



Department for Transport

Domestic Road Freight Statistics, United Kingdom 2017

About this release

This statistical release summarises the latest road freight statistics from the Continuing Survey of Road Goods Transport Great Britain (CSRG T GB). The survey measures the activity of **GB-registered** heavy goods vehicles (HGVs) operating **across the UK**.

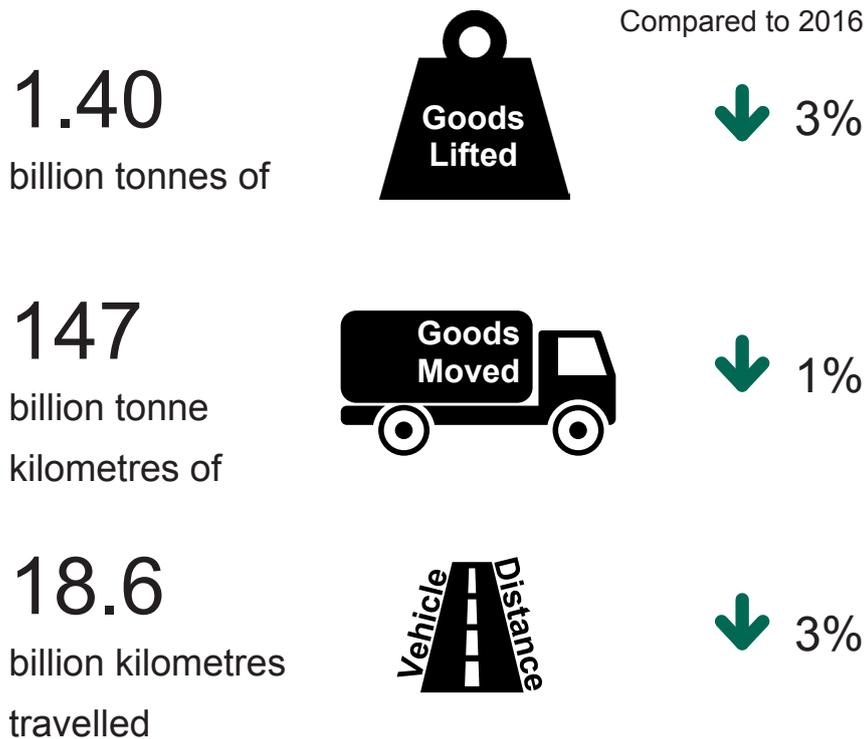
This release also summarises economic statistics about HGVs and the road freight industry.

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Domestic road freight activity decreases in 2017

In 2017, for GB-registered HGVs there were...



Between 2016 and 2017, the amount of:

- ▶ **goods lifted** by GB-registered heavy goods vehicles (HGVs) operating in the UK decreased by 3% to 1.40 billion tonnes.
- ▶ **goods moved** decreased by 1% to 147 billion tonne kilometres.
- ▶ **vehicle kilometres** decreased by 3% to 18.6 billion vehicle kilometres.

Definitions

Goods lifted: the weight of goods carried, measured in tonnes.

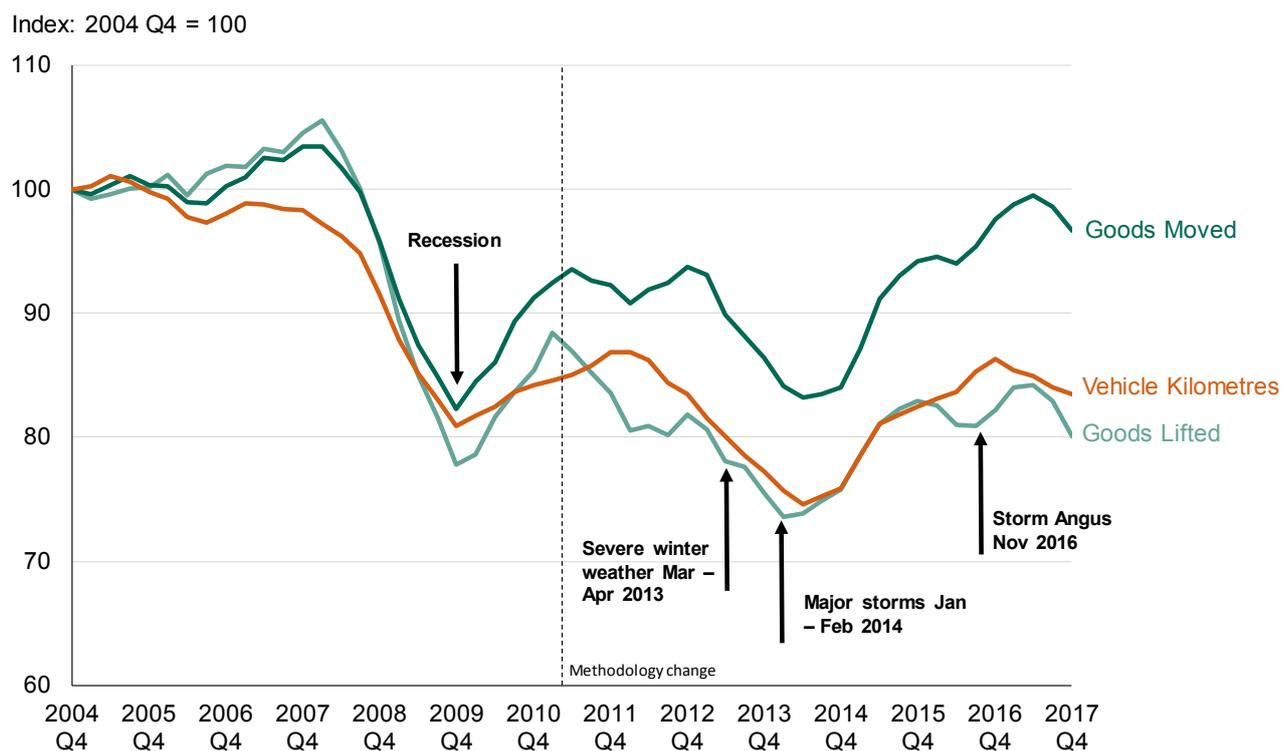
Goods moved: the weight of goods carried, multiplied by the distance hauled, measured in tonne kilometres.

