An Introduction to the UK Data Service: Resources for Social Research

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UK Data Service

Overview

- Who are we?

- What types of data do we hold?

- Online resources

- Further help

- Questions?

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What is the UK Data Service?

- A comprehensive resource funded by the ESRC

- The UK Data Service provides a single point of access to a wide range of secondary social science data

- The UK Data Archive is the lead organisation

- Support, training and guidance

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Who is it for?

- Academic researchers and students

- Government analysts

- Charities and foundations

- Business consultants & data analysists

- Independent research centres & think tanks

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What is data?

- Facts and statistics collected together for reference or analysis

- Distinct pieces of information

- Numeric information

  - Crime rates

  - Unemployment rates

  - Literacy rates

  - Risk of developing a health condition

- Collected through surveys, administrative records, business records, censuses

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How do you get data?

- Primary data collection?

  - You can design the data collection yourself but…

  - Expensive – time and money, expertise, experience

    - Can you perform a survey of 40,000 households?

- The advantages of secondary data analysis

  - Does not (usually) cost you anything

  - Large range of available data sources

  - The data will be representative

  - Robust

  - Transparent

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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

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Micro data vs Macro data

- Micro data – data at the individual level
  - Collected from individuals through surveys
  - E.g. What factors influence health

- Macro data – aggregate data
  - Data at a region or country level
  - Aggregated counts
  - Useful for examining how trends (e.g. fertility rates) change over time
  - Can be created from micro data sources

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Survey Microdata

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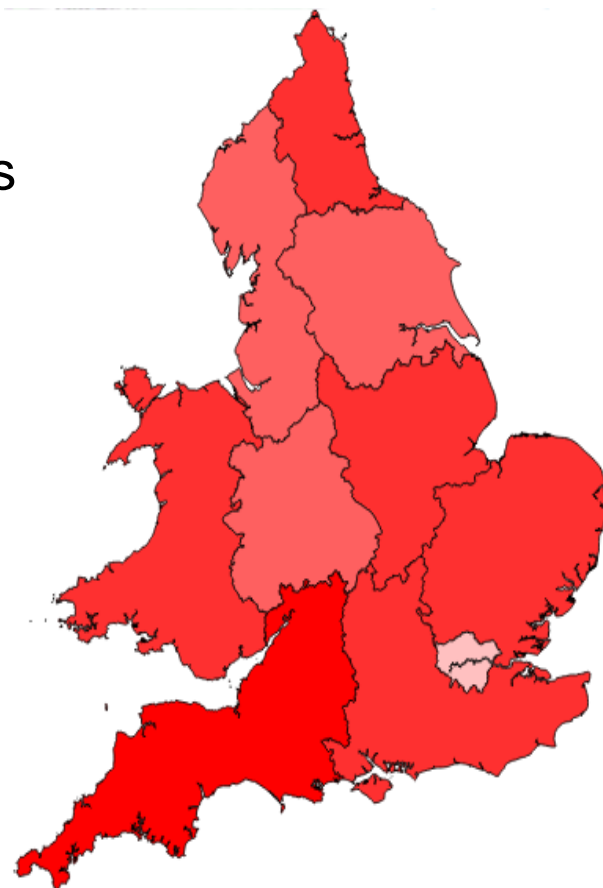
Survey microdata

- Individual or household level data which have been anonymised to prevent disclosure

- Large sample sizes

- Nationally-representative

- Needs to be analysed using an analysis package like SPSS or Stata

- Very flexible as you can produce your own tables, populations and attributes

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Survey microdata

|	rowlabel	sex	age	livharm1	ethgrp2	educat3	work
1	61302140	2	36	1	1	1	1
2	61384060	1	44	4	1	3	1
3	63684260	1	43	1	1	2	1
4	63790220	2	27	3	4	3	1
5	63843180	1	38	1	1	4	1
6	71105020	2	18	3	3	2	1
7	71105140	1	65	3	3	4	1
8	71106020	1	58	5	1	1	2
9	71106060	2	38	3	1	1	2
10	71108100	1	29	3	4	4	2
11	71110140	1	38	2	1	4	1
12	71110260	1	67	3	1	1	1
13	71114020	1	21	3	1	3	1
14	71115060	2	37	4	4	2	2
15	71119020	2	23	3	2	4	1
16	71119060	1	57	1	5	5	2
17	71119140	2	34	3	4	3	2
18	71119180	1	55	3	1	4	1
19	71119220	2	27	3	1	4	2

Survey microdata: working

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

Count

		(D) BMI grouped with Obese categories I, II, III						Total
		Underweight: less than 18.5	Normal: 18.5 to less than 25	Overweight: 25 to less than 30	Obese I: 30 to less than 35	Obese II: 35 to less than 40	Obese III: 40 or more	
(D) Age 16-65+ in ten year age bands	16-24	25	235	84	29	14	9	396
	25-34	9	306	180	83	37	11	626
	35-44	5	302	324	134	43	20	828
	45-54	5	301	341	190	68	33	938
	55-64	4	210	322	184	58	25	803
	65+	9	328	591	274	71	17	1290
Total		57	1682	1842	894	291	115	4881

