

Teaching with census data

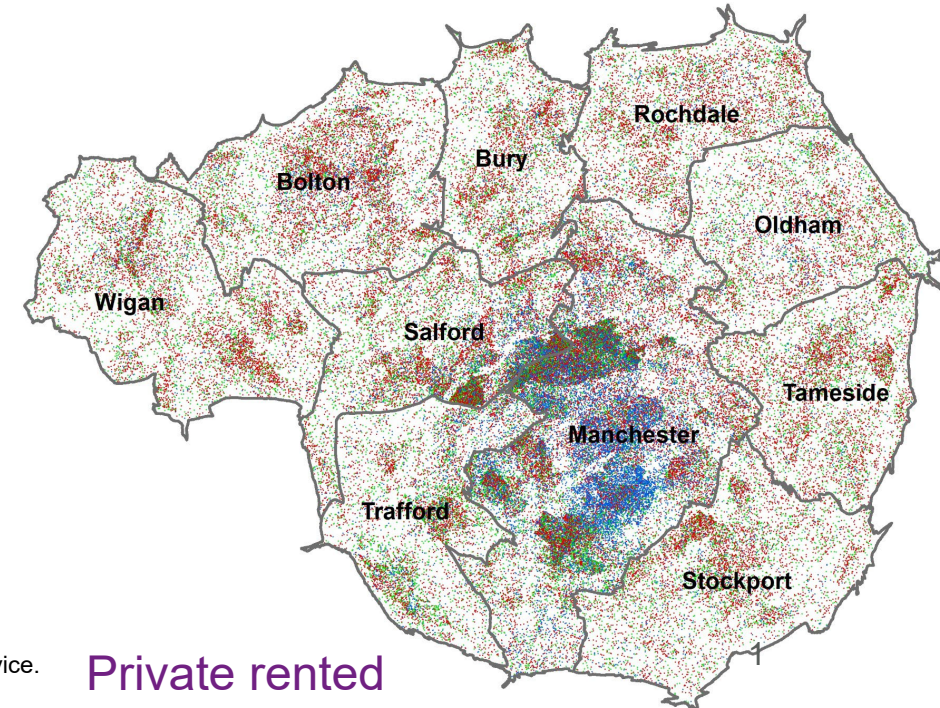
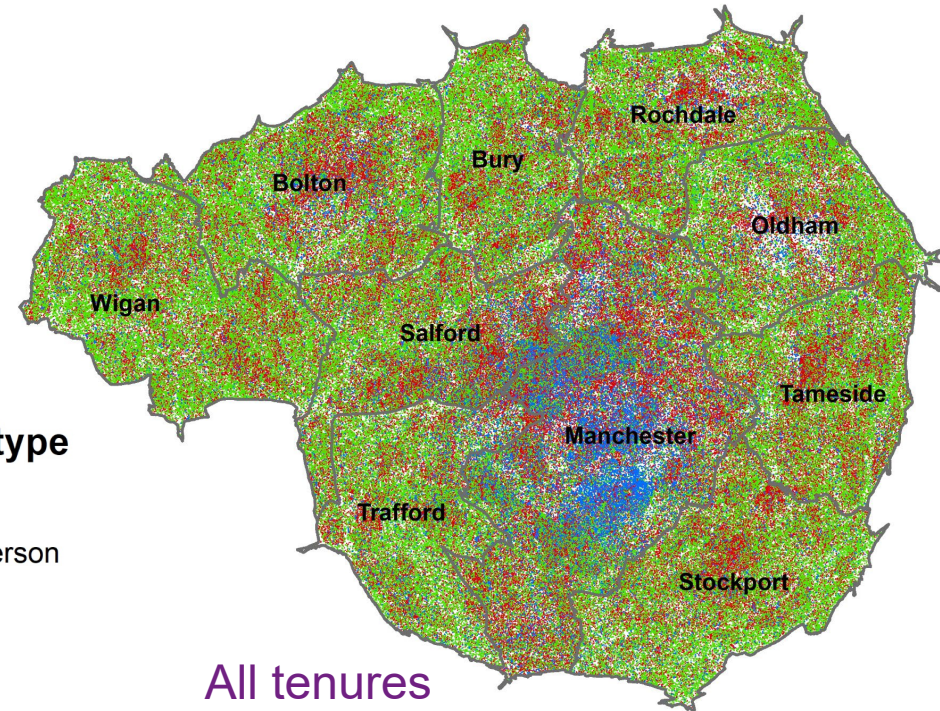
Workshop

