



CAMBRIDGE AND PETERBOROUGH HOUSING SUB-REGION HOUSING STOCK CONDITION ATLAS USER GUIDE

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INTRODUCTION

HOW TO USE THE CAMBRIDGE AND PETERBOROUGH HOUSING SUB-REGION HOUSING STOCK CONDITION ATLAS

The Cambridge and Peterborough Housing Sub-region Housing Stock Condition Atlas can be accessed at http://cambridgeshireinsight.org.uk/interactive-maps/housing

Cambridgeshire County Council Research Group produces a range of interactive atlases on a wide variety of subjects. The audience and layout varies from atlas to atlas and this section provides a brief guide of how to get the best out of the Cambridge and Peterborough Housing Subregion Housing Stock Condition Atlas.

GEOGRAPHY

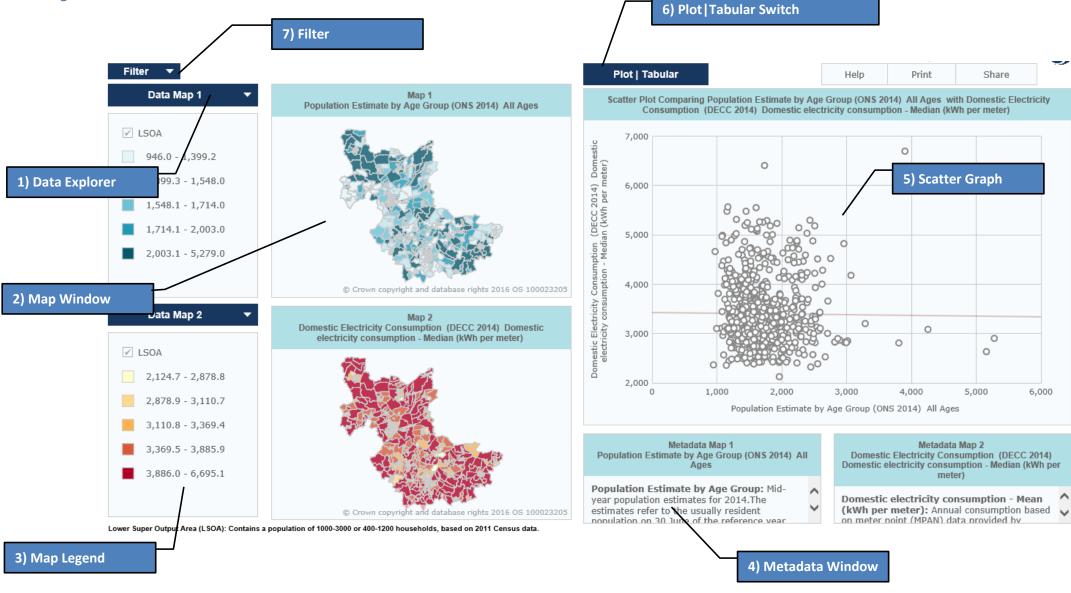
Indicators are presented as counts or statistics at Lower Super Output Area (LSOA) level. Each LSOA contains a population of 1000-3000 or 400-1200 households based on 2011 Census data. LSOA counts for the districts included in the Atlas are shown in the table below.

Table 1 LSOA counts for Housing sub-regions and districts included in the Housing Stock Condition Atlas

Area Name	LSOA Count
Cambridge Sub-Regional HMA	475
Cambridge	69
East Cambridgeshire	50
Fenland	55
Forest Heath	34
Huntingdonshire	105
South Cambridgeshire	96
St. Edmundsbury	66
Peterborough Sub-Regional HMA	265
City of Peterborough	112
Rutland	23
South Holland	49
South Kesteven	81

The maps in this report are reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of her Majesty's Stationery Office.

Figure 1: Atlas with different elements labelled



1) Data Explorer: Select the drop down box to change the data shown in the maps and scatter graph or table. The top data selector relates to Map 1 and the horizontal axis of the graph. The bottom data selector changes the data shown in the second map and on the vertical axis of the graph.

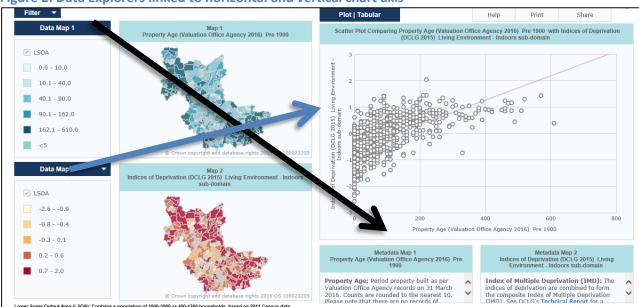
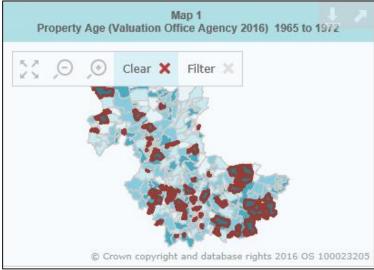


Figure 2: Data Explorers linked to horizontal and vertical chart axis

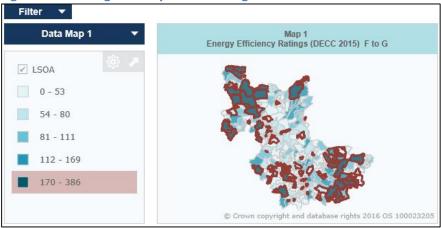
2) Map Window: Display data at LSOA level for the sub-region. The data the map shows is always listed in the title bar of the map and on the associated axis of the graph. To zoom in and out of the map hover the mouse over the top left corner of the map window to reveal the map toolbar. Click on individual areas to highlight them; selections can be cleared by clicking clear on the map toolbar.





