Rail Delivery Group

Country Profiles – United States of America

The Williams Rail Review

21st December 2018

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As part of a series of comparative studies of international rail systems, this document profiles railways in USA. The document outlines how rail services are delivered in the USA and provides an analysis of strengths and weaknesses of the system. This analysis is also contextualised so the reader can make appropriate comparisons with Great Britain (GB).

Rail Delivery Group is a membership organisation representing rail companies operating in Britain, this includes; Network Rail, train operating companies, freight operating companies and other infrastructure companies. For more information about Rail Delivery Group and its members please visit www.raildeliverygroup.com.

This document is part of RDG policy development and contains commercial and industrial information. If you would like to share this document wider than the original distribution list or is requested under the Freedom of Information Act please contact Richard Evans, richard.evans@raildeliverygroup.com

Executive summary

Railways in the USA are vertically integrated with either a freight operator, or the national passenger operator Amtrak managing operations and infrastructure. The vertically integrated businesses are able to both compete and co-operate whilst operating over their own infrastructure and over infrastructure owned by other operators using a contractual mechanism known as Interline Service Agreements.

The freight railroads have spheres of influence but do not have hard boundaries between their operations and working between the spheres of influence is fundamental to USA operation. Amtrak operates primarily over infrastructure owned by the freight companies although it does have some infrastructure of its own on the North East Corridor.

UK studies of international comparator railways frequently ignore USA because of its focus on freight rather than passenger. However, there could be interesting lessons to learn for Great Britain, particularly in the areas of commercial freedom and economic regulation. However, the size of the USA explains some of the differences in passenger and freight modal share.

The USA is 40 times the size of the UK and the distances between major cities mean that it is often quicker to fly. There is a strong culture of flying with frequent, inexpensive services driven by lots of competition on routes. The distances also lend themselves to rail freight being a preferred method, and the US has a modal share of nearly 35% reflecting this.

Conclusions

We would offer the following observations from the USA model:

- A competitive freight industry has increased efficiency over the years with the main catalysts being deregulation and competition.
- Commercial freedom and economic regulation have been successful in driving some of this efficiency and freight performance. It is not clear to what extent vertical integration has contributed to increased efficiency. It is a structure that was likely selected due to geography rather than designed for economic or performance reasons. Competition between different vertically integrated railways is very important.
- A strong focus on freight has been at the expense of passenger operations which perform very poorly with some services late as much as 80% of the time.
- Vertical integration of freight lines has meant that passenger services using these lines on an open access basis are deprioritised with up to 90% of passenger services on some lines regularly disrupted by freight.
- The USA has a poor safety record for passengers. There is no single reason for this, and major accidents have had a number of causes. Lack of train protection system may be a contributing factor.

Contents

Introduction to international comparators

There is no templated model for organising railways in an optimally efficient, customer-focussed and safe way. Indeed, all structures are made up of a series of policy choices and trade-offs. Furthermore, the comparative statistics alone only tell us one part of the story; there are lies, damned lies and statistics. Fantastic comparative punctuality tells you nothing of the cost of achieving it. In the same way, it is impossible to say that a particular industry structure is a direct causal factor in achieving efficiency.

As such, these profiles are intended to paint a picture of possibilities and the strengths and weaknesses of the plethora of systems operated internationally. However, they cannot be understood in isolation. The social, geographical, financial and political context are critical to understanding why some systems work well and their limitations when adopted overseas with different counter-variables.

Where possible, this context has been provided, but all comparators should be viewed with an appropriately critical eye. Furthermore, overlaid on this is the issue of an appropriate model for the appropriate market segment.

The rail industry in Great Britain (GB) is made up of many different markets. The intercity market operates between major cities and is typically related to the East Coast, West Coast, Midland and Great Western mainlines (ECML, WCML, MML, GWML respectively). The urban, suburban and regional markets are for commuters or middle-distance railways with a mixture of cost covering and non-cost covering services. A typical route for this category would be Southern, serving commuters into and out of London. Finally, there are relatively self-contained markets, like in Scotland where there is a single dominant operator providing the majority of services.

This mixture of markets exists in other countries. Some have tailored their structures and commercial models accordingly, whereas others have applied a single model to the whole system. Some of the examples presented in this document are not always suited to different market segments, geographies or demographic contexts. For example, the successful open access route run by Nuovo Transporto Viaggiatori (NTV) in Italy might be unsuited to the London commuter market. Equally, the single operator model running on the highly saturated Dutch market would not be able to reap the benefits of competition on our long-distance commercial mainlines.

