



# Journey Time Statistics, England: 2017

## About this release

This Statistical Release presents estimates of travel times from where people live to key local services for England for 2017.

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

The 8 key services are medium sized employment centres, primary schools, secondary schools, further education colleges, GPs, hospitals, foodstores and town centres.

The [Journey Time Statistics](#) series has been published since 2015. Detailed [data tables](#) are available online.

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

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**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.**

**Figure 1: Average minimum travel times to key services by mode of transport, England, 2017**



In England, average minimum travel times to key services for 2017 by each of the three calculated modes of transport were unchanged from 2016.

There are three core metrics presented in this statistical release which are all calculated individually for small areas (Census Output Areas) using specialist journey planning software. The metrics are:

### Average minimum travel time (minutes)

The shortest travel times to a given type of service by a particular mode of transport, averaged over a given area.

### Destination indicators (%)

The proportion of users in a given area that can access a service within a given time.

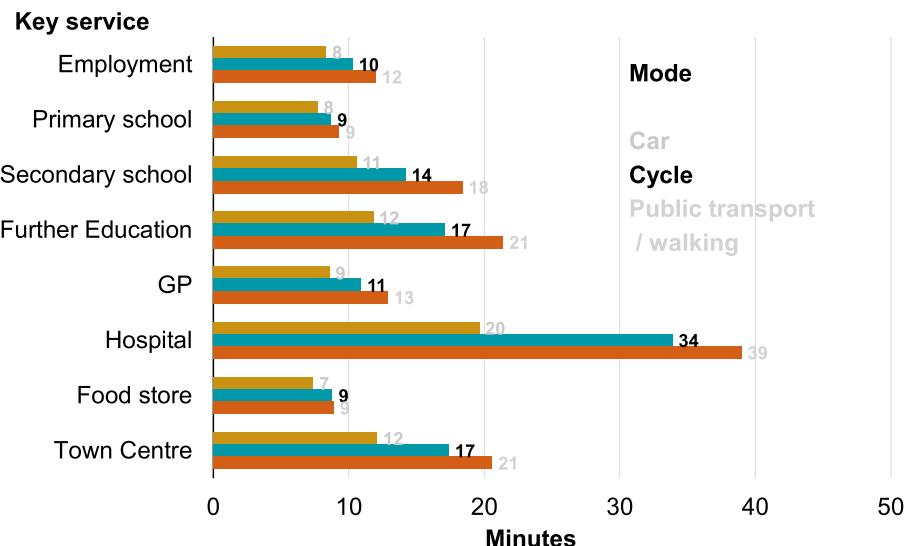
### Origin indicators (number up to 10)

The number of different services in a particular area that users can reach within a given time.

## National and local authority estimates

In general, accessing key services was usually fastest by car, then by cycle, then by public transport / walking in England during 2017.

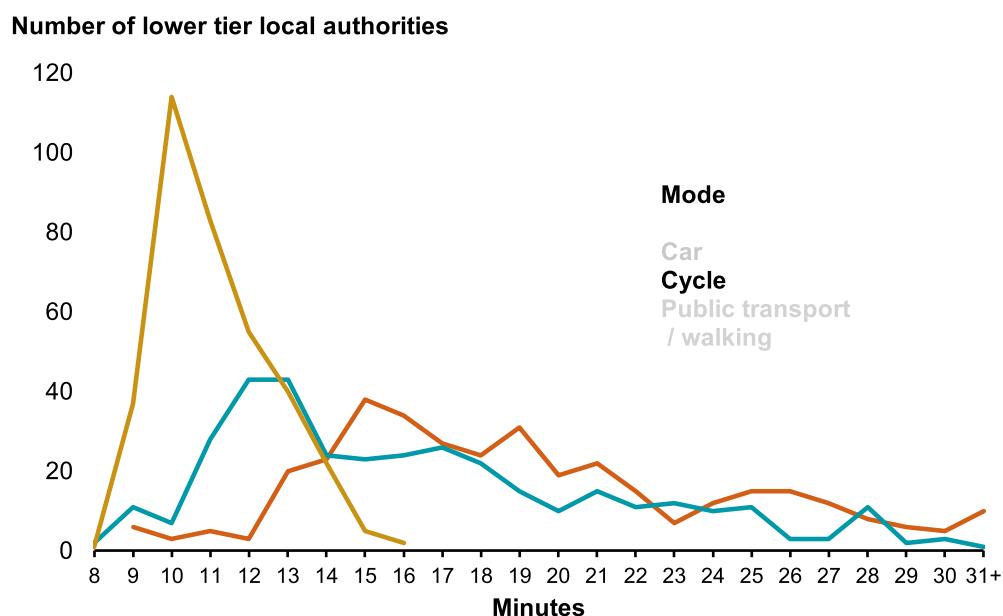
Figure 2: Average minimum travel time to nearest service, by key service and mode of transport, England, 2017



At the local authority level, the average minimum travel time to key services by car had the least variation. There was more variation observed for cycling, where some areas were much higher than average. The most variation was seen for public transport / walking. (Figure 3)

These variations are highly influenced by the urban/rural nature of each area, which is explored in more detail on page 3.