3) Map Legend: Show the colours represented in the maps and what they mean. Select the areas in each data band by clicking on the legend. For example, clicking on the darkest shade of blue in the legend will automatically select and highlight the areas shaded in this colour on both maps. These areas will stay highlighted when you change the data. To de-select, place the mouse pointer on a map. When the toolbar appears, select Clear.

Figure 4: Selecting areas by data banding



To alter the legend colours, hover the mouse pointer over the top right hand corner of the legend box and click on the cog icon to reveal the legend settings menu. Colour schemes, their direction and the number of colours applied can be amended here. Each legend type option is also outlined below with an example.

Figure 5: Map Legend settings menu



Figure 6: Legend types

Quantile	Equal Interval	Natural Breaks	Continuous	Standard Deviation
Each class contains an approximately equal number of geographic features. This atlas defaults to quintile (5 classes) classifications for data visualisation.	The interval between class breaks is always the same irrespective of the number of classes.	Data are assigned to classes based upon their position along the data distribution relative to all other data values. The variances within all classes are minimized whereas the variances among classes are maximized.	Every LSOA is shaded a different colour using a continuous scale.	LSOAs are classified according to the number of standard deviations they lie above or below the dataset average.
© Crown copyright and database rights 2016 OS 100023205	© Crown copyright and database rights 2016 OS 100023205	©Crown copyright and database rights 2016 OS 100023205	© Crown copyright and database rights 2016 OS 100023205	© Crown copyright and database rights 2016 OS 100023205
✓ LSOA □ 0 - 53 □ 54 - 80 ■ 81 - 111 ■ 112 - 169 ■ 170 - 386	✓ LSOA 0.0 - 77.2 77.3 - 154.4 154.5 - 231.6 231.7 - 308.8 308.9 - 386.0	☑ LSOA □ 0 - 87 ■ 88 - 155 ■ 156 - 228 ■ 229 - 300 ■ 301 - 386	☑ LSOA 386 0	✓ LSOA > 2 SD below mean 1 - 2 SD below mean 0 - 1 SD below mean 0 - 1 SD above mean 1 - 2 SD above

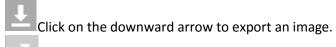
Example data viewed: Energy Efficiency Ratings (DECC 2015) F to G

- **4) Metadata Window:** Displays information describing the indicator data source.
- 5) Scatter Graph: The scatter graph charts data from Map 1 on the horizontal axis against data from Map 2 on the vertical axis. Hovering the mouse pointer over an individual point will show the exact number for the point and highlight the area on the map. Clicking on points will also highlight the corresponding areas in the maps. To de-select, place the mouse pointer on a map. When the toolbar appears, select Clear. See below for information about interpreting this chart.
- 6) Plot | Tabular Switch: The screenshot shows a scatter graph of the data presented in the two maps. To view this data as a table, click the Plot | Tabular switch.

7) Filter: The maps can be filtered by ward. Select a ward from this drop down list to zoom in on an area. To de-select, place the mouse pointer on a map. When the toolbar appears, select clear filter.

How to expand and export maps and charts from the Stock Condition Atlas

Place the mouse pointer on the top right hand corner of the map or chart you wish to expand or download to reveal a toolbar.



Click on the diagonal arrow to expand the view.

Notes for interpreting the Scatter Graph

The scatter graph charts data from Map 1 on the horizontal axis against data from Map 2 on the vertical axis. The scatter graph also shows the line of best fit through all the points. The more closely the points are clustered around this line, the more closely the two indicators shown are correlated (See Figure 7). It is important to remember that correlation does not necessarily equate to causality when interpreting this data visualisation.

No correlation

Positive correlation

Negative correlation

Weak positive Correlation

Figure 7: Scatter Graph line of best fit examples

DATA SOURCES AND BACKGROUND

The following section outlines the data featured in the Housing Stock Condition Atlas organised by theme and source. This includes background information about the data to be aware of when referring to it. A full table of indicators with metadata can also be found in the Appendix.

THEME: GENERAL

Source: Cambridge City Council

Data provided by Cambridge City Council was sourced from records of specific customer complaints. Records of actions taken by Cambridge City Council in the form of enforcement notices were also provided. These indicators for use in the atlas and ranking tool were therefore selected by staff at the City Council. The Houses in Multiple Occupation (HMOs) Complaints, housing complaints, tenancy complaints and enforcement notices data provided was anonymised, cleaned to remove records where a full address or identifiable postcode within Cambridge City was not provided, and geocoded (based on full postcodes) to generate counts at LSOA level.