17th January 2023

Household type

1 Dot = 1

- Single person
- Couple
- Other



Can you hear us?



Troubleshooting audio problems

- Check your speaker/headset is plugged in / volume is on.
- Click on audio to change to listening via phone
- We are recording this webinar and will post it on YouTube (<https://www.youtube.com/user/UKDATASERVICE>)

Context

Three statistical authorities – England and Wales, Northern Ireland and Scotland.

England and Wales and Northern Ireland census in 2021 – Scotland delayed a year.

Currently releasing univariate tables at different scales. Scotland due next year.

Ambition to move to population data derived from administrative data – used significantly in producing the census estimates. Robust individual level testing on quality of data.

What we will cover

Census outputs

Geography

Data

Tools

Practical exercises

Reflections

Census outputs

1

Geographical data

2

Univariate data - topic summaries and area profiles

3

Multivariate data – pre-defined and flexible tables

4

Alternative population bases, Small populations, Flow data, Microdata

Geographical data

Boundary data		
Administrative e.g. Local authority, Health (LA available others to follow)	Electoral e.g. constituency, ward (due this month)	Statistical areas built on output areas (available now)

Defining geographical scope

Country / region / local authority

Country / constituency

Country / local authority / MSOA / LSOA / OA

Country / workplace



Output area geography

Output area minimum 40 households and 100 residents, average target 125 households, maximum 250 households and 625 people

- introduced in 2001
- aim for more homogeneous population through matching characteristics of population
- but try to minimise changes

Built into larger super output areas

- lower level super-output areas (LSOAs) minimum 400 households and 1,000 people, maximum 1,200 households and 3,000 people – used in published statistics e.g. IMD, recorded crime
- Mid-level super output areas (MSOAs) minimum 2,000 households and 5,000 people, maximum 6,000 households and 15,000 people – used in published statistics e.g. educational attainment, Covid cases

