



Department
for Transport

Journey Time Statistics 2016

About this release

This Statistical Release presents estimates of travel times from where people live to key local services for England for 2016.

Statistics are published at national, regional, local authority and small area (Lower Super Output Area) level, for 8 key local services and three modes of transport.

Key services used are: centres of employment, primary schools, secondary schools, further education colleges, GPs, hospitals, foodstores and town centres.

This is the third release in the new [Journey Time Statistics](#) series. Detailed [data tables](#) are available from the web site.

For further details please refer to the Background information section below and the separate [Technical guidance](#).

Across a range of 8 key local services in England, the average minimum journey times to access the services from where people live were 18 minutes by public transport / walking, 15 minutes by cycle, and 11 minutes by car.

Average minimum travel times to key services, England, 2016:



**Public transport
/ walking**

18
minutes



Cycle

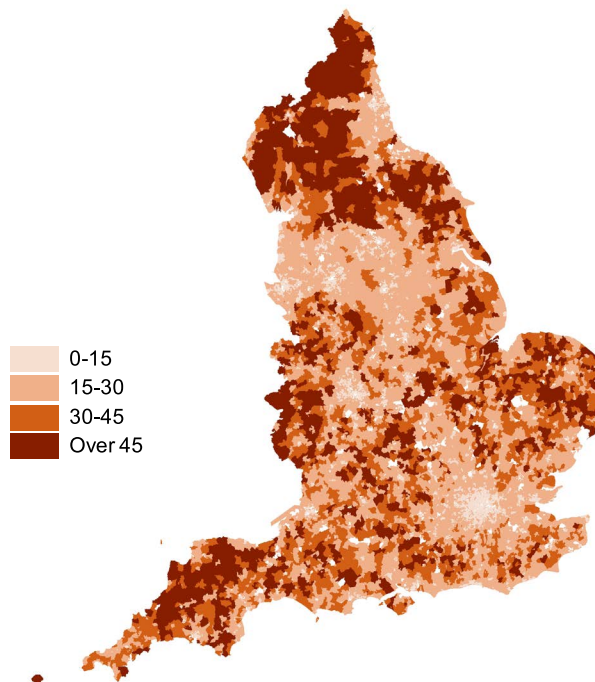
15
minutes



Car

11
minutes

Average minimum travel time (minutes) for 8 key local services by public transport / walking, England, 2016



The average minimum travel times across the range of 8 key services by public transport / walking were 15 minutes for urban areas and 29 minutes for rural areas.

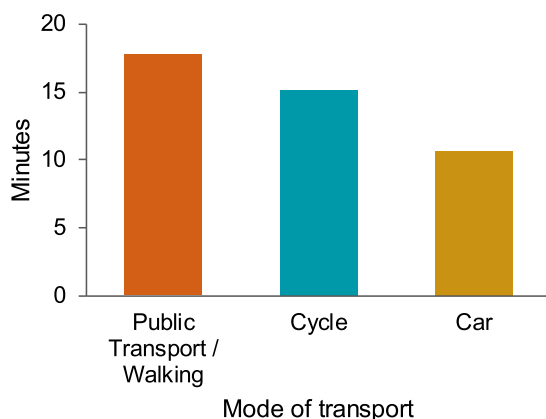
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**Next Published:
April 2019**

For England as a whole in 2016, the average minimum travel time across 8 key services was 18 minutes by public transport / walking, 15 minutes by cycle and 11 minutes by car.

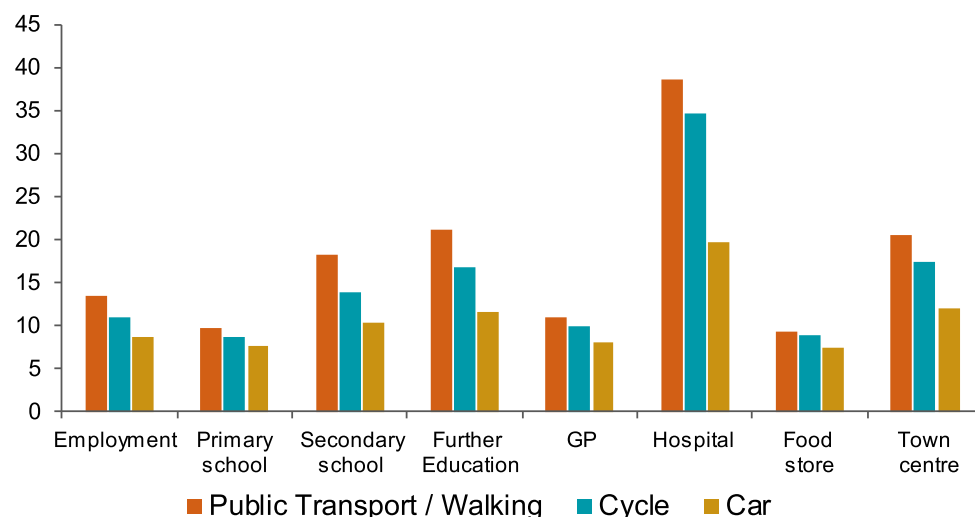
Figure 1: Average travel time to reach nearest key services, England, 2016



The average minimum travel time to the nearest service by public transport/walking was lowest for food stores and primary schools (9 and 10 minutes respectively) and highest for hospitals (39 minutes). The pattern for travel by bicycle was similar, but with slightly less variation, from 9 minutes for primary schools and food stores to 35 minutes for hospitals. For cars there was even less variation, from 7-8 minutes for food stores, primary schools and GPs to 20 minutes for hospitals.

