Williams Rail Review

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The rail sector in numbers

March 2019

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Data refers to Great Britain unless otherwise stated.

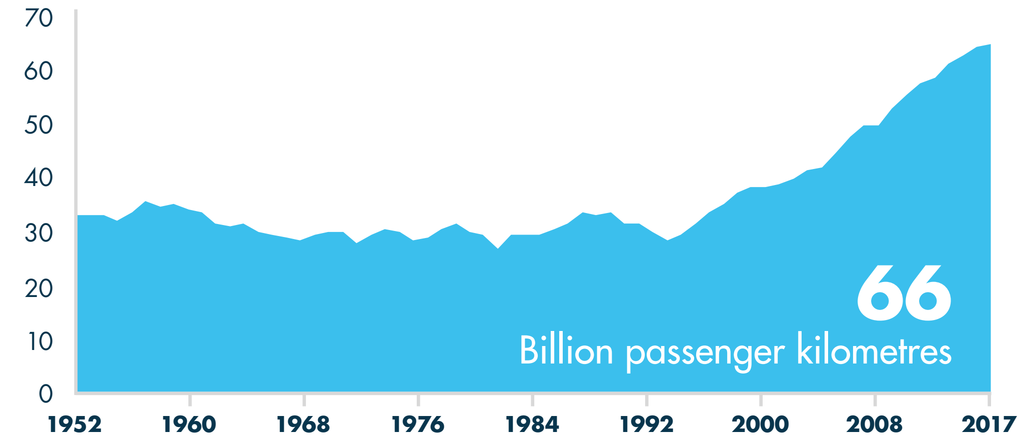
Demand for rail travel has increased whilst demand for buses and coaches has fallen

But usage of cars, vans and taxis continues to dominate

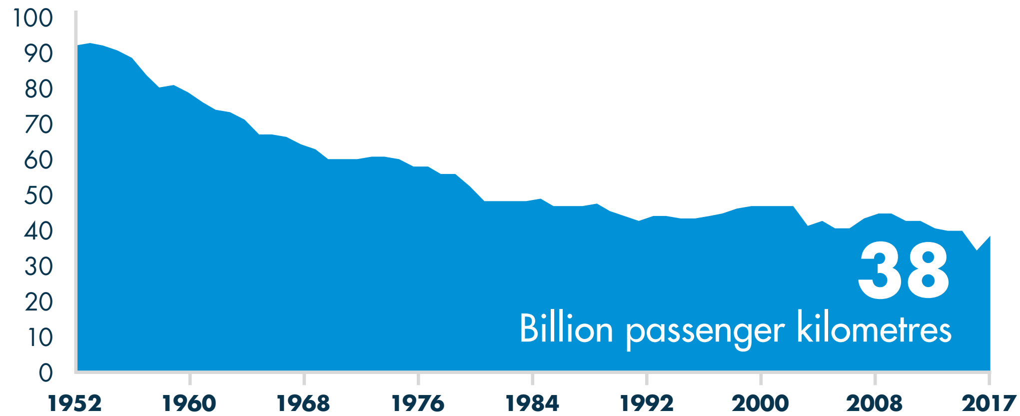
Modal demand over time (billion passenger kilometres)

Note that these three graphs have different scales.

