Freight Rail Usage
2018-19 Q4 Statistical Release

Background

This release contains information on rail freight usage in Great Britain with the latest quarterly and annual data to 31 March 2019.

The statistics cover **freight moved** (disaggregated by seven commodities), **freight lifted**, **freight delays per 100 train km, freight train km by operator** and **freight market indicators** which show comparisons with other modes of transport.
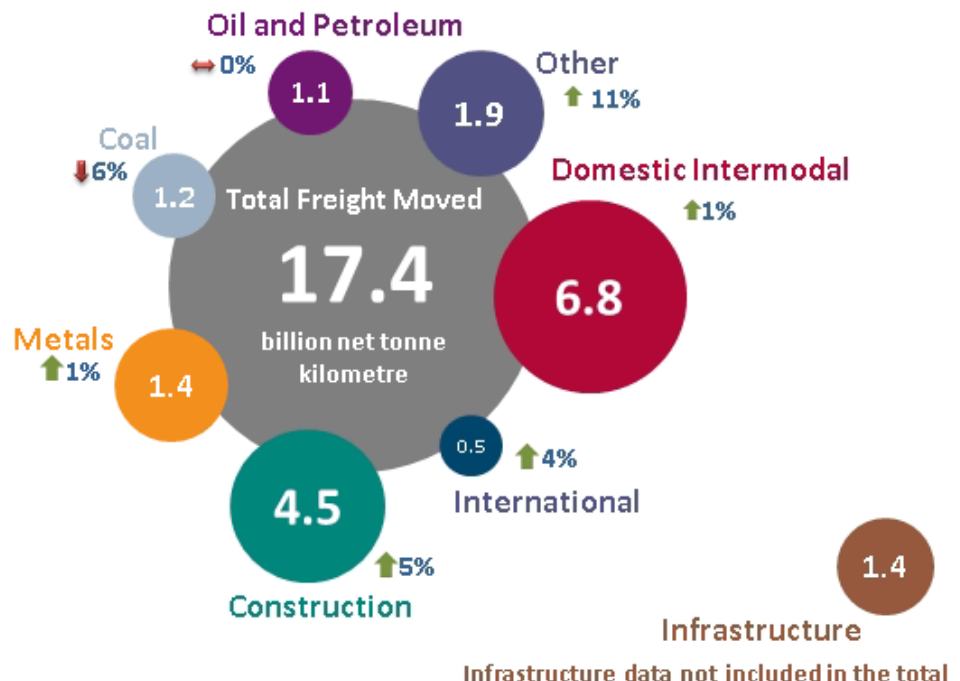
Data are sourced from Network Rail, Freight Operating Companies (FOCs) and the Department for Transport (DfT).

Contents

Total rail freight moved has increased in 2018-19 with the largest increases in the Construction and 'Other' commodities

Freight moved by commodity, Great Britain 2018-19

The total volume of rail **freight moved** rose to 17.4 billion net tonne kilometres in 2018-19, a 3% increase compared with 2017-18. The two largest increases were for the **Other** and **Construction** commodities by 11% and 5% respectively.

The total amount of **freight lifted** in 2018-19 was 75.4 million tonnes, a 1% increase compared with last year.

Freight delay per 100 train km dropped to 11.6 minutes, which is an improvement of 4% from 2017-18.

Total **freight train kilometres** rose to 33.6 million kilometres in 2018-19, an increase of 2% compared to 2017-18.

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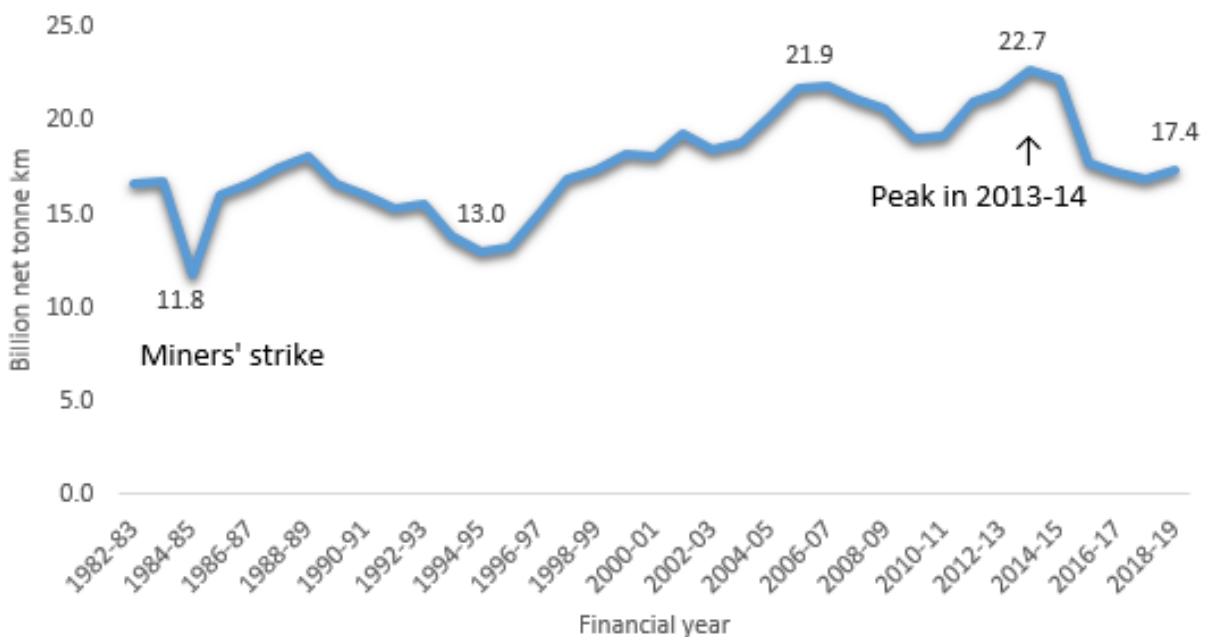
1. Freight moved

Freight moved data, measured in net tonne kilometres, shows the amount of freight which is moved on the railway network, taking into account the weight of the load and the distance carried.