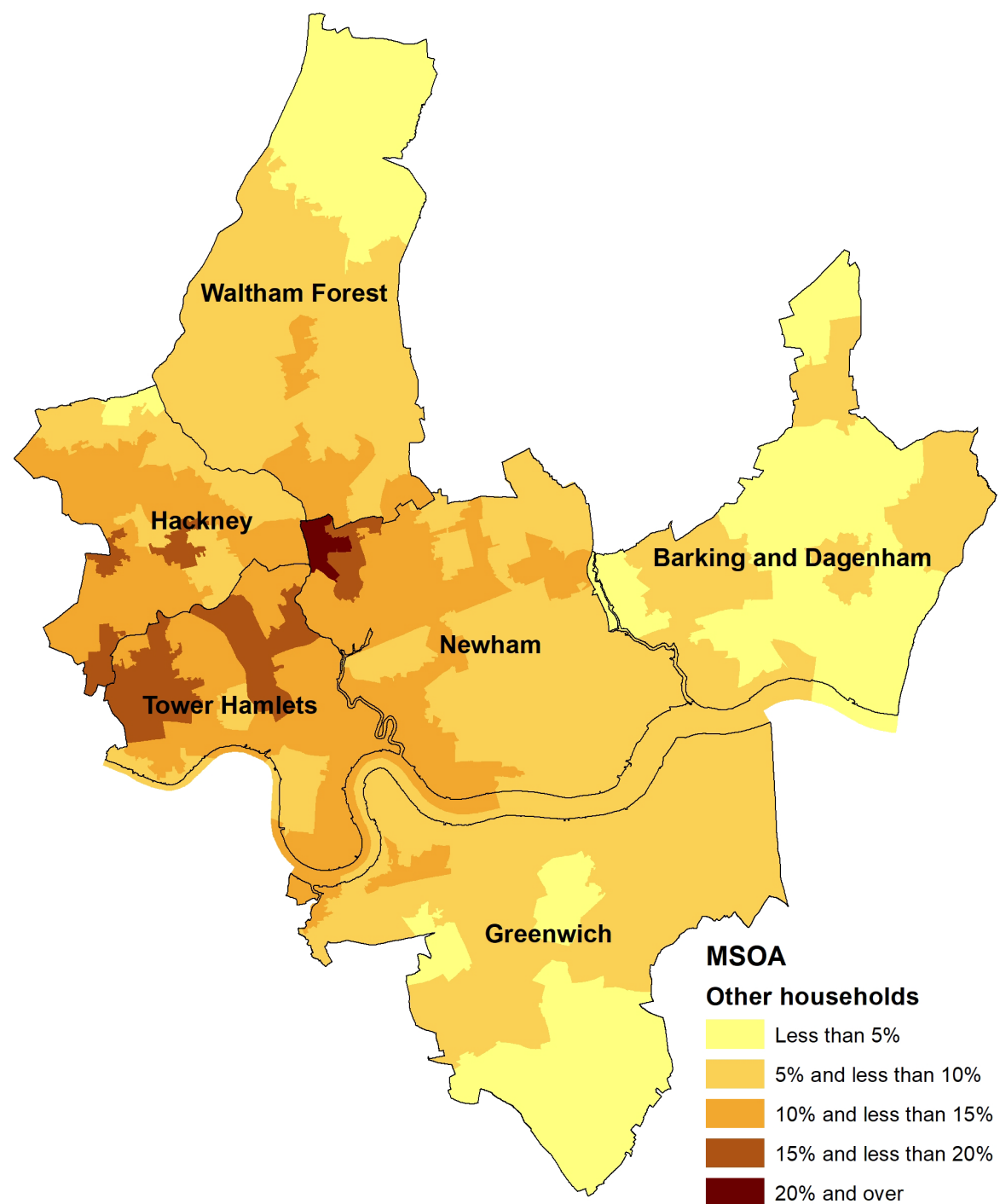
All boundaries constrained within local authorities

Geography

MSOA level

Using other households as a proxy measurement for houses under multiple occupation.

They contain unrelated adults (no children).

