Accessibility
Statistical Release

Department for Transport

12 July 2012

Accessibility Statistics 2011

This Statistical Release presents information on accessibility statistics for England for 2011.

The accessibility statistics provide a small area measure of the availability of transport to key services (covering food stores, education, health care, town centres and employment centres) for the populations who use them. They are widely used in local service planning by local authorities.

This release provides a summary of the statistics at national and regional level. The full set of results, including figures at Local Authority and Lower Super Output Area level, are available in separate files.

The key national and regional findings are:

- The average minimum travel time to the seven key services (excluding town centres) was 14 minutes by public transport/walking, 9 minutes by cycling and 6 minutes by car. These times were 0.55 minutes longer than in 2010 for public transport/waking and around 0.2 minutes longer than in 2010 for both cycling and by car.

- As in previous years, hospitals had the longest average minimum travel times of the seven key services in 2011 with average minimum travel times of 30 minutes by public transport/walking, 21 minutes by cycling and 9 minutes by driving. Primary schools and foods stores were the most accessible services.

- Users in urban areas could access key services by public transport/walking, on average, in 12 minutes compared with 22 minutes in rural areas.

- The proportion of users able to access key services by public transport/walking in a 'reasonable' time was highest for employment centres (81%). The lowest was for hospitals (29%).

- Overall access to key services by public transport/walking within a 'reasonable' time was greatest in London and lowest in the East of England.

1. National

The Department measures access to eight key services (employment centres, primary schools, secondary schools, further education institutions, GPs, hospitals, food stores and town centres) by public transport/walking, cycle and car. Since 2010, statistics include measures by car using Trafficmaster data, which takes into account actual traffic speeds and delays.

The statistics take three forms

- Travel time indicators (which, within a given area, look at the average travel time to the nearest service);
- Destination indicators (which, within a given area, look at the proportion of resident users with access to each service);
- Origin indicators (which, within a given service, look at the choice of locations available to the resident population).

Travel times are affected by three main things: the number and location of service destinations, the quality of the service destinations datasets, and road / travel factors (such as public transport timetables, road layout and congestion). In most the cases changes in the first two factors (i.e. relating to the number and location of destinations, and data quality) will have a greater effect on average travel times than changes in timetables. The exception to this are travel times to town centres as the locations and data sources have remained the same every year since 2009.

The latest results on these accessibility statistics show:-

Travel Time Indicators
- The average minimum travel time across all seven key services was 14 minutes by public transport/walking, 9 minutes by cycling and 6 minutes by car. These times were about 2.5 to 4 per cent (or 0.2 to 0.55 minutes) longer than in 2010.

- The average minimum travel time to the nearest service by public transport/walking was lowest for food stores and primary schools (9 minutes) and highest for hospitals (30 minutes). This is the same pattern as has been seen since 2007. The main cause of the difference in travel time between each type of services how the locations are distributed throughout England and how the relate locations relate to the population.

- The greatest increase in average minimum travel time using public transport / walking to a specific service was to hospitals. This travel time increased by around 2.1 minutes from 27.8 minutes in 2010 to 29.9 minutes in 2011 (7.6 per cent). This increase is probably as a result of a combination of three reasons: the removal of some hospitals from the destination dataset that did not meet the eligibility criteria; some amalgamations of existing hospital sites; and some reduction in public transport service frequencies and / or routes. As mentioned above, the number and location of hospital sites probably has a greater affect on travel times than any changes to the public transport timetables. Average minimum travel times by public transport / walking to town centres decreased by 0.4 minutes, or 2.3 per cent. As there has been no change in the number or location of town centres between years this provides evidence that there have been some public transport timetable reductions.

- The average minimum travel time by cycle was lowest for primary schools (5 minutes) and highest for hospitals (21 minutes). The average minimum travel time by car was similar for all services, varying slightly from around 5 to 7 minutes for most services to 9 minutes for hospitals.

- Users in urban areas could access key services by public transport/walking, on average, in 12 minutes compared to 22 minutes in rural areas. These times are up by 3 per cent and 6 per cent from 2010 in urban and rural areas respectively. Within rural areas, the average minimum travel time by public transport/walking to reach the nearest key service was 17 minutes in town and fringes, 26 minutes in villages and 29 minutes in hamlet and isolated dwellings (based on the Defra rural definition and LA classification).

