

Changing times and changing lives: insights from the Office for National Statistics Longitudinal Study of England & Wales

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Emily Grundy

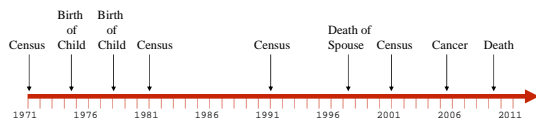
London School of Hygiene & Tropical Medicine



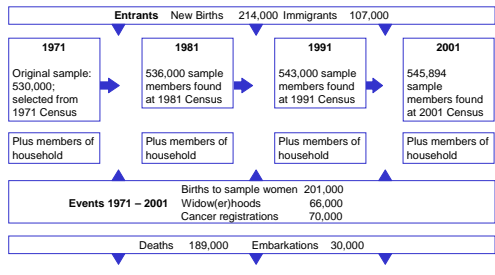
The ONS Longitudinal Study of England and Wales

- Census data for individuals with one of four birthdates enumerated at the 1971 Census (c. 1% of population).
- Census data on other people in LS members' households
- Maintained through addition of immigrants and new births with LS birth date.
- Information from later censuses (1981, 91 & 2001) added.
- Linked event data including death of the spouse of sample members, deaths of sample members, births to sample mothers and cancer registrations.

Person Included from 1971 Census



Study Structure



Census Data in the LS (measured every ten years)

Marital status & family type	Ethnicity (1991 & 2001)
Housing and amenities	Education (all levels 2001)
Migration & travel to work	Religion (2001)
Economic activity	Caregiving (2001)
Occupation & social class	Self-rated health (2001)
Ecological (area level) data	Long-term illness (1991 & 2001)

Data for LS members and other members of their households

Event Data in the LS (added every year)

Deaths (cause specific)	Widow(er)hoods
Cancer Registrations	Live Births to Sample Mothers
Births of LS Members	Still Births to Sample Mothers
Emigrations (recorded)	Immigrations
	Infant Deaths to Sample Mothers

The ONS LS: Strengths

- ✓ Inclusion of data on other household members at each Census point.
- ✓ Geographic and ecological data – users can specify geographies/link to look up tables.
- ✓ Large nationally representative population – ability to look at population sub groups, e.g. regional populations; ethnic minority groups.
- ✓ Intergenerational perspectives: e.g. examine 2001 adult characteristics of LS members who were children in 1971 by parental characteristics.
- ✓ Inclusion of institutional population (usually omitted from surveys).

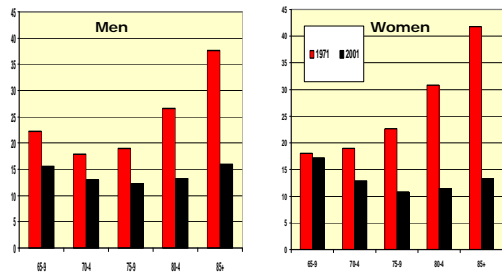
The ONS LS: Potential Designs

- Cross-sectional at census point: 1971, 1981, 1991 or 2001.
- Change between censuses: investigating same people at two census points.
- Cross-sequential: comparing two cohorts e.g. class mobility 1971 to 1991 with class mobility 1981 to 2001.
- Census + events: mortality, fertility, cancer incidence and survival by census characteristics
- Life course analysis: 40 years of follow-up of initial sample members.
- Intergenerational: adult characteristics of members who were children in 1971 or 1981 by characteristics of their parents.

Research example 1: Changes in living arrangements of older people

- Cross sectional comparison of 1971 and 2001
- Cross sequential comparisons of changes 1971-81, 1981-91 and 1991-2001 (comparing three sets of longitudinal transitions)

Proportion (%) of elderly men and women living in households with two or more generations, England and Wales, 1971 and 2001 (private household population).



Source: Analysis of ONS LS data.

Methods and design (Part 1)

- Cross sequential analyses of data from the ONS Longitudinal Study of England & Wales comparing 1971-81, 1981-91 and 1991-2001.
- Differences in proportions:
 - > a) changing type of household between censuses
 - > b) changing addresses between censuses
 - > c) changing type of household and changing address
 - > d) household at census after widowhood.

Definitions of family/household type

- **Solitary:** lives alone
- **Couple only:** lives with spouse (incl. cohabitee) and no one else
- **Couple +:** lives with spouse and anyone else (usually adult child)
- **Lone Parent +:** no spouse, lives with never-married child of any change with or without others in household.
- **Complex:** not part of a family (i.e. no spouse or never-married child present) but others in household (usually ever-married children) OR lives in two family household (e.g. with own spouse and married daughter and son-in-law)
- **Communal establishment:** nursing or residential home or similar where meals are provided communally.