In this context, RDG is approaching the rail review by examining the markets contained within the industry as well as cross-cutting issues. Where possible these markets and horizontal workstreams and themes will be cross-referenced.

RDG's Approach to the Williams Rail Review

RDG has developed six principles to measure success against for the Williams Rail Review. These will be used to assess the country comparisons. The principles are as follows:

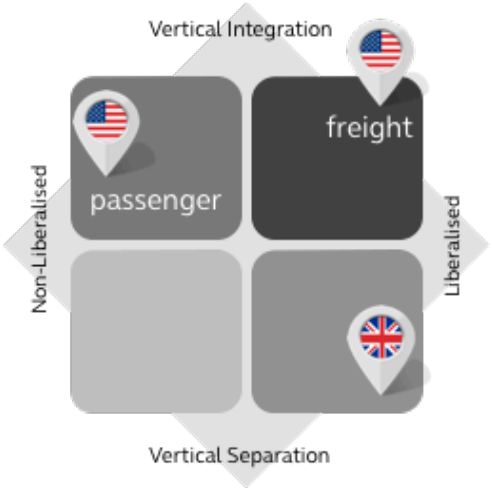
1. **Put customers at the heart:** ensuring that all parts of the railway, including the supply chain, work together to deliver for customers now and for generations to come
2. **Increase accountability:** building on the solid safety record, deliver a structure for the railway that creates confidence in its leadership, improving coordination in the way services are delivered and decisions are taken, and making it clear where the buck stops when things go wrong
3. **Deliver value for money:** managing costs for passengers, freight customers and taxpayers, with a sustainable supply chain

4. **Unlock economic growth:** boosting innovation with private investment enabling the railway to expand; growing and rebalancing Britain's economy, and be environmentally sustainable
5. **Strengthen communities:** ensuring communities across the country benefit from a vibrant, growing railway
6. **Inspire our people:** ensuring that people working in rail have fulfilling careers and a greater stake in the railway's long-term success

Underpinning all of this is a focus on getting the basics of performance, capacity and fares right.

Figure 1, RDG's six principles

- **Population:** 325.791m
- **Employees:** 235,000
- **Network:** 202,200km
- **Passenger Modal Share:** 0.5%
- **Freight modal share:** 34.3%



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Geography

- The size of the USA means that air travel is more commonplace than rail travel for passengers

Geography

- The size of the USA means that rail freight is more attractive than other modes.

factors that contribute to

factors that enable

USA

Weaknesses

Passenger punctuality

Safety

Strengths

Freight efficiency

Private sector investment

Economic regulation and commercial freedom

North East Corridor Services

Competition between vertically integrated routes

Introduction to USA railways

For the purposes of this paper the focus is on railroad activity in the United States but there are many similarities between The United States (US) and Canadian operations. Besides the preponderance of freight activity, the railways in both countries operate long-haul services, reflecting the geographical extent of the continent, and carry considerable export and import traffic via East and West Coast ports. The two principal Canadian railroad companies, Canadian National and Canadian Pacific, operate in the US and are two of the seven Class I Railroads.

USA railroads

The USA railroad system involves seven privately owned major freight operators, a publicly owned national passenger operator and over 500 smaller, privately owned, freight operators. Each company owns (or leases) and operates its own locomotives, wagons or coaches. Signalling and track are owned by the companies, the seven major freight companies own nearly 70% of the track, structures and signalling. Each company employs engineers (drivers), despatchers (signallers) and infrastructure maintenance and renewal staff. Companies tend to initiate and implement their own capital projects but there are examples where private and public investment are combined to relieve capacity constraints.

In the US, the majority of passenger trains are operated by Amtrak a publicly owned corporation. As a result of the nation's reliance on cars and increasing popularity of airplane travel that led to the declining use of passenger trains, Congress passed the Rail Passenger Service Act of 1970. This legislation established the National Railroad Passenger Corporation (AMTRAK) to take over intercity passenger rail service that had been operated by private railroads. Amtrak began service in May 1971 serving 43 states with a total of 21 routes.

Most of Amtrak's activity is concentrated in the major corridors of habitation; particularly the US North East Corridor (NEC), which links Boston to Washington D.C. The NEC is used for 750,000 passenger journeys a day in 2,200 trains. As with Britain the route is capacity constrained with a need for upgrades to infrastructure, signalling and power systems.

Amtrak receives funding from 18 states through 21 agencies for financial support of 29 short-distance routes (less than 750 miles). Continued operation of these state-supported routes is subject to annual operating agreements and state legislative appropriations.