HGV: a lorry with plated weight of 3.5 tonnes or more.

Overall trends in domestic road freight

Between 2016 and 2017, the amount of **goods lifted** decreased by 3% to 1.40 billion tonnes. Over the same period, the amount of **goods moved** by GB-registered heavy goods vehicles (HGVs) within the UK decreased by 1% to 147 billion tonne kilometres. Similar to goods lifted, the distance travelled by HGVs, **vehicle kilometres**, decreased by 3% to 18.6 billion kilometres.

Chart 1: Trend in goods moved, goods lifted and vehicle kilometres by GB-registered HGVs, rolling 4 quarter totals, 2004 Q4 to 2017 Q4, indexed to 2004 Q4 [[Table RFS0101](#)]



Note:

Between 2011 quarter 1 and 2, a number of changes were made to how the road freight survey data were processed. Caution should therefore be used when making comparisons over periods denoted by dotted lines within the charts in this publication. See the [Road Freight Statistics methodology note](#) for more information.

Average Length of Haul

Despite the amount of goods being carried falling in 2017, the **average length of haul** (105 kilometres) for GB-registered HGVs in 2017 was similar to that in 2016 (104 kilometres). The average length of haul for articulated HGVs (137 kilometres) continues to be longer than that of rigid HGVs (56 kilometres) [[Table RFS0108](#)].

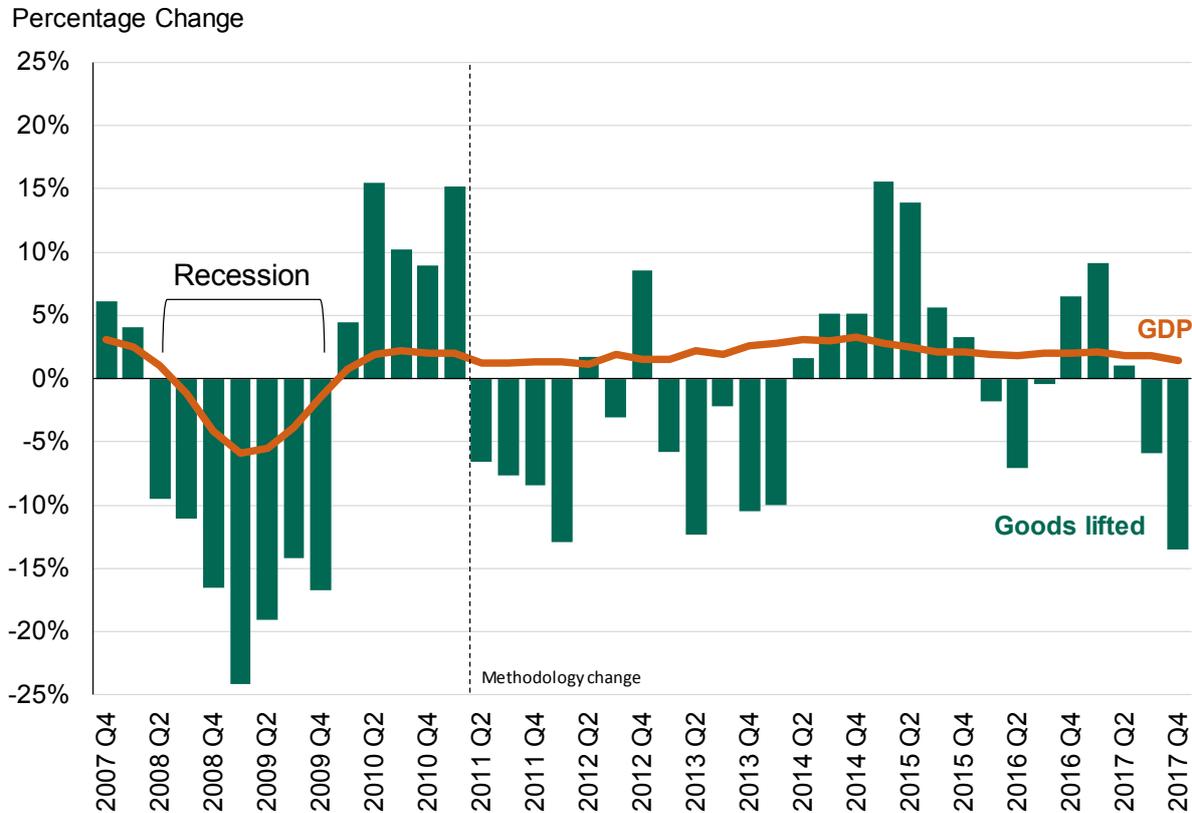
Definitions

Average length of haul: measured in kilometres is defined as tonne kilometres divided by tonnes lifted.