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Survey microdata outputs

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

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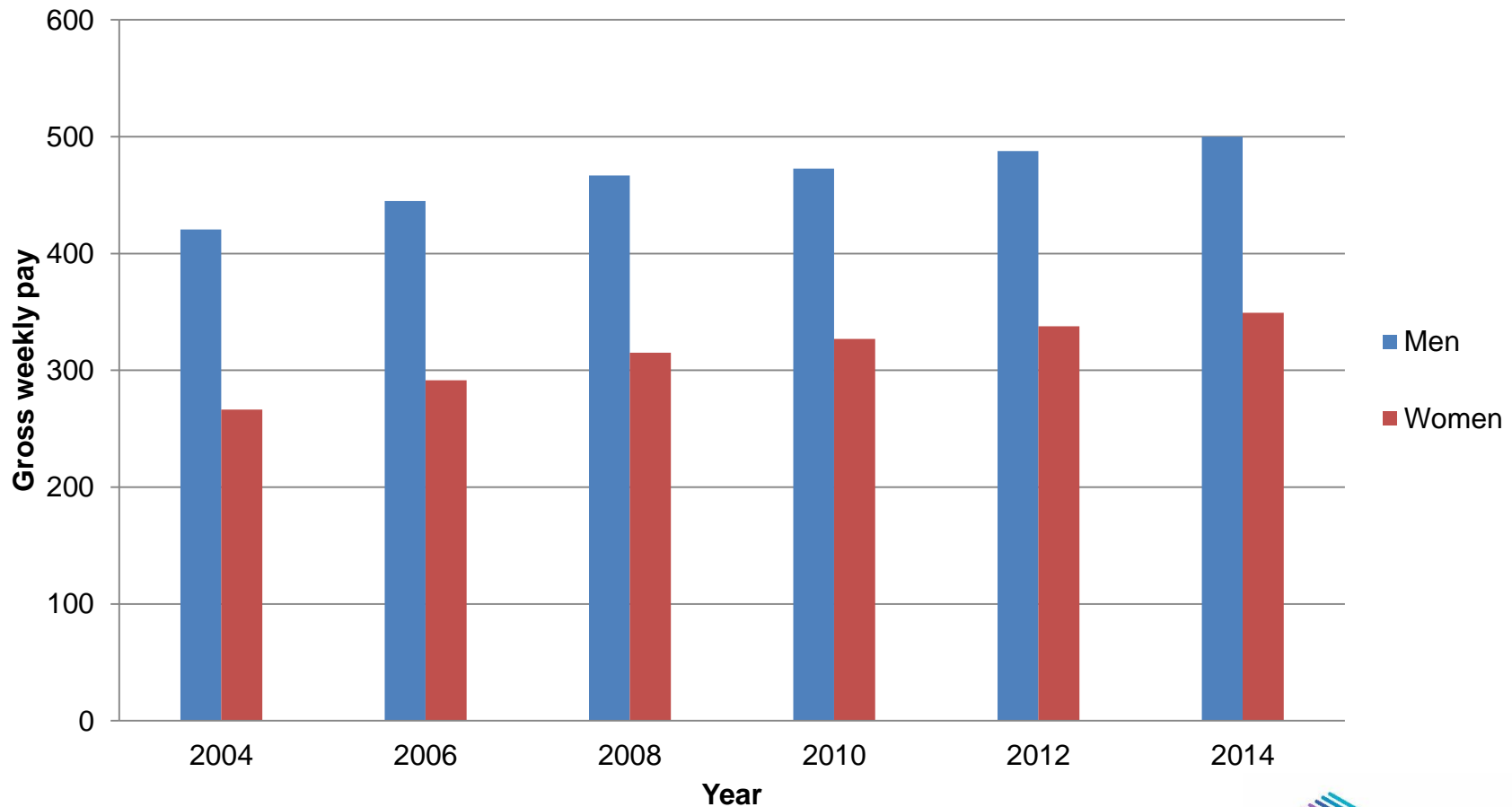
Cross-sectional Surveys

- Many surveys are repeated annually

- Each time they interview different people

- Offer a snapshot at a specific time point

- Cover many topics:
  - health
  - work
  - crime
  - social attitudes
 - family expenditure
  - living costs
  - housing

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Key data: cross-sectional surveys

- Labour Force Survey (1975 onwards)

- Annual Population Survey (2004 onwards)

- Family Expenditure Survey (1961-2001)

- Households Below Average Income (1994/95 – 2015/16)

- Health Surveys (England/Wales/Scotland) (1991 onwards)

- Crime Survey for England and Wales (1982 onwards)

- Family Resources Survey (1993 onwards)

- Citizenship Survey (2001-2011)

- British Social Attitudes Survey (1983 onwards)