Figure 3: Lower tier local authority averages of minimum travel times to nearest key services, by mode of transport, England, 2017



### 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 i.e. 500-4,999 jobs.

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

**GP surgeries:** the list of GP locations is taken from the NHS Digital publication of Registered patients at GP practices for October of the calculation year.

**Hospitals:** Based on 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.

Detailed information on data sources is available in the [guidance note](#).

### Tables

#### Travel time tables:

[JTS0101 to JTS0104](#)

## Small areas (LSOAs)

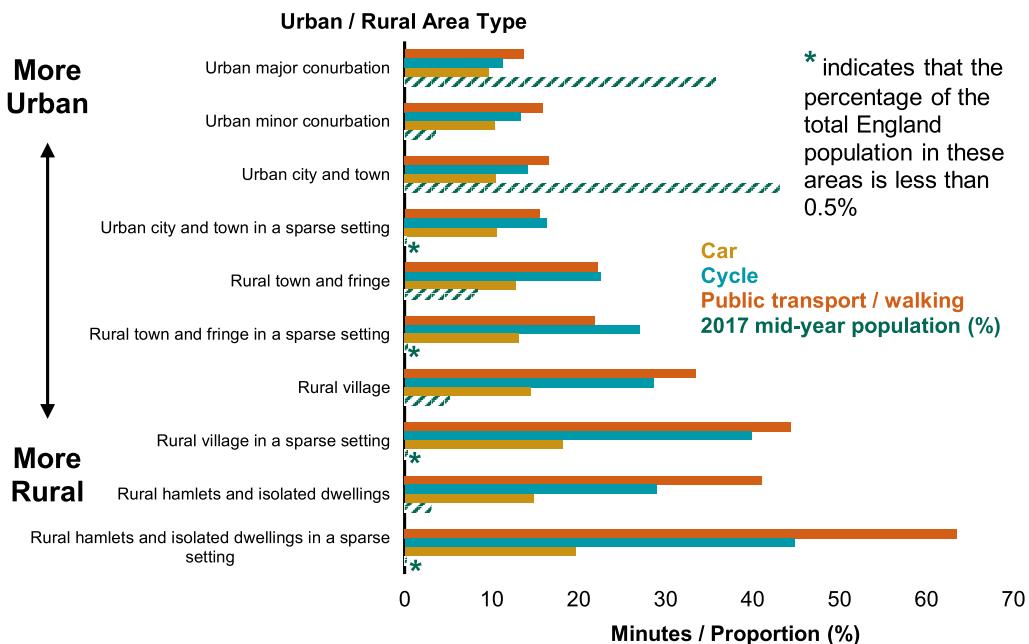
**For small areas, figures show that urban areas typically have lower travel times across all key services and modes of transport.**

Urban areas also have lower variation across the three modes, with the average minimum travel time to key services ranging between 10 and 15 minutes, compared to 14 and 30 minutes in rural areas. **Figure 4** highlights how important travel by car is for accessibility in rural areas.

**Figure 4: Average minimum travel time to all key services, by urban / rural area and mode of transport, England, 2017**

			
Urban	15 minutes	13 minutes	10 minutes
Rural	30 minutes	26 minutes	14 minutes

**Figure 5: Average minimum travel time to key services, by urban / rural area type and mode of transport, and population England, 2017**



Whilst travel times are higher in rural areas, **Figure 5** illustrates that the majority of the population live in urban areas with similar average minimum travel times to key services across each mode of transport.

## 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 by the ONS. They are static areas, defined so that they usually have a population of between 1,000 and 3,000.

### Tables

Tables for small areas (LSOAs): [JTS0501 to JTS0508](#)

### Urban and rural definitions

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

The Rural-Urban Classification 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.