The main reasons for the differences in travel times between the service types are the number of locations at which the services are available, how these are distributed throughout England, and how these locations relate to where people live.

Figure 2: Average travel time to reach nearest key services, England, 2016



Minimum journey times

The average minimum travel time is the shortest travel times to a given type of service by a particular mode of transport, averaged over a given area.

For cycle and car modes the minimum journey time will always be at least 5 minutes, because 5 minutes is added to the actual travelling time to make some allowance for parking times.

For public transport / walking journeys, 5 minutes is added to those journeys where a public transport service is used, to allow a margin for catching the service, but if a quicker walking journey is available this will be used, with nothing added.

Key services

Employment centres: Data used are the number of jobs in a Lower Super Output Area (LSOA).

The data tables include results for employment centres of 3 different sizes (100-499 jobs, 500-4,999 jobs and at least 5,000 jobs). The size used in the key services average is the medium one.

Educations: Locations of all open primary schools, secondary schools, further education and sixth form colleges.

GP surgeries: Destinations are based on the list of practices maintained by the Organisational Data Service of the Health & Social Care Information Centre.

Hospitals: All organisations that are registered with the Care Quality Commission (CQC) and are managed by Acute Trusts.

Food stores: Locations of groceries, supermarkets and convenience stores.

Town centres: Locations of town centres using a central focal point for the town mapped to the nearest road.

Tables

Travel time tables:

[JTS0101 to JTS0104](#)

Local authorities

The average minimum travel times to the range of 8 key services varies between local authorities.

The results in the previous section were averages for England as a whole. Statistics are also produced for local authority areas, as well as smaller areas.

For public transport, the most common average minimum journey time was 15 minutes, with around a third of authorities over 20 minutes. Very few authorities had average minimum public transport access times under 13 minutes.

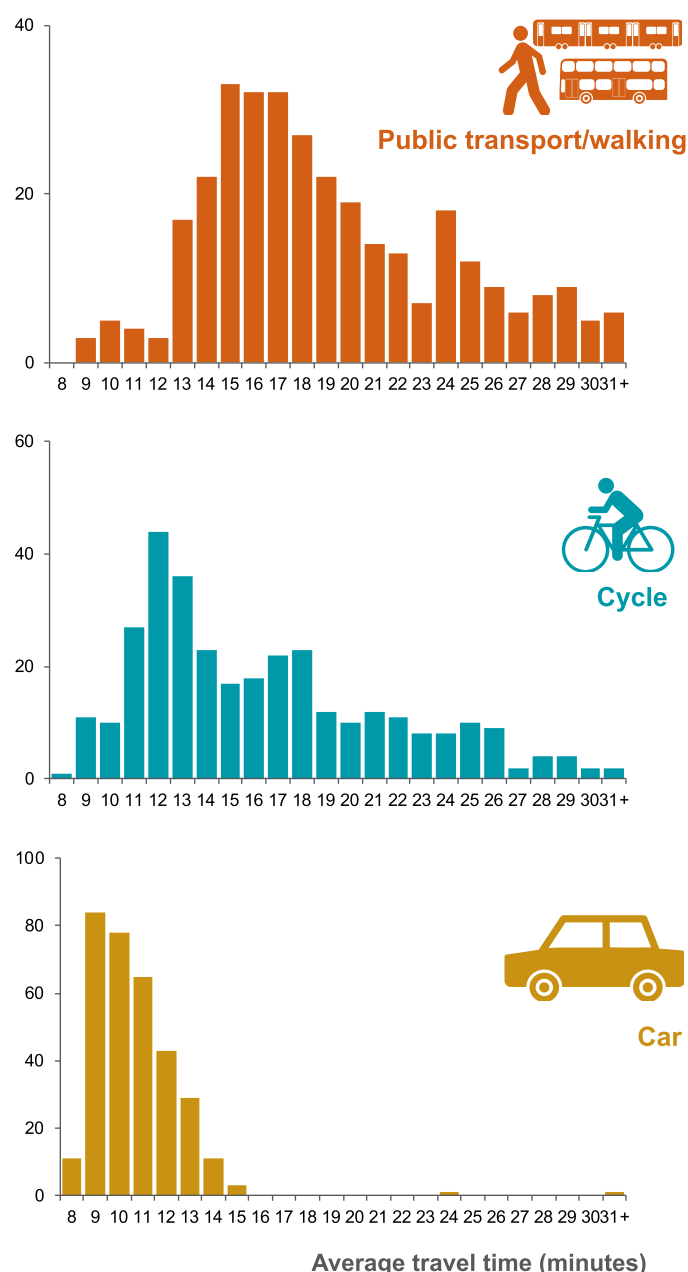
For travel by bicycle the most common average minimum travel time was 12 minutes, with average minimum times over 20 minutes for around half of local authorities.