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Labour Force Survey

- Started as an annual survey in 1975
- Quarterly from 1991
- Uses international definitions of employment, unemployment & economic inactivity
- Used to inform social, economic & employment policies
- Topics include:
  - Occupation
  - Training
  - Hours of work
  - Personal characteristics of household members aged 16 & over

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Should I Stay or Should I Go? NFER Analysis of Teachers Joining and Leaving the Profession

Figure F More than half of non-student joiners come from jobs in the school sector; more than half of non-retiring leavers go to jobs in the school sector
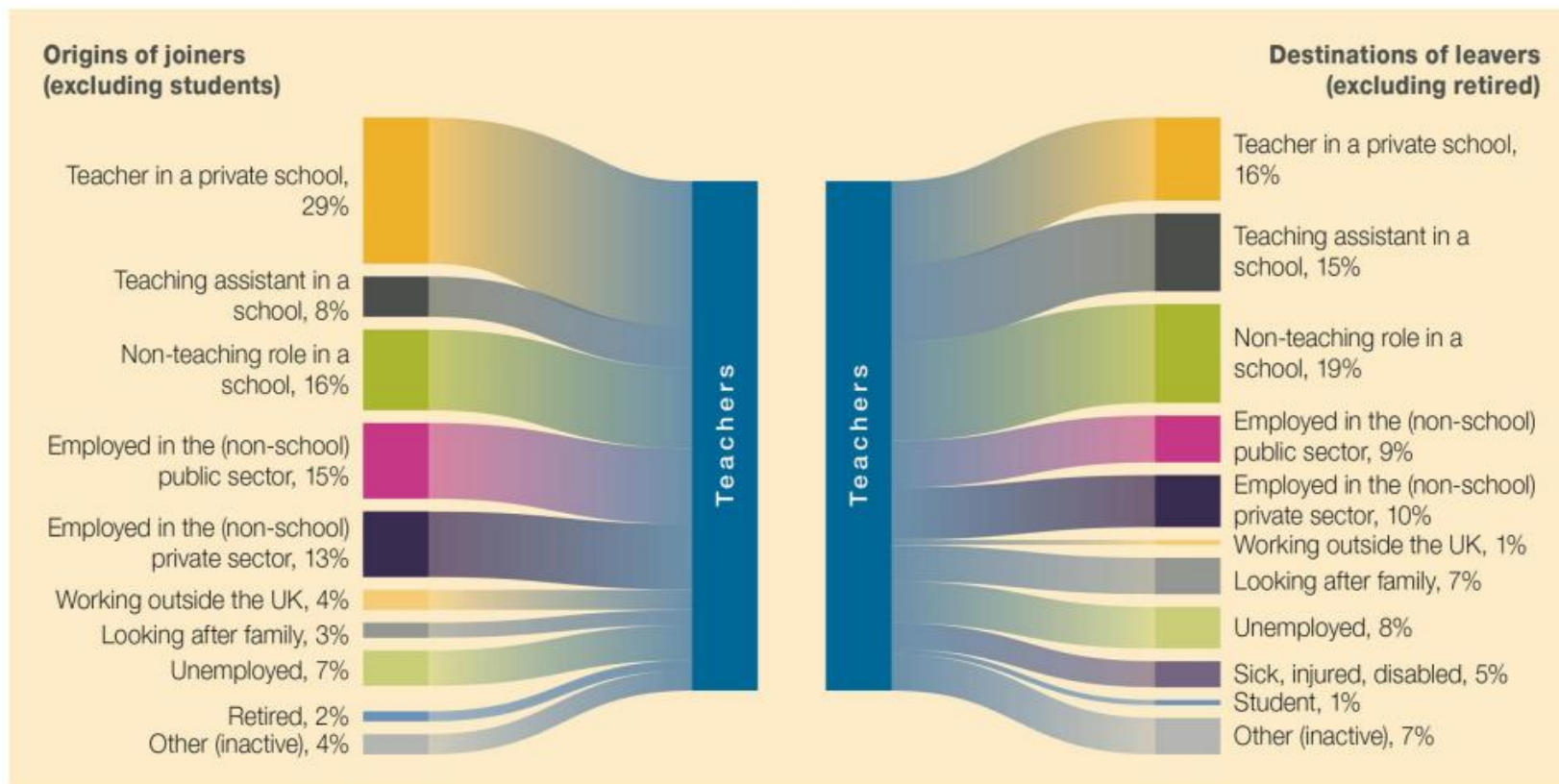
Longitudinal data – Panel & Cohort data

Similar to cross-sectional surveys

- individual level data
- large samples, nationally-representative
- surveys are repeated, often annually

One key difference!

