

## Notes and Definitions: Modal Comparisons



This section provides notes and definitions for the modal comparisons and is part of Transport Statistics Great Britain published on 15 December 2011.

### Notes and definitions include:

- Information on sources
- Information on “accuracy”.
- Definitions.
- General information the tables including links to background information.

## Passenger Transport

### Passenger transport: TSGB0101

Buses and coaches: Historically, passenger kilometres are derived from other data collected from bus and coach operators such as receipts, vehicle kilometres and patronage. Because this proxy method has to be used, the series gives only a broad guide to trends.

From 2004, data is based on the average distance travelled by bus and coach per person per year from the National Travel Survey (NTS), using population estimates from the Office for National Statistics to gross up to total passenger kilometres. Bus and coach covers the London bus, other local bus, non-local bus and private hire bus categories recorded in the NTS. Due to the change in the methodology used to compile the figures, comparisons between figures for earlier and later years should be interpreted with caution.

Cars, vans, taxis, motor cycles and pedal cycles: Estimates for cars (which include taxis), motorcycles (which include mopeds and scooters), and pedal cycles are derived from the traffic series (vehicle kilometres) shown in TRA0101 (vehicle miles) and TRA0201 (vehicle kilometres) and average occupancy rates (persons per vehicle) from the National Travel Survey (NTS).

Because of changes in methodology figures for the road traffic estimates, figures for 1993 have been shown calculated on the new and the old basis.

Occupancy rates for 1996 onwards are based on weighted NTS data. As data prior to 1996 has not been weighted, this produces a discontinuity in the data. This does not affect the underlying rate of growth. Estimates for personal use of light vans are derived from the NTS.

Rail: Rail figures include National Rail, London Underground, Glasgow Underground, public metro and light rail systems.

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Air: The figures are revenue passenger kilometres on scheduled and non-scheduled domestic services on UK airlines only. They exclude air taxi services, private flying and passengers paying less than 25 per cent of the full fare on scheduled and non-scheduled services.

All modes: Figures exclude travel by water.

### **Passenger journeys on public transport: TSGB0102**

The data in this table are derived from –

Bus: Returns from operators to DfT;

Rail: Office of Rail Regulation;

London Underground: Transport for London;

Light rail and trams: operators;

Air: Civil Aviation Authority.

### **Personal travel: TSGB0103 to TSGB0105 (NTS tables NTS0305, NTS0409 and NTS0410)**

These tables present some basic information from the National Travel Survey (NTS). The NTS records personal travel by residents of Great Britain along the public highway in Great Britain. It records the number of trips (a one-way course of travel for a single main purpose) and the distance travelled. All modes of transport are covered, including walking more than 50 yards. Excluded from the sample are foreign visitors and people living in communal establishments (e.g. students in halls of residence). Both of these groups are likely to make a large number of public transport trips. An additional NTS table is available ([NTS0306](#)) which gives average trip lengths by mode.

In Tables NTS0409 and NTS0410, escort trips are those where the traveller has no purpose of his/her own, other than to escort or accompany another person, e.g. take a child to school.

In 2006, a weighting strategy was introduced to the NTS. As well as adjusting for non-response bias, the weighting strategy for the NTS also adjusts for the drop-off in the number of trips recorded by respondents during the course of the travel week. The weighting strategy has been applied to NTS data from 1995 onwards. In 2002, the drawn sample size for the NTS was nearly trebled compared with previous years, enabling key results to be presented on a single year basis for the first time since the survey became continuous. Changes to the methodology in 2002 mean that there are some inconsistencies with data for earlier years.

The latest information from the National Travel Survey can be found at:

<http://www.dft.gov.uk/statistics/series/national-travel-survey/>

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## People entering Central London during the morning peak: TSGB0106

The area defined as Central London approximates to that defined as the Greater London conurbation Centre in the Population Censuses. It is bounded by South Kensington and Paddington in the west, Marylebone Road/ Euston Road in the North, Shoreditch and Aldgate in the East, Elephant and Castle and Vauxhall in the South, and includes all the main railway terminals.

The survey is a count of the number of vehicle occupants (other than goods vehicles) on each road crossing the central London cordon. The cordon is situated outside the Inner Ring Road and encloses a slightly larger area than the Central London Congestion Charging Zone. Counts are conducted for one day at each of the survey points during October/November. Taxi passengers have been counted since 1996. Results for London Underground are derived from exit counts of people leaving the Underground stations within the Central area. Since 1996, these have been taken from automatic ticket gate data. Rail passengers are counted by observers at their last station stop before the central London cordon or, in the case of long-distance operator services, on arrival at Central London rail termini. Figures for Underground exclude people transferring from surface rail. The data are collected for Transport for London (TfL). Further information can be found from the report at:

[www.tfl.gov.uk/assets/downloads/corporate/Travel\\_in\\_London\\_Report\\_2.pdf](http://www.tfl.gov.uk/assets/downloads/corporate/Travel_in_London_Report_2.pdf)

The data are not National Statistics as Transport for London are not one of the organisations covered by the Official Statistics legislation. Their statistics are considered reliable.

## Casualty rates: TSGB0107 (RAS53001)

There have been a number of small revisions to this table but these have had little effect on the comparisons of the different modes with the exception of rail, for which the source and coverage of the casualty figures has changed.

In a change to previous publications rail figures are for National Rail only. These are now based on casualty figures from the Rail Safety and Standards Board (RSSB), so casualty definitions differ to those used in previous years when figures from the Office of Rail Regulation's SIGNAL database were used. This has led to higher injury rates being shown for all years as the RSSB figures have a higher number of minor injuries recorded. Rail figures are based on financial years.

Passenger casualty rates given in the table can be interpreted as the risk a traveller runs of being injured, per billion kilometres travelled. The coverage varies for each mode of travel and the definitions of injuries and accidents are different. Thus care should be exercised in drawing comparisons between the rates for different modes. The table provides information on passenger casualties and, where possible, travel by drivers and other crew in the course of their work has been excluded. Exceptions are for private journeys and those in company owned cars and vans where drivers are included.

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Figures for all modes of transport exclude confirmed suicides and deaths through natural causes. Figures for air, rail and water exclude trespassers and rail excludes attempted suicides. Accidents occurring in airports, seaports and railway stations that do not directly involve the mode of transport concerned are also excluded; for example, injuries sustained on escalators or falling over packages on platforms.

The following definitions are used:

**Air:** Accidents involving UK registered airline aircraft in UK and foreign airspace. Fixed wing and rotary wing aircraft are included but air taxis are excluded. Accidents cover UK airline aircraft around the world not just in the UK.

**Rail:** Train accidents and accidents occurring through movement of railway vehicles in Great Britain. As well as national rail the figures include accidents on underground and tram systems, Eurotunnel and minor railways.

**Water:** Figures for travel by water include both domestic and international passenger carrying services of UK registered merchant vessels.

**Road:** Figures refer to Great Britain and include reported personal injury accidents occurring on the public highway (including footways) in which at least one road vehicle or a vehicle in collision with a pedestrian is involved and which becomes known to the police within 30 days of its occurrence. Figures include both public and private transport. More information and analyses on road accidents and casualties can be found in Section 8: Transport accidents and casualties.

**Bus or coach:** Vehicles equipped to carry 17 or more passengers regardless of use.

**Car:** Includes taxis, invalid tricycles, three and four wheel cars and minibuses. Prior to 1999 motor caravans were also included.

**Van:** Vans mainly include vehicles of the van type constructed on a car chassis. These are defined as those vehicles not over 3.5 tonnes maximum permissible gross vehicle weight.

**Motorcycles:** Mopeds, motor scooters and motor cycles (including motor cycle combinations).

**Pedal cycle:** Includes tandems, tricycles and toy cycles ridden on the carriageway.

**Pedestrian:** Includes persons riding toy cycles on the footway, persons pushing bicycles, pushing or pulling other vehicles or operating pedestrian controlled vehicles, those leading or herding animals, occupants of prams or wheelchairs, and people who alight safely from vehicles and are subsequently injured.

For further information about road and rail accidents and casualties see tables TSGB0801 to TSGB0811 in chapter 8.

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## **Travel to work: TSGB0108 to TSGB0112**

These tables use data from the October to December 2010 quarter of the Labour Force Survey (LFS). The table is based on those people who are employed, and excludes those on Government New Deal schemes, those working from home or using their home as a working base, and those whose workplace or mode of travel to work were not known.

The questions on usual method of travel to work and usual time have been asked in each Autumn (October to December) survey since 1992. The LFS is a survey of households living at private addresses in Great Britain. In spite of its large sample size (55 thousand responding households), data for some cells are not shown because they fall below the 10 thousand LFS reliability threshold.

Labour Force Survey move to Calendar Quarters (CQ's): The Labour Force Survey (LFS) moved to publishing calendar quarters from May 2006. The survey previously published seasonal quarters where March-May months covered the spring quarter, June-August was summer and so forth. This has now changed to calendar quarters as part of an EU requirement for all member states to have an LFS based on calendar quarters. LFS micro data is available for January-March (Q1), April-June (Q2), July- September (Q3) and October-December (Q4).

## **Overseas travel and tourism, and international passenger movements: TSGB0113 to TSGB0115**

TSGB0113 to TSGB0115 are derived from the International Passenger Survey (IPS). In this survey, which is carried out by the Office for National Statistics, a large sample of passengers are interviewed as they enter or leave the United Kingdom by the principal air and sea routes and via the Channel Tunnel. These tables are based on IPS 'main flow' interviews, i.e. United Kingdom residents returning to, and overseas residents leaving the United Kingdom. The unit of measurement is therefore the visit and not the journey, and the mode of travel for the unit is that used by a United Kingdom resident returning or by an overseas resident departing (fly cruises are an exception to this rule as they are counted as 'sea' even though United Kingdom resident interviewed will have returned by air). The figures given here are annual totals, but quarterly as well as annual analyses are published in Overseas Travel and Tourism (see for example <http://www.ons.gov.uk/ons/rel/ott/overseas-travel-and-tourism---monthly-release/august-2011/stb-august-2011.html> and <http://www.ons.gov.uk/ons/rel/ott/overseas-travel-and-tourism---quarterly-release/q2-2011/ott-q2-2011.html> ). More information on the IPS survey methodology can be found at:

<http://www.ons.gov.uk/ons/guide-method/method-quality/specific/travel-and-transport-methodology/international-passenger-survey/index.html>

The "European Union" category in TSGB0113 and TSGB0115 includes all 27 member states. "Other Europe" in these tables includes other central and Eastern Europe, North Cyprus, Faroe Islands, Gibraltar, Iceland, Norway, Switzerland (including Lichtenstein), Turkey, the former USSR and the states of former Yugoslavia.

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## Employment in transport and related industries

### Transport related employment: TSGB0116

Details of transport-related employment by occupation are available from the Labour Force Survey (LFS). Data shown in TSGB0116 are from April to June 2010. The Labour Force Survey (LFS) moved to publishing calendar quarters in May 2006. The survey previously published seasonal quarters where March-May months covered the spring quarter, June-August was summer and so forth. This has now changed to calendar quarters as part of an EU requirement for all member states to have an LFS based on calendar quarters. LFS micro data is available for January-March (Q1), April-June (Q2), July-September (Q3) and October-December (Q4).

The LFS is a survey of households living at private addresses in Great Britain. In spite of its large sample size (55 thousand responding households), data for some cells in TSGB0116 are not shown because they fall below the 10 thousand LFS reliability threshold. TSGB0116 includes people with both main and second jobs as an employee, the self-employed, those on Government employment and training programmes, and unpaid family workers. The industry totals include those working in the following industry classifications: transport via railways, other inland transport, water transport, air transport, supporting and auxiliary transport activities and the activities of travel agents, and exclude those whose occupation was not known.

The Standard Occupational Classification (SOC2000) has been used instead of the previous 1990 classification for editions of Transport Statistics Great Britain from 2001 to 2008. SOC2000 is not directly comparable with the 1990 classifications, and it is therefore not possible to make direct comparisons with the earlier editions. In addition the Transport industries are also based on the SIC2007.

## Public Sector Expenditure and Investment

### General information on Tables TSGB0117 to TSGB0120

The data cover United Kingdom as a whole and can be found on HM Treasury website at: [http://www.hm-treasury.gov.uk/pespub\\_pesa11\\_natstats.htm](http://www.hm-treasury.gov.uk/pespub_pesa11_natstats.htm)

Most expenditure data in the Public Expenditure Statistical Analysis (PESA) are taken directly from the HM Treasury's public expenditure database, the Combined Online Information System (COINS). Central Government Departments supply data for their own expenditure and that of Agencies and Non-Departmental Public Bodies. These tables also report on the capital expenditure of public corporations but not current expenditure as only capital expenditure is treated as public sector spending in the National Accounts. Local government financing and expenditure describes central government's support for local government and local government's own spending. Great Britain is primarily covered in these analyses - where appropriate district council, spending in Northern Ireland is included.

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With a few exceptions, mainly in non-transport sectors, local government spending data in England are supplied by the Department for Communities and Local Government (CLG). The devolved administrations provide local government spending data for Scotland, Wales and Northern Ireland. In addition the Office for National Statistics supplies out turn figures for aggregated figures. The sources for the data are explained more fully on the HM Treasury website at:

[http://www.hm-treasury.gov.uk/d/pesa2011\\_annexa.pdf](http://www.hm-treasury.gov.uk/d/pesa2011_annexa.pdf)

To avoid double counting, grants from Central Government to Local Government are only counted in the Local Government spending categories.

#### Form of data presented in tables.

The data reported here are in terms of outturns that is, actual expenditure as this is the form given in the datasets. The figures have not been corrected to a constant price level by any deflator. HM Treasury do publish figures that are deflated using Gross Domestic product (GDP). The figures are presented in this way so that the user can use more up to date deflators; see for example HM Treasury for GDP deflators at: [http://www.hm-treasury.gov.uk/data\\_gdp\\_index.htm](http://www.hm-treasury.gov.uk/data_gdp_index.htm) , or other deflators and also so that the figures can be revised but not re-deflated from year to year.

The fact that the figures presented here are not at constant prices must be kept in mind when examining trends across time. In addition accounting methods as well as methods of financing infrastructure change over time and this has an effect on what is included and excluded in various categories especially when looking at the capital and revenue spending. For example, building a road is capital spending, but paying shadow tolls as part of a usage agreement with a private sector company who built the road, is revenue spending. HM Treasury have also noted that the PESA exercise published in 2011 was not strictly comparable with earlier publications.

One of the purposes behind the Treasury's Country and Regional Analysis is to determine who has benefitted by the expenditure, and in particular which region of the country has benefitted. However for a large part the details given for transport are based on where the money was spent. For example all local government expenditure is deemed to take place in the local authority area. In addition expenditure on national roads is attributed to the regional of expenditure, although some further estimation may be needed below country level. For this exercise the expenditure is divided into identifiable and non-identifiable expenditure.

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Generally, identifiable expenditure is that which can be allocated for the benefits of individuals, enterprises or communities within particular regions. Non-identifiable expenditure is that which is incurred on the part of the United Kingdom as a whole and includes for example, expenditure on the Maritime and Coastguard Agency, Civil Aviation Authority, Transport Security, Civil aviation services, Accident and Investigation work or is in a small program where the effort of allocation was not considered to be cost effective. Spending identified as “Outside the United Kingdom” in the transport sector usually means expenditure on services that benefit visitors to the United Kingdom or international organisations rather than expenditure that actually occurred outside the UK. The largest transport sector affected is railways and in particular the London Underground and High Speed Rail 1.

The data published as transport expenditure aligns with the United Nation's Classifications of Functions of Government (COFOG). There is an additional breakdown that links UN COFOG to the HM Treasury version of COFOG. For example, UN COFOG does not present a 'Transport' function at the level presented whereas the HM Treasury functional classification does. For further details see [http://www.hm-treasury.gov.uk/d/pesa2007\\_cofogsupplementarynote.pdf](http://www.hm-treasury.gov.uk/d/pesa2007_cofogsupplementarynote.pdf) . In addition “Street Lighting” is excluded from transport expenditure in the HM Treasury tables, being included as a category of housing and community amenities. Across the time periods here it is around £500 million a year, see TSGB0120. Spending on British Transport Police is classified under “Policing”.

