Freight Rail Usage
2016-17 Q2 Statistical Release

Publication date: 1 December 2016

Next publication date: 23 February 2017

Background

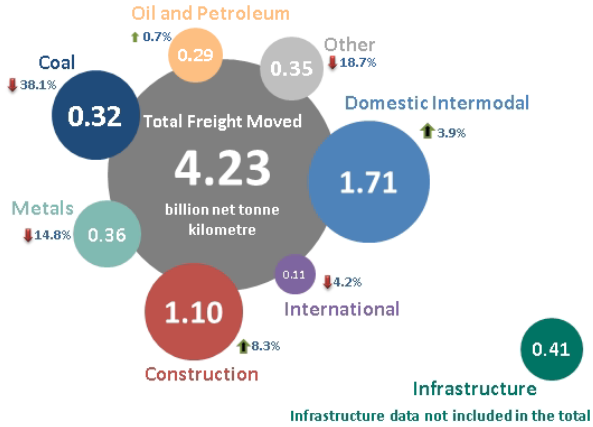
This release contains information on rail freight usage in Great Britain with the latest quarterly data referring to July, August and September of 2016.

The statistics cover **freight moved** (disaggregated by seven commodities), **freight lifted**, **freight delays per 100 train km** and **freight train kilometres by operator**. Also included are **freight market indicators** which show comparisons with other modes of transport (these have not been updated this quarter).

Data are sourced from Network Rail, Freight Operating Companies (FOCs) and Department for Transport (DfT).

Contents

Freight moved by commodity, Great Britain, 2016-17 Q2



The total volume of **freight moved** in 2016-17 Q2 was 4.23 billion net tonne kilometres, a decrease of 4.3% on 2015-16 Q2. Continuing its recent downward trend, **Coal** fell to 0.32 billion net tonne kilometres. **Other,** which includes biomass, also recorded a drop of 18.7%, a first year-on-year fall since 2011-12 Q2. These falls were partially offset by **Construction and Domestic intermodal**, with **Construction** reaching its highest amount for any quarter since the start of the quarterly time series in 1998-99 Q1 with 1.10 billion net tonne kilometres.

Freight lifted fell to 19.1 million tonnes in 2016-17 Q2, a decrease of 11.0%. The amount of **coal lifted** was 2.5 million tonnes, a decrease of 45.1% compared to the same quarter last year, and now the lowest across all quarters since the start of the time series in 1996-97 Q1.

Freight delay in 2016-17 Q2 increased to 10.3 minutes per 100 train kilometres, a rise of 4.6% compared to 2015-16 Q2 and the first year-on-year increase recorded since 2013-14 Q3.

Total **freight train kilometres** was 8.45 million kilometres, a decrease of 0.3 million kilometres (-3.6%) compared to 2015-16 Q2.

Responsible Statistician: Lyndsey Melbourne (Tel: 020 7282 3978)
Author: Folusho Amusan
Public Enquiries: Email: Rail.Stats@orr.gsi.gov.uk **Media Enquiries:** Tel: 020 7282 2094
Website: http://orr.gov.uk/statistics/published-stats/statistical-releases

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.

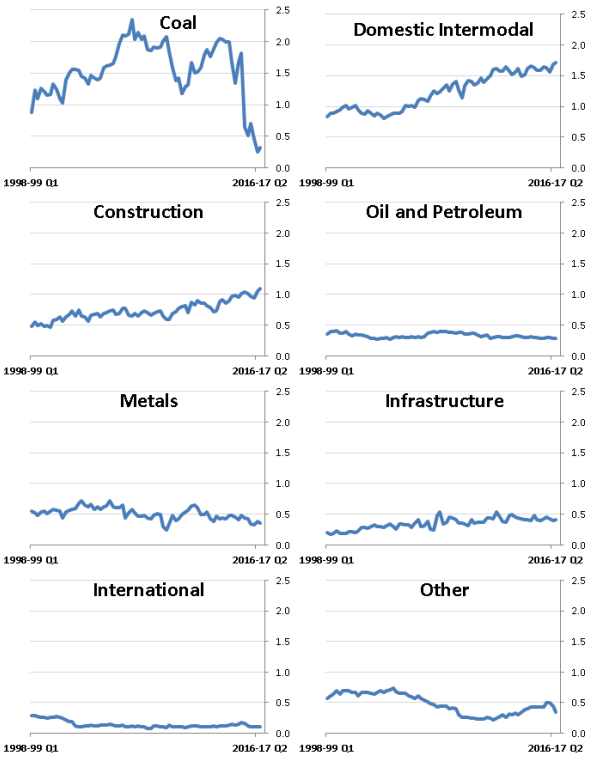
In addition to the seven commodities listed above the amount of goods used for railway engineering work is also reported, under the 'infrastructure' category. This is not included in the totals published in the freight moved tables and charts.

