

# CeLSIUS News

Issue 5

October 2004



Welcome to Issue 5 of Celsius News. It has been just over a year since the last newsletter because we have been busy supporting academic beta tests of the 2001 Census data link to the LS. Now that this is completed, and CeLSIUS is well-established as a service provider, we shall be producing the newsletter twice a year

The last few months have been hectic with tying up the last results from the beta test projects (see page 3), the security review and the release of 2001 data on September 21st. We hope many of you will now be able to take advantage of this wonderful, extended resource supported by the CeLSIUS team.

CeLSIUS has welcomed some new members of staff to the team (see page 3 for a full list of CeLSIUS staff). We were very sorry to say goodbye to Alec Ross and David Mayer, who had both contributed to establishing the CeLSIUS support in such an efficient and personable manner. However, we are pleased to be able to tell you that Alec is now working for ONS on the LS, so his great skills are not lost to the LS team. David, on the contrary, has moved to Turkey to do something entirely different, and we wish him well.

Please remember we would be very pleased to hear from you and to receive contributions for this Newsletter. Good luck with your plans for analysing the 2001 link on the LS.

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# News from CeLSIUS

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## 2001 LS data now available

2001 Census data has now been added to the LS, giving 30 years' follow-up of original sample members and providing extensive new research opportunities.

### Highlights of the new data

- new questions on religion, self-rated health and caregiving
- more detailed questions on education and household relationships
- opportunity to examine transitions in health and the way people report ethnicity (due to the inclusion of questions on long standing illness and ethnicity in the 1991 and 2001 Censuses)
- new opportunities to analyse links between childhood and adult circumstances and for tracking change through mid and later life
- new opportunities for intergenerational comparisons (e.g. analyses of family building patterns by family type in childhood, and by fertility history of mother for those aged under 15 in 1971)

The availability of data from four censuses will extend possibilities for using cross sequential designs to answer questions about longer term social, economic and geographic change (for example, analysis of characteristics of lone parents in 2001, 1991 and 1981 according to characteristics ten years earlier) and greatly extend possibilities for life course analyses of, for example, social mobility and interregional migration.

The availability of data spanning thirty years for those included in the original sample presents new opportunities for analysing links between childhood circumstances and adult circumstances, including health, among those age 30-46 in 2001 (who would have been aged 15 or under in 1971) and for tracking change through mid and later life for those aged 40 or more in 1971.

Some intergenerational comparisons will also be possible, such as analyses of family building

patterns by family type in childhood, and fertility history of mother for those aged under 15 in 1971 (and living with an ever-married mother).

Other new opportunities arise from the repetition of the long-standing illness question in 2001 (and addition of a second health question) and inclusion of a question on caregiving. This means that for the first time analysis of the antecedents of carers (including employment status in earlier censuses) will be possible, as will analyses of change in health status.

The inclusion of a more detailed relationship question in the 2001 Census and expansion of questions on housing and amenities also presents opportunities for expanded research by those with research interests in these areas.

The inclusion of the question on ethnic origin presents new opportunities for examining changes in the reporting of ethnicity between 1991 and 2001 and for examining changes in the characteristics and locations of members of minority ethnic groups. Using a ten-year indicator of change (rather than, for example, one-year migration data) will allow greater disaggregation by ethnic group and other characteristics than possible in any other source.

Enhancements to the individual and household level data in the LS through addition of geographic variables also present new opportunities and are likely to be of particular appeal to geographers and others concerned with differences by type of area.

### Accessing the new data

The new data is available now. For instructions on how to use it, please see the step-by-step guide on our website:  
[www.celsius.lshtm.ac.uk/stepbystep.html](http://www.celsius.lshtm.ac.uk/stepbystep.html).

CeLSIUS is funded by the ESRC/JISC Census of Population programme and our services are free for all in the UK higher or further education sectors. (Others should contact the Office for National Statistics Longitudinal Study Unit by emailing [ls@ons.gov.uk](mailto:ls@ons.gov.uk) or by telephoning 020 7533 5190).

## **Presentation of beta testing results at launch of 2001 data**

The six month 'beta-test' of the new 2001 Census data in the LS ended in August 2004. On the basis of reports from beta-test users, the 2001 data was released from Tuesday 21 September 2004.

