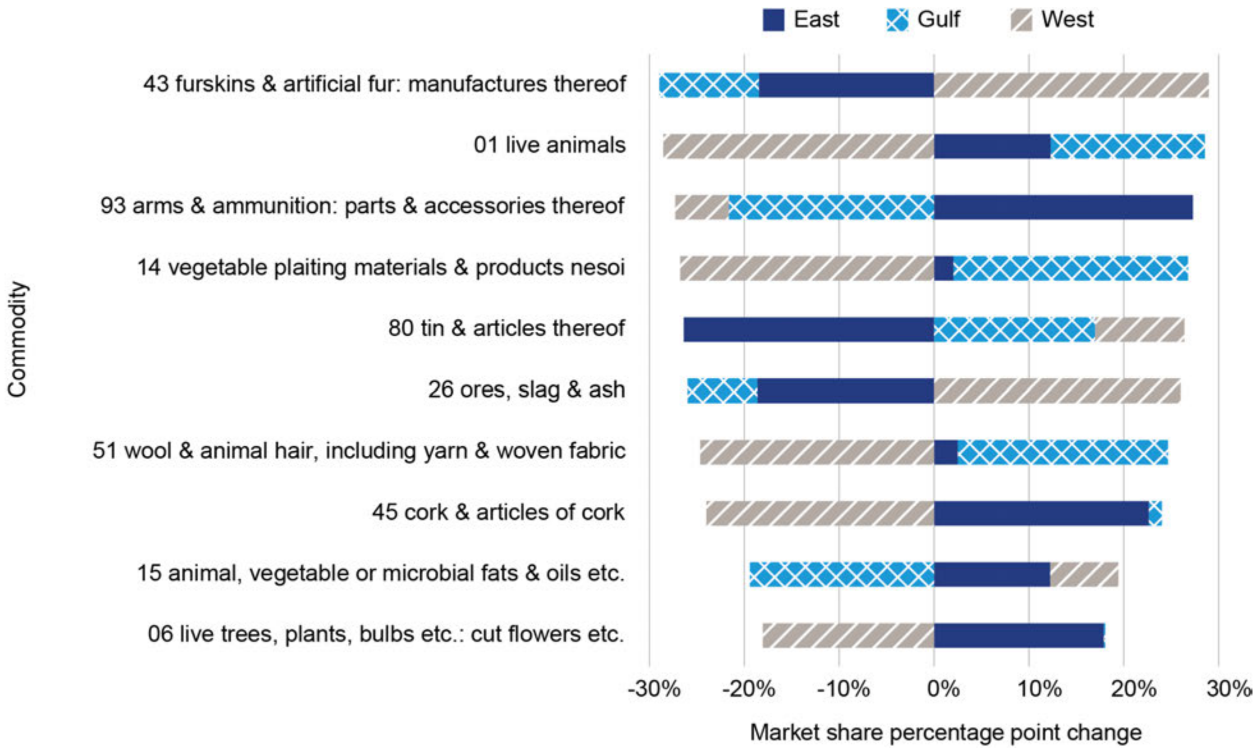


Source: U.S. Census Bureau. 2024. USA Trade Online. Accessed November 1, 2024. https://usatrade.census.gov/.

The top 10 commodity exports by weight experienced modest market share shifts between the three coasts from 2019 to 2023. West Coast ports lost market share for 9 of 10 commodities to the East and Gulf Coast ports. Cereals experienced the biggest market share shift amongst the top 10 commodity exports, with a 6.14 percentage point shift away from West Coast ports.

Market share shifts above 20 percentage points were experienced by 8 commodity exports between 2019 and 2023. Fur skins exports shifted from Gulf Coast and East Coast ports to West Coast ports by 29.0 percentage points. On the other hand, live animals' market share shifted away from West Coast ports by 28.5 percentage points to East Coast (12.3 points) and Gulf Coast (16.2 points) ports. Figure 26 shows the breakdown of the market share shifts for the top 10 commodity exports with the most change between 2019 and 2023.

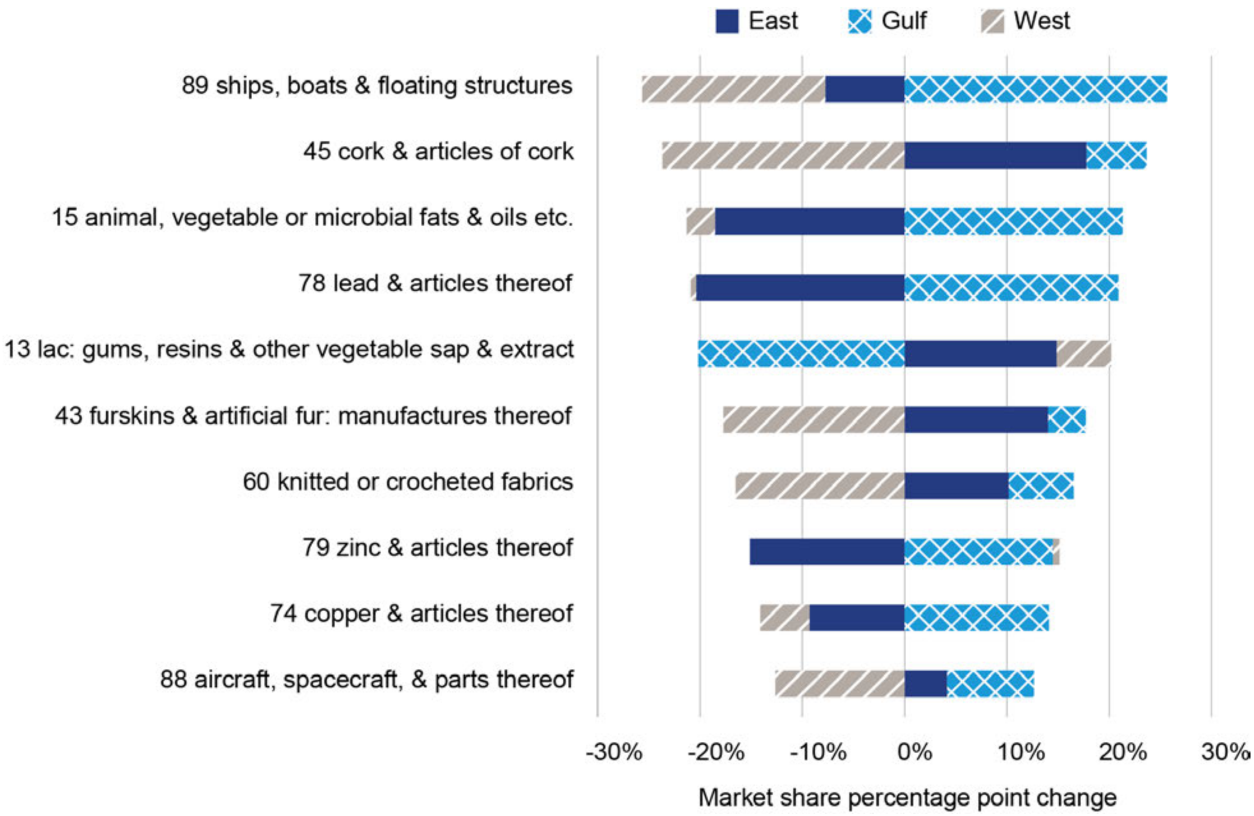
Figure 26. Market Share Shift of the Top 10 Most Affected Commodity Exports, 2019–2023



Source: U.S. Census Bureau. 2024. USA Trade Online. Accessed November 1, 2024. https://usatrade.census.gov/.

Market share shifts above 20 percentage points between the three coasts were experienced by five commodity imports from 2019 to 2023. Gulf Coast ports' market share of ships, boats, and floating structures increased by 25.7 percentage points. On the other hand, Gulf Coast ports lost 20.2 percentage points of market share of lac, gums, resins, and other vegetable sap to East Coast (14.9) and West Coast (5.3) ports. Figure 27 shows the breakdown of the market share shifts for the top 10 commodity imports with the most change between 2019 and 2023.

Figure 27. Market Share Shift of the Top 10 Most Affected Commodity Imports, 2019–2023