Annual 2015-16

In 2015-16, the total volume of freight moved was 17.76 billion net tonne kilometres, a decrease of 20.0% on 2014-15. The largest annual decrease in total freight moved (⇩29.8%) was between 1983-84 and 1984-85 caused by the miners' strike. Total freight moved grew steadily from 1995-96, peaking at 22.71 billion net tonne kilometres in 2013-14. For more information, please see the 2015-16 Q4 statistical release.

2016-17 Quarter 2 Results

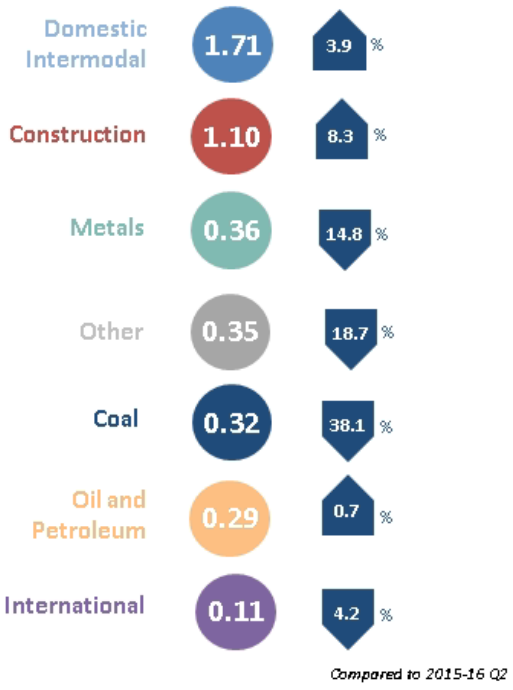
Freight moved (billion net tonne km), Great Britain, 1998-99 Q1 to 2016-17 Q2 (Table 13.7)



In 2016-17 Q2, total freight moved was 4.23 billion net tonne kilometres, a reduction of 0.19 billion net tonne kilometres (⇩ 4.3%) on 2015-16 Q2.

The biggest drop in 2016-17 Q2 was coal (⇩38.1%) to 0.32 billion net tonne kilometres, the second lowest amount of freight moved since the start of the quarterly time series in 1998-99 Q1.

During 2016-17 Q2, three out of seven commodities recorded an increase compared to same quarter last year; construction to 1.10 billion net tonne kilometres (⇧ 8.3%), domestic intermodal to 1.71 billion net tonne kilometres (⇧ 3.9%) and oil and petroleum to 0.29 billion net tonne kilometres (⇧ 0.7%).



In 2016-17 Q2, domestic intermodal (40.3%) and construction (26.1%) accounted for almost two-thirds of total freight moved.

During 2016-17 Q2, domestic intermodal set a new record for its highest amount of freight moved since the start of the quarterly time series in 1998-99 Q1, with 1.71 billion net tonne kilometres.

Four commodities recorded a decrease this quarter compared to 2015-16 Q2.

The other category (⇩ 18.7%) recorded a Q2 year on year decrease, a first year-on-year fall since 2011-12 Q2.

Possible reasons for change in 2016-17 Q2

Domestic intermodal recorded an increase this quarter compared with the same quarter last year mirroring GDP[1] and the growth in consumer focused service industries.

Construction shows an increase in the amount of freight moved compared to last year as house building and construction activity increased[2] in the quarter, with more of these materials moved by rail freight.