On the same day, the ONS hosted a formal launch event at the London School of Hygiene & Tropical Medicine. Around 90 people came along to hear a series of presentations by the beta test projects, and the general impression given was that the launch had been a successful showcase for the expanded LS. Brief details of the beta test projects follow, and abstracts and copies of the presentations will soon be posted on the event webpage:

[www.statistics.gov.uk/events/ls\\_census2001](http://www.statistics.gov.uk/events/ls_census2001).

### **Projects supported by Celsius:**

Mel Bartley: *Health and Social Mobility in Working Age Men*

This project extends earlier work using the LS on social mobility and health inequality, looking at patterns of a social health gradient constraint for 1991 to 2001 with long-standing limiting illness as the outcome. It concludes that this is still present and it has begun to explore what happens when we have health measures at two time points rather than just a single one.

Tony Champion: *Return Migration within England and Wales*

This project extends Tony Fielding's work on the concept of the "escalator region" in long-distance migration. It examines migration into and out of the South East between 1966 and 2001, looking at people who have moved into the South East between 1966 and 1971, and between 1971 and 1981, and considers what happens to these groups and their social mobility.

Lucinda Platt: *Exploring the Social Mobility of Minority Ethnic Groups in Britain*

This project looks at inter-generational social mobility of ethnic groups by comparing children and their parents. It compares two cohorts: children aged 4 to 15 years at 1971 and 4 to 15 in 1981. The project also looks at attrition and factors associated with it.

### **Projects supported by ONS:**

Ludi Simpson: *Ethnic Identity and Change 1991-2001*

An ethnicity question was asked at both the 1991 and 2001 Census and this project explores the best match between the 1991 and 2001 ethnic categories and factors relating to instability.

John Haskey: *Families and the Relationship Matrix*

This project explores the relationship matrix, which was used for the first time in the 2001 Census to identify relationships within households. Results showed that it will bring improvements to studying the composition of families and households, but that care will be needed in analysis and interpretation.

Michael Rendall & Cecilia Tomassini: *Occupational Change and Family Change 1981 to 2001*

This project looks at women's family formation and the changes in their employment and occupational status, comparing two cohorts of women born 1955-59 and 1965-69. It also looks at differences in occupation recorded in birth records and Census records.

## **The new 2001 Data Dictionary**

The online Data Dictionary has been updated to include 2001 variables, and is now available from: [www.celsius.lshtm.ac.uk/how.html#variables](http://www.celsius.lshtm.ac.uk/how.html#variables).

### **CeLSIUS staff**

Emily Grundy – Team Leader

Julian Buxton – Research and Computing Support Officer

Lynda Clarke – Senior Lecturer in Family Demography

Mark Jitlal – Research and Computing Support Officer

Chris Marshall – Research and Computing Support Officer

Andy Sloggett – Lecturer in Demography

Jo Tomlinson – Executive Officer

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## News from users

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### Baseline Study of Living Alone and Long-term Illness

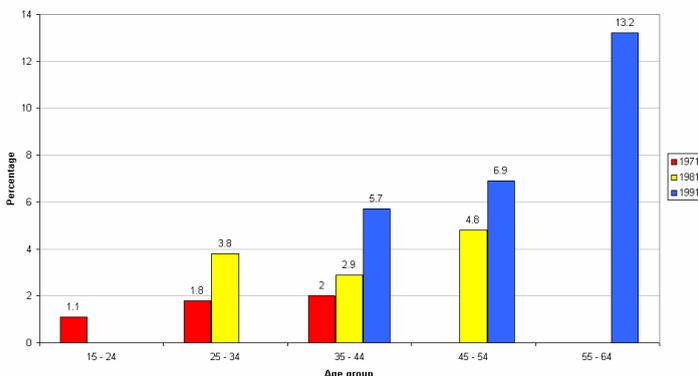
Report by:

Tracey Collett, Malcolm Williams, Joan Chandler and Moira Maconachie of the University of Plymouth, and Brian Dodgeon, of the Institute of Education, University of London

Our project has been exploring patterns of living in a single-occupant household amongst persons of working age, in relation to long-term illness. Using the LS, we have been able to track three different age cohorts over time and compare their experiences, allowing us to look at movement into and out of single-person households, and the longevity of living alone within each cohort.