Source: Valuation Office Agency

Council tax data made available from the Valuation Office Agency has been used to provide **property age** and **property type** indicators here. Note that the way in which the Valuation Office Agency (VOA) provides this data has recently changed, with statistics for both property age and type forming a single VOA publication. Property age correlates particularly strongly with build quality; for example, older properties are more likely to be thermally inefficient because of having solid walls¹. Please note that there are no records of dwellings having been built between 1939 and 1945 due to the Second World War. Property type data has also been included as a general indicator of the housing stock within each LSOA. This data can be viewed in the Housing Stock Condition Atlas, by selecting age bands and types (including property types with number of bedrooms).

Source: Census 2011

Data from the 2011 Census has been used to indicate **tenure type** here. In terms of tenure, some errors from self-reporting can arise. For example East Cambridgeshire District Council transferred its housing stock to a housing association in the late 1990s but the Census still reported a small number of council tenants in 2011, most likely households who were previously council tenants who have not realised their homes have been transferred (See Chapter 4 of the 2013 Strategic Housing Market Assessment; http://www.cambridgeshireinsight.org.uk/housing/shma/shma-current-version).

¹ As described in http://www.nef.org.uk/knowledge-hub/energy-in-the-home/solid-wall-insulation.

THEME: ENERGY EFFICIENCY & FUEL POVERTY

Source: Department of Energy and Climate Change (DECC)

Domestic gas and electricity consumption data is produced by DECC, based on meter data from energy companies². The dataset shows the number of meters in an area, the overall consumption in kWh and the mean and median per household consumption³. DECC have made this data available with the intention of supporting targeted local interventions in energy efficiency programmes. However, the published methodology⁴ does acknowledge some limitations to the LSOA level consumption data. DECC have based their calculations on the number of households recorded in the 2011 Census, so changes in housing stock may impact this data. This is likely to be of particular relevance when considering areas where there are a high number of more recent dwelling completions.

Energy Performance Certificates (EPC) data is published by DECC and derived from the National Energy Efficiency Database 2012 data. It is weighted by property age, property type, and floor area. There is a bias in the EPC data with more energy efficient properties having been issued an EPC compared to the general dwelling stock, so the weighting lifts the overall results. Notes about this dataset are included in the DECC data download⁵. At a national level the English Housing Survey found the least energy efficient properties to be predominantly privately rented⁶ and from 2018 it will not be lawful to privately let out homes with the lowest energy performance ratings of F or G⁷.

Estimates of Fuel Poverty are provided by DECC based on two definitions:

- Spending more than 10% of income on heating the home to a reasonable degree of thermal comfort.
- Lower than average income with higher than average fuel cost (LIHC).

The LIHC definition considers a household in fuel poverty when paying their above national average fuel costs would render the household below the official poverty line⁸. Hence the second definition is more conservative than the first as it removes those needing to spend more than 10% of income on fuel but able to afford to do so i.e. high income households in large thermally inefficient homes. DECC have stated that the model used to estimate fuel poverty has limitations at low level geographies and is best considered a means of highlighting particular extremes of fuel poverty,

² Available at https://www.gov.uk/government/statistics/lower-and-middle-super-output-areas-electricity-consumption

³ A full and detailed methodology guide is available at https://www.gov.uk/government/statistics/regional-energy-data-guidance-note.

⁴ See https://www.gov.uk/government/uploads/system/uploads/attachment data/file/489718/Subnational methodology and guidance booklet December 2015.pdf

⁵ https://www.gov.uk/government/statistics/national-energy-efficiency-data-framework-need-ad-hoc-requests-2014

⁶https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/445445/Chapter_3_Hard_t_o_treat_and_energy_inefficient_properties.pdf

⁷ See http://www.sustainablehomes.co.uk/blog/what-does-the-new-government-mean-for-sustainable-homes-and-construction

⁸ https://www.gov.uk/government/collections/fuel-poverty-statistics

rather than a way of distinguishing between LSOAs with very similar fuel poverty levels⁹. DECC intends to develop their model for application to lower level geographies further in future. This data is also available to view alternatively in a dedicated interactive atlas for the Cambridge housing subregion (http://cambridgeshireinsight.org.uk/housing/existing-homes/fuel-poverty.

Off-gas homes, i.e. those without access to mains gas for heating or cooking, are more likely to require more expensive forms of heating¹⁰. DECC has estimated the proportion of households not connected to the mains gas network using gas meter and household count data. As is outlined above for energy consumption data, this indicator may also be affected in areas of major change to household numbers since the 2011 Census data has been used.

Source: Census 2011

Households without central heating were documented by the 2011 Census. A household was classified as having central heating if it was present in some or all rooms, but whether or not it was actually used was not taken into consideration¹¹. As is the case for households not connected to the mains gas network, those without central heating are more likely to require more expensive forms of heating.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/468011/Fuel_Poverty_Report_2015.pdf

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/267375/off_gas_grid.pdf

⁹ See Chapter 5 of

¹⁰ See also

¹¹ https://www.nomisweb.co.uk/census/2011/ks403ew.pdf

THEME: WIDER ENVIRONMENTAL FACTORS

Source: Cambridgeshire Research Group

Crime count data is taken from police records of individual incidents and totalled for each LSOA by the Cambridgeshire Research Group. Further ward level information about other types of crime is presented in a separate atlas at http://www.cambridgeshireinsight.org.uk/interactive-maps/crime
Total Crime figures do not include recorded antisocial behaviour, so this has also been included as an additional category. As a type of crime specific to housing, dwelling burglary numbers are also provided (note that the definition of dwelling burglary does not encompass outbuildings located separate to the residential dwelling¹²).