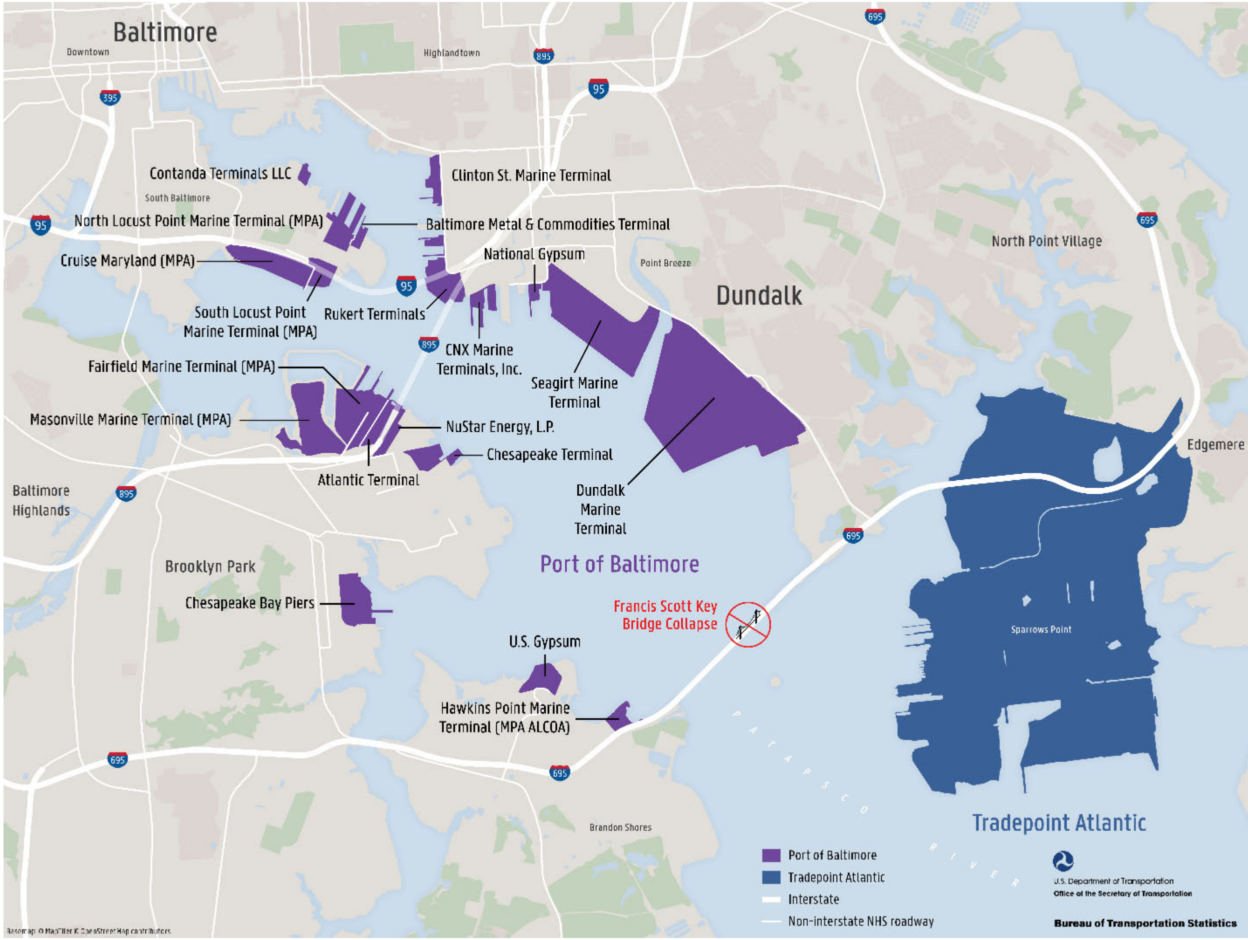
Source: U.S. Census Bureau. 2024. USA Trade Online. Accessed November 1, 2024. https://usatrade.census.gov/.

4.2. KEY BRIDGE COLLAPSE IMPACT ON PORT OF BALTIMORE IMPORTS AND EXPORTS 2024

The Port of Baltimore is among the top 20 U.S. ports by tonnage and number of containers handled, ranks 9th in dry bulk, and is a major hub for motor vehicles. The Port of Baltimore is comprised of many public and private terminals. From vehicles and tractors to coffee and extra virgin olive oil, 15 million short tons of goods, worth over $58.7 billion, are imported on ships via the Port of Baltimore annually. In addition, another 37 million tons of goods, worth $21.8 billion, are exported, including cars, coal, and soybeans [U.S. Census Bureau 2024].

A notable disaster in 2024 was the collapse of the Francis Scott Key Bridge crossing the Baltimore Harbor (Figure 28). The channel, from the Key Bridge to inland, became impassable on March 26, 2024, due to the collapse of the Key Bridge into the channel after a containership struck it. All but the Tradepoint Atlantic Terminal require transit under the Key Bridge for access.

Figure 28. Map of the Port of Baltimore

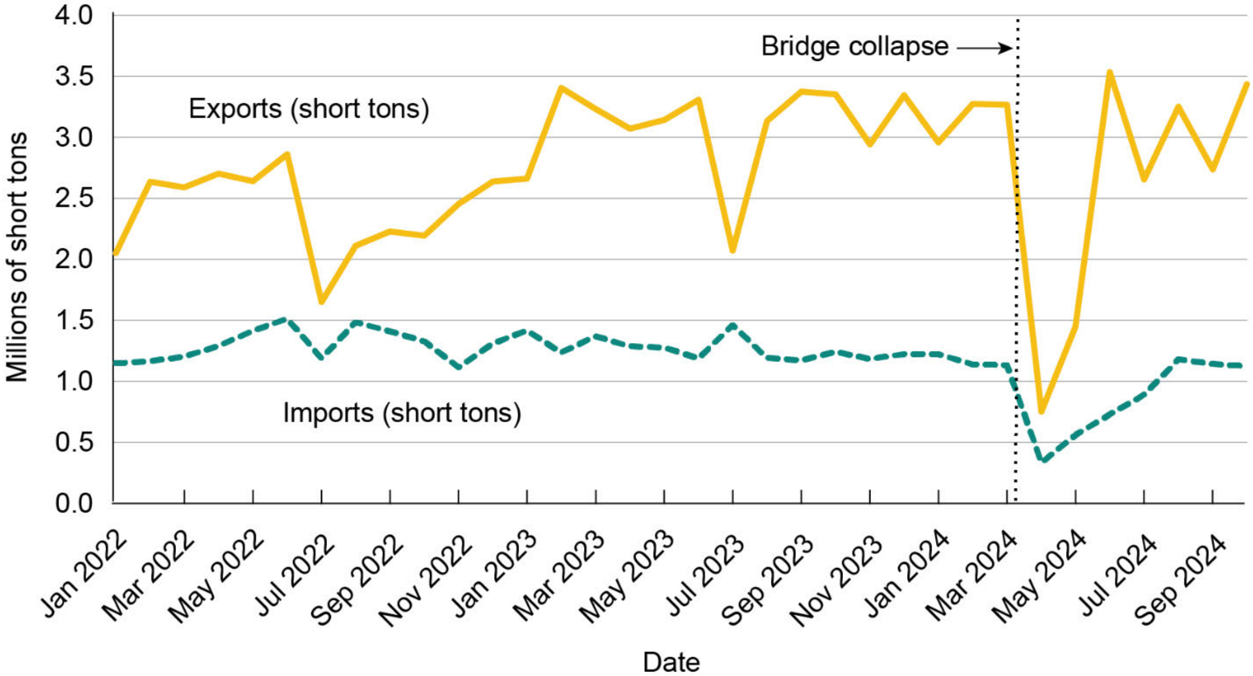


Source: BTS.

The channel did not fully reopen until June 10, 2024, 74 days later [U.S. Army Corps of Engineers 2024b].

Imports and exports to and from the Port of Baltimore decreased dramatically from the bridge collapse. For example, imports were down by 70 percent in April 2024, compared to March 2024. Exports were down by 77 percent in April 2024, compared to March 2024. In addition, imports did not return to pre-collapse numbers until August 2024, and exports did not return until June 2024 (Figure 29).

Figure 29. Port of Baltimore Imports and Exports by Month, January 2022–October 2024

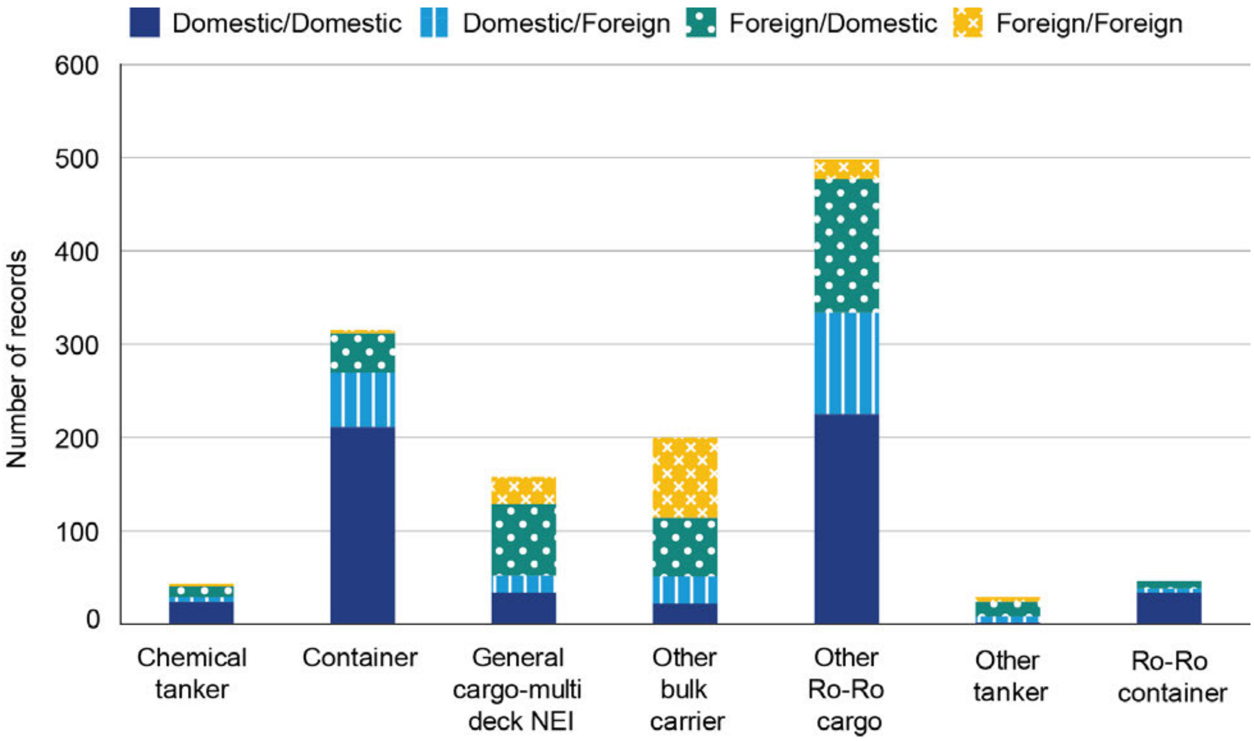


Source: U.S. Census Bureau. 2024. USA Trade Online. November. Accessed December 15, 2024. https://usatrade.census.gov/.

