Department for Environment Food & Rural Affairs

Government Statistical Service

Statistical Digest of Rural England:

5 – Connectivity and Accessibility

October 2025

This publication is available at www.gov.uk/government/publications

Any enquiries regarding this publication should be sent to us at

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Cover photos

		Ward 2011	Rural-Urban Classification
TL	Helmsley marketplace	Helmsley	Rural Village and Dispersed in a sparse setting
TC	Horton-in-Ribblesdale train station with Penyghent behind	Penyghent	Rural Village and Dispersed in a sparse setting
TR	St Giles Church, Skelton	Rural West York	Rural Town and Fringe
CL	Fishing Boat, Marske-by-the-Sea with Hunt cliff in the distance	St Germain's; Saltburn	Rural Town and Fringe
CR	Thornton Force Waterfall, Ingleton Waterfalls Trail	Ingleton and Clapham	Rural Village and Dispersed in a sparse setting
BL	Farmer working the fields in Knapton	Rural West York	Rural Town and Fringe
BC	Remote pub at Ribblehead viaduct	Ingleton and Clapham	Rural Village and Dispersed in a sparse setting
BR	Glamping pod in the North York Moors	Pickering East	Rural Town and Fringe in a sparse setting

All cover photos provided by Martin Fowell.

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About the Statistical Digest of Rural England

The Statistical Digest of Rural England (hereafter the Digest) is a collection of statistics on a range of social and economic topics and provides broad comparisons between Rural and Urban areas by settlement type. For more information on our classifications, including maps and diagrams explaining the classification, see Appendix 2: Defining Rural areas.

The Digest has been restructured into thematic reports and incorporates the previously separate publication the Rural Economic Bulletin.

The Digest consists of the following thematic reports:

1. Population
2. Housing
3. Health and Wellbeing
4. Communities and Households
5. Connectivity and Accessibility
6. Education, Qualifications and Training
7. Rural Economic Bulletin
8. Energy

In March 2024 the content relating to energy that was previously split across the Housing and Communities and Households chapters has been consolidated into a new Energy report. Appendix 1 shows the sub-themes within each of the 8 Digest reports. Thematic reports will be updated individually and not every report with be updated every month. The most recent updates for this theme are shown in Table 1.

In August 2023, the "Travel and Transport" section from previous releases of the Digest was split into two sections ("Travel behaviours" and "Access to personal transport"), although no new analysis was added. In October 2025, the "Broadband and mobile" section was split into two sections ("Broadband" and "Mobile coverage"), with new analysis added.

Table 1: Update monitor for Connectivity and Accessibility subsections
where "✔" indicates the topic has been updated, "✕" indicates the topic has not been updated, and "New" indicates a new topic with analysis not previously included within the Digest.

Section	Jul 2023	Aug 2023	Jan 2025	Apr 2025	Oct 2025
Broadband	✕	✔	✕	✕	New
Mobile coverage					New
Travel behaviours	✔	New	✕	✕	✕
Access to personal transport	✔	New	✕	✔	✕
Access to services	✔	✕	✕	✕	✕
Home working	✕	✔	✔	✕	✕

Official Statistics

These statistics have been produced to the high professional standards set out in the Code of Practice for Official Statistics, which sets out eight principles including meeting user needs, impartiality and objectivity, integrity, sound methods and assured quality, frankness and accessibility.

More information on the Official Statistics Code of Practice can be found at: Code of Practice for Statistics.

This publication has been compiled by the Rural Statistics Team within the Rural and Place Team in Defra:

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There is a 2011 Census version of the Digest which looks at the data from the 2011 Census and where possible makes comparisons to the 2001 Census results. This can be found at https://www.gov.uk/government/statistics/2011-census-results-for-rural-england

The 2021 Rural-Urban Classification was released on 6 March 2025. Details of the 2021 Rural Urban Classification can be found at: https://www.gov.uk/government/collections/rural-urban-classification. It will take some time for the Digest to be updated throughout using the new classification. Where relevant, Statistics drawing on the 2021 Census will be added to Digest thematic reports.

Connectivity and Accessibility

The part of the Statistical Digest of Rural England focuses on Connectivity and Accessibility, and covers the following:

- broadband (Section A).
- mobile coverage (Section B).
- rural accessibility in terms of travel behaviour (Section C).
- accessibility to personal transport (e.g., electric vehicles) (Section D).
- accessibility to key services (such as hospitals, centres of employment, primary schools, and food stores) (Section E).
- home working (Section F).

A. Broadband

Availability of a decent, superfast, or gigabit-capable broadband service in the most rural areas is behind that of the rest of England.

Broadband – key findings

Almost all premises can get decent broadband speeds in rural areas

- In January 2025, the proportion of premises unable to access decent (at least 10Mbit/s download speed) broadband was 3% in rural areas and less than 1% in urban areas.
- The proportion of premises unable to access decent broadband was greatest in smaller rural settlements (5%).

Fewer premises can get gigabit-capable broadband in rural areas

- In January 2025, the proportion of premises with access to gigabit-capable broadband was 62% in rural areas and 90% in urban areas.
- The proportion of premises with access to gigabit-capable broadband was lowest in the smaller rural settlements (51%).

Summary

This section presents analysis of rural broadband services using the official statistics rural-urban classification. The analysis may differ from what is reported by Ofcom in its Connected Nations reports, which uses a different ‘Locale’ classification.

In January 2025, rural premises were not far behind urban areas in terms of decent broadband availability; 97% of rural premises had access to a decent broadband service, compared to just under 100% of premises in urban areas. However, in the smaller rural settlements, around 5% of premises did not have access to a decent broadband service. Since at least January 2020, the gap in decent broadband availability between smaller rural settlements and the rest of England has been decreasing.

92% of rural premises had access to a superfast broadband service in January 2025. However, 87% of premises in smaller rural settlements had access to a superfast broadband service in January 2025, compared to around 98% elsewhere in England. In other words, around 13% of premises in smaller rural settlements could not access a superfast broadband service. Since at least January 2020, the gap in superfast broadband availability between smaller rural settlements and the rest of England has been decreasing.

In January 2025, 62% of rural premises had access to a gigabit-capable broadband service, compared to 90% of premises in urban areas. In smaller rural settlements, just half of all premises had access to gigabit-capable broadband. However, since January 2020, the gap in gigabit-capable broadband availability between smaller rural settlements and the rest of England has been decreasing.

Background information

Data used within this section comes from the Ofcom 'Connected Nations update: Spring 2025' publication which reports on fixed broadband and mobile networks. Ofcom use a 'Locale classification for defining rural and urban areas. This defines rural areas as settlements with populations of less than 2,000 and results in proportionally fewer premises having access to the higher download speeds than if using the official statistics classification which includes settlements with populations up to 10,000 as rural.

Using Ofcom's 'Locale' classification to define rural and urban, the proportions of premises able to access varying broadband speeds, as of January 2025, are given in Table A-1. The majority of premises in England (both commercial and residential) have access to decent or even superfast broadband, regardless of rurality. More than half of rural premises have access to gigabit-capable broadband, compared to around 90% of premises in urban areas. Similarly, more than half of all rural premises had access to full fibre broadband, compared to three quarters of premises in urban areas.

Table A-1: Proportion of premises able to achieve fixed broadband network coverage from at least one operator, by category and Ofcom Locale classification, January 2025
Shorthand has been used in this table; '[z]' indicates where the specified broadband category is not applicable to the column. In this case, 'full fibre' is not a speed category and therefore does not relate to a specific download speed threshold. Proportions have been rounded to the nearest 1%; '[high]' indicates where proportions round to 100% but are not actually 100%.

Broadband category	Download speed	Rural	Urban	England
Decent	at least 10 Mbit/s	96%	[high]	**99%**
Superfast	at least 30 Mbit/s	89%	99%	**97%**
Gigabit-capable	at least 1 Gbit/s	56%	90%	**85%**
Full fibre	[z]	55%	76%	**74%**

Within this publication, broadband speeds refer to the rate of download available within an area. Higher speeds result in shorter download times, meaning a user has a better experience with things like streaming television programmes or films. Upload speeds – which are typically much slower than download speeds – are not covered within this publication.

The following analysis presents data on the provision of broadband services that are made available across England. It should be noted that actual take-up of these services is lower than provision. Data are at Output Area-level as released by Ofcom within their Connected Nations report, and are for England only. Output Areas (OAs) are the smallest geography for which data are typically made available, with the latest version created for the 2021 Census. Each OA generally covers around 125 households; in urban areas, OAs are usually small clusters of streets, whilst in rural areas they may cover a wider geographic area to achieve a similar population size. OAs have been used so that the 2021 rural-urban classification (RUC21) can be applied. For this reason, estimates presented within this section may not match those presented within the Connected Nations report.

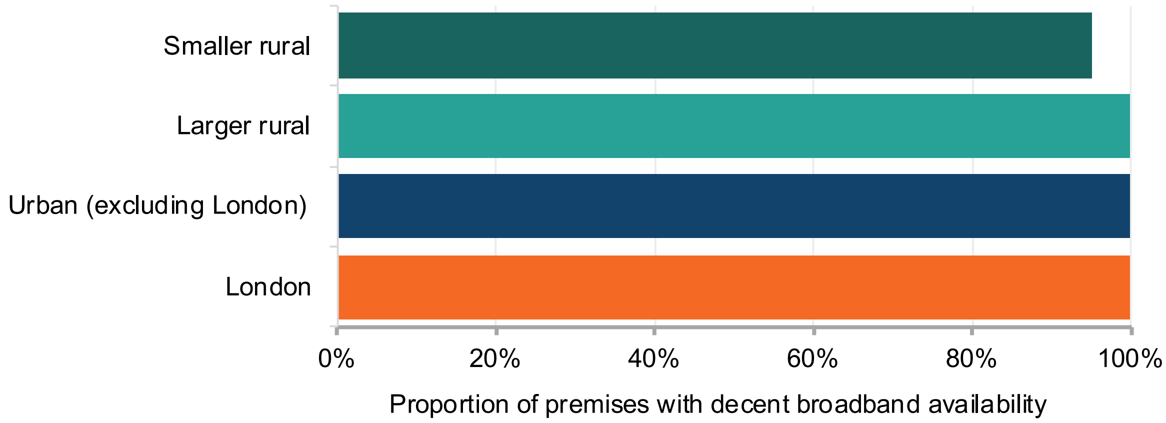
Decent broadband

Within the Connected Nations reports, ‘decent broadband’ is defined as a fixed broadband service that can provide download speeds of at least 10 Mbit/s; this can be delivered by ADSL, FTTC, HFC cable, or full fibre (Note A-3). Decent broadband provides sufficient speeds for making a high-definition video call. Over minimum decent broadband, downloading a one-hour HD TV episode (1 GB) would take almost 15 minutes (Connected Nations 2024). Data are taken from each interim spring update as at January of the reference year, with the latest being January 2025.

Latest estimates using the official statistics rural-urban classification

In January 2025, 97% of rural premises had access to a decent broadband service. The bar chart in Figure A-1 shows the proportion of premises with decent broadband availability, by 2021 rural-urban classification of output areas in England.

Figure A-1: Bar chart showing the proportion of all premises with decent broadband availability, by 2021 rural-urban classification of output areas in England, January 2025

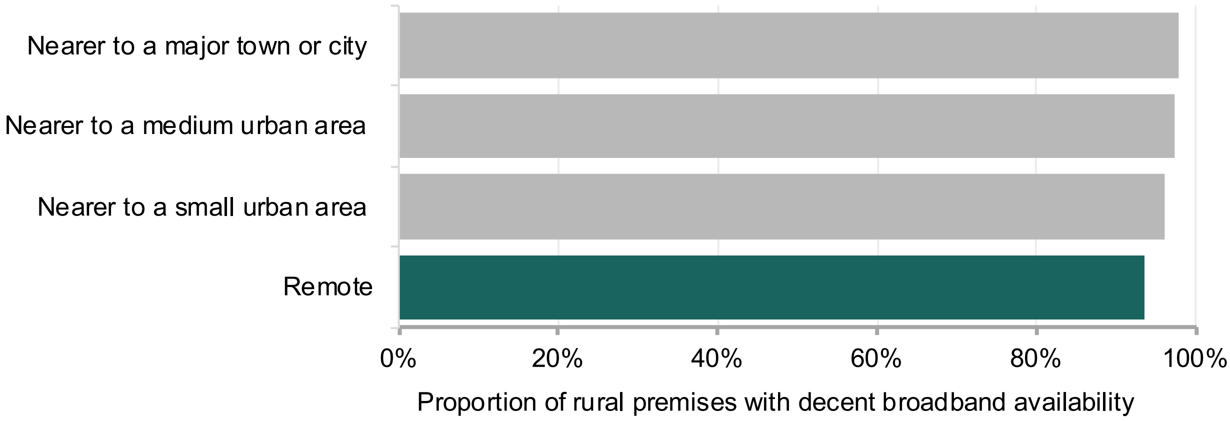


Almost all premises in England had access to a decent broadband service; however, proportions were lower in the smaller rural settlements. In January 2025, 95% of premises in smaller rural settlements had access to a decent broadband service. In other words, around 5% of premises in smaller rural settlements overall could not access a decent broadband service. Elsewhere in England (i.e., in larger rural settlements, or in urban areas), almost all premises (between 99.7% and 99.8%) had access to a decent broadband service.

In rural settlements specifically, how remote an area was impacted the proportion of premises with decent broadband availability. The bar chart in Figure A-2 shows the proportion of rural premises with decent broadband availability, by proximity to the nearest largest town or city. The more remote a rural settlement is, the smaller the proportion of premises with decent broadband availability. For the definitions of each proximity indicator, please see Note A-2.

In remote rural settlements, 94% of premises had access to a decent broadband service in January 2025. In rural settlements that were nearer to a small urban area, 96% of premises had decent broadband availability; this was 2 percentage points more than in remote rural settlements. In rural settlements that were nearer to a medium urban area, 97% of premises had decent broadband availability; this was 4 percentage points more than in remote rural settlements. In rural settlements that were nearer to a major town or city, 98% of premises had decent broadband availability – 4 percentage points higher than in remote rural settlements.

Figure A-2: Bar chart showing the proportion of all rural premises with decent broadband availability, by proximity to the largest town or city within a 30-minute drive, as defined within the 2021 rural-urban classification of output areas in England, January 2025



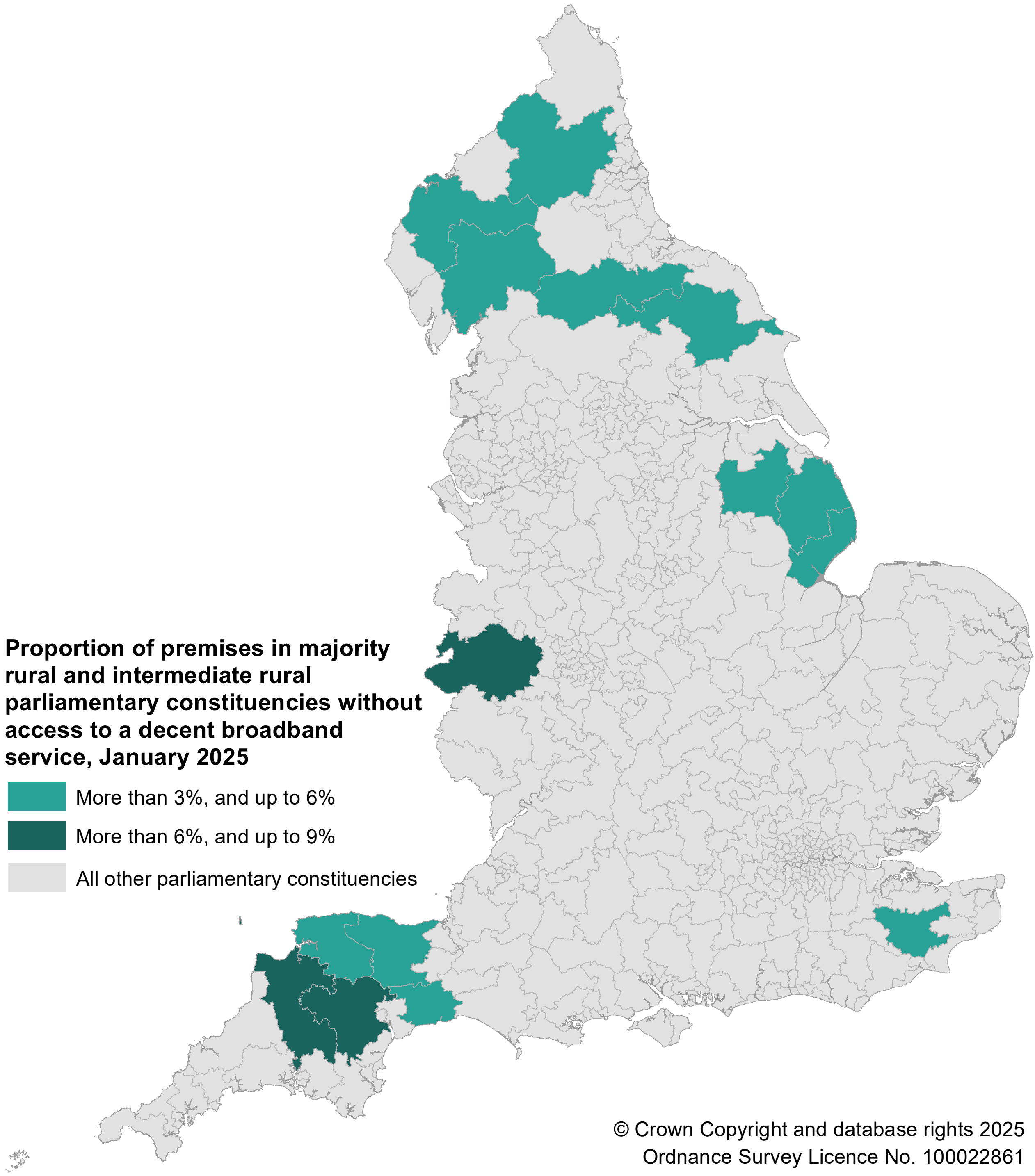
The map in Figure A-3 highlights the majority rural and intermediate rural parliamentary constituencies where the proportion of premises without access to a decent broadband service is more than 3%. Using smaller geographic areas such as Westminster Parliamentary Constituencies provides a clearer picture and makes it easier to spot local differences in broadband availability that may otherwise be hidden in larger administrative boundaries.

Proportions of premises without decent broadband for all constituencies can be found within the supplementary data tables.

At the time of data collection (January 2025), there were 119 majority rural or intermediate rural Westminster parliamentary constituencies in England:

- In 104 of these constituencies – equivalent to 87% – less than 3% of premises could not access a decent broadband service. In other words, in most majority rural and intermediate rural constituencies, more than 97% of premises could access a broadband service with download speeds of at least 10 Mbit/s.
- In 12 of these constituencies – equivalent to 10% – between 3% and 6% of premises could not access a decent broadband service. These are shown in the lightest shaded constituencies on the map, specifically around Northumberland, Cumberland, Westmorland and Furness, and North Yorkshire in the North of England. They are also near East Lindsey (East Midlands), Ashford (South East), North Devon (South West) and Somerset (South West).
- In 3 of these constituencies, more than 6% of premises could not access a decent broadband service; these are shown in the darkest shaded constituencies on the map. In both ‘Central Devon’ and ‘South Shropshire’, just under 8% of premises could not access a decent broadband service. ‘Torridge and Tavistock’ – a majority rural constituency next to ‘Central Devon’ - had the highest proportion of premises without access to a decent broadband service of all majority rural and intermediate rural constituencies, at just under 9%.

Figure A-3: Map showing the proportion of all premises in majority rural and intermediate rural Westminster parliamentary constituencies in England, as defined within the 2021 rural-urban classification, without access to a decent broadband service in January 2025
Intermediate urban and urban constituencies are presented in grey. Only majority rural and intermediate rural constituencies where more than 3% of premises had no decent broadband access are coloured on the map; the rest are also presented in grey to prevent distraction.



Comparison over time

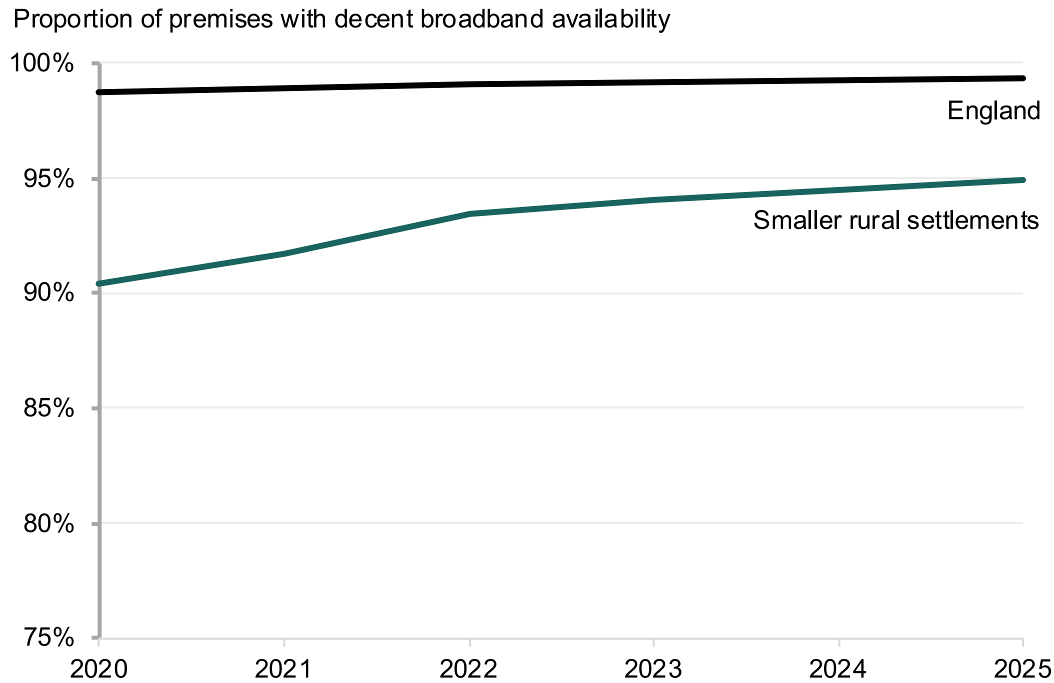
By comparing each of the spring interim Connected Nations reports, it is possible to measure the change in decent broadband availability over time. The line chart in Figure A-4 shows the change in the proportion of premises with decent broadband availability between January 2020 and January 2025. The chart specifically compares smaller rural settlements to the England average. Data for all settlement types can be found within the supplementary data tables.

Between 2020 and 2025, almost all premises in England - except for those in smaller rural settlements - had access to a decent broadband service. In smaller rural settlements, the proportion of premises with decent broadband availability increased between January 2020 and January 2025, but is still behind that of other areas in England.

In January 2020, 90% of premises in smaller rural settlements had access to a broadband service with decent download speeds. This proportion increased steadily to 93% of premises in 2022, followed by a smaller rate of increase to 2025. In January 2025, 95% of premises in smaller rural settlements had access to a decent broadband service.

The proportion of commercial and residential premises with decent broadband availability in smaller rural settlements has consistently been behind the England average. Between January 2020 and January 2025, the proportion of premises in England with decent broadband availability remained steady at 99%.

Figure A-4: Line chart showing the change in the proportion of all premises with decent broadband availability, for smaller rural settlements as defined within the 2021 rural-urban classification of output areas compared to the average for England, January 2020 to January 2025



Just 0.4% of premises in England (excluding those in smaller rural settlements) could not access a decent broadband service in January 2020; by January 2025, this proportion had decreased to just 0.2%. More specifically, the less rural the area, the higher the proportion of premises with decent broadband availability.

However, this was more apparent at the beginning of the series; in January 2020, 0.5% of premises in larger rural settlements could not access a decent broadband service, compared to 0.4% in urban areas outside of London, and 0.3% in London. By 2025, there was little difference between decent broadband availability in larger rural settlements or urban areas.

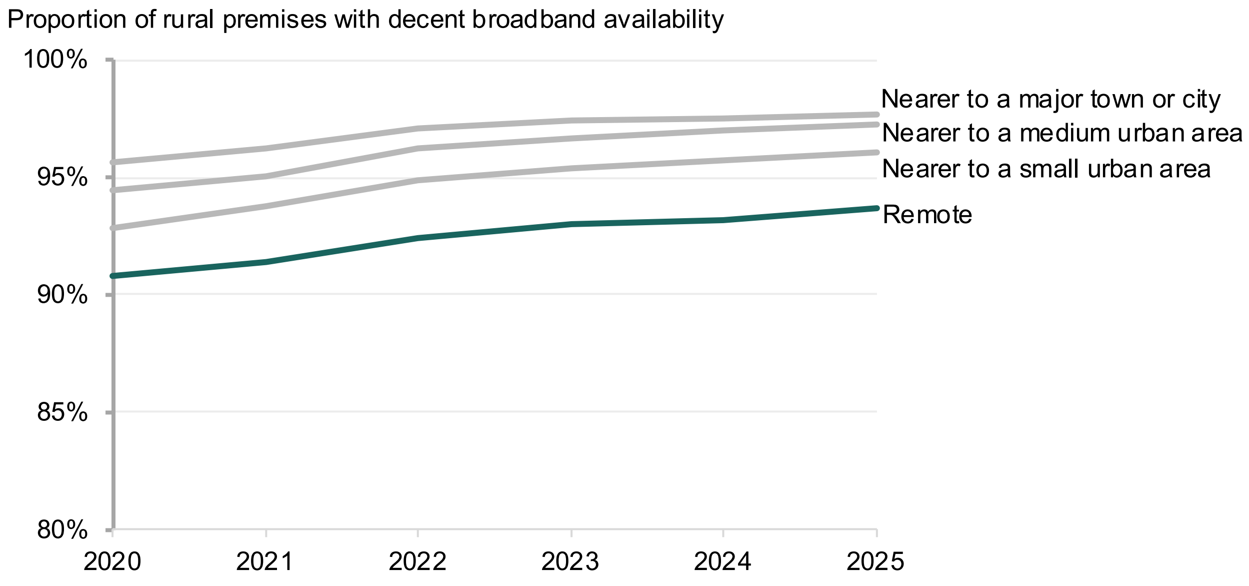
The line chart in Figure A-5 shows the change in the proportion of rural premises with decent broadband availability between 2020 and 2025, by proximity to the nearest largest town or city.

Between January 2020 and January 2025, the more remote a rural settlement was, the lower the proportion of premises with decent broadband availability. In January 2020, 91% of rural premises in remote settlements had access to a decent broadband service. This compared to 93% of premises in rural settlements that were nearer to a small urban area, and 94% of premises in rural settlements that were nearer to a medium urban area. In rural settlements that were nearer to a major town or city, 96% of premises had access to decent broadband in January 2020; this was 5 percentage points higher than in remote rural settlements. In all rural settlements, the proportion of premises with decent broadband availability increased steadily between 2020 and 2025.

In remote rural settlements, as well as those nearer to a small or medium urban area, the proportion of premises with decent broadband availability increased by 3 percentage points between 2020 and 2025. In remote rural settlements, the proportion of premises with decent broadband availability increased from 91% to 94%. In rural settlements that were nearer to a small urban area, the proportion increased from 93% to 96%. In settlements that were nearer to a medium urban area, the proportion increased from 94% to 97%. In settlements that were nearer to a major town or city, the proportion increased by just 2 percentage points, from 96% to 98%.

Among the remote rural settlements are the 'very hard to reach' areas, which are typically excluded from national coverage targets due to the higher rollout costs involved. Within these areas, some premises may not be able to access a decent fixed broadband connection. Instead, satellite services provide a new option for people and businesses to access broadband. For more information, see the Connected Nations UK report 2024.

Figure A-5: Line chart showing the change in the proportion of all rural premises in England, as defined within the 2021 rural-urban classification of output areas, with decent broadband availability between January 2020 to January 2025, by proximity to the largest town or city within a 30-minute drive



Superfast broadband

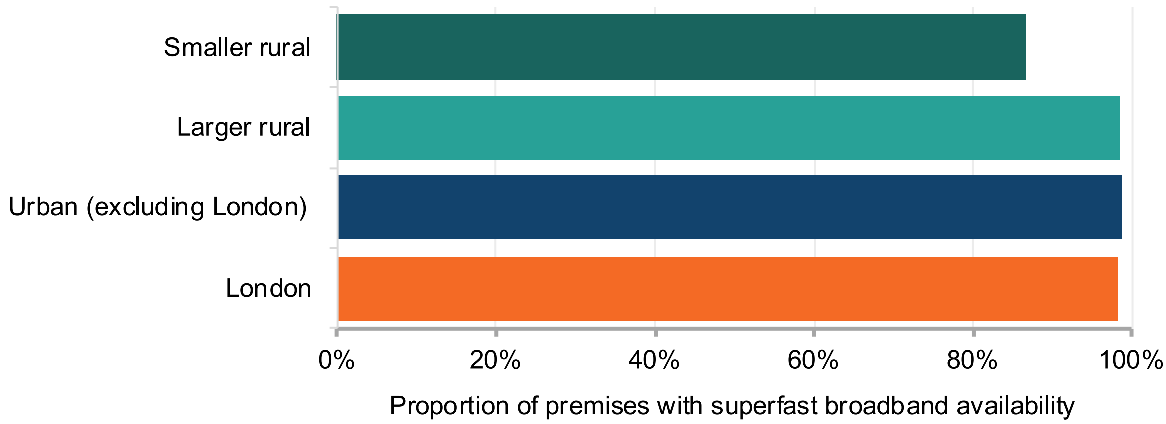
Within the Connected Nations reports, 'superfast broadband' is defined as a fixed broadband service that can provide download speeds of at least 30 Mbit/s; this can be delivered by FTTC, HFC cable, or full fibre (Note A-3). Superfast broadband provides sufficient speed for one-person streaming 4K/UHD video. Downloading a one-hour HD TV episode would take under four and a half minutes and several devices can work simultaneously (Connected Nations 2024). Data are taken from each interim spring update as at January of the reference year, with the latest being January 2025.

Latest estimates using the official statistics rural-urban classification

In January 2025, 92% of rural premises (commercial and residential) had access to a superfast broadband service. The bar chart in Figure A-6 shows the proportion of premises with superfast broadband availability, by 2021 rural-urban classification of output areas in England. The majority of settlements in England had access to superfast broadband; however, proportions were still lower in the smaller rural settlements.

In January 2025, 87% of premises in smaller rural settlements had access to a superfast broadband service. Between 98% and 99% of premises in England (excluding those in smaller rural settlements) had access to a superfast broadband service in January 2025. Superfast broadband availability was highest in urban areas outside of London (99%); here, the proportion of premises with access to a superfast broadband service in January 2025 was 12 percentage points higher than in smaller rural settlements.

Figure A-6: Bar chart showing the proportion of all premises with superfast broadband availability, by 2021 rural-urban classification of output areas in England, January 2025

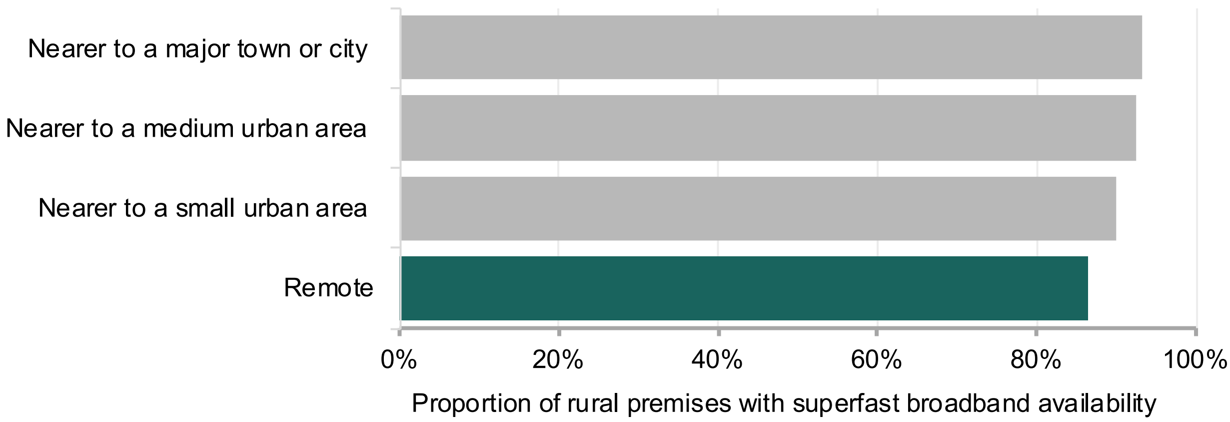


In rural settlements specifically, how remote an area was impacted the proportion of premises with superfast broadband availability. The bar chart in Figure A-7 shows the proportion of rural premises with superfast broadband availability, by proximity to the nearest largest town or city. For the definitions of each proximity indicator, please see Note A-2.

The more remote a rural settlement is, the smaller the proportion of premises with superfast broadband availability. In remote rural settlements, 86% of premises had access to a superfast broadband service in January 2025. In rural settlements that were nearer to a small urban area, 90% of premises had access to superfast broadband; this was 3 percentage points more than in remote rural settlements.

In rural settlements that were nearer to a major town or city, 93% of premises had access to superfast broadband; this was 6 percentage points more than in remote rural settlements. In rural settlements that were nearer to a medium urban area, the proportion of premises that had access to superfast broadband was similar to those settlements that were nearer to a major town or city.

Figure A-7: Bar chart showing the proportion of all rural premises with superfast broadband availability, by proximity to the largest town or city within a 30-minute drive, as defined within the 2021 rural-urban classification of output areas in England, January 2025



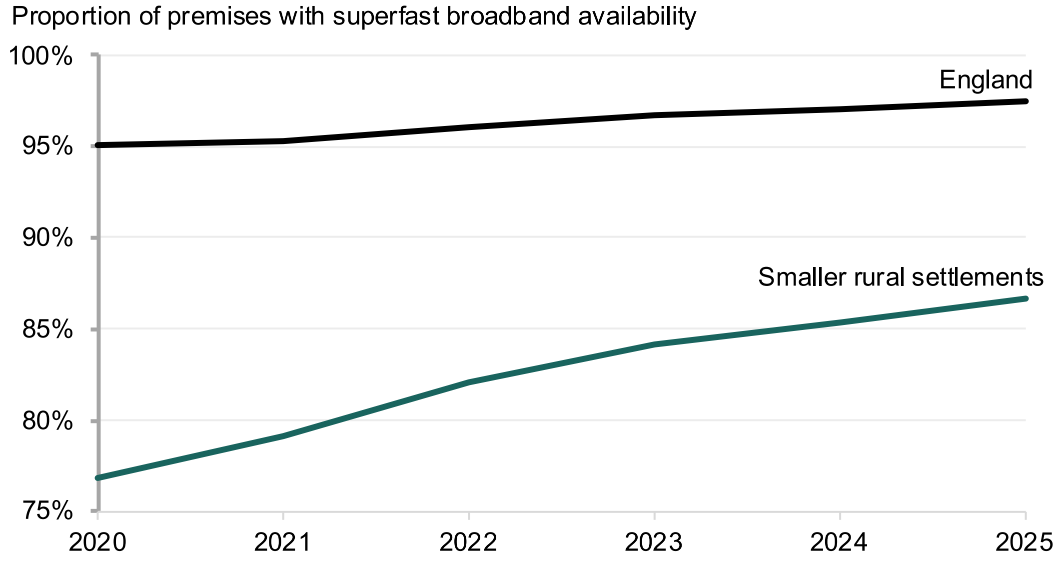
Comparison over time

By comparing each of the spring interim Connected Nations reports, it is possible to measure the change in superfast broadband availability over time. The line chart in Figure A-8 shows the change in the proportion of premises with superfast broadband availability between January 2020 and January 2025. The chart specifically compares smaller rural settlements to all other settlement types in England. Data for all settlement types within the 2021 rural-urban classification can be found within the supplementary data tables.

Whilst the proportion of premises with superfast broadband availability has increased in smaller rural settlements, the level of coverage has been behind that of other settlement types in England. In January 2020, 77% of premises in smaller rural settlements had access to a superfast broadband service. This proportion increased steadily to 87% in January 2025, resulting in an overall increase of 10 percentage points. The rate of increase in smaller rural settlements was greater than in England overall, but that is because the level of superfast broadband availability has consistently been higher. In January 2020, 95% of premises in England were able to access a superfast broadband service. More specifically, 96% of premises in either larger rural settlements or in London could access superfast broadband, compared to 97% in urban areas outside of London.

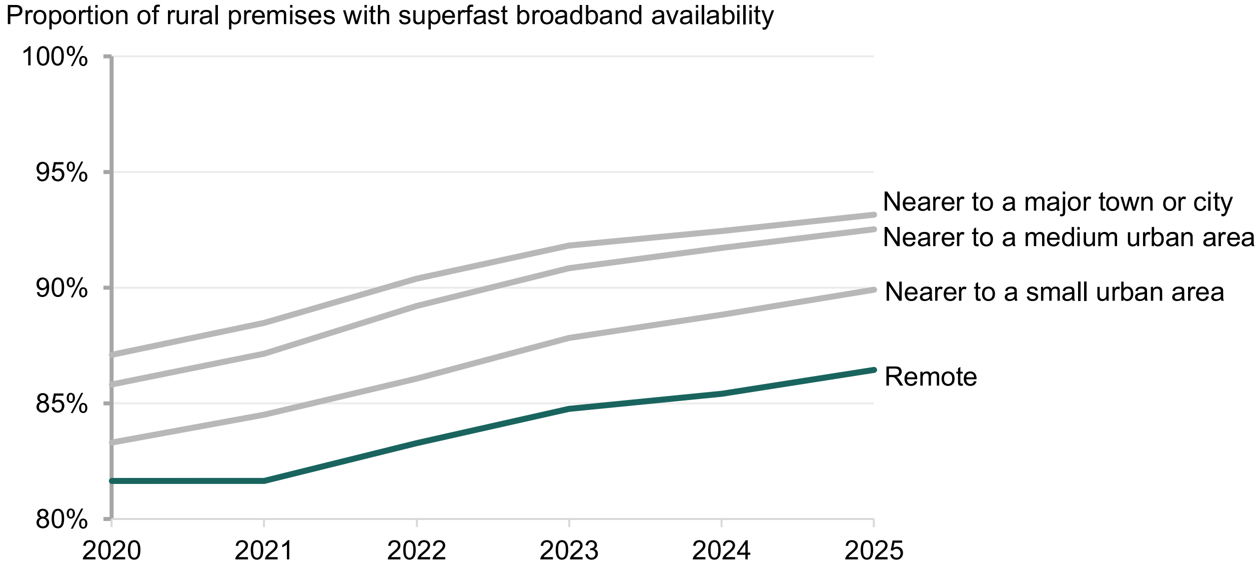
Between January 2020 and January 2025, the proportion of premises with access to superfast broadband in England increased by just 2 percentage points, from 95% to 97%. The remaining few per cent without superfast broadband availability are the ones with higher rollout costs due to being harder to reach.

Figure A-8: Line chart showing the change in the proportion of all premises with superfast broadband availability, for smaller rural settlements as defined within the 2021 rural-urban classification of output areas compared to the average for England , January 2020 to January 2025



The line chart in Figure A-9 shows the change in the proportion of rural premises with superfast broadband availability between January 2020 and January 2025, by proximity to the nearest largest town or city.

Figure A-9: Line chart showing the change in the proportion of all rural premises in England, as defined within the 2021 rural-urban classification of output areas, with superfast broadband availability between January 2020 to January 2025, by proximity to the largest town or city within a 30-minute drive



Between January 2020 and January 2025, the more remote a rural settlement was, the lower the proportion of premises with superfast broadband availability. In January 2020, 82% of rural premises in remote settlements had access to a superfast broadband service. This compared to 83% of premises in rural settlements that were nearer to a small urban area, and 86% of premises in rural settlements that were nearer to a medium urban area.

In rural settlements that were nearer to a major town or city, 87% of premises had access to superfast broadband; this was 5 percentage points higher than in remote rural settlements.

By January 2021, the proportion of premises in remote rural settlements with access to superfast broadband changed very little, although the absolute number of premises with access did increase. However, for all other rural settlements – regardless of the size of their nearest largest town or city – the proportion of premises with access to superfast broadband had increased.

Between January 2021 and January 2025, there were consistent increases in the proportion of rural premises with access to a superfast broadband service - whether the settlements were remote, nearer to a small or medium urban area, or nearer to a major town or city, superfast broadband availability increased by around 5 percentage points. In remote rural settlements, the proportion of premises with superfast broadband availability increased from 82% to 86%. In rural settlements that were nearer to a small urban area, the proportion increased from 85% to 90%. In rural settlements that were nearer to a medium urban area, the proportion increased from 87% to 93%. In rural settlements that were nearer to a major town or city, the proportion increased from 88% to 93%.