The data published by HM Treasury use five broad groups for Transport expenditure. These are:

- National Roads, usually those roads which are considered by Central Governments to be part of their strategic road network. These include motorways and trunk roads and are funded almost entirely by Central Governments. This largely excludes roads within the London area which are the responsibility of Transport for London and the boroughs. A small amount of funding may be supplied by local authorities for particular projects in their local authority area for example for additional work on roundabouts. Expenditure on executive agencies such as DVLA is included.
- Local Roads consist of roads that are the responsibility of local highways authorities to maintain. Expenditure on roads within the London area with the exception of small sections of the M4, M1 and M25 are the responsibility of Transport for London and the boroughs and are included here.
- Railways include the London Underground. Expenditure includes grants and other payments but can be offset by payments by the private sector. Rail operators considered by the Office for National Statistics to be in the public domain are also included and these designations may change over time. For the period given here this includes the Channel Tunnel Rail Link and London and Continental Railways.
- Local public transport includes Bus Service Operators Grant paid by Central Government as well as Local Authority spending and mainly refers to road transport.
- Other includes maritime, ports, aviation, security and other expenditure including local authority spending on ports and piers.

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As above, grants from Central Government to Local Government (including London) are excluded to avoid double counting; only the final spending by local authorities is included. Depreciation is not included. Where possible the current/resource figures exclude the cost of capital; that is the income that would have been earned if the assets had been sold and invested. The split between current and capital indicates the broad National Account definition of the spending, see the ONS *Blue Book* at <http://www.ons.gov.uk/ons/rel/naa1-rd/united-kingdom-national-accounts/2010-edition/blue-book.html> .

The data published by HM Treasury include the spending attributed to the English regions alongside the spending attributed to Scotland, Wales and Northern Ireland. Although the figures are comparable, care is still needed when making comparisons because of the different scope of public sector activities in different countries and the difficulties that some sectors have in making regional splits. In addition spending by local authorities is assumed to benefit only those living in the local authority and this means that local authority spending in London, including by Transport for London, is considered to only benefit those living in London.

### Accuracy

See comments in [http://www.hm-treasury.gov.uk/d/pesa\\_2011\\_chapter4.pdf](http://www.hm-treasury.gov.uk/d/pesa_2011_chapter4.pdf)

### Strengths

The data collates expenditure across the whole of the public expenditure on a consistent basis, identifies reasonable high level categories and comes from HM Treasury' own public expenditure data base.

### Weaknesses

The data are subject to revisions and these can be large if, for example, an organisation originally considered to be in the private sector is reclassified to the public sector for the purposes of National Accounts, such as London and Continental Railways. Long run series are difficult to compile due to changes in accounting practices across time, including for example, the definition of capital and current and the definitions of functions of Government.

Only five broad categories of expenditure are used in the HM Treasury tables, so it is becoming more difficult to identify expenditure on particular policies such as Concessionary Fares, or Bus Service Operator Grant. Some of these expenditures have been identified separately in TSGB0120.

Private sector expenditure is not included. This primarily affects airports and some ports but also includes projects that could be described as “planning gains”. For example as a condition of granting planning approval for a housing development a local authority might require the builder to build the roads, which might then be turned over to the local authority to maintain. The private sector spending on the road building is not counted.

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## Definitions

Current expenditure covers recurring spending on items such as pay, benefits and the purchase of goods and services. In terms of transport this includes services such as concessionary fares and revenue support top public transport.

Capital expenditure covers the acquisition of assets such as land, buildings, vehicles and machinery and net lending to the private sector and abroad. In terms of transport this includes the cost of building a road and some structural maintenance work but not, for example, money paid to private contractors to “rent” a road.

### **Public Expenditure on Transport by Country and Spending Authority: TSGB0117**

The figures in this table are taken from Public Expenditure Statistical Analysis (PESA), Table 10 published by HMT see [http://www.hm-treasury.gov.uk/pesa2011\\_section4.htm](http://www.hm-treasury.gov.uk/pesa2011_section4.htm) . This table gives the most detailed breakdown available from a single source of the spending by country, spending authority and function.

### **Public Expenditure on Transport in the United Kingdom by Function: TSGB0118**

This table gives an overview of the spending in the United Kingdom by the 5 transport groups used by HM Treasury and has been updated from their October 2011 publication see [http://www.hm-treasury.gov.uk/pespb\\_natstats\\_oct2011.htm](http://www.hm-treasury.gov.uk/pespb_natstats_oct2011.htm) . This gives a high level overview of the amounts spent in various transport areas split by capital and current spending.

### **Total UK Public Corporation Expenditure on Transport: TSGB0119**

This table has been provided to identify the public corporation capital spend and shows that the main spending in this area is on railways and in particular spending on the London Underground over this period of time.

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## Public Expenditure on specific transport areas Great Britain: TSGB0120

The five transport categories published by HM Treasury are very general and there are a number of other transport related expenditures that are of interest, for example street lighting, bus service operators' grant, concessionary fares and vehicle parking. These are given in this table. The information on Street Lighting is available from the HM Treasury tables. Bus Service Operators' Grant is paid by Central Governments, by DfT for England and Wales, and the Scottish Government for Scotland. Figures published in DfT Statistics table [BUS0502a](#) give the figures for England alone for financial years. Concessionary fares are paid by local government in England and Wales but largely now by central government in Scotland and vehicle parking is paid by and collected for local government. The figures on parking include net revenues offset by costs of maintaining car parks where appropriate. Figures for Northern Ireland are not included in this table. The figures are sourced from the HM- Treasury tables, Scottish Government [Scottish Transport Statistics](#), Welsh Government [Finance Statistics](#) and Local Authority [Finance Statistics \(England\)](#).

## Household Expenditure on Transport

### Household Expenditure on Transport: TSGB0121 (formerly TSGB0113)

A household expenditure survey has been conducted each year in the UK since 1957. The survey is continuous, interviews being spread evenly over the year to ensure that seasonal effects are covered. The 2010 survey carried out on behalf of the Office for National Statistics consisted of weighted responses from 5,116 households in Great Britain together with 147 households from Northern Ireland. Data are shown to the nearest ten pence in line with usual Living Costs and Food Survey practice.

The coding framework was changed for the 2001/02 survey onwards. The table has been amended to present data on the European Standard Classification of Individual Consumption by Purpose (COICOP) basis. Changes were also made in 2006 to the weights based on the 2001 Census, for further details see [Family Spending 2011 \(Living Costs and Food Survey 2010\)](#). Appendix B of the report contains details of the methodology used and the effects of weighting in the survey.

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## The cost of transport

### **Retail and Consumer Prices Indices: Motoring Costs: TSGB0122 (formerly TSGB0119)**

These indices are taken from the published Consumer Prices Index (CPI) and the Retail Prices Index (RPI) rebased to 1997=100 for convenience. 1997 is the earliest base year for the CPI components. The four letter code used by the Office for National Statistics to identify the series in their time series data and publications has been included. These data can be downloaded from ONS Time series data at <http://www.ons.gov.uk/ons/datasets-and-tables/data-selector.html?dataset=mm23>.

The operation of personal transport equipment includes spare parts and accessories, fuels and lubricants, maintenance and repairs, and other services. The main difference between the operation of personal transport equipment from the CPI, the motor running costs index and the all motor index from the Retail Prices Index is that the latter includes the purchase of vehicle. There are some other exclusions from the CPI index such as car insurance and vehicle excise duty (regarded as a tax) but these do not have a large effect on the Consumer Prices Index as the weights on these items are relatively small. The motoring costs index is calculated by excluding the "purchase of vehicles - DOCS" from the "all motor CHBK" calculations.

This table was formerly published as TSGB0119.

### **Retail Prices Index: transport components: TSGB0123 (formerly TSGB0120)**

These indices are taken from the published Retail Prices Index, rebased to 1997=100 for convenience and comparison with the TSGB0122. The all motor index includes purchase of a vehicle, maintenance, petrol and oil, and tax and insurance. Again all the series can be downloaded from ONS Time Series data. The Retail Prices Index components are available in their current form back to 1987 and an accompanying historic table is also given.

This table was formerly published as TSGB0120.

### **Gross Domestic Product and Retail Prices Index deflators: TSGB0124 (formerly TSGB0121)**

Gross Domestic Product deflators (at market prices) are calculated from YBHA and ABMI, and can be downloaded from the H M Treasury website at:

[http://www.hm-treasury.gov.uk/data\\_gdp\\_index.htm](http://www.hm-treasury.gov.uk/data_gdp_index.htm) . Consumer and Retail Prices Index deflators have been calculated directly from the published 'All Items' Consumer and Retail Prices Index, D7BT and CHAW respectively.

This table was formerly published as TSGB0121.

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## Taxes on Road Vehicles

### Vehicle Excise Duty and Fuel Duty: TSGB0125

The Blue Book presents the full set of economic accounts, or National Accounts, for the United Kingdom. These accounts are compiled by the Office for National Statistics (ONS). Figures on Vehicle Excise Duty and Fuel Duty are also published by ONS in the ONS Environmental Accounts. The figures in the table represented here do not include VAT.

Lead replacement petrol was developed to replace leaded petrol but increasingly clean fuel acts and duty incentives resulted in a switch to ultra low sulphur petrol in the 2000s. Similar moves resulted in a switch by users to ultra low sulphur diesel. Duty is also collected on bioethanol and biodiesel as well as liquid petroleum gas.

Value added tax is added onto the price of the fuel plus the duty, but is not given in this table.

Figures on fuel duty receipts are produced on a regular basis by HM Revenue and Customs, see <https://www.uktradeinfo.com/index.cfm?task=bulloil&hasFlashPlayer=true> . But since duty on different categories of fuel have been equalised, HMRC have rationalised their coding system and now have for example recoded ultra low sulphur petrol as unleaded petrol.

Vehicle excise duties are collected by the Driver and Vehicle Licensing Agency on behalf of the Government.

The sources for the data published are the ONS *Blue Book*, (UK National Accounts) at <http://www.ons.gov.uk/ons/rel/naa1-rd/united-kingdom-national-accounts/2010-edition/blue-book.html> , and the *ONS Environmental Accounts* at: <http://www.ons.gov.uk/ons/rel/environmental/environmental-accounts/2011/index.html>.

Both sources are designated as National Statistics. This table was formerly published as Transport Trends trend 2.8.

These notes and definitions relate to the detailed statistics (tables and charts) on “modal comparisons” can be found on the [Transport Statistics Modal Comparisons web page](#). Table numbers TSGB0101 to TSGB0125 form the Modal Comparisons chapter of [Transport Statistics Great Britain](#).

## Notes and Definitions: Aviation



This section provides notes and definitions for the aviation tables included in Transport Statistics Great Britain 2011.

### Notes and definitions include:

- Information on sources.
- Information on accuracy.
- Definitions.
- General information the tables including links to background information.

### Data sources

All the statistics in this chapter are collected by organisations external to the Department for Transport and are outside the scope of National Statistics.

The majority of the tables published here are based on data collected by the Civil Aviation Authority (CAA). Tables AVI0101 to 0103 and AVI0105 are based on returns submitted to the CAA by airports; AVI0201 to 0203 are based on returns submitted to the CAA by airlines; AVI0106 to 0108 are based on the data from the CAA Passenger Survey and AVI0401 is compiled from data supplied by the CAA's Safety Data Unit. More information and statistics published by the CAA can be found at: <http://www.caa.co.uk/>

AVI0301 to AVI 0302 are based on data supplied by the International Civil Aviation Organisation (ICAO).

AVI0402 is compiled from data supplied by the UK Airprox Board.

### Coverage

The terms 'UK airports' and 'UK air lines' cover the airports and airlines which submit returns to the CAA. In 2010, over 50 airports and over 30 airlines submitted data, including all the major commercial airports and airlines.

Air taxi operations are excluded from all tables on activity at UK airports and by UK airlines except for the early time series (1950 to 1991) in AVI0101.

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The Channel Islands are excluded from tables AV I0101 and AVI0102. The Isle of Man is excluded from AVI0102 and from AVI0101 for 1991 onwards. Up to 2007, the Isle of Man was included in the UK total in the *United Kingdom Airport Statistics* published by the Civil Aviation Authority (CAA); it was excluded from 2008 onwards and the time series in these tables have been revised back to 1991 to be consistent with the CAA statistics.

Some of the figures in AVI 0101 are higher than the time series shown in CAA's *United Kingdom Airport Statistics* (annual) due to CAA tables excluding data for airports that have ceased to handle traffic or closed, such as, Sheffield City airport.

## Activity at United Kingdom airports

### Traffic at UK airports: AVI0102

AVI0102a to c are derived from the CAA publication *United Kingdom Airport Statistics* (annual):

<u>TSGB table</u>	<u>CAA Airport Statistics table</u>
AVI0102a	5
AVI0102b	10.1 and 10.2
AVI0102c	14

The table shows air transport movements (landings and take-offs of aircraft engaged in commercial air transport), terminal passengers (arrivals and departures) and freight handled (set down and picked up).

Domestic traffic (movements, passengers and freight) shown is half that published in the CAA *Airport Statistics*, to remove double counting at the airport of arrival and departure. The figures for individual airports have not, however, been adjusted to eliminate double counting of domestic traffic.

Terms used in AVI0102 are defined as follows:

*Air transport movements:* All scheduled movements (whether loaded or empty) and loaded charter movements. Empty positioning flights by scheduled aircraft and empty charter movements are excluded.

*International services:* These services are flown between the United Kingdom, airports and points in other countries.

*Scheduled services:* Those performed according to a published timetable, including those supplementary thereto, available for use by members of the public.

*Non-scheduled services:* Air transport movements other than scheduled services.

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*Terminal passengers:* All revenue and non-revenue passengers joining or leaving an aircraft at a United Kingdom airport (a passenger who changes from one aircraft to another, carrying the same flight number, is counted as a terminal passenger both on arrival and departure). Transit passengers who arrive and depart on the same aircraft are not included.

*Freight:* Excludes mail and passengers' and crews' permitted baggage, but all other property carried on an aircraft is included. Thus excess baggage is included, as are diplomatic bags. Freight in transit through an airport on the same aircraft is excluded.

### **Punctuality at selected UK Airports: AVI0103**

AVI0103 is derived from the CAA *Punctuality Statistics* (see [www.caa.co.uk/punctuality](http://www.caa.co.uk/punctuality))

The CAA compiles punctuality data for five London airports (Heathrow, Gatwick, Stansted, Luton and London City) and five regional airports (Manchester, Birmingham, Glasgow, Edinburgh and Newcastle).

The planned time of operation is obtained from the airport scheduling committees and merged in with the actual time of operation on the air transport movement records collected in UK Airport Statistics.

A general review of taxi times was undertaken during 2008 and, as a result, many taxi assumptions were revised with effect from January 2009, creating a discontinuity in the time series. For comparison purposes 2008 data were re-calculated. AVI0103 therefore shows data from 2008 onwards only.

### **Forecasts of terminal passengers at UK airports: AVI0104**

The forecasts show the expected number of UK and foreign passengers passing through UK airports up to 2050, after accounting for airport capacity constraints. The underlying unconstrained forecasts are based on econometric equations which specify a relationship between passenger traffic and a number of explanatory variables which determine it. The key variables determining air traffic were found to be domestic and foreign economic growth (principally GDP); air fares; trade; and exchange rates. The relationships derived from past years' data are applied to projections of future year values of the explanatory variables to calculate forecasts of air traffic. A range of forecasts is given to reflect the uncertainties inherent in long term forecasting. The range of unconstrained forecasts are processed in the DfT National Air Passenger Allocation Model which forecasts how passenger demand will split between UK airports taking account of likely future constraints on air transport movements (and thus passengers) at UK airports. The future constraints assume that the maximum use is made of existing runway capacity.

