Guide to using 2021 Census statistics in Camden

The 2021 Census was undertaken on Sunday 21 March 2021.
This guide will show you how to access data for Camden or other areas. It will explain about the different types of census data and about the geography/areas for which it is available.

Warning

The 2021 Census was conducted during a period of COVID-19 lockdown restrictions which affected the number of people living in Camden. At that time, many people were absent who would normally be present – including many students, younger workers, EU nationals and people with access to alternative or second addresses. Although people may have subsequently returned, they will not be seen in the 2021 Census data. ONS hope to make an estimate of those missed and to include these as an adjustment into their revised Mid-year Estimates of population series (an experimental process, possibly subject to revision).

ONS is adamant that the 2021 Census process was robust, and their methods worked well to estimate the people living in Camden at the time of the census. It recognises the unique time that the census took place, so results will not reflect completely the people resident prior to the pandemic.

Using census data Usually census data is best used in terms of proportions rather than as absolute numbers, e.g. % tenure, or % people with long-term illness or disability. This is especially so for the 2021 Census data that has been affected by people missing from the population, but also allows the comparison between areas that vary in population size.

Caution is advised using the 2021 Census statistics for Camden.

Contents

What is the census

The census happens every 10 years, conducted by the Office for National Statistics (ONS) in England & Wales. The census provides a statistical picture of all the people and households in England and Wales. The answers given to census questions and the statistics derived from them help organisations make decisions on planning and funding public services, including transport, education and healthcare. For questions asked in 2021 see 2021 Census household paper questionnaire.

Protecting personal data

One of the most important aspects of the census is that personal data is kept safe and that **no one can be identified as an individual**, or perceived to be identified, from the census statistics. An individual's census data is protected by law (1920 Census Act) for 100 years, such that data from the 1921 Census is only now being made available from the archives. Data from the 2021 Census is similarly protected until 2121 by the same rule. However, **anonymous census statistics** are made available for a range of geographical areas.

When providing statistics from the census ONS takes several precautions which are referred to as *Statistical Disclosure Control* to protect an individual from being identified. These measures include:

- Targeted record swapping
- Small cell perturbation
- Disclosure rules
- Small counts protection

For further information about Statistical Disclosure Control see Protecting personal data.

Geographies

Census data is available at different geographies, but the main rule of thumb is the higher the geographic level, the more reliable and most detailed the data is available (usually local authority level and above), while the more local the geography, the less detail and less reliable the data.

There are two main types of geography when considering census statistics, **administrative** and **statistical**, though there are other geographies too[1]:

Administrative geographies are the most familiar and relate to national and local government boundaries. ***Local authority*** areas are the principal geography for which statistics are produced. These fit within English ***regions*** and within England, which then sits within the ***countries*** of the United Kingdom.

Within local authorities are further administrative areas called ***wards*** and ***parishes***, though within London only wards exist to provide democratic representation via ward councillors. Statistics for these are produced on a 'best-fit' basis due to concerns about the risk of disclosure[2]. Data from the 2021 Census is available for the Camden local authority (borough) area and for the new (2022) wards[3].

[1] Other geographies include international, health, electoral, postal, national parks, etc.

[2] If exact matching of people/households to wards was allowed, modern computing methods make it possible to identify slithers of geography that could allow an individual to be identified.

[3] Wards are reviewed regularly to ensure equal access voters to councillors. ONS has recalculated 2011 Census to the new 2022 boundaries to allow comparisons over the decade.

Statistical geographies were first introduced by ONS in 2003 with the aim of making areas more comparable in terms of their size by numbers of people and households[4], as local authority and wards can vary hugely in size making comparisons between some areas very difficult. The ethos was to create a set of areas that could remain comparable over time, with very little change to areas due to population increases or decreases.
Below is a guide to the current set of statistical geographies:

- **Output areas** (OAs) are the lowest level of statistical geography, and they are the smallest areas for which complex census data is released[5]. Output Areas originally were automatically computed from 2001 Census data, taking collections of postcodes, and creating areas with target thresholds of population (150-625 residents) and households (40-250 households). The 2001 Census-based data created 733 OAs in Camden. Each OA automatically snaps to a boundary with another OA so that they seamlessly cover the whole country. Each set of OAs nests exactly within the local authority area.

  Over time population changes and with it so do OAs, such that when OA thresholds are broken, an oversized OA will be split into two new ones, while an undersized OA will be amalgamated with another. Thus, the Output Area geography is updated with each new census to maintain the overall structure. Over time, the changes in Camden are:

  2001 Census-based OAs = 733 in Camden
  2011 Census-based OAs = 749 in Camden
  2021 Census-based OAs = 751 in Camden

  Because of the changes to the OA geography over time it is not always possible to compare all OAs over the same period, though most of the OAs will have remained unchanged and comparable. ONS suggest that about 5% of areas will change each time they are updated. The most important thing to remember is that there is a unique Output Area geography for each census and that the data available for each census relates to its own specific OA geography.