Economic activity of the road freight sector

There has been a decrease in the amount of **goods lifted** by road while GDP has been fairly stable since the recession.

Chart 2: Goods lifted and GDP, quarter on previous year's same quarter, 2007 Q4 to 2017 Q4

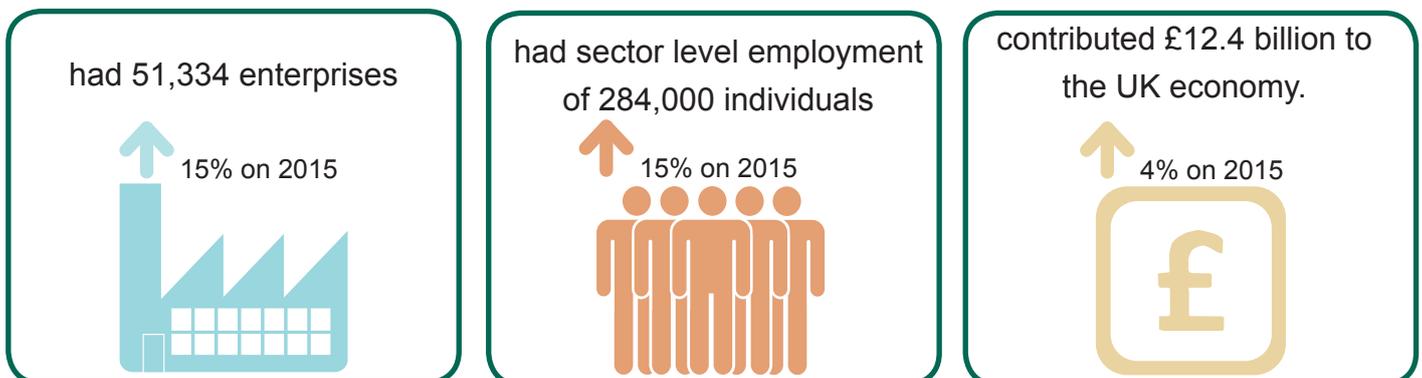


The year 2017 compared to 2016 in context:



Road Freight Enterprises

Latest estimates from the [Annual Business Survey](#) show that in 2016 the road freight sector:



Commodities

In 2017, the 5 most common commodity divisions (representing 65% of all goods) lifted by GB-registered HGVs in the UK were: [\[Table RFS0104\]](#)

Rank	Commodity	Goods lifted (million tonnes)	Proportion of all goods lifted
1	 Food products	287	21%
2	 Metal ore and other mining and quarrying	195	14%
3	 Waste related products	153	11%
4	 Glass, cement and other non-metallic mineral products	135	10%
5	 Groupage	129	9%

Definitions

Commodity: goods are classified into commodity divisions and groups by the 'standard goods classification for transport statistics 2007'.

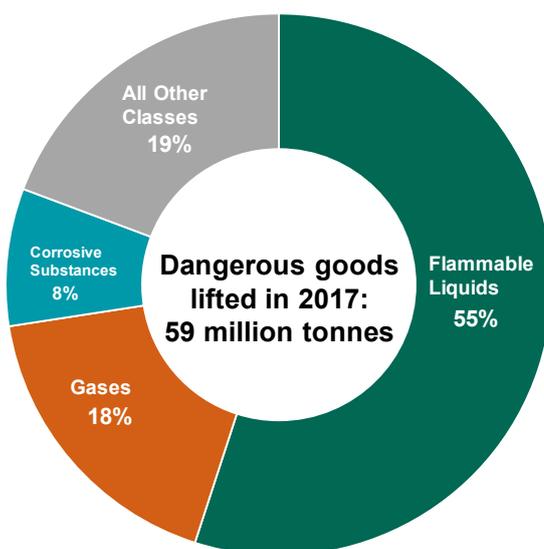
Groupage: when, for mixed consignments, no single commodity makes up 75% or more of the consignment weight.

In 2017, the largest sub-commodity category, at 194 million tonnes, was stone, sand, gravel, clay, peat and other mining/quarrying products; which represented 14% of all goods lifted in 2017.

Dangerous goods

In 2017, 4% of all goods lifted domestically were declared as dangerous goods which accounts for 59 million tonnes. Dangerous goods in 2017, tended to be predominantly flammable liquids (32 million tonnes, 55%) e.g. alcoholic beverages, crude petroleum, fuel and some chemicals.