Closure of coal powered stations and restricted use to ensure compliance with the 2025[3] deadline continues to affect the amount of coal freight moved by rail compared to same quarter last year. The reduction slowed this quarter compared to previous quarter. A coal freight flow from Immingham to Scunthorpe could, in part, explain the slow down against previous quarter.

Metals recorded a decrease this quarter compared to 2015-16 Q2, partly because of the drop in global demand for steel, resulting in less freight to move between plants by rail.

Other category recorded a decrease this quarter compared with last year, a reversal last seen in 2011-12 Q2. The removal of the climate change levy exemption for renewable source electricity[4] (of which biomass is one) from power stations[5] that use renewable source electricity, becomes effective as freight operators renew their supply contract, with possibly less orders for this freight, part explaining the drop.

The tightened security at Calais continues to affect the international category with less freight moved in the international category compared to 2015-16 Q2.

- Quarterly freight moved data are available on the data portal in: Table 13.7
- Freight moved disaggregated by commodity type: ORR Data Portal Wizard

[1] https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/grossdomesticproductpreliminaryestimate/julytosept2016 (4,main information, Table 1: Q3 2016 vs Q3 2015)

[2] http://uk.reuters.com/article/us-britain-economy-pmi-economy-idUKKCN124183

[3] http://www.bbc.co.uk/news/business-34851718

[4] https://www.gov.uk/government/publications/climate-change-levy-removal-of-exemption-for-electricity-from-renewable-sources/climate-change-levy-removal-of-exemption-for-electricity-from-renewable-sources

[5] https://drax.cdnist.com/wp-content/uploads/2016/09/2016-Half-year-results-for-the-six-months-ended-30-June-20161.pdf (page 4, Chairman's introduction)

2. Freight lifted

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.

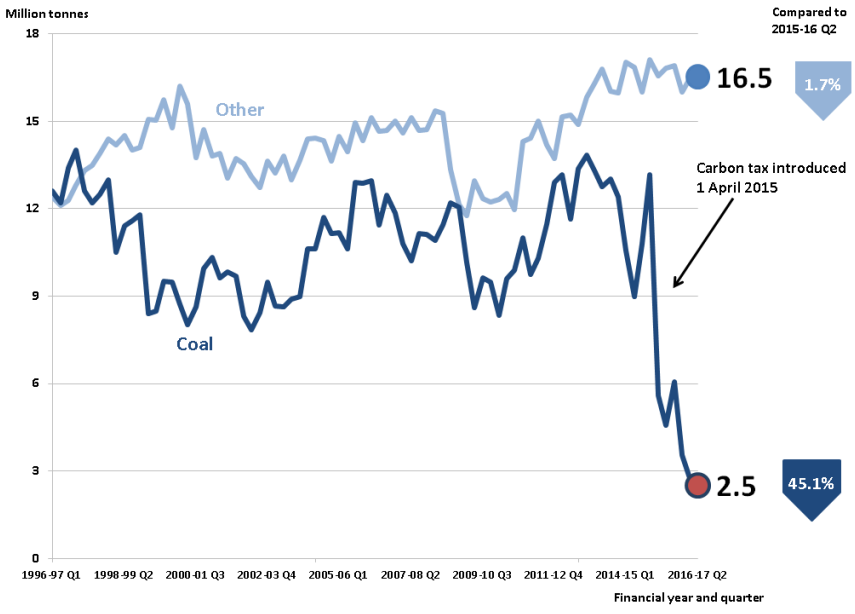
Freight lifted information is sourced from the four major FOCs: DB Schenker Rail (formerly EWS), Freightliner Ltd (formerly the BR container business), Direct Rail Services (DRS) and GB Railfreight.

Annual 2015-16

In 2015-16, the total amount of freight lifted in Great Britain fell to 86.1 million tonnes in 2015-16 from 110.5 million tonnes a year earlier, a fall of 22.1%. Annual freight lifted reached its peak in 1988-89 with 149.5 million tonnes, followed by a fall in each of the next six years. For more information, please see the 2015-16 Q4 statistical release.

2016-17 Quarter 2 Results

Freight lifted (million tonnes), Great Britain, 1996-97 Q1 to 2016-17 Q2 (Table 13.6)



During 2016-17 Q2, the total amount of freight lifted was 19.1 million tonnes, a decrease of 11.0% compared to 2015-16 Q2.

