

# Using data on your placement

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# The plan for this session

## Types of data

- published information
- administrative data
- secondary data
- primary data

## Skills and tools

## What the UK Data Service has to offer

# Published information (often in tables or charts)

## Covid cases in selected areas in Nottingham 2021-22

MSOA	12th Jan	5th Jan	29th Dec	22nd Dec	15th Dec
Arboretum, Forest & Trent University	90	89	91	158	175
City Centre & Trent Bridge	127	151	137	198	178
Lenton & Dunkirk	71	124	112	168	261
St Ann's East	95	108	131	88	68
St Ann's West	110	154	127	185	158
University Park, Lenton Abbey & Jubilee Campus	61	141	129	199	309
Wollaton Park	83	119	113	84	57
Wollaton Vale	78	120	151	139	70

# A better representation?

## Covid cases per 100,000 in selected areas in Nottingham 2021-22

MSOA	Population	12th Jan	5th Jan	29th Dec	22nd Dec	15th Dec
Arboretum, Forest & Trent University	13877	649	641	656	1139	1261
City Centre & Trent Bridge	13194	963	1144	1038	1501	1349
Lenton & Dunkirk	11275	630	1100	993	1490	2315
St Ann's East	7619	1247	1418	1719	1155	893
St Ann's West	14483	760	1063	877	1277	1091
University Park, Lenton Abbey & Jubilee Campus	11554	528	1220	1116	1722	2674
Wollaton Park	7050	1177	1688	1603	1191	809
Wollaton Vale	8179	954	1467	1846	1699	856

# Administrative data

Collected as part of the operation of the organisation you are working with

Generally individual records

- paper / electronic
- numbers / words / audio

Making sense of it

- how does the organisation do it?
- does your analysis need to be repeated?

# Secondary data

Already collected and held in archives

- surveys
- census
- qualitative data e.g. interview recordings or transcripts, focus groups, photographs, documents

# Primary data

Data the organisation collects to improve their understanding of issues they want to address:

- surveys
- qualitative data e.g. interview recordings or transcripts, focus groups, photographs, documents

# Skills and tools

Many organisations use Excel to analyse and present data

Some may use databases to collect operational data – they may have reporting tools available to allow them to analyse it

Universities often use statistical and mapping software but this may be too expensive for many of the organisations you will work with.

General advice:

- use the tools the organisation do for work that they will want to replicate
- use tools you know or want to learn for any one-off projects.

# What is the UK Data Service

- A comprehensive resource funded by the Economic and Social Research Council (ESRC)
- A single point of access to a wide range of secondary social science data
- Support, training and guidance

**[ukdataservice.ac.uk](http://ukdataservice.ac.uk)**

# Key topics



## Employment and work

- Labour Force Survey
- Annual Population Survey
- European Working Conditions Survey



## Health

- Health Survey for England
- Scottish Health Survey
- Diet and Nutrition surveys



## Family Finances

- Family Resources Survey
- Living Costs and Food Survey



## Crime

- Crime Survey for England and Wales
- Scottish Crime and Justice Survey



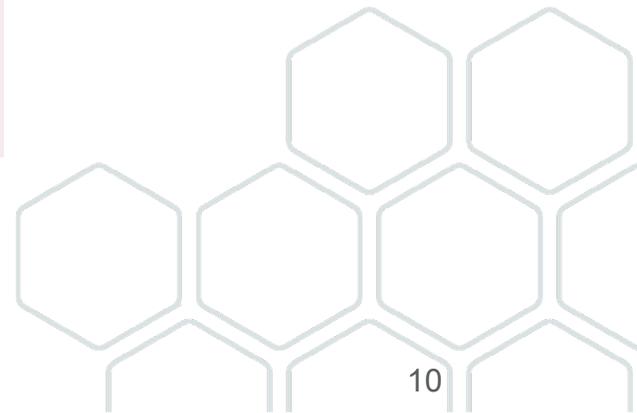
## Attitudes and opinions

- British Social Attitudes Survey
- NI Life and Times Survey
- Eurobarometer
- European and World Values Surveys



## Housing and the local environment

- English Housing Survey
- Living in Wales



# Who is it for?

- Academic researchers and students
- Government analysts
- Charities and foundations
- Business consultants
- Independent research centres
- Think tanks



# Where do the data come from?

- Official agencies – mainly central government
- International statistical time series
- Research institutions
- Individual academics - research grants
- Market research agencies
- Public records/historical sources

# UK surveys

## Data about individuals or households

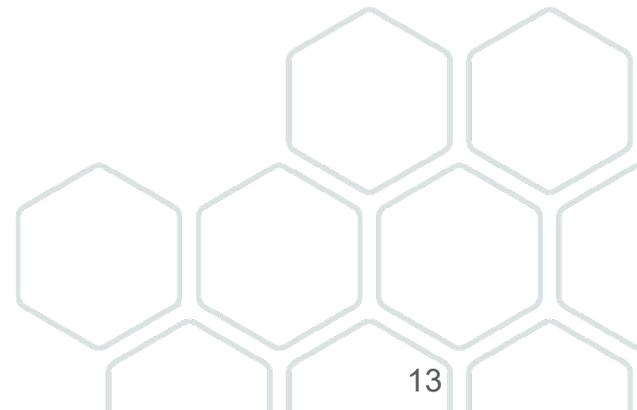
- Commissioned by Government departments
- Conducted by organisations such as the ONS, National Centre for Social Research