Freight moved is disaggregated by seven commodities which are also summed to provide an overall total freight moved. The seven commodities are coal, metals, construction, oil and petroleum, international, domestic intermodal and other.

In addition to the seven commodities listed above, the amount of goods used for railway engineering work is also reported, under the 'infrastructure' category. This is not included in the totals published in the freight moved tables and charts.

Annual 2018-19

Figure 1.01: The volume of rail **freight moved** (billion net tonne km), Great Britain, 1982-83 to 2018-19 (Table 13.7)


The total volume of rail freight moved grew to 17.4 billion net tonne kilometres in 2018-19, a 3% increase from 2017-18.

This is the first increase in the annual total since it peaked in 2013-14, at which time Coal accounted for 36% of rail freight moved (now only 7%).

It was announced in 2015 that the UK would phase out coal production, forcing all plants to close by 2025[1] and consequently the amount of coal moved by rail has now fallen by more than 85%. However, in the past year some of the other commodities moved by rail have increased significantly to somewhat offset the continued decrease in coal.

Figure 1.02: The proportion of rail **freight moved** by commodity, Great Britain, 2018-19 (Table 13.7)
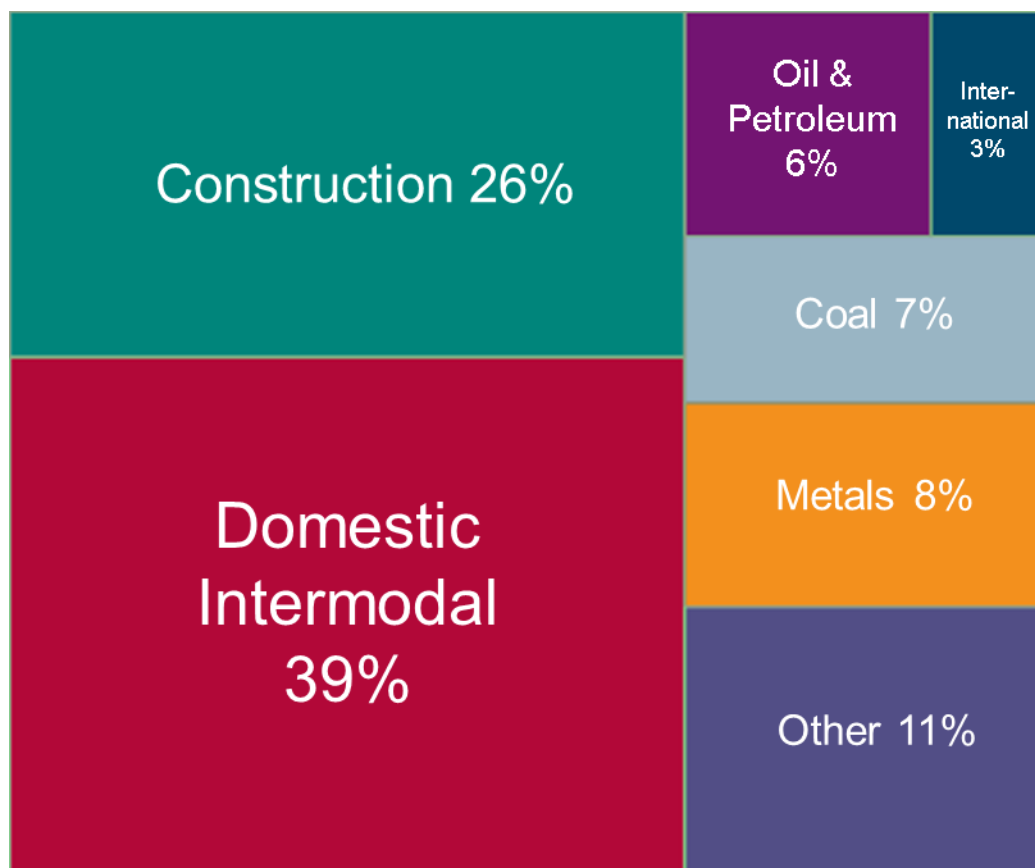
Of the seven major commodities that make up the rail freight moved in the industry, Domestic Intermodal had the largest share in 2018-19 (39%) and International had the lowest share (3%). All seven commodities had similar shares in 2017-18.

The largest percentage increase in rail freight moved on last year was in the 'Other' category, which has increased by 11% to 1.9 billion net tonne kilometres (A full breakdown of the Other category is detailed on page 12 of the Quality & Methodology report which supports these statistics[2]).

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[1] https://www.theguardian.com/business/2018/jan/05/uk-coal-fired-power-plants-close-2025

[2] https://orr.gov.uk/__data/assets/pdf_file/0008/28439/freight-usage-quality-report-2018-09-27.pdf

Construction rose by 5% taking it to its largest total (4.5 billion net tonne kilometres) since the time series began in 1998-99. The largest decrease from last year was in Coal (down 6%), which has continued to fall as mentioned earlier.