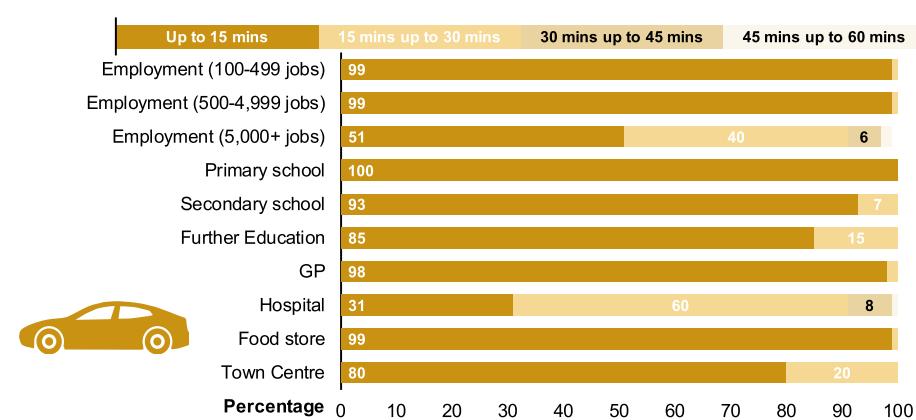
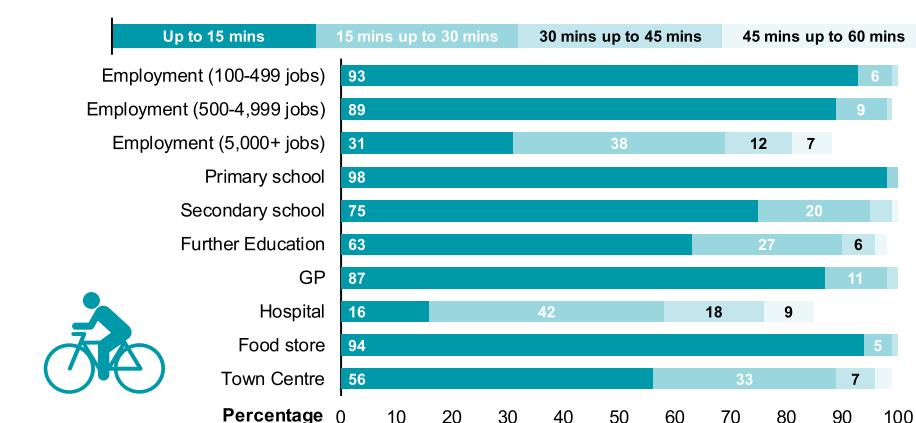
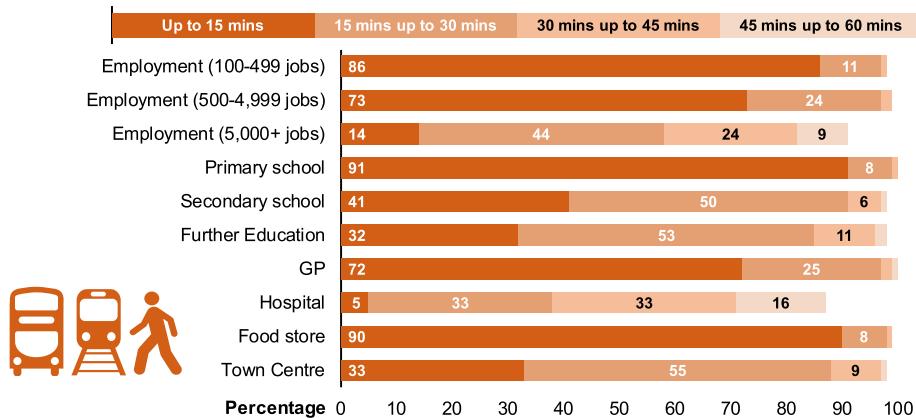
### Tables

Tables for urban and rural areas: [JTS0102](#) and [JTS0202](#)

## Destination indicators

Destination indicators measure the percentage of the service '**user population**' that can reach the nearest location providing that service is within 15, 30, 45 or 60 minutes. User populations are different for each service - see sidebar for more information.

**Figure 6: Percentage of service users able to access each key service within given times, by mode of transport, England, 2017**



### User populations

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:**  
Number of households

### Tables

Tables for destination indicators:

[JTS0201 to JTS0205;](#)

[JTS0401 to JTS0408;](#)

[JTS0501 to JTS0508](#)

Similar to the message from average minimum travel times, large employment centres (5,000+ jobs) and hospitals are the most difficult services to get to in a set amount of time, due to being 'delivered' at fewer locations. However for all other key services in England at least 98% of the user population can access them within 60 minutes irrespective of the mode of transport.

## Origin indicators

**For each selected journey time interval, users have access to more key service destinations by car than other modes. (Figure 7)**

Origin indicators illustrate how much choice users have when accessing key services. They measure the average number of key services available to users, in a particular area, within 15, 30, 45 or 60 minutes; up to a maximum of 10 locations.

**Figure 7: Average number of key service destinations available to users within selected journey times, England, 2017 (up to a maximum of 10)**

			
<b>Within 15 mins</b>	<b>2 services</b>	<b>3 services</b>	<b>5 services</b>
<b>Within 30 mins</b>	<b>5 services</b>	<b>6 services</b>	<b>8 services</b>
<b>Within 45 mins</b>	<b>7 services</b>	<b>8 services</b>	<b>9 services</b>
<b>Within 60 mins</b>	<b>8 services</b>	<b>8 services</b>	<b>10 services</b>

### Tables

Tables for origin indicators:

[JTS0301 to JTS0305](#);  
[JTS0401 to JTS0408](#);  
[JTS0501 to JTS0508](#)

**Urban users have access to more service destinations for each set time interval and mode of transport.**

**Figure 8: Average number of additional key service destinations available to users within selected journey times in urban areas compared to rural areas, England, 2017**