Chart 3: Dangerous goods lifted by GB-registered HGVs by dangerous goods class, 2017 [\[Table RFS0118\]](#)



The 9 dangerous goods classes

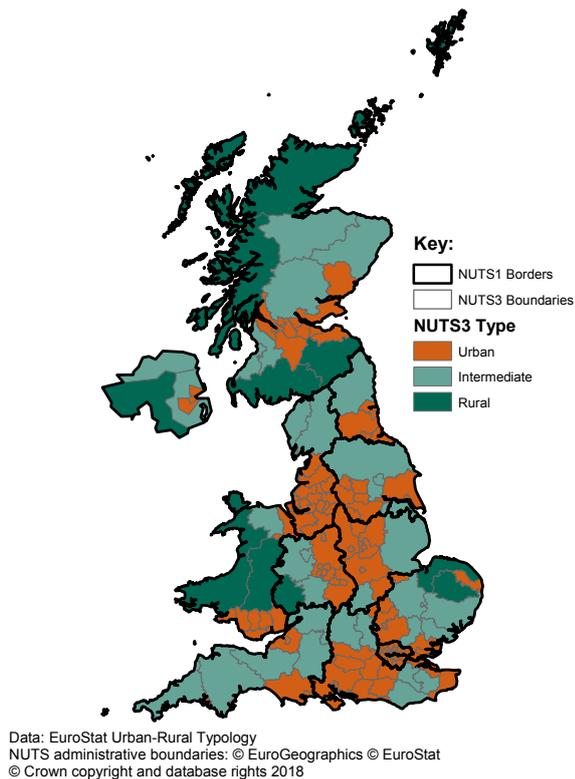
- Explosives
- Gases
- Flammable liquids
- Flammable solids
- Oxidisers & organic peroxides
- Toxic & infectious substances
- Radioactive materials
- Corrosive substances
- Miscellaneous substances

Origin and Destination

Urban and Rural

The origin and destination of each road freight consignment, moved by HGV, can be defined as being urban, rural or intermediate, based on the population of those regions. Regions across the UK can be categorised using an EU-wide geographical system - NUTS. Across the UK, 72% of NUTS3 regions are classified as urban, 20% as intermediate, and 9% as rural.

Map 1: Classifications of NUTS3 regions



Definitions

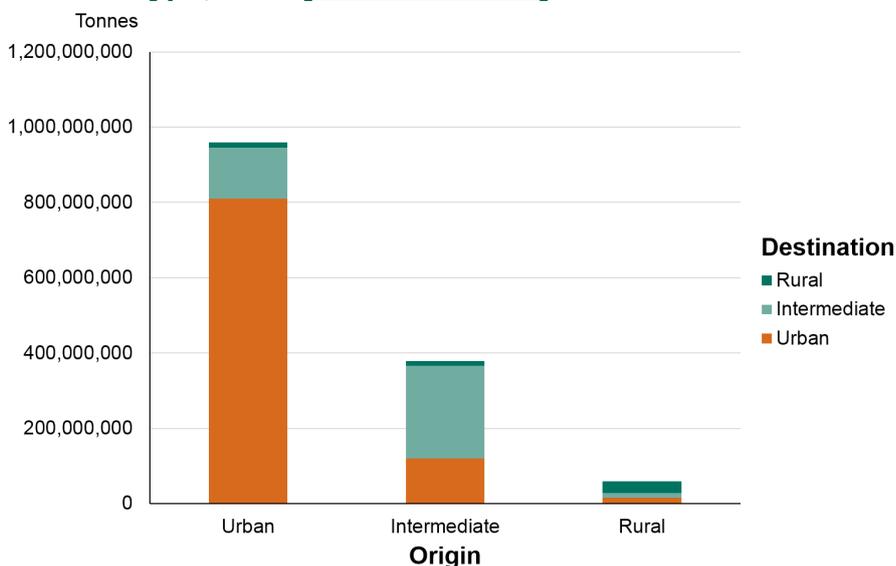
There are 173 NUTS3 regions in the UK, which are broadly equivalent to combining 1-3 local authorities districts and/or unitary authorities.

At NUTS1 level, there are 12 regions in the UK, which merge NUTS3 regions in to much larger regions (e.g. Wales, North East, London).

In 2017:

- ▶ The majority of domestic road freight goods in the UK (58%), were lifted solely from an urban region to either another urban region, or stayed within the same urban region.
- ▶ Over 78% of all goods lifted in the UK involved an origin or destination that was urban. This is in contrast with 6% of goods lifted involving a rural origin or destination.
- ▶ 38% of goods lifted domestically by British HGVs were to or from intermediate regions.

Chart 4: Goods lifted by GB-registered HGVs by origin and destination type, 2017 [Table RFS0124]



Definitions

NUTS3 regions have been allocated one of three typologies by Eurostat. The categories of Urban, Rural and Intermediate are assigned using criteria based on the population of those regions.

Full information can be found [here](#).

Origin and Destination

Patterns of Movement

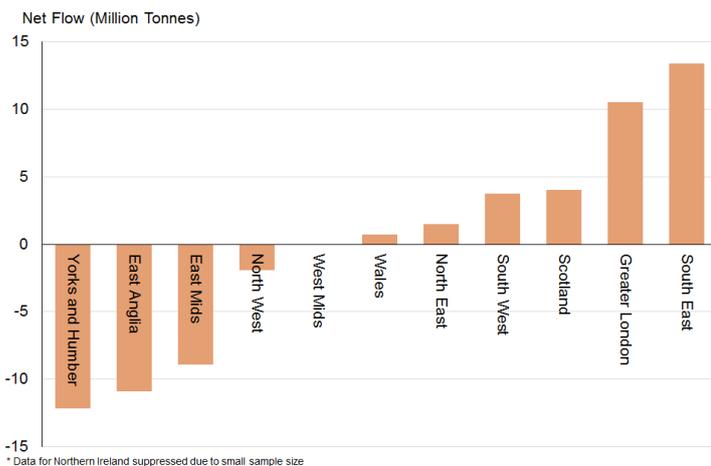
Goods move freely between regions of the UK, however some regions 'export' more goods than they 'import' in domestic road freight. London, the South East and Scotland are the UK's largest importing regions, with collectively nearly 28 million more tonnes of goods entering these regions than leaving them. Conversely, Yorkshire & Humber, East Anglia and the East Midlands are the largest exporting regions in the UK, with almost 32 million more tonnes of goods leaving these regions than entering them.