Figure 1.03: The proportion of rail **freight moved** by commodity, 1998-99 to 2018-19
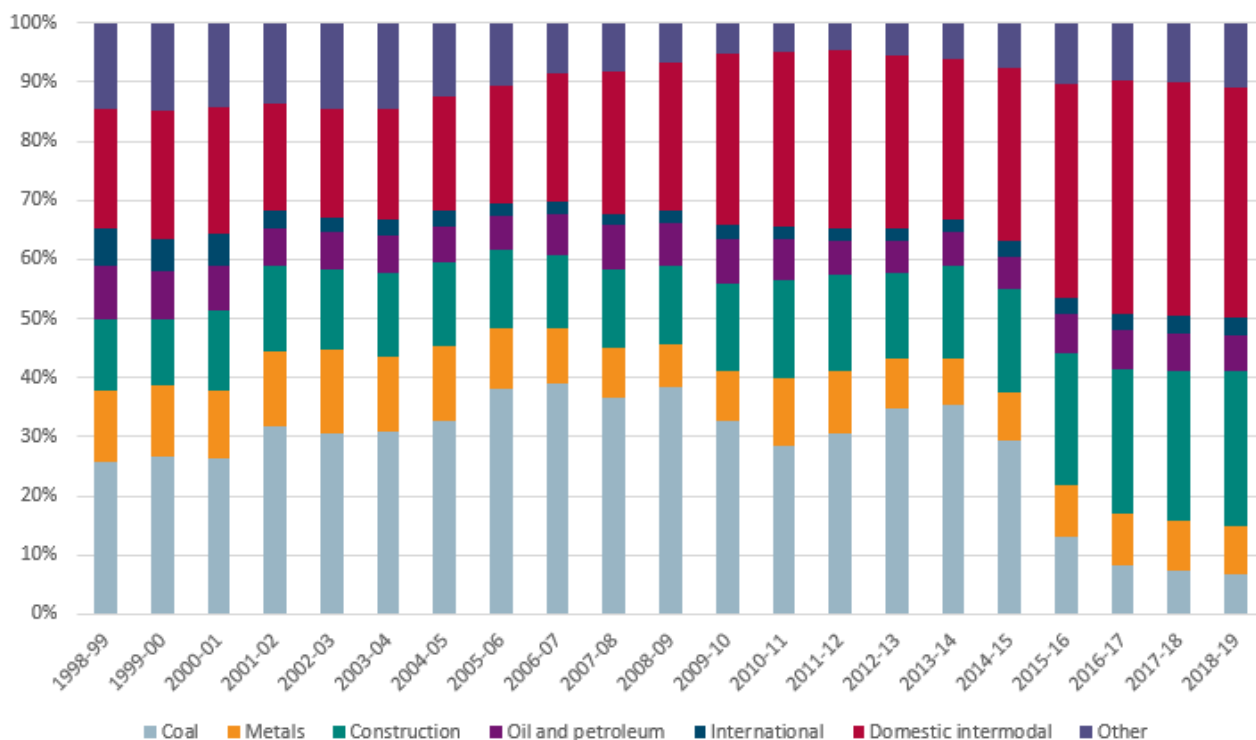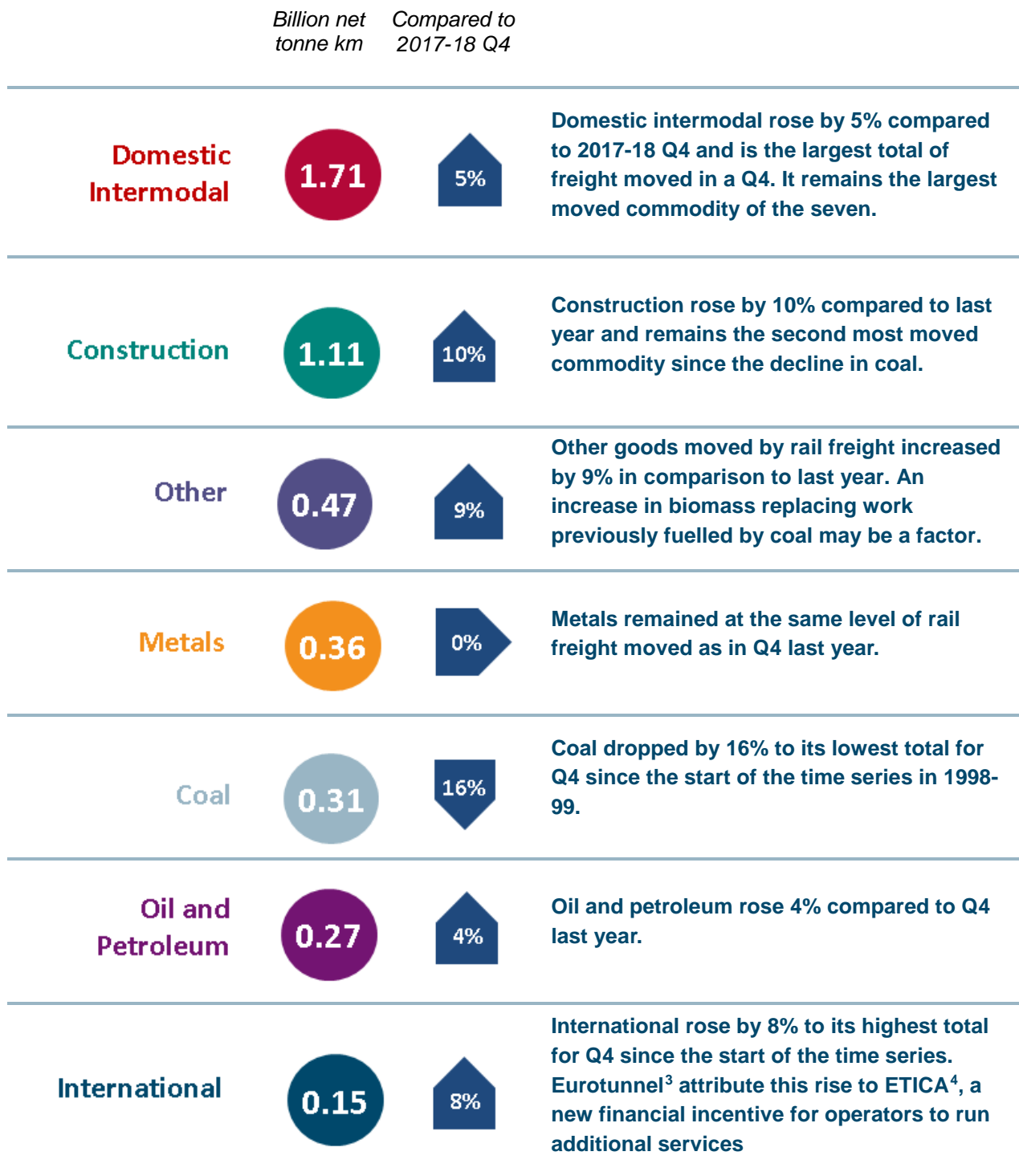