## Datasets include key characteristics with large sample sizes

Nationally-representative

Repeated cross-sections

Same (or similar) questionnaire with a new sample of people every time, often repeated regularly

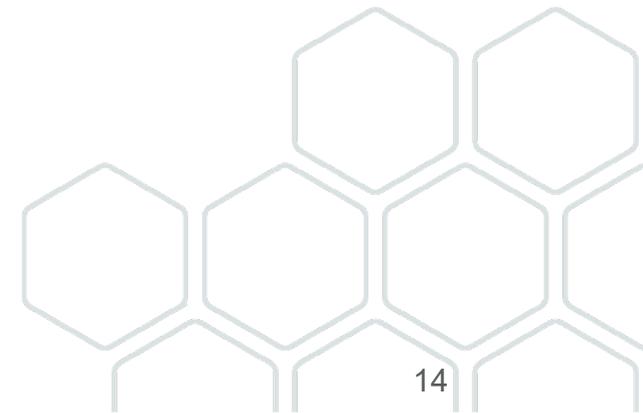


# Examples

## British Social Attitudes

- run annually since 1983
- covers social attitudes on a revolving range of topics: inequality, Brexit, immigration, work, benefits ...
- annual reports on key topics

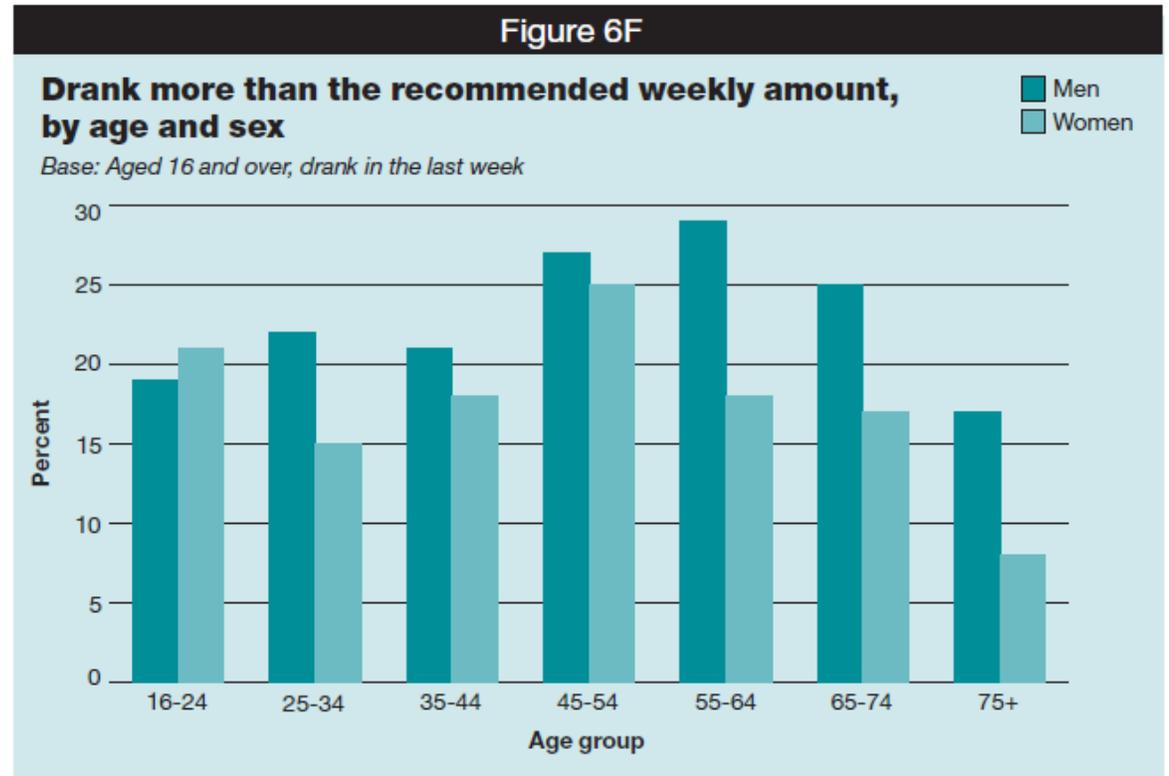
How fair or unfair do you think the income distribution is in Britain?



