

# What Railroads Haul: Intermodal

Rail [intermodal](#) is the long-haul movement of shipping containers and truck trailers by rail, combined with a truck or water movement at one or both ends. Intermodal combines the best attributes of different transportation modes to yield an efficient, cost-effective total movement.

Intermodal transports various goods Americans use daily — from many products on a retailer's shelves to industrial and agricultural goods like auto parts and grain. Together with other transportation providers, freight railroads annually carry nearly 61 tons of freight per American each year.

## **U.S. railroads created the world's most advanced intermodal network.**

Today, Chicago and Los Angeles/Long Beach are by far the top U.S. metropolitan areas for intermodal volume. Major intermodal markets have large populations and extensive highway feeder systems, both of which are crucial for intermodal success.

Knowing that successful intermodal corridors need sufficient line haul and terminal capacity to keep trains moving and to avoid congestion or delay, U.S. railroads have created the most advanced intermodal network in the world. They accomplished this feat by maximizing existing capacity and spending tens of billions of dollars on new infrastructure and equipment directly connected to intermodal operations, including state-of-the-art intermodal yards.

Freight rail's investments have a positive cyclical effect, leading to a surge in intermodal growth and then back into freight rail investing more into their networks to accommodate that growth and meet customer needs. For example, containers accounted for 47% of intermodal volume in 1990, 69% in 2000, and 92% in 2019. Unlike trailers, containers can be "double stacked," which helps ensure there is sufficient traffic density to keep rail intermodal cost competitive with all-truck movements. Over the years, freight railroads have invested in heightened railroad tunnels to accommodate double stacked containers.

## **Rail intermodal has grown because it offers myriad benefits.**

**Improved Service:** Railroads' intermodal investments — including many new terminals across the nation over the past ten years and new technologies in [yards](#) — have led to more productive and reliable intermodal operations, improving overall supply chain performance for intermodal customers.

*New or expanded inland terminals to facilitate the transfer of containers and trailers between rail and truck, as well as new near-dock intermodal terminals to facilitate ship-to-rail container transfers.*

*Adding track capacity and advanced signaling to allow faster, more frequent trains on the rail network.*

*Raising clearances along rail routes to accommodate the additional height required for double stack trains.*

*Introducing new intermodal car types and modernizing the locomotive fleet to enhance customer reliability.*

## **KEY TAKEAWAYS**

Rail intermodal is the movement of shipping containers and truck trailers by rail. It's been the fastest-growing major rail traffic segment over the past 25 years. Many of the products you find on a retailer's shelves may have traveled on an intermodal train. In fact, together with other transportation providers, freight railroads annually carry nearly 61 tons of freight per American each year.

In 2022, U.S. rail intermodal volume was 13.5 million units, and intermodal accounted for approximately 27% of revenue for major U.S. railroads, more than any other single rail traffic segment. Around half of rail intermodal volume consists of imports or exports, reflecting the vital role intermodal plays in international trade.

**Climate Change Solution:** On average, railroads are three to four times more fuel efficient than trucks. Because greenhouse gas emissions are directly related to fuel consumption, moving freight by rail instead of truck reduces greenhouse gas emissions by up to 75%, on average. Conversion to intermodal is a concrete way for rail customers to improve their sustainability.

**Less Gridlock:** One intermodal train can carry up to several hundred containers and trailers, which removes that many trucks off the road and helps shippers eliminate wasted time and fuel from their trucks sitting in traffic. Shifting freight from trucks to rail also reduces the pressure to build costly new roads and helps cut the costs of maintaining the roads we already have.

**Global Competitiveness:** Intermodal helps U.S. firms connect with the rest of the world. About half of U.S. rail intermodal volume consists of imports and exports. Experts predict continued growth in international trade in the years ahead.

**Relieving Truck Driver Shortages:** Hiring and retention is a constant challenge for trucking companies. Truck driver shortages are less of a problem when rail intermodal is used because intermodal rail service takes millions of trucks off our highways each year.