2018-19 Quarter 4 Results

In 2018-19 Q4, total freight moved was 4.4 billion net tonne kilometres, an increase of 0.2 billion net tonne kilometres (up 5%) on 2017-18 Q4. This year's winter was less severe than the snow and freezing conditions experienced in 2017-18 Q4, which may partly explain this increase.

In 2018-19 Q4, six out of the seven commodities increased compared to the same quarter last year. Construction and Domestic Intermodal freight moved reached their highest totals for Q4 since the start of the time series in 1998-99. The only decrease was in Coal, which dropped by 16% to 0.3 billion net tonne kilometres.

Figure 1.04: The volume of rail **freight moved** (billion net tonne km), 2018-19 Q4 compared to 2017-18 Q4(Table 13.7)

	Billion net tonne km	Compared to 2017-18 Q4	

Domestic Intermodal — 1.71 — ▲ 5%

Domestic intermodal rose by 5% compared to 2017-18 Q4 and is the largest total of freight moved in a Q4. It remains the largest moved commodity of the seven.

Construction — 1.11 — ▲ 10%

Construction rose by 10% compared to last year and remains the second most moved commodity since the decline in coal.

Other — 0.47 — ▲ 9%

Other goods moved by rail freight increased by 9% in comparison to last year. An increase in biomass replacing work previously fuelled by coal may be a factor.

Metals — 0.36 — ▶ 0%

Metals remained at the same level of rail freight moved as in Q4 last year.

Coal — 0.31 — ▼ 16%

Coal dropped by 16% to its lowest total for Q4 since the start of the time series in 1998-99.

Oil and Petroleum — 0.27 — ▲ 4%

Oil and petroleum rose 4% compared to Q4 last year.

International — 0.15 — ▲ 8%

International rose by 8% to its highest total for Q4 since the start of the time series. Eurotunnel[3] attribute this rise to ETICA[4], a new financial incentive for operators to run additional services

■ Quarterly freight moved data are available on the data portal in Table 13.7.

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[3] https://www.getlinkgroup.com/uploadedFiles/assets-uk/Media/Press-Releases/2019-Press-Release/190418-new-increase-in-revenue-for-the-first-quarter-of-2019.pdf

[4] https://www.getlinkgroup.com/uploadedFiles/assets-uk/The-Group/Profile/Our-Business/020614--ETICAEN.pdf

2. Freight lifted

Annual 2018-19

In 2018-19, the total amount of freight lifted in Great Britain rose to 75.4 million tonnes, a small increase (1%) from 2017-18 (when it was at its lowest level since the miner's strike in 1984-85).

Coal freight lifted was 10.5 million tonnes in 2018-19, a 9% rise on last year when Coal was at its lowest ever annual total since the start of the time series.

The total for 'Other' goods lifted has been steadily rising in recent years, however this year it has decreased by 1% to 64.9 million tonnes.

The highest annual total of freight lifted in this time series was 149.5 million tonnes in 1988-89.

Freight lifted is the mass of goods carried on the rail network measured in tonnes, excluding the weight of the locomotives and wagons. Unlike freight moved it takes no account of the distance travelled.

Freight lifted information is sourced from the four major Freight Operating Companies (FOCs): DB Schenker Rail (formerly EWS), Freightliner Ltd (formerly the BR container business), Direct Rail Services (DRS) and GB Railfreight.

Figure 2.01: The mass of rail **freight lifted**
Great Britain, 1982-83 to 2018-19 ([Table 13.6)](Table 13.6)