# Examples

## Health Survey

- sample of 8,000 adults and 2,000 children
- experiences and attitudes towards health
- clinical measurements
- biological samples



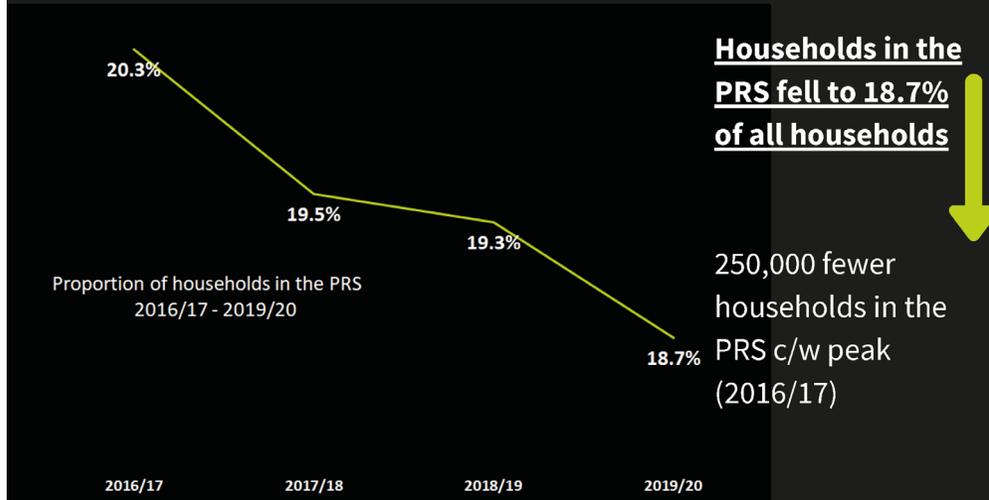
# Examples

## English Housing Survey

- run annually for MCHLG
- experiences and attitudes to housing
- physical conditions
- focus on government priorities – e.g. home ownership

### English Housing Survey 2019-20

4.5 million households are in PRS



### National Analysis

**Highest:**

**28%**

Households in London are PRS.

**Lowest:**

**15%**

15% of households in the North East are PRS

**PRS outside London**

2016/17 : 19%



2019/20 : 17%

# Longitudinal studies

Following individuals over time

- Household panel studies
- Cohort studies

Examples

- 1970 British Cohort Study
- British Household Panel Survey
- English Longitudinal Study of Ageing
- Growing Up in Scotland
- Millennium Cohort Study
- National Child Development Study
- Next Steps
- Our Future
- Understanding Society



# Understanding Society

Large household panel study

- 40,000 households
- 100,000 individuals

10 years of data plus incorporated [British Household Panel Survey](#)

Includes

- Ethnic Minority Boost sample
- Biomarkers
- Options to link to administrative data

