

Railroads: Green From the Start

ASSOCIATION OF AMERICAN RAILROADS

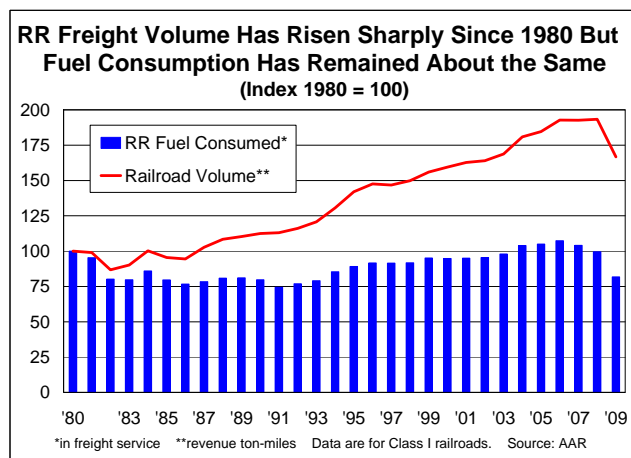
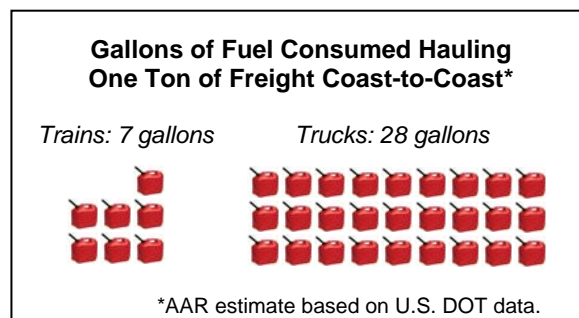
APRIL 2010

Summary

Railroads are the most environmentally sound way to move freight. On average, railroads are four times more fuel efficient than trucks. They also fight highway gridlock, lower greenhouse gas emissions, and reduce pollution. Through the development and use of greener and cleaner technologies and fuel efficient operating practices, railroads are committed to even greater environmental excellence in the years ahead.

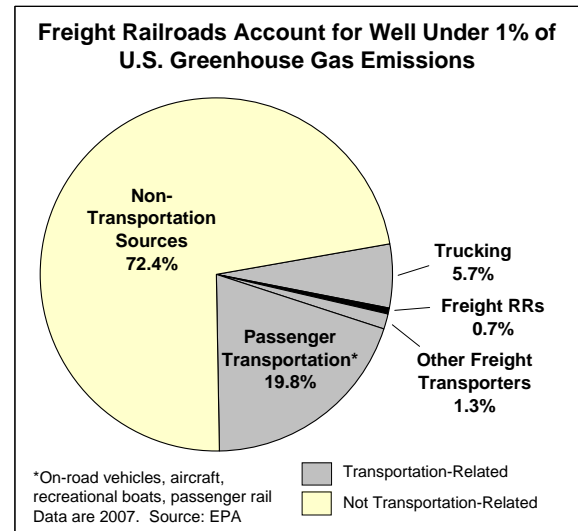
Freight Railroads = Fuel Efficiency

- In 2009, U.S. freight railroads moved one ton of freight an average of **480 miles per gallon** (up from 457 in 2008). Rail fuel efficiency is **up 104 percent** since 1980.
- On average, **railroads are four times more fuel efficient than trucks**, according to a recent independent study for the Federal Railroad Administration. If just 10 percent of the long-distance freight that moves by truck moved by rail instead, fuel savings would exceed one **billion gallons per year**.
- In recent years, railroads have nearly **doubled** their freight volume from 1980 levels, but they did so using virtually the **same amount of fuel**.
- Railroads are constantly searching for ways to save more fuel. For example, railroads have acquired thousands of new energy-efficient locomotives, including hybrids and “gensets” which have several independent engines that turn on and off depending on need; they are adopting innovative new technologies such as hyper-intelligent computer systems that calculate the most fuel efficient speed for a train; and they commonly offer training programs through which locomotive engineers offer suggestions to their colleagues on ways to save fuel.



Freight Railroads = Lower Greenhouse Gas Emissions

- Greenhouse gas emissions are directly related to fuel consumption. That means **moving freight by rail instead of truck reduces greenhouse gas emissions by 75 percent**, on average. If just 10 percent of long-distance freight now moving by truck moved by rail instead, annual greenhouse gas emissions would fall by more than 12 million tons. That's equivalent to taking **2 million cars off the road** or **planting 280 million trees**.
- America's seven largest freight railroads have all joined the Environmental Protection Agency's voluntary "SmartWay Transport" partnership aimed at improving fuel efficiency and reducing greenhouse gas emissions.



Freight Railroads = Less Highway Gridlock

- A single freight train can carry the load of **280 or more trucks**. That's equivalent to making room on our highways for more than **1,100 cars**.
- Railroads also help **reduce the huge economic costs** of highway gridlock. According to the [2009 Urban Mobility Report](#) published by the Texas Transportation Institute, congestion on America's highways costs \$87 billion in wasted travel time (4.2 billion hours) and wasted fuel (2.8 billion gallons) each year. That's equal to three weeks' worth of wasted gas and nearly a full week of wasted time for every traveler. Lost productivity, cargo delays, and other costs add tens of billions of dollars to this tab.
- Shifting freight from trucks to rail reduces the expense of highway wear and tear and reduces the pressure to build costly new roads.

Freight Railroads = Less Pollution

- We can all breathe easier with rail — literally. Moving freight by rail rather than truck significantly reduces emissions, and that means cleaner air for all of us.
- In March 2008, the EPA issued stringent new locomotive emissions standards that will **cut** particulate emissions by up to **90 percent** and nitrogen oxide emissions by up to **80 percent**. The new standards will also yield big reductions in emissions of other harmful pollutants.