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## International passenger movements at UK airports: AVI0105

AVI0105 is derived from the CAA publication *United Kingdom Airport Statistics* (annual):

<u>TSGB table</u>	<u>CAA Airport Statistics table</u>
AVI0105	12.1

The Channel Islands and Isle of Man airports are included in this table, unlike other tables in this chapter. The following are excluded: a number of small airports, which do not submit full returns to the CAA (Barrow, Carlisle, Isles of Scilly (St Mary's) Metro London Heliport, Penzance, Plymouth, Shoreham and Tresco); charter aircraft with less than 25 seats; airlines that have not given consent to the CAA to publish their data; passengers carried on aircraft chartered by Government Departments. This coverage is consistent with CAA's airport statistics Table 12.1.

The figures in the table are based on the origin and destination of passengers as reported to UK airport authorities by UK and foreign airlines. Operators are required to report in respect of each service operated, the point of uplift and discharge of each passenger. The figures may not reflect a passenger's entire air journey: the point at which a passenger disembarks from a particular service may not represent his ultimate destination.

Although operators are asked to report all passenger journeys, in some cases the actual point of uplift or discharge is not recorded. In such cases all passengers are allocated to the end point of the service, ie the aircraft's origin or ultimate destination. In the case of the USA, all traffic is recorded to or from gateway points specified in the Bermuda II Agreement and subsequent amendments until March 2008, when this agreement ceased to be in force..

“Former USSR” includes Albania, Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Republic Of Moldova, Russia, Turkmenistan, Ukraine, and Uzbekistan.

“Former Yugoslavia” includes Bosnia-Herzegovina, Croatia, Serbia, Montenegro, and Macedonia.

“Rest of Europe” includes Faroe Islands, and Iceland.

## Proportion of transfer passengers at selected UK airports: AVI0106

Table AVI0106 is based on data from the CAA Passenger Survey. This is a survey of departing passengers carried out at selected airports. Further details on the methodology are available at [www.caa.co.uk/surveys](http://www.caa.co.uk/surveys).

Results are given for the five UK airports which have been included in the survey every year since 2000: Heathrow, Gatwick, Stansted, Luton and Manchester. In most years, a small number of additional airports are also surveyed and data for these airports is available on request from [aviation.stats@dft.gsi.gov.uk](mailto:aviation.stats@dft.gsi.gov.uk).

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Terms used in Table AVI0106 are defined as follows:

*Transfer passengers:* passengers who change aircraft at the airport and have no other reason for visiting the airport.

*Terminating passengers:* passengers who arrive at or depart from an airport by surface modes of transport.

### **Mode of travel to and Purpose of travel at selected UK airports: AVI0107 and AVI0108**

Tables AVI0107 and AVI0108 are based on data from the CAA Passenger Survey (see note on AVI0106 above).

## **Activity of United Kingdom airlines**

### **Main outputs for UK airlines by type of service: AVI0201**

AVI0201 is derived from the CAA publication *United Kingdom Airline Statistics* (annual) and earlier volumes:

<u>TSGB table</u>	<u>CAA Airline Statistics table</u>
AVI0201	1.7.1/2/3/4 and 1.8.1/2/3/4

AVI0201 shows the carriage of revenue passengers, cargo (freight and mail) on services flown by United Kingdom airlines, scheduled and non-scheduled (but excluding air-taxi operations and sub-charter operations performed on behalf of United Kingdom airlines). Passenger kilometres are calculated by multiplying the number of revenue passengers carried on each flight stage by the stage distance. Passenger seat occupancy is calculated as passenger kilometres as a percentage of seat kilometres available.

Cargo (freight and mail) uplifted are calculated by counting each tonne of revenue cargo or mail on a particular journey once only and not repeatedly on each individual stage of the flight. Cargo tonne kilometres are calculated by multiplying the number of tonnes of revenue load on each stage flight by the stage distance.

Terms used in AVI0201 are defined as follows:

*Passengers:* Travellers are counted as revenue passengers if the air carrier receives commercial remuneration. They are counted only once on a particular flight (with one flight number) and not for each stage of that flight.

*International services:* These services are flown between the United Kingdom, Isle of Man or Channel Islands and points in other countries.

*Domestic services:* Those entirely within the United Kingdom, Isle of Man and Channel Islands.

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*Scheduled services:* Those performed according to a published timetable, including those supplementary thereto, available for use by members of the public.

*Non-scheduled services:* Air transport movements other than scheduled services.

### **United Kingdom airline fleet: AVI0202**

This table was discontinued in 2011.

### **Worldwide employment by UK airlines: AVI0203**

AVI0203 is derived from the CAA publication *United Kingdom Airline Statistics* (annual) and earlier volumes:

<u>TSGB table</u>	<u>CAA Airline Statistics table</u>
AVI0203	1.14

AVI0203 shows the average number of personnel employed by United Kingdom airlines in the United Kingdom and overseas. Personnel employed by companies performing solely air-taxi operations are excluded.

Terms used in AVI0203 are defined as follows:

*Other Cockpit Personnel:* Flight engineers, radio operators and navigators.

*Cabin Attendants:* Purser, stewards and flight attendants.

*Maintenance and Overhaul Personnel:* Ground personnel, including supervising, planning and inspection personnel at Maintenance and Overhaul Personnel shops. Also includes stores and supplies personnel, time-keepers and accounts personnel at Maintenance and Overhaul Personnel workshops.

*Ticketing and Sales Personnel:* Personnel engaged in ticketing, sales and promotional activities.

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## Major international airports and airlines

### Traffic at major international airports: AVI0301

AVI0301 gives a comparison of the activity at some of the world's major airports. Airports are selected such that the largest 25 (as reported to ICAO) by number of terminal passengers are included. 'Non-reporting' airports are excluded and some figures are estimated on the basis of part-year data; the table is therefore of use only as a guide.

### Passenger traffic on major international airlines: AVI0302

AVI0302 gives a comparison of the major international airlines. Airlines are selected such that the largest 25 (as reported to ICAO) by passengers uplifted are included. The ranking is only a guide as most 'non-reporting' airlines are excluded. Airlines which have no international flights are also excluded.

## Casualties and incidents

### Casualties caused by aviation accidents: AVI0401

AVI0401 includes deaths, serious and minor injuries where an aircraft was engaged in air line, air taxi, general aviation (including private flights) and other commercial (including training) operations.

Terms used in AVI0401 are defined as follows:

*Airline:* Public transport flights, which are subject to a United Kingdom Air Transport Licence. Also public transport flights which are not subject to a United Kingdom Air Transport Licence, but which utilise aircraft having a maximum take-off weight of 15 tonnes or more. Positioning flights are excluded. There have been no reported casualties involving either UK-registered rotary wing services in foreign airspace or foreign-registered rotary wing services in UK airspace.

*Air Taxi:* Public Transport flights which utilise aircraft with a maximum take-off weight of less than 15 tonnes and which are not subject to a UK Air Transport Licence. Positioning flights are excluded.

*General Aviation:* Includes executive, club and group, private and training flights, but does not include accidents to gliders, microlights, hang gliders or hot-air balloons.

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## **Aircraft proximity (AIRPROX): number of incidents: AVI0402**

An AIRPROX (aircraft proximity hazard) is a situation in which, in the opinion of a pilot or controller, the distance between aircraft as well as their relative positions and speed have been such that the safety of the aircraft was or may have been compromised. AIRPROX can occur between various combinations of commercial, military and private aircraft. The numbers of AIRPROX incidents involving commercial transport aircraft are shown separately in the table.

All AIRPROX reports are assessed and, following guidelines given by the International Civil Aviation Organisation, the degrees of risk involved are categorised as 'risk of collision', 'safety not assured', 'no risk of collision', and 'risk not determined'.

<p>These notes and definitions relate to the detailed statistics on "Aviation" that can be found on the Transport Statistics Great Britain Aviation web page, table numbers AVI0101 to AVI0402.</p>
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## Notes and Definitions: Energy and environment



### Petroleum consumption by transport mode and fuel type: ENV0101

DECC produces petroleum consumption figures which are published in table 3.2 of the *Digest of United Kingdom Energy Statistics* (DUKES) by the Department for Energy and Climate Change (DECC) and can be found at:

[www.decc.gov.uk/en/content/cms/statistics/source/oil/oil.aspx](http://www.decc.gov.uk/en/content/cms/statistics/source/oil/oil.aspx).

#### These notes include:

- Information on data sources
- Definitions
- General information about the data including links to further background information

This information relates to the energy and environment data tables ENV0101 to ENV0401 which can be accessed through the [Energy and environment statistics webpage](#)

**Road transport** – Estimates of total consumption of road fuels are produced by DECC – based on inland deliveries of petrol (motor spirit), road diesel (DERV) and liquefied petroleum gas (propane and butane). However it is not possible to trace what this fuel is used for. The DECC figures include the road fuel consumed by off-road machinery and equipment.

The National Atmospheric Emissions Inventory (NAEI) produces estimated breakdowns by vehicle type of petrol and DERV consumption as a part of its work in producing the UK greenhouse gas emissions estimates.

To produce the breakdowns of road fuel consumption by vehicle type the NAEI produces “bottom up” estimates of petrol and DERV consumption by vehicle type derived using a number of different data sources including:

- road traffic volume estimates by vehicle type and road type
- information on the what kinds of vehicles are on the road (engine sizes, fuel types, how old vehicles are etc) ;
- estimated grams of fuel used per km for different types of vehicles under different conditions.

The “bottom up” estimates are then adjusted to add up to the “top down” totals for petrol and DERV produced by DECC (after removal of estimated fuel consumed by off-road machinery and equipment).

The road fuel consumption by vehicle type estimates are revised periodically due to methodological improvements and due to revisions in the data sources used. These revisions are usually small.

More information on the methodology used by the NAEI to construct the breakdown of road transport fuel consumption by vehicle type can be found in the Annex to the UK Greenhouse Gas Emissions Inventory report which can be found at:

[http://naei.defra.gov.uk/report\\_link.php?report\\_id=650](http://naei.defra.gov.uk/report_link.php?report_id=650) (see pages 423 – 438 of the annex)

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**Rail** – DECC are unable to produce estimates of gas oil deliveries to railways in the same way as fuel deliveries to other transport sectors. This is because the gas oil used by rail is indistinguishable from other uses of gas oil, and refiners sell the gas oil for rail use on to resellers rather than direct to rail companies. Previously rail gas oil consumption has been estimated by the NAEI as a part of their work in producing the UK rail emissions estimates, based on:

- train km and freight tonne km data
- assumed mix of locomotives
- fuel consumption factors for different locomotives

However the most recent UK rail emissions estimates made use of fuel consumption figures for Great Britain from ATOC (Association of Train Operating Companies)/ORR (Office of Rail Regulation) which are available broken down by passenger rail/freight rail for years 2005/06 onwards. Adjustment factors have been applied to the back series for rail freight and passenger rail gas oil consumption separately, to produce consistent time series.

**Shipping** – Fuel oil and gas/diesel oil delivered, for inland, costal & international shipping for use in ports and harbours. This includes gas/diesel oil used by fishing vessels and for UK oil and gas exploration and production.

**Aviation** – Total inland deliveries of aviation turbine fuel and aviation spirit. This covers deliveries of aviation fuels in the United Kingdom to UK and foreign airlines, UK and foreign governments (including armed services) and for private flying.

More information on petroleum consumption (including average mass to volume conversion factors on page 229) can be found in DUKES at:

[www.decc.gov.uk/en/content/cms/statistics/publications/dukes/dukes.aspx](http://www.decc.gov.uk/en/content/cms/statistics/publications/dukes/dukes.aspx)

The conversion factors from mass to volume for petrol and road diesel for 2010 (which hold approximately for previous years) were:

Petrol:	One tonne = 299 gallons or 1,360 litres
Road diesel:	One tonne = 262 gallons or 1,191 litres

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## Energy consumption by transport mode and energy source: ENV0102

This is the energy content of fuels delivered to consumers, excluding non-energy use of fuels. The data measures the energy content of the fuels, both primary and secondary, supplied to final users. Thus it is net of fuel industry's own use and conversion, transmission and distribution losses.

These figures are calculated using net calorific values, which mean that they exclude the amount of energy necessary to evaporate the water present in the fuel or formed during the combustion process.

The figures are given in million tonnes of oil equivalent. This unit should be regarded as a measure of energy content rather than a physical quantity. There is no intention to represent an actual physical tonne of oil. One tonne of oil is not equal to one tonne of oil equivalent.

1 tonne of oil equivalent (toe):  
=  $10^7$  kilocalories  
= 396.83 therms  
= 41.868 Gigajoules (GJ)  
= 11,630 Kilowatt hours (kWh).

Data for individual fuels are converted from original units to tonnes of oil equivalent using net calorific values and conversion factors appropriate to each category of fuel and then aggregated.

Estimated average net calorific values in 2010 for road petroleum fuels are:

44.7 GJ per tonne of motor spirit (petrol)  
42.9 GJ per tonne of DERV (diesel)  
46.0 GJ per tonne of LPG

The full set of estimates average net calorific values are published in table A3 of the UK Digest Energy Statistics (DUKES) and can be found at:

[www.decc.gov.uk/en/content/cms/statistics/source/cv/cv.aspx](http://www.decc.gov.uk/en/content/cms/statistics/source/cv/cv.aspx)

More information on UK energy consumption can be found in the Digest of UK Energy Statistics (DUKES) at: [www.decc.gov.uk/en/content/cms/statistics/publications/dukes/dukes.aspx](http://www.decc.gov.uk/en/content/cms/statistics/publications/dukes/dukes.aspx)

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## **Average new car fuel consumption: ENV0103**

These figures are based on all newly registered petrol and diesel passenger cars for each year in question. They are calculated from average CO<sub>2</sub> emissions figures (g CO<sub>2</sub> per km) for registrations of new petrol and diesel cars, weighted by the numbers of new car for each model. These average CO<sub>2</sub> figures are converted into fuel consumed using information on the typical carbon content of petrol and diesel. This approach accounts for the relative sales of different models of car. From 2001 onwards new car CO<sub>2</sub> figures have been recorded on the DVLA's registration database and earlier figures are based on the Society of Motor Manufacturers & Traders (SMMT) car registration database.

The CO<sub>2</sub> figures for individual vehicle models used in both databases are obtained under carefully controlled laboratory conditions in order to ensure repeatability and a fair comparison between models. The standard test used consists of drive cycles simulating urban and extra-urban driving, effectively with a single occupant, on a level road and without heaters or lights on. The actual fuel consumption achieved on the road will reflect many extraneous factors such as cold starts, different driving conditions, weather conditions, different loads carried, gradients, etc. More information on the standard test used can be found at: <http://carfueldata.direct.gov.uk/downloads/default.aspx>

## **Average heavy goods vehicle fuel consumption: ENV0104**

The miles per gallon figures in ENV0104 are for Great Britain-registered HGVs carrying freight within the United Kingdom (or travelling empty as part of their normal business). The figures exclude non-freight carrying HGVs such as recovery vehicles or fire engines. The figures are produced from data collected by the DfT's Continuing Survey of Road Goods Transport (CSRGT), based on returns on the amount of fuel purchased by road hauliers or taken from their own supplies for a surveyed vehicle, and the mileage covered by that vehicle, during a given survey week.

During a given survey week, for some hauliers the amount of fuel purchased for a vehicle may be less than the amount actually used during the survey week (for example, if they had filled up the tank just prior to the survey week and then topped up during the week with a smaller amount), while for others the amount of fuel purchased may be much more than the fuel actually used during the week. It is believed that over the whole survey these two scenarios balance out giving unbiased estimates of the average miles per gallon.

## **Petrol and diesel prices and duties: ENV0105**

The price estimates are based on information provided by oil marketing companies and super/hypermarket chains and are representative of prices paid (inclusive of taxes) on or about the 15th of the month. Changes in fuel duty usually occur during the month in which a Budget is held, although in some years the rates have increased twice during the year. VAT is rebated to business users.