* Other is a commodity group for non-coal lifted freight
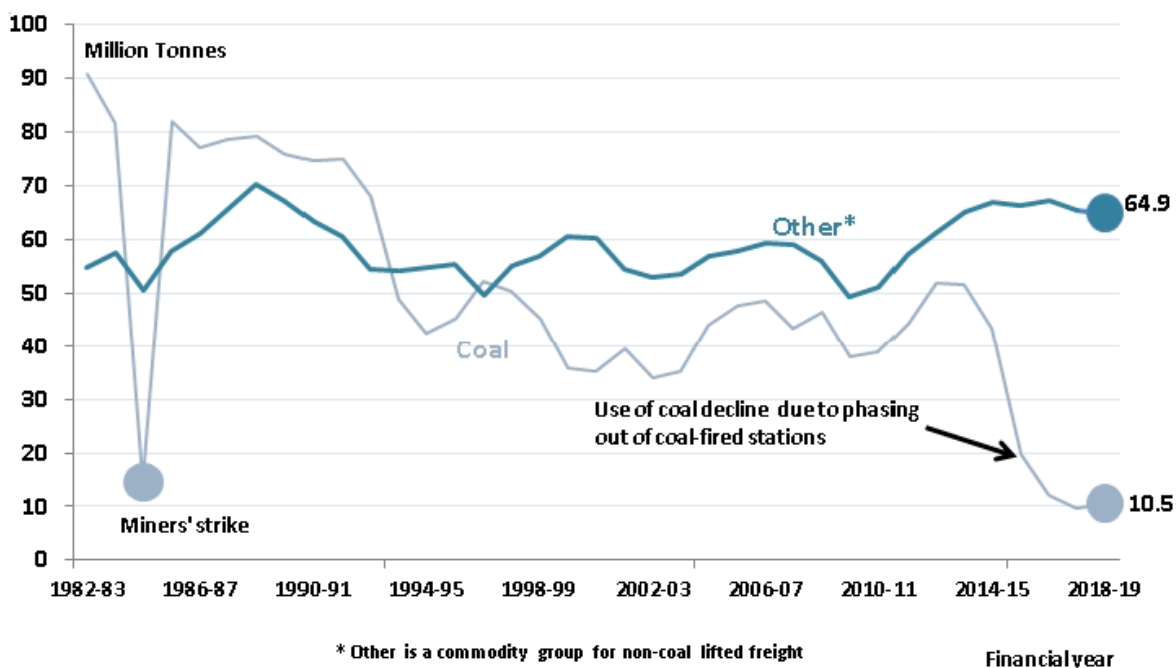
2018-19 Quarter 4 Results

Figure 2.02: Freight lifted (million tonnes),
Great Britain, 2004-05 Q1 to 2018-19 Q4 (Table 13.6)
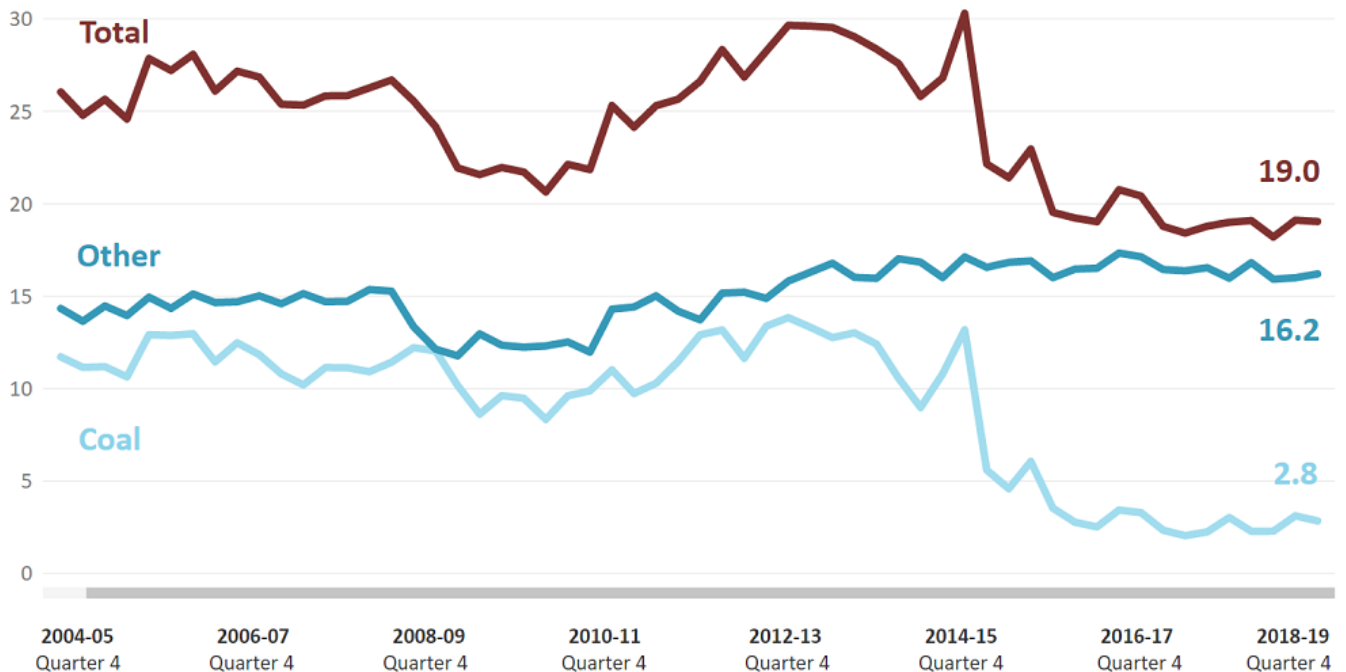
The total amount of freight lifted in 2018-19 Q4 was 19.0 million tonnes, the same amount lifted in 2017-18 Q4.

The amount of coal lifted in 2018-19 Q4 dropped by 6% to 2.8 million tonnes and the amount of other freight lifted (in this case meaning all the other commodities combined) rose by 1% to 16.2 million tonnes compared with 2017-18 Q4.

■ Quarterly freight lifted data are available on the data portal in: Table 13.6

3. Freight delay per 100 train kilometres

Freight delay per 100 train kilometres usually peaks in Q3 and Q4 each year, coinciding with the expected periods of adverse weather, during autumn and winter.

Annual 2018-19

Normalised freight delay fell to 11.6 minutes per 100 train kilometres in 2018-19, which is 4% lower than 2017-18.