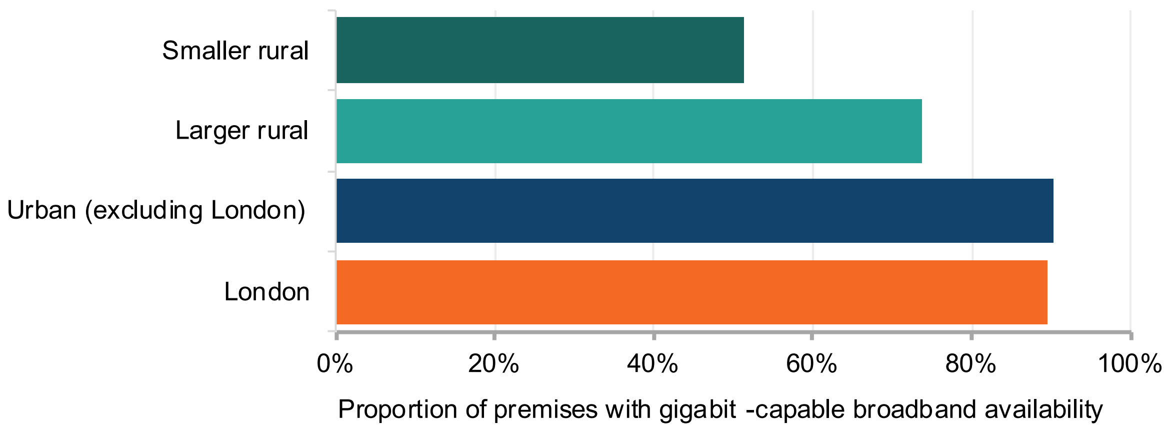
Gigabit capable broadband

Within the Connected Nations reports, 'gigabit-capable broadband' is defined as a fixed broadband service that can offer download speeds of 1 Gbit/s and above, delivered by HFC cable or full fibre (Note A-3). With gigabit-capable broadband, it is feasible to download a full 4K film (100GB) in under 15 mins, or a one-hour HD TV episode in 8 seconds (Connected Nations 2024).
Data are taken from each interim spring update as at January of the reference year, with the latest being January 2025.

Latest estimates using the official statistics rural-urban classification

In January 2025, 62% of rural premises had access to a gigabit-capable broadband service. The bar chart in Figure A-10 shows the proportion of premises with gigabit-capable broadband availability, by 2021 rural-urban classification of output areas in England.

Figure A-10: Bar chart showing the proportion of all premises with gigabit-capable broadband availability, by 2021 rural-urban classification of output areas in England, January 2025



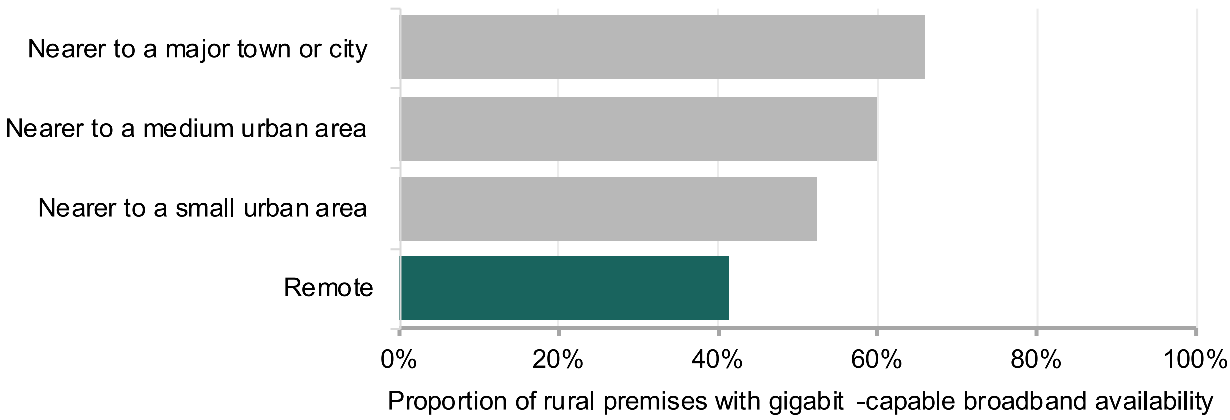
The more rural the area, the smaller the proportion of premises with gigabit-capable broadband availability. In smaller rural settlements, 51% of premises had access to a gigabit-capable broadband service in January 2025; this was the lowest availability of all settlement types in England. In larger rural settlements, 74% of premises had access to gigabit-capable broadband; this was 23 percentage points more than in smaller rural settlements. In urban areas, whether in London or not, 90% of premises had access to gigabit-capable broadband; this was 39 percentage points higher than in smaller rural settlements.

In rural settlements specifically, how remote an area was impacted the proportion of premises with gigabit-capable broadband availability. The bar chart in Figure A-11 shows the proportion of rural premises with gigabit-capable broadband availability, by proximity to the nearest largest town or city. For the definitions of each proximity indicator, please see Note A-2.

The more remote a rural settlement is, the smaller the proportion of premises with gigabit-capable broadband availability. In remote rural settlements, 41% of premises had access to a gigabit-capable broadband service in January 2025. In rural settlements that were nearer to a small urban area, 52% of premises had access to gigabit-capable broadband; this was 11 percentage points more than in remote rural settlements.

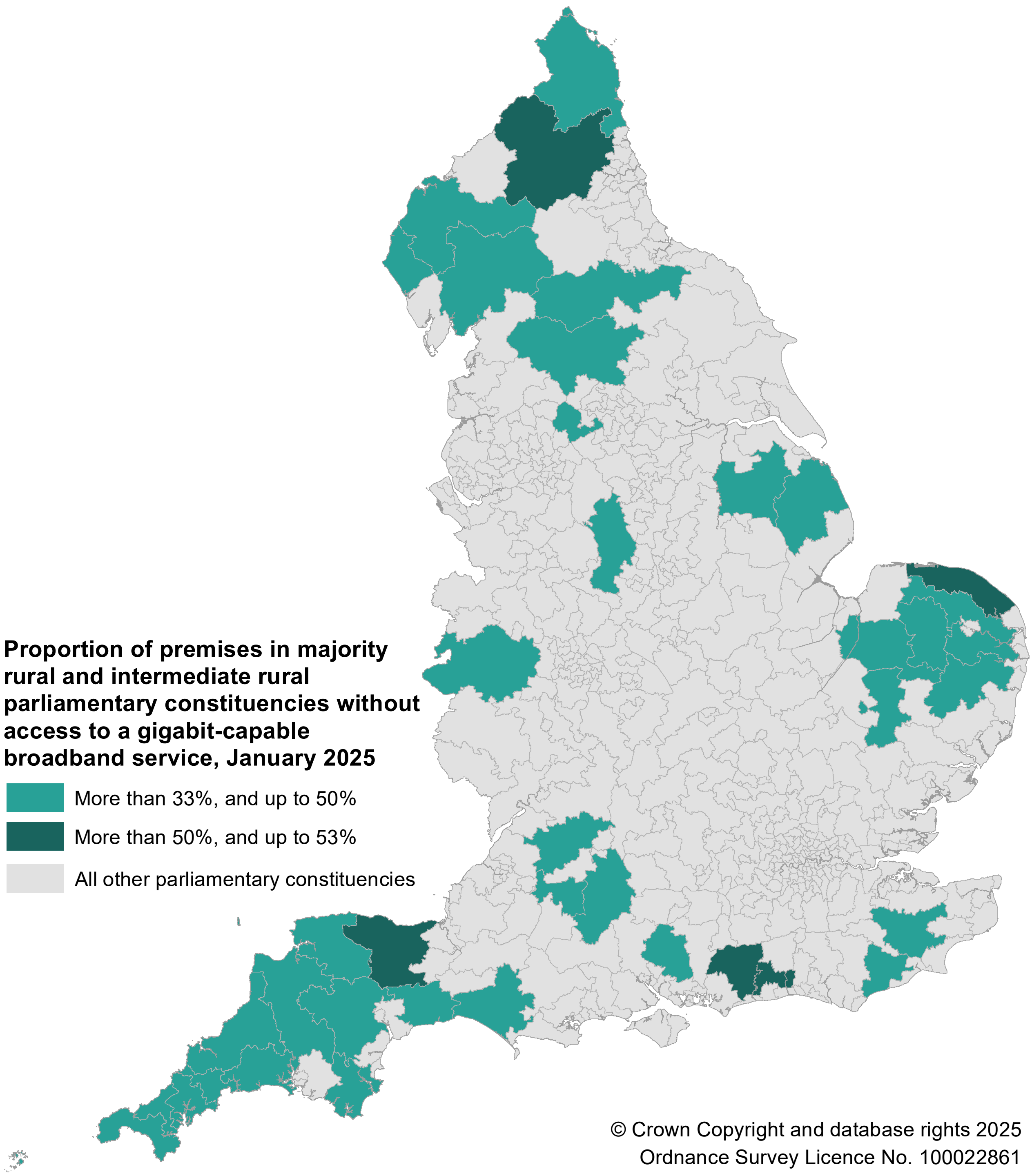
In rural settlements that were nearer to a medium urban area, 60% of premises had access to gigabit-capable broadband; this was 19 percentage points more than in remote rural settlements. In rural settlements that were nearer to a major town or city, 66% of premises had access to gigabit-capable broadband; this was 25 percentage points more than in remote rural settlements.

Figure A-11: Bar chart showing the proportion of all rural premises with gigabit-capable broadband availability, by proximity to the largest town or city within a 30-minute drive, as defined within the 2021 rural-urban classification of output areas in England, January 2025



The map in Figure A-12 highlights the majority rural and intermediate rural parliamentary constituencies where the proportion of premises without access to a gigabit-capable broadband service is more than 33%. Proportions of premises without gigabit-capable broadband for all constituencies can be found within the supplementary data tables.

Figure A-12: Map showing the proportion of all premises in majority rural and intermediate rural Westminster parliamentary constituencies, as defined within the 2021 rural-urban classification, without access to a gigabit-capable broadband service in January 2025
Intermediate urban and urban constituencies are presented in grey. Only majority rural and intermediate rural constituencies where more than 33% of premises had no gigabit broadband access are coloured on the map; the rest are also presented in grey to prevent distraction.



At the time of data collection (January 2025), there were 119 majority rural or intermediate rural Westminster parliamentary constituencies in England:

- In 80 of these constituencies – equivalent to 67% – less than 33% of premises could not access a gigabit-capable broadband service. The majority rural and intermediate rural constituencies with the lowest proportion of premises without gigabit-capable broadband access – or rather, the highest proportion of premises able to access gigabit-capable broadband – were located in the 'Yorkshire and the Humber' region of England. This is followed by constituencies in the 'South East', and 'East Midlands'.

- In 35 of these constituencies – equivalent to 29% – between 33% and 50% of premises could not access a gigabit-capable broadband service. These were concentrated in the Lake District, Yorkshire Dales, Devon and Cornwall, as well as in Norfolk, Central Lincolnshire, and Northumberland.

- In 4 of these constituencies, more than 50% of premises could not access a gigabit-capable broadband service. In 'Hexham', just under 51% of premises could not access gigabit-capable broadband. In both 'North Norfolk' and 'Arundel and South Downs', more than 52% of premises could not access gigabit-capable broadband. 'Tiverton and Minehead' had proportionally more premises without access to gigabit-capable broadband than any other majority rural and intermediate rural constituencies, at more than 53%.

Comparison over time

By comparing each of the spring interim Connected Nations reports, it is possible to measure the change in gigabit-capable broadband availability over time. The line chart in Figure A-13 shows the change in the proportion of premises with gigabit-capable broadband availability between January 2021 and January 2025. Whilst other broadband time series charts within this publication typically start at 2020, the gigabit chart starts at 2021, as this was the year Project Gigabit was launched. Data for all settlement types within the 2021 rural-urban classification can be found within the supplementary data tables.

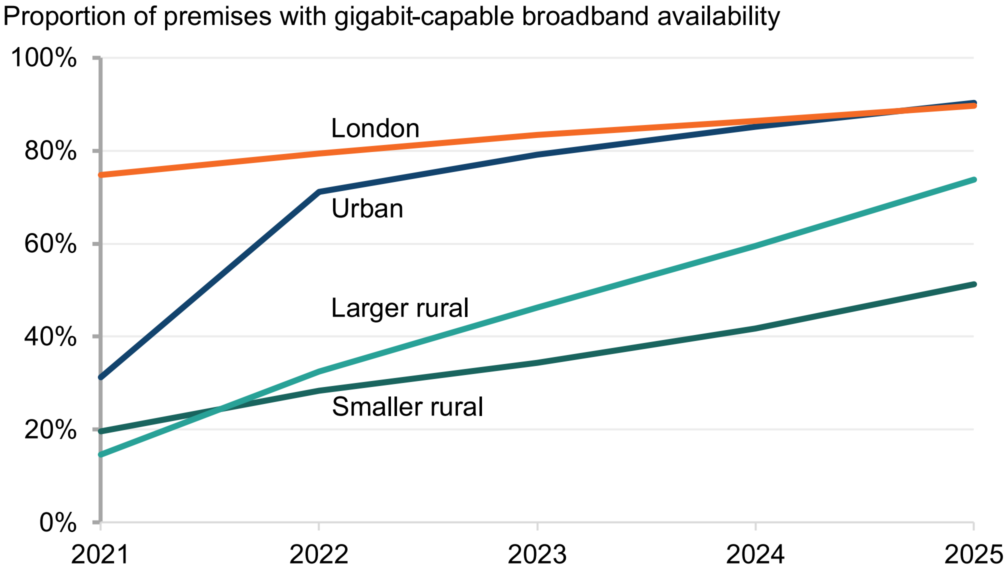
Whilst the proportion of premises with gigabit-capable broadband availability has increased in smaller rural settlements, the rate of progression has been behind that of other settlement types in England. In January 2021, 20% of premises in smaller rural settlements had access to a gigabit-capable broadband service; this proportion increased steadily to 51% in January 2025. In comparison, in larger rural settlements, the proportion of gigabit-capable premises increased from 15% to 74% across the same period; this means that the proportional increase in gigabit-capable premises in larger rural settlements (59 percentage points) was almost double that of smaller rural settlements (32 percentage points). However, before Project Gigabit was introduced, there were proportionally fewer gigabit-capable premises in larger rural settlements compared to those in smaller rural settlements.

The proportion of gigabit-capable premises in urban areas was consistently higher than in rural settlements between January 2021 and January 2025. In urban areas outside of London, there was a considerable increase in the proportion of gigabit-capable premises at the start of Project Gigabit; between January 2021 and January 2022, the proportion of gigabit-capable premises in urban areas more than doubled, increasing from 31% to 71%. Following this, the proportion of urban premises with gigabit-capable broadband increased steadily to 90% in January 2025.

Therefore, whilst the rate of increase was not as consistent in urban areas as it was in larger rural settlements, the overall size of this increase was the same (59 percentage points).

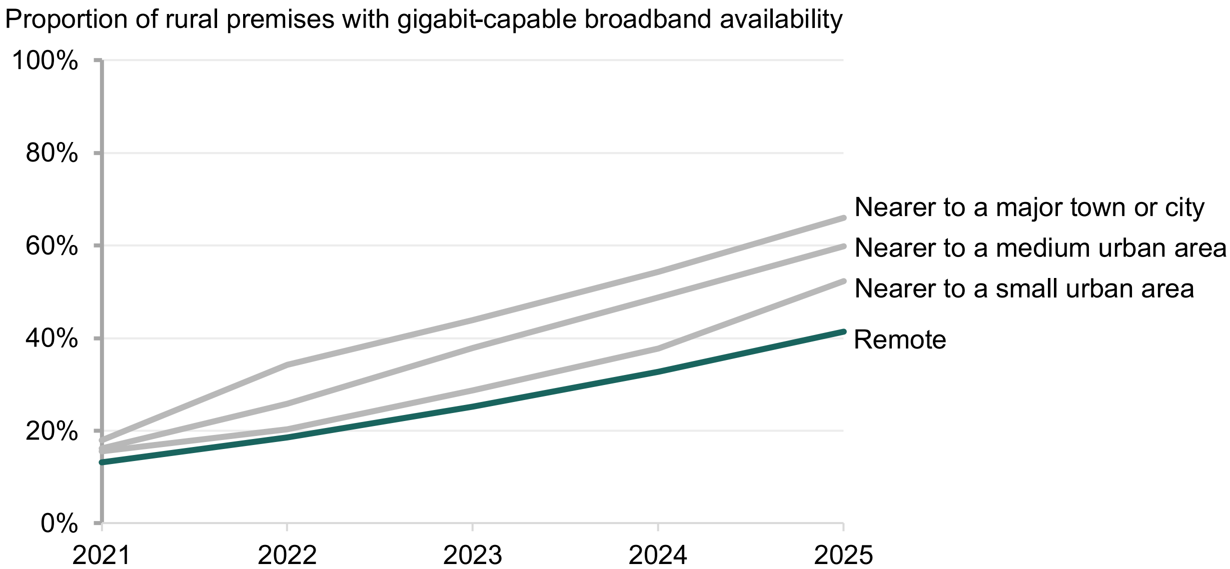
In London, 3 in every 4 premises already had access to gigabit-capable broadband in January 2021; this means that the rate of increase was lower in these areas compared to other settlement types in England, increasing by 15 percentage points, to 90% in January 2025.

Figure A-13: Line chart showing the change in the proportion of all premises with gigabit-capable broadband availability, by 2021 rural-urban classification of output areas in England, January 2021 to January 2025
'Urban' excludes London.



The line chart in Figure A-14 shows the change in the proportion of rural premises with gigabit-capable broadband availability between January 2021 and January 2025, by proximity to the nearest largest town or city.

Figure A-14: Line chart showing the change in the proportion of all rural premises in England, as defined within the 2021 rural-urban classification of output areas, with gigabit-capable broadband availability between January 2021 to January 2025, by proximity to the largest town or city within a 30-minute drive



Between January 2021 and January 2025, the more remote a rural settlement was, the lower the proportion of gigabit-capable premises. In January 2021, 13% of rural premises in remote settlements had access to a gigabit-capable broadband service. This compared to 16% of premises in rural settlements that were either nearer to a small urban area, or nearer to a medium urban area. In rural settlements that were nearer to a major town or city, 18% of premises had access to gigabit-capable broadband; this was 5 percentage points higher than in remote settlements.

Whilst the proportion of rural premises with gigabit-capable broadband availability increased at varying rates depending on the settlements' proximity to urban areas, these rates of changes were fairly steady between January 2021 and January 2025.

Between January 2021 and January 2025, the proportion of remote rural premises with gigabit-capable broadband availability increased by 28 percentage points, from 13% to 41%. In rural settlements that were nearer to a small urban area, the proportion of gigabit-capable premises increased by 37 percentage points, from 16% to 52%. In rural settlements that were nearer to a medium urban area, the proportion of gigabit-capable premises increased by 44 percentage points, from 16% to 60%. In rural settlements that were nearer to a major town or city, the proportion of gigabit-capable premises increased by 48 percentage points, from 18% to 66%. This means that the rate of change in the proportion of gigabit-capable premises in rural settlements that were nearer to a major town or city was nearly double that of remote rural settlements.

Broadband explanatory notes

- **Note A-1**

Analysis in this section covers all premises (both residential and commercial) that are in scope for the location.

- **Note A-2**

Data used within this section are at the output area-level. The 2021 rural-urban classification of output areas provides information regarding a settlement's proximity to urban areas of a specified size:

Major town or city – at least 75,000 residents
Medium urban area – at least 30,000 residents
Small urban area – at least 10,000 residents

Proximity measures the largest urban area that can be reached within a 30-minute drive from the specified settlement. If the largest urban area that can be reached has fewer than 10,000 residents, then the settlement is classed as **remote**. For more information, see [2021 rural-urban classification - Office for National Statistics]

- **Note A-3**

There are four primary types of fixed line connections for fixed broadband access:

Asymmetric Digital Subscriber Line (ADSL) – Copper (telephone) cables are used to connect the exchange to each premises. Maximum download speed is up to 24 Mbit/s. Actual speeds delivered diminish with length of cable from exchange to the premises.

Fibre to the cabinet (FTTC) – FTTC involves fibre to the street cabinet, with copper cables connecting the cabinet to the premises. FTTC uses 'very high-speed digital subscriber line' (VDSL) technology.3 As with ADSL, speeds diminish with length of cable, but as cabinets are generally located close to premises, maximum download speed is normally up to 80 Mbit/s.

Hybrid fibre coaxial (HFC) cable – With HFC, there is fibre to a street cabinet and coaxial cable from the cabinet to the premises. Because coaxial has less signal loss than telephone copper wires, HFC can deliver higher speeds over longer distances. Cable broadband in the UK is provided by Virgin Media O2, and its cable network can deliver gigabit speeds.

Full fibre or 'fibre to the premises' (FTTP) – The connection from the telephone exchange to the premises is provided entirely over fibre. Generally, distance to the premises does not affect the speed delivered. Full fibre can deliver gigabit speeds.

- **Note A-4**

Tables showing the data used within this section can be found within the Connectivity and Accessibility supplementary data tables.

B. Mobile coverage

There were proportionally more not-spots (in terms of voice and text, 4G, and 5G) in majority rural parliamentary constituencies overall than anywhere else in England.

Mobile coverage – key findings

Proportionally more premises are in 5G not-spots when outdoors in rural areas

- The proportion of premises not covered by 5G mobile signals from any operator when outdoors was greater in majority rural constituencies (22%) than in urban constituencies outside of London (2%).

Geographic voice and text or 4G coverage is lower in rural areas

- The proportion of landmass not covered by 4G mobile signals from any operator was greater in majority rural constituencies (2%) than in urban constituencies outside of London (0.2%).
- The proportion of landmass without voice and text coverage from any operator was greater in majority rural constituencies (0.9%) than in urban constituencies outside of London (less than 0.1%).

Mobile coverage from all operators is less available in rural areas

- The proportion of landmass covered by all four operators for 4G services in majority rural constituencies (87%) was lower than in urban constituencies outside of London (97%).
- The proportion of premises covered by all four operators for 5G services when outdoors in majority rural constituencies (1%) was lower than in urban constituencies outside of London (25%).

Summary

This section presents analysis of rural mobile coverage using a different method to that presented by Ofcom; whilst they use the ‘Locale’ classification only, this publication also uses the official statistics rural-urban classification.

In January 2025, just under 2% of landmass in majority rural constituencies was not covered by 4G mobile signals, and were therefore 4G not-spots. In comparison, around 0.2% of landmass in urban constituencies outside of London did not have 4G mobile coverage from any operator.

In January 2025, just over 22% of premises in majority rural constituencies were not covered by 5G mobile signals when outdoors, and were therefore 5G not-spots. In other words, when standing outdoors, around 1 in every 5 premises in majority rural constituencies did not have 5G mobile coverage from any operator. In comparison, just over 2% of premises in urban constituencies outside of London did not have 5G mobile coverage from any operator when outdoors.

In January 2025, less than 1% of landmass in England were voice and text not-spots, where no voice calls could be made or text messages sent. The proportion of voice and text not-spots was highest in majority rural constituencies (0.9%) and lowest in urban constituencies (less than 0.1%).

Background information

Data within this section comes from the Ofcom 'Connected Nations update: Spring 2025' publication which reports on fixed broadband and mobile networks. Ofcom use a 'Locale' classification for defining rural and urban areas. Ofcom use a 'Locale classification for defining rural and urban areas. This defines rural areas as settlements with populations of less than 2,000 and results in proportionally fewer premises having access to mobile coverage than if using the official statistics classification which includes settlements with populations up to 10,000 as rural.

For the Spring 2025 Connected Nations update, Ofcom collected and analysed data from the four mobile network operators to produce mobile coverage statistics (Note B-4). This data was collected as a snapshot in January 2025. Due to variations in mobile performance over time, these estimates should not be regarded as a definitive and fixed view of England's – or the UK's, if using the estimates directly from the Connected Nations report – mobile infrastructure. However, this analysis may instead be useful in identifying variations in mobile performance by geography.

Table B-1: Proportion of landmass able to access 4G mobile coverage, by operator availability and Ofcom Locale classification, January 2025

Shorthand has been used in this table. Proportions have been rounded to the nearest 1%; '[high]' indicates where proportions round to 100% but are not actually 100%. Similarly, '[low]' indicates where proportions round to 0% but are not actually 0%.

Operator availability	Rural	Urban	England
All operators	88%	99%	**90%**
At least one operator	99%	[high]	**99%**
No operators	1%	[low]	**1%**

Using Ofcom's 'Locale' classification to define rural and urban areas, the proportion of landmass able to access 4G mobile coverage as of January 2025 is given in Table B-1. The majority of England has good geographic 4G mobile coverage from at least one operator, with proportions decreasing slightly when considering all four operators. The proportion of England with no 4G mobile coverage was low, but still higher in rural areas than urban areas.

Table B-2: Proportion of all premises able to access 5G mobile coverage outdoors, by operator availability and Ofcom Locale classification, January 2025

Ofcom's 'very high confidence' estimate has been used in the table (95% probability). Proportions have been rounded to the nearest 1%.

Operator availability	Rural	Urban	England
All operators	2%	26%	**23%**
At least one operator	71%	97%	**93%**
No operators	29%	3%	**7%**

Using Ofcom's 'Locale' classification to define rural and urban areas, the proportion of landmass able to access 5G mobile coverage outdoors, as of January 2025, is given in Table B-2. The majority of England has good geographic 5G mobile coverage from at least one operator when outdoors. However, when considering all four operators, just 2% of rural areas had outdoor 5G mobile coverage from any operator in January 2025; this compares to 26% of urban areas.

Mobile coverage statistics presented within this publication are based on Westminster parliamentary constituencies, as of July 2024. The 2021 official statistics rural-urban classification of these constituencies is determined such that majority rural constituencies have 50% or more of their population in rural areas; intermediate (rural or urban) constituencies have between 20% and less than 50% of their population in rural areas; and urban constituencies have less than 20% of their population in rural areas.

The following analysis presents data on the availability of 4G mobile coverage across England, as well as updates on the progress mobile network operators are making with their 5G rollout plans. Data are at Westminster Parliamentary Constituency-level as released by Ofcom within their Connected Nations report, and are for England only; this has been used so that the 2021 rural-urban classification can be applied (Note B-1). For this reason, estimates presented within this section may not match those presented within the Connected Nations report. Whilst the source report presents several coverage types – such as inside premises, outside of premises, in vehicles on major roads, or in vehicles on ‘A’ or ‘B’ roads – this publication focusses on geographic 4G coverage and outdoor premises (commercial and residential) 5G coverage. Geographic voice and text coverage is also presented.

4G mobile coverage

4G not-spots using the official statistics rural-urban classification

While 5G coverage is expanding, it is important to note that most people still use voice and data services over 4G. Within the Connected Nations reports, landmass where there is no 4G mobile coverage from any operator can be described as a ‘4G not-spot’. Within these areas, some devices may still receive other signals, such as from 3G. However, 2G and 3G mobile networks are gradually being switched off: Switching off the UK’s 2G and 3G mobile networks: what you need to know - Ofcom. 4G not-spot data are taken from the interim spring update with data collected for January 2025.

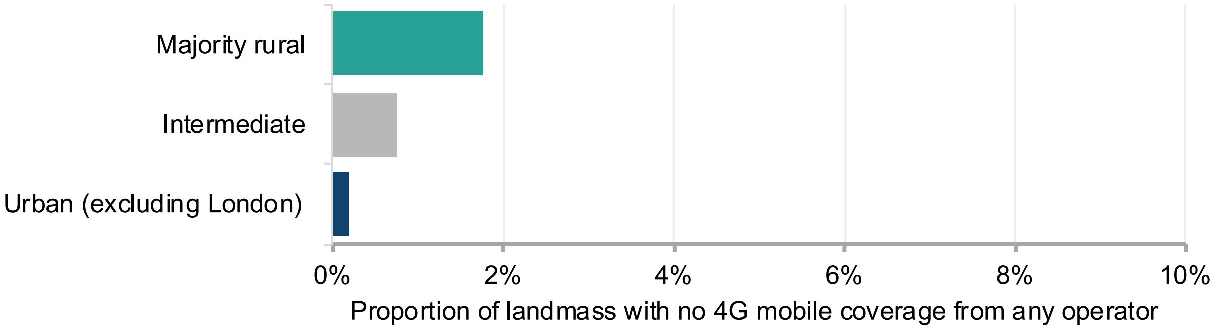
In January 2025, just under 2% of landmass in majority rural constituencies was not covered by 4G mobile signals, and were therefore 4G not-spots. This was higher than in any other classification of parliamentary constituency. The bar chart in Figure B-1 shows the proportion of landmass that were 4G not-spots, by 2021 rural-urban classification of parliamentary constituencies in England.

The more rural the constituency, the higher the proportion of landmass without 4G mobile coverage; however, for any classification of parliamentary constituency, these 4G not-spots generally represented less than 2% of landmass.

In majority rural constituencies, 1.8% of landmass did not have 4G mobile coverage from any operator in January 2025; this was more than double the proportion in intermediate (rural or urban) constituencies, of which 0.8% of landmass did not have 4G mobile coverage. In urban constituencies outside of London, just under 0.2% of landmass did not have 4G mobile coverage. In London (Note B-6), there were almost no 4G not-spots at ground level in January 2025; however, this does not take underground areas, such as the underground rail stations, into account. These areas typically do have 4G not-spots due to signal-blocking issues from being underground. To combat this, Transport for London are currently working on improving coverage on the Tube.

Figure B-1: Bar chart showing the proportion of landmass with no 4G mobile coverage from any operator, by 2021 rural-urban classification of Westminster parliamentary constituencies in England, January 2025 (Note B-2, Note B-3, Note B-4)

The horizontal axis has been scaled from 0% to 10% (instead of 0% to 100%) in order to highlight small differences. London has been excluded from the chart.

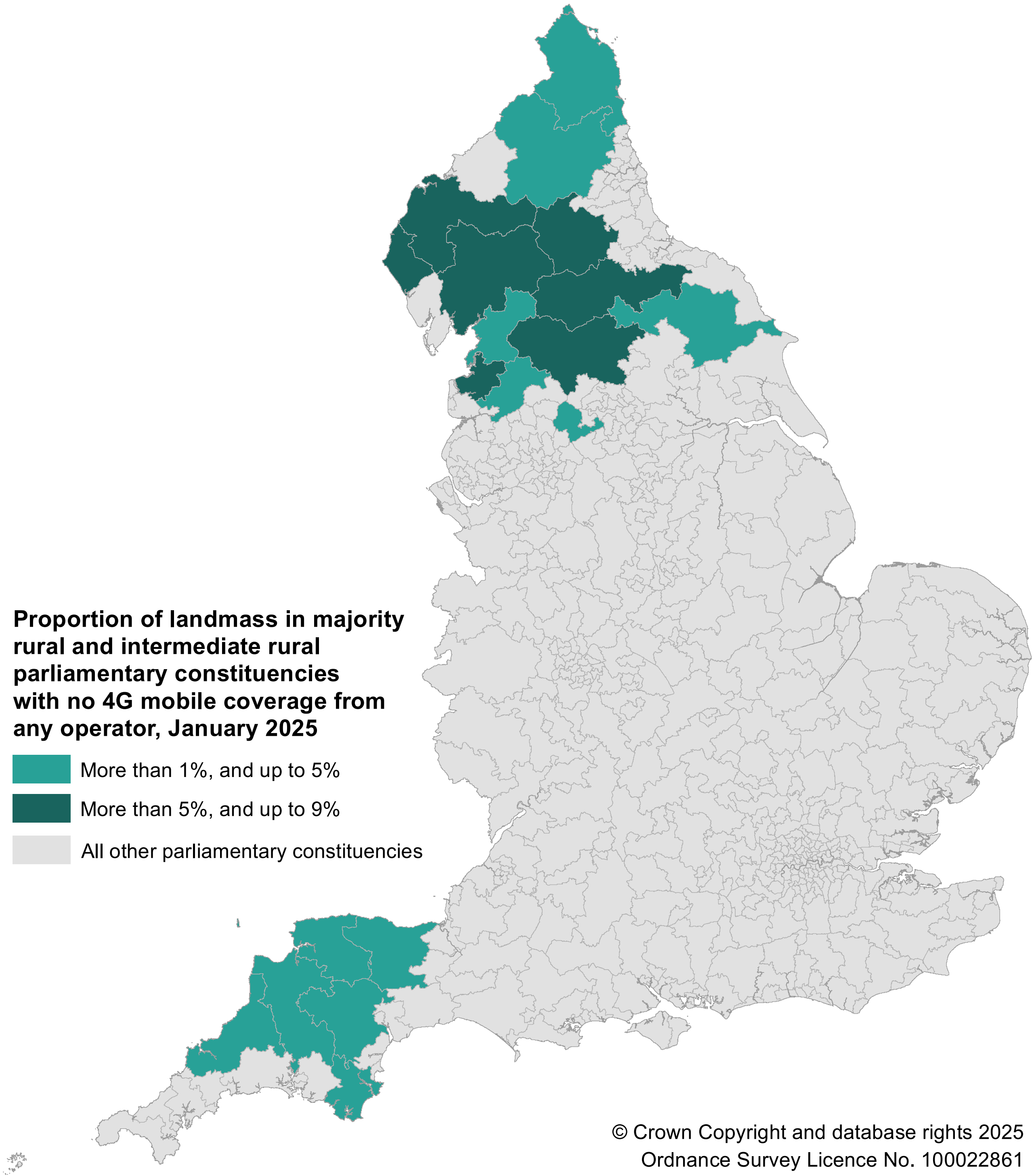


The map in Figure B-2 highlights the majority rural and intermediate rural constituencies where the proportion of landmass with no 4G mobile coverage is more than 1%. Proportions of 4G not-spots for all constituencies in England can be found within the supplementary data tables.

At the time of data collection (January 2025), there were 119 majority rural or intermediate rural Westminster parliamentary constituencies in England:

- In 100 of these constituencies – equivalent to 84% – less than 1% of landmass had no 4G mobile coverage. In other words, in most majority rural or intermediate rural constituencies, more than 99% of landmass had 4G mobile coverage from at least one operator.
- In 12 of these constituencies – equivalent to 10% – between 1% and 5% of landmass had no 4G mobile coverage. These were concentrated in the South West around Devon and Cornwall, as well as in the North of England.
- In 7 of these constituencies – equivalent to 6% – more than 5% of landmass had no 4G mobile coverage; these were concentrated in the North of England. 'Whitehaven and Workington' – an intermediate rural constituency in Cumberland - had the highest proportion of landmass (9%) having no 4G mobile coverage of all majority rural and intermediate rural constituencies. However, the highest rate of all constituencies in England was instead 'Barrow and Furness': an intermediate urban constituency in Cumbria where more than 10% of landmass had no 4G mobile coverage. This constituency neighbours 'Whitehaven and Workington'.

Figure B-2: Map showing the proportion of landmass in majority rural and intermediate rural Westminster parliamentary constituencies in England, as defined within the 2021 rural-urban classification, with no 4G mobile coverage from any operator in January 2025
Intermediate urban and urban constituencies are presented in grey. Only majority rural and intermediate rural constituencies where more than 1% of landmass had no 4G mobile coverage are coloured on the map; the rest are also presented in grey to prevent distraction.

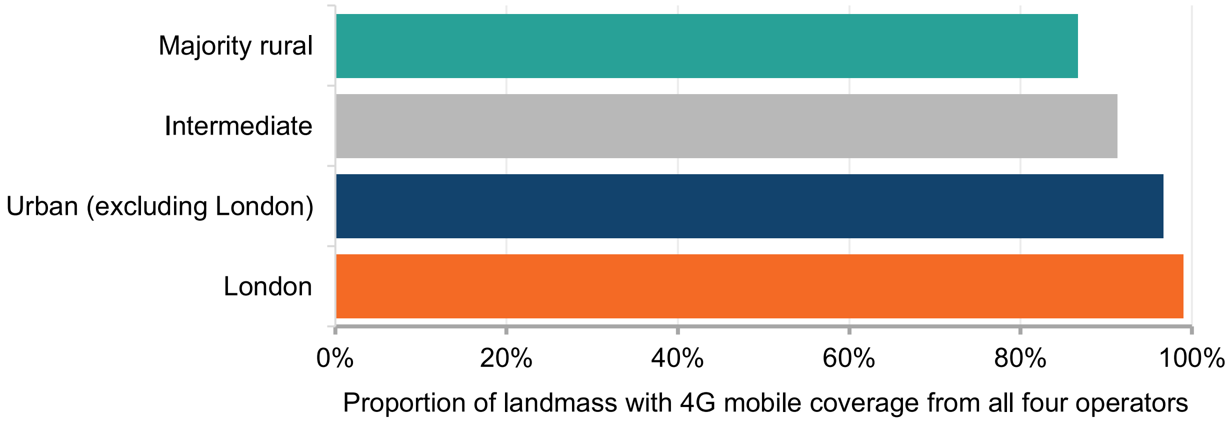


4G mobile coverage from all four operators

Within the Connected Nations reports, information is provided to show areas where all four operators provide 4G mobile coverage. Having network coverage from all four operators is preferable because it maximizes coverage, especially in rural areas, and provides greater reliability through redundancy. The proportion of landmass with coverage from all four operators is less than the proportion with coverage from at least one operator. Data are taken from the interim spring update for January 2025.

In January 2025, 87% of landmass in majority rural constituencies was covered by all four network operators in terms of 4G mobile coverage. This was lower than in any other classification of parliamentary constituency. The bar chart in Figure B-3 shows the proportion of landmass where all four operators provide 4G mobile coverage, by 2021 rural-urban classification of parliamentary constituencies in England.

Figure B-3: Bar chart showing the proportion of landmass with 4G mobile coverage from all four operators, by 2021 rural-urban classification of Westminster parliamentary constituencies in England, January 2025 (Note B-2, Note B-3, Note B-4, Note B-6)



The more rural the constituency, the lower the proportion of landmass with 4G mobile coverage from all four network operators.

In majority rural constituencies, 87% of landmass was covered by all four network operators for 4G services; in other words, 13% of landmass was not covered by all four operators, limiting connectivity for users. In intermediate (rural or urban) constituencies, the proportion of landmass with 4G mobile coverage from all four network operators was 5 percentage points higher than in majority rural constituencies, at 91%. In urban constituencies outside of London, 97% of landmass had 4G mobile coverage from all four operators; this was 10 percentage points higher than in majority rural constituencies. In London, 99% of landmass had 4G mobile coverage from all four operators – 12 percentage points more than in majority rural constituencies.

5G mobile coverage

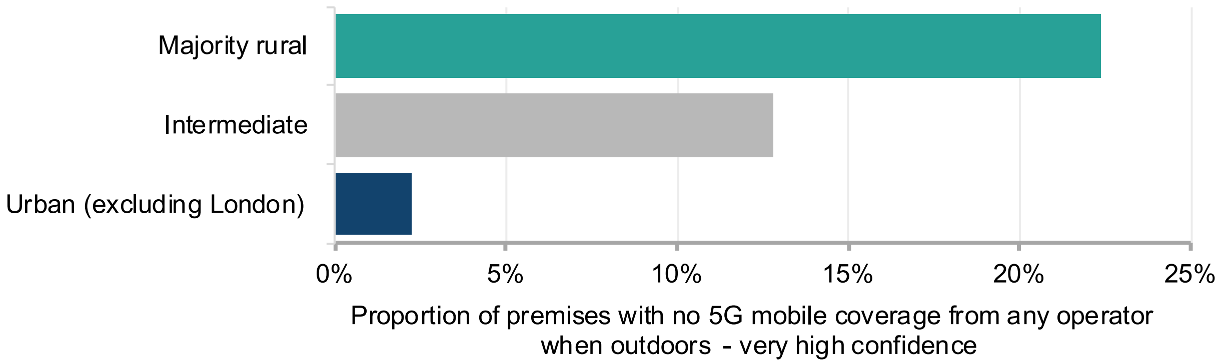
5G not-spots using the official statistics rural-urban classification

Within the Connected Nations reports, where there is no 5G mobile coverage from any operator outside of premises, this can be described as a '5G not-spot'. Within these areas, devices may still receive other signals, such as from 4G; that is, unless the device is also within a 4G not-spot. Then, they may still receive 3G signals, unless they are within a voice and text not-spot. However, 2G and 3G mobile networks are gradually being switched off: [Switching off the UK's 2G and 3G mobile networks: what you need to know - Ofcom].

Analysis within this publication focusses on 5G mobile coverage when outside premises, as 5G landmass coverage is currently far behind that of 4G. Data are taken from the interim spring update with data collected for January 2025.

In January 2025, just over 22% of premises in majority rural constituencies were not covered by 5G mobile signals when outdoors, and were therefore 5G not-spots, based on the very high confidence estimates from Ofcom. The bar chart in Figure B-4 shows the proportion of premises where no operators provide 5G mobile coverage when outdoors, by 2021 rural-urban classification of parliamentary constituencies in England.