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## Greenhouse gas emissions by transport mode: ENV0201, ENV0202 and ENV0401

Table ENV0201 shows greenhouse gas (GHG) emissions from transport based on the internationally agreed basket of greenhouse gases carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs and SF<sub>6</sub>). Table ENV0202 shows transport emissions of carbon dioxide alone.

### **Greenhouse gases**

Some gases have a higher global warming potential than others, so the greenhouse gas emissions are expressed in terms of the equivalent million tonnes of carbon dioxide (MtCO<sub>2</sub>e). On this basis carbon dioxide makes up over 98% of greenhouse gases for transport. More information on greenhouse gases can be found at:

[www.decc.gov.uk/en/content/cms/statistics/climate\\_stats/gg\\_emissions/intro/intro.aspx](http://www.decc.gov.uk/en/content/cms/statistics/climate_stats/gg_emissions/intro/intro.aspx)

Carbon dioxide is reported in terms of 'net emissions', which means total emissions minus total removals of CO<sub>2</sub> from the atmosphere by carbon sinks. Carbon sinks are incorporated within the Land Use, Land Use Change and Forestry (LULUCF) sector, which covers afforestation, reforestation, deforestation and forest management.

The figures on greenhouse gas emissions from transport in sections (a) and (b) of ENV0201 and ENV0202 are in principle based on fuel purchased in the UK, in line with international guidelines. This is to avoid double counting of emissions between individual nation states.

### **The 'by source' emissions – section (a) of ENV0201 and ENV0202**

These figures are produced by the National Atmospheric Emissions Inventory (NAEI) on behalf of the Department for Energy and Climate Change (DECC). The 'by source' emissions figures allocate emissions to the sector producing them. The 'by source' figures in these tables, are those published by DECC and they include crown dependencies (Jersey, Guernsey, and the Isle of Man) and exclude overseas territories.

**Road transport** is by far the main source of transport greenhouse gas (GHG) emissions. Carbon dioxide makes up over 98% of GHG emissions from road transport. Carbon dioxide emissions from road transport by mode are calculated directly from the estimated amounts of fuel consumed using information on the carbon content of the fuels. An outline of how road transport fuel consumption by mode is estimated can be found in the "Road transport" section on pages 1-2.

The road transport emissions of the other greenhouse gases are derived along the same lines as road transport emissions of air pollutants (see the background note for table ENV0301 on page 8).

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**Rail** carbon dioxide emissions are calculated directly from estimated rail gas oil consumption. In the past rail oil consumption was modelled using other data sources but the latest rail emissions estimates make use of real data on rail fuel consumption for Great Britain. More information on this can be found in the “Rail” section on pages 2.

**Shipping** – Shipping emissions are based on the DECC marine fuel deliveries figures. Naval fuel consumption from UK supplies is subtracted from these figures. Naval emissions are allocated to ‘Military aircraft and shipping’, which is included in the “Other” category of tables ENV0201 and ENV0202. There was little change in total shipping emissions in the latest version of GHG emissions estimates. However there was a reallocation of emissions from domestic shipping to international shipping.

In the past the domestic/international split for the consumption of marine fuels has been based on refiner’s best estimates. The most recent (1990-2009) version of the emissions inventory made use of estimates ‘bottom up’ estimates of marine fuel consumption from a detailed study using information on marine vessel movements, carried out by Entec on behalf of DEFRA. The Entec/DEFRA study estimated 2007 fuel consumption from domestic and international shipping, by vessel type. These estimates for 2007 were forward- and back-cast to for the full time series using DfT maritime statistics as proxies for changes in marine vessel activity for each vessel type over time.

Domestic shipping fuel consumption was taken directly from the Entec/DEFRA study and the remaining marine fuel (after subtraction of naval consumption) is allocated to international shipping, ensuring that the resulting figures add up to DECC totals for marine fuels.

**Aviation** – Aviation carbon dioxide emissions estimates are based on the DECC figures on the deliveries of aviation spirit and aviation turbine fuel in the UK. The fuel used for military aviation is subtracted from these figures. Emissions for military aircraft are allocated to ‘Military aircraft and shipping’, which is included in the ‘Other’ category in tables ENV0201 and ENV0202.

The aviation fuels (after subtraction of fuel used for military aviation) are split between domestic aviation and international aviation on the basis of data on domestic and international flights, taking into account the types of aircraft used for each flight. Only international flights departing the UK are included for compatibility with consumption of fuels from UK supplies.

More details of how greenhouse gas emissions are estimated are given in the Annex to the UK Greenhouse Gas Inventory report, which can be found at:

[http://naei.defra.gov.uk/report\\_link.php?report\\_id=650](http://naei.defra.gov.uk/report_link.php?report_id=650) (see pages 414-464 of the annex for the details of the methodology for transport emissions)

More data on UK greenhouse gas emissions can be found on the DECC website at:

[www.decc.gov.uk/en/content/cms/statistics/climate\\_stats/gg\\_emissions/uk\\_emissions/2009\\_final/2009\\_final.aspx](http://www.decc.gov.uk/en/content/cms/statistics/climate_stats/gg_emissions/uk_emissions/2009_final/2009_final.aspx)

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### ***Emissions from international transport and table ENV0401***

Emissions from international aviation and international shipping are reported separately in table ENV0201 and ENV0202. This is because these emissions are not included in the UK total submitted to the UNFCCC but are instead reported as memo items, since there is no internationally agreed way of allocating these emissions to individual nation states.

However the DfT is committed to reducing greenhouse gas emissions from both domestic and international transport. As a business plan indicator, the DfT therefore uses total transport greenhouse gas emissions which includes international transport emissions (based on fuel consumption from UK fuel bunkers). The data for this indicator are shown in table ENV0401.

### ***The 'by end-user' emissions – section (b) of ENV0201 and ENV0202***

These figure are based on the 'by source' emissions data, but re-allocate emissions from power stations and fuel processing facilities within the UK to the final users of the fuel on an approximate basis, according to their use of the fuel.

### ***The environmental accounts – section (c) of ENV0201 and ENV0202***

The ONS Environmental Accounts report greenhouse gas emissions (GHG) produced by UK residents and UK-registered companies, broken down by the industry emitting the gases. These emissions figures are on the same basis as the National Accounts and so can be used to look at emissions per unit of economic output.

Environmental Accounts GHG figures are based on the 'by source' NAEI data (including emissions from international aviation and international shipping), but apply cross-boundary adjustments to remove purchases by overseas residents of UK fuel, and add purchases by UK residents of foreign fuel.

Emissions are allocated to economic sector regardless of the activity that produced them. For example HGV emissions are allocated to a range of industries including the road haulage industry (referred to as road freight and removal services) and parts of the retail & wholesale, manufacturing and construction sectors.

The latest version of the environmental accounts has switched to using the Standard Industrial Classification of Economic Activities 2007 (SIC 2007). The details of SIC 2007 can be found at: [www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/standard-industrial-classification/index.html](http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/standard-industrial-classification/index.html)

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## Air quality pollutant emissions by transport mode: ENV0301

Table ENV0301 shows the estimated emissions of key pollutants from transport, which affect air quality, human health and ecosystems. These figures are produced by the NAEI on behalf of DEFRA and are based on United Nations Economic Commission for Europe (UNECE) definitions.

Emissions from aviation (cruise, both domestic and international) and international shipping are not included in the national total that is reported to the UNECE but are reported separately as memo items. Emissions from aircraft cruising at altitude or from international shipping in sea territories distant from the UK make a relatively small contribution to ground-level air quality in the UK compared with emissions occurring during take-off and landing and from domestic shipping around UK coastal waters, but they do contribute to global air pollution.

**Road transport** is by far the main source of air quality pollutant emissions from transport. Estimates of sulphur dioxide emissions and lead emissions from transport by mode are calculated directly from the estimated amounts of fuel consumed, using information on the sulphur/lead content of road fuels. An outline of how road transport fuel consumption by mode is estimated can be found in the “Road transport” section on pages 1-2.

The emissions of other air pollutants from road transport (and the basket greenhouse gases other than carbon dioxide) are not directly related to road fuel consumption in the same way, as they are also affected by vehicle technologies such as particle traps and catalytic converters. Instead they are derived from a range different information/data sources including:

- road traffic volume estimates by vehicle type and road type;
- information on the what kinds of vehicles are on the road (engine sizes, fuel types,...);
- estimated grams of pollutant emitted per km for different types of vehicles under different conditions (from the DfT/TRL speed-related emission factor equations, see page 9);
- catalyst failure rates;
- information on the retrofitting of older vehicles with modern pollution abatement devices;
- models for cold start emissions (excess emissions when a vehicle is started with its engine below normal operating temperature);
- models for emissions from the evaporation of petrol from the tank, fuel delivery system in vehicles, and while the vehicle is in motion.

**Shipping** – In the latest version of the emissions estimates, there was some reallocation from domestic shipping to international shipping across the time series. The reasons for this are explained in the section on ‘Shipping’, page 6.

**Rail** – In the latest version of the emissions estimates, rail lead and sulphur dioxide emissions estimates (which are derived directly from estimated fuel consumption) were revised down slightly across the time series. The reasons for this are explained in the ‘Rail’ section on page 2.

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More details of the methodology used by the NAEI can be found in the UK Informative Inventory Report which can be found at:

[http://naei.defra.gov.uk/report\\_link.php?report\\_id=647](http://naei.defra.gov.uk/report_link.php?report_id=647) (see pages 79-135)

More data and information about air pollutant emissions can be found on the DEFRA website at:

[www.defra.gov.uk/statistics/environment/air-quality/](http://www.defra.gov.uk/statistics/environment/air-quality/)

## **Average emissions from road vehicles in urban conditions: ENV0302**

### ***ENV0302 part (a)***

These figures are indices of grams of pollutant per km by vehicle type and Euro emissions standard at typical urban speeds. They are produced by the NAEI and are based on the DfT/TRL speed-related emission factor equations.

Particulate emissions (these are fine particles less than 10 micrometres or 0.01 millimetres diameter) are much lower for vehicles with petrol engines than they are for vehicles with diesel engines. For this pollutant, the index is against emissions from a pre-1993 diesel car (=100).

The DfT/TRL speed-related emission factor equations estimate how emissions of pollutants per kilometre vary with vehicle speed, for different types of vehicle, according to the characteristics of the vehicle (emissions standard, fuel type, engine size, etc). The equations are derived from a database of emissions measured from actual in-service vehicles, the measurements being carried out by different laboratories in the UK and the rest of Europe over different drive cycles. The DfT/TRL speed-related emission factor equations can be found at:

<http://webarchive.nationalarchives.gov.uk/20110109132113/http://www.dft.gov.uk/pgr/roads/environment/emissions/>

### ***ENV0302 part (b)***

These indices for CO<sub>2</sub> emissions from HGVs shown in part (b) of ENV0302 relative to pre-1993 petrol cars are based on year-on-year changes in the fleet averaged fuel economy of HGVs using data from DfT's Continuing Survey of Road Goods Transport (CSRGT). Similarly for buses part (b) provides indices for CO<sub>2</sub> emissions (g CO<sub>2</sub>/km), derived from figures on fuel consumed by local bus services collated in DfT's Bus Service Operators Grant (BSOG) system. The CO<sub>2</sub> indices for HGVs are corrected for urban driving conditions for comparison with indices in part (a).

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## Aircraft noise: ENV0303

Air transport movements are landings or take-offs of aircraft engaged in transport of passengers or cargo on commercial terms. All scheduled service movements (whether loaded or empty) are included, as well as charter movements transporting passengers or cargo. Air taxi movements are excluded.

The equivalent continuous sound level (Leq) is an index of aircraft noise exposure. It is a measure of the equivalent continuous sound level averaged over a 16 hour day from 0700 to 2300 hours BST and is calculated during the peak summer months mid-June to mid-September.

The 57dBA Leq represents the approximate onset of significant community disturbance, 63dBA Leq - moderate disturbance and 69dBA Leq - high disturbance. Leq is correlated with community response to aircraft noise, but it is recognised that the reactions of different individuals to aircraft noise can vary considerably. Changes in wind direction from year to year influence the area affected by aircraft noise.

The methodology underlying the calculation of the aircraft noise Leq contours is published in: The CAA Leq Aircraft Noise Contour Model: ANCON Version 1 (DORA Report DR 9120), The UK Civil Aircraft Noise Contour Model ANCON: Improvements in Version 2 (R&D Report 9842) and The CAA Aircraft Noise Contour Model: ANCON Version 2.3 (ERCD Report 0606).

Annual contour reports for Heathrow, Gatwick and Stansted, can be found at:

[www.dft.gov.uk/publications/noise-exposure-contours-1997-2009](http://www.dft.gov.uk/publications/noise-exposure-contours-1997-2009)

An updated version of the Integrated Noise Model (INM) was used to estimate noise contours for Luton airport in 2008 and this was updated further for 2009 and for 2010. As a result, any year on year comparison since 2007 should be treated with caution, although the difference in outcome resulting from each update is small. Further information can be found in Luton's Annual Monitoring Reports at:

[www.london-luton.co.uk/en/content/8/243/annual-monitoring-report.html](http://www.london-luton.co.uk/en/content/8/243/annual-monitoring-report.html)

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## Abbreviations

ATOC = Association of Train Operating Companies

BST = British summer time

DECC = Department for Energy and Climate Change

DEFRA = Department for Environment, Food and Rural Affairs

DERV = Diesel Engine Road Vehicle fuel

DfT = Department for Transport

NAEI = National Atmospheric Emissions Inventory

ORR = Office of Rail Regulation

TRL = Transport Research Laboratory

UNFCCC = United Nations Framework Convention on Climate Change

UNECE = United Nations Economic Commission for Europe

VAT = Value added tax

## Notes and Definitions: Freight



This section provides notes and definitions for the Freight statistics tables in Transport Statistics Great Britain published in November 2011.

### Notes and Definitions Include:

- Information on sources.
- Information on accuracy of the statistics.
- Definitions.
- General information for the tables including links to background information.

### Domestic Freight

**Freight transport by mode:** TSGB0401 to TSGB0403

The lines on the tables TSGB0401 and TSGB0403 refer to discontinuities in the series since 1953. Details on these discontinuities are given below.

#### Road:

**2004:** Figures for 2004 onwards are not fully comparable with those prior to 2004. Detailed comparisons should be made with caution between these years.

#### Rail:

**1984/85:** The figure for rail is low because the amount of coal lifted was significantly reduced due to the UK miner's strike in 1984/85.

**1996/97:** Exact rail comparisons pre and post privatisation are not possible.

**1999/00:** Change in the source data from 1999/00.

**2003/04:** Break in the rail goods lifted series. The increase was largely due to changes in data collection methods.

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**2005/06:** Break in the rail goods lifted series. Figures from 2005/06 onwards include some of the tonnes lifted by GB Railfreight.

**2007/08:** Break in the rail goods lifted series. Coal data was not supplied by GB Railfreight prior to 2007/08.

**Water:**

**1972:** Figures from 1972 onwards are not comparable with earlier years. From 1972, water includes all UK coastwise and one-port freight movements by sea, and inland waterway traffic. Earlier years include only GB coastwise traffic and internal traffic on BWB waterways.

**Pipeline:**

**1989:** The increase in pipeline data compared to the corresponding figure for 1989 is largely due to changes in coverage.

**2009:** Some pipeline data based on estimates - this survey is currently under review by DECC to improve data quality in the series.

**Further information**

**Road:** These figures include the activity of British-registered goods vehicles over 3.5 tonnes gross vehicle weight and light goods vehicles up to that weight. The estimates for heavy goods vehicles are derived from the Continuing Survey of Road Goods Transport Great Britain (CSRGT GB) and, for light goods vehicles, from surveys carried out in 1976, 1987, 1992/93, and from 2003 to 2005 with data being interpolated for the intervening years. The light goods vehicle component of Table TSGB0402 has been allocated to the appropriate commodity group from data received in the 2005 van survey. In previous years it had been assumed that it should all be in the 'miscellaneous' category.

Users should also note that the figures for 2006 to 2009 have been revised in 2011. For further information on the revision, please refer to the Notes and Definitions for Road Freight Statistics 2010 at <http://www.dft.gov.uk/statistics/releases/road-freight-statistics-2010>.

