# Traffic Statistics

## Data availability

There are five files, providing data from 2000 to the most recent year in Great Britain, on:

- Annual average daily flow (AADF) figures on major roads
- AADF figures by direction on major roads
- AADF figures on minor roads
- Traffic (expressed in vehicle kilometres) on major roads
- Traffic (expressed in vehicle miles) on major roads

Further information on the methodology behind the traffic estimates is available in the 'Technical information' section on http://www.dft.gov.uk/statistics/series/traffic.

### 1. Estimated Annual average daily flows (AADFs) – major roads

AADF figures are produced for each junction to junction link on the major road network for every year. A description of how annual road traffic estimates are produced is available at http://assets.dft.gov.uk/statistics/releases/traffic-estimates-2010/traffic-estimates-2010-methodology.pdf.

The 'AADF data – major roads' file contains the following variables (variable names are in bold):

- **AADF Year** – AADFs are shown for each year from 2000 to 2010 inclusive.
- **CP** (count point) – a unique reference for the road link that links the AADFs to the road network.
- **Region** – the former Government Office Region that the CP sits within.
- **Local authority** – the local authority that the CP sits within.
- **Easting** and **northing** coordinates of the CP.
- **Start junction** and **end junction** describes the junction to junction link that the CP refers to.
- **Road** – this is the road name (for instance M25 or A3).
- **Road Category** – the classification of the road type (see data definitions for the full list).
- **Link length_km** – Total length of the network road link for that CP (in kilometres).
- **Link length_miles** – Total length of the network road link for that CP (in miles).
- estimated AADFs for 11 vehicle types, a sub-total for heavy goods vehicles and a total for all motor vehicles (see data definitions for the full list).

## 2. Estimated Annual average daily flows (AADFs) by direction – major roads

Data on AADF by direction on major roads is also available (File: 'AADF data by direction – major roads'). This provides the data split by direction of traffic. The same variables are provided as in the 'AADF data – major roads' file. See data definitions for further information on key terms.

## 3. Estimated Annual Average Daily Flows (AADFs) – minor roads

Only a sample of points on the minor road network is counted each year and these counts are used to produce estimates of traffic growth on minor roads. Further information on the methodology for producing minor road estimates is available at http://assets.dft.gov.uk/statistics/releases/traffic-estimates-2010/traffic-estimates-2010-methodology.pdf

The 'AADF data – minor roads' file includes AADFs for the minor road sample in each year. Please note that the sample of minor roads changed in 2010. For completeness, traffic counts before 2010 have also been provided in this dataset. The same variables are provided as for the 'AADF data - major roads' file, except for the start and end junction road names and link length variables. See data definitions for further information on key terms.

## 4. Estimated road traffic – major roads (kilometres)

This file shows the annual traffic (otherwise known as volume of traffic) on each link of the major road network. This is calculated by multiplying the AADF by the corresponding length of road and by the number of days in the year. So one vehicle travelling one kilometre a day for a year would equal 365 vehicle kilometres. Traffic figures are presented in thousand vehicle kilometres, so a count point with a traffic volume of 20,000 vehicle kilometres in one year will be presented as 20.0.

The same variables are provided in this file as in the 'AADF data – major roads' file. See data definitions for further information on key terms.

## 5. Estimated road traffic – major roads (miles)

This file shows the annual traffic (otherwise known as volume of traffic) on each link of the major road network. This is calculated by multiplying the AADF by the corresponding length of road and by the number of days in the year. So one vehicle travelling one mile a day for a year would equal 365 vehicle miles. Traffic figures are presented in thousand vehicle miles, so a count point with a traffic volume of 20,000 vehicle miles in one year will be presented as 20.0.

The same variables are provided in this file as in the 'AADF data – major roads' file. See data definitions for further information on key terms.