There are two non-Amtrak providers of passenger services:

- "Brightline" is a higher-speed train, run by All Aboard Florida, a subsidiary of Florida East Coast Industries and Virgin Group. Brightline is the United States' only privately owned and operated intercity passenger railroad. Its services started operating in 2018 between Miami and West Palm Beach. More extensions are planned.
- Iowa Pacific is seeking to operate "Eastern Flyer", a passenger train between Oklahoma City and Tulsa. This would be the first passenger trains to serve Tulsa since 1967.

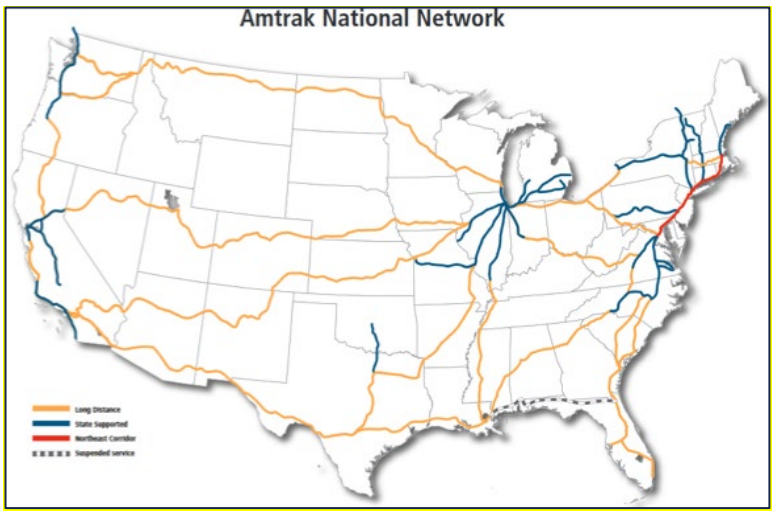

Figure 2, Amtrak National Network

The most significant activity on the US railroads, however, is the movement of freight. Nearly 600 freight railroads operate in the United States. The seven Class I railroads — railroads with 2016 revenue of at least $447.6 million — account for around 69% of freight rail mileage, 90% of employees, and 94% of revenue. Total operating revenue for Class I railroads in 2017 was approximately $70 billion. Each Class I railroad operates in multiple states over its own infrastructure and infrastructure owned by its competitors and arranges to operate over its competitors' tracks using Interline Service Agreements that are managed through RailInc, part of the US railroad industry.[1]

Non-Class I railroads (also known as short line and regional railroads) range in size from tiny operations handling a few carloads (wagons) a month to multi-state operators not far from Class I size. 31% of US freight rail mileage moves along America's 560 short line and regional railroads, which receive traffic from Class I railroads for final delivery. Others cross state lines and approach class I size. Short line and regional railroads operate in every state except Hawaii and employ 10% of US railroad workers.[2]

Together, all freight railroads operating in the US form an integrated, nearly 140,000-mile system that earned close to $74 billion in revenue in 2017.[3]

The Class I railroads are:

- BNSF Railway Co.
- Canadian National Railway
- Canadian Pacific
- CSX Transportation
- Kansas City Southern Railway Co.
- Norfolk Southern
- Union Pacific Railroad Co.

[1] RailInc website https://www.railinc.com/rportal/company-overview (Accessed 19 November 2018)
[2] Association of American Railroads website https://www.aar.org/railroad-101/ (Accessed 12 November 2018)
[3] https://www.aar.org/wp-content/uploads/2018/08/Overview-of-Americas-Freight-RRs.pdf (Accessed 14 November 2018)

Figure 3, Private freight Railroads of North America[4]

Ownership

Amtrak is a quasi-public corporation that relies on some federal and state subsidies. Legally it is a federally chartered corporation with the federal US Government as a majority stockholder. The Board is appointed by the President of the USA and confirmed by the US Senate. It is run as a for profit organisation rather than a public organisation.

Freight railroads and operators are privately owned shipping over 5 million tons of goods every day[5]. Amtrak runs over these privately-owned freight lines for approximately 70% of the miles that they run.

Some of the railways running into ports and industrial areas are owned by separate organisations, sometimes called “switching” companies. These are also private entities.

The multiplicity of lines, either parallel or running different routes between the same start and end points create competition between railways, so although vertically integrated, the benefits of competition can still be realised.