Source: Cambridge City Council

This data has been provided by environmental health officers at Cambridge City Council and shows totals of each incident type for LSOAs in Cambridge City. **Fly tipping** incidents in Cambridge City are recorded by the eastings and northings of the waste location. The data provided was processed such that the small number of records without full eastings and northings were excluded, and the remaining records geocoded to generate LSOA counts. It should be noted that this data does not take into account whether the location of waste or type of waste was domestic or commercial. **Noise Complaints, Noise Notices and Pest Control Activity** records provided by Cambridge City Council were anonymised, cleaned to remove records where a full address or identifiable postcode within Cambridge City was not provided, and geocoded (based on full postcodes) to generate counts at LSOA level.

Source: Census 2011

Census data has been used to provide a measure of **overcrowding** based on the number of bedrooms available for members of a household. Occupancy rating provides a measure of whether a household's accommodation is overcrowded or under occupied based on the number of bedrooms. The number of bedrooms required (based upon household member age and relationships) is subtracted from the number of bedrooms in the household's accommodation to obtain the occupancy rating. An occupancy rating of -1 implies that a household has one fewer bedroom than required, whereas +1 implies that they have one more bedroom than the standard requirement. It should be noted that the size of the bedrooms is not taken into account by this measure.

¹² http://opendata.cambridgeshireinsight.org.uk/dataset/cambridgeshire-crime-counts-and-rates/resource/337cb7cc-6fd8-4f86-93f9-5d49f4ecb2dc)

THEME: DEPRIVATION, VULNERABILITY & LOW INCOMES

Source: Department for Communities and Local Government (DCLG)

The Department for Communities and Local Government published the English Indices of Deprivation in 2015, the scores for which are provided in both the atlas and ranking tool. This is a measure of deprivation across a number of themes or dimensions at LSOA level. It is based on the idea of distinct dimensions of deprivation which can be recognised and measured separately. People may be counted as deprived in one or more of the dimensions, depending on the number of types of deprivation that they experience. The overall Index of Multiple Deprivation (IMD) is a weighted area level aggregation of these specific dimensions of deprivation. Most indicators in the Indices of Deprivation 2015 relate to 2012/2013. Further details about the data used to generate those scores can be found the IMD 2015 technical report¹³ and a summary is provided below. These indicators are generally discussed in terms of ranks and deciles¹⁴ and a dedicated interactive atlas is available http://atlas.cambridgeshire.gov.uk/Imd/IMD15/atlas.html to consider LSOAs in comparison to those across the county and nationally. This enables the extremes of deprivation to be highlighted, as the DCLG guidance for use of the IMD suggests.

Figure 8: Summary of data used to generate the Income Deprivation Affecting Children Index and Income Deprivation Affecting Older People Index 2015 (DCLG)

Income Deprivation Affecting	Proportion of all children aged 0 to 15 living in income deprived families
Children Index (IDACI)	receiving:
	Income Support
	Income-based Jobseekers Allowance
	Income-based Employment Support Allowance
	Pension Credit (Guarantee)
	Working Tax Credit or Child Tax Credit with an equivalised income
	(excluding housing benefit) below 60 per cent of the national median
	before housing costs.
Income Deprivation Affecting Older	Adults aged 60 or over receiving
People Index (IDAOPI)	Income Support
	Income-based Jobseekers Allowance
	Income-based Employment Support Allowance
	Pension Credit (Guarantee)

¹³https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/464485/English_Indices_of Deprivation 2015 - Technical-Report.pdf.

¹⁴ See also the table explaining national deciles on page 7 of DCLG frequently asked questions document: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/464635/English_Indices_of_Deprivation_2015_-_Frequently_Asked_Questions.pdf

Figure 9: Summary of data used to generate the Indices of Deprivation 2015 (DCLG)

	Figure 9: Summary of data used to generate the Indices of Deprivation 2015 (DCLG)		
Ind	Index of Multiple Deprivation (IMD) Domains combined for overall index.		
	Barriers to Housing and Services Crime	 Road distance to: post office; primary school; general store / supermarket; GP surgery Household overcrowding Homelessness Recorded crime rates for: Violence Burglary Theft Criminal damage 	
	Education, Skills and Training Deprivation	 Key stage 2 attainment: average points score Key stage 4 attainment: average points score Secondary school absence Staying on in education post 16 Entry to higher education Adults with no or low qualifications, aged 25-59/64 English language proficiency, aged 25-59/64 	
Domains	Employment Deprivation	 Claimants of Jobseeker's Allowance, aged 18-59/64 Claimants of Employment and Support Allowance, aged 18-59/64 Claimants of Incapacity Benefit, aged 18-59/64 Claimants of Severe Disablement Allowance, aged 18-59/64 Claimants of Carer's Allowance, aged 18-59/64 	
Don	Health Deprivation and Disability	 Years of potential life lost Comparative illness and disability ratio Acute morbidity Mood and anxiety disorders 	
	Income Deprivation	 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 Child Tax Credit and Working Tax Credit families, below 60% median income not already counted Asylum seekers in England in receipt of subsistence support, accommodation support, or both. 	
	Living Environment	 Housing in poor condition Houses without central heating Air quality Road traffic accidents 	
	Sub- Living Domain: Environment - Indoors	 Housing in poor condition Houses without central heating 	

Source: Office for National Statistics (ONS)

Estimates of the usual resident population by age group are published by the Office for National Statistics at LSOA level. This estimate is based on registration, survey and administrative data and builds upon previous estimates and Census data. Long-term international migrants are encompassed by this estimate, but short-term migrants (i.e. in the country for less than 12 months) are not accounted for. The age groups featured in the atlas here correspond to those highlighted in the Housing Health and Safety Rating System (HHSRS) Guidance¹⁵.