- Collect information from the same individuals
- Builds up a picture of how people's lives change over time
- Allow temporal order of events to be studied

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Panel vs. Cohort: Panel Studies

- Measurement points/surveys are called **waves**

- Random sample of individuals across the population

- Can run for many years

- Example – household panel studies run in many countries, include interviews with all household members

- Core content of questionnaire remains the same to allow changes in key measures to be studied

- Additional questions can also be asked at selected waves

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Understanding Society

- Sample of 40,000 households

- Data collected from all household members - 100,000 individuals

- Includes an Ethnic Minority Boost sample

- coverage includes:

  current employment and earnings; benefit payments; political party
  identification; household finances; environmental behaviours;
  parenting and childcare arrangements; family networks; religion,
  ethnicity, health

- Includes a number of biomarkers

- Consents to administrative data linkage (health and education)

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Cohort studies

- Follow individuals who have a particular event in common

- Most common event is being born in the same week/year

- Interviewed at key time points, generally less frequently

- Measurement points are called **sweeps**

- Some will follow the cohort over their life time

- Can be used together to examine generational change

- Content of questionnaires is age-specific so will change over time

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Birth Cohort Studies - data collection sweeps

1958 National Child Development Study	1970 British Cohort Study	Millennium Cohort Study
1958 - birth	1970 - birth	2000-02 – birth
1965 - age 7	1975 - age 5	2001-03 – 9 months
1969 - age 11	1980 - age 10	2006 – age 5
1974 - age 16	1986 - age 16	2008 - age 7
1981 - age 23	1996 - age 26	2012 - age 11
1991 - age 33	1999-2000 – age 29-30	2015 - age 14
1999-2000 – age 41-42	2004-05 - age 34-35	NEXT: 2018 – age 17
2004-05 – age 46-47	2008-09 - age 38-39	
2008-09 – age 50	2012 - age 42	
2013-14 – age 55	NEXT: 2016 – age 46	
NEXT: 2018 – age 60	FUTURE: 2020 – age 50	

Childhood psychological distress and youth unemployment: Evidence from two British cohort studies Mark Egan, Michael Daly, Liam Delaney
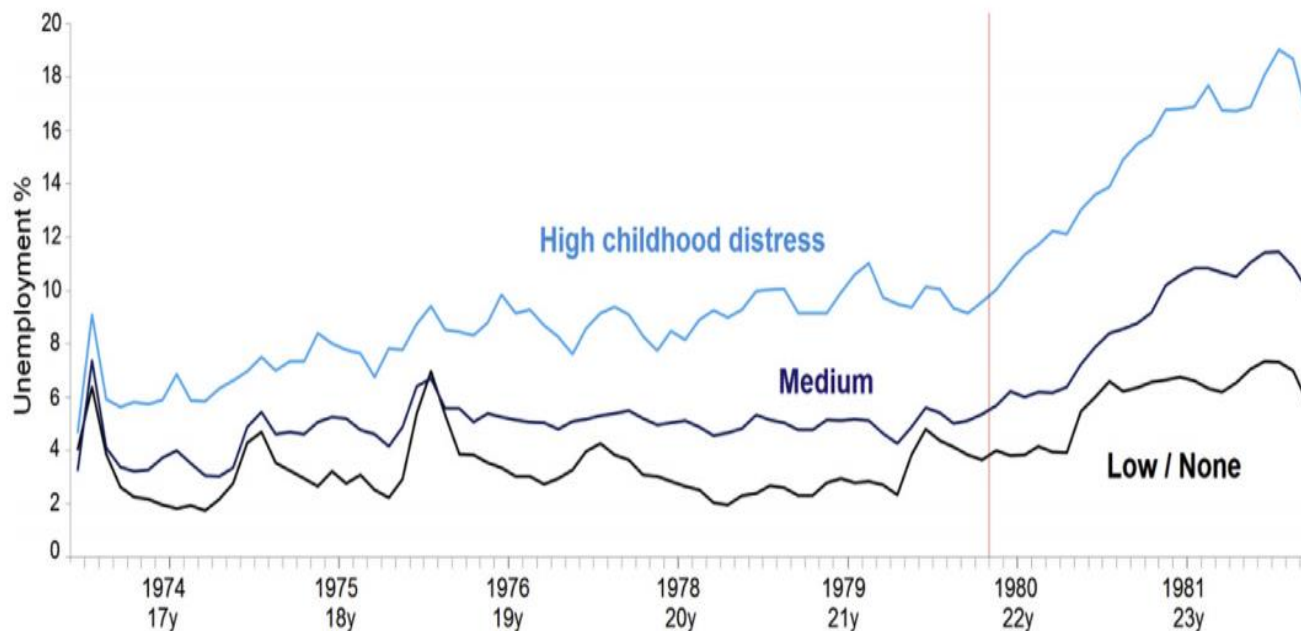
Fig. 2. Descriptive statistics describing unemployment in the NCDS from August 1974–November 1981 by levels of childhood distress. The year above the cohort members' age refers to March of that year, the month when the cohort members were born. The vertical line denotes the onset of the U.K. recession in January 1980. Five months at the beginning and end of the data-range are omitted due to small sample sizes.