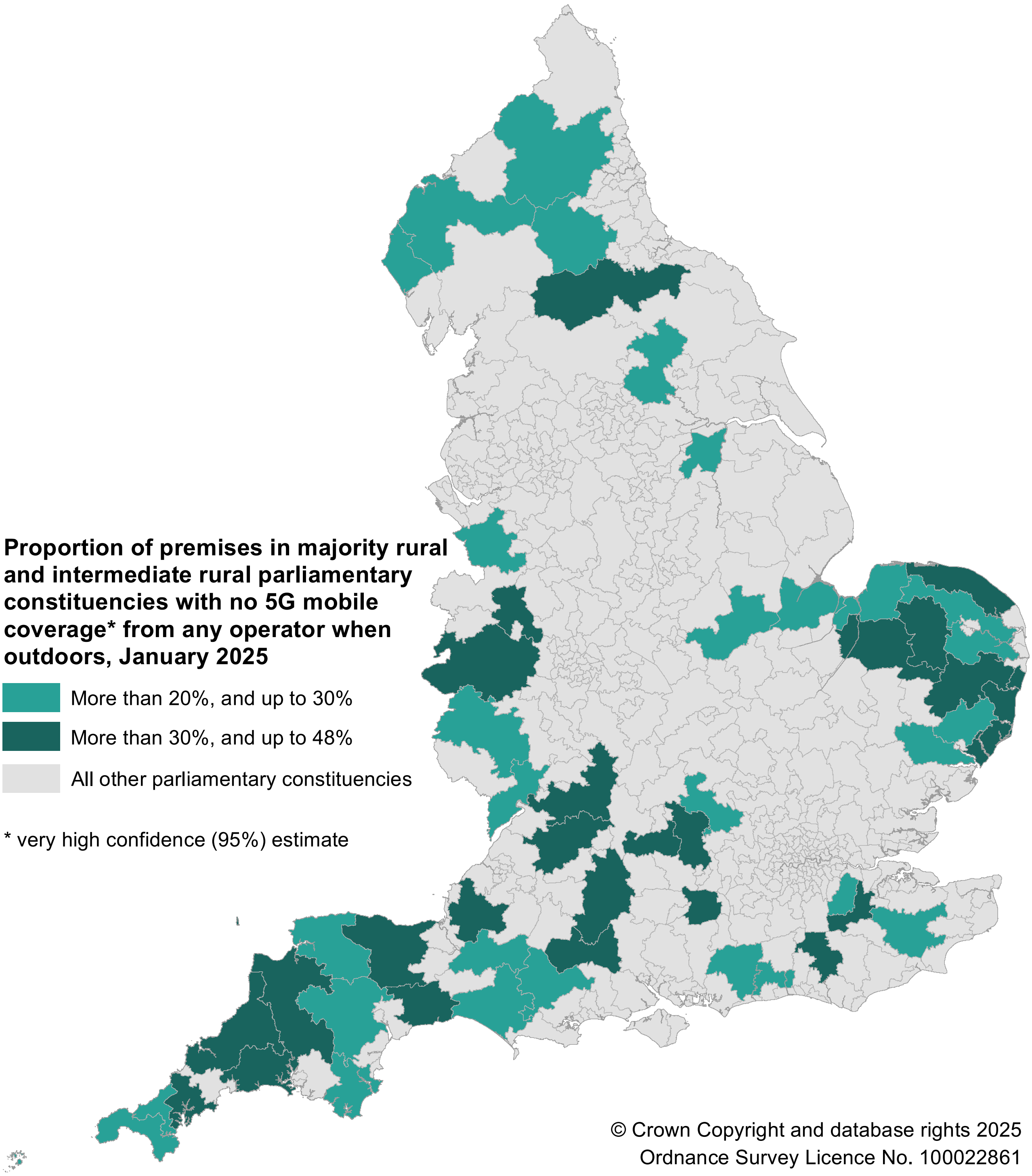
Figure B-4: Bar chart showing the proportion of premises with no 5G mobile coverage from any operator when outdoors, by 2021 rural-urban classification of Westminster parliamentary constituencies in England, January 2025 (Note B-2, Note B-3, Note B-4)
Ofcom's 'very high confidence' estimate has been used in the chart, where there is around a 95% probability of no 5G coverage being present. The horizontal axis has been scaled from 0% to 25% (instead of 0% to 100%) in order to highlight the differences in the proportions of 5G not-spots between classifications. London has been excluded from the chart, as fewer than 0.1% of premises did not have 5G coverage when outdoors in these areas.



The more rural the constituency, the higher the proportion of premises without 5G mobile coverage when outdoors. In majority rural constituencies, just over 22% of premises were not covered by 5G mobile signals when outdoors in January 2025. In comparison, 13% of premises in intermediate (rural or urban) constituencies did not have 5G mobile coverage from any operator when outdoors. In urban constituencies outside of London, just over 2% of premises did not have 5G mobile coverage when outdoors. In London (Note B-6), almost all premises had 5G mobile coverage from at least one network operator when outdoors.

Figure B-5: Map showing the proportion of premises in majority rural and intermediate rural Westminster parliamentary constituencies, as defined in the 2021 rural-urban classification, with no 5G mobile coverage from any operator when outdoors in January 2025

Ofcom's 'very high confidence' estimate has been used in the map, where there is around a 95% probability of no 5G coverage being present. Intermediate urban and urban constituencies are presented in grey. Only majority rural and intermediate rural constituencies where more than 20% of premises had no 5G mobile coverage when outdoors are coloured on the map; the rest are also presented in grey to prevent distraction.



The map in Figure B-5 highlights the majority rural and intermediate rural constituencies where the proportion of premises with no 5G mobile coverage when outdoors is more than 20%. Proportions of 5G not-spots for constituencies in England can be found within the supplementary data tables.

At the time of data collection (January 2025), there were 119 majority rural or intermediate rural Westminster parliamentary constituencies in England:

- In 67 of these constituencies – equivalent to 56% – less than 20% of premises had no 5G mobile coverage when outdoors. In other words, in just over half of all majority rural or intermediate rural constituencies, more than 4 in every 5 premises did have 5G mobile coverage from at least one network operator when outdoors.
- In 28 of these constituencies – equivalent to 24% – between 20% and 30% of premises had no 5G mobile coverage from any operator when outdoors.
- In 24 of these constituencies – equivalent to 20% - more than 30% of premises had no 5G mobile coverage from any operator when outdoors. 'Didcot and Wantage' – an intermediate rural constituency in South Oxfordshire - had the highest proportion of premises having no 5G mobile coverage when outdoors of all majority rural and intermediate rural constituencies, at 48%. In other words, in this constituency, nearly half of all premises did not have 5G mobile coverage when outdoors. 'Mid Norfolk' had the highest proportion of premises without 5G mobile coverage when outdoors of all majority rural constituencies.

5G mobile coverage from all four operators

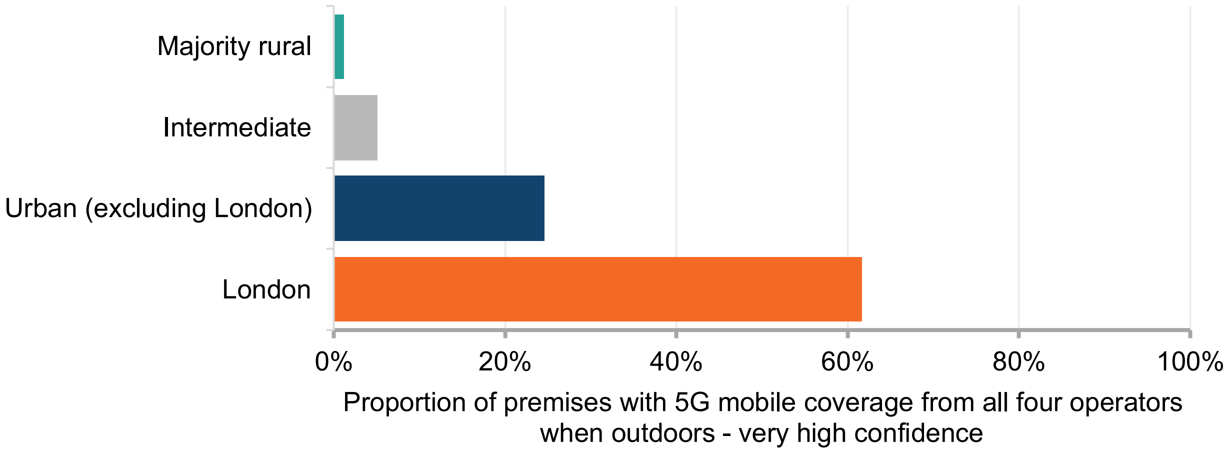
Within the Connected Nations reports, information is provided to show areas where all four operators provide 5G mobile coverage. Having network coverage from all four operators is preferable because it maximizes coverage, especially in rural areas, and provides greater reliability through redundancy. Analysis within this publication focusses on 5G mobile coverage when outside premises, as 5G landmass coverage is currently far behind that of 4G. The proportion of premises with coverage when outdoors from all four operators is less than the proportion with coverage from at least one operator. Data are taken from the interim spring update with data collected for January 2025.

In January 2025, just 1% of premises in majority rural constituencies had 5G mobile coverage from all four network operators when outdoors. The bar chart in Figure B-6 shows the proportion of premises where all four operators provide 5G mobile coverage when outdoors, by 2021 rural-urban classification of parliamentary constituencies in England.

The more rural the constituency, the lower the proportion of premises with 5G mobile coverage from all four network operators when outdoors.

In majority rural constituencies, just over 1% of premises had 5G mobile coverage from all four operators when outdoors. This means that almost all premises in majority rural constituencies did not have 5G mobile coverage from all four operators when outdoors. In intermediate (rural or urban) constituencies, 5% of premises had 5G mobile coverage from all four operators when outdoors – 4 percentage points more than in majority rural constituencies. In urban constituencies outside of London, 25% of premises had 5G mobile coverage from all four operators when outdoors; this was considerably higher than in majority rural constituencies. In London, 62% of premises had 5G mobile coverage from all four network operators when outdoors.

Figure B-6: Bar chart showing the proportion of premises with 5G mobile coverage from all four operators when outdoors, by 2021 rural-urban classification of Westminster parliamentary constituencies, January 2025 (Note B-2, Note B-3, Note B-4, Note B-6)
Ofcom's 'very high confidence' estimate has been used in the chart, where there is around a 95% probability of 5G coverage being present from all four operators.



Voice and text coverage

Voice and text not-spots using the official statistics rural-urban classification

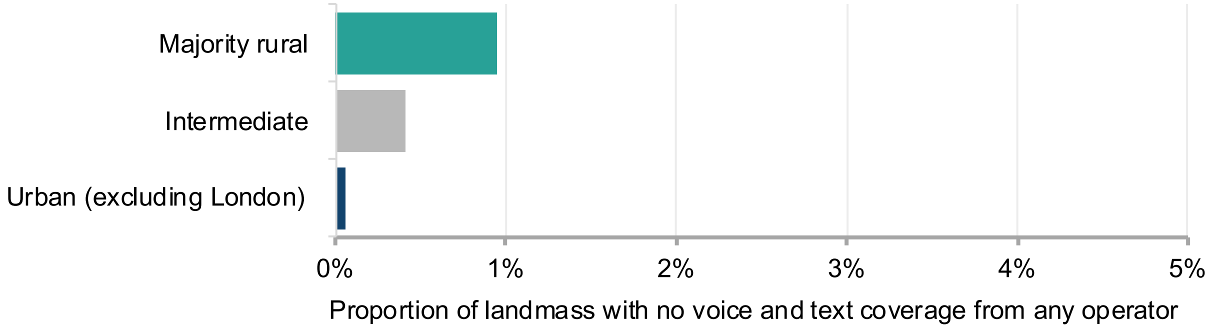
Within the Connected Nations reports, voice and text information corresponds to mobile services that are managed by the mobile network, as opposed to a third-party voice application on a handset. Having strong voice and text coverage is crucial, especially in critical situations, such as when contacting the emergency services. Landmass where there is no voice and text coverage from any operator can be described as a 'voice and text not-spot'. Data are taken from the interim spring update collected for January 2025.

In January 2025, less than 1% of landmass in England were voice and text not-spots, where no voice calls could be made or text messages sent. The bar chart in Figure B-7 shows the proportion of landmass that were voice and text not-spots, by 2021 rural-urban classification of parliamentary constituencies in England.

The more rural the constituency, the higher the proportion of landmass without voice and text coverage; however, for any classification of parliamentary constituency, these voice and text not-spots generally represented less than 1% of landmass. In majority rural constituencies, 0.9% of landmass did not have voice and text mobile coverage from any network operator in January 2025; this was higher than in intermediate (rural or urban) constituencies, of which 0.4% of landmass did not have voice and text coverage. In urban constituencies outside of London, less than 0.1% of landmass did not have voice and text mobile coverage. In London, there were no voice and text not-spots in January 2025.

Figure B-7: Bar chart showing the proportion of landmass with no voice and text coverage from any operator, by 2021 rural-urban classification of Westminster parliamentary constituencies in England, January 2025 (Note B-2, Note B-3, Note B-4)

The horizontal axis has been scaled from 0% to 5% (instead of 0% to 100%) in order to highlight the small differences in the proportions of voice and text not-spots between classifications. London has been excluded from the chart.

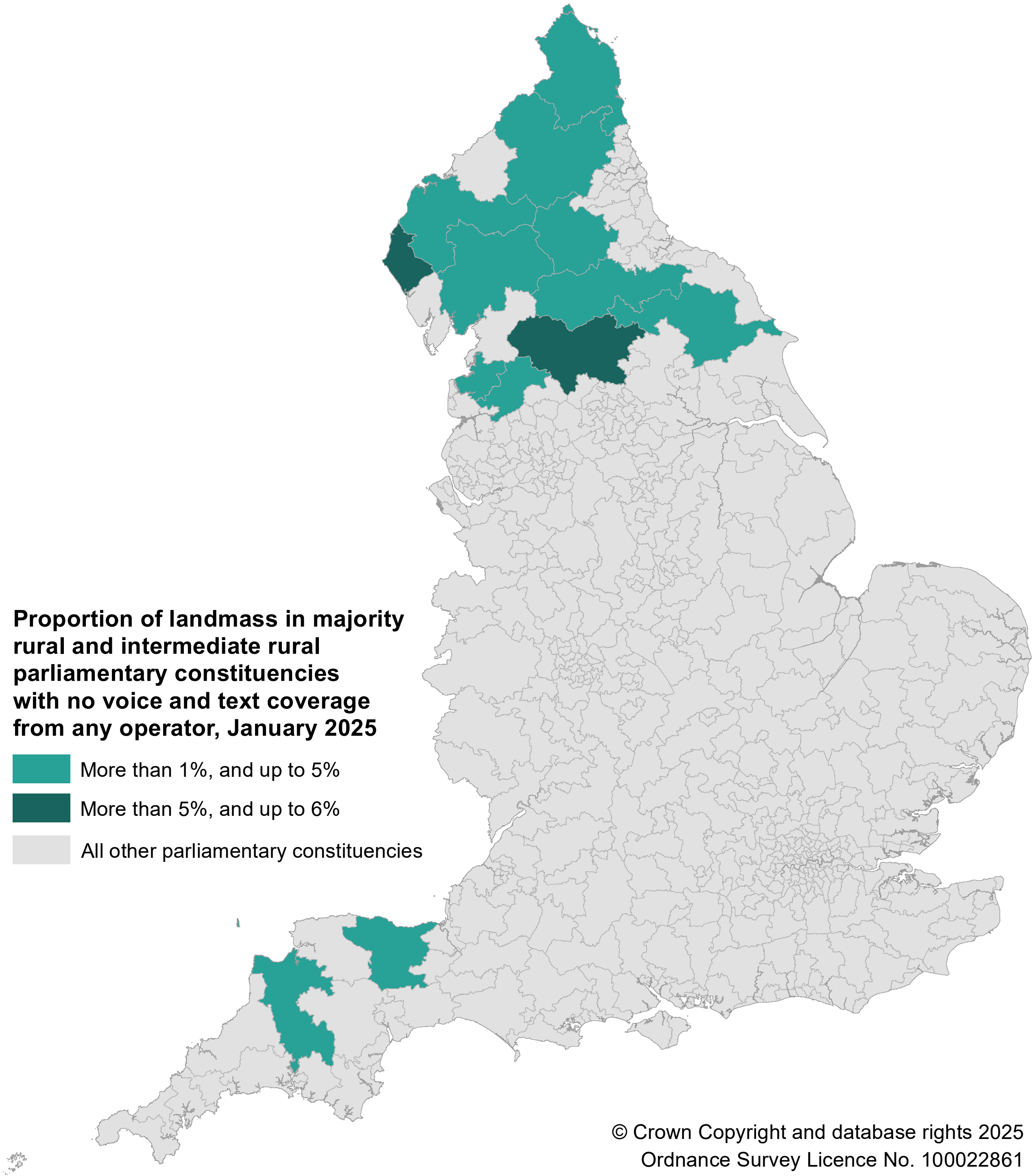


The map in Figure B-8 highlights the majority rural and intermediate rural constituencies where the proportion of landmass with no voice and text coverage is more than 1%. Proportions of voice and text not-spots for all constituencies can be found within the supplementary data tables.

At the time of data collection (January 2025), there were 119 majority rural or intermediate rural Westminster parliamentary constituencies in England:

- In 106 of these constituencies – equivalent to 89% – less than 1% of landmass had no voice and text mobile coverage. In other words, in most majority rural or intermediate rural constituencies, more than 99% of landmass had voice and text coverage from at least one operator and could therefore make voice calls and send text messages.
- In 11 of these constituencies – equivalent to 9% – between 1% and 5% of landmass had no voice and text mobile coverage. These were concentrated in the North of England, as well as in the South West in Somerset and Devon.
- In 2 of these constituencies, more than 5% of landmass had no voice and text mobile coverage. In ‘Whitehaven and Workington’ – an intermediate rural constituency in Cumberland – 6.0% of landmass had no voice and text coverage from any operator in January 2025. In ‘Skipton and Ripon’ – a majority rural constituency in North Yorkshire – 6.1% of landmass had no voice and text coverage; this was the highest of all majority rural and intermediate rural constituencies, but not the highest in England. Instead, ‘Barrow and Furness’ – an intermediate urban constituency in Cumbria – was the highest, as just over 7% of landmass had no voice and text coverage. However, it should be noted that this is a large constituency including nature reserves and sparsely populated areas; these are where the ‘not-spots’ are likely to be focussed.

Figure B-8: Map showing the proportion of landmass in majority rural and intermediate rural Westminster parliamentary constituencies in England, as defined within the 2021 rural-urban classification, with no voice and text coverage from any operator in January 2025
Intermediate urban and urban constituencies are presented in grey. Only majority rural and intermediate rural constituencies where more than 1% of landmass had no voice and text mobile coverage are coloured on the map; the rest are also presented in grey to prevent distraction.



Voice and text coverage from all four operators

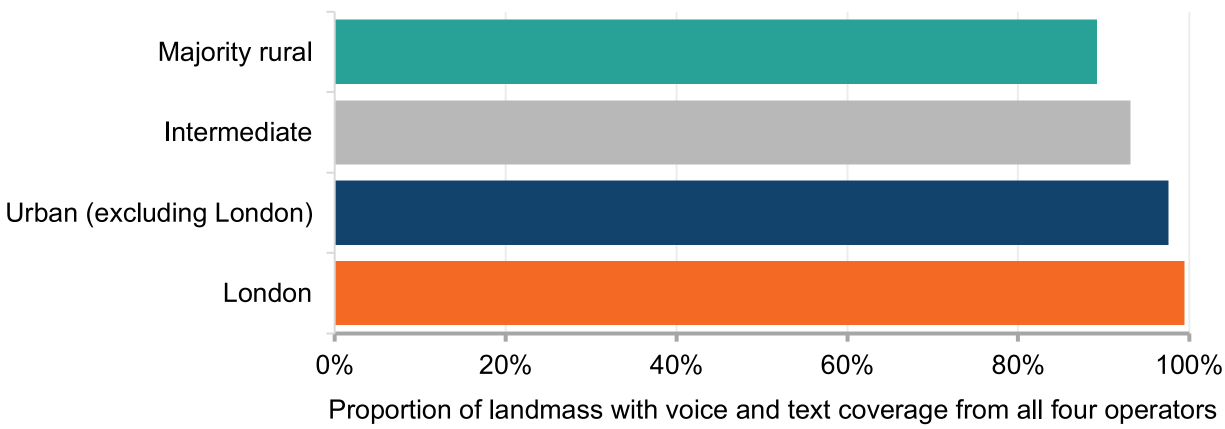
Within the Connected Nations reports, voice and text information corresponds to mobile services that are managed by the mobile network, as opposed to a third-party voice application on a handset. Having strong voice and text coverage is crucial, especially in critical situations, such as when contacting the emergency services. Having network coverage from all four operators is preferable because it maximises coverage, especially in rural areas, and provides greater reliability through redundancy. The proportion of landmass with coverage from all four operators is less than the proportion with coverage from at least one operator. Data are taken from the interim spring update collected for January 2025.

In January 2025, 89% of landmass in majority rural constituencies was covered by all four network operators in terms of voice and text coverage. This was lower than in any other classification of parliamentary constituency. The bar chart in Figure B-9 shows the proportion of landmass where all four operators provide voice and text coverage, by 2021 rural-urban classification of parliamentary constituencies in England.

The more rural the constituency, the lower the proportion of landmass with voice and text coverage from all four network operators.

- In majority rural constituencies, 89% of landmass was covered by all four network operators for voice and text services; in other words, 11% of landmass was not covered by all four operators, limiting connectivity for users.
- In intermediate (rural or urban) constituencies, the proportion of landmass with voice and text coverage from all four network operators was 4 percentage points higher than in majority rural constituencies, at 93%.
- In urban constituencies outside of London, 98% of landmass had voice and text coverage from all four operators; this was 8 percentage points higher than in majority rural constituencies.
- In London, 99% of landmass had voice and text coverage from all four network operators – 10 percentage points more than in majority rural constituencies.

Figure B-9: Bar chart showing the proportion of landmass with voice and text coverage from all four operators, by 2021 rural-urban classification of Westminster parliamentary constituencies in England, January 2025 (Note B-2, Note B-3, Note B-4, Note B-6)



Mobile coverage explanatory notes

- **Note B-1**

Data used in this section are at Westminster parliamentary constituency level. Some caution should be used when considering these results as the data will not distinguish where within a constituency the better mobile coverage is and makes no distinction between the rural and urban areas within each constituency. The parliamentary constituency boundaries used in this analysis relate to the current set of 543 constituencies for England used for the 2024 UK general election.

- **Note B-2**

The 2021 rural-urban classification of Westminster parliamentary constituencies has been used within this publication. 'Intermediate' refers to the grouping of 'intermediate rural' and 'intermediate urban' constituencies. For more information about the classification, see: Rural Urban Classification - GOV.UK.

- **Note B-3**

4G: Fourth generation of mobile systems, launched in the UK in 2012. It is designed to provide faster data download and upload speeds on mobile networks and can also support VoIP services.
5G: Fifth generation of mobile technology standards, launched in the UK in 2020 and used to deliver higher speed data services.

- **Note B-4**

The four main Mobile Network operators referred to in this report are BT/EE, Three, Virgin Media O2 and Vodafone.

- **Note B-5**

Tables showing the data used within this section can be found within the Connectivity and Accessibility supplementary data tables.

- **Note B-6**

Westminster parliamentary constituencies (as of July 2024) that are 'in London' can be defined in two different ways: 1) just constituencies in 'Inner London', or 2) constituencies in both 'Inner London' and 'Outer London'. For the purposes of this publication, constituencies 'in London' refers to only those in 'Inner London'. This is all 'London-area' constituencies, minus those in the 'Outer London-area', as given in the IPSA guidance from the 5 July 2024 General Election.
Included 'London' constituencies are listed within the supplementary data tables.

C. Travel behaviours

The more rural the area the more likely the population is to travel by car or van than by public transport or walking, and the further they are likely to travel.

Travel behaviours - key findings

Most Rural population travelled twice as many miles as in the most Urban areas

- In 2021, people living in Rural Villages, Hamlets, and Isolated Dwellings travelled 6,450 miles per person on average; this compares to 3,660 miles per person in Urban Conurbations.
- Of this, people living in Rural Villages, Hamlets, and Isolated Dwellings travelled 5,960 miles each by car or van, as a driver or passenger, representing 92% of all miles travelled. In comparison, in Urban Conurbations, people travelled 2,500 miles each by car or van in 2021, representing 68% of miles travelled.

Most Rural population travelled via bus much less frequently than in Urban areas

- In 2021, people living in Rural Villages, Hamlets, and Isolated Dwellings made, on average, 6 trips per person using their local bus service; this compares to 45 trips per person in Urban Conurbations.

Secondary school students living in Rural areas have to travel further to school

- In 2021, of pupils aged between 11 and 16 years, those living in Rural Villages, Hamlets, and Isolated Dwellings travelled 6.7 miles on average to get to school; this compares to a journey of 2.9 miles for those living in Urban Conurbations.
- Travel by car or van was the most common method of commuting to school for students living in Rural areas; in Urban areas, it was walking.

Summary

Measuring the difference in travel behaviours between those who live in Rural areas and those in Urban areas can provide useful context to potential transport issues. For example, those living in Rural areas typically travel further per year to commute to work than people living in Urban areas. For more information regarding accessibility issues, see E. Access to services.

People living in Rural Villages, Hamlets and Isolated Dwellings travelled further and for longer in 2021 compared with any other settlement type. In 2021, each resident travelled 6,450 miles on average; this is 2,000 miles more per person than those living in Urban City and Town areas (4,460 miles) and 2,800 miles more per person than those living in Urban Conurbations (3,660 miles).

A greater total distance was travelled per person in Rural areas than in Urban areas in 2021 for all purposes; the greatest difference was shopping, for which people living in Rural areas travelled on average 360 miles more per person than in Urban areas. This greater total difference was mostly driven by travel as a car or van driver or passenger; people living in Rural Villages, Hamlets and Isolated Dwellings travelled more than double the distance of those in Urban Conurbations by car or van in 2021, with an average of 4,000 miles and 1,500 miles per person respectively. However, for all other modes of transport (walking, rail, local bus, etc.) people living in Urban areas travelled more miles per person in 2021 compared to those living in Rural areas.

Generally, people living in Rural areas travelled further per trip than those in Urban areas in 2021 when travelling by public transport or a car/van. The greatest average trip lengths were highest in Rural Villages, Hamlets and Isolated Dwellings, where people travelled 6.6 miles by local bus and 25.1 miles by rail on average. The shortest average trip lengths when taking public transport were seen in Urban Conurbation areas: 4.0 miles when travelling by local bus and 17.1 miles when travelling by rail.

People made more trips by car or van than by any other mode of transport in 2021. For those living in the most Rural areas, 75% of trips were made by car or van (as a driver or passenger), compared to 51% in the most Urban areas. Between 2018/19 and 2020, all settlement types saw a vast decrease in the average number of trips made due to the COVID-19 pandemic.

The average journey length to school in 2021 was longer for pupils living in Rural areas than for those living in Urban areas; 11 to 16-year olds in the most Rural areas were travelling at least twice as far as those in the most Urban areas to get to school. In Rural areas, it was more common for pupils to get to school via car/van or by ‘other’ means (including the private school bus), whereas in Urban areas it was most common for pupils to walk to school.

Disclaimer

As a result of the coronavirus (COVID-19) pandemic, there were changes in travel behaviour, a reduction of data collected and changes in the methodology of data collection. The Department for Transport recommend that care should be taken when interpreting and comparing this data.

Travel behaviour

There are several different ways to measure travel behaviour across England. Table C-1 shows that people living in Rural Villages, Hamlets and Isolated Dwellings travelled further and for longer in 2021 compared with any other area within the 2011 Rural-Urban Classification. Per person, on average, they:

- made 6 more trips than those in Urban City and Town areas and 20 more trips than those living in Urban Conurbations per year
- travelled 2,000 miles more than those in Urban City and Town areas and 2,800 miles more than those living in Urban Conurbations per year
- travelled 36 hours more than those in Urban City and Town areas and 15 hours more than those in Urban Conurbations per year
- went 2.5 miles further per trip than those in Urban City and Town areas and 3.5 miles further per trip than those in Urban Conurbations per year (see Note C-5).

Table C-1: Average number of trips and total distance travelled per person per year, time spent travelling and average trip length in 2021, by settlement type, in England (Note C-5)

Rural-Urban Classification	Trips per person	Distance travelled per person (miles)	Travelling time per person (hours)	Trip length (miles)
Rural Village, Hamlet and Isolated Dwelling	770	6,450	300	8.4
Rural Town and Fringe	750	4,940	260	6.6
Urban City and Town	760	4,460	260	5.8
Urban Conurbation	750	3,660	280	4.9
England	**760**	**4,330**	**270**	**5.7**

Notes:

- Trips include those made on foot, by private car or van as both a driver and passenger, by bicycle, motorcycle, private hire bus and other modes of private transport, by local bus, by rail and London Underground, and by non-local bus, taxi / minicab, and other modes of public transport (air, ferries and light rail).
- Figures in Table C-1 are rounded to the nearest 10 trips/10 miles/10 hours/0.1 miles respectively.

Average distance travelled

Figure C-1 shows that a greater total distance was travelled per person in Rural areas than in Urban areas in 2021, for all modes of transport. The highest average total distance travelled per person was in Rural Villages, Hamlets and Isolated Dwellings. A greater distance was travelled per person by car or van in 2021 than any other mode of transport for all settlement types.

Figure C-1: Bar chart showing average total distance travelled, per person per year, by mode and settlement type, in England, 2021 (Note C-3, Note C-5)
The legend is presented in the same order and orientation as the stacked columns.

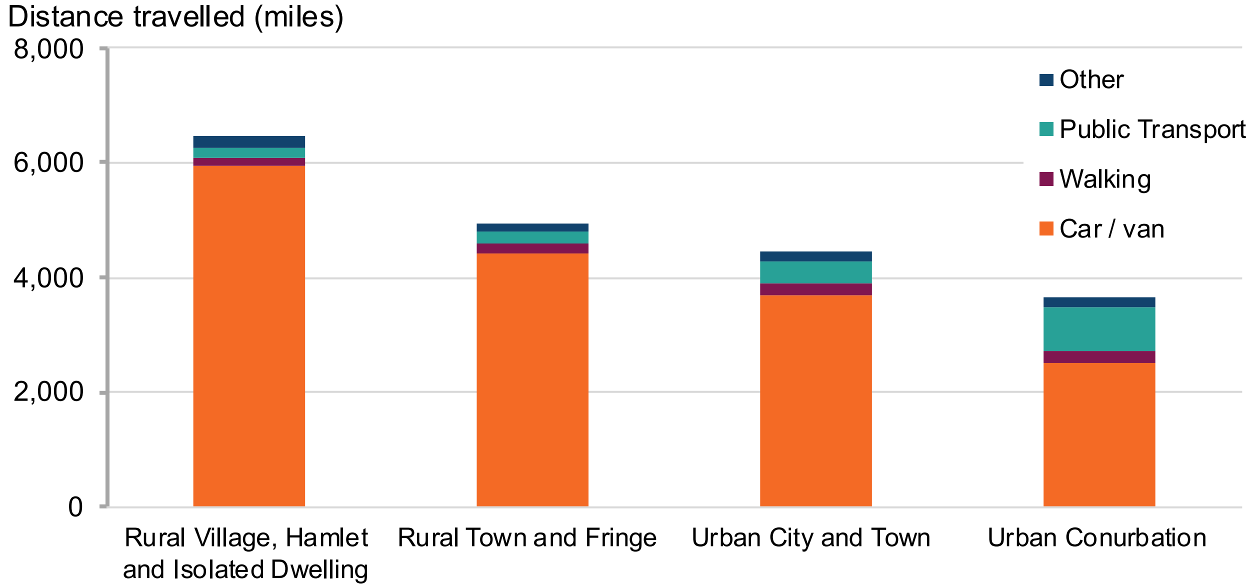


Table C-2 shows that whilst a greater distance was travelled by car or van than any other mode of transport in 2021, and people in Rural areas travelled more miles by car than those in Urban areas, for other modes of transport the Urban population covered a greater distance, in particular public transport. People living in Rural Villages, Hamlets and Isolated Dwellings travelled more than double the distance of those in Urban Conurbations by car or van in 2021, with an average of 4,000 miles and 1,500 miles per person respectively. When taking the local bus, people living in Urban Conurbations travelled more than four times the distance of those in Rural Villages, Hamlets and Isolated Dwellings, travelling on average 180 miles and 40 miles per person respectively.

Table C-2: Average total distance travelled, per person per year, by mode and settlement type, 2021 (Note C-3, Note C-5)

Miles per person per year

Rural-Urban Classification	Walk	Car/van driver	Car / van passenger	Local bus	Rail	Other	All modes
Rural Village, Hamlet and Isolated Dwelling	140	3,970	1,990	40	130	180	**6,450**
Rural Town and Fringe	160	3,210	1,230	90	120	130	**4,940**
Urban City and Town	210	2,380	1,320	110	270	170	**4,460**
Urban Conurbation	230	1,540	960	180	570	180	**3,660**
England	**210**	**2,230**	**1,220**	**130**	**370**	**170**	**4,330**

Figure C-2 shows that those living in Rural areas travelled more miles for work/school than those in Urban areas. People living in Rural areas travelled a greater distance on average than those in Urban areas when commuting (150 miles more) or travelling for business (160 miles more) in 2021. When travelling for education, people in Rural areas travelled 30 miles further than those in Urban areas. Overall, the greatest distance travelled per person was for commuting.

Figure C-2: Bar chart showing average distance travelled for work, per person per year, by 2011 Rural-Urban Classification, in England, 2021 (Note C-3, Note C-5, Note C-6, Note C-7)
The legend is presented in the same order and orientation as the columns.

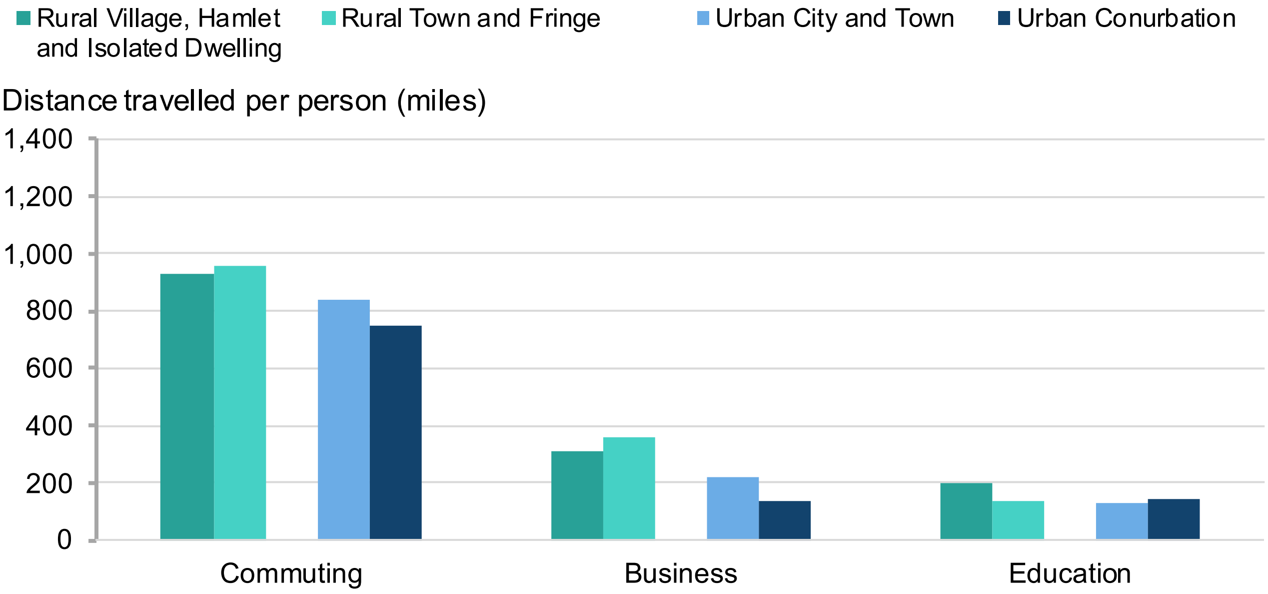


Figure C-3 shows the average distance travelled for leisure per person in 2021. People living in Rural areas travelled a greater distance on average than those in Urban areas when visiting friends (210 miles more), travelling for a holiday or day trip (220 miles more), or travelling for sport or entertainment (70 miles more). The greatest distance travelled per person was for visiting friends.

Figure C-3: Bar chart showing average distance travelled for leisure, per person per year, by 2011 Rural-Urban Classification, in England, 2021 (Note C-3, Note C-5, Note C-6, Note C-7)
The legend is presented in the same order and orientation as the columns.

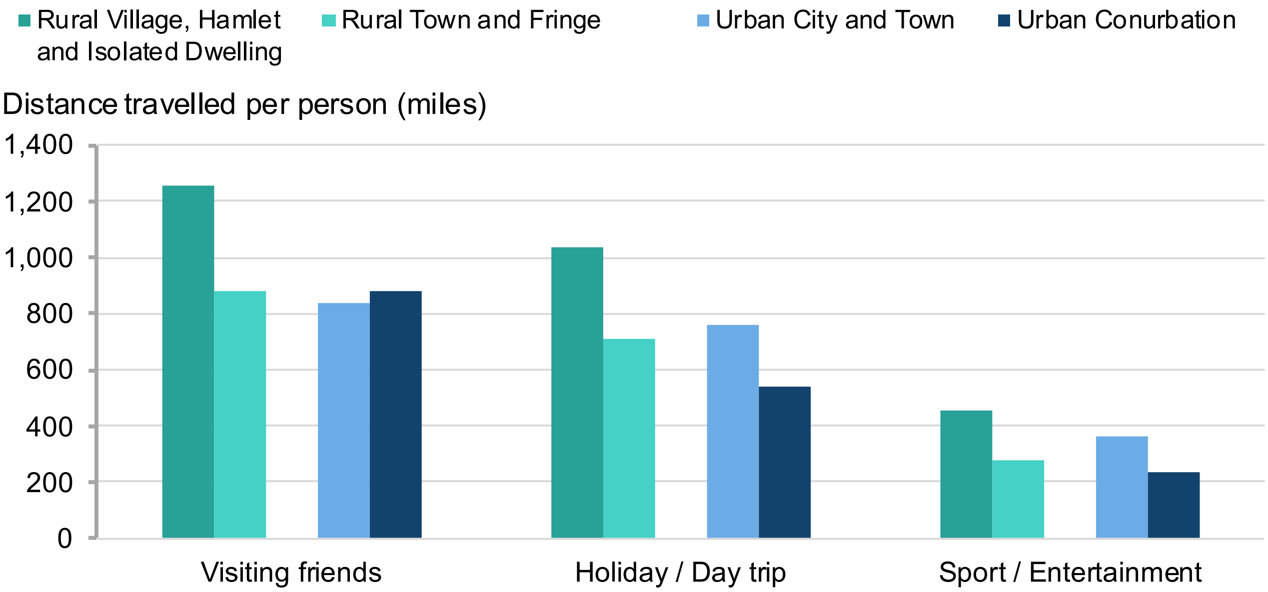
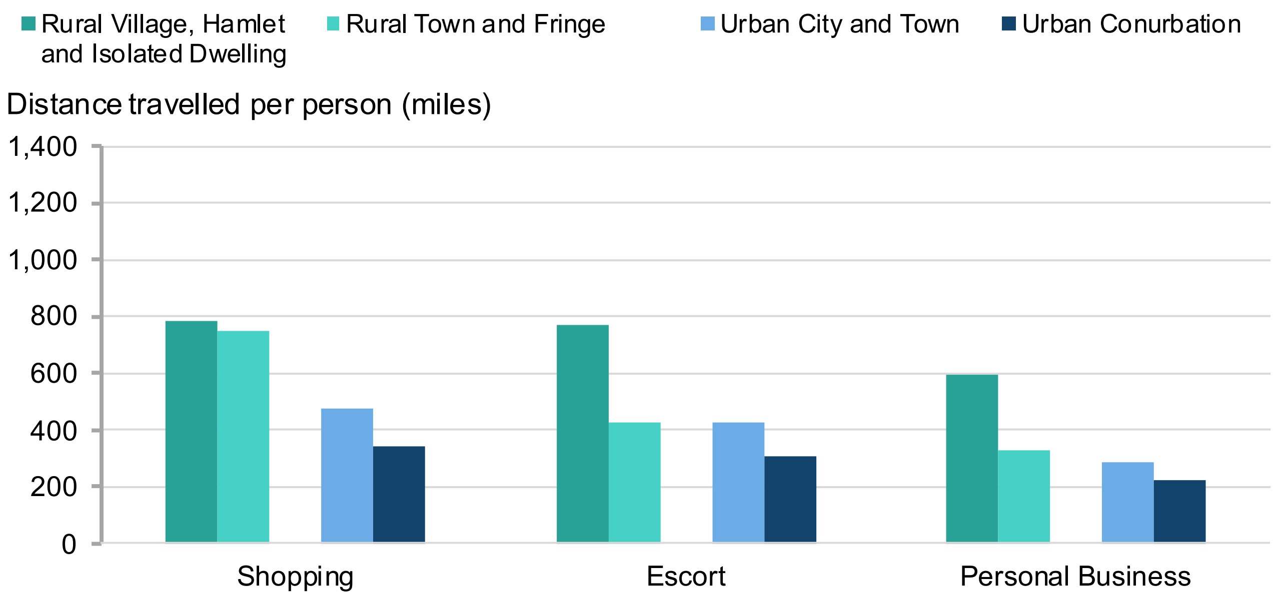


Figure C-4 shows the average distance travelled for essential purposes per person in 2021. People living in Rural areas travelled a greater distance on average than those in Urban areas when shopping (360 miles more), escorting (230 miles more), or travelling to conduct personal business (210 miles more). Across all settlement types, a greater distance was travelled per person for shopping than for escorting or conducting personal business.

