

Small area population estimates for 1991: UK coverage

Abstract:

Revised 1991 population estimates for small area across the UK

Even after imputation of missing households, the UK's 1991 Census counts were lower than expected. In the 1990s, the ESRC-funded Estimating with Confidence project (EwC) distributed official non-response data for local authority districts on a small area-specific basis to allow for underenumeration, timing changes between census day and the mid-year, armed forces adjustments and the transfer of students from home to term-time addresses. The EwC-enhanced census counts became accepted as the 'gold standard' for mid-1991 small area populations and have been widely used in academic and government research.

Following the 2001 Census, evidence suggested that previous official upward adjustments to 1991 populations were too large. Revisions were retrospectively made to 1991 non-response in England, Wales and Scotland (GB) and to the official annual time-series of local authority (LA) mid-year population estimates.

Since data for previous populations are needed for sub-district small areas, this project has revised the original EwC non-response allowances (for small areas across GB) and converted the output to more contemporary geographies (for all of UK including Northern Ireland). As a result, the 1991 EwC small area estimates are now consistent and comparable with the 2001 Census population definition and geography and the 1981-2001 official population time-series at LA level across the whole of the UK.

These revised UK-coverage small area population estimates resource will underpin late 20th Century local area social analyses of changes in populations and, for example, changes in health and unemployment rates.

Keywords:

Small area population estimates; population time-series; census non-response; Estimating with Confidence

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Data collection method

All sources used in this work are secondary, quantitative data. All original data files are available to academics at the UK's HE institutions

a.) Input data files (used in the estimation process)

Estimating with Confidence small area population estimates

Available from the MIMAS Census Dissemination Unit legacy website via:

http://cdu.census.ac.uk/Datasets/1991_Census_datasets/Area_Stats/Adjusted_data/

Also see:

Simpson S, Cossey R, Diamond I. (1997) 1991 population estimates for areas smaller than districts. *Population Trends* 90: 31-39

1991 Census data: Local Base Statistics (LBS) and Small Area Statistics (SAS)

Available from CASWEB via: <http://casweb.mimas.ac.uk/>

Official mid-year population estimates for local authorities

Available from the UK's national statistics agencies, ONS, GROS & NISRA

Also see:

Duncan C, Chappell R, Smith J, Clark L, Ambrose F. (2002) Rebasing the annual mid-year population estimates for England and Wales. *Population Trends* 109, Autumn 2002: 9-14

GROS. (2002) Revised Series of Population Estimates from 1982 to 2000 for Scotland. General Register Office for Scotland

NISRA. (2002) Rebasing the annual mid-year population estimates for Northern Ireland. Northern Ireland Statistics and Research Agency

Vital Statistics births data

Available from the UK's national statistics agencies, ONS, GROS & NISRA

England & Wales data available from ESDS Government via: <http://www.esds.ac.uk/government/vitals/>

b.) Input geography files (used to convert data between 1991 and 2001 small area geographies)

1991 and 2001 GIS digital boundary files

Postcode directory files

The above are available from UKBORDERS, EDINA via <http://borders.edina.ac.uk/html/>

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- The original Estimating With Confidence (EwC) data are copyright of the EwC project which was funded by the ESRC, award number H519255028.
- The research uses 1991 Census, the National Statistics Postcode Directory (NSPD) and GIS boundary data obtained via MIMAS CASWEB and EDINA UKBORDERS which are academic services supported by ESRC and JISC.
- The Census, official Mid-Year Estimates, NSPD and vital statistics data for England and Wales, Scotland and Northern Ireland are provided by the Office for National Statistics (ONS), General Register Office for Scotland (GROS) and the Northern Ireland Statistics and Research Agency (NISRA) and the digital boundary data by Ordnance Survey. These data are copyright of the Crown and are reproduced with permission of the Controller of HMSO.

Size and details of complete dataset:

The files are paired by country and comprise a 'population' file and the 'components' which adjust the 1991 Census data into the population estimate.

2 Files for England and Wales

E&W-EwC-1991-populations-(revised)-(CAS-2001).xls

One worksheet with 8,839 cases (wards) and 3 case ID variables and 39 demographic (age-sex count) variables (7.5mb) (N.B. Due to small populations, wards in the City of London and Isles of Scilly have been aggregated to district level data)

E&W-EwC-components-(CAS-2001).xls

Four worksheets each with 8,839 cases (wards) and 3 case ID variables and 39 demographic (age-sex count) variables (27mb) (N.B. Due to small populations, wards in the City of London and Isles of Scilly have been aggregated to district level data)

2 Files for Scotland

Sc-EwC-1991-populations-(revised)-(CAS-2001).xls

One worksheet with 1,010 cases (postal sectors) and 3 case ID variables and 39 demographic (age-sex count) variables (500k)

Sc-EwC-components-(CAS-2001).xls

Four worksheets each with 1,010 cases (postal sectors) and 3 case ID variables and 39 demographic (age-sex count) variables (2mb)

2 Files for Northern Ireland

NI-EwC-1991-populations-(revised)-(CAS-2001).xls

One worksheet with 1,010 cases (postal sectors) and 3 case ID variables and 39 demographic (age-sex count) variables (300k)

NI-EwC-components-(CAS-2001).xls

Four worksheets each with 582 cases (wards) and 3 case ID variables and 39 demographic (age-sex count) variables (900k)

Entities being studied:

- a.) Counts of persons by five year age-groups (0-4, 5-9 ... 80-84 and 85+) and sex by small area geography
- b.) Total persons in England and Wales (50,748,033), Scotland (5,083,330) & Northern Ireland (1,607,295)
- c.) Number of areas in England and Wales (8,839 wards), Scotland (1,010 postal sectors) & Northern Ireland (582 wards)

Documentation:

The methodology is in the following journal paper:

Norman P, Simpson S & Sabater A (2008) 'Estimating with Confidence' and hindsight: new UK small area population estimates for 1991. *Population, Space & Place* (in press)

The project webpage can be accessed via:

<http://www.uptap.net/project01.html>

The ESRC End of Award report can be obtained via:

The ESRC <http://www.esrcsocietytoday.ac.uk/> search on "The micro-geography of demographic change 1991-2001" or "RES-163-25-0012"