Average minimum travel time to reach the nearest key services by public transport/walking, England, 2007 to 2011 (See Table ACS0101)
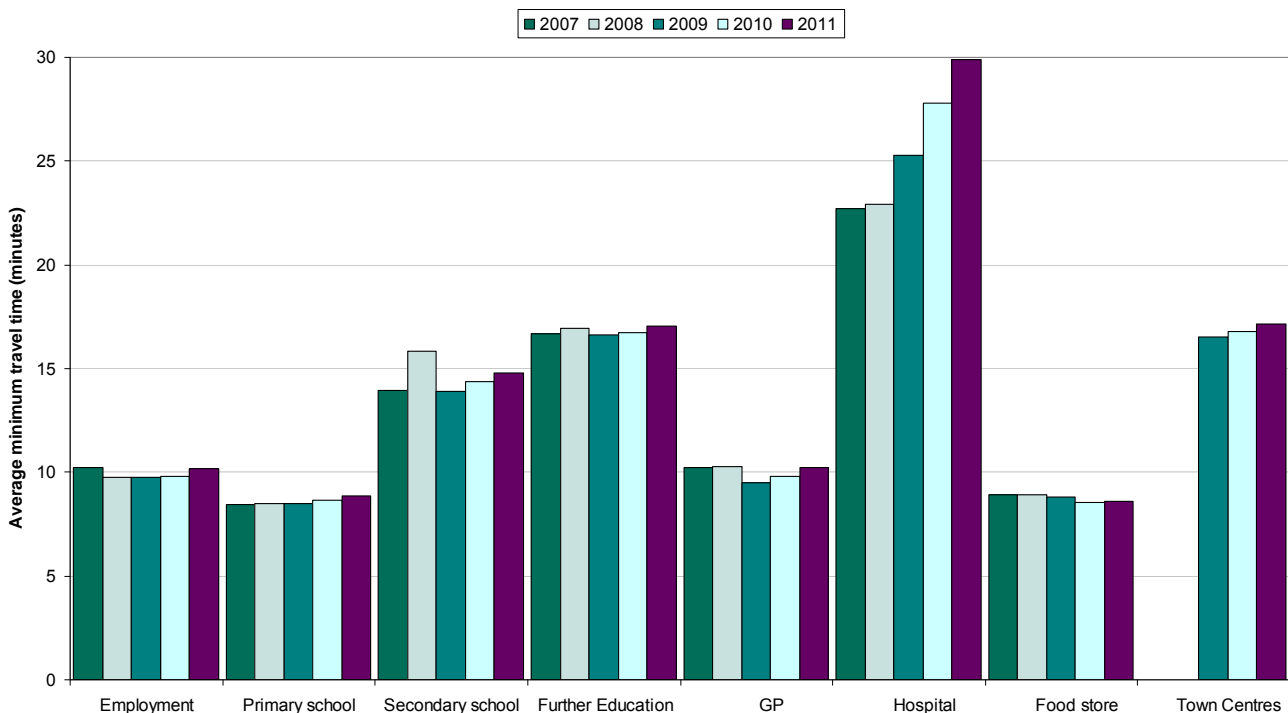

Destination Indicators

- The percentage of users (populations of the resident area for the relevant service) with 'reasonable' access (a measure of accessibility which takes into account the sensitivity of users to the travel time for each service) to key services by public transport/walking was highest for employment centres (81 per cent), and lowest for accessing hospitals (29 per cent). This was similar to 'at risk' users (particular social groups at risk of exclusion for the relevant service), although the percentages for 'at risk' users were higher than those for users for all services.

- The percentage of the population with 'reasonable' access to services fell slightly between 2010 and 2011 for most services and by most modes (food stores being the main exception). For most services 'reasonable' access by public transport fell by around 0.5 to 0.7 percentage points, though hospitals fell by 2.3 percentage points.

