

Left-behind Areas: Connectivity data dive



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Introduction

This report brings together a range of socio-economic data to provide an understanding of the connectivity characteristics of 'left-behind' areas (LBAs) in comparison to deprived non 'left-behind' areas and England. Connectivity is explored in terms of access to services, access to private transport, methods of travel relied upon and the digital infrastructure of the local areas.

The report is broken down into the following sections:

1. Access to services: This section profiles LBAs and comparator areas in relation to the greatest challenges with accessing services. It explores travel times and distance to services, as well as access to services and how poor access interplays with unemployment, low income, health challenges, education and housing.
2. Access to private transport: This section explores access to private transport in LBAs in terms of car ownership and method and distance of travel to work, identifying areas and groups which lack access to a private car and/or have high levels of public transport dependency.
3. Digital connectivity: This section uses data from OfCom and the Consumer Data Research Centre to identify those at risk of digital exclusion. It explores which LBAs have the lowest average broadband speeds and the highest proportion of premises receiving broadband speeds at below the Universal Service Obligation. It also looks at areas with the highest proportion of people with the lowest internet use who are at greatest risk of digital exclusion.
4. Potential Case Studies: Summarises the LBAs with multiple connectivity challenges, which would benefit from additional exploration.

A note about geographies and data used in this report

The information in the report is presented for 'Left-behind' areas as a whole - the aggregate average score for all 225 Left-behind areas – these are referred to as **LBAs** throughout this report. The figures for LBAs are benchmarked against the national average and the average across 'other deprived areas' – areas ranked in the most deprived 10% on the 2019 Indices of Deprivation, which were not identified as left-behind i.e. they were ranked among the most deprived 10% on the Community Needs Index – these are referred to as **deprived non-LBAs** throughout this report. The report also identifies individual LBAs which have the greatest identified need on key connectivity measures. Each of the datasets included in the report are aggregated from standard statistical geographies (Output Areas, Lower-layer Super Output Areas, Middle Layer Super Output Areas and Wards) to individual LBAs, deprived-non LBAs and national geographies. The Output Area to Ward 2017 look-up table¹ is used to apportion and aggregate data to these geographies.

All of the indicators used in the report are published at 'neighbourhood' level (Grid reference, Postcode Output Areas, Lower-layer Super Output Areas, Middle Layer Super Output Areas and Wards) to enable aggregation to LBAs and other deprived areas.

All of the underlying data is published in the accompanying excel 'OCSI-Data-Workbook-Connectivity-Data-Dive.xlsx' to allow you to interrogate the data presented in this report in more detail.

Appendix A details each of the underlying indicators explored in this report.

¹ <https://geoportal.statistics.gov.uk/datasets/output-area-to-ward-to-local-authority-district-december-2017-lookup-in-england-and-wales>

Overall connectivity in Left-behind Areas

There have been a series of composite measures aimed at capturing the level of connectivity in local communities. The Indices of Deprivation (ID) Geographical Barriers subdomain was created to measure the impact of poor connectivity to key services on people's daily lives as a form of deprivation². More recently, the Consumer Data Research Centre have produced a measure of Access to Health Assets and Hazards³ – which intended to capture which areas have poor environments for health, based on proximity to key health assets (e.g. health services and areas for recreational exercise) and hazards (e.g. off licenses or fast food outlets). However, these measures capture connectivity in terms of physical proximity to services rather than considering the means of accessing services such as access to public or private transport or internet connectivity.

In order to identify those LBAs with the greatest connectivity challenges in the broader sense, we have constructed a *composite indicator of connectivity*, which draws on the most up to date indicators of connectivity captured from the themes of access to services, access to private transport and digital connectivity explored elsewhere in the Data Dive. The table below lists the indicators used in this composite indicator (for more details as to how the indicator was constructed please see Appendix C).

Name	Source	Date
Physical Connectivity		
Jobs density in the Travel to Work Area	BRES	2018
Travel time to key services by public transport/walk	Department for Transport (DfT)	2017
Access to health services	CDRC – Access to Health Assets and Hazards	2017
Wider Connectivity		
Households with no car	Census 2011	2011
Broadband speeds	OfCom	2017
People living alone	Census 2011	2011
Loneliness (Loneliness Index – GP Prescriptions for Loneliness)	Office for National Statistics' Data Science Campus /NHS England/Red Cross	2019
Loneliness (Self-reported levels of loneliness)	Community Life Survey: DCMS/Output Area Classification 2011	2016 & 2017

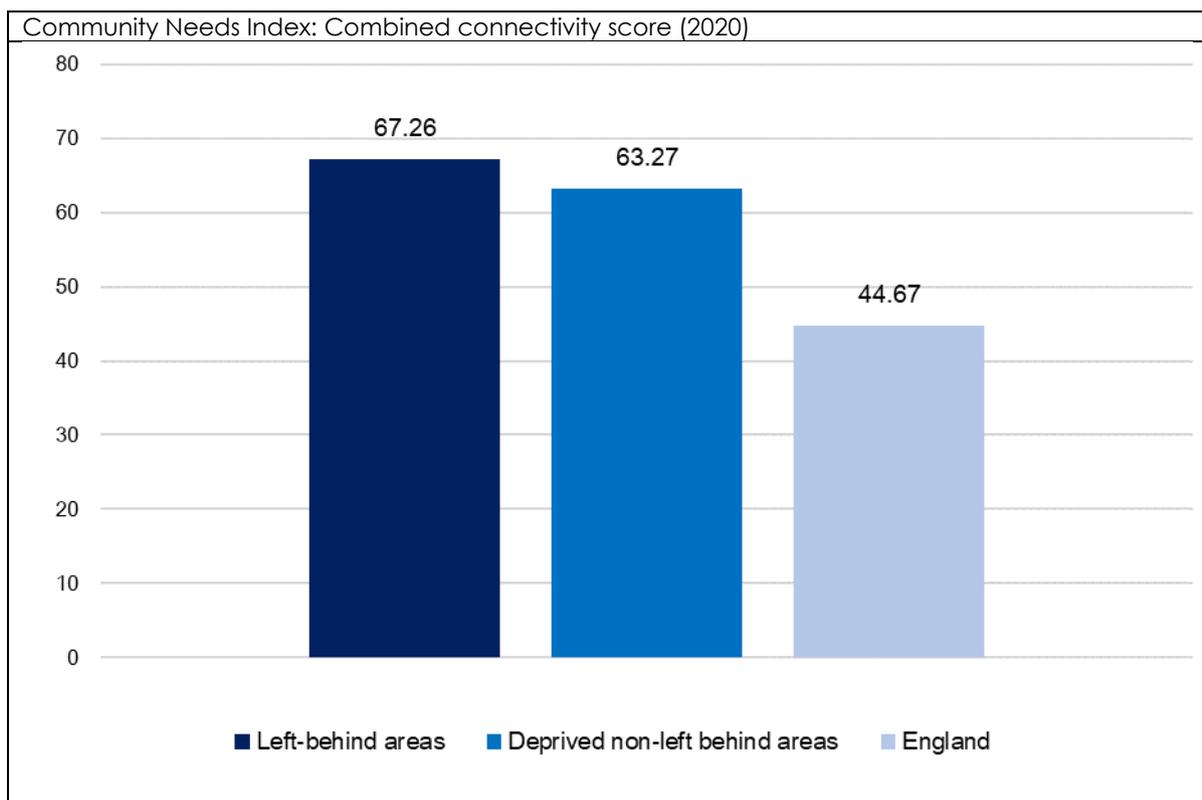
The chart below shows the community needs combined connectivity score for LBAs, deprived (non-LBAs) and England. A higher score indicates that an area has poorer connectivity.

LBAs have a higher connectivity score than across other deprived areas and England, suggesting these areas face greater challenges in relation to access to key services and digital connectedness⁴.

² See Indices of Deprivation 2019 Technical report for details of how this has been constructed https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/833951/loD2019_Technical_Report.pdf

³ For more information see <https://data.cdrc.ac.uk/dataset/access-healthy-assets-hazards-ahah>

⁴ This is largely unsurprising as measures of connectedness formed key components of the Community Needs Index which is in turn used to identify whether areas are 'left-behind'.



The combined connectivity indicator can also be used to identify which individual LBAs have the greatest challenges associated with connectivity. The table below shows the 20 LBAs with the highest score on the combined connectivity measure.

Left behind area	Local Authority	Combined connectivity score (2020)
Rush Green	Tendring	137.80
Walton	Tendring	137.45
St Osyth and Point Clear	Tendring	134.48
Dearne North	Barnsley	131.73
Headland and Harbour	Hartlepool	130.04
Harwich East	Tendring	128.50
Golf Green	Tendring	127.61
Isabella	Northumberland	126.93
Cowpen	Northumberland	123.67
Blackhalls	County Durham	121.69
Newbiggin Central and East	Northumberland	120.76
Coundon	County Durham	116.66
Trimdon and Thornley	County Durham	116.27
Kitty Brewster	Northumberland	115.98
Alton Park	Tendring	114.87
Orchard Park and Greenwood	Kingston upon Hull, City of	111.55
Meir North	Stoke-on-Trent	111.37
Choppington	Northumberland	110.26
Stainforth & Barnby Dun	Doncaster	110.06
Nelson	Great Yarmouth	109.65

Source: Oxford Consultants for Social Inclusion (OCSI) 2020

In total, 188 of 225 LBAs recorded higher combined connectivity scores than the England average (44.67) on the Community Needs Index. The three neighbourhoods with the highest overall connectivity challenges were all found in Tendring (while a further three neighbourhoods in Tendring were ranked among the top 20). Neighbourhoods in Northumberland also feature strongly among the LBAs with the

highest levels of need on the combined connectivity measure (accounting for five of the top 20), while a further three were located in neighbourhoods in County Durham.

Appendix A ranks each of the 225 LBAs on the combined connectivity indicator, to enable comparison of relative levels of connectivity across all the neighbourhoods.

However, while the combined connectivity indicator provides an overview of the relative levels of connectivity, it is unsuitable for determining the extent to which people in these neighbourhoods experience challenges (while it can be used to rank areas, it does not tell you the proportions of individuals in those neighbourhoods that experience connectivity issues). As a composite measure, it is also not suitable for identifying the specific connectivity challenges experienced by people in LBAs e.g. whether challenges are more related to difficulty accessing services or poor transport provision.

The following sections explore the specific connectivity challenges in greater detail identifying which neighbourhoods and vulnerable communities have the greatest difficulty accessing services and how this differs between LBAs and their comparators.

Access to services in Left-behind Areas

This section profiles LBAs and comparator areas in terms of access to key services. It explores travel times and distance to services and how poor access interplays with unemployment, low income, health challenges, education and housing. The following key sources of information are explored:

- Department for Transport (DfT) travel time to key services: These statistics are derived from the analysis of spatial data on public transport timetables; road, cycle and footpath networks; population and key local services. The data shows the average minimum travel time - the shortest travel time by walking and public transport, averaged over the LSOA. Where the shortest journey is by public transport, an average of five minutes is added to allow for a margin for catching the service, but if a quicker walking journey is available, this will be used.
- The Access to Healthy Assets and Hazards (AHAH) road distance indicators: The AHAH index is a multi-dimensional index developed by the CDRC for Great Britain measuring how 'healthy' neighbourhoods are. It combines indicators under four different domains of accessibility: retail environment, health services, physical environment and air quality.
- The Indices of Deprivation (IoD) 2019 Geographical Barriers sub-domain measures the physical accessibility and proximity of local services. The following indicators are included: Road distance to a post office: A measure of the mean distance to the closest post office for people living in the Lower-layer Super Output Area; Road distance to a primary school: A measure of the mean distance to the closest primary school for people living in the Lower-layer Super Output Area; Road distance to a general store or supermarket: A measure of the mean distance to the closest supermarket or general store for people living in the Lower-layer Super Output Area; Road distance to a GP surgery: A measure of the mean distance to the closest GP surgery for people living in the Lower-layer Super Output Area.
- Commission for Rural Communities (CRC) road distance to key services: These indicators combine datasets that show where outlets of particular services can be found, with postcode level information on the distribution of households to calculate average distance of households within an Output Area from key services. Data is based on road distances rather than straight-line 'crow flies' distances. Note, this data is from 2010 so any changes in service provision or road networks since then will not be picked up in the dataset. Therefore, we have generally only referred to this data for services not captured by AHAH or IoD 2019.

Key findings

- LBAs have longer travel times to key health, employment and education services than deprived (non-LBAs) with longer travel times on average than deprived (non-LBAs) across all identified services - particularly hospitals and further education institutions (the two services with the longest identified travel times).
- Neighbourhoods in smaller towns in coastal and former industrial communities record some of the longest travel times to key services.
- Neighbourhoods in coastal areas have particularly long journey times to key health services - 8 of the 10 LBAs with the longest average travel times to the nearest hospital and 13 of the 20 LBAs with the longest travel times to the nearest GP are located in coastal areas.
- The coastal areas of St Osyth and Point Clear and Sheppey East both have longer travel times to all eight key services than the England average. The majority of other LBAs with long travel times to multiple services are located in rural areas or small towns.
- The majority of those LBAs with long travel times to multiple services also have low levels of car ownership - in Grangetown (Redcar) more than half of households have no access to a car or van despite the relative long travel times to key services and centres of employment.
- People living in LBAs live further from key health services than in other deprived areas, reflecting the longer journey times to access these services.
- There is a particularly large discrepancy for access to A&E hospitals, with people living in LBAs having to travel an additional 2km on average to access these services compared with those living in deprived non-LBAs.
- Five LBAs have the dual disadvantage of high levels of unemployment (above the average across LBAs) and poor access to employment services – poor connectivity to employment services is likely to be a key driver of high unemployment in these neighbourhoods.
- Sheppey East has the lowest proportion of addresses with private outdoor space, as well as above the England average distance to active green space (0.7km compared to 0.6km).
- The majority of people in LBAs live in close proximity to a food store, with only five LBAs living 1km or more from a supermarket/food store and only 21 LBAs experiencing poorer access to a supermarket/food store than the national average.

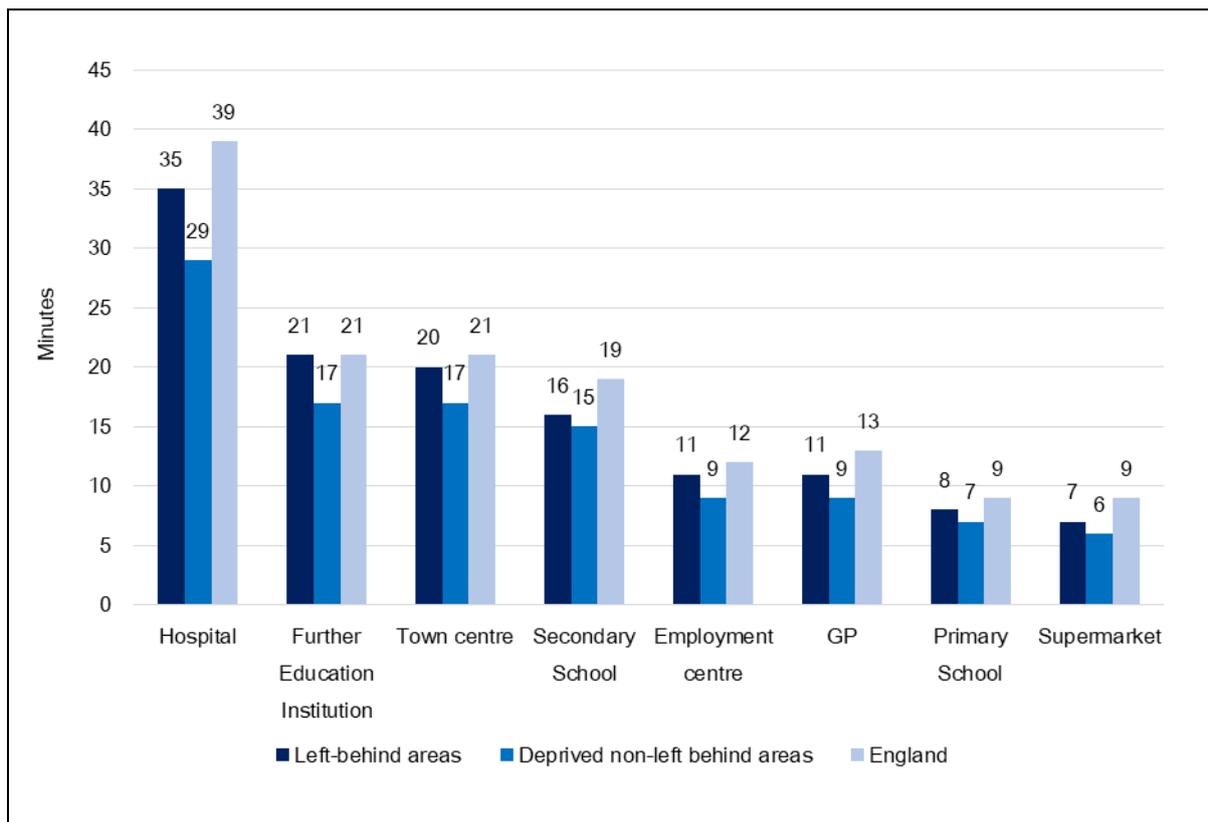
Journey times by walking/public transport

LBAs have longer travel times to key health, employment and education services than deprived (non-LBAs)

The chart below shows average travel time in minutes to key services by public transport/walking in LBAs, other deprived areas and England. It shows that LBAs record longer travel times on average than deprived (non-LBAs) across all identified services. The difference is particularly notable for Hospitals and further education institutions (the two services with the longest identified travel times).

By contrast, travel times are on average lower than the national average. However, this is unsurprising as a higher proportion of LBAs are located in urban areas (95.6%) where distances to services are shorter, than the national average (83.0%). Despite the more urban character of LBAs, travel times to further education institutions, town centres and employment centres are broadly similar across LBAs and England as a whole.

Travel time to nearest services by public transport/walk (minutes), DfT 2017



Neighbourhoods in smaller towns in coastal and former industrial communities record some of the longest travel times to key services

Although LBAs record slightly lower travel times than across England on key services, there is considerable variation across LBAs. The tables below list the 20 LBAs with the longest travel times to each key service by public transport/walking.

There are some clear geographic patterns, with LBAs in smaller communities including coastal areas and former industrial towns in the North of England featuring prominently.

The table below presents the LBAs with the longest travel times to an employment centre (defined as a neighbourhood with more than 500 jobs). 86 out of the 225 LBAs have longer travel times to the nearest employment centre than the England average (12 minutes). Eight of the 20 areas with the longest travel times are in the North East of England, including four in County Durham, two in Redcar and Cleveland and two in Northumberland. Access to employment is also a notable challenge along the Essex coast, with St Osyth and Point Clear having the longest average travel times to an area of employment (32 minutes) and nearby Walton also featuring among the top 3 wards with the longest travel times to an employment centre.

Left behind area	Local Authority	Employment centre (minutes)
St Osyth and Point Clear	Tendring	32
Sandwith	Copeland	25
Walton	Tendring	23
Meir North	Stoke-on-Trent	22
Eston	Redcar and Cleveland	22
Shevington	Knowsley	21
Blackhalls	County Durham	21
Grangetown	Redcar and Cleveland	20
Stainforth & Barnby Dun	Doncaster	20
Trimdon and Thornley	County Durham	20
Warren Park	Havant	20
Craghead and South Moor	County Durham	20
Coundon	County Durham	20
Sidley	Rother	20
Sheppey East	Swale	19
Newbiggin Central and East	Northumberland	19
Brookside	Telford and Wrekin	18
Hough Green	Halton	18
Orchard Park and Greenwood	Kingston upon Hull, City of	18
Choppington	Northumberland	18
Source: DfT 2017		

The table below shows the 20 LBAs with the longest travel times to a further education institution. 99 of 225 LBAs have longer travel times to further education institutions than the England average (21 minutes). Gainsborough East has a notably higher average travel time than other communities, with average travel times of more than an hour by walking or public transport from a further education institution (approximately three times the national average).