[4] AAR, https://www.aar.org/railroad-101/
[5] AAR. https://www.aar.org/railroad-101/

US rail in numbers

Comparator[6] unless noted otherwise	USA	UK*
Population (million) 2017	325.791[7]	65.809
GDP (Nominal) bn € 2016	18624.0	2395.8
Network Employees (UK number includes direct supply chain)	235,000 direct employees[8]	240,000
Network KM (electrified %) 2016	202,200km (0)	16,253km (33.7)
Passenger km per year 2016 (modal share)	40bn (0.5%)	68bn (8.7%)
Number of stations	>500[9]	2317[10]
Regional and local punctuality % on time	No central figures, however an analysis is below	89.7% (5 minutes) [11]
Long distance punctuality % on time		91% (10 minutes) [12]
High and Good Satisfaction %		75%[13]
Freight tonne km per year 2016 (modal share)	2547.3bn (34.3%) 2015	17.1bn (4.7%)
All train km (% passenger/freight)	-	565.6 (94/6) [14]
Infrastructure investment €bn (enhancements)	-	9018 (41%)[15]
Maintenance and enhancement spend thousand € per km	-	327
% Farebox revenue	-	92%[16]
Passengers killed in railway accidents 2013, 2014, 2015, 2016, 2017, 2018	4, 0, 8, 3, 3 ,2	0, 0, 0, 0, 0, 0

* European Union (EU) Commission stats include Northern Ireland (NI) but exclude the Channel Tunnel

[6] EU Transport Statistical Pocketbook, https://ec.europa.eu/transport/sites/transport/files/pocketbook2018.pdf
[7] World Bank, https://data.worldbank.org/country/united-states
[8] Statista, https://www.statista.com/statistics/245271/railroad-employment-in-the-us/
[9] Amtrak, https://www.amtrak.com/about-amtrak/amtrak-facts/amtrak-national-facts.html (Accessed 15 November 2018)
[10] RMMS 2016, https://ec.europa.eu/transport/modes/rail/market/market_monitoring_en
[11] RMMS 2016, https://ec.europa.eu/transport/modes/rail/market/market_monitoring_en
[12] RMMS 2016, https://ec.europa.eu/transport/modes/rail/market/market_monitoring_en
[13] RMMS 2016, https://ec.europa.eu/transport/modes/rail/market/market_monitoring_en
[14] Train km in themselves do not always denote success. British freight operators have reduced train km by increasing length and payload, making more efficient use of scarce capacity. https://www.raildeliverygroup.com/files/Publications/2018-06_rail_freight_working_for_britain.pdf
[15] RMMS 2016, https://ec.europa.eu/transport/modes/rail/market/market_monitoring_en
[16] RMMS 2016, https://ec.europa.eu/transport/modes/rail/market/market_monitoring_en

The following punctuality information was taken from an Amtrak report of services in 2017[17]:

Route	Passengers on time	Freight train interference
Canadian Pacific	97%	10% of services interrupted by freight
BNSF	90% (approx)	Average <4mins delay caused by freight
Union Pacific	43%	Average 48mins delay caused by freight
CSX	50% Av delay 87mins	85% services interrupted by freight
Norfolk Southern	33% Av delay 100 mins	Up to 3 hours 12 minutes
Canadian National	16%	90% of services delayed by freight Infrastructure issues. Delayed trains average 26 mins

More about Amtrak

The following information is taken from the Amtrak website[18]:

- *During financial year 2017 (October 2016 - September 2017), Amtrak customers took 31.7 million trips. On an average day, customers make nearly 87,000 trips on more than 300 Amtrak trains.*
- *Amtrak operates a nationwide rail network, serving more than 500 destinations in 46 states, the District of Columbia and three Canadian provinces, on more than 21,400 miles of routes. It is the nation's only high-speed intercity passenger rail provider, operating at speeds up to 150 mph (241 kph). Nearly half of Amtrak trains operate at top speeds of 100 mph (160 kph) or greater.*
- *The company has more than 20,000 employees.*
- *In financial year 2017, Amtrak earned approximately $3.3 billion in revenue and incurred approximately $5.9 billion in capital and operating expense. No country in the world operates a passenger rail system without some form of public support for capital costs and/or operating expenses.*
- *Amtrak covered 94.8% of operating costs in financial year 2017 with ticket sales, payments from state partners and agencies and other revenue.*
- *The company's audited financial year 2017 operating earnings were ($193.7 million) — a 15.8% improvement over the previous year.*

[17] Amtrak, https://media.amtrak.com/wp-content/uploads/2018/10/Amtrak-Host-Railroad-Report-Card_FAQ_Route-Detail-2018-10-15.pdf
[18] https://www.amtrak.com/about-amtrak/amtrak-facts/amtrak-national-facts.html (Accessed 15 November 2018)

Strengths

Freight efficiency

US railroads have made good efficiency gains in their freight business, driven in no small part by the ability to compete on parallel lines and the need to compete with other modes.