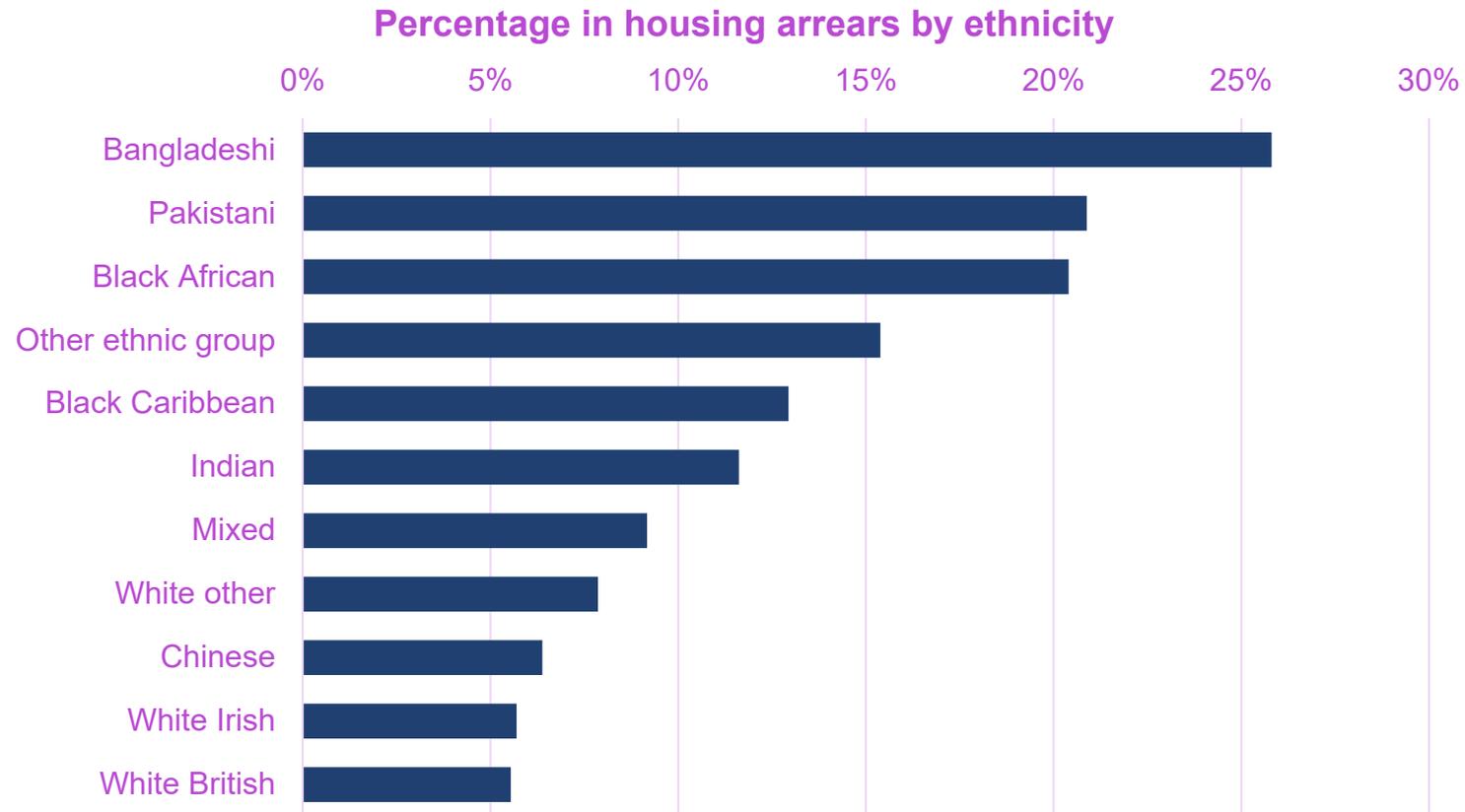
Covering

Employment and earnings  
Benefit payments,  
Political party identification  
Household finances  
Environmental behaviours  
Family life  
Ethnicity  
Religion  
Health



# Understanding Society – COVID waves

Quick response study repeated every two months covering household experience of employment, education, income, health and living conditions:



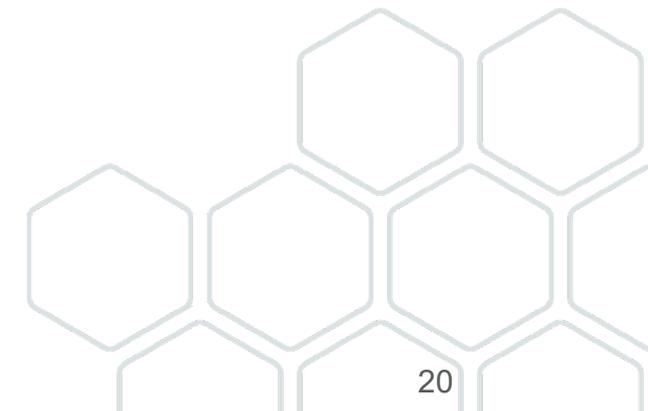
# Survey microdata

	 QHealthr	 RSEX	 AGEXr	 Martstat3r	 HighEd4r	 Ethnicity2r
1	2	2	2	2.00	2	1
2	2	1	3	1.00	2	1
3	2	1	3	1.00	4	2
4	3	2	5	1.00	4	1
5	1	2	3	3.00	2	1
6	2	2	1	2.00	2	1

**each column**  
Variables containing information collect by the survey

	 QHealthr	 RSEX	 AGEXr	 Martstat3r	 HighEd4r	 Ethnicity2r
1	Good	Female	25 to 44	Single	Below degree...	White
2	Good	Male	45 to 54	Married/Cohabitin...	Below degree...	White
3	Good	Male	45 to 54	Married/Cohabitin...	None	Other
4	Fair	Female	65 to 74	Married/Cohabitin...	None	White
5	Very good	Female	45 to 54	Married/Cohabitin...	Below degree...	White

**example**  
Row 1 = Female, aged 25-44.



# Qualitative data

Qualitative data is non-numeric information for example:

- interview transcripts
- visual data
- focus groups
- essays
- diaries
- observation notes
- audio data
- open-ended survey questions
- case notes
- newspaper clippings



# National Child Development study: Social Participation and Identity, 2007-10

**Qualitative study with a sub-sample of NCDS members [SN6691](#)**

Transcripts of interviews with 220 people

The interviews were organised into six main sections focussing on:

- 1) Neighbourhood and belonging;
- 2) Leisure activities and social participation;
- 3) Personal communities;
- 4) Life histories;
- 5) Identity;
- 6) Reflections on being part of the NCDS



# Taster activity

Explore survey microdata using online tool: [NESSTAR](#)

## Task

Is political party allegiance associated with different attitudes to levels of poverty in Britain?