Definitions

Exporting region - a NUTS1 region where more domestic goods leave the region than enter it.

Importing region - a NUTS1 region where more domestic goods enter the region than leave it.

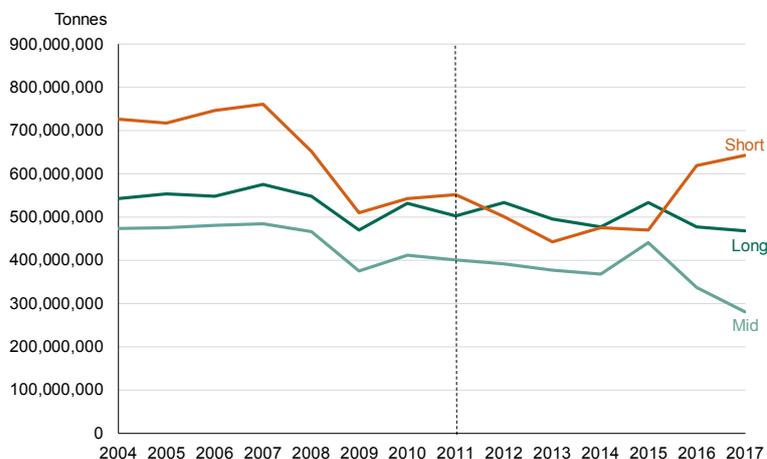
Chart 5: Net flow of goods lifted by GB-registered HGVs by NUTS1 region, 2017



The West Midlands is a large 'hub' area for warehouses and distribution centres. As a result, it is expected to see that the net flow of good is close to zero, as what enters will then leave later in the supply chain. Air freight will often arrive in to the UK at the East Midlands Airport or London Stansted to then be distributed across the UK. This helps to explain why the Eastern NUTS1 regions are net exporters of domestic goods.

Of all goods lifted domestically by GB HGVs in 2017, 46% remained in the same NUTS3 region; 20% moved to a different NUTS3 region but remained within the same NUTS1 region (e.g. North East, Wales); and 34% changed NUTS1 regions altogether. This helps to support the idea that the UK road haulage network consists of a mixture of long distance journeys to local distribution centres, followed by shorter journeys towards the goods' final destination. Movements between NUTS1 regions are typically longer and predominantly carried out by larger, articulated HGVs; and movements within NUTS3 regions are typically quite short and are predominantly carried out by smaller, rigid HGVs.

Chart 6: Volume of goods lifted by GB-registered vehicles by length of haul



Definitions

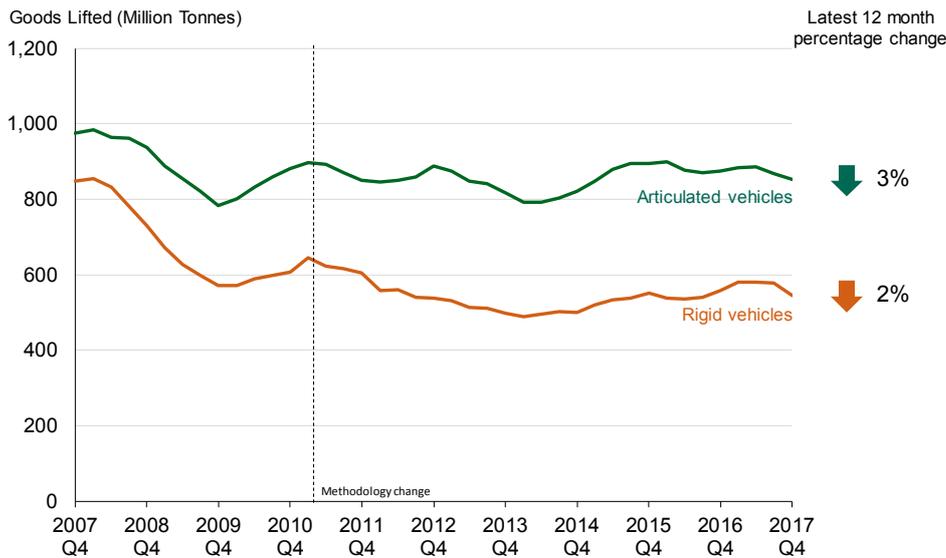
For the purpose of Chart 5, a **long haul** is where the goods lifted move between two different NUTS1 regions. **Short hauls** are where the goods lifted remain within the same NUTS 3 region. **Mid-length hauls** are where the goods change NUTS3 region, but remain in the same NUTS1 region.

Types of vehicles and mode of operation

Types of vehicles

HGVs in the UK range from a gross vehicle weight of 3.5 tonnes to 44 tonnes, with articulated vehicles - which tend to be longer, larger, heavier vehicles - carrying more freight. In 2017, articulated vehicles carried 852 million tonnes of freight, whereas rigid vehicles only carried 544 million tonnes of freight. Across 2017, articulated vehicles carried 61% of all goods, similar to previous trends.

