

A Short History of U.S. Freight Railroads

ASSOCIATION OF AMERICAN RAILROADS

MAY 2018

Summary

Since their birth more than 185 years ago, railroads have played a crucial role in America's development. They grew rapidly in the decades up to World War I. Following the war, growing competition from highways and waterways and increasingly stringent regulation led to the rail industry's decline. By the 1970s, railroads were at the brink of ruin. The **Staggers Rail Act of 1980** brought **regulatory balance** and gave railroads a new start. They responded by dramatically **increasing productivity**, sharply **lowering rates**, and **reinvesting hundreds of billions of dollars** — in private funds, not taxpayer funds — back into their networks to create what is now the **best freight rail system in the world**. Looking ahead, the high quality of America's privately owned freight railroads must be maintained so that they can continue to meet America's transportation needs and help our economy grow.

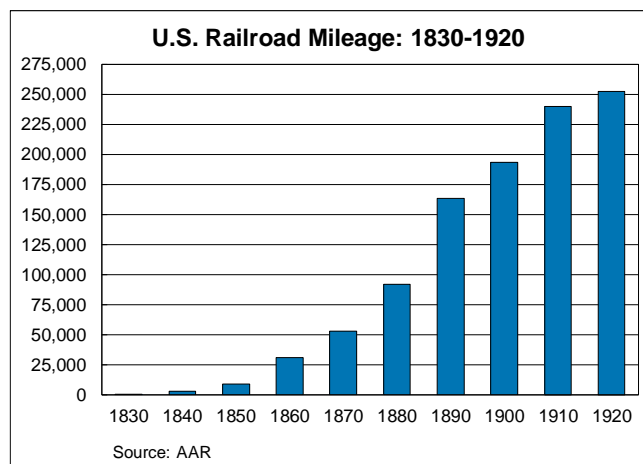
Railroads Were Critical to Early U.S. Development

- America's first intercity railroad, the 13-mile Baltimore and Ohio Railroad, was completed in early 1830. By 1850, more than 9,000 miles of railroad were in operation.
- Railroads provided a means for previously inaccessible areas to be developed; for mineral, timber, and agricultural products to get to market; and for the developed and undeveloped areas of a growing nation to be bound together.
- Railroads also played a key role in the Civil War. The North's victory was due in part to its well-organized rail operations and the fact that most of the country's locomotive and railcar-building plants were in the North.

Regulation and the Big Slide: 1887-1970

In 1887, the Interstate Commerce Act created the Interstate Commerce Commission (ICC) and made railroads the first U.S. industry subject to comprehensive federal economic regulation. Over time, **excessive regulation would nearly destroy railroads**.

- By 1917, the 1,500 U.S. railroads operated around **254,000 miles** and employed **1.8 million people** — more than any other industry. Rail mileage had already peaked (in 1916), however, and rail employment would soon (in 1920).