The amount of coal lifted in 2016-17 Q2, 2.5 million tonnes, is now the lowest across all quarters since the start of the time series in 1996-97 Q1. It is a decrease of 45.1% compared to the same quarter last year.

The amount of other freight lifted in 2016-17 Q2 was 16.5 million tonnes, a decrease of 1.7% compared to 2015-16 Q2.

- Quarterly freight lifted data are available on the data portal in: Table 13.6
- European comparisons – commentary provided on calendar year data for freight moved and freight lifted can be found in the 2015-16 Q4 statistical release

3. Freight delay per 100 train kilometres

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

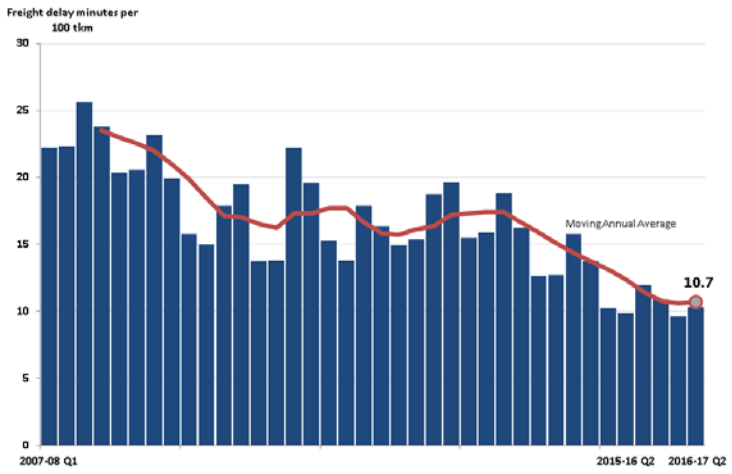
Annual 2015-16

Normalised freight delay improved by 21.5% to 10.76 minutes in 2015-16. This represents the largest year-on-year drop since the time series began in 2007-08 and over that time. For more information, please see the 2015-16 Q4 statistical release.

2016-17 Quarter 2 Results

Freight delay recorded 10.31 minutes per 100 train kilometres in 2016-17 Q2, a rise of 4.6% compared to 2015-16 Q2.

Freight delay per 100 train kilometres, Great Britain, 2007-08 Q1 to 2016-17 Q2 (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.

4. Freight train kilometres by operator

Freight train kilometres by operator data cover FOCs on Network Rail infrastructure and were included for the first time in the 2015-16 Q4 statistical release.

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.

Annual 2015-16

In 2015-16, total freight train kilometres fell to 34.88 million kilometres, a decrease of 6.1 million kilometres (⇩ 14.9%) compared to 2014-15. This is the lowest amount recorded since the time series began in 2010-11 and is reflective of the fall in freight lifted and freight moved. For more information, please see the 2015-16 Q4 statistical release.

2016-17 Quarter 2 Results

During 2016-17 Q2, total freight train kilometres was 8.45 million kilometres, a decrease of 0.3 million kilometres (⇩ 3.6%) compared to 2015-16 Q2.