			
<b>Within 15 mins</b>	<b>+1 service</b>	<b>+3 services</b>	<b>+3 services</b>
<b>Within 30 mins</b>	<b>+4 services</b>	<b>+4 services</b>	<b>+1 service</b>
<b>Within 45 mins</b>	<b>+3 services</b>	<b>+3 services</b>	<b>+1 service</b>
<b>Within 60 mins</b>	<b>+3 services</b>	<b>+2 services</b>	<b>0 services</b>

## Background information

### About these statistics

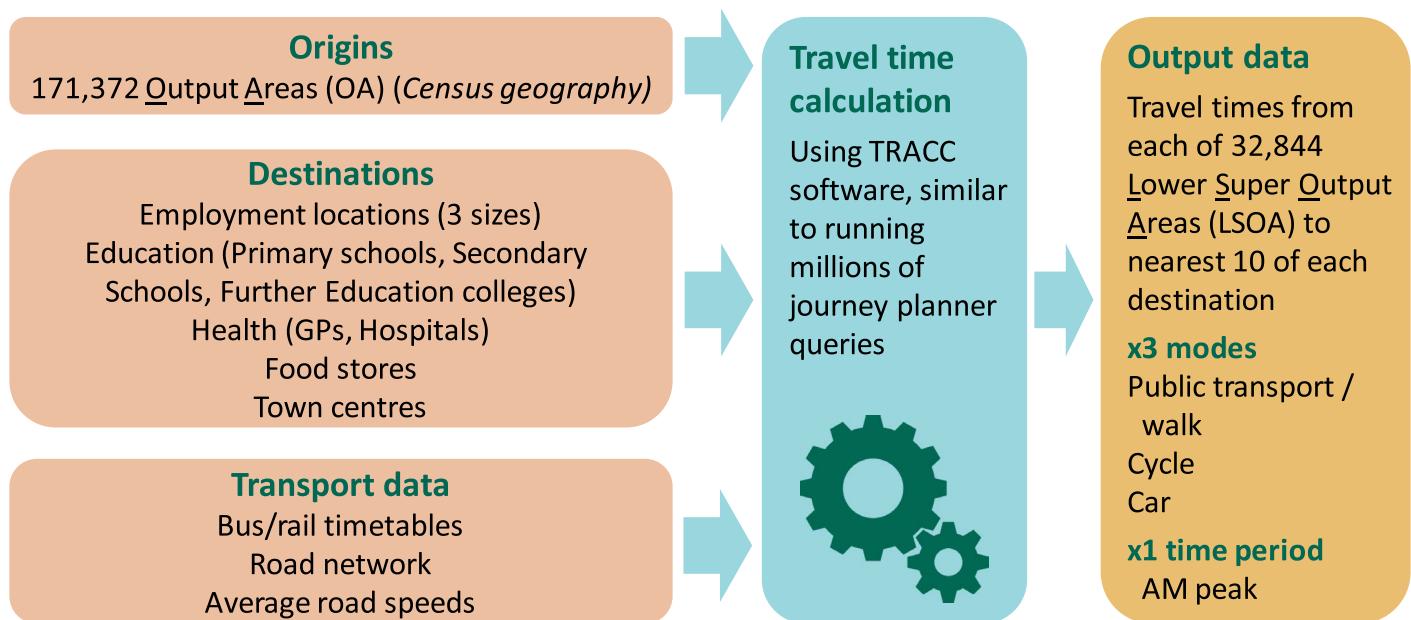
This release is the fourth annual publication of Journey Time Statistics, based on modelling theoretical journey times from local neighbourhoods to a range of destination types for England.

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

## **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 England.
- ▶ 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.
- ▶ Near the Welsh and Scottish borders, journey times may be lower in reality, as it may be possible to travel more quickly to a location in Wales or Scotland that is not included in this analysis.