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Cross-national Surveys

- Individual or household level data

- Allow comparisons across different countries

- Topics covered include:
  - education
  - income
  - working conditions
  - poverty

- Examples:
- Eurobarometer Surveys
- European Quality of Life Survey
- European & World Values Studies
- International Social Survey Programme

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International Macrodata

International Macrodata

- Time series data aggregated to country/region

- Regularly updated

- International governmental organisations (IMF, OECD, IEA, World Bank)

- Only available to staff and students from UK institutions of higher and further education (World Bank data are open access)

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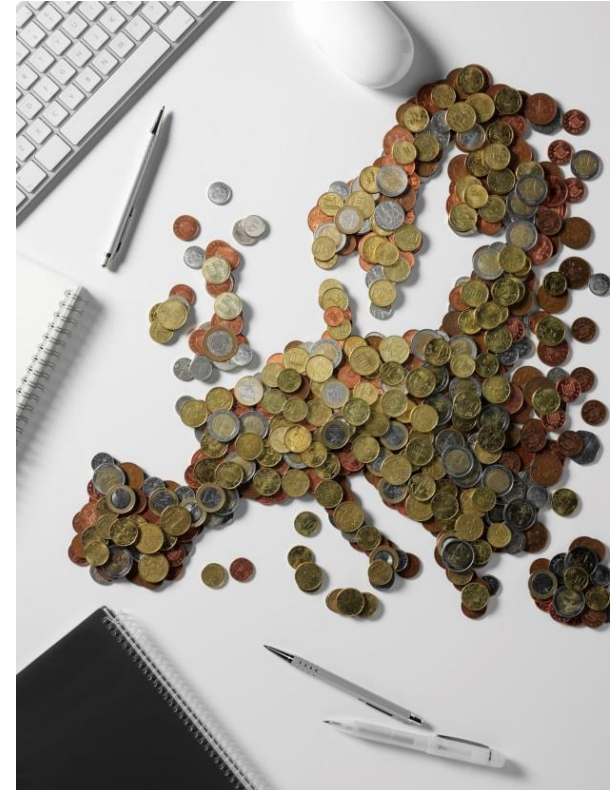
International Macrodata themes

Databanks cover:

- Economic performance and development
- Trade, industry and markets
- Employment
- Demography, migration and health
- Governance
- Human development
- Social expenditure
- Education
- Science and technology
- Land use and the environment

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International Macrodata

UKDS.Stat
Disseminating international time-series data for the UK Data Service

20 October: We celebrate World Statistics Day
15 July: We have launched a new version of UKDS.Stat! Please take a look at some of the new features and enhancements.

Login to view the full data portfolio (UK HE/FE only), or browse World Bank, OECD and IMF Open Data.

To get started, select data in the left-hand menus or select a dataset from the table below.

UKDS.Stat user guides and video tutorials provide extensive help on accessing the data. Please do get in touch if you have any questions for us.

UKDS.Stat platform	Other platforms and data formats
World Bank datasets: ADI | IDS | WDI	IMF eLibrary Text Collection Currently unavailable
IMF datasets: BOPS | DOTS | GFS | IFS | WEO	
OECD datasets	OECD International Trade by Commodity Statistics (2010) in CSV format
IEA datasets	United Nations Comtrade Database (premium access)
Unido industrial statistics: IDSB | INDSTAT2 | INDSTAT4	Eurostat New Cronos Database

Download the series you want from the appropriate online tool: UKDS.Stat or IMF eLibrary.

Connect with the UK Data Service on Facebook

IMF IFS interest rates World Bank WDI IMF IFS interest
output imports globalisation output imp
energy social mobility energy hum
human development
environment health Open environment he
labour education labour e
malaria malaria

Explore our data on Sustainable Development Goals

No poverty:
- Poverty headcount
- Infant mortality rate
- Percentage living on less than $1.25 a day

Zero hunger:
- Prevalence of undernourishment
- Depth of food deficit

Good health and wellbeing:
- Maternal mortality
- Prevalence of HIV
- Measles immunisations

Quality education:
- Youth literacy rates

Gender equality:
- Adolescent fertility rate
- Parliamentary seats held by women

Clean water and sanitation:
- Access to improved sanitation facilities

Industry, Innovation and Infrastructure:
- Mobile cellular subscriptions
- R&D expenditure and technology exports

Life on land:
- Land use in African countries
- Protected terrestrial and marine areas
- Mammal and bird species, threatened

Peace, justice and strong institutions:
- Bribery incidence %
- Intentional homicide

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International Macrodata Outputs

