Census Research: the view from April 2011

David Martin, Coordinator ESRC Census Programme
Overview

- What’s so special about the census?
- Census data resources
- The ESRC Census Programme
- Research examples
- What about 2011 data?
- And the future?
What’s so special about the census?
What’s so special about the census?

- Near-complete population coverage
- Geographical detail
- Socioeconomic detail
- Cross-tabulation of questions
- Historical sequence
- Unique research possibilities
- Variety of integrated data resources
Census data resources
Census data resources

- Only a single integrated census dataset permits the production of the widest range of research datasets
- Standard questions, definitions, coding, reference date, geographical basis
- Separate univariate data sources aggregated to small areas cannot answer the same questions, due to the lack of record-level integration
Census questionnaires

Imputation and estimation

Confidential record-level database structured by persons and households with address and area codes

Disclosure control, user licensing and delivery systems

Area-based aggregations
Anonymised microdata
Linked longitudinal data
Interaction data

Area boundaries
Historical records
Previous censuses and non-census data
The ESRC Census Programme
The ESRC Census Programme

- Services providing census data access and support to the UK academic community through specialist data support units, single Portal
- Active engagement with census organizations representing academic user needs re. outputs and dissemination
- Research and development projects
- 23,093 users; 142,000 data accesses (2009/10)
The ESRC Census Programme

- Published, computer-readable datasets covering 1971-2001
- Support services for secure laboratory access
- NOT historical records (National Archives, etc.)
- Supporting boundaries, directories, tools and interfaces, training and expert user support
Welcome

Census.ac.uk, home of the ESRC Census Programme, provides services to allow users in UK higher and further education institutions to access data from the 1971, 1981, 1991 and 2001 UK censuses.

Bookings now open for our forthcoming Census Conference. Census 2011: Impact and potential - Exploring the research potential of the 2011 Census...more

Do you know which data you want?

If you already know what type of data you want, we provide direct links to the Data Support Units who host the data, and to information about the data they hold. You can also use our Advanced Search facility to find the data you need.

Data Support Units
Census guides
Advanced search

First time here?

If this is your first visit, you may wish to find out more about us, or you may wish to register to use census data now.

Register
Quick guide
Data available from the Census Programme

Anything else you’d like to know?

There’s lots more we can tell you about the census, and here are a few things that might interest you.

2011 Census
Census experts
Census projects
Census-related resources
Historical and genealogical resources
International census resources
Modern census data
Geographical Referencing Learning Resources (Geo:Refer)

Need Help?

If you don’t find what you are looking for in the FAQs or help pages you can contact us via the help desk.

Login help
Help desk
Search help
FAQs

How have you used census data?

Do you have a case study?
Do you have derived data?
Main services, by dataset

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<th>Census Dissemination Unit</th>
<th>UKBorders</th>
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<td>Longitudinal Studies Centre Scotland</td>
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<td>NILS Research Support Unit</td>
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CasWeb

web interface to census aggregate outputs and
digital boundary data

Log in to Casweb using UK Federation

Quick Guide to Casweb

Where is Athens?

Queries or comments regarding registration and authentication for census services should be directed to the Census.ac.uk Helpdesk (+44 (0)1206 872013; help@census.ac.uk)
Login to UKBORDERS

Boundary datasets and geographic look up tables of the United Kingdom.

- Login via UK federation. [info]

Maps are based on data provided with the support of the ESRC use boundary material which is copyright of the Crown, Post Office and the EDLINE consortium.

EDINA is a JISC National Data Centre based at the University of Edinburgh
Welcome to GeoConvert

GeoConvert is an online geography matching and conversion tool for UK academics. GeoConvert allows registered users to obtain and manipulate complex geographical and postcode data in a straightforward way. Access to GeoConvert is controlled by UK Federation authentication.

STOP! If you're new to using GeoConvert, or are having problems logging in, we strongly recommend that you follow the steps in our 'Guide to Logging in to GeoConvert'.

Login to GeoConvert via UK Federation

- Have you used GeoConvert, Casweb or other CDU services? Tell us more for a chance of a £50 Amazon voucher, see the Case Studies wanted page for details
- A single login for users from 1 August 2009.

Main functions
- Obtain postcode metadata (deprivation scores, grid-reference co-ordinates, urban/rural indicators, area classifications, etc)
- Obtain details of the geographical relationships (intersections/matches) between zones in different geographies
- Re-sample (convert) data from one geography to another

Aims and objectives
The main aim of GeoConvert is to simplify and expand the use of the information contained in the postcode directories within UK academia. It is hoped that the service will save an enormous amount of duplicated time and effort by providing functions that are quick and easy to use, and are based upon robust, documented methods, details of which will be available from the service interface.

Mechanisms for the rapid, automated incorporation of information from future releases of the National Statistics Postcode Directory (NSPD) have been developed as a major component of the...
Programme of research and development awards, including...

- Census Data Feed network
- DIaD - Data Integration and Dissemination
- Towards 2011 output geographies
- CAIRD: Creating a Census (Meta) Data Feed
- Censusgv - Census Geographic Information Visualisation
Towards 2011 output geographies: Exploring the need for, and challenges involved in, maintenance of the 2001 output geographies

Samantha Cockings, Andrew Harfoot, Duncan Hornby
University of Southampton

This article describes and presents early results from the ESRC-funded Census 2011Geog project, which aims to develop and evaluate automated procedures to maintain (split, merge or re-design) the 2001 output geographies.

