

Growing Economic Impact of U.S. Freight Railroads



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JOINT ECONOMIC COMMITTEE

DEMOCRATS

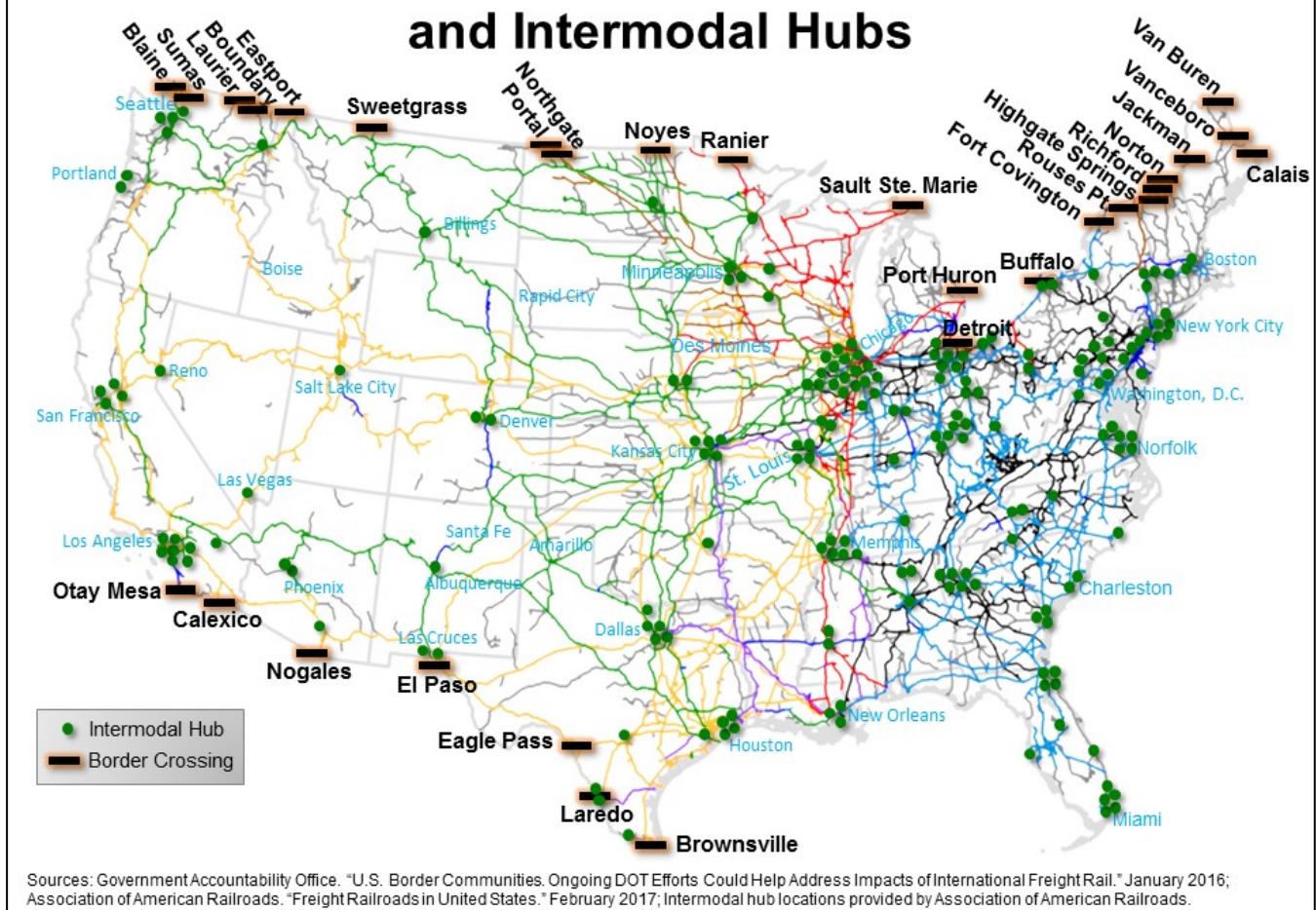
Growing Economic Impact of U.S. Freight Railroads

The volume of commerce crossing our borders has more than tripled in the last 25 years and United States freight shipments are expected to increase by 41 percent by 2040, placing a growing demand on America's freight rail system and the 30 rail *ports of entry* (POEs) along our borders.¹ As Congress considers border policies and solutions in the coming months, investment in border infrastructure to ensure our rail POEs can operate at full capacity is an important part of the conversation.