  Output Area codes allow the identification and location of an OA. Each is given a unique 9-character code starting E00 followed by a six-figure reference number. There are no names, so OAs are best looked up on a map (e.g. 2021 Census-based Output Area map).
  To identify codes between censuses, the column title will have the following format, e.g. "OA21CD", where:

  OA = 'Output Area', the geography type
  21 = '2021', the census year the boundary relates to
  CD = 'code', the data type (as opposed to NM=name)

[4] Each area has a target size and upper and lower ranges in terms of usual residents and households, as well as some additional requirements regarding tenure.
[5] High-level census estimates of total residents and households are released for postcodes, but not characteristic data.

- **Lower-layer Super Output areas (LSOAs)** are the next level up of statistical geography, based on aggregations of OAs. Again, the LSOA areas are assembled using calculations of the statistics for OAs to a set of size rules for LSOAs – containing between 1,000-3,000 residents and 400-1,200 households. The 2001 Census-based data created 133 LSOAs in Camden. Each LSOA automatically snaps to a boundary with another LSOA so that they seamlessly cover the whole country. Each set of LSOAs nests exactly within the local authority area.

  Over time population changes and with it so do LSOAs, such that when LSOA thresholds are broken, an oversized LSOA will be split into two new ones, while an undersized LSOA will be amalgamated with another. The larger size of the LSOA areas has been quite stable for Camden, such that the 2001 Census and 2011 Census-based LSOAs remained unchanged, but changes did occur for the 2021 Census-based LSOAs. Thus, the LSOA in Camden are:

  2001 Census-based LSOAs = 133 in Camden
  2011 Census-based LSOAs = 133 in Camden (unchanged from 2001)
  2021 Census-based LSOAs = 130 in Camden

  LSOA codes and names allow the identification and location of an LSOA. Each is given a unique 9-character code starting E01 followed by a six-figure reference number (E01000842). LSOAs are also given names, so Camden LSOAs have a name that starts with "Camden" followed by a space and a 4-character code (e.g. 'Camden 011A' that corresponds to E01000842). Best mapped: 2021 Census-based LSOA map. To identify LSOA codes or LSOA names between censuses, the column title will have the following format, e.g. "LSOA21CD", where:

  LSOA = 'LSOA', the geography type
  21 = '2021', the census year the boundary relates to
  CD = 'code', the data type (or NM for name)

  Note. 2001 Census and 2011 Census-based LSOAs had the added advantage of nesting exactly within Camden's old pre-2022 wards. However, the 2022 changed ward structure means that correspondence no longer exists.

- **Middle-layer Super Output areas (MSOAs)** are the next level up of statistical geography, based on aggregations of LSOAs. Again, the MSOA areas are assembled using calculations of the statistics for LSOAs to a set of size rules for LSOAs – containing between 5,000-15,000 residents and 2,000-6,000 households. The 2001 Census-based data created 27 MSOAs in Camden. Each MSOA automatically snaps to a boundary with another LSOA so that they seamlessly cover the whole country. Each set of MSOAs nests exactly within the local authority area.

  Over time population changes and with it so do MSOAs, such that when MSOA thresholds are broken, an oversized MSOA will be split into two new ones, while an undersized MSOA will be amalgamated with another. The larger size of the MSOA areas has been quite stable for Camden, such that the 2001 Census and 2011 Census-based LSOAs remained unchanged, but changes did occur for the 2021 Census-based MSOAs. Thus, the MSOAs in Camden are:

2001 Census-based MSOAs = 28 in Camden
2011 Census-based MSOAs = 28 in Camden (unchanged from 2001)
2021 Census-based MSOAs = 27 in Camden

MSOA codes and names allow the identification and location of an MSOA. Each is given a unique 9-character code starting E02 followed by a six-figure reference number (E02000166). MSOAs are also given names, so Camden LSOAs have a name that starts with "Camden" followed by a space and a 3-numeral code (e.g. 'Camden 001' that corresponds to E02000166). Best mapped: 2021 Census-based MSOA map.

To identify MSOA codes or MSOA names between censuses, the column title will have the following format, e.g. "MSOA21CD", where:

MSOA = 'LSOA', the geography type
21 = '2021', the census year the boundary relates to
CD = 'code', the data type (or NM for name)

Note. 2001 Census and 2011 Census-based LSOAs had the added advantage of nesting exactly within Camden's old pre-2022 wards. However, the 2022 changed ward structure means that correspondence no longer exists.