Source: Census 2011

Residents with Long-term Health Problems or Disability are documented by the 2011 Census. This qualifies residents with a long term illness or disability in terms of self-reported limitations to day-to-day activities over a 12 month period. This may differ from the definition of disability that applies to eligibility for disability related benefits.

-

¹⁵ See https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/9425/150940.pdf

APPENDIX

FULL METADATA TABLE

General Theme		
Houses in Multiple Occupation (HMOs) Complaints (Cambridge City Council 2013-2015)	HMO Complaints - CHH: Complaints logged with Cambridge City Council relating to HMOs (except for emergency complaints).	
Housing Complaints (Cambridge City Council 2013-2015)	All Housing Complaints: The total of Housing Complaints logged with Cambridge City Council including Emergency, Housing Complaint - Private Rented (non HMO). Emergency - CHF: Complaints logged with Cambridge City Council which need to be dealt with as a priority, for example following a fire or similar. Housing Complaints - Private Rented (non HMO) - CHC: Complaints logged with Cambridge City Council relating to private rented housing which is not an HMO. Overcrowding - CHO: Complaints logged with Cambridge City Council relating to alleged overcrowding. Note that the properties included here may not be found to be overcrowded on inspection. Unfit/disrepair - Private Rented (non HMO) - CHR: Disrepair complaints logged with Cambridge City Council relating to private rented housing which is not an HMO.	

Housing Enforcement Notices (Cambridge City Council	All Housing Enforcement Notices: All housing enforcement notices served by Cambridge City Council. Includes Category 1 Hazard (HG20), Hazard Awareness Notices (HG28), Improvement Notices (HG11), Management Notices (HMOs only -HGMG).
2010-2015)	Prohibition Notice Relating to Category 1 Hazard - HG20: Category 1 Hazard (HG20) Notices served using "The Housing Act 2004" under section 20. It would be served to prohibit the use of a dwelling or part of a dwelling where there is a category 1 hazard.
	Hazard Awareness Notices - HG28: Hazard Awareness Notices (HG28) served using "The Housing Act 2004" under section 28. It is an advisory notice informing the relevant part of the hazard which arises as result of a deficiency at a premises.
	Improvement Notices - HG11: Improvement Notices (HG11) Notices served using "The Housing Act 2004" under section 11. Generally used when the property has a category 1 hazard for which there is a legal obligation to carry out repairs. The notice would be served on the responsible person for the repairs usually the person in receipt of the rent i.e. landlord, agent or owner.
	Suspended Prohibition Order - HG23:
	Management Notices (HMOs only) - HGMG: Management Notices (HMOs only - HGMG) are served using "The Hazard Act 2004". This notice is only used at an HMO and is used to ensure the property is maintained at the correct standard.
Property Age (Valuation Office Agency 2016)	Property Age: Period property built as per Valuation Office Agency records on 31 March 2016. Counts are rounded to the nearest 10. Counts less than 5 are suppressed in the source data (i.e. listed as <5) and listed in this tool as a count of 4 in order to allow ranking. Please note that there are no records of dwellings having been built between 1939 and 1945 due to the Second World War. In some cases the period when the property was built has not been recorded on the Valuation Office Agency system. Where no code for build period is recorded these records have been classified as 'Unknown'.

Property Type	Annexe: Property type as per Valuation Office Agency records 2016. (Includes all self contained annexes.)
(Valuation Office Agency 2016)	Bungalow: Property type as per Valuation Office Agency records 2016. (Includes dormer bungalows and properties with loft conversions where the family bathroom and at least one bedroom remains on the ground floor.)
	Flat or Maisonette: Property type as per Valuation Office Agency records 2016. (A maisonette is classified as a flat with living accommodation on more than one floor.)
	House Detached: Property type as per Valuation Office Agency records 2016.
	House Semi Detached: Property type as per Valuation Office Agency records 2016.
	House Terraced: Property type as per Valuation Office Agency records 2016.
	Other: Property type as per Valuation Office Agency records 2016.
	Unknown: Property type as per Valuation Office Agency records 2016.
	Note that counts less than 5 are suppressed in the source data (i.e. listed as <5) and listed in the ranking tool as a count of 4 in order to allow full ranking.
Tenancy Complaints (Cambridge City Council 2013-2015)	All Tenancy Complaints: All tenancy complaints including Harassment (HARR), Illegal Evictions (ILEV), Non Harassment (NOHR), Tenancy Deposit Complaints (TDCP).
2013-2013)	Harassment - HARR: Complaints logged with Cambridge City Council when a tenant alleges harassment from their landlord.
	Illegal Evictions - ILEV: Complaints logged with Cambridge City Council reporting when a landlord is illegally trying evict a tenant.
	Non-Harassment - NOHR: Complaints logged with Cambridge City Council classified as not relating to harassment.
	Tenancy Deposit Complaints - TDCP: Complaints logged with Cambridge City Council regarding a tenancy deposit.

