

A brief guide to connectivity travel time data: England



These files provide a detailed dataset of travel times between small area origins in England and selected transport destinations (airports, large rail stations and major road junctions). For each origin – destination pair, a representative travel time is given.

For airports and stations, times are calculated separately for travel by public transport, and by car. For road junctions, only times by car are calculated.

For each of the destination types, there are files for different time periods. For details of how travel times are estimated over these periods, please refer to the technical documentation.

These times are effectively the results of a large number of ‘journey planner’ type queries based on public transport times tables, road networks and data on average car speeds.

Data are available for both the public transport mode (PT) and car mode (HW) for 2011. An update for 2013 is available for the car mode for the AM peak.

The data is in a comma delimited ASCII format. There are a number of individual files available, grouped into three zip files. The individual files are listed below

Files available

The files contain one row for each origin-destination combination, where a time could be estimated. In some cases the journey time algorithm was unable to estimate a time, usually this is where the journey is likely to be over 360 minutes – for 2013 an explicit cut-off at 360 minutes was introduced).

File name	Destination	Time of day	Modal type	Year	Rows
<i>Road-junctions-travel-times.zip</i>					
Junctions_HW_AM.csv	Road junctions	AM peak (7am to 10am)	Car	2011	16,869,696
Junctions_HW_Mid.csv	Road junctions	Mid peak (10am to 4pm)	Car	2011	16,869,696
Junctions_HW_PM.csv	Road junctions	PM peak (4pm to 7pm)	Car	2011	16,869,696
<i>Rail-stations-travel-times.zip</i>					
Stations_HW_AM.csv	Rail stations	AM peak (7am to 10am)	Car	2011	6,274,704
Stations_HW_Mid.csv	Rail stations	Mid peak (10am to 4pm)	Car	2011	6,274,704
Stations_HW_PM.csv	Rail stations	PM peak (4pm to 7pm)	Car	2011	6,274,704
Stations_PT_AM.csv	Rail stations	AM peak (7am to 10am)	Public transport	2011	2,244,943
Stations_PT_Mid.csv	Rail stations	Mid peak (10am to 4pm)	Public transport	2011	3,733,339
Stations_PT_PM.csv	Rail stations	PM peak (4pm to 7pm)	Public transport	2011	3,646,483
Stations_PT_Late.csv	Rail stations	Late (7pm to midnight)	Public transport	2011	3,217,877
<i>Airports-travel-times.zip</i>					
Airports_HW_AM.csv	Airports	AM peak (7am to 10am)	Car	2011	1,302,944
Airports_HW_Mid.csv	Airports	Mid peak (10am to 4pm)	Car	2011	1,302,944
Airports_HW_PM.csv	Airports	PM peak (4pm to 7pm)	Car	2011	1,302,944
Airports_PT_AM.csv	Airports	AM peak (7am to 10am)	Public transport	2011	240,306
Airports_PT_Mid.csv	Airports	Mid peak (10am to 4pm)	Public transport	2011	425,194
Airports_PT_PM.csv	Airports	PM peak (4pm to 7pm)	Public transport	2011	389,186
Airports_PT_Late.csv	Airports	Late (7pm to midnight)	Public transport	2011	312,880
<i>2013-travel-times.zip</i>					
2013Junctions_HW_AM.csv	Road junctions	AM peak (7am to 10am)	Car	2013	16,051,932
2013Stations_HW_AM.csv	Rail stations	AM peak (7am to 10am)	Car	2013	5,804,710
2013Airports_HW_AM.csv	Airports	AM peak (7am to 10am)	Car	2013	1,144,524

Taxonomy of variables

Variable name	Description
Year	Year to which data relate – this field was added for 2013, not present in 2011 datasets
LSOA_Code	Lower Super Output Area (LSOA) code, based on 2001 boundaries for 2011 data, based on 2011 boundaries for 2013 data. Further details can be found via the ONS Geography Portal https://geoportal.statistics.gov.uk/geoportal/catalog/main/home.page
RepTime	A representative travel time in minutes between the LSOA and the destination (as identified by the UID, below) – the estimated minimum time that can be achieved. Please refer to the technical documentation for further details.
Percentage Services	A frequency score which measures, for public transport, the percentage of time during the given time period that the representative time is actually possible. For journeys by car, which do not rely on timetables, this variable is 100% throughout.
UID	A unique identifier for the destination as defined by DfT, with: <ul style="list-style-type: none">• A1 – A39: Airports• R1 – R491: Road junctions• For stations, the standard National Rail three letter codes are used (e.g. VIC for London Victoria) Further details are available via the destinations lookup table.
Near Order	Order of destinations from the origin in terms of travel time i.e. the nearest destination has NearOrder=0, the next nearest is NearOrder=1 and so on.

Further information

Technical documentation explaining how the travel times have been calculated can be accessed via: <https://www.gov.uk/government/publications/transport-connectivity-and-accessibility-of-key-services-statistics-guidance>

Statistical releases accompanying publication of each data set (2011 edition illustrates potential uses of this dataset):

<https://www.gov.uk/government/publications/transport-connectivity-statistics-england-2011-data>

<https://www.gov.uk/government/statistics/connectivity-travel-time-indicators-england-2013-experimental-statistics>

Statistical tables showing travel times aggregated to local authority and regional level can be found at:

<https://www.gov.uk/government/collections/transport-connectivity-and-accessibility-of-key-services-statistics#data-tables-associated-with-this-series>

We welcome any feedback on this data, which can be provided via subnational.stats@dft.gsi.gov.uk.

Department for Transport: Statistics Travel and Safety

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