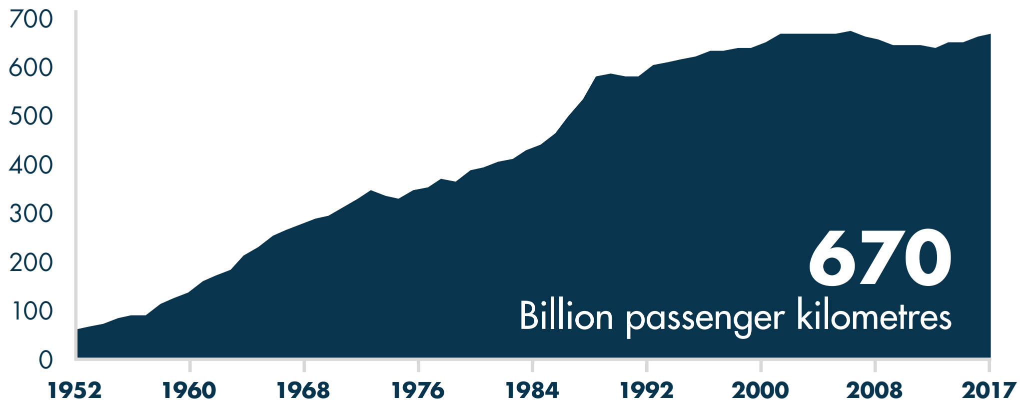
Rail



Buses and coaches

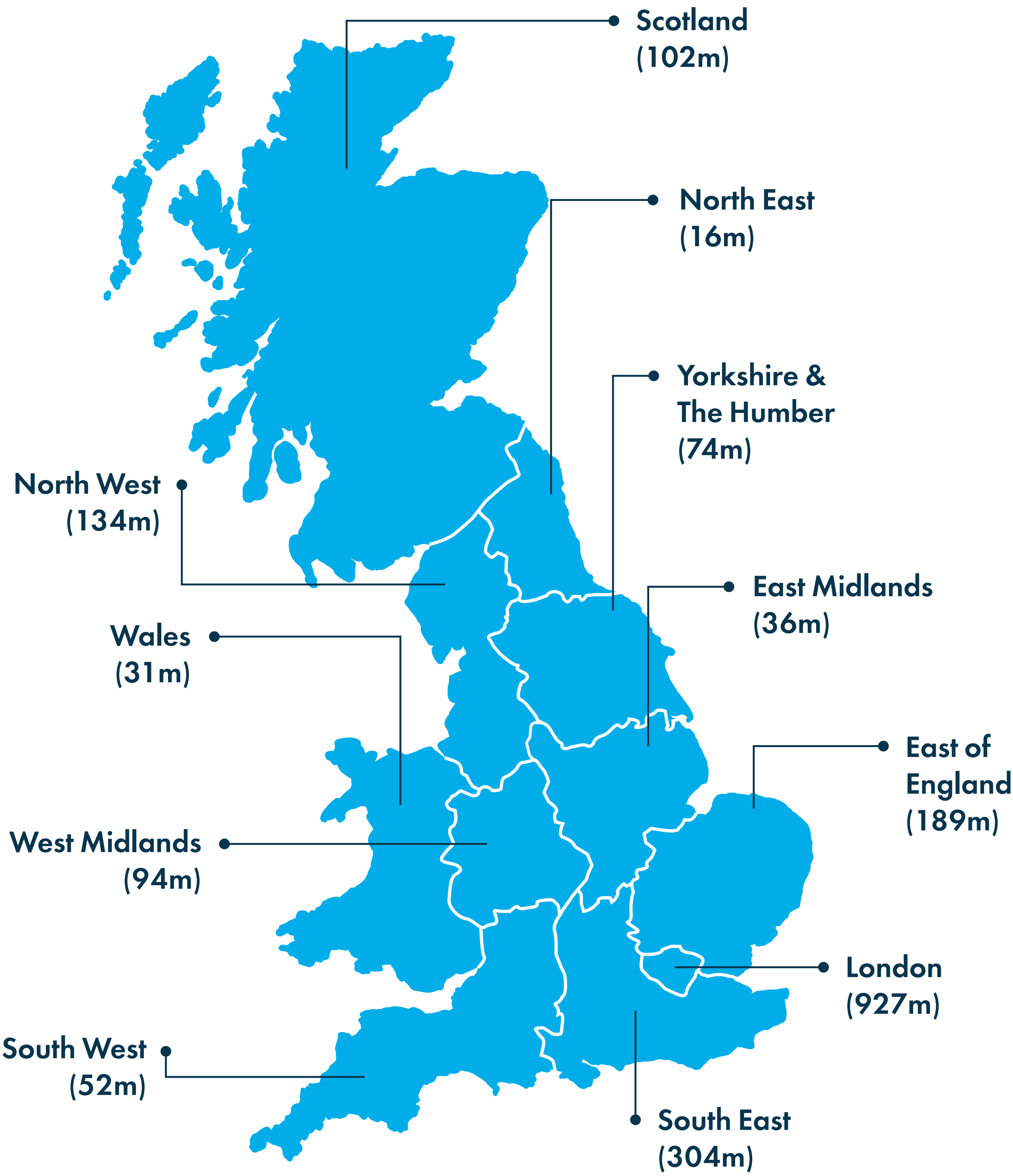


Cars, vans and taxis

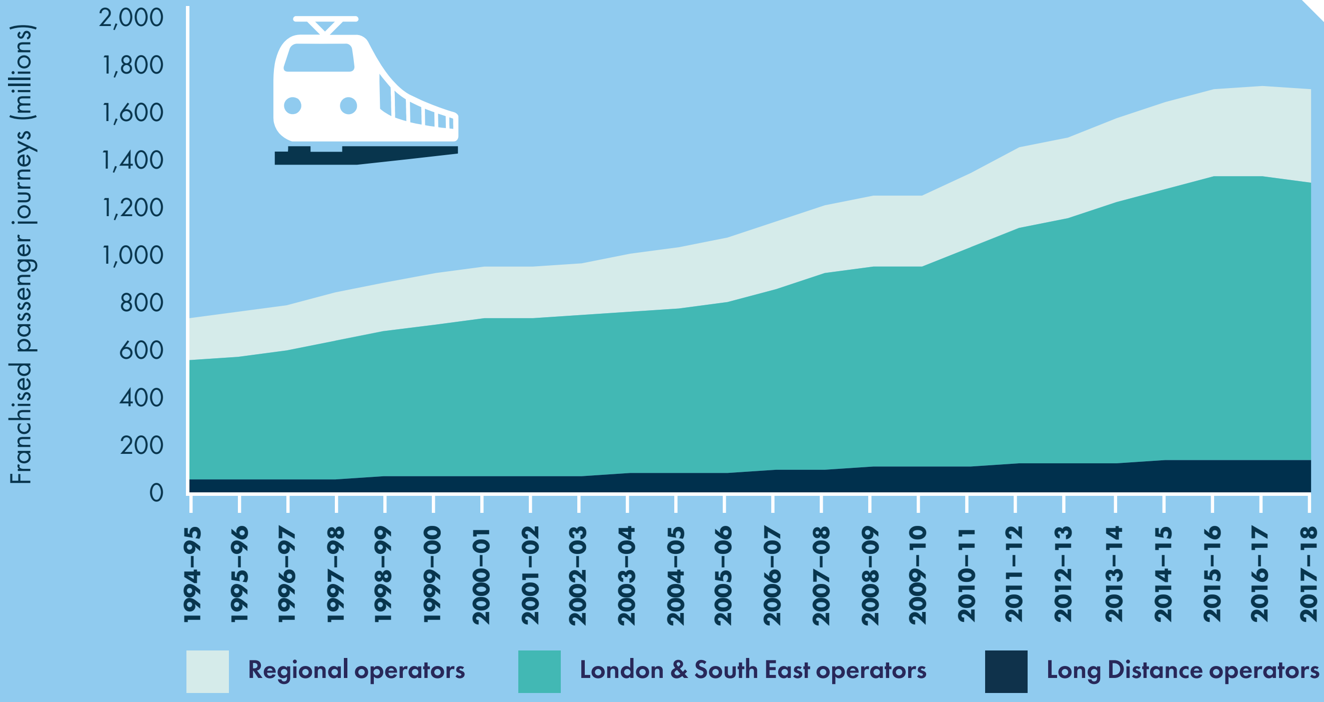


Most rail journeys are made on London and South East services

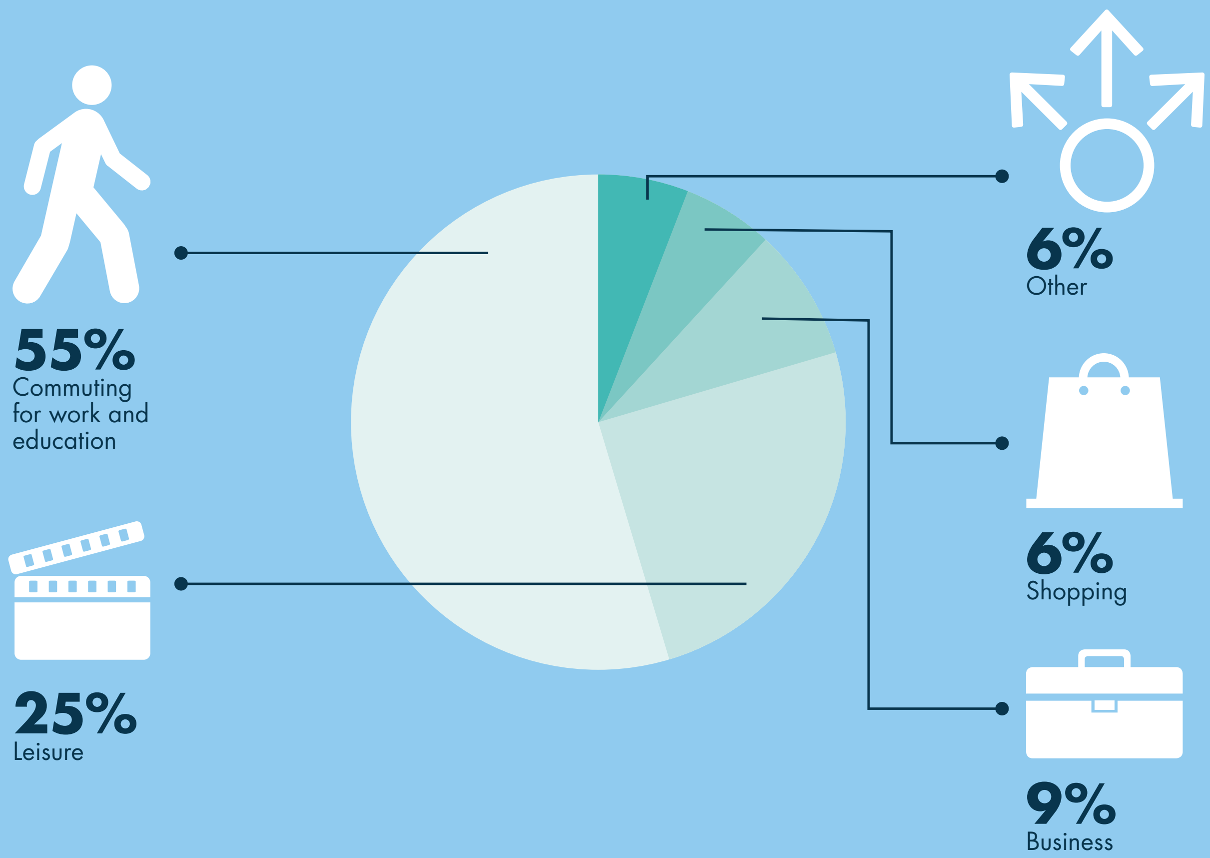
Total journeys (including to/from other region and within region journeys)



Rail demand by sector

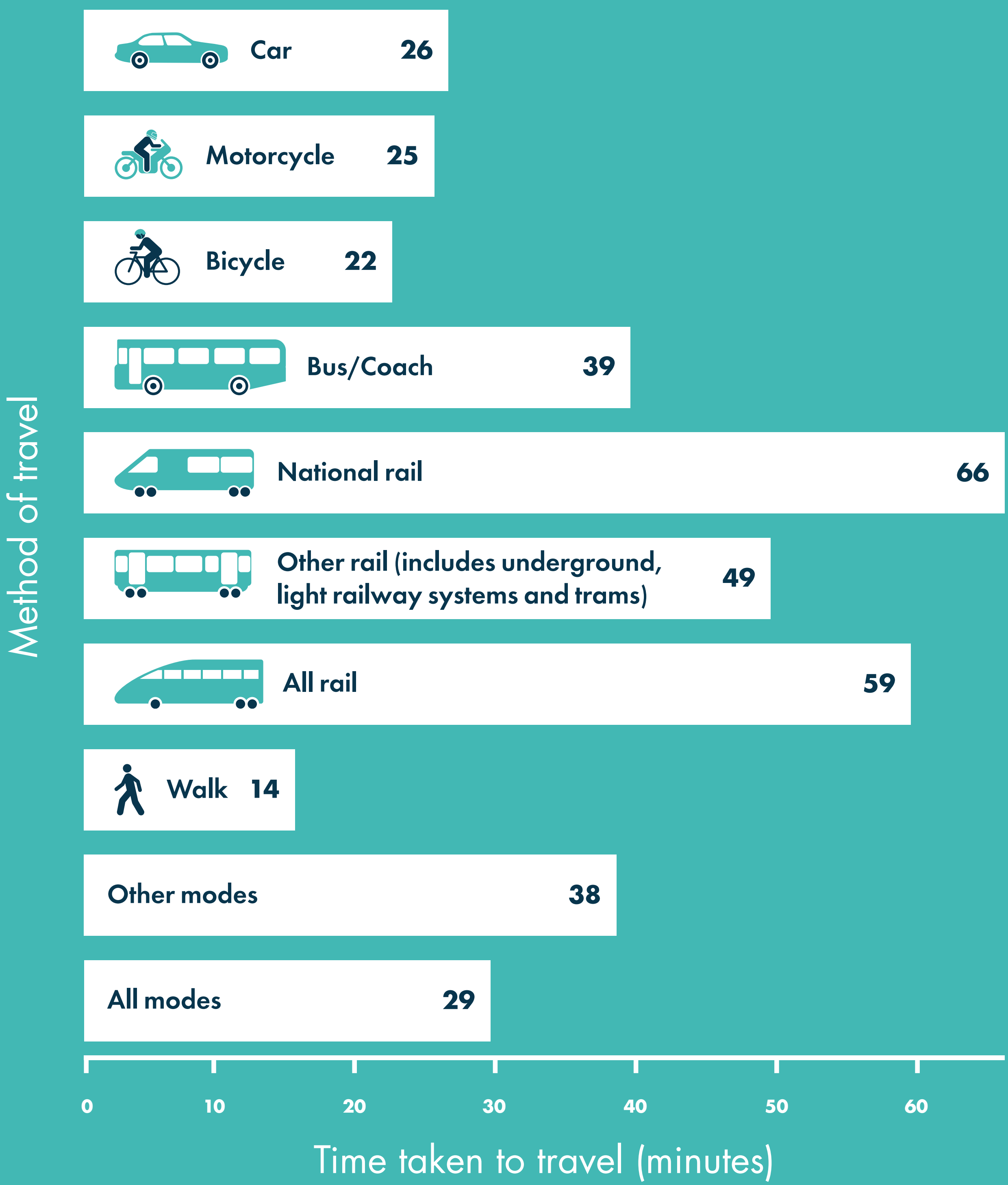


Over half of rail journeys are made by people commuting for work and education (England)



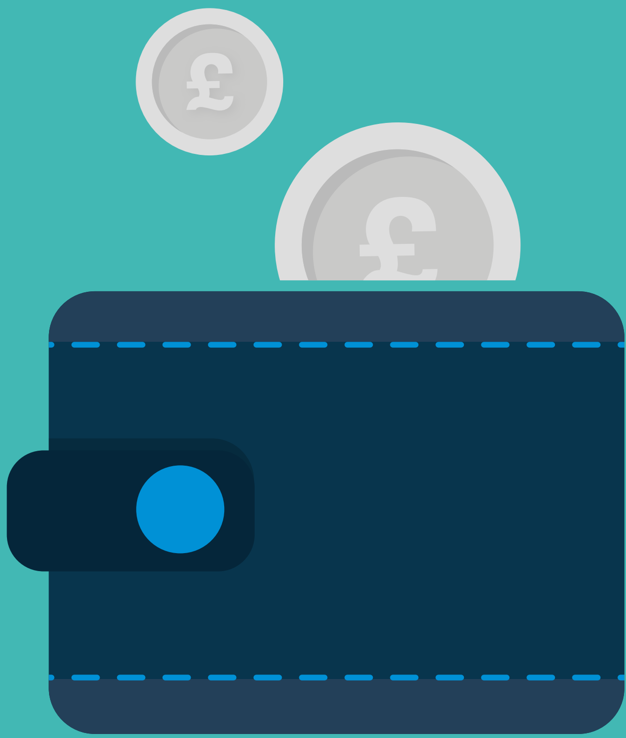
Those who usually commute by rail spend more time travelling than those travelling by other modes

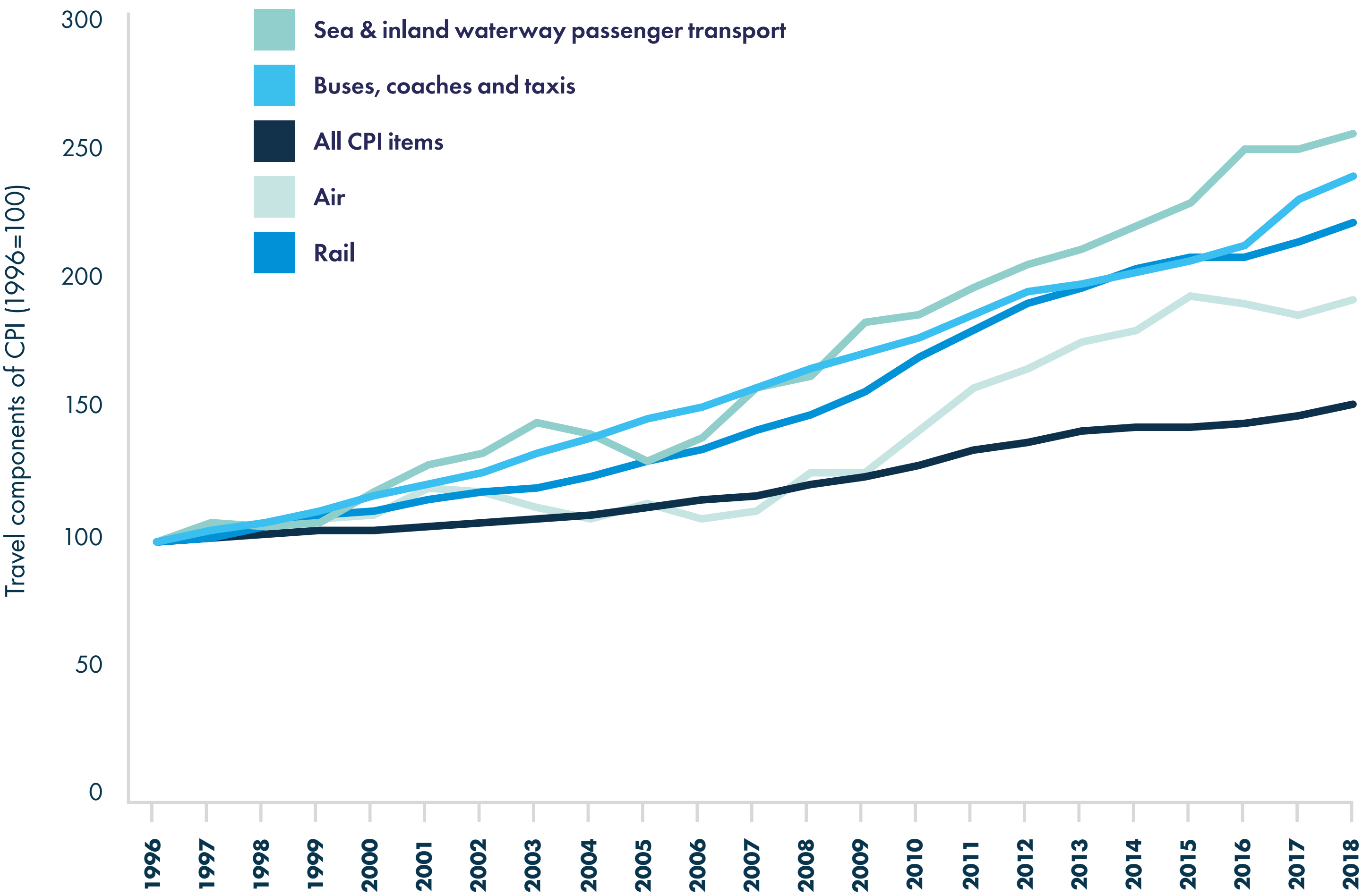
Average time taken to travel to work



Transport costs have more than doubled in 20 years

The cost of buses, coaches and taxis has risen faster than rail travel since 1996