Tenure Type (Census 2011)	Tenure Type: Households classified by tenure according to Census responses.
	% Tenure Type: Percentage of households classified by tenure according to Census responses. See Nomis (https://www.nomisweb.co.uk/census/2011/qs405ew .

	Energy Efficiency & Fuel Poverty Theme
Domestic Electricity Consumption (DECC 2014)	Domestic electricity consumption - Mean (kWh per meter): Annual consumption based on meter point (MPAN) data provided by energy suppliers. Electricity consumption figures are estimates of actual consumption and have not been weather corrected. Based on consumption recorded 1st February to 31st January and 1st January to 31st December at differing intervals. Domestic electricity consumption - Median (kWh per meter): Annual consumption based on meter point (MPAN) data provided by energy suppliers. Electricity consumption figures are estimates of actual consumption and have not been weather corrected. Based on consumption recorded 1st February to 31st January and 1st January to 31st December at differing intervals.
	See Regional Energy Data Guidance Notes (https://www.gov.uk/government/statistics/regional-energy-data-guidance-note).
Domestic Gas Consumption (DECC 2014)	Domestic Gas Consumption - Mean consumption (kWh per meter): Annual consumption based on meter point (MPRN) data provided by Xoserve and independent gas transporters. Consumers using less than 73,200 kWh a year are classified as domestic. Gas consumption figures have been weather corrected. Based on consumption recorded 1st October to 30th September.
	Domestic Gas Consumption - Median consumption (kWh per meter): Annual consumption based on meter point (MPRN) data provided by Xoserve and independent gas transporters. Consumers using less than 73,200 kWh a year are classified as domestic. Gas consumption figures have been weather corrected. Based on consumption recorded 1st October to 30th September.
	See Regional Energy Data Guidance Notes (https://www.gov.uk/government/statistics/regional-energy-data-guidance-note).

Energy Efficiency Ratings (DECC 2015)

A to C: EPC ratings indicate how energy efficient a building is. Buildings are rated from A (very efficient) to G (inefficient). The data are based on EPC data up to October 2012, published in 2015.

D to E: EPC ratings indicate how energy efficient a building is. Buildings are rated from A (very efficient) to G (inefficient). The data are based on EPC data up to October 2012, published in 2015.

F to G: EPC ratings indicate how energy efficient a building is. Buildings are rated from A (very efficient) to G (inefficient). The data are based on EPC data up to October 2012, published in 2015.

See NEED Anonymised Dataset accompanying documentation

(https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/332169/need_anonymised_dataset_accomp_anying_documentation.pdf).

Fuel Poverty (DECC 2012-2014)

10% of income on fuel (number) 2012: Households spending 10% or more of their income on fuel. This indicator was last published in 2012.

10% of income on fuel (percentage) 2012: Households spending 10% or more of their income on fuel. This indicator was last published in 2012.

High cost low income (number) 2012: Households subject to high energy costs and low income.

High cost low income (number) 2013: Households subject to high energy costs and low income.

High cost low income (number) 2014: Households subject to high energy costs and low income.

High cost low income (percentage) 2012: Households subject to high energy costs and low income.

High cost low income (percentage) 2013: Households subject to high energy costs and low income.

High cost low income (percentage) 2014: Households subject to high energy costs and low income.

Households Not Connected to Mains Gas (DECC 2014)	Estimated percentage of households not connected to the gas network (gas meters to number of households): Estimates of households not connected to mains gas. These estimates are produced by comparing the number of households for each LSOA (as given in the 2011 census) with estimates for the number of domestic gas meters in each LSOA (as given in DECC's subnational consumption statistics).
	Estimated number of households not connected to the gas network: Estimates of households not connected to mains gas. These estimates are produced by comparing the number of households for each LSOA (as given in the 2011 census) with estimates for the number of domestic gas meters in each LSOA (as given in DECC's sub-national consumption statistics). See Regional Energy Data Guidance Notes (https://www.gov.uk/government/statistics/regional-energy-data-guidance-note).
Households Without Central Heating (Census 2011)	% of households without central heating: Households recorded as having no central heating. Count of households without central heating: Households recorded as having no central heating. See Nomis (https://www.nomisweb.co.uk/census/2011/ks403ew).

Wider Environmental Factors Theme

Crime Counts (Cambridgeshire Research Group 2013-2015)

Total Crime: Total crime covers all recorded crime. An event is recorded as a crime when it becomes known to the police and they record it as such, with the recording definitions governed centrally by Home Office instructions. Please see the Home Office rules for recording crime. Data applies to financial years running from April to end of March. See the Cambridgeshire Insight Interactive Crime Map (http://www.cambridgeshireinsight.org.uk/interactive-maps/crime).