Chart 7: Goods lifted by GB-registered HGVs, by type of vehicle, 2007 Q4 to 2017 Q4 [[Table RFS0109](#)]



Definitions

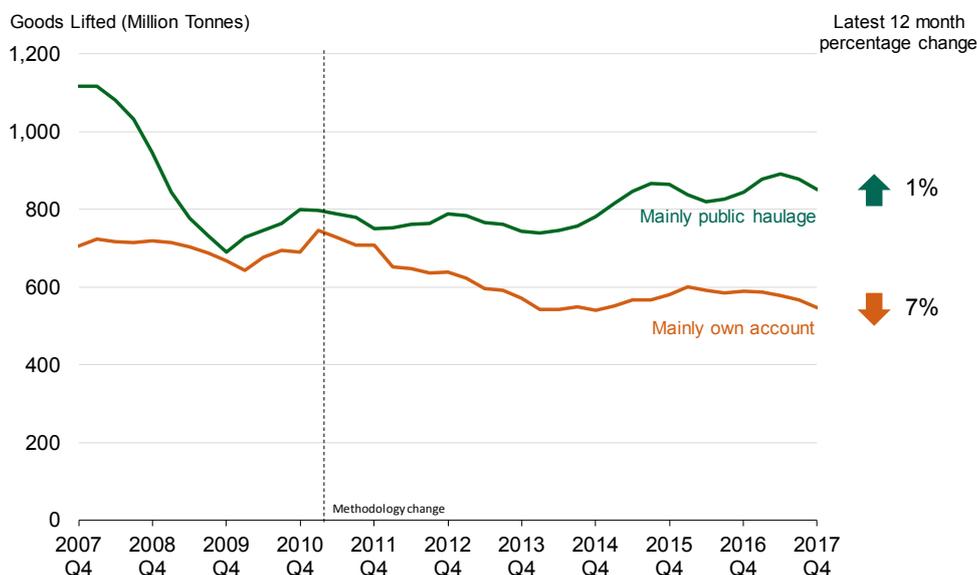
Gross vehicle weight: the total weight of the vehicle plus its carrying capacity (3.5 to 44t).



Mode of operation

Road freight activity can be split between own account operators and public haulage operators. Public haulage operators usually carry a higher proportion of activity than own account operators, with public haulage operators representing 61% of all goods lifted in 2017.

Chart 8: Goods lifted by GB-registered HGVs, by mode of working, 2007 Q4 to 2017 Q4 [[Table RFS0114](#)]



Definitions

Own account operators: those who carry goods only for their own trade or business.

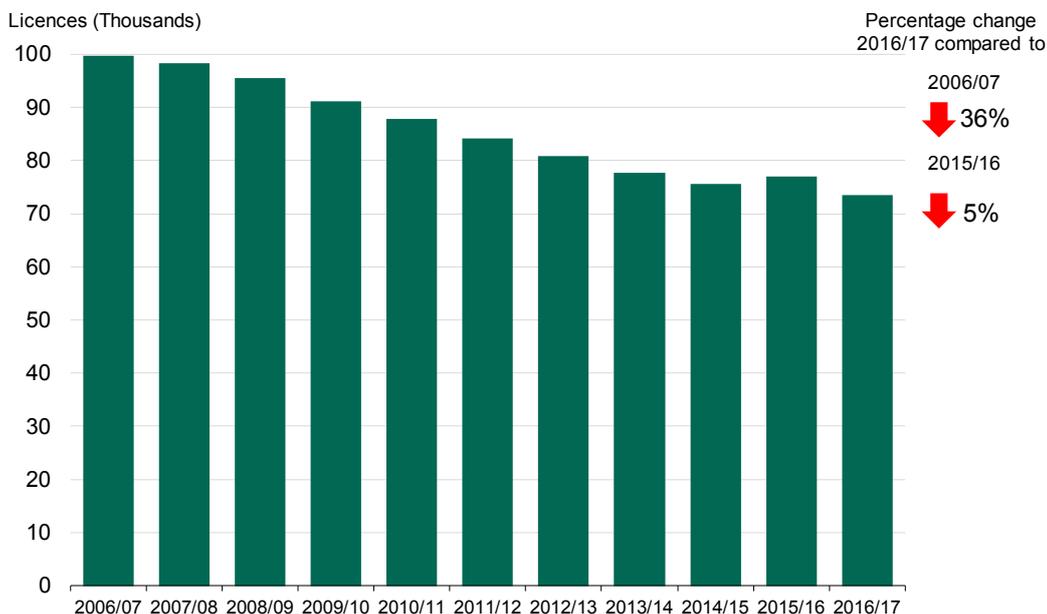
Public haulage operators: those who carry goods for other companies or individuals.

Fleet size and operator licences

The latest [vehicle licensing statistics](#) show that at the end of 2017 there were around 499,400 HGVs licensed in Great Britain, of which around 408,200 were taxed as 'good vehicles' (remaining vehicles would be exempt from tax or taxed as private HGVs), a 1% increase from the end of 2016.

The number of goods vehicle operator licences in issue in Great Britain declined to under 100,000 in 2006/07 to 73,000 in 2016/17. However, during this period the average size of an operators' fleet increased from 3.7 vehicles to 5.0 vehicles per licence, meaning fewer individual licences covering more vehicles.