To understand how vessels may reroute after an unexpected port closure, a subset of ships' behavior immediately after the collapse was studied. Specifically, vessels at anchor past the Key Bridge (i.e., not blocked in) were considered. AIS data showed seven bulk carriers and one general cargo vessel anchored. The additional time these vessels anchored after the bridge collapsed until they rerouted varied from just 1.7 days to 16 days. Four of the vessels' previous ports of call were foreign, while the other vessels' previous ports were domestic. Five of the vessels departed to the Port of Virginia, and three departed to an overseas port, not rerouting to another port in the United States.

The ports selected were any that were the previous or next ports of calls for vessels that called at the Port of Baltimore in 2022 (the latest available data). The analysis showed that some vessels do not call at other U.S. ports, instead, their previous and next ports of call are foreign. The vessel type "other bulk carriers" had the greatest number of calls like this (Figure 30). In contrast, vessel types, such as containerships and other ro-ro cargo, did call at domestic ports before and/or after calling at Baltimore.

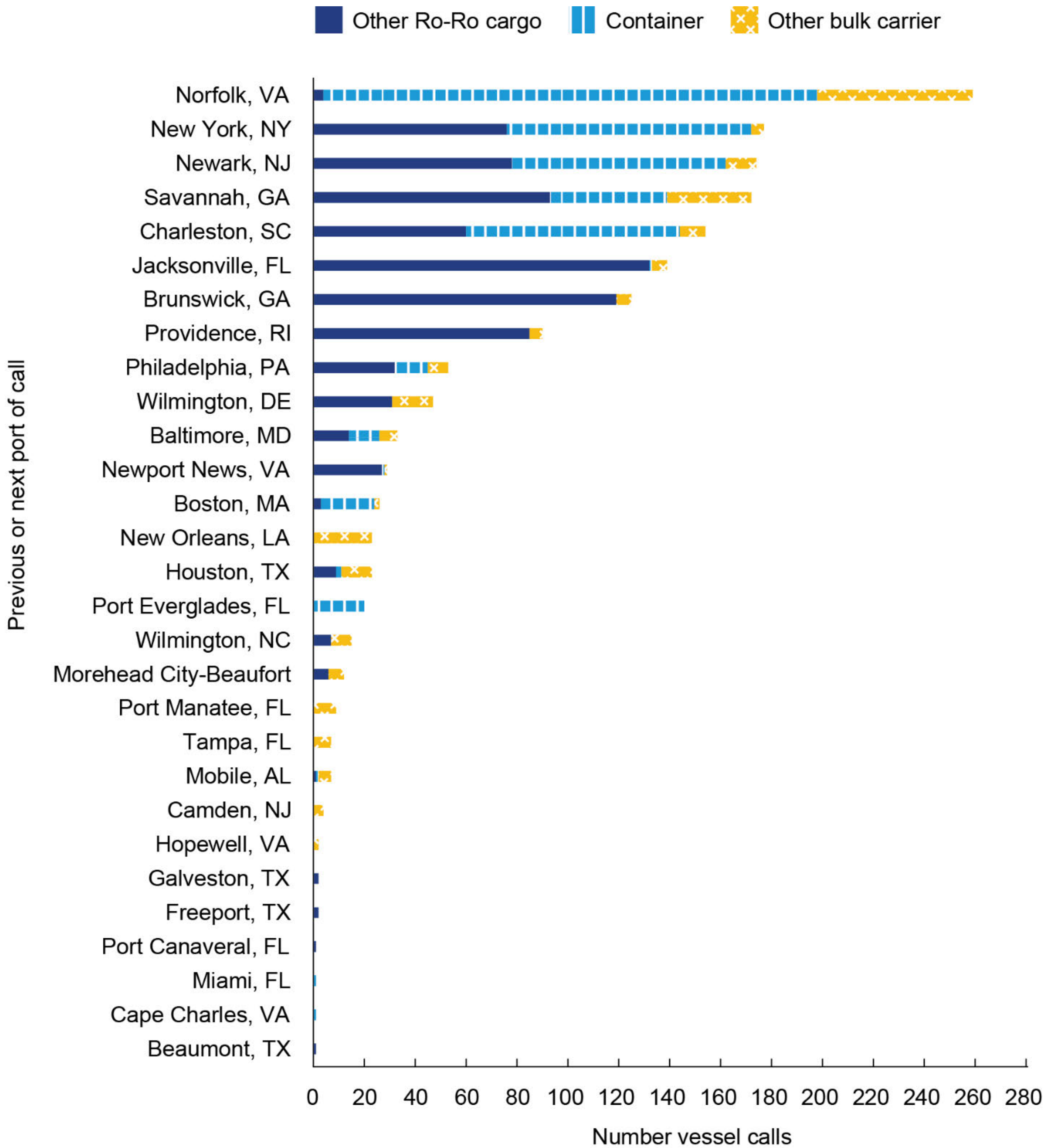
Figure 30. Vessel Calls at the Port of Baltimore by ICST Vessel Type and Previous and Next Port of Call Location, 2022



Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center data as of September 2024.

The port that was most often the previous or next port of call from or to Baltimore was Norfolk, VA. By vessel type, the most frequent port for other ro-ro cargo was Jacksonville, FL, and was Norfolk, VA for containerships and other bulk carriers. Almost all ports were on the East Coast, except Houston, TX; Port Manatee, FL; Mobile, AL; Freeport, TX; and Beaumont, TX. Figure 31 shows domestic ports that were ither the previous or next port of call by the number of entrance records for the Port of Baltimore in 2022.

Figure 31. Domestic Ports That Were Either the Previous or Next Port of Call by Number of Entrance Records for the Port of Baltimore by Vessel Type, 2022



Source: U.S. Department of Transportation, Bureau of Transportation Statistics, based upon U.S. Army Corps of Engineers, Waterborne Commerce Statistics Center data as of September 2024.

4.3. BRIDGE CONDITIONS AT TOP-RANKING PORTS

The collapse of the Francis Scott Key Bridge brought attention to bridges because many ports have bridges that cross over their navigation channels. An inoperative or collapsed bridge proved to have calamitous effects on the U.S. supply chain and freight movement.

Depending on the agency that owns, maintains, and evaluates a bridge, bridges can be identified and inspected by parts, such as their eastbound traffic, northbound traffic, main spans, and approach spans. An analysis of the 11 bridges that cross navigation channels at ports that ranked in the Top 25 for total tonnage, dry bulk tonnage, and TEUs concluded that all are inspected every 24 mo, and aside from one bridge, all were in fair condition (Table 9). When one of these select bridges is inaccessible, it can lead to an estimated detour length ranging from 3 to 58 mi. These estimates represent the alternative routes for all vehicles, including trucks, which excludes tunnel routes due to HAZMAT regulations for trucks.

Table 9. Bridge Conditions of 11 Select Bridges by Lowest Rating

Port	Bridge name	Overall condition	Superstructure	Substructure	Deck
Virginia	West Norfolk Bridge	Fair	5	6	6
Virginia	Berkley Bridge	Fair	6	5	6
Long Beach	Long Beach International Gateway Bridge	Fair	7	5	7
Long Beach	Schuyler F. Heim Bridge	Fair	7	7	5
Houston	Sam Houston Tollway Ship Channel Bridge (Buffalo Bayou Toll Bridge)	Fair	6	6	7
Houston	Fred Hartman Bridge	Fair	6	6	7
Houston	Sidney Sherman Bridge	Fair	5	5	6
Mobile	Cochrane-Africatown USA Bridge	Fair	6	6	6
New Orleans	Huey P. Long Bridge	Fair	5	6	7
New Orleans	Crescent City Connection	Fair	6	7	7
New Orleans	Florida Avenue Bridge	Good	7	7	7

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, November 2024 special tabulation based on March 2024 delimited state data (latest available) from NBI ASCII raw data 2024.
Note: Based on 20 identifying bridge structure numbers over water's lowest ratings. The lowest condition rating to be labeled in "Good" condition is 7, 8, 9, "Fair" condition is 5 or 6, and "Poor" condition is 0 to 4.