The average minimum travel times by car were almost never more than 15 minutes, with the most common time being 9 minutes.

Most local authorities are quite diverse and so access times often vary considerably within them, usually strongly influenced by the rural or urban nature of the locality. This variability is captured in these statistics by calculating results for small neighbourhood-sized areas within local authorities. Some of these results are illustrated in the next section.

Figure 3: Travel time to reach nearest key services, local authority averages by transport mode, England, 2016

Number of local authorities



Local authorities

In some parts of England there are two tiers of local authorities, and in others a single unitary authority. Statistics have been calculated for both types of authority - around 360 in all. These vary considerably in size, from a population of a few tens of thousands, to over a million.

Lower layer Super Output Areas (LSOAs)

These are the basis of the small area statistics published here. There are 32,844 LSOAs in England, designed for use with the 2011 Census. They were defined so that they usually have a population of between 1,000 and 3,000.

Tables

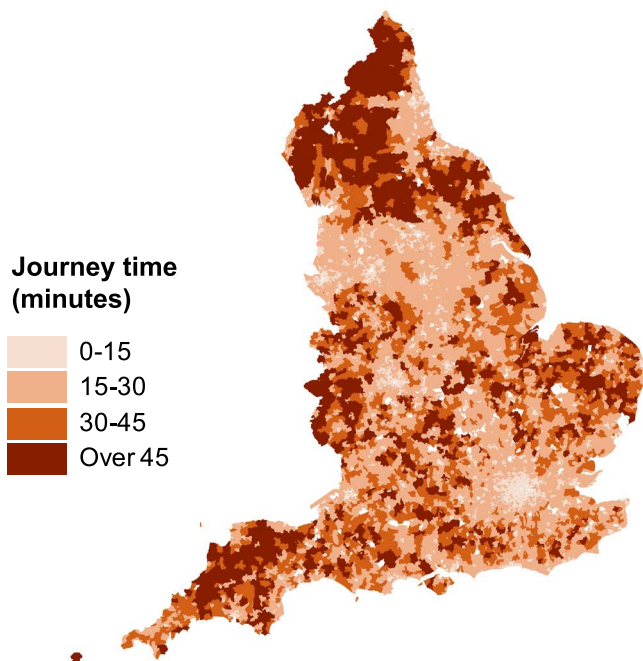
Tables for local authorities:

[JTS0104](#), [JTS0401 to JTS0408](#)

Small areas

The following maps illustrate some of the local variation in access times, using results which have been calculated for over 33,000 local neighbourhoods (Lower Layer Super Output Areas, or LSOAs) across the country. The map on the left shows average minimum travel times across the range of 8 key local services by public transport / walking, while the right hand maps show average minimum travel times across the range of 8 key local services, by car and cycle. In all cases, major urban areas can clearly be made out with the lowest travel times.

Figure 4: Average minimum travel time for 8 key local services by public transport/ walking, England, 2016



Based on the LSOA maps, the public transport travel time across the 8 key local services is less than 15 minutes for about 41% of the working age population, and under 30 minutes for about 94%.

The average minimum journey time, by car, is less than 15 minutes for about 95% of the population, and under 30 minutes for all the population.

The cycle travel time for 8 key local services is 15 minutes or less for about 65% of the population, and 30 minutes or less for about 95%.

Figure 5: Average minimum travel time for 8 key local services by car, England, 2016

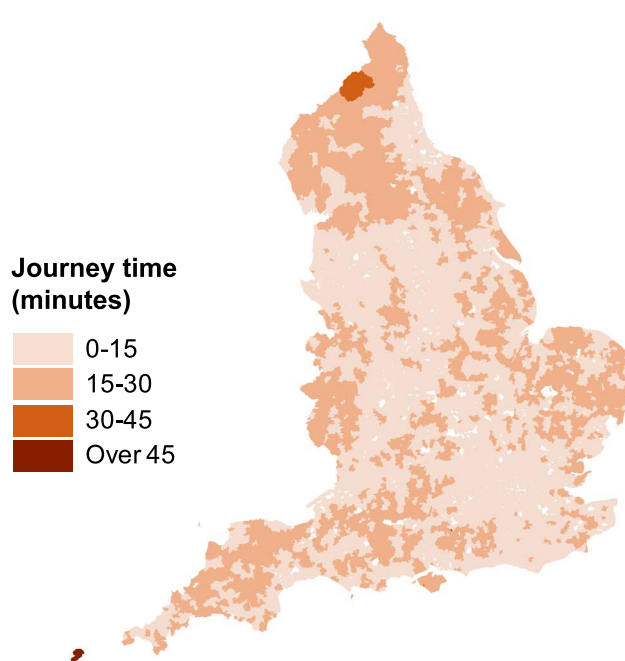
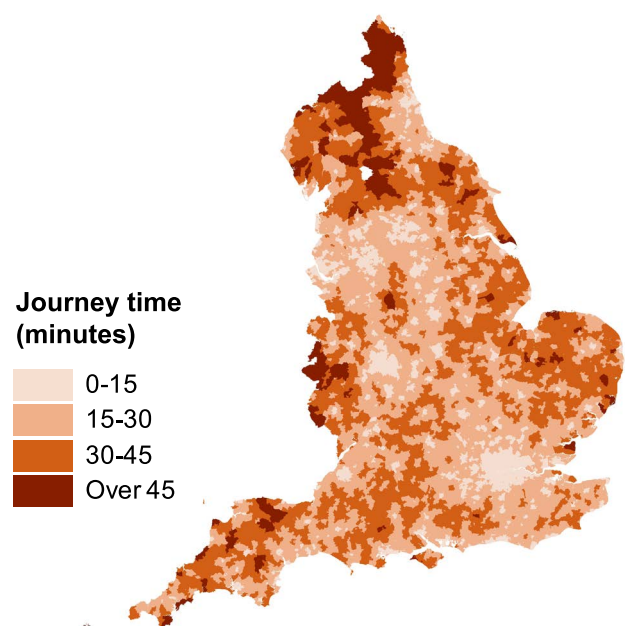