**Rail:** Figures up to 1962 include non-revenue earning traffic carried by British Rail for its own purposes. Figures for rail are for each financial year. Data for goods moved and goods lifted come from different sources and caution should be exercised if making comparisons between the two series.

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**Pipeline:** Pipeline estimates are for oil pipelines only (excluding offshore pipelines); data differ from those in the International Comparisons section as the latter exclude pipelines less than 50 kilometres long.

**Air:** Domestic air cargo (freight and mail) within the United Kingdom, while sometimes important in terms of speed of delivery, is insignificant in volume compared with other modes and is not presented in tables in this chapter. More information on the volume of air freight carried is in Chapter 2.

## Freight transport by road

**Domestic road freight transport by goods vehicles over 3.5 tonnes gross weight:** TSGB0404 to TSGB0410

The data in these tables are derived from the Continuing Survey of Road Goods Transport Great Britain. Users should note that the figures for 2006 to 2009 have been revised in 2011. For further information on the revision, please refer to the Notes and Definitions for *Road Freight Statistics 2010* at <http://www.dft.gov.uk/statistics/releases/road-freight-statistics-2010>.

Estimates are of domestic freight activity by GB-registered heavy goods vehicles over 3.5 tonnes gross vehicle weight. These vehicles pay the goods vehicle rates of Vehicle Excise Duty, are subject to goods vehicle 'plating' and annual testing, and require a goods operator's license. They currently account for over 90 per cent of road freight activity, with the rest being carried by light goods vehicles up to 3.5 tonnes gross vehicle weight.

In these tables, freight activity is either measured in terms of the weight of goods (tonnes) handled taking no account of the distance they are carried (termed 'goods lifted') or as 'goods moved' (tonne kilometres) which does take account of distance. 'Goods moved', for each loaded journey, is the weight of the load multiplied by the distance it is carried. 'Goods moved' is therefore a better measure of the work done by heavy goods vehicles.

In TSGB0408, TSGB0409 and TSGB0410 'Crude minerals' comprises sand, gravel and clay and other crude minerals. 'Building materials' comprises cement and other building materials.

The vehicle weight groups reflect some of the operating controls on goods vehicles. For rigid vehicles the maximum allowed gross vehicle weights are:

- 18 tonnes on 2 axles
- 26 tonnes on 3 axles
- 32 tonnes on 4 axles

For articulated vehicles the general limits are:

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- 38 tonnes on 4 axles
  - 40 tonnes on 5 axles
  - 44 tonnes on 6 axles

'Mode of working' relates to whether goods are being carried on either a hire or reward or own account basis. The former relates to the carriage of goods owned by people other than the operator. The latter covers goods carried by operators in the course of their own trade or business.

The tonnes lifted and tonne kilometres estimates shown in these tables are not directly comparable to those of heavy goods vehicle kilometres derived from the traffic census. For more information on the differences between the two sources, please refer to section 4.6 in *Road Freight Statistics 2009* available here:

<http://tna.europarchive.org/20110503185748/http://www.dft.gov.uk/pgr/statistics/datatablespublications/freight/goodsbyroad/roadfreightstatistics2009>

The estimates of road freight for 2010 derived from the Continuing Survey of Road Goods Transport (CSRGT) were based on average returned sample of some 360 heavy goods vehicles per week. The samples are drawn from the vehicle licence records held by the Driver and Vehicle Licensing Agency (DVLA). Questionnaires are sent to the registered keepers of the sampled vehicles asking for details of its activity during the survey week. The estimates are grossed to the vehicle population and at the overall national level have a three per cent margin of error (at 95 per cent confidence level). Further details and latest results are published in *Road Freight Statistics 2010*.

### **Methodological changes**

A key component of National Statistics outputs is a programme of quality reviews carried out at least every five years to ensure that such statistics are fit for purpose and that their quality and value continue to improve. A quality review of the Department for Transport's road freight surveys, including the CSRGT, was carried out in 2003. A copy of the report can be accessed at

[www.statistics.gov.uk/nsbase/methods\\_quality/quality\\_review/downloads/NSQR30FinalReport.doc](http://www.statistics.gov.uk/nsbase/methods_quality/quality_review/downloads/NSQR30FinalReport.doc)

The quality review made a number of recommendations about the CSRGT. The main methodological recommendation was that, to improve the accuracy of survey estimates, the sample strata should be amended to reflect current trends in vehicle type, weight and legislative groups. These new strata are described more fully in the survey report. For practical and administrative reasons, changes were also made to the sample selection methodology. These changes have resulted in figures from 2004 onwards not being fully comparable with those for 2003 and earlier years. Detailed comparisons should therefore be made with caution.

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## United Kingdom Statistics Authority (UKSA) Assessment of 'Statistics on Road Freight'

In July 2009, the UK Statistics Authority confirmed that the statistics published in Road Goods Vehicles Travelling to Mainland Europe (quarterly series and annual bulletin), the Survey of Foreign Vehicle Activity in Great Britain, and Road Freight Statistics are designated as National Statistics, subject to the implementation of certain enhancements. The assessment report is published at:

[www.statisticsauthority.gov.uk/assessment/assessment-reports/assessment-report-6---road-freight-statistics--27-july-2009.pdf](http://www.statisticsauthority.gov.uk/assessment/assessment-reports/assessment-report-6---road-freight-statistics--27-july-2009.pdf)

### International Road Haulage

**International Roads Goods Transport:** TSGB0411 to TSGB0416

These tables show the international activity of UK-registered vehicles. The statistics for GB-registered vehicles are derived from the International Road Haulage Survey (IRHS), which has been conducted by the Department for Transport (and its predecessors) since 1979 in order to comply with EC Regulation 1172/98 (which replaced EC Directive 78/546 and 89/462). The Regulation requires each member state to compile statistics of the international road haulage carried out by its own goods vehicles as well as domestic haulage.

The IRHS is carried out by asking hauliers who undertake international work to report the details of recently completed international trips travelling to mainland Europe or the Republic of Ireland via roll-on/roll-off ferry services or through the Channel Tunnel. The sample is weighted to the total of British powered vehicles on all ferry routes and the Channel Tunnel from the Roll-on/Roll-off survey (TSGB0421 and TSGB0423).

Statistics derived from the IRHS for 2004 onwards were revised in 2010 following a methodological review of grossing procedures by the Office for National Statistics under a Quality Improvement Fund (QIF) Project.

The Department took the opportunity to review more thoroughly the grossing procedures through the QIF project which was commissioned by the DfT in response to the UK Statistics Authority (UKSA) assessment of Road Freight statistics described above.

For full details on the revisions, and a copy of the final QIF methodology report, please refer to Section 7 in Road Freight Statistics 2009 at

<http://tna.europarchive.org/20110503185748/http://www.dft.gov.uk/pgr/statistics/datatablespublicati ons/freight/goodsbyroad/roadfreightstatistics2009>

Vehicles registered to hauliers operating in Northern Ireland are covered by the CSRGT (NI) and

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activity by NI-registered vehicles is included in these tables, except where the journey is solely confined to the island of Ireland.

A substantial amount of traffic goes by unaccompanied trailers (as well as in the foreign powered vehicles) for which statistics are not obtained in this survey. In particular, trade across the North Sea is mainly carried on unaccompanied trailers. Freight carried in foreign vehicles is not included in the IRHS (or CSRGT) tables. Other EU countries, being subject to the same Regulation, obtain comparable statistics which are published by Eurostat and are shown in Tables TSGB0417 to TSGB0421.

The goods classification, Nomenclature Statistiques de Transport (NST), the classification of commodities for transport statistics used in the European Union, is a hierarchical structure which divides the 176 headings of the classification into 10 chapters and 52 main groups. At present it is only practicable to disaggregate the IRHS data by 'chapter' apart from showing separately the two main components of chapter 9.

### **International Roads Goods Transport by Foreign-Registered Vehicles: TSGB0417 to TSGB0421**

TSGB0417 to TSGB0420 show road freight information for goods loaded and unloaded in the UK by foreign-registered HGVs. TSGB0421 shows levels of cabotage in the UK by vehicles registered to different countries. The term 'cabotage' refers to road haulage within one country by a vehicle registered in another country.

This information is collected by EU member states (and some non-EU states such as Norway, Switzerland and Croatia) under EC Regulation 1172/98. These are data that are routinely published on the Eurostat website at:

<http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/themes>

## **Rail Freight**

### **National Railways Freight Traffic: TSGB0422 to TSGB0423**

These tables summarise the performance of the freight business in terms of freight 'lifted' (measured in tonnes) and freight 'moved' (measured in tonne kilometres).

In February 1996, British Rail's (BR) bulk freight operations were sold to North and South Railways, subsequently called English, Welsh and Scottish Railway (EWS). In 2007, EWS was bought by Deutsche Bahn and in January 2009 was re-named DB Schenker. The other major companies in the rail freight sector are Freightliner Ltd (formerly the BR container business), Direct Rail Services (DRS) and First GB Railfreight.

Freight moved is measured in net tonne kilometres (NTKm). This takes into account the net weight

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(excluding the weight of the locomotive and wagons) of the goods carried (the freight lifted, measured in tonnes) and the distance carried. Although it is not included in the total NTKm, we have included a separate series on infrastructure traffic (goods used for railway engineering work). International comprises trains travelling through the Channel Tunnel; Domestic intermodal includes goods that have arrived by sea at ports.

Following the move of BR's bulk freight operations to the private sector there have been some changes in the way estimates of freight traffic have been compiled. In particular, the method of estimating tonne kilometres is different, with the result that recent estimates are not consistent with those for earlier periods.

Freight lifted is the mass of goods carried on the network. It excludes the weight of the locomotives and wagons. Unlike freight moved it takes no account of the distance travelled. Data pre and post-privatisation are not directly comparable. Further details can be found in the Office of Rail Regulation's National Rail Trends publication, which is updated on a quarterly basis.

### **National Railways freight train movements, impacts on road haulage and Freight Performance Measure: TSGB0424**

This table shows the total number of train movements (including infrastructure trains) on the network and the equivalent distance that road vehicles would need to have travelled to move the amounts of freight carried on rail. It also shows the equivalent number of road vehicle trips necessary to move this freight. These measures provide an alternative to the traditional deadweight-based approach. These data are only available up to the 2009/10 financial year, due to the unavailability of more up-to-date road freight data.

**Freight Performance Measure** is the percentage of freight trains arriving at their final destination on time, each train being 'on time' if it arrives within 10 minutes of its scheduled arrival time. Further details can be found in ORR's National Rail Trends:

[www.rail-reg.gov.uk/server/show/nav.2026](http://www.rail-reg.gov.uk/server/show/nav.2026)

### **Roll-on Roll-off statistics**

#### **Roll-on/roll-off: TSGB0425 to TSGB0426**

Statistics on the number of lorries and unaccompanied trailers travelling from Great Britain to mainland Europe and Ireland are compiled from quarterly returns provided by roll-on/roll-off ferry operators and from monthly information supplied by Eurotunnel. (Unaccompanied trailers are not carried by Eurotunnel.) Disaggregation by the country of registration of powered vehicles is provided by most of the ferry operators and by Eurotunnel. On some routes the operators can extract the nationality directly from the manifests or waybills, while on others each one is identified from the registration number pattern. The results are broken down by country of vehicle

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registration, by country of disembarkation and by GB port group. Separate figures are given for powered vehicles and unaccompanied trailers. Powered vehicles comprise rigid vehicles, lorries with semi-trailers (articulated units) and lorries with drawbar trailers. (Some vehicles under 3.5 tonnes gross vehicle weight are also included). Unaccompanied trailers are trailers and semi-trailers not accompanied on the ferry by a powered unit. Up to 1978 inward traffic was also recorded, but because it was similar to outward traffic the data requirement was discontinued to save respondent effort; consequently the statistics in these tables are for outward traffic only.

Revised estimates for 2004 to 2007 were published in May 2008 following a data quality review. This resulted in a break in the series between 2003 and 2004 and comparisons by country of registration should therefore be treated with caution.

Further details of the review are available in the Technical Note which accompanies the Ro-Ro publication. Both this note and more detailed analyses are provided in the quarterly bulletins of this publication; both the quarterly and annual bulletins are available on the Department's website:

[www.dft.gov.uk/statistics/series/roll-on-roll-off-international-freight/](http://www.dft.gov.uk/statistics/series/roll-on-roll-off-international-freight/)

<p>These notes and definitions relate to the detailed statistics (tables and charts) on “freight” that can be found on the Transport Statistics Great Britain freight web page, table numbers TSGB0401 to TSGB0428.</p>
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## Notes and Definitions: Maritime



This section provides notes and definitions for the Maritime section part of Transport Statistics Great Britain published on 15 December 2011.

### Notes and Definitions Include:

- Information on sources
- Information on “accuracy”.
- Definitions.
- General information the tables including links to background information.

## Ports

### Ports Traffic: TSGB0501-0507

These tables relate to foreign, coastwise and one-port traffic through ports in the United Kingdom.

More details are available in the Ports series and Port Freight Statistics releases on the DfT web site at <http://www.dft.gov.uk/statistics/series/ports/>.

The data are derived as follows:

(a) from 2000,

(i) detailed quarterly returns from shipping lines or their agents of all freight traffic at major UK ports;

(ii) quarterly returns of inwards and outwards weight and units by port authorities or other undertakings at major ports;

(iii) annual returns of inwards and outwards traffic only by port authorities or other undertakings at minor ports.

(b) prior to 2000,

(i) detailed annual traffic returns made by port authorities or other undertakings at major ports;

(ii) annual returns of inwards and outwards traffic from port authorities or other undertakings at minor ports

The major ports include all ports with cargo volumes of at least 1 million tonnes in 2000 (2 million tonnes under the previous system between 1995 and 1999) and a few other smaller ports. The breakdowns of traffic for 1995 and later years in the tables include major ports traffic and are supplemented by estimates for the minor ports.

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## Definitions used:

Port groups: For statistical purposes, ports of Great Britain are grouped geographically as shown in map 5.9 (TSGB0509).

Weights: All weights reported for port and waterborne freight statistics include crates and other packaging. The tare weights of containers and other items of transport equipment are excluded.

Foreign traffic: Traffic between ports in the United Kingdom (Great Britain and Northern Ireland), and foreign countries, that is countries outside Great Britain, Northern Ireland, the Isle of Man and the Channel Islands. Buses and coaches: Passenger kilometres are derived from other survey data such as receipts, vehicle kilometres and patronage. Changes are estimated by deflating passenger receipts by the most appropriate price indices available. Because this proxy method has to be used, the series gives only a broad guide to trends.

## Inland and coastal waters

### Domestic waterborne freight traffic: TSGB0508 and 0510

These tables present estimates of goods lifted (tonnes) and goods moved (tonne -kilometres) in the United Kingdom by coastal shipping (coastwise and one-port traffic) and on inland waters. The data are based on annual studies for DfT by MDS- Transmodal.

The definitions of inland waters were devised for the first survey of waterborne transport carried out in 1980, and slightly updated in 2004. The definitions were produced from the perspective of measuring freight traffic travelling on inland waters, which could travel by another surface mode within the UK. There are two boundary definitions used to measure the amount of traffic:

Inland waterways: all water areas available for navigation that lie inland of a boundary defined as the most seaward point of any estuary which might reasonably be bridged or tunnelled - this is taken to be where the width of water surface area is both less than 3 km at low water and less than 5 km at high water on spring tides.

Inland waters: all waters within the Smooth Water Line, that is, the outermost limit of Category D waters in the Maritime and Coastguard Agency (MCA) inland waters classification, "tidal rivers and estuaries where significant wave height could not be expected to exceed 2m at any time". This is generally much further seaward than the inland waterways boundary. Prior to 2004, a broadly similar limit was used - the summer boundary of the Partially Smooth Water Area (PSWA) - waters within this limit are known as sheltered waters.

