

## **Strengths and weaknesses of the Accessibility Statistics**

This document details the key strengths and weaknesses of the accessibility statistics. A full explanation of the methodologies used, and further information on the items to consider when using these statistics, can be found in the separate guidance note and methodology note, available on the Accessibility Statistics web page.

1. The accessibility statistics allow local authorities to develop their own evidence base for their accessibility strategies. They provide a nationally consistent database of travel times and accessibility to services, as well as the number of opportunities to access those services, at local authority and lower super output area level within England. This enables benchmarking between similar areas.
2. The statistics are based on data for each output area in England. These data are then aggregated up to lower super output area and local authority level. There is therefore a considerable amount of data available for identifying accessibility issues at a local level. The output area level travel time data are available to download from <http://data.gov.uk/dataset/accessibility-destination-datasets>.
3. The data can be used to identify the average shortest time by mode to the nearest service, the proportion of users and at risk users able to access a service within a specified time and the number of opportunities for accessing each key service available to the resident population. Further analysis of the public transport average data can be done by using the frequency of the service to produce a weighted measure.
4. The locations of destinations for each of the eight key services are sourced from other Government departments and agencies. They are the most robust data available at time of publishing. However, for some services, more detailed information on the services available would improve the accuracy and meaningfulness of the statistics to users. For example, it might be useful to distinguish between a hospital with 1,000 beds and an A+E department, and a hospital with 300 beds but no mainstream services. Details of the destination locations used for the statistics are published on the DfT website<sup>1</sup> to enable users to carry out their own analysis and to encourage users to feedback comments and add any details about the existing service facilities, for

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<sup>1</sup> Destination datasets are available for download at [www.dft.gov.uk/data](http://www.dft.gov.uk/data).

example – the number of beds available at hospitals.

5. The accessibility statistics do not necessarily take account of local circumstances, such as residents of rural communities being more willing to travel further for services than in urban areas. The statistics should therefore be used with other evidence, particularly when making comparisons between dissimilar geographical areas.

6. The public transport mode is based on timetable and stop data from the National Public Transport Data Repository (NPTDR). This includes information on all registered services within Traveline regions. In the majority of local authorities, demand responsive transport (DRT), flexibly routed and special school services are not registered. Therefore, these types of service are not included, unless they have been registered. This means that in some local authorities, especially very rural areas where these types of services are used more widely, access to the key services in the accessibility statistics may be an underestimate.

Where DRT services have been registered and are part of the NPTDR, most are coded in a way that is fit for purpose for journey planning. However they are often not in an appropriate format for the Department's accessibility statistics. An adjustment was therefore applied to routes where there was a speed of greater than 80km/hr by applying a default speed of 15km/hr to the stop-to-stop 'crow flies' distances. This has affected local authority and lower geographies statistics (approximately 100 routes, mainly in Lincolnshire)<sup>2</sup>.

7. Since 2010, accessibility statistics include a new car mode based on Trafficmaster data which takes into account actual speeds and delay. The original car mode statistics have continued to be published to provide comparisons. The original mode is not based on actual journey time data. Instead, default road link speeds are used and it is assumed that a car could travel at these default speeds. However, these default speeds do not explicitly take account of congestion or delays. The public transport mode data, on the other hand, are based on actual timetables, and therefore may well take into account expected congestion peaks and known long-term delays, for example as a result of road works. It is therefore suggested that the new car mode is used when making comparisons with the public transport set of statistics.

Since 2011 only the new car mode outputs have been included.

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<sup>2</sup> For further information, see question 3.5 of guidance note, available on the Accessibility Statistics web page.

8. Accessibility statistics measure two main subjects: service provision (i.e. the location of services) and transport options (i.e. the affect of the road layout, congestion and public transport timetables). In many cases it is impossible to distinguish which of these subjects are causing changes in travel times. Most significant changes in travel time, though, are more likely to come about through the opening or closing of a new service location (or corrections to the underlying data) rather than public transport timetable changes.

The only set of service locations that have remained completely unchanged are the town centres. Therefore they may offer the best statistics on what affect public transport timetables is having on accessibility.