Total Antisocial Behaviour (ASB): Antisocial Behaviour (ASB) refers to a range of behaviours including abandoned vehicles, animal problems, begging or vagrancy, hoax calls to emergency services, inappropriate use or sale or possession of fireworks, littering or drug paraphernalia, malicious or nuisance communications, noise, prostitution related activity, neighbours, rowdy or inconsiderate behaviour, street drinking, trespass and vehicle nuisance or inappropriate use recorded according to the National Standards for Incident Recording.

Total Dwelling Burglary: Count of dwelling burglaries recorded by police. Dwelling burglary refers to general dwelling burglary, this includes aggravated, as laid out in Home Office classifications 28 and 29. Please see the Home Office rules for recording crime. Data applies to financial years running from the beginning of April to end of March.

% of Total Crime Count in Cambridge City: % of total crime count across Cambridge City attributed to LSOA. Total crime covers all recorded crime. An event is recorded as a crime when it becomes known to the police and they record it as such, with the recording definitions governed centrally by Home Office instructions. Please see the Home Office rules for recording crime. Data applies to financial years running from April to end of March.

% of Total Antisocial Behaviour (ASB) Count in Cambridge City: % of ASB count across Cambridge City attributed to LSOA. Antisocial Behaviour (ASB) refers to a range of behaviours including abandoned vehicles, animal problems, begging or vagrancy, hoax calls to emergency services, inappropriate use or sale or possession of fireworks, littering or drug paraphernalia, malicious or nuisance communications, noise, prostitution related activity, neighbours, rowdy or inconsiderate behaviour, street drinking, trespass and vehicle nuisance or inappropriate use recorded according to the National Standards for Incident Recording.

% of Total Dwelling Burglary Count in Cambridge City: % of dwelling burglaries across Cambridge City attributed to LSOA. Dwelling burglary refers to general dwelling burglary, this includes aggravated, as laid out in Home Office classifications 28 and 29. Please see the Home Office rules for recording crime. Data applies to financial years running from the beginning of April to end of March.

Flytipping (Cambridge City Council 2012-2015)

Total: Total flytipping recorded by Cambridge City Council (all waste types).

Animal Carcass: Flytipping recorded by Cambridge City Council and grouped by waste type.

Asbestos: Flytipping recorded by Cambridge City Council and grouped by waste type.

Black Bags - Commercial: Flytipping recorded by Cambridge City Council and grouped by waste type.

Black Bags - Household: Flytipping recorded by Cambridge City Council and grouped by waste type.

Chemical Drums: Flytipping recorded by Cambridge City Council and grouped by waste type.

Clinical: Flytipping recorded by Cambridge City Council and grouped by waste type.

Construction/ Demolition/ Excavation: Flytipping recorded by Cambridge City Council and grouped by waste type.

Green: Flytipping recorded by Cambridge City Council and grouped by waste type.

Other: Flytipping recorded by Cambridge City Council and grouped by waste type.

Other - Commercial: Flytipping recorded by Cambridge City Council and grouped by waste type.

Other Electrical: Flytipping recorded by Cambridge City Council and grouped by waste type.

Other - Household: Flytipping recorded by Cambridge City Council and grouped by waste type.

Tyres: Flytipping recorded by Cambridge City Council and grouped by waste type.

Vehicle Parts: Flytipping recorded by Cambridge City Council and grouped by waste type.

White Goods: Flytipping recorded by Cambridge City Council and grouped by waste type.

Noise Complaints (Cambridge City Council 2013-2015)	All Noise Complaints (Residential and Unknown): Count of noise complaints logged by Cambridge City Council linked to residential addresses including those originating from addresses identified as residential and unknown property types. Noise Complaints Residential only: Count of noise complaints logged by Cambridge City Council linked to residential addresses. Noise Complaints Unknown only: Count of noise complaints logged by Cambridge City Council, the address for which could not be classified as residential or non-residential.
Noise Notices (Cambridge City Council 2013-2015)	Noise Notices: Count of noise notices served by Cambridge City Council.
Overcrowding (Bedrooms fewer than required) (Census 2011)	% Occupancy rating (bedrooms) of -1 or less: % of Households in LSOA with occupancy rating of -1 or less. Occupancy rating provides a measure of whether a household's accommodation is overcrowded or under occupied based on the number of bedrooms. The ages of the household members and their relationships to each other are used to derive the number of rooms/bedrooms they require, based on a standard formula. The number of rooms/bedrooms required is subtracted from the number of rooms/bedrooms in the household's accommodation to obtain the occupancy rating. An occupancy rating of -1 implies that a household has one fewer bedroom than required, whereas +1 implies that they have one more bedroom than the standard requirement. Occupancy rating (bedrooms) of -1 or less: Count of Households in LSOA with occupancy rating of -1 or less. Occupancy rating provides a measure of whether a household's accommodation is overcrowded or under occupied based on the number of bedrooms. The ages of the household members and their relationships to each other are used to derive the number of rooms/bedrooms they require, based on a standard formula. The number of rooms/bedrooms required is subtracted from the number of rooms/bedrooms in the household's accommodation to obtain the occupancy rating. An occupancy rating of -1 implies that a household has one fewer bedroom than required, whereas +1 implies that they have one more bedroom than the standard requirement. See Nomis (https://www.nomisweb.co.uk/census/2011/lc4108ew).