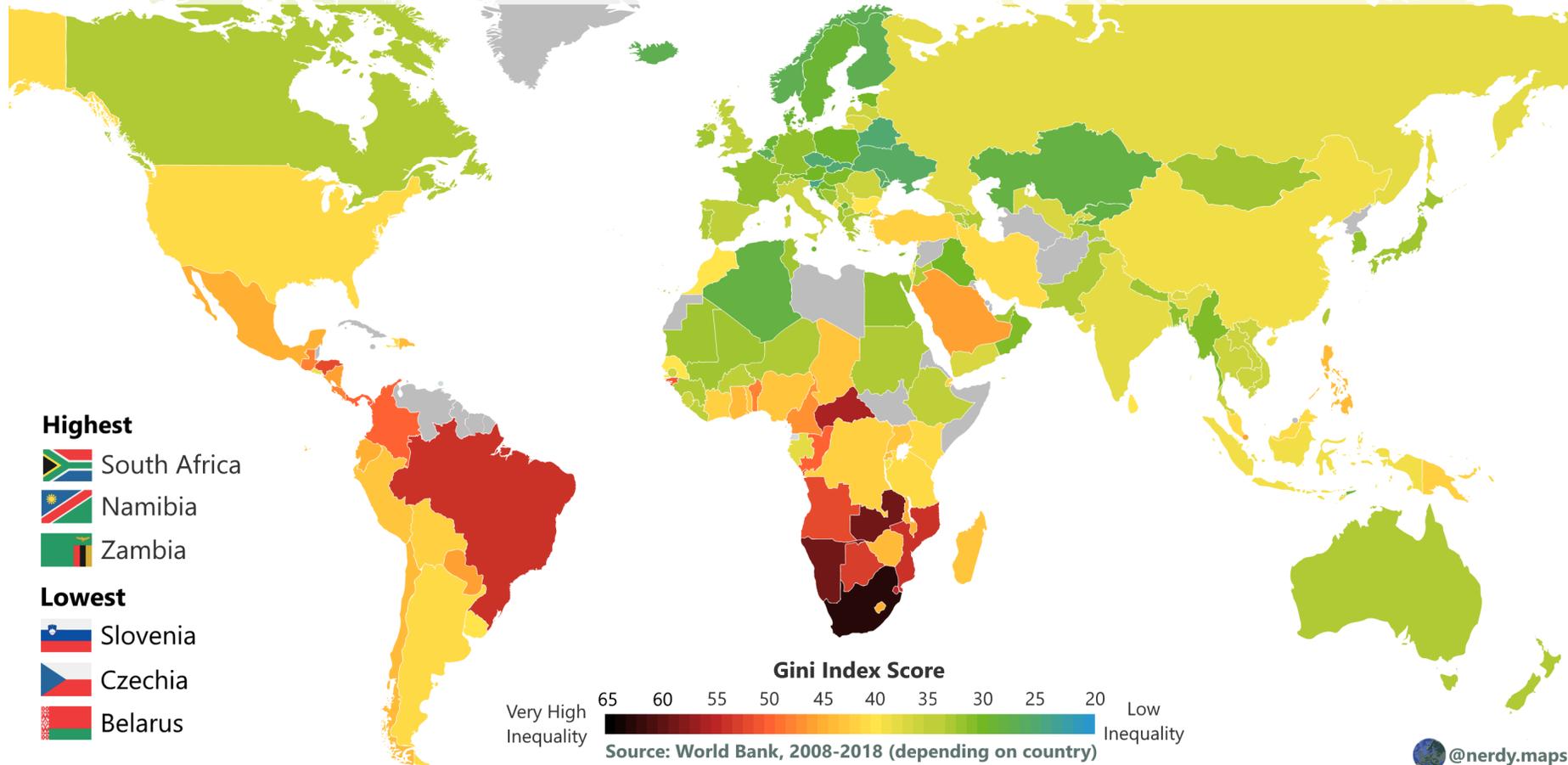
1. Select the British Social Attitudes Survey 2019 – Poverty and Welfare from the unrestricted access teaching datasets
2. Open the variable description tab
3. Select the ‘Party Political ID’ and *Add to Column*
4. Select the variable ‘Some people say there is very little real poverty in Britain today - Others say there is quite a lot - Which comes closest to your view’ and *Add to Row*

# Aggregate data ...

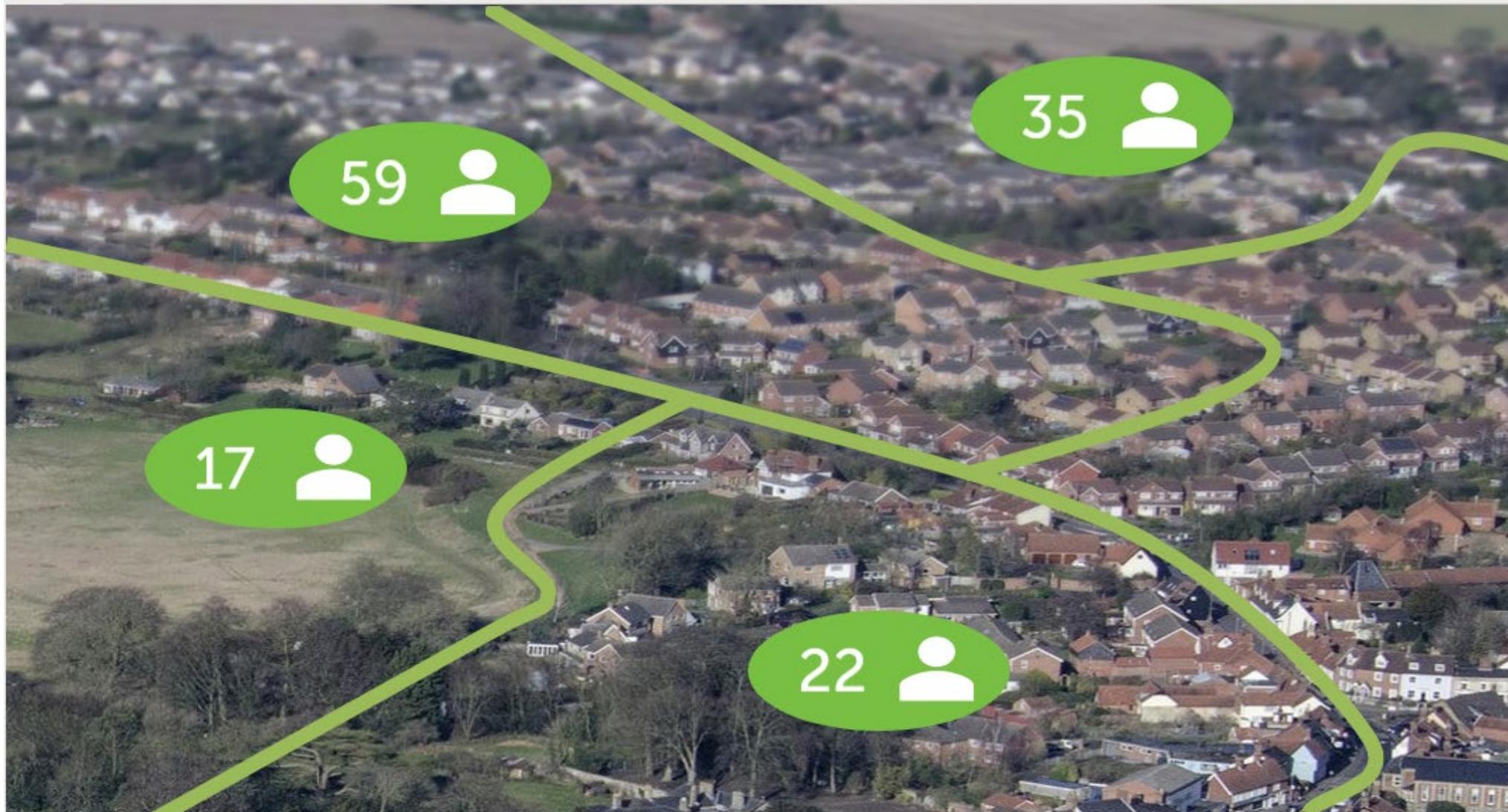
... are about populations, groups, regions or countries