Freight railroads are a mainstay of the U.S. economy

The U.S. freight rail network is made up of hundreds of interconnected companies. Approximately 600 freight railroads operate in America. The U.S. is home to nearly 140,000 route-miles of rail line. The seven largest American freight railroads are known as *Class I freight railroads*.

Figure 1. U.S. Freight Rail Border Crossings, Lines, and Intermodal Hubs



The Class I Railroads operating in the U.S., defined as freight railroads earning at least \$447.6 million in revenue in 2016, are: BNSF Railway, Grand Trunk Corporation (a subsidiary of Canadian National Railway), Soo Line Corporation (a subsidiary of Canadian Pacific Railway), CSX Transportation, Kansas City Southern Railway Company, Norfolk Southern Railway, and Union Pacific Railroad. These railroads account for approximately 94 percent of freight revenue and employ 90 percent of railroad personnel.²

Class I freight railroads work in concert with essential short line and regional railroads to deliver goods. An example of how the system interconnects, during the recovery from Hurricane Sandy freight rail helped to move lumber into Long Island, New York, as quickly as possible. A Class I freight railroad carried lumber to a local, short line railroad that serves the Long Island Brookhaven Rail Terminal. This terminal connected supplies with stores on Long Island to disseminate the lumber.³ Figure 1 details the locations of U.S. freight rail lines.

The rail freight industry is estimated to support 1.1 percent of U.S. workers, or 1.5 million U.S. jobs.

Freight rail companies largely fund their own infrastructure and equipment

Railroad spending includes capital expenditures and maintenance expenses for locomotives, freight cars, tracks, bridges, tunnels, and other infrastructure and equipment. Freight railroads spent \$24.1 billion per year on infrastructure and equipment on average in the last ten years. From 1980 to 2016, railroads spent a total of more than \$635 billion for these purposes.⁴ Figure 2 details infrastructure and equipment spending levels in the last 10 years.

Figure 2. Annual Class I Railroad Spending on Infrastructure and Equipment

Billions of Dollars



Source: Association of American Railroads. "Overview of America's Freight Railroads." April 2017. Figure in current dollars.

Freight rail is a significant U.S. employer

In total, the operations and capital investment of the freight rail industry are estimated to support 1.1 percent of U.S. workers, or 1.5 million U.S. jobs, including jobs in retail, manufacturing, transportation, and warehousing.⁵ Freight rail directly employs 170,000 workers who operate the rail network and signal systems, as well as repair equipment.⁶ Approximately 85 percent of Class I rail employees are unionized.⁷ These unionized positions have negotiated collective bargaining agreements providing rail workers with good wages, health care, and other benefits.⁸ Class I freight rail workers earned an average annual wage of \$84,800 in 2016.⁹