Figure 6: Average minimum travel time for 8 key local services by cycle, England, 2016



Tables

Tables for small areas (LSOAs):

[JTS0501 to JTS0508](#)

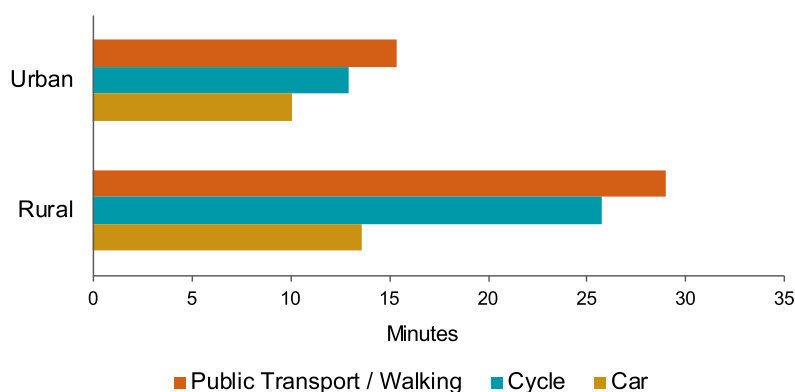
Urban and rural patterns

Average minimum access times were higher for users in rural areas compared with urban areas.

In 2016 the average travel times to the range of 8 key services by public transport were 15 minutes for urban areas and 29 minutes across all rural areas.

There was also a marked difference between urban and rural access times by bicycle (13 and 26 minutes respectively), but less so for cars (10 and 14 minutes).

Figure 7: Average minimum travel times to a range of key services, by urban and rural areas, England, 2016



Urban and rural definitions

This report uses the Defra Rural-Urban Classification, based on 2011 Output Areas.

The Rural-Urban Classification is an Official Statistics and is used to distinguish rural and urban areas. The Classification defines areas as rural if they fall outside of settlements with more than 10,000 resident population.

See [Defra's Definitions and Local Authority Classification](#) for more details.

Tables

Tables for urban and rural areas:

[JTS0102](#) and [JTS0202](#)

Figure 8: Average minimum travel times to a range of key services by transport mode, urban and rural area type, England, 2016

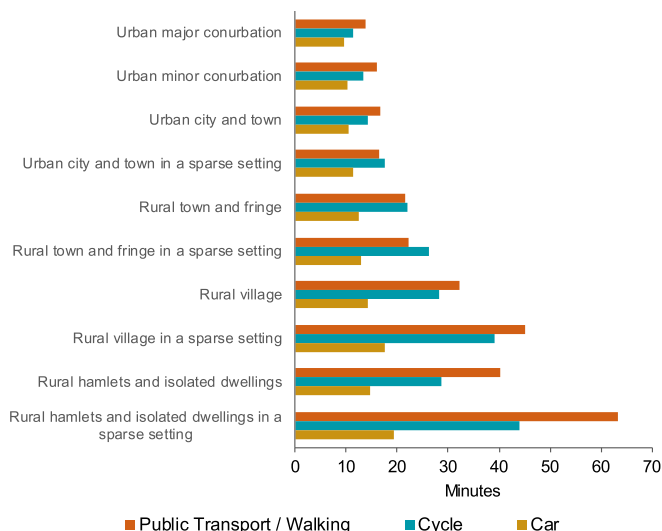
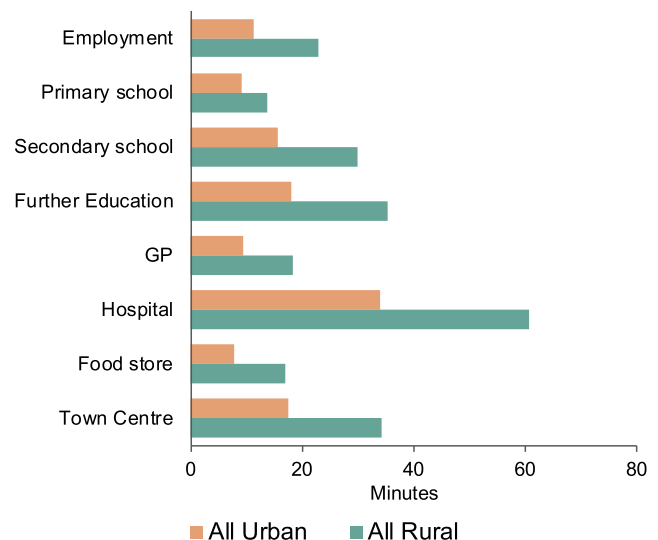