## **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.

## **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](mailto:subnational.stats@dft.gov.uk).

## **Next Release**

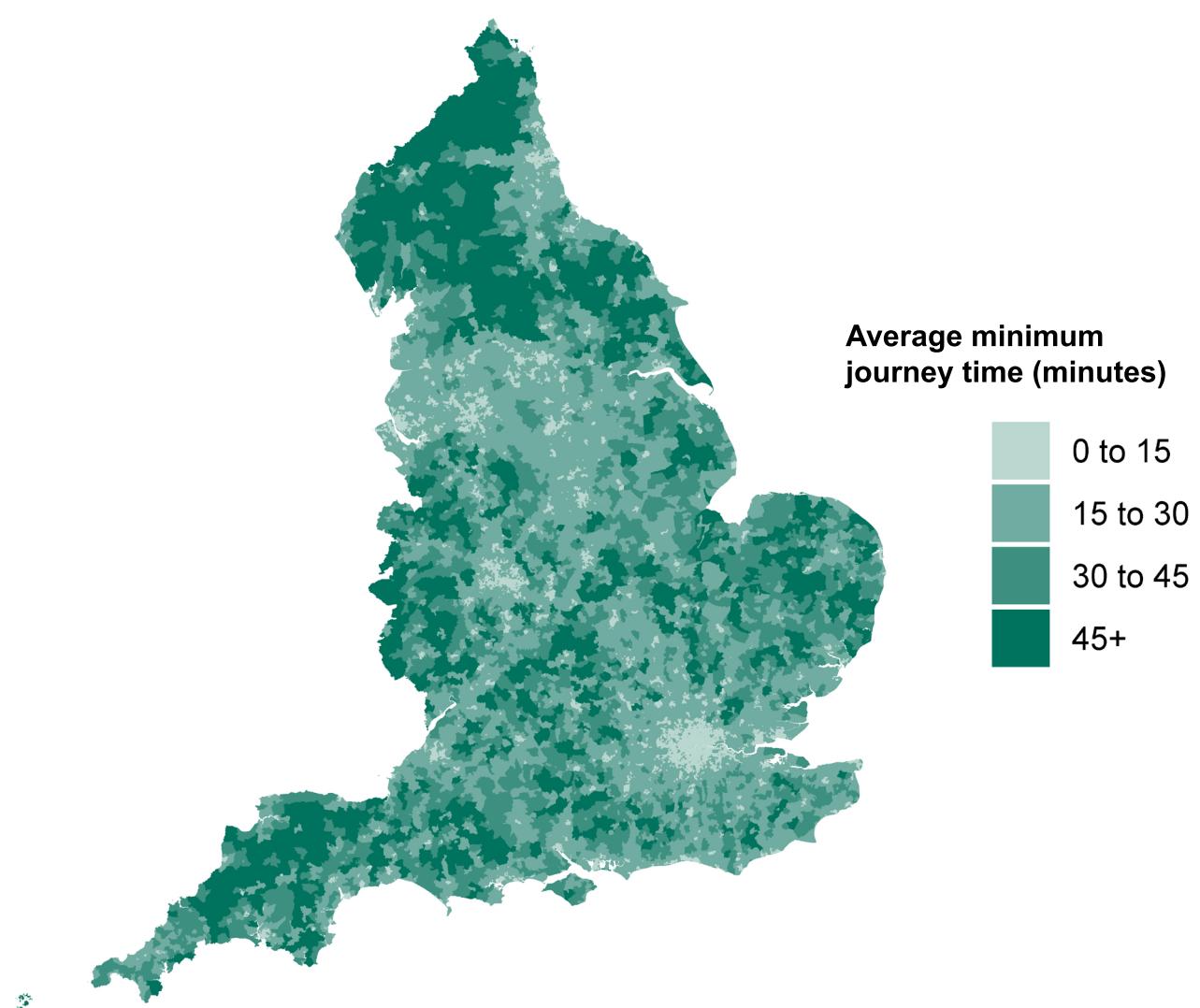
Journey Time statistics releases have been published annually. The expected date of the next release will be advertised via the [DfT statistical publications schedule](#).