Average rail rates (measured by inflation-adjusted revenue per ton-mile) were 46% lower in 2017 than in 1981. According to the most recent available data from the World Bank and other sources, US freight rail rates (measured by revenue per ton mile) are less than half those in major European countries and well below China and Japan as well. [19]

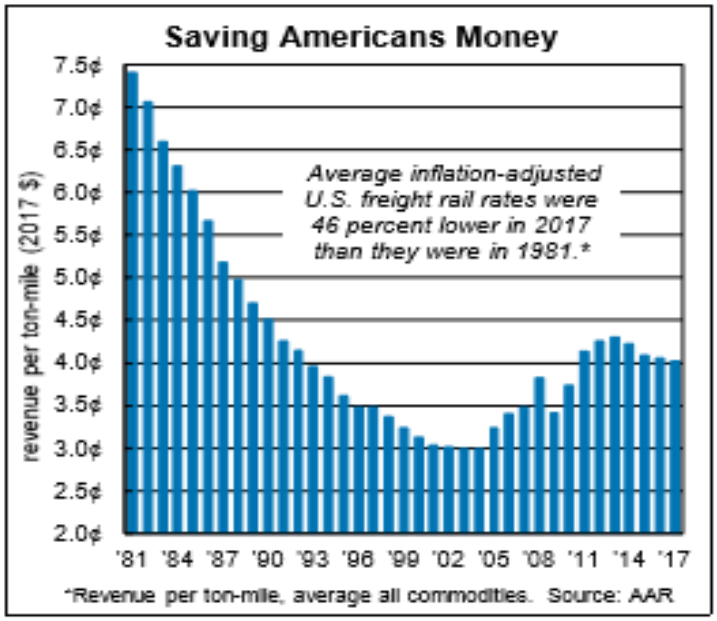

Figure 4, Rail freight rates[20]

Key to the improved efficiency of the industry was deregulation, which took place in 1980. Return on net investment, which had been falling for decades, was 4.4% in the 1980s, 7.0% in the 1990s, and 9.6% from 2000 to 2016.

[19] Association of American Railroads, November 2018, *Overview of American Railroads*, p3, https://www.aar.org/wp-content/uploads/2018/08/Overview-of-Americas-Freight-RRs.pdf (Accessed 14 November 2018)
[20] ARA, https://www.aar.org/data/overview-americas-freight-railroads/

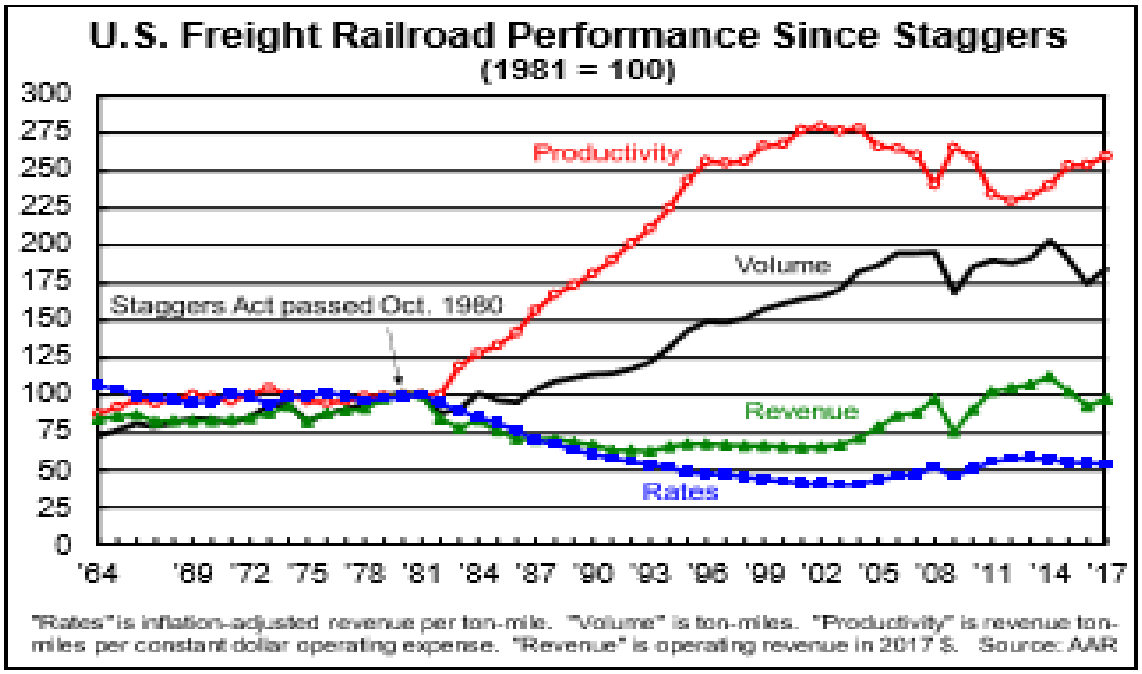

Figure 5, US Freight Railroad Performance since Staggers [21]