4.4. LOW WATER LEVELS IN GATUN LAKE AND THE PANAMA CANAL

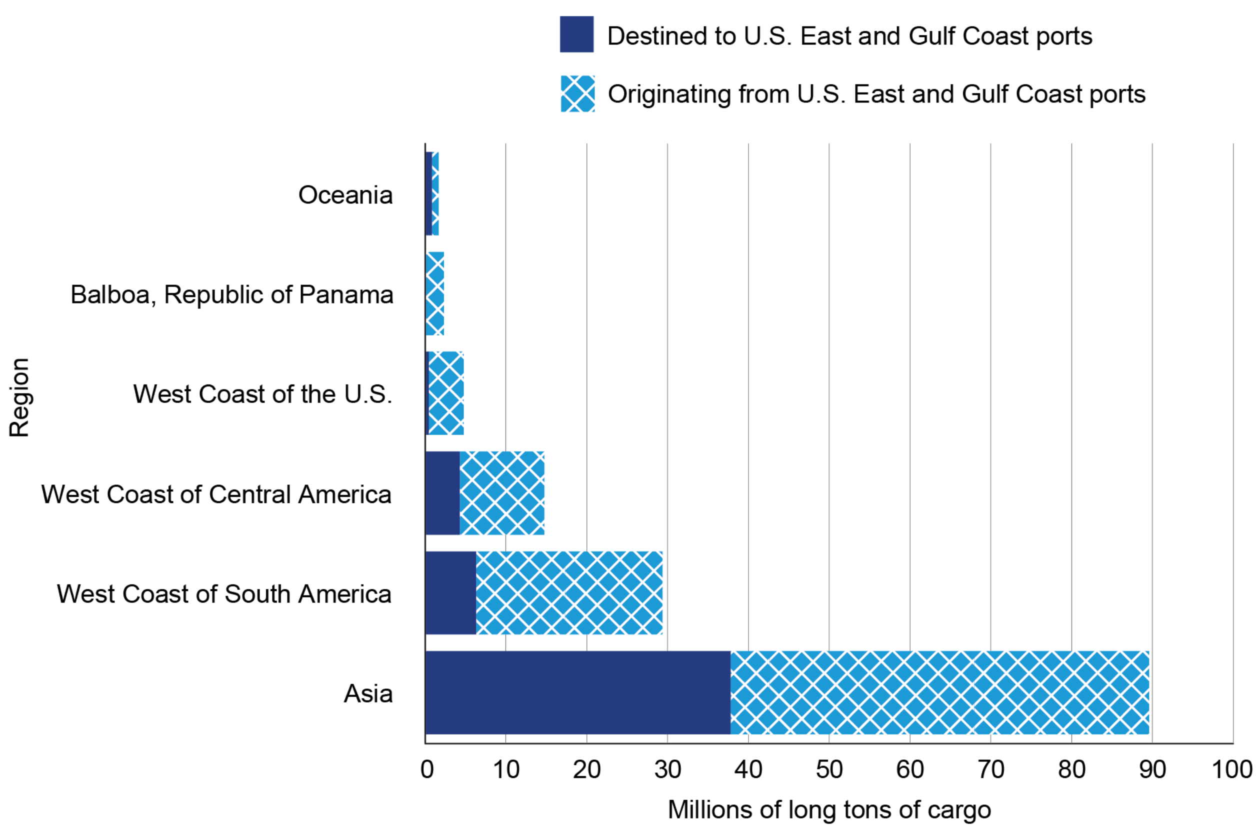
The Panama Canal (Figure 32) is a key component of the U.S. freight transportation system. In fiscal year (FY) 2024, the Panama Canal Authority reported that U.S. East and Gulf Coast ports exported 92.9 million long tons[5] of cargo via the Panama Canal and imported 50.1 million long tons. The origins and destinations are shown in Figure 33. U.S. West Coast ports exported 3 million long tons of cargo via the Panama Canal and imported 4.3 million. The origins and destinations are shown in Figure 34 [Canal De Panama 2024a].

5 A long ton is equal to 2,240 pounds.

Figure 32. Panama Canal Location

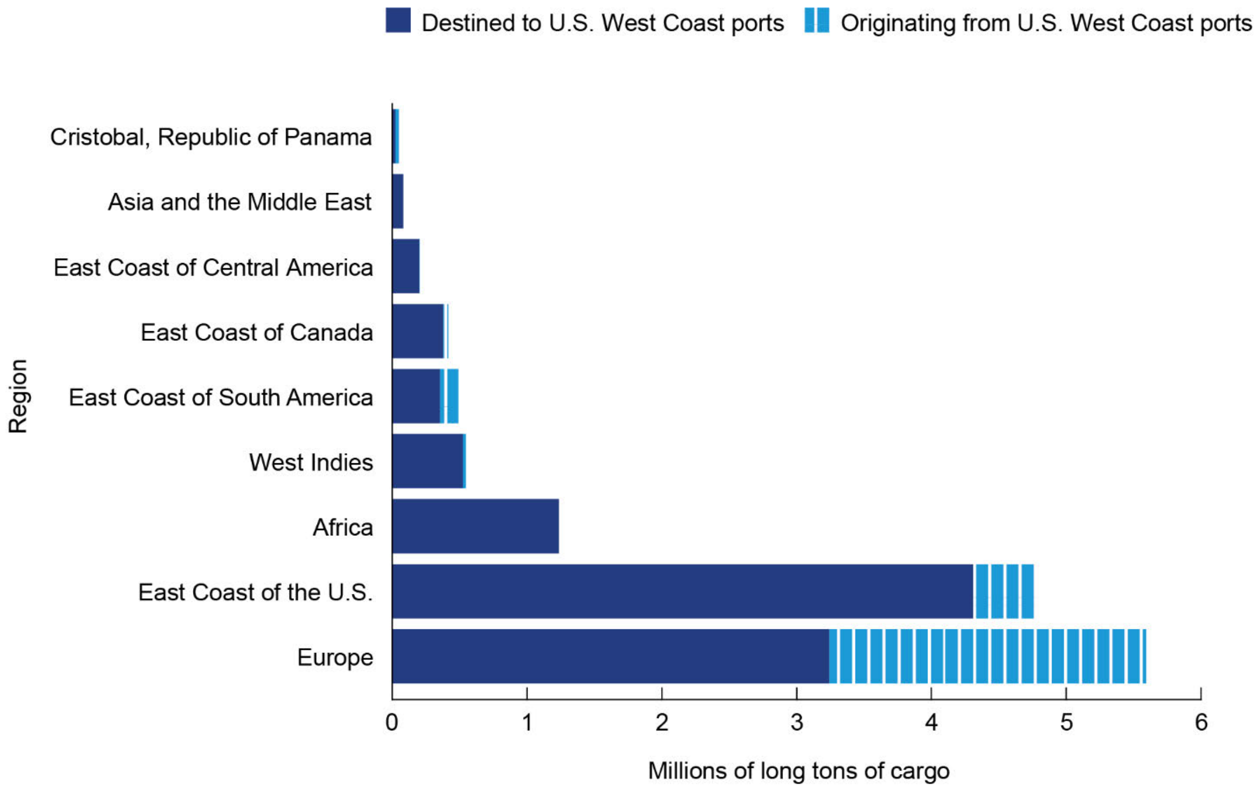
Source: BTS.

Figure 33. Millions of Long Tons of Cargo Transported via the Panama Canal That Is Either Destined to or Originating From U.S. East and Gulf Coast Ports, by Origin and Destination, FY 2024



Source: BTS.

Figure 34. Millions of Long Tons of Cargo Transported via the Panama Canal That Is Either Destined to or Originating from U.S. Pacific Coast Ports, by Origin and Destination, FY 2024



Source: BTS.

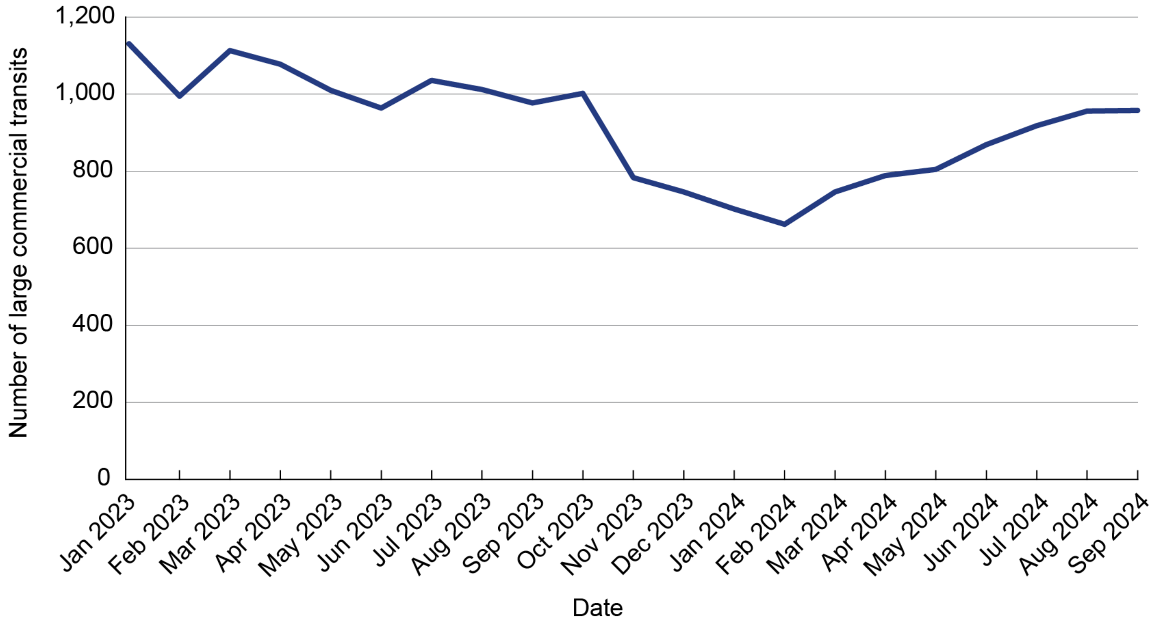
The capacity of the Panama Canal to serve this demand depends, in part, on the availability of local water to supply its locks and channels. In 2023 through mid-2024, Gatun Lake (the larger of two lakes servicing the Panama Canal locks) experienced water levels below seasonal norms due to insufficient rain during the year (Figure 35).