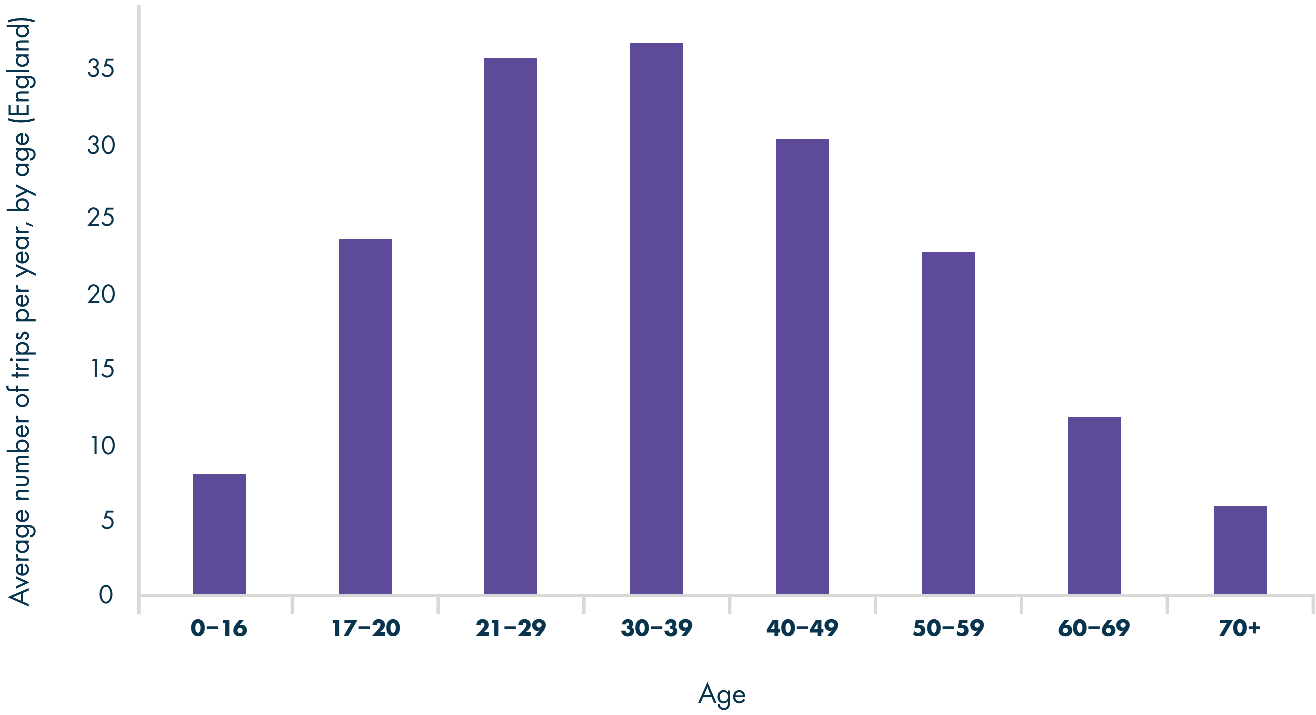
Men made 6 more rail trips on average than women in 2017

However, women now make 65% more rail trips than in 2002

Average trips per person (England)

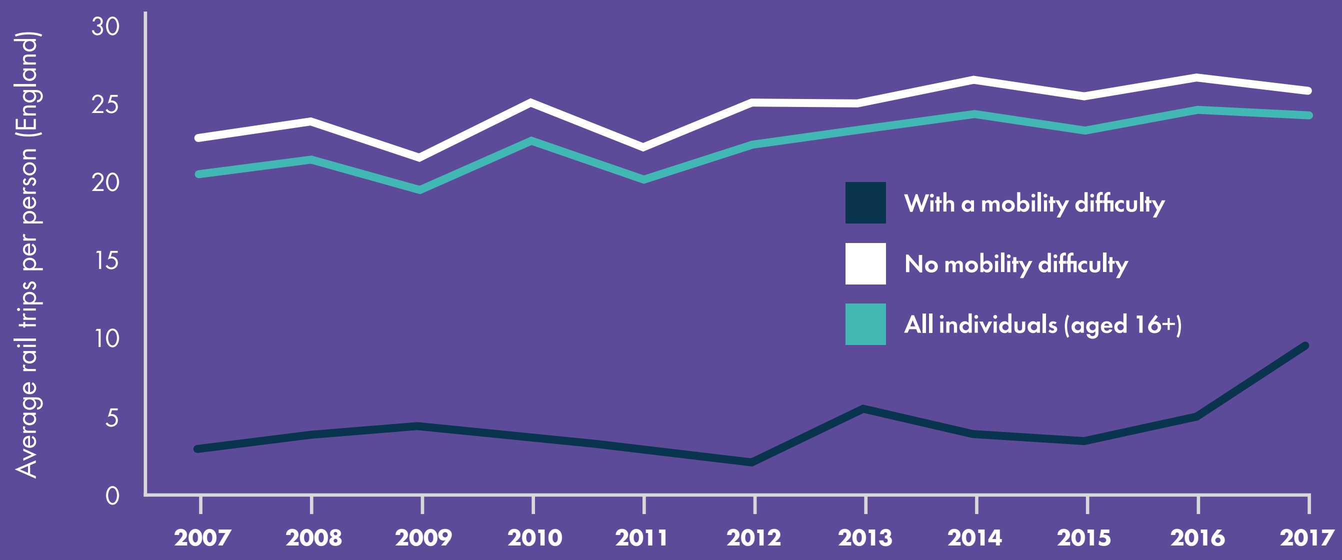
	2002	2017	%
Men	16	24	↑ 49%
Women	11	18	↑ 65%

Most rail trips in 2017 were made by those aged between 21 and 39

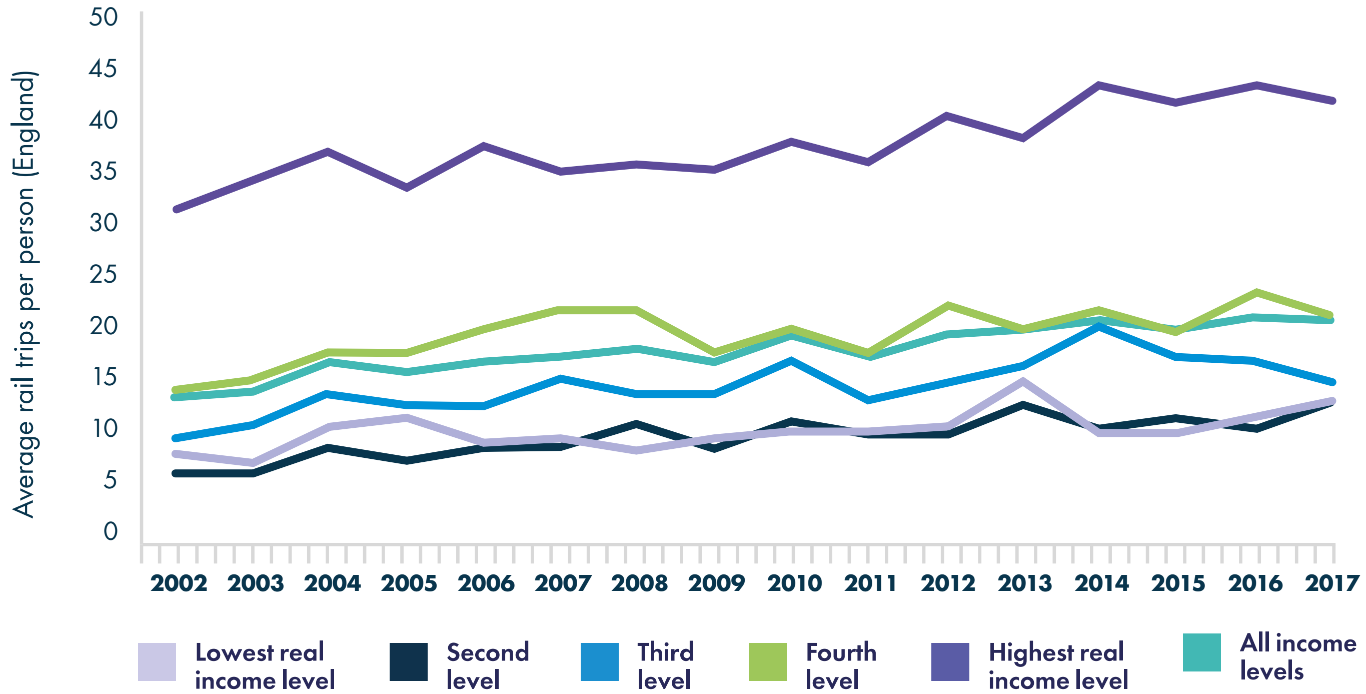


People with a mobility difficulty made over three times as many rail trips in 2017 than in 2007

However, people with a mobility difficulty still made two-thirds fewer trips than people without a mobility difficulty



People in the highest quintile of household income made over three times as many rail trips as people in the lowest income quintile in 2017



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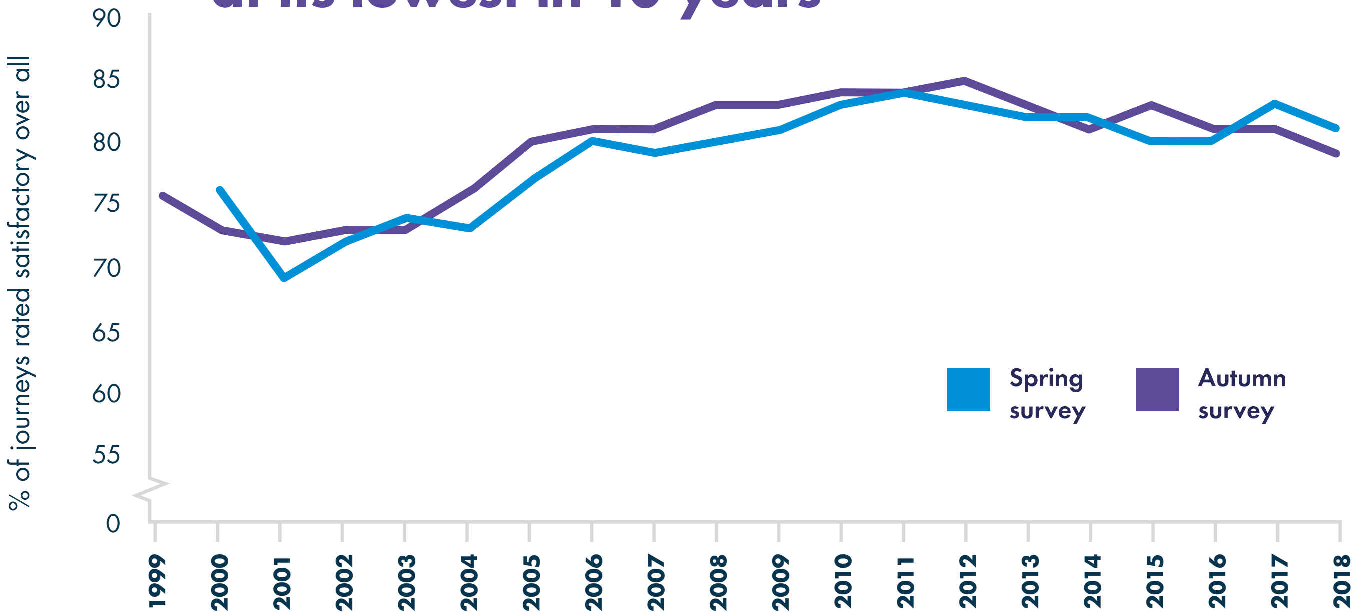
Passenger satisfaction has significantly improved since 1999 but in 2018 was at its lowest in 10 years