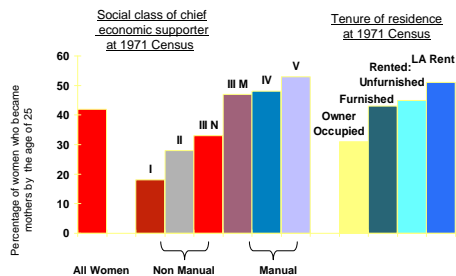
Changes in family/household type and residential mobility: results from LS analysis

- Around 40% of older people at each census considered were in a different family/household type than at preceding census (life-course change). Among those living alone or just with a spouse proportion of transitions tended to decrease or remain stable per decade (time period comparison); reverse the case for those in complex households or lone parent families. More change in older age groups.
- Around 40% of older people at each census considered had moved home since the preceding census. Those initially in lone parent families or with spouse and others were the least likely to move. Lower proportions moved 1991-2001 than in preceding decades.
- Around 15% of younger elderly people (65-74 at start) and 25% of older old (75+) had both changed family/household type and moved location.
- Around 40-50% changed neither location nor family/household type – this proportion was highest in the most recent decade (1991-2001).
- Increasing trend for people to live alone after widowhood

Further research examples: Earlier life and later circumstances

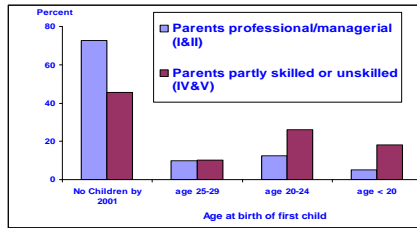
- Differences in fertility by early adult and parental characteristics
- Intergenerational differences in employment and deprivation by parents' education, social position, and country of birth
- Earlier employment and social class and later health and mortality.
- Fertility and marital history and later life mortality

Percentage of women born in 1955-59 who were mothers before their 25th birthday



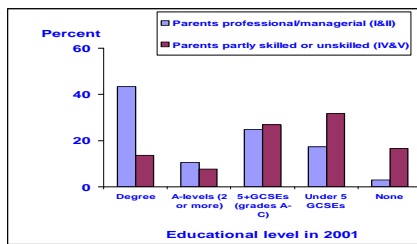
Source: Werner B. (1984) "Fertility and family background: some illustrations from the Longitudinal Study", Population Trends, 35, pp 5-10

Age at birth of first child: women aged 25-29 in 2001, by parents' social class in 1981



Sample members also present in 1971 and then living with a parent. Source: Buxton et al CeLSIUS (Pop Trends 2005)

Educational level of female LS members aged 23 to 36 years in 2001, by parents' social class in 1971



Sample members also present in 1971 and then living with 2 parents. Source: Buxton et al CeLSIUS (Pop Trends 2005)

Inter-generational Transmission of Social Class

- Men and women were most likely to become professionals or managers if their parents were in this social class:
 - 59% of men and 42% of women aged 36-45 in 2001 who had lived with two parents in 1971 at least one of whom was a professional/manager, were themselves professionals or managers.
 - These proportions were slightly lower for those who had lived with a lone parent in 1971 (43% of men, 36% of women).
 - These proportions were substantially lower for those who had lived with two parents who had partly skilled or unskilled jobs in 1971; among these 27% of men and 22% of women were in professional or managerial jobs in 2001.

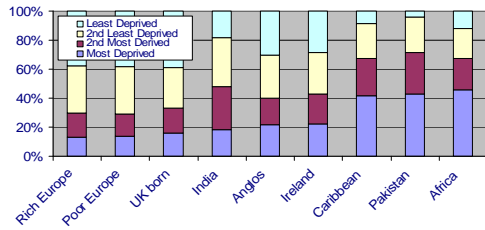
Buxton et al CeLSIUS (Pop Trends 2005)

Children of immigrant parents

- Aged 0-16 in 1971, one or both parents recorded as being born outside UK
- Born in UK or entered aged 0-4
- Lived with at least 1 parent in 1971
- Traced to 1991 when aged 20-36
- Sample: 4700 children of immigrants analysed by parents' country of birth

Jason Strelitz, LSE

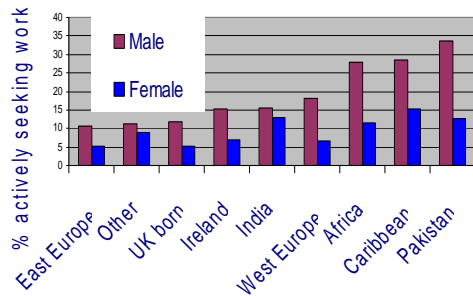
Socio-economic deprivation in 1991 among adults aged 20-36 by parents' country of birth



Parents' country of birth (Anglos=USA, Canada, Australia, NZ).