Private Sector Investment

The US railroads attract considerable private investment, primarily from the railroads themselves. From 1980 to 2017, America's freight railroads invested approximately $660 billion on locomotives, freight cars, tracks, bridges, tunnels and other infrastructure and equipment. This equated to 40% of revenues. [22]

Private investment to improve capacity has taken place on the Alameda corridor, Heartland corridor and the National Gateway project. The Chicago CREATE Program is an investment initiative involving the freight and passenger railroads together with Illinois in capacity enhancements.[23]

Economic regulation

In his article on the success of the Staggers Act, which deregulated the railroads of the United States in 1980, Clifford Winston identified four costs of excessive regulation that affected the US railroad industry[24]:

- distorted prices;
- barriers to exit;
- poor labour utilisation; and
- lack of technological progress.

[21] Association of American Railroads, A Short History of US Freight Railroads, May 2018, p5 https://www.aar.org/wp-content/uploads/2018/05/AAR-Short-History-American-Freight-Railroads.pdf (Accessed 10 November 2018)
[22] Association of American Railroads, https://www.aar.org/issue/freight-rail-infrastructure-equipment-safety/ November 2018, p4
[23] Association of American Railroads, Public-Private Partnerships, May 2018, p2 https://www.aar.org/wp-content/uploads/2018/05/AAR-Public-Private-Partnerships.pdf (Accessed 12 November 2018)
[24] Winston, C. 2005: *The success of the Staggers Act of 1980*, AEI-Brookings Joint Center for Regulatory Studies. pp 2-4

The Staggers Act put in place a regulatory system under which railroads could largely decide for themselves what routes to use, what services to offer, and what prices to charge. That said, railroads do not have unlimited freedom to charge whatever they want. Eakins et al note that:

"Two features distinguish the Staggers Act from the airline and trucking deregulation acts. First, the legislation makes explicit the goal of a financially stable industry. Second, the act maintains a regulatory backstop as shippers can appeal for route / shipment-specific rate relief if, for that route /shipment, revenues are more than 180 percent of variable cost and the shipper does not have another railroad or alternative transportation mode for that shipment."[25]

If a railroad faces no effective competition for its services, the Surface Transportation Board can set maximum-allowable rates for rail transportation services. The Surface Transportation Board describes itself as

"an independent adjudicatory and economic-regulatory agency charged by Congress with resolving railroad rate and service disputes and reviewing proposed railroad mergers. The agency has jurisdiction over railroad rate and service issues and rail restructuring transactions (mergers, line sales, line construction, and line abandonments); certain trucking company, moving van, and non-contiguous ocean shipping company rate matters; certain intercity passenger bus company structure, financial, and operational matters; and rates and services of certain pipelines not regulated by the Federal Energy Regulatory Commission. The agency has authority to investigate rail service matters of regional and national significance."[26]

The North East Corridor

Amtrak's Northeast Corridor (NEC) is the busiest railroad in the US, with approximately 2,200 Amtrak, commuter and freight trains operating over some portion of the Washington-Boston route each day.

Amtrak owns and operates 363 miles of the 457-mile NEC spine connecting Washington D.C., Philadelphia, New York and Boston. Two sections of the NEC are owned by:

- The New York Metropolitan Transportation Authority (10 miles)
- Connecticut Department of Transportation (46 miles)
- The State of Massachusetts (38 miles)

On this corridor, a 'high-speed' service connecting major cities has proved to be an attractive alternative to rail. New York to Washington takes two hours 45 minutes by rail and 1 hour 20 minutes plus security and city centre transfer time by air. Research has found that, "nearly 600,000 annual air passengers have been diverted since 1999 with the introduction of the high-speed rail program, a loss of nearly half the...market."[27]

Weaknesses

Passenger punctuality

Passenger services are largely neglected in the US. Freight takes priority and delays are significant (see previous section). The map below demonstrates poor performance, even on the flagship NEC.