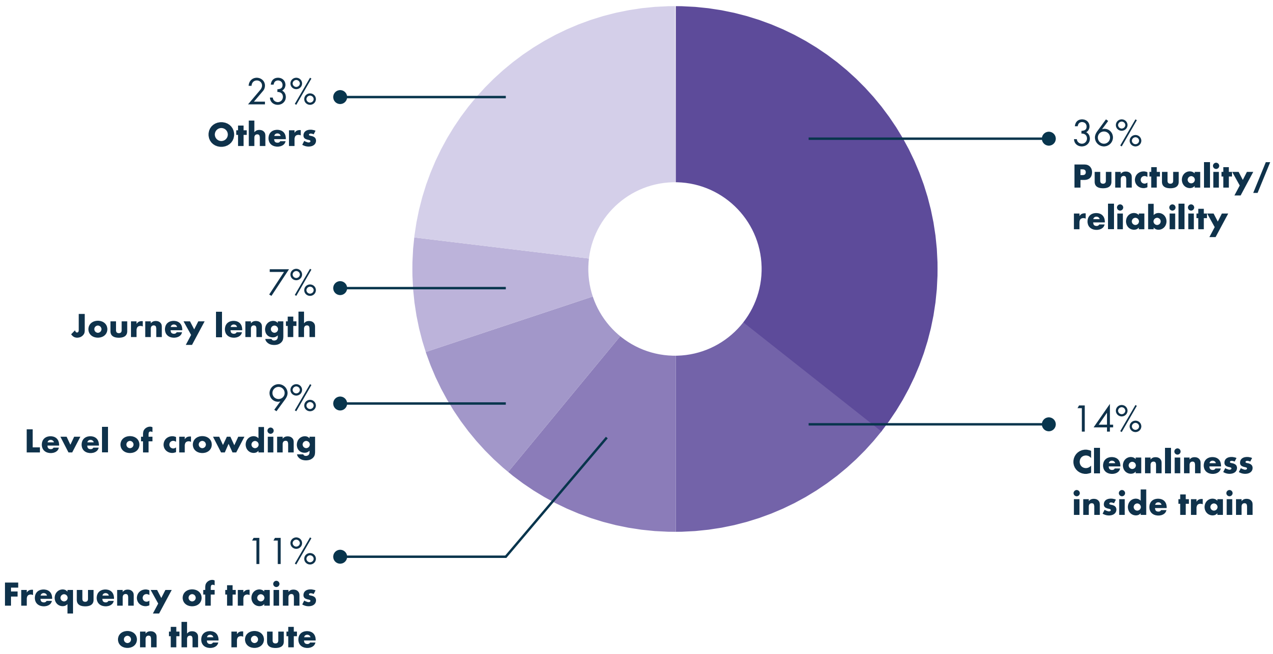
In 2017 only 17% of people were dissatisfied with rail overall (England)

- 17% TRAINS
- 39% LOCAL ROADS
- 20% BUS
- 42% CYCLING
- 12% WALKING
- 20% MAJOR ROADS

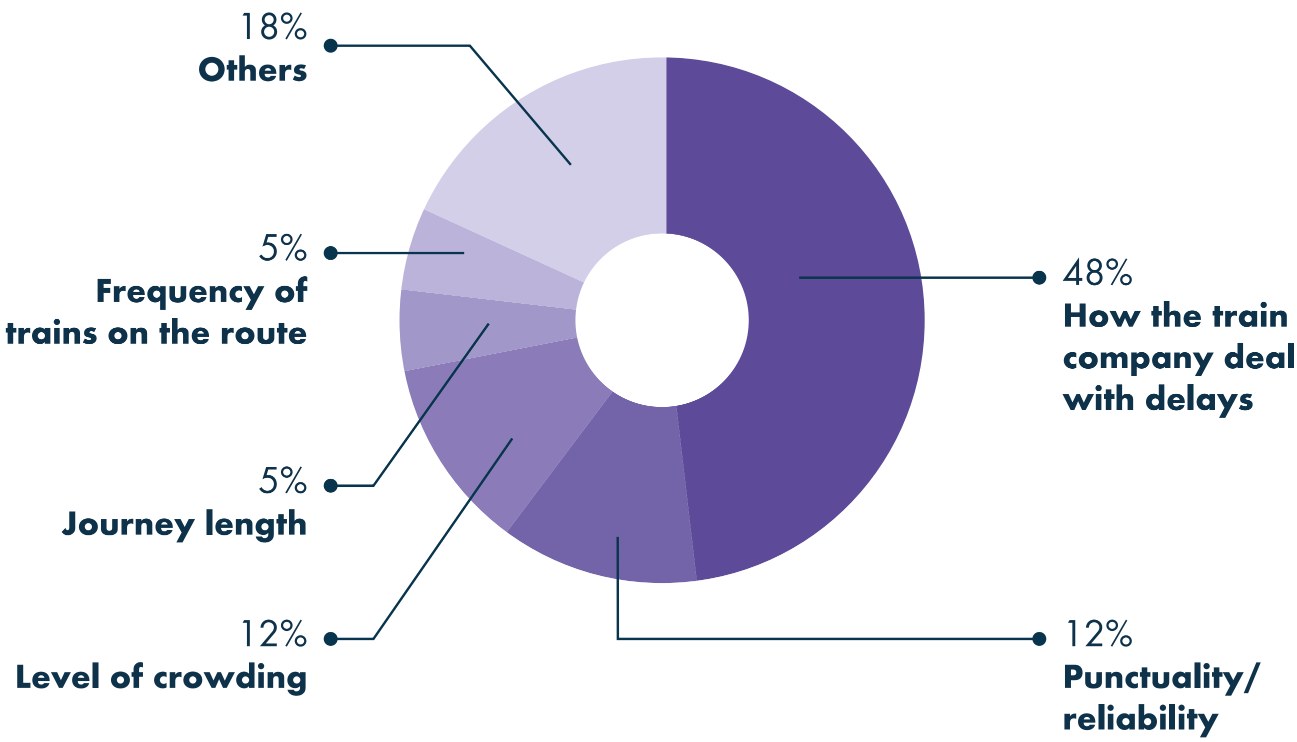
Journeys for commuting are rated least satisfactory overall, with journeys for leisure rated the most satisfactory

	Overall satisfaction with the journey	Overall satisfaction with the station	Overall satisfaction with the train
Commuters	71%	75%	67%
Business	80%	79%	76%
Leisure	88%	85%	85%

Punctuality and reliability is the biggest driver of passenger satisfaction (Autumn 2018)



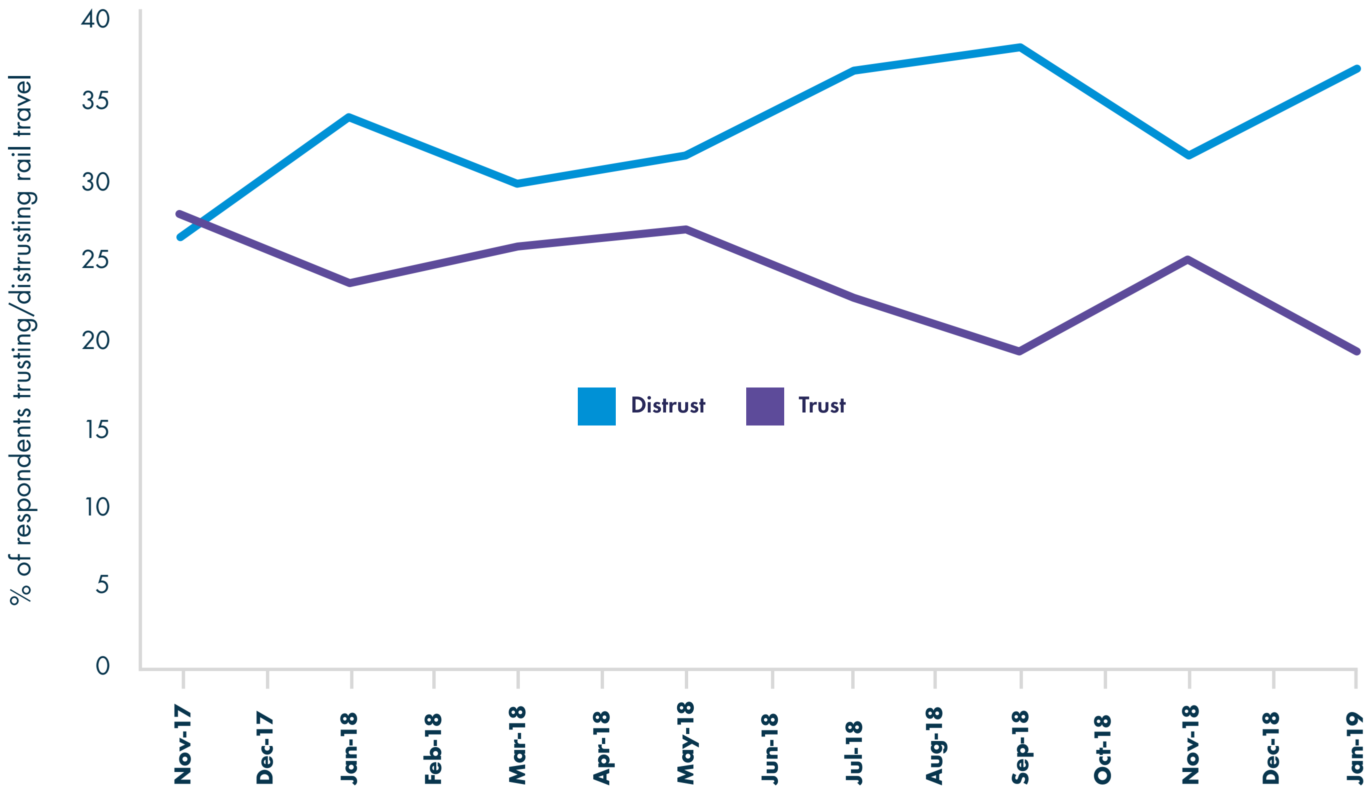
How train companies deal with delays is the biggest driver of passenger dissatisfaction (Autumn 2018)



of journeys were rated satisfactory value for money for the price of the ticket (Autumn 2018)

Distrust of train travel was 3 percentage points higher in January 2019 than January 2018

Weighted to be nationally representative.