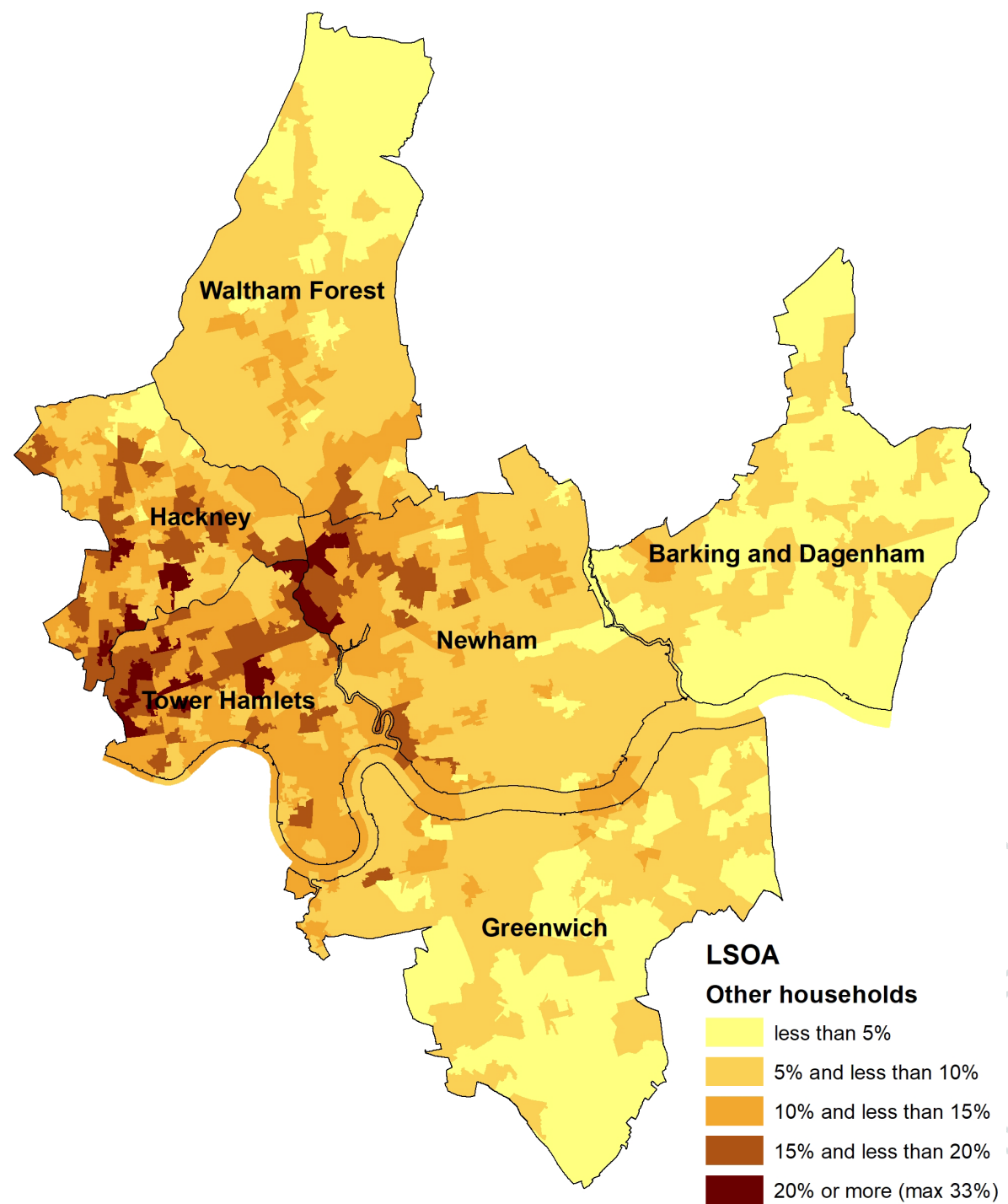


Geography

LSOA level

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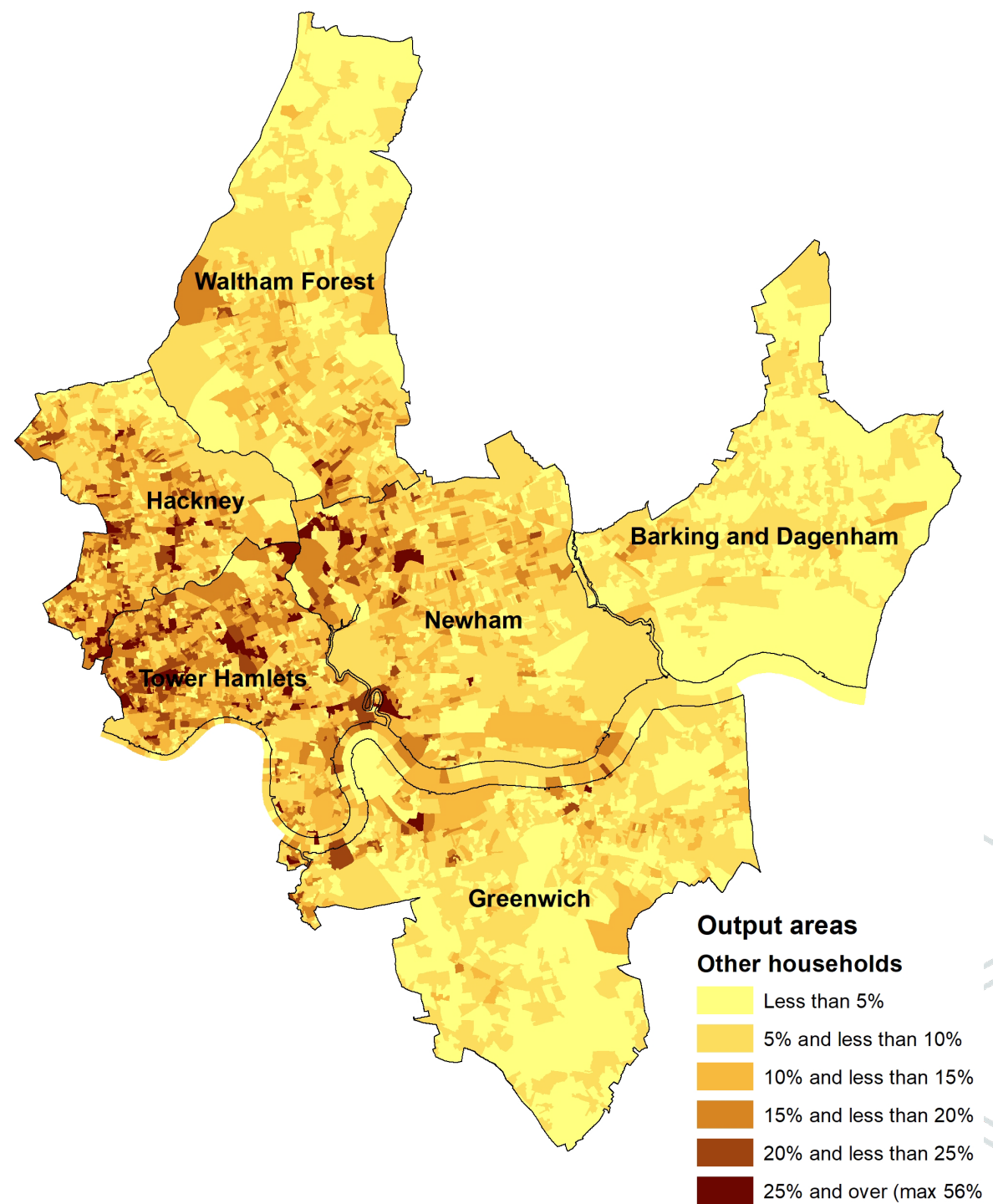


Geography

OA level

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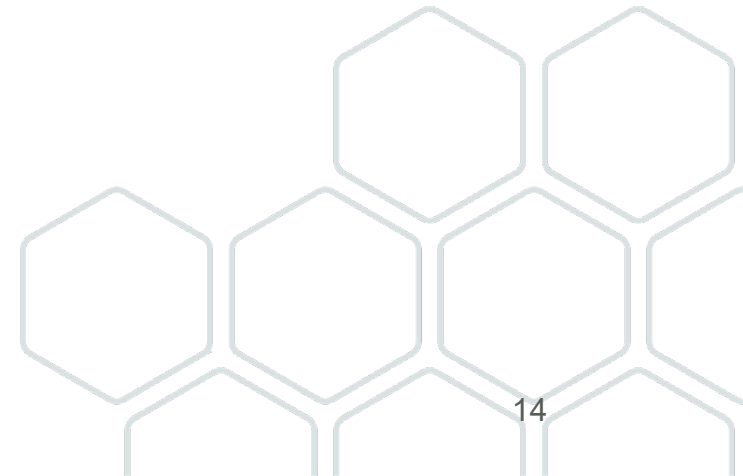


Data products

Univariate data

Topic summaries – last release this week

- demography and migration
- ethnic group, national identity, language, and religion
- health, disability, and unpaid care
- housing
- labour market and travel to work
- sexual orientation and gender identity
- education
- UK armed forces veterans



Multivariate data

Defined sets of tables including two or more variables at different geographical scales

Flexible table builder (incorporating statistical disclosure control)

The variable categories will vary between univariate and multivariate tables based on statistical disclosure control.