Figure 35. Gatun Lake Reservoir Water Level (Feet), January 1, 2022–December 26, 2024

Source: Panama Canal Authority, Gatun Water Level Indicators as of December 27, 2024. https://evtms-rpts.pancanal.com/eng/h2o/index.html.

Gatun Lake water levels hovered close to 80 ft between June 2023 and June 2024, while more typically, the rainy season ends in November with levels in the lake at about 86–88 ft. As a result of the lower water levels in the lake, the Panama Canal Authority has had to restrict ship transits and draft. For example, vessels normally draft 50 ft, but starting in March 2023, the draft was lowered to 49.5 ft and went as low as 44 ft from June 13, 2023, until May 29, 2024. The draft was not raised back to 50 ft until August 15, 2024. Drafting less means the locks can operate with lower water levels, reducing Gatun Lake water consumption [Canal De Panama 2023]. In addition, the number of daily transits allowed decreased from 35 to 25 starting in November 2023, went as low as 18 in February 2024, and did not return to 35 until August 2024 [Canal De Panama 2024b]. Figure 36 shows the monthly number of commercial transits.

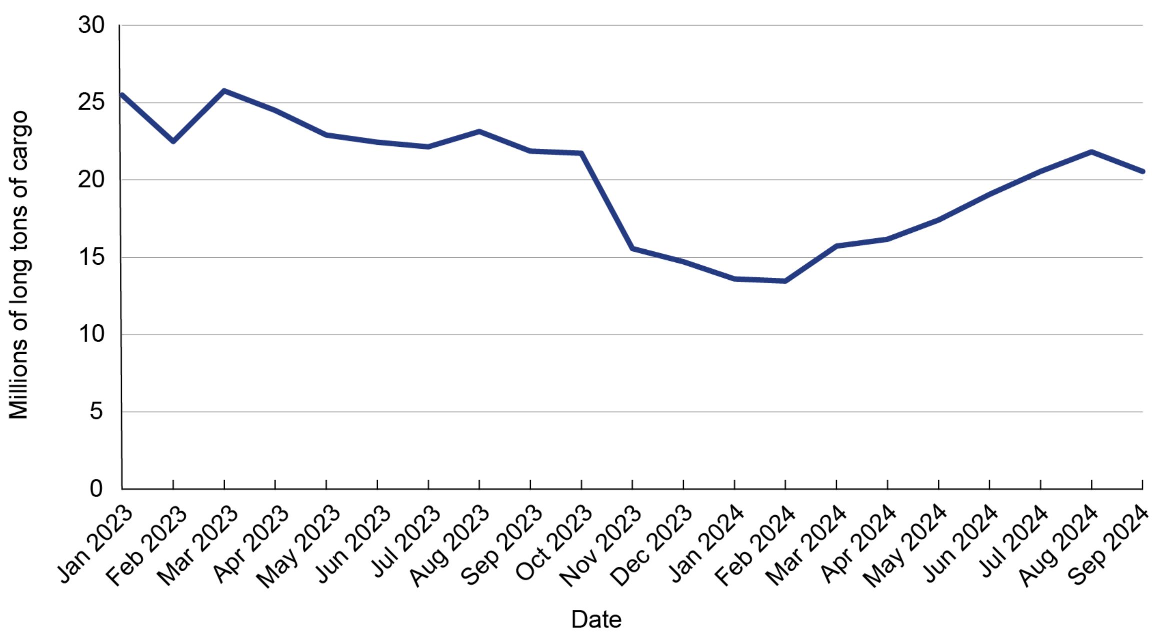
Figure 36. Commercial Transits Through the Panama Canal by Month, January 2023–September 2024



Source: Panama Canal Authority, Oceangoing Commercial Traffic Through the Panama Canal by Month. as of February 2, 2024. https://pancanal.com/wp-content/uploads/2023/11/02-Oceangoing-Commercial-Traffic-Through-the-Panama-Canal-by-Month.pdf.

The decrease in draft and number of transits resulted in a reduction of cargo through the Panama Canal. February 2024 saw the lowest monthly throughput, with 13.5 million long tons. As of September 2024, throughput is still below predrought levels (Figure 37).

Figure 37. Cargo (Long Tons) Through the Panama Canal by Month, January 2023–September 2024



Source: BTS.

Ships have taken alternative routes and methods to reach the United States, including sailing around South America, participating in special transit auctions through the Authority, or choosing other routes altogether. For instance, to reduce their draft, some carriers have opted to have containers unloaded onto rail, shipped across Panama, and reloaded onto the ship after the ship has transited the canal [Chambers 2023 and Putzger 2023]. Additionally, as quoted on November 9, 2023, in FreightWaves, “Instead of going through the Panama Canal, ships are going through the Suez [Canal] which is extending ton-miles” [Miller 2023]. The extended ton-miles would cost those countries importing U.S. agricultural products because they have to shift volume and location of imports and exports between port gateways.

Comments on this report are welcomed and should be sent to PortStatistics@dot.gov or the Port Performance Freight Statistics Program, Bureau of Transportation Statistics, U.S. Department of Transportation, 1200 New Jersey Avenue SE, Washington, DC, 20590.

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Appendix A. Port and Cargo Definitions

PORT GOVERNANCE

Ports are organized and governed in several ways with implications for port definitions and data availability.

A port authority (also sometimes called a harbor district) is a government entity that either owns or administers the land, facilities, and adjacent bodies of water where cargo is transferred between modes. Most ports are governed by port authorities or harbor districts, which are often part of local or state government. A port authority promotes overall port efficiency and development, maintains port facilities, and interacts with other government bodies. Additional activities include business development and management of infrastructure finances. While the structure, powers, and roles of port authorities vary, the American Association of Port Authorities states that they “share the common purpose of serving the public interest of a state, region or locality”[Sherman 1999]. Port authorities may act as the following:

- **Landlords**—These types of port authorities build and maintain terminal infrastructure and provide major capital equipment but are not engaged in operations. The Port of Los Angeles, Port of New York and New Jersey, and Port of Oakland are examples of landlord ports. In this capacity, port authorities may also offer concessions to tenants that make infrastructure improvements.
- **Operators**—These types of port authorities directly operate some or all the terminals in the jurisdiction. For example, the Houston Port Authority is an operating port.
- **Jurisdictional bodies**—These types of port authorities oversee private terminals, which are responsible for providing and operating their own infrastructure. For example, the Ports of Cincinnati-Northern Kentucky is a jurisdictional body.

A port authority’s jurisdiction typically extends over land, where it may include granting concessions, approving construction, and making policy decisions, and over water, where jurisdiction is primarily focused on navigation improvements. A port may own and operate an extensive range of facilities over a large area, many of which may not be water-related. Several port authorities (e.g., Oakland and Portland) also operate airports. The Port Authority of New York and New Jersey operates airports, tunnels, bridges, and transit systems as well as the seaport.

Certain states, such as South Carolina and Georgia, have statewide port authorities that administer some or all ports within their jurisdiction. Boards of appointed members typically lead these entities. These port authorities may also directly operate port facilities within the state. A state port authority may be a separate state department or located within that state’s Department of Transportation.

Port authority jurisdictions may cross state boundaries. The Port Authority of New York and New Jersey and the Ports of Cincinnati-Northern Kentucky are examples of jurisdictions spanning multiple states.

Port authorities typically have jurisdiction over public terminals. Port authorities have jurisdiction over most U.S. container terminals, although some container terminals are owned or leased by private interests. Private bulk terminals are normally outside public port authority jurisdiction although they are still subject to U.S. Coast Guard and Federal regulation. Public port authorities may also own or administer bulk and ro-ro terminals.

Public port authorities generally make selected data on their infrastructure and cargo operations available to the public. Data are usually presented on port authority websites, in annual reports, or in special reports or brochures. BTS uses data from these sources to supplement government and trade association sources and cross-checks the data to assure accuracy and consistency.

Many dry bulk, liquid bulk, and Ro/Ro terminals are owned and operated by private firms and may or may not fall within public port authority jurisdictions. These terminals tend to be of the following three types:

1. **Terminals owned by vessel or barge operators to serve their own operations—**The primary revenue source for these terminals is the transportation service being offered.
2. **Terminals owned by cargo interests, such as grain terminals owned and operated by grain exporters or petroleum terminals operated by refinery owners**—The primary revenue source for these operations is the cargo and prior or subsequent processing rather than the transportation or terminal services.
3. **Terminals owned and operated by marine terminal operators**—These facilities derive their revenue from cargo handling services.

This report presents performance data at the port level, which in many cases, includes public and private terminals. When possible, the profiles focus on the public terminals as ports authorities tend to make capacity and throughput data more readily available through public forums. The wide variety of port ownership, leasing, control, and operations arrangements leads to wide variation in collection, synthesis, and availability of capacity and throughput data. For example, private terminals may or may not publish data on their operations and infrastructure, while a refinery may report total volume of petroleum processed, but not how much was received by vessel versus pipeline. Nationally consistent data are limited for private terminals that are not administrated by a port authority.

As these observations suggest, this report provides a detailed picture as well as consistent capacity and throughput measures on public and private terminals governed by port authorities.

CARGO TYPES

In general, the cargo types handled and geographic location determine the physical characteristics of a port and the relevance of various capacity and throughput metrics. Specifically, different cargo types require different vessels, terminal configurations, and handling equipment.