Figure C-4: Bar chart showing average distance travelled for essential purposes, per person per year, by 2011 Rural-Urban Classification, 2021 (Note C-3, Note C-5, Note C-6, Note C-7)
The legend is presented in the same order and orientation as the columns.



For almost all purposes, people living in Rural Villages, Hamlets and Isolated Dwellings travelled a greater distance than those in any other settlement type; people living in Urban Conurbations travelled the fewest miles in 2021.

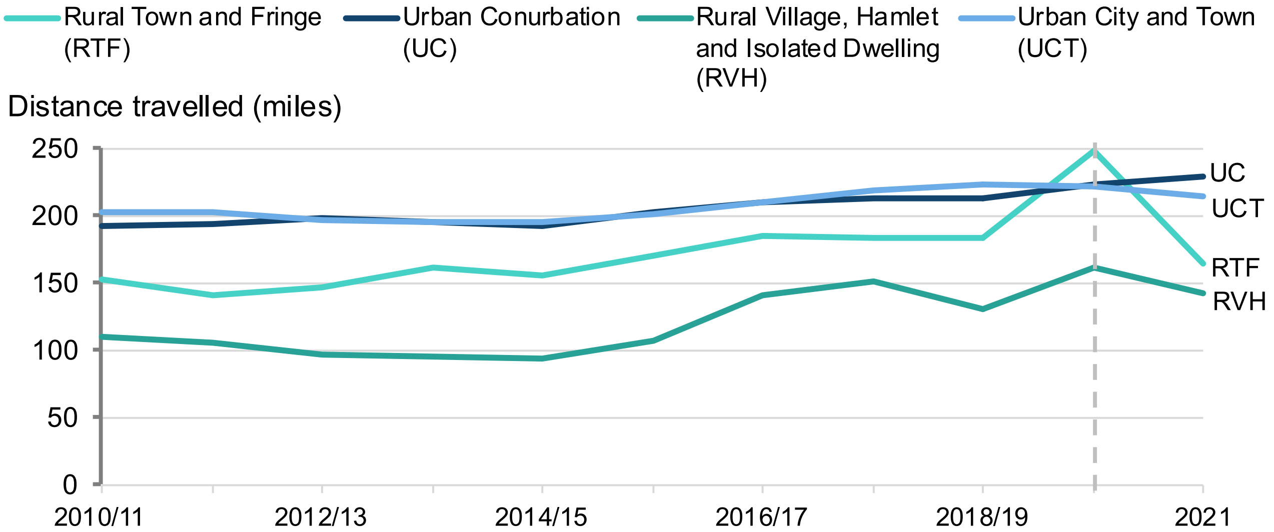
Notes:

- In Table C-2, "Car / van" includes drivers and passengers. "Public Transport" refers to both rail and local bus. "Other" means all modes of transport not already mentioned, including walking.
- In Figure C-4, the "escort" category contains both escorting to education institutions and other escorting. The "visiting friends" category contains both visiting friends at a private home and visiting friends elsewhere.
- Average total distance travelled per person concerns the total population, and not just the service users.

Average distance travelled – long-term trends

Figure C-5 shows the average distance travelled by **walking** between 2010/11 and 2021. Distance travelled by walking has been consistently lower in Rural areas than in Urban areas until 2020; this change is likely to be a result of the COVID-19 enforced lockdowns increasing the amount of recreational and other walking in Rural areas. In 2021, the distance travelled by walking returned to pre-pandemic levels in Rural areas, whereas in Urban Conurbations it continued to increase.

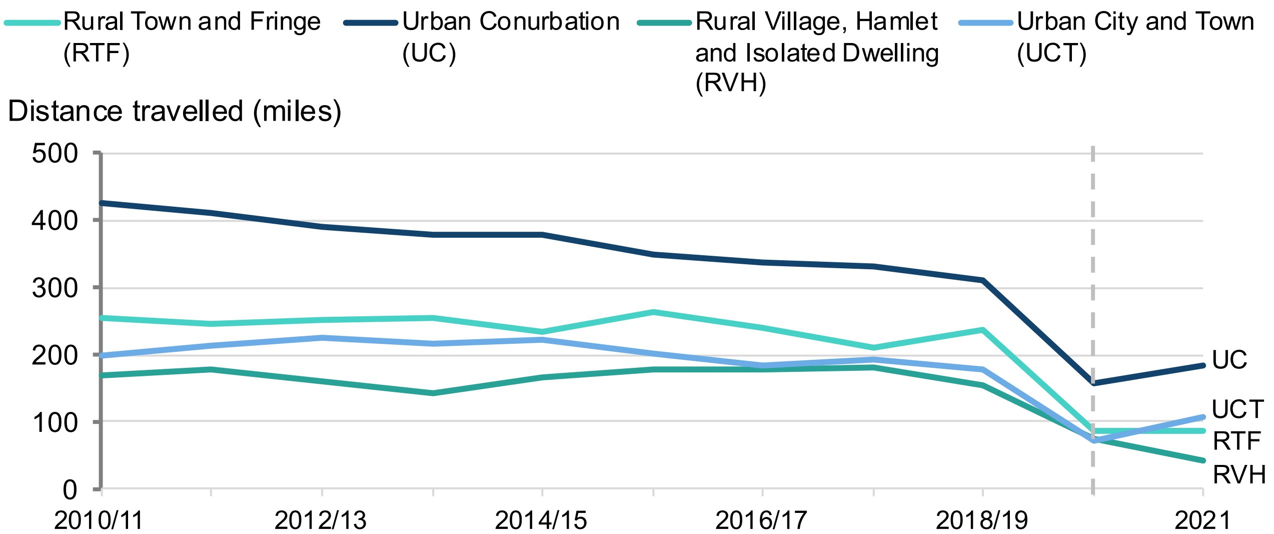
Figure C-5: Line chart showing average total distance travelled by walking, per person per year, by settlement type, in England, 2010/11 to 2021 (Note C-1, Note C-3, Note C-5)



Average distance travelled by walking by those from Rural Villages, Hamlets and Isolated Dwellings increased by 31 miles (22%) and those living in Rural Town and Fringe by 11 miles (7%) between 2010/11 and 2021. More miles were walked in 2018/19 than in 2010/11, and there were further sharp increases in Rural areas between 2018/19 and 2020. The average distance travelled by walking in Urban Conurbations increased between 2018/19 and 2020, whereas it decreased slightly in Urban City and Town areas. In Rural Villages, average distance travelled by walking decreased by 19 miles from 2020 to 2021, and by 84 miles in Rural Town and Fringe areas over the same period. Urban City and Town areas saw a small decrease of 9 miles, whilst people living in Urban Conurbations travelled 5 miles more on average in 2021 compared with 2020.

Figure C-6 shows the average total distance travelled by **local bus** between 2010/11 and 2021.

Figure C-6: Line chart showing average total distance travelled by local bus, per person per year, by settlement type, in England, 2010/11 to 2021 (Note C-1, Note C-3, Note C-5)

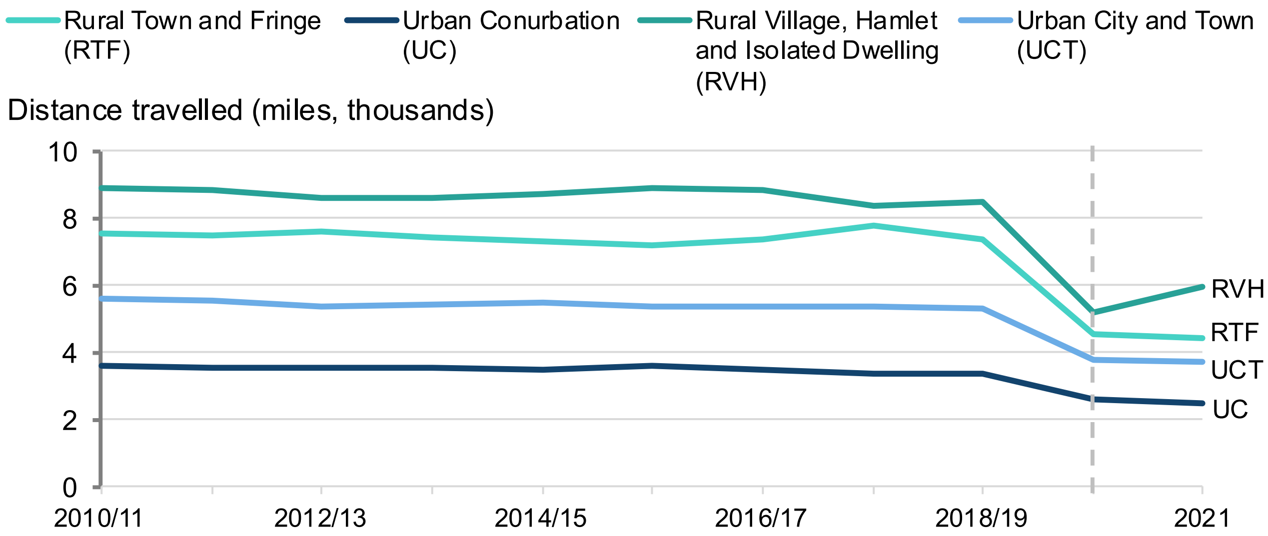


The average total distance travelled by local bus declined sharply between 2018/19 and 2020 in all areas due to the COVID-19 pandemic. In 2020 there were enforced lockdowns which restricted mobility resulting in large numbers of people working from home [see section D. Home working] and not using bus services; in some Rural areas bus services have not recovered. Between 2020 to 2021, the distance travelled by local bus decreased in Rural Villages, Hamlets and Isolated Dwellings, and remained the same in Rural Town and Fringe areas. In comparison, people living in Urban areas travelled further by local bus in 2021 than in 2020.

The average distance travelled by Local Bus prior to the COVID-19 pandemic (2010/11 to 2018/19) still saw a slight decrease in Urban areas, whereas Rural areas remained relatively consistent. The average distance travelled by Local Bus decreased by 115 miles per person per year in Urban Conurbations between 2010/11 and 2018/19, and decreased by 15 miles per person in Rural areas. Urban City and Town areas, however, followed a similar trend to Rural areas, since the average distance travelled by Local Bus decreased by just 19 miles per person between 2010/11 and 2018/19 – considerably less than in Urban Conurbation areas.

Figure C-7 shows the average distance travelled by **car or van** between 2010/11 and 2021. Note that the scale on this chart is different to the charts showing distance travelled by walking and by local bus. This is because a much greater total distance was travelled by car or van than by any other means.

Figure C-7: Line chart showing average total distance travelled as a car/van driver or passenger, per person per year, by settlement type, in England, 2010/11 to 2021 (Note C-1, Note C-3, Note C-5)

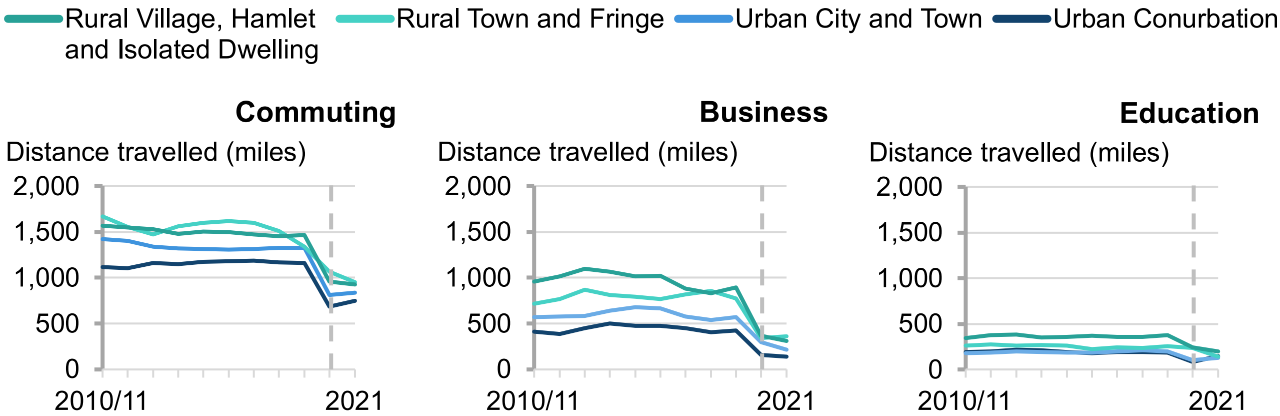


Since 2010/11, people living in Rural areas travelled further per year as a car / van driver or passenger than those in Urban areas, indicating the Rural population's reliance on private rather than public transport. The distance travelled by car or van changed little between 2010/11 and 2018/19 in Urban areas. The same can be said for Rural areas, although there was a slight fluctuation around 2017/18 when more miles were covered by people living in Rural Town and Fringe areas, and fewer miles were covered by those in Rural Villages, Hamlets and Isolated Dwellings.

All areas saw a decrease between 2018/19 and 2020 owing to the COVID-19 pandemic, although there was a larger decrease in Rural areas than in Urban areas. This was followed by further decreases in 2021 in all areas besides Rural Villages, Hamlets and Isolated Dwellings, for which there was an average increase of 760 miles per person.

For all purposes and settlement types, the average distance travelled per person in 2021 was lower than it was prior to the COVID-19 pandemic (i.e., in 2018/19). Figure C-8 shows the average distance travelled per person per year when travelling for work between 2010/11 and 2021.

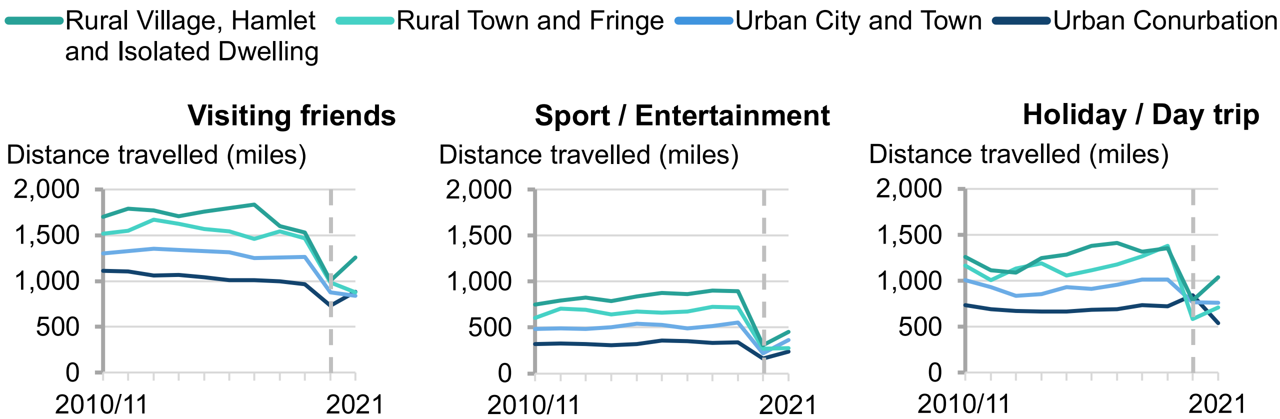
Figure C-8: Line charts showing average total distance travelled for work, per person per year, by settlement type, 2010/11 to 2021 (Note C-1, Note C-3, Note C-5, Note C-6, Note C-7)
There are three charts represented under one shared legend. The left-hand chart concerns distance travelled to commute, the middle chart concerns distance travelled for business, and the right-hand chart concerns distance travelled for education.



There was little variation in the average total distance travelled per person for work between 2010/11 and 2018/19. Between 2018/19 and 2020, the average total distance travelled per person decreased sharply in all settlement types when travelling for business, education or commuting purposes due to the COVID-19 pandemic; due to the implementation of the stay-at-home orders throughout the pandemic, many workplaces and education centres adopted home working. This became normalised in many cases, such that the average total distance travelled per person either increased only slightly or remained the same between 2020 and 2021 for all settlement types when travelling for work.

Figure C-9 shows the average distance travelled per person per year when travelling for leisure between 2010/11 and 2021.

Figure C-9: Line charts showing average total distance travelled for leisure, per person per year, by settlement type, 2010/11 to 2021 (Note C-1, Note C-3, Note C-5, Note C-6, Note C-7)
There are three charts represented under one shared legend. The left-hand chart concerns distance travelled to visit friends, the middle chart concerns distance travelled for sport or entertainment, and the right-hand chart concerns distance travelled for holidays or day trips.

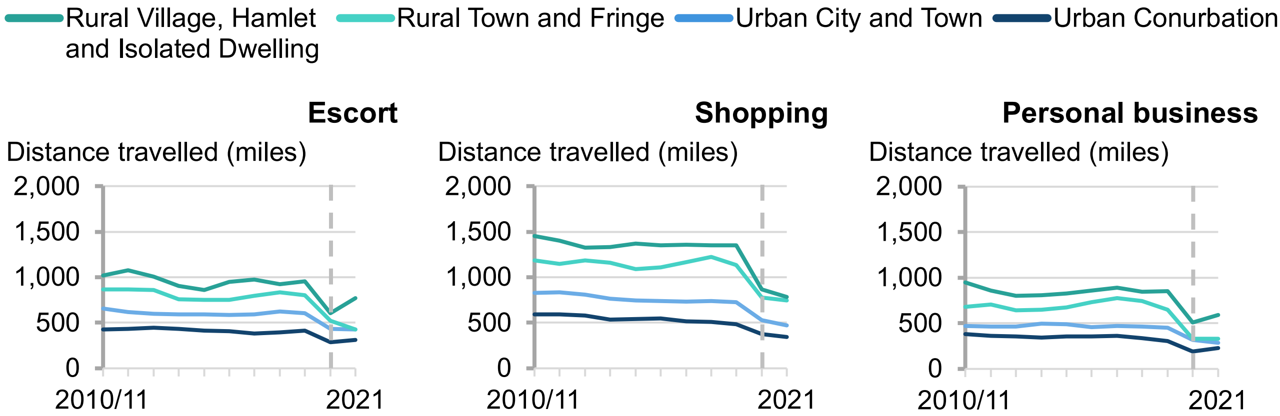


There was little variation in the average total distance travelled per person for sports and entertainment purposes or visiting friends between 2010/11 and 2018/19. When travelling for holidays or day trips, there was a slight increase in the total distance travelled per person between 2010/11 and 2018/19. Between 2018/19 and 2020, the average total distance travelled per person decreased sharply in all settlement types when travelling for sport/entertainment purposes, visiting friends, or travelling for holidays/day trips due to the COVID-19 pandemic. Due to the introduction of stay-at-home orders, there were fewer opportunities for leisure activities. Post-COVID, there has been an increase in the total distance travelled for leisure in Rural areas and some Urban areas between 2020 and 2021.

Figure C-10 shows the average distance travelled per person per year when travelling for essential purposes between 2010/11 and 2021.

Figure C-10: Line charts showing average total distance travelled for essential purposes, per person per year, by settlement type, 2010/11 to 2021 (Note C-1, Note C-3, Note C-5, Note C-6, Note C-7)

There are three charts represented under one shared legend. The left-hand chart concerns distance travelled to escort, the middle chart concerns distance travelled to shop, and the right-hand chart concerns distance travelled for personal business.



There was little variation in the average total distance travelled per person when travelling for personal business, shopping or to escort between 2010/11 and 2018/19. Between 2018/19 and 2020, the average total distance travelled per person decreased sharply in all settlement types when travelling for essential purposes due to the COVID-19 pandemic. Due to the introduction of stay-at-home orders, many people opted to shop online rather than visit in-store, and the need for escorting others or conducting personal business decreased. Post-COVID, there has been an increase in the total distance travelled for essential purposes in some Rural areas between 2020 and 2021, whereas there was little change in Urban areas.

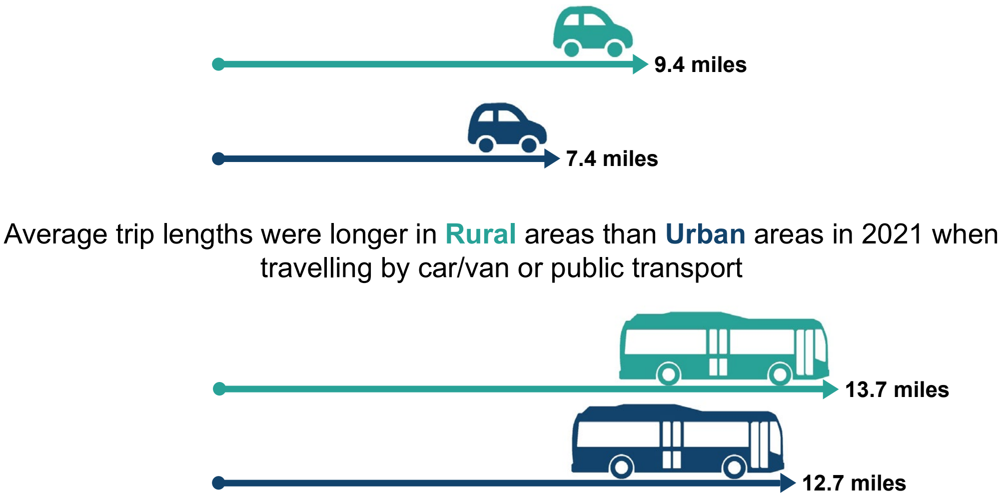
Notes:

- In Figure C-5, Figure C-6 and Figure C-7 the scales (y-axes) differ and this should be considered when making cross-modal comparisons.
- Data collection processes changed in 2020 due to the COVID-19 pandemic, so data for 2020 and 2021 are presented as a single year. This change is denoted by a vertical dashed line.
- Distance by mode is based on stage distance. Local Bus includes London buses. Rail includes London Underground. Other includes: bicycle, motorcycle, private hire bus, other modes of private transport, non-local bus, taxi / minicab and other modes of public transport (air, ferries, light rail).
- Distance by purpose covers all modes of transport.

Average trip length

Generally, people living in Rural areas travelled further per trip than those in Urban areas in 2021 when travelling by public transport or a car/van; this is shown in Figure C-11, and is explored in more detail in Table C-3.

Figure C-11: Infographic showing average trip length in 2021, by car/van or public transport



The average trip length when walking was just under a mile in both Rural and Urban areas, as shown in Table C-3. Furthermore, once a trip exceeds a mile, most people switched to a different mode of transport in 2021.

The greatest average trip lengths were highest in Rural Villages, Hamlets and Isolated Dwellings, where people travelled 6.6 miles by local bus and 25.1 miles by rail on average. The shortest average trip lengths when taking public transport were seen in Urban Conurbation areas: 4.0 miles when travelling by local bus and 17.1 miles when travelling by rail. This means people living in the most Rural areas travelled 2.6 miles further by local bus and 8.0 miles further via rail than those in the most Urban areas.

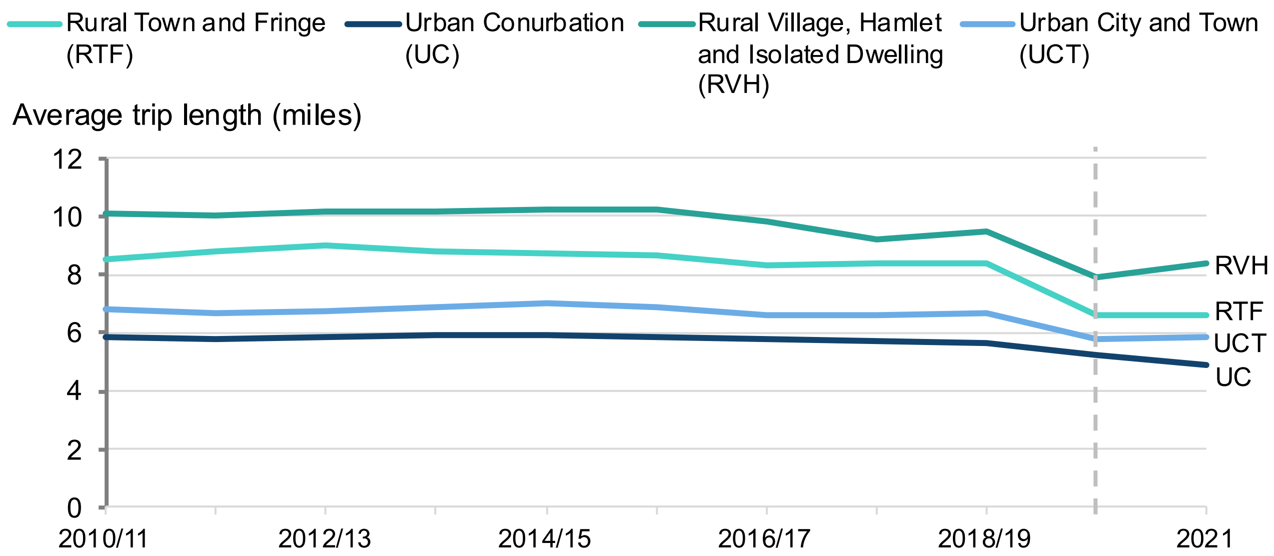
Table C-3: Average trip length, by selected modes of transport and settlement type, 2021 (Note C-3, Note C-5)

Rural-Urban Classification	Walk	Car/van driver	Car / van passenger	Local bus	Rail	All modes
Rural Village, Hamlet and Isolated Dwelling	0.9	9.9	11.3	6.6	25.1	8.4
Rural Town and Fringe	0.8	9.0	7.3	5.9	17.1	6.6
Urban City and Town	0.8	7.4	8.6	6.4	23.2	5.8
Urban Conurbation	0.8	6.3	7.2	4.0	17.1	4.9
England	**0.8**	**7.4**	**8.2**	**4.5**	**19.0**	**5.7**

Average trip length – long-term trends

The average trip length can be considered to determine how travel behaviours have changed over time. Figure C-12 shows the change in average trip length by all modes of transport between 2010/11 and 2021, by settlement type.

Figure C-12: Line chart showing average trip length, by settlement type, in England, 2010/11 to 2021 (Note C-1, Note C-3, Note C-5)



Since 2010/11, the average trip length has been consistently higher for those living in Rural areas than in Urban areas. The longest average trip length was for those in Rural Villages, Hamlets and Isolated Dwellings, which has consistently been around 50% greater than the average trip length for people in Urban Conurbations. A contributing factor to this is that people living in the most Rural areas often need to travel further to reach key services [see section E. Access to Services].

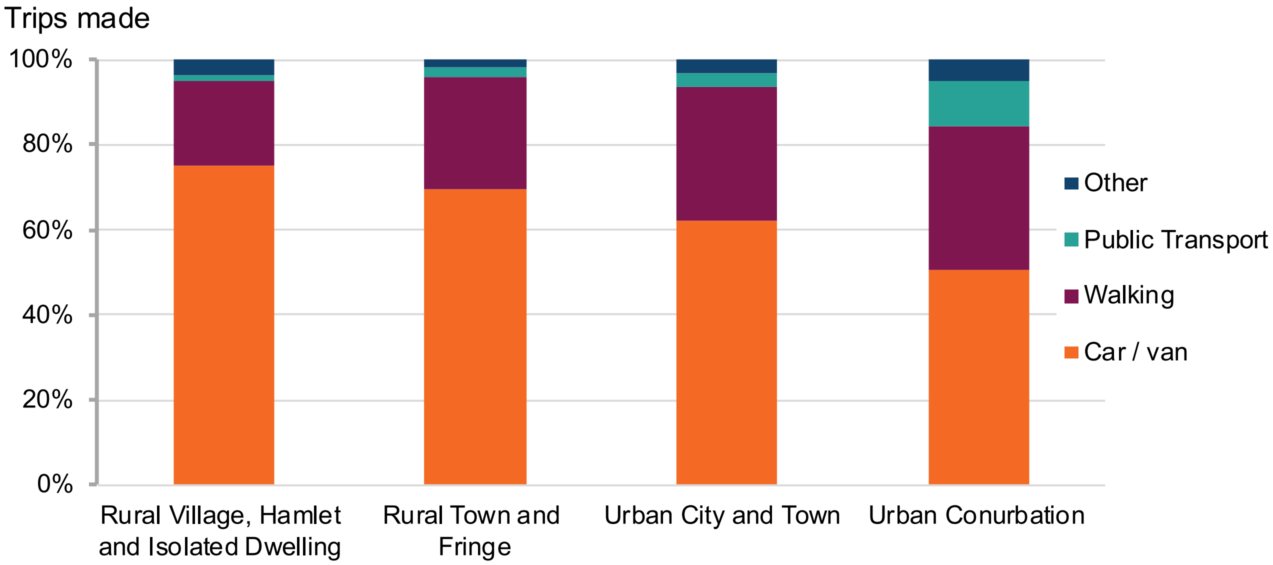
The average trip length was lower in 2021 than in 2018/19 (i.e., prior to the COVID-19 pandemic) across all areas, however in Rural Villages, Hamlets and Isolated Dwellings there has been a slight increase of 0.5 miles between 2020 and 2021. The average trip length remained the same between 2020 and 2021 in Urban City and Town, and Rural Town and Fringe areas. In Urban Conurbations, the average trip length decreased by 0.4 miles between 2020 and 2021.

Prior to the COVID-19 pandemic, there was little variation over time in the average trip length; in Rural Villages, Hamlets and Isolated Dwellings, there were slight decreases between 2015/16 and 2017/18, but the average trip length was relatively stable for all other settlement types.

Number of trips made

Another metric we can investigate is the number of trips people are making. Results are presented for 2021, although the after-effects of the COVID-19 pandemic should be considered. Figure C-13 shows that people living in all settlement types made more trips by car or van than by any other mode of transport in 2021.

Figure C-13: Bar chart showing proportion of trips made by mode of transport, per person per year, 2011 Rural-Urban Classification, in England, 2021 (Note C-3, Note C-5)
The legend is presented in the same order and orientation as the stacked columns.



In Rural areas, the least common mode of transport in 2021 was public transport (i.e., local bus or rail), since this accounted for just 2% of trips made; in Urban areas, public transport accounted for 7% of trips made.

People living in Rural areas were less likely to use walking as their mode of transport than those in Urban areas. In 2021, walking accounted for 20% of trips in Rural Villages and Hamlets, compared with 34% in Urban Conurbations.

There were more trips made in 2021 by car or van by people living in Rural Villages, Hamlets and Isolated Dwellings (75%) compared to other settlement types (51% for Urban Conurbations); for all other modes of transport, there were fewer trips made than the national average.

Table C-4 shows that rail was the least frequently used mode of transport in 2021 across all areas in England, with an average of only 6 trips made per person living in Rural areas. The average number of trips by local bus and rail were also low in 2021. Walking and driving a car or van were the two most frequently used modes of transport across England, with a national average of 235 trips and 300 trips respectively.

Table C-4: Average number of trips made, per person per year, by mode and settlement type, in England, 2021 (Note C-3, Note C-5)

Trips per person per year

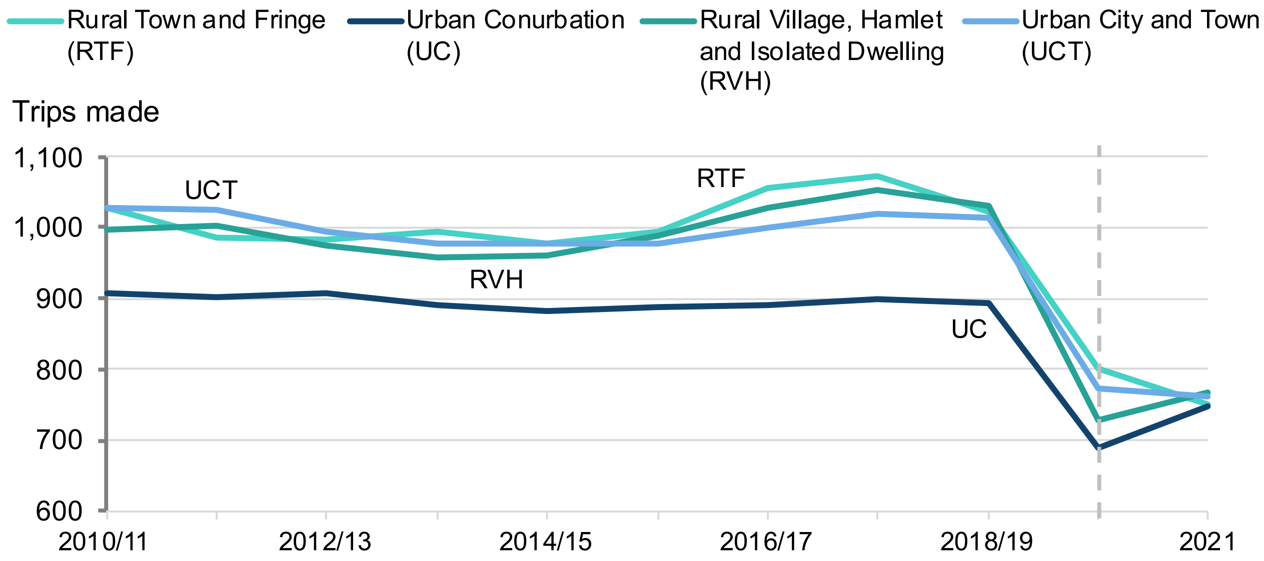
Rural-Urban Classification	Walk	Car/van driver	Car / van passenger	Local bus	Rail	Other	All modes
Rural Village, Hamlet and Isolated Dwelling	152	401	175	6	6	29	**769**
Rural Town and Fringe	197	355	167	12	6	14	**751**
Urban City and Town	239	321	152	16	8	25	**763**
Urban Conurbation	253	245	134	45	36	37	**748**
England	**235**	**300**	**148**	**26**	**19**	**29**	**757**

Number of trips made – long-term trends

The number of trips made, by settlement type, can be measured to determine how travel behaviours have changed over time. Figure C-14 shows the average number of trips made per person for all modes of transport between 2010/11 and 2021.

Since 2010/11, people in Urban Conurbations made fewer trips than in other settlement types. The settlement type making the most trips has fluctuated between 2010/11 and 2021.

Figure C-14: Line chart showing average number of trips made, per person per year, by settlement type, in England, 2010/11 to 2021 (Note C-1, Note C-3, Note C-5)



Between 2010/11 and 2018/19, there was fluctuation between 980 and 1,030 trips made per person in Rural Villages, Hamlets and Isolated Dwellings, Rural Town and Fringe areas, and Urban City and Town areas. In Urban Conurbations, the average number of trips made varied less, fluctuating between 890 and 910 trips per person.

Between 2018/19 and 2020, all settlement types saw a vast decrease in the average number of trips made, due to the COVID-19 pandemic. Between 2020 and 2021, a slight recovery towards pre-pandemic levels were seen in Rural Villages, Hamlets and Isolated Dwellings and Urban Conurbations, whilst the average number of trips made continued to decrease in Rural Town and Fringe areas and to a lesser extent in Urban City and Towns. However, there were still 25% fewer trips made per person in Rural Villages, Hamlets and Isolated Dwellings in 2021 compared to 2018/19 (i.e., prior to the COVID-19 pandemic), and 27% fewer trips made per person in Rural Town and Fringe areas.

Journey to School

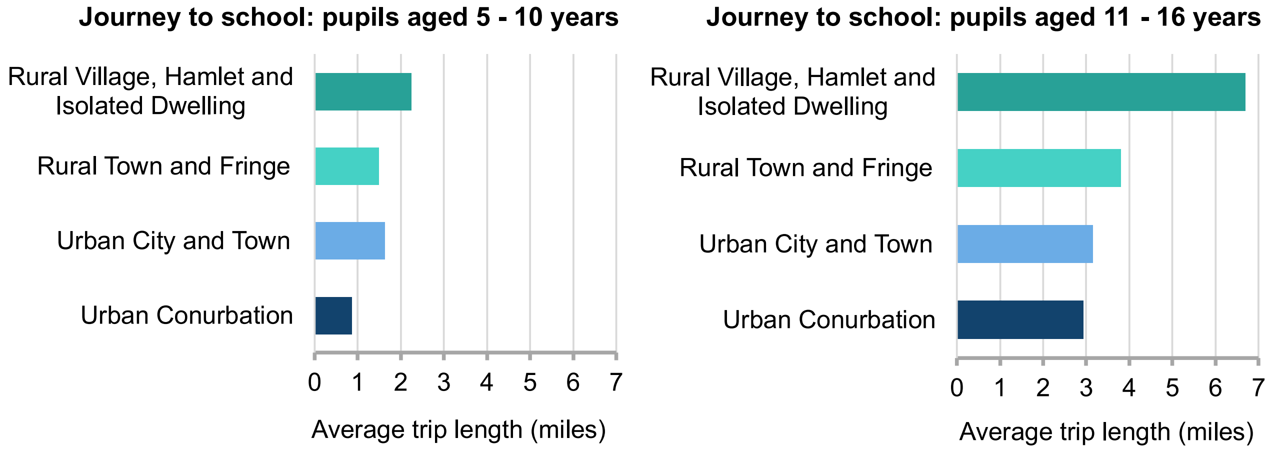
The COVID-19 pandemic affected school attendance and journeys to school. The introduction of stay-at-home orders in 2020 meant that the number of trips made was reduced in all areas, and continued to affect journeys to school into 2021.

The average journey length to school in 2021 was longer for pupils living in Rural areas than for those living in Urban areas. Figure C-15 shows that the group with the longest journey were 11 to 16-year olds living in Rural Villages, Hamlets and Isolated Dwellings who travelled 6.7 miles on average; this compares with a journey of 2.9 miles in an Urban Conurbation for the same age group. That means 11 to 16-year olds in Rural Villages, Hamlets and Isolated Dwellings were travelling at least twice as far as those in Urban Conurbations to get to school.

Pupils aged 5-10 years living in Rural Villages and Hamlets also had the longest journey length for their age group compared to other settlement types.

Figure C-15: Bar charts showing average journey length to school for pupils aged 5-16 years, 2011 Rural-Urban Classification, in England, 2021 (Note C-5)

There are two charts; the left-hand chart shows journey lengths for pupils aged 5-10 years, and the right-hand chart shows journey lengths for pupils aged 11-16 years.



Further detail of average school journey lengths of pupils is given in Table C-5. Pupils living in Rural Villages, Hamlets and Isolated Dwellings travelled further than the national average in 2021, whilst those living in Urban Conurbations travelled less. The average journey length for pupils to get to school is longer for those aged 11-16 years than those aged 5-10 years, since secondary schools tend to be much larger and accommodate for a much larger area.

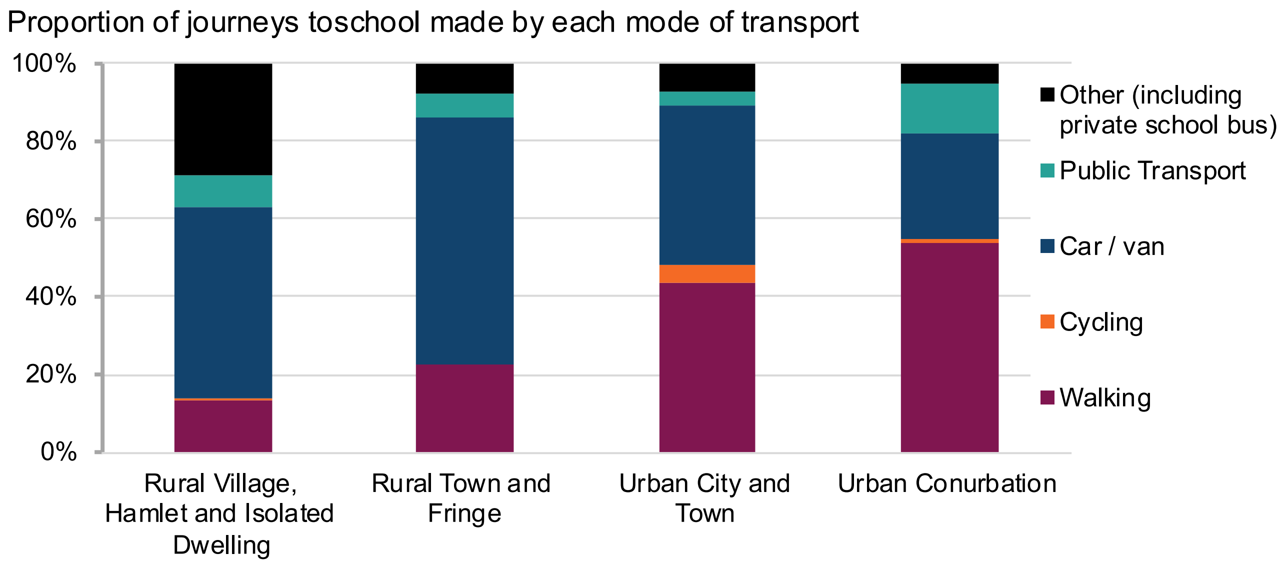
Table C-5: Average journey length (miles) to school by pupils, by age group and settlement type, in England, 2021 (Note C-5)

Average trip length (miles)

Rural-Urban Classification 2011	Aged 5-10 years	Aged 11-16 years
Rural Village, Hamlet and Isolated Dwelling	2.2	6.7
Rural Town and Fringe	1.5	3.8
Urban City and Town	1.6	3.2
Urban Conurbation	0.9	2.9
England	**1.3**	**3.4**

Figure C-16 shows the proportions of pupils travelling to school by each mode of transport in 2021. In Rural areas, it was more common for pupils to get to school via car or van, or by ‘other’ means (including the private school bus), whereas in Urban areas it was most common for pupils to walk to school.