Figure 9: Average travel time by public transport / walking to reach nearest key services, urban and rural areas, England, 2016



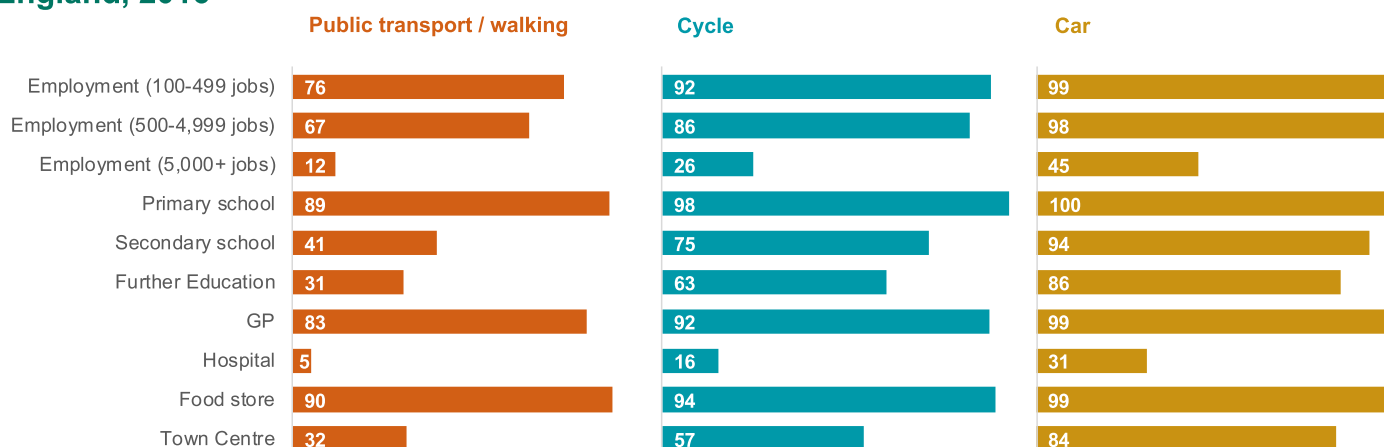
The chart to the left shows that within rural areas the average minimum journey times, by transport mode, ranged from 22 minutes for 'town and fringe' areas up to 63 minutes for hamlets and isolated dwellings in sparsely populated areas. There was rather less variation for travel by car.

For the public transport / walking mode, minimum journey times in rural areas were usually double those of urban areas for most destination types, although this differential was less marked for primary schools.

For each of the different key services, statistics have been produced showing the percentage of the service user population that can reach the nearest location providing that the service is within 15, 30, 45 or 60 minutes.

For example, 41% of the population of 11-15 year olds is within 15 minutes of at least one secondary school by walking or public transport. Moreover, 63% and 86% of the population of 16-19 year olds is within 15 minutes of at least one further education college respectively by cycle and car.

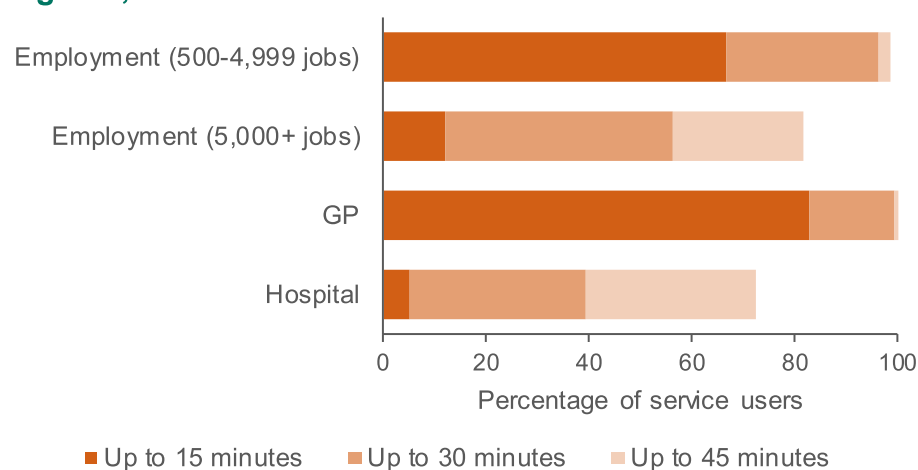
Figure 11: Percentage of service users able to access each service within 15 minutes, England, 2016



For those key services which are ‘delivered’ at fewer locations (e.g. hospitals, large employment centres, town centres), the proportion of the population able to access them in less than 15 minutes is relatively low. For these, the longer journey time thresholds may be more useful.

For example, while only 12% of working age people live within 15 minutes of a large employment centre by public transport, about 82% live within 45 minutes of one.

Figure 12: Percentage of service users able to access selected services by public transport / walking within given times, England, 2016



Destination indicators

These indicators measure the proportion of users that can access a service within a certain time.