Left behind area	Local Authority	Further education institution (minutes)
Gainsborough East	West Lindsey	63
Irwell	Rossendale	44
Sandwith	Copeland	39
Hyde Godley	Tameside	38
St Osyth and Point Clear	Tendring	36
Sheppey East	Swale	35
Shepway South	Maidstone	35
Hardwick and Salters Lane	Stockton-on-Tees	35
Shirebrook North West	Bolsover	35
Waterlees Village	Fenland	34
Castle	Sunderland	34
Bransholme East	Kingston upon Hull, City of	33
Redhill	Sunderland	33
Roseworth	Stockton-on-Tees	33
Meir North	Stoke-on-Trent	32
Bentilee and Ubbberley	Stoke-on-Trent	32
Stacksteads	Rossendale	32
Golf Green	Tendring	32
Bitterne	Southampton	32
Kirkleatham	Redcar and Cleveland	32
Source: DfT 2017		

The majority of areas with long travel times are located in smaller towns, which are likely to be too small to contain a college. However, there are LBAs in some larger towns and cities (including two in Sunderland and two in Stoke-on-Trent) – in these communities it is likely to be poor public transport

provision rather than lack of a further education institution which contributes to the relatively long journey time recorded.

The table below shows LBAs which have both low rates of participation in higher education, as well as being in the top 20 LBAs with the longest travel times to a further education institution. Poor public transport links to areas of post-16 education may have contributed to lower levels of people continuing in education in these communities.

Left-behind Area	Local Authority	Travel time further education institution (mins)	% participation in higher education
Gainsborough East	West Lindsey	63	17.1
Sandwith	Copeland	39	16.9
Shepway South	Maidstone	35	18.6
Waterlees Village	Fenland	34	15.4
Bentilee and Ubberley	Stoke-on-Trent	32	16.3
England		21	40.3

Neighbourhoods in coastal areas have particularly long journey times to key health services

The table below identifies the 20 LBAs with the longest travel times to a GP. 49 of 225 LBAs record longer travel times to the GP than across England (13 minutes). St Osyth and Point Clear again has longer travel times than across other LBAs. Coastal areas feature predominantly in the list of LBAs with the longest travel times to a GP, with 13 of the 20 LBAs with the longest travel times in coastal areas.

Left behind area	Local Authority	GP (minutes)
St Osyth and Point Clear	Tendring	30
Sheppey East	Swale	30
Newbiggin Central and East	Northumberland	27
Sandwith	Copeland	26
Oak Tree	Mansfield	23
Coundon	County Durham	20
Littlemoor	Weymouth and Portland	20
Dane Valley	Thanet	20
Gainsborough East	West Lindsey	19
Paulsgrove	Portsmouth	19
Staithe	Fenland	19
Hemlington	Middlesbrough	19
Avondale Grange	Kettering	19
Moss Bay	Allerdale	18
Grangetown	Redcar and Cleveland	18
Leigh West	Wigan	17
Bondfields	Havant	17
Town and Pier	Dover	17
Easington	County Durham	17
Moorclose	Allerdale	17
Source: DfT 2017		

This pattern is also reflected when looking at travel times to a hospital. 8 of the 10 LBAs with the longest average travel times to the nearest hospital are located in coastal areas. These are heavily concentrated in Tendring (with five of the 10 neighbourhoods located in Tendring) and Swale (the Isle of Sheppey), with the remaining two in Wisbech in North Cambridgeshire. 77 of 225 LBAs have greater travel times to hospital than the England average (39 minutes), with the top 5 LBAs all recording more than double the England average and 18 LBAs having travel times of more than one hour to a hospital. Sheppey East has the longest travel time to a hospital and a GP – indicating the challenges to accessing health services in this LBA.

Left behind area	Local Authority	Hospital (minutes)
Sheppey East	Swale	97

Staithe	Fenland	80
St Osyth and Point Clear	Tendring	79
Golf Green	Tendring	79
Waterlees Village	Fenland	75
Rush Green	Tendring	74
Clarkson	Fenland	74
Sheerness	Swale	72
Walton	Tendring	70
St Marys	Tendring	68
Bitterne	Southampton	66
Stacksteads	Rossendale	65
Brookside	Telford and Wrekin	65
Alton Park	Tendring	64
Longbridge	Birmingham	61
Weoley	Birmingham	61
Moorclose	Allerdale	60
Irwell	Rossendale	60
Queensway	Wellingborough	59
Leigh West	Wigan	58
Source: DfT 2017		

50 of 225 LBAs have longer travel times to a secondary school than the England average (19 minutes). Again, the top five LBAs with the longest travel times to secondary schools are all in coastal locations, with Sandwith (in Whitehaven) and St Osyth and Point Clear (Tendring) again featuring among the areas with the longest travel times.

Left behind area	Local Authority	Secondary School (minutes)
Sandwith	Copeland	39
St Osyth and Point Clear	Tendring	36
Sheppey East	Swale	35
Golf Green	Tendring	32
Town and Pier	Dover	28
Irwell	Rossendale	27
Meir North	Stoke-on-Trent	27
Gainsborough East	West Lindsey	27
Shepway South	Maidstone	26
Fenside	Boston	26
Staithe	Fenland	25
Roseworth	Stockton-on-Tees	25
Shotton and South Hetton	County Durham	24
Oak Tree	Mansfield	24
Kings Heath	Northampton	24
Gorse Hill	Worcester	24
Moorside	West Lancashire	23
Fieldway	Croydon	23
Trimdon and Thornley	County Durham	23
Nelson	Great Yarmouth	23
Source: DfT 2017		

The majority of LBAs have short travel times to primary schools, with only 28 of 225 recording travel times of 10 minutes or more (above the national average of 9 minutes). Again, Newbiggin Central and East Sheppey East, St Osyth and Point Clear, and Sandwith feature among the LBAs with the longest travel times.

Left behind area	Local Authority	Primary school (minutes)
Newbiggin Central and East	Northumberland	23
Sheppey East	Swale	18
St Osyth and Point Clear	Tendring	17

Town and Pier	Dover	14
Sandwith	Copeland	13
Greenhill	North West Leicestershire	13
Golf Green	Tendring	13
Norton South	Stockton-on-Tees	12
Staithe	Fenland	12
Deneside	County Durham	12
Pier	Tendring	12
Wingfield	Rotherham	11
Walton	Tendring	11
Monk Bretton	Barnsley	11
Crewe St Barnabas	Cheshire East	11
Fenside	Boston	11
St Marys	Tendring	11
Cliftonville West	Thanet	11
Dearne North	Barnsley	10
Shotton and South Hetton	County Durham	10
Source: DfT 2017		

Fewer LBAs have longer travel times to a supermarket than the England average than for other key services, with only 17 LBAs recording longer travel times than on average across England (9 minutes). Three of the 5 LBAs with the longest travel times to a supermarket are in Knowsley on the outskirts of Liverpool.

Left behind area	Local Authority	Supermarket (minutes)
Shevington	Knowsley	17
Sheppey East	Swale	13
Stockbridge	Knowsley	12
St Michaels	Knowsley	12
Hough Green	Halton	12
Trimdon and Thornley	County Durham	11
Queensway	Wellingborough	11
Balderstone and Kirkholt	Rochdale	11
Sandwith	Copeland	10
St Osyth and Point Clear	Tendring	10
Irwell	Rossendale	10
Page Moss	Knowsley	10
Tong	Bradford	10
Bransholme West	Kingston upon Hull, City of	10
Norris Green	Liverpool	10
Shirebrook North West	Bolsover	10
Halton Brook	Halton	10
Town and Pier	Dover	9
Gainsborough East	West Lindsey	9
Moorside	West Lancashire	9
Source: DfT 2017		

81 LBAs have longer travel times to town centres than the England average (21 minutes). A relatively high number of these are located on the periphery of large cities including Clifton South (Nottingham), Fieldway (London), Hartcliffe and Witherwood (Bristol), Castle and Redhill (Sunderland) and Longford (Coventry).

Left behind area	Local Authority	Town centre (minutes)
Sheppey East	Swale	42
Maltby	Rotherham	42
St Osyth and Point Clear	Tendring	38
Washington North	Sunderland	35
Eston	Redcar and Cleveland	34

Clifton South	Nottingham	34
Dearne North	Barnsley	33
Fieldway	Croydon	33
Hartcliffe and Withywood	Bristol, City of	33
Trimdon and Thornley	County Durham	31
Grangetown	Redcar and Cleveland	30
Castle	Sunderland	30
Redhill	Sunderland	28
Oak Tree	Mansfield	28
Newbiggin Central and East	Northumberland	28
Stainforth & Barnby Dun	Doncaster	28
Grange	Gosport	28
Stainsby Hill	Stockton-on-Tees	28
Longford	Coventry	28
Sandwith	Copeland	27
Source: Dft 2017		

St Osyth and Point Clear and Sheppey East have longer travel times to all key services than the England average

The table below identifies the LBAs with higher than average travel times by walking or public transport across more than 5 key services. The column on the right records the number of services across which the LBA has longer travel times than the England average.

Left-behind Area	Local Authority	Number of services with above England average travel times
St Osyth and Point Clear	Tendring	8 (all key services)
Sheppey East	Swale	8 (all key services)
Sandwith	Copeland	7
Dearne North	Barnsley	6
Grangetown	Redcar and Cleveland	6
Trimdon and Thornley	County Durham	6
Newbiggin Central and East	Northumberland	6
Staithe	Fenland	6
Stainforth & Barnby Dun	Doncaster	6
Fieldway	Croydon	5
Wingfield	Rotherham	5
Hetton	Sunderland	5
Shepway South	Maidstone	5
Irwell	Rosendale	5
Oak Tree	Mansfield	5
Shotton and South Hetton	County Durham	5
Fenside	Boston	5

The coastal areas of St Osyth and Point Clear and Sheppey East both have longer travel times to all eight key services than the England average. The majority of other LBAs with long travel times to multiple services are located in rural areas or small towns. However, Fieldway on the outskirts of London also has relatively long travel times to key services by public transport, despite falling within the region with the most extensive public transport provision. This indicates the relatively isolated position of New Addington (where the ward is located) within the capital.

The majority of those LBAs with long travel times to multiple services also have low levels of car ownership

The table below lists the LBAs which record both multiple access to service issues (as recorded in the table above) as well as high proportions of people without access to a car or van.

Left-behind Area	Local Authority	% households with no car or van	% above England average
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Grangetown	Redcar and Cleveland	52.4	26.6
Sandwith	Copeland	43.2	17.4
Oak Tree	Mansfield	43.1	17.4
Fieldway	Croydon	42.4	16.6
Wingfield	Rotherham	38.6	12.8
Dearne North	Barnsley	38.2	12.4
Newbiggin Central and East	Northumberland	35.4	9.6
Fenside	Boston	34.3	8.5
Hetton	Sunderland	33.2	7.4
Shepway South	Maidstone	31.8	6.0

There are 10 LBAs ranking below the national average in terms of household car ownership and above the national average in terms of accessing five or more services by public transport. In Grangetown (Redcar) more than half of households have no access to a car or van despite the relative long travel times to key services and centres of employment.

Access to Health Services and Amenities

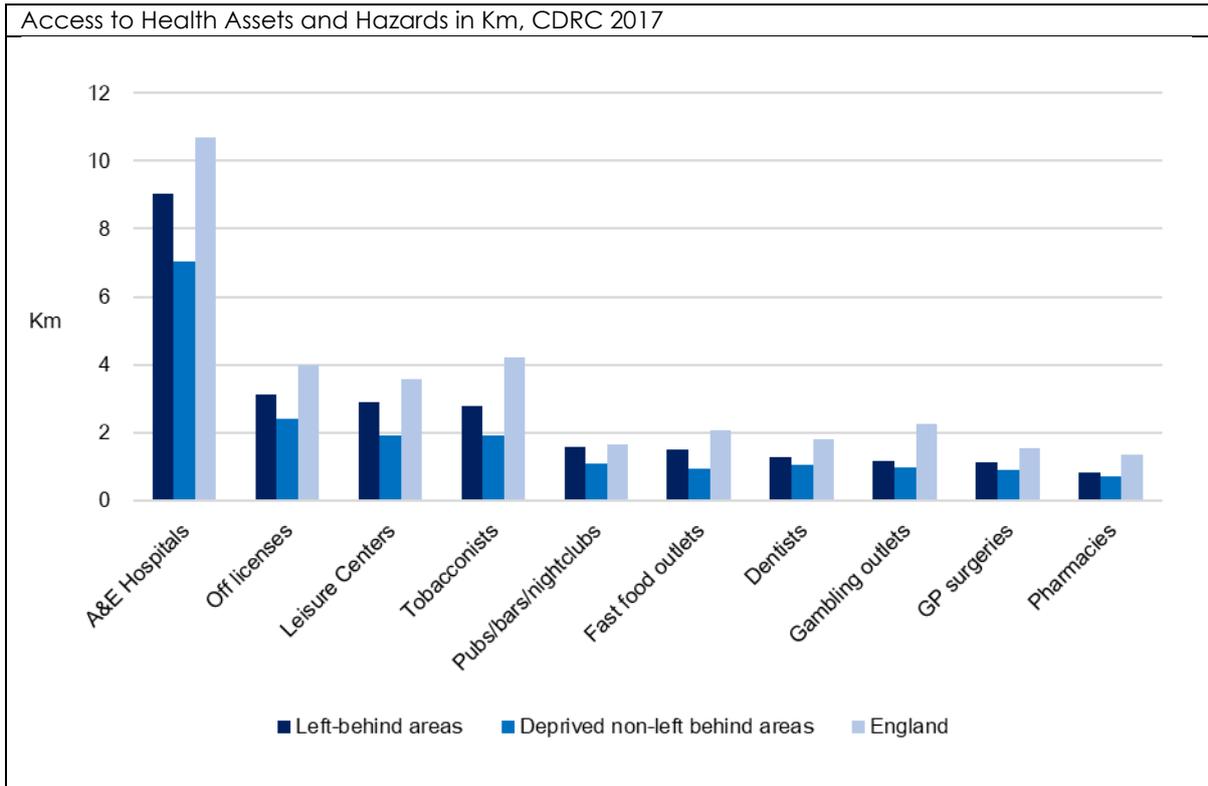
People living in LBAs live further from key health services than in other deprived areas, reflecting the longer journey times to access these services

The chart below shows accessibility to various health services based on road distance to these services (in kilometres). Figures are taken from the Index of Access to Healthy Assets and Hazards (AHAH) - a multi-dimensional index measuring how 'healthy' neighbourhoods are based on accessibility to health services and proximity to unhealthy hazards.

The chart below shows accessibility to various services based on road distance to these services (in kilometres).

There is a consistent pattern across all service types, with people living in LBAs travelling longer distances on average to access key services than across deprived non-LBAs. These findings reflect the longer travel times to key services explored in the previous section.

Access to Health Assets and Hazards in Km, CDRC 2017



There is a particularly large discrepancy for access to A&E hospitals, with people living in LBAs having to travel an additional 2km on average to access these services compared with those living in deprived non-LBAs.

80 of 225 LBAs have a greater distance to an A&E hospital compared to the England average (10.7km). The table below shows the 20 LBAs with the longest mean distance to an A&E hospital.

Left behind area	Local Authority	A&E hospitals (Km)
Sheppey East	Swale	35.7
Town and Pier	Dover	33.3
Sheerness	Swale	33.0
Harwich East	Tendring	33.0
Walton	Tendring	32.0
Abbey Hulton and Townsend	Stoke-on-Trent	32.0
Golf Green	Tendring	30.9
Bentilee and Ubberley	Stoke-on-Trent	29.0
Rush Green	Tendring	28.4
Gainsborough East	West Lindsey	28.0
Pier	Tendring	27.8
Alton Park	Tendring	27.6
St Marys	Tendring	26.9
St Osyth and Point Clear	Tendring	26.4
Blurton West and Newstead	Stoke-on-Trent	25.0
Meir North	Stoke-on-Trent	24.9
Clarkson	Fenland	24.2
Staithe	Fenland	24.0
Waterlees Village	Fenland	23.7
Tunstall	Stoke-on-Trent	23.7

Source: CDRC, 2017

The majority of these areas are situated in coastal areas in the South and East of England, including nine in Tendring and two on the Isle of Sheppey. Five areas in Stoke-on-Trent and three in Fenland also feature among the 20 LBAs that are the farthest distance from an A&E hospital.

The table below shows the 20 LBAs with the longest mean road distance to a GP surgery; 48 of 225 LBAs have a greater distance to a GP surgery compared to the England average (1.3km). In contrast to the A&E hospitals, the majority of these are located in the North of England, including five in Teesside. However, some areas feature in both lists including St Osyth and Point Clear, Harwich East and Staithe.

Left behind area	Local Authority	GP surgery (Km)
Hardwick and Salters Lane	Stockton-on-Tees	3.7
Sandwith	Copeland	3.1
Roseworth	Stockton-on-Tees	2.9
Hemlington	Middlesbrough	2.8
Town and Pier	Dover	2.5
Moss Bay	Allerdale	2.5
Kitty Brewster	Northumberland	2.3
Bondfields	Havant	2.3
Gainsborough East	West Lindsey	2.3
Halton Lea	Halton	2.2
Eston	Redcar and Cleveland	2.1
Stacksteads	Rossendale	2.1
Grangetown	Redcar and Cleveland	2.0
Talavera	Northampton	1.9
Harwich East	Tendring	1.9
Staithe	Fenland	1.9
Hetton	Sunderland	1.8
Whiteleas	South Tyneside	1.8
St Osyth and Point Clear	Tendring	1.8
Magdalen	Great Yarmouth	1.8

Source: MHCLG 2019

The table below shows the LBAs with longer distances and travel times to health services than the England average, as well as higher proportions of people with a limiting-long term illness. These areas are likely to experience both a high demand for health services and poor access to the services – further disadvantaging those with poor health in these communities.

Left-behind Area	Local Authority	% with a limiting long-term illness (aged 16-64)	AHAH: GP surgeries (km)	AHAH: A&E Hospitals (km)	Travel time GP (mins)	Travel time Hospital (mins)
Oak Tree	Mansfield	28.7	2.8	9.2	23	44
Rush Green	Tendring	25.4	1.8	28.4	15	74
Trimdon and Thornley	County Durham	23.6	3.7	15.0	16	36
Hemsworth	Wakefield	23.5	1.8	10.8	13	41
Moss Bay	Allerdale	23.3	2.6	14.9	18	54
Hetton	Sunderland	22.8	1.8	12.7	15	50
Sheppey East	Swale	22.3	8.8	35.7	30	97
England		12.7	1.6	10.7	13	39

Access to Education Services

The table below shows the 20 LBAs with the longest mean road distance to a primary school. A relatively small number of LBAs have poor access to a primary school, with only 10 LBAs more than 1km from the nearest primary school and only 35 of 225 LBAs having a greater distance to a primary school than the national average (0.9km).

Left behind area	Local Authority	Primary school (km)
Newbiggin Central and East	Northumberland	4.1

Sheppey East	Swale	2.9
St Osyth and Point Clear	Tendring	2.2
Golf Green	Tendring	1.4
Pier	Tendring	1.3
St Marys	Tendring	1.2
Paulsgrove	Portsmouth	1.1
Fenside	Boston	1.1
Pitsea South East	Basildon	1.1
Sandwith	Copeland	1.1
Greenhill	North West Leicestershire	1.0
Monk Bretton	Barnsley	1.0
Walton	Tendring	1.0
Shotton and South Hetton	County Durham	1.0
Balby South	Doncaster	1.0
Staithe	Fenland	1.0
Littlemoor	Weymouth and Portland	1.0
Town and Pier	Dover	1.0
Cherryfield	Knowsley	1.0
Easington	County Durham	0.9
Source: MHCLG 2019		

Access to community services

This section looks at the LBAs which have the poorest access to community and civic assets (services that have a positive social benefit or help people participate and engage in their locality). LBAs are typically lacking in these assets so it is unsurprising that they have, on average, greater road distances to these services than across deprived non-LBAs.

Access to Job Centres is important in LBAs where on average unemployment is relatively high⁵, digital access is poorer⁶ and there are fewer local job opportunities⁷.

The table below shows the LBAs with the longest average road distance from a Job Centre. 34 of 225 LBAs have greater average distances to a Job Centre than the England average (0.7 km). Areas of Tendring, Kent, Stoke-on-Trent, Kingston upon Hull and County Durham feature predominantly among the most poorly served areas.