[25] Eakins et al, 2010: p 33
[26] https://www.stb.gov/stb/about/overview.html (Accessed 15 November 2018)
[27] Modal Shift and High Speed Rail, https://transweb.sjsu.edu/sites/default/files/1223-modal-shift-high-speed-rail-literature-review.pdf

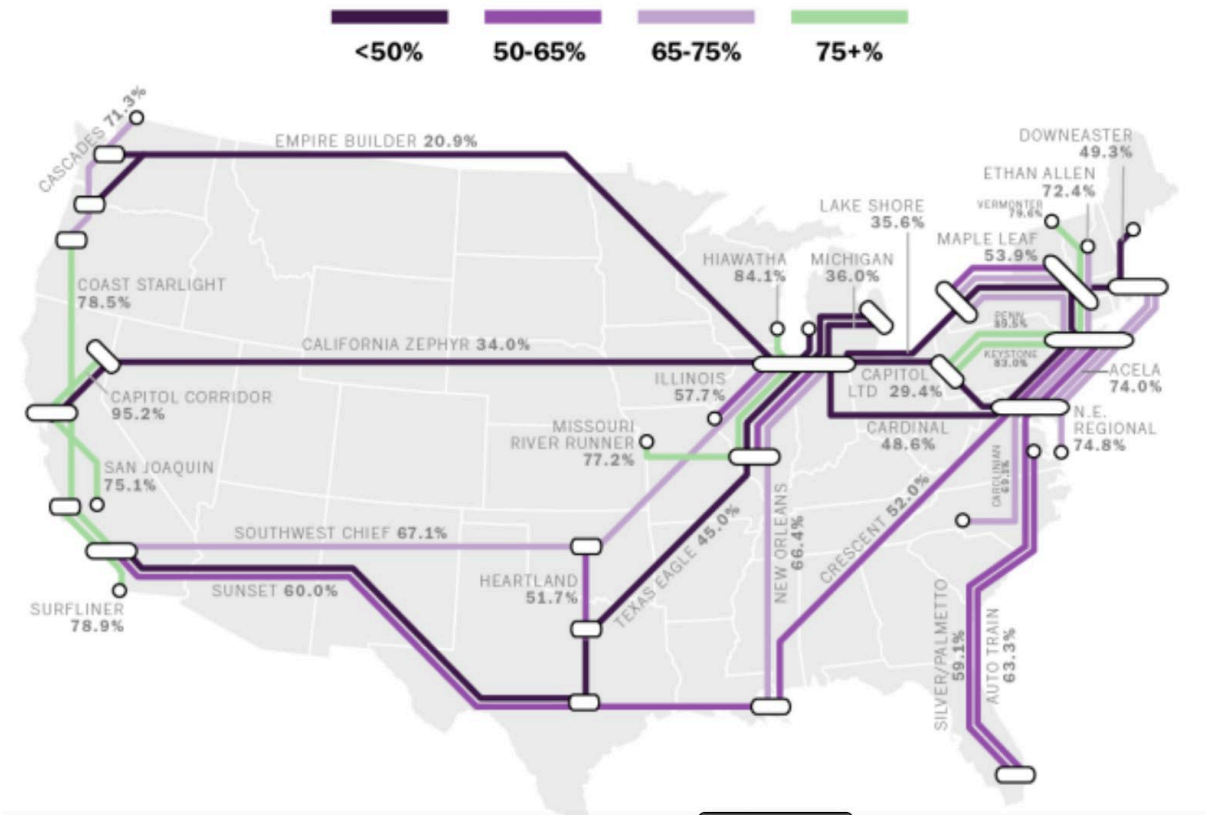

Figure 6, Amtrak on-time performance by route[28]

Passengers remain satisfied, however, with satisfaction rates at around 80% in 2016/17[29].

Safety

US railways have experienced a series of high-profile serious safety incidents resulting in multiple fatalities and serious injuries. The most serious were recently reported by CNN, ones in the last decade not involving level crossings are highlighted below[30].

- 2008: Metrolink commuter train. A Metrolink commuter train and a Union Pacific freight train collided head-on in the late afternoon. The Metrolink's locomotive and one of its three passenger cars derailed; two of the freight train's locomotives and 10 of its 17 cars derailed. 25 killed; more than 100 injured.
- 2009: WMATA commuter train. One Washington Metropolitan Area Transit Authority commuter train (Train 112) struck the rear of another (Train 214) that was stopped near the Red Line's Fort Totten station during rush hour about 17:00. The rear car of Train 214 telescoped about 63 feet into the lead car of Train 112, the NTSB said. Nine killed, multiple casualties.
- 2013: Metro North. A Metro-North passenger train, heading from Poughkeepsie to Manhattan's Grand Central Terminal, derailed at a left-hand curve. The lead car came to rest inches from water at the intersection of the Hudson and Harlem rivers. Four killed; at least 61 others injured