Waterborne cargo is classified into the following five major types:

1. Containerized
2. Dry bulk
3. Liquid bulk
4. Break-bulk
5. Ro-ro

FAST Act Section 6018 specifies containerized and dry bulk cargoes as statistical categories; these are addressed in detail in the next two sections. The other cargo types are also discussed briefly. The total tonnage statistics included in this report and the port profiles[6] include all five cargo types.

A large port typically has multiple terminals that together can handle many cargo types; however, individual terminals are usually designed to move a single cargo type. The requirements of loading, unloading, and storing different cargo types lead to major differences in terminal design and overall port infrastructure.

CONTAINERIZED CARGO

Containerized cargo includes most consumer goods imported into the United States and has been the chief focus of concerns over port performance. Cargo is containerized when it is placed in standard shipping containers that can be handled interchangeably on vessels, in terminals, and via inland transport modes. Standardized containers used in international maritime trade come in three lengths: 20, 40, and 45 ft. Standard containers are typically 8 ft wide and 8.5 ft high regardless of length. Almost any commodity can be moved in standardized shipping containers if packed appropriately, but containerized cargo includes the highest value and most time-sensitive commodities. Two-thirds of maritime cargo are shipped in traditional containers.[7]

Container cargo volume and the capacity of containerships are usually measured in TEUs, each nominally equal to one 20-ft container. Loaded and empty containers occupy the same space and are equal in terms of TEUs. Forty-foot Equivalent Units (equal to 2 TEUs) are used less frequently when describing throughput and capacity metrics, even though containers that measure 40 ft in length dominate international trade and account for approximately 90 percent of waterborne containers. There are also some 45-ft containers used in international trade (typically equal to 2.25 TEUs although sometimes counted as 2.0 TEUs). Conversion factors are used to shift between TEUs and container counts, thereby allowing the comparison of total container volumes and other metrics. Container vessels range in capacity, from barges that can carry approximately 100 TEUs to ships that are capable of carrying over 20,000 TEUs.

DRY BULK CARGO

Dry bulk cargo includes unpacked and homogenous commodities, such as grain, iron ore, and coal. The size of a dry bulk terminal is determined by cargo volume, the number of commodity types, and vessel call frequency. Larger cargo volumes require more space, as do handling of multiple commodities that must be kept separated. Dry bulk terminals usually handle solely imports or exports and are designed accordingly, unlike container terminals that handle both imports and exports.

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6 Each port listed is profiled separately in an interactive port profile, which are available online at Port Performance Freight Statistics Program (bts.gov).

7 https://www.gao.gov/products/gao-22-104210.

OTHER CARGO TYPES

Other cargo types are not specified in FAST Act Section 6018, although other cargo tonnage is included in the total tonnage data reported here. Other cargo types include liquid bulk cargoes, break-bulk cargoes, and Ro/Ro cargoes, which are defined as follows, per the Port Performance Freight Statistics Program Glossary [U.S. Department of Transportation Bureau of Transportation Statistics 2024]:

- **Liquid Bulk**—Cargo shipped in fluid form in tanker holds without packaging or containerization that is typically transferred with pump and piping or hoses. Major liquid bulk commodities include petroleum products, liquid natural gas, and liquid chemicals.
- **Break-Bulk**—A category of cargo that is non-containerized and typically requires handling equipment to load and unload. Examples include bundled lumber or steel products moved by cranes or project cargoes of many types. Break-bulk cargoes are sometimes also called general cargo, and ro-ro cargoes are sometimes classified as break-bulk.
- **Ro-ro**—(1) Cargo that can be loaded onto a vessel with ramps, whether under its own power or pulled/pushed by another vehicle; (2) Any specialized vessel designed to carry Ro/Ro cargo, or a terminal that serves such vessels.

PORT COMPONENTS

The ports profiled in this report are complex entities with both physical and institutional components that differ by function, cargo type, and geographic location. The characteristics of these components and their interactions determine a port's overall capacity and annual throughput. Although publicly available measures do not exist for all components, those with nationally consistent measures are reflected in the port profiles.[8] Table 10 summarizes these key components and their connection to throughput and capacity measures.

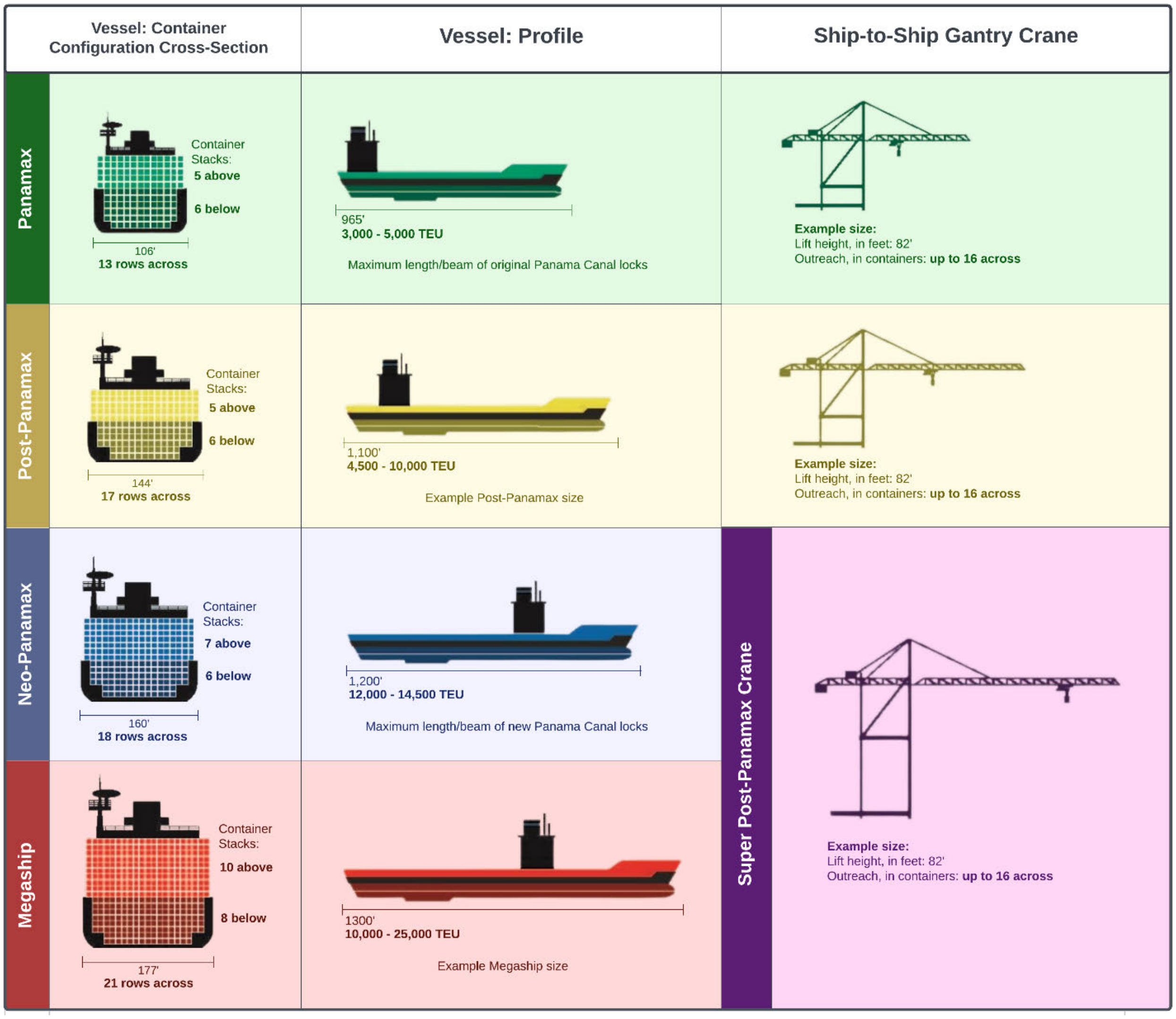
8 Each port listed is profiled separately in an interactive port profile, which are available online at Port Performance Freight Statistics Program (bts.gov).

Table 10. Key Port Components and Their Impact on Port Infrastructure

Component	Description	Connection to throughput and capacity
Berth	A place to stop and secure a vessel for cargo transfer or other purposes. Berth locations are often determined by the availability of securement points on the wharf and may not have fixed sizes or boundaries.	The length of berths is significant for container and break-bulk terminals, where the full length of the vessel must be accessed. Berth length is less significant for bulk and Ro/Ro terminals, where unloading and loading operations use conveyors, ramps, or other means that do not involve the full vessel length. Insufficient berth availability can result in vessels waiting to be unloaded and loaded.
Waterside access	The waterways, channels, reaches, and anchorages that enable vessels to reach a port.	Limited waterside access can constrain the number and size of vessels that can call at a terminal.
Channel	A designated navigable waterway leading from open water to port terminals. Many channels have had sediment and other materials removed from the bottom of the channel (a process known as dredging) to accommodate larger vessels and require periodic maintenance dredging to keep them navigable.	The shallowest point of a channel can be a limiting factor on the size of ships that can access a terminal. Channel access may also be limited by air draft restrictions imposed by bridges.
Terminal	A port facility where vessels are discharged or loaded. Terminals can be defined by their facilities, equipment, the type of cargo handled, physical barriers or boundaries, ownership or operating structure, and other characteristics. Terminals may be operated by a port authority, independent marine terminal operators, vessel operators, or private companies handling their own cargo.	Many ports contain numerous terminals, each with its own berths, equipment, and landside storage space, and which may be adjacent to each other or separated by many miles. Terminals vary widely in configuration and infrastructure, and the number and size are therefore not consistent indicators of port capacity. However, terminal design, size, and infrastructure availability have a significant impact on both throughput and capacity.
Loading and unloading equipment	The fixed or mobile terminal equipment needed to handle different vessel and cargo types.	Cargo and vessel types vary greatly. Most container vessels are loaded and unloaded with shore-side gantry cranes (“container cranes”). Smaller vessels and barges may be handled with on-board equipment (“ship’s gear”) or with mobile harbor cranes. Ro/Ro vessels and barges are loaded and unloaded via ramps. Bulk and break-bulk terminals use a combination of fixed and mobile equipment that typically allows for faster loading and unloading of a vessel, but operations may still be limited by landside infrastructure and operational efficiency.