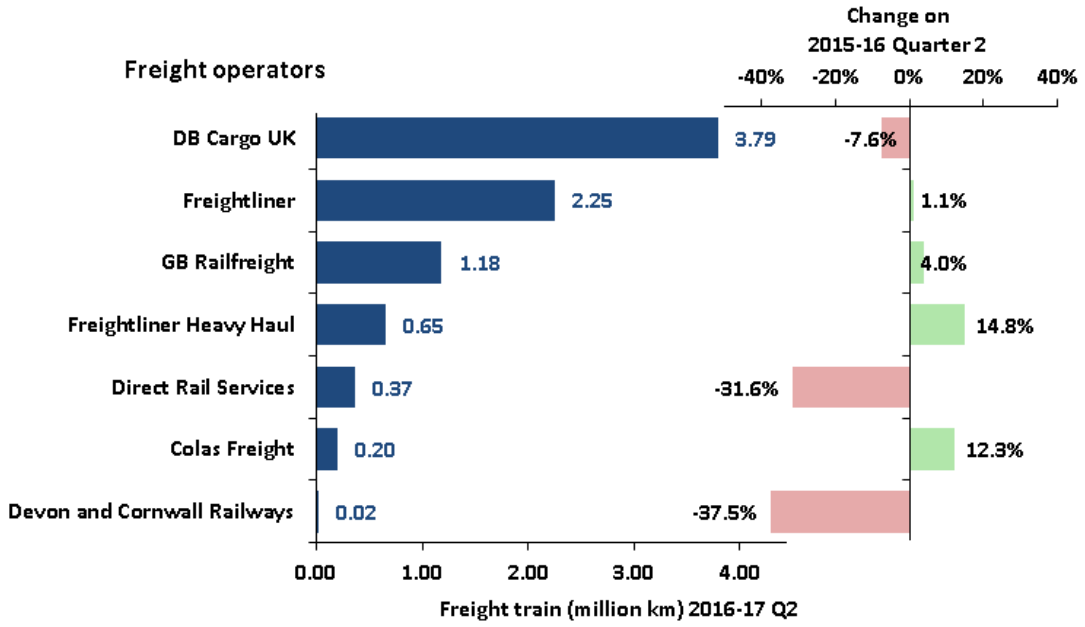
Four operators recorded an increase in 2016-17 Q2 compared to same period last year; Freightliner Heavy Haul with 0.65 million kilometres (⇧ 14.8%), Colas Freight with 0.20 million kilometres (⇧ 12.3%), GB Railfreight with 1.18 million kilometres (⇧ 4.0%), Freightliner Intermodal with 2.25 million kilometres (⇧ 1.1%). The totals for the four operators recording an increase accounted for just over 50% (4.28 million kilometres) of the total freight kilometres.

DB Cargo UK lost the contract for moving Iron Ore from Immingham to Scunthorpe in June 2016 to Freightliner Heavy Haul, in part explaining the fall in DB Cargo UK freight kilometres and increase in Freightliner Heavy Haul freight kilometres this quarter[6].

Three out of seven operators experienced a decrease in freight train kilometres compared to 2016-17 Q2; Direct Rail Services, DB Cargo UK, Devon and Cornwall Railways.

[6] https://www.pressreader.com/uk/rail-uk/20160618/282557312494152

Freight train kilometres by FOC, Great Britain, 2016-17 Q2 (Table 13.25)



- Quarterly freight kilometres by operator data are available on the data portal in: Table 13.25

5. Freight market indicators

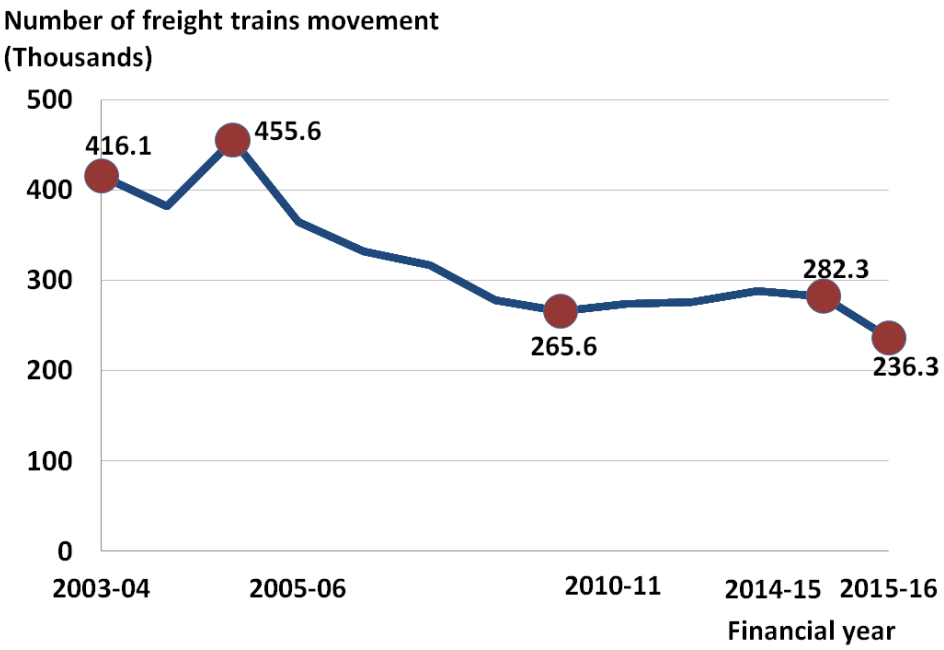
Freight market indicators comprise three measures: number of freight train movements on the network (data available up to 2015-16), impact on road haulage (2014-15), and rail market share (calendar year 2014). This data in this section is unchanged from the 2015-16 Q4 statistical release but the commentary has been updated where relevant.