Percentage of users with 'reasonable' access to key services by public transport/walking, England, 2007 to 2011 (see Table ACS0201)
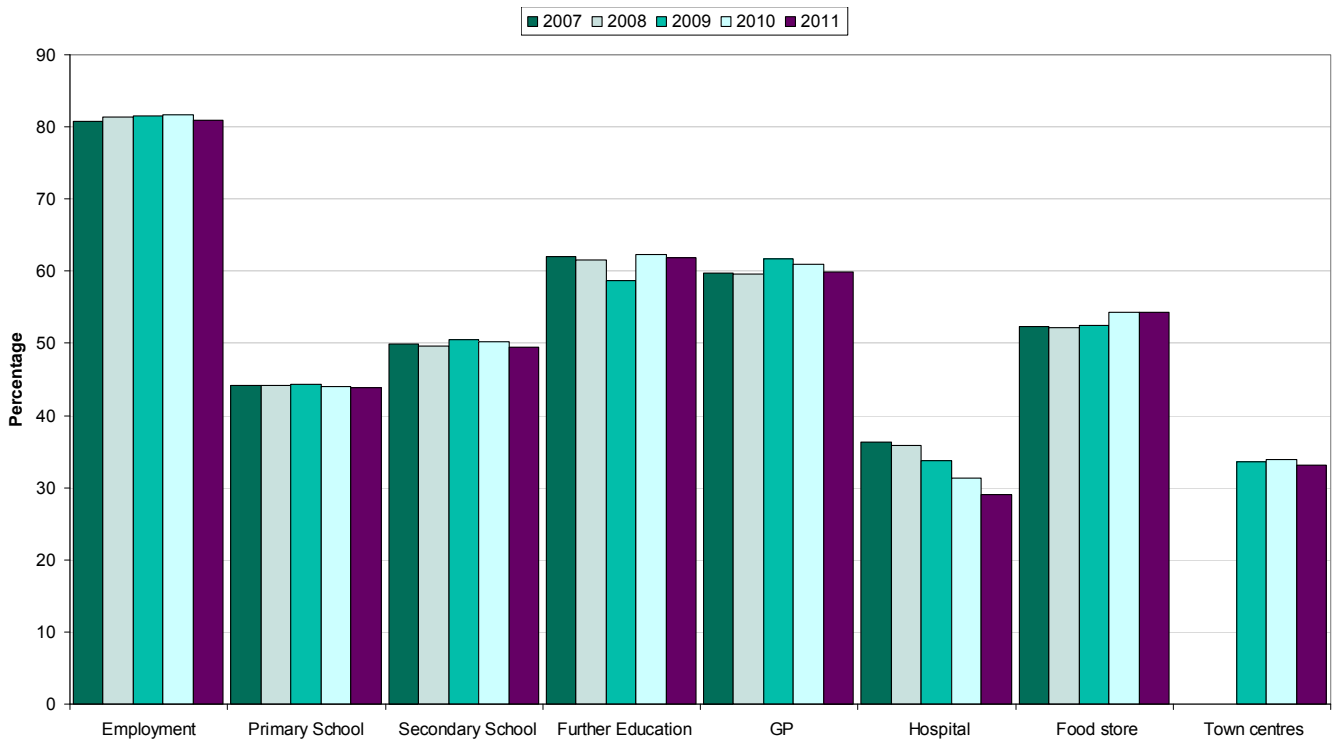
- Access (within a 'reasonable' time) by public transport/walking and car was greatest for employment centres (81 per cent and 89 per cent respectively); whilst primary schools had the highest access by cycle (60 per cent). Hospitals were the least accessible within a 'reasonable' time by public transport/walking and cycling (29 and 30 per cent respectively) and primary schools by car (58 per cent).