2018-19 Quarter 4 Results

Freight delay in 2018-19 Q4 was 10.7 minutes per 100 train kilometres, a 13% reduction in delays from the same quarter last year. This is the lowest Q4 since the start of the time series in 2007-08.

Figure 3.01: Normalised **Freight delay per 100 train kilometres**, Great Britain, 2007-08 Q1 to 2018-19 Q4 (Table 13.5)
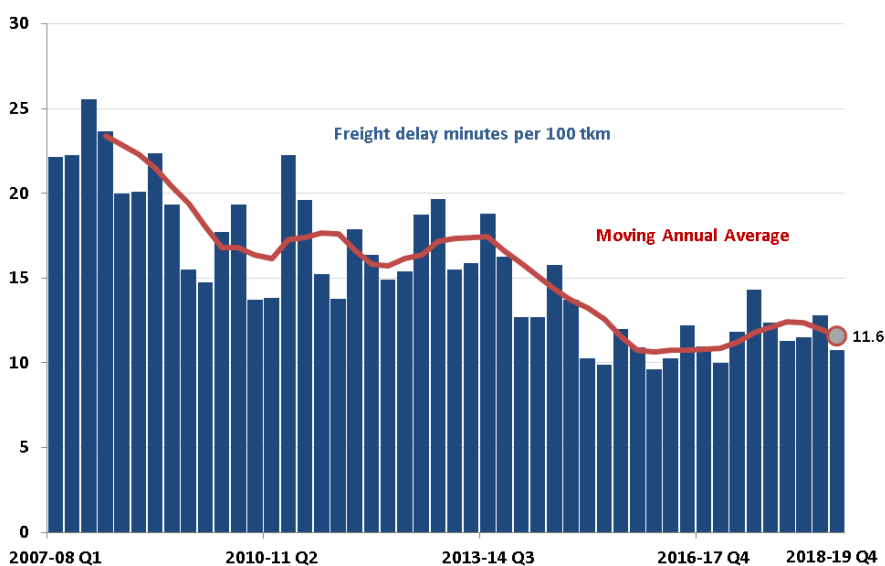
(P) This dataset is provisional as delay data is often revised as part of the delay attribution process (please see the Freight Rail Usage quality report for further details).

■ Quarterly freight delays per 100 train km data are available on the data portal: Table 13.5

Freight delay per 100 train kilometres is a normalised measure of delay experienced by FOCs.

The measure is calculated from the total delay experienced by all GB freight operators divided by their train mileage.

Freight train mileage can fluctuate depending on demand so a normalised measure allows for comparison over time regardless of changing levels of freight traffic on the network.

Freight Delivery Metric (FDM) is another measure of freight train delay. It is based on the percentage of freight trains that arrive at their destination within 15 minutes of their scheduled arrival time. Results and more information can be found in the quarterly Passenger and Freight Rail Performance statistical release.

As set out in the Passenger and freight rail performance 2018-19 Q4 statistical release, we are proposing to move the Freight Delivery Metric (FDM) statistics from that release to this one, which will be re-named 'Freight rail usage and performance'.
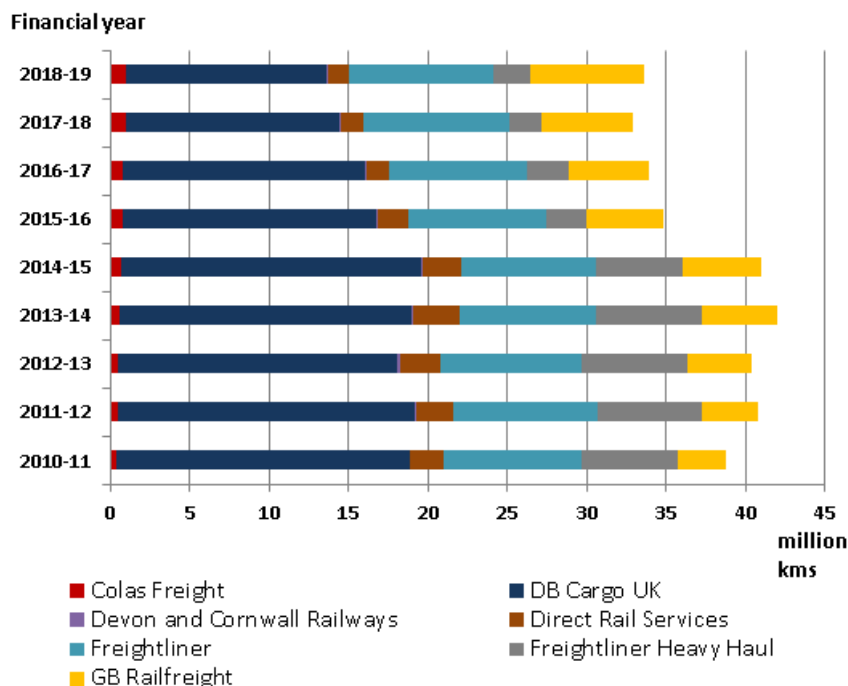
4. Freight train kilometres by operator

Annual 2018-19

Total freight train kilometres rose to 33.6 million kilometres in 2018-19, a 2% rise compared to 2017-18. The total has remained low within the last few years since coal production in Great Britain significantly reduced in 2014-15.

DB Cargo UK remained the FOC covering the most train kilometres, followed by Freightliner and GB Railfreight. These three FOCs accounted for 86% of the total freight train kilometres ran in 2018-19.