Rail freight transported 17 billion tonne kilometres in 2017–18
This is the lowest since the late 1990s

(billion tonne kilometres)

- **1.2bn** COAL
- **1.4bn** METAL
- **4.3bn** CONSTRUCTION
- **1.1bn** OIL AND PETROLEUM
- **6.7bn** DOMESTIC INTERMODAL
- **1.7bn** OTHER
- **0.5bn** INTERNATIONAL

Rail freight accounted for 9% of all domestic freight moved (2017)

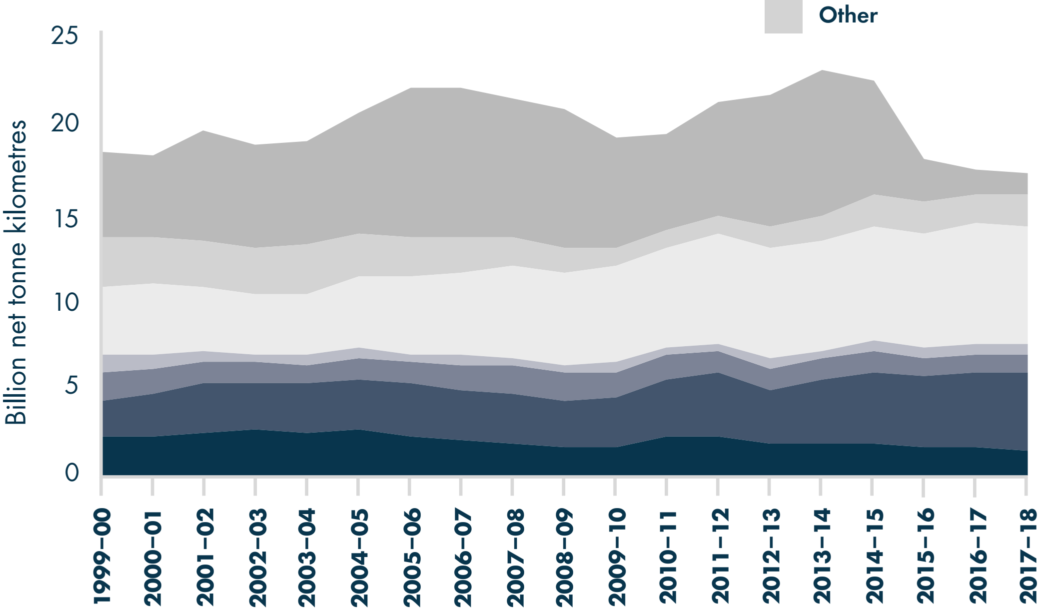
9% Rail

13% Water

78% Road

A reduction in coal freight has driven the decline in overall rail freight

- Metals
- Construction
- Oil & Petroleum
- International
- Coal
- Domestic Intermodal
- Other



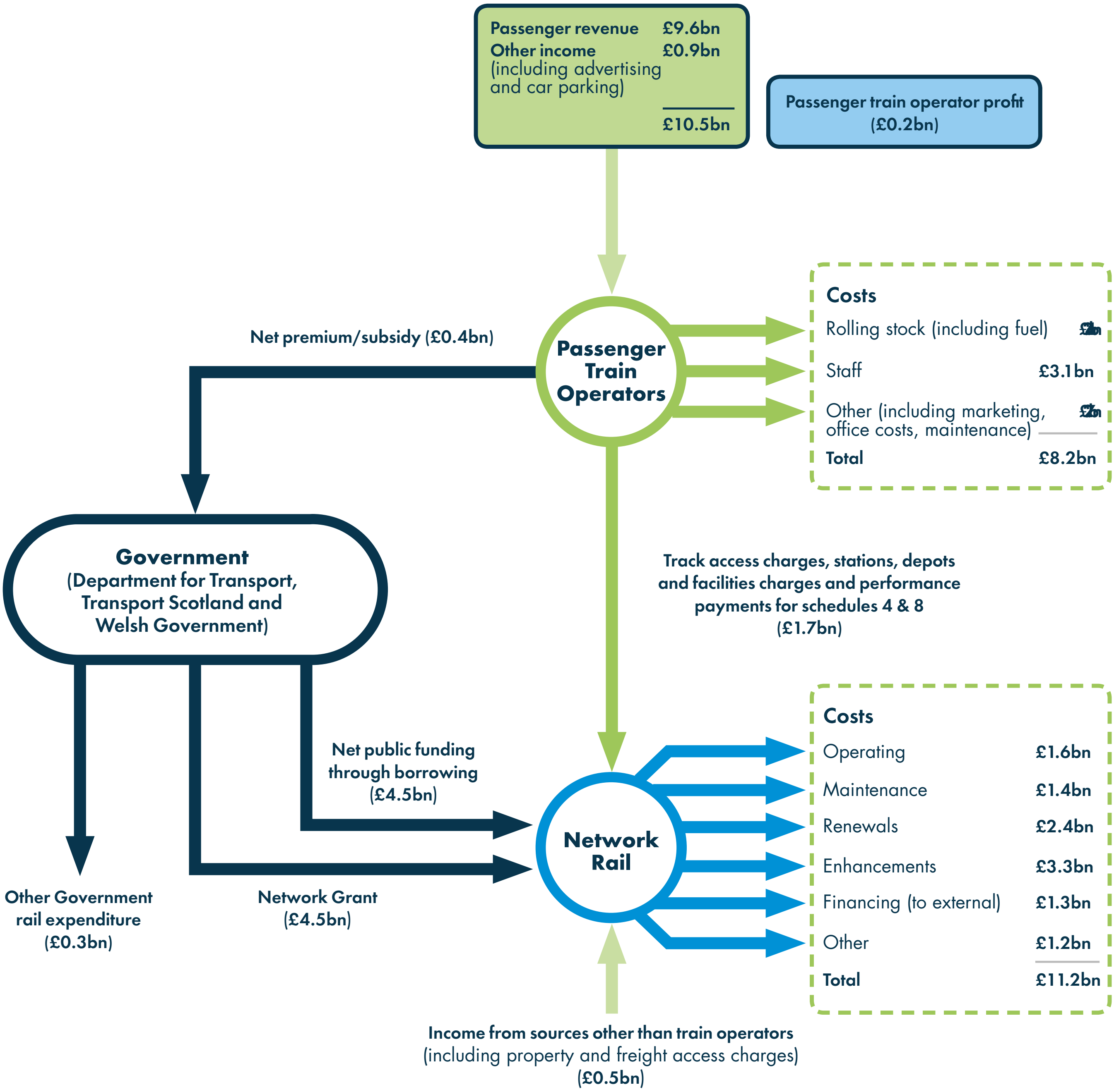
Total amount of rail freight moved by commodity

Rail freight avoided 8.2m lorry journeys in 2016–17

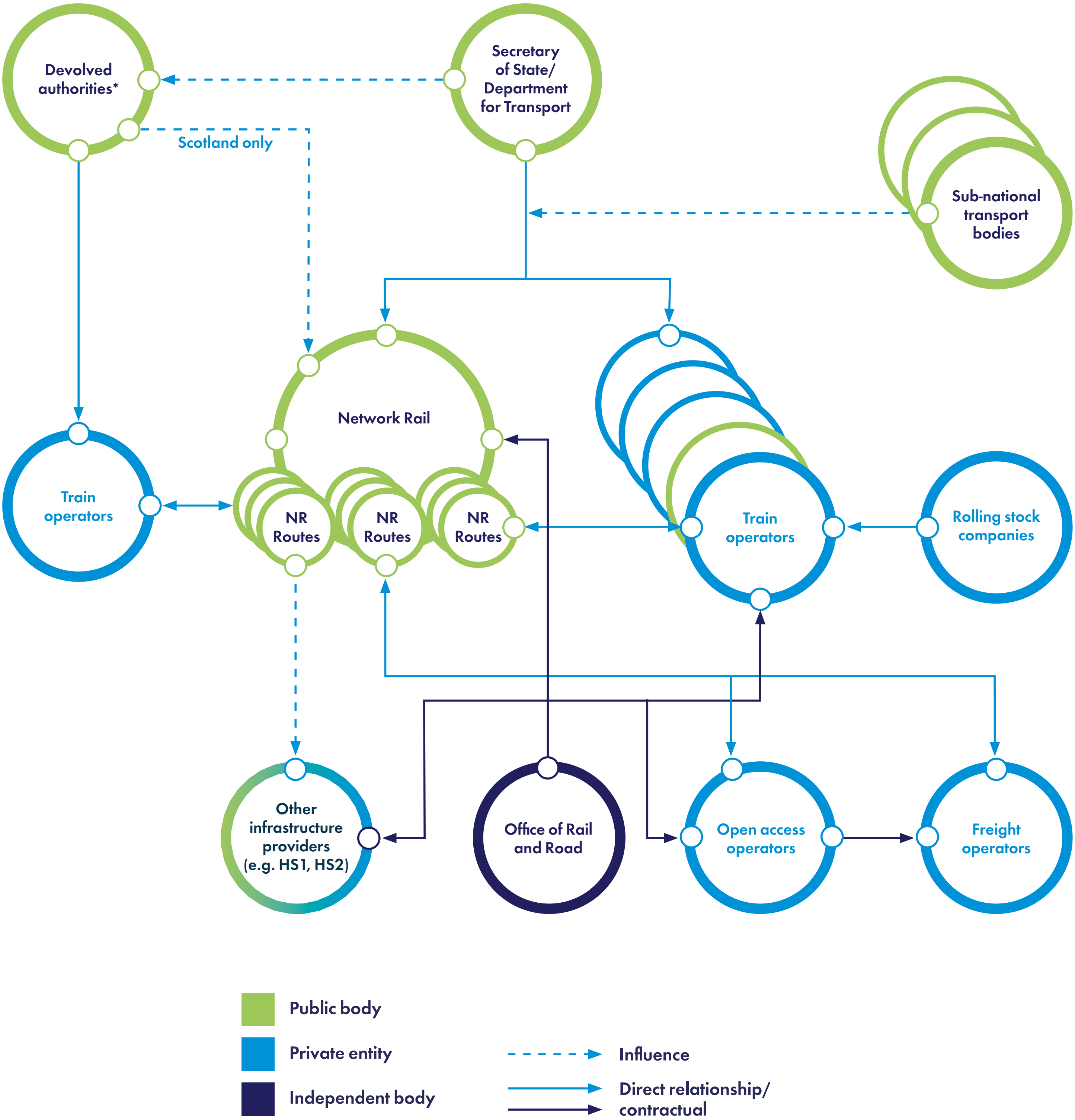
CO_2

Rail freight emits 76% less CO_2 than road freight per tonne km

The railway is a large and complex industry with a cost base to match (2017–18)