Percentage of users with 'reasonable' access to key services by public transport/walking, rural and urban areas, England, 2011 (see Table ACS0204)
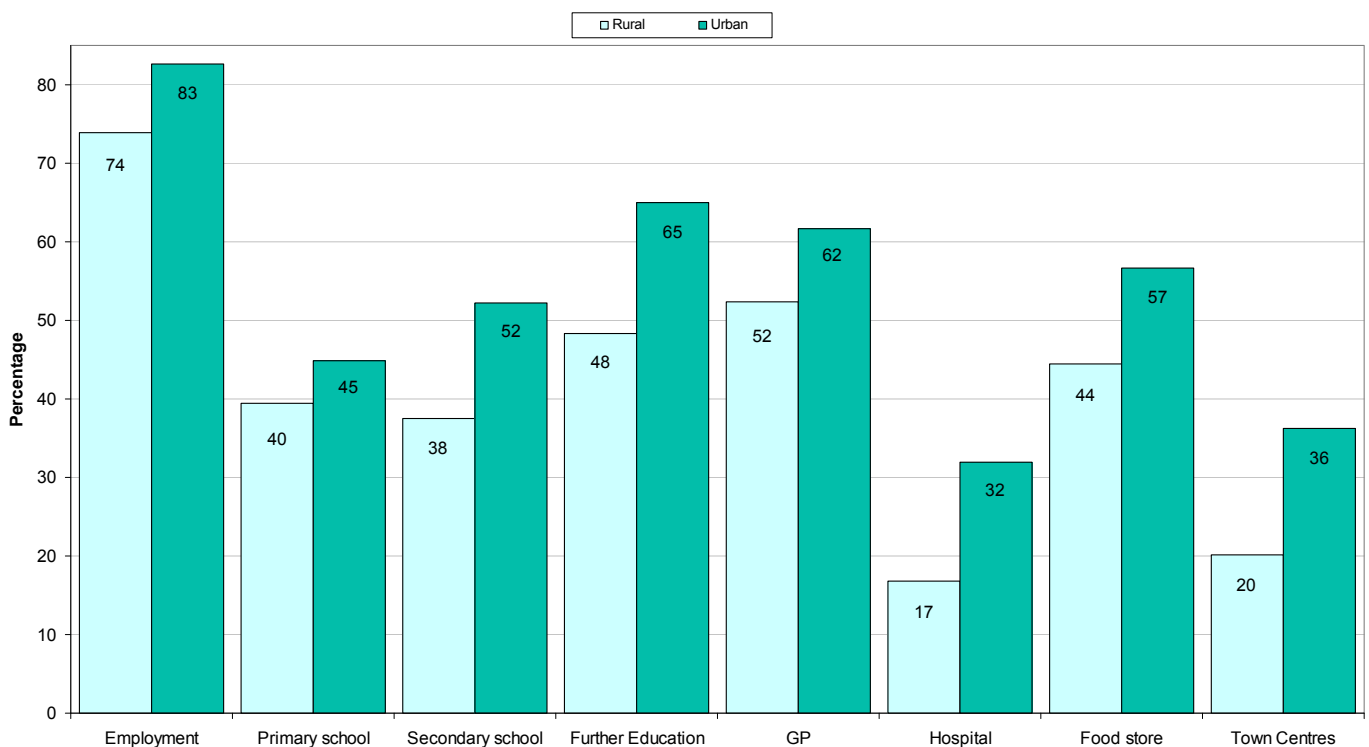
- Variation in access to services between urban and rural areas was greatest for further education institutions (17 per cent difference between rural and urban areas), and least for primary schools (5 per cent difference). This variation was similar for the 'at risk' user groups.

Origin Indicators
- The average number of service locations that users were able to access by public transport/walking within a 'reasonable' time (which takes into account the sensitivity of users to travel time to that particular service) ranged from 0.6 for hospitals to 3.6 for food stores.

- The average number of service locations that users were able to access within a 'reasonable' time has remained relatively stable since 2007. Access within a 'reasonable' time by public transport / walking has increased for food stores by 0.4 stores from 2007, probably due to more stores opening or improvements in the datasets, and reduced by 0.3 hospitals since 2007, most likely as a result an improvement in the data source and some amalgamation of hospital sites.

Households with good transport access to key services or work
- The index of households with good transport access (areas with either a high car ownership rate or short public transport access times) to key services or work has been falling since 2007. The index fell from 100 in 2010 to 97 in 2011. As average vehicle ownership rates have not changed much between years, this suggests that public transport services have decreased, increasing travel times for users to access the services.

2. Regional

- The average minimum travel time by public transport/walking was lowest in London (10 minutes) and highest in the East of England (16 minutes), compared to 14 minutes nationally. The average minimum travel time by cycling was lowest in London (6 minutes) and highest in the East of England (11 minutes), compared to 9 minutes nationally. The average minimum travel time by car was between 6 and 8 per cent in all regions.

- In general, there is little difference in access levels between regions, other than for London where public transport/walking and cycle travel times tend to be lower. Differences in accessibility are much more noticeable when comparing rural / urban areas within regions.

- Some of the differences in travel time by public transport/walking between London and the rest of England can be explained by London's public transport system. It is likely that some of the differences can also be explained by the higher level of service location densities often found in London.

