An Introduction to the UK Data Service

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Overview

• Who are we?
• What is data?
• What types of data do we hold?
• Online resources
• Further help
• Questions?
What is the UK Data Service?

• Comprehensive resource funded by the ESRC

• Access to secondary social science data

• The UK Data Archive is the lead organisation

• Support, training and guidance
UK Data Service Website

Explore the UK’s largest collection of social, economic and population data resources

How to cite data correctly

Guides and resources

- Dataset guides
- Topic guides
- Methods and software guides
- Guides to exploring online

Video tutorials
See our range of training videos
Who is it for?

- Academic researchers and students
- Government analysts
- Charities and foundations
- Business consultants and data analysts
- Independent research centres and think tanks
What is data?

• Facts and statistics collected together for reference or analysis
• Distinct pieces of information
• Surveys, administrative records, business records, censuses
How do you get data?

• Primary data collection?

• Advantages of secondary data collection
Sources of data

• National statistical authorities
• UK government departments
• Intergovernmental organisations
• Research institutes
• Individual researchers
Types of data

**Survey Microdata**
- Major UK surveys
- Cross-national
- Longitudinal

**International Macrodata**
- Multi-nation aggregate databanks and survey data

**Census**
- Aggregate data for 1971-2011
- Microdata for 1991-2011

**Qualitative/Mixed methods**
- Range of multimedia qualitative data sources
- Mix of qualitative and quantitative data
Micro data vs Macro data

- **Micro data**
  - Data at the individual level
  - Collected through surveys

- **Macro data** – aggregate data
  - Region or country level
  - Aggregated counts
Survey Microdata
Survey Microdata

• Anonymised individual or household level data
• Large sample sizes
• Nationally-representative
• SPSS or Stata
• Flexible
## Survey Microdata: example

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### (D) Age 16-65+ in ten year age bands * (D) BMI grouped with Obese categories I, II, III Crosstabulation

<table>
<thead>
<tr>
<th>Age 16-65+ in ten year age bands</th>
<th>Underweight: less than 18.5</th>
<th>Normal: 18.5 to less than 25</th>
<th>Overweight: 25 to less than 30</th>
<th>Obese I: 30 to less than 35</th>
<th>Obese II: 35 to less than 40</th>
<th>Obese III: 40 or more</th>
<th>Total</th>
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</table>
Survey Microdata: Outputs

Gross Weekly Pay (£) in Main Job by Sex, 2004-2014
Annual Population Survey

Year
Gross weekly pay
Men
Women
Cross-sectional surveys

- Many repeated annually
- Different people interviewed
- Snapshot at a specific time point
- Covers health, work, crime
Key data: Cross-sectional surveys

- Labour Force Survey (1975-)
- Annual Population Survey (2004-)
- Family Expenditure Survey (1961-2001)
- Crime Survey for England and Wales (1982-)
- British Social Attitudes Survey (1983 -)
Labour Force Survey

• Annually then quarterly

• International definitions of employment, unemployment & economic inactivity

• Informs social, economic & employment policies

• Topics include: occupation, training, working hours
Longitudinal data – Panel & Cohort data

• Similar to cross-sectional surveys

• One key difference!
  • Use the same individuals
  • Change over time
  • Temporal order of events studied
Panel Studies

- Measurements are called waves
- Random sample of individuals
- Questionnaires core content remains the same
- Additional questions can be asked
Understanding Society

- 40,000 households
- Data collected from all household members
- Employment; family networks; religion, ethnicity, health
- Consents to administrative data linkage
Cohort studies

• Individuals with a common event

• Measurements are called sweeps

• Examine generational change

• Questionnaire content is age-specific
Birth Cohort studies - sweeps

<table>
<thead>
<tr>
<th>1958 National Child Development Study</th>
<th>1970 British Cohort Study</th>
<th>Millennium Cohort Study</th>
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<tr>
<td>1965 - age 7</td>
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<td>2001-03 – 9 months</td>
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<td>1986 - age 16</td>
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<td>1981 - age 23</td>
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<td>2008-09 – age 50</td>
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<td>2013-14 – age 55</td>
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<tr>
<td>2018 – age 60</td>
<td>FUTURE: 2020 – age 50</td>
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Cross-national surveys

- Individual or household level data
- Allow comparisons across different countries
- Topics: education and income
- Example - European Quality of Life Survey
International Macrodama
International Macrodata

• Time series data aggregated to country/region

• Regularly updated

• International governmental organisations

• Certain access conditions
International Macrodata themes

Databanks cover:

- Economic performance and development
- Trade, industry and markets
- Employment
- Demography, migration and health
- Governance
International Macrodata: Tools

• UKDS.Stat or IMF e-library

• View the data by provider

• Extract the information you require
International Macrodata Outputs

Population ages 65 & over (% of total population) 1960 – 2017
World Bank (October 2019): World Development Indicators
Census Data
UK Census Data

• 1971-2011 census data

• Used as baseline for other statistics

• Detailed combinations of characteristics

• Small geographies
Census Aggregate data

- Counts of people with particular combinations of characteristics
- Large to very small areas
Census tools - InFuse

InFuse: 2011 Census data

Topics

Filters

Showing 90 topic combinations
Page 1 of 6
Census data Output: Religion
Census Boundary data
Census tools - Boundary data

ACCESS BOUNDARY DATA
These tools are restricted to staff and students from UK further/higher education institutions.

- **EasyDownload**
  - The most regularly requested census boundaries available as ready-to-use national datasets in popular formats.

- **Boundary Data Selector**
  - This facility lets you select the boundaries you want, for the area you want, in the format you want.

- **Postcode Directory Download**
  - This facility allows you to download complete versions of current and historical postcode directories (sometimes referred to as look-up tables).

- **Postcode Data Selector**
  - This facility allows you to download the set of postcodes that you want from postcode directories released between 2001 and the present day.

- **GeoConvert**
  - A geography matching and conversion tool. Obtain and manipulate complex geographical and postcode data in a straightforward way.

- **Thematic Mapper**
  - Create Choropleth thematic maps from your own uploaded CSV file and boundary data from Census Support.

- **Metadata Viewer**
  - This facility allows you to search for and view metadata records associated with the census geographic datasets.

- **WCDI (Web-based Interface to Census Interaction Data)**
  - This facility allows users to select and download migration and journey-to-work flow data collected by the Census of Population.

- **Census**
  - This facility contains boundary data bundled with census aggregate data for the 2001 and 1991 Censuses.
Census Flow data

- Special type of aggregate data
- There is an origin and destination
- Two main types: commuting and migration
- WICID tool
Census Microdata

• Anonymised individual-level data

• Analysed using SPSS or Stata

• Flexible

• 1991, 2001 and 2011 SARs available
Registering with the UK Data Service
Registering with the UK Data Service

• UK university - register through institution

• Apply for a username
Registering on the website

Registration

Information on the registration and ordering process is available by selecting one of the following options:

- **UK university or college users**
- **Other UK users**
- **Non UK users**
- **Commercial users**

If you are a student or member of staff at a UK institution of higher or further education (UK HE/FE), you can register with us using the username and password issued to you by your institution.

To register with the UK Data Service:

1. Click 'Register'
2. Click 'Register with the UK Data Service' under New users
3. Enter/select your organisation*, then click 'Continue'
4. Login using your username and password
5. Select 'New user' and then complete the registration form
6. Agree to the End User Licence (EUL), which outlines the terms and conditions of use of the Service, and then follow the instructions to complete your registration

Once registration is complete you will be able to download/order data from us.

* Note: If your username was issued to you by the UK Data Archive and begins with 'ukd', you need to enter 'UK Data Archive' as your organisation.
Searching for Data
Searching for Data

• Something for everyone

• Politics - British Election Study
• Economics - Labour Force Survey
• Sociology - British Household Panel Survey
• Survey methods - UKHLS Innovation Panel
### About the UK Data Service

Explore the UK’s largest collection of social, economic and population data resources

- **Search term:** education

### Guides and resources

- Dataset guides
- Topic guides
- Methods and software guides
- Guides to exploring online

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**Video tutorials**

See our range of training videos.
Useful resources and further help
Advice for new users

We have webpages for new users about:

• How to register and access data
• How to find data with our search tools
• What kinds of data we hold
• How to contact us
Interactive events

• Webinars
  • Introduction to key types of data
  • Specialised webinars for topic area, methods
  • Can be collaborative

UK Data Service
Resources for using data

This section contains information on:

- advice and support, including information about our helpdesk and training
- a number of guides, video tutorials and pointers to other useful information
- examples of how the data have been used by others
- information and resources designed for teachers and learners
User Support Helpdesk

• Data-related queries
  • Finding suitable data
  • Identifying specific variables
  • Understanding the data
• Data problems or anomalies
Questions

help@ukdataservice.ac.uk

https://ukdataservice.ac.uk/

https://twitter.com/ukdataservice