Pest Control Activity (Cambridge City Council 2013-2015)

All Pest Types: Pest control activity recorded by Cambridge City Council relating to all pest types.

Bed Bugs - PCB: Pest control activity recorded by Cambridge City Council relating to bed bugs.

Cockroaches - PCC: Pest control activity recorded by Cambridge City Council relating to cockroaches.

Multiple Pests- PC07: Pest control activity recorded by Cambridge City Council relating to multiple pests.

General Enquiry - GE: Pest control activity recorded by Cambridge City Council relating to a general pest control enquiry.

Mice - PCM: Pest control activity recorded by Cambridge City Council relating to mice.

Rats - PCR: Pest control activity recorded by Cambridge City Council relating to rats.

Deprivation, Vulnerability & Low Incomes Theme

Indices of Deprivation (DCLG 2015)

Index of Multiple Deprivation (IMD): The indices of deprivation are combined to form the composite Index of Multiple Deprivation (IMD). See DCLG's Technical Report for a detailed methodology for each domain and the way in which they are combined

(https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/464485/English_Indices_of_Deprivation_20_15 - Technical-Report.pdf).

Barriers to Housing and Services: The Barriers to Housing and Services Domain measures the physical and financial accessibility of housing and local services. See section 4.8 of the Technical Report.

Crime: Crime is an important feature of deprivation that has major effects on individuals and communities. The Crime Domain measures the risk of personal and material victimisation at local level. See section 4.7 of the Technical Report.

Education, Skills and Training Deprivation: The Education, Skills and Training Domain measures the lack of attainment and skills in the local population. See section 4.5 of the Technical Report.

Employment Deprivation: The Employment Deprivation Domain measures the proportion of the working-age population in an area involuntarily excluded from the labour market. This includes people who would like to work but are unable to do so due to unemployment, sickness or disability, or caring responsibilities. See section 4.4 of the Technical Report.

Health Deprivation and Disability: The Health Deprivation and Disability Domain measures the risk of premature death and the impairment of quality of life through poor physical or mental health. The domain measures morbidity, disability and premature mortality but not aspects of behaviour or environment that may be predictive of future health deprivation. See section 4.6 of the Technical Report.

Income Deprivation: The Income Deprivation Domain measures the proportion of the population in an area experiencing deprivation relating to low income. This encompasses those people that are out-of-work, and those that are in work but who have low earnings. See section 4.3 of the Technical Report.

Income Deprivation Affecting Children Index (IDACI): The Income Deprivation Affecting Children Index is the proportion of all children aged 0 to 15 living in income deprived families See section 4.3.16 the Technical Report.

Income Deprivation Affecting Older People Index (IDAOPI): The Income Deprivation Affecting Older People Index is the proportion of all those aged 60 or over who experience income deprivation. See section 4.3.16 of the Technical Report. Living Environment: The Living Environment Deprivation Domain measures the quality of the local environment. This domain consists of two combined sub-domains: 'indoors' living environment (a measure of housing quality) and 'outdoors' living environment (a measure including that of air quality and road traffic accidents). See section 4.9 of the Technical Report. Living Environment - Indoors sub-domain: A sub-domain of the Living Environment Deprivation Domain. Consists of the proportion of houses that do not have central heating (as recorded by the 2011 Census) and the proportion of social and private homes that fail to meet the Decent Homes standard (modelled using 2011 English Housing Survey data alongside a commercially available data set). See section 4.9 of the Technical Report. **Population Estimate by** Population Estimate by Age Group: Mid-year population estimates for 2014. The estimates refer to the usually resident population on 30 June of the reference year and are published annually. See ONS methodology **Age Group** (http://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualsmall (ONS 2014) areapopulationestimates/mid2014andmid2013#methodology). **Residents With Long-**Day-to-day activities limited a little: Responses to Census Question 'Are your day-to-day activities limited because of a health problem or disability which has lasted, or is expected to last, at least 12 months?'. Respondents were prompted to include term Health Problem or Disability problems related to old age. (Census 2011) Day-to-day activities limited a lot: Responses to Census Question 'Are your day-to-day activities limited because of a health problem or disability which has lasted, or is expected to last, at least 12 months?'. Respondents were prompted to include problems related to old age. Day-to-day activities not limited: Responses to Census Question 'Are your day-to-day activities limited because of a health problem or disability which has lasted, or is expected to last, at least 12 months?'. Respondents were prompted to include problems related to old age. See questionnaire details (http://webarchive.nationalarchives.gov.uk/20160105160709/http://ons.gov.uk/ons/guidemethod/census/2011/the-2011-census/2011-census-questionnaire-content/2011-census-questionnaire-for-england.pdf).

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About Cambridgeshire Research Group

Cambridgeshire Research Group is the central research and information section of Cambridgeshire County Council. We use a variety of information about the people and economy of Cambridgeshire to help plan services for the county. Cambridgeshire Research Group also supports a range of other partner agencies and partnerships.

Subjects covered by the Cambridgeshire Research Group include:

- Consultations and Surveys
- Crime and Community Safety
- Current Staff Consultations
- Data Visualisation
- Economy and Labour Market
- Health
- Housing
- Mapping and Geographic Information Systems
- Population
- Pupil Forecasting