This is likely to mean the need to balance geographical scale and the level of detail available.

Other types of data

- Alternative population bases – workplace, workday, out-of-term, second address
- Small populations - Ethnic group, Country of birth, Religion, National identity
- Flow data - origin destination data covering migration flow, workplace flow, second address flow, student flow
- Microdata - individual 5% samples including regional or combined local authority geography, 1% household sample

Potential topics of interest

Exploring population:	migration / living arrangements
Exploring identity:	ethnicity, national identity, religion and language
Exploring work:	economic activity, hours worked, industry, occupation
Exploring education:	studying or highest qualification
Exploring housing:	household size, tenure, car or van availability, accommodation type, central heating, occupancy levels
Exploring health:	general health, long-term health problem or disability, provision of unpaid care



Basic exercises

Using 2011 data

Excel

- Initial single screen – regional attributes
- Multi-screen – local authorities
- Pivot table
- Text formatting

Accessing data

From ONS, Nomis or UK Data Service

ONS

Census

The census takes place every 10 years. It gives us a picture of all the people and households in England and Wales.



About the census

Find out what the census is and why it's important for all of us.

— [About the census](#)

Census releases

See what we've published, and our plans for the future.

— [Release calendar](#)

— [First results and timeline](#)

Census 2021 data

Find data for Census 2021.

— [Get census data \(England and Wales\)](#)

— [Get census data \(Wales\)](#)

Census topics

Find census data and analysis using these topics.

— [Topic summaries](#)



Topic summaries

What topic summary data for Census 2021 will be available and how to view them.

Last updated: 13 January 2023

You can see what we're planning to publish on the [release calendar](#).

Topic summaries

A topic summary is a set of data and supporting information, grouped by a similar theme. The majority of the datasets that we will release as part of each topic summary will contain data about just one variable.

The following pages will be updated with the relevant data and supporting information when that topic summary is published. Check the release calendar to learn more about publication dates.

Proposed topic summaries in publication order are:

- [demography and migration](#)
- [UK armed forces veterans](#)

Related downloads

[Topic summaries specifications spreadsheet \(185.9 kB xlsx\)](#)

Ethnic group, national identity, language, and religion: Census 2021 in England and Wales

Data

[Ethnic group](#)

Variables

Area type	Lower Tier Local Authorities	Change
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Coverage	England and Wales	Change
----------	-------------------	------------------------

Ethnic group (20 categories)	20 Categories <ul style="list-style-type: none">• Asian, Asian British or Asian Welsh: Bangladeshi• Asian, Asian British or Asian Welsh: Chinese• Asian, Asian British or Asian Welsh: Indian• ...• Mixed or Multiple ethnic groups: White and Asian• Mixed or Multiple ethnic groups: White and Black African• Mixed or Multiple ethnic groups: White and Black Caribbean• ...• Other ethnic group: Arab• Other ethnic group: Any other ethnic group• Does not apply
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[Show all 20 categories](#)

Get the data

Nomis

nomis

official census and labour market statistics

[Home](#) [Reports](#) [Data Sources](#) [Census](#) [Contact us](#)

Welcome to Nomis

Nomis is a service provided by Office for National Statistics (ONS), the UK's largest independent producer of official statistics. On this website, we publish statistics related to population, society and the labour market at national, regional and local levels. These include data from current and previous censuses.

[Information for first-time visitors](#)
[Sign-in or Register](#)

Important note

Census 2021 datasets are now available in the query data tool

Labour Market Profiles

View a labour market profile of an area. Includes some of the data from our key datasets on population, employment, unemployment, qualifications, earnings, benefit claimants and businesses.

