The State of North American Ports

Official Documentation

General Information

The State of Ports in North America is a report put together by Auba Inc seeking to consolidate into one source all relevant information about maritime trade in North America. We used ports as a proxy to measure maritime activity given their relevance to vessels. All maritime trade begins and ends at a port, making them an ideal means to understand trade at sea.

This report was born out of our own interest in better visualizing North American trade. However, we soon found that most sources of information would only provide a fragmented perspective on North America. So, we decided to aggregate all information into a single source.

Our data gathering efforts were consolidated into two separate datasets: ***Auba_Ports_2024.csv*** and ***Auba_Ports_Cargo_Expansion_2024.csv***. The core difference between these datasets is the unit of measurement used. ***Auba_Ports_2024.csv*** provides port data measured in TEUs, while ***Auba_Ports_Cargo_Expansion_2024.csv*** provides port data for cargo, measured in metric tons.

In general, we looked for six variables for every port included: TEUs, Tons of Cargo, TEUs Imported, TEUs Exported, number of empty TEUs, and number of full TEUs.

A full description of each variable in the datasets in question can be found in the data dictionary: ***Auba_Ports_Dictionary.csv***.

Files

The State of Ports in North America consists of two datasets and a data dictionary:

Auba_Ports_2024.csv: Data for North American ports measured in TEUs
Auba_Ports_Cargo_Expansion_2024.csv: Data for North American ports measured in tons of cargo.
Auba_Ports_Dictionary.csv: Data dictionary outlining all the variables used in the datasets

The Size of our Data

Using a variety of sources—carefully documented below—we were able to consider **276 ports for our report**. We attempted to include all ports in the region—which, likely, is an impossible task considering smaller sized ports. In the end, we considered 229 US ports, 41 Mexican ports, and 6 Canadian ports. All data in the report encompasses **the six year period between 2018 and 2023**. All data is presented as a yearly aggregate—thus explaining why we omitted data for 2024.

The final datasets for this report do not represent the totality of ports considered. In various instances, we found relatively small ports for which there was a single entry—or discrepancy across entries. Thus, our final datasets only represent the ports for which we found complete information in our areas of interest. In ***Auba_Ports_2024.csv***, the final list of ports accounts for 77 ports in North America. In ***Auba_Ports_Cargo_Expansion_2024.csv***, the final list of ports accounts for 165 ports in North America. The steep drop in the number of ports considered between datasets is directly related to the number of variables considered. While ***Auba_Ports_2024.csv*** considers five variables across six years, ***Auba_Ports_Cargo_Expansion_2024.csv*** only focuses on one variable (tons of cargo).

The Source of our Data

In making ***The State of Ports in North America***, we only used three types of sources: official government records, official reports or websites of the ports in question, and official press briefings of the ports being considered. Seeking to provide full transparency on our data and sources, we provide a detailed account for each country and port below:

Mexican Ports

Mexican ports proved to be the easiest to account for in our efforts. All relevant information across reports was found in official government records from the country's Secretary of Communication and Transportation. Below, we include links for all years considered:

Mexican Ports - 2018
Mexican Ports - 2019
Mexican Ports - 2020
Mexican Ports - 2021
Mexican Ports - 2022
Mexican Ports - 2023

US Ports

US ports proved to be far more challenging to include in our dataset. For the years 2018-2021, we were able to access relevant information for cargo and TEUs in two separate datasets from the Army Corps of Engineers which we share below:

Army Corps of Engineers - Cargo (2018-19)
Army Corps of Engineers - Cargo (2020-21)
Army Corps of Engineers - TEUs

For all US port information post 2021 we consulted the individual websites of port authorities or local governments. We include all resources consulted below in no particular order:

Port of Houston
Port of South Louisiana
Port of Corpus Christi
Port of New York (NY and NJ)
Port of Long Beach
Port of New Orleans
Port of Beaumont
Port of Greater Baton Rouge
Port of Virginia
Port of Los Angeles
Port of Plaquemines
Port of Mobile
Lake Charles Harbor and Terminal District
Port of Savannah
Port of Freeport
Port of Baltimore
Port of Duluth-Superior
Port of Philadelphia
Port of Northern Indiana District
Port of Tampa
Port of Charleston
Port of Texas City
Port of Valdez
Port of Portland
Port of Southern Indiana District
Port of Pascagoula
Port Everglades
Port of Seattle
Port of Richmond
South Jersey Port Corporation
Port of Oakland
Port of Honolulu
Port of Jacksonville
Port of San Juan
Port of Miami
Port of Alaska
Port of Wilmington
Port of Palm Beach
Port of Boston
Port of Kahului, Maui
Port of Ketchikan
Oxnard Harbor District
Port of Gulfport
Kawaihae Harbor

Canadian Ports

Canadian ports were, by far, the most complicated to include in our dataset. Given an absence of government sources, we relied entirely on port authorities to understand the composition of Canadian maritime trade. In the end, we were able to include six ports for the period being examined: Vancouver, Montreal, Quebec, Prince Rupert, Halifax, and St John. For each port, we consulted different sources to include as much information possible for the period examined. Below, we include all relevant sources for each port:

Montreal - 2018
Montreal - 2019
Montreal - 2020
Montreal - 2021
Montreal - 2022
Montreal - 2023
Prince Rupert - 2018
Prince Rupert - 2019
Prince Rupert - 2020
Prince Rupert - 2021
Prince Rupert - 2022
Prince Rupert - 2023

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Vancouver - 2018
Vancouver - 2019
Vancouver - 2020
Vancouver - 2021
Vancouver - 2022

Port of Halifax - 2018
Port of Halifax - 2019
Port of Halifax - 2020
Port of Halifax - 2021

Port of Halifax - 2022

Port of Saint John - 2018
Port of Saint John - 2019
Port of Saint John - 2020
Port of Saint John - 2021

Quebec - 2019
Quebec - 2020
Quebec - 2021
Quebec - 2022

Predictions

Despite our best efforts to provide a complete account of port activity in North America between 2018 and 2023, we often found that port authorities lagged behind on reporting recent data—sometimes, even several years worth of data. In order to provide a full account of the ports examined in our report, we used an autoregressive regression analysis to produce the most accurate prediction for missing values. For transparency, we labeled every predicted result in our datasets with an asterisk (*)—this has the added value of transforming values into a character rather than a numeric variable, allowing the user to easily detect when an entry was predicted. Below, we also include a list of all ports where at least one variable was predicted (a total of 48 ports).

Akutan Island
Apra Harbor
Baltimore
Bethel
Chatham Strait
Columbia River,
Dalles-Mcry
Cordova
Dutch Harbor
Ferndi Beach
Freeport
Galveston
Haines
Halifax
Hilo
Houston
Kahului, Maui
Kake
Ketchikan
Miami
Mobile
Nawiliwili, Kaua'i
New Orleans
Nome
Other Hawaiian Islands
Ports
Panama City
Petersburg
Philadelphia
Port Hueneme
Port Manatee
Port of Charleston
Port of Virginia
Prince of Wales Island
Prince Rupert
Saipan
Salina Cruz
San Diego
San Juan
Savannah
Seattle
Skagway
St John
Tacoma
Vancouver
Whittier
Wilmington
Wilmington
Wrangell
Yakuta