Introduction

The 2001 Census output geographies for England and Wales were designed to be an optimised representation of the population distribution and socio-economic characteristics at that time. By the next Census in 2011 there will have been changes in the size and composition of...
Census 2011: impact and potential
Exploring the research potential of the 2011 census

Thursday 7 - Friday 8 July 2011
Chemistry Building, Brunswick Street, University of Manchester

The 2011 Census, like its predecessors, promises to be a unique and valuable data resource for researchers. Use will be made by a wide range of users across the academic, public and private sectors. This two-day conference, organised by the ESRC Census Programme, will showcase the research potential of the 2011 data by users of the full range of aggregate and microdata census outputs.

Programme

Day one: Thursday 7 July 2011

10.00 Coffee and registration

11.00 Plenary session: 2011 – how was it for you?
Convenor: Dave Martin

ONS – Glen Watson: First reflections on the 2011 Census

ESRC – Paul Boyle: The importance of the Census to social science research

12.30 Lunch

1.30 Lecture theatre G53
Aggregate data sets 1: Stock data
Convenor: John Stillwell

Lecture theatre G54
Longitudinal studies 1
Convenor: Emily Grundy
Research examples
Research examples

- Stillwell and Hussain (2008)
  Migration by ethnicity
- Young et al. (2010)
  Self-reported health and mortality
- Norman and Purdam (2010)
  Patterns in unpaid care-giving

(Selected, in part, for ease of availability)
Stillwell and Hussain (2008)

Ethnic migration within Britain during 2000-01: a district level analysis

- Data: area aggregates, boundaries, SMS
- Ethnic variations in district-level net migration across Great Britain; borough-level within London
- Chinese have highest migration propensities and tend to move greatest distances
- Migration dominated by white outflows from London boroughs; dominant role of London
Young et al. (2010)

Self-rated health and mortality in the UK: results from the first comparative analysis of the England and Wales, Scotland, and Northern Ireland Longitudinal Studies

- Data: ONS LS, SLS and NILS
- Individual-level analysis of relationship between self-reported health and subsequent mortality, across UK
- Across UK, women more likely to report health poor; less likely to die
- Socioeconomic differentials greatest in NI
- Strong association with reporting poor health and mortality; strongest in Scotland
Figure 1  Percentage of the population aged 35–74 with fair or poor self-rated health by age group, gender and country, ONS LS, SLS, NILS, 2001

Source: ONS LS, SLS, NILS 2001
Norman and Purdam (2010)

Geographical and Social Variations In Unpaid Caring Within and Outside the Household in England and Wales

- Data: area aggregates, boundaries, SARs (Small Area Microdata)
- Individual variations in unpaid care by carers over 40 in England and Wales
- 1.7m people providing over 20 hrs/wk of unpaid care, 50-59 year-olds most likely
- Distinctions between care provided within and beyond the household – associated with social class and education
Figure 3: Distributions of unpaid carers (aged 16+) providing care within or outside the household at the Primary Care Trust level

a) Unpaid care provided within the household

% Caring within (quantiles)
- 3.87 - 6.34
- 6.34 - 7.5
- 7.5 - 8.53
- 8.53 - 12.26

% Persons providing care inside the household

Standardised Illness Ratios
References

  http://www.geog.leeds.ac.uk/fileadmin/downloads/school/research/wpapers/08-02.pdf

  http://www.statistics.gov.uk/populationtrends/downloads/PopTrends03.pdf

  http://www.ccsr.ac.uk/publications/working/2010-03.pdf
What about 2011 data?
What about 2011 data?

- Census day 27 March
- Still in enumeration phase/follow-up
- Mail out/mail back
- Internet data collection
- Flexible enumeration strategy
- First data July 2012: basic demographic statistics for local authorities
H1 - Household Questionnaire - England

Your progress

Household questions

- H1 - H2: Done
- H3: Done
- H4 - H5: Done
- H6: Done
- H7 - H8: Done
- H9 - H10: Done
- H11: Done
- H12: Done
- H13: Done
- H14: Done

Individual questions

Visitor questions

Submission

Household questions

Save and come back later

H7: What type of accommodation is this?

A whole house or bungalow that is:

- detached
- semi-detached
- terraced (including end-terrace)

A flat, maisonette or apartment that is:

- in a purpose-built block of flats or tenement
- part of a converted or shared house (including bedsits)
- in a commercial building (for example, in an office building, hotel, or over a shop)

A mobile or temporary structure:

- a caravan or other mobile or temporary structure

H8: Is this household’s accommodation self-contained?

This means that all the rooms, including the kitchen, bathroom and toilet, are behind a door that only this household can use

- Yes, all the rooms are behind a door that only this household can use
- No
What about 2011 data?

- Broadly comparable questionnaire content to 2001
- More questions on citizenship, place of residence, population bases
- Broadly comparable set of outputs under consideration
- High degree of geographical boundary stability, based on 2001 output areas
And the future?
National census in 2011 could be last of its kind

The national census due to take place in 2011 could be the last of its kind.

The BBC understands that the government is examining other ways of measuring population and other statistics than the survey of all homes every 10 years.

In future, data could be gathered from records held by the Post Office, local government and credit checking agencies - thought to be more effective.

The government said it was "examining" whether changes could be made but no decision had been reached.

A census has been carried out every decade since 1801, apart from during World War II.

Next year's census, sent to every household, will cost an estimated £482m. It asks for detailed information including nationality, religious faith and marital status.
And the future?

- Government and UK Statistics Authority priority to examine possible alternatives to the census ‘Beyond 2011’
- Increasing cost and difficulty, demands for more regular data...
- Some international precedents, but major methodological challenges
- For now, the census is the only source we’ve got!