⁵ with 10.6% of people in LBAs claiming unemployment benefits, compared with 6.6% in England as a whole (source: Department for Work and Pensions September 2020)

⁶ see the Digital connectivity section below

⁷ 52 jobs per 100 working age people in LBAs, compared with 77 across England as a whole – (source: Business Register and Employment Survey 2018)

Left behind area	Local Authority	Job Centre (km)
Walton	Tendring	13.4
Folkestone Central	Shepway	12.6
Sheppey East	Swale	11.2
Trimdon and Thornley	County Durham	9.8
Adwick le Street & Carcroft	Doncaster	8.0
Meir South	Stoke-on-Trent	8.0
Meir North	Stoke-on-Trent	7.9
St Osyth and Point Clear	Tendring	7.3
Bransholme East	Kingston upon Hull, City of	7.0
Talavera	Northampton	7.0
Longhill	Kingston upon Hull, City of	6.7
Washington North	Sunderland	6.6
Fieldway	Croydon	6.6
Blurton West and Newstead	Stoke-on-Trent	6.6
Stainforth & Barnby Dun	Doncaster	6.1
Henley	Coventry	6.1
Marfleet	Kingston upon Hull, City of	6.0
Bransholme West	Kingston upon Hull, City of	6.0
Shotton and South Hetton	County Durham	5.9
Blackhalls	County Durham	5.7
Source: Commission for Rural Communities (CRC) 2010		

The table below lists the LBAs that have the dual disadvantage of high levels of unemployment (above the average across LBAs) and poor access to employment services to help address their employment needs (Job Centres and areas with concentrations of jobs). Five LBAs are identified, including two in Kingston upon Hull – poor connectivity to employment services is likely to be a key driver of high unemployment in these neighbourhoods.

Left-behind Area	Local Authority	Travel time to employment centre (mins)	Road distance (meters) Job Centre	Unemployment claimants (%) (Sept-2020)
Orchard Park and Greenwood	Kingston upon Hull, City of	18	5,623.6	13.1
Bransholme East	Kingston upon Hull, City of	17	6,998.3	12.5
Fieldway	Croydon	15	6,638.1	12.4
St Osyth and Point Clear	Tendring	32	7,300.0	11.6
Hemlington	Middlesbrough	17	4,661.7	11.1
Left-behind areas		11	3164.4	10.6
Deprived non-left behind areas		9	2248.4	11.0
England		12	4636.6	6.6

The table below shows the neighbourhoods that are the longest road distance from a pub. Pubs play a really important role in many local communities, becoming community hubs for local businesses and other socio-economic activities and leisure services. They play an important role in an areas sense of community cohesion and the quality of life and wellbeing within a neighbourhood.

116 of 225 LBAs have greater average distances to a pub than the England average (728.5 meters). While many of these are located in areas in smaller towns, where there are general issues with accessing services, a number are also located in peripheral estates in larger communities including Maidstone, Merseyside, Tyneside, Birmingham, Northampton and Greater London.

Left behind area	Local Authority	Pub (meters)
Shepway South	Maidstone	1,945.5
Queensway	Wellingborough	1,837.9
Halton Castle	Halton	1,784.8
Halewood South	Knowsley	1,784.1
Greenhill	North West Leicestershire	1,762.2
Whiteleas	South Tyneside	1,676.3
Kingstanding	Birmingham	1,651.2
Horden	County Durham	1,586.1
Newington	Thanet	1,558.3
College	Northumberland	1,538.2
Littlemoor	Weymouth and Portland	1,522.5
Talavera	Northampton	1,489.4
Brambles & Thorntree	Middlesbrough	1,447.5
Becontree	Barking and Dagenham	1,393.9
Craghead and South Moor	County Durham	1,372.7
Pitsea North West	Basildon	1,357.9
Halton Lea	Halton	1,339.5
St Helens	Barnsley	1,334.5
Shotton and South Hetton	County Durham	1,329.9
Bede	South Tyneside	1,320.6
Source: Commission for Rural Communities (CRC) 2010		

The table below shows the LBAs with the longest average road distance from a Post Office. Post Offices can provide vital services in local communities, working to provide access to benefits and payments as well as essential banking services. These services are often particularly important to people in more deprived areas where access to alternative services is more restricted. 48 of 225 LBAs have to travel longer road distances to access a Post Office than the England average (1.1km). Those with poor access to Post Office are predominantly located in smaller communities throughout England, with Newbiggin Central and East showing the greatest distance from a Post Office (3.3km).

Left behind area	Local Authority	Post Office (Km)
Newbiggin Central and East	Northumberland	3.3
Kirkleatham	Redcar and Cleveland	2.7
Sandwith	Copeland	2.5
Halton Lea	Halton	2.0
Bransholme East	Kingston upon Hull, City of	1.9
Waterlees Village	Fenland	1.6
Fenside	Boston	1.6
Norton South	Stockton-on-Tees	1.6
Sheppey East	Swale	1.6
Jesmond	Hartlepool	1.5
Kings Heath	Northampton	1.5
Halton Castle	Halton	1.5
Oak Tree	Mansfield	1.4
Halton Brook	Halton	1.4
Paulsgrove	Portsmouth	1.4
Queensway	Wellingborough	1.4
Folkestone Central	Shepway	1.4
Kitty Brewster	Northumberland	1.3
Washington North	Sunderland	1.3
Bransholme West	Kingston upon Hull, City of	1.3
Source: MHCLG, 2019		

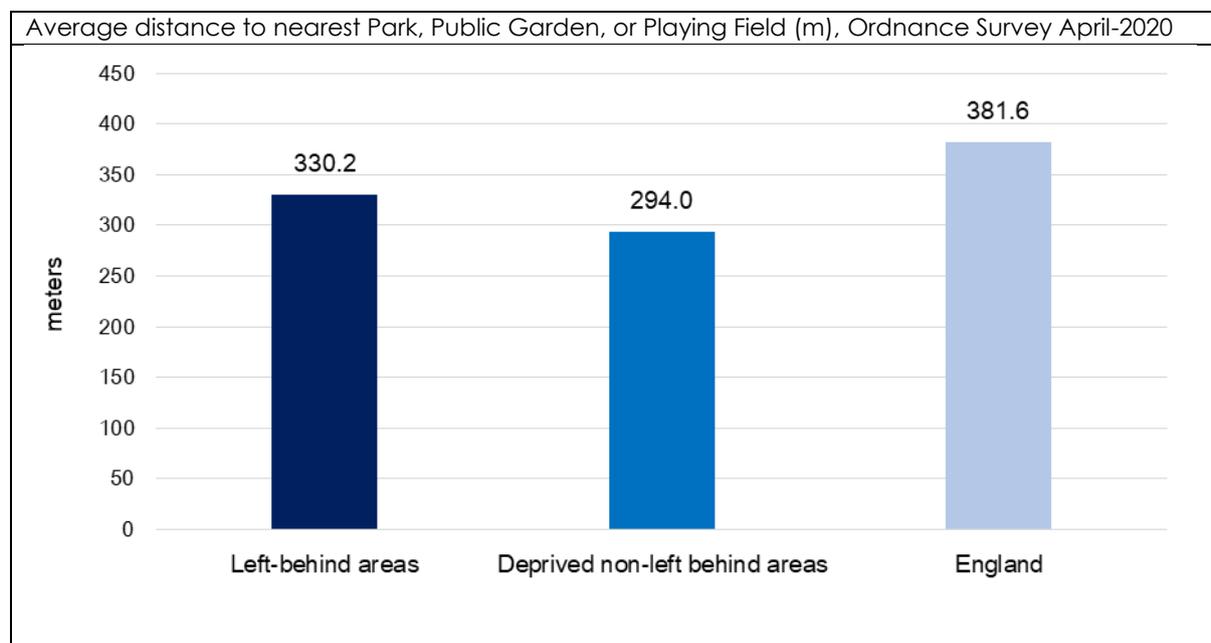
Leisure centres offer more to a local area than just physical health benefits, with exercise being an important component in mental health and wellbeing, leisure centres also provide a setting for social and community support. 49 of 225 LBAs have to travel longer road distances to a leisure centre than

the England average (3.6km). Again, Isle of Sheppey and Tendring feature among the 20 LBAs with the poorest access, with parts of Yorkshire (Doncaster and Wakefield) and rural Lancashire (Rossendale) also featuring.

Left behind area	Local Authority	Leisure centres (Km)
Sheppey East	Swale	19.9
Sheerness	Swale	18.7
Walton	Tendring	13.1
South Elmsall and South Kirkby	Wakefield	11.0
Irwell	Rossendale	10.8
Trimdon and Thornley	County Durham	10.4
Hemsworth	Wakefield	9.4
Stacksteads	Rossendale	8.4
Stainforth & Barnby Dun	Doncaster	8.2
Hetton	Sunderland	8.1
St Osyth and Point Clear	Tendring	7.6
Shotton and South Hetton	County Durham	7.3
Magdalen	Great Yarmouth	7.0
Shirebrook North West	Bolsover	6.7
Adwick le Street & Carcroft	Doncaster	6.4
Littlemoor	Weymouth and Portland	6.3
Fieldway	Croydon	5.7
Blackhalls	County Durham	5.6
Meir North	Stoke-on-Trent	5.4
Bloxwich West	Walsall	5.3

Source: CDRC, 2017

The chart below shows the average distance to the nearest park, public garden or playing field across LBAs, other deprived areas and England. Green spaces, particularly in urban settings, provide many benefits to local working communities often linking to key service facilities leading to improvements in physical fitness, mental health and an overall sense of community space and wellbeing. As with other key indicators, LBAs have poorer access to green spaces than across other deprived areas.



The table below shows the LBAs with the greatest average distance to the nearest Park, Public Garden, or Playing Field.

Left behind area	Local Authority	Average distance (meters)
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Littlemoor	Weymouth and Portland	1,113.0
Paulsgrove	Portsmouth	1,058.0
St Osyth and Point Clear	Tendring	811.9
Gainsborough East	West Lindsey	799.3
Roseworth	Stockton-on-Tees	716.3
Staithe	Fenland	687.8
Pier	Tendring	668.3
Hemlington	Middlesbrough	667.1
Peterlee East	County Durham	660.7
Castle	Sunderland	648.3
Sheppey East	Swale	645.7
Coundon	County Durham	631.8
Manor House	Hartlepool	610.9
Longhill	Kingston upon Hull, City of	604.8
Town and Pier	Dover	549.3
Bede	South Tyneside	538.7
Kings Norton	Birmingham	524.8
Kitty Brewster	Northumberland	519.5
Shotton and South Hetton	County Durham	512.9
Smith's Wood	Solihull	508.7
Source: Ordnance Survey April-2020		

Access to commercial services

Lack of access to affordable food can exacerbate disadvantage in low income communities. The Red Cross have produced a Food Vulnerability Index which measures risk of food insecurity across neighbourhoods in England⁸ and shows higher levels of food insecurity in LBAs than other deprived areas and England as a whole⁹. However, the majority of people in LBAs live in close proximity to a food store, with only five LBAs living 1km or more from a food store and only 21 LBAs experiencing poorer access to a supermarket/food store than the national average. The table below shows LBAs that are the longest road distance from a general store or supermarket. The majority of these have poor general access to services.

Left behind area	Local Authority	Supermarket (km)
Norton South	Stockton-on-Tees	1.3
Sheppey East	Swale	1.1
St Osyth and Point Clear	Tendring	1.0
Oak Tree	Mansfield	1.0
Halton Lea	Halton	1.0
Brookside	Telford and Wrekin	0.9
Pitsea South East	Basildon	0.9
Hemlington	Middlesbrough	0.9
Bransholme West	Kingston upon Hull, City of	0.9
Irwell	Rossendale	0.9
Hough Green	Halton	0.9
Longdendale	Tameside	0.9
Stockbridge	Knowsley	0.8
Aycliffe West	County Durham	0.8
Shevington	Knowsley	0.8
Gainsborough East	West Lindsey	0.7
Eston	Redcar and Cleveland	0.7
Greenhill	North West Leicestershire	0.7

⁸ See https://docs.google.com/document/d/1aWpzyvLKGf5Ay_xVps17nnbT1zIEki7RGIIJXL5APo/edit#heading=h.6576u7dtopmw for details of how the index is constructed and component indicators

⁹ LBAs had an average Food Vulnerability Index score of 274.1, compared with 243.3 in other deprived areas and 198.0 across England as a whole.

Easington	County Durham	0.7
Redhill	Sunderland	0.7
Source: MHCLG 2019		

72 of 225 LBAs have greater average road distances to the nearest bank or building society than the England average (1,980.5 meters). The table below shows the 20 LBAs with the longest distance to a bank or building society.

Sheppey East has the greatest average road distance to a bank or building society, while four LBAs in County Durham rank among the 20 areas with the greatest distances from a bank or building society.

Left behind area	Local Authority	Bank or building society (meters)
Sheppey East	Swale	21,239.4
Trimdon and Thornley	County Durham	5,971.6
Longdendale	Tameside	4,410.6
Blackhalls	County Durham	4,133.0
Oak Tree	Mansfield	3,718.3
Warndon	Worcester	3,640.7
Choppington	Northumberland	3,638.7
Greenhill	North West Leicestershire	3,556.9
Castle	Sunderland	3,544.7
Golf Green	Tendring	3,528.4
Hough Green	Halton	3,523.1
Easington	County Durham	3,502.9
Coundon	County Durham	3,338.4
De Bruce	Hartlepool	3,337.3
Grange	Gosport	3,291.4
Hardwick and Salters Lane	Stockton-on-Tees	3,165.1
Binley and Willenhall	Coventry	3,120.9
Manor House	Hartlepool	3,114.1
Airedale and Ferry Fryston	Wakefield	3,043.6
Bentilee and Ubberley	Stoke-on-Trent	3,033.9
Source: Commission for Rural Communities (CRC) 2010		

The table below shows the 20 LBAs with the longest distance to an ATM machine. 11 of 225 LBAs have greater distances to ATM machines than the England average (748.6 meters).

Left behind area	Local Authority	ATM machine (meters)
Irwell	Rossendale	1048.1
Sandwith	Copeland	965.3
Brookside	Telford and Wrekin	942.5
Belle Vale	Liverpool	913.9
Sheppey East	Swale	843.2
Hemsworth	Wakefield	793.8
Hemlington	Middlesbrough	787.6
Greenhill	North West Leicestershire	779.5
Page Moss	Knowsley	776.9
Town and Pier	Dover	759.7
Manor House	Hartlepool	756.6
Stockbridge	Knowsley	744.6
Hough Green	Halton	725.7
Oak Tree	Mansfield	721.1
St Michaels	Knowsley	705.5
Charlestown	Manchester	697.2
Norris Green	Liverpool	678.5
Little Hulton	Salford	677.5
Airedale and Ferry Fryston	Wakefield	676.4
Halewood South	Knowsley	668.6
Source: Commission for Rural Communities (CRC) 2010		

Access to banks and financial services is important for those on low incomes. The table below identifies LBAs that have greater than the England average road distance to an ATM machine and bank or building society, as well as more than double the national average levels of income deprivation as measured on the Indices of Deprivation (ID) 2019.

Left-behind areas	Local Authority	ATM (meters)	Bank or Building Society (meters)	ID 2019 Income Score (rate) (higher = more deprived)
Manor House	Hartlepool	756.6	3,114.1	35.0
Sandwith	Copeland	965.3	2,367.9	30.3
Hemlington	Middlesbrough	787.6	3,015.0	29.6
Belle Vale	Liverpool	913.9	2,411.6	29.2
Brookside	Telford and Wrekin	942.5	2,206.4	26.1
Sheppey East	Swale	843.2	21,239.4	25.5
Greenhill	North West Leicestershire	779.5	3,556.9	21.8
Left-behind areas		441.4	1,742.4	26.7
Deprived (non-LBAs)		346.2	1,233.2	25.9
England		748.6	1,980.5	12.9

69 of 225 LBAs have greater distances to the nearest petrol station than the England average (1,447 meters). Again, Sheppey East has the poorest access to this key service, with a number of other LBAs in smaller communities in the North East also experiencing relatively poor access to a petrol station.

Left behind area	Local Authority	Petrol station (meters)
Sheppey East	Swale	13,337.5
Newbiggin Central and East	Northumberland	3,570.3
Walton	Tendring	3,426.4
Trimdon and Thornley	County Durham	3,090.2
Shotton and South Hetton	County Durham	2,861.9
St Osyth and Point Clear	Tendring	2,433.3
Talavera	Northampton	2,421.4
Craghead and South Moor	County Durham	2,253.0
Walker	Newcastle upon Tyne	2,204.6
Redhill	Sunderland	2,195.2
Coundon	County Durham	2,194.5
Windy Nook and Whitehills	Gateshead	2,181.9
Yew Tree	Liverpool	2,181.4
Sandwith	Copeland	2,164.7
Moorclose	Allerdale	2,139.8
Magdalen	Great Yarmouth	2,139.5
Littlemoor	Weymouth and Portland	2,131.2
Wingfield	Rotherham	2,124.6
Blackhalls	County Durham	2,088.1
Hough Green	Halton	2,072.5

Source: Commission for Rural Communities (CRC) 2010

Access to private transport and travel to work in Left-Behind Areas

This section explores access to private transport in LBAs, identifying areas which lack access to a private car and/or have high levels of public transport dependency. The information in this section is taken from the Census 2011. The census contains a range of indicators measuring access to private transport and travel to work methods alongside other socio-economic indicators that can be used in combination to determine which groups experience the greatest access issues. The benefit of census data is that it can be linked to other census response questions to identify which groups and households face multiple needs, as well as lacking access to private transport. Furthermore, because the data is collected from 100% sample of the population, the data is robust at granular level. However, the data is increasingly out of date (as it is based on survey responses from 2011).

Key findings

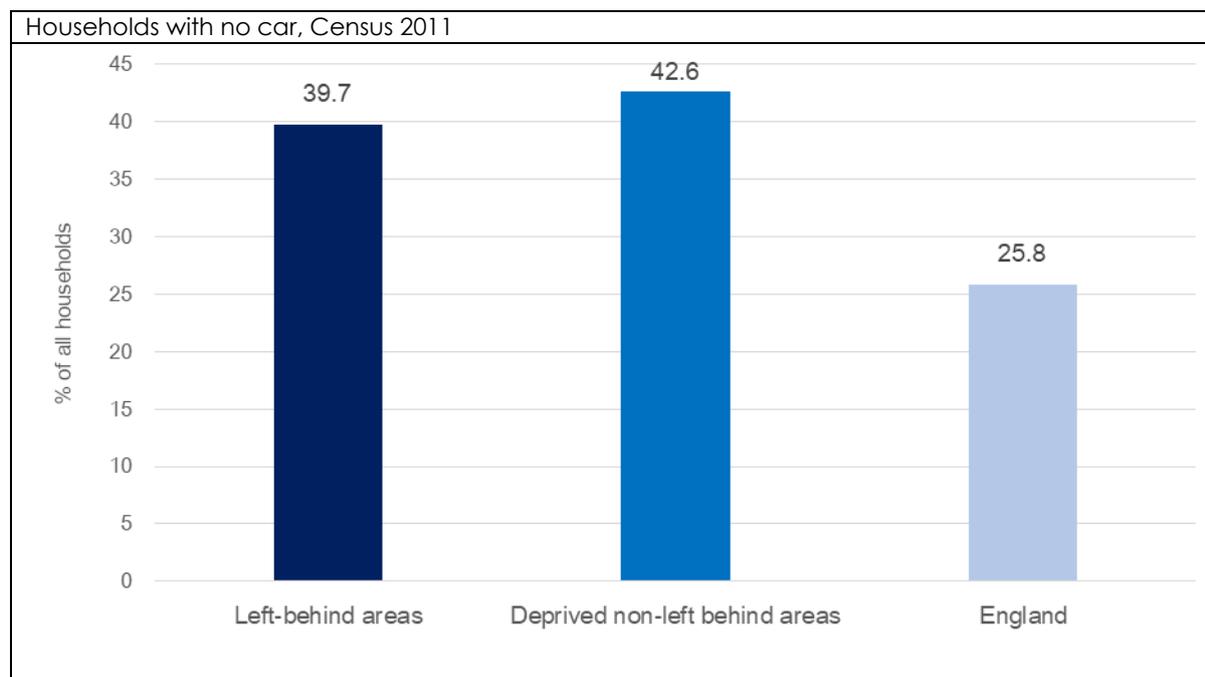
- A higher proportion of households in LBAs (39.7%) have no car than across England as a whole (25.8%)
- Older people are less likely to have access to a car than any other age group with just under half of all pensioner households (46.7%) lacking access to a car.
- Households in LBAs are nearly twice as likely to be out of work with no access to a car (24.3%), compared with England as a whole (13.3%) - this group is likely to experience additional barriers to employment due to a lack of access to work opportunities.
- Grangetown (Redcar and Cleveland) and Orchard Park and Greenwood (Kingston upon Hull) have the highest concentrations of unemployed people with no car, and are also ranked among those with the poorest public transport access to employment - poor connectivity to employment is likely to be a key driver of worklessness in these communities.
- People living in LBAs are more likely to have poor health and disability and no car - 16.4% of people living in LBAs had a limiting long-term illness and no car, compared with 15.1% across deprived non-LBAs and England (8.7%).
- People in LBAs were more likely to use private motor vehicles to travel to work (66.6% compared with 62.9% in England as a whole) - by contrast, a lower proportion of people travel to work by public transport (15.8% compared with 16.9% in England).
- There were lower levels of long-distance commuting in LBAs and despite the relatively low number of jobs available, the majority of employees (55.6%) in these areas worked "locally" (travelling less than two kilometres to work) – above the national average (47.3%).
- However, a higher proportion of those in LBAs travelling longer distances (more than 10km) also have no access to a car - 5.2% of people in LBAs travel more than 10km to work and have no car, compared to the national average (4.4%) – these people are more likely to be dependent on public transport. This is potentially problematic as the provision of public transport is relatively poor in these areas.