The ‘user’ populations used for each service in the destination indicators are:

Employment	16-74 year olds
Primary schools	5-10 year olds
Secondary schools	11-15 year olds
Further education	16-19 year olds
All other services	All households

Origin indicators

For each of the different key services, statistics have also been produced showing the average number of key services available to users, in a particular area, within 15, 30, 45 or 60 minutes.

The chart below shows the average number of key services locations that can be reached within a range of journey times (up to a maximum of 10 locations).

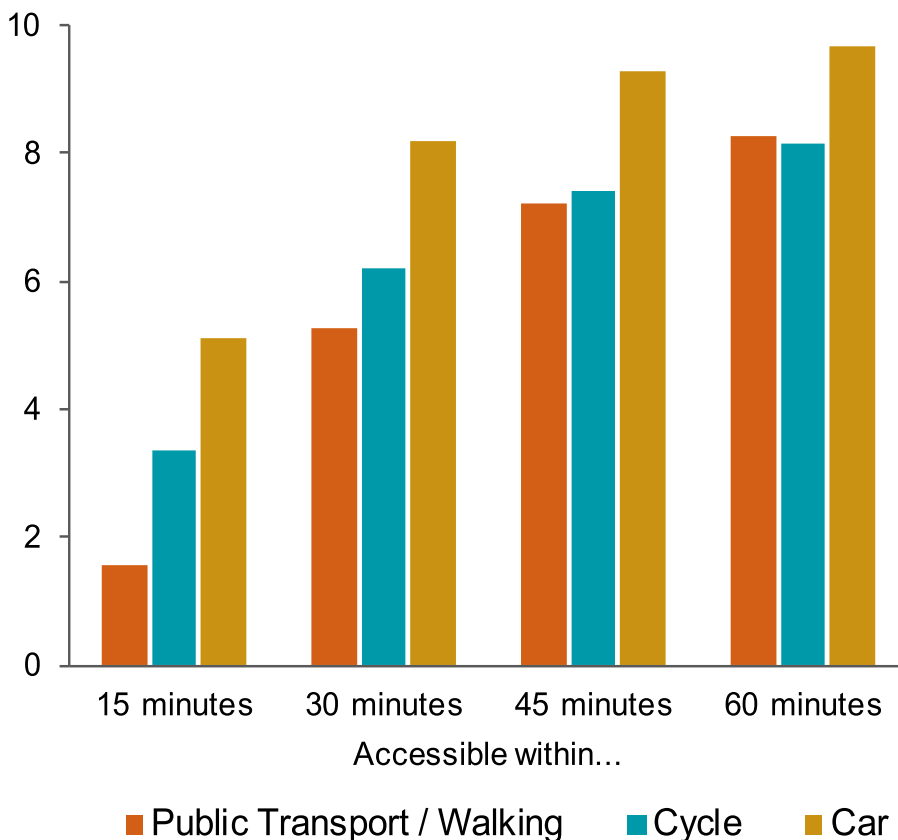
The average number of local services that can be reached by public transport increases from 5.3 within 30 minutes to 7.2 within 45 minutes and 8.3 within 60 minutes, reflecting the reach of relatively fast commuter services around cities.

The average number of locations that can be reached by car increases from 8.2 within 30 minutes to 9.7 within 60 minutes.

The average number of locations that can be reached by cycle increases from 6.2 within 30 minutes to 8.1 within 60 minutes.

The average number of such locations which can be reached by car within a given time is always higher than for the other two transport modes.

Figure 13: Average number of key services available to users within selected journey times, England, 2016



Origin indicators

These indicators measure the number of different services in a particular area that users can reach within a given time.

Tables

Tables for destination indicators:

[JTS0201 to JTS0205](#),

Tables for origin indicators:

[JTS0301 to JTS0305](#),

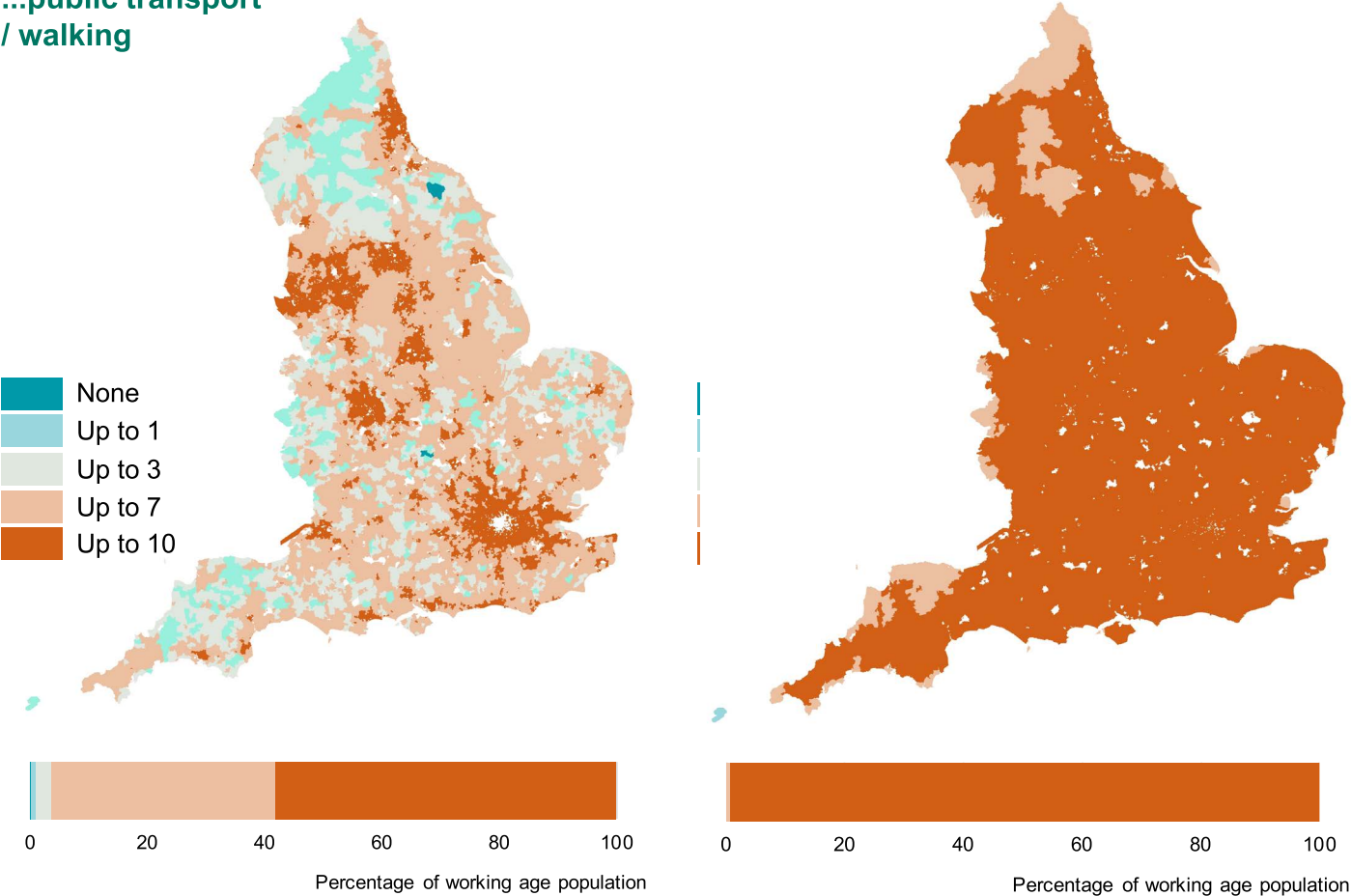
Both also in:

[JTS0401 to JTS0408](#),

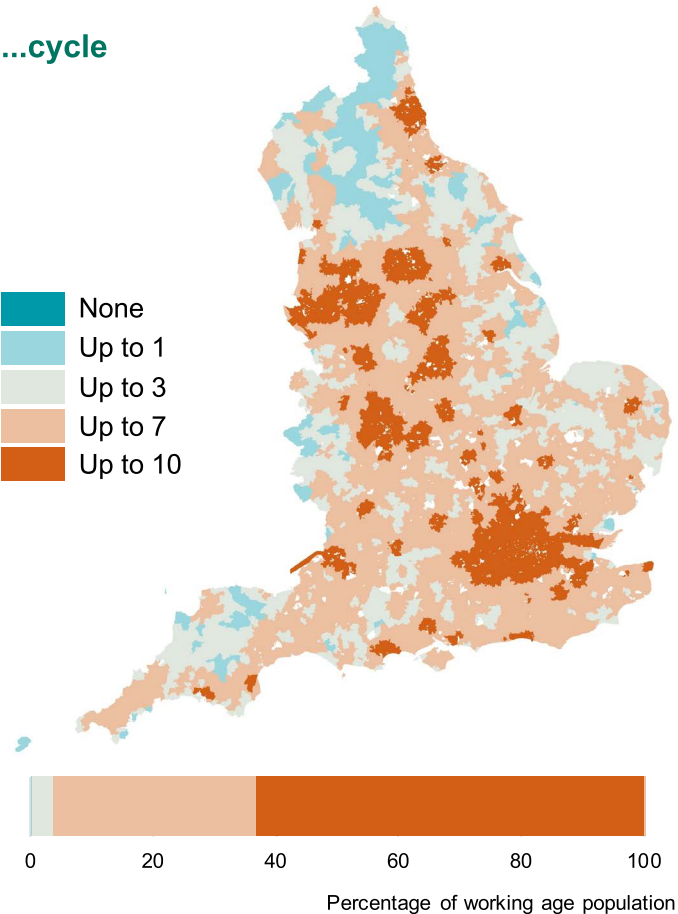
[JTS0501 to JTS0508](#)

Figure 14: Average number of key services accessible to users within 45 minutes by...

...public transport
/ walking



...cycle



The maps and the accompanying bars show that while almost all of the working age population can reach 7 or more key services by car, this is true of only 77% by public transport and cycle.