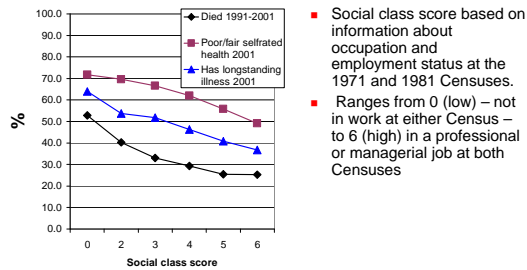
Source: ONS Longitudinal Study; Jason Strelitz, LSE

Unemployment in 1991 among adults aged 20-36 by parents' country of birth



Source: ONS Longitudinal Study
Jason Strelitz, LSE

Social class score 1971-81 among men aged 30-64 in 1971 and health and mortality 1991-2001



Source: ONS Longitudinal Study data, author's analysis.

- Social class score based on information about occupation and employment status at the 1971 and 1981 Censuses.
- Ranges from 0 (low) – not in work at either Census – to 6 (high) in a professional or managerial job at both Censuses

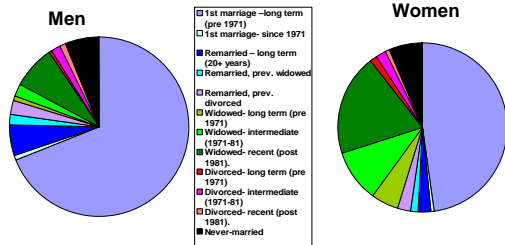
The family life course and later life health and mortality

- Previous studies suggest women with no children and high parity (4/5 natural born children) have worse health than mothers of middle sized families
- Many studies suggest marriage is protective for health, especially among men, increasing interest in consequences of *marital histories* – may be more informative than just current marital status

Fertility history and later life health and mortality of women:

- Female LS members born 1911-1940 (divided into 3 groups) and present in 1971 Census
- Fertility information comes from:
 - Fertility histories collected from ever married women aged 16-59 in 1971
 - Subsequent linkage of births to sample members
- Exclusions:
 - Non marital births prior to 1971 (around 4-6%)
 - Post 1971 births where linkage failed (around 8-9%)

Distribution of men and women aged 60-79 in 1991 by marital history



Summary of results

	Men			Women		
	Mortality	LLTI 91	LLTI 2001	Mortality	LLTI 91	LLTI 2001
First marriage since 1971	--					
Long term remarriage	++	+++	+		+++	++
RM prev. wid.						
RM prev. div.				+	+	++
Long-term widow	+++			+	(+++)	(++)
Intermediate widow	+++	+	+	++	(++)	(++)
Recent widow	+++	+	+	++	(+)	(++)
Long-term divorced	(+)	(+)		++	(+++)	
Intermediate divorced	+++	+++	+		(+++)	(++)
Recent divorced	(+)	+++		+++	++	(++)
Never-married	+++	(+++)		++	(++)	--

() Not significant when SES controlled

Conclusions and Discussion

- Results show the expected advantages in terms of mortality and health for those in long term first marriages.
- Worse health/mortality for those in long-term remarriages (selection effect? – these are people divorced or widowed and remarried before age 40-59).
- Higher mortality for unmarried groups; however differences among divorced and widowed by timing of divorce/widowhood inconsistent and generally not significant – more detailed breakdown of timing might reveal more.
- Health disadvantages of unmarried women (apart from recent divorced) no longer significant once SES controlled and never-married women had less risk of LLTI in 2001. Unmarried men generally had worse health in 1991, but in 2001 this was only evident for those widowed since 1971 and those divorced 1971-91.
- Higher mortality and worse health among nulliparous and high parity women, even after allowance for marital history & SES.

Research Use of LS

- 600+ publications.
- Important policy impact.
- Recently/currently used in academic studies of:
 - Ageing-Caregiving- Cancer incidence and survival- Cohabitation –Employment – Ethnicity- Fertility- Health - Households & household change- Marriage-Migration- Mortality- Social mobility.....

On-line Resources

- Searchable database of publications.
- Information about current and past projects.
- Interactive training modules.
- Online Data Dictionary.
- Guide to using LS and applying for data.
- Links to other documentation & information.
- Downloadable mini data sets and tables

www.celsius.lshtm.ac.uk