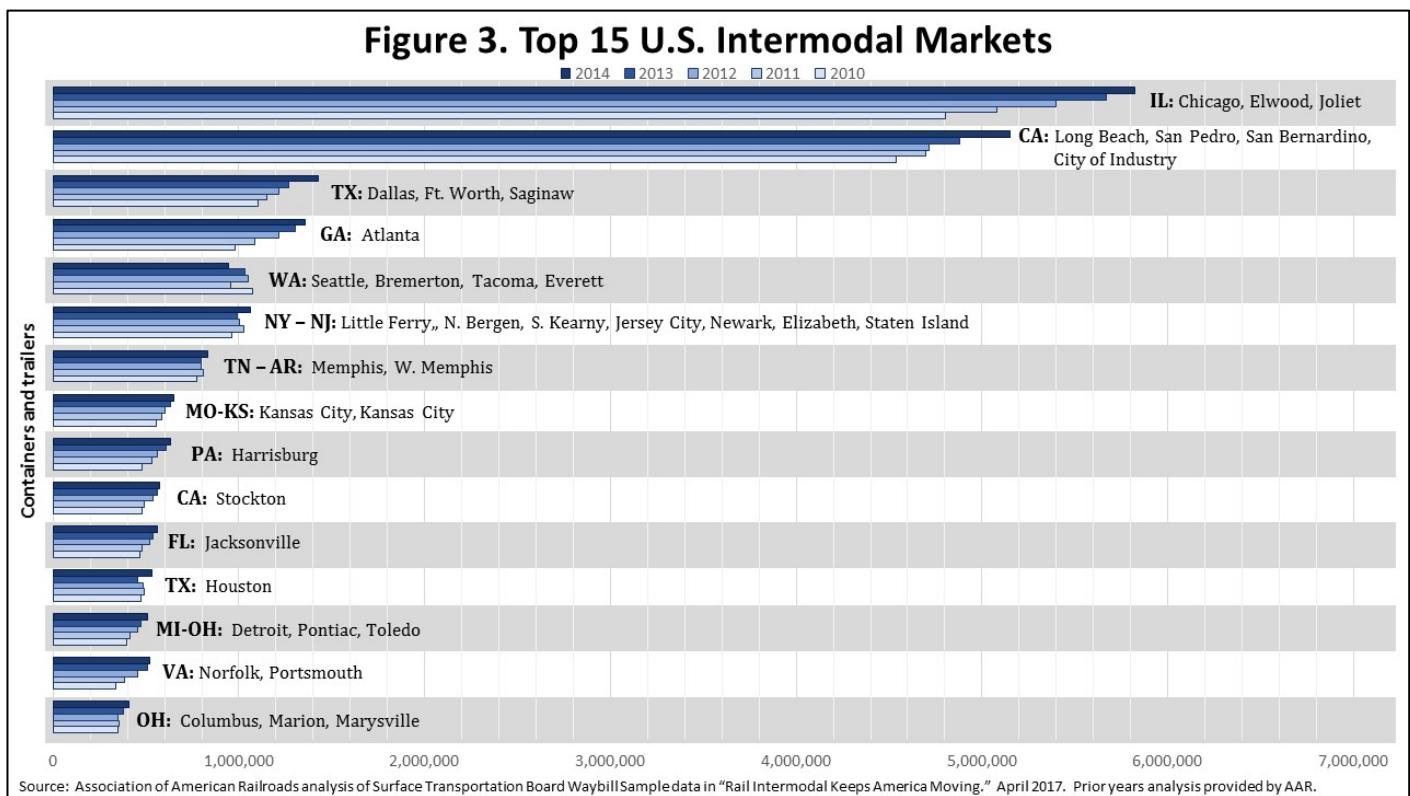
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Intermodal facilities: Linchpins of the freight rail system

Intermodal hub facilities

Intermodal hubs are sites to exchange shipping containers between freight rail, trucks, and ocean carriers.¹⁰ According to information provided by the Association of American Railroads, there are approximately 185 major intermodal hubs across the U.S. freight rail system, located near POEs and along major rail corridors. Figure 1 maps the locations of most major U.S. intermodal facilities and Figure 3 details the largest U.S. intermodal markets.

Figure 3. Top 15 U.S. Intermodal Markets



Intermodal hubs and economic development

Intermodal hubs serve to attract economic development. For example, nearly a dozen businesses have located in Santa Teresa, NM, to take advantage of the new Santa Teresa Intermodal Ramp and Refueling Station, such as a warehousing company and a truck chassis repair company. The facility also drives exports. Goods exported from New Mexico to Mexico almost doubled from \$802 million to \$1.5 billion the year after the Santa Teresa hub opened in 2014.¹¹

Intermodal volume increased by 335 percent since 1980.

Intermodal volume

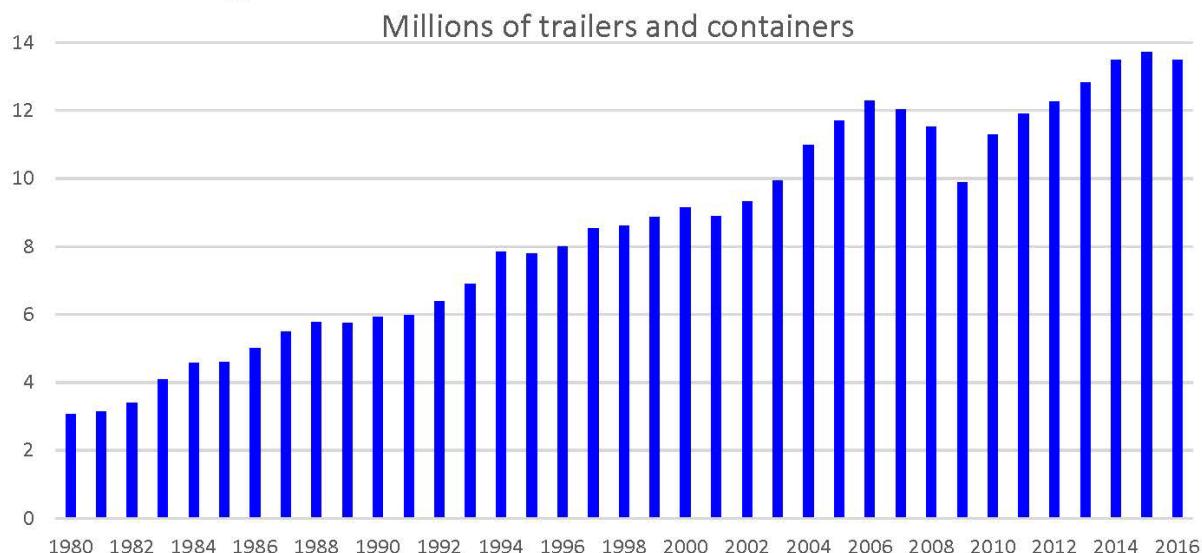
The volume of goods flowing through U.S. intermodal hubs has grown. Intermodal volume increased by 335 percent since 1980, from about 3 million containers and trailers to 13.5 million in 2016.¹² October 2017 was the highest month for intermodal rail traffic in history.¹³ Figure 4 details annual U.S. rail intermodal traffic.