Figure 38 illustrates how changes in vessel size impact port infrastructure. Larger vessels require greater berth lengths, larger loading and unloading equipment, and more cargo or container storage space.

Figure 38. Container Vessel Size and Corresponding Port Infrastructure



Source: BTS.
Note: All cranes or vessels are to scale with each other, but scale differs between columns.

PORT GEOGRAPHY

Ports are classified as coastal, Great Lakes/St. Lawrence Seaway, or river ports. U.S. coastal ports include those on the East (Atlantic), West (Pacific), and Gulf coasts, as well as those in Alaska, Hawaii, and Puerto Rico. The Great Lakes and Seaway ports include public and private facilities in the eight Great Lakes states (Illinois, Michigan, Ohio, Indiana, Wisconsin, Pennsylvania, New York, and Minnesota). River ports primarily include those on the Mississippi, Columbia-Snake, and Ohio inland waterway systems. Port classifications are defined as follows:

- **Coastal ports**—These ports typically handle larger ships than Great Lakes or river ports as they can meet the deeper draft requirements and greater cargo handling needs of vessels on major international trade routes. Coastal ports tend to have terminals in a compact geographic area. All container ports profiled in this report are coastal ports, due to economies of scale in container terminals and the lack of high-volume container services on U.S. inland waterways.
- **Great Lakes and Seaway ports**—These ports serve ocean-going vessels during their primary season but close during winter months. Lake terminals can resemble coastal and river facilities, with cargo type and vessel size being the primary factors influencing terminal design.
- **River ports**—These ports can be classified into three broad categories. The first group includes general purpose facilities that accommodate a wide range of commodities and vessels. The second group includes public facilities designed to handle a single commodity. The third group includes industrial terminals, which are typically privately owned and operated for a manufacturing, agricultural, refining, or mining facility. River and inland waterway ports are more likely than coastal ports to consist of privately owned and operated terminals, given historical patterns of development. River ports may also have terminals many miles from one another. These ports also typically handle smaller vessels than coastal ports, including barges.

Appendix B. Port Rankings Extended

PORT RANKINGS BY TOTAL TONNAGE, 2022

The top 150 U.S. Ports ranked by total tonnage are listed in Table 11.

Table 11. Top 150 U.S. Ports by Total Tonnage, 2022

Rank	Port	Total (millions of short tons)
1	Houston Port Authority, TX	293.8
2	South Louisiana, LA, Port of	226.2
3	Corpus Christi, TX	174.3
4	New York, NY & NJ	141.3
5	Port of Long Beach, CA	93.0
6	New Orleans, LA	83.3
7	Beaumont, TX	74.3
8	Port of Greater Baton Rouge, LA	73.4
9	Virginia, VA, Port of	69.4
10	Lake Charles Harbor District, LA	64.1
11	Port of Los Angeles, CA	59.8
12	Plaquemines Port District, LA	55.4
13	Port of Savannah, GA	53.7
14	Mobile, AL	50.5
15	Port Arthur, TX	47.5
16	Baltimore, MD	40.6
17	Texas City, TX	32.9
18	Philadelphia Regional Port, PA	31.8
19	Port Freeport, TX	31.6
20	Duluth-Superior, MN and WI	29.6
21	Tampa Port Authority, FL	28.0
22	Southern Indiana District, IN	27.7
23	Port of Charleston, SC	27.7
24	Port Everglades, FL	25.6
25	Northern Indiana District, IN	25.4
26	Valdez, AK	25.1
27	Port of Pascagoula, MS	24.1
28	Richmond, CA	23.6
29	Port of Portland, OR	22.9
30	South Jersey Port Corp, NJ	20.1
31	Tacoma, WA	19.9
32	Seattle, WA	18.5
33	Port of Oakland, CA	18.0
34	Jacksonville, FL	17.7
35	Pittsburgh, PA Port of	17.4
36	Port of Kalama, WA	15.9
37	Honolulu, O'ahu, HI	14.4
38	Galveston, TX	13.5
39	Mid-America Port, IA, IL and MO	13.2
40	Two Harbors, MN	12.5
41	Anacortes, WA	12.2
42	San Juan, PR	10.7
43	New Bourbon Port Authority, MO	10.3
44	Toledo-Lucas County Port, OH	10.2
45	Port of Longview, WA	10.2
46	Illinois International Port, IL	10.1
47	Port of Vancouver USA, WA	9.6
48	Joliet Regional Port, IL	9.3

Rank	Port	Total (millions of short tons)
49	Cleveland-Cuyahoga Port, OH	9.2
50	Brownsville, TX	9.1
51	Detroit-Wayne County Port, MI	9.1
52	Port Miami, FL	8.8
53	New Haven, CT	8.7
54	Wilmington, DE	8.7
55	Kalaeloa Barbers Point, HI	8.4
56	Louisville-Jefferson Port, KY	8.4
57	St. Louis City Port, MO	8.2
58	Memphis-Shelby County Port, TN	8.2
59	Southwest Regional Port, IL	7.8
60	Paducah-McCracken Riverport, KY	7.2
61	Nashville, TN	7.1
62	Wilmington, NC	7.0
63	Greater Lafourche Port, LA	6.9
64	Rogers City, MI	6.8
65	Port of Providence, RI	6.4
66	Canaveral Port District, FL	6.4
67	Manatee County Port, FL	6.2
68	Kaskaskia Regional Port, IL	6.1
69	Cincinnati, OH	6.1
70	Virgin Islands - St. Croix, VI	5.7
71	Marquette, MI	5.5
72	America's Central Port, IL	5.5
73	Stockton, CA	4.9
74	Illinois Valley Port, IL	4.9
75	Albany Port District, NY	4.7
76	Boston, MA	4.5
77	Calhoun Port Authority, TX	4.4
78	Presque Isle Township, MI	4.3
79	Portland, ME	4.3
80	Kahului, Maui, HI	4.2
81	Southeast Missouri Port, MO	4.1
82	Heart of Illinois Port, IL	4.1
83	Orange County Nav District, TX	4.1
84	Tulsa-Rogers County Port, OK	4.1
85	Mueller Township, MI	3.9
86	St. Paul Port Authority, MN	3.9
87	Port of Columbia County, OR	3.7
88	West St. Mary Parish Port, LA	3.6
89	Nikiski, AK	3.5
90	Jackson-Union Port District, IL	3.4
91	Oxnard Harbor District, CA	3.2
92	Jefferson County Port, MO	3.1
93	Port of Alaska, AK	3.0
94	Hilo, Hawai'i, HI	3.0
95	Conneaut, OH	2.9
96	Massac-Metropolis Port, IL	2.9
97	Port of Brunswick, GA	2.9
98	Port of Vicksburg, MS	2.9
99	Coos Bay OR, Port of	2.8
100	Clark Township, MI	2.8
101	New Madrid County Port, MO	2.6
102	Owensboro Riverport, KY	2.6
103	Monroe, MI	2.5
104	Havana Regional Port, IL	2.5
105	Central Louisiana Regional, LA	2.4
106	Port of Greenville, MS	2.4

Rank	Port	Total (millions of short tons)
107	Panama City Port Authority, FL	2.4
108	Morehead City, NC	2.3
109	Marblehead, OH	2.3
110	Port of Iberia District, LA	2.3
111	Port Jefferson, NY	2.3
112	Henderson County Riverport, KY	2.3
113	Chattanooga, TN	2.2
114	Alpena, MI	2.2
115	Nawiliwili, Kaua'i, HI	2.2
116	Port of Palm Beach District, FL	2.2
117	Kawaihae, Hawai'i, HI	2.2
118	Port of Gulfport, MS	2.1
119	Milwaukee, WI	2.1
120	San Francisco Port, CA	2.0
121	Victoria, TX	2.0
122	Portsmouth, NH	1.9
123	San Diego Unified Port, CA	1.9
124	Redwood City, CA	1.8
125	Green Bay, WI	1.8
126	Terrebonne Parish Port, LA	1.8
127	Guayama, PR	1.8
128	Grays Harbor Port District, WA	1.8
129	Sandusky, OH	1.8
130	Port of Harlingen Authority, TX	1.8
131	Silver Bay, MN	1.7
132	Marine City, MI	1.7
133	Guntersville, AL	1.7
134	Guaynabo, PR	1.6
135	Port of Rosedale, MS	1.6
136	St. Louis County, MO	1.6
137	Muskegon, MI	1.5
138	Sacramento-Yolo Port, CA	1.4
139	Searsport, ME	1.4
140	Kivalina, AK	1.3
141	Pemiscot County Port, MO	1.3
142	Helena-West Helena Port, AR	1.3
143	Bridgeport, CT	1.2
144	Unalaska Island, AK	1.2
145	Hickman-Fulton County Port, KY	1.2
146	Ottawa Port District, IL	1.2
147	Port of Everett, WA	1.2
148	Yabucoa, PR	1.2
149	Kansas City Port Authority, MO	1.2
150	Ashtabula Port Authority, OH	1.1

PORT RANKINGS BY DRY BULK TONNAGE, 2022

Table 12 lists all ports that handled greater than 1 million short tons of dry bulk in 2022.

