

# Freight Rail

## MOVING THE ECONOMY MITIGATING POLLUTION KEEPING COMMUNITIES SAFE

Freight railroads provide safe and efficient transportation for nearly every sector of the economy, playing a fundamental role in America's economic growth. Moving freight by rail also benefits the public by mitigating air pollution, conserving fuel, improving safety, reducing highway congestion and saving taxpayer dollars.

### Freight rail is the engine that keeps our economy strong.

Freight rail is one of the country's most essential industries, providing a foundation on which many other industries rely for their own success. Freight rail connects farmers, miners, retailers and manufacturers to markets across the country and around the world, and is a crucial part of the integrated network of trains, trucks and barges that ships around 54 tons of goods per American each year.

- America's privately-owned freight railroads operate almost exclusively on infrastructure they own, build, maintain and pay for themselves — a vast network of nearly 140,000 miles.
- From the food on our tables to the cars we drive to the shoes on our feet, railroads account for over one third of the nation's intercity freight volume.
- Railroads spend an average of 19 percent of revenue on capital expenditures — six times more than the average U.S. manufacturer.
- Freight railroads spend an average of \$25 billion each year on infrastructure and equipment — more than 40 cents out of every revenue dollar. Since 1980, they have spent more than \$710 billion of their own funds on locomotives, freight cars, tracks, bridges, tunnels and other equipment and technology.
- According to Towson University's Regional Economic Studies Institute, Class I railroads supported over 1.1 million jobs, \$219.5 billion in economic output and \$71.3 billion in wages in 2017, while also creating nearly \$26 billion in total tax revenues.
- Freight railroads have approximately 160,000 employees. Average compensation for a Class I freight rail employee is \$130,200 in wages and benefits per year. Nearly 20% of employees are military veterans.

### FAST FACTS: RAIL INVESTMENTS BENEFIT AMERICANS

- Railroads haul about one-third of all U.S. exports and move nearly 75% of the new cars and light trucks purchased in the U.S. each year. (AAR, 2018)
- Freight rail offers savings of about 23% versus trucking. (AASHTO, 2018)
- Average U.S. freight rail rates (measured by inflation-adjusted revenue per ton-mile) were 44% lower in 2018 than in 1981, so the average rail shipper can move almost twice as much freight for about the same price it paid more than 35 years ago. (AAR, 2019)
- The companies that supply railroads with equipment, services and technology employ 125,000 workers and contribute more than \$74.2 billion in GDP. (RSI, 2018)
- Total freight demand is expected to grow roughly 35% by 2040. (USDOT, 2019)
- A one percent mode-shift from trucks to freight trains would generate \$19.3 billion in benefits over 30 years — 44% accrued to shippers in lower transportation costs and 66% to the rest of society in cleaner air, less roadway congestion and improvements in safety. (AASHTO, 2018)



## Conserving fuel, mitigating pollution.

Freight rail is the most efficient and environmentally sound way to move freight over land. From advanced locomotive technology to zero-emission cranes, freight railroads leverage technology to minimize their environmental impact.

- U.S. freight railroads can move one ton of freight 479 miles on a single gallon of fuel, on average.
- Railroads are, on average, four times more fuel efficient than trucks. Moving freight by rail instead of truck lowers greenhouse gas emissions by 75 percent.
- Freight rail accounts for only 0.6 percent of greenhouse gas emissions in the U.S., and just 2 percent of transportation-related sources, according to the U.S. Environmental Protection Agency.
- One train can carry the freight of several hundred trucks — reducing highway gridlock, the cost of maintaining existing highways and the pressure to build expensive new highways.
- Since 1980, freight railroads have nearly doubled the amount of freight moved while using about the same amount of fuel.

## Keeping communities safe.

There is a direct correlation between the increase in rail network investments and enhanced safety performance.

- Based on statistics from the Federal Railroad Administration, recent years have been among the safest in rail history, but the challenge never ends. Railroads continually work with their employees, suppliers, customers and government officials to develop and implement new technologies and operating practices to further improve safety.
- More than 99.999 percent of rail hazardous materials shipments reached their destinations without a release caused by an accident.
- Railroads rely on technologies including sonar, infrared and ultrasound to monitor the condition of passing trains and the track beneath them while drones assist in bridge inspection and extreme weather incidents.
- Intelligent sensors positioned across the rail network gather data on the track, locomotives, and the components of 1.6 million rail cars. Analysis of these data sets allows railroads to move beyond detecting existing safety issues to predicting and preventing them.
- At the end of 2019, the nation's largest freight railroads were operating positive train control (PTC) across 98.5 percent of the required route-miles nationwide. PTC is a set of highly advanced technologies designed to automatically stop a train before certain human-error accidents occur. The system will be fully active and interoperable by the end of 2020.
- Freight railroads help train tens of thousands of emergency responders each year, including programs at the Transportation Technology Center, Inc. (TTCI). Railroads also collaborate with first responders and other authorities to swiftly and effectively carry out their emergency response plans.
- The AskRail app provides over 25,000 first responders from all 50 states and eight Canadian provinces immediate access to accurate, timely data about what type of hazmat a rail car is carrying.



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