*** **When looking for census data and choosing OAs to use – see section below on selecting data and areas via NOMIS.** ***

2021 Census Data Types

Note.

- **Not all data is available down to the lowest geography** due to concerns over disclosure (covered above in the section 'Protecting Personal Data on P2').
- **Links are provided to an index file for each data type** The index gives a list of available tables, with an indication of the lowest level of geography to which the data is provided.
- **The Index file also indicates the 'table population'**, i.e. the population being measured:
  1. **All usual residents** People usually living in England & Wales, but excludes non-UK born short-term residents and visitors.
  2. **Usual residents in households** A person who usually lives in England or Wales, and in a household.
  3. **Usual residents in communal establishments** A usual resident who lives in a place that provides managed full-time or part-time supervision of residential accommodation such as a university hall of residence, care home or prison.
  4. **All Households** Either one usual resident living alone or a group of people who share cooking and living facilities, where that group includes at least one usual resident
  5. **All Household Reference Persons** (HRP) A person who serves as a reference point, mainly based on economic activity, to characterise a whole household.
  6. **Age/other restrictions** e.g. 'aged 16+ in employment the week before the census'.

Topic Summary tables are mono-variate, single variable, tables that display the census data in its simplest form, across the range of census topics (e.g. age, *or* sex, *or* ethnic group). See 2021 Census LATEST page on Open Data Camden for a list of topics and available tables, with hyper-links to data for England & Wales, London, London Boroughs. Tables for all other areas can be also obtained using the Topic Summary query tool on NOMIS. For more information about how to query the data see the section below 'Using NOMIS to extract 2021 Census data'.

Ready Made tables are multi-variate, cross-tabulations, tables that display complex census data (e.g. age *by* sex *by* ethnic group). See 2021 Census LATEST page on Open Data Camden for a list of topics and available tables, with hyper-links to data for England & Wales, London, London Boroughs. Tables for all other areas can be obtained using the Ready Made query tool on NOMIS. For more information about how to query the data see the section below 'Using NOMIS to extract 2021 Census data on P7'.

Create a custom dataset (flexible table-builder) allows you to create your own bespoke data table. This does require you to have some knowledge about census data, so best done after you have familiarised yourself with the census tables covered above, including table population types and geographies. Just follow the instructions on the Create a custom dataset webpage. Contact population@camden.gov.uk if you need assistance.

Area profiles are created from collections of data about an area. **2021 Census *Topic Summary*-based profiles** have been created in-house for Camden and Camden Wards. The template which created them can be applied to a bespoke area, built up from OAs/LSOAs/MSOAs/Wards. Contact population@camden.gov.uk to request custom profiles. ONS also provides a simple web-based profile builder Build your own area profile.

Other data viewing tools ONS has also created other data viewing tools:

- ONS visualisation 'How Camden has changed'
- ONS census mapping 2021 Census mapping tool

Using 2021 Census data The population changes all the time (births, deaths and in- and out-migration), but the census **2021 Census data relate to a point in time – 21 March 2021**. Already the data is out-of-date. However, as pragmatic local government users, we have been used to making the best of the census until the next one occurs. Although the overall population changes quite quickly, some of the characteristics of the population are slower to change and the relationships available from the census can still help over time, especially where there is no other source of data.