**Data definitions**

*Count point*: Traffic estimates are calculated for each link of Great Britain's major road network, with links' start and end points defined as where the link joins a major road junction. Each link has a uniquely referenced Count Point (CP), where the traffic is usually counted by enumerators. Enumerators are not employed where (a) the CP is dependent upon another CP, i.e. the traffic estimate is calculated for each side of a Local Authority boundary, or (b) the traffic estimate is derived from neighbouring CPs' traffic estimates. Unlike the major road network (where every link has a CP), there are only CPs on a sample of minor roads.

Road types

The road definitions included in the traffic census are as follows:

*Major roads:* Includes motorways and all class 'A' roads. These roads usually have high traffic flows and are often the main arteries to major destinations.

> *Motorways* (built under the enabling legislation of the Special Roads Act 1949, now consolidated in the Highways Acts of 1959 and 1980): Includes major roads of regional and urban strategic importance, often used for long distance travel. They are usually three or more lanes wide in each direction and generally have the maximum speed limit of 70mph.
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> *'A' Roads:* These can be trunk or principal roads. They are often described as the 'main' roads and tend to have heavy traffic flows though not as high as motorways.
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> - *Trunk roads* (designated by the Trunk roads Acts 1936 and 1946): Most motorways and many of the long distance rural 'A' roads are trunk roads. The responsibility for their maintenance lies with the Secretary of State and they are managed by the Highways Agency in England, the National Assembly of Wales in Wales and the Scottish Executive in Scotland (National Through Routes).
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> - *Non-trunk roads*: These are roads for which local authorities are highway authorities. The Secretary of State, the Scottish Government, and the Welsh Assembly Government have power to classify non-trunk roads in agreement with the local highway authority. Non-trunk roads are therefore either classified or unclassified, the former being of two types, principal and non-principal. The classified principal roads are class 'A' roads, except for a few local authority motorways, and are of regional and urban strategic importance. The non-principal roads are those which distribute traffic to urban and regional localities. The

non-principal classified roads are sub-divided into ‘B’ and ‘C’ classes. Unclassified roads are those in the least important categories, i.e. local distributor and access roads.

- *Principal roads:* These are major roads which are maintained by local authorities. They are mainly ‘A’ roads, though some local authorities do have responsibility for some motorways.

*Minor Roads:* These are ‘B’ and ‘C’ classified roads and unclassified roads (all of which are maintained by the local authorities), as referred to above. 'B' roads in urban areas can have relatively high traffic flows, but are not regarded as being as significant as 'A' roads, though in some cases may have similarly high flows. They are useful distributor roads often between towns or villages. 'B' roads in rural areas often have markedly low traffic flows compared with their 'A' road counterparts. 'C' Roads are regarded as of lesser importance than either 'B' or 'A' roads, and generally have only one carriageway of two lanes and carry less traffic. They typically have low traffic flows in rural areas. Unclassified roads include residential roads both in urban and rural situations and rural lanes, the latter again normally having very low traffic flows. Most unclassified roads will have only two lanes, and in rural areas may only have one lane with ‘passing bays’ at intervals to allow for two-way traffic flow.

*Urban roads:* These are major and minor roads within an urban area with a population of 10,000 or more. The definition is based on the 2001 Communities and Local Government definition of Urban Settlements. The definition for 'urban settlement' is in Urban and rural area definitions: a user guide which can be found on the Department for Communities and Local Government web site at http://www.communities.gov.uk/publications/planningandbuilding/urbanrural.

*Rural roads:* These are major and minor roads outside urban areas (the urban areas have a population of more than 10,000 people).

*Private Roads:* These are included in the major roads as these private roads (usually toll roads, tunnels or bridges) are accessible to the general public, whereas private minor roads, not usually being accessible to the general public, are not included.