For the purpose of estimating tonnes and tonne-kilometres, all traffic wholly within inland waters (ie internal traffic) is counted. Tonnes is then simply tonnes lifted, and tonne-kilometres is tonnes lifted multiplied by the distance travelled.

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Traffic which crosses the inland waters boundary and which also goes upstream of the inland waterways boundary, is counted as well; but traffic which is essentially seagoing traffic to and from major seaboard ports is specifically excluded. Where traffic is included, tonnes is then tonnes lifted and tonne-kilometres is tonnes lifted multiplied by the distance travelled but calculated from the point at which the vessel crosses the inland waterways boundary.

Detailed statistics for 2009 are available in the Annual Statistics Bulletin *Waterborne Freight in the UK 2009*, and further details of the inland waterway network in freight use, its wharves and its craft, in the occasional report *Waterborne Freight Benchmark Report 2007*, both published by DfT and available on the DfT web site.

## Passengers

### **United Kingdom International sea passenger movements: TSGB0511-0512**

These tables have been compiled from statistics collected monthly from shipping operators by DfT and cover travel between the UK and other countries. Domestic passengers are excluded. The figures include drivers of lorries, coaches and other vehicles. Short sea routes in these tables are generally routes between the UK and Belgium, Denmark, Faroe Isles, Finland, France, Germany, Ireland, Netherlands, Norway, Spain and Sweden.

Further tables, including monthly summaries, are available from the DfT web site at <http://www.dft.gov.uk/statistics/series/sea-passengers/>.

## Shipping

### **United Kingdom and Crown Dependency registered trading vessels: TSGB0513**

Until the end of 1986, United Kingdom registered fleet figures were derived from DfT records of trading vessels of 500 gross tons or over registered at ports in the United Kingdom, the Channel Islands and the Isle of Man. A different ship type classification was also in use. For 1986 only, for purposes of comparison, it shows figures from both sources giving the composition of the fleet on the basis of both the 'old' and 'new' ship type classifications

### **The United Kingdom owned and registered merchant fleets: TSGB0514-0515**

The figures given in these tables are derived from Lloyd's Register-Fairplay data and cover trading vessels of 500 gross tons or above. Table 5.15 covers vessels owned by UK companies wherever the vessels are registered, while Table 5.14 covers vessels registered in the United Kingdom and Crown Dependencies (Isle of Man, Channel Islands), excluding those owned by the Government.

Trading vessels are those carrying cargo or passengers for commercial purposes. This excludes offshore supply vessels, non-cargo vessels, tugs, fishing vessels, dredgers, river and other non seagoing vessels. For more data and background information see the annual Transport Statistics

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Report, *Maritime Statistics 2009*, available from the DfT web site.

Gross tonnage: Under the International Convention on the Tonnage Measurement of Ships, 1969 gross tonnage (gt) is defined as the following function of the total volume of all enclosed spaces in the ship (V), in cubic metres:

$$GT = K_1V$$

where  $K_1 = 0.2 + 0.02 \log_{10} V$ .

Deadweight tonnes: The term deadweight tonnes, or 'dwt', is a measurement of the weight of cargo, stores, fuel, passengers and crew carried by the ship when loaded to her maximum summer loadline.

Tankers: Include oil, gas, chemical and other specialised tankers.

Bulk carriers: Large and small carriers including combination - ore/oil and ore/bulk/oil - carriers.

Specialised carriers: Includes vessels such as livestock carriers, car carriers and chemical carriers.

Fully cellular container: Figures include only container vessels of this type.

Ro-Ro: These are for passenger and cargo Ro-Ro vessels.

Other general cargo vessels: These include reefer vessels, general cargo/passenger vessels, and single and multi-deck general cargo vessels.

Passenger vessels: These are cruise liner and other passenger vessels.

### **UK shipping industry revenue and expenditure from international activities: TSGB0516**

The revenue and expenditure figures in this table are derived from the results of annual inquiries carried out by the Chamber of Shipping (CoS). The United Kingdom shipping industry is defined as United Kingdom resident companies which own or operate ships irrespective of their flag of registry.

This includes companies, which are United Kingdom subsidiaries of overseas parent companies, and excludes overseas resident subsidiaries of United Kingdom companies.

This treatment arises from the primary purpose of the CoS inquiries, which is to provide estimates for the sea transport account of the United Kingdom Balance of Payments. In the Balance of Payments the revenue from overseas resident subsidiary companies is treated as investment income, not part of the sea transport account.

International activities cover the activities of ships either owned by the United Kingdom industry or

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operated by the industry on charter. The activities covered are:

- carriage of UK imports and exports;
- carriage of trade between two foreign countries (cross trades);
- carriage of passengers on international ferry routes and sea cruises;
- chartering ships to overseas operators.

The passenger revenue series includes revenue from overseas residents only and is consistent with data published in The Pink Book (United Kingdom Balance of Payments). Associated expenditure includes:

- payment for bunkers uplifted abroad;
- disbursements in overseas ports: cargo handling, port dues, crews' expenses, agency fees, light dues etc.;
- charter payments to overseas ship owners.

#### **Marine accident casualties: TSGB0517**

The information is derived from accidents reported to the UK Marine Accident Investigation Branch (MAIB) in compliance with the Merchant Shipping (Accident Reporting and Investigation) Regulations (SI 2005 No. 881). The role of the MAIB is to prevent future accidents through investigation of the causes and circumstances of accidents.

The data in part (a) refer to accidents to persons on UK registered merchant vessels of greater than or equal to 100 gross tons only, including accidents during access. Such vessels have a duty to report accidents to the MAIB, wherever in the world they occur.

The data in part (b) refer to all recorded accidents in UK 12-mile territorial waters. Requirements to report such accidents to the MAIB vary. Broadly, most UK registered commercial vessels have a duty to report; certain small UK craft or hired pleasure craft are only required to report certain types of accident; non-commercial UK pleasure craft are largely exempt; non-UK flagged vessels are only required to report such accidents if they are in a UK port/harbour or if carrying passengers to/from a UK port. However, the MAIB will record, and may investigate, any significant accidents of which they are notified by other bodies such as the Coastguard or harbour or inland waterway authorities.

For further information see the MAIB web site [www.maib.gov.uk](http://www.maib.gov.uk) .

These notes refer to the detailed statistics (tables and charts) that can be found on the [Transport Statistics Great Britain maritime](#) web page, tables TSGB0501 to TSGB0518.

## Notes and Definitions: Public Transport



This section provides notes and definitions for the public transport section of Transport Statistics Great Britain published in December 2011.

### Notes and Definitions Include:

- Information on sources
- Information on data quality.
- Definitions.
- General information for the tables including links to background information.

## National Rail

### National Rail/London Underground passenger traffic: Table RA10101

The figures shown for national rail passenger traffic during 1919 and 1923 include all journeys on those 'London Railways' subsequently taken over by the London Passenger Transport Board in 1933. Additionally, in 1919 a journey using the services of more than one company was reported by each of them, with consequent duplication in the figures. The figures for journeys on the London Underground from 1948 include those originating on the former British Railways network (approximately 70 million journeys in 1948), and on those lines transferred to the London Transport Passenger Executive on 1 January 1948 (estimated at 62 million journeys in 1947).

Electrified route: Pre-1947 figures refer to track length, not route length, and include electrified sidings. In 1947, there were 3,370 electrified track kilometres.

National Railways passenger journeys and kilometres: Figures from 1986/87 to 2002/03 were calculated from CAPRI (Computer Analysis of Passenger Revenue Information), the rail industry's former central ticketing system. These were based on tickets issued through the All Purpose Ticket Issuing System (APTIS) and are not comparable with earlier years. The rail series for passenger data changes after privatisation in 1994, with possible double counting of journeys. Post-privatisation, a journey involving a change of train would be classed as two journeys. This contrasts with results published prior to privatisation when a through-ticketed journey was counted only once, irrespective of the number of changes made.

There is some underestimation of passenger journeys and kilometres in 1997/98 and 1998/99. This is because CAPRI did not capture the passenger kilometres of certain ticket types, such as operator specific tickets and Passenger Transport Executive (PTE) multi-modal tickets. The figures

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were reviewed and revised by the Strategic Rail Authority (SRA) to include best estimates for non-CAPRI data. This exercise was backdated to the start of 1999/00.

Figures from 2003/04 are based on the rail industry's current central ticketing system, LENNON (Latest Earnings Nationally Networked Over Night), which replaced CAPRI. LENNON holds information on the vast majority of national rail tickets purchased in Great Britain and is used to allocate the revenue from ticket sales between train operating companies. Oyster pay as you go (PAYG) journeys were included within LENNON from January 2010. Journey growth from the final quarter of 2009/10 may be partially driven by PAYG where people have switched from travelcards to point to point travel.

London Underground passenger kilometres: From 1965, passenger kilometres are those actually travelled. Prior to 1965, a different method of estimation was used, leading to slight overestimates of the order of 0.1 billion passenger kilometres per year.

**National Rail passenger revenue, passenger traffic and timetabled train kilometres:** Tables RAI0102 and RAI0103

Passenger revenue: Passenger revenue includes all ticket revenue and miscellaneous charges associated with passenger travel on national railways, e.g. car parking charges. For journeys involving some travel on London Transport, receipts have been apportioned appropriately. Passenger revenue does not include government support or grants.

Passenger kilometres: Estimates of passenger kilometres are made from LENNON. To record travel on season tickets appropriate factors are assumed for the number of journeys per season ticket.

For both the revenue and the passenger kilometres series, new methodologies were applied in 2003/04 and in 2007/08 to improve the categorisation of ticket type. Further details can be found in the National Rail Trends Yearbook, published by ORR:

<http://www.rail-reg.gov.uk/server/show/nav.2026>

Timetabled train kilometres: This shows the number of kilometres each train operating company would achieve according to the winter and summer train timetable if they were operating at full capacity.

For this series a new methodology was used from 2002/03 quarter 2. Previously timetabled train kilometres were published using data sourced from DfT. However, ORR has revised the methodology behind these data, and is now using more comprehensive data supplied by the Association of Train Operating Companies (ATOC) to generate these statistics. These data include non-franchised TOC information. Further details can be found on ORR's National Rail Trends Portal (<http://dataportal.orr.gov.uk/>).

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**Route and station/depots open to traffic:** Table RAI0104

The length of route open for rail traffic is that managed by Network Rail (formerly Railtrack). It does not include track managed by private companies or Passenger Transport Executive services operating on separately managed tracks.

Please note that route open is not the same as track open. For example, for a double track section of line, the figure for track will be double the figure for route open.

The break in the route open series between 2003/04 and 2004/05 is due to a change in the methodology for collection of the route length. Up until 2003/04 the data were collected on a semi-manual basis from various systems. From 2004-05 the principal track engineers' database, GEOGIS, has been used. The apparent drop from 2004/05 to 2005/06 does not reflect an actual reduction in route kilometres open for traffic but is due to improvements in data collection and data quality that resulted in a restatement of route length. Data from 2007/08 are not consistent with earlier years as a new methodology has been introduced because of revisions to route classification data.

**Public Performance Measure:** Table RAI0105

Public Performance Measure (PPM) was introduced in 2000 by the then Shadow Strategic Rail Authority, replacing the Passengers' Charter as the main means of measuring passenger train performance. Unlike the Charter measure that only covered particular services, PPM covers all scheduled services, seven days a week, and combines the previously individual punctuality and reliability results into a single performance measure. PPM is measured against the *planned* timetable, which makes allowance for specific delays (e.g. engineering works) and so may differ from the previously published timetable. PPM is therefore the percentage of trains 'on time' compared to the total number of trains planned.

A train is defined as on time if it arrives within five minutes (i.e. four minutes 59 seconds or less) of the planned destination arrival time for London and South East and regional operators; or ten minutes (i.e. nine minutes 59 seconds or less) for long-distance operators.

When a train fails to run its entire planned route, calling at all timetabled stations, it will either be counted as cancelled (if it runs less than half its planned mileage) or will be added to the trains in the '20 minutes or more' lateness band.

From 2006/07, the rail industry has re-classified TransPennine Express (TPE) to the long distance sector for performance purposes. Hence, TPE services are now considered 'on time' if they arrive within ten minutes of the scheduled arrival time (not within 5 minutes as was the case up to 2005/06).

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## **Average age of national rail rolling stock:** Table RAI0106

All rail vehicles (excluding locomotives) leased from rolling stock leasing companies (ROSCOs) by train operators that have a franchise agreement with DfT are included in the calculations of average age.

The age of each rail vehicle is the time between the date of entering into service and the end of each quarter; e.g. a vehicle which entered service in January 2000 would be, at the end of 2001/02 Q1 (30 June 2001), 1.5 years old. The date of entry into service is deemed to be the first day of the quarter in which the rail vehicle came into service; e.g. all rail vehicles which entered service between 1 April 2001 and 30 June 2001 are given a service entry date of 1 April.

Where the date of entry into service is not available (essentially for rail vehicles introduced prior to privatisation) the date used is either:

- 1 January in the year of manufacture of the relevant class of rail vehicle; or
- the midpoint of the period over which the relevant class of rail vehicle was manufactured, e.g. if a class of rail vehicle was manufactured over the time frame March 1972 to March 1976 then the midpoint would be March 1974.

A vehicle drops out of the calculations when its lease either expires or is terminated.

The average age is calculated by adding up the individual ages and dividing by the number of rail vehicles in service. The refurbishment or other improvement of a rail vehicle is not taken into account in calculating average age.

There is a series break for the all operators average age between 2006/07 and 2007/08. This is because it was found that the average age was being calculated incorrectly, as some long-distance fleet data were being omitted. This has now been rectified back to 2007/08, but it has not been possible to calculate an accurate all operators average age prior to 2007/08 due to electronic records not being available.

## **Passengers in excess of capacity:** Table RAI0107

Passengers in excess of capacity (PiXC) is the difference between the planned capacity of each national rail service arriving in London against the actual number of passengers (excluding first class) on the service at its most crowded point on the journey.

PiXC applies to all London and South East operators' weekday train services arriving at a London terminus during the 3-hour AM peak (07:00 and 09:59), and those departing during the 3-hour PM peak (16:00 and 18:59). The overall PiXC is derived by combining both peaks.

The PiXC measure considers the planned standard class capacity of each service arriving at or

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departing from London, and the actual number of standard class passengers on the service at the point where the passenger load is highest. PiXC is the number of standard class passengers that exceed the planned standard class capacity for the service, so is the difference between the two if the number of passengers on the service is greater than the capacity, or zero if the number of passengers is within the capacity.

The standard class capacity is based on the booked formation of the service. It includes the number of standard class seats on the train and may include an allowance for standing room. No allowance for standing is made when a service has no stops for more than 20 minutes before (AM) or after (PM) the point where the passenger load is highest, but it is allowed when there is a stop within 20 minutes. The allowance for standing varies with the type of rolling stock but, for modern sliding door stock, it is typically approximately 35 per cent of the number of seats.

The PiXC values stated in the table are the total PiXC on all peak services expressed as a percentage of the total number of standard class passengers on all peak services provided by that train operator.

#### **Channel Tunnel:** Table RAI0108

The Channel Tunnel opened for freight traffic in June 1994 and for passenger services in November of that year. Passenger shuttle services opened in December. Four different types of service operate through the Channel Tunnel, as follows:

- Freight shuttles - carrying road freight vehicles between Folkestone and Calais.
- Tourist shuttles - carrying passenger vehicles between Folkestone and Calais.
- Freight trains - through freight trains between Great Britain and Europe.
- Eurostar trains - carrying passengers between London, France and Belgium.

Commercial traffic is fare-paying traffic using the tunnel. Non-commercial traffic is non-fare-paying traffic (e.g. staff and authorised agents).

## **Underground Systems**

#### **London Underground:** Table LRT9901

Data obtained from the London Underground Directors Report and Accounts each year up to 2002/03. Responsibility for the Underground transferred to Transport for London in July 2003. Transport for London's (TfL) Annual Report provides further detail.

Traffic receipts data are provided by TfL in 13 four week periods per year. These include revenue from car parking and penalty fares. Season ticket journeys are those estimated to have been made

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in each year, irrespective of when the ticket was sold.