## **Release of DfT Statistics publications**

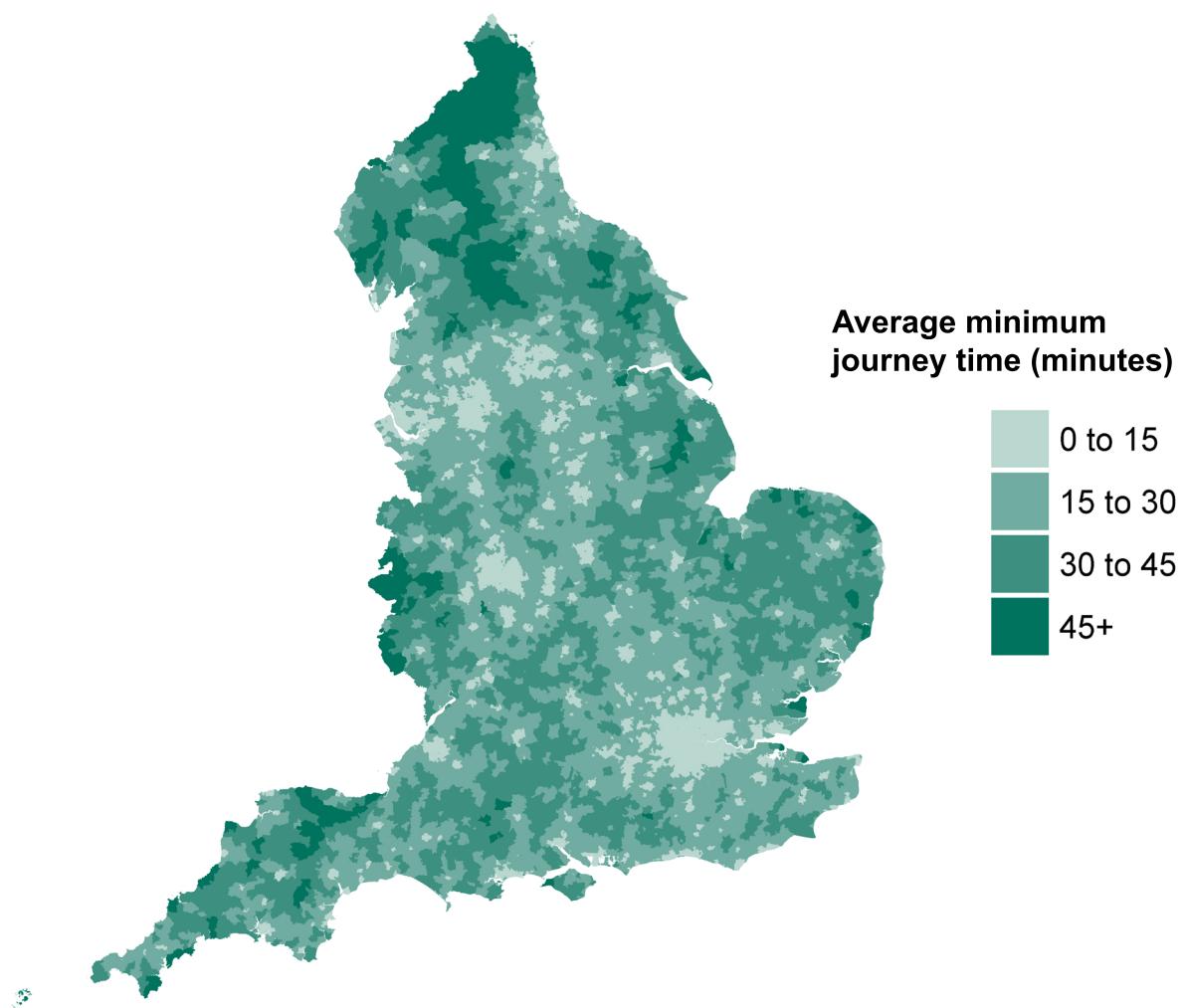
To hear more about DfT statistics publications as they are released, please follow us on Twitter via our @DfTstats account: <https://www.twitter.com/DfTstats>. TWITTER, TWEET, RETWEET and the Twitter logo are trademarks of Twitter, Inc. or its affiliates.