- [Local Authority Profile](#) (district/county areas)
- [Local Enterprise Partnerships Profile](#)
- [Combined Authority Profile](#)
- [Regional and National Profile](#)
- [2010 Parliamentary Constituencies Profile](#)
- [2011 Ward Profile](#) (England & Wales only)

Data Downloads

Create a data download from one of our full range of data sets at a very detailed level.

Query data
Download figures from a single data set.

Census Statistics

[2021 Data catalogue](#)

2021 Census

The 2021 Census was taken on 21st March 2021. The full data from this census are available in several hundred separate datasets (or tables).

An area profile is available for this data source

[View Area Profile](#)

Topic Summaries

Topic summaries generally provides information about a single census topic. These figures are available from national level down to the very small census output areas.

Bulk Data Downloads

Bulk data products package all the data from a 2021 Census dataset as a single zip file. Each zip file contains separate CSV files for each geographic type (OA, LSOA, MSOA etc).

Topic Summaries

Topic summaries generally provides information about a single census topic. These figures are available from national level down to the very small census output areas.

TS001 - Number of usual residents in households and communal establishments

This dataset provides Census 2021 estimates that classify usual residents in England and Wales by whether they resided in households and communal establishments. The estimates are as at Census Day, 21 March 2021.

TS002 - Legal partnership status

This dataset provides Census 2021 estimates that classify usual residents in England and Wales by their legal partnership status. The estimates are at Census Day, 21 March 2021.

TS003 - Household composition

This dataset provides Census 2021 estimates that classify households in England and Wales by the relationships between household members (household composition). The estimates are as at Census Day, 21 March 2021.

TS004 - Country of birth

This dataset provides Census 2021 estimates that classify usual residents in England and Wales by their country of birth. The estimates are as at Census Day, 21 March 2021.

TS005 - Passports held

This dataset provides Census 2021 estimates that classify usual residents in England and Wales by passports held. The estimates are as at Census Day, 21 March 2021.

TS006 - Population density

This dataset provides Census 2021 estimates that classify usual residents in England and Wales by population density (number of usual residents per square kilometre). The estimates are as at Census Day, 21 March 2021.

TS021 - Ethnic group

[Change dataset](#)

Population : All usual residents
Unit of measure : Persons

Guide me step-by-step

Make selections:

[Geography](#)

[Ethnic Group](#)

[Percent](#)

Review selections:

[Summary Of Selections](#)

Get your data:

[Format / Layout](#)

[Download Data](#)

Geography [select using list](#) [map](#) [select areas with](#)

Select Using List

commonly used

- [2021 output areas](#)
- [2021 super output areas - lower layer](#)
- [2021 super output areas - mid layer](#)
- [2022 local authorities: county / unitary](#)
- [2022 local authorities: district / unitary](#)
- [countries](#)

TS021 - Ethnic group

[Change dataset](#)

Population : All usual residents
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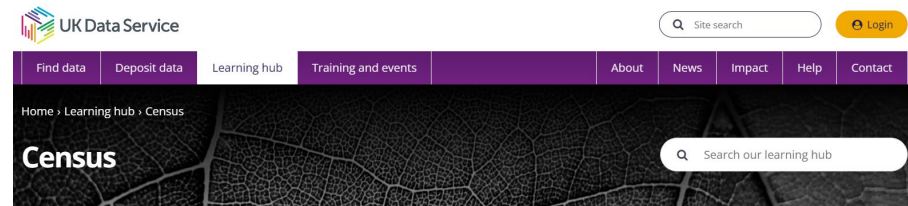
[Download Data](#)