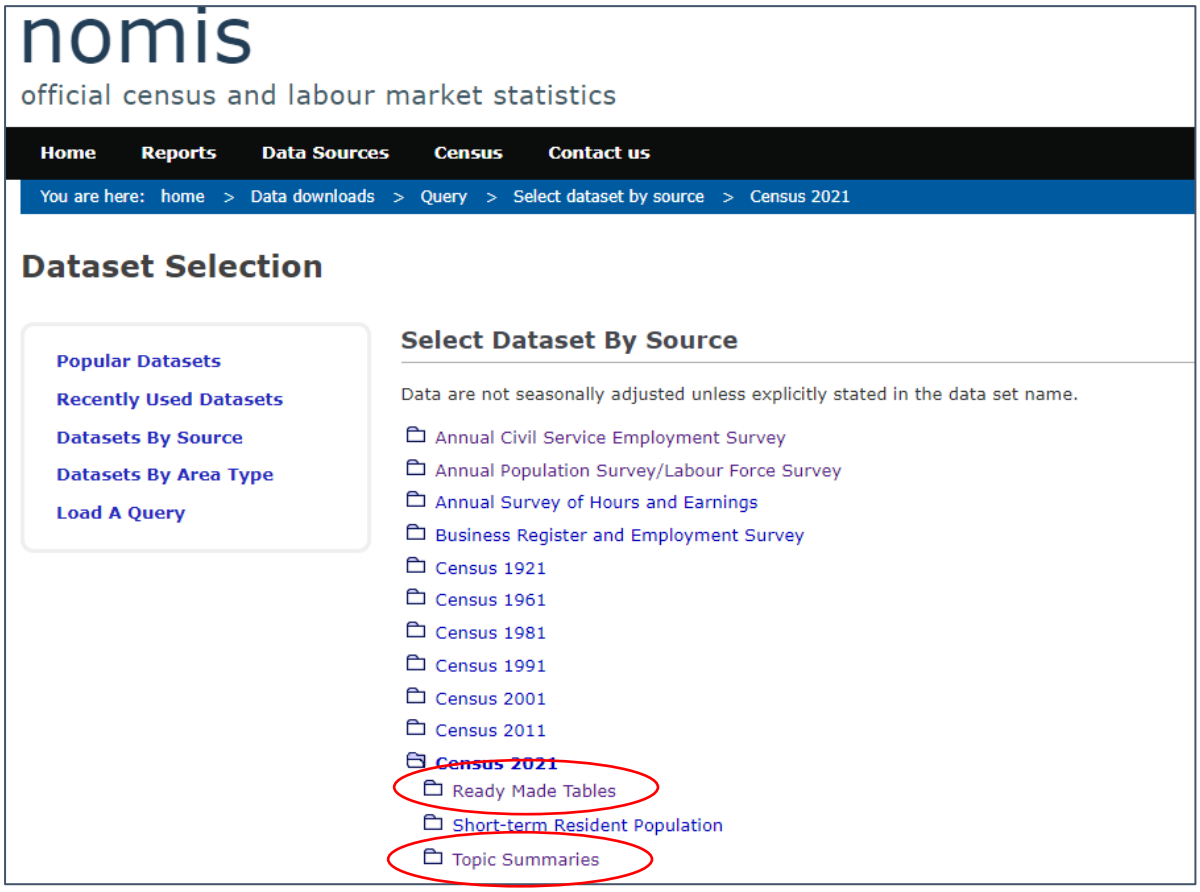
Census data is usually best used in terms of proportions rather than as absolute numbers, e.g. % tenure, or % people with long-term illness or disability that affects day-to-day activities. This is especially so for the 2021 Census data that has been affected by people missing from the population due to coronavirus, but also when wanting to compare the characteristics of areas that have quite different volumes of population, such as Greater London or England.

Using NOMIS to extract 2021 Census data

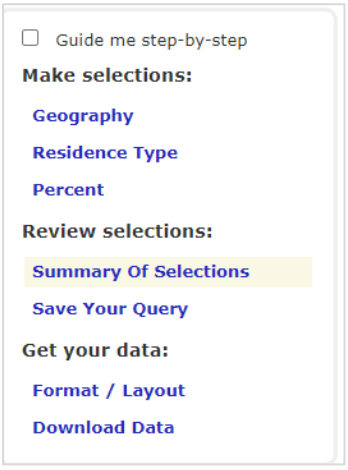
NOMIS is a web-based delivery platform used by ONS to publish labour market statistics and census data. The NOMIS site is straight-forward to use. You can go in as a casual user or sign-up to be a registered user. The latter gives a better experience - as a registered user you can save queries, save bespoke areas and variable settings. If you so choose, you can also share your bespoke setting with other users.

Entry to NOMIS census data area … see image below ⇩

Click links to either *Topic Summaries* (single variable tables) or *Ready Made* (cross-tabs).



Once you have chosen a table, click to take you to the query. Go down the list of options on the left-hand menu, starting with 'Geography' … clicking each link to make your selections.



Contact population@camden.gov.uk if you need assistance.

Table Population

When using census tables it is recommended that attention is paid to the 'table population', i.e. what is being measured in the table. There are a number of different table populations, and a list of the more common ones is displayed below along with with guide table totals. The use of statistical disclosure control by ONS means that table totals may vary despite displaying the same variables.

Table Population	Guide Total*
People	
All usual residents	210,236
All usual residents in households	202,702
All usual residents aged 3+	204,032
All usual residents aged 5+	200,105
All usual residents aged 5+ in households	192,683
All usual residents aged 16+	177,912
All usual residents in households aged 16+	170,537
All usual residents in employment the week before the census	102,516
All usual residents not in employment the week before the census	75,401
All household representative persons (HRPs)	92,756
All household representative persons (HRPs) aged 16-64	74,884
All usual residents in households with and HRP aged 16-64	173,875
Usual residents in families with dependent children	45,441
All Dependent children	37,671
Households	
All households	92,670

* 2021 Census tables are subject to statistical disclosure control methods. Totals may vary by table to a certain extent. Table populations are provided with the table metadata.