Figure C-16: Bart chart showing mode of transport used for journey to school by pupils, by settlement type, in England, 2021 (Note C-5)
The legend is presented in the same order and orientation as the stacked columns.



To summarise Figure C-16:

- 49% of students from Rural Villages, Hamlets and Isolated Dwellings and 64% of students from Rural Town and Fringe areas commuted to school via car or van, compared with 27% of those in Urban Conurbations.
- 13% of pupils living in Rural Villages, Hamlets and Isolated Dwellings walked to school, compared with 54% of those in Urban Conurbations.
- 8% of pupils in Rural Villages, Hamlets and Isolated Dwellings commuted to school via public transport, compared with 13% of pupils in Urban Conurbations.
- Cycling was the least common mode of transport to get to school in 2021, with just 1% of pupils in Rural Villages, Hamlets and Isolated Dwellings and 5% in Urban City and Town areas commuting this way.

Notes:

- Journeys to school include trips under 50 miles only.
- “Walking” to school includes when pupils ride in non-motorised wheelchairs, prams or pushchairs, toy bicycles/tricycles, roller-skates, skateboards, and non-motorised scooters.

Travel behaviour explanatory notes

- **Note C-1**

The sample size for one year is too small to produce robust results so the analysis within some sub-sections combines data from two years (i.e., reporting 2018/19) until 2020 and 2021, which have been reported as standalone years due to the effects of COVID.

- **Note C-2**

The results are weighted. Weights are applied to adjust for non-response to ensure the characteristics of the achieved sample match the population and for the drop off in trip recording. The survey results are subject to sampling error. Further information: [https://www.gov.uk/government/collections/national-travel-survey-statistics.](https://www.gov.uk/government/collections/national-travel-survey-statistics)

- **Note C-3**

Tables of the data seen in this section are available in the connectivity and accessibility supplementary data tables.

- **Note C-4**

Sources: DfT National Travel Survey; Office for National Statistics (Population estimates).

- **Note C-5**

"Urban Conurbation" refers to the combination of two categories within the 2011 Rural-Urban Classification: "Urban with Minor Conurbation" and "Urban with Major Conurbation". "Rural Village, Hamlet and Isolated Dwelling" refers to the combination of "Rural Village" and "Rural Hamlet and Isolated Dwellings".

- **Note C-6**

Figures in the tables may not match those in the text due to rounding.
Distance by mode is based on stage distance. "Local Bus" includes London buses. "Rail" includes London Underground. "Other" includes: bicycle, motorcycle, private hire bus, other modes of private transport, non-local bus, taxi / minicab and other modes of public transport (air, ferries, light rail).

- **Note C-7**

Purposes for travel include:

Commuting - trips to a usual place of work from home, or from work to home

Business – personal trips in course of work, including all work trips by people with no usual place of work (e.g., site workers) and those who work from home

Education – trips to school or college by students

Escort – when a traveller has no purpose of their own, other than to accompany another person (e.g., taking a child to school)

Shopping – all trips to shops or from shops to home (with or without purchase or intention to buy)

Personal business – visits to services (e.g., hairdressers, launderettes, dry-cleaners, banks)

Sport / Entertainment – all types of entertainment or sport, clubs, etc.

Holiday / Day trip – trips within Great Britain to or from any holiday, or trips for pleasure within a single day.

D. Access to personal transport

There are proportionally fewer electric plug-in cars and publicly available electric vehicle chargers in Rural areas compared to Urban areas.

Access to personal transport - key findings

The more rural the area, the higher the average number of cars per household

- 7% of households in the most rural settlements had no access to a car or van; this compares to 32% in the most urban areas.
- 60% of households in the most rural settlements had two or more cars or vans; this compares to 23% in the most urban areas.

Electric vehicles have recently become the most common new car, replacing petrol

- 48% of new cars in Predominantly Rural areas were electric, 43% had petrol engines, and 9% had diesel engines.
- 57% of new cars in Predominantly Urban areas were electric, 39% had petrol engines, and 5% had diesel engines.

There were proportionally fewer public EV chargers in Predominantly Rural areas

- There were 25 public electric vehicle charging devices (all speeds) per 10,000 households with car/van access in Predominantly Rural areas.
- There were 42 public electric vehicle charging devices (all speeds) per 10,000 households with car/van access in Predominantly Urban areas.
- However, there were similar proportions of rapid charging devices (50kW or above) between Predominantly Rural and Predominantly Urban areas.

Summary

Having access to (or owning) a car is important in Rural areas for accessing services, work, and other activities since public transport is less widely available. Choosing vehicles powered by electricity rather than petrol or diesel is becoming more popular, particularly in the last few years.

The more rural an area is, the higher the average number of cars per household; 93% of households in the most Rural areas (Rural Village, Hamlet and Isolated Dwelling) had access to one or more cars/vans, comprising of 33% having access to one vehicle and 60% having access to two or more. In comparison, 44% of households in the most Urban areas (Urban Conurbation) had access to one car/van and 23% had access to two or more.

Petrol engines have consistently been the most popular for new cars, but since 2020 diesel has been replaced by electric as the second most common. In 2024, electric was the most common new car in Predominantly Rural areas. In 2024 in Predominantly Rural areas, 43% of newly licensed privately owned cars had petrol engines, 48% were electric and only 9% had diesel engines. The trends in fuel types of newly licensed cars are similar between Predominantly Rural and Predominantly Urban areas.

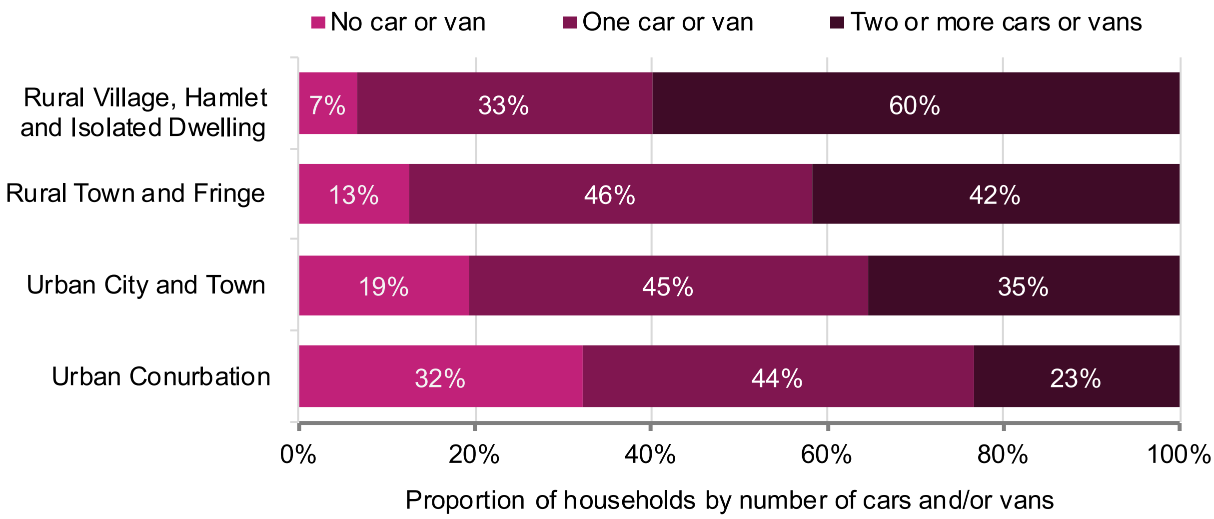
There were around 52 electric plug-in cars per 1,000 households with access to a car/van in Predominantly Rural areas in 2024, compared to approximately 100 per 1,000 households in Predominantly Urban areas. The number of electric vehicles on the road is increasing every year, and this increased uptake of electric vehicles results in an increased demand for public charging points. As of January 2025, there were on average 25 publicly available electric vehicle charging devices (all speeds) per 10,000 households with access to a car/van in Predominantly Rural areas. This compares to 42 chargers per 10,000 households with access to a car/van in Predominantly Urban areas. In terms of rapid charging devices (50kW or above), there were similar proportions of chargers in Predominantly Rural and Predominantly Urban Parliamentary Constituencies (6.4 and 6.8 devices per 10,000 households with access to a car/van, respectively).

Car availability

Having access to (or owning) a car is important in Rural areas for accessing essential services, work, and other activities since public transport is less widely available; some Rural areas are too far away from the main rail network, meaning journeys via public transport would only be possible using buses. Where rail can be accessed, the frequency of trains is often much lower (as with buses) and therefore travel via car can be more practical. Section C provides more detail regarding travel behaviours, particularly by public transport.

The National Travel Survey (NTS) is a household survey of personal travel; findings are published annually. The bar chart in Figure D-1 shows car availability for households in England, by 2011 Rural-Urban Classification, as presented in the National Travel Survey (Note D-2).

Figure D-1: Bar chart showing percentage of households by number of cars/vans that can be accessed and settlement type, in England, 2023 (Note D-1, Note D-4, Note D-6)
The legend is presented in the same order and orientation as the stacked bars.



The stacked bar chart in Figure D-1 shows that the more Rural an area is, the lower the proportion of households without access to a car or van (and similarly, the higher the proportion with access to multiple vehicles).

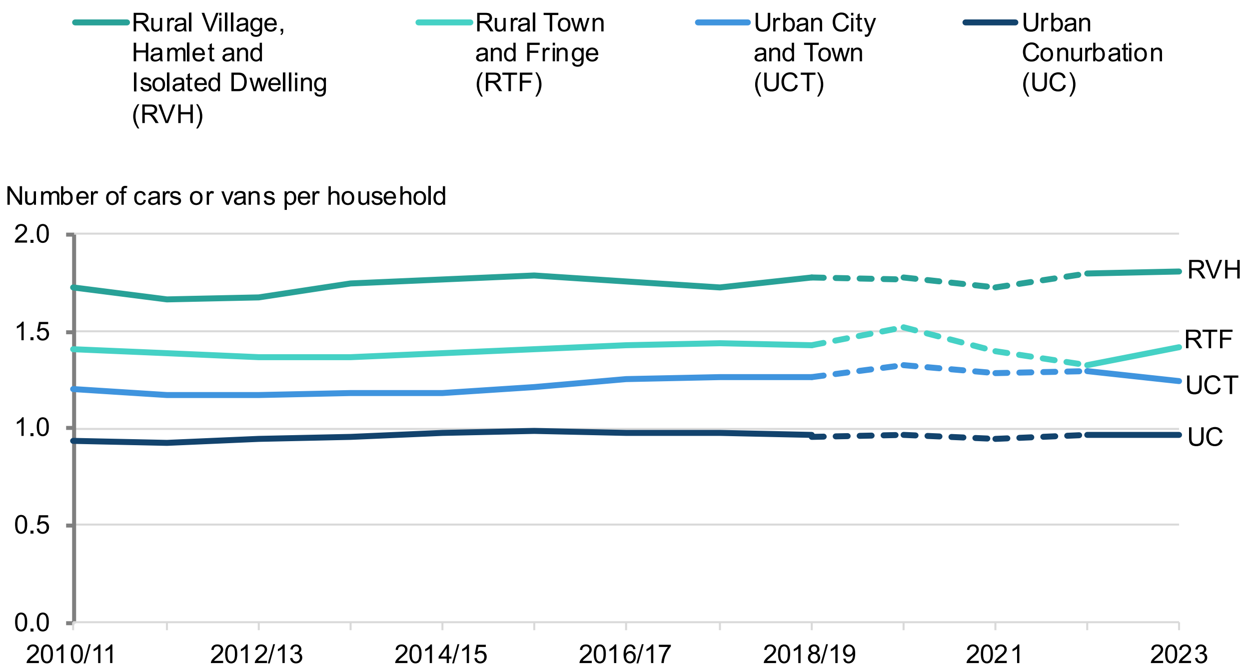
In the most Rural settlement type (Rural Villages, Hamlets and Isolated Dwellings), just 7% of households did not have access to a car or van in 2023. In Rural Town and Fringe areas, 13% of households did not have access to a car/van, and in Urban City and Town areas, 19% of households had no accessible car/van. In the most Urban settlement type (Urban Conurbation), 32% of households did not have access to a car or van in 2023; this was 26 percentage points higher than in the most Rural settlement type.

In the most Rural settlement type, 60% of households had access to two or more cars or vans in 2023. This compares with 42% in Rural Town and Fringe areas, and 35% in Urban City and Town areas. In the most Urban settlement type, 23% of households had access to two or more cars or vans in 2023; this was 37 percentage points lower than in the most Rural settlement type.

Comparisons between areas and time periods can be made by calculating the number of accessible cars or vans per household; this is shown in the line chart in Figure D-2.

The National Travel Survey was conducted in a different manner (virtual rather than face-to-face) throughout the COVID-19 pandemic, and the response rate was lower than in previous years. In 2023, face-to-face surveys were conducted once again, albeit with a response rate that was lower than pre-COVID-19. Therefore, the surveys affected by COVID-19 have been indicated on the chart using dashed lines. For more information about the National Travel Survey, please see the [technical report].

Figure D-2: Line chart showing average number of cars or vans per household, by settlement type, England, 2010/11 to 2023 (Note D-4, Note D-5, Note D-6)
The legend is in the same order, but not the same orientation, as the chart lines. A dashed line is used to represent those surveys which results were atypical for the NTS time series due to interviews being carried out virtually instead of face-to-face during the COVID-19 pandemic.



The line chart in Figure D-2 shows the average number of cars or vans that can be accessed per household between 2010/11 and 2023. There was little change in this average value over time across all settlement types (excluding the COVID-19-affected surveys). The more Rural an area is, the higher the average number of cars per household.

In the most Rural settlement type (Rural Village, Hamlet and Isolated Dwellings), there were 1.8 cars per household on average in 2023; this means that households typically had multiple cars. In comparison, in the most Urban settlement type (Urban Conurbation), there were 1.0 cars per household on average in 2023.

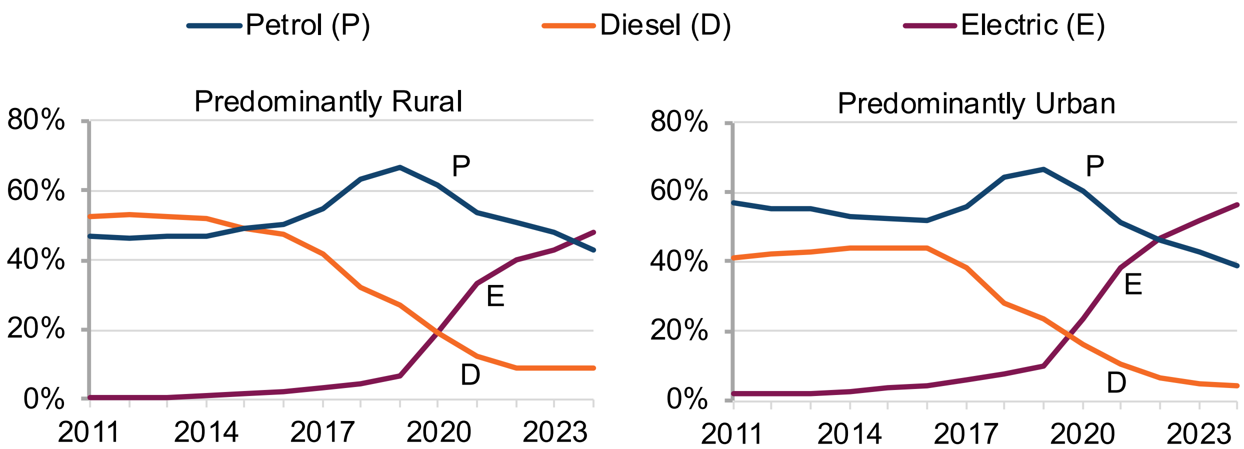
Fuel types

Considering the types of cars in use in rural areas is important as electric vehicles become more prevalent and rely on charging infrastructure. Most cars in England are either Petrol-fuelled, Diesel-fuelled, or Electric (including hybrid electric, battery electric, and plug-in hybrid electric). There are a number of rarer fuel types including liquefied petroleum gas (LPG), biofuels, steam, and experimental technologies; however, these represented fewer than 1% of newly registered cars between 2011 and 2024.

The line charts in Figure D-3 highlight the changes in the proportion of each fuel type (Diesel, Electric, or Petrol) for newly licensed cars between 2011 and 2024, in Predominantly Rural areas (left-hand chart) and Predominantly Urban areas (right-hand chart) as in the 2011 Rural-Urban Classification. This includes both privately-owned and company cars.

Figure D-3: Line charts showing the proportion of newly registered cars by fuel type for Predominantly Rural areas (left-hand chart) and Predominantly Urban areas (right-hand chart), 2011 to 2024 (Note D-1, Note D-4)

"Other fuel types" are not included on the line charts, but represented less than 1% of newly registered cars between 2011 and 2024.



There were proportionally fewer newly registered electric cars in Predominantly Rural areas compared to Predominantly Urban areas between 2011 and 2023.

Between 2011 and 2015, buying new diesel-fuelled cars was slightly more common in Predominantly Rural areas than new cars with petrol engines. Between 2015 and 2019, the proportion of newly registered privately-owned or company cars with petrol engines increased, whilst the proportion of new cars with diesel engines decreased in Predominantly Rural areas. In 2019, 66% of newly registered cars had petrol engines in Predominantly Rural areas; this was the highest proportion for any fuel type in any year between 2011 and 2024. Between 2019 and 2024, the proportion of newly registered cars with petrol or diesel engines decreased, whilst the proportion of new electric cars increased significantly.

In terms of newly registered privately, or company, owned cars in 2024, there were proportionally more electric cars (48%) in Predominantly Rural areas compared to new cars with petrol (43%) or diesel (9%) engines; this was the first year across the period where electric vehicles were the most common out of all newly registered cars.

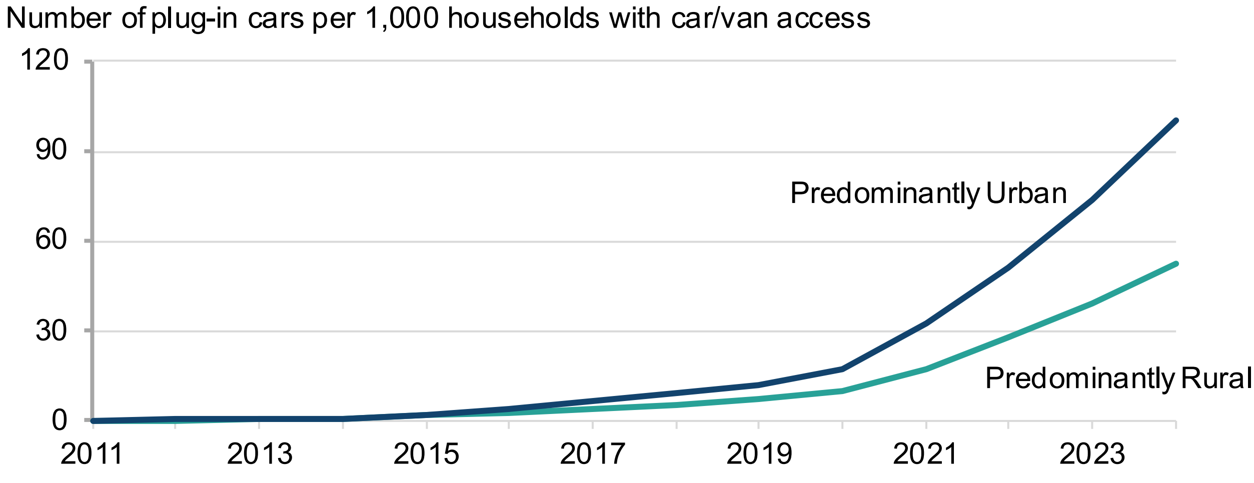
In Predominantly Urban areas, there were proportionally more newly registered petrol cars than any other fuel type between 2011 and 2021. In 2022, proportions of newly registered petrol and electric cars were similar in Predominantly Urban areas. Since 2023, there were more newly registered electric vehicles than petrol cars in Predominantly Urban areas.

In 2019, 66% of newly registered cars had petrol engines in Predominantly Urban areas; this was the highest proportion for any fuel type in any year between 2011 and 2024. Between 2017 and 2024, there were steady decreases in the proportion of newly registered diesel cars. This aligns with the considerable increase in the proportion of new electric cars between 2019 and 2024.

In terms of newly registered privately, or company owned, cars in 2024, there were proportionally more electric cars (57%) in Predominantly Urban areas compared to new cars with petrol (39%) or diesel (5%) engines.

The uptake of electric vehicles is increasing every year. The line chart in Figure D-4 shows that there have consistently been fewer electric plug-in cars registered per household that had access to a car/van in Predominantly Rural areas than in Predominantly Urban areas. The proportion of plug-in cars in Predominantly Urban areas is growing at a faster rate compared to Predominantly Rural areas. Plug-in vehicles include those that are battery electric, hybrid diesel/petrol, or range extended electric; see the link in Note D-4 for more information.

Figure D-4: Line chart showing the number of plug-in electric cars per 1,000 households with access to a car or van, by broad 2011 Rural-Urban Classification, England, mid-year (Q2), 2011 to 2024 (Note D-4)



The line chart in Figure D-4 shows that between 2011 and 2014, there was little change in the number of plug-in electric cars (privately or company owned) per household with access to a car/van in both Predominantly Rural and Predominantly Rural areas.

Between 2015 and 2020, there was a small increase in the number of plug-in electric cars per household with car/van access in Predominantly Rural areas, up to just over 10 per 1,000 households with access to a car/van in 2020. In Predominantly Urban areas, the increase was slightly higher, up to around 17 per 1,000 households with access to a car/van in 2020.

Between 2021 and 2024, there were considerable increases in the number of plug-in electric cars per household with car/van access in both Predominantly Rural and Predominantly Urban areas. In 2024, there were 52 plug-in cars per 1,000 households with access to a car/van in Predominantly Rural areas; this is 48 plug-in cars per 1,000 households with access to a car/van less than in Predominantly Urban areas (100 cars per 1,000 households), meaning that there was double the proportion of plug-in cars in Predominantly Urban areas compared to Predominantly Rural areas.

Electric vehicle infrastructure

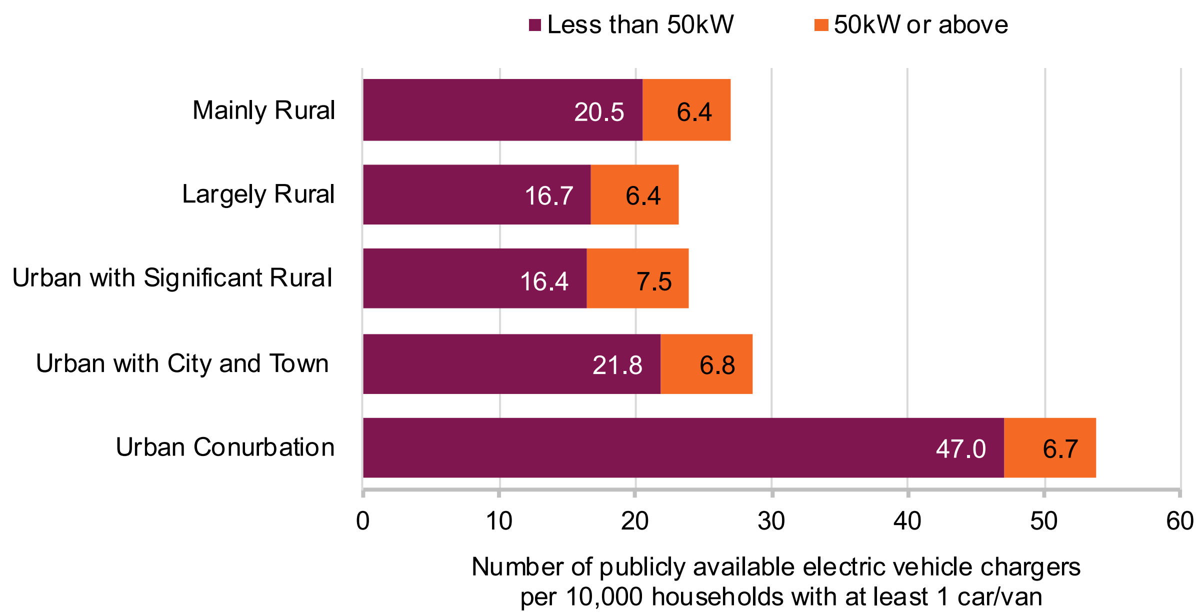
The increased uptake of electric vehicles (Figure D-4) has resulted in the provision EV charging points (Figure D-5).

There are different types of publicly available electric vehicle charging devices. Since October 2023, the industry defines any charger that is 50kW or above as a “rapid” charger. According to Zapmap, 50kW chargers can typically charge a plug-in vehicle to 80% in 20 minutes to 1 hour depending on the battery capacity and starting state of charge; after 80%, charging speeds tail off significantly in order to maximise charging efficiency and protect the battery.

There are ultra-rapid chargers, for example at some motorway services, which can supply up to 350kW, and these can - under ideal conditions - charge a battery to 80% in as little as 10 minutes. Therefore, using lower power public chargers can result in longer charging times, although this is still typically much faster than the speeds available from home chargers (typically 7kW, taking 6-8 hours to charge a battery from empty). Proportions of electric vehicle charging devices by detailed Westminster Parliamentary Constituency Rural-Urban Classification (2011) are shown in the bar chart in Figure D-5.

Figure D-5: Bar chart showing the number of publicly available vehicle charging devices per 10,000 households with access to at least one car or van, by speed and Westminster Parliamentary Constituency Rural-Urban Classification 2011, in England, January 2025 (Note D-2, Note D-3)

The legend is presented in the same order and orientation as the bar stacks.



In England, there were 35.4 publicly available electric vehicle charging devices per 10,000 households with access to a car/van in January 2025. Of these chargers, 6.7 devices per 10,000 households with access to a car/van had a power rating of 50kW or above, making them classed as “rapid” chargers. Per household with car/van access, this equates to approximately 1/5 of all publicly available electric vehicle chargers being classed as “rapid”.

Overall, there were fewer public electric vehicle charging devices (all speeds) in Predominantly Rural Parliamentary Constituencies (25.2 devices per 10,000 households with access to a car/van) compared to Predominantly Urban Constituencies (42.0 devices per 10,000 households with car/van access). However, there were similar proportions of rapid charging devices (50kW or above) between Predominantly Rural Parliamentary Constituencies (6.4 devices per 10,000 households with car/van access) and Predominantly Urban Constituencies (6.8 devices per 10,000 households with car/van access).

In the most Rural Parliamentary Constituencies (Mainly Rural), there were 6.4 publicly available 50kW or above electric vehicle chargers per 10,000 households with access to at least one car or van, as of January 2025. This means that 76% of the publicly available chargers in Mainly Rural areas had a power rating of less than 50kW. Similarly, 72% of public electric chargers in Largely Rural Constituencies had a power rating of less than 50kW (as there were 6.4 50kW or above devices per 10,000 households with car/van access).

In Urban Conurbation Constituencies, there were proportionally more publicly available electric vehicle chargers rated less than 50kW compared to other settlement types (47 chargers per 10,000 households with access to a car/van). There were slightly more publicly available 50kW or above electric vehicle charging devices per 10,000 households with access to a car/van (6.7 chargers per 10,000 households with access to a car/van) compared to Mainly or Largely Rural Constituencies.

The number of publicly available 50kW and above electric vehicle chargers per 10,000 households with access to a car/van is mapped for Predominantly Rural Constituencies in Figure D-6. Data is as of January 2025. For more information regarding the data used, see Note D-3.

As of January 2025, in Predominantly Rural areas there were:

- 45% of Constituencies with 5 or fewer chargers (50kW and above) per 10,000 households with car/van access (55 out of 121 Predominantly Rural Constituencies),
- 40% of Constituencies with between 5 and 10 chargers (50kW and above) per 10,000 households with car/van access (48 out of 121 Predominantly Rural Constituencies),
- 15% of Constituencies with between 10 and 20 chargers (50kW and above) per 10,000 households with car/van access (18 out of 121 Predominantly Rural Constituencies),
- No Constituencies with more than 20 chargers (50kW and above) per 10,000 households with car/van access.

“Stone, Great Wyrley and Penkridge” had proportionally more 50kW and above chargers than any other Predominantly Rural Constituency, with 19 publicly available chargers per 10,000 households with car/van access. Outside of London, the “Filton and Bradley Stoke” constituency (Urban with City and Town) had proportionally more 50kW and above chargers than anywhere else in England, with 29 publicly available chargers per 10,000 households with access to at least one car or van in January 2025.

A full map showing the number of 50kW and above electric vehicle chargers per 10,000 Predominantly Urban or Urban with Significant Rural households with access to at least one car or van is shown in Figure D-7.

Figure D-6: Map showing the number of publicly available electric vehicle charging devices (50kW and above) per 10,000 households with access to at least one car or van, in Predominantly Rural Westminster Parliamentary Constituencies, in England, January 2025 (Note D-2, Note D-3, Note D-7)

White areas on the map represent Predominantly Urban and Urban with Significant Rural areas.

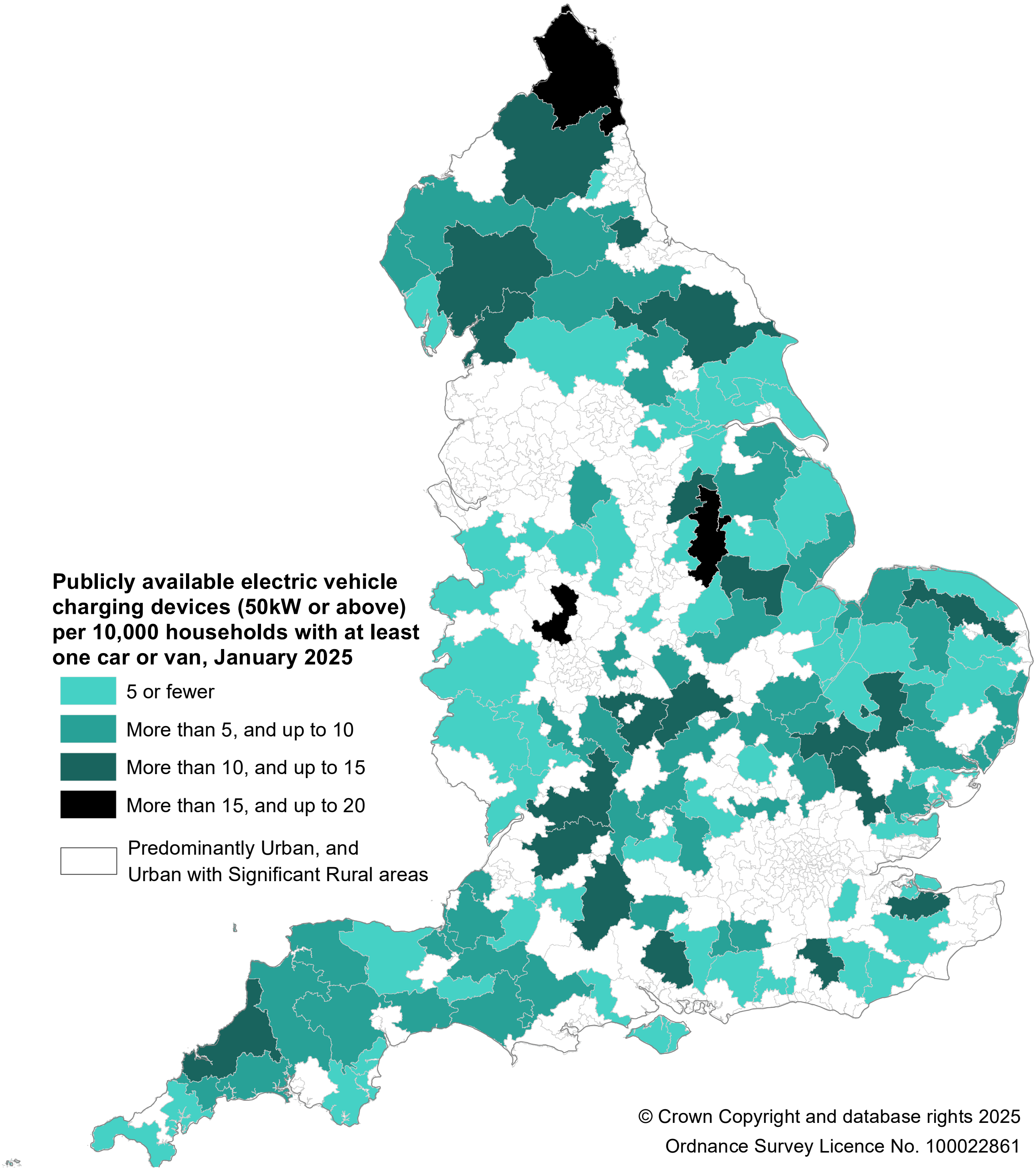
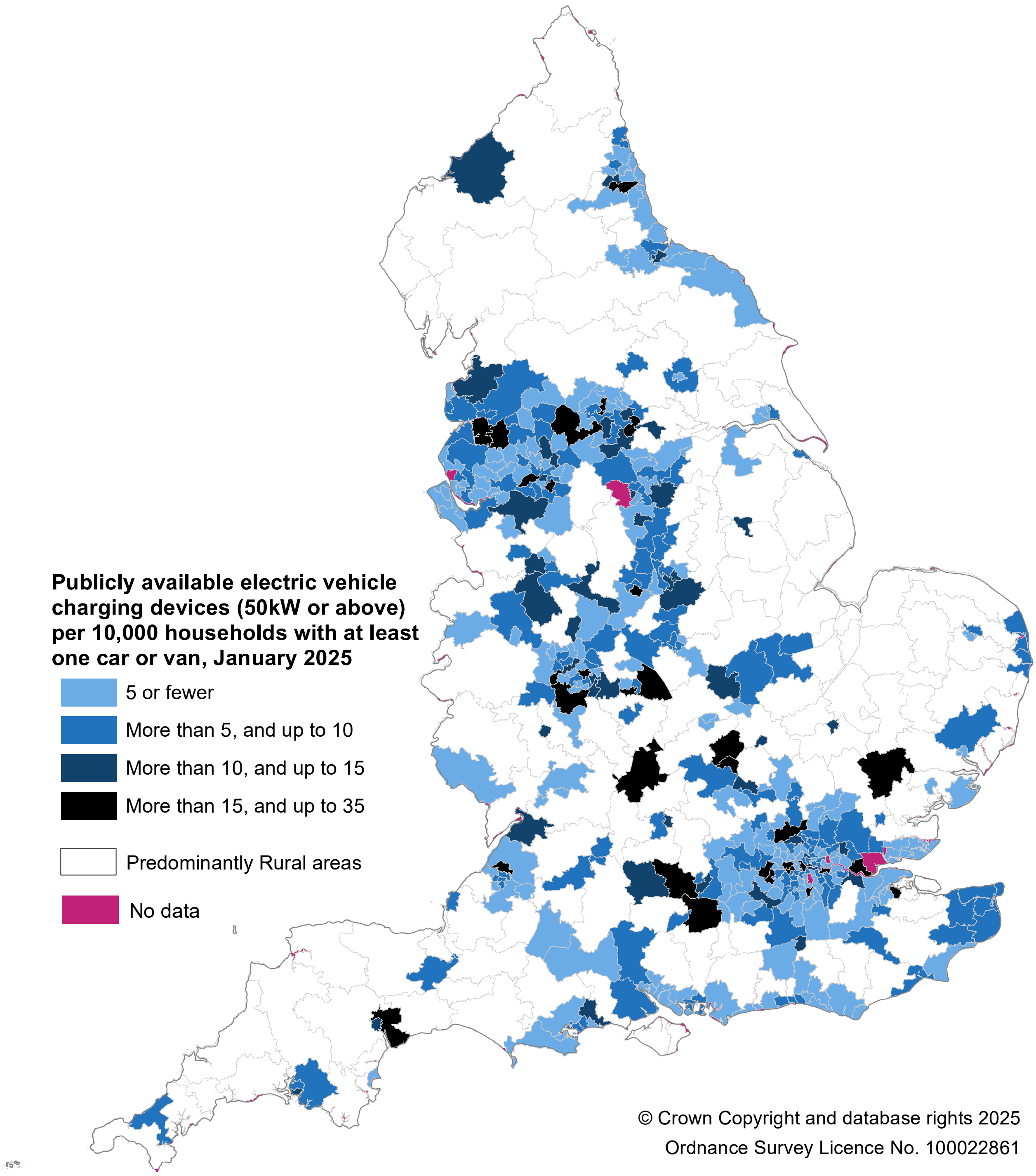


Figure D-7: Map showing the number of publicly available electric vehicle charging devices (50kW and above) per 10,000 households with access to at least one car or van, in Predominantly Urban or Urban with Significant Rural Westminster Parliamentary Constituencies, in England, January 2025 (Note D-2, Note D-3, Note D-7)

White areas on the map represent Predominantly Rural areas.



The number of publicly available 50kW and above electric vehicle chargers per 10,000 households with access to a car/van is mapped for both Predominantly Urban and Urban with Significant Rural Constituencies in Figure D-7. Data is as of January 2025.

For more information regarding the data used, see Note D-3.

As of January 2025, in Predominantly Urban and Urban and Significant Rural areas, there were:

- 51% of Constituencies with 5 or fewer chargers (50kW and above) per 10,000 households with car/van access (211 out of 417 Constituencies with data),
- 32% of Constituencies with between 5 and 10 chargers (50kW and above) per 10,000 households with car/van access (135 out of 417 Constituencies with data),
- 14% of Constituencies with between 10 and 20 chargers (50kW and above) per 10,000 households with car/van access (60 out of 417 Constituencies with data),
- 3% of Constituencies with more than 20 chargers (50kW and above) per 10,000 households with car/van access (11 out of 417 Constituencies with data),
- 5 Constituencies with no data ("Bootle", "Dulwich and West Norwood", "East Ham", "Sheffield Hallam", and "South Basildon and East Thurrock").

In summary, around 49% of Westminster Parliamentary Constituencies in England had 5 or fewer 50kW and above chargers per 10,000 households with car/van access, resulting in lesser accessibility due to slower charging times; rates are similar between rural (45%) and non-rural (50%) areas.

Constituencies with the proportionally highest numbers of 50kW and above charging devices are given in Table D-1, and the lowest numbers in Table D-2; this excludes Constituencies with no data.

Table D-1: Westminster Parliamentary Constituencies with the highest number of publicly available electric vehicle charging devices (50kW and above) per 10,000 households with access to at least one car or van, by broad 2011 Rural-Urban Classification, January 2025
"Value" represents the number of public chargers per 10,000 car/van-owning households.
Does not include Constituencies without 50kW chargers.

Rural-Urban Classification 2011	Constituency	Value
Predominantly Rural	Stone, Great Wyrley and Penkridge	19.4
Urban with Significant Rural	Exmouth and Exeter East	27.0
Predominantly Urban	Cities of London and Westminster	35.7

Table D-2: Westminster Parliamentary Constituencies with the lowest number of publicly available electric vehicle charging devices (50kW and above) per 10,000 households with access to at least one car or van, by broad 2011 Rural-Urban Classification, January 2025
"Value" represents the number of public chargers per 10,000 car/van-owning households.
Does not include Constituencies without 50kW chargers.