Background information

About these statistics

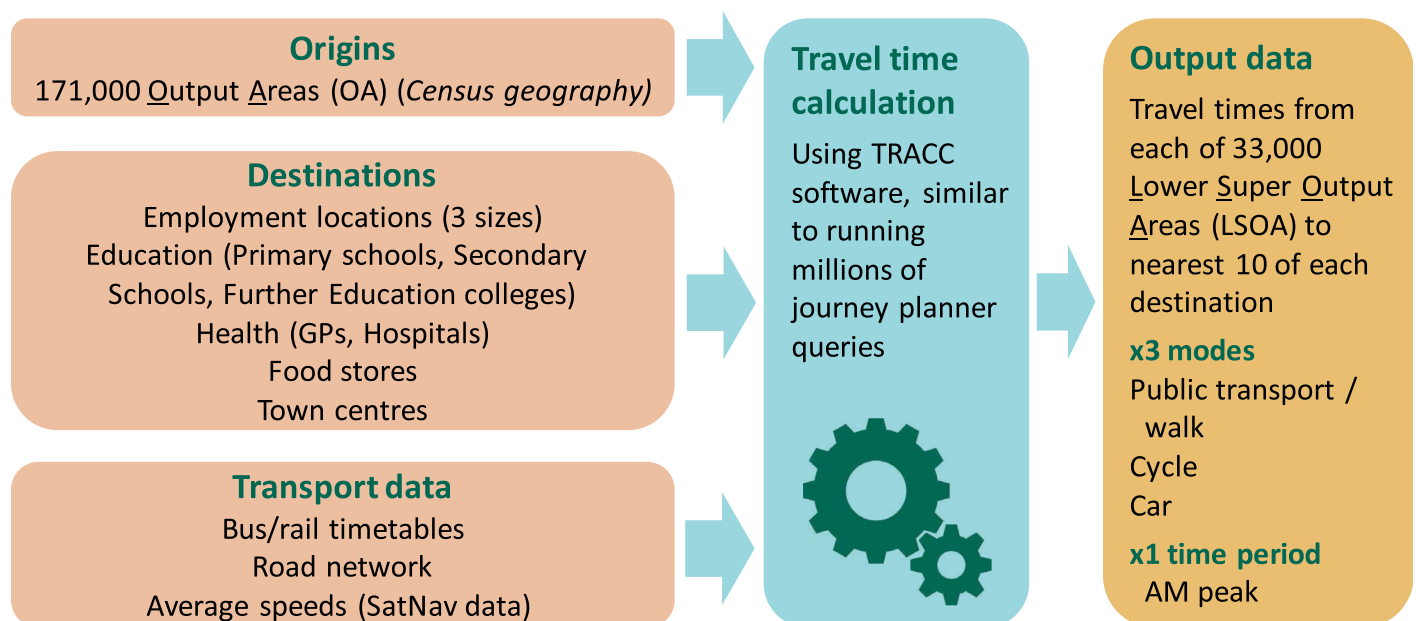
This release is the third in the series of Journey Time Statistics, based on modelling theoretical journey times from local neighbourhoods to a range of destination types.

The main features of the journey times model are:

- The journey times are produced on a nationally consistent basis, allowing variations in transport access across the country to be seen, and different areas to be compared. However, it may be that more specialised local knowledge or more detailed data can provide a more accurate picture for any given area.
- Changes in journey times over time may result from changes in the number and/or locations of key service destinations from year to year, or from changes to the road network or to public transport service timetables and coverage.
- Although a consistent method has been used to produce these statistics, it is also still possible that changes to underlying data sets (for example how timetable data is compiled, or work to refine destination sets) could affect the results. It is therefore not considered that robust conclusions can be drawn about changes over time at this stage.

Further information on the data sources, calculation methodology and strengths and weaknesses of these statistics can be found in the separate [Technical Documentation](#).

Outline of Journey Time Statistics: Access to services calculation process



The full set of journey time statistics tables are available to download from the [Journey Time Statistics](#) home page.

Other DfT statistics containing information on the use of public transport include the [National Travel Survey](#) and [Bus Statistics](#).

Request for Feedback

We welcome any feedback on these statistics, to ensure future releases best meet user needs. Feedback can be provided by email to subnational.stats@dft.gov.uk.

Strengths and weaknesses of the data

The key strengths and weaknesses of these statistics should be kept in mind:

- The statistics are based on the calculation of theoretical journey times, they are not based on real journeys.
- They are however based on actual public transport times, and average traffic speeds on the road network.
- They are compiled on a consistent basis across the country.
- Although the statistics are calculated to a high level of geographical detail, some assumptions and simplifications are necessary in the modelling (for example assigning the start point of journeys to a single point in each Output Area, road speeds, interchange times for public transport).
- For particular areas, local authorities and other experts may have more detailed information allowing them to produce more accurate or detailed models of the local situation.
- Demand responsive services (e.g. bus services which have to be booked) are only included to the extent that they are included, and can be plausibly modelled, in the Traveline National Data Set.

National Statistics

These statistics are outside the scope of National Statistics. However, as official statistics they are produced in accordance with the Code of Practice for Statistics.

Details of ministers and officials who received pre-release access to these statistics up to 24 hours before release can be found at the Journey Time Statistics home page.

Ad hoc journey times statistics

We plan to publish the connectivity analysis, which maps travel times to airports and railway stations, and further ad hoc tables on journey times at a later date.

Next Release

JourneyTime statistics releases are published annually. The next is due in April 2019.

Any updates to these plans will be advertised via the [DfT statistical publications schedule](#).

Release of DfT Statistics publications

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