### **Glasgow Underground:** Table LRT9902

Data is obtained from the system operator [Strathclyde Partnership for Transport] each year using the Light Rail and Tram questionnaire set out in the next section.

## **Light Rail and Tram Systems**

Statistics in the Light Rail Statistics annual statistical release are compiled from responses to the Light Rail and Tram Survey. A blank questionnaire is provided in the Light Rail and Tram Technical Documentation section

(<http://assets.dft.gov.uk/statistics/series/light-rail-and-tram/light-rail-questionnaire.pdf>)

Questionnaires are sent to the following systems-

1. Docklands Light Railway
2. Croydon Tramlink
3. Nottingham Express Transit
4. Midland Metro
5. Sheffield Supertram
6. Tyne and Wear Metro
7. Manchester Metrolink
8. Blackpool Tramway

In addition to the London and Glasgow underground networks, the above eight systems are those which sit outside of the UK National Rail network but carry a large number of passengers on a daily basis in an urban setting. However, this should not be considered an exhaustive list of the light rail systems currently operating in the UK. There are many other such systems, including funiculars, airport transit systems, heritage and tourist railways, which are not covered by these statistics.

For the purposes of published DfT statistics:

“Light Rail” covers:

Docklands Light Railway, Croydon Tramlink, Nottingham Express Transit, Midland Metro, Sheffield Supertram, Tyne and Wear Metro and Manchester Metrolink.

“Tram” covers:

Blackpool Tramway

“Underground” covers:

London Underground

Glasgow Subway

The cooperation of the systems is greatly appreciated and the response rate has consistently been

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100%, which implies robust statistics are being produced as no imputation (the substitution of some value for a missing data point) is required.

Further details on the Light Rail and Tram systems can be found in the Notes and Definitions in the Light Rail and Tram Technical Documentation section

<http://assets.dft.gov.uk/statistics/series/light-rail-and-tram/light-rail-notes.pdf>

## Buses

### General comments

Tables for the bus and coach industry refer to the activities of all holders of Public Service Vehicle (PSV) operators' licences. These vehicles are generally classified in the Bus Tax Class. An operator wishing to run bus or coach services is normally required to possess a PSV licence. However, certain vehicles and types of service are exempt from licensing and are excluded from the tables, such as community buses and local services operated by taxis. Taxis are generally classified in the Private Light Goods tax class, with private cars, so they are excluded from the PSV tables. Most of the information in these tables, which mainly refer to local bus services, is derived from annual returns made to DfT by a sample of holders of PSV operators' licences.

A local bus service is a stopping service available to the general public, where the route is registered with the Traffic Commissioner, which is eligible for Bus Service Operators Grant.

Bus and coach services which comprise contract, private hire, tours, excursions and express journeys are generally classified as "non-local" or "other" work. Some services, such as long distance coach services, might contain a mixture of local work and non-local express work.

Some important changes have been made to the legal framework under which the industry operates.

Outside London:

- from 1 April 1986, the Passenger Transport Authorities in metropolitan areas were subjected to precept control;
- local bus services outside London were deregulated on 26 October 1986, introducing on-the-road competition;
- widespread privatisation of public sector bus operations took place from 1986. There are fewer bus operators in the public sector.

Within London:

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- responsibility for London (Regional) Transport transferred from the former Greater London Council to the Secretary of State for Transport from 29 June 1984. On 1 April 1985, a separate operating subsidiary, London Buses Ltd, was established;
  - progressive tendering of local bus services in London was introduced in July 1985;
  - the former operating divisions of London Buses Ltd were privatised by the end of 1994;
  - from July 2000, Transport for London (TfL) was established as a successor body to London Transport, with strategic control of local buses through the Greater London Authority (GLA) under an elected Mayor of London.

Outside London, after bus deregulation in 1986, general subsidy was no longer feasible as most services were provided on a purely commercial basis, with on-the-road competition for routes. Public transport support was restricted to unprofitable but socially necessary services, the operation of which was generally put out to tender. In London, nearly all local bus services are operated by the private sector under contract to TfL. Bus routes, once awarded to a contractor after a tendering process, are then protected from on-the-road competition.

More detailed [notes and definitions](#) relating to the Department's bus statistics can be found on the bus statistics web page, alongside a copy of the main [PSV survey questionnaire](#).

### **Local passenger journeys by area:** Table BUS0103

These are collected through DfT's annual sample PSV survey of operators and, for London, from TfL. They are a count of boardings of each vehicle, so a trip which requires a change from one bus to another would show two boardings. TfL obtains data on boardings from on-bus surveys.

### **Bus vehicle miles:** Table BUS0203 and BUS0205

Service miles operated are measured by DfT's annual sample Public Service Vehicle (PSV) survey of operators, and, for the bus contractors in London, by TfL. The majority of local bus service miles are run on a commercial basis.

### **Local bus fares indices:** Table BUS0405

Information required for the calculation of the index of local bus fares is obtained from a DfT survey of a panel of bus operators, who account for about 85 per cent of receipts from passengers on local bus services. Operators supply information about the size of each fare change, each quarter. Indices for groups of operators in different areas of Great Britain are obtained by averaging changes, using weights based on receipts from passengers from DfT's PSV annual survey

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(receipts used for the index exclude concessionary fare reimbursement and subsidies from local authorities and central government). The DfT local bus fares index is a small part of the Retail Prices Index.

The index is intended to measure the change in the average cost to the fare paying passenger. In practice as cash-less transactions become more common (e.g. pre-paid travel passes) the index can only give a broad guide to fare changes. Also, fare changes outside London are frequent, so adjustments must be made to the index each quarter. Bus fare changes in London usually take place once a year, in January.

**Operating revenue:** Table BUS0501

Operating revenue includes passenger fare receipts, public transport support, concessionary travel reimbursement and Bus Service Operators Grant payments received.

Local authorities and passenger transport authorities run concessionary fare schemes for groups such as the elderly, the disabled and children. From April 2006, schemes in England offered, as a minimum, free off-peak bus travel to elderly and disabled residents in their local area. From April 2008, the scheme was extended across England to allow elderly and disabled residents to travel anywhere in England, in line with the national schemes already in place in Scotland and Wales. Concessionary fare reimbursement should be seen as an incentive to the passenger to travel more. The operators should not lose, or gain, revenue through such schemes.

**Estimated net support for local bus services** Table BUS0502

Please carefully read the footnotes to this table.

**Bus and coach stock:** Table BUS0601

These figures are derived from data collected through the annual PSV survey, from both local and non-local PSV operators.

<p>These notes and definitions relate to the detailed statistics (tables and charts) on “public transport” that can be found on the Transport Statistics Great Britain public transport statistics web page.</p>
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## Roads and Traffic: Background notes and definitions

This section presents brief definitions of terms used in tables about road traffic, free-flow speeds, road lengths and road congestion, from Transport Statistics Great Britain for 2011.

It gives sources for further tables, and for detailed information on methodology.

### Notes and definitions include:

- Brief definitions and sources
- Sources of further information
- Links to more detailed definitions
- Methodology

### 1. Road traffic

Annual estimates are mainly based on around 10,000 manual counts where trained enumerators count traffic by vehicle type over a 12 hour period. Traffic data are also collected continuously from a national network of around 180 Automatic Traffic Counters (ATCs). In addition to counting traffic, the ATCs record some of the physical properties of passing vehicles which are used to classify traffic by type.

These two data sources are combined with road lengths statistics to produce the number of vehicle miles travelled each year by vehicle type, road category and region.

### 2. Road lengths

These estimates are based on road length data from the Department for Transport major roads database and information from Local Authorities and Ordnance Survey. Road lengths are categorised by different road types, incorporating major and minor roads and also whether the roads are in urban or rural locations. Major roads are also split into trunk roads, which are centrally managed, and principal roads, which are managed by local authorities.

### 3. Free-flow speeds

These statistics provide insight into the speeds at which drivers choose to travel and their compliance with speed limits, but should not be taken as estimates of actual average speed across the road network.

These estimates are based on traffic speed data collected from a sample of 96 Automatic Traffic Counters (ATCs) from a national network of around 180 ATCs. This sample was deliberately chosen to include ATCs located where external factors which might restrict driver behaviour (including junctions, hills, sharp bends and speed enforcement cameras) are not present.

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## 4. Congestion

Congestion on locally managed 'A' roads is measured by estimating the average speed achieved by vehicles during the weekday morning peak, 7am to 10am.

The data are based on GPS location reports from a fleet of probe vehicles and are weighted to take account of the relative traffic flow on each road.

## 5. Road expenditure

The net overall estimate of vehicle excise duty raised is provided by DVLA along with the total unique vehicles licensed during the year. The split between tax classes is estimated by calculating the average duty paid per tax class (using the average number of vehicles licensed per quarter in 2010/11) and using this to distribute the total figure.

Statistics on fuel duty raised comes from the Hydrocarbon Oils Duties, published by HMRC at <https://www.uktradeinfo.com/index.cfm?task=bulloil>.

## 6. Further tables

The web tables give further detail of the key results presented in this commentary, and statistics on other related topics. They are available here:

- Road traffic, forecasts and speeds: (<http://www.dft.gov.uk/statistics/series/traffic/> )
- Road lengths: (<http://www.dft.gov.uk/statistics/series/road-lengths/> )
- Expenditure on roads and construction, road taxation revenue: (<http://www.dft.gov.uk/statistics/series/road-conditions/> )
- Congestion: (<http://www.dft.gov.uk/statistics/series/congestion-and-reliability/> )

## 7. Detailed definitions

Notes and definitions relating to these statistics and their sources can be found in the Transport Statistics Great Britain 2011 Notes and Definitions.

Road traffic estimates:

(<http://assets.dft.gov.uk/statistics/releases/traffic-estimates-2010/traffic-estimates-2010-notes.pdf>)

Road length statistics:

(<http://assets.dft.gov.uk/statistics/series/road-lengths/road-lengths-2010-notes.pdf>)

## 7. Full methodology

A short paper, *Annual road traffic estimates: Methodology note*, outlining the full methodology used to calculate annual traffic estimates, is available at:

(<http://assets.dft.gov.uk/statistics/releases/traffic-estimates-2010/traffic-estimates-2010-methodology.pdf> )

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A methodology note on road length statistics is available at:

<http://assets.dft.gov.uk/statistics/series/road-lengths/road-lengths-2010-methodology.pdf>

A short paper outlining the methodology used to compile the local 'A' road congestion statistics is available at:

<http://assets.dft.gov.uk/statistics/series/congestion-and-reliability/flow-speed-calculation.pdf>

## Notes and Definitions: Transport Accidents and Casualties



This section provides notes and definitions for the transport accidents and casualties section of Transport Statistics Great Britain published on 15 December 2011.

### Notes and Definitions Include:

- Information on sources
- Information on “accuracy”.
- Definitions.
- General information for the tables including links to background information.

### Reported road accidents and casualties

Tables TSGB 0801- 0804, 0809

The statistics in these tables refer to personal injury accidents occurring on the public highway (including footways) in which at least one road vehicle or a vehicle in collision with a pedestrian is involved and which become known to the police within 30 days of its occurrence. The vehicle need not be moving and accidents involving stationary vehicles and pedestrians or users are included. One accident may give rise to several casualties. “Damage only” accidents are not included in this publication. Further information about reported road casualty statistics can be found at:

<http://www.dft.gov.uk/statistics/series/road-accidents-and-safety/>

Comparisons with death registrations show that very few, if any; road accident fatalities are not reported to the police. It has long been known that police data does not provide a complete record of all injury accidents and resulting casualties. However, STATS19 remains the most detailed, complete and reliable single source of information on road casualties covering the whole of Great Britain. Our best current estimate derived from the NTS data is that the total annual number of road casualties in Great Britain, including those not reported to police, is within the range 660 thousand to 800 thousand with a central estimate of 730 thousand. A discussion of how these estimates have been derived, and their limitations, together with information on complementary sources of data on road accidents and casualties, are contained in two articles published by the Department in Reported Road Casualties Great Britain: 2010 – “Survey data on road accidents” and “Hospital admissions data on road casualties” both of which can be found at:

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<http://assets.dft.gov.uk/statistics/releases/road-accidents-and-safety-annual-report-2010/rrcgb2010-05.pdf>

<http://assets.dft.gov.uk/statistics/releases/road-accidents-and-safety-annual-report-2010/rrcgb2010-06.pdf>

***Definitions of terms used in the tables:***

*Accident:* Involves personal injury occurring on the public highway (including footways) in which at least one road vehicle or a vehicle in collision with a pedestrian is involved and which becomes known to the police within 30 days of its occurrence. One accident may give rise to several casualties. "Damage only" accidents are not included in this publication.

*Adults:* Persons aged 16 years and over (except where otherwise stated).

*Cars:* Includes taxis, estate cars, three and four wheel cars and minibuses except where otherwise stated. Also includes motor caravans prior to 1999.

*Bus or coach:* Vehicles equipped to carry 17 or more passengers regardless of use.

*Casualty:* A person killed or injured in an accident. Casualties are sub-divided into killed, seriously injured and slightly injured.

*Children:* Persons under 16 years of age (except where otherwise stated).

*Drivers:* Persons in control of vehicles other than pedal cycles, motorcycles and ridden animals (see riders). Other occupants of vehicles are passengers.

*Failed breath test:* Drivers or riders tested with a positive result, or who failed or refused to provide a specimen of breath.

*Fatal accident:* An accident in which at least one person is killed.

*Goods vehicles:* These are divided into two groups according to vehicle weight (see below). They include tankers, tractor units travelling without their semi-trailers, trailers, articulated vehicles and pick-up trucks.

*Heavy goods vehicles (HGV):* Goods vehicles over 3.5 tonnes maximum permissible gross vehicle weight (gvw).

*Light goods vehicles (LGV):* Goods vehicles, mainly vans (including car derived vans), not over 3.5 tonnes maximum permissible gross vehicle weight (gvw).

*Killed:* Human casualties who sustained injuries which caused death less than 30 days (before 1954, about two months) after the accident. Confirmed suicides are excluded.

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*Motorcycles:* Mopeds, motor scooters and motor cycles (including motor cycle combinations).

*Motorways:* “M” roads and “A”(M) roads.

*Other roads:* All “B”, “C” class and unclassified roads, unless otherwise noted.

*Other vehicles:* Other motor vehicles include ambulances, fire engines, trams, refuse vehicles, road rollers, agricultural vehicles, excavators, mobile cranes, electric scooters and motorised wheelchairs etc. Other non motor vehicles include those drawn by animal, ridden horses, invalid carriages without a motor, street barrows etc.

*Passengers:* Occupants of vehicles, other than the person in control (the driver or rider). Includes pillion passengers.

*Pedal cycles:* Includes tandems, tricycles and toy cycles ridden on the carriageway.

*Pedal cyclists:* Riders of pedal cycles, including any passengers. From 1983 the definition includes a small number of cycles and tricycles with battery assistance with a maximum speed of 15 mph.

*Pedestrians:* Includes children riding toy cycles on the footway, persons pushing bicycles, pushing or pulling other vehicles or operating pedestrian controlled vehicles, those leading or herding animals, occupants of prams or wheelchairs, and people who alight safely from vehicles and are subsequently injured.

*Riders:* Persons in control of pedal cycles, motorcycles or ridden animals. Other occupants of these vehicles are passengers.

*Rural roads:* Major roads and minor roads outside urban areas and having a population of less than 10 thousand.

*Severity:* Of an accident: the severity of the most severely injured casualty (fatal, serious or slight).  
Of a casualty: killed, seriously injured or slightly injured.

*Serious accident:* One in which at least one person is seriously injured but no person (other than a confirmed suicide) is killed.

*Serious injury:* An injury for which a person is detained in hospital as an “in patient”, or any of the following injuries whether or not they are detained in hospital: fractures, concussion, internal injuries, crushings, burns (excluding friction burns), severe cuts, severe general shock requiring medical treatment and injuries causing death 30 or more days after the accident. An injured casualty is recorded as seriously or slightly injured by the police on the basis of information available within a short time of the accident. This generally will not reflect the results of a medical examination, but may be influenced according to whether the casualty is hospitalised or not.