Average minimum travel time to reach the nearest key services by mode, region, England, 2011 (see Table ACS0104)
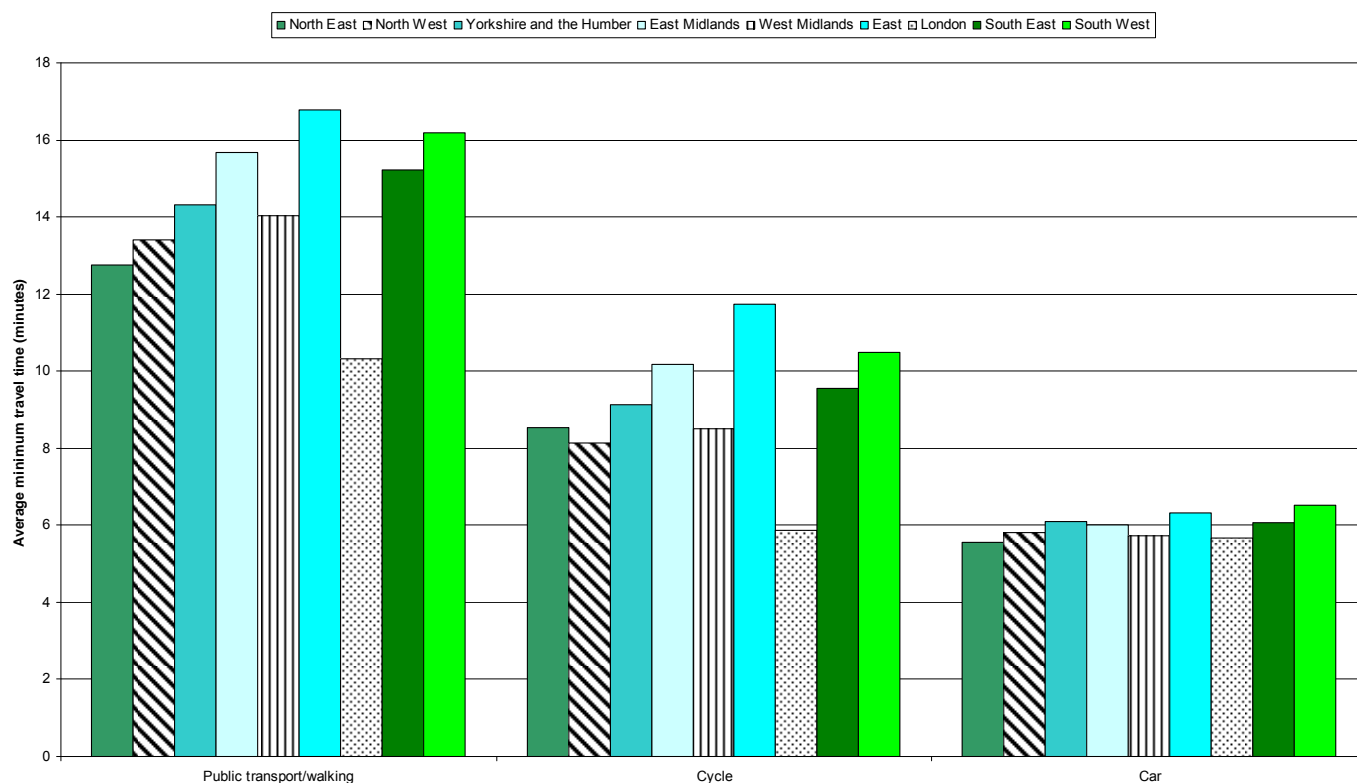
3. Strengths and weaknesses of the data

The key strengths and weaknesses of the accessibility statistics are discussed in a separate document. 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 (see section 4).

4. Background notes

1. The full set of accessibility statistics web tables are available to download on the DfT website at http://www.dft.gov.uk/statistics?post_type=table&series=accessibility-series.
2. Full guidance on frequently asked questions, details of the data sources and methodologies used to compile the accessibility statistics, strengths and weaknesses of the accessibility statistics and key terms and definitions used, can be found at http://www.dft.gov.uk/statistics/series/accessibility/.
3. The locations of services used in the calculation of the statistics are available to download at https://www.data.gov.uk/dataset/accessibility-destination-datasets.
4. The statistics presented here reflect both changes in service provision (and the data about service provision) and road-related information (public transport timetables, road layout and congestion). Statistics purely about public transport timetables is available at http://www.dft.gov.uk/statistics/tables/bus1001/.
4. Details of ministers and officials who received pre-release access to these statistics up to 24 hours before release can be found at the above web page.
6. The next accessibility statistics release is due to be published in July 2013.