Chart 9: All goods vehicle operator licences in issue, Great Britain, 2006/07 to 2016/17 [[Traffic Commissioners' annual report](#)]



Average fleet size increases

↑ 35%

from 3.7 vehicles per licence in 2006/07 to 5.0 vehicles per licence in 2016/17.

HGV driver numbers

[Labour Force Survey](#) estimates show that there was around 301,600 HGV drivers employed across all sectors in 2017, 6% less than in 2016 where around 318,700 were employed.

HGV driver working time and pay

In the Road Transport (Working Time) Regulations 2005 it is stated that HGV drivers must not exceed, in a weeks working, an average of 48 hours. The [Annual Survey of Hours and Earnings](#) illustrates that the average (median) number of total paid hours worked per week by HGV drivers, including working overtime, has been 48 hours since the regulation was introduced and came into effect in 2005. In 2017, the average (median) gross hourly pay for an HGV driver was £11.37, an increase from £11.03 in 2016.

Gender split

In 2017...



...Most of the HGV drivers in employment in the UK were male.

Information

In 2016, as part of the existing domestic road freight survey, DfT introduced a question on the survey to identify freight that, as well as being transported by an HGV, had also been or was destined to be transported via another mode of transport as part of its journey. The statistics produced from a subset of these data are presented below.

Note that these statistics are being presented as **provisional** and are subject to change in the future as they undergo further internal quality assurance and analysis. Specifically further work is being undertaken to identify HGV journeys/freight consignments that were not identified by the haulier as being inter-modal when they may have been - potentially resulting in under reporting of this activity. Future statistics will aim to account for this under reporting.

Of (155 million) HGV journeys within the UK in 2017, 2% (3.4 million journeys) involved inter-modal activity. This equates to 59 million tonnes of freight (4%) using at least two different modes of transport, **of which:**



89% of inter-modal journeys (56 million tonnes) began or ended at a shipping dock



8% of inter-modal journeys (2 million tonnes) began or ended at an airport



2% of inter-modal journeys (2 million tonnes) began or ended at a rail siding/terminal

Percentages may not sum to 100%

Definitions

Inter-modal:

There are multiple nuanced definitions of journeys involving freight movement across modes. Solely for the purpose of these statistics, these types of journeys and freight involved shall be referred to as "Inter-modal" freight.

Journey:

goods transported from an origin to a destination by an HGV.

Method of transportation

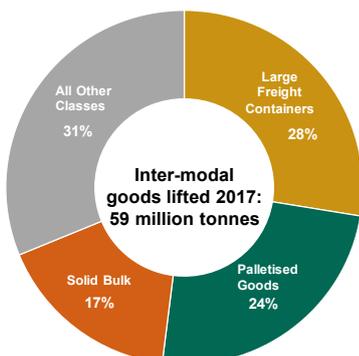
definitions can be found on page 11.

Commodities

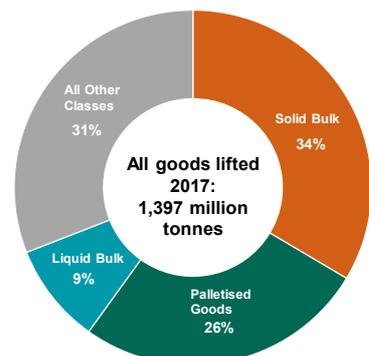
The three most common commodities transported on inter-modal trips in 2017 were:

- ▶ Food products 9.1 million tonnes (16% of inter-modal tonnage)
- ▶ Chemical products 6.4 million tonnes (11% of inter-modal tonnage)
- ▶ Groupage 5.5 million tonnes (9% of inter-modal tonnage)

Method of transportation



The receptacle or method used to transport goods differs between all goods lifted and inter-modal goods reflecting the needs involved when transferring goods between



Inter-modal methodology

Under current road freight survey methodology for a journey or item of freight to be recorded as inter-modal it must be actively identified as such by the respondent of the survey. When completing the survey the respondent must indicate, through a specific section on the form, that the site of collection or delivery of an item of freight was an airport, a railway siding/terminal or shipping docks.

It should be noted that not all deliveries/collections to or from sites with inter-modal capability, that pass validation, will actually be inter-modal e.g. delivery of food to an airport may actually be for the on-site shops/restaurants. Similarly, there is scope for some freight that was inter-modal, but not identified by the respondent as such, to have not been recorded. This may introduce some reporting bias in the data but further work is currently being conducted to further identify these cases.

During processing, freight or journeys identified as meeting these criteria are validated and the start and end points passed through a mapping algorithm to check whether they fall within a pre-defined distance (radius) of a site where inter-modal transfers can occur, as reported by Network Rail, Civil Aviation Authority (CAA) and DfT. The distances used are a 5km radius for airports and ports and a 1km radius for rail sites. The difference in size of radius used for validation reflects the larger, more sprawling areas or lands attached to airports and docks as opposed to rail depots. A distance based check is also used for validation rather than names of sites or postcodes as some inter-modal sites cover large areas of land. Towns/local names and partial postcodes given for start and end points can be hard to plot precisely on a map and where they do, even with full postcodes, may show as a point on the map that is not close to the centre of the inter-modal site, risking an item of freight or journey that was inter-modal to be incorrectly discarded. This wider distance allows a degree of tolerance in these checks while ensuring that those that do not fall within these perimeters, but have been incorrectly marked as inter-modal, do not pass validation checks.