Our sample population is LS members enumerated at home in all three censuses 1971-81-91 who were aged 15-44 in 1971. At each census time-point, between the ages of 15-44, the precise age made little difference to the numbers of persons living alone. However, after the age of 45 the numbers living alone increased, markedly so in those aged 55-64. Amongst those aged 25-44, at each census point males were more likely to live alone than females. Between the ages of 45 and 54, the same proportion of males and females lived alone, and between the ages of 55 and 64, more males than females lived alone.

Figure 1: Living alone at each Census point (all persons by age group)



Of those age ranges that could be compared, the incidence of living alone increased at each census point: between 1971 and 1981 the number of 25-34 year olds who lived alone doubled; in the same time period the number of 35-44 year olds who

lived alone increased by 50% and the number of 35-44 year olds living alone in 1991 doubled compared to 1981. These apparent trends in living alone were more marked in males aged 25-44 and more marked in females aged 45-54. Overall our findings predict that living alone is on the increase amongst persons of working age.

We have also found that between 1971 and 1991, increasing numbers of persons were living alone for longer, increasing numbers of solo livers previously lived in couple households with no children, and increasing numbers were lone parents in the previous census. In particular, it appears that males aged 25-34 are living alone for longer periods of time, are increasingly likely to live as non-married adults and less likely to get married and have children. Males aged 35-44 also appear to be living alone for longer. In addition they appear to be increasingly moving to living alone from being lone parents and from couple households with dependent children. For females aged 45-54, our findings indicate that more are moving to living alone from being lone parents.

Our analysis of long-term illness in relation to living alone was conducted by examining all persons who lived alone at each census who reported being permanently sick. We have also looked at persons who reported limiting long-term illness (LLTI) in the 1991 census (when the LLTI question was introduced). We have found that between 1971 and 1991 the percentage of permanent sickness amongst those aged 25-54 who lived alone increased at each census point. Amongst males aged 34-54 the percentage of permanent sickness was higher by approximately 4% at each census; the increase was less marked in females of the same age, at approximately 2% at each census. We have also found that living alone for a long period of time made little difference to the chances of becoming permanently sick, but that the move to living alone was associated with the change to becoming permanently sick only amongst those men and women aged 55-64. However, the move from living alone to not living alone was not associated with a reduction in permanent sickness.

It is likely that the above findings are attributable to the trend in more persons living alone, and to increasing numbers of persons reporting permanent sickness rather than to a causal relationship between the two. However, the above findings render the relationship between solo

living and long-term illness among a younger non-pensionable population an increasingly significant issue for policy frameworks and service provision.

The objective of our study has been to provide a framework for analysing possible trends in solo living and health to which LS data from 2001 onwards can be attached. Over time we hope that data taken from the more specific questions on health will contribute to the framework and thus provide an increasingly clearer picture of trends associated with living alone and long-term illness.

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## **News from the Office for National Statistics (ONS)**

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### **New documentation about the LS**

The ONS is committed to providing information about the quality of its outputs, set out in its Protocol on Quality Management. The aim is to provide quality measures that enable users to assess the strengths and limitations of the data.

As a result, the ONS has produced new documentation about the LS to coincide with the release of the 2001 census-linked data. It contains updated descriptions of the LS including the process of linking 2001 Census data as well as discussion around and tables describing tracing rates, sampling fractions and linkage quality.

The new LS documentation is now available on the ONS website at [www.statistics.gov.uk/lis](http://www.statistics.gov.uk/lis). It complements information and training modules available on the CeLSIUS website.

### **Phase 3 review of the security of LS outputs**

A review of the security of LS outputs has been carried out by Professor Angela Dale (Manchester University), Bill Gross (ONS Statistical data Control Unit) and Felix Ritchie (ONS Business Data Laboratory). The review was set up on the recommendation of the 1998 LS Review to ensure that the LS follows best practice and to provide

external affirmation that LS data confidentiality provisions are rigorous and will withstand scrutiny. The main objectives of the review have been to assess current rules and procedures applied to the release of aggregate data in the light of ONS protocols, and recommend methods to reduce risk in ways which are consistent with similar areas elsewhere in ONS (such as the Census and Business Data Laboratories). The final version of the review's report will be considered by the LS Steering Group in November 2004.

### **New events data**

New events records are being added to the LS and these records will be tested by the LS Development Team before their release for research use. These 'refreshes' are usually carried out once a year. 2002 events were added to the database by the time of the launch.