Figure 4.01: Freight train kilometres by operator, Great Britain, 2010-11 to 2018-19 ([Table 13.25](#))

Freight train kilometres is the actual mileage in kilometres operated by FOCs on Network Rail infrastructure

The data is sourced from Network Rail's Track Access Billing System (TABS) and covers only the mileages charged through TABS.

Competition between freight operators means we would expect a greater level of variation in mileage from year to year than in the passenger market.

Not all freight operators have been in operation throughout the time-series, therefore total year on year comparison should be treated with caution.

Please see the accompanying [quality report](#) for more information.

2018-19 Quarter 4 Results

In 2018-19 Q4, total freight train kilometres was 8.5 million kilometres, a 5% increase compared with the same quarter last year.

This was driven by a significant increase in the track covered by GB Railfreight, up 25% compared to Q4 last year. Its total rose to 1.9 million kilometres, which is the highest amount for GB Railfreight since the start of the time series in 2010-11.

With little difference in the distance travelled for any of the other major FOCs, GB Railfreight's share of total freight train kilometres increased from 19% in 2017-18 Q4 to 23% in 2018-19 Q4.

DB Cargo has kept the highest share with 37% and Freightliner still has the second highest with 26%.

Figure 4.02: Freight train kilometres by FOC, Great Britain, 2018-19 Q4 (Table 13.25)
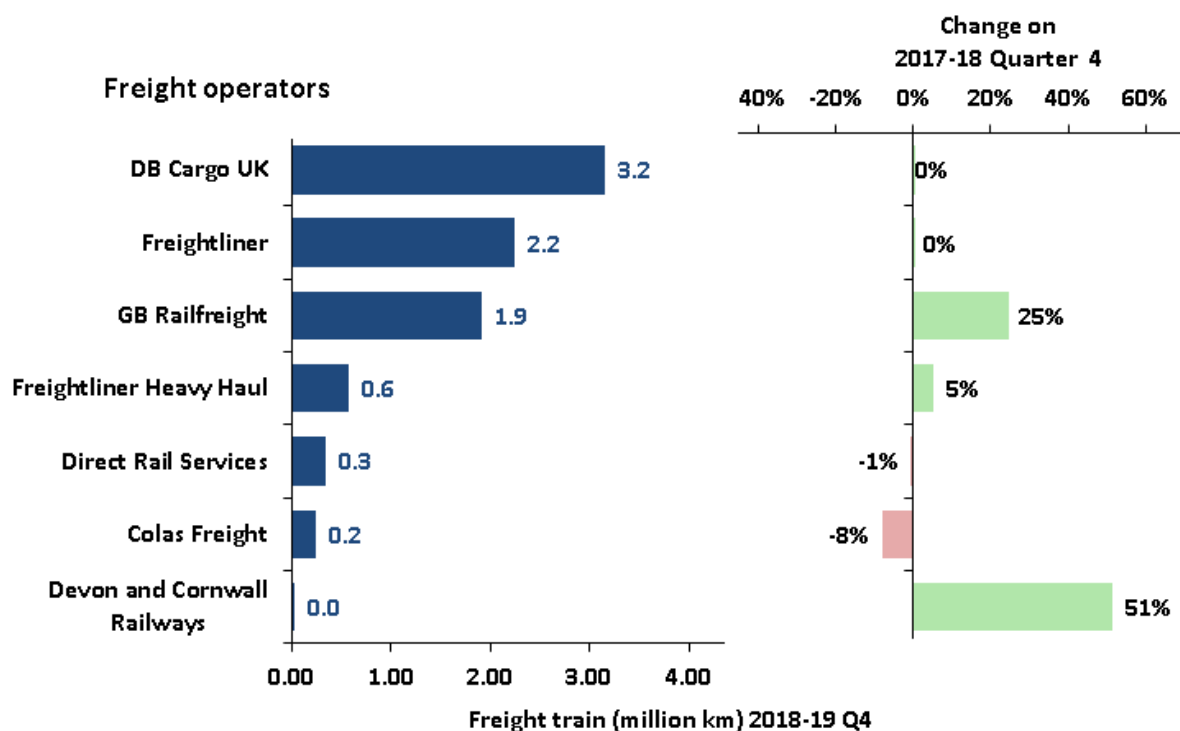
- Quarterly freight kilometres by operator data are available on the data portal in Table 13.25.

5. Freight market indicators

Freight market indicators comprise three measures: number of freight train movements on the network (data available up to 2018-19), impact on road haulage (2017-18), and rail market share (calendar year 2017).

Number of freight train movements

Number of freight train movements, Great Britain, 2003-04 to 2018-19 (Table 13.10)
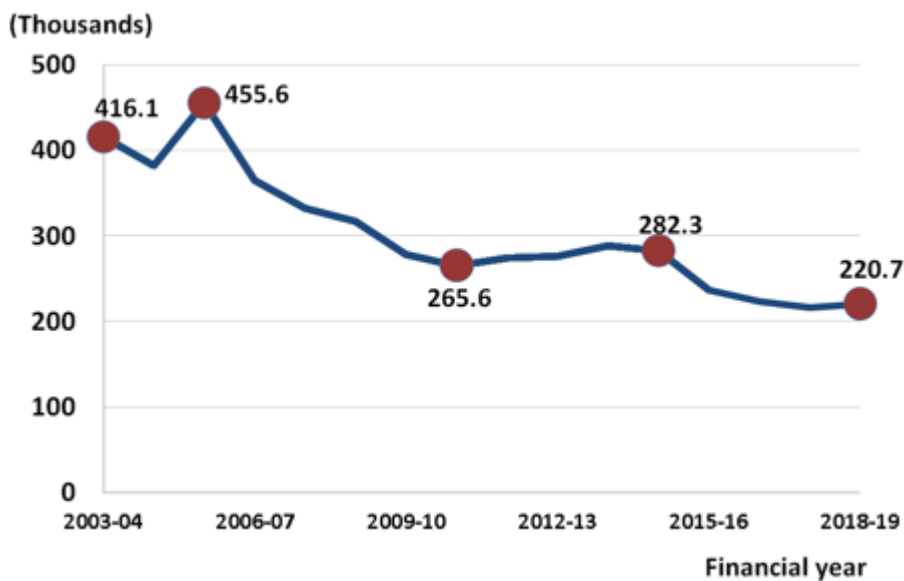
Number of freight train movements shows the volume of freight trains on the railway network each year.