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*Slight accident:* One in which at least one person is slightly injured but no person is killed or seriously injured.

*Slight injury:* An injury of a minor character such as a sprain (including neck whiplash injury), bruise or cut which are not judged to be severe, or slight shock requiring roadside attention. This definition includes injuries not requiring medical treatment.

*Speed limits:* Permanent speed limits applicable to the roadway.

*Urban roads:* Major and minor roads within an urban area with a population of 10 thousand or more. The definition is based on the 1991 Office of the Deputy Prime Minister definition of urban settlements. The urban areas used for these tables are based on 2001 census data.

*Users of a vehicle:* All occupants, i.e. driver (or rider) and passengers, including persons injured while boarding or alighting from the vehicle.

## Motor Vehicle Offences

Tables TSGB 0810- 0811

Breath tests: Section 25 and Schedule 8 of the Transport Act 1981 amended the drinking and driving provisions of the Road Traffic Act 1972. These sections of the Act were renumbered (but otherwise unchanged) in the Road Traffic Act 1988. The police can require a person to take a screening breath test if they have reasonable cause to suspect that the person has been driving or attempting to drive or had been in charge of a vehicle with alcohol in his or her body, or that he or she has committed a moving traffic offence, or that he or she has been involved in an accident. A person failing to provide a breath test without reasonable excuse is guilty of an offence.

For the purposes of evidence in court, breath analysis was introduced in May 1983. The prescribed alcohol limit is 80 milligrams (mg) of alcohol in 100 millilitres (ml) of blood or 107mg per 100ml urine. The equivalent breath alcohol limit is expressed as 35 micrograms of alcohol per 100ml breath. In April 1996 the Association of Chief Police Officers recommended that drivers in all injury accidents should be breath tested.

An evidential breath test is required to be taken at a police station after a positive screening test, or where a screening test was refused or could not be provided. It may also be required after arrest for impairment or in certain other cases, e.g. where a person arrested for theft of a motor vehicle is suspected of having consumed alcohol. A suspect will normally be asked to provide two specimens of breath to establish the amount of alcohol in his or her body. The lower result is taken as evidence of the person's breath alcohol concentration. Where the lower result is between 36 and 50 micrograms the suspect may request a blood or urine test. In certain limited circumstances a suspect can be required to provide a specimen of blood or urine instead of breath.

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From April 2008 onwards police forces across England and Wales progressively began to introduce new digital breath recording devices. This change may be a factor in the increase of around a fifth in the number of screening breath tests in 2008 compared to 2007.

Findings of guilt at all courts: Includes all motoring offences which have resulted in a finding of guilt either after a summary trial at Magistrates' Court or else at the Crown Court. A person appearing in court can be dealt with for more than one offence at that appearance, and in this table the number of offences is counted, not the number of persons appearing at court.

Fixed penalty notices: A large number of motoring offences are dealt with by fixed penalty notices. Under the extended fixed penalty system introduced by the Transport Act 1982, now incorporated in Part III of the Road Traffic Offenders Act 1988, the police can issue fixed penalty notices for a wide range of offences. The court can automatically register an unpaid notice as a fine without any court appearance.

Written warnings: These include cautions given in lieu of prosecutions for offences where there would have been enough evidence to support a prosecution. Informal warnings and advice, whether oral or written, are not included.

Obstruction, waiting and parking offences are dealt with both by fixed penalty notices and penalty charge notices. Penalty Charge Notices are issued by Local Authorities under Civil Parking Enforcement powers. The fall in fixed penalty notices issued by the police can be attributed mainly to more local authorities issuing Penalty Charge Notices. Further information on decriminalized parking, including data collected from Local Authorities by the Department for Transport can be found at:

<http://www.dft.gov.uk/statistics/releases/civil-parking-enforcement-statistics-200910>

## Motor insurance

The data previously published in TSGB Table 8.8 prior to 2009 are no longer routinely available. For further information see the Association of British Insurers web site at: [www.abi.org.uk](http://www.abi.org.uk) or Standard and Poor's SynThesys Non-Life database of returns.

## Railway accidents:

### Tables TSGB0805 - 0807

These tables give the number of train accidents and casualties in incidents that occurred in stations, on trains, or elsewhere on Network Rail managed infrastructure in Great Britain, such as the track and trackside. However, workforce fatalities that occur away from these locations, but occur during working time, are also included.

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These data are subject to revision. Numbers may change as a result of late reporting or as more information, such as coroners' verdicts, becomes available.

In a change from previous years, these tables have been sourced from the Rail Safety and Standards Board (RSSB). Previously these tables were based on accidents and casualties recorded by the Office of Rail Regulation (ORR) within a database called SIGNAL. However, to avoid the confusion caused by having two sets of data being published, ORR now publishes the statistics collected by RSSB. This means that there are a number of definitional differences between these figures and those published in previous years. In particular the RSSB figures only cover National Rail, and do not cover accidents on Eurotunnel, London Underground, trams, other rail guided systems and trolley vehicle systems, which were all included in the previous figures from SIGNAL. The tables have been revised to fit the RSSB definitions, and data from previous years have been revised to the RSSB figures to provide a consistent time series.

Most RSSB data are derived from the industry's Safety Management Information System (SMIS). SMIS records a wide range of incidents, including all injuries and all safety events that are reportable under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 1995. The most serious incidents tend to be well reported so the statistics for these should be robust, but it is likely that there is some underreporting of minor injuries, and this may differ depending on the injured party and the cause. For further details on how RSSB quality assure SMIS data, please refer to Chapter 10 of the RSSB Annual Safety Performance Report (ASPR) 2010/11.

Table TSGB0805 shows casualties occurring in rail accidents. In this table a **passenger** is defined as a person on railway infrastructure who intends to travel, is in the process of travelling, or has travelled. This is regardless of whether he or she has a valid ticket. The exceptions are travellers who trespass or who commit, or attempt to commit, suicide. People who are injured this way are classified as members of the public. A person is classified as a member of the **workforce** if he or she is working for the industry on railway activities, either as a direct employee or under contract. A person is considered a **member of the public** if they are neither a passenger nor a member of the workforce; this includes trespassers but excludes suicides. **Trespassers** are people deliberately going where they are never permitted to go, including those who deliberately jump from trains or platforms, or are climbing on the outside of overbridges, etc. People on level crossings are not classified as trespassers, even if they are misusing the crossing. **Suicides** include suicides, suspected suicides, and non-fatal injuries sustained by people attempting to commit suicide. Third party shock and trauma from witnessing suicides is included elsewhere, in the statistics for the person type affected (workforce, passenger or public). Where a coroner's verdict is not available, or a coroner returns an open verdict, intent is determined by applying the Ovenstone criteria (see Appendix 4 of the ASPR 2010/11).

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A **fatality** is someone who dies as a result of a rail accident, within a year of the accident occurring. **Major injuries** include injuries to passengers, staff or members of the public as defined in schedule 1 to RIDDOR 1995. This includes losing consciousness, most fractures, major dislocations and loss of sight (temporary or permanent) and other injuries that resulted in hospital attendance for more than 24 hours. **Minor injuries** include all other physical injuries. **Shock or trauma** includes cases resulting from being involved in or witnessing events that have serious potential of a fatal outcome, such as collisions and derailments, as well as cases resulting from other causes, such as verbal abuse and near misses.

Table TSGB0806 is based on passenger casualties owing to train accidents and movement accidents involving people on board trains or in the act of boarding or alighting from them. Specifically, it covers passengers injured as a result of: (i) train accidents, (ii) falling or leaning from moving trains, (iii) sudden train movement, such as braking or lurching, and (iv) accidents while boarding or alighting from trains, whether they are stationary or moving. This is the basis for comparisons with other modes of transport.

Table TSGB0807 shows the total number of RIDDOR reportable train accidents irrespective of whether personal injury was involved.

Further details about the definitions used in these tables can be found in the RSSB Annual Safety Performance Report: <http://www.rssb.co.uk/SPR/REPORTS/Pages/default.aspx>.

### **Railway signals passed at danger:**

#### **Table TSGB0808**

Table TSGB0808 shows signals passed at danger (SPADs). The rail industry uses the SPAD risk ranking tool to assign a numeric score to each incident. For each SPAD, the score reflects its accident potential (for example, how close it came to the conflict point) and the potential consequences if an accident had occurred (in the case of a collision, it takes into account speed, crashworthiness and passenger loadings). To assist with reporting, SPADs are grouped into severity bands: (i) not a significant risk; (ii) potentially significant; and (iii) potentially severe.

In a change to previous publications this table shows SPADs by financial year rather than calendar year, for consistency with the other rail tables in this chapter. Calendar year figures are available from ORR's National Rail Trends Portal: <http://dataportal.orr.gov.uk/>.

These notes and definitions relate to the detailed statistics (tables and charts) on "transport accidents and casualties" which can be found on the Transport Statistics Great Britain [Transport accidents and casualties page](#), TSGB0801 to TSGB0811

## Notes and Definitions: Vehicles



This section provides notes and definitions for the vehicle statistics tables including data relating to vehicle registration and licensing, vehicle testing, driving license holding and car usage. These data are part of Transport Statistics Great Britain published on 15 December 2011.

### Notes and Definitions Include:

- Information on sources
- Information on “accuracy”.
- Definitions.
- General information for the tables including links to background information.

## Vehicle registration and licensing

### TSGB Tables TSGB0901 – TSGB0907

#### ***Current taxation class groupings***

The current taxation class groupings presented within this section are as follows:

*Private and light goods (PLG):* This is by far the most common tax class, currently covering almost 89 per cent of licensed vehicles. This tax class primarily consists of cars and light vans but can include other vehicles used only for private purposes. Tax bands for cars within PLG depend on engine size for vehicles first registered before March 2001, while the tax bands for cars registered after March 2001 are based upon levels of CO<sub>2</sub> emissions, with lower rates for cleaner vehicles.

*Motorcycles, scooters and mopeds:* This tax class includes all motorcycles and similar vehicles, but excludes tricycles which have their own tax band. The rates of tax payable depend upon engine size.

*Goods vehicles:* Vehicles that have a gross weight of over three and a half tonnes and are used for carrying goods are taxed in this class. Generally, the rate of tax payable depends on the maximum gross weight and the axle configuration of the vehicle. Since 1999, reduced rates have been available for vehicles that create less pollution.

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*Public transport vehicles:* This category covers buses and coaches with more than eight seats (excluding the driver) used for commercial purposes. Vehicles not used for commercial purposes (e.g. school minibuses) would be licensed in the PLG tax class. The rate of tax payable is dependent upon the number of seats in the vehicle. As with goods vehicles, reduced rates for vehicles that create less pollution have been available since 1999.

*Crown and exempt vehicles:* This group includes vehicles which are exempt from vehicle excise duty. This can be for a variety of reasons, including vehicles driven by disabled drivers, emergency and crown vehicles and vehicles manufactured before 1973.

*Special vehicles group:* This group includes works trucks, road rollers, mobile cranes, digging machines and showman's vehicles.

*Other vehicles:* This group includes three wheeled cars and vans, recovery vehicles, general haulage vehicles and tricycles.

### ***Changes in the taxation system over time***

There have been several changes to the vehicle taxation system in recent years which are particularly important when interpreting the time series presented in Tables TSGB0901 and TSGB0902. These are as follows:

*From 1 October 1982:* All general goods vehicles weighing less than 1,525 kgs in unladen weight were transferred from the 'goods' taxation group to the 'private and light goods' group. This has resulted in a discontinuity in the data presented for both taxation groups between 1981 and 1982.

*From 1 October 1990:* All general goods vehicles weighing less than 3,500 kgs in gross vehicle weight were transferred from the 'goods' taxation group to the 'private and light goods' group. This has resulted in a discontinuity in the data presented for both taxation groups between 1989 and 1990.

*From 1 July 1995:* Major changes were made to the taxation system with the intention of simplifying the taxation structure. These changes included:

- farmers and showmen's vehicles were transferred from the goods taxation group into the 'other vehicles' group.
- cars and motorcycles over 25 years of age were transferred from the 'private and light goods' and 'motorcycles' taxation group to the 'crown and exempt' taxation group. Since 1998 only vehicles built before 1973 have been included in the 'crown and exempt taxation group
- public service vehicles with fewer than eight seats were transferred from the 'public

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transport vehicles' taxation group into the 'private and light goods' taxation group.

Due to these changes there is a discontinuity between the figures presented in Tables TSGB0901 and TSGB0902 for all taxation groups between 1994 and 1995

### ***Methods of measurement***

*Licensed vehicles:* Since 1978, data relating to the number of licensed vehicles has been calculated through an analysis of the records held centrally by the Driver and Vehicle Licensing Agency (DVLA) as at 31 December each year. Prior to this, statistics on licensed vehicles were calculated through a sample of vehicle records held by local taxation offices and included vehicles licensed for at least one month during the third quarter of the year.

*Newly registered vehicles:* Statistics relating to new vehicle registrations are calculated through a complete analysis of new registrations and include all vehicles newly registered in the calendar year.

Further details can be found in the [Vehicle and Licensing Statistics: Notes and Definitions](#) document.

## **Vehicle roadworthiness testing**

### **TSGB Tables TSGB0908 – TSGB0912**

The statistics presented within these tables have been provided by the Vehicle and Operator Services Agency (VOSA), contact: 01792 543382.

*Trailer tests:* Although there is no registration system for trailers which carry goods, there is still a requirement to have them tested each year under the DfT's plating and testing scheme.

*MOT tests:* Since 2006/07, these statistics have been based on an analysis of all MOT tests carried out in the financial year. In 2005/06, the statistics were based on approximately 50 per cent of all tests carried out while, prior to this, the statistics were based on a 2 per cent sample of vehicle tests.

*Passenger service vehicle tests:* EEC Directive 77/143 stipulated that all class VI (Public Service Vehicles) in use for more than one year must have undergone a road-worthiness examination by 1 January 1983 and be subject to an annual inspection thereafter. To meet this deadline, statutory testing of class VI vehicles commenced on 1 January 1982.

*Heavy goods vehicle tests:* Vehicles subject to plating and testing have to undergo a test when they are one year old and are tested annually thereafter; the term 'first test' refers to the first test of a vehicle in a particular year. The figures quoted cover the 52 week period ending on the Friday which precedes the first Monday in April.

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## Private motoring

### Households with regular use of cars: NTS0205 (TSGB0913)

Data from 1961 onwards are derived from household surveys. Figures for earlier years are estimates. Also, see notes to NTS9902.

### Private motoring: NTS9902 (TSGB0914)

The mid-year estimates of the percentage of households with regular use of a car or van in NTS9902 are based on data from the National Travel Survey.

The percentage of driving license holders in NTS0201 is based on data from the NTS, and the estimated number of license holders is based on the mid-year resident population estimates from ONS.

### Annual mileage of 4-wheeled cars: NTS0901 (TSGB0901)

These figures are based upon annual estimates for each purpose (commuting, business and other private) per vehicle as reported by participants in the National Travel Survey (NTS). The data are for 4-wheeled cars only. Company cars provided by an employer for the use of a particular employee (or director) are included, but cars borrowed temporarily from a company pool are not.

Further details can be found in the [National Travel Survey: 2010: notes and definitions](#) document.

### Car Driving Tests: TSGB0917

The statistics presented within these tables are provided by the Driving Standards Agency, contact: 0300 200 1122.

These notes and definitions relate to the detailed statistics (tables and charts) on “vehicles” that can be found on the [Vehicle statistics](#) web page, table numbers [VEH0102](#), [VEH0103](#), [VEH0152](#), [VEH0153](#), [VEH0203](#), [VEH0204](#), [VEH0506](#), [National Travel Survey](#) page for [NTS0205](#), [NTS9902](#), [NTS0201](#), [NTS0901](#); and Transport Statistics Great Britain tables TSGB0908 to TSGB0912 and TSGB0917. These tables form the [vehicles chapter](#) of Transport Statistics Great Britain.