The following abbreviations are used in the ‘Road Category’ variable:

| **Category** | **Category Description** |
|---|---|
| PM | M or Class A Principal Motorway |
| PR | Class A Principal road in Rural area |
| PU | Class A Principal road in Urban area |
| TM | M or Class A Trunk Motorway |
| TR | Class A Trunk road in Rural area |
| TU | Class A Trunk road in Urban area |
| BR | Class B road in Rural area |

| | |
|---|---|
| BU | Class B road in Urban area |
| CR | Class C road in Rural area |
| CU | Class C road in Urban area |
| UR | Class U road in Rural area |
| UU | Class U road in Urban area |

## Measurements of traffic

*Annual Average Daily Flow (AADF):* The average over a full year of the number of vehicles passing a point in the road network each day.

*Vehicle kilometre/mile:* One vehicle times one kilometre/mile travelled (vehicle kilometres/miles are calculated by multiplying the AADF by the corresponding length of road). For example, one vehicle travelling one kilometre/mile a day for a year would be 365 vehicle kilometres/miles. This is sometimes referred to as the volume of traffic.

## Types of vehicle

The definitions for the vehicle types included in the traffic census are as follows:

*All motor vehicles:* All vehicles except pedal cycles.

*Cars and taxis:* Includes passenger vehicles with nine or fewer seats, three-wheeled cars and four wheel-drive 'sports utility vehicles' (SUV). Cars towing caravans or trailers are counted as one vehicle.

*Motorcycles etc:* Includes motorcycles, scooters and mopeds and all motorcycle or scooter combinations.

*Buses and coaches:* Includes all public service vehicles and works buses which have a gross weight greater than 3.5 tonnes.

*Light vans:* Goods vehicles not exceeding 3.5 tonnes gross vehicle weight. Includes all car-based vans and those of the next largest carrying capacity such as transit vans. Also included are ambulances, pickups and milk floats.

*Heavy goods vehicles (HGV):* Includes all goods vehicles over 3.5 tonnes gross vehicle weight.

*Rigid heavy goods vehicles*

- *Rigid HGV with two axles:* Includes all rigid heavy goods vehicles with two axles. Includes tractors (without trailers), road rollers, box vans and similar large vans. A two axle motor tractive unit without trailer is also included.

- *Rigid HGV with three axles:* Includes all non-articulated goods vehicles with three axles irrespective of the position of the axles. Excludes two axle rigid vehicles towing a single axle caravan or trailer. Three axle motor tractive units without a trailer are also included.

- *Rigid HGV with four or more axles:* Includes all non articulated goods vehicles with four axles, regardless of the position of the axles. Excludes two or three axle rigid vehicles towing a caravan or trailer.

*Articulated heavy goods vehicles:* When a heavy goods vehicle is travelling with one or more axles raised from the road (sleeping axles), then the vehicle is classified by the number of axles on the road, and not by the total number of axles. Articulated goods vehicles with three or four axles are merged into one category, as they are not differentiated during manual traffic counts.

- *Articulated HGV with three axles (or with trailer):* Includes all articulated goods vehicles with three axles. The motor tractive unit will have two axles and the trailer one. Also included in this class are two axle rigid goods vehicles towing a single axle caravan or trailer.

- *Articulated HGV with four axles (or with trailer):* Includes all articulated vehicles with a total of four axles regardless of the position of the axles, i.e. two on the tractive unit with two on the trailer, or three on the tractive unit with one on the trailer. Also includes two axle rigid goods vehicles towing two axle close coupled or drawbar trailers.

- *Articulated HGV with five axles (or with trailer):* This includes all articulated vehicles with a total of five axles regardless of the position of the axles. Also includes rigid vehicles drawing close-coupled or drawbar trailers where the total axle number equals five and articulated vehicles where the motor tractive unit has more than one trailer and the total axle number equals five.

- *Articulated HGV with six or more axles (or with trailer):* This includes all articulated vehicles with a total of six or more axles regardless of the position of the axles. Also includes rigid vehicles drawing close coupled or drawbar trailers where the total axle number equals six or more and articulated vehicles where the motor tractive unit has more than one trailer and the total axle number equals six or more.

*Pedal cycles:* Includes all non-motorised cycles.