Car ownership in Left-behind Areas

A higher proportion of households in LBAs have no car than across England as a whole, with two-in-five households with no access to a car

The chart below shows the proportion of households in LBAs, deprived (non-LBAs) and England that have no car. It shows that a higher proportion of households in LBAs have no car than across England (39.7% compared to 25.8%), though a slightly lower proportion than across other deprived areas

(42.6%). However, as explored above, travel times by public transport to key services and amenities are generally higher in LBAs, therefore those with no car are likely to have greater barriers to accessing services in these areas.



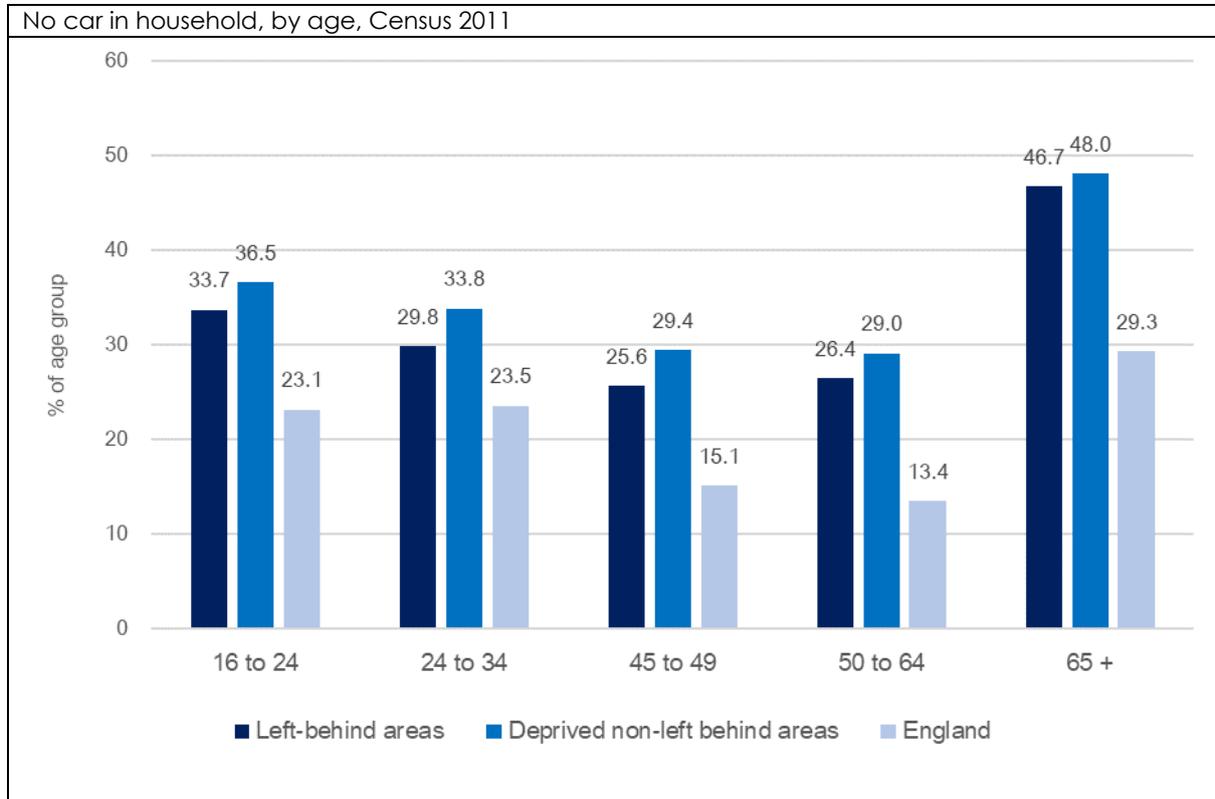
221 of 225 LBAs have a higher proportion of people with no car than the England average (1.9%). The table below shows the 20 LBAs with the highest rates. In each of these areas, more than half of all households had no car. Unsurprisingly, the highest rates are predominantly found in urban areas, with 19 of the 20 areas located in the North of England.

Left behind area	Local Authority	Households with no car
Stockton Town Centre	Stockton-on-Tees	64.0
Walker	Newcastle upon Tyne	63.7
Bloomfield	Blackpool	63.4
Byker	Newcastle upon Tyne	61.8
North Ormesby	Middlesbrough	61.3
St Andrew's	Kingston upon Hull, City of	60.0
Harpurhey	Manchester	58.3
Hendon	Sunderland	56.7
Miles Platting and Newton Heath	Manchester	56.1
Berwick Hills & Pallister	Middlesbrough	55.8
Brambles & Thorntree	Middlesbrough	55.6
Orchard Park and Greenwood	Kingston upon Hull, City of	55.2
Nelson	Great Yarmouth	54.9
Northwood	Knowsley	54.7
Simonside and Rekendyke	South Tyneside	52.9
Grangetown	Redcar and Cleveland	52.4
Norris Green	Liverpool	52.1
Page Moss	Knowsley	52.1
Stockbridge	Knowsley	52.1
Speke-Garston	Liverpool	52.0

Source: Census 2011

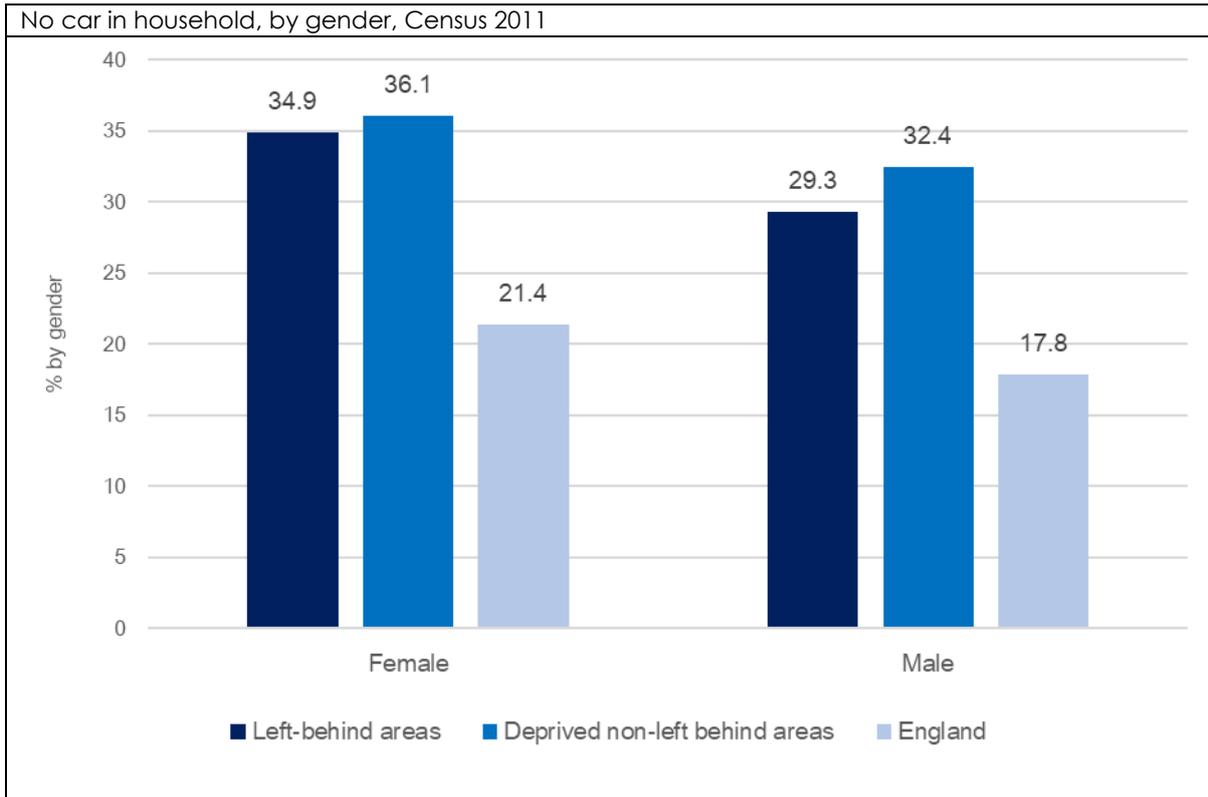
Older people are less likely to have access to a car than any other age group with just under half of all pensioner households lacking access to a car.

The chart below shows the proportion of households with no car by age band. The chart shows that older households are more likely to have no access to a car (46.7%) than other age groups in LBAs. Older households are more likely to have health and mobility problems and are more likely to be dependent on transport to travel longer distances. The gap in car ownership between LBAs and England as a whole is greatest for those age 65+ (though LBAs have lower car ownership than England as a whole across all age groups).



The chart below shows the proportion of households with no car by gender. The chart shows that females are more likely to live in households with no car than males across LBAs and comparators alike. This is likely to be linked to the age profile of these households, with females more likely to live in older person households.

No car in household, by gender, Census 2011



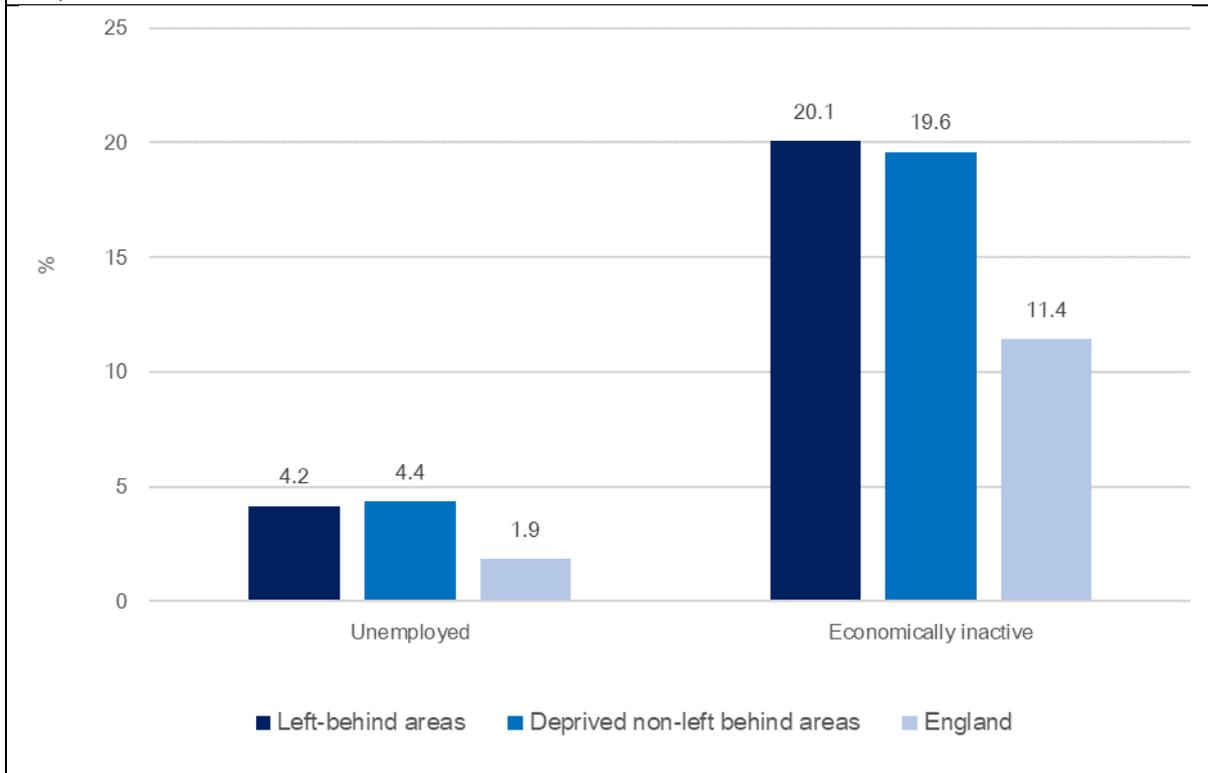
Vulnerable groups with no access to a car

Households in LBAs are nearly twice as likely to be out of work with no access to a car, compared with England as a whole

The chart below shows the proportion of people (aged 16+) that are out of work and have no access to a car (as a proportion of all aged 16+ living in households). The proportion of people in LBAs who are unemployed *and* where there is no car in the household (4.2%) is double the national average (1.9%) though slightly below the average across deprived non-LBAs (4.4%). This group is likely to experience additional barriers to employment due to a lack of transport to access work opportunities. This is a particular challenge in LBAs where travel times by public transport to centres of employment are higher than across deprived non-LBAs.

More than one-in-five people in LBAs are characterised as economically inactive (out of work due to health or caring responsibilities) *and* have no access to a car (20.1%), slightly above the average across deprived non-LBAs (19.6%) and notably above the average across England as a whole (11.4%).

Proportion of households that are out of work and have no car, Census 2011



Areas in Teeside and Hull have the highest concentrations of unemployed people with no car, a number of these areas also ranked among those with the poorest public transport access to employment

221 of 225 LBAs have a higher proportion of people with no car who are also unemployed compared to the England average (1.9%). The table below shows the 20 LBAs with the highest rates.

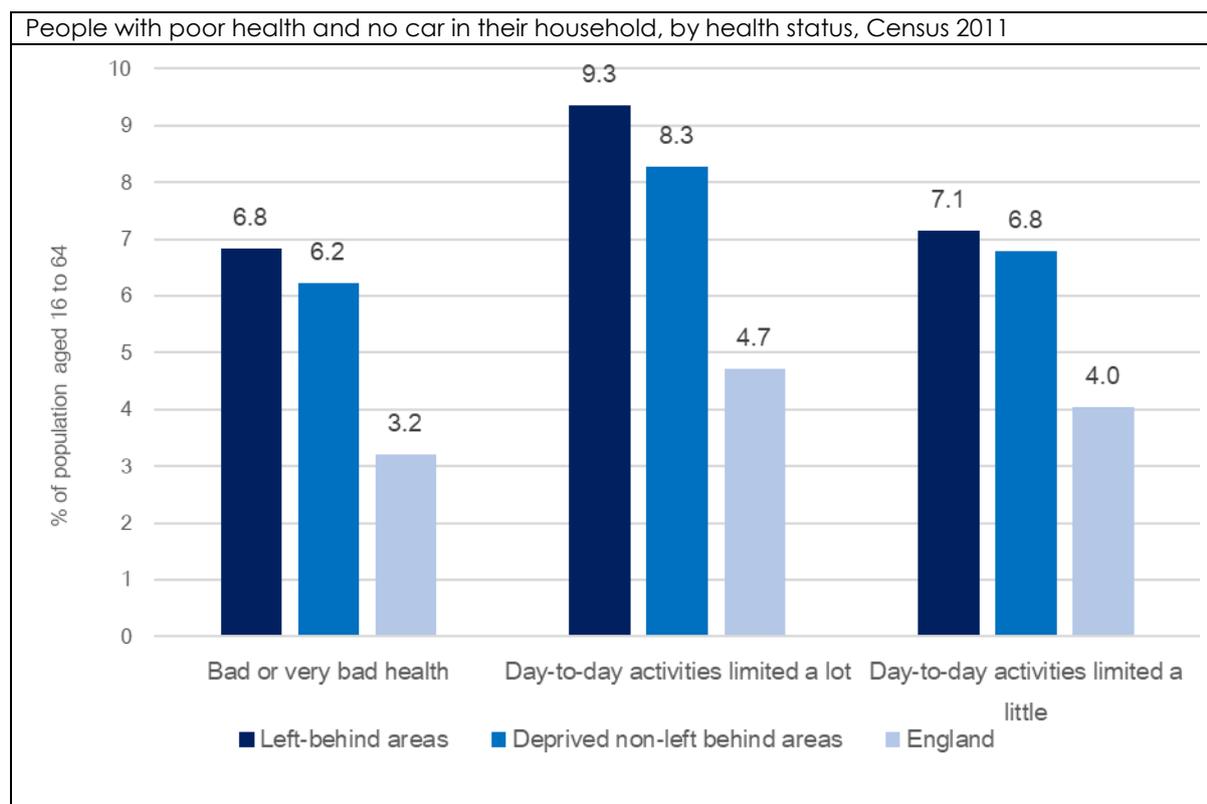
Left behind area	Local Authority	No car, unemployed
North Ormesby	Middlesbrough	11.4
St Andrew's	Kingston upon Hull, City of	9.7
Grangetown	Redcar and Cleveland	9.4
Orchard Park and Greenwood	Kingston upon Hull, City of	9.2
Stockton Town Centre	Stockton-on-Tees	9.2
Nelson	Great Yarmouth	8.1
Brambles & Thorntree	Middlesbrough	7.9
Cliftonville West	Thanet	7.7
Walker	Newcastle upon Tyne	7.7
Marfleet	Kingston upon Hull, City of	7.6
Bloomfield	Blackpool	7.6
Manor House	Hartlepool	7.2
Byker	Newcastle upon Tyne	7.0
Bransholme East	Kingston upon Hull, City of	7.0
Hendon	Sunderland	7.0
Southcoates East	Kingston upon Hull, City of	6.7
Berwick Hills & Pallister	Middlesbrough	6.7
Simonside and Rekendyke	South Tyneside	6.4
Headland and Harbour	Hartlepool	6.4
Norris Green	Liverpool	6.2

Source: Census 2011

Unsurprisingly, the highest rates are predominantly found in urban areas that are characterised by high levels of worklessness – with six around Teeside and five in Kingston upon Hull. Grangetown in Redcar and Orchard Park and Greenwood in Kingston upon Hull are ranked among the top 20 LBAs both in terms of unemployment with no car *and* long travel times by public transport to employment centres. Poor connectivity to employment is likely to be a key driver of worklessness in these communities.

People living in LBAs are more likely to have poor health and disability and no car

The chart below shows the proportion of people in poor health *and* with no access to a car in the household. 16.4% of people living in LBAs had a limiting long-term illness, above the average across other deprived areas (15.1%) and notably above the average across England as a whole (8.7%). In addition, 6.8% of people with self-reported “bad” or “very bad” health were living in LBAs, above the average for deprived non-LBAs (6.2%) and more than double the average across England as a whole.



221 of 225 LBAs have higher proportions of working-age population who have no car and whose daily activities are limited a lot. The table below shows the 20 individual LBAs with the highest proportions of working-age people with no access to a car who are limited a lot in their day-to-day activities. Ten of these areas record rates more than three times the England average (4.7%) with concentrations around Merseyside, Middlesbrough and Newcastle.