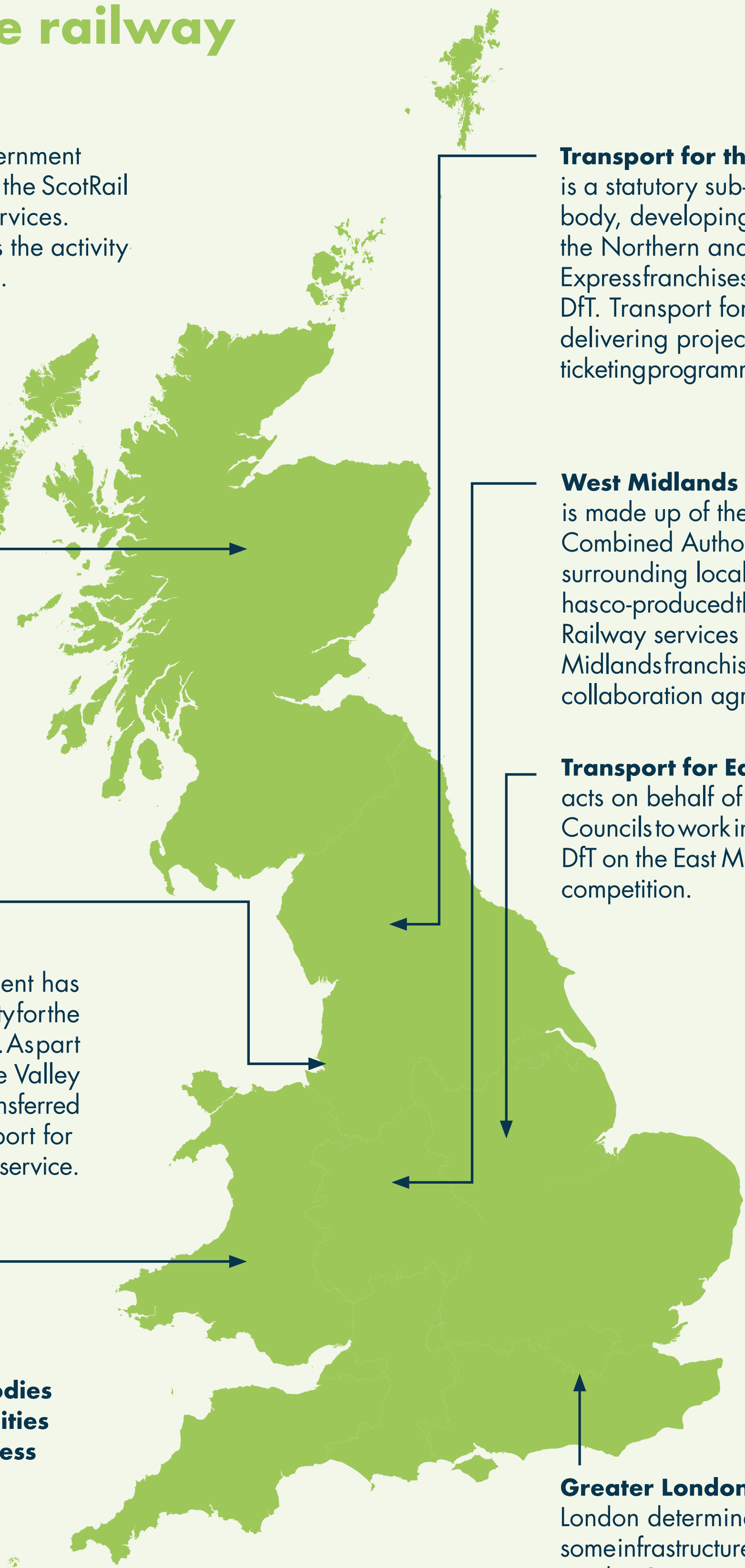


The GB railway industry is a blend of both private and public sectors



* Includes Transport Scotland, Transport for Wales, Transport for London and Merseytravel

Across the country there are a variety of arrangements for devolved and collaborative decision making for the railway



Scotland The Scottish Government has franchising authority for the ScotRail and Caledonian Sleeper services. It also funds and determines the activity of Network Rail in Scotland.

Liverpool City Region Merseytravel is the franchising authority for Merseyrail services, a largely discrete section of the national rail network.

Wales The Welsh Government has recently taken on responsibility for the Wales and Borders franchise. As part of this, the assets of the Core Valley Lines around Cardiff will be transferred from Network Rail to Transport for Wales to transform into a metro service.

Sub-national transport bodies without direct responsibilities for the railway nevertheless provide critical input on strategic priorities.

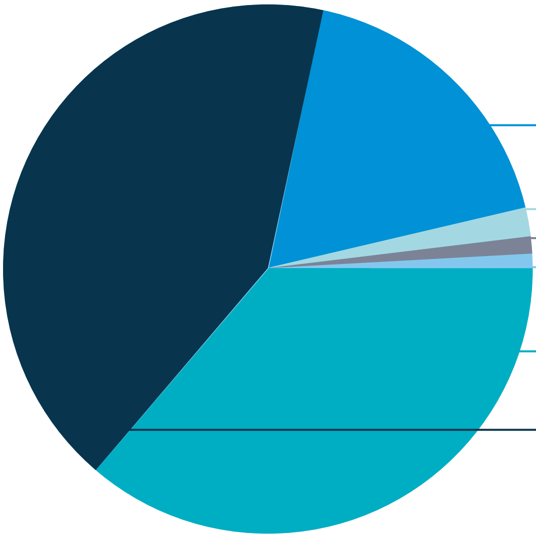
Transport for the North is a statutory sub-national transport body, developing and managing the Northern and Trans Pennine Express franchises in partnership with DfT. Transport for the North is also delivering projects such as a smart ticketing programme across the North.

West Midlands Rail Executive is made up of the West Midlands Combined Authority and seven surrounding local authorities and has co-produced the West Midlands Railway services of the West Midlands franchise with DfT under a collaboration agreement.

Transport for East Midlands acts on behalf of East Midlands Councils to work in partnership with DfT on the East Midlands franchise competition.

Greater London Transport for London determines services and has some infrastructure responsibilites for the London Overground and TfL Rail lines on the national rail network.

£47.9 billion will be spent by Network Rail on the railways between 2019 and 2024 in England and Wales



An additional £4.9 billion will be spent in Scotland

Great Britain has almost **16,000km** of route and serves over **2,500** individual stations – an increase of 74 since privatisation

36% of route kilometres are electrified (2016–17)

Over **13,500** carriages have been ordered since 1996. Over **7,800** carriages have been ordered since 2010 with over **4,500** to be delivered between now and the end of 2022

85% **of train carriages are fitted with wifi**

For franchises tendered by the Department for Transport

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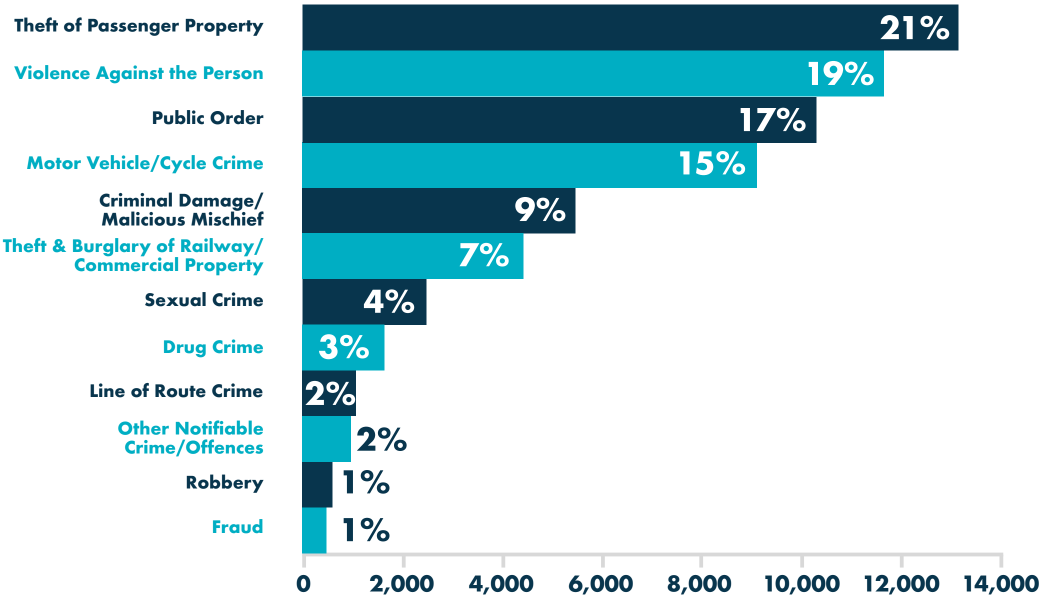
Key rail routes and stations in Great Britain

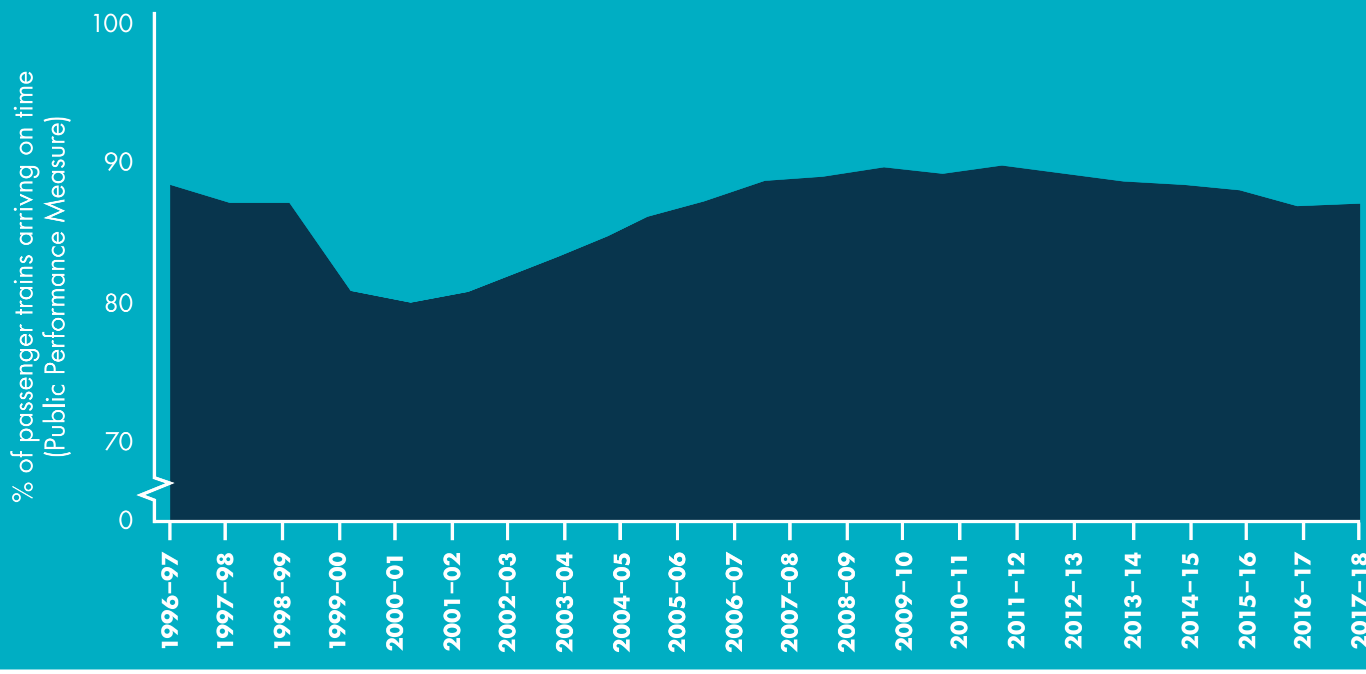
There were 13,900 safety incidents on the railway in 2017–18