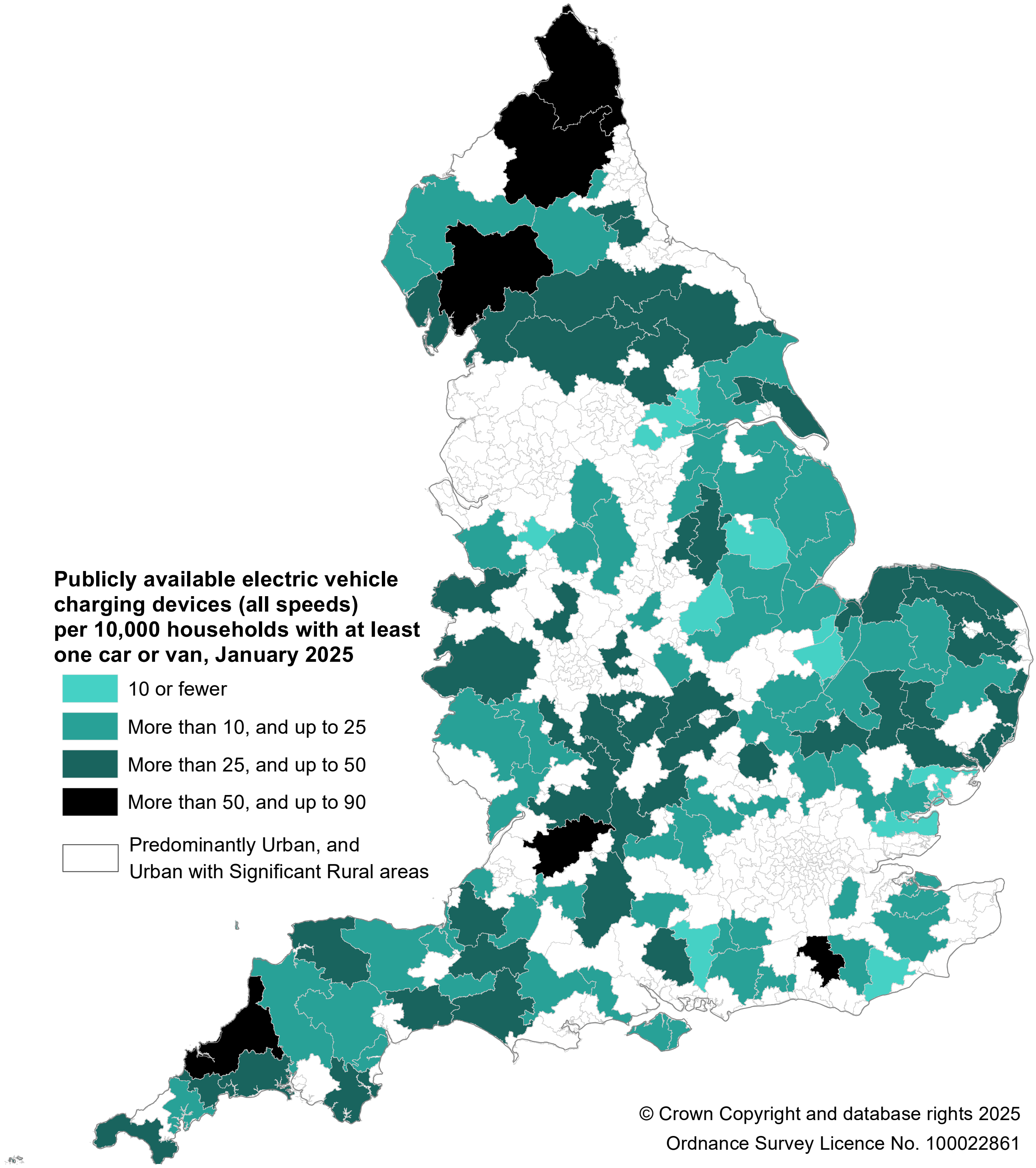
Rural-Urban Classification 2011	Constituency	Value
Predominantly Rural	Newton Abbot	0.6
Urban with Significant Rural	Easington	1.6
Predominantly Urban	Maidenhead	0.8

50kW and above chargers can be more convenient due to their faster charging rate, however there are still plenty of other (slower) chargers in England that are available to use to the public.

The map in Figure D-8 shows the total number of electric vehicle chargers per 10,000 Predominantly Rural households with access to at least one car or van.

Figure D-8: Map showing the total number of publicly available electric vehicle charging devices (all speeds) per 10,000 households with access to at least one car or van, in Predominantly Rural Westminster Parliamentary Constituencies, in England, January 2025 (Note D-2, Note D-3, Note D-7)

White areas on the map represent Predominantly Urban and Urban with Significant Rural areas.



The number of publicly available electric vehicle chargers (all speeds) per 10,000 households with access to a car/van is mapped for Predominantly Rural Constituencies in Figure D-8 (Note D-3). As of January 2025, in Predominantly Rural areas there were:

- 9% of Constituencies with 10 or fewer chargers (all speeds) per 10,000 households with car/van access (11 out of 121 Predominantly Rural Constituencies),
- 52% of Constituencies with between 10 and 25 chargers (all speeds) per 10,000 households with car/van access (63 out of 121 Predominantly Rural Constituencies),
- 34% of Constituencies with between 25 and 50 chargers (all speeds) per 10,000 households with car/van access (41 out of 121 Predominantly Rural Constituencies),
- 5% of Constituencies with more than 50 chargers (all speeds) per 10,000 households with car/van access (6 out of 121 Predominantly Rural Constituencies).

9% of Predominantly Rural Constituencies had 1 or fewer chargers per 1,000 households with access to a car/van, resulting in lesser electric vehicle accessibility.

“Westmorland and Lonsdale” had proportionally more chargers than any other Predominantly Rural Constituency, with 89 publicly available chargers (all speeds) per 10,000 households with car/van access.

Outside of London, the Coventry South constituency (Urban with City and Town) had proportionally more chargers than anywhere else in England, with 285 publicly available chargers (all speeds) per 10,000 households with at least one car or van in January 2025.

A full map showing the total number of electric vehicle chargers per 10,000 Predominantly Urban and Urban with Significant Rural households with access to at least one car or van is shown in Figure D-9 (Note D-3).

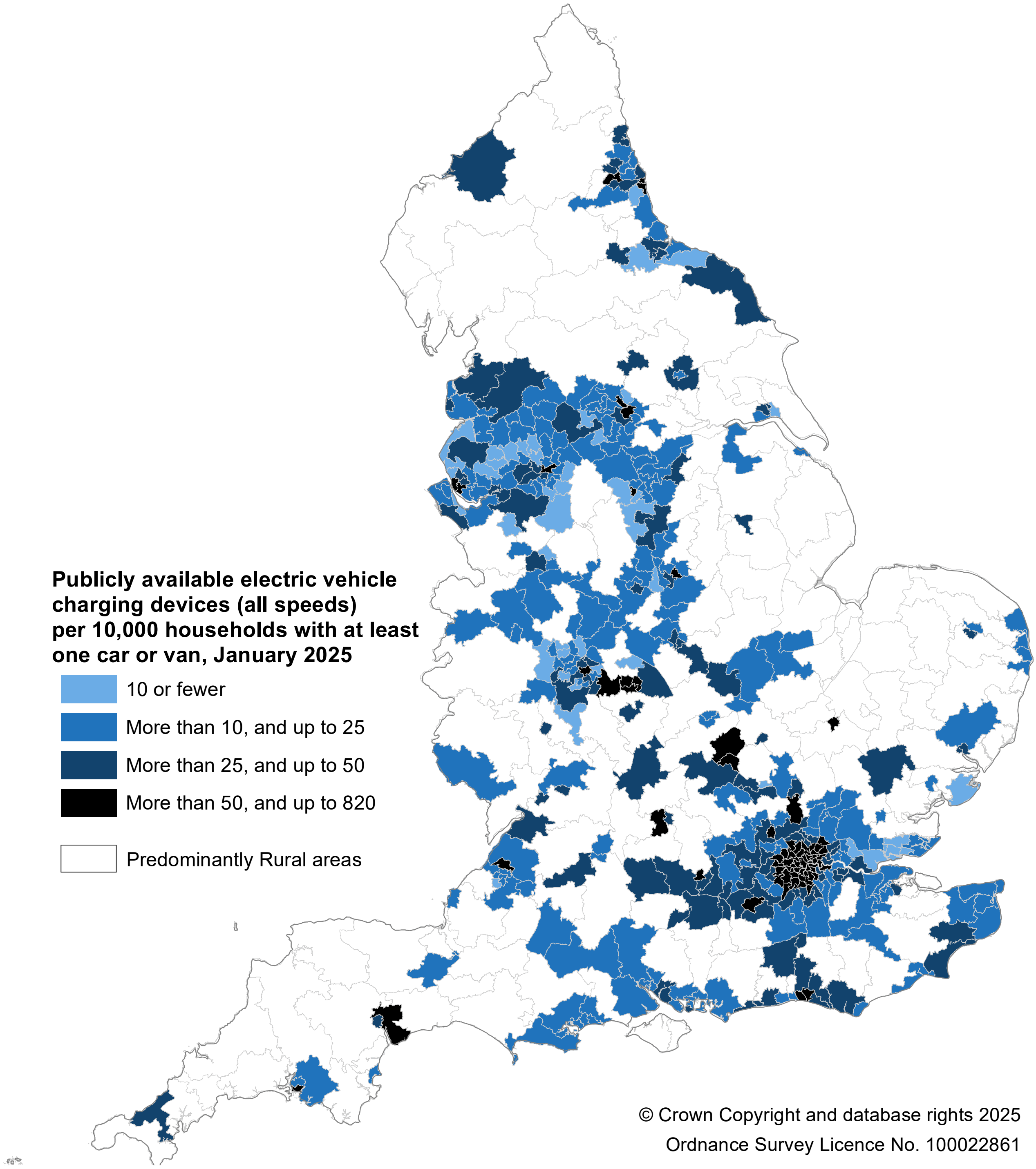
As of January 2025, in Predominantly Urban and Urban and Significant Rural areas, there were:

- 12% of Constituencies with 10 or fewer chargers (all speeds) per 10,000 households with car/van access (51 out of 422 Constituencies),
- 45% of Constituencies with between 10 and 25 chargers (all speeds) per 10,000 households with car/van access (190 out of 422 Constituencies),
- 26% of Constituencies with between 25 and 50 chargers (all speeds) per 10,000 households with car/van access (111 out of 422 Constituencies),
- 17% of Constituencies with more than 50 chargers (all speeds) per 10,000 households with car/van access (70 out of 422 Constituencies).

12% of Predominantly Urban or Urban with Significant Rural Constituencies had 1 or fewer chargers per 1,000 households with access to a car/van, resulting in lesser electric vehicle accessibility.

Figure D-9: Map showing the total number of publicly available electric vehicle charging devices (all speeds) per 10,000 households with access to at least one car or van, in Predominantly Urban and Urban with Significant Rural Westminster Parliamentary Constituencies in England, January 2025 (Note D-2, Note D-3, Note D-7)

White areas on the map represent Predominantly Rural areas.



Constituencies with the proportionally highest numbers of charging devices (all speeds, as of January 2025) are given in Table D-3, and the lowest numbers in Table D-4.

Table D-3: Westminster Parliamentary Constituencies with the highest number of publicly available electric vehicle charging devices (all speeds) per 10,000 households with access to at least one car or van, by broad 2011 Rural-Urban Classification, January 2025
"Value" represents the number of public chargers per 10,000 car/van-owning households.

Rural-Urban Classification 2011	Constituency	Value
Predominantly Rural	Westmorland and Lonsdale	89.0
Urban with Significant Rural	Exmouth and Exeter East	56.6
Predominantly Urban	Cities of London and Westminster	818.0

In "Cities of London and Westminster", it is not just the low resident population which is driving the significantly greater number of chargers; the absolute number of publicly available electric vehicle chargers is also high (the highest of any Constituency in England).

Table D-4: Westminster Parliamentary Constituencies with the lowest number of publicly available electric vehicle charging devices (all speeds) per 10,000 households with access to at least one car or van, by broad 2011 Rural-Urban Classification, January 2025
"Value" represents the number of public chargers per 10,000 car/van-owning households.

Rural-Urban Classification 2011	Constituency	Value
Predominantly Rural	Selby	5.3
Urban with Significant Rural	Clacton	9.0
Predominantly Urban	Sheffield Hallam	1.6

Access to personal transport explanatory notes

- **Note D-1**

Tables of the data seen in this section are available in the connectivity and accessibility supplementary data tables.

- **Note D-2**

Sources: DfT National Travel Survey; DfT Electric Vehicle charging infrastructure statistics; Car Availability (for household estimates) via NOMIS; Zap-Map.

- **Note D-3**

Represents devices reported as operational at midnight at the start of each quarter.

'Total devices' represent publicly available charging devices at all speeds. A device can have a number of connectors of varying speeds.
As of 1 October 2023, the speed categories changed to 50kW and above to be in line with industry.
Parliamentary Constituency data is based on post-2024 General Election boundaries.

- **Note D-4**

Includes privately-owned and company cars. Does not include any other vehicle type (e.g. buses and coaches, HGVs and LGVs, motorcycles, and other vehicles). Data is for where the car is registered, and therefore does not necessarily reflect where it will be used. Household estimates are based on Census 2021 data. Source: Department for Transport (DfT) and Driver and Vehicle Licensing Agency (DVLA), Vehicle licensing statistics data tables - GOV.UK (www.gov.uk)

- **Note D-5**

The sample size for one year is too small to produce robust results so the analysis within some sub-sections combines data from two years (i.e., reporting 2018/19) until 2020, after which years have been reported standalone due to the effects of COVID.

- **Note D-6**

“Urban Conurbation” refers to the combination of two categories within the 2011 Rural-Urban Classification: “Urban with Minor Conurbation” and “Urban with Major Conurbation”. “Rural Village, Hamlet and Isolated Dwelling” refers to the combination of “Rural Village” and “Rural Hamlet and Isolated Dwellings”.

- **Note D-7**

The scales and legends differ between the “50kW and above” charger maps and the “all speeds” maps.

E. Access to services

Rural areas tend to have poorer access to services than Urban areas, particularly when travelling by public transport.

Access to services - key findings

Average travel times to key services were higher in rural areas than urban areas

- In the most Rural areas, it can take at least 78 minutes on average to reach the nearest hospital by public transport and/or walking; this compares to 36 minutes in urban areas.
- It can take at least 66 minutes on average to reach the nearest large centre of employment from the most rural areas via public transport and/or walking; this compares to 26 minutes in urban areas.
- When travelling by car, average travel times to key services are reduced – and in some cases halved – compared to travel times via public transport; this is the case in rural and urban areas.

Local service variety is limited in rural areas compared to urban areas

- Just 4% of the rural population could reach more than one large employment centre within 30 minutes travel time via public transport; this compares to 46% of the urban population.
- 15% of the rural school-aged population could access more than one further education centre within 30 minutes travel time via public transport; this compares to 74% in urban areas.

Summary

Generally, people living in Rural areas have lower overall levels of accessibility to key service locations compared with people living in Urban areas, and people living in Rural areas in a sparse setting have the lowest overall accessibility. Being less able to access certain services is not only inconvenient for those living in Rural areas, but it can also highlight a lack of opportunities. For example, there may only be one further education college nearby for someone living in Rural areas, and therefore they would be restricted on their choice of courses to study.

When travelling by public transport/walking in Rural areas, the average minimum Rural travel times were around double the average minimum Urban travel times – particularly for hospitals and large employment centres. The average minimum travel time to a hospital was 66 minutes in Rural areas, compared with a little 36 minutes in Urban areas. The average travel time to centres of employment with 5,000 or more jobs was 55 minutes in Rural areas compared with 26 minutes in Urban areas. In Rural areas, travelling by car saves 37 minutes on average when travelling to the nearest hospital, and 30 minutes when travelling to the nearest large employment centre.

The more Rural an area is, the lesser the access to employment centres by public transport/walking; in the most rural areas, only 22% of people of employment age were able to access a small employment centre within 15 minutes travel time in 2019. This is 72 percentage points less than in Urban areas (94%). 25% of households in the most Rural areas could access a

food store within 15 minutes, compared to 97% in Urban areas. 39% of children in the most Rural areas were able to access a primary school within 15 minutes, compared to 95% in Urban areas. 11% of households in the most rural areas were able to access a General Practice within 15 minutes, compared to 78% in Urban areas.

Rural areas typically had a larger proportion of people unable to access selected services within 30 minutes travel time compared to Urban areas, and where services were available, there was typically less variety. Only 4% of people of employment age could access more than one large employment centre within 30 minutes when travelling by public transport/walking in Rural areas; this compares to 46% in Urban areas. 15% of the Rural school-aged population could access more than one further education centre within 30 minutes travel time, compared to 74% in Urban areas. 94% of households in Rural areas did not have a hospital within 30 minutes travel time, compared with 60% of households in Urban areas.

50% of the Rural population are living in areas that have the poorest accessibility to services (lowest 10% / decile 1) based on minimum travel times when travelling by public transport/walking, compared with 2% of the Urban population. In the most Rural areas, this rises to 96% for those living in sparse settlements and 80% if not.

Average minimum travel times

Generally, people living in Rural areas have lower overall levels of accessibility to key service locations compared with people living in Urban areas, and people living in Rural areas in a sparse setting have the lowest overall accessibility. More services were available on average for people living in Urban areas for all service types and all journey times compared with those for people living in Rural areas, when walking and using public transport.

Figure E-1 shows that average travel times to services were higher in Rural areas by public transport or walking. In Rural areas the services with the lowest level of accessibility were hospitals and centres of employment with 5,000 or more jobs. The average minimum travel time to a hospital was a little over one hour in Rural areas, compared with a little over half an hour in Urban areas. The average travel time to centres of employment with 5,000 or more jobs was 55 minutes in Rural areas compared with 26 minutes in Urban areas. For most key service types, the average minimum Rural travel times were around double the average minimum Urban travel times, however for places of employment with 100-499 jobs and food stores they were 2.5 times longer and for primary school they were 1.5 times longer.

Figure E-1: Bar chart showing average minimum travel time to reach the nearest key services by Walking and/or Public Transport, by 2011 Lower Super Output Area Rural-Urban Classification, in England, 2019

The legend is presented in the same order and orientation as the bars. Services are listed in order of average travel time, although centres of employment have been grouped for comparison.

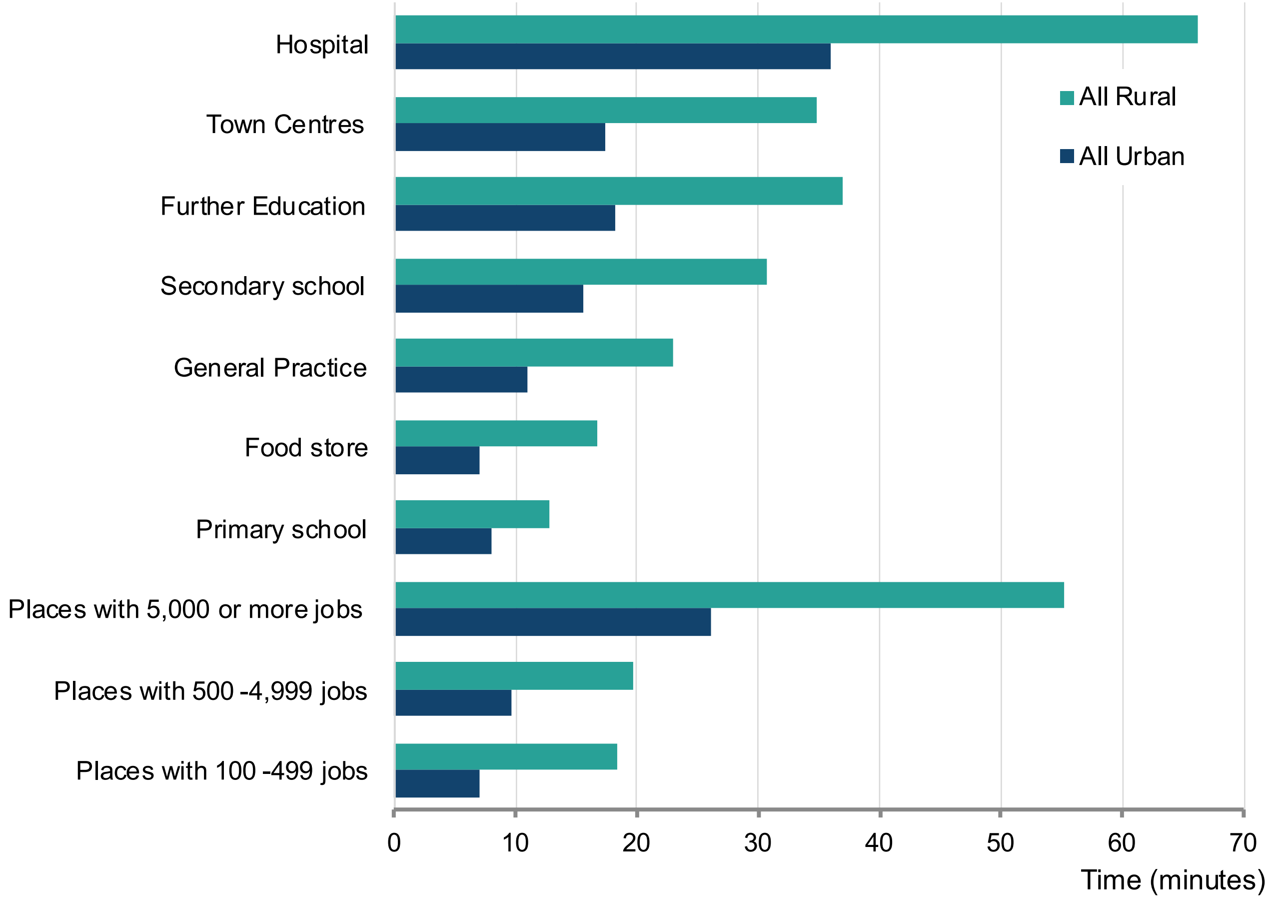
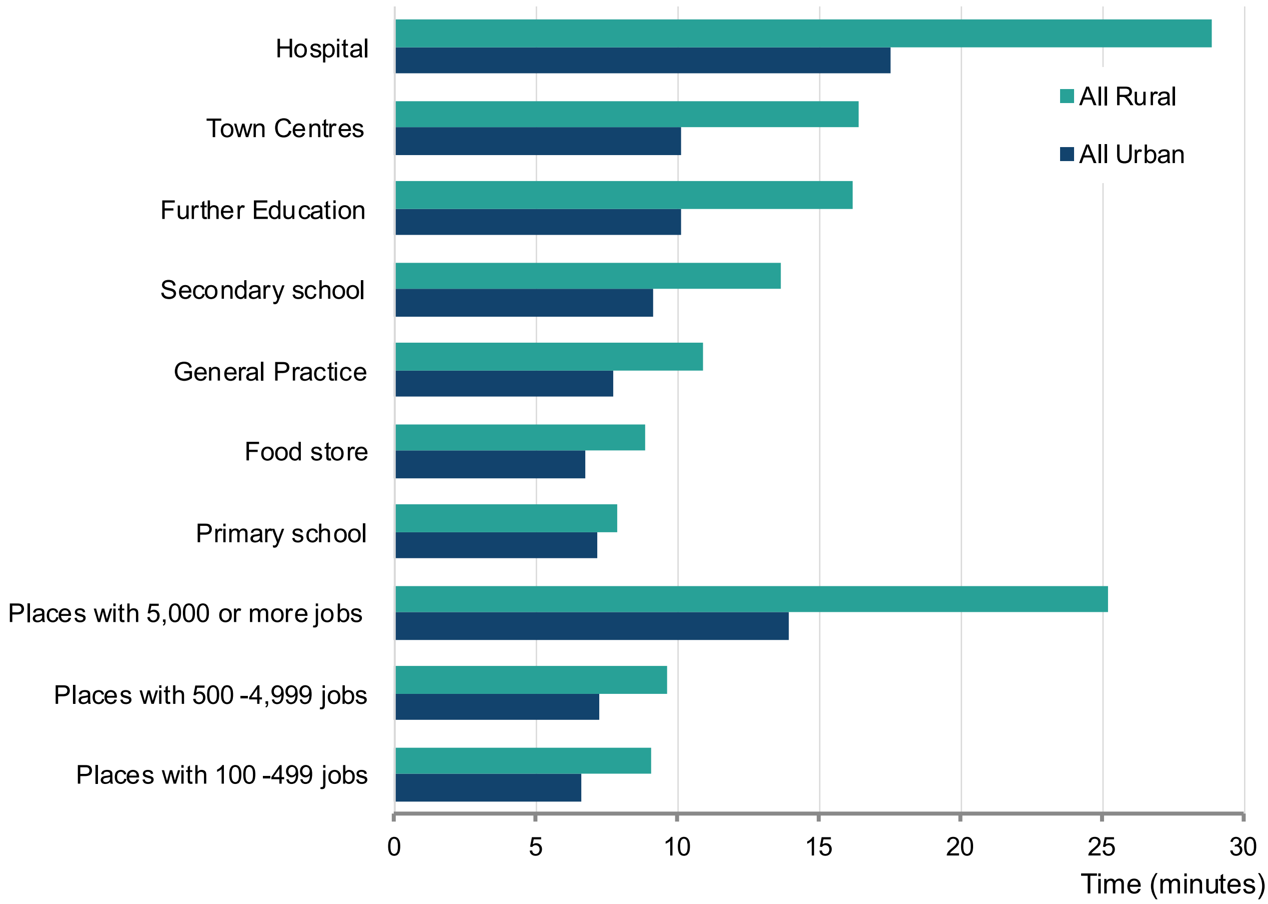


Figure E-2 shows that average travel times to services were higher in Rural areas when travelling by car, but differences compared with Urban areas were much reduced from the differences when travelling by public transport or walking. For people living in Rural areas, making the same journey by car compared with using public transport or walking, had the effect of halving the average minimum journey times. Urban areas also saw a reduction in travel times when comparing travel by car with public transport or walking but the difference was less consistent, travel times to hospitals and centres of employment with 5,000 or more jobs were halved, but travel times to primary school, food stores and centres of employment with 100-499 jobs were similar.

In Rural areas, the biggest differences between walking/public transport and travelling by car are seen when evaluating average minimum travel times to hospitals, further education centres and places with 5,000 or more jobs; by car, it would take 29 minutes on average to travel to the nearest town centre in Rural areas – this compares with 66 minutes when travelling by public transport/walking. Therefore, travelling by car will save 37 minutes on average. In a similar way, it would take 25 minutes on average to travel to a centre of employment with 5,000 or more jobs by car, compared with 55 minutes by public transport/walking, indicating a saving of 30 minutes.

Figure E-2: Bar chart showing average minimum travel time to reach the nearest key services by Car, by 2011 Lower Super Output Area Rural-Urban Classification, in England, 2019

The legend is presented in the same order and orientation as the bars. Services are listed in order of average travel time, although centres of employment have been grouped for comparison.



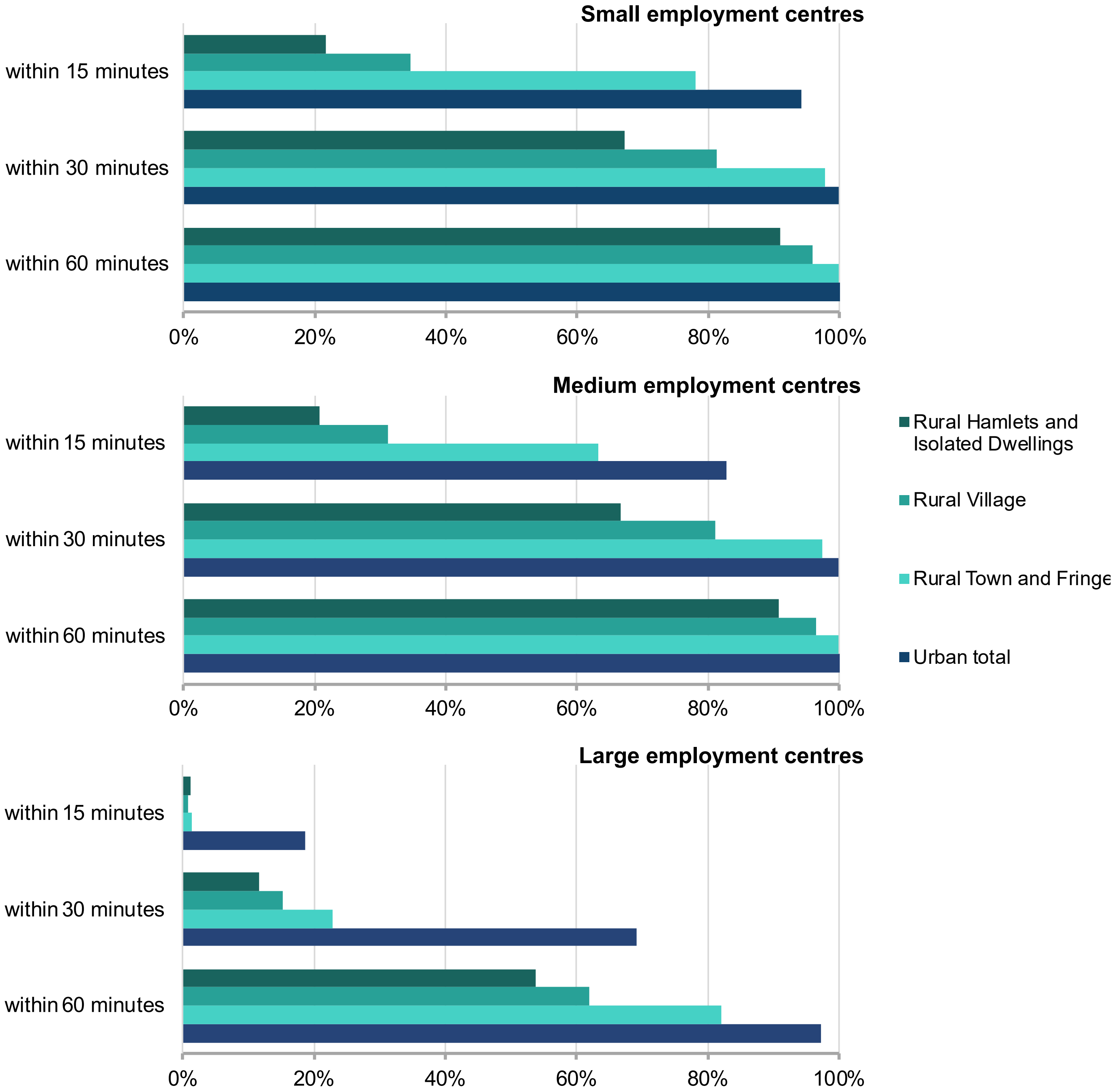
Notes:

- The average of selected services is calculated from the minimum journey times to medium sized centres of employment (500-4,999 jobs), primary and secondary schools, further education, General Practices, hospitals, food stores and town centres.
- The scales between Figure E-1 and Figure E-2 differ, so caution should be taken when making comparisons.

Access to key services

We can measure accessibility based on time thresholds, i.e., whether users can access key services within selected travel times. Figure E-3 shows the percentage of people of employment age that can access an **employment centre** by public transport and/or walking in 2019.

Figure E-3: Bar charts showing percentage of people of employment age able to access an employment centre within selected travel times, by Public Transport / Walking, 2019



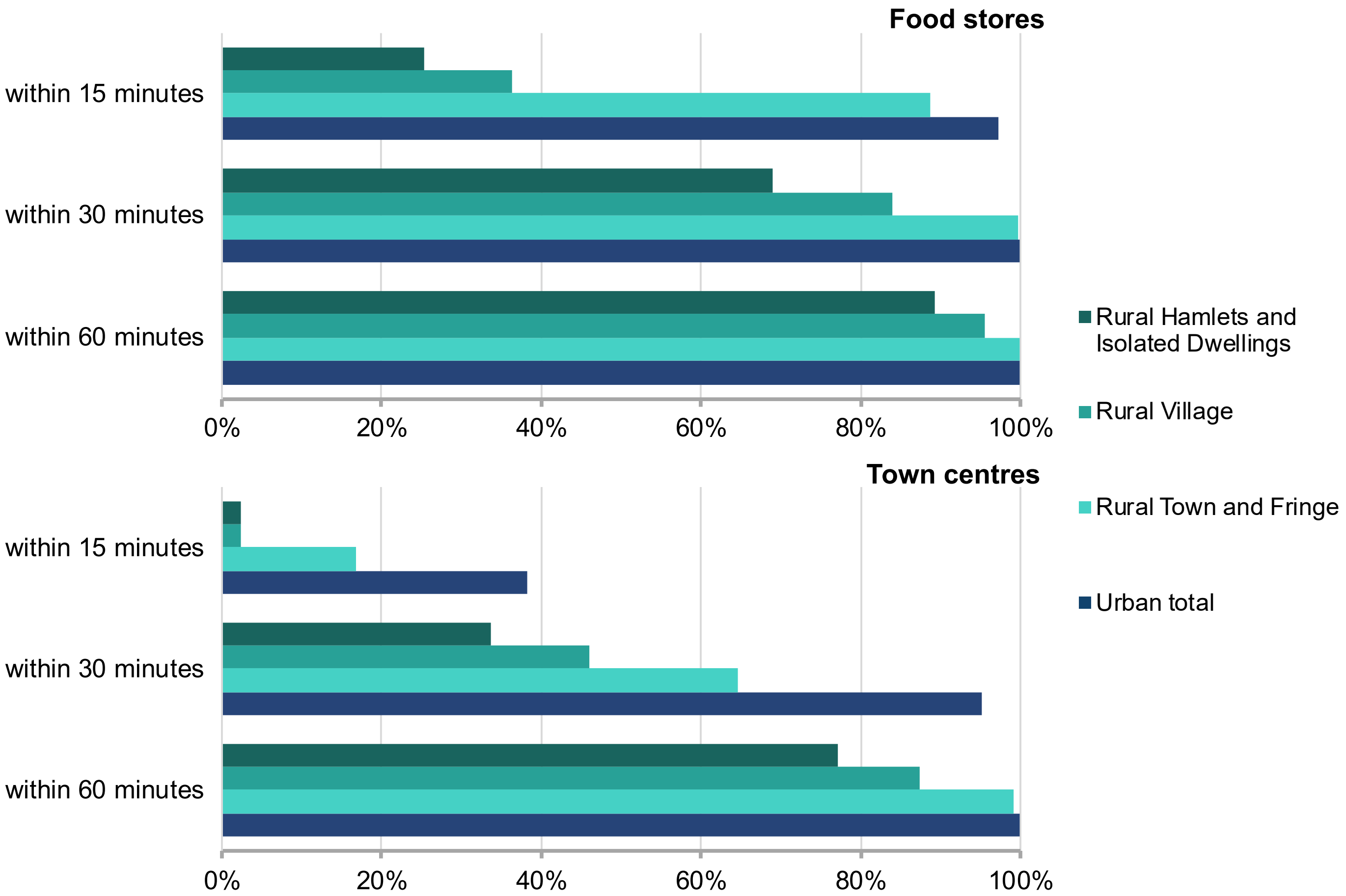
The more Rural an area is, the less there is access to employment centres by Public Transport/Walking. In the most rural areas (Rural Hamlets and Isolated Dwellings), only 22% of people of employment age were able to access a **small employment centre** within 15 minutes travel time in 2019. This is 72 percentage points less than in Urban areas (94%). Within 60 minutes travel time, all those in Urban areas could access a small employment centre, compared with 91% of those in Rural Hamlets and Isolated Dwellings.

21% of people of employment age in Rural Hamlets and Isolated Dwellings were able to access a **medium employment centre** within 15 minutes travel time in 2019 by public transport/walking. This compares with 63% in Rural Town and Fringe areas and 83% in Urban areas. Within 60 minutes travel time, 91% of people of employment age in Rural Hamlets and Isolated Dwellings were able to access a medium employment centre.

Within 60 minutes travel time by public transport/walking, 54% of people of employment age in Rural Hamlets and Isolated Dwellings were able to access a **large employment centre**, compared with 82% in Rural Town and Fringe areas and 97% in Urban areas.

Employment centres are not the only services where accessibility is poorer in the more Rural areas. Figure E-4 shows the percentage of households that could access a **food store** or **town centre** within a given travel time by public transport and/or walking in 2019.

Figure E-4: Bar charts showing percentage of households able to access a food store or town centre within selected travel times, by Public Transport / Walking, in England, 2019

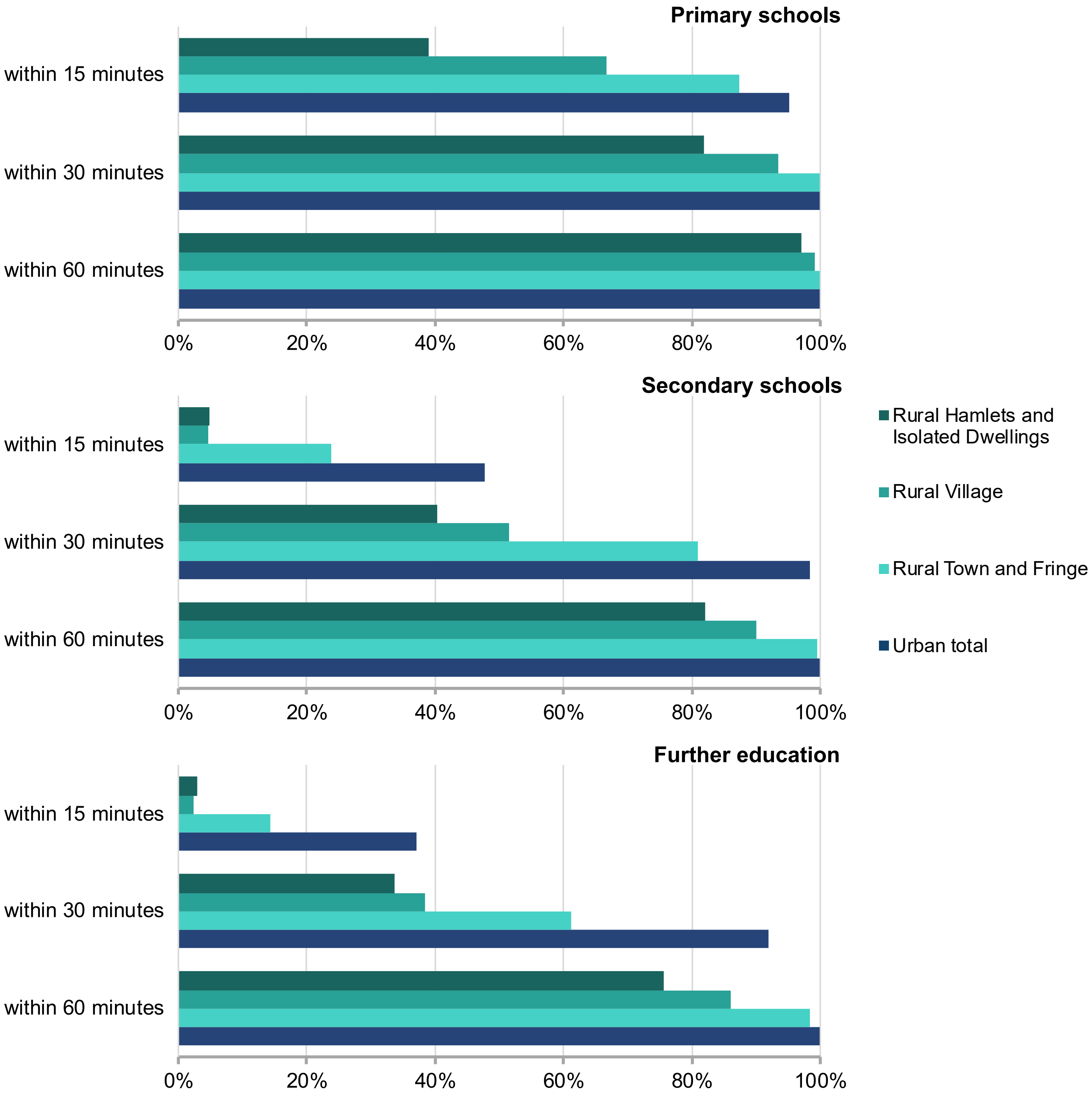


25% of households in Rural Hamlets and Isolated Dwellings could access a **food store** within 15 minutes travel time by public transport/walking in 2019, compared with 97% in Urban areas. Within 60 minutes travel time, all Urban households and 89% of those in Rural Hamlets and Isolated Dwellings could access a food store.

2% of households in Rural Hamlets and Isolated Dwellings could get to a **town centre** within 15 minutes travel time by public transport and/or walking in 2019, compared with 38% of those in Urban areas. Within 60 minutes travel time, all Urban households and 77% of those in Rural Hamlets and Isolated Dwellings could access a town centre.

Access to education institutions is poorer in Rural areas than in Urban areas, and more so for secondary schools and further education colleges than primary schools. Figure E-5 shows the percentage of students (school-age children or 16-19 year olds) that could access a **school or college** within a given travel time by public transport and/or walking in 2019.