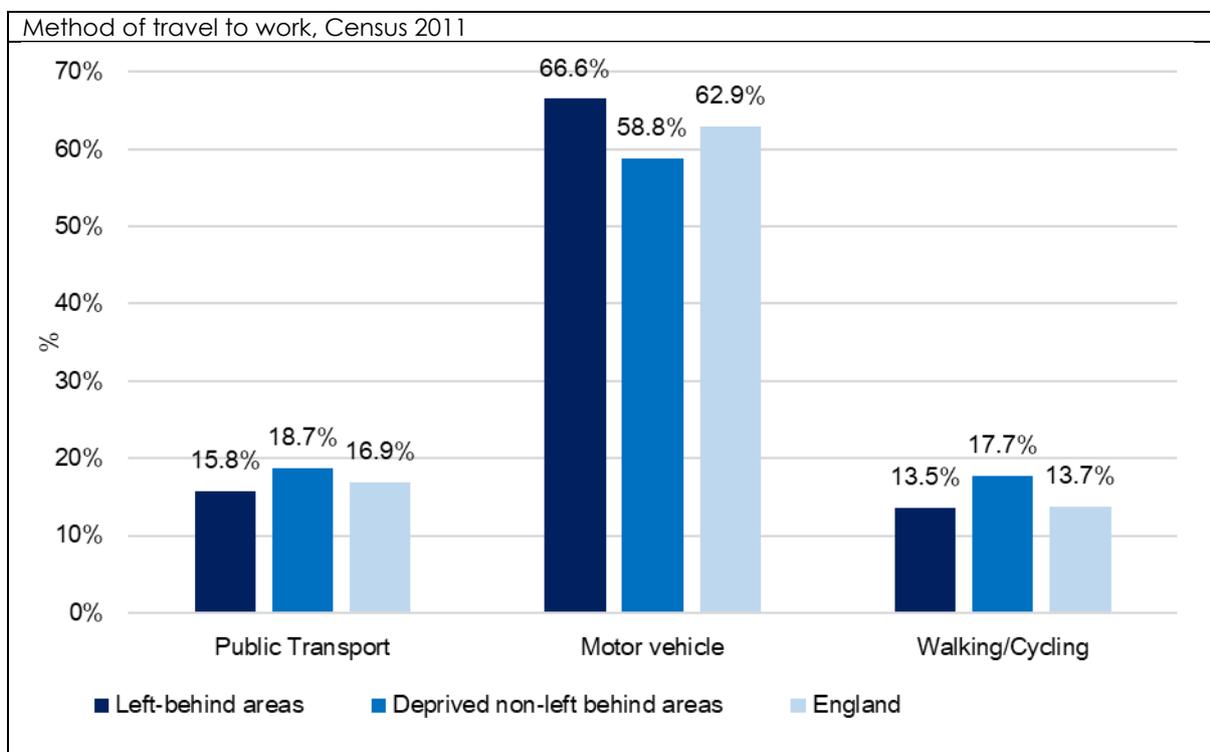
Left behind area	Local Authority	No car, daily activities limited a lot
Shirebrook North West	Bolsover	16.2
Walker	Newcastle upon Tyne	15.9
Golf Green	Tendring	15.4
Northwood	Knowsley	15.3
Page Moss	Knowsley	15.2
Stockbridge	Knowsley	15.1
Stockton Town Centre	Stockton-on-Tees	14.6
Southwick	Sunderland	14.6
Norris Green	Liverpool	14.2
Belle Vale	Liverpool	14.1
Bidston and St James	Wirral	13.9
Miles Platting and Newton Heath	Manchester	13.7
Brambles & Thorntree	Middlesbrough	13.7
Horden	County Durham	13.4
Redhill	Sunderland	13.3
Park End & Beckfield	Middlesbrough	13.1
Byker	Newcastle upon Tyne	13.0
Speke-Garston	Liverpool	13.0
Simonside and Rekendyke	South Tyneside	13.0
Berwick Hills & Pallister	Middlesbrough	12.9

Source: Census 2011

Travel to work in Left-behind Areas

People in LBAs were more likely to use private motor vehicles to travel to work

The chart below explores the principle method of travel to work across LBAs and their comparators (as a proportion of all people in employment).



People living in LBAs are more likely to be dependent on private transport to access employment, with two-thirds of employees traveling to work by motor vehicle, compared with 58.8% in other deprived

areas and 62.9% in England as a whole. By contrast, a lower proportion of people travel to work by public transport (15.8%) than across other deprived areas (18.7%) and England (16.9%). This is likely to reflect the relatively poor public transport provision in LBAs¹⁰.

The table below shows the LBAs with the highest proportion of people travelling to work by private transport. Five of the 10 areas are located in County Durham, indicating the relatively poor public transport provision in this area.

Left behind area	Local Authority	Proportion of employees traveling to work by car or other motorised vehicle
Shotton and South Hetton	County Durham	81.5
Trimdon and Thornley	County Durham	81.4
Blackhalls	County Durham	81.3
Easington	County Durham	80.0
Meir South	Stoke-on-Trent	79.1
Choppington	Northumberland	78.8
Greenhill	North West Leicestershire	78.3
Irwell	Rossendale	77.9
Ferryhill	County Durham	77.9
Camp Hill	Nuneaton and Bedworth	77.4

Similarly, people in LBAs are less likely to walk or cycle to work. This is slightly surprising given that a higher proportion of people work locally (see above). Two possible causes for this are relatively poor walking and cycling provision in these areas and lower levels of physical activity.

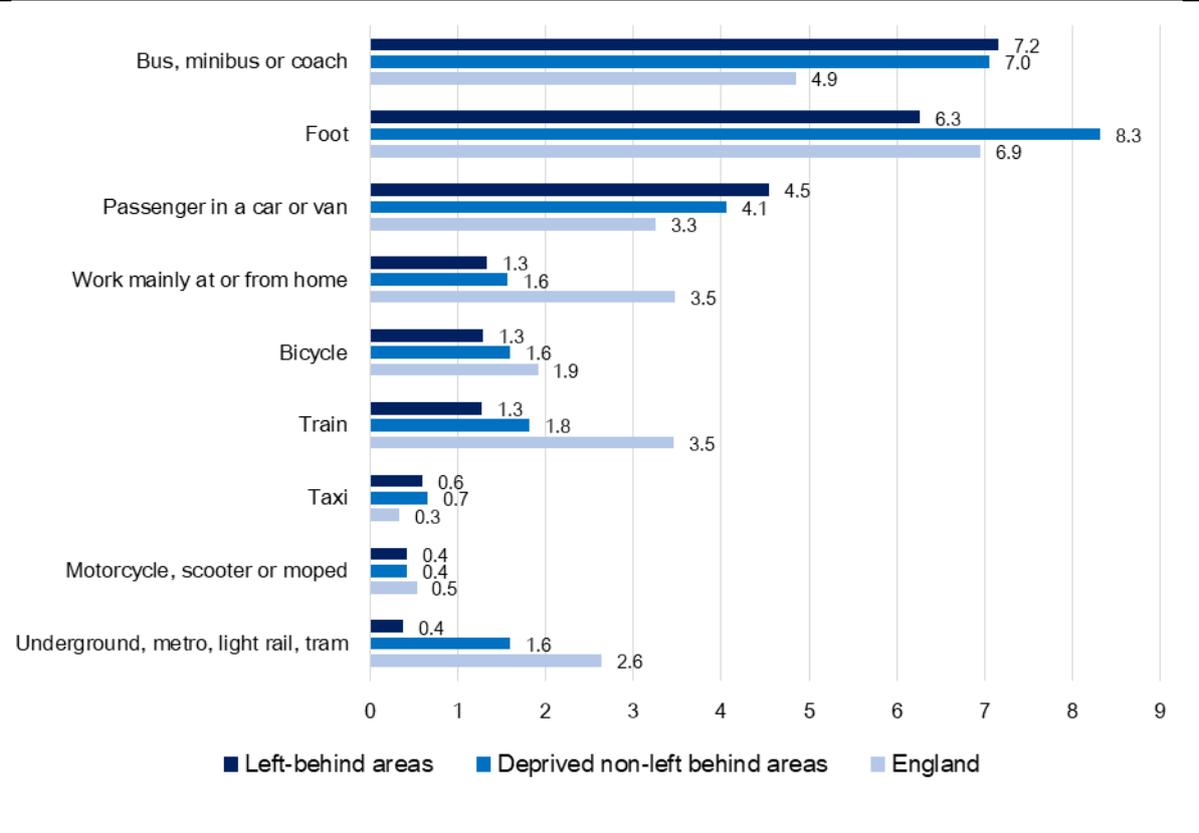
People in LBAs are also more likely to travel to work by bus

The table below provides breakdowns of the main method of travel to work, excluding those travelling by car.

Other than by driving a car or van, the main method of transport to work in LBAs is by bus, minibus or coach where a higher proportion of people use this method to get to work than in other deprived areas or England, at 7.2% compared to 7% in deprived (non-LBAs) and 4.9% in England.

¹⁰ See Access to Services section above

% travelling to work by method, Census 2011

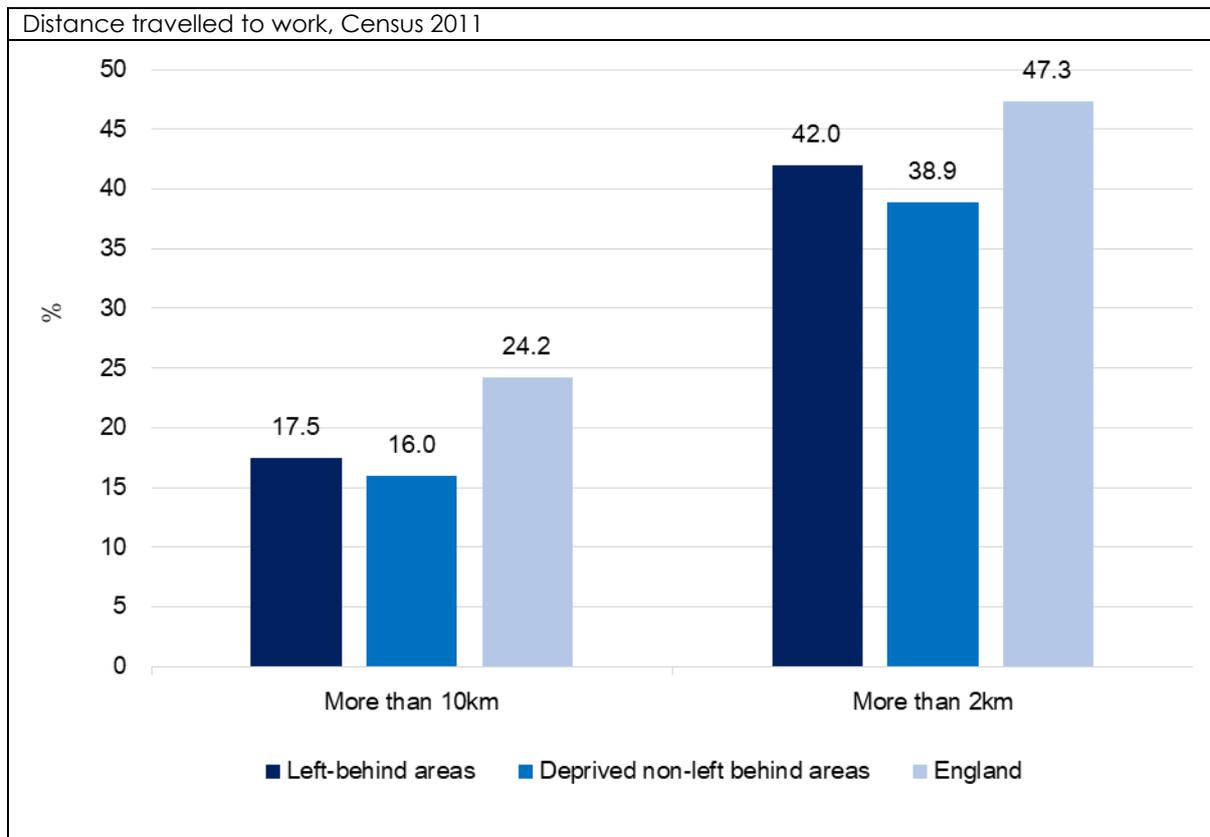


183 of the 225 LBAs have a lower proportion of people traveling to work by public transport than the national average. The table below shows the 20 LBAs with the lowest proportion of people travelling to work by public transport. There are clear geographic patterns, with three of the five areas with the lowest proportion of people traveling by public transport located in Wisbech (in Fenland) – one of the largest towns in the UK with no railway station. A further seven were located in County Durham, three in Tendring and five in the East Midlands.

Left behind area	Local Authority	% traveling to work by public transport
Staithe	Fenland	1.3
Gainsborough East	West Lindsey	1.4
Waterlees Village	Fenland	1.6
Sheppey East	Swale	1.8
Clarkson	Fenland	2.4
Horden	County Durham	2.6
Fenside	Boston	2.9
Easington	County Durham	2.9
Rush Green	Tendring	2.9
St Marys	Tendring	2.9
Peterlee West	County Durham	3.0
Avondale Grange	Kettering	3.0
Peterlee East	County Durham	3.1
Blackhalls	County Durham	3.1
Shotton and South Hetton	County Durham	3.1
Queensway	Wellingborough	3.2
Crewe St Barnabas	Cheshire East	3.3
Woodhouse Close	County Durham	3.4
Greenhill	North West Leicestershire	3.4
St Osyth and Point Clear	Tendring	3.6

There were lower levels of long-distance commuting in LBAs than the national average

The chart below shows the proportion of people who travel more than 10km and more than 2km to work in LBAs, other deprived areas and England.



Despite the relatively low number of jobs available across LBAs, the majority of employees (55.6%) in these areas worked “locally” (travelling less than two kilometres to work) – above the national average (47.3%) – though slightly below other deprived areas (58.3%) - where there are more local job opportunities.

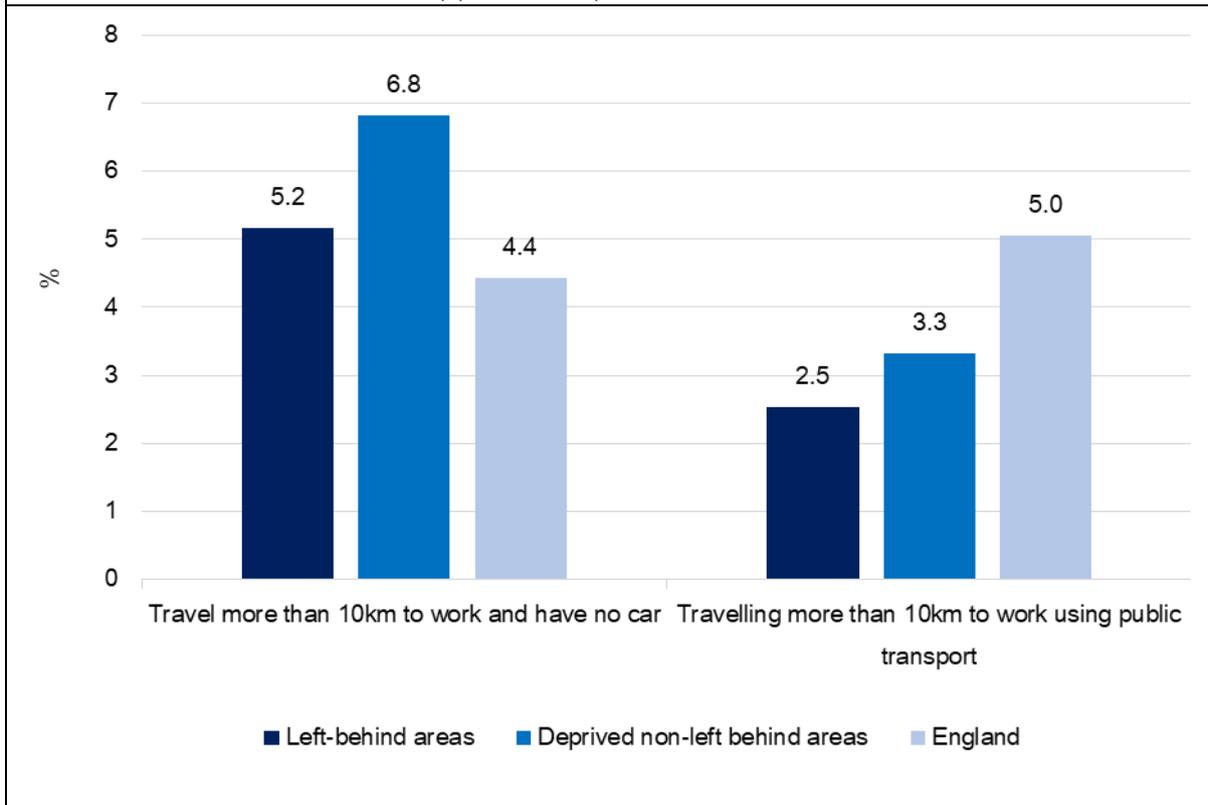
A similar pattern is observed when looking at longer distance commuting, with 17.5% of employees in LBAs traveling more than 10km to work – slightly above the average across deprived non-LBAs (16%) but below the average across England as a whole (24.2%). This is likely to reflect the location of many of these neighbourhoods, which are typically more likely to be in peripheral out-of-town housing estates or satellite towns compared with other deprived areas (therefore necessitating longer journeys to work). By contrast, LBAs are less likely to be in rural areas, or in London commuter belt areas (two groups which constitute a large proportion of long-distance commuters) than the national average, explaining why we are seeing less evidence of long distance commuting.

However, a higher proportion of those in LBAs travelling longer distances (more than 10km) also have no access to a car

5.2% of people in LBAs travel more than 10km to work and have no car, compared to the national average (4.4%) – these people are more likely to be dependent on public transport. This is potentially problematic as the provision of public transport is relatively poor in these areas¹¹.

¹¹ Public transport travel times to key services and employment centres was a key metric of the Community Needs Index, used to identify whether areas were 'left behind'.

Travelled more than 10km to work by public transport and no access to car, Census 2011



133 of 225 LBAs have higher rates than the England average (4.4%). The table below shows the 20 LBAs with the highest proportion of people who travel long distances to work (10km plus) whilst also having no car. The majority of these neighbourhoods are located in areas on the periphery of larger employment areas or with train access to major employment centres. One notable exception to this is Clarkson ward in Fenland where car ownership is low and access to wider employment centres by public transport is poor – with no rail service.

Left behind area	Local Authority	People with no car who travel more than 10km to work
Nelson	Great Yarmouth	15.0
Folkestone Central	Shepway	13.4
Cliftonville West	Thanet	12.3
Harpurhey	Manchester	11.6
Bloomfield	Blackpool	10.9
Becontree	Barking and Dagenham	10.7
St Andrew's	Kingston upon Hull, City of	10.4
Northwood	Knowsley	10.4
Fieldway	Croydon	9.8
Clarkson	Fenland	9.6
Hendon	Sunderland	9.5
Simonside and Rekendyke	South Tyneside	9.3
Speke-Garston	Liverpool	9.2
Miles Platting and Newton Heath	Manchester	9.1
Pier	Tendring	8.6
Boscombe West	Bournemouth	8.3
Wakefield East	Wakefield	8.2
Byker	Newcastle upon Tyne	8.2
North Ormesby	Middlesbrough	8.2
Harwich East	Tendring	8.2

Digital connectivity in Left-behind Areas

While connectivity can be conceived as physical access to services, an increasing proportion of transactions and interactions are now conducted online. Poor internet provision and low levels of digital literacy can be notable barriers to participation in social, civic and economic life. This section uses data from OfCom and the Consumer Data Research Centre to identify those with poor digital connectivity. It explores which LBAs have the lowest average broadband speeds. It also looks at areas with the highest proportion of people who are less engaged with or comfortable with using the internet.

Data from the following sources has been explored in this section:

- Ofcom: Data on broadband speed and proportion of people with low broadband speeds is taken from the Connected Nations report, based on coverage and service availability information received from communications providers. Low broadband speeds are speeds at below the Universal Service Obligation (USO) – the USO is defined as a download speed of at least 10Mbit/s and an upload speed of at least 1Mbit/s with speeds below that considered “low”.
- The 2018 Internet User Classification (IUC). Alexiou, A. and Singleton, A. (2018). ESRC Consumer Data Research Centre: The IUC is a bespoke classification that describes how people living in different parts of Great Britain interact with the Internet. It uses a combination of survey data, infrastructure data from OfCom and retail transactional data on online shopping to estimate internet behaviour and levels of engagement. Each neighbourhood is then classified based on levels of interaction and types of interaction with the internet. There are two classification groups which are characterised as having low levels of engagement with the internet and poor digital literacy and we have explored which LBAs have the highest proportion of people from these low engagement categories.