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

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Census Data

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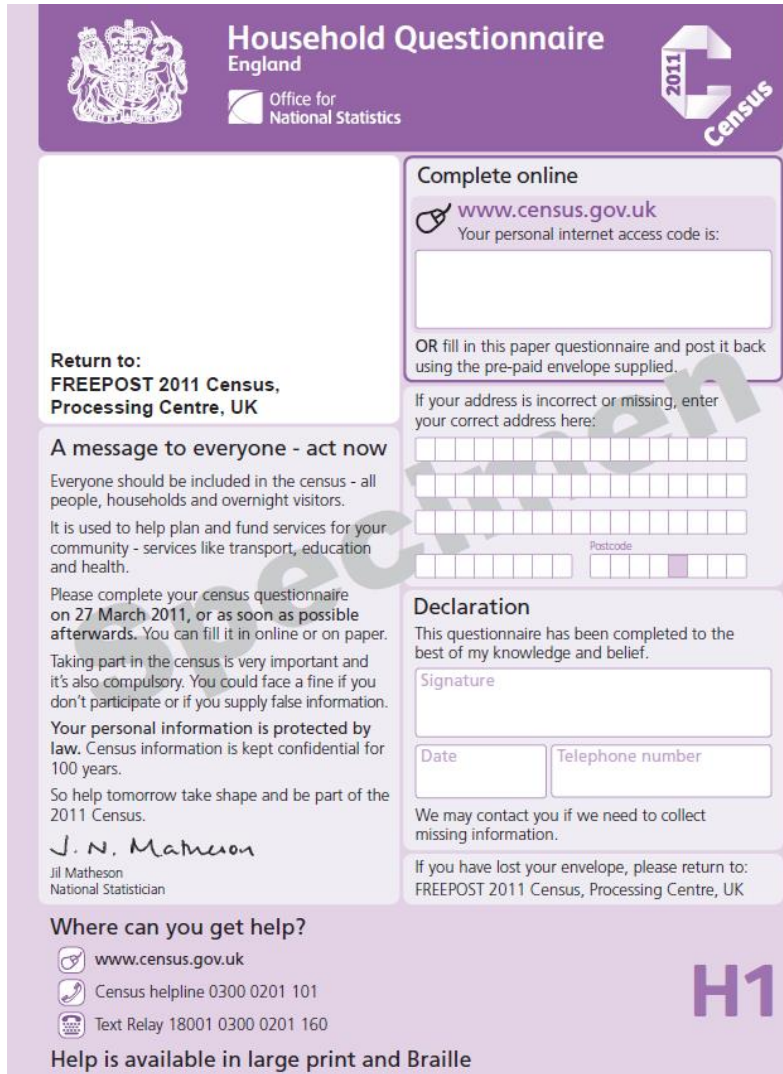
UK census data

- 1971-2011 census data
- Gold standard
- Used as baseline for other statistics
- Detailed combinations of characteristics
- Small geographies
- Census outputs
  - Aggregate data
  - Boundary data
  - Flow data
  - Microdata

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Topics

- age
- sex
- health
- religion
- ethnicity
- caring
- travel to work
- household composition
- housing
- car ownership
- employment
- education
- national identity
- second homes
- intention to stay

Census aggregate data

- Counts of people, households, etc. with particular combinations of characteristics for an area

- Areas vary from large to very small

- Example:
Numbers of people who are aged over 50 and are unemployed (a combination of characteristics) within each of the wards in the district of Greater Manchester (a set of geographical zones).