87%	Minor injuries
7%	Shock and trauma
4%	Major injuries
2%	Fatalities

There were 61,000 crimes recorded on the railway in 2017–18

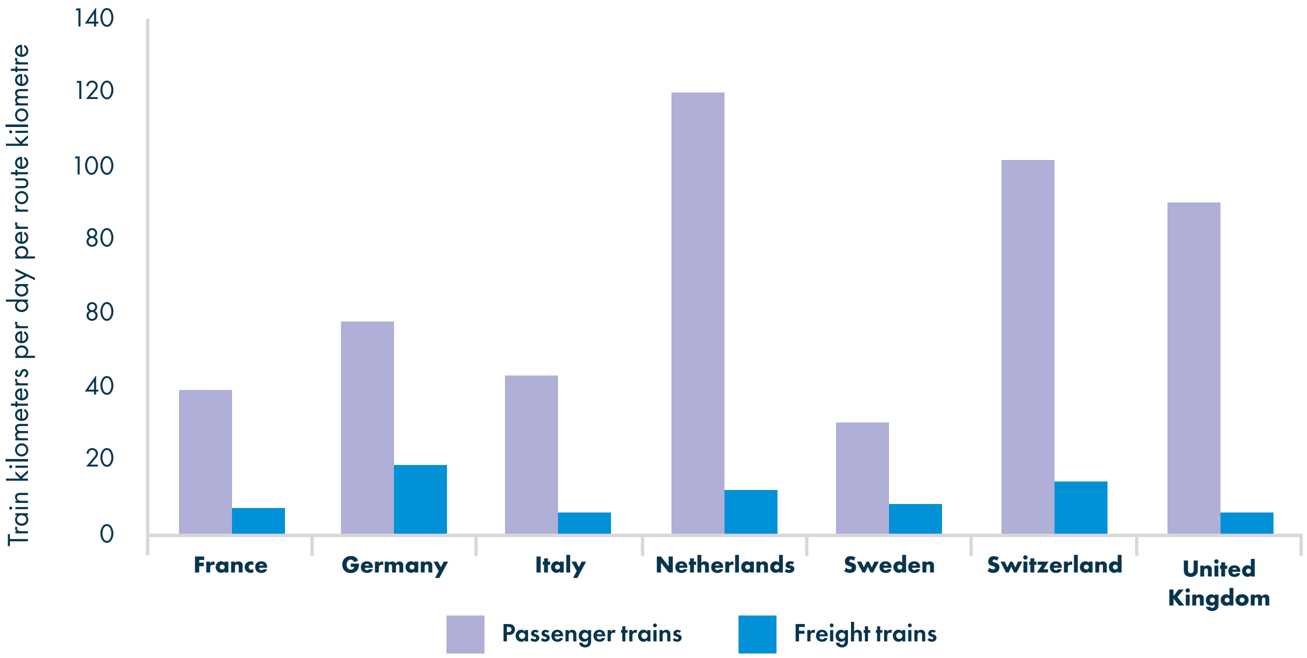


Punctuality improved since the early 2000s peaking in 2011–12



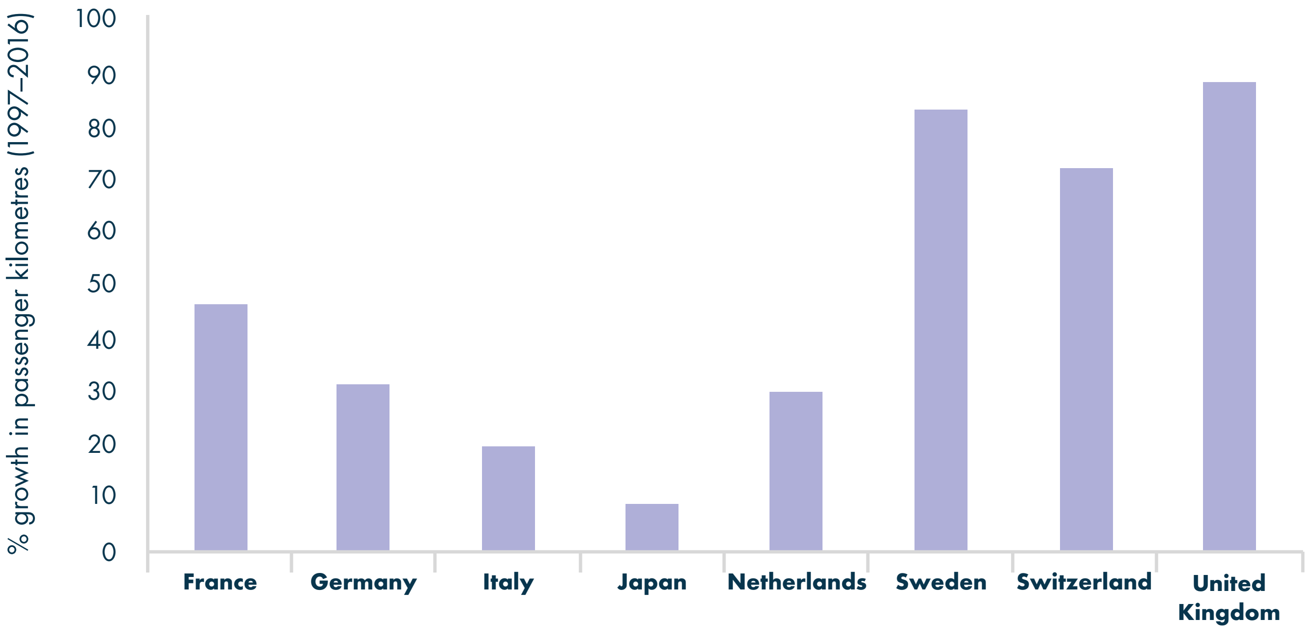
The UK railway is one of the most heavily congested in Europe

Although freight utilisation is at lower levels



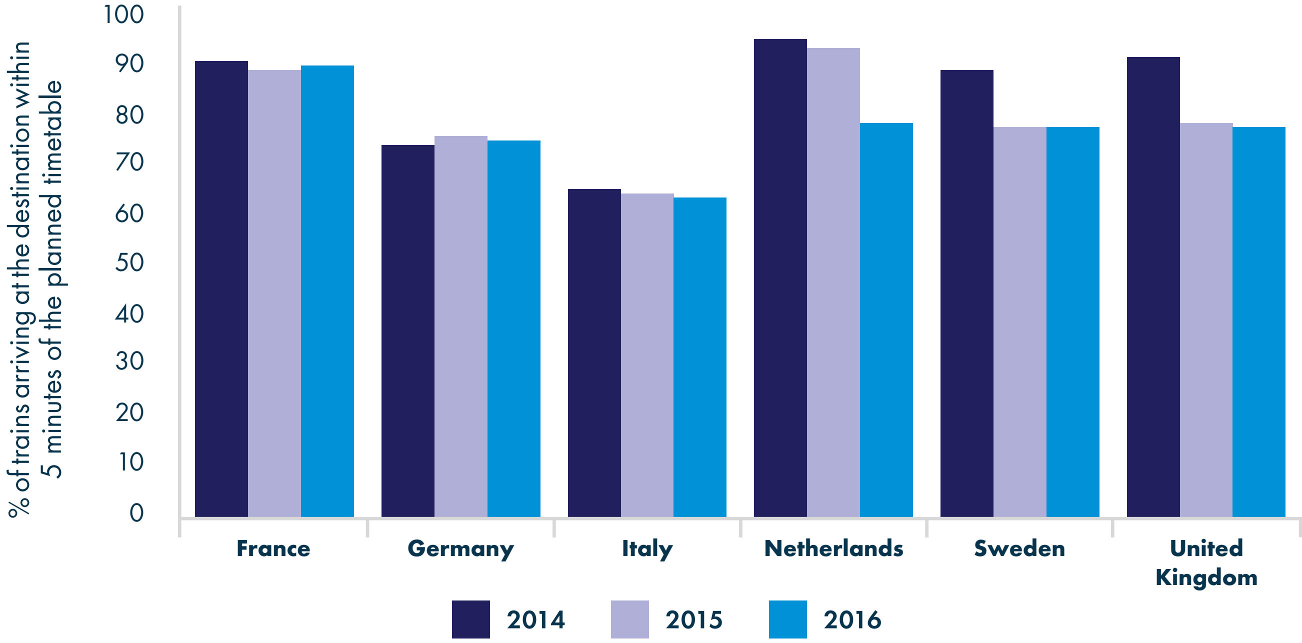
Rail demand has grown faster in the UK than other major rail networks in Europe

Rail demand has grown faster in the UK than other major rail networks



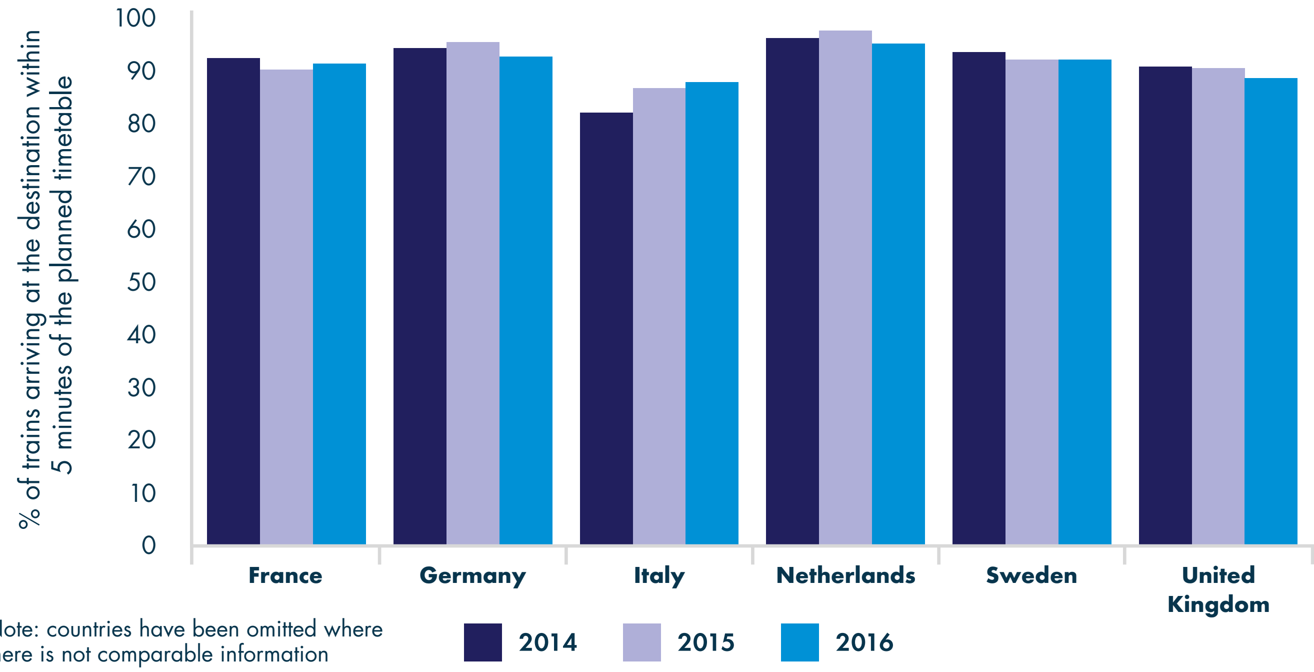
Train performance for long-distance passenger services in the UK is similar to levels seen in other major rail networks in Europe

(Note: There are some variations in the calculation methodologies across countries)