Key findings

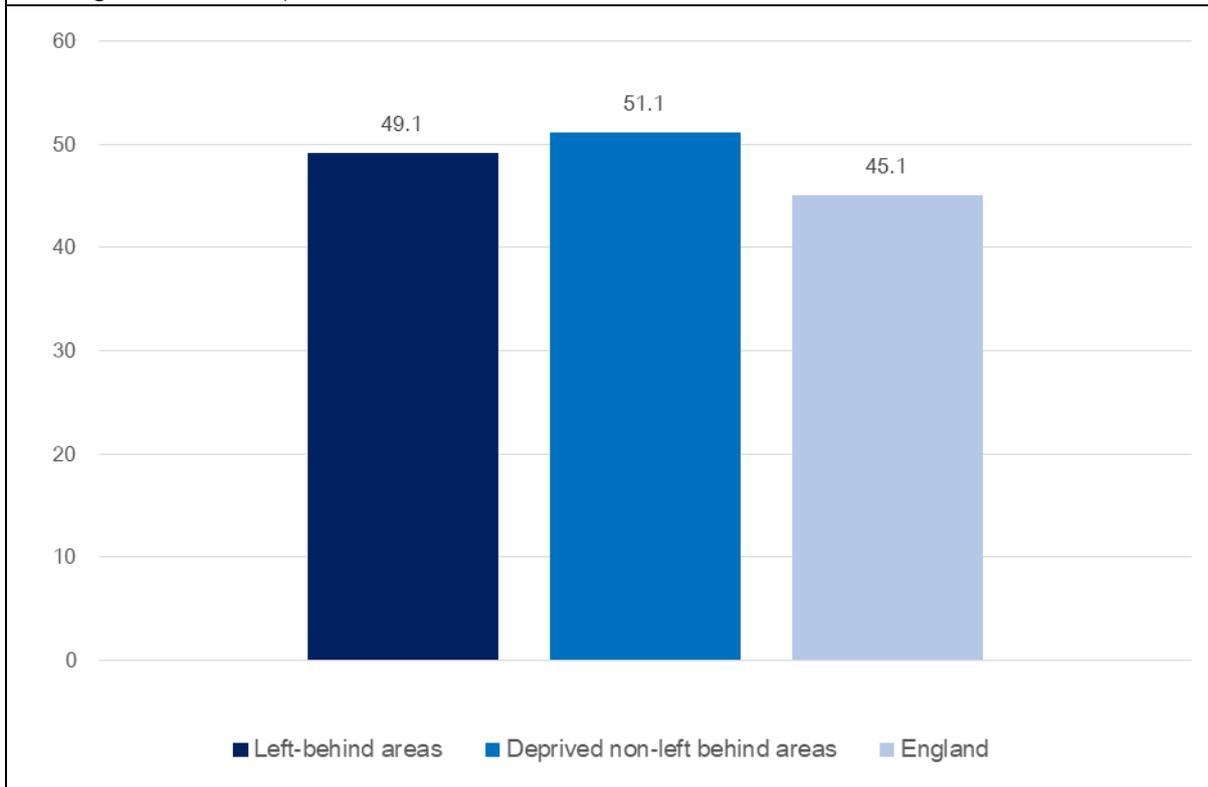
- LBAs have lower average broadband speeds (49.1 mbit/s) than other deprived areas (51.1 mbit/s). However, broadband speeds in LBAs are above the average for England of 45.1 mbit/s. This may be related to the higher proportion of people in LBAs residing in urban areas (95.6%) compared with the national average (83.0%).
- Despite this, there is some significant variation in broadband provision across LBAs. Orchard Park and Greenwood in Hull and Mandale and Victoria in Stockton-on-Tees have more than 10 times as many premises with “low” (below USO) broadband speeds than the national average.
- Many of the premises with poor broadband speeds are located in large urban areas including Birmingham and Manchester, though neighbourhoods in smaller communities such as parts of County Durham and Tendring also feature among the areas with poor broadband connectivity.
- Internet engagement levels are lower in LBAs with nearly 80% of neighbourhoods classified as “e-withdrawn” or “passive and uncommitted users”
- A notably higher proportion of neighbourhoods in LBAs are categorised as “least engaged with the internet” compared to the England average, with 43.4% in the e-withdrawn IUC group compared to 8.8% across England.
- There are high concentrations of e-withdrawn (non-engaged) internet users in Teeside (six LBAs with the highest rates, including four in Middlesbrough) and Kingston upon Hull (three LBAs).

LBAs have lower broadband speeds than other deprived areas

The chart below shows the average broadband download linespeed (Mbit/s) for connections in LBAs, other deprived areas and England. It shows that on average LBAs have a slower broadband speed

than deprived (non-LBAs) with 49.1 mbit/s compared to 51.1 in other deprived areas. However, broadband speeds in LBAs are above the average for England of 45.1 mbit/s. This may be related to the higher proportion of people in LBAs residing in urban areas (95.6%) compared with the national average (83.0%).

Average broadband speed, Ofcom June-2017



LBA's Orchard Park and Greenwood in Hull and Mandale and Victoria in Stockton-on-Tees have more than 10 times as many premises with "low" (below USO) broadband speeds than the national average

The table below shows the 20 LBAs with the highest proportion of premises with broadband speeds below the Universal Service Obligation (USO).

Left behind area	Local Authority	% broadband speeds below USO
Mandale and Victoria	Stockton-on-Tees	19.9
Orchard Park and Greenwood	Kingston upon Hull, City of	18.9
Kings Norton	Birmingham	7.7
St Osyth and Point Clear	Tendring	5.6
Bransholme East	Kingston upon Hull, City of	5.0
Craghead and South Moor	County Durham	5.0
Eston	Redcar and Cleveland	4.8
Shildon and Dene Valley	County Durham	4.7
Byker	Newcastle upon Tyne	4.6
Knottingley	Wakefield	4.5
Harpurhey	Manchester	4.4
Brambles & Thorntree	Middlesbrough	4.1
Woodhouse Park	Manchester	4.0
Walton	Tendring	3.9
Hemsworth	Wakefield	3.4
Miles Platting and Newton Heath	Manchester	3.3
Monk Bretton	Barnsley	3.2
Henley	Coventry	3.2
St Andrew's	Kingston upon Hull, City of	3.1
Pitsea North West	Basildon	3.0
Ofcom, 2019		

The Universal Service Obligation (USO) is the minimum standard for decent and affordable broadband connection. Decent broadband is defined as a download speed of at least 10Mbit/s and an upload speed of at least 1Mbit/s.

35 of 225 LBAs have higher rates of premises with below USO broadband speed than the national average (1.8%). Just under one in five premises in Orchard Park and Greenwood (Kingston upon Hull) and Mandale and Victoria (Stockton-on-Tees) have broadband speeds at below the USO, notably above the average across other LBAs and more 10 times the national average. Surprisingly, many of the premises with poor broadband speeds are located in large urban areas including Birmingham and Manchester, though neighbourhoods in smaller communities such as parts of County Durham and Tendring also feature among the areas with poor broadband connectivity.

Engagement with the internet

The Internet User Classification (IUC) provides insight into the extent and characteristics of engagement with the internet for people living in LBAs. Neighbourhoods are grouped into a set of *classification groups* based on their socio-demographic make-up (and the internet engagement profile of people with these shared characteristics nationally), their online purchasing behaviour and their digital infrastructure. Two of these *classification groups* identify areas where there are low levels of engagement with the internet and residents are at increased risk of digital exclusion.

The **Passive and Uncommitted Users** group comprises individuals with limited or no interaction with the internet. They tend to reside outside city centres and close to the suburbs or semi-rural areas. Members of this group typically have higher levels of employment in semi-skilled and blue-collar occupations, individuals are rarely online, and most commonly report use once a week or less. Access to broadband is well below average, and for those online, there is mild preference for access via smartphones. The internet is typically used for social networks, gaming and some limited online shopping.

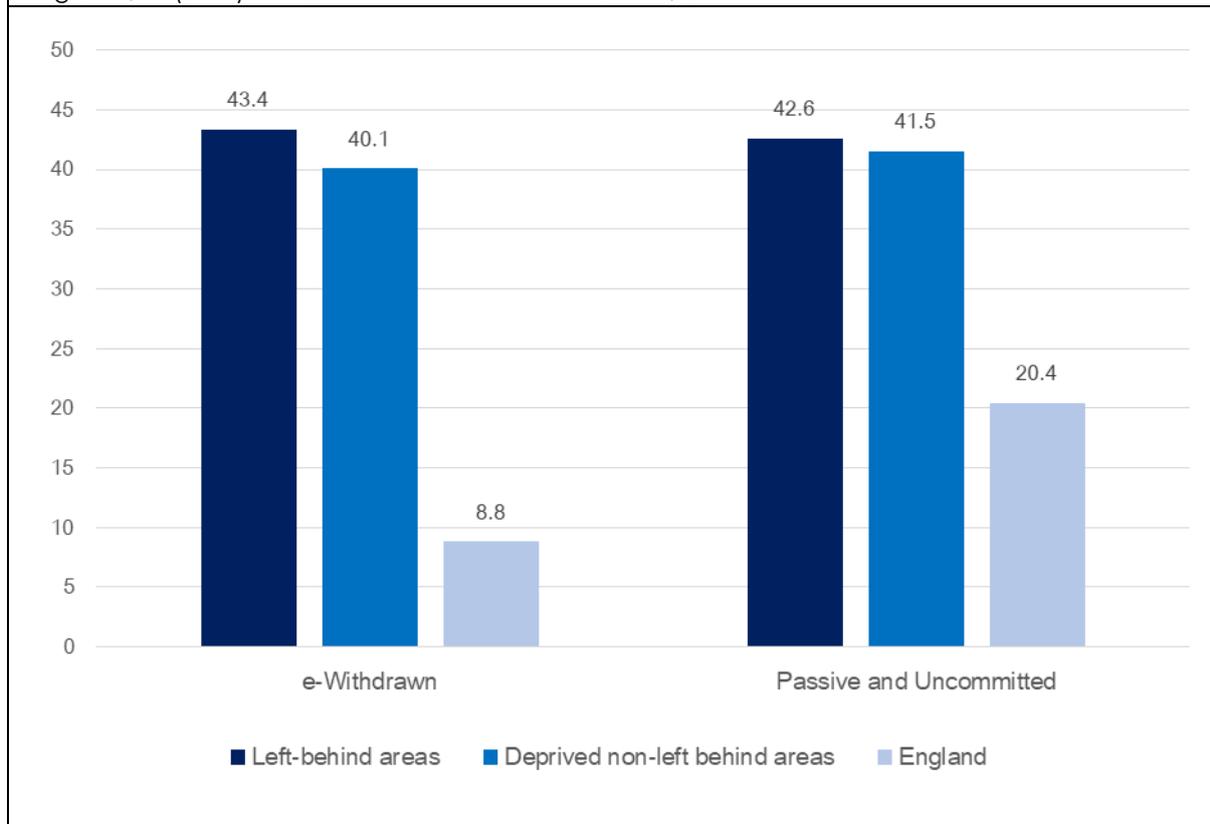
The **eWithdrawn** group are characterised as having the lowest engagement with the internet and the highest proportion of people with no access to the internet either through a personal computer or mobile device. Many people within this group have opted out of online engagement, either because it is considered unnecessary or for economic reasons. The socio-economic profile of the population is characterised as less affluent with the highest rate of unemployment and social housing among the IUC Groups.

Internet engagement levels are lower in LBAs with nearly 80% of neighbourhoods classified as "e-withdrawn" or "passive and uncommitted users"

The chart below shows the percentage of people classified as *e-withdrawn* or *passive and uncommitted internet users* based on the Internet User Classification (IUC). The *e-withdrawn* group is mainly characterised by individuals who are the least engaged with the Internet. The *passive and uncommitted internet* group comprises individuals with limited or no interaction with the Internet.

The chart shows that LBAs record higher proportions of people in both the *e-withdrawn* and *passive and uncommitted internet* user groups, suggesting higher levels of disengagement with the internet and lower levels of interaction with digital services in local areas. Nearly five times the proportion of people in LBAs are categorised as least engaged with the internet compared to the England average, with 43.4% in the *e-withdrawn* IUC group compared to 8.8% across England.

% people classified as *e-withdrawn* or *passive and uncommitted internet users*, Alexiou, A. and Singleton, A. (2018). The 2018 Internet User Classification, 2017



The table below shows the 20 LBAs with the highest proportion of people classified as *passive and uncommitted internet users*. 173 of 225 LBAs have higher rates than the national average (20.4%). These areas are geographically dispersed, though are generally located in smaller towns rather than cities.

Left behind area	Local Authority	% passive and uncommitted users
Gawthorpe	Burnley	100.0
Lee Chapel North	Basildon	100.0
Clarkson	Fenland	100.0
Choppington	Northumberland	99.4
Craghead and South Moor	County Durham	97.4
Fieldway	Croydon	86.3
Central & New Cross	Ashfield	85.8
Warren Park	Havant	83.3
Bondfields	Havant	83.2
Seacombe	Wirral	82.3
Vange	Basildon	82.3
Annfield Plain	County Durham	80.8
Halton Brook	Halton	78.7
Crewe St Barnabas	Cheshire East	78.7
Leigh West	Wigan	78.0
Bitterne	Southampton	76.4
Brunshaw	Burnley	76.2
Appleton	Halton	75.9
Halton Lea	Halton	75.8
Northwood	Thanet	75.8

The 2018 Internet User Classification, 2017

The table below shows the 20 LBAs with the highest proportion of people classified as *e-withdrawn*. 204 of 225 LBAs have higher rates than the national average (8.8%). There are high concentrations in Teeside (six LBAs including four in Middlesbrough) and Kingston upon Hull (three LBAs).

Potential Case Studies: Left-behind areas with identified connectivity challenges

Golf Green (Tendring):

Golf Green was identified as having the 7th highest score on the combined connectivity measure. The area is characterised as having on the one hand relatively poor access to key health and education services and on the other hand low levels of car ownership (most notably among vulnerable groups) - also with low levels of digital engagement.

Summary of needs:

- 7th highest identified need on the combined connectivity measure.
- Third highest proportion of people with no car and a limiting long-term illness
- Fourth longest travel time to a hospital by walking/public transport
- Fourth longest travel time to a secondary school by walking/public transport
- Fourth longest travel time to a primary school by walking/public transport
- Fourth longest road distance to an A&E hospital
- Fourth longest road distance to a primary school
- 18th highest travel time to a further education institution by walking/public transport
- 11th highest proportion of people classified as 'e-withdrawn'

Sheppey East (Swale):

Sheppey East has some of the longest distances and travel times to key services of any LBA. Access to health services are a particular challenge given the area has both high levels of people with a limiting long-term illness and long distances and travel times to hospitals and GP services. However, the LBA was not identified among those with the highest connectedness needs in the combined connectivity measure due to relatively high levels of car ownership (the highest of any LBA).

Summary of needs:

- Longer travel times by walking/public transport on all 8 services collected by DfT
- Dual disadvantage of high levels of limiting long-term illness and very poor access to health services
- Longest travel time to a GP by walking/public transport
- Longest travel time to a hospital by walking/public transport
- Longest road distance to an A&E hospital
- Third longest travel time to a secondary school by walking/public transport
- Second longest travel time to a primary school by walking/public transport
- Second longest road distance to a primary school
- Second longest travel time to a supermarket by walking/public transport
- Second longest distance from a supermarket or food store
- Longest road distance from a bank
- Longest road distance from a petrol station
- Longest travel time to a town centre by walking/public transport
- Third longest travel time to a Job Centre
- Longest distance from a leisure centre
- Lowest proportion of addresses with a private outdoor space and poor access to green spaces
- 4th lowest proportion of people travelling to work by public transport

St Osyth and Point Clear (Tendring):

St Osyth and Point Clear was ranked as having the third highest connectivity needs on the combined connectivity indicator. The neighbourhood experiences long travel times and distances from a wide range of key services, combined with poor broadband speeds. Access to employment was identified as a specific challenge, with the neighbourhood experiencing higher unemployment than the LBA average and poorer access to employment services (job centres and neighbourhoods with more than 500 jobs).

Summary of needs:

- Third highest need on the combined connectivity indicator.
- Longer travel times by walking/public transport on all 8 services collected by DfT
- Longest travel time to a centre of employment by walking/public transport
- Longest travel time to a GP by walking/public transport
- Third longest travel time to a hospital by walking/public transport
- Second longest travel time to a secondary school by walking/public transport
- Third longest distance and journey travel time to a primary school
- Third longest travel time to a town centre by walking/public transport
- Third longest distance from a public park or garden
- Fourth highest proportion of premises with broadband speeds at below the Universal Service Obligation

Orchard Park and Greenwood (Kingston-upon-Hull)

Orchard Park and Greenwood has multiple connectivity challenges. The area is ranked 16th on the combined connectivity indicator reflecting challenges in terms of long travel times to services, low levels of car ownership and low broadband speeds. Orchard Park and Greenwood has notable challenges concerning accessing jobs and employment support services. On the one hand, the area ranks among the areas with the highest concentrations of unemployed people with no car. On the other hand, the area also ranks among the left-behind areas with the longest travel times to an employment centre and longest road distances to a Job Centre. Moreover, internet access is extremely poor with nearly one in five premises identified as having low broadband speed (more than five times the national average).

Summary of needs:

- 16th highest need on the combined connectivity measure.
- More than half of all households lack access to a car or van
- 19th longest travel time to a centre of employment by walking/public transport
- Fourth highest proportion of people with no car who are unemployed
- Second highest proportion of premises with broadband speeds at below the Universal Service Obligation (18.9% - compared with a national average of 1.8%)
- All neighbourhoods in the ward categorised as e-withdrawn (the communities least engaged with the internet)

Grangetown (Redcar and Cleveland)

Grangetown has notable challenges both accessing services and in transport. Less than half of all households in the area have access to a car. This is a particular challenge for a neighbourhood where travel times to five of the eight key services monitored by DfT are above the national average.

Summary of needs:

- More than half of all households lack access to a car or van
- Third highest proportion of households categorised as unemployed and lacking access to a car
- Longer travel times by walking/public transport on 5 of the 8 services collected by DfT
- Eighth longest travel time to an employment centre by walking/public transport
- 15th longest travel time to a GP by walking/public transport
- 11th longest travel time to a town centre by walking/public transport
- 10th highest proportion of households classified as e-withdrawn

Newbiggin Central and East (Northumberland)

Newbiggin Central and East has a wide range of connectivity challenges. The area is ranked 11th on the combined connectivity indicator reflecting challenges in terms of long travel times to services and low levels of car ownership. Newbiggin Central and East has notable challenges concerning accessing primary education and postal services.

Summary of needs:

- Above average travel times to 6 of 8 key services collected by DfT

- Longest travel time to a primary school
- Longest distance from a Post Office
- 11th highest overall connectivity challenges
- 3rd longest travel time to a GP
- 16th longest travel time to an employment centre
- 15th longest travel time to a town centre
- Second longest distance from a petrol station
- More than one-in-three households lack access to a car or van

Appendix A: Indicator metadata

Indicator	Date	Source	Description
Access to Health Assets and Hazards: A&E Hospitals	2017	NHS digital (https://data.cdrc.ac.uk/dataset/ahah2)	Shows the accessibility to Accident & Emergency hospitals in kilometres. This indicator is an input measure for the Access to Healthy Assets and Hazards (AHAH) index as part of the Health Services domain. The AHAH index is a multi-dimensional index developed by the CDRC for Great Britain measuring how 'healthy' neighbourhoods are. It combines indicators under four different domains of accessibility: retail environment, health services, physical environment and air quality.
Access to Health Assets and Hazards: Dentists	2017	NHS digital (https://data.cdrc.ac.uk/dataset/ahah2)	Shows the accessibility to dentist practices in kilometres. This indicator is an input measure for the Access to Healthy Assets and Hazards (AHAH) index as part of the Health Services domain. The AHAH index is a multi-dimensional index developed by the CDRC for Great Britain measuring how 'healthy' neighbourhoods are. It combines indicators under four different domains of accessibility: retail environment, health services, physical environment and air quality.
Access to Health Assets and Hazards: Fast food outlets	2017	LDC via CDRC services (https://data.cdrc.ac.uk/dataset/ahah2)	Shows the accessibility to Fast food outlets in kilometres. This indicator is an input measure for the Access to Healthy Assets and Hazards (AHAH) index as part of the Retail Environment domain. The AHAH index is a multi-dimensional index developed by the CDRC for Great Britain measuring how 'healthy' neighbourhoods are. It combines indicators under four different domains of accessibility: retail environment, health services, physical environment and air quality.
Access to Health Assets and Hazards: Gambling outlets	2017	LDC via CDRC services (https://data.cdrc.ac.uk/dataset/ahah2)	Shows the accessibility to Gambling outlets in kilometres. This indicator is an input measure for the Access to Healthy Assets and Hazards (AHAH) index as part of the Retail Environment domain. The AHAH index is a multi-dimensional index developed by the CDRC for Great Britain measuring how 'healthy' neighbourhoods are. The Index of Access to Healthy Assets and Hazards (AHAH) is a multi-dimensional index developed by the CDRC for Great Britain measuring how 'healthy' neighbourhoods are. It combines indicators under four different domains of accessibility: retail environment, health services, physical environment and air quality.
Access to Health Assets and Hazards: GP surgeries	2017	NHS digital (https://data.cdrc.ac.uk/dataset/ahah2)	Shows the accessibility to GP practices in kilometres. This indicator is an input measure for the Access to Healthy Assets and Hazards (AHAH) index as part of the Health Services domain. The AHAH index is a multi-dimensional index developed by the CDRC for Great Britain measuring how 'healthy' neighbourhoods are. It combines indicators under four different domains of accessibility: retail environment, health services, physical environment and air quality.
Access to Health Assets and Hazards: Leisure Centers	2017	LDC (https://data.cdrc.ac.uk/dataset/ahah2)	Shows the accessibility to leisure services in kilometres. This indicator is an input measure for the Access to Healthy Assets and Hazards (AHAH) index as part of the Health Services domain. The AHAH index is a multi-dimensional index developed by the CDRC for Great Britain measuring how 'healthy' neighbourhoods are. It combines indicators under four different domains of accessibility: retail environment, health services, physical environment and air quality.
Access to Health Assets and Hazards: Off licenses	2017	LDC via CDRC services (https://data.cdrc.ac.uk/dataset/ahah2)	Shows the accessibility to off licences in kilometres. This indicator is an input measure for the Access to Healthy Assets and Hazards (AHAH) index as part of the Retail Environment domain. The AHAH index is a multi-dimensional index developed by the CDRC for Great Britain measuring how 'healthy' neighbourhoods are. It combines indicators under four different domains of accessibility: retail environment, health services, physical environment and air quality.