Figure E-5: Bar charts showing percentage of students able to access a school or college within selected travel times, by Public Transport / Walking, in England, 2019



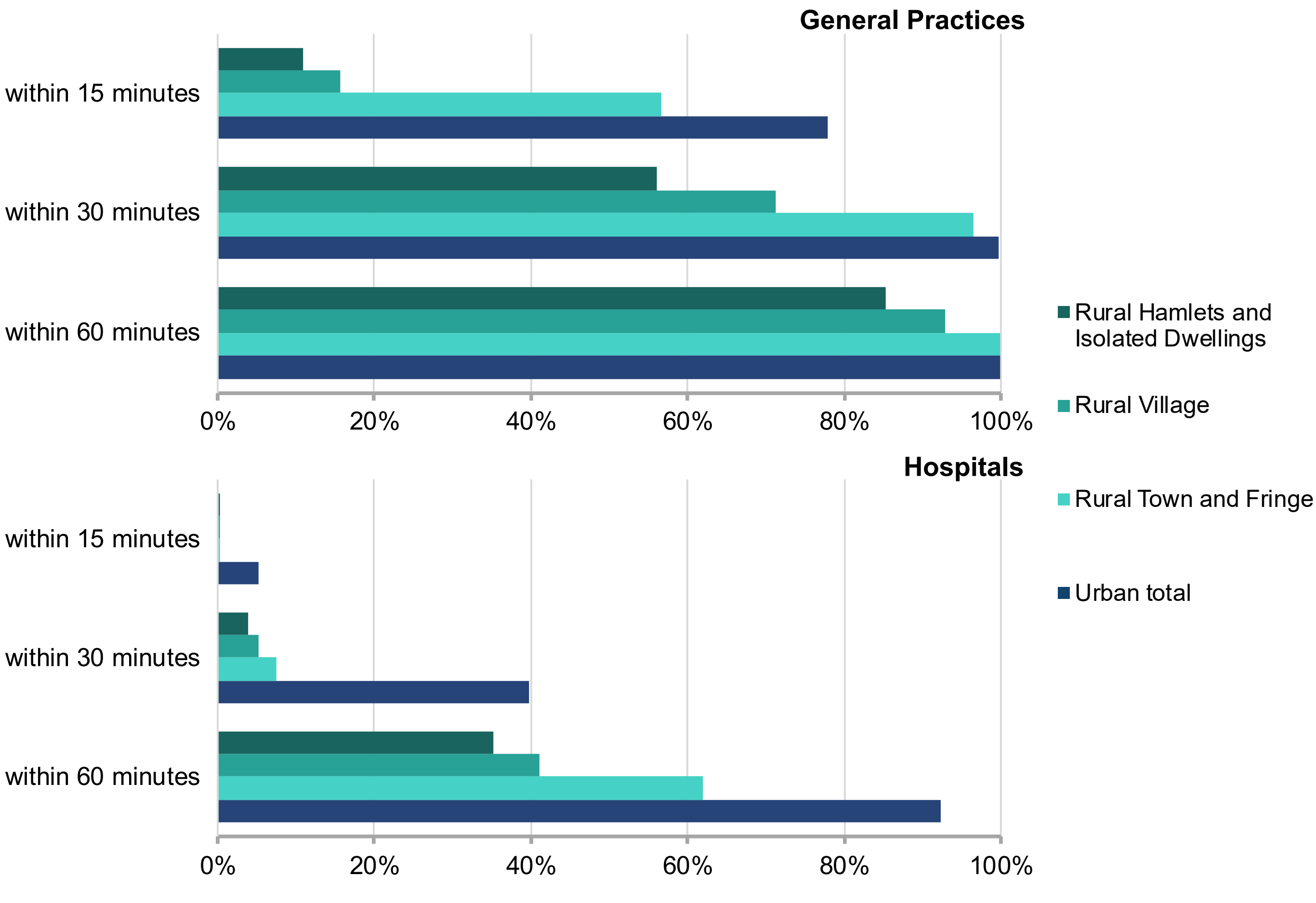
39% of school-age children in Rural Hamlets and Isolated Dwellings were able to access a **primary school** within 15 minutes travel time by public transport/walking, compared with 87% in Rural Town and Fringe areas and 95% in Urban areas. Within 60 minutes travel time, 97% of children in Rural Hamlets and Isolated Dwellings could access a primary school, compared with 100% in Rural Town and Fringe areas and in Urban areas.

5% of school-age children in Rural Hamlets and Isolated Dwellings were able to access a **secondary school** within 15 minutes travel time by public transport/walking, compared with 48% in Urban areas. Within 60 minutes travel time, 82% of school-age children could access a secondary school, compared with 100% in Rural Town and Fringe areas and in Urban areas.

3% of 16-19 year olds in Rural Hamlets and Isolated Dwellings were able to access a **further education college** within 15 minutes travel time by public transport/walking, compared with 37% in Urban areas. Within 60 minutes travel time, 76% of 16-19 year olds in Rural Hamlets and Isolated Dwellings could access a further education college, compared with 100% in Urban areas.

Health services are less accessible in Rural areas than in Urban areas. Figure E-6 shows the percentage of households that could access a **health service** within a given travel time by public transport and/or walking in 2019.

Figure E-6: Bar charts showing percentage of households able to access a health service within 30 minutes travel time, by Public Transport / Walking, by 2011 Rural-Urban Classification, in England, 2019



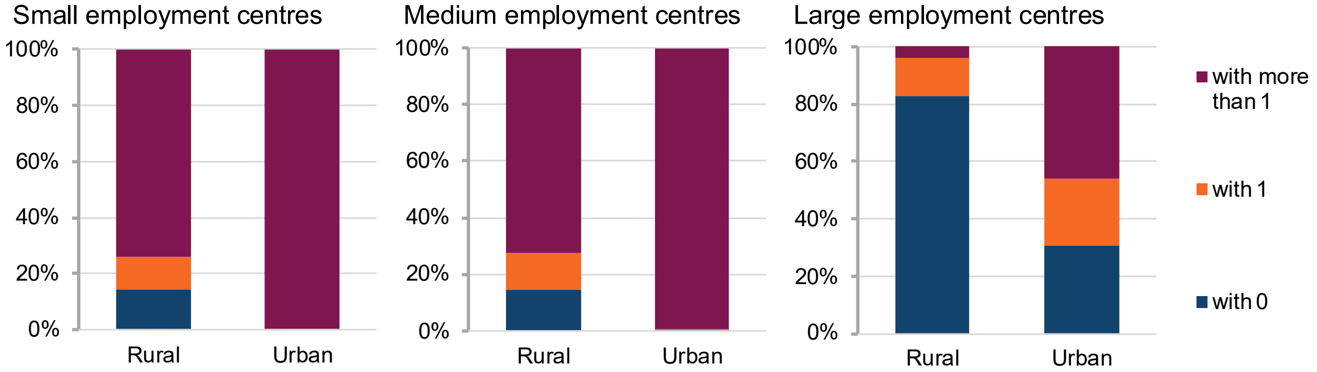
11% of households in Rural Hamlets and Isolated Dwellings were able to access a **General Practice** within 15 minutes travel time by public transport/walking, compared with 57% of households in Rural Town and Fringe areas and 78% in Urban areas. Within 60 minutes travel time, 85% of households in Rural Hamlets and Isolated Dwellings were able to access a General Practice, compared with 100% in Rural Town and Fringe areas and in Urban areas.

Within 60 minutes travel time by public transport/walking, 35% of households in Rural Hamlets and Isolated Dwellings could access a hospital, compared with 62% in Rural Town and Fringe areas and 92% in Urban areas.

Average number of key services available

More services were available on average for people living in Urban areas for all service types and all journey time thresholds compared with those for people living in Rural areas when travelling by public transport and/or walking. Figure E-7 shows the number of **employment centres** within 30 minutes travel time by public transport and/or walking in 2019.

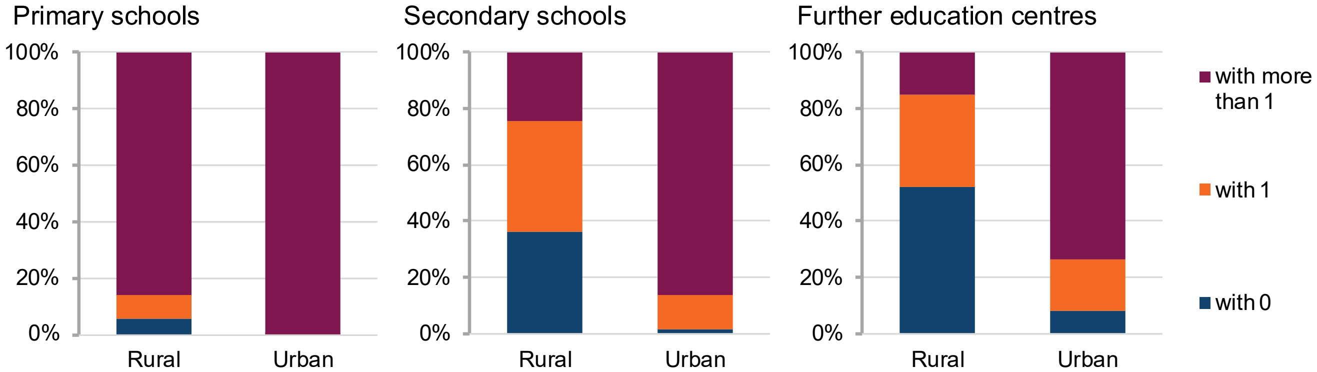
Figure E-7: Bar charts showing number of employment centres within 30 minutes travel time for people of employment age, by Public Transport / Walking, by 2011 Rural-Urban Classification, in England, 2019



In Rural areas, 15% of people of employment age did not have a small or medium employment centre within 30 minutes travel time by public transport/walking. In comparison, all of the Urban population of employment age could access at least one small or medium employment centre within 30 minutes travel time. 83% of the Rural population of employment age did not have a large employment centre within 30 minutes travel time, compared with 31% of the Urban population. There was less variety available in Rural areas compared to Urban areas; in 2019, only 4% of people of employment age could access more than one large employment centre within 30 minutes when travelling by public transport/walking. This compares to 46% in Urban areas.

Figure E-8 shows the number of **schools** or **education colleges** within 30 minutes travel time by public transport and/or walking in 2019.

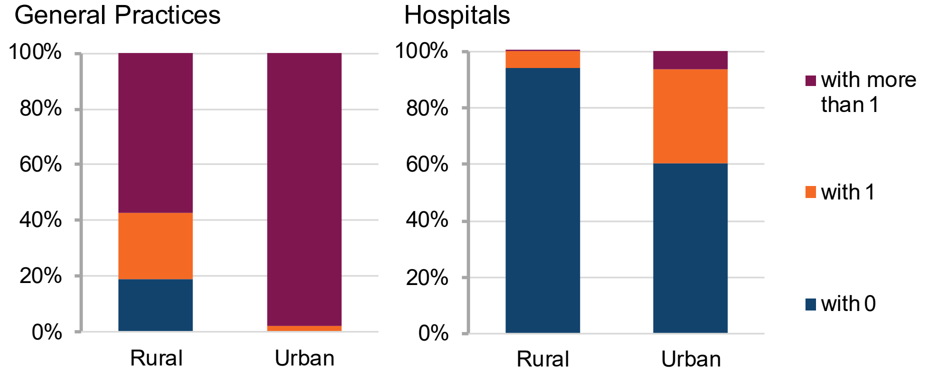
Figure E-8: Bar charts showing number of education centres within 30 minutes travel time for the school-age population / 16-19 year olds, by Public Transport / Walking, by 2011 Rural-Urban Classification, in England, 2019



In Rural areas, 5% of school-age children did not have a primary school within 30 minutes travel time by public transport/walking. 36% of school-age children in Rural areas did not have a secondary school within 30 minutes travel time. In comparison, all school-age children in Urban areas could access at least one primary school, and 98% could access at least one secondary school within 30 minutes travel time. 52% of 16-19 year olds in Rural areas did not have a further education centre within 30 minutes travel time, compared with 8% of those in Urban areas. In terms of variety, just 15% of the Rural school-aged population could access more than one further education centre within 30 minutes travel time, compared to 74% in Urban areas.

Figure E-9 shows the number of **health services** within 30 minutes travel time by public transport and/or walking in 2019.

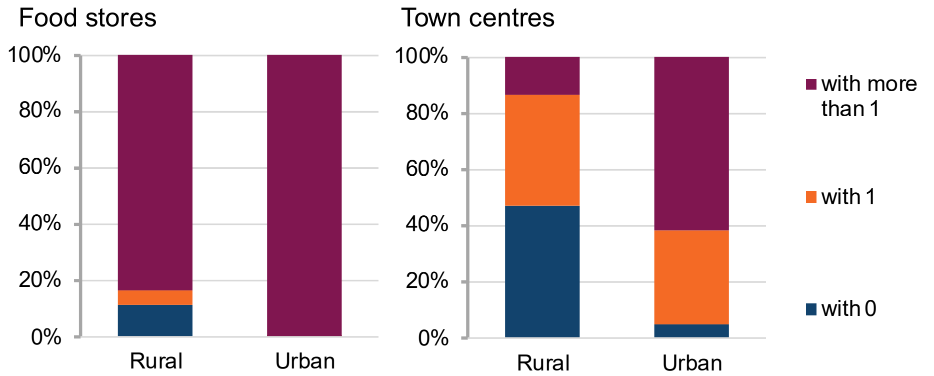
Figure E-9: Bar charts showing number of health services available within 30 minutes travel time for households, by Public Transport / Walking, by 2011 Rural-Urban Classification, in England, 2019



In Rural areas, 19% of households did not have a General Practice within 30 minutes travel time by public transport/walking. In comparison, all households in Urban areas could access at least one General Practice within 30 minutes. 94% of households in Rural areas did not have a Hospital within 30 minutes travel time, compared with 60% of households in Urban areas. In terms of variety, 57% of households could access more than one General Practice within 30 minutes travel time, compared to 98% of households in Urban areas.

Figure E-10 shows the number of **food stores** and **town centres** within 30 minutes travel time by public transport and/or walking in 2019.

Figure E-10: Bar charts showing number of food stores and town centres within 30 minutes travel time for households, by Public Transport / Walking, by 2011 Rural-Urban Classification, in England, 2019



In Rural areas, 11% of households did not have a food store within 30 minutes travel time by public transport/walking. In comparison, all households in Urban areas could access at least one food store. 47% of Rural households did not have a town centre within 30 minutes travel time, compared with 5% of Urban households. In terms of variety, just 13% of Rural households could access more than one town centre within 30 minutes travel time, compared to 62% in Urban areas.

Overall measure of accessibility to services

This measure of accessibility of services is determined by looking at average minimum travel times to key services, when travelling by either public transport and walking, or by car.

To get an assessment of service accessibility the average minimum travel time to the following nine types of service have been used: medium and large centres of employment (locations where over 500 people are employed across the businesses and services there, such that a range of jobs are likely to be available); primary school; secondary school; further education; General Practice; hospital; food store; town centre; post office (at the time of analysis, post office data were unavailable, so these calculations used 2016 data for post offices rather than 2019).

For each area an overall accessibility index has been calculated by indexing and weighting the minimum travel times to key services. Travel times were indexed in terms of relative travel times and weighted to take account of the frequency of use of each service. This means that infrequently used but important services (e.g., hospital) if distant do not disproportionately affect the overall index for an area (see technical note for more details).

Accessibility to services (derived from minimum travel times) has been presented on maps based on this overall index for travelling by public transport and walking, and for travelling by car. Rural areas are shown in green and Urban areas are shown in blue, the darker the area, the poorer the accessibility of services.

When using public transport and walking Rural areas generally have poorer accessibility to services based on minimum travel times than Urban areas. Unsurprisingly, travelling by car generally reduces travel times to key services, but overall differences in relative travel times are similar to those experienced when using public transport and walking, and Rural areas still tend to have poorer accessibility (in terms of minimum travel times), compared with Urban areas.

Overall Accessibility by Public Transport and Walking

Rural areas tend to have poorer accessibility to services based on minimum travel times than Urban areas when using public transport or walking as shown in Table E-1 and Figure E-11**.**

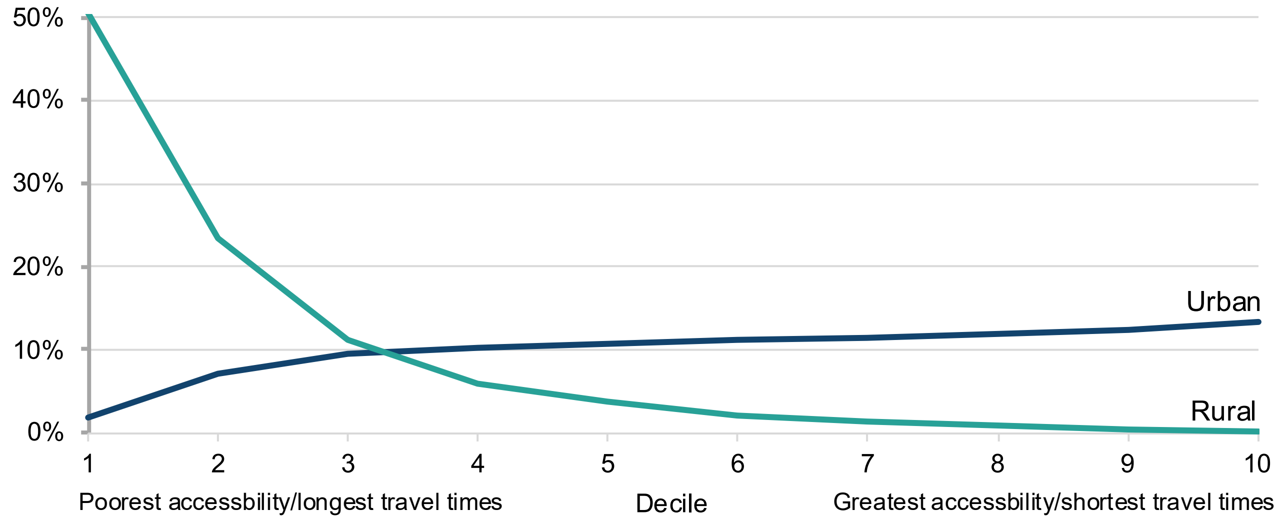
- 50% of the Rural population are living in areas that have the poorest accessibility to services (lowest 10% / decile 1) based on minimum travel times, compared with 2% of the Urban population).
- <1% of the Rural population are living in areas that have the greatest accessibility to services (highest 10% / decile 1) based on minimum travel times, compared with 13% of the Urban population.

Table E-1: Proportion of the population within each decile for accessibility of services based on minimum travel times by Public Transport and Walking, by broad 2011 Rural-Urban Classification, England, 2019

where decile 1 = poorest accessibility of services, and decile 10 = greatest accessibility of services

Decile	1	2	3	4	5	6	7	8	9	10
Rural	50%	23%	11%	6%	4%	2%	1%	1%	1%	<1%
Urban	2%	7%	9%	10%	11%	11%	11%	12%	12%	13%

Figure E-11: Line chart showing distribution of population within each decile of accessibility of services based on minimum travel times by Public Transport and Walking, by broad 2011 Rural-Urban Classification, England, 2019



As might be expected, sparsely populated areas tend to have poorer accessibility of services based on minimum travel times when using public transport or walking (as shown in Figure E-12).

- 26% of the population living in Rural Town and Fringe areas in a sparse setting have the poorest accessibility to services (lowest 10% / decile 1) based on minimum travel times compared with 24% of the population living in Rural Town and Fringe areas not in a sparse setting.
- 96% of the population living in Rural Village and Dispersed areas in a sparse setting have the poorest accessibility to services (lowest 10% / decile 1) based on minimum travel times compared with 80% of the population living in Rural Village and Dispersed areas not in a sparse setting.

Figure E-12: Line chart showing distribution of Rural population within each decile of accessibility of services based on minimum travel times by Public Transport and Walking, by detailed 2011 Rural-Urban Classification, England, 2019 (Note E-5)

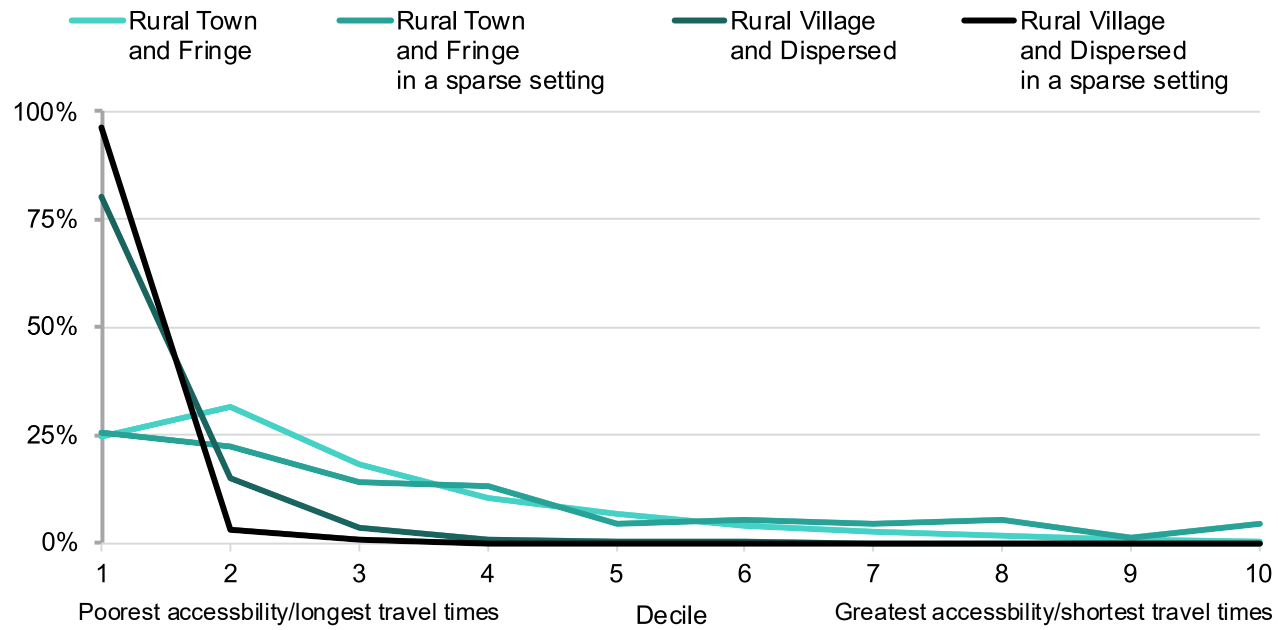
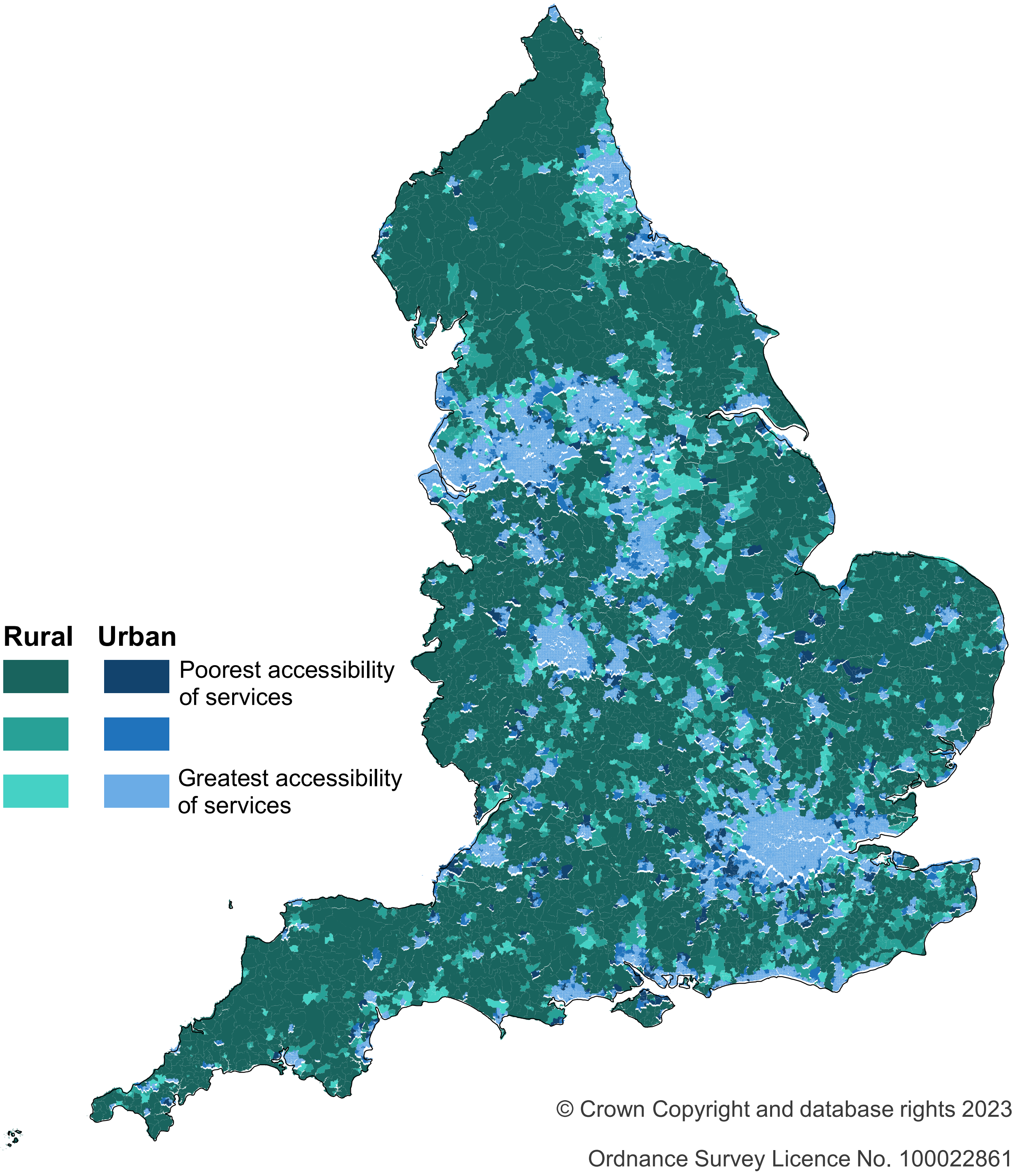


Figure E-13: Map showing accessibility of services based on minimum travel times by Public Transport and Walking, by 2011 LSOA Rural-Urban Classification, in England, 2019
The darker the colour, the lower the accessibility decile and therefore less accessible a place is.



Overall Accessibility by Car

Unsurprisingly travelling by car generally reduces travel times to key services compared with public transport and walking, but overall relative differences in travel times are similar, and Rural areas still tend to have poorer accessibility (in terms of minimum travel times), compared with Urban areas. This is seen in Table E-2 and Figure E-14.

Table E-2: Proportion of the population within each decile of accessibility of services based on minimum travel times by Car, by 2011 Rural-Urban Classification, England, 2019
where decile 1 = poorest accessibility of services, and decile 10 = greatest accessibility of services

Decile	1	2	3	4	5	6	7	8	9	10
Rural	49%	21%	11%	6%	4%	4%	2%	1%	1%	<1%
Urban	2%	8%	10%	10%	11%	11%	12%	12%	12%	13%

49% of the Rural population are living in areas that have the poorest accessibility to services (lowest 10% / decile 1) based on minimum travel times compared with 2% of the Urban population. Less than 1% of the Rural population are living in areas that have the greatest accessibility to services (highest 10% / decile 1) compared with 13% of the Urban population.

Figure E-14: Line chart showing distribution of population within each decile of accessibility of services based on minimum travel times by Car, by broad 2011 Rural-Urban Classification, England, 2019

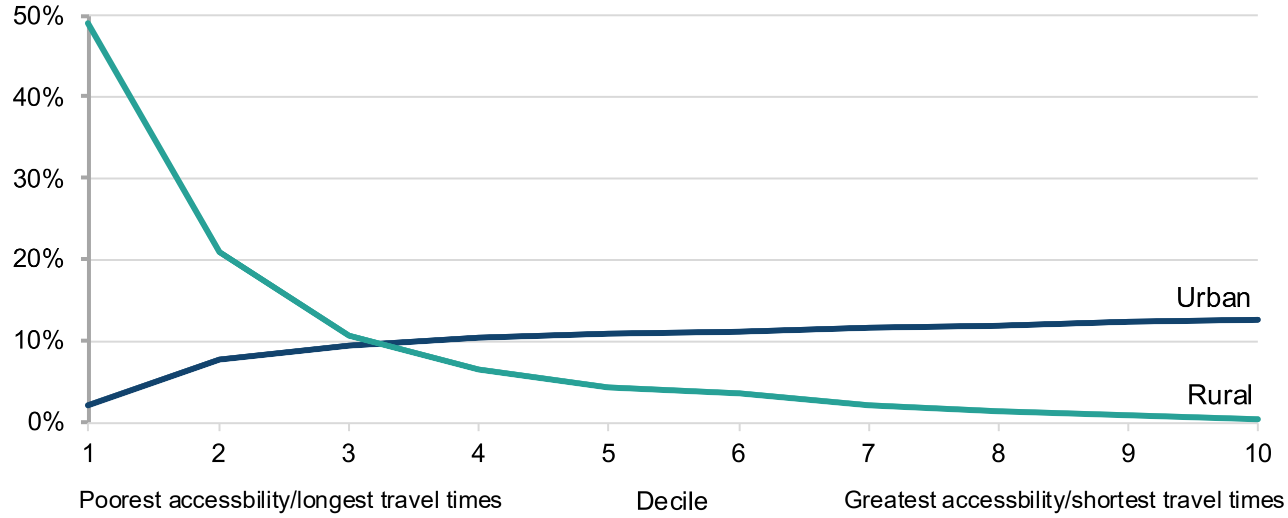
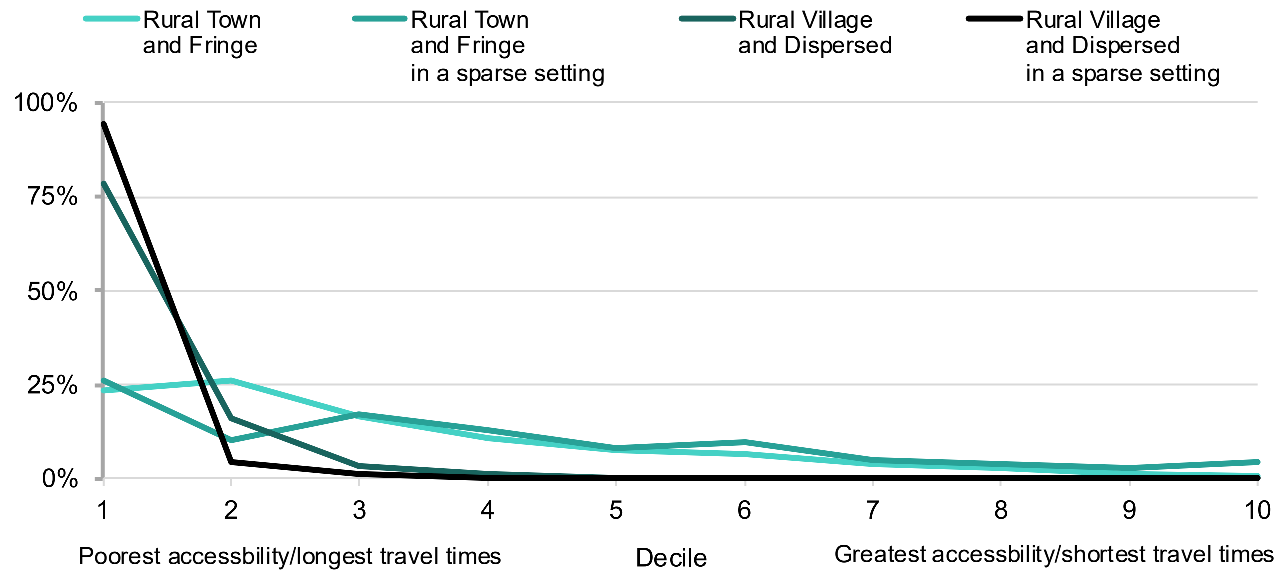


Figure E-15: Line chart showing distribution of Rural population within each decile of accessibility of services based on minimum travel times by Car, by detailed 2011 Rural-Urban Classification, England, 2019 (Note E-5)

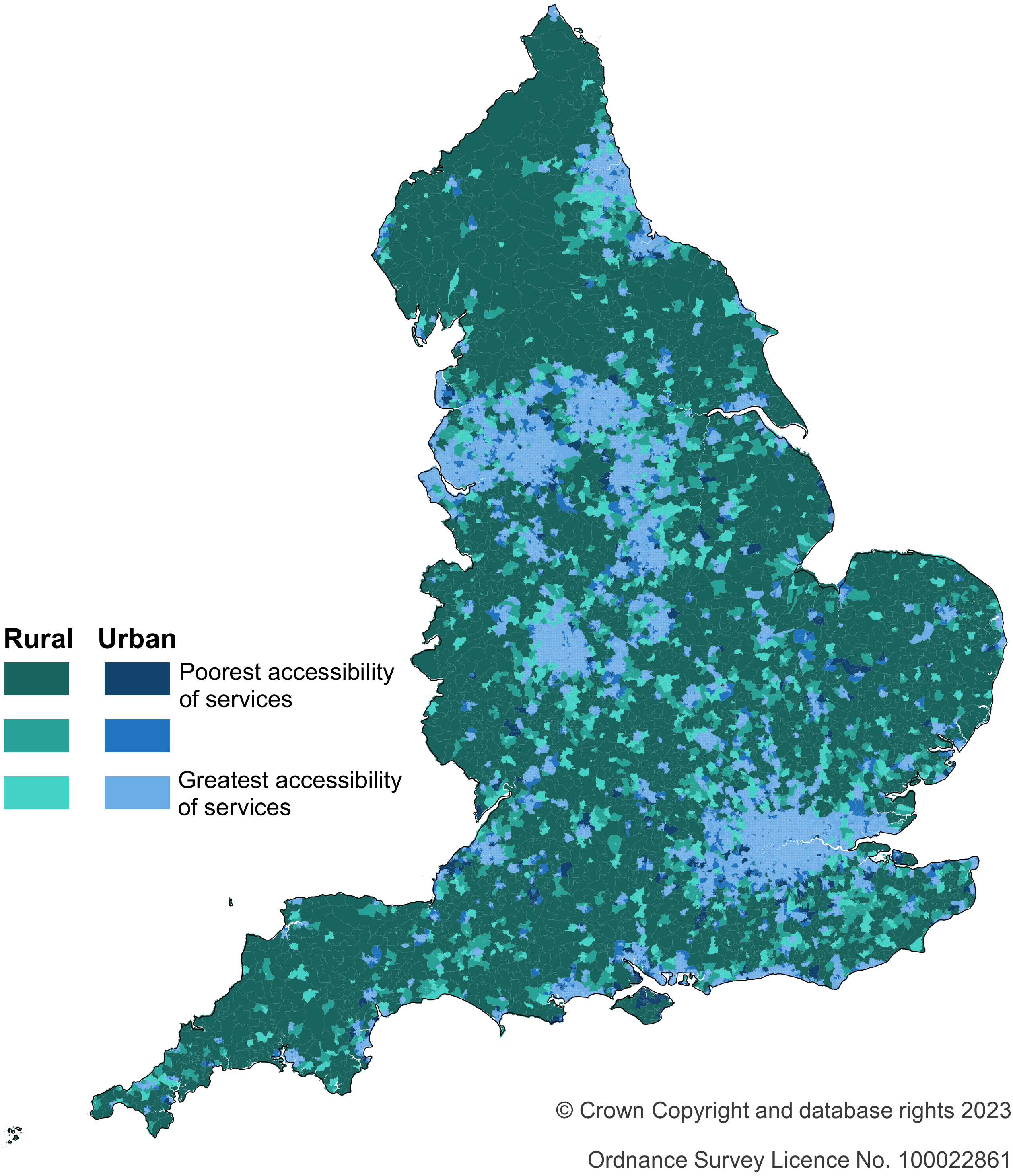


26% of the population living in Rural Town and Fringe areas in a sparse setting have the poorest accessibility to services (lowest 10% / decile 1) based on minimum travel times compared with 23% of the population living in Rural Town and Fringe areas not in a sparse setting.

94% of the population living in Rural Village and Dispersed areas in a sparse setting have the poorest accessibility to services (lowest 10% / decile 1) based on minimum travel times compared with 78% of the population living in Rural Village and Dispersed areas not in a sparse setting.

Figure E-16 maps the accessibility of services across England by car.

Figure E-16: Map showing accessibility of services based on minimum travel times using a car, by 2011 Rural-Urban Classification (Lower Super Output Areas), in England, 2019
The darker the colour, the lower the accessibility decile and therefore less accessible a place is.



Overall measure of accessibility to services: technical note

Table E-3 shows the weightings used for the nine services and the reasons these were chosen. Assumptions have had to be made that will not hold true for every individual. These weightings are simply an attempt at ensuring that services that are typically visited very infrequently although an important service (such as a hospital) do not have undue influence over the final measure if the travel times are much greater than for other services.

Table E-3: Explanation of weightings used for the nine services within the accessibility to services section

Service	Weighting	Reason
Medium and Large Employment Centre	0.22	Under the assumption of 240 working days per year, one journey per day
Primary School	0.18	Under the assumption of 190 school days per year, one journey per day
Secondary School	0.18	Under the assumption of 190 school days per year, one journey per day
Further Education	0.18	Under the assumption of 190 school days per year, one journey per day
General Practice	0.01	Under the assumption of 6 visits per year
Hospital	0.002	Under the assumption of 2.4 visits per year
Food Store	0.10	Under the assumption of 2 visits per week
Town Centre	0.10	Under the assumption of 2 visits per week
Post Office	0.05	Under the assumption of a weekly visit

In most cases the weightings are broadly of the same magnitude and hence their use does not result in significant adjustments. Where possible the weightings have been determined using statistical evidence but are otherwise based on best judgements, for example an average person will travel more frequently to their place of work or school than they would to some other services.

The weighted minimum travel times were indexed and then summed to give a single value which was then indexed again. This indexing process was used to ensure that infrequently used services did not disproportionately influence overall accessibility if travel times are large. As index an actual travel time has not been determined, the index is a relative measure.

Sources:
[Lower layer Super Output Area population estimates, NHS statistics, facts and figures hosted on nhsconfed.org]

Access to services explanatory notes

- **Note E-1**

A Lower Super Output Area (LSOA) is a geographic area built up from groups of Census Output Areas. LSOAs were developed (along with Middle Super Output Areas) to help improve the reporting of small area statistics, allowing for greater precision than reporting at Local Authority level. Each Local Authority will be built up of many LSOAs, therefore just because one LSOA scores poorly on accessibility of services it does not mean that this is an issue for the whole Local Authority.

- **Note E-2**

Tables of the data within this section are available in the connectivity and accessibility supplementary data tables.

- **Note E-3**

Technical information on Journey Time Statistics can be found at https://www.gov.uk/government/publications/journey-time-statistics-guidance

- **Note E-4**

Source: DfT Journey Time Statistics: www.gov.uk/government/collections/journey-time-statistics#data-tables (files JTS0102, JTS0202, JTS0302)

- **Note E-5**

“Rural Village and Dispersed” refers to the combination of “Rural Village” and “Rural Hamlet and Isolated Dwellings” from the 2011 Rural-Urban Classification.

F. Home working

Working from home is generally more common in Rural areas than Urban areas (34% and 30% respectively of all workers for each area type in 2022), but it is dependent on the type of sector people work in.

Home working - key findings

There were more home workers in rural areas than urban areas

- 34% of the rural population said they worked from home for at least half of their working week; this compares to 30% of the urban population.
- In the most rural areas, 43% of the population worked from home.

There were more home workers in the more professional sectors

- 15% of the rural population working in the professional, scientific and technical services sector said they worked from home for at least half of their working week; in urban areas, it was 16%.
- 5% of the rural population working in the agriculture, forestry and fishing sector said they worked from home for at least half of their working week; this was the smallest proportion of all sectors in rural areas.

Summary

Home working is defined by the ONS for statistical purposes as those who usually spend at least half of their work time using their home, either within their grounds or in different places or using it as a base.

In 2022 there were an estimated 1.6 million home workers in Rural areas, accounting for 34% of all workers living in Rural areas. There were an estimated 6.9 million home workers in Urban areas, accounting for 30% of all workers living in Urban areas. The highest rate of home workers was found in Rural Hamlets and Isolated Dwellings, at 43%. There were more home workers in 2022 than at any other point in the last 10 years.

Home working is more common in some sectors than others. In 2022, the sector with the greatest proportion of the home-working population in both Rural and Urban areas was the professional, scientific and technical service sector (15% and 16% respectively). The sector which had seen the greatest change on the previous year was the ‘Public administration and defence; compulsory social security’ sector where it’s proportion of the home-working population had increased in both Rural and Urban areas by 2 and 1 percentage points respectively.

Home working

Home working is defined as those who usually spend at least half of their work time using their home, either within their grounds or in different places or using it as a base.

The following analysis uses data from the Office for National Statistics Annual Population Survey. Data is provided as part of a bespoke data request under a data sharing agreement. 2022 survey results continue to show an increase in the number of homeworkers when compared with 2020. The anticipated increase in homeworking was not evident in the 2020 results as respondents were asked to consider where they would usually work in their main job prior to the COVID-19 pandemic, rather than the situation under COVID-19 restrictions. In 2021 the survey returned to the original question wording, simply asking respondents to record whether or not they work from home in their main job. This means it is not until 2021 that we started to see fully the anticipated increase in homeworking which came about as a result of the COVID-19 pandemic and its longer term implications for working patterns.

The Annual Population Survey estimated that of the 27.6 million people in work in England in 2022 (see Note F-1), 8.6 million (31%) were home workers. Of these 8.6 million home workers, 1.6 million were from Rural areas, and 6.9 million were from Urban areas, as shown in Figure F-1 (note, the sum of Rural and Urban figures do not match the England total exactly due to rounding).