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Census Tools - InFuse

http://infuse.mimas.ac.uk/

Religion

Percentage Christians, 2001

Percentage Christians, 2011

More than 80%   50-59%
70-79%   Less than 50%
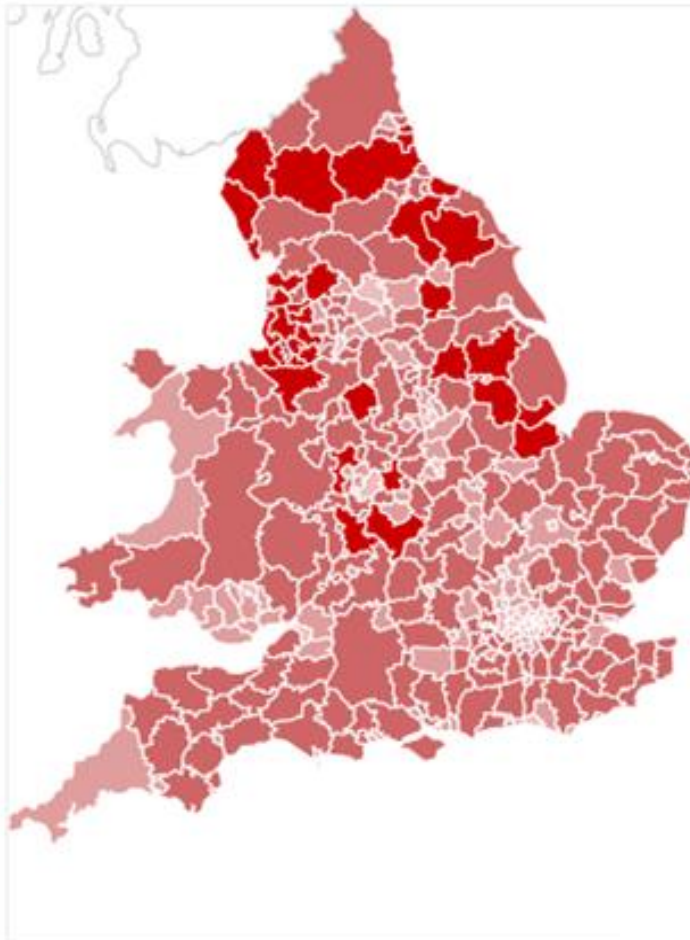
Census Boundary Data
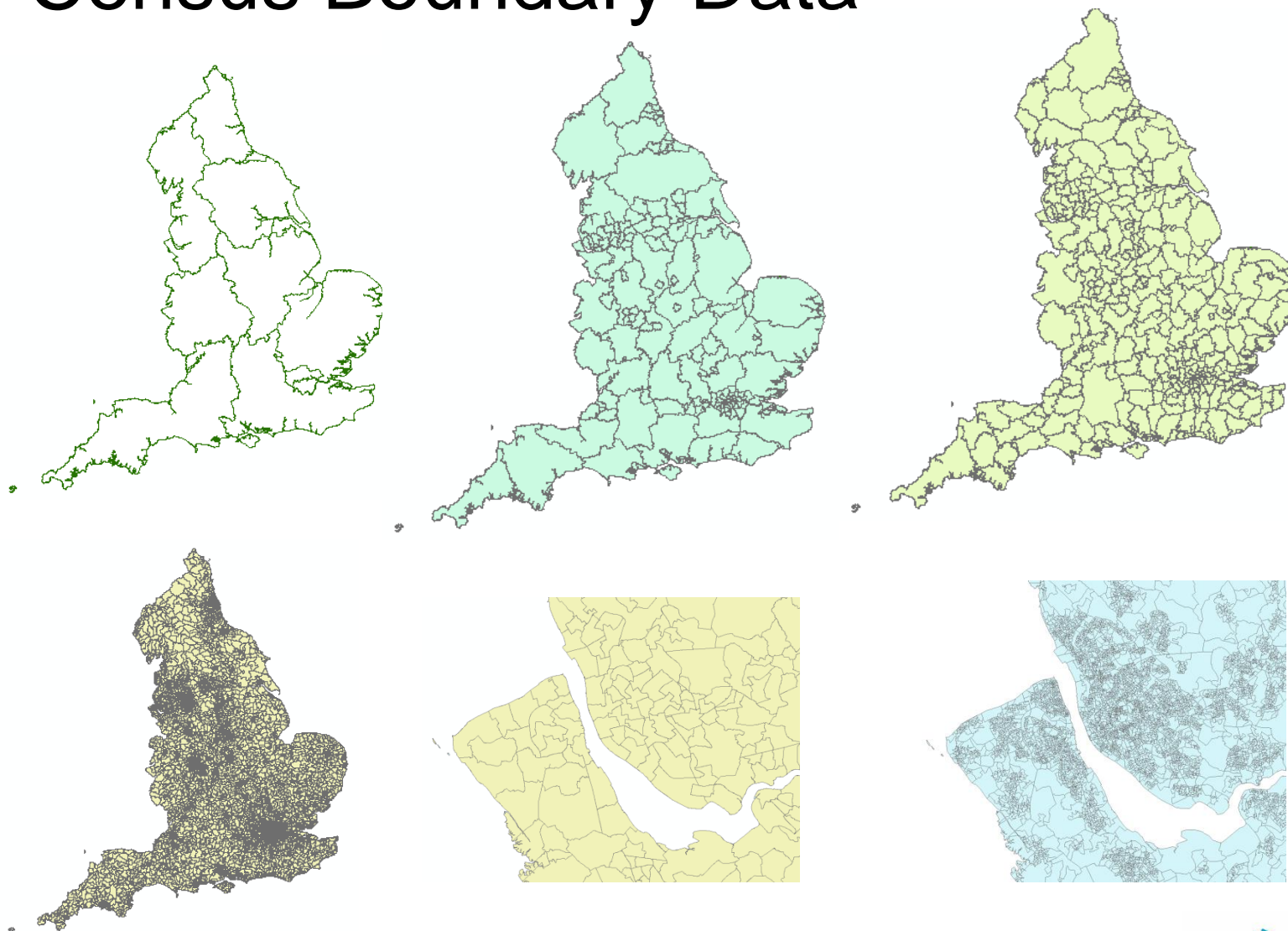
Census Tools – Boundary Data

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

WICID (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.