### **User support activities**

#### **Beta test workshops**

Two workshops were held in January and June 2004 for beta testers to describe and discuss the 2001 Census data now linked into the LS.

#### **Workshop on Statistical Disclosure Control**

A workshop on Statistical Disclosure was held in June by the ONS Statistical Disclosure Control Unit for those involved in LS research and support.

#### **User Surgeries**

In May, ONS held the first of a series of surgeries where LS users, support officers and the LS development team meet to discuss use of LS data. These surgeries provide an informal and friendly forum for current LS users and staff to raise issues and share knowledge. At the most recent meeting (7th September) users discussed:

- how they were using the imputation indicators in the 2001 Census-LS sample
- implications of changes to the LS data dictionary
- strategies for dealing with data and quality issues

The next meeting is on October 19th. Analysts currently using LS data who are interested in attending should contact Daniel Guinea-Martin at: daniel.guinea-martin@ons.gsi.gov.uk.

### **Introduction to Longitudinal Studies Course**

The LS development Team will be contributing to an introductory course on longitudinal studies organised by the Cabinet Office. The two-day course runs from 30th September to 1st October 2004.

## **LS Open Access Area**

The beta test put some pressure on resources within the LS Open Access Area. To help cope with future demand, we have installed two new workstations, bringing the total available each day to 6. We have also replaced 3 of the oldest system units. In addition three PCs used by members of the LS Development Team have been reserved for use when not needed by ONS staff.

### **Kevin Lynch on secondment**

Kevin Lynch, who has been a mainstay of the LS for several years, has left on an eighteen-month secondment. Kevin has worked hard both on the development of the LS and by providing support for users and support officers. He will be missed and we wish him well on his secondment.

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## **Research using the LS**

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### **Projects supported by CeLSIUS**

*Mel Bartley, University College London*  
Health and social mobility in working age men 1991-2001 [this was a project to beta test the 2001 data, and is now continuing from that]

*Stuart Burley, University of Plymouth*  
An investigation into the socio-economic effects of migration in small spatial areas in Cornwall

*Malcolm Brynin, University of Essex, and others*

Trends in educational homogamy amongst couples, and its effects

*Margaret Byron and Keith Hoggart, King's College London*

Ethnicity, gender and occupational mobility in an escalator region

*Tony Champion, University of Newcastle*  
Return Migration within England and Wales [this was a project to beta test the 2001 data, and is now continuing from that]

*David Coleman, University of Oxford*  
Post-war migration and the United Kingdom: evaluating the demographic and workforce consequences

*Peter Elias and Kate Purcell, University of Warwick*

Higher education, occupational careers, gender and social class

*Emily Grundy, London School of Hygiene & Tropical Medicine, and others*

Fertility, marriage and household associations with the health and mortality of women in later life

*Emily Grundy, London School of Hygiene & Tropical Medicine, and others*

Care providers, care receivers: a longitudinal perspective

*Seeromanie Harding, University of Glasgow, and others*

Differences in birth outcomes between first and second generation ethnic groups

*Kaveri Harriss, London School of Hygiene & Tropical Medicine*

Limiting long-term illness and livelihoods in ethnic minorities

*Keith Hoggart, King's College London*

Who are the rural working class?

*Yaojun Li, University of Birmingham, and others*  
Changing ethnic identities in England and Wales 1991-2001

*Brenda McWilliam, University of Cambridge, and others*

Understanding the changing health status and health needs of older people: England and the USA compared

*Michael Murphy, London School of Economics, and others*

Marital status, living arrangements and health: trends, comparisons and causes

*Dermot O'Reilly & Michael Rosato, Queen's University Belfast*

Self-reported health, socio-economic status and area of residence: understanding the relationships

*Lucinda Platt, University of Essex*

Exploring the social mobility of minority ethnic groups in Britain [*this was a project to beta test the 2001 data, and is now continuing from that*]

*Jamie Sergeant, University of Oxford*

Relative Index of Inequality: Definition, Estimation and Inference

*Jason Strelitz, London School of Economics and Political Science*

From Immigration to inclusion? A longitudinal study of immigration and outcomes for children

## Projects supported by the ONS

*Nicola Fear, Defence Analytical Services Agency, and others*

The follow-up of UK Armed Forces personnel using the ONS Longitudinal Study

*John Haskey, Office for National Statistics*

Families and the Relationship Matrix [*this was a project to beta test the 2001 data, and is now continuing from that*]