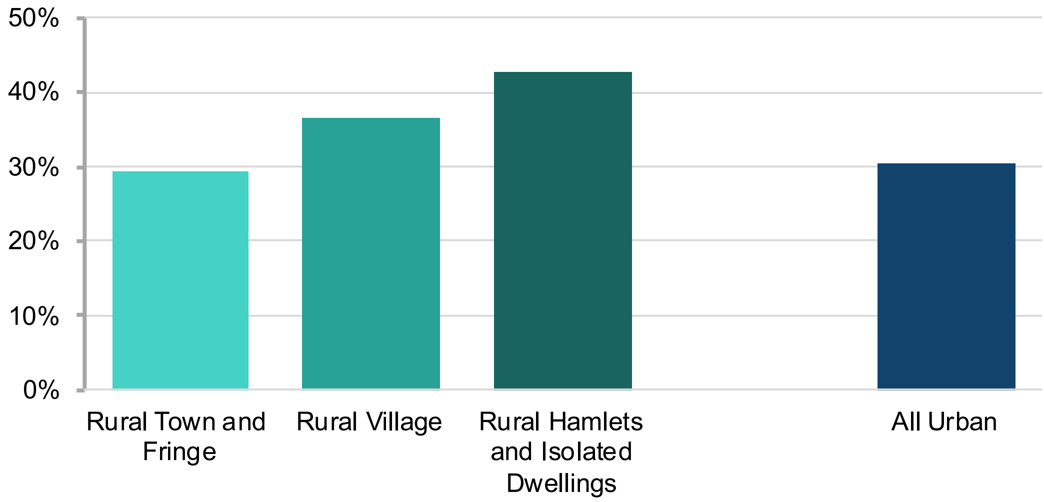
Figure F-1: Infographic to show the proportions of home workers by 2011 Rural-Urban Classification, 2022

The highest rate of home workers was found in Rural Hamlets and Isolated Dwellings, at 43%. Overall Rural areas had a higher rate of home working (34%) compared with Urban areas (30%). This is to be expected as those in Rural areas potentially have more to gain from home working. When considering average journey times those in Rural areas have further to travel to access key services, such as places of work. For example, the average journey time by car to places with 5,000 or more jobs is 25 minutes in Rural areas and 14 minutes in Urban areas. See Section E: Access to Services for more detail.

According to the Office for National Statistics, home workers are more likely to be working in higher skilled roles and hence earn on average a higher hourly wage, however this will vary across Rural areas (see Note F-3).

Figure F-2 is a bar chart showing that rates of home working tend to be higher the more Rural a settlement is; the highest for 2022 was 43% in Rural Hamlets and Isolated Dwellings. However, in more urbanised rural areas (Rural Town and Fringe) rates of homeworking are close to those in Urban areas (29% for Rural Town and Fringe and 30% for Urban areas).

Figure F-2: Bar chart showing home workers as a percentage of all those employed, based on where they live, by 2011 Rural-Urban Classification in England, 2022



Between 2013 and 2022 the rate of home working increased Rural and Urban areas, and as shown in the line chart Figure F-3, 2022 showed the highest rate of home workers for the period 2013 to 2022 (see Note F-4). Rates have showed the greatest increase between 2020 and 2021, potentially as a result of the COVID-19 pandemic The greatest increases have been seen in Urban areas where the proportion of home workers increased by 18 percentage points between 2013 and 2022, compared with an increase of 12 percentage points in Rural areas.

Figure F-3: Line chart showing home workers as a percentage of all those employed, based on where they live, by 2011 Rural-Urban Classification in England, 2013 to 2022

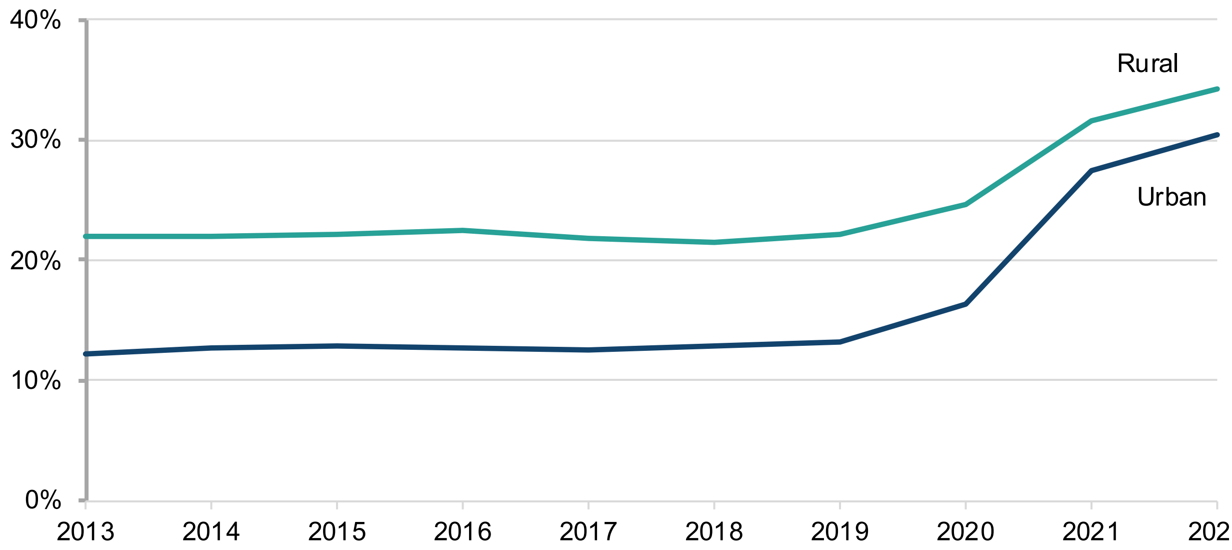


Figure F-4 and Figure F-5 are bar charts focussing on the increase in home-workers between 2020 and 2022. They show that while the Rural Hamlets and Isolated Dwellings classification continues to have the greatest proportion of home-workers (43% of the working population for the area type in 2022, see Figure F-4), it is Urban areas that have seen the greatest increase in the level of home-workers with an increase of 14 percentage points between 2020 and 2022 (Figure F-5).

Figure F-4: Bar chart showing home workers as a percentage of all those employed, by 2011 Rural-Urban Classification in England, 2020 to 2022

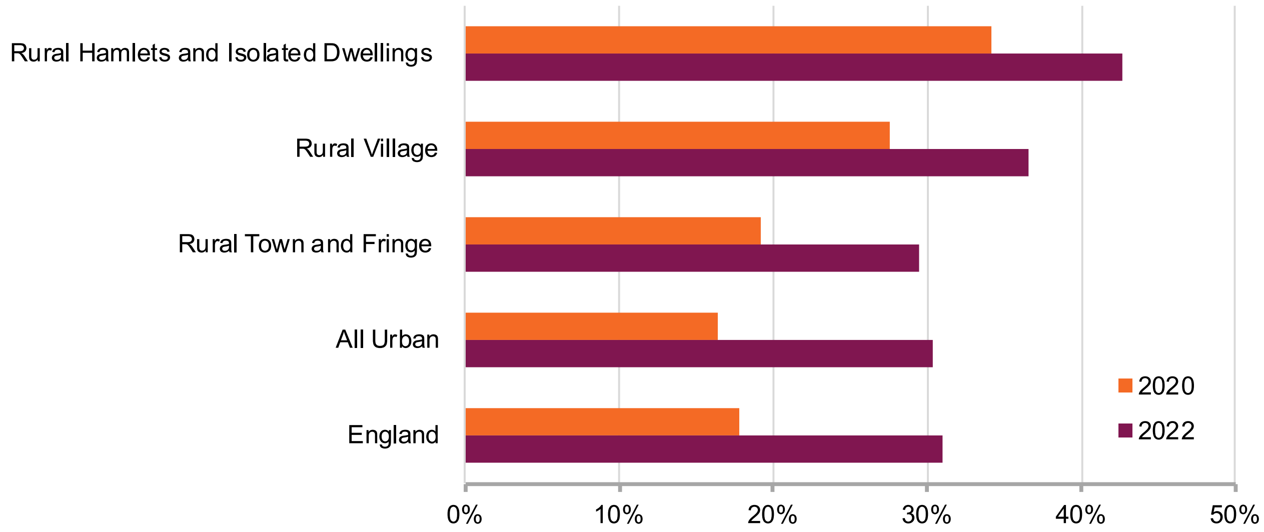


Figure F-5: Bar chart showing the size of increase (in percentage points) in levels of home working between 2020 and 2022, based on where they live, by 2011 Rural-Urban Classification in England

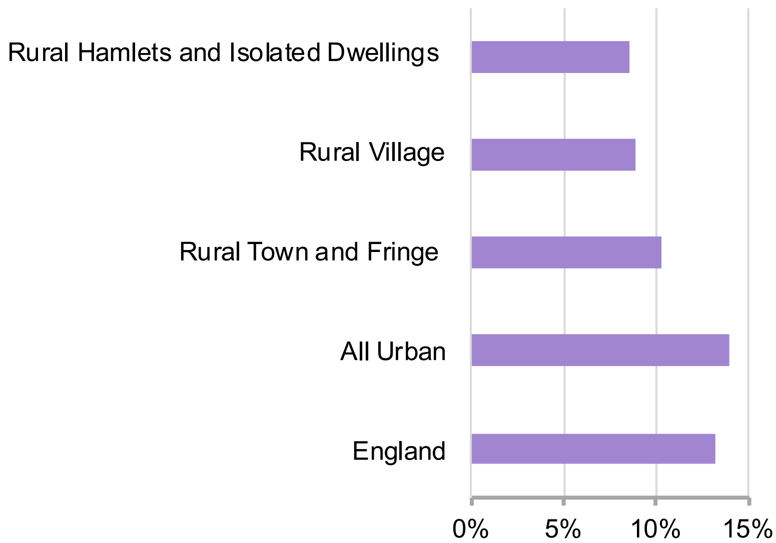
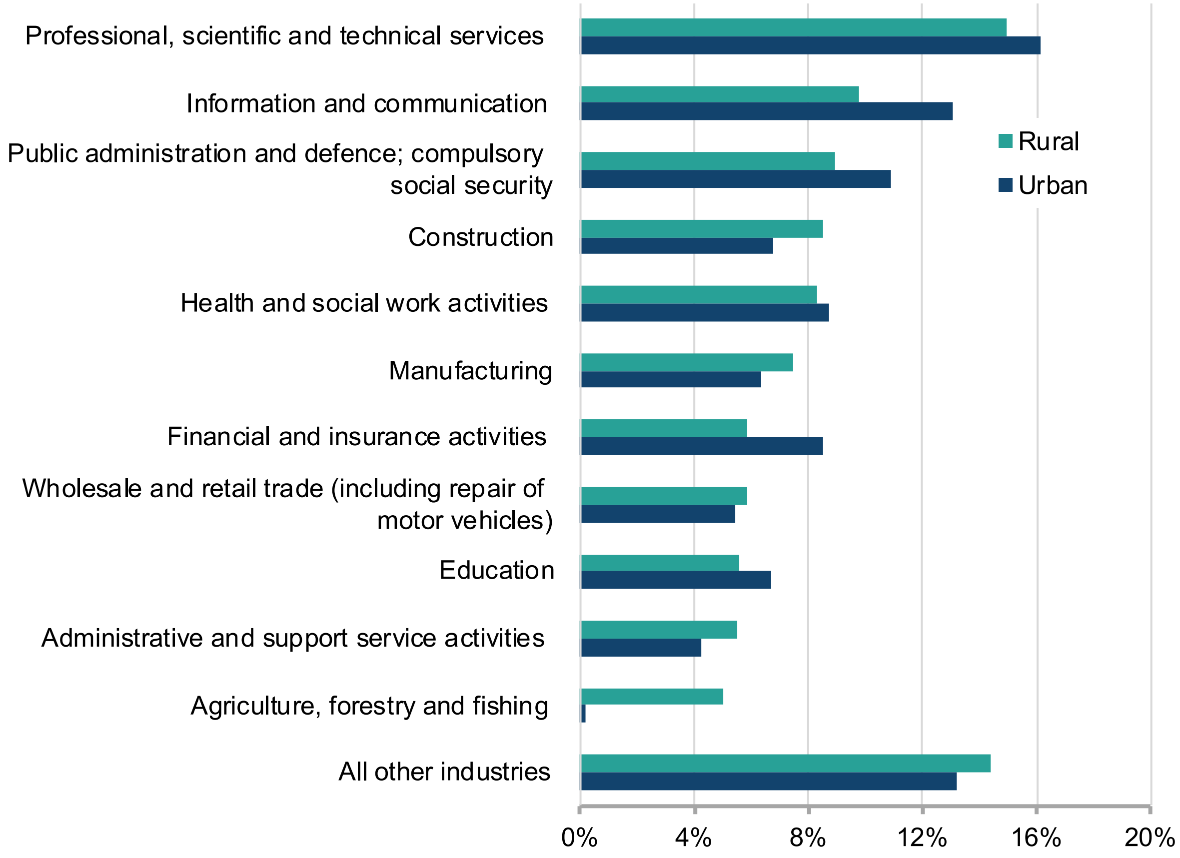


Figure F-6 is a bar chart showing how the home-working populations for Rural and Urban areas are split across the high-level sector groupings in 2022. Leaving aside the ‘all other industries’ grouping, Figure E-6 shows that the sector with the greatest proportion of the home-working population in both Rural and Urban areas is the Professional, scientific and technical service sector (15% and 16% respectively) followed by the Information and communication sector (10% and 13% respectively) and then the Public administration and defence sector (9% and 11% respectively). In Rural areas the sectors with the smallest proportions of homeworkers are the Education sector (6%), and the Administrative and support services sector and the Agriculture, forestry and fishing sector (both with 5%). In Urban areas the sectors with the smallest proportions of homeworkers are the Wholesale and retail trade sector (5%), the Administrative and support services sector (4%) and the Agriculture, forestry and fishing sector (0.2%).

Figure F-6: Bar chart showing home-working population, by sector, based on where they live, and 2011 Rural-Urban Classification in England, 2022 (Note F-6)



Notes:

- “Employed” involves people aged 16 and over.
- All Urban category includes Urban City and Town, Urban Minor Conurbation and Urban Major Conurbation areas.

Home working explanatory notes

- **Note F-1**

This figure is for all those who reported their working status. It differs slightly from the total number employed as some respondents have not reported their home working status.

- **Note F-2**

Home workers are defined as those who usually spend at least half of their work time using their home, either within their grounds or in different places or using it as a base. Home workers will include both those who are employees of organisations and those who are self-employed. The category for home workers includes the following: those who work within their home, those who work in the same grounds or buildings of their home, and those who work in different places but use their home as a base.

- **Note F-3**

Further information can be found in the ONS document, Characteristics of Home Workers, 2014

- **Note F-4**

Data from 2011 are classified using the Rural-Urban Classification 2011.

- **Note F-5**

A table of homeworking figures broken down by 2011 Rural-Urban Classification covering 2006 to 2021 is available in the supplementary data tables.

- **Note F-6**

All industries with less than 75,000 home-workers in Rural areas have been grouped into the 'All other industries' category.

Appendix 1: The 8 thematic reports that make up the Statistical Digest of Rural England (and the topics included within them)

1. Population

A. Population level and change
B. Population age profile
C. Internal migration
D. Local Authority population data
E. Census 2021: Population

2. Housing

A. Housing stock: age and type
B. Housing stock: additions and affordable housing
C. Housing market
D. Second and empty homes
E. Homelessness
F. Land use change for housing
G. Housing quality

3. Health and Wellbeing

A. Life expectancy and Mortality
B. Wellbeing
C. NHS Dentistry provision
D. NHS General Practices
E. Childcare provision
F. Loneliness
G. Volunteering and charity

4. Communities and Households

A. Deprivation
B. Poverty due to low income
C. Household expenditure
D. Police recorded crime and outcomes
E. Crime surveys: local police and businesses
F. Feelings about the local neighbourhood

5. Connectivity and Accessibility

A. Broadband
B. Mobile coverage
C. Travel behaviours
D. Access to personal transport
E. Access to services
F. Home working

6. Education, Qualifications and Training

A. Schools and their workforce
B. Class sizes
C. Secondary education attainment
D. School inspections
E. Free school meals - eligibility
F. Alternative and specialist education provision
G. Progression to higher education
H. Apprenticeships and on-the-job training
I. Workforce education level

7. Rural Economic Bulletin

A. Employment
B. Earnings
C. Redundancies
D. Unemployment-related benefits
E. Output and productivity measured by Gross Value Added (GVA)
F. Business demographics
G. Businesses by industry
H. Business survival and growth
I. Innovation and investment

8. Energy

A. Fuel poverty
B. Energy Performance Certificates: average Energy Efficiency Score
C. Energy Performance Certificates: achieving energy efficiency category C
D. Central heating
E. Energy Consumption
F. Estimated carbon dioxide (CO_2) emissions

Each of the 8 themes also has their own set of supplementary data tables that include the larger source data that could not be included in the presented document. The chapter headings above are hyperlinked to the home page for that specific digest theme. The supplementary tables can be accessed from these home pages.

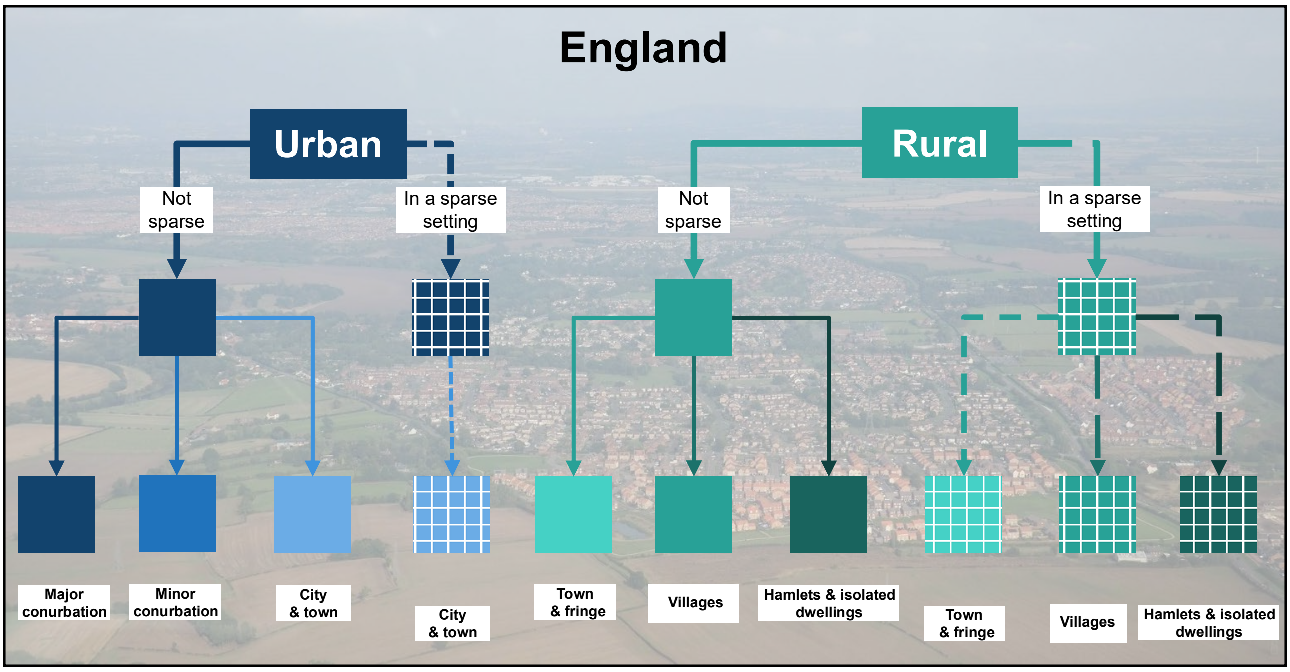
There is a further document including the individual Local Authority data tables, which have been separated for ease of use.

Appendix 2: Defining Rural areas

Wherever possible, 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.

Census Output Areas are the smallest areas for which data are available from Censuses. These Census Output Areas are assigned to one of four Urban or six Rural categories (Figure X-1) based on dwelling densities. Those described as "in a sparse setting" reflect where the wider area is sparsely populated (again based on dwelling densities). From Census Output Areas, other small area geographies can be classified based on how they map to Census Output Areas (such as Lower Super Output Areas (LSOAs), Wards, and postcodes – Note 1).

Figure X-1: Classifying Rural and Urban areas for small geographical areas



A map showing the distribution of the Rural and Urban Census Output Areas is shown in Figure X-2.

When data are not available at a small geographical scale, it may be possible to apply the Rural-Urban Local Authority Classification or a similar classification for other larger geographies. This classification categorises districts and unitary authorities on a six-point scale from Rural to Urban. It is underpinned by Rural and Urban populations as defined by the Census Output Area Classification. A map of the geographical distribution of the Rural and Urban Local Authorities is shown in Figure X-3.

However, the Local Authority Classification also considers some Urban areas as Hub Towns (with populations of between 10,000 and 30,000). These Hub Towns have met statistical criteria (based on dwelling and business premise densities) to be considered hubs for services and businesses for a wider rural hinterland and their populations are therefore classified as effectively Rural for the purposes of determining the classification of the authority.

Figure X-2: Map of the 2011 Rural-Urban Classification for Census Output Areas in England

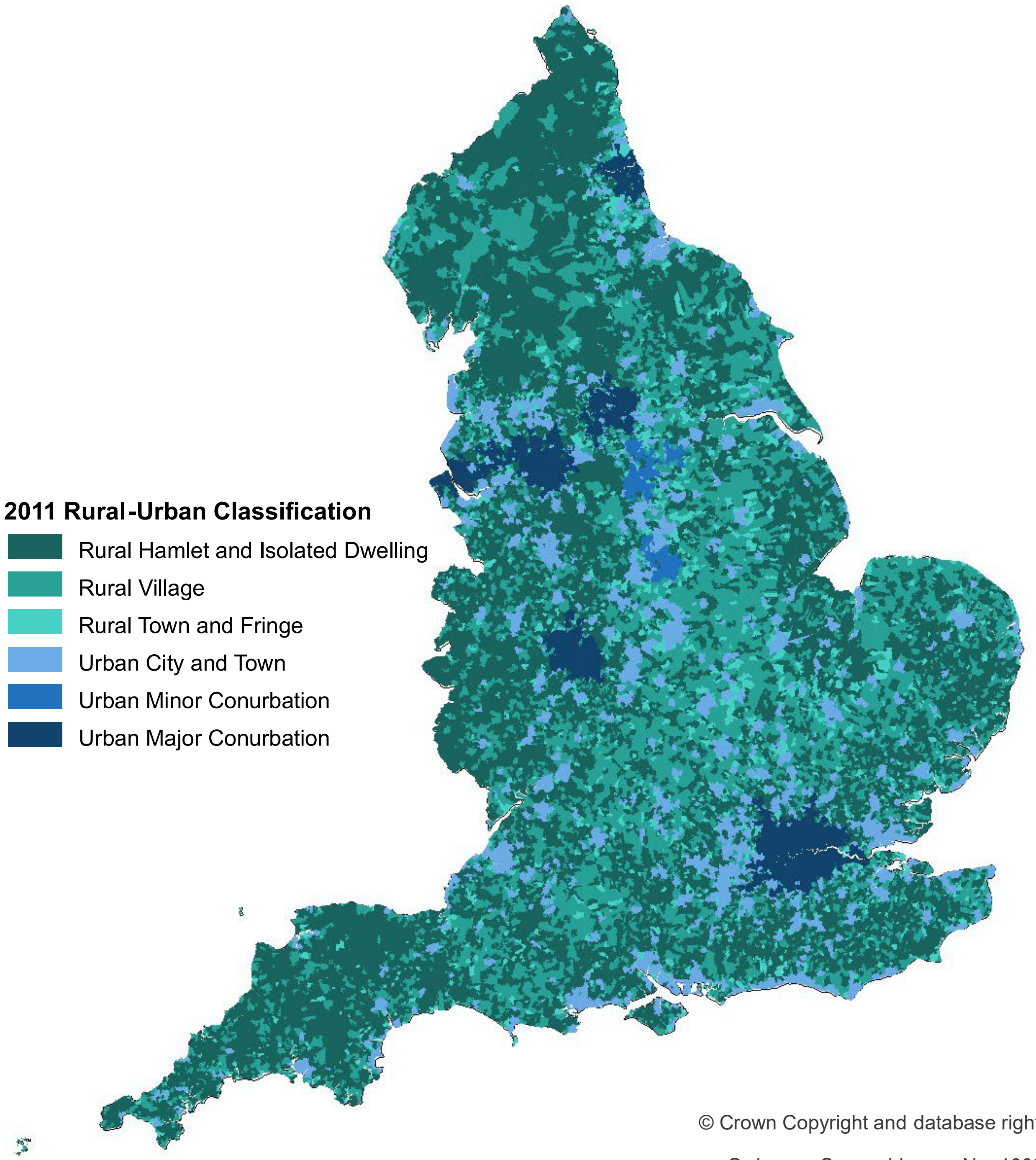
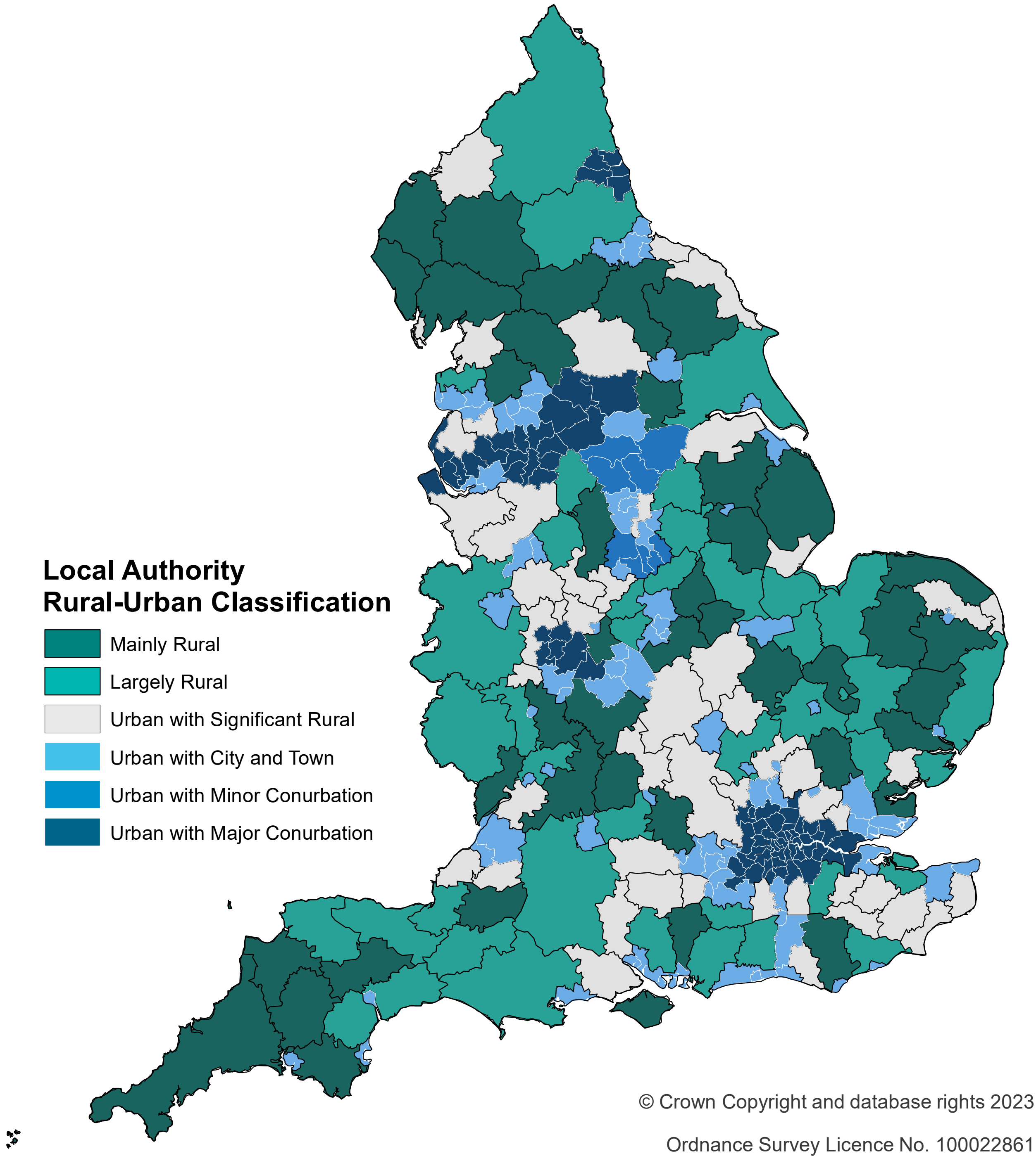
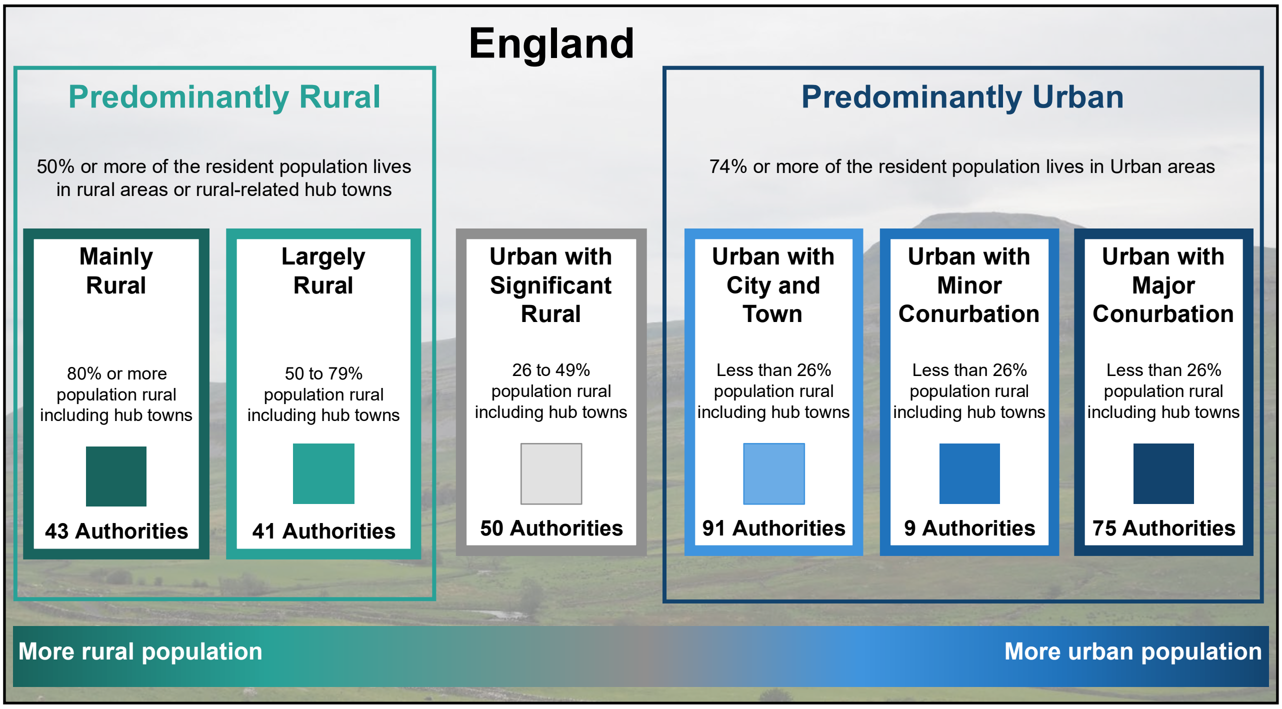


Figure X-3: Map of the 2011 Rural-Urban Classification for Local Authority Districts and Unitary Authorities in England



Under the classification, which is shown in Figure X-4, each Local Authority is assigned to one of six categories on the basis of the percentage of the total resident population accounted for by the combined Rural and Hub Town components of its population and its 'conurbation context'. The Local Authority Classification categories are frequently aggregated to 'Predominantly Rural', 'Urban with Significant Rural' and 'Predominantly Urban' as shown on Figure X-4.

Figure X-4: 2011 Rural-Urban Classification for Local Authorities in England



The Local Authority Rural-Urban Classification is based on populations and settlement patterns, not on how much countryside there is. Authorities classified as Urban may have wide areas of countryside and may have sizeable Rural populations. The classification has been made according to the proportions of the population residing in Urban settlements and outside Urban settlements. More information on the classifications can be found at: The Rural-Urban Definition.

A similar approach to that for Local Authorities was used to create a classification for Westminster Parliamentary Constituencies. Under this classification, which is shown in Figure X-5, each Parliamentary Constituency is assigned to one of six categories on the basis of the percentage of the total resident population accounted for by the combined Rural and Hub Town components of its population and its 'conurbation context'. A map of the geographical distribution of the Rural and Urban Westminster Parliamentary Constituencies is shown in Figure X-5. This map depicts a classification for the new rebalanced Parliamentary Constituencies that were introduced for 2024 General Election. The Parliamentary Constituency Classification categories are frequently aggregated to ‘Predominantly Rural’, ‘Urban with Significant Rural’ and ‘Predominantly Urban’ as shown on Figure X-6.

Figure X-5: Map of the 2011 Rural-Urban Classification for Westminster Parliamentary Constituencies in England

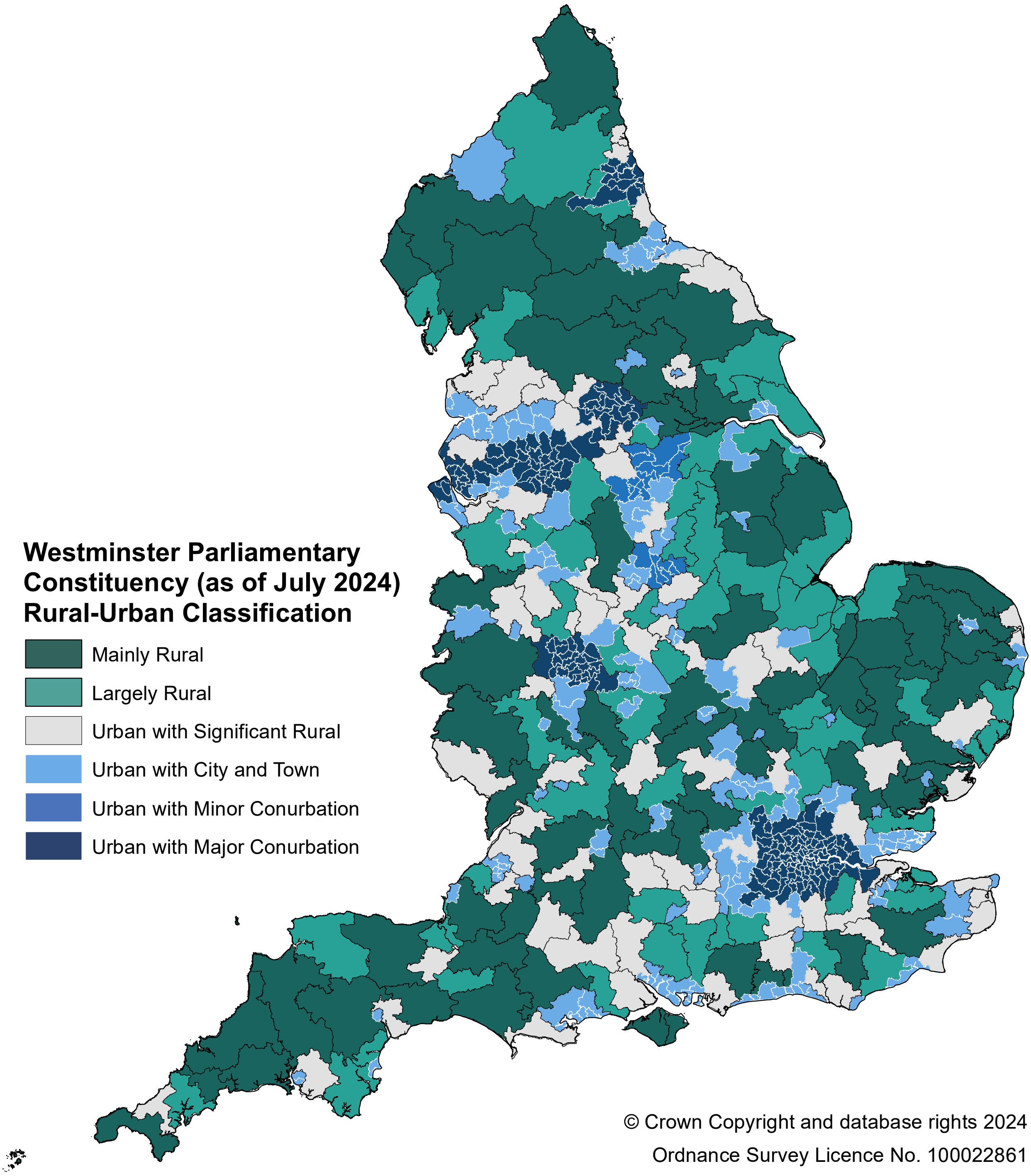
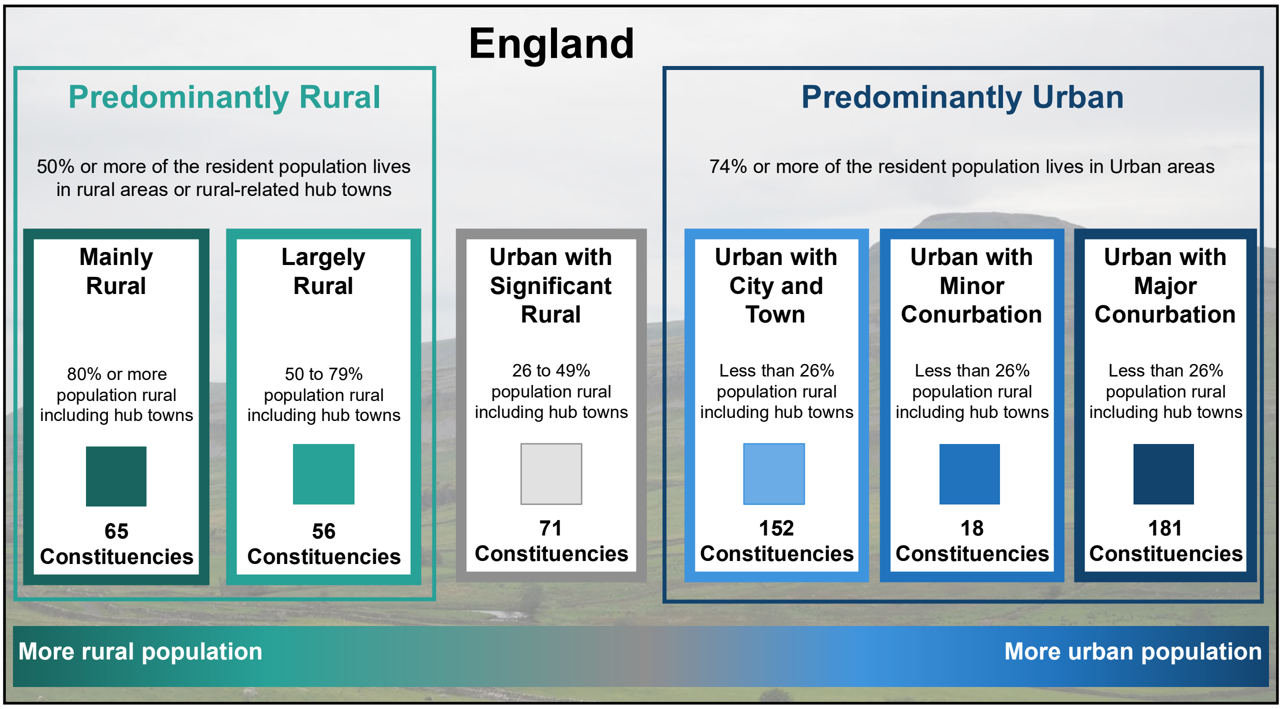


Figure X-6: 2011 Rural-Urban Classification for Westminster Parliamentary Constituencies in England



Defining Rural areas explanatory notes

- **Note 1:** Defining Super Output Areas and Wards

Census Output Areas (OAs) were created for publication of the results of the recent Censuses. They cover around 125 households. In practice few datasets are produced at OA level. However, other larger geographies can be built up from OAs. These include *Lower Layer Super Output Areas* (LSOAs) which typically contain 5 OAs, so contain approximately 625 households or a population of approximately 1,500 and a minimum 1,000. Their Rural-Urban Classification is based on the majority category of OAs they contain. Some other geographies, for example postcodes are classified based on the location of their central point and the classification of respective OA.

- **Note 2:** Accessibility of Figure X-2

We accept that this map might not be accessible for all users, but it is difficult to develop a map containing six colours that will provide enough contrast between all colours to enable every user to see them, especially when the shaded areas are small. Separate maps (showing only three levels of shading) for Rural and Urban areas are available on request from*:* rural.statistics@defra.gov.uk