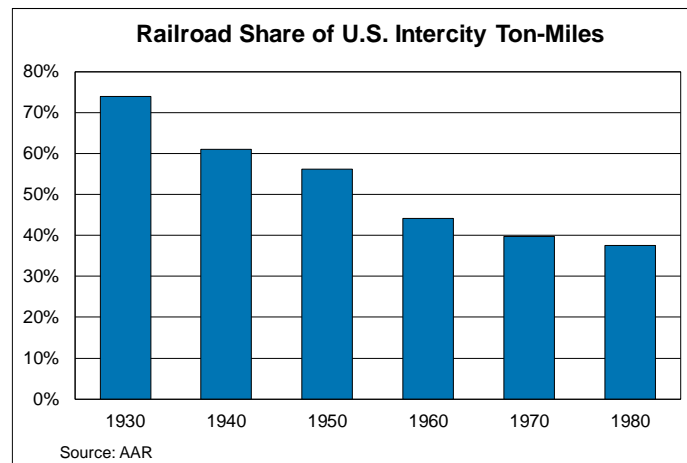


- The Great Depression devastated railroads. Rail industry revenue fell by 50 percent from 1928 to 1933. By 1937, more than 70,000 miles of railroad were in receivership, representing around 30 percent of all rail miles.
- On the eve of World War II, most railroads were in financial trouble. A surge in war-related traffic brought a temporary reprieve, but by 1949 rail traffic had fallen 28 percent from its 1944 level. Railroads were losing huge amounts of money on passenger operations, but government regulators often refused to allow railroads to discontinue money-losing passenger routes.
- Throughout the 1950s and 1960s, the rapid growth of truck and barge competition (aided by tens of billions of dollars in federal funding for construction of the interstate highway and inland waterway systems) and huge ongoing losses in passenger operations led to more **railroad bankruptcies, service abandonments, and deferred maintenance.**
- **Misguided railroad regulation** was a major factor behind the rail industry's decline:
 - ✓ The ICC **set maximum and minimum rates** for rail shipments, with rates often unrelated to costs or demand. The ICC generally tried to keep rates low for grain and other bulk commodities at the expense of higher rates for many kinds of manufactured goods that moved in smaller quantities. As a result, many shippers of this higher-rated freight diverted the freight to the highways instead.
 - ✓ The concept of “open routing” added to railroad problems. The rail network was much like a web: a number of possible routes could often be used to move freight between two points. The cost to a railroad of a more circuitous route is generally higher than the costs of a more direct route. However, **regulation generally kept rates for routes between two points similar**, even if railroads incurred much higher or lower costs to use some routes than others.
 - ✓ Because regulation made it so difficult for railroads to adjust individual rates, railroads typically resorted to across-the-board rate increases as their costs rose. This meant that rail rates tended to reflect cost patterns that existed in the past. Subsequent changes in technology and traffic flow that may have significantly altered those cost patterns were often ignored.
 - ✓ **Sometimes regulation simply made no sense.** One infamous example involved “Big John” cars. In the early 1960s, the Southern Railway asked the ICC for permission to sharply reduce rates for grain shipments using new 100-ton hopper cars. The ICC refused, in part because the lower rates would take business away from more expensive waterways. Only after a U.S. Supreme Court decision in its favor was the Southern Railway able to introduce the new cars.
 - ✓ Likewise, **regulation delayed the widespread use of “unit trains.”** Unit trains use dedicated, highly efficient sets of 50 or more cars to move freight between two points (for example, between a coal mine and a power plant). However, regulations prevented railroads from offering lower rates to shippers who used unit trains than to shippers who did not. Consequently, it was not profitable for railroads to introduce this innovation until the 1960s, long after it otherwise would have been.

The 1970s: Railroads at the Brink

By the 1970s, excessive regulations, intense competition from trucks and barges, and changing shipping patterns **drove railroads to the brink of ruin:**

- The Rail Passenger Service Act of 1970 created Amtrak and relieved freight railroads of most of the huge losses (then around \$200 million per year, which is around \$850 million in today's dollars) incurred in passenger service, but conditions continued to deteriorate on the freight side.
- During the 1970s, most major railroads in the Northeast and several major Midwestern railroads went bankrupt. **Bankrupt railroads accounted for more than 21 percent of the nation's rail mileage.**
- Between 1970 and 1979, the rail industry's return on investment never exceeded 2.9 percent and averaged just 2.0 percent. The rate of return had been falling for decades: it averaged 4.1 percent in the 1940s, 3.7 percent in the 1950s, and 2.8 percent in the 1960s.
- Railroads lacked the funds to properly maintain their tracks. By 1976, more than 47,000 miles of track had to be operated at reduced speeds because of unsafe conditions. Railroads had billions of dollars in deferred maintenance, and the term "standing derailment" — when railcars that were standing still simply fell off poorly maintained track — was often heard.
- By 1978, the rail share of intercity freight had fallen to 35 percent, down from 75 percent in the 1920s.
- Oppressive regulation continued to harm the industry. As the U.S. Department of Transportation noted in 1978, "The current system of railroad regulation ... is a hodgepodge of inconsistent and often anachronistic regulations that no longer correspond to the economic condition of the railroads, the nature of intermodal competition, or the often-conflicting needs of shippers, consumers, and taxpayers."