## Income inequality by country

The Gini coefficient/Gini index is a measure that represents the income inequality within a country, where 100 represents max inequality and 0 represents max equality [Wikipedia]. South Africa ranks the highest with a score of 63, and essentially has a dual economy: part of the country appears developed and rich, whereas the other resembles an underdeveloped sub-Saharan African country. On average the top 20% holds about half of the income, in SA they hold 70% [IMF]. About 40% of SA's black population live in poverty, less than 1% of whites do [BBC]



Often associated with a geographic unit



# UK census data

1971-2011 UK census data

- Used as baseline for other statistics
- Detailed combinations of characteristics
- Small geographies

Census outputs

- aggregate data
- flow data
- microdata

2021 census data to be released  
2022-2023



<http://infuse.ukdataservice.ac.uk/>

<https://www.statistics.digitalresources.jisc.ac.uk/>

<http://casweb.digitalresources.jisc.ac.uk/>

# What can census data tell us

The most complete source of information about demographic and socio-economic characteristics of the UK population.

- Population
- Employment, occupation, socio-economic class, qualifications
- Ethnicity, religion, national identity, language
- Housing, tenure, residence type
- Household and family composition, occupancy
- Carers and caring
- Long term health problems or disability
- Travel to work, migration
- ... in 2022 sexuality, gender at birth



# Census geography

Building block is the Output Area

- These are used to create Super Output Areas (SOA)
- Two types – Lower layer SOA (LSOA) and Middle layer SOA (MSOA)