At the start of collecting this inter-modal data, the variable and process for capturing the data was in its infancy and quality assurance checks showed that early data in 2016 was of low quality and unsuitable for publication. Only 2017 data has been included in this release.

While, there are multiple nuanced definitions and names for journeys involving this type of movement of freight used across the freight and logistics industry, for simplicity, and solely for the purposes of these statistics, these types of journeys and the freight they involved shall be referred to as “Inter-modal” freight.

Due to this being the first time these statistics have been published, we are interested in your views and welcome comments/feedback please contact us via email at roadfreight.stats@dft.gov.uk.

Definitions

Methods of Transportation:

Solid Bulk – commodity transported unpacked in large quantities. It refers to material in granular form e.g. coal

Liquid Bulk – similar to solid bulk, however the material it refers to is of liquid form e.g. petroleum/crude oil

Palletised Goods – commodity transported in a pallet, to support goods giving stability to commodity during transportation e.g. beverages

Large Freight Containers – also known as shipping containers, commodity transported in a container with strength suitable to withstand shipment, storage and handling e.g. large reusable steel boxes (intermodal shipments), corrugated boxes

Strengths and weaknesses of data

The figures in this release are mainly derived from the Continuing Survey of Road Goods Transport Great Britain (CSRGT GB) which provides information on the activity of GB-registered HGVs operating across the UK only. As such, the statistics exclude HGVs registered in Northern Ireland, foreign-registered HGVs and vehicles with a gross vehicle weight of 3.5 tonnes or less (Light Goods Vehicles and Vans). Also excluded from CSRGT GB is the activity of HGVs registered in Great Britain when operating outside of the UK.

The CSRGT GB is a continuous survey which collects a range of information on freight movements from a stratified sample of HGVs. Figures are weighted to be representative of the HGV population however, like any statistical source, there are limitations. For example, as a sample survey resulting figures are estimates with associated sampling error.

Guidance on the methods used to compile these statistics and further information can be found in the [Road Freight Statistics notes and definitions](#). Sample sizes that the statistics are based upon and sampling error estimates can be found within [Table RFS0129](#), broken down by type and weight of vehicle.

Between 2011 and 2012, a number of changes were made to how the three Department for Transport road freight surveys were processed. Caution should therefore be used for statistics based on the three freight surveys when making comparisons over time. See the [Road Freight Statistics methodology note](#) for more information.

This release and its contents partly rely on the use of administrative data from DVLA and DVSA. DfT have assessed the impact of this on the quality of these statistics, a report on which can be found in the [Quality assurance of administrative data sources: Driver Vehicle Licensing Agency](#) and [Quality assurance of administrative data sources: Driver Vehicle Standards Agency](#).

Users and uses of statistics

Road freight statistics are a key source of management information on the use of the country's infrastructure. Its main use occurs across various types of public and private bodies: the statistical office of the European Union (Eurostat); local and central government, such as the Office for National Statistics and Highways England; local town and transport planning bodies; commercial organisations, such as haulage operators and transport consultants; and academics.

Users are mainly interested in information such as the origins and destinations of journeys, length of haul, empty running and the pattern of freight from abroad on UK roads. The statistics also support policies on freight, road safety and reducing congestion and pollution.

Background notes

Accompanying data tables give further detail on the key results presented in this statistical release and statistics on other road freight topics, including the international activity of UK-registered HGVs. These data tables are available here: <https://www.gov.uk/government/collections/road-freight-domestic-and-international-statistics>

This release also collates statistics from a number of published sources that are revised and updated throughout the year. The data for this release were extracted in July 2018, and users can refer to the links below for the most recent or revised data available for each of the sources used, and also caveats relating to these sources.

- ▶ United Kingdom National Accounts; Office for National Statistics: <http://www.ons.gov.uk/ons/rel/naa1-rd/united-kingdom-national-accounts/index.html>
- ▶ Fuel prices. Monthly and annual prices of road fuels and petroleum products; Department for Business, Energy & Industrial Strategy: <https://www.gov.uk/government/statistical-data-sets/oil-and-petroleum-products-monthly-statistics>
- ▶ Annual Business Survey; Office for National Statistics: <http://www.ons.gov.uk/ons/rel/abs/annual-business-survey/index.html>
- ▶ Employment of HGV drivers, Labour Force Survey; Office for National Statistics: <http://www.ons.gov.uk/ons/rel/lms/labour-force-survey-employment-status-by-occupation/index.html>
- ▶ Annual Survey of Hours and Earnings; Office for National Statistics: <http://www.ons.gov.uk/ons/rel/ashe/annual-survey-of-hours-and-earnings/index.html>
- ▶ Vehicle licensing statistics for HGVs; Department for Transport: <https://www.gov.uk/government/statistical-data-sets/veh05-licensed-heavy-goods-vehicles>
- ▶ Goods vehicle operator licences; Traffic Commissioners' annual reports: <https://www.gov.uk/government/collections/traffic-commissioners-annual-reports>

Details of ministers and officials who receive pre-release access to these statistics up to 24 hours before release can be found here: <https://www.gov.uk/government/publications/road-freight-statistics-pre-release-access-list>.



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