Access to Health Assets and Hazards: Pharmacies	2017	NHS digital (https://data.cdrc.ac.uk/dataset/ahah2)	Shows the accessibility to pharmacies in kilometres. This indicator is an input measure for the Access to Healthy Assets and Hazards (AHAH) index as part of the Health Services domain. The AHAH index is a multi-dimensional index developed by the CDRC for Great Britain measuring how 'healthy' neighbourhoods are. It combines indicators under four different domains of accessibility: retail environment, health services, physical environment and air quality.
Access to Health Assets and Hazards: Pubs/bars/nightclubs	2017	LDC via CDRC services (https://data.cdrc.ac.uk/dataset/ahah2)	Shows the accessibility to pubs, bars and nightclubs in kilometres. This indicator is an input measure for the Access to Healthy Assets and Hazards (AHAH) index as part of the Retail Environment domain. The AHAH index is a multi-dimensional index developed by the CDRC for Great Britain measuring how 'healthy' neighbourhoods are. It combines indicators under four different domains of accessibility: retail environment, health services, physical environment and air quality.
Access to Health Assets and Hazards: Tobacconists	2017	LDC via CDRC services (https://data.cdrc.ac.uk/dataset/ahah2)	Shows the accessibility to tobacconists in kilometres. This indicator is an input measure for the Access to Healthy Assets and Hazards (AHAH) index as part of the Retail Environment domain. The AHAH index is a multi-dimensional index developed by the CDRC for Great Britain measuring how 'healthy' neighbourhoods are. It combines indicators under four different domains of accessibility: retail environment, health services, physical environment and air quality.
Average distance to nearest Park, Public Garden, or Playing Field (m)	Apr-20	Ordnance Survey https://www.ons.gov.uk/economy/environmentalaccounts/datasets/accesstogardensandpublicgreenspaceinbritain	Shows the average distance to the nearest park, public garden or playing field in meters. Data is based on analysis of Ordnance Survey (OS) data on access to private gardens, public parks and playing fields in Great Britain, available by country, region, Local Authority and Middle Layer Super Output Area.
IoD 2019 Geographical Barriers Sub-domain Rank	2019	Ministry of Housing Communities and Local Government (MHCLG) (https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019)	The Indices of Deprivation (IoD) 2019 Geographical Barriers sub-domain measures the physical accessibility and proximity of local services. The following indicators are included: Road distance to a post office: A measure of the mean distance to the closest post office for people living in the Lower-layer Super Output Area; Road distance to a primary school: A measure of the mean distance to the closest primary school for people living in the Lower-layer Super Output Area; Road distance to a general store or supermarket: A measure of the mean distance to the closest supermarket or general store for people living in the Lower-layer Super Output Area; Road distance to a GP surgery: A measure of the mean distance to the closest GP surgery for people living in the Lower-layer Super Output Area. Data shows Average LSOA Rank, a lower rank indicates that an area is experiencing high levels of deprivation.
IoD 2019 Road distance to a GP surgery indicator (km)	2019	Ministry of Housing Communities and Local Government (MHCLG) (https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019)	The Indices of Deprivation (IoD) 2019 Road distance to a GP surgery indicator is defined as an average road distance to the nearest General Practitioner (GP), measured in kilometres and calculated initially at Output Area level. The grid referenced locations of GP premises were obtained from NHS Digital. The dataset consists of all active GP practices and branch surgeries. NHS Digital provided a dedicated extract of data for inclusion in the Indices of Deprivation 2019. It does not capture the size of a practice, which varies from that of a single practitioner to a large surgery with many GPs and additional health care professionals. A bespoke geographic information system application was used to calculate the road distance to the closest service from the population weighted centroid of each Output Area. To create an average road distance for the Lower-layer Super Output Area, a population-weighted mean of the Output Area road distances was used. Each Output Area score was weighted according to the proportion of the Lower-layer Super Output Area population that is within the Output Area, and the weighted scores summed. The Output Area level population estimates used for population-weighting were taken from mid-2017 small area population estimates at Output Area level published by the Office for National Statistics. A higher score indicates that an area is experiencing high levels of deprivation.

IoD 2019 Road distance to a post office indicator (km)	2018	Ministry of Housing Communities and Local Government (MHCLG) (https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019)	The Indices of Deprivation (IoD) 2019 Road distance to a post office indicator is defined as an average road distance to the nearest Post Office, measured in kilometres and calculated initially at Output Area level. The grid referenced locations of Post Offices were supplied by Post Office Ltd (for March 2018). All Post Office branches were included. A bespoke geographic information system application was used to calculate the road distance to the closest service from the population weighted centroid of each Output Area. To create an average road distance for the Lower-layer Super Output Area, a population-weighted mean of the Output Area road distances was used. Each Output Area score was weighted according to the proportion of the Lower-layer Super Output Area population that is within the Output Area, and the weighted scores summed. The Output Area level population estimates used for population-weighting were obtained from the 2011 Census. A higher score indicates that an area is experiencing high levels of deprivation.
IoD 2019 Road distance to a primary school indicator (km)	2019	Ministry of Housing Communities and Local Government (MHCLG) (https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019)	The Indices of Deprivation (IoD) 2019 Road distance to a primary school indicator is defined as an average road distance to the nearest primary school, measured in kilometres and calculated initially at Output Area level. The locations of primary schools were obtained from the Department for Education's 'Get Information About Schools' (Feb 2019). The data included grid references and postcodes. All schools classified as 'open' or 'open but proposed to close' that are also 'primary', 'middle deemed primary' or 'all through' were included. In terms of the type of establishment, schools were included that are classified as local authority maintained schools, academies or free schools. A bespoke geographic information system application was used to calculate the road distance to the closest service from the population weighted centroid of each Output Area. To create an average road distance for the Lower-layer Super Output Area, a population-weighted mean of the Output Area road distances was used. Each Output Area score was weighted according to the proportion of the Lower-layer Super Output Area population that is within the Output Area, and the weighted scores summed. The Output Area level population estimates used for population-weighting were taken from mid-2017 small area population estimates at Output Area level published by the Office for National Statistics. A higher score indicates that an area is experiencing high levels of deprivation.
IoD 2019 Road distance to general store or supermarket indicator (km)	2018	Ministry of Housing Communities and Local Government (MHCLG) (https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019)	The Indices of Deprivation (IoD) 2019 Road distance to general store or supermarket indicator is defined as an average road distance to the nearest supermarket or large food store, measured in kilometres and calculated initially at Output Area level. The grid referenced locations of food shops were obtained from the Ordnance MISO dataset (for May 2018). The definition of food shop includes supermarket chains, convenience stores and independent supermarkets. This includes concessions such as food shops within petrol stations, but administrative offices are removed. A bespoke geographic information system application was used to calculate the road distance to the closest service from the population weighted centroid of each Output Area. To create an average road distance for the Lower-layer Super Output Area, a population-weighted mean of the Output Area road distances was used. Each Output Area score was weighted according to the proportion of the Lower-layer Super Output Area population that is within the Output Area, and the weighted scores summed. The Output Area level population estimates used for population-weighting were taken from mid-2017 small area population estimates at Output Area level published by the Office for National Statistics. A higher score indicates that an area is experiencing high levels of deprivation.

Road distance (meters) from key services	2010	Commission for Rural Communities (CRC) (https://data.gov.uk/dataset/rural_services_data_series_-_availability_of_services_at_output_area_level)	Shows the average distance in meters of individuals living in the local area from a variety of key services. These indicators combine datasets that show where outlets of particular services can be found, with postcode level information on the distribution of households to calculate average distance of households within an Output Area from key services. Note data for higher geographies has been aggregated from Output Area. Data is based on road distances rather than straight-line 'crow flies' distances. The analysis has been undertaken using the national accessibility model. This model was developed for Department for Transport in 2006 to calculate national core accessibility indicators and has been further refined and developed since then. Prior to analysis, service outlets were assigned grid-references, based on their postcode, using either: a) Gridlink b) Suppliers own geo-referencing. Any service outlets with postcodes that could not be matched to Gridlink (i.e. those which were absent, incomplete or incorrect) were not included in the analysis. Only service outlets in England were used. In some border regions, the closest outlet of a given service to a particular postcode may be in Scotland or Wales. As a result, the availability of a service type may be underestimated in these areas and further investigation of the availability of non-English service outlets may be required. The model uses the Ordnance Survey ITN data to describe the road network. Travel distances were calculated from the centre of each postcode to the nearest outlet for each service For the purposes of these analyses only current Household-Postcodes in England with an Address-count (i.e. with households) were used. The data is then aggregated from postcodes to Output Areas.
Travel time to key services by public transport/walk	2017	Department for Transport (DfT) (https://www.gov.uk/government/collections/journey-time-statistics)	Travel times in minutes to key services by public transport/walking and cycling. These statistics are derived from the analysis of spatial data on public transport timetables; road, cycle and footpath networks; population and key local services. The data shows the average minimum travel time - the shortest travel time by walking and public transport, averaged over the LSOA. Where the shortest journey is by public transport, an average of five minutes is added to allow for a margin for catching the service, but if a quicker walking journey is available, this will be used with nothing added.
Households with no car by household demographics, economic activity, limiting-long term illness	2011	Census 2011 (https://www.nomisweb.co.uk/census/2011/k4s404ew)	Shows the proportion of households who do not have a car or van, with breakdowns by age, gender, economic activity and health status. Figures are based on responses to the 2011 Census car ownership question which asks information on the number of cars or vans owned, or available for use, by one or more members of a household. It includes company cars and vans available for private use. The count of cars or vans in an area is based on details for private households only. Cars or vans used by residents of communal establishments are not counted.
Combined connectivity indicator	2020	Oxford Consultants for Social Inclusion (OCSI)	The combined connectivity score measures the connectivity to key services, digital infrastructure, isolation and strength of the local jobs market. It looks at whether residents have access to key services, such as health services, within a reasonable travel distance. It considers how good public transport and digital infrastructure are and how strong the local job market is. A higher score indicates that an area has higher levels of community need. See Appendix C for more details regarding how the indicator was constructed
Broadband speed	Jun-17	Ofcom (https://www.ofcom.org.uk/research-and-data/data)	Shows the average broadband download linespeed (Mbit/s) for connections in the area. Due to variations in broadband performance over time, this data should not be regarded as a definitive and fixed view of the UK's fixed broadband infrastructure. However, the information provided here may be useful in identifying variations in broadband performance.

Internet User Classification: e-Withdrawn	2017	Alexiou, A. and Singleton, A. (2018). The 2018 Internet User Classification. ESRC Consumer Data Research Centre; Contains National Statistics data Crown copyright and database right (2017); Contains Ofcom data (2016). Contains CDRC data from Data Partners (2017)	Shows the proportion of people living in LSOAs classified as e-Withdrawn in the 2018 Internet User Classification (IUC). The eWithdrawn Group is mainly characterised by individuals who are the least engaged with the Internet. Their geography is expressed by areas that are associated with those more deprived neighbourhoods of urban regions. The socio-economic profile of the population is characterised by less affluent white British individuals or areas of high ethnic diversity; and it has the highest rate of unemployment and social housing among all other Groups. The eWithdrawn Group appears to have the highest ratio of people that don't have access, or have access but never engage with the Internet. It also expresses the lowest rates of engagement in terms of information seeking and financial services, as well as the lowest rate in terms of online access via a mobile device. Online shopping is also particularly low, with the exception of Clothing on Credit, suggesting an opportunistic dimension to Internet usage. This is further reinforced by the higher than average access to Cable broadband by TV Provider, which may suggest that some individuals have opted into broadband mainly for the TV-associated benefits. It is possible that many people within this Group have opted out of online engagement, either because it is considered unnecessary or because of economic reasons. The IUC is a bespoke classification that describes how people living in different parts of Great Britain interact with the Internet. It provides aggregate population profiles of Internet use and engagement at the Lower Super Output Area (LSOA) level. It has been developed in order to update and expand to the previous (2014) IUC and as such includes wider and more comprehensive data, built from a range of consumer, survey and open data collected by the CDRC. Input data for the 2018 IUC includes the British Population Survey (BPS), supplied by DataTalk, which provides, among other, behavioural characteristics of the population regarding various aspects of Internet use. Online retailers provide transactional data for the online shopping behaviour of populations. These datasets are supplied by the CDRC and are available for access through its secure facilities. Infrastructure characteristics, such as average download speed per postcode, were supplied by Ofcom. Finally, administrative and Census data from the ONS were used as secondary data in order to train models providing predictions at the small-area level.
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Internet User Classification: Passive and Uncommitted Users	2017	Alexiou, A. and Singleton, A. (2018). The 2018 Internet User Classification. ESRC Consumer Data Research Centre; Contains National Statistics data Crown copyright and database right (2017); Contains Ofcom data (2016). Contains CDRC data from Data Partners (2017)	Shows the proportion of people living in LSOAs classified as Passive and Uncommitted Users in the 2018 Internet User Classification (IUC). The Passive and Uncommitted Users group comprises individuals with limited or no interaction with the Internet. They tend to reside outside city centres and close to the suburbs or semi-rural areas. Members of this Group have few distinctive characteristics in conventional socioeconomic terms, albeit higher levels of employment in semi-skilled and blue-collar occupations. Individuals are rarely online, and most commonly report use once a week or less. Access to broadband is well below average, and for those online, there is mild preference for access via smartphones. The Internet is typically used for social networks, gaming and some limited online shopping. The IUC is a bespoke classification that describes how people living in different parts of Great Britain interact with the Internet. It provides aggregate population profiles of Internet use and engagement at the Lower Super Output Area (LSOA) level. It has been developed in order to update and expand to the previous (2014) IUC and as such includes wider and more comprehensive data, built from a range of consumer, survey and open data collected by the CDRC. Input data for the 2018 IUC includes the British Population Survey (BPS), supplied by DataTalk, which provides, among other, behavioural characteristics of the population regarding various aspects of Internet use. Online retailers provide transactional data for the online shopping behaviour of populations. These datasets are supplied by the CDRC and are available for access through its secure facilities. Infrastructure characteristics, such as average download speed per postcode, were supplied by Ofcom. Finally, administrative and Census data from the ONS were used as secondary data in order to train models providing predictions at the small-area level.
Premises with broadband speeds below the Universal Service Obligation (USO)	2019	Ofcom (https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-update-spring-2019)	Shows the percentage of premises that do not have access to download speeds at or above 10Mbit/s and upload speeds at or above 1Mbit/s including non-matched records and zero predicted speeds). The Universal Service Obligation (USO) is set to improve broadband availability by giving homes and businesses the legal right to request a decent and affordable broadband connection. Decent broadband is defined as a download speed of at least 10Mbit/s and an upload speed of at least 1Mbit/s. People who do not have access to a decent service will be able to request one under the USO. Rate calculated as = (Number of premises below the USO)/(Total premises)*100
People travelling more than 10km to work	2011	Census 2011 (https://www.nomisweb.co.uk/census/2011/qs702ew)	Shows the proportion of people travelling more than 10km to work as % the usual resident population aged 16-74 in employment. Responses are taken from the Census 2011 means of travel to work question. The means of travel to work is that used for the longest part, by distance, of the usual journey to work. Rate calculated as = (People who travel more than 10km to work)/(All usual residents aged 16 to 74 (census QS701))*100
People travelling more than 10km to work who have no car	2011	Census 2011 (https://www.nomisweb.co.uk/census/2011/lc7402ew)	Shows the proportion of people travelling more than 10km to work who have no car or van in the household as % the usual resident population aged 16-74 in employment. Responses are taken from the Census 2011 means of travel to work question. The means of travel to work is that used for the longest part, by distance, of the usual journey to work. Rate calculated as = (People who travel more than 10km to work who do not have a car)/(All people in employment 16-74)*100
People travelling more than 10km to work who travel to work by driving in car	2011	Census 2011 (https://www.nomisweb.co.uk/census/2011/lc7701ew)	Shows the proportion of people travelling more than 10km to work who travel to work as a driver in a car as % the usual resident population aged 16-74 in employment. Responses are taken from the Census 2011 means of travel to work question. The means of travel to work is that used for the longest part, by distance, of the usual journey to work. Rate calculated as = (People who travel more than 10km to work by driving)/(All usual residents aged 16 to 74 (census QS701))*100

People travelling more than 10km to work who travel to work using public transport	2011	Census 2011 (https://www.nomisweb.co.uk/census/2011/lc7701ew)	Shows the proportion of people travelling more than 10km to work who travel to work using public transport (train, metro, bus, tram, underground) as % the usual resident population aged 16-74 in employment. Responses are taken from the Census 2011 means of travel to work question. The means of travel to work is that used for the longest part, by distance, of the usual journey to work. Rate calculated as = (People who travel more than 10km to work by public transport)/(All usual residents aged 16 to 74 (census QS701))*100
People travelling more than 2km to work	2011	Census 2011 (https://www.nomisweb.co.uk/census/2011/qs702ew)	Shows the proportion of people travelling more than 2km to work as % the usual resident population aged 16-74 in employment. Responses are taken from the Census 2011 means of travel to work question. The means of travel to work is that used for the longest part, by distance, of the usual journey to work. Rate calculated as = (People who travel more than 2km to work)/(All usual residents aged 16 to 74 (census QS701))*100
Ratio of commuters by train vs car	2011	Census 2011 (https://www.nomisweb.co.uk/census/2011/lc7701ew)	Shows the ratio of people travelling to work by public transport vs those travelling to work by car. This indicator is calculated as number of people commuting by public transport (train/bus) divided by the proportion travelling as a driver or passenger in a car. A ratio of greater than 1 indicates that a higher proportion of people use public transport, a ratio of less than one indicates a higher proportion commute by car. Responses are taken from the Census 2011 means of travel to work question. The means of travel to work is that used for the longest part, by distance, of the usual journey to work.
Travel to work by method	2011	Census 2011 (https://www.nomisweb.co.uk/census/2011/qs701ew)	Shows the proportion of people travelling to work by method of transport to work as a % the usual resident population aged 16-74. Responses are taken from the Census 2011 means of travel to work question. The means of travel to work is that used for the longest part, by distance, of the usual journey to work.
Unemployment benefit (JSA and Universal Credit)	Sept-2020	Department for Work and Pensions (DWP) (https://www.nomisweb.co.uk/query/select/getdatasetbytheme.asp?theme=72)	Shows the proportion of people receiving benefits payable to people who are unemployed receiving either Jobseekers Allowance (JSA) or Universal Credit for those who are out of work. This has replaced the number of people claiming Jobseeker's Allowance as the headline indicator of the number of people claiming benefits principally for the reason of being unemployed and is sometimes referred to as the monthly claimant count. JSA is payable to people under pensionable age who are out of work and available for, and actively seeking, work of at least 40 hours a week. Please note, there are differences in conditionality rules and eligibility criteria between Universal Credit and Jobseeker's Allowance. The phased roll-out of Universal Credit across the country, means that these differences in eligibility and conditionality affect geographical places differentially depending on how advanced the roll out is in that area. Until Universal Credit is fully rolled out, it is not possible to get a consistent measure of unemployment benefit claimant rate. Furthermore, the Universal Credit 'searching for work' conditionality group includes some individuals who would not have been previously eligible for Jobseeker's Allowance under the old benefits system e.g. those with work limiting illness awaiting a Work Capability Assessment - see https://www.gov.uk/government/consultations/proposals-for-a-new-statistical-series-to-count-unemployed-claimants for more details. Rate calculated as = (Unemployment benefit claimants (Jobseekers Allowance and out of work Universal Credit claimants))/(Population aged 16-64)*100
% addresses with private outdoor space	April-2020	Ordnance Survey https://www.ons.gov.uk/economy/environmentalaccounts/datasets/accesstogardensandpublicgreenspaceinbritain	Shows the proportion of addresses with access to private outdoor space (for both houses and flats). Data is based on analysis of Ordnance Survey (OS) data on access to private gardens, public parks and playing fields in Great Britain, available by country, region, Local Authority and Middle Layer Super Output Area. Rate calculated as = (Addresses with private outdoor space)/(Total addresses)*100