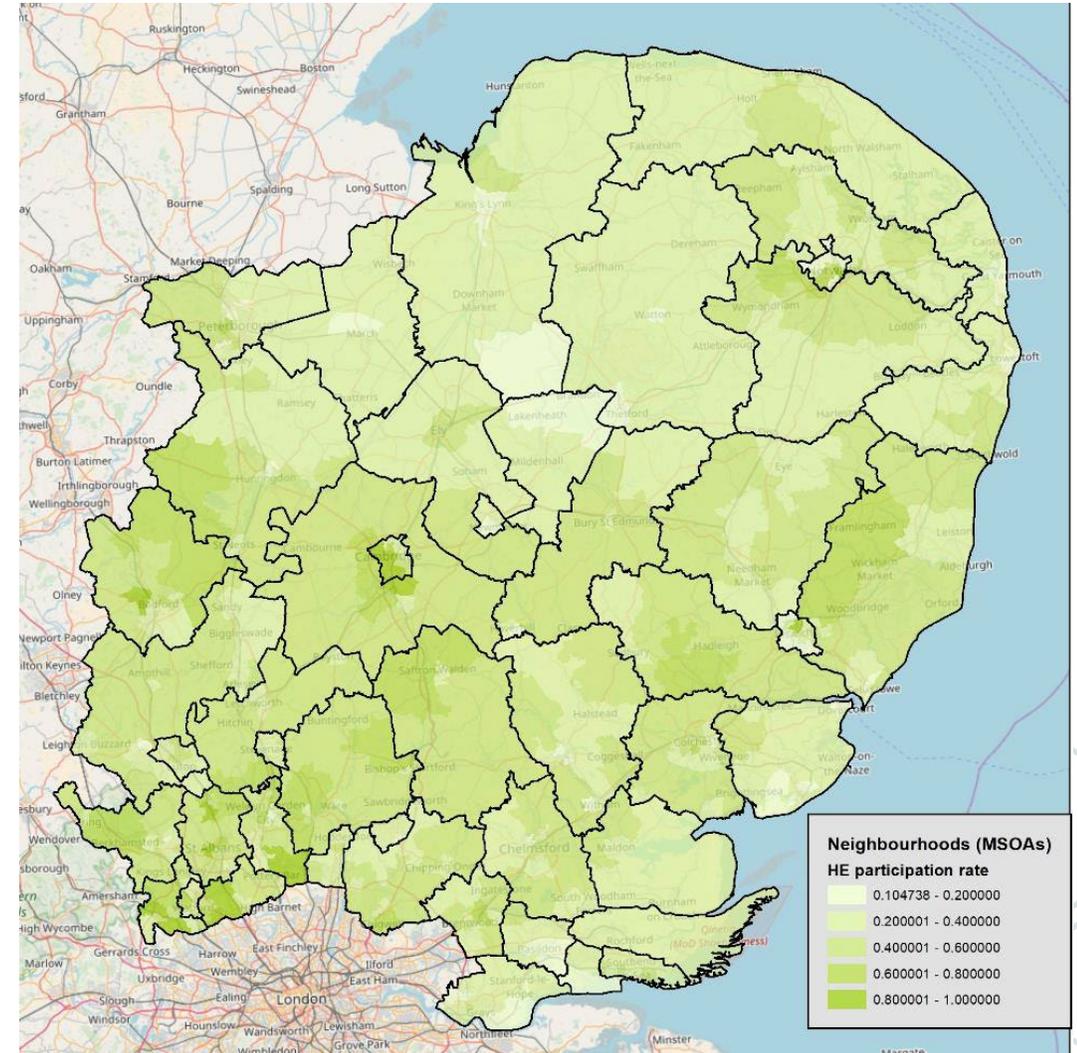
In Scotland – Data Zones (DZ) and Intermediate Geographies (IG)

In Northern Ireland – just LSOA

None of the above relate to anything 'real'.

Regions, Counties, Local Authorities, Wards and Electoral Divisions

- <http://geoconvert.digitalresources.jisc.ac.uk/>



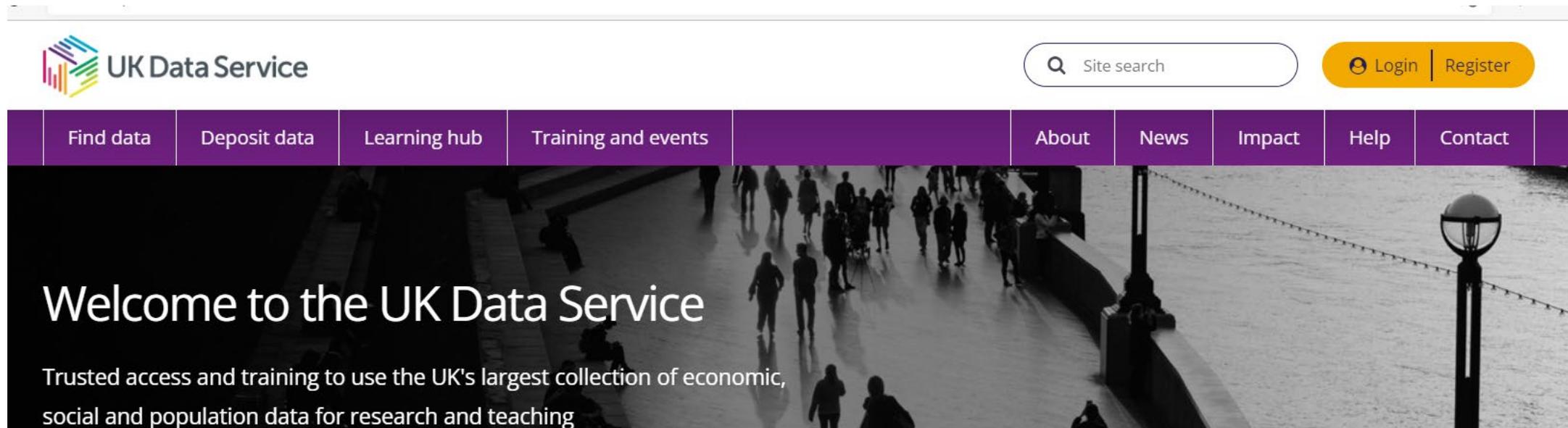
# Using the UK Data Service

- Registration
- Access conditions
- Navigation
- Data formats



# Registering with the UK Data Service

- For most data, you will need to be registered with the UK Data Service
- If you are at a UK university, you can use your own institutional username and password to log in and register with the [UK Data Service](#)



The screenshot shows the UK Data Service website homepage. At the top left is the logo, which consists of a stylized bar chart with colorful bars (red, orange, yellow, green, blue) and the text "UK Data Service". To the right of the logo is a search bar with a magnifying glass icon and the text "Site search". Further right is a yellow button with a user icon and the text "Login | Register". Below these elements is a horizontal navigation menu with purple background and white text, containing the following items: "Find data", "Deposit data", "Learning hub", "Training and events", "About", "News", "Impact", "Help", and "Contact". The main content area features a large black and white photograph of a busy pedestrian walkway next to a body of water. Overlaid on the bottom left of this image is the text "Welcome to the UK Data Service" in a large white font, followed by the tagline "Trusted access and training to use the UK's largest collection of economic, social and population data for research and teaching" in a smaller white font. In the bottom right corner of the slide, there is a decorative graphic of a hexagonal grid pattern.