Ethnic Group

- [Tick to select columns](#)
- Total: All usual residents
 - Asian, Asian British or Asian Welsh
 - Bangladeshi
 - Chinese
 - Indian
 - Pakistani
 - Other Asian
 - Black, Black British, Black Welsh, Caribbean or African
 - African
 - Caribbean
 - Other Black
 - Mixed or Multiple ethnic groups
 - White and Asian
 - White and Black African
 - White and Black Caribbean
 - Other Mixed or Multiple ethnic groups
 - White
 - English, Welsh, Scottish, Northern Irish or British
 - Irish
 - Gypsy or Irish Traveller
 - Roma
 - Other White
 - Other ethnic group
 - Arab
 - Any other ethnic group

UK Data Service

<https://ukdataservice.ac.uk/learning-hub/census/>



Census 2021
Census 1961 - 2011
Census 1851 - 1911
Census explainers
Resources
Use of census data
Mapping census data in QGIS

The home for census data for all parts of the UK

Statistics from the UK censuses help paint a picture of the nation and how we live. They provide a detailed snapshot of the population and its characteristics and underpin funding allocation to provide public services.

The UK Data Service holds and enables access to aggregate, boundary, flow and microdata from the last six censuses from 1961 through to 2011 and is supporting the government in providing access to the census data for 2021. And through Integrated Census Microdata (i-CeM), we provide access to census data from 1851-1911.

Watch our webinar recording [2021 Census: What is planned and how will you use it?](#) and find out more in the [accompanying presentation](#) and [census webinars](#).

Does the census cover the right topics for you?

The census in all UK countries has been undertaken in a consistent manner. However, there are differences in some of the questions asked, processing, and detailed methodology.

Questions and definitions often change between censuses. You can access the [census forms](#) including the 2021 Census, [census definitions](#), and the [census agencies websites](#) for further information.

[Aggregate Data](#)

[Boundary Data](#)

Organisations
Office for National... 108

Tags
persons 37
residents 23
households 22
age 14
disability 14
health 14
language 12
migration 9
accommodation 7
welsh 7
[Show More Tags](#)

Formats

Search datasets...

108 datasets found Order by: Relevance

Year: 2021 ✖

England and Wales Census 2021 - TS068 - Schoolchildren and full-time students
This dataset provides Census 2021 estimates that classify all usual residents aged 5 years and over in England and Wales with a schoolchild/student indicator. The estimates are...
[XLSX](#)

England and Wales Census 2021 - TS067 - Highest level of qualification
This dataset provides Census 2021 estimates that classify usual residents aged 16 years and over in England and Wales by their highest level of qualification. The estimates are...
[XLSX](#) [CSV](#) [JSON](#)

England and Wales Census 2021 - TS054: Tenure
This dataset provides Census 2021 estimates that classify households in England and Wales by tenure. The estimates are as at Census Day, 21 March 2021. There is evidence of...
[XLSX](#)

QUICK ACCESS TO

- [Easy Download](#)
- [Boundary Data Selector](#)
- [Postcode Directory](#)
- [Postcode Data Selector](#)

Census Support Easy Download: English Boundary datasets.

Provided below are links to a selection of the most popular boundary datasets for England currently available through Census Support. Clicking on each link will take you to a page from where the selected dataset can be downloaded as a national coverage in one of four different data formats. If the Census Support dataset that you require is not listed below or if you require data for a smaller area then the Boundary Data Selector tool should be used instead.

[Using Easy Download](#) | [Data Formats](#) | [What is Generalisation?](#) | [Zip and Tar Gzip Files](#)

LINKS TO DATASETS

Boundary [Look Up Tables](#)

England [Scotland](#) [Wales](#) [Northern Ireland](#) [United Kingdom](#)

ENGLAND

2022 boundaries: Click on the dataset name to download...

English Country Outline 2022	English Regions 2022
English Upper Tier Local Authorities 2022	English Lower Tier Local Authorities 2022
English Westminster Parliamentary Constituencies 2022	English Electoral Wards 2022
English NHS England Regions 2022	English Integrated Care Boards 2022
English Locations 2022	

2021 boundaries: Click on the dataset name to download...

English Middle Layer Super Output Areas 2021	English Lower Layer Super Output Areas 2021
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Reflections on using census data for teaching