The data is sourced from Network Rail and is based on chargeable train movements.

In 2018-19, the number of freight train movements was 220,711, a 2% increase on 2017-18, but the second lowest since the start of the time series in 2003-04.

The steady decline in the number of freight train movements may be seen as an indication of increased efficiency of the trains.

■ Annual freight train movement data are available on the data portal in: Table 13.10

Impact on road haulage

In 2017-18, the number of lorry kilometres in Great Britain required to transport the amount of freight moved by rail was 1.5 billion kilometres, a 10% decrease on 2016-17. This is the lowest number recorded since the start of the time series in 2004-05.

There were 7.2 million lorry journeys avoided in 2017-18 through the use of rail freight, 12% fewer than the previous year. This is also the lowest number of avoided lorry journeys recorded since 2004-05.

This reflects the overall decrease in rail freight that has been moved in recent years.

■ Annual impact on road haulage data are available on the data portal in Table 13.8.

Impact on road haulage consists of two measures; **rail freight lorry kilometres equivalent** and **avoided lorry journeys.**

Rail freight lorry kilometres equivalent measures an equivalent distance that road vehicles (HGVs) would need to have travelled to move the amounts of freight carried on rail.

Avoided lorry journeys is the equivalent number of road vehicle trips necessary to move the freight.

Rail market share

In 2017, 5% of all freight lifted in Great Britain was on rail (76.4 million tonnes). The proportion of freight lifted on the rail network was the same as it was in 2016. Freight lifted by road (HGV) was 89% and 6% was taken by water.

The proportion of freight moved on the rail network was 9% in 2017, with 17.2 billion net tonne kilometres. This was the same proportion as in 2016. The percentage moved by road (HGV) increased by 2 percentage points to 78% and 13% was by water.

■ Annual rail market share data are available on the data portal in Table 13.12.

Rail market share statistics show the volumes of freight moved and freight lifted on different modes of transport; rail, road, pipeline and water.

Road data is calculated based on HGVs only as data for other vehicle types is not available.

Pipeline data are not available after 2011 therefore it has been excluded from the annual totals and the calculations of market share.

Annex 1 – List of pre-created reports available on the Data Portal

All data tables can be accessed on the data portal free of charge. The data portal provides on screen data reports, as well as the facility to download data in Excel format and print the report. We can provide data in csv format on request.

Freight moved

- Freight moved, 1982-83 to 2018-19 (annual), 1998-99 Q1 to 2018-19 Q4 (quarterly) – Table 13.7

Freight lifted

- Freight lifted, 1982-83 to 2018-19 (annual), 1996-97 Q1 to 2018-19 Q4 (quarterly) – Table 13.6

Freight delay minutes per 100 train kilometres

- Normalised freight delay, 2007-08 to 2018-19 (annual), 2007-08 Q1 to 2018-19 Q4 (quarterly) – Table 13.5

Freight train kilometres by operator

- Freight train kilometres, 2010-11 to 2018-19 (annual), 2010-11 Q1 to 2018-19 Q4 (quarterly) – Table 13.25

Freight market indicators (Q4/annual publications only)

- Number of freight train movements, 2003-04 to 2018-19 – Table 13.10
- Impact on rail haulage, 2004-05 to 2017-18 – Table 13.8
- Rail market share, 1998 to 2017 – Table 13.12

Revisions: There have been some minor revisions to the previously published dataset. Further details can be found at: Revisions Log.

Methodology: For more information on data collection and the methodology used to calculate the statistics in this release please see the accompanying Quality Report.

Annex 2

Statistical Releases

This publication is part of ORR's National Statistics accredited statistical releases which consist of annual and quarterly themed releases:

Annual

- Rail Finance;

- Rail Fares Index;

- Rail Safety Statistics;

- Rail Infrastructure, Assets and Environmental;

- Regional Rail Usage;

- *Estimates of Station Usage (not National Statistics)*.

Quarterly

- Passenger and Freight Rail Performance;

- Freight Rail Usage;

- Passenger Rail Usage;

- Passenger Rail Service Complaints.

A full list of publication dates for the next twelve months can be found in the release schedule on the ORR website.

National Statistics

The United Kingdom Statistics Authority designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics.

National Statistics status means that official statistics meet the highest standards of trustworthiness, quality and public value.

All official statistics should comply with all aspects of the Code of Practice for Official Statistics. They are awarded National Statistics status following an assessment by the Authority's regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

It is ORR's responsibility to maintain compliance with the standards expected of National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored.

For more details, please contact the Statistics Head of Profession Lyndsey Melbourne on 020 7282 3978 or contact rail.stats@orr.gov.uk.

The Department for Transport (DfT) also publishes a range of rail statistics which can be found at DfT Rail Statistics. They also publish road freight statistics which can be found at Road freight: domestic and international statistics and includes statistics on freight transported between road and rail.