The Staggers Rail Act of 1980: Balanced Regulation

The status quo was untenable, so Congress essentially had two options: nationalize the railroads, at a continuing cost of untold billions of dollars, or replace the excessive regulation of the past with a more balanced regulatory framework. Congress wisely chose balanced regulation and passed the Staggers Rail Act of 1980.

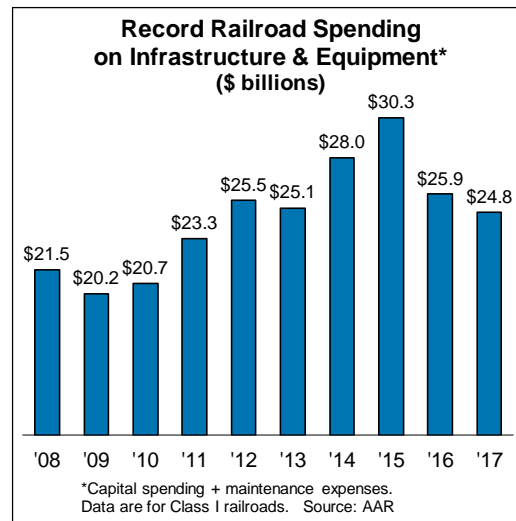
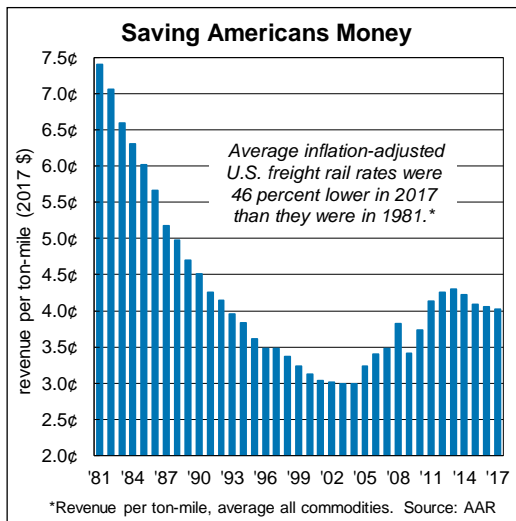
- By passing Staggers, Congress recognized that railroads faced intense competition for most of their traffic, but excessive regulation prevented them from competing effectively. To survive, railroads needed a new regulatory system that allowed them to act like most other businesses in terms of managing their assets and pricing their services.

- **The Staggers Act ushered in a new era** in which railroads could largely decide for themselves — rather than have Washington decide for them — what routes to use, what services to offer, and what prices to charge. Railroads were allowed to base their rates on market demand; railroads and shippers could enter into confidential contracts; procedures for abandoning or selling unneeded rail lines were streamlined; and the need for railroads to earn adequate revenues to support their operations was explicitly recognized.
- **Railroads do not have unlimited freedom to charge whatever they want**, though. Today, the Surface Transportation Board can, and does, set maximum-allowable rates for rail transportation services where there is no effective competition for those services.

The Post-Staggers Era: Railroads are Reborn

The more balanced and reasonable regulatory environment created by Staggers has been a great success for rail shippers, railroads, and the public at large:

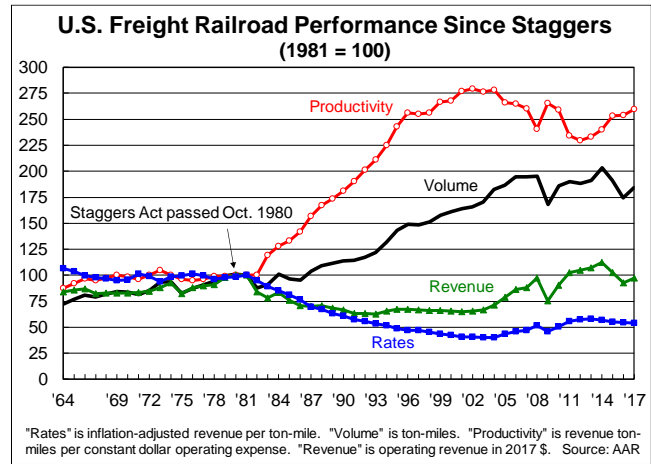
- **Average rail rates** (measured by inflation-adjusted revenue per ton-mile) **were 46 percent lower in 2017 than in 1981**. This means the average rail shipper can move close to twice as much freight for about the same price it paid more than 35 years ago, saving American consumers hundreds of billions of dollars over the years.
- America’s freight railroads **operate almost exclusively on infrastructure that they own, build, maintain, and pay for themselves**. By contrast, trucks, airlines, and barges operate on highways, airways, and waterways that are financed by taxpayers. America’s freight railroads have spent more than **\$660 billion since 1980**, including record amounts in recent years, to create a freight rail network that is second to none in the world.



- Nothing is more important to railroads than safety, and railroads know that the safety challenge never ends. The train accident rate in 2017 was the lowest ever; in 2017, it was down 79 percent from 1980 and down 43 percent from 2000. The employee injury rate in 2017 was down 83 percent from 1980 and down 44 percent from 2000. The grade crossing collision rate in 2017 was down 80 percent from 1980 and down 38 percent from 2000. By all these measures, recent years have been the safest in history.

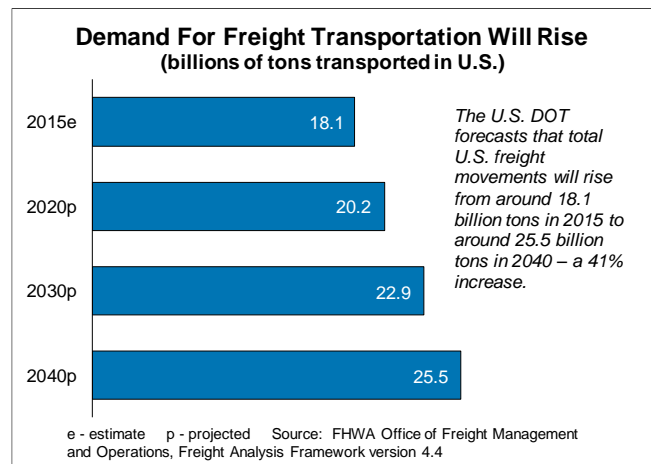
- In 2017, railroads moved a ton of freight an average of **479 miles per gallon** of fuel. Rail fuel efficiency has more than doubled since 1980.

- **Railroads are stronger financially.** Return on net investment, which had been falling for decades, was 4.4 percent in the 1980s, 7.0 percent in the 1990s, and 9.6 percent from 2000 to 2016. Improved rail earnings are a positive development because they allow railroads to make the massive investments needed to keep their networks in top condition, improve service, and add the new rail capacity America will need in the years ahead.



Moving More Freight by Rail is Good Public Policy

- As America's economy grows, the need to move more freight will grow too. Recent forecasts from the Federal Highway Administration found that total U.S. freight shipments will rise from an estimated 18.1 billion tons in 2015 to 25.5 billion tons in 2040 — a 41 percent increase.
- Railroads are the best way to meet this demand, but that can happen only if they have adequate capacity.
- Railroads will continue to pour huge sums back into their networks, but policymakers have a role too. Policymakers can help ensure that America has the rail capacity it needs in the future by:



- ✓ **Retaining a balanced regulatory system** that protects rail customers from unreasonable railroad conduct while giving railroads the freedom to largely decide for themselves how to manage their operations;
- ✓ Entering into **public-private partnerships** that allow governments to expand the use of freight rail while paying only for the public benefits of a project, with the railroads paying for the benefits accruing to them; and
- ✓ **Retaining existing truck size and weight limits.** The taxes and fees heavy trucks pay are far less than the cost of the highway damage that heavy trucks cause. This multi-billion dollar underpayment would become even greater if truck size and weight limits were increased.