However, punctuality of regional and local passenger services performs less well

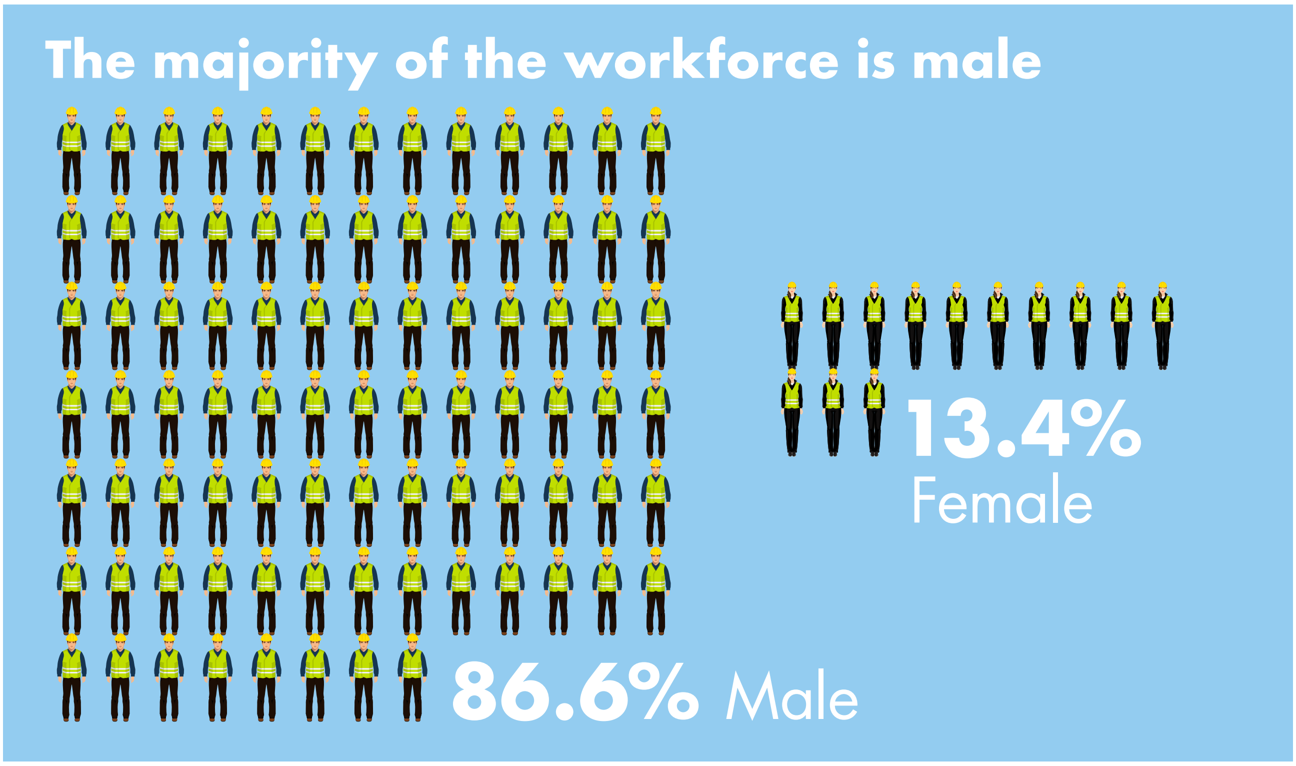
Rail demand has grown faster in the UK than other major rail networks



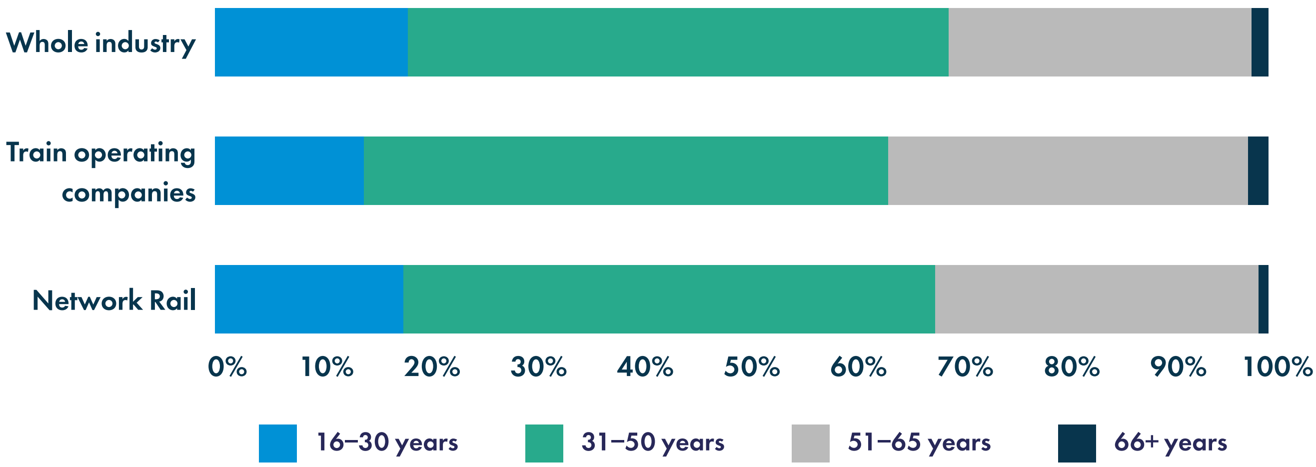
Note: countries have been omitted where there is not comparable information

The rail industry employs around 240,000 people

The majority of the workforce is male



A majority of the workforce is aged between 31 and 50



Source references

Section 1: Rail in the wider transport system

Demand for rail travel has increased whilst demand for buses and coaches has fallen. But usage of cars, vans and taxis continues to dominate: https://dataportal.orr.gov.uk/displayreport/report/html/21c19868-5153-4d1c-8157-c1606b0ebe50 table TSGB0101 – https://www.gov.uk/government/statistical-data-sets/tsgb01-modal-comparisons

Most rail journeys are made on London and South East services: http://dataportal.orr.gov.uk/displayreport/report/html/a10e3c7b-7766-40ae-a87a-14c56cf85a63

Journeys, a regional breakdown. Note: the map uses a different methodology to the sector level breakown for calculating journeys http://dataportal.orr.gov.uk/browsereports/15

Over half of rail journeys are made by commuters and those in education (England): table nts0409, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729527/national-travel-survey-2017.zip

Those who usually commute by rail take travel further to travel to work than those travelling by other modes (Great Britain): table TSGB0111, https://www.gov.uk/government/statistical-data-sets/tsgb01-modal-comparisons

Transport costs have more than doubled in 20 years. The cost of buses, coaches and taxis has risen faster than rail travel since 1996: table TSGB1308, https://www.gov.uk/government/statistical-data-sets/transport-expenditure-tsgb13

Section 2: Passengers

Men made 6 more rail trips on average than women in 2017: table nts0601, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729527/national-travel-survey-2017.zip

Most rail trips in 2017 were made by those aged between 21 and 39: table nts0601, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729527/national-travel-survey-2017.zip

People with a mobility difficulty made over three times as many rail trips in 2017 than in 2007: table nts0709, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729527/national-travel-survey-2017.zip

People in the highest quintile of household income made over three times as many rail trips as people in the lowest quintile in 2017: table nts0705, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729527/national-travel-survey-2017.zip

Passenger satisfaction has significantly improved since 1999 but in 2018 was at its lowest in 10 years: National Rail Passenger Survey, 1999–2018

In 2017 only 17% were dissatisfied with rail overall. Note: for cycling and walking the measure of dissatisfaction is with the provision of these modes not the mode itself: Table nts0802, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729527/national-travel-survey-2017.zip

Journeys for commuting are rated least satisfactory overall, with journeys for leisure rated the most satisfactory: National Rail Passenger Survey, Autumn 2018, http://d3cez36w5wymxj.cloudfront.net/wp-content/uploads/2019/01/05111216/New-Main-Report-Autumn-2018.pdf

Punctuality and reliability is the biggest driver of satisfaction: National Rail Passenger Survey, Autumn 2018, http://d3cez36w5wymxj.cloudfront.net/wp-content/uploads/2019/01/05111216/New-Main-Report-Autumn-2018.pdf

How train companies deal with delays is the biggest driver of dissatisfaction: National Rail Passenger Survey, Autumn 2018, http://d3cez36w5wymxj.cloudfront.net/wp-content/uploads/2019/01/05111216/New-Main-Report-Autumn-2018.pdf

46% of journeys were rated satisfactory for the value for money of the price of the ticket: National Rail Passenger Survey, Autumn 2018, http://d3cez36w5wymxj.cloudfront.net/wp-content/uploads/2019/01/05111216/New-Main-Report-Autumn-2018.pdf

Distrust of the rail industry was 3% higher in January 2019 than January 2018: Which? Consumer insight tracker – January 2019, https://consumerinsight.which.co.uk/tracker/trust?search%5Bdate_from%5D=1811&search%5Bdate_to%5D=1711&search%5Bsort_by%5D=unsorted

Section 3: Freight

Rail freight transported 17 billion tonne kilometres in 2017-18: http://dataportal.orr.gov.uk/displayreport/report/html/a201ed45-23cf-4785-8d71-881f93592314

Total rail freight by commodity: http://dataportal.orr.gov.uk/displayreport/report/html/a201ed45-23cf-4785-8d71-881f93592314

Rail freight accounted for 9% of all domestic freight moved in Great Britain (2016–17): table TSGB0401, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/761592/tsgb0401.ods

A reduction in coal freight has driven the decline in overall Rail Freight: http://dataportal.orr.gov.uk/displayreport/report/html/a201ed45-23cf-4785-8d71-881f93592314

Rail freight avoided 8.2m lorry journeys in 2016-17: http://dataportal.orr.gov.uk/displayreport/report/html/7de972cd-32ee-408e-80a8-01f774b8fcfc

Rail freight emits 76% less CO2 than Road freight per tonne km: table 7e and 7f, http://www.sthc.co.uk/documents/DEFRA-guidelines-ghg-conversion-factors_2009.pdf

Section 4: The rail industry structure

The railway is a large and complex industry with a cost base to match (2017–18): https://orr.gov.uk/rail/publications/reports/ukrail-industry-financial-information/uk-rail-industry-financial-information-2017-18, https://cdn.networkrail.co.uk/wp-content/uploads/2018/07/NRILRegulatory-Financial-Statement-for-the-year-ended-31st-March-2018.pdf

The GB Railway Industry is a blend of both private and public sectors: Department for Transport

Across the country there are a variety of arrangements for devolved and collaborative decision making for the railway: Department for Transport

Section 5: Rail infrastructure

£47.9 billion will be spent on the railway between 2019 and 24 in England and Wales: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/650998/railways-act-2005-statement-of-funds-available-2017-web.pdf

An additional £4.9 billion will be spent in Scotland: www.transport.gov.scot/media/41425/sofa-2019-24-25-jan-2018.pdf

Great Britain has almost 16,000km of route: https://dataportal.orr.gov.uk/displayreport/report/html/c35e0c28-324f-4168-81b9-be197963f251

And serves over 2,500 individual stations – an increase of 74 since privatisation: https://dataportal.orr.gov.uk/displayreport/report/html/640e836d-8863-4243-b794-df1abae05639

36% of route kilometres are electrified (2017–18): https://dataportal.orr.gov.uk/displayreport/report/html/c35e0c28-324f-4168-81b9-be197963f251

Over 13,500 carriages have been ordered since 1996. Over 7,800 carriages have been ordered since 2010 with over 4,500 to be delivered between now and the end of 2022: Department for Transport (Unpublished)

85% of train carriages are fitted with wifi: Department for Transport (Unpublished)

Key rail routes and stations in Great Britain: ATOC/Rail Delivery Group

There were 13900 safety incidents on the railway in 2017–18: https://dataportal.orr.gov.uk/displayreport/report/html/2fc1ca62-029a-4d0d-86e5-cfbd8

There were 61000 recorded crimes on the railway in 2017/18: https://www.btp.police.uk/pdf/Stats%20Bulletin%202017-18.pdf

Punctuality improved since the early 2000s peaking in 2011–12: https://dataportal.orr.gov.uk/displayreport/report/html/4cdbe8cc-dc97-4a8e-ae6e-a7fcd5bd268c

Section 6: International comparisons

The rail network in the UK is intensively used relative to most major European comparators. Although freight utilisation lower: https://www.irg-rail.eu/irg/documents/market-monitoring/186,2018.html

Rail demand has grown faster in the UK than other major rail networks in Europe: https://data.oecd.org/transport/passenger-transport.htm

Train performance for long-distance passenger services in the UK is similar to levels seen in other major rail networks in Europe: https://ec.europa.eu/transport/modes/rail/news/2019-02-06-commission-adopts-report-development-rail-market_en

However, punctuality of regional and local passenger services performs less well: https://ec.europa.eu/transport/modes/rail/news/2019-02-06-commission-adopts-report-development-rail-market_en

Section 7: Workforce

The rail industry directly employs around 240,000 people: National Skills Academy for Rail (unpublished)

Employees by organisation type: National Skills Academy for Rail (unpublished)

Employees by gender: National Skills Academy for Rail (unpublished)

Employee age breakdown: National Skills Academy for Rail (unpublished)