[28] Star Tribune, http://www.startribune.com/empire-builder-offers-worst-amtrak-on-time-performance/266620021/
[29] Amtrak, https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/environmental1/2016-2017-Amtrak-Sustainability-Report.pdf
[30] CNN, https://edition.cnn.com/2016/09/29/us/us-commuter-train-wreck-history-trnd/index.html

- 2015: Amtrak. An Amtrak train, headed to New York from Washington with 238 passengers and five crew members, derailed. Video showed the train was speeding up as it approached a curve, just moments before its derailment. Eight killed; more than 200 others injured.
- 2016: Amtrak. An Amtrak train crashed into a backhoe that was on the tracks, killing two Amtrak construction workers. The train, traveling from New York to Savannah, Georgia, was carrying 337 passengers and seven crew members. The impact caused the lead engine of the train to derail. Two killed; 41 others injured.
- 2017: Amtrak. An Amtrak passenger train derailed and hurled 13 of its 14 cars off both sides of an overpass and onto rush hour traffic below. The Amtrak Cascades 501 train was carrying 86 people as it made its inaugural journey on a new service route from Seattle to Portland when it derailed. Three killed; more than 100 others injured.
- 2018: Amtrak. An Amtrak passenger train collided with a CSX freight train. The crash occurred at about 2:35 a.m. The train was traveling between New York and Miami with 147 people aboard, including the crew. The CSX freight train was stationary on the tracks. Two killed, more than 100 injured.

The lack of an adequate train protection system in the USA has been cited as the cause of a number of incidents[31].

Conclusions

We draw the following conclusions regarding the US model:

- A competitive freight industry has increased efficiency over the years with the main catalyst being deregulation.
- Commercial freedom and economic regulation have been successful in driving some of this efficiency and freight performance. It is not clear to what extent vertical integration has contributed to increased efficiency. It is a structure that was likely selected due to geography rather than designed for economic or performance reasons. Competition between different vertically integrated railways is very important.
- A strong focus on freight has been at the expense of passenger operations which perform very poorly with some services late as much as 80% of the time.
- Vertical integration of freight lines has meant that passenger services using these lines on an open access basis are deprioritised with up to 90% of passenger services on some lines regularly disrupted by freight. This is interesting for GB to learn from as any vertical integration should be designed so that it is not at the expense of other infrastructure users and there is fair and equal access for a mixed-use railway.
- US has a poor safety record for passengers. There is no single reason for this, and major accidents have had a number of causes.

[31] Fox news, https://www.foxnews.com/us/amtrak-line-lacked-positive-train-control-safety-system-official-says

Success against the RDG principles

Principle	Commentary
Put customers at the heart ensuring that all parts of the railway, including the supply chain, work together to deliver for customers now and for generations to come	Passenger trains have very poor punctuality and safety records. Freight customers are better served.
Increase accountability building on the solid safety record, deliver a structure for the railway that creates confidence in its leadership, improving coordination in the way services are delivered and decisions are taken, and making it clear where the buck stops when things go wrong	With a single passenger operator and vertical integration of freight railways, it is clear where accountability lies.
Deliver value for money managing costs for passengers, freight customers and taxpayers, with a sustainable supply chain	Freight operations have become more efficient, but Amtrak relies on high subsidies.
Unlock economic growth boosting innovation with private investment enabling the railway to expand; growing and rebalancing Britain's economy, and be environmentally sustainable	The big increase in productivity and reduction in freight rates in real terms must have boosted economic activity.
Strengthen communities ensuring communities across the country benefit from a vibrant, growing railway	There is limited evidence for this measure.
Inspire our people ensuring that people working in rail have fulfilling careers and a greater stake in the railway's long-term success	There is limited evidence for this measure.
Performance	Passenger performance is extremely poor.
Capacity	There is limited evidence for this measure.
Fares	There is limited evidence for this measure.

Glossary

Abbreviation	Definition
BN	Billion
CNN	Cable News Network (US TV channel)
ECML	East Coast Mainline
EU	European Union
GB	Great Britain
GWML	Great Western Mainline
KM	Kilometres
KPH	Kilometres per hour
MML	Midland Mainline
MPH	Miles per hour
NEC	North East Corridor
NI	Northern Ireland
NTV	Nuovo Transporto Viaggiatori (Italian passenger operator)
PSC	Public Service Contract
PSO	Public Service Obligations
RDG	Rail Delivery Group
UK	United Kingdom
US	United States
USA	United States of America
WCML	West Coast Mainline