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.

Number of freight train movements

Number of freight train movements, Great Britain, 2003-04 to 2015-16 (Table 13.10)



There has been a decrease in freight train movements over time. A peak of 455,561 movements was recorded in 2005-06 which coincided with strong levels of freight moved and freight lifted. The lowest recorded number of freight train movements is in 2015-16.

The reductions over time could be due to improved utilisation of freight capacity as the levels of freight being lifted and moved in the four year prior to 2015-16 were similar to those in the mid-2000s but with much fewer trains.

In 2015-16, the number of freight movements decreased by 16.3% compared to last year from 282,304 to 236,290. The likely reason for the fall in 2015-16 is the fall in the use of coal in coal powered plants and closure of steel plants, with less coal and steel required to be carried by rail.

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

Impact on road haulage

In 2014-15 (latest year which data is available), the number of lorry kilometres required to transport the amount of freight moved by rail was 1.54 billion kilometres, a 13.6% decrease on 2013-14. This is the highest year on year decrease since 2004-05. The highest recorded was in 2007-08 at 2.17 billion kilometres.

There were 9.91 million lorry journeys avoided in 2014-15 through the use of rail freight, 20.9% higher than the previous year. 2014-15 is the highest number of avoided lorry journeys recorded since 2004-05. The lowest avoided lorry journeys recorded is 7.85 million in 2010-11.

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 he equivalent number of road vehicle trips necessary to move the freight.

- Annual impact on road haulage data are available on the data portal in: Table 13.8

Rail market share

In 2014, 6.4% of all freight lifted was on rail, with 109 million tonnes. The proportion of freight lifted on the rail network decreased by 0.6 percentage points compared to 2013. Between 2013 and 2014, road freight (HGV) increased by 1.0%.

In 2014, 12.0% of all freight moved was on the railway network, with 22 billion net tonne kilometres. The proportion of freight moved by rail increased by 0.2 percentage points compared to the previous year. Between 2013 and 2014, road freight (HGV) decreased by 2.4% on the previous year.

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 now calculated based on HGVs only as data for other vehicle types no longer available.

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

- Annual rail market share data are available on the data portal in: Table 13.12

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 2015-16 (annual), 1998-99 Q1 to 2016-17 Q2 (quarterly) – Table 13.7

Freight lifted

- Freight lifted, 1982-83 to 2015-16 (annual), 1996-97 Q1 to 2016-17 Q2 (quarterly) – Table 13.6

Freight delay minutes per 100 train kilometres

- Normalised freight delay, 2007-08 to 2015-16 (annual), 2007-08 Q1 to 2016-17 Q2 (quarterly) – Table 13.5

Freight train kilometres by operator

- Freight train kilometre, 2010-11 to 2015-16 (annual), 2010-11 Q1 to 2016-17 Q2 (quarterly) – Table 13.25

Freight market indicators (annual publications only)

- Number of freight train movements, 2003-04 to 2015-16 – Table 13.10
- Impact on rail haulage, 2004-05 to 2015-16 – Table 13.8
- Rail market share, 1998 to 2014 – Table 13.12

Further freight usage tables can be created through the Data Portal Wizard.

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 the statistical releases which cover the majority of reports that were previously released through the Data Portal. The statistical releases consist of four annual and four quarterly themed releases:

Annual:

- Rail Finance & Rail Fares Index;
- Rail Safety Statistics;
- Rail Infrastructure, Assets and Environmental;
- Regional Rail Usage.

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.gsi.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.

This publication is available at orr.gov.uk

Any enquiries regarding this publication should be sent to us at orr.gov.uk