Casweb
This facility contains boundary data bundled with census aggregate data for the 2001 and 1991 Censuses

http://census.ukdataservice.ac.uk/get-data/boundary-data.aspx

http://census.ukdataservice.ac.uk/use-data/guides/boundary-data.aspx

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Census Flow Data

- Special type of aggregate data, where there is an origin and destination

- Two main types
  - commuting
  - migration

http://census.ukdataservice.ac.uk/use-data/guides/flow-data.aspx

http://cider.census.ac.uk/cider/wicid/query.php

Census Microdata

- Individual-level data which has been anonymised

- Sample of Anonymised Records (SARs)

- Looks like data you would get from doing a survey yourself

- Analysed using an analysis package like SPSS or Stata

- More flexible as you can produce your own tables, populations and attributes

- 1991, 2001 and 2011 SARs data available

Registering with the UK Data Service

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Registering with the UK Data Service

- 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

- If you are not at a UK University you will have to apply for a UK Data Archive username and password

- https://www.ukdataservice.ac.uk/get-data/how-to-access/registration

UK Data Service

About us | Get data | Use data | Manage data | Deposit data | News and events

Home > Discover data > How to access > Registration

Registration

LOGIN / REGISTER

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

DISCOVER UK DATA SERVICE

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

○ Data   ● Website

GO

SHARE

QUICK ACCESS TO

FAQ - Login and registration

Get in touch: registration

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.

Left sidebar menu

About our data

Key data

Data by theme

Data by geography

Open data

How to access

– Registration

Download and order

Access Secure Lab

Charges

Terms and conditions of access

Other providers

Explore online

Data access policy

Thesauri

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Searching for data

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There is something for everyone

- **Politics** e.g. British Election Study
- **Economics** e.g. Labour Force Survey
- **Sociology** e.g. British Household Panel Survey
- **Survey methods** e.g. UKHLS Innovation Panel
- **Sports science** e.g. Taking Part Survey
- **Language and linguistics** e.g. Linguistic Innovators
- **Psychology** e.g. (various experimental data collections)
- **Business studies** e.g. SME Finance Monitor
- **History** e.g. Survey of Scottish Witchcraft, 1563-1736
- **Law** e.g. Human Rights Atlas, 1981-2012
- **Health and human sciences** e.g. NDNS

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Searching for data

Useful resources and Further help

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Useful tips - [Advice for new users](#)

- We have webpages for new users with information on:

    - How to find data with our search tools
    - How to register and access data
    - What kinds of data we hold
    - How you can get in touch?

Advice for new users

"Learn about our service and how to use our resources"

The UK Data Service provides access to, and support for, the use of an extensive range of key economic and social data, spanning many disciplines and themes. Find out about us.

Our search and browse application, Discover, provides access to data and related resources, such as case studies, support guides and publications. Discover contains over 6,000 digital data collections for research and teaching purposes.

Using our data

Anyone can register for our service but access to our resources may differ depending on your affiliation.

Academic	Public Sector	Voluntary Sector	Commercial	Personal

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Interactive Events

- Webinars
  - Introduction to the UKDS
  - Introduction to key types of data
  - Specialised webinars for topic area, methods
  - E.g. An Introduction to survey data on health
  - Can be collaborative

UK Data Service · **Introductory Webinars**

To help you get the most from the UK Data Service we run a series of web introduce different aspects of the Service and explain our key datasets. T run from 15.00—16.00 and they are free to attend.

You can find other webinars on more specialised topics on our events pages

To book your place click on the dates below or go to ukdataservice.ac.uk/news-and-even

Introduction to the UK Data Service

The UK Data Service holds the UK's largest collection of research data. This introductory webinar is for anyone with an interest in social research who wants to hear about the vast array of resources we offer. Participants will learn about the different types of quantitative and qualitative data we hold, how to find those data collections using our online resource discovery tools, and how to register to access datasets in a number of different formats. We will also demonstrate how some of our data collections can be viewed and analysed online, as well as providing an overview of our support and training resources for students, researchers and teachers.

Finding and accessing data in the UK Data Service

This introductory webinar is intended for anyone who wants to hear about finding data from the UK Data Service. Participants will be given a practical overview of the tools that the service provides, particularly our Discover tool to help you to make the most of your data searches. We will discuss best approaches to searching data and how to use the search tool to narrow down search results. We will also explore other service resources provided to help you get the data you want and related information.

Key issues in reusing data

Participants will hear about the key issues in secondary analysis as a method. The introductory session will briefly cover the pros and cons of reusing data and the importance of learning about the origins of your data. Quantitative and qualitative secondary analysis will be discussed with examples and issues of context, sampling and ethics will be raised.

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Resources for using data

Surveys unit 1: What are survey data?
View all modules

Menu | Glossary

Surveys

Unit 1: What are survey data?

This unit will explore survey data.

You will look at what the data are, some key concepts relating to survey data and how to find datasets that you can use.

You can work through this unit in order using the next button, or use the menu to view the list of sections and jump to the part you are most interested in.

Demo: Opening a data set

This video illustrates how to open a data set in PSPP.

Open video in a new window

User Support Helpdesk

- Data-related queries
  - Finding suitable data
  - Identifying specific variables
  - Understanding the data - coding frames, etc.
  - Data problems/anomalies

Help

"How can we help?"

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Questions

ukdataservice.ac.uk/help/

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