*Brian Johnson and Yuan Huang Chow, Office for National Statistics*

Mortality by National Statistics Socio-economic Classification (NS SEC) in 2001-03 and investigation of numerator-denominator bias

*Yuan Huang Lee, Office for National Statistics*

A study of ethnic variations in mortality by socio-economic measures

*Oliver Morgan, London School of Hygiene & Tropical Medicine*

Maternal migration during pregnancy in England and Wales: implications for epidemiological studies of pregnancy outcomes

*Richard Pereira, Office for National Statistics*

Population projections by ethnic group

*Michael Rendall and Cecilia Tomassini, Office for National Statistics*

Occupational change and family change 1981 to 2001 [*this was a project to beta test the 2001 data, and is now continuing from that*]

*Ludi Simpson, University of Manchester*

Ethnic Identity and change 1991-2001 [*this is a project to beta test the 2001 data*]

*Steve Smallwood, Office for National Statistics*  
Social class and sole registered births 1971 to 2001

*Chris White, Office for National Statistics*

The influence of individual and area disadvantage over the life course on mortality risk 1996-2001: a multilevel analysis

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## Publications update

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For the full list of ONS LS publications, please visit [www.celsius.lshtm.ac.uk/publications.html](http://www.celsius.lshtm.ac.uk/publications.html).

## New publications

### Journal articles:

*Living arrangements and place of death of older people with cancer in England and Wales: a record linkage study.* E. Grundy, D. Mayer, H. Young, A. Sloggett (2004). *British Journal of Cancer* 91, 907-912

### Books/theses/dissertations:

*Longitudinal Study 1971-2001: Completeness of Census Linkage.* L. Blackwell, K. Lynch, J. Smith and P. Goldblatt (2003). Series LS no. 10. London: Office for National Statistics

*Researching Households and Families using the ONS Longitudinal Study.* A. Brassett-Grundy (2003). LS User Guide 20. London: Office for National Statistics

*Period Changes in the Mortality of Older People by Socio-demographic Characteristics.* A. Farthing (2004). Report submitted in partial fulfillment for the award of MSc Demography and Health, University of London

### Conference papers:

*Social mobility 1991-2001 and limiting long standing illness 2001.* M. Bartley (2004). Paper presented to the conference on *Linking the Longitudinal Study to the 2001 Census*, London

School of Hygiene & Tropical Medicine, 21 September 2004

*Testing the return migration element of the 'escalator region' model: an analysis of migration into and out of South East England, 1966-2001.* A. G. Champion (2004). Paper presented to the 2<sup>nd</sup> International Population Geographies Conference, St Andrews, 11-14 August 2004. Also presented to the conference on *Linking the Longitudinal Study to the 2001 Census*, London School of Hygiene & Tropical Medicine, 21 September 2004

*Families and the relationship matrix.* J. Haskey and A. Antonatos (2004). Paper presented to the conference on *Linking the Longitudinal Study to the 2001 Census*, London School of Hygiene & Tropical Medicine, 21 September 2004

*Exploring the social mobility of minority ethnic groups in Britain.* A. Platt (2004). Paper presented to the conference on *Linking the Longitudinal Study to the 2001 Census*, London School of Hygiene & Tropical Medicine, 21 September 2004

*Measuring Mobility: Do Missing Data Make a Difference?* L. Platt (2004). Paper presented at the Cardiff Stratification Seminar, University of Cardiff, 9-10 September 2004

*Occupational change and family change 1981 to 2001.* M. Rendall and C. Tomassini (2004). Paper presented to the conference on *Linking the Longitudinal Study to the 2001 Census*, London School of Hygiene & Tropical Medicine, 21 September 2004

*Identity and change 1991-2001.* L. Simpson and Bola Akinwale (2004). Paper presented to the conference on *Linking the Longitudinal Study to the 2001 Census*, London School of Hygiene & Tropical Medicine, 21 September 2004

*The Second Generation Immigrants to the UK..* J. Strelitz (2004). Paper Presented at the British Sociological Association Annual Conference, University of York, 23 March 2004

*Twins and their health cost: consequences of multiple births on health and mortality, preliminary results from English and Danish data.* C. Tomassini, E. Grundy, A. Skytthe and K. Christensen (2004). Paper presented to the British Society for Population Studies Annual Conference, University of Leicester, 13-15 September 2004