## Annex A - Maps

**Figure A1: Average minimum travel time for 8 key local services by public transport/walking, England, 2017**

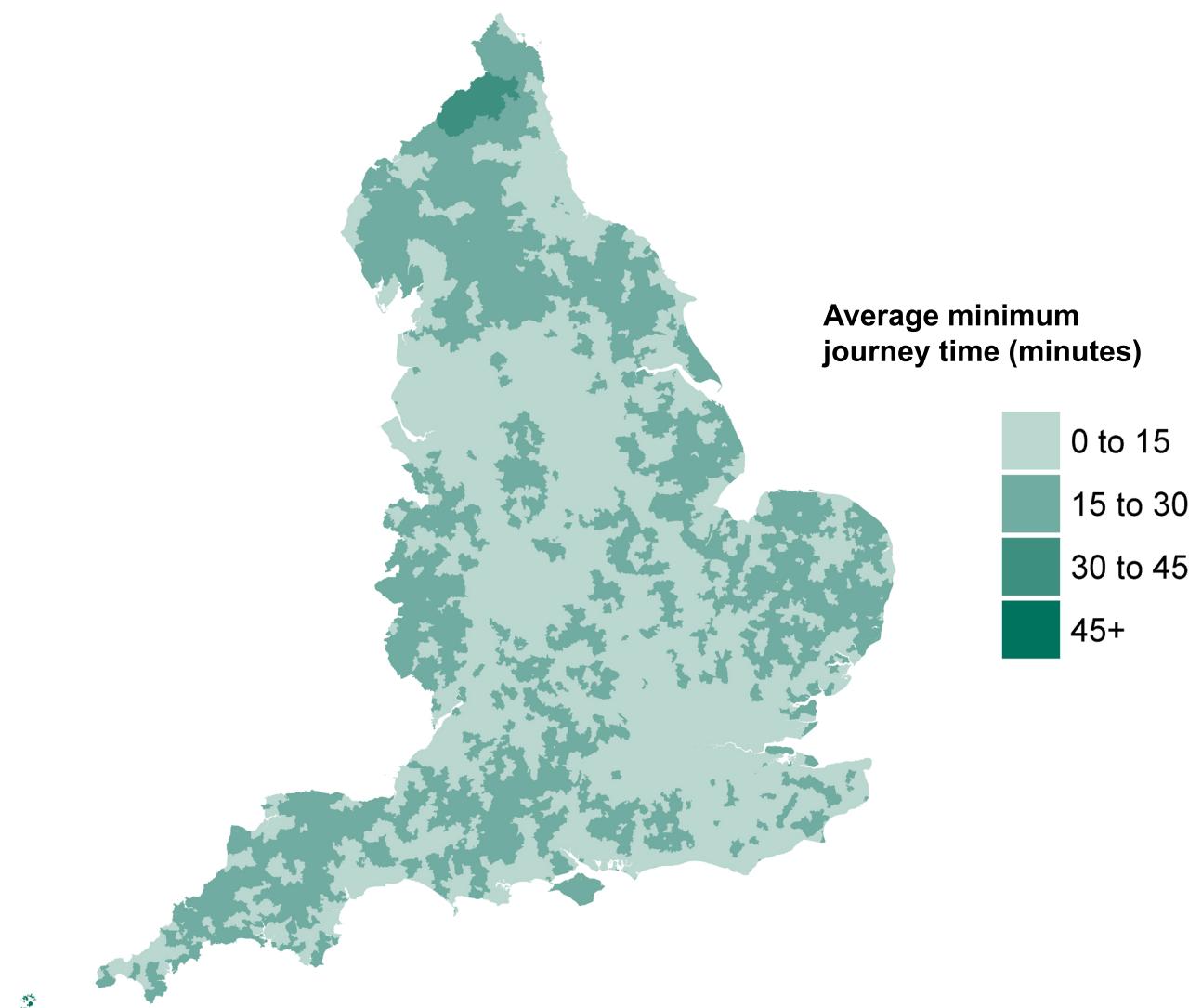


**Figure A2: Average minimum travel time for 8 key local services by cycle, England, 2017**

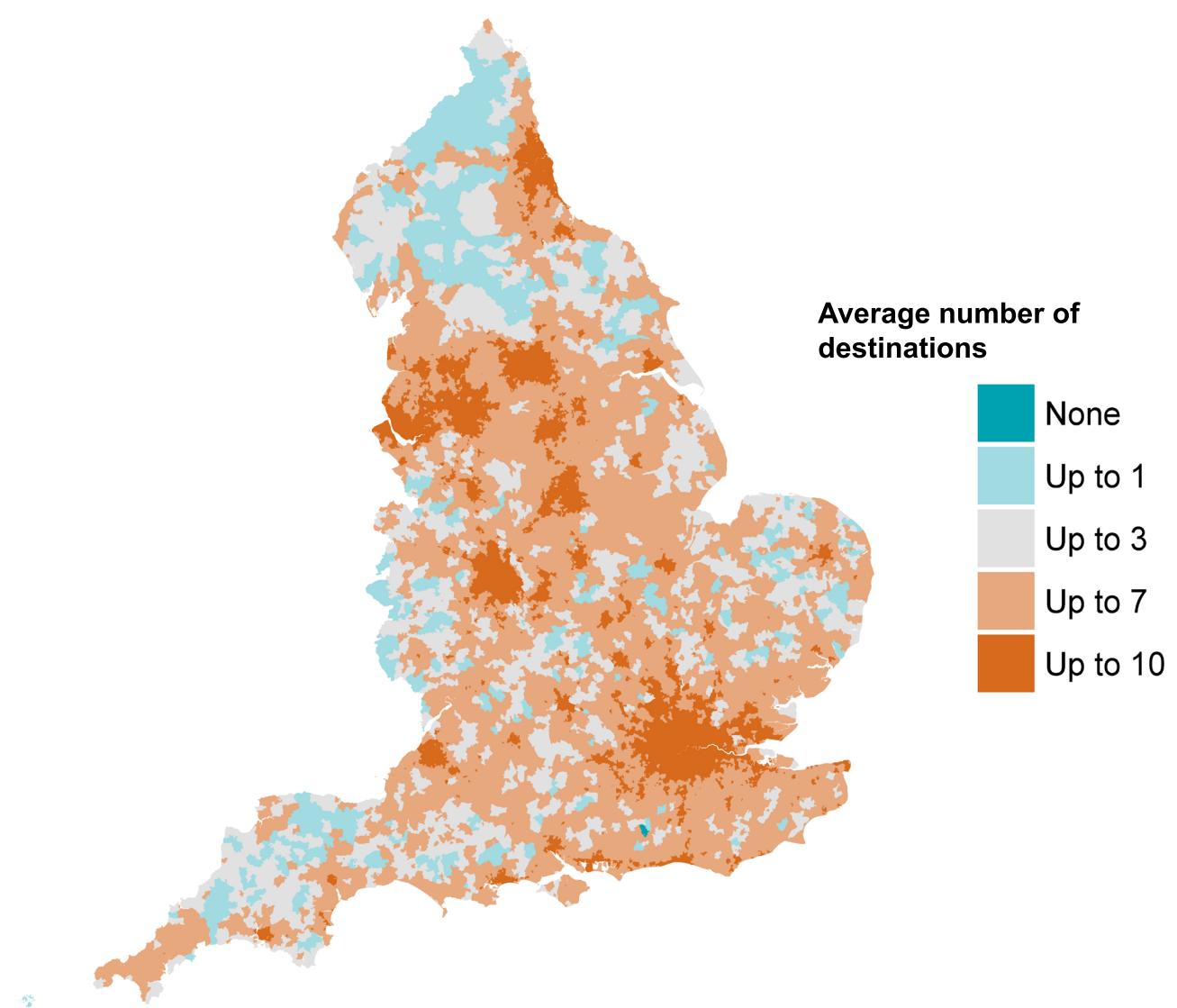


## Annex A - Maps

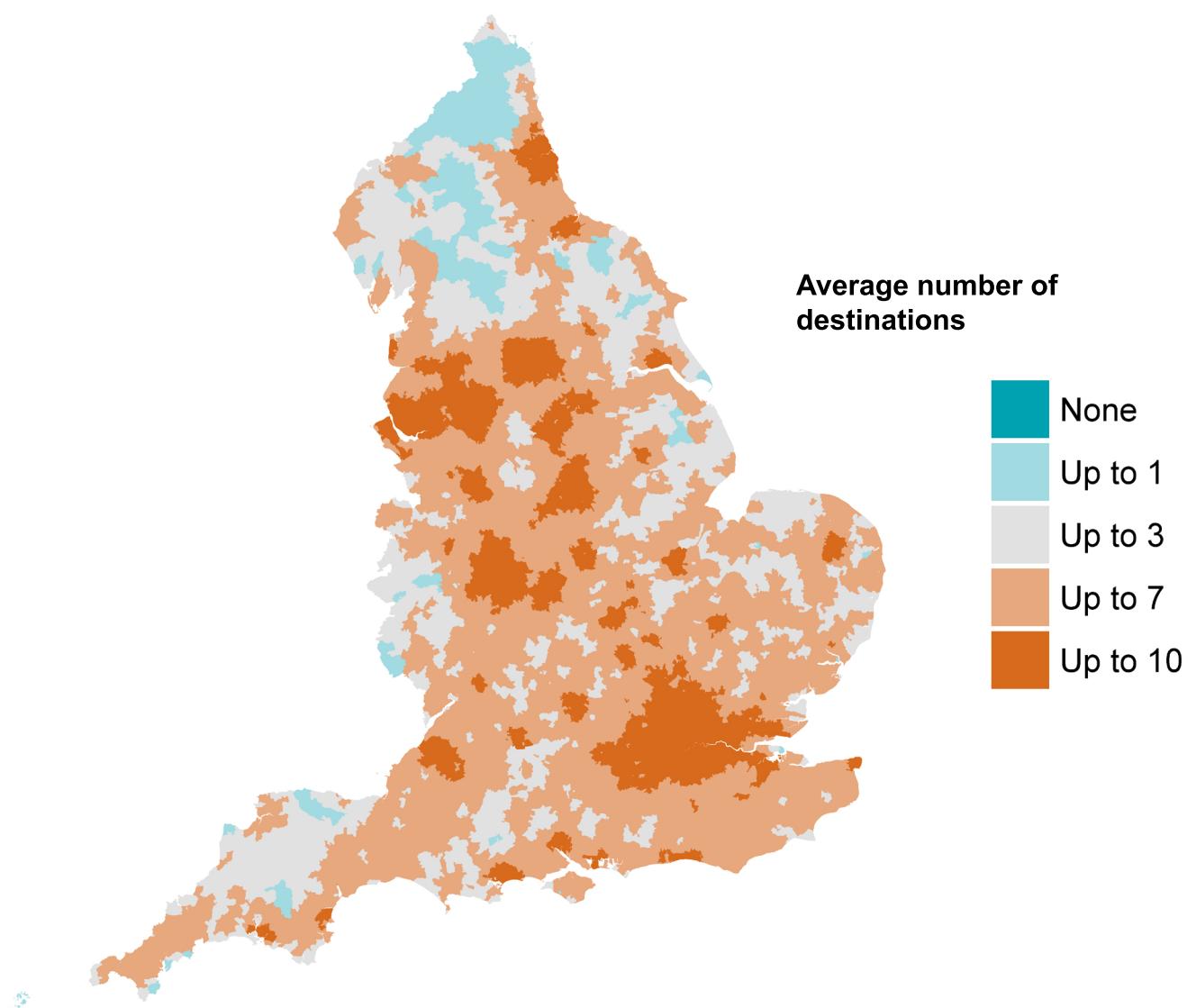
**Figure A3: Average minimum travel time for 8 key local services by car, England, 2017**



**Figure A4: Average number of key service destinations accessible to users within 45 minutes by public transport/walking, England, 2017**



**Figure A5: Average number of key service destinations accessible to users within 45 minutes by cycle, England, 2017**



**Figure A6: Average number of key service destinations accessible to users within 45 minutes by car, England, 2017**