# Access conditions ... reflect risk of disclosure

## Open access

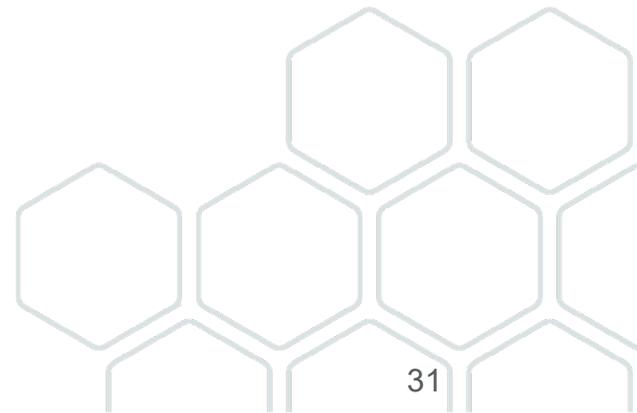
- Available with few restrictions
- What? International, some census, teaching datasets

## Safeguarded - End User License (EUL)

- Need to register and agree to conditions
- May have additional condition
- Most survey data is safeguarded

## Controlled/secure access

- Applications checked
- Access through a secure access agreement.
- Access through a physical or virtual secure environment



# Navigating the UK Data Service ...1

A good place to start is the Learning Hub which includes

- an introduction for new users
- learning resources covering skills, the data we hold and a link to future training and events



Enhance your data skills and teaching

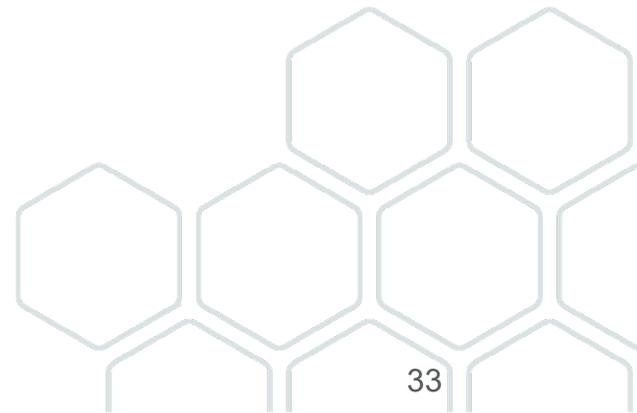
[New to using data](#)

[Data skills modules](#)

[Survey data](#)

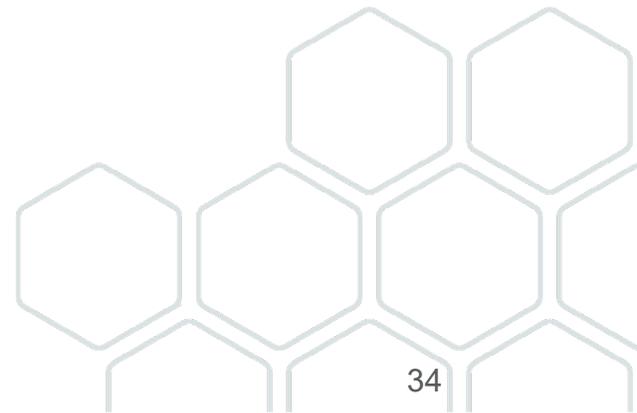
# Navigating the UK Data Service ...2

Once you are familiar with the web site you will probably use the find tool to locate relevant datasets by browsing themes or using the search facility.



# Data formats

- Survey data is available in SPSS and Stata format
- Other materials may include databases and spreadsheets
- Word and PDF documents

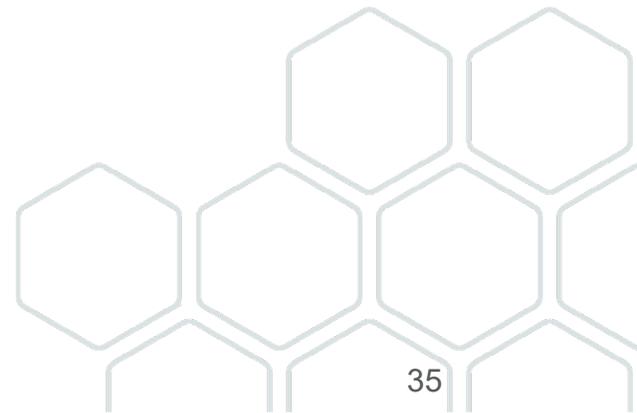


# Other support materials

- Webinars & Workshops
- See events pages

- Guides & Video tutorials
  - Topic
  - Dataset
- Methods and software

- Helpdesk
- Individual support by e-mail





# Thank you.

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