Table 12. Ports Handling More Than 1 Million Short Tons of Dry Bulk, 2022

Rank	Port	Total (millions of short tons)
1	South Louisiana, LA, Port of	153.0
2	New Orleans, LA	47.9
3	Plaquemines Port District, LA	45.8
4	Virginia, VA, Port of	40.6
5	Port of Greater Baton Rouge, LA	33.4
6	Mobile, AL	29.0
7	Duluth-Superior, MN and WI	27.0
8	Houston Port Authority, TX	26.0
9	Baltimore, MD	25.2
10	Northern Indiana District, IN	23.3
11	Southern Indiana District, IN	23.1
12	Pittsburgh, PA Port of	15.9
13	Port of Kalama, WA	15.5
14	Port of Portland, OR	13.5
15	Mid-America Port, IA, IL and MO	12.7
16	Two Harbors, MN	11.9
17	Port of Long Beach, CA	10.9
18	New Bourbon Port Authority, MO	10.3
19	Corpus Christi, TX	10.0
20	Toledo-Lucas County Port, OH	9.8
21	Honolulu, O'ahu, HI	9.7
22	Port of Longview, WA	9.7
23	Seattle, WA	9.1
24	Tampa Port Authority, FL	9.0
25	Cleveland-Cuyahoga Port, OH	8.9
26	New York, NY & NJ	8.8
27	Port of Vancouver USA, WA	8.6
28	Detroit-Wayne County Port, MI	8.4
29	Illinois International Port, IL	8.1
30	St. Louis City Port, MO	7.5
31	Southwest Regional Port, IL	6.8
32	Port Arthur, TX	6.8
33	Rogers City, MI	6.8
34	Tacoma, WA	6.3
35	Port of Savannah, GA	6.3
36	Paducah-McCracken Riverport, KY	6.3
37	Kaskaskia Regional Port, IL	6.1
38	Marquette, MI	5.5
39	Memphis-Shelby County Port, TN	5.3
40	Louisville-Jefferson Port, KY	5.1
41	Joliet Regional Port, IL	5.0
42	Nashville, TN	5.0
43	Brownsville, TX	4.9
44	Philadelphia Regional Port, PA	4.3
45	Presque Isle Township, MI	4.3
46	Illinois Valley Port, IL	4.2
47	America's Central Port, IL	4.2
48	Lake Charles Harbor District, LA	4.2
49	Southeast Missouri Port, MO	3.9
50	Jacksonville, FL	3.9
51	Mueller Township, MI	3.9
52	St. Paul Port Authority, MN	3.8

Rank	Port	Total (millions of short tons)
53	Cincinnati, OH	3.7
54	South Jersey Port Corp, NJ	3.6
55	Jackson-Union Port District, IL	3.4
56	Heart of Illinois Port, IL	3.2
57	Kahului, Maui, HI	3.2
58	Port of Columbia County, OR	3.2
59	Port of Charleston, SC	3.1
60	Jefferson County Port, MO	3.1
61	Tulsa-Rogers County Port, OK	3.1
62	Stockton, CA	3.0
63	Conneaut, OH	2.9
64	Massac-Metropolis Port, IL	2.8
65	Wilmington, NC	2.8
66	Canaveral Port District, FL	2.8
67	Clark Township, MI	2.8
68	Coos Bay OR, Port of	2.6
69	New Madrid County Port, MO	2.6
70	Manatee County Port, FL	2.6
71	Havana Regional Port, IL	2.5
72	Port of Los Angeles, CA	2.4
73	Marblehead, OH	2.3
74	Beaumont, TX	2.3
75	Port of Pascagoula, MS	2.3
76	Port of Iberia District, LA	2.2
77	Richmond, CA	2.2
78	Texas City, TX	2.2
79	Monroe, MI	2.2
80	Alpena, MI	2.2
81	Owensboro Riverport, KY	2.2
82	Henderson County Riverport, KY	2.2
83	West St. Mary Parish Port, LA	2.1
84	Kawaihae, Hawai'i, HI	2.0
85	Central Louisiana Regional, LA	2.0
86	Nawiliwili, Kaua'i, HI	2.0
87	Milwaukee, WI	2.0
88	Port of Greenville, MS	1.9
89	Hilo, Hawai'i, HI	1.9
90	Port Everglades, FL	1.9
91	Galveston, TX	1.9
92	Chattanooga, TN	1.9
93	Port of Providence, RI	1.8
94	Redwood City, CA	1.8
95	Guayama, PR	1.8
96	Sandusky, OH	1.7
97	Silver Bay, MN	1.7
98	Wilmington, DE	1.7
99	Marine City, MI	1.7
100	Port of Rosedale, MS	1.6
101	Grays Harbor Port District, WA	1.6
102	St. Louis County, MO	1.5
103	Muskegon, MI	1.5
104	San Francisco Port, CA	1.5
105	Green Bay, WI	1.4
106	Guntersville, AL	1.4
107	San Juan, PR	1.3
108	Port of Vicksburg, MS	1.3
109	Kivalina, AK	1.3
110	Helena-West Helena Port, AR	1.3

Rank	Port	Total (millions of short tons)
111	Morehead City, NC	1.3
112	Portsmouth, NH	1.3
113	Hickman-Fulton County Port, KY	1.2
114	Pemiscot County Port, MO	1.2
115	New Haven, CT	1.2
116	Ottawa Port District, IL	1.2
117	Shawneetown Regional Port, IL	1.1
118	Ashtabula Port Authority, OH	1.1
119	Sacramento-Yolo Port, CA	1.1
120	Heartland Port Authority, MO	1.1
121	Kansas City Port Authority, MO	1.0

PORT RANKINGS BY LOADED TWENTY-FOOT EQUVALENT UNITS, 2022

Table 13 lists all ports that handled greater than 1,000 TEUs in 2022.

Table 13. Ports With More Than 1,000 Loaded TEU in 2022

Rank	Port	Total (thousands of TEUs)
1	New York, NY & NJ	6,660.3
2	Port of Los Angeles, CA	6,424.3
3	Port of Long Beach, CA	6,092.0
4	Port of Savannah, GA	4,329.9
5	Houston Port Authority, TX	3,252.6
6	Virginia, VA, Port of	2,861.9
7	Port of Charleston, SC	2,126.3
8	Port of Oakland, CA	1,791.2
9	Tacoma, WA	1,519.2
10	Seattle, WA	1,085.2
11	Jacksonville, FL	902.6
12	Port Miami, FL	889.0
13	San Juan, PR	832.0
14	Honolulu, O'ahu, HI	828.8
15	Baltimore, MD	790.9
16	Port Everglades, FL	758.5
17	Philadelphia Regional Port, PA	728.5
18	Mobile, AL	440.4
19	Port of Alaska, AK	419.8
20	New Orleans, LA	352.7
21	Wilmington, NC	237.2
22	Wilmington, DE	204.4
23	Oxnard Harbor District, CA	197.8
24	South Jersey Port Corp, NJ	163.1
25	Port of Gulfport, MS	152.0
26	Port of Boston, MA	130.7
27	Port of Palm Beach District, FL	122.1
28	Guaynabo, PR	120.6
29	Juneau, AK	111.4
30	Port of Portland, OR	110.6
31	Tampa Port Authority, FL	105.7
32	Ketchikan, AK	94.4
33	Manatee County Port Authority, FL	92.3
34	San Diego Unified Port District, CA	89.3
35	Kahului, Maui, HI	88.4
36	Petersburg, AK	82.7
37	Kawaihae, Hawai'i, HI	79.0

Rank	Port	Total (thousands of TEUs)
38	Unalaska Island, AK	67.3
39	Port Freeport, TX	61.4
40	Nawiliwili, Kaua'i, HI	41.7
41	Port of Everett, WA	36.8
42	Hilo, Hawai'i, HI	36.3
43	Whittier, AK	30.8
44	Panama City Port Authority, FL	30.7
45	Galveston, TX	26.2
46	Port of Vancouver USA, WA	24.7
47	Portland, ME	20.4
48	Kodiak, AK	16.9
49	Haines Borough, AK	12.4
50	Skagway, AK	11.4
51	Cleveland-Cuyahoga County, OH	5.1
52	Kake, AK	4.7
53	Wrangell, AK	4.5
54	Cordova, AK	3.8
55	Canaveral Port District, FL	3.8
56	Nome, AK	3.6
57	Kaumalapau, Lana'i, HI	3.2
58	Illinois International Port District, IL	3.1
59	Yakutat, AK	3.0
60	Calhoun Port Authority, TX	2.9
61	Port of Longview, WA	2.8
62	False Pass, AK	2.7
63	Dillingham, AK	2.5
64	Bethel, AK	2.5
65	Clallam County Port District, WA	2.4
66	Old Harbor, AK	1.7
67	Kaunakakai, Moloka'i, HI	1.5
68	Hoonah, AK	1.5
69	Port of South Louisiana, LA	1.3