People with a limiting long-term illness (aged 16-64)	2011	Census 2011 (https://www.nomisweb.co.uk/census/2011/k301uk)	Shows the proportion of residents aged 16-64 with a limiting long-term illness. Figures are taken from responses to the 2011 Census, based on a self assessment whether or not a person has a limiting long-term illness, health problem or disability which limits their daily activities or the work they can do, including problems that are due to old age. Rate calculated as = (People with a limiting long-term illness aged 16-64)/(Population aged 16 to 64 (Census 2011))*100
Participation of state school pupils in higher education	Sept-2019	Office for Students, ONS	Shows the percentage of state school pupils in higher education. The data is recorded as the proportion of the 16 year old state-funded mainstream school pupils in the MSOA who sat their GCSEs in the summer of 2010 to 2014 that were in higher education at the age of 18 or 19. The denominator is the total number of Key Stage 4 pupils living in the MSOA, rounded to the nearest 5. Further information on how TUNDRA is calculated can be found here: https://www.officeforstudents.org.uk/data-and-analysis/young-participation-by-area/about-the-data/
IoD 2019 Income Score (rate)	2019	Ministry of Housing Communities and Local Government (MHCLG) (https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019)	The Indices of Deprivation (IoD) 2019 Income Deprivation Domain measures the proportion of the population in an area experiencing deprivation relating to low income. The definition of low income used includes both those people that are out-of-work and those that are in work but who have low earnings (and who satisfy the respective means tests). The following indicators are included: Adults and children in Income Support families; Adults and children in income-based Jobseeker's Allowance families; Adults and children in income-based Employment and Support Allowance families; Adults and children in Pension Credit (Guarantee) families; Adults and children in Working Tax Credit and Child Tax Credit families not already counted that is those who are not in receipt of Income Support income-based Jobseeker's Allowance income-based Employment and Support Allowance or Pension Credit (Guarantee) and whose equivalised income (excluding housing benefit) is below 60% of the median before housing costs; Adults and children in Universal Credit families where no adult is in 'Working - no requirements' conditionality regime; Asylum seekers in England in receipt of subsistence support accommodation support or both. A higher score indicates that an area is experiencing high levels of deprivation. Rate calculated as = (ID 2019 Income Domain numerator)/(ID 2019 Total population: mid 2015 (excluding prisoners))*100

Appendix B: Combined connectivity indicator LBA ranks

Left-behind area	Local Authority	Score (higher = greater need)	Rank (across all wards in England)
Rush Green	Tendring	137.80	1
Walton	Tendring	137.45	2
St Osyth and Point Clear	Tendring	134.48	4
Dearne North	Barnsley	131.73	5
Headland and Harbour	Hartlepool	130.04	6
Harwich East	Tendring	128.50	7
Golf Green	Tendring	127.61	8
Isabella	Northumberland	126.93	10
Cowpen	Northumberland	123.67	14
Blackhalls	County Durham	121.69	16
Newbiggin Central and East	Northumberland	120.76	19
Coundon	County Durham	116.66	33
Trimdon and Thornley	County Durham	116.27	34
Kitty Brewster	Northumberland	115.98	35
Alton Park	Tendring	114.87	41
Orchard Park and Greenwood	Kingston upon Hull, City of	111.55	61
Meir North	Stoke-on-Trent	111.37	63
Choppington	Northumberland	110.26	72
Stainforth & Barnby Dun	Doncaster	110.06	74
Nelson	Great Yarmouth	109.65	81
Newington	Thanet	109.24	82
Hetton	Sunderland	108.65	87
Town and Pier	Dover	107.07	98
St Marys	Tendring	104.99	118
St Andrew's	Kingston upon Hull, City of	104.88	119
Bloomfield	Blackpool	104.67	120
Bidston and St James	Wirral	104.31	127
Pier	Tendring	104.22	129
Deneside	County Durham	103.59	139
Manor House	Hartlepool	103.28	142
Tong	Bradford	103.12	146
Adwick le Street & Carcroft	Doncaster	101.91	158
Easington	County Durham	100.55	176
Sildon and Dene Valley	County Durham	99.91	184
Sidley	Rother	99.28	193
Dane Valley	Thanet	99.20	194
Marfleet	Kingston upon Hull, City of	97.59	218
Rock Ferry	Wirral	97.30	224
Byker	Newcastle upon Tyne	97.27	225
Stockton Town Centre	Stockton-on-Tees	95.48	251
Miles Platting and Newton Heath	Manchester	95.45	252
Cliftonville West	Thanet	94.92	261
Shotton and South Hetton	County Durham	93.76	280
Eastcliff	Thanet	93.12	288
College	Northumberland	92.88	294
Folkestone Central	Shepway	91.94	311
Ferryhill	County Durham	91.38	331
Loundsley Green	Chesterfield	91.08	337
Dearne South	Barnsley	90.85	342
Woodhouse Close	County Durham	90.38	352
De Bruce	Hartlepool	89.88	364
Hendon	Sunderland	89.87	365
Jesmond	Hartlepool	89.78	371
Sheppey East	Swale	89.58	379
Wingfield	Rotherham	87.73	421
Walker	Newcastle upon Tyne	87.63	424
Barrow Island	Barrow-in-Furness	85.88	468

Northwood	Thanet	85.76	472
Staithe	Fenland	85.60	480
Stockbridge	Knowsley	85.10	495
Aycliffe West	County Durham	85.04	500
Fenside	Boston	84.96	505
Meir South	Stoke-on-Trent	84.65	514
Sandwith	Copeland	84.15	532
Peterlee West	County Durham	84.14	533
Knottingley	Wakefield	83.94	540
Smallbridge and Firgrove	Rochdale	83.69	546
Hemsworth	Wakefield	83.38	555
North Ormesby	Middlesbrough	83.22	562
Longhill	Kingston upon Hull, City of	82.75	578
Horden	County Durham	82.73	579
Monk Bretton	Barnsley	82.35	594
Moorclose	Allerdale	81.95	611
Seacombe	Wirral	81.46	633
Stanley	County Durham	80.78	657
Maltby	Rotherham	80.03	682
Wakefield East	Wakefield	79.71	700
Peterlee East	County Durham	79.23	716
Bentley	Doncaster	78.74	727
Waterlees Village	Fenland	78.49	738
East Park	Wolverhampton	78.39	739
Sandhill	Sunderland	76.06	823
Redhill	Sunderland	75.77	839
Rother	Chesterfield	75.73	840
Bilston East	Wolverhampton	75.45	847
Harpurhey	Manchester	75.45	848
Grangetown	Redcar and Cleveland	75.26	853
Craghead and South Moor	County Durham	75.14	861
Moorside	West Lancashire	74.75	875
Valley	Rotherham	74.68	876
Southwick	Sunderland	74.43	891
Shirebrook North West	Bolsover	74.04	902
Eston	Redcar and Cleveland	73.82	917
Bransholme West	Kingston upon Hull, City of	73.45	932
Bloxwich West	Walsall	72.98	952
South Elmsall and South Kirkby	Wakefield	72.94	956
Sheerness	Swale	72.58	971
Gainsborough East	West Lindsey	72.05	991
Southcoates East	Kingston upon Hull, City of	71.68	1,014
Moss Bay	Allerdale	71.15	1,039
Mandale and Victoria	Stockton-on-Tees	70.46	1,069
Stacksteads	Rossendale	70.40	1,072
Bransholme East	Kingston upon Hull, City of	70.33	1,074
Warndon	Worcester	70.07	1,086
Gorse Hill	Worcester	69.79	1,100
Clover Hill	Pendle	69.76	1,102
Kirkleatham	Redcar and Cleveland	69.28	1,131
Washington North	Sunderland	68.78	1,158
St Helens	Barnsley	68.73	1,161
Princes End	Sandwell	68.62	1,165
Balby South	Doncaster	68.55	1,173
Gamesley	High Peak	66.67	1,281
Woolsington	Newcastle upon Tyne	66.38	1,299
Boscombe West	Bournemouth	66.22	1,306
Langley	Sandwell	66.19	1,308
Simonside and Rekendyke	South Tyneside	66.04	1,316
Brambles & Thorntree	Middlesbrough	65.90	1,328
Bestwood	Nottingham	65.68	1,343
Oak Tree	Mansfield	65.42	1,358

Kingswood & Hazel Leys	Corby	65.38	1,363
Annfield Plain	County Durham	65.00	1,385
Hateley Heath	Sandwell	64.85	1,395
Charlestown	Manchester	64.80	1,398
Hemlington	Middlesbrough	64.72	1,401
Speke-Garston	Liverpool	64.68	1,403
Stockland Green	Birmingham	64.31	1,430
Southcoates West	Kingston upon Hull, City of	64.10	1,449
Belle Vale	Liverpool	63.81	1,469
Southey	Sheffield	63.05	1,518
Longford	Coventry	62.13	1,577
Balderstone and Kirkholt	Rochdale	60.01	1,720
Castle	Sunderland	59.81	1,733
Park End & Beckfield	Middlesbrough	59.67	1,742
Bentilee and Uubberley	Stoke-on-Trent	59.58	1,749
Northwood	Knowsley	59.33	1,778
Darlaston South	Walsall	58.87	1,809
Irwell	Rossendale	58.52	1,835
Halewood South	Knowsley	58.11	1,863
Hodge Hill	Birmingham	58.01	1,868
Binley and Willenhall	Coventry	57.93	1,872
Clarkson	Fenland	57.82	1,883
Halton Castle	Halton	57.65	1,893
Farnworth	Bolton	56.24	1,991
West Middleton	Rochdale	56.05	2,005
Middleton Park	Leeds	55.94	2,013
Queensway	Wellingborough	55.90	2,020
Mexborough	Doncaster	55.51	2,055
Yew Tree	Liverpool	55.40	2,063
Shepway South	Maidstone	55.32	2,070
Pitsea South East	Basildon	55.22	2,077
Tunstall	Stoke-on-Trent	55.09	2,087
Longdendale	Tameside	54.51	2,146
Brunshaw	Burnley	54.39	2,161
Woodhouse Park	Manchester	54.33	2,167
Berwick Hills & Pallister	Middlesbrough	54.15	2,183
Magdalen	Great Yarmouth	54.02	2,196
St Anne's	Sunderland	53.83	2,217
Hardwick and Salters Lane	Stockton-on-Tees	53.27	2,279
Hyde Godley	Tameside	52.86	2,308
Biddick and All Saints	South Tyneside	52.83	2,311
Crewe St Barnabas	Cheshire East	52.70	2,318
Shard End	Birmingham	52.37	2,357
Norris Green	Liverpool	52.25	2,371
Blurton West and Newstead	Stoke-on-Trent	51.94	2,402
Airedale and Ferry Fryston	Wakefield	50.91	2,494
Bartley Green	Birmingham	50.51	2,527
Becontree	Barking and Dagenham	50.44	2,534
Abbey Hulton and Townsend	Stoke-on-Trent	50.16	2,561
Stainsby Hill	Stockton-on-Tees	50.15	2,564
St Michaels	Knowsley	50.03	2,575
Norton South	Stockton-on-Tees	49.86	2,593
Bitterne	Southampton	49.65	2,614
Lee Chapel North	Basildon	49.64	2,615
Cherryfield	Knowsley	49.64	2,616
Roseworth	Stockton-on-Tees	49.00	2,670
Pitsea North West	Basildon	48.37	2,731
Yarmouth North	Great Yarmouth	48.17	2,750
Stechford and Yardley North	Birmingham	48.05	2,765
Vange	Basildon	47.83	2,783
Newgate	Mansfield	47.82	2,784
Shevington	Knowsley	47.79	2,791

Camp Hill	Nuneaton and Bedworth	47.19	2,856
Appleton	Halton	46.64	2,909
Kings Norton	Birmingham	46.54	2,922
Halton Lea	Halton	45.82	2,993
Little Hulton	Salford	45.03	3,060
Bede	South Tyneside	44.82	3,082
Weoley	Birmingham	44.80	3,084
Henley	Coventry	44.34	3,136
Bondfields	Havant	44.04	3,172
Page Moss	Knowsley	44.02	3,175
Grange	Gosport	44.00	3,177
Gawthorpe	Burnley	43.56	3,236
Norton South	Halton	42.68	3,348
St Oswald	Sefton	42.42	3,376
West Heywood	Rochdale	42.19	3,401
Clifton South	Nottingham	42.14	3,409
Kingshurst and Fordbridge	Solihull	41.91	3,426
Harper Green	Bolton	41.79	3,441
Kingstanding	Birmingham	41.53	3,464
Leigh West	Wigan	41.32	3,490
Whiteleas	South Tyneside	41.10	3,521
Longbridge	Birmingham	40.80	3,559
Fieldway	Croydon	40.77	3,563
Greenhill	North West Leicestershire	40.67	3,573
Mersey	Halton	40.29	3,621
Poplars and Hulme	Warrington	39.85	3,672
Pemberton	Wigan	38.54	3,824
Paulsgrove	Portsmouth	38.43	3,835
Smith's Wood	Solihull	38.16	3,871
Central & New Cross	Ashfield	38.14	3,874
Brookside	Telford and Wrekin	37.60	3,943
Littlemoor	Weymouth and Portland	36.83	4,038
Avondale Grange	Kettering	36.47	4,078
Breightmet	Bolton	36.09	4,130
Windy Nook and Whitehills	Gateshead	35.93	4,153
Kings Heath	Northampton	35.43	4,209
Parr	St. Helens	35.34	4,225
Hough Green	Halton	32.13	4,691
Warren Park	Havant	31.73	4,748
Atherton	Wigan	31.33	4,796
Halton Brook	Halton	30.45	4,897
Grange	Halton	29.92	4,950
Hartcliffe and Withywood	Bristol, City of	27.70	5,216
Talavera	Northampton	22.93	5,795

Appendix C: Combined connectivity indicator methodology

This section summarises the methodology used to produce the *combined connectivity measure 2020*.

The *combined connectivity measure 2020* is a composite measure of connectedness which measures connectivity both in terms of physical connectivity – how easy it is to access key services and employment and wider connectivity measures of access to private transport, social isolation and digital connectivity.

The table below lists the component indicators in the domain.

Indicator	Details	Source	Date
Travel time to key services by public transport/walk	<p>Travel times in minutes to key services by public transport/walking and cycling.</p> <p>The following services are included:</p> <ul style="list-style-type: none"> • Primary School • Employment centre (LSOA with more than 500 jobs) • Further Education Institution • GP • Hospital • Secondary School • Town Centre <p>These statistics are derived from the analysis of spatial data on public transport timetables; road, cycle and footpath networks; population and key local services. Note Although the statistics are calculated to a high level of geographical detail, some assumptions and simplifications are necessary in the modelling (for example assigning the start point of journeys to a single point in each Output Area, road speeds, interchange times for public transport).</p>	<p>Department for Transport (DfT)</p> <p>https://www.gov.uk/government/collections/journey-time-statistics</p>	2017
Jobs density in the Travel to Work Area	<p>The number of jobs located in the area as a percentage of the working-age population in that area – this is to be used as a measure of economic opportunities locally. Data are taken from the Business Register and Employment Survey (BRES) of approximately 80,000 businesses, weighted to represent all sectors of the UK economy. The BRES definition of an employee is anyone aged 16 years or over at the time of the survey, whom the employer pays directly from its payroll(s) in return for carrying out a full-time or part-time job or for being on a training scheme. This indicator will be calculated at travel-to-work-area (TTWA) level rather than at community- geography level, to reflect the fact that people typically commute outside of their local ward to work¹². TTWAs are a geography created to approximate labour-market areas. In other words, they are designed to reflect self-contained areas in which most people both live and work. The current ONS criteria for defining TTWAs are that at least 75% of the area's resident workforce work in the area, and at least 75% of people who work in the area also live in the area. The area must also have an economically active population of at least 3,500. Note, this measure does not take into account the quality of the job, whether they are full or part time, zero hours or temporary or permanent contract or how easily accessible the core of the travel to work area is from the specific community geography area.</p>	<p>Business Register and Employment Survey (BRES)</p> <p>https://www.nomisweb.co.uk/quiry/construct/summary.asp?mode=construct&version=0&dataset=57</p>	2018
Access to health services	<p>Access to the following key health services</p> <ul style="list-style-type: none"> • Pharmacies • Dentists • Leisure services <p>Access is measured as mean road distance to these services calculated as the mean distance (km) by car travel route of postcodes within a LSOA to nearest health-related service.</p>	<p>CDRC – Access to Health Assets and Hazards</p> <p>https://data.cdrc.ac.uk/dataset/ahah2</p>	2017
Households with no car	<p>The proportion of households who do not have a car or van. Figures are based on responses to the 2011 Census car ownership question, which asks for information on the number of cars or vans owned or available for use by one or more members of a household. It includes company cars and vans available for private use. This is included to supplement the accessibility of key services and labour market indicators in this domain, to take account of the additional challenges in accessing services for those without access to private transport. Note, The count of cars or vans in an area is based on details for private households only. Cars or vans used by residents of communal establishments are not counted.</p>	<p>Census 2011</p> <p>https://www.nomisweb.co.uk/quiry/construct/summary.asp?mode=construct&version=0&dataset=621</p>	2011

¹² More than half of those in employment travel more than 5km to work, with the average distance travelled to work across the England and Wales - 15km – Source: Census 2011 Distance travelled to work

CN3: Broadband speeds	Average broadband download line-speed (Mbit/s) for connections in the area. Note, due to variations in broadband performance over time, this data should not be regarded as a definitive and fixed view of the UK's fixed broadband infrastructure. However, the information provided here may be useful in identifying variations in broadband performance.	OfCom	2017
CN4a: Loneliness (People living alone)	Shows the proportion of households that comprise one person living alone (as a proportion of all households). Figures are self-reported and taken from the household composition questions in the 2011 census. This is included as a proxy measure of social isolation.	Census 2011 https://www.nomisweb.co.uk/auery/construct/summary.asp?mode=construct&version=0&dataset=605	2011
CN4b: Loneliness (Loneliness Index – GP Prescriptions for Loneliness)	An outcome-based loneliness index using open prescription data. Open prescription data lists medicines, dressings and appliances prescribed by NHS England primary care facilities, including General Practices (GPs), each month. Loneliness Index is created by using GP prescription data to find areas with above-average prescriptions for five conditions where loneliness has been shown to be a risk factor: Alzheimer's, depression, high blood pressure, anxiety and insomnia. An index was created for each condition by standardising the proportion of a practices prescriptions that were given for the condition relative to the levels in other practices (into z scores). The index for each condition had a value that was negative if prescribing was lower than typical and positive if it was greater than typical. The loneliness index is generated by summing together these standardised-scores for each condition. These data do not include any information about the person it was prescribed to and are averaged for a whole GP practice.	Office for National Statistics' Data Science Campus /NHS England/Red Cross https://github.com/matthewgathomas/loneliness	2019
CN4c: Loneliness (Self-reported levels of loneliness)	People who have self-reported that they 'feel lonely always or often' in the 2015/16 and 2016/17 Community Life Survey. Data is apportioned from national level to Output Area level based on Output Area Classification group. Note, data are apportioned down to Output Area level from the Community Life Survey (based on response rates by Output Area Classification Group). Caution should be applied when interpreting these results at small-area level because of the small sample size of the survey. To improve the sample size, two years of data are used.	Community Life Survey: DCMS/Output Area Classification 2011: ONS Licensed data – access via UK data archive https://www.data-archive.ac.uk/	2016 and 2017

A number of steps are applied to weight and combine these indicators to produce an overall measure.

- 1) Shrinkage has been applied to improve the reliability of small area estimates. Shrinkage estimation is used to 'borrow strength' from larger areas to increase the reliability of small area data; the impact of shrinkage will tend to move a ward's score towards that of their parent higher-level area (but generally only by a very small amount)
- 2) Maximum Likelihood Factor Analysis has been used to determine the weights of the indicators. Factor Analysis has the advantage of eliminating double counting in the index – as it picks out where indicators within a domain exert an influence on one another. And it produces statistical weights which reflect the extent to which each of the indicators explain the factor in the domain they are intending to measure.
- 3) Indicators have been grouped into two subdomains to ensure that indicators which share a common factor are weighted alongside each other. This has been done in order to make it possible to apply factor analysis weighting (see point 2) above)

The process for combining the indicator is summarised in the Flow Chart Below:

Combined connectivity indicator