Cross-border freight rail traffic is a cornerstone of U.S. shipping

Cross-border North American freight rail volume

Freight rail carries millions of tons of goods per year across the U.S. North American borders. In 2014, an average of 93 trains crossed into the U.S. across our borders with Canada and Mexico per day, or approximately 34,000 trains total that year.¹⁴ Movements associated with international trade accounted for 27 percent of rail tonnage in 2014, and 42 percent of rail carload and intermodal units. The majority (64 percent) of goods moved internationally by rail in 2014 were exports.¹⁵ U.S. freight rail handled 329 million tons of exports and 171 million tons

Figure 4. U.S. Intermodal Traffic



Source: Association of American Railroads. "Rail Intermodal Keeps America Moving." April 2017.

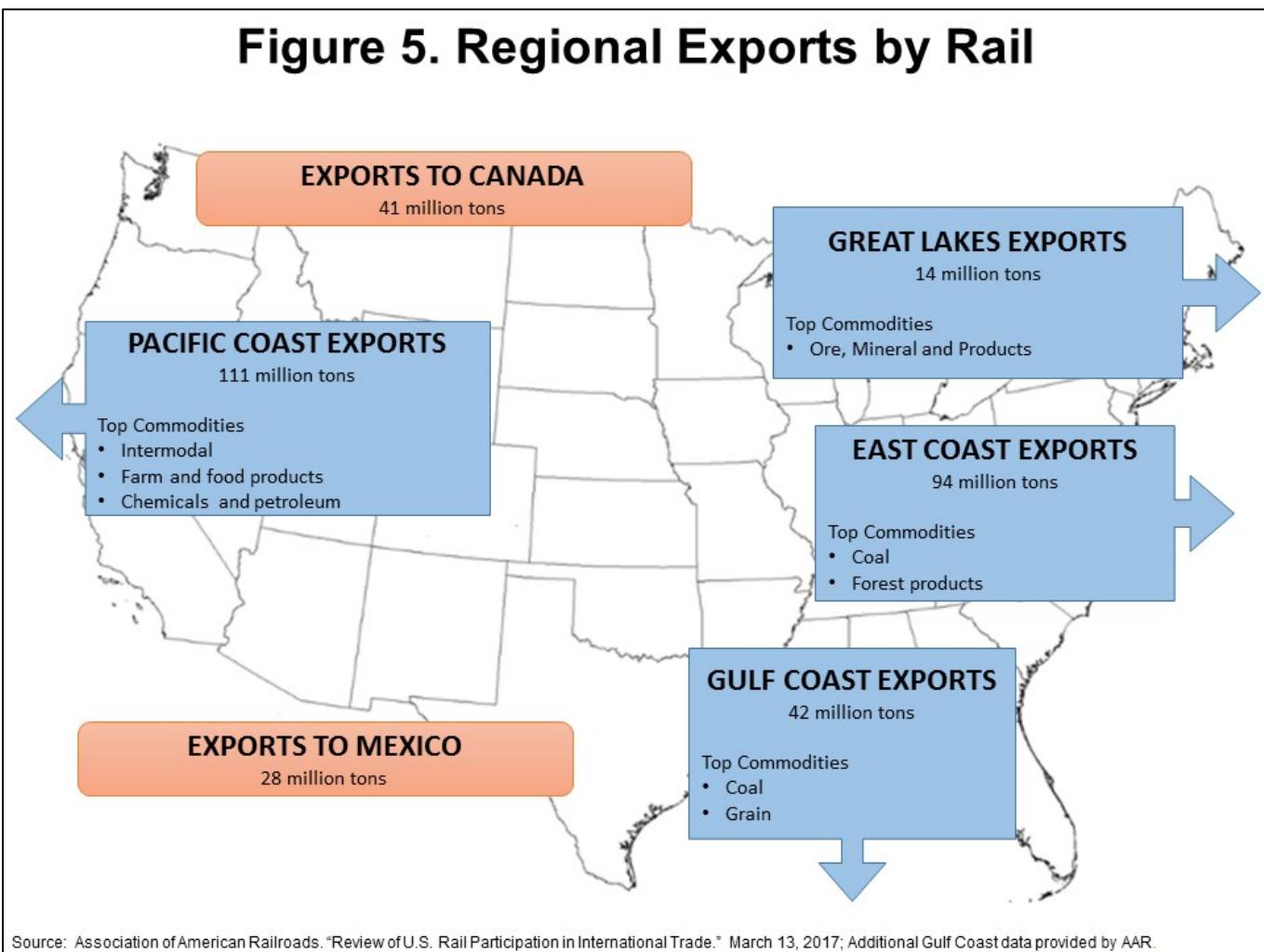
Prior year data provided by AAR.

of imports in 2014.¹⁶ About half of U.S. rail intermodal traffic is associated with cross-border and international movement.¹⁷

Regional commodities and volume

The commodities and volume of goods exported by freight rail vary by region. The U.S. exported an estimated 41 million tons by rail to Canada and 28 million tons to Mexico in 2014. The Pacific Coast leads freight rail exports, processing 111 million tons in 2014.¹⁸ Figure 5 illustrates the volumes and primary goods exported by freight rail in each region.

Figure 5. Regional Exports by Rail



Rail POEs

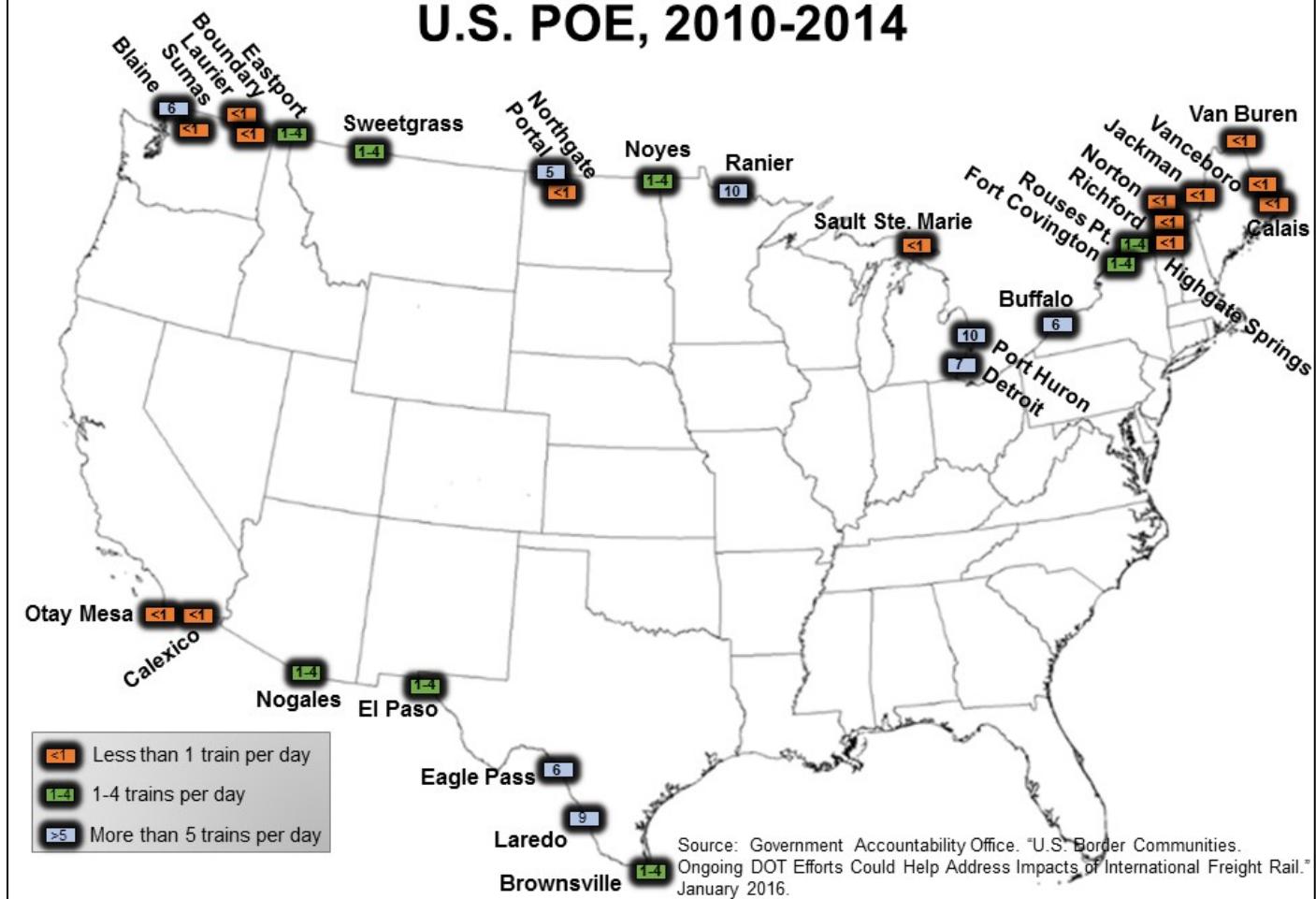
All goods enter and exit the U.S. through the 328 U.S. POEs, the gateways in and out of our country.¹⁹ These POEs include international airports, cargo seaports, and land ports for trains and trucks. Every day, an average of 1.1 million people and \$5.9 billion in goods legally enter and exit the U.S. at these POEs.²⁰

Thirty of these POEs have facilities for rail traffic: seven rail POEs are along the U.S. border with Mexico and 23 are on the U.S. - Canada border.²¹ Rail POEs, combined with rail shipments to U.S. seaports, processed 511 million tons of cross-border rail carloads and containers in 2014.²² Figure 1 maps U.S. rail POEs alongside freight rail lines and intermodal hubs.

Rail POE Volumes

Train crossing volumes at rail POEs vary. Sixty-eight percent of cross-border inbound rail freight moves through eight of the 30 U.S. POEs. Fourteen rail POEs receive less than one inbound train per day, on average.²³ Figure 6 indicates the average daily number of inbound trains at each POE from 2010 – 2014.

Figure 6. Average Daily Inbound Trains at Each U.S. POE, 2010-2014



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- ¹ Joint Economic Committee calculations based on Bureau of Economic Analysis data. Volume of commerce is the sum of exports and imports in inflation adjusted dollars; Association of American Railroads. “Overview of America’s Freight Railroads.” August 2017; U.S. Government Accountability Office. “U.S. Border Communities. Ongoing DOT Efforts Could Help Address Impacts of International Freight Rail.” January 2016.
- ^{2, 4, 9} Association of American Railroads. “Overview of America’s Freight Railroads.” August 2017. Note: According to the Association of American Railroads, excluding executives, Class I freight rail workers earned an average annual wage of \$81,800 in 2016.
- ^{3, 5, 11} Association of American Railroads. “2016 State of the Industry Reports. Report 2. Economic Impact.”
- ^{6, 8} AFL-CIO Transportation Trades Department. “Policy Statement No. W17-05.” Adopted March 12, 2017.
- ⁷ Association of American Railroads. “Collective Bargaining in the Freight Rail Industry.” December 2016.
- ^{10, 12, 17} Association of American Railroads. “Rail Intermodal Keeps America Moving.” April 2017.
- ¹³ Association of American Railroads. “AAR reports October 2017 as strongest month for intermodal in history.” November 1, 2017.
- ^{14, 21, 23} U.S. Government Accountability Office. “U.S. Border Communities. Ongoing DOT Efforts Could Help Address Impacts of International Freight Rail.” January 2016.
- ¹⁵ Note: Measured in tons. JEC Democratic staff calculations with data provided in: Association of American Railroads. “Freight Railroads and International Trade.” March 2017.
- ^{16, 22} Association of American Railroads. “Freight Railroads and International Trade.” March 2017.
- ¹⁸ Association of American Railroads. “Review of U.S. Rail Participation in International Trade.” March 13, 2017.
- ¹⁹ U.S. Customs and Border Protection. “FY 2016 Performance and Accountability Report.” January 18, 2017.
- ²⁰ Joint Economic Committee calculations based on data from the U.S. Census Bureau, USA Trade Online, and U.S. Customs and Border Protection. “